

Questions/réponses sur le site

EDF infos nucléaire <http://nucleaire.edf.fr/>

Extraits (mot clé: coût)

23/06/2000

Quel est le coût d'un kWh d'électricité nucléaire en comprenant le recyclage des déchets radioactifs? Quel est le coût d'un kWh d'électricité éolien

Bonjour,

Dans le coût du calcul du kWh nucléaire, nous prenons naturellement en compte toutes les charges liées au combustible utilisé, au retraitement des déchets radioactifs et à leur stockage. Par ailleurs, le coût de la construction et de la déconstruction des centrales en fin de vie sont également comptabilisés dans le coût du kWh nucléaire. En France pour EDF, si l'on considère l'ensemble des coûts, le kWh nucléaire est plus compétitif que les autres modes de production. Seule l'énergie hydraulique, lorsque les installations sont complètement amorties, offre des coûts plus bas.

Comme toute autre entreprise commerciale, EDF ne communique que sur ses tarifs et ses prix et non sur les coûts des différents modes de production. Par contre, il est à noter qu'avec près de 95% d'électricité d'origine hydraulique et nucléaire, EDF propose à ses clients des tarifs qui sont parmi les plus bas d'Europe.

En ce qui concerne le kWh éolien, il est plus difficile d'établir une comparaison entre ce mode de production et les autres (nucléaire, thermique, hydraulique). En effet, s'il est vrai que le coût de l'éolien est plus élevé, il faut tenir compte que les effets de série ne sont pas encore sensibles. Une installation éolienne doit être aussi construite et maintenue, ce qui suppose des coûts d'investissement et d'exploitation.

L'éolien est une énergie totalement renouvelable, dont le " combustible ", le vent, est gratuit, abondant en certains endroits, et qui ne risque pas de s'épuiser dans les siècles à venir. Avec le programme Eole 2005, EDF s'est engagée dans le développement de cette énergie renouvelable qui répond plus particulièrement à deux types de situation : source d'appoint flexible en cas de forte demande d'électricité et apport d'électricité pour les sites isolés.

22/06/2000

Pourquoi convertir le kWh nucléaire à 222 grammes d'équivalent pétrole, alors que le kWh hydraulique n'en vaut que 77 ?

Bonjour,

Les chiffres que vous donnez correspondent à différents facteurs d'équivalences entre les énergies. Ce sont des valeurs conventionnelles, utilisées en économie pour chiffrer à l'échelle d'un pays l'évolution de la consommation totale d'énergie.

Pour 1000 kWh d'électricité fourni par le nucléaire, on considère ainsi qu'il faudrait brûler 0,222 tonne de pétrole pour obtenir la même production d'électricité. Pour l'hydroélectricité, on effectue une simple conversion d'unité d'énergie. La convention internationale considère que 1000 kWh électrique est égal à 0,0857 tep (tonne équivalent pétrole). L'écart en tep entre le nucléaire et l'hydroélectricité provient du rendement des centrales thermiques (nucléaire, fioul, charbon...) qui transforment la chaleur en électricité. Le rendement énergétique est alors proche de 35 %. Quant au chiffre de 0,077 que vous citez, il correspond en fait à l'équivalent pétrole nécessaire pour fournir 1000 kWh de chaleur (et non de l'électricité) si on utilise du gaz, avec le meilleur rendement possible.

Ces diverses comparaisons économiques doivent être prises en considération avec d'autres facteurs, tels que l'investissement dans les infrastructures, la durée de vie des installations, le prix des combustibles, la disponibilité des moyens de production, les impacts environnementaux...

04/02/2002

quels sont les coûts et avantages des énergies fossiles?

Les énergies fossiles (fioul, charbon...) sont des énergies d'appoint, un peu plus chères que les autres, utilisées quand la demande est très forte. L'inconvénient majeur est la production de CO2

(combustion), mais elles ont l'avantage d'être très souples et réactives (démarrage en quelques heures).


19/01/2002

Quelles sont les plus gros avantages et inconvénients des centrales nucléaires

On peut dire que l'électricité d'origine nucléaire a deux atouts et deux inconvénients. Les atouts sont économique et écologique (le nucléaire est peu cher, d'un coût stable dans le temps, et sans combustion, donc sans impact sur « l'effet de serre »). Les inconvénients sont dus à l'hypothèse de la dissémination de matières radioactives, dans le cas d'un accident nucléaire, et encore à la gestion des déchets, pour laquelle une solution acceptée par tous doit être trouvée.

28/12/2001

les avantages et les désavantages des centrales nucléaires par rapport aux autres centrales.

Bonjour, vous pouvez surfer sur les pages Voyage en électricité du site 

Les avantages du nucléaire civil sont nombreux :

- le nucléaire permet de produire une électricité à des coûts plus bas que celle issue de centrales alimentées par des combustibles fossiles (charbon, pétrole, gaz). Contrairement au pétrole ou au gaz, les cours de l'uranium restent stables, ils sont indépendants des variations de prix des matières premières et aussi des variations du dollar. Les prix du pétrole ont été multipliés par trois en moins de deux ans.
- le nucléaire est une énergie sans combustion, qui n'émet pas de gaz à effet de serre (CO2 par exemple) ou encore de gaz SO2 ou NOx responsables des pluies acides.
- le nucléaire permet de produire de l'électricité en grande quantité.
- le développement de la production d'électricité d'origine nucléaire assure à la France une indépendance énergétique (23 % en 1973 à 49 % de nos jours).

La liste n'est pas exhaustive, on pourrait également citer les emplois induits par l'industrie du nucléaire, le développement de la recherche scientifique et technologique, etc.

On peut citer comme défaut, commun à toute industrie, les déchets. En raison de leur nature, l'industrie nucléaire a toujours eu l'obligation d'y apporter un soin tout particulier. Ainsi, en 10 ans, le volume de déchets à vie courte (de faible et moyenne activité) produits par EDF a été divisé par 2 en 10 ans grâce à des systèmes de tri lors des opérations de maintenance des réacteurs. Autre inconvénient, l'investissement important de départ mais qui une fois amorti n'en est plus un, face au coût fluctuant des autres combustibles (pétrole, gaz) et à la production de masse

19/12/2001

Bonjour,

Avez vous des estimations sur les coûts d'entretien des installations nucléaires et leur évolution dans le temps?

Oui nous avons plus que des estimations, nous tenons des comptes précis et nous pouvons vous dire que ces coûts baissent globalement car ils sont bien maîtrisés.

10/12/2001

j'aimerais savoir la décomposition du cout du kwh d'une centrale nucleaire

- construction

-combustible

-démantelement

quelle est la durée d'amortissement

merci beaucoup

Désolés, ce sont des données qui intéressent trop nos concurrents pour que nous les publions. Par ailleurs, elles évoluent sans cesse : si le coût du démantèlement est provisionné chaque année et a été évalué à 15% du coût complet d'investissement, les charges d'amortissement baissent mécaniquement avec le temps et le coût du combustible et de son retraitement peuvent être renégociés ou ont été renégociés récemment...

11/10/2001

Comment sera financé le démantèlement des centrales nucléaires?

La déconstruction des centrales nucléaires est prévue depuis leur mise en service. Leur coût est provisionné chaque année et il est compris dans le prix de vente du kWh. Les provisions figurent chaque année dans le bilan d'EDF. Par ailleurs, la déconstruction des centrales nucléaires est une activité industrielle qui est bien connue à EDF : les premiers réacteurs (filiale graphite gaz) ont été construits dans les années 50 et arrêtés dans les années 70.

02/10/2001

quels sont les inconvénients de l'énergie nucléaire

Pour aller vite, on peut dire que l'électricité d'origine nucléaire a deux atouts et deux inconvénients. Les atouts sont économique et écologique (le nucléaire est peu cher, d'un coût stable dans le temps, et sans combustion, donc sans impact sur « l'effet de serre »). Les inconvénients sont dus à l'hypothèse de la dissémination de matières radioactives, dans le cas d'un accident nucléaire, et encore à la gestion des déchets, pour laquelle une solution acceptée par tous doit être trouvée.

24/09/2001

Pourrais-je savoir le prix d'un MW produit par une centrale nucléaire.

Bonjour,

Vous parlez en kWh produits ou en MW installés ?

Le ministère de l'Economie, des Finances et de l'Industrie, en collaboration avec EDF, a publié un document qui évalue le coût d'investissement pour une centrale nucléaire à 11 000 Francs par kW installé. Soit pour unité de production de 900 MW, 10 milliards de francs, pour une unité de 1 300 MW, 14 milliards de Francs, et pour une unité de 1 450 MW, 16 milliards de Francs. Il n'y a pas d'unité de 1 000 MW en France mais la règle de trois reste valable (11 milliards). Pour les coûts de fonctionnement des unités de production, nous sommes un peu plus discrets car ils intéressent beaucoup la concurrence. Les comparaisons internationales nous placent parmi les meilleurs exploitants mondiaux pour ce qui est des coûts de maintenance, par exemple. Il faut savoir que l'un des atouts économiques majeurs pour EDF est le choix de son parc standardisé de 58 unités de production, toutes quasi sur le même modèle, avec les économies d'échelles qui en résultent.

17/07/2001

Où pourrai-je trouver des info sur le coût du retraitement des déchets nucléaire tel qu'il est pratiqué en France (par rapport à un simple stockage sans retraitement) et de la filière mox ?

Bonjour, ces coûts ne sont pas forcément publics car fournisseurs et clients sont soucieux de négocier sans afficher la structure de leurs coûts sur la place publique. Toutefois, il y a beaucoup d'information au plan macro dans le rapport remis au Premier ministre par la Commissariat au Plan en juillet 2000 sur l'avenir de la filière nucléaire.

Vous en trouverez un résumé dans notre dépêche d'actualité du 30 août 2000 et vous pouvez également le télécharger.

Pour en savoir plus, vous pouvez consulter le rapport disponible on-line sur les sites Internet

[du Premier Ministre](#)

[et Commissariat Général du Plan.](#)

17/06/2001

Pouvez-vous me dire combien dure une centrale nucléaire (en temps) en moyenne, et la majorité des centrales en France sont au début - milieu ou fin de vie?

Bonjour,

Les installations françaises ont quinze ans de moyenne

d'âge. A la conception, elles étaient prévues pour durer au moins quarante ans. Ce calcul a été fait sur

la base d'estimations -très prudentes- de la résistance du circuit primaire (cuve du réacteur, pressuriseur, générateur de vapeur, tuyauterie primaire, notamment. Certains composants ont vieilli plus vite, comme les générateurs de vapeur, et sont remplacés. Mais dans l'ensemble, les principaux matériels se comportent comme prévu. Tous les dix ans, des visites décennales permettent d'inspecter les installations de fond en comble, d'une façon plus approfondie que lors d'un arrêt de tranche annuel, qui sert essentiellement à recharger le combustible et pendant lequel on procède à la maintenance des installations. Lors des deuxièmes visites décennales des centrales mises en route dans les années 80, nous nous rendons compte aujourd'hui que les matériaux évoluent bien, comme nous nous y attendions, notamment la cuve du réacteur (un des seuls composants qui ne peut pas être remplacé).

Aux Etats-Unis, des réacteurs de la même filière, sous licence Westinghouse, sont maintenant partis pour durer 60 ans, avec l'accord de l'autorité de sûreté américaine.

A EDF, nous souhaitons également faire tourner les installations le plus longtemps possible, dans de bonnes conditions de sûreté et de qualité d'exploitation, car elles permettent d'offrir un kWh attractif à nos clients. Si les coûts de maintenance

(réparations) s'avéraient trop importants sur une installation, ou si elle n'était plus assez fiable, il faudrait bien évidemment la fermer. Inversement, si nous savons conduire les installations en économisant leur potentiel de durée de vie, nous pourrions envisager de les faire tourner longtemps.

14/06/2001

Bonjour,

je serais à la recherche d'une carte de France sur l'état de l'enterrement des lignes. Merci

Bonjour,

Il faut aller sur le site du gestionnaire du réseau de transport, www.rte-france.com. Mais vous trouverez des chiffres, des taux d'enterrement ou des éléments locaux plus qu'une carte de France car ce sont des travaux très coûteux, qui ne se justifient que sur certaines portions de lignes et non sur des grandes parties du territoire de l'Hexagone.

31/07/2001

bonjour

**j'aimerais me procurer les grilles de rémunération des agents d'edf/gdf
est ce possible?**

merci d'avance

loic

Bonjour,

Désolé, c'est un document interne.

<http://nucleaire.edf.fr/>

on peut trouver bien sûr les tarifs de l'électricité, pour les usages domestiques: http://www.mamaison.edf.fr/aide/guide_tarifs/

et le tarif général:

http://www.edf.fr/bitbucket/tarifs_euro/Bareme_2002.pdf

sur le site de l'IEA (Agence Internationale de l'Energie, International Energy Agency)

on peut trouver des chiffres clés mondiaux sur les prix de vente des énergies:

<http://www.iea.org/statist/keyworld2002/keyworld2002.pdf>

et particulièrement intéressantes les pages 42 & 43:

RETAIL PRICES^(a) IN SELECTED

| | Heavy Fuel Oil for Industry ^(b) (tonne) | Light Fuel Oil for Households (1000 litres) | Automotive Diesel Oil ^(c) (litre) | Unleaded Premium ^(d) (litre) |
|-----------------|--|---|--|---|
| Australia | .. | .. | .. | 0.417 |
| Austria | 97.76 | 354.32 | 0.537 | 0.757 |
| Belgium | 122.94 | 260.70 | 0.561 | 0.843 |
| Canada | 145.85 | 308.00 | 0.408 | 0.396 |
| Chinese Taipei | 145.35 | x | 0.426 | 0.600 |
| Czech Republic | 127.20 | 305.46 | 0.503 | 0.707 |
| Denmark | 189.70 | 649.98 | 0.648 | 0.923 |
| Finland | 181.65 | 318.49 | 0.585 | 0.923 |
| France | 140.61 | 318.92 | 0.575 | 0.874 |
| Germany | 137.18 | 297.34 | 0.617 | 0.850 |
| Greece | 196.10 | 313.06 | 0.467 | 0.618 |
| Hungary | 126.54 | 300.35 | 0.706 | 0.730 |
| India | 377.37 | 195.95 | 0.474 | 0.717 |
| Ireland | 220.47 | 407.05 | 0.550 | 0.727 |
| Italy | 185.28 | 731.40 | 0.634 | 0.904 |
| Japan | 205.67 | 390.46 | 0.528 | 0.854 |
| Korea | 262.33 | 412.29 | 0.479 | 0.966 |
| Luxembourg | 139.46 | 250.53 | 0.489 | 0.653 |
| Mexico | 97.54 | .. | 0.433 | 0.605 |
| Netherlands | 188.15 | 511.19 | 0.606 | 0.966 |
| New Zealand | 259.93 | .. | 0.232 | 0.402 |
| Norway | 408.63 | 589.01 | 0.736 | 0.963 |
| Poland | 106.73 | 367.93 | 0.514 | 0.759 |
| Portugal | 201.93 | x | 0.514 | 0.818 |
| Slovak Republic | 109.71 | 245.83 | 0.497 | 0.613 |
| South Africa | 246.10 | .. | 0.537 | 0.574 |
| Spain | 152.72 | 332.73 | 0.513 | 0.674 |
| Sweden | x | 555.58 | 0.624 | 0.833 |
| Switzerland | 161.70 | 264.01 | 0.686 | 0.782 |
| Turkey | 143.11 | 628.52 | 0.603 | 0.802 |
| United Kingdom | 169.06 | 239.62 | 0.932 | 1.038 |
| United States | 125.75 | 312.91 | 0.335 | 0.331 |

(a) Prices are for 4th Quarter 2001, or latest available. (b) Low Sulphur Fuel Oil for Belgium, Chinese Taipei, Denmark, Finland, France, Germany, Greece, Luxembourg, Netherlands, Norway, Slovak Republic, and Switzerland; High Sulphur Fuel Oil for all other countries. (c) For commercial purposes. (d) Unleaded Regular for Australia, Canada, Japan, Mexico, New Zealand

COUNTRIES in US Dollars/Unit

| Nat Gas for Industry ^(e) (10 ⁷ kcal GCV ^(g)) | Nat Gas for Households ^(e) (10 ⁷ kcal GCV ^(g)) | Steam Coal for Industry ^(f) (tonne) | Electricity for Industry ^(g) (kWh) | Electricity for Households ^(g) (kWh) | |
|---|---|---|--|--|-----------------|
| 135.76 | 332.34 | .. | 0.0564 | 0.0801 | Australia |
| 154.92 | 365.52 | 67.46 | 0.0921 | 0.1214 | Austria |
| 111.65 | 419.41 | .. | 0.0477 | 0.1323 | Belgium |
| 106.94 | 316.78 | .. | 0.0386 | 0.0601 | Canada |
| 313.06 | 407.11 | 74.16 | 0.0586 | 0.0838 | Chinese Taipei |
| 165.72 | 252.20 | 16.19 | 0.0468 | 0.0611 | Czech Republic |
| c | 701.85 | 78.75 | 0.0597 | 0.1953 | Denmark |
| 124.74 | 218.92 | 86.16 | 0.0394 | 0.0789 | Finland |
| 178.67 | 421.93 | 65.91 | 0.0358 | 0.1017 | France |
| 187.93 | 373.41 | .. | 0.0790 | 0.1666 | Germany |
| 199.82 | 354.19 | .. | 0.0431 | 0.0775 | Greece |
| 171.43 | 194.41 | 45.58 | 0.0521 | 0.0698 | Hungary |
| .. | .. | 19.36 | 0.0801 | 0.0388 | India |
| 173.95 | 315.25 | .. | 0.0462 | 0.0957 | Ireland |
| 141.56 | 639.03 | 45.12 | 0.0930 | 0.1342 | Italy |
| 452.69 | 1294.07 | 31.77 | 0.1426 | 0.2144 | Japan |
| .. | .. | 48.19 | 0.0551 | 0.0668 | Korea |
| .. | 300.16 | .. | .. | 0.0977 | Luxembourg |
| 113.58 | .. | x | 0.0475 | 0.0778 | Mexico |
| 162.26 | 471.02 | .. | 0.0575 | 0.1610 | Netherlands |
| 160.99 | 293.48 | c | 0.0216 | 0.0565 | New Zealand |
| x | x | 55.51 | 0.0336 | 0.0718 | Norway |
| 179.48 | 329.66 | 43.16 | 0.0476 | 0.0834 | Poland |
| 256.02 | 670.30 | 39.29 | 0.0659 | 0.1177 | Portugal |
| 108.67 | 116.99 | 25.25 | 0.0435 | 0.0628 | Slovak Republic |
| 292.90 | x | 15.22 | 0.0172 | 0.0399 | South Africa |
| 164.53 | 491.07 | .. | 0.0558 | 0.1433 | Spain |
| .. | .. | .. | 0.0342 | 0.1026 | Sweden |
| 289.79 | 491.49 | 56.53 | 0.0709 | 0.1112 | Switzerland |
| 216.99 | 269.41 | 33.28 | 0.0805 | 0.0849 | Turkey |
| 138.74 | 290.00 | 46.42 | 0.0496 | 0.1010 | United Kingdom |
| 135.73 | 295.18 | 32.19 | 0.0427 | 0.0850 | United States |

and the United States; Leaded Regular for India. (e) Gross calorific value. (f) Brown coal for the Czech Republic and Turkey.

(g) Price excluding tax for Australia and the United States.

.. not available

x not applicable

c confidential

sur le site de l'EIA (Energy Information Agency, DOE, US Department of Energy):

<http://www.eia.doe.gov/oiaf/aeo/assumption/tbl38.html>

(hypothèses "cost and performance characteristics of new electricity generating technologies)

<http://www.eia.doe.gov/cneaf/electricity/epav1/ta21p1.html>

(Retail sales of electricity, revenue and average revenue per kWh....1999-2000)

extrait de:

<http://www.eia.doe.gov/cneaf/electricity/page/pubs.html>

(Electricity Power Annual vol I and II)

<http://www.eia.doe.gov/emeu/aer/txt/ptb0303.html>

(consumer price estimates for energy,1970-1999)

<http://www.eia.doe.gov/cneaf/electricity/esr/t02.txt>

(sales to bundled ultimate consumers...)

<http://www.eia.doe.gov/cneaf/electricity/page/pubs.html>

(Electricity Power Annual vol I and II: la table 13 du volume II "average operating expenses for major US Investor-owned electric utilities 1996 through 2000")

sur le site de l'EIA (Energy Information Agency, DOE, US Department of Energy):

<http://www.eia.doe.gov/oiaf/aeo/assumption/tbl38.html>

(hypothèses "cost and performance characteristics of new electricity generating technologies)

<http://www.eia.doe.gov/cneaf/electricity/epav1/ta21p1.html>

(Retail sales of electricity, revenue and average revenue per kWh....1999-2000)

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<http://www.eia.doe.gov/emeu/aer/txt/ptb0303.html>

(consumer price estimates for energy,1970-1999)

<http://www.eia.doe.gov/cneaf/electricity/esr/t02.txt>

(sales to bundled ultimate consumers...)

<http://www.eia.doe.gov/cneaf/electricity/page/pubs.html>

(Electricity Power Annual vol I and II: la table 13 du volume II "average operating expenses for major US Investor-owned electric utilities 1996 through 2000")

and last (as for now!) but not least, the most recent (published end of November 2002):

"Renewable Energy Annual 2001 with preliminary Data for 2001"

http://www.eia.doe.gov/cneaf/solar.renewables/page/rea_data/rea_sum.html
1



Assumptions to the Annual Energy Outlook 2002

Table 38. Cost and Performance Characteristics of New Electricity Generating Technologies

| Technology | Online Years ¹ | Size (mW) | Leadtimes (Years) | Overnight Costs in 2001 (\$2000/kW) | Contingency Factors | | Total Overnight Cost including Contingencies in 2001 ³ (2000 \$/kW) | Variable O&M ⁴ (\$2000 mills/kWh) | Fixed O&M ⁴ (\$2000/kW) | Heatrate in 2001 (Btu/kWhr) | Heatrate in 2010 (Btu/kWhr) |
|---------------------------------------|---------------------------|-----------|-------------------|-------------------------------------|----------------------------|--|--|--|------------------------------------|-----------------------------|-----------------------------|
| | | | | | Project Contingency Factor | Technological Optimism Factor ² | | | | | |
| Conventional Pulverized Coal | 2005 | 400 | 4 | 1,046 | 1.07 | 1.00 | 1,119 | 3.38 | 23.41 | 9,386 | 9,087 |
| Integrated Coal Gasification Combined | 2005 | 428 | 4 | 1,250 | 1.07 | 1.00 | 1,338 | 0.80 | 32.67 | 7,869 | 6,968 |

| | | | | | | | | | | | |
|---|------|-----|---|-------|------|------|-------|-------|-------|--------|--------|
| Cycle | | | | | | | | | | | |
| Conventional Gas/Oil Combined Cycle | 2004 | 250 | 3 | 435 | 1.05 | 1.00 | 456 | 0.52 | 15.61 | 7,618 | 7,000 |
| Adv Gas/Oil Combined Cycle | 2004 | 400 | 3 | 546 | 1.08 | 1.00 | 590 | 0.52 | 14.46 | 6,870 | 6,350 |
| Conv Combustion Turbine ⁵ | 2002 | 160 | 2 | 323 | 1.05 | 1.00 | 339 | 0.10 | 6.45 | 11,380 | 10,600 |
| Adv Combustion Turbine | 2003 | 120 | 2 | 451 | 1.05 | 1.00 | 474 | 0.10 | 9.16 | 9,020 | 8,000 |
| Fuel Cells | 2004 | 10 | 3 | 1,810 | 1.05 | 1.10 | 2,091 | 2.08 | 14.98 | 5,744 | 5,361 |
| Advanced Nuclear | 2005 | 600 | 4 | 1,772 | 1.10 | 1.10 | 2,144 | 0.42 | 57.23 | 10,400 | 10,400 |
| Generic Distributed Generation ⁶ - Base | 2004 | 2 | 3 | 593 | 1.05 | 1.00 | 623 | 15.11 | 4.02 | 10,991 | 9,210 |
| Generic Distributed Generation ⁶ - Peak | 2003 | 1 | 2 | 533 | 1.05 | 1.00 | 559 | 23.10 | 12.56 | 10,620 | 10,500 |
| Biomass | 2005 | 100 | 4 | 1,536 | 1.07 | 1.05 | 1,725 | 2.90 | 44.95 | 8,911 | 8,911 |
| MSW - Landfill Gas | 2004 | 30 | 3 | 1,336 | 1.07 | 1.00 | 1,429 | 0.01 | 96.31 | 13,648 | 13,648 |
| Geothermal ^{7,8} | 2006 | 50 | 4 | 1,663 | 1.05 | 1.00 | 1,746 | 0.00 | 70.07 | 32,173 | 32,173 |
| Wind | 2004 | 50 | 3 | 918 | 1.07 | 1.00 | 982 | 0.00 | 25.54 | 10,280 | 10,280 |

| | | | | | | | | | | | |
|--|------|-----|---|-------|------|------|-------|------|-------|--------|--------|
| Solar Thermal ⁸ | 2004 | 100 | 3 | 2,157 | 1.07 | 1.10 | 2,539 | 0.00 | 47.87 | 10,280 | 10,280 |
| Solar Photovoltaic ⁸ | 2003 | 5 | 2 | 3,317 | 1.05 | 1.10 | 3,831 | 0.00 | 9.85 | 10,280 | 10,280 |
| <p>¹Online year represents the first year that a new unit could be completed, given an order date of 2001.</p> <p>²The technological optimism factor is applied to the first four units of a new, unproven design. It reflects the demonstrated tendency to underestimate actual costs for a first-of-a-kind unit.</p> <p>³Overnight capital cost including contingency factors, excluding regional multipliers and learning effects. Interest charges are also excluded. These represent costs of new projects initiated in 2001.</p> <p>⁴O&M = Operation and maintenance.</p> <p>⁵Combustion turbine units can be built by the model prior to 2003 if necessary to meet a given region's reserve margin.</p> <p>⁶The costs shown here are slightly different from costs shown in Table 41 because of updated adjustments for inflation. The unit size shown here is higher than that shown in Table 41 to reflect the minimum size that can be represented meaningfully in the model. The lead times are also different from those shown in Table 41 because lead times presented here include site acquisition, site preparation, and permitting for plants that are larger in size.</p> <p>⁷Because geothermal cost and performance characteristics are specific for each site, the table entries represent the cost of the least expensive plant that could be built in the Northwest Power Pool region, where most of the proposed sites are located.</p> <p>⁸Capital costs for geothermal and solar technologies are net of (reduced by) the ten percent investment tax credit.</p> <p>Source: Values are derived by the Energy Information Administration, Office of Integrated Analysis and Forecasting, from analysis of reports and discussions with various sources from industry, government, and the Department of Energy National Laboratories.</p> | | | | | | | | | | | |

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URL: <http://www.eia.doe.gov/oiaf/aeo/assumption/tbl38.html>

**Table 13. Average Operating Expenses for Major U.S. Investor-Owned Electric Utilities
1996 Through 2000**
(Mills per Kilowathour)

| | 1996 | 1997 | 1998 | 1999 | 2000 |
|--|-------|-------|-------|-------|-------|
| Operation | | | | | |
| Nuclear | 9.47 | 11.02 | 9.98 | 8.93 | 8.41 |
| Fossil Steam | 2.25 | 2.22 | 2.17 | 2.21 | 2.31 |
| Hydroelectric ¹ | 3.87 | 3.29 | 3.85 | 4.17 | 4.74 |
| Gas Turbine and Small Scale ² | 5.08 | 4.43 | 3.85 | 5.16 | 4.57 |
| Maintenance | | | | | |
| Nuclear | 5.68 | 6.90 | 5.79 | 5.13 | 4.93 |
| Fossil Steam | 2.49 | 2.43 | 2.41 | 2.38 | 2.45 |
| Hydroelectric ¹ | 2.08 | 2.49 | 2.00 | 2.60 | 2.99 |
| Gas Turbine and Small Scale ² | 4.98 | 3.43 | 3.43 | 4.80 | 3.50 |
| Fuel | | | | | |
| Nuclear | 5.50 | 5.42 | 5.39 | 5.17 | 4.95 |
| Fossil Steam | 16.51 | 16.80 | 15.94 | 15.62 | 17.69 |
| Hydroelectric ¹ | — | — | — | — | — |
| Gas Turbine and Small Scale ² | 30.58 | 24.94 | 23.02 | 28.72 | 39.19 |
| Total³ | | | | | |
| Nuclear | 20.65 | 23.33 | 21.16 | 19.23 | 18.28 |
| Fossil Steam | 21.25 | 21.45 | 20.52 | 20.22 | 22.44 |
| Hydroelectric ¹ | 5.94 | 5.79 | 5.86 | 6.77 | 7.73 |
| Gas Turbine and Small Scale ² | 40.64 | 32.80 | 30.30 | 38.68 | 47.26 |

¹ Includes Pumped Storage.

² Includes gas turbine, internal combustion, photovoltaic, and wind plants.

³ Totals may not equal sum of components because of independent rounding.

Notes: •Data for 1996 through 1999 are final; whereas data for 2000 are preliminary. •Expenses are average expenses weighted by net generation. •A mill is a monetary cost and billing unit equal to 1/1000 of the U.S. dollar (equivalent to 1/10 of 1 cent).

Source: Federal Energy Regulatory Commission, FERC Form 1, "Annual Report of Major Electric Utilities, Licensees and Others." The 1997 through 2000 data are edited by Navigant Consulting, Inc. See Appendix A for a detailed description of this restricted-universe census.

**Table A21. Retail Sales of Electricity, Revenue, and Average Revenue per Kilowatthour (and RSEs)
by U.S. Electric Utilities to Ultimate Consumers by Census Division, and State,
2000 and 1999 -- All Sectors**

| Census Division and State | 2000 | | 1999 | 2000 | | 1999 | 2000 | | 1999 |
|-----------------------------------|------------------------|------------------|------------------------|---------------------------------|------------------|---------------------------------|--|------------------|--|
| | Sales (million kWh) | RSE (percent) | Sales (million kWh) | Revenue (million dollars) | RSE (percent) | Revenue (million dollars) | Average Revenue per kWh (cents) | RSE (percent) | Average Revenue per kWh (cents) |
| New England..... | 123,013 | 0.2 | 113,720 | 12,072 | 0.3 | 11,032 | 9.8 | 0.4 | 9.7 |
| Connecticut..... | 29,917 | .1 | 29,803 | 2,849 | .2 | 2,965 | 9.5 | .1 | 9.9 |
| Maine..... | 17,607 | .4 | 11,944 | 1,739 | .2 | 1,168 | 9.9 | .3 | 9.8 |
| Massachusetts..... | 51,197 | .4 | 49,407 | 4,864 | .7 | 4,517 | 9.5 | .8 | 9.1 |
| New Hampshire..... | 9,949 | .3 | 9,888 | 1,154 | .4 | 1,162 | 11.6 | .3 | 11.8 |
| Rhode Island..... | 8,693 | 1.2 | 7,150 | 887 | 1.8 | 638 | 10.2 | .6 | 8.9 |
| Vermont..... | 5,651 | .2 | 5,527 | 578 | .5 | 568 | 10.2 | .3 | 10.3 |
| Middle Atlantic..... | 341,776 | .6 | 338,964 | 30,529 | .6 | 31,413 | 8.9 | .4 | 9.3 |
| New Jersey..... | 70,882 | .1 | 70,703 | 6,437 | .1 | 7,060 | 9.1 | .1 | 10.0 |
| New York..... | 135,754 | .4 | 139,378 | 15,188 | .9 | 14,543 | 11.2 | .6 | 10.4 |
| Pennsylvania..... | 135,140 | 1.5 | 128,883 | 8,904 | 1.4 | 9,526 | 6.6 | .7 | 7.4 |
| East North Central..... | 560,572 | .2 | 561,216 | 35,352 | .2 | 35,805 | 6.3 | .1 | 6.4 |
| Illinois..... | 136,124 | .2 | 132,682 | 8,957 | .4 | 9,254 | 6.6 | .3 | 7.0 |
| Indiana..... | 97,116 | .3 | 96,735 | 4,986 | .4 | 5,118 | 5.1 | .3 | 5.3 |
| Michigan..... | 103,972 | .1 | 103,981 | 7,397 | .1 | 7,412 | 7.1 | .1 | 7.1 |
| Ohio..... | 158,672 | .5 | 164,271 | 10,333 | .3 | 10,505 | 6.5 | .3 | 6.4 |
| Wisconsin..... | 64,689 | .4 | 63,547 | 3,680 | .3 | 3,515 | 5.7 | .5 | 5.5 |
| West North Central..... | 249,363 | .2 | 238,143 | 14,727 | .3 | 14,105 | 5.9 | .3 | 5.9 |
| Iowa..... | 38,812 | .4 | 38,034 | 2,272 | .5 | 2,252 | 5.9 | .7 | 5.9 |
| Kansas..... | 35,842 | .3 | 33,820 | 2,245 | .4 | 2,101 | 6.3 | .4 | 6.2 |
| Minnesota..... | 59,851 | .4 | 57,399 | 3,479 | .6 | 3,345 | 5.8 | .4 | 5.8 |
| Missouri..... | 72,882 | .5 | 69,045 | 4,408 | .7 | 4,187 | 6.0 | .6 | 6.1 |
| Nebraska..... | 23,918 | .6 | 22,810 | 1,261 | .8 | 1,213 | 5.3 | .6 | 5.3 |
| North Dakota..... | 9,698 | .9 | 9,112 | 533 | .9 | 501 | 5.5 | .4 | 5.5 |
| South Dakota..... | 8,360 | .6 | 7,922 | 528 | .8 | 503 | 6.3 | .4 | 6.4 |
| South Atlantic..... | 717,116 | .2 | 688,478 | 45,724 | .2 | 43,867 | 6.4 | .1 | 6.4 |
| Delaware..... | 11,137 | 1.1 | 10,552 | 759 | 1.2 | 750 | 6.8 | .7 | 7.1 |
| District of Columbia..... | 10,633 | — | 10,418 | 799 | — | 776 | 7.5 | — | 7.4 |
| Florida..... | 195,278 | .3 | 187,270 | 13,497 | .4 | 12,817 | 6.9 | .2 | 6.8 |
| Georgia..... | 119,922 | .8 | 112,656 | 7,487 | 1.0 | 7,032 | 6.2 | .6 | 6.2 |
| Maryland..... | 60,936 | .2 | 59,086 | 4,113 | .5 | 4,152 | 6.7 | .3 | 7.0 |
| North Carolina..... | 118,458 | .3 | 115,015 | 7,711 | .4 | 7,421 | 6.5 | .2 | 6.5 |
| South Carolina..... | 76,418 | .4 | 73,304 | 4,193 | .4 | 4,089 | 5.5 | .4 | 5.6 |
| Virginia..... | 96,520 | .3 | 93,032 | 5,746 | .5 | 5,447 | 6.0 | .2 | 5.9 |
| West Virginia..... | 27,813 | .2 | 27,144 | 1,420 | .2 | 1,384 | 5.1 | — | 5.1 |
| East South Central..... | 304,012 | .4 | 296,659 | 16,034 | .4 | 15,488 | 5.3 | .3 | 5.2 |
| Alabama..... | 83,692 | .5 | 80,401 | 4,686 | .7 | 4,449 | 5.6 | .5 | 5.5 |
| Kentucky..... | 78,429 | 1.3 | 79,098 | 3,230 | 1.1 | 3,294 | 4.1 | 1.1 | 4.2 |
| Mississippi..... | 45,166 | .7 | 43,980 | 2,680 | .9 | 2,483 | 5.9 | .4 | 5.6 |
| Tennessee..... | 96,725 | .6 | 93,180 | 5,438 | .5 | 5,241 | 5.6 | .2 | 5.6 |
| West South Central..... | 487,032 | .3 | 466,636 | 31,039 | .4 | 27,566 | 6.4 | .4 | 5.9 |
| Arkansas..... | 41,435 | .5 | 39,789 | 2,398 | .6 | 2,261 | 5.8 | .6 | 5.7 |
| Louisiana..... | 80,416 | .3 | 78,267 | 5,308 | .8 | 4,546 | 6.6 | .6 | 5.8 |
| Oklahoma..... | 49,480 | .7 | 46,737 | 2,944 | 1.2 | 2,510 | 6.0 | .9 | 5.4 |
| Texas..... | 315,701 | .4 | 301,844 | 20,389 | .6 | 18,238 | 6.5 | .6 | 6.0 |
| Mountain..... | 222,356 | .2 | 212,193 | 13,201 | .3 | 12,454 | 5.9 | .2 | 5.9 |
| Arizona..... | 61,454 | .3 | 57,662 | 4,412 | .4 | 4,169 | 7.2 | .3 | 7.2 |
| Colorado..... | 43,321 | .4 | 40,571 | 2,598 | .9 | 2,414 | 6.0 | .4 | 6.0 |
| Idaho..... | 22,862 | .4 | 22,722 | 959 | .5 | 894 | 4.2 | .3 | 3.9 |
| Montana..... | 11,718 | 3.4 | 13,282 | 589 | 1.6 | 644 | 5.0 | 2.5 | 4.8 |
| Nevada..... | 28,089 | .6 | 26,253 | 1,719 | .8 | 1,557 | 6.1 | .2 | 5.9 |
| New Mexico..... | 18,953 | .8 | 18,041 | 1,247 | 1.0 | 1,187 | 6.6 | 1.3 | 6.6 |
| Utah..... | 23,151 | .3 | 21,879 | 1,116 | .3 | 1,065 | 4.8 | .1 | 4.9 |
| Wyoming..... | 12,807 | 1.1 | 11,782 | 561 | 1.1 | 507 | 4.4 | .3 | 4.3 |
| Pacific Contiguous..... | 392,525 | .4 | 381,405 | 27,744 | .4 | 27,677 | 7.1 | .4 | 7.3 |
| California..... | 246,652 | .4 | 234,831 | 21,050 | .5 | 21,697 | 8.5 | .5 | 9.2 |
| Oregon..... | 52,828 | 1.2 | 47,544 | 2,524 | .7 | 2,306 | 4.8 | .8 | 4.9 |
| Washington..... | 93,044 | .9 | 99,030 | 4,170 | .6 | 3,996 | 4.5 | .8 | 4.0 |
| Pacific Noncontiguous..... | 15,001 | .1 | 14,674 | 1,890 | .1 | 1,641 | 12.6 | .1 | 11.2 |
| Alaska..... | 5,321 | .2 | 5,293 | 531 | .4 | 518 | 10.0 | .3 | 9.8 |
| Hawaii..... | 9,680 | — | 9,381 | 1,360 | .1 | 1,124 | 14.0 | .1 | 12.0 |
| U.S. Total..... | 3,412,766 | .1 | 3,312,087 | 228,313 | .1 | 219,872 | 6.68 | .1 | 6.66 |

kWh = Kilowatthours.

RSE = Relative standard error.

Notes: •Values for 2000 are preliminary; values for 1999 are final. •Values include retail sales by all energy service providers. •Revenue and average revenue per kilowatthour do not include taxes such as sales and excise taxes that are assessed on the consumer and collected through the utility. •Weather-related phenomena, reclassification of retail sales, changes in number of customers, prior period adjustments, and changes in billing procedures may contribute to substantial year-to-year changes in the data in this table. •Totals may not equal sum of components because of independent rounding.

Sources: Energy Information Administration, Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions," and Form EIA-861, "Annual Electric Utility Report."



Assumptions to the Annual Energy Outlook 2002

Table 38. Cost and Performance Characteristics of New Electricity Generating Technologies

| Technology | Online Years ¹ | Size (mW) | Leadtimes (Years) | Overnight Costs in 2001 (\$2000/kW) | Contingency Factors | | Total Overnight Cost including Contingencies in 2001 ³ (2000 \$/kW) | Variable O&M ⁴ (\$2000 mills/kWh) | Fixed O&M ⁴ (\$2000/kW) | Heatrate in 2001 (Btu/kWhr) | Heatrate in 2010 (Btu/kWhr) |
|--|---------------------------|-----------|-------------------|-------------------------------------|----------------------------|--|--|--|------------------------------------|-----------------------------|-----------------------------|
| | | | | | Project Contingency Factor | Technological Optimism Factor ² | | | | | |
| Conventional Pulverized Coal | 2005 | 400 | 4 | 1,046 | 1.07 | 1.00 | 1,119 | 3.38 | 23.41 | 9,386 | 9,087 |
| Integrated Coal Gasification Combined Cycle | 2005 | 428 | 4 | 1,250 | 1.07 | 1.00 | 1,338 | 0.80 | 32.67 | 7,869 | 6,968 |
| Conventional Gas/Oil Combined Cycle | 2004 | 250 | 3 | 435 | 1.05 | 1.00 | 456 | 0.52 | 15.61 | 7,618 | 7,000 |
| Adv Gas/Oil Combined Cycle | 2004 | 400 | 3 | 546 | 1.08 | 1.00 | 590 | 0.52 | 14.46 | 6,870 | 6,350 |
| Conv Combustion Turbine ⁵ | 2002 | 160 | 2 | 323 | 1.05 | 1.00 | 339 | 0.10 | 6.45 | 11,380 | 10,600 |
| Adv Combustion Turbine | 2003 | 120 | 2 | 451 | 1.05 | 1.00 | 474 | 0.10 | 9.16 | 9,020 | 8,000 |
| Fuel Cells | 2004 | 10 | 3 | 1,810 | 1.05 | 1.10 | 2,091 | 2.08 | 14.98 | 5,744 | 5,361 |
| Advanced Nuclear | 2005 | 600 | 4 | 1,772 | 1.10 | 1.10 | 2,144 | 0.42 | 57.23 | 10,400 | 10,400 |
| Generic Distributed Generation ⁶ - Base | 2004 | 2 | 3 | 593 | 1.05 | 1.00 | 623 | 15.11 | 4.02 | 10,991 | 9,210 |

| | | | | | | | | | | | |
|--|------|-----|---|-------|------|------|-------|-------|-------|--------|--------|
| Generic Distributed Generation ⁶ - Peak | 2003 | 1 | 2 | 533 | 1.05 | 1.00 | 559 | 23.10 | 12.56 | 10,620 | 10,500 |
| Biomass | 2005 | 100 | 4 | 1,536 | 1.07 | 1.05 | 1,725 | 2.90 | 44.95 | 8,911 | 8,911 |
| MSW - Landfill Gas | 2004 | 30 | 3 | 1,336 | 1.07 | 1.00 | 1,429 | 0.01 | 96.31 | 13,648 | 13,648 |
| Geothermal ^{7,8} | 2006 | 50 | 4 | 1,663 | 1.05 | 1.00 | 1,746 | 0.00 | 70.07 | 32,173 | 32,173 |
| Wind | 2004 | 50 | 3 | 918 | 1.07 | 1.00 | 982 | 0.00 | 25.54 | 10,280 | 10,280 |
| Solar Thermal ⁸ | 2004 | 100 | 3 | 2,157 | 1.07 | 1.10 | 2,539 | 0.00 | 47.87 | 10,280 | 10,280 |
| Solar Photovoltaic ⁸ | 2003 | 5 | 2 | 3,317 | 1.05 | 1.10 | 3,831 | 0.00 | 9.85 | 10,280 | 10,280 |

¹Online year represents the first year that a new unit could be completed, given an order date of 2001.

²The technological optimism factor is applied to the first four units of a new, unproven design. It reflects the demonstrated tendency to underestimate actual costs for a first-of-a-kind unit.

³Overnight capital cost including contingency factors, excluding regional multipliers and learning effects. Interest charges are also excluded. These represent costs of new projects initiated in 2001.

⁴O&M = Operation and maintenance.

⁵Combustion turbine units can be built by the model prior to 2003 if necessary to meet a given region's reserve margin.

⁶The costs shown here are slightly different from costs shown in Table 41 because of updated adjustments for inflation. The unit size shown here is higher than that shown in Table 41 to reflect the minimum size that can be represented meaningfully in the model. The lead times are also different from those shown in Table 41 because lead times presented here include site acquisition, site preparation, and permitting for plants that are larger in size.

⁷Because geothermal cost and performance characteristics are specific for each site, the table entries represent the cost of the least expensive plant that could be built in the Northwest Power Pool region, where most of the proposed sites are located.

⁸Capital costs for geothermal and solar technologies are net of (reduced by) the ten percent investment tax credit.

Source: Values are derived by the Energy Information Administration, Office of Integrated Analysis and Forecasting, from analysis of reports and discussions with various sources from industry, government, and the Department of Energy National Laboratories.

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URL: <http://www.eia.doe.gov/oiaf/aeo/assumption//tbl38.html>

Table 3.3 Consumer Price Estimates for Energy, 1970-1999
(Nominal Dollars per Million Btu)

| Year | Primary Energy ¹ | | | | | | | | | | | | Electric Utility Fuel | Electricity Purchased by End-Users | Total Energy ⁴ |
|------|-----------------------------|----------------|--------------------|-------------|------------------|-------------------|------------------|--------------------|--------|-----------------|----------------------|--------------------|-----------------------------|---|------------------------------|
| | Coal | Natural Gas | Petroleum | | | | | | | Nuclear Fuel | Wood and Waste | Total ⁴ | | | |
| | | | Distillate Fuel | Jet Fuel | LPG ² | Motor Gasoline | Residual Fuel | Other ³ | Total | | | | | | |
| 1970 | 0.37 | 0.59 | 1.16 | 0.73 | 1.46 | 2.85 | 0.42 | 1.38 | 1.72 | 0.18 | 1.29 | 1.08 | 0.32 | 4.98 | 1.65 |
| 1971 | 0.42 | 0.63 | 1.22 | 0.77 | 1.49 | 2.90 | 0.58 | 1.44 | 1.79 | 0.18 | 1.31 | 1.15 | 0.38 | 5.30 | 1.76 |
| 1972 | 0.45 | 0.68 | 1.22 | 0.79 | 1.52 | 2.88 | 0.62 | 1.49 | 1.78 | 0.18 | 1.33 | 1.18 | 0.41 | 5.54 | 1.84 |
| 1973 | 0.48 | 0.73 | 1.46 | 0.92 | 2.02 | 3.10 | 0.75 | 1.57 | 1.97 | 0.19 | 1.39 | 1.29 | 0.46 | 5.86 | 2.02 |
| 1974 | 0.88 | 0.89 | 2.44 | 1.58 | 2.81 | 4.32 | 1.82 | 2.59 | 3.06 | 0.20 | 1.50 | 1.94 | 0.86 | 7.42 | 2.87 |
| 1975 | 1.03 | 1.18 | 2.60 | 2.05 | 2.97 | 4.65 | 1.93 | 2.92 | 3.35 | 0.24 | 1.50 | 2.19 | 0.96 | 8.61 | 3.33 |
| 1976 | 1.04 | 1.46 | 2.77 | 2.25 | 3.21 | 4.84 | 1.90 | 3.07 | 3.47 | 0.25 | 1.53 | 2.34 | 1.02 | 9.13 | 3.57 |
| 1977 | 1.11 | 1.76 | 3.11 | 2.59 | 3.65 | 5.13 | 2.14 | 3.25 | 3.73 | 0.27 | 1.58 | 2.57 | 1.16 | 10.11 | 3.98 |
| 1978 | 1.28 | 1.95 | 3.26 | 2.87 | 3.60 | 5.24 | 2.08 | 3.44 | 3.84 | 0.30 | 1.61 | 2.71 | 1.25 | 10.92 | 4.23 |
| 1979 | 1.36 | 2.31 | 4.69 | 3.90 | 4.50 | 7.11 | 2.83 | 4.69 | 5.23 | 0.34 | 1.88 | 3.47 | 1.48 | 11.78 | 5.21 |
| 1980 | 1.47 | 2.86 | 6.70 | 6.36 | 5.64 | 9.84 | 3.88 | 7.02 | 7.40 | 0.43 | 2.26 | 4.57 | 1.75 | 13.95 | 6.89 |
| 1981 | 1.65 | 3.43 | 8.03 | 7.57 | 6.18 | 10.94 | 4.91 | 8.63 | 8.68 | 0.48 | 2.53 | 5.24 | 2.00 | 16.14 | 8.03 |
| 1982 | 1.73 | 4.23 | 7.78 | 7.23 | 6.66 | 10.39 | 4.65 | 7.83 | 8.39 | 0.54 | 2.54 | 5.32 | 2.01 | 18.16 | 8.46 |
| 1983 | 1.71 | 4.72 | 7.32 | 6.53 | 7.17 | 9.12 | 4.50 | 7.58 | 7.77 | 0.58 | 2.43 | 5.11 | 1.98 | 18.62 | 8.39 |
| 1984 | 1.71 | 4.75 | 7.36 | 6.25 | 6.93 | 8.89 | 4.75 | 7.64 | 7.67 | 0.67 | 2.50 | 5.02 | 1.97 | 18.50 | 8.28 |
| 1985 | 1.70 | 4.61 | 7.18 | 5.91 | 6.54 | 9.01 | 4.30 | 7.52 | 7.62 | 0.71 | R 2.41 | 4.90 | 1.85 | 19.05 | 8.36 |
| 1986 | 1.62 | 4.07 | 5.66 | 3.92 | 6.42 | 6.79 | 2.37 | 5.77 | 5.72 | 0.70 | R 2.10 | 3.95 | 1.55 | 19.05 | 7.30 |
| 1987 | 1.54 | 3.77 | 5.94 | 4.03 | 6.06 | R 7.23 | 2.86 | 5.59 | 6.03 | 0.71 | R 2.07 | 3.97 | 1.51 | 18.74 | 7.33 |
| 1988 | 1.50 | 3.78 | 5.80 | 3.80 | 5.86 | R 7.33 | 2.35 | 5.23 | 5.90 | 0.73 | R 2.08 | 3.87 | 1.45 | 18.68 | 7.26 |
| 1989 | 1.49 | 3.85 | 6.45 | 4.39 | 5.53 | R 8.02 | 2.72 | 5.47 | R 6.43 | 0.70 | R 1.74 | 4.09 | 1.48 | 18.98 | R 7.60 |
| 1990 | 1.49 | 3.85 | 7.70 | 5.68 | 6.75 | 9.12 | 3.16 | 5.80 | 7.47 | 0.67 | R 1.70 | R 4.49 | 1.46 | 19.33 | R 8.27 |
| 1991 | 1.49 | 3.78 | 7.28 | 4.83 | 6.79 | 8.93 | 2.62 | 5.72 | 7.19 | 0.63 | R 1.76 | 4.32 | 1.37 | 19.85 | R 8.23 |
| 1992 | 1.45 | 3.89 | 7.11 | 4.52 | 6.19 | 8.96 | 2.27 | 5.49 | 7.07 | 0.59 | R 1.67 | R 4.28 | 1.34 | 20.06 | R 8.15 |
| 1993 | 1.43 | 4.16 | 7.10 | 4.29 | 6.20 | R 8.83 | 2.25 | 5.47 | 7.01 | 0.56 | R 1.59 | R 4.30 | 1.35 | 20.38 | R 8.26 |
| 1994 | 1.39 | 4.15 | 7.03 | 3.95 | 6.61 | R 8.96 | 2.32 | 5.46 | R 7.07 | 0.56 | R 1.51 | R 4.31 | 1.30 | 20.34 | R 8.29 |
| 1995 | 1.37 | 3.81 | 7.02 | 4.00 | 6.54 | R 9.22 | 2.46 | 5.72 | R 7.29 | 0.54 | R 1.44 | 4.29 | 1.23 | 20.30 | 8.29 |
| 1996 | 1.33 | 4.33 | 7.90 | 4.82 | R 8.01 | R 9.85 | 2.79 | 6.22 | R 8.02 | 0.51 | R 1.53 | 4.70 | 1.28 | 20.17 | R 8.76 |
| 1997 | 1.31 | R 4.63 | 7.70 | 4.53 | 7.42 | R 9.81 | R 2.93 | R 5.91 | R 7.87 | 0.51 | R 1.43 | R 4.73 | 1.30 | 20.15 | 8.82 |
| 1998 | 1.29 | 4.25 | 6.63 | 3.35 | 5.99 | 8.45 | 2.15 | 5.06 | 6.65 | 0.50 | 1.42 | 4.14 | 1.24 | 19.82 | 8.19 |

| | | | | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|---|------|------|------|------|------|-------|------|
| 1999 | 1.26 | 4.26 | 7.24 | 4.01 | 6.64 | 9.31 | 2.30 | 5.32 | 7.33 | 0.47 | 1.55 | 4.44 | 1.21 | 19.37 | 8.41 |
| ¹ Primary energy is all energy, including that consumed to produce electricity but excluding the electricity produced. | | | | | | | | R=Revised. | | | | | | | |
| ² Liquefied petroleum gases. | | | | | | | | Note: There are no direct fuel costs for hydroelectric, geothermal, wind, or solar energy. | | | | | | | |
| ³ Consumption-weighted average price for asphalt and road oil, aviation gasoline, kerosene, lubricants, petrochemical feedstocks, petroleum coke, special naphthas, waxes, and miscellaneous petroleum products. | | | | | | | | Web Page: http://www.eia.doe.gov/emeu/seper/contents.html . | | | | | | | |
| ⁴ The "Primary Energy Total" and "Total Energy" prices include consumption-weighted average prices for coal coke imports and coal coke exports that are not shown in the other columns. In 1999, coal coke imports averaged 2.83 dollars per million Btu and coal coke exports averaged 3.88 dollars per million Btu. | | | | | | | | Source: Energy Information Administration (EIA), State Energy Price and Expenditure Report 1999 (November 2001), Table 5. | | | | | | | |

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Table A21. Retail Sales of Electricity, Revenue, and Average Revenue per Kilowatthour (and RSEs) by U.S. Electric Utilities to Ultimate Consumers by Census Division, and State,2000 and 1999 -- All Sectors

| Census Division and State | 2000 | | 1999 | 2000 | | 1999 | 2000 | | 1999 |
|---------------------------|---------------------|---------------|---------------------|---------------------------|---------------|---------------------------|---------------------------------|---------------|---------------------------------|
| | Sales (million kWh) | RSE (percent) | Sales (million kWh) | Revenue (million dollars) | RSE (percent) | Revenue (million dollars) | Average Revenue per kWh (cents) | RSE (percent) | Average Revenue per kWh (cents) |
| New England | 123,013 | 0.2 | 113,720 | 12,072 | 0.3 | 11,032 | 9.8 | 0.4 | 9.7 |
| Connecticut | 29,917 | .1 | 29,803 | 2,849 | .2 | 2,965 | 9.5 | .1 | 9.9 |
| Maine | 17,607 | .4 | 11,944 | 1,739 | .2 | 1,168 | 9.9 | .3 | 9.8 |
| Massachusetts | 51,197 | .4 | 49,407 | 4,864 | .7 | 4,517 | 9.5 | .8 | 9.1 |
| New Hampshire | 9,949 | .3 | 9,888 | 1,154 | .4 | 1,162 | 11.6 | .3 | 11.8 |
| Rhode Island | 8,693 | 1.2 | 7,150 | 887 | 1.8 | 638 | 10.2 | .6 | 8.9 |
| Vermont | 5,651 | .2 | 5,527 | 578 | .5 | 568 | 10.2 | .3 | 10.3 |
| Middle Atlantic | 341,776 | .6 | 338,964 | 30,529 | .6 | 31,413 | 8.9 | .4 | 9.3 |
| New Jersey | 70,882 | .1 | 70,703 | 6,437 | .1 | 7,060 | 9.1 | .1 | 10.0 |
| New York | 135,754 | .4 | 139,378 | 15,188 | .9 | 14,543 | 11.2 | .6 | 10.4 |
| Pennsylvania | 135,140 | 1.5 | 128,883 | 8,904 | 1.4 | 9,526 | 6.6 | .7 | 7.4 |
| East North Central | 560,572 | .2 | 561,216 | 35,352 | .2 | 35,805 | 6.3 | .1 | 6.4 |
| Illinois | 136,124 | .2 | 132,682 | 8,957 | .4 | 9,254 | 6.6 | .3 | 7.0 |
| Indiana | 97,116 | .3 | 96,735 | 4,986 | .4 | 5,118 | 5.1 | .3 | 5.3 |
| Michigan | 103,972 | .1 | 103,981 | 7,397 | .1 | 7,412 | 7.1 | .1 | 7.1 |
| Ohio | 158,672 | .5 | 164,271 | 10,333 | .3 | 10,505 | 6.5 | .3 | 6.4 |
| Wisconsin | 64,689 | .4 | 63,547 | 3,680 | .3 | 3,515 | 5.7 | .5 | 5.5 |
| West North Central | 249,363 | .2 | 238,143 | 14,727 | .3 | 14,105 | 5.9 | .3 | 5.9 |
| Iowa | 38,812 | .4 | 38,034 | 2,272 | .5 | 2,252 | 5.9 | .7 | 5.9 |
| Kansas | 35,842 | .3 | 33,820 | 2,245 | .4 | 2,101 | 6.3 | .4 | 6.2 |
| Minnesota | 59,851 | .4 | 57,399 | 3,479 | .6 | 3,345 | 5.8 | .4 | 5.8 |
| Missouri | 72,882 | .5 | 69,045 | 4,408 | .7 | 4,187 | 6.0 | .6 | 6.1 |
| Nebraska | 23,918 | .6 | 22,810 | 1,261 | .8 | 1,213 | 5.3 | .6 | 5.3 |
| North Dakota | 9,698 | .9 | 9,112 | 533 | .9 | 501 | 5.5 | .4 | 5.5 |
| South Dakota | 8,360 | .6 | 7,922 | 528 | .8 | 503 | 6.3 | .4 | 6.4 |
| South Atlantic | 717,116 | .2 | 688,478 | 45,724 | .2 | 43,867 | 6.4 | .1 | 6.4 |
| Delaware | 11,137 | 1.1 | 10,552 | 759 | 1.2 | 750 | 6.8 | .7 | 7.1 |
| District of Columbia | 10,633 | -- | 10,418 | 799 | -- | 776 | 7.5 | -- | 7.4 |
| Florida | 195,278 | .3 | 187,270 | 13,497 | .4 | 12,817 | 6.9 | .2 | 6.8 |
| Georgia | 119,922 | .8 | 112,656 | 7,487 | 1.0 | 7,032 | 6.2 | .6 | 6.2 |
| Maryland | 60,936 | .2 | 59,086 | 4,113 | .5 | 4,152 | 6.7 | .3 | 7.0 |
| North Carolina | 118,458 | .3 | 115,015 | 7,711 | .4 | 7,421 | 6.5 | .2 | 6.5 |
| South Carolina | 76,418 | .4 | 73,304 | 4,193 | .4 | 4,089 | 5.5 | .4 | 5.6 |
| Virginia | 96,520 | .3 | 93,032 | 5,746 | .5 | 5,447 | 6.0 | .2 | 5.9 |
| West Virginia | 27,813 | .2 | 27,144 | 1,420 | .2 | 1,384 | 5.1 | -- | 5.1 |
| East South Central | 304,012 | .4 | 296,659 | 16,034 | .4 | 15,488 | 5.3 | .3 | 5.2 |
| Alabama | 83,692 | .5 | 80,401 | 4,686 | .7 | 4,449 | 5.6 | .5 | 5.5 |
| Kentucky | 78,429 | 1.3 | 79,098 | 3,230 | 1.1 | 3,294 | 4.1 | 1.1 | 4.2 |
| Mississippi | 45,166 | .7 | 43,980 | 2,680 | .9 | 2,483 | 5.9 | .4 | 5.6 |
| Tennessee | 96,725 | .6 | 93,180 | 5,438 | .5 | 5,241 | 5.6 | .2 | 5.6 |
| West South Central | 487,032 | .3 | 466,636 | 31,039 | .4 | 27,566 | 6.4 | .4 | 5.9 |

| | | | | | | | | | |
|------------------------------|------------------|-----------|------------------|----------------|-----------|----------------|-------------|-----------|-------------|
| Arkansas | 41,435 | .5 | 39,789 | 2,398 | .6 | 2,261 | 5.8 | .6 | 5.7 |
| Louisiana | 80,416 | .3 | 78,267 | 5,308 | .8 | 4,546 | 6.6 | .6 | 5.8 |
| Oklahoma | 49,480 | .7 | 46,737 | 2,944 | 1.2 | 2,510 | 6.0 | .9 | 5.4 |
| Texas | 315,701 | .4 | 301,844 | 20,389 | .6 | 18,238 | 6.5 | .6 | 6.0 |
| Mountain | 222,356 | .2 | 212,193 | 13,201 | .3 | 12,454 | 5.9 | .2 | 5.9 |
| Arizona | 61,454 | .3 | 57,662 | 4,412 | .4 | 4,169 | 7.2 | .3 | 7.2 |
| Colorado | 43,321 | .4 | 40,571 | 2,598 | .9 | 2,414 | 6.0 | .4 | 6.0 |
| Idaho | 22,862 | .4 | 22,722 | 959 | .5 | 894 | 4.2 | .3 | 3.9 |
| Montana | 11,718 | 3.4 | 13,282 | 589 | 1.6 | 644 | 5.0 | 2.5 | 4.8 |
| Nevada | 28,089 | .6 | 26,253 | 1,719 | .8 | 1,557 | 6.1 | .2 | 5.9 |
| New Mexico | 18,953 | .8 | 18,041 | 1,247 | 1.0 | 1,187 | 6.6 | 1.3 | 6.6 |
| Utah | 23,151 | .3 | 21,879 | 1,116 | .3 | 1,065 | 4.8 | .1 | 4.9 |
| Wyoming | 12,807 | 1.1 | 11,782 | 561 | 1.1 | 507 | 4.4 | .3 | 4.3 |
| Pacific Contiguous | 392,525 | .4 | 381,405 | 27,744 | .4 | 27,677 | 7.1 | .4 | 7.3 |
| California | 246,652 | .4 | 234,831 | 21,050 | .5 | 21,697 | 8.5 | .5 | 9.2 |
| Oregon | 52,828 | 1.2 | 47,544 | 2,524 | .7 | 2,306 | 4.8 | .8 | 4.9 |
| Washington | 93,044 | .9 | 99,030 | 4,170 | .6 | 3,996 | 4.5 | .8 | 4.0 |
| Pacific Noncontiguous | 15,001 | .1 | 14,674 | 1,890 | .1 | 1,641 | 12.6 | .1 | 11.2 |
| Alaska | 5,321 | .2 | 5,293 | 531 | .4 | 518 | 10.0 | .3 | 9.8 |
| Hawaii | 9,680 | -- | 9,381 | 1,360 | .1 | 1,124 | 14.0 | .1 | 12.0 |
| U.S. Total | 3,412,766 | .1 | 3,312,087 | 228,313 | .1 | 219,872 | 6.68 | .1 | 6.66 |

kWh = Kilowatthours. RSE = Relative standard error.

Notes: •Values for 2000 are preliminary; values for 1999 are final. •Values include retail sales by all energy service providers. •Revenue and average revenue per kilowatthour do not include taxes such as sales and excise taxes that are assessed on the consumer and collected through the utility. •Weather-related phenomena, reclassification of retail sales, changes in number of customers, prior period adjustments, and changes in billing procedures may contribute to substantial year-to-year changes in the data in this table. •Totals may not equal sum of components because of independent rounding.

Sources: Energy Information Administration, Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions," and Form EIA-861, "Annual Electric Utility Report."

**Table 13. Average Operating Expenses for Major U.S. Investor-Owned Electric Utilities
1996 Through 2000**
(Mills per Kilowathour)

| | 1996 | 1997 | 1998 | 1999 | 2000 |
|--|-------|-------|-------|-------|-------|
| Operation | | | | | |
| Nuclear | 9.47 | 11.02 | 9.98 | 8.93 | 8.41 |
| Fossil Steam | 2.25 | 2.22 | 2.17 | 2.21 | 2.31 |
| Hydroelectric ¹ | 3.87 | 3.29 | 3.85 | 4.17 | 4.74 |
| Gas Turbine and Small Scale ² | 5.08 | 4.43 | 3.85 | 5.16 | 4.57 |
| Maintenance | | | | | |
| Nuclear | 5.68 | 6.90 | 5.79 | 5.13 | 4.93 |
| Fossil Steam | 2.49 | 2.43 | 2.41 | 2.38 | 2.45 |
| Hydroelectric ¹ | 2.08 | 2.49 | 2.00 | 2.60 | 2.99 |
| Gas Turbine and Small Scale ² | 4.98 | 3.43 | 3.43 | 4.80 | 3.50 |
| Fuel | | | | | |
| Nuclear | 5.50 | 5.42 | 5.39 | 5.17 | 4.95 |
| Fossil Steam | 16.51 | 16.80 | 15.94 | 15.62 | 17.69 |
| Hydroelectric ¹ | — | — | — | — | — |
| Gas Turbine and Small Scale ² | 30.58 | 24.94 | 23.02 | 28.72 | 39.19 |
| Total³ | | | | | |
| Nuclear | 20.65 | 23.33 | 21.16 | 19.23 | 18.28 |
| Fossil Steam | 21.25 | 21.45 | 20.52 | 20.22 | 22.44 |
| Hydroelectric ¹ | 5.94 | 5.79 | 5.86 | 6.77 | 7.73 |
| Gas Turbine and Small Scale ² | 40.64 | 32.80 | 30.30 | 38.68 | 47.26 |

¹ Includes Pumped Storage.

² Includes gas turbine, internal combustion, photovoltaic, and wind plants.

³ Totals may not equal sum of components because of independent rounding.

Notes: •Data for 1996 through 1999 are final; whereas data for 2000 are preliminary. •Expenses are average expenses weighted by net generation. •A mill is a monetary cost and billing unit equal to 1/1000 of the U.S. dollar (equivalent to 1/10 of 1 cent).

Source: Federal Energy Regulatory Commission, FERC Form 1, "Annual Report of Major Electric Utilities, Licensees and Others." The 1997 through 2000 data are edited by Navigant Consulting, Inc. See Appendix A for a detailed description of this restricted-universe census.

Renewable Energy Annual 2001

(With Preliminary Data for 2001)

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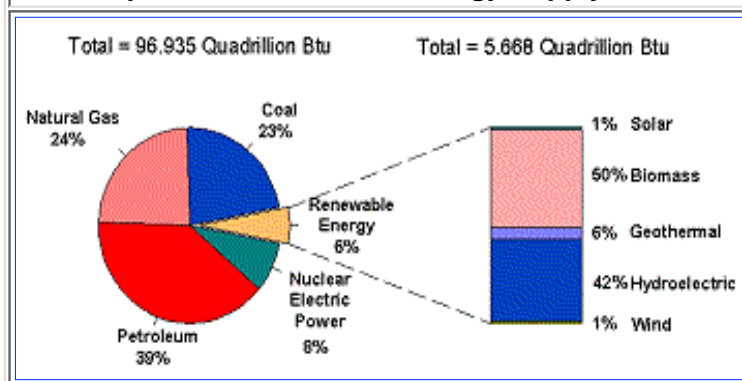
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Highlights

Renewable Energy Consumption

Renewable energy consumption declined more than 12 percent in 2001 to just 5.7 quadrillion Btu, its lowest level in over 12 years ([Table H1](#)) and ([Figure H1](#)). As a result, renewable energy's share of U.S. energy consumption dropped to 6 percent, mainly due to a 23-percent drop in hydropower. This steep decline resulted in biomass becoming the leading source of renewable energy. However, biomass energy itself also declined to 2.9 quadrillion Btu in 2001, 3 percent below the 2000 level. In fact, consumption of all principal renewable energy resources decreased in 2001, except for wind.

Figure H1. The Role of Renewable Energy Consumption in the Nation's Energy Supply, 2001



Trends in generation from renewable energy closely mirrored energy consumption patterns. Hydroelectric generation decreased 23 percent; biomass generation decreased nearly 2 percent; geothermal generation decreased 1 percent, while generation from wind power increased more than 3 percent. Solar-based generation remained essentially flat from 2000 to 2001.

Renewable electric generating capacity increased modestly in 2001, rising from 94,938 megawatts in 2000 to 96,741 megawatts in 2001 (Table 5). Wind power provided most of the 1,803-megawatt capacity increase.

The five leading States for renewable generation during 2000 were: Washington, California, Oregon, New York, and Idaho. Hydroelectric generation dominated renewable generation in each State. Despite the decline in hydropower output, these States accounted for over two-thirds of total renewable electricity generated in the United States.

Nonelectric use of renewable energy decreased nearly 3 percent between 2000 and 2001. Ninety-six percent of nonelectric renewable energy consumption came from biomass.

Table H1. U.S. Renewable Energy Consumption by Energy Source, 1997-2001 (Quadrillion Btu)

| Energy Source | R1997 | R1998 | R1999 | 2000 | P2001 |
|---------------|-------|-------|-------|------|-------|
|---------------|-------|-------|-------|------|-------|

| | | | | | |
|---|--------------|--------------|--------------|--------------|--------------|
| Renewable Energy | 7.306 | 6.771 | 6.778 | 6.451 | 5.668 |
| Conventional Hydroelectric | 3.881 | 3.518 | 3.472 | 3.077 | 2.376 |
| Geothermal Energy | 0.325 | 0.329 | 0.332 | 0.317 | 0.315 |
| Biomass | 2.996 | 2.823 | 2.860 | 2.934 | 2.854 |
| Solar Energy | 0.070 | 0.070 | 0.069 | 0.066 | 0.064 |
| Wind Energy | 0.034 | 0.031 | 0.046 | 0.057 | 0.059 |
| R=Revised. P=Preliminary. Notes: Totals may not equal sum of components due to independent rounding. Source: Table 1 of this report. | | | | | |

Solar Manufacturing Activities

Shipments of solar thermal collectors surged 34 percent in 2001 to 11.2 million square feet. The gain was entirely due to increases in low-temperature collector shipments, which accounted for 98 percent of total shipments.

Total solar thermal collector shipments were valued at \$32.4 million in 2001, up 18 percent from 2000. The average per-square-foot price dropped from \$3.28 to \$2.90.

Nearly three-fourths of solar thermal collectors were shipped to Florida and California. This is consistent with the high percentage of collectors shipped to residences (90 percent) and that were reported to be used for pool heating (96 percent).

There were dramatic changes in the patterns of photovoltaic (PV) cell and module shipments. Domestic shipments shot up nearly 80 percent in 2001 to 36.3 peak megawatts, while exports declined 10 percent. This reverses a 10-year history of largely modest growth in domestic shipments and strong gains in exports. Overall, total PV cell and module shipments rose 11 percent in 2001 to 98 peak megawatts.

There were also substantial changes in the type of module produced. For example, thin-film silicon, which had never had more than 4 peak megawatts shipped in a single year, had almost 13 peak megawatts of cells and modules shipped in 2001. This was partially at the expense of cast-and-ribbon cells and modules, whose shipments decreased from 33 peak megawatts in 2000 to 30 peak megawatts in 2001.

Module manufacturers purchased substantially less product in 2001, receiving shipments of 14 peak megawatts of cells and modules, compared with 19 peak megawatts in 2000. Despite this trend, total module shipments rose from 55,007 peak kilowatts to 67,033 peak kilowatts.

The total value of PV cell and module shipments rose to \$305 million in 2001, a 13-percent gain over 2000. The average price per peak megawatt held fairly steady for both cells and modules during 2001 at \$2.46 and \$3.42, respectively.

A 34-percent surge in shipments to the residential market enabled it to regain its ranking as the top market for PV cells and modules in 2001. Manufacturers shipped 33 peak megawatts of cells and modules to the residential market in 2001, compared with 25 in 2000. Shipments to the second-largest market sector, industrial, declined slightly from 29 to 28 peak megawatts.

Shipments for electricity generation rose sharply. Shipments for grid-interactive and remote application markets increased 25 and 43 percent, respectively, to combine for a total of 49 peak megawatts in 2001. In contrast, sales to original equipment manufacturers dropped nearly 50 percent from year-ago levels.

The drop in exports was due mainly to decreased shipments to Japan (68 percent) and India (98 percent). Since 1999, exports to Japan have decreased 83 percent. Germany remained the leading importer of U.S. PV cells and modules during 2001 with nearly 35 peak megawatts, or 57 percent of total U.S. exports.

Geothermal Heat Pumps

Shipments of geothermal heat pumps (GHPs) decreased 15 percent between 1999 and 2000 to less than 36,000 units. The total capacity of units shipped fell at a similar rate. Although all models of GHPs suffered shipment declines, ARI 325/330 model shipments dropped the most, from 32,000 units to 26,000 units.

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Table 2. U.S. Sales to Bundled Ultimate Consumers, Associated Revenue, and Average Revenue per Kilowatthour by Class of Ownership and Sector, 2000
(Million Kilowatthours)

| Item | Residential | Commercial | Industrial | Other1/ | All Sectors |
|--|-------------|------------|------------|-----------|-------------|
| Sales (million kilowatthours) | | | | | |
| Investor-Owned..... | 829,023 | 783,824 | 759,778 | 65,357 | 2,437,982 |
| Publicly Owned..... | 178,118 | 160,570 | 149,555 | 28,438 | 516,681 |
| Cooperative..... | 175,667 | 56,200 | 66,763 | 7,162 | 305,792 |
| Federal..... | 330 | 271 | 41,627 | 6,867 | 49,094 |
| U.S. Total..... | 1,183,137 | 1,000,865 | 1,017,723 | 107,824 | 3,309,550 |
| Revenue (thousand dollars) | | | | | |
| Investor-Owned..... | 70,695,394 | 58,681,307 | 35,637,937 | 4,429,832 | 169,444,470 |
| Publicly Owned..... | 13,027,378 | 11,092,288 | 6,980,016 | 1,955,274 | 33,054,956 |
| Cooperative..... | 13,342,062 | 3,914,008 | 2,744,556 | 501,165 | 20,501,791 |
| Federal..... | 21,243 | 16,081 | 1,102,714 | 101,993 | 1,242,031 |
| U.S. Total..... | 97,086,077 | 73,703,684 | 46,465,223 | 6,988,264 | 224,243,248 |
| Average Revenue per Kilowatthour (cents) | | | | | |
| Investor-Owned..... | 8.53 | 7.49 | 4.69 | 6.78 | 6.95 |
| Publicly Owned..... | 7.31 | 6.91 | 4.67 | 6.88 | 6.40 |
| Cooperative..... | 7.60 | 6.96 | 4.11 | 7.00 | 6.70 |
| Federal..... | 6.45 | 5.93 | 2.65 | 1.49 | 2.53 |
| U.S. Average..... | 8.21 | 7.36 | 4.57 | 6.48 | 6.78 |

1/ Includes sales for public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Notes: ùData are final. ùThe average revenue per kilowatthour of electricity sold is calculated by dividing revenue by sales. ùBundled consumers are those provided electric service by a single utility, who did not select an alternate competitive energy supplier in State "retail wheeling" programs.

Source: Energy Information Administration, Form EIA-861, "Annual Electric Utility Report".

Table A1. Total Energy Supply and Disposition Summary
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Supply, Disposition, and Prices | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|--------------|---------------|---------------|---------------|---------------|---------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Production | | | | | | | | |
| Crude Oil and Lease Condensate | 12.44 | 12.29 | 11.82 | 11.91 | 11.11 | 11.56 | 11.29 | -0.4% |
| Natural Gas Plant Liquids | 2.71 | 2.65 | 2.95 | 3.16 | 3.42 | 3.59 | 3.76 | 1.5% |
| Dry Natural Gas | 19.50 | 19.97 | 20.68 | 22.47 | 24.47 | 25.75 | 27.47 | 1.3% |
| Coal | 22.58 | 23.97 | 23.33 | 25.30 | 26.37 | 27.69 | 29.29 | 0.8% |
| Nuclear Power | 7.87 | 8.03 | 8.28 | 8.36 | 8.41 | 8.43 | 8.43 | 0.2% |
| Renewable Energy ¹ | 5.96 | 5.33 | 6.71 | 7.23 | 7.75 | 8.28 | 8.78 | 2.1% |
| Other ² | 1.09 | 0.57 | 0.83 | 0.84 | 0.74 | 0.80 | 0.80 | 1.4% |
| Total | 72.15 | 72.81 | 74.60 | 79.27 | 82.25 | 86.10 | 89.83 | 0.9% |
| Imports | | | | | | | | |
| Crude Oil ³ | 19.69 | 20.26 | 22.34 | 25.13 | 26.93 | 27.61 | 28.47 | 1.4% |
| Petroleum Products ⁴ | 4.73 | 5.04 | 4.25 | 6.41 | 9.59 | 11.97 | 15.17 | 4.7% |
| Natural Gas | 3.86 | 4.10 | 4.54 | 5.52 | 5.94 | 7.22 | 8.30 | 3.0% |
| Other Imports ⁵ | 0.69 | 0.73 | 0.81 | 0.90 | 0.98 | 0.96 | 0.94 | 1.1% |
| Total | 28.98 | 30.13 | 31.94 | 37.96 | 43.43 | 47.76 | 52.88 | 2.4% |
| Exports | | | | | | | | |
| Petroleum ⁶ | 2.15 | 2.01 | 2.05 | 2.24 | 2.26 | 2.34 | 2.41 | 0.8% |
| Natural Gas | 0.25 | 0.37 | 0.59 | 0.62 | 0.55 | 0.41 | 0.37 | 0.1% |
| Coal | 1.53 | 1.27 | 1.00 | 0.91 | 0.74 | 0.74 | 0.67 | -2.6% |
| Total | 3.92 | 3.64 | 3.64 | 3.76 | 3.55 | 3.49 | 3.45 | -0.2% |
| Discrepancy⁷ | -2.18 | 1.99 | -0.27 | 0.21 | 0.23 | 0.25 | 0.19 | N/A |
| Consumption | | | | | | | | |
| Petroleum Products ⁸ | 38.53 | 38.46 | 39.79 | 44.65 | 48.93 | 52.60 | 56.56 | 1.6% |
| Natural Gas | 24.07 | 23.26 | 25.24 | 27.75 | 30.25 | 32.96 | 35.81 | 1.8% |
| Coal | 22.64 | 22.02 | 22.82 | 24.98 | 26.30 | 27.68 | 29.42 | 1.2% |
| Nuclear Power | 7.87 | 8.03 | 8.28 | 8.36 | 8.41 | 8.43 | 8.43 | 0.2% |
| Renewable Energy ¹ | 5.96 | 5.33 | 6.71 | 7.23 | 7.75 | 8.28 | 8.78 | 2.1% |
| Other ⁹ | 0.31 | 0.21 | 0.32 | 0.29 | 0.27 | 0.17 | 0.07 | -4.4% |
| Total | 99.38 | 97.30 | 103.16 | 113.26 | 121.91 | 130.12 | 139.07 | 1.5% |
| Net Imports - Petroleum | 22.28 | 23.29 | 24.54 | 29.31 | 34.26 | 37.24 | 41.23 | 2.4% |
| Prices (2001 dollars per unit) | | | | | | | | |
| World Oil Price (dollars per barrel) ¹⁰ | 28.35 | 22.01 | 23.27 | 23.99 | 24.72 | 25.48 | 26.57 | 0.8% |
| Natural Gas Wellhead Price (dollars per thousand cubic feet) ¹¹ | 3.83 | 4.12 | 2.88 | 3.29 | 3.55 | 3.69 | 3.90 | -0.2% |
| Coal Minemouth Price (dollars per ton) | 17.18 | 17.59 | 16.50 | 14.99 | 14.67 | 14.38 | 14.36 | -0.8% |
| Average Electricity Price (cents per kilowatthour) | 6.9 | 7.3 | 6.5 | 6.4 | 6.5 | 6.6 | 6.7 | -0.3% |

¹Includes grid-connected electricity from conventional hydroelectric; wood and wood waste; landfill gas; municipal solid waste; other biomass; wind; photovoltaic and solar thermal sources; non-electric energy from renewable sources, such as active and passive solar systems, and wood; and both the ethanol and gasoline components of E85, but not the ethanol components of blends less than 85 percent. Excludes electricity imports using renewable sources and nonmarketed renewable energy. See Table A18 for selected nonmarketed residential and commercial renewable energy.

²Includes liquid hydrogen, methanol, supplemental natural gas, and some domestic inputs to refineries.

³Includes imports of crude oil for the Strategic Petroleum Reserve.

⁴Includes imports of finished petroleum products, imports of unfinished oils, alcohols, ethers, and blending components.

⁵Includes coal, coal coke (net), and electricity (net).

⁶Includes crude oil and petroleum products.

⁷Balancing item. Includes unaccounted for supply, losses, gains, net storage withdrawals, heat loss when natural gas is converted to liquid fuel, and heat loss when coal is converted to liquid fuel.

⁸Includes natural gas plant liquids, crude oil consumed as a fuel, and nonpetroleum-based liquids for blending, such as ethanol.

⁹Includes net electricity imports, methanol, and liquid hydrogen.

¹⁰Average refiner acquisition cost for imported crude oil.

¹¹Represents lower 48 onshore and offshore supplies.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for #Y1# and #Y#1 are model results and may differ slightly from official EIA data reports.

Sources: 2000 natural gas values: Energy Information Administration (EIA), *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 coal minemouth prices: EIA, *Coal Industry Annual 2000*, DOE/EIA-0584(2000) (Washington, DC, January 2002). Other 2000 values: EIA, *Annual Energy Review 2001*, DOE/EIA-0384(2001) (Washington, DC, October 2002). 2001 natural gas values: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). 2000 petroleum values: EIA, *Petroleum Supply Annual 2001*, DOE/EIA-0340(2001/1) (Washington, DC, June 2002). Other 2001 values: EIA, *Annual Energy Review 2001*, DOE/EIA-0384(2001) (Washington, DC, October 2002) and EIA, *Quarterly Coal Report, October-December 2001*, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002). **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|-------|-------|-------|-------|-------|-------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Energy Consumption | | | | | | | | |
| Residential | | | | | | | | |
| Distillate Fuel | 0.86 | 0.91 | 0.94 | 0.91 | 0.87 | 0.83 | 0.81 | -0.5% |
| Kerosene | 0.09 | 0.10 | 0.08 | 0.08 | 0.07 | 0.06 | 0.06 | -2.2% |
| Liquefied Petroleum Gas | 0.54 | 0.50 | 0.48 | 0.47 | 0.47 | 0.47 | 0.48 | -0.2% |
| Petroleum Subtotal | 1.50 | 1.50 | 1.50 | 1.46 | 1.41 | 1.37 | 1.34 | -0.5% |
| Natural Gas | 5.12 | 4.94 | 5.45 | 5.66 | 5.85 | 6.12 | 6.40 | 1.1% |
| Coal | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.4% |
| Renewable Energy ¹ | 0.41 | 0.39 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.2% |
| Electricity | 4.07 | 4.10 | 4.53 | 4.93 | 5.25 | 5.59 | 5.94 | 1.6% |
| Delivered Energy | 11.11 | 10.94 | 11.90 | 12.47 | 12.93 | 13.51 | 14.10 | 1.1% |
| Electricity Related Losses | 9.26 | 9.15 | 9.74 | 10.28 | 10.54 | 10.96 | 11.33 | 0.9% |
| Total | 20.37 | 20.09 | 21.64 | 22.75 | 23.47 | 24.47 | 25.43 | 1.0% |
| Commercial | | | | | | | | |
| Distillate Fuel | 0.47 | 0.46 | 0.46 | 0.48 | 0.49 | 0.49 | 0.49 | 0.3% |
| Residual Fuel | 0.09 | 0.09 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | -2.5% |
| Kerosene | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -0.7% |
| Liquefied Petroleum Gas | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.4% |
| Motor Gasoline ² | 0.05 | 0.05 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | -1.1% |
| Petroleum Subtotal | 0.73 | 0.71 | 0.65 | 0.67 | 0.68 | 0.69 | 0.70 | -0.1% |
| Natural Gas | 3.30 | 3.33 | 3.62 | 3.80 | 4.00 | 4.29 | 4.56 | 1.3% |
| Coal | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.11 | 0.7% |
| Renewable Energy ³ | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Electricity | 3.96 | 4.09 | 4.49 | 5.02 | 5.59 | 6.20 | 6.83 | 2.2% |
| Delivered Energy | 8.19 | 8.32 | 8.95 | 9.69 | 10.49 | 11.38 | 12.30 | 1.6% |
| Electricity Related Losses | 9.01 | 9.12 | 9.64 | 10.46 | 11.23 | 12.14 | 13.03 | 1.5% |
| Total | 17.20 | 17.44 | 18.59 | 20.15 | 21.72 | 23.52 | 25.33 | 1.6% |
| Industrial ⁴ | | | | | | | | |
| Distillate Fuel | 1.12 | 1.13 | 1.11 | 1.21 | 1.29 | 1.36 | 1.45 | 1.0% |
| Liquefied Petroleum Gas | 2.30 | 2.10 | 2.30 | 2.55 | 2.87 | 3.10 | 3.33 | 1.9% |
| Petrochemical Feedstock | 1.32 | 1.14 | 1.27 | 1.43 | 1.58 | 1.69 | 1.82 | 2.0% |
| Residual Fuel | 0.24 | 0.23 | 0.17 | 0.19 | 0.19 | 0.20 | 0.20 | -0.4% |
| Motor Gasoline ² | 0.15 | 0.15 | 0.15 | 0.17 | 0.18 | 0.18 | 0.19 | 1.0% |
| Other Petroleum ⁵ | 3.96 | 4.03 | 4.15 | 4.31 | 4.35 | 4.49 | 4.60 | 0.5% |
| Petroleum Subtotal | 9.09 | 8.79 | 9.14 | 9.86 | 10.46 | 11.02 | 11.59 | 1.2% |
| Natural Gas | 8.48 | 7.74 | 8.35 | 9.13 | 9.79 | 10.38 | 11.22 | 1.6% |
| Lease and Plant Fuel ⁶ | 1.16 | 1.20 | 1.32 | 1.39 | 1.51 | 1.59 | 1.74 | 1.5% |
| Natural Gas Subtotal | 9.65 | 8.94 | 9.67 | 10.52 | 11.30 | 11.97 | 12.96 | 1.6% |
| Metallurgical Coal | 0.79 | 0.72 | 0.68 | 0.66 | 0.60 | 0.55 | 0.50 | -1.5% |
| Steam Coal | 1.46 | 1.42 | 1.39 | 1.44 | 1.48 | 1.50 | 1.53 | 0.3% |
| Net Coal Coke Imports | 0.07 | 0.03 | 0.05 | 0.11 | 0.15 | 0.16 | 0.18 | 8.6% |
| Coal Subtotal | 2.32 | 2.16 | 2.13 | 2.22 | 2.23 | 2.21 | 2.21 | 0.1% |
| Renewable Energy ⁷ | 1.86 | 1.82 | 1.95 | 2.22 | 2.51 | 2.77 | 3.05 | 2.2% |
| Electricity | 3.63 | 3.39 | 3.47 | 3.95 | 4.34 | 4.63 | 5.00 | 1.6% |
| Delivered Energy | 26.55 | 25.10 | 26.36 | 28.76 | 30.84 | 32.61 | 34.81 | 1.4% |
| Electricity Related Losses | 8.27 | 7.57 | 7.45 | 8.23 | 8.70 | 9.08 | 9.54 | 1.0% |
| Total | 34.82 | 32.67 | 33.82 | 36.99 | 39.54 | 41.69 | 44.35 | 1.3% |

Table A2. Energy Consumption by Sector and Source (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|-------|--------|--------|--------|--------|--------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Transportation | | | | | | | | |
| Distillate Fuel ⁸ | 5.34 | 5.44 | 5.98 | 7.08 | 7.98 | 8.70 | 9.58 | 2.4% |
| Jet Fuel ⁹ | 3.58 | 3.43 | 3.41 | 3.93 | 4.50 | 5.09 | 5.66 | 2.1% |
| Motor Gasoline ² | 16.05 | 16.26 | 17.66 | 20.09 | 22.25 | 24.04 | 25.90 | 2.0% |
| Residual Fuel | 0.89 | 0.84 | 0.82 | 0.83 | 0.84 | 0.85 | 0.87 | 0.2% |
| Liquefied Petroleum Gas | 0.01 | 0.02 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 7.0% |
| Other Petroleum ¹⁰ | 0.22 | 0.24 | 0.24 | 0.26 | 0.28 | 0.30 | 0.32 | 1.2% |
| Petroleum Subtotal | 26.09 | 26.22 | 28.15 | 32.24 | 35.92 | 39.06 | 42.41 | 2.0% |
| Pipeline Fuel Natural Gas | 0.66 | 0.63 | 0.66 | 0.78 | 0.85 | 0.91 | 1.02 | 2.0% |
| Compressed Natural Gas | 0.01 | 0.01 | 0.03 | 0.06 | 0.09 | 0.10 | 0.11 | 10.4% |
| Renewable Energy (E85) ¹¹ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 8.9% |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Electricity | 0.07 | 0.07 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 2.8% |
| Delivered Energy | 26.83 | 26.94 | 28.93 | 33.17 | 36.96 | 40.20 | 43.70 | 2.0% |
| Electricity Related Losses | 0.16 | 0.17 | 0.18 | 0.19 | 0.21 | 0.24 | 0.27 | 2.1% |
| Total | 27.00 | 27.10 | 29.11 | 33.36 | 37.18 | 40.44 | 43.97 | 2.0% |
| Delivered Energy Consumption for All Sectors | | | | | | | | |
| Distillate Fuel | 7.79 | 7.94 | 8.49 | 9.69 | 10.62 | 11.38 | 12.32 | 1.8% |
| Kerosene | 0.14 | 0.15 | 0.12 | 0.12 | 0.12 | 0.11 | 0.10 | -1.5% |
| Jet Fuel ⁹ | 3.58 | 3.43 | 3.41 | 3.93 | 4.50 | 5.09 | 5.66 | 2.1% |
| Liquefied Petroleum Gas | 2.95 | 2.70 | 2.90 | 3.16 | 3.50 | 3.74 | 3.99 | 1.6% |
| Motor Gasoline ² | 16.25 | 16.46 | 17.85 | 20.29 | 22.46 | 24.26 | 26.13 | 1.9% |
| Petrochemical Feedstock | 1.32 | 1.14 | 1.27 | 1.43 | 1.58 | 1.69 | 1.82 | 2.0% |
| Residual Fuel | 1.22 | 1.15 | 1.03 | 1.06 | 1.08 | 1.10 | 1.12 | -0.1% |
| Other Petroleum ¹² | 4.16 | 4.24 | 4.37 | 4.54 | 4.61 | 4.76 | 4.89 | 0.6% |
| Petroleum Subtotal | 37.41 | 37.21 | 39.45 | 44.23 | 48.46 | 52.14 | 56.03 | 1.7% |
| Natural Gas | 16.91 | 16.02 | 17.46 | 18.65 | 19.73 | 20.89 | 22.29 | 1.4% |
| Lease and Plant Fuel ⁶ | 1.16 | 1.20 | 1.32 | 1.39 | 1.51 | 1.59 | 1.74 | 1.5% |
| Pipeline Natural Gas | 0.66 | 0.63 | 0.66 | 0.78 | 0.85 | 0.91 | 1.02 | 2.0% |
| Natural Gas Subtotal | 18.74 | 17.86 | 19.44 | 20.82 | 22.09 | 23.39 | 25.05 | 1.4% |
| Metallurgical Coal | 0.79 | 0.72 | 0.68 | 0.66 | 0.60 | 0.55 | 0.50 | -1.5% |
| Steam Coal | 1.57 | 1.53 | 1.50 | 1.55 | 1.60 | 1.62 | 1.65 | 0.3% |
| Net Coal Coke Imports | 0.07 | 0.03 | 0.05 | 0.11 | 0.15 | 0.16 | 0.18 | 8.6% |
| Coal Subtotal | 2.42 | 2.27 | 2.23 | 2.33 | 2.35 | 2.33 | 2.34 | 0.1% |
| Renewable Energy ¹³ | 2.38 | 2.31 | 2.47 | 2.74 | 3.03 | 3.29 | 3.57 | 1.8% |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Electricity | 11.73 | 11.65 | 12.57 | 13.99 | 15.29 | 16.55 | 17.92 | 1.8% |
| Delivered Energy | 72.68 | 71.29 | 76.16 | 84.10 | 91.22 | 97.70 | 104.91 | 1.6% |
| Electricity Related Losses | 26.71 | 26.01 | 27.01 | 29.16 | 30.69 | 32.42 | 34.17 | 1.1% |
| Total | 99.38 | 97.30 | 103.16 | 113.26 | 121.91 | 130.12 | 139.07 | 1.5% |
| Electric Power ¹⁴ | | | | | | | | |
| Distillate Fuel | 0.11 | 0.17 | 0.08 | 0.11 | 0.11 | 0.10 | 0.17 | 0.0% |
| Residual Fuel | 1.01 | 1.08 | 0.26 | 0.31 | 0.36 | 0.36 | 0.36 | -4.5% |
| Petroleum Subtotal | 1.12 | 1.25 | 0.34 | 0.42 | 0.47 | 0.46 | 0.52 | -3.6% |
| Natural Gas | 5.33 | 5.40 | 5.80 | 6.93 | 8.16 | 9.57 | 10.76 | 2.9% |
| Steam Coal | 20.22 | 19.75 | 20.59 | 22.65 | 23.95 | 25.35 | 27.09 | 1.3% |
| Nuclear Power | 7.87 | 8.03 | 8.28 | 8.36 | 8.41 | 8.43 | 8.43 | 0.2% |
| Renewable Energy ¹⁵ | 3.58 | 3.02 | 4.25 | 4.50 | 4.72 | 5.00 | 5.21 | 2.3% |
| Electricity Imports | 0.31 | 0.21 | 0.32 | 0.29 | 0.27 | 0.17 | 0.07 | -4.5% |
| Total | 38.44 | 37.66 | 39.58 | 43.15 | 45.98 | 48.97 | 52.09 | 1.4% |

Table A2. Energy Consumption by Sector and Source (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|--------|--------|--------|--------|--------|--------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Total Energy Consumption | | | | | | | | |
| Distillate Fuel | 7.90 | 8.11 | 8.58 | 9.80 | 10.73 | 11.48 | 12.49 | 1.8% |
| Kerosene | 0.14 | 0.15 | 0.12 | 0.12 | 0.12 | 0.11 | 0.10 | -1.5% |
| Jet Fuel ⁹ | 3.58 | 3.43 | 3.41 | 3.93 | 4.50 | 5.09 | 5.66 | 2.1% |
| Liquefied Petroleum Gas | 2.95 | 2.70 | 2.90 | 3.16 | 3.50 | 3.74 | 3.99 | 1.6% |
| Motor Gasoline ² | 16.25 | 16.46 | 17.85 | 20.29 | 22.46 | 24.26 | 26.13 | 1.9% |
| Petrochemical Feedstock | 1.32 | 1.14 | 1.27 | 1.43 | 1.58 | 1.69 | 1.82 | 2.0% |
| Residual Fuel | 2.23 | 2.23 | 1.29 | 1.37 | 1.44 | 1.46 | 1.47 | -1.7% |
| Other Petroleum ¹² | 4.16 | 4.24 | 4.37 | 4.54 | 4.61 | 4.76 | 4.89 | 0.6% |
| Petroleum Subtotal | 38.53 | 38.46 | 39.79 | 44.65 | 48.93 | 52.60 | 56.56 | 1.6% |
| Natural Gas | 22.24 | 21.42 | 23.26 | 25.58 | 27.90 | 30.46 | 33.05 | 1.8% |
| Lease and Plant Fuel ⁶ | 1.16 | 1.20 | 1.32 | 1.39 | 1.51 | 1.59 | 1.74 | 1.5% |
| Pipeline Natural Gas | 0.66 | 0.63 | 0.66 | 0.78 | 0.85 | 0.91 | 1.02 | 2.0% |
| Natural Gas Subtotal | 24.07 | 23.26 | 25.24 | 27.75 | 30.25 | 32.96 | 35.81 | 1.8% |
| Metallurgical Coal | 0.79 | 0.72 | 0.68 | 0.66 | 0.60 | 0.55 | 0.50 | -1.5% |
| Steam Coal | 21.78 | 21.28 | 22.08 | 24.21 | 25.55 | 26.97 | 28.74 | 1.3% |
| Net Coal Coke Imports | 0.07 | 0.03 | 0.05 | 0.11 | 0.15 | 0.16 | 0.18 | 8.6% |
| Coal Subtotal | 22.64 | 22.02 | 22.82 | 24.98 | 26.30 | 27.68 | 29.42 | 1.2% |
| Nuclear Power | 7.87 | 8.03 | 8.28 | 8.36 | 8.41 | 8.43 | 8.43 | 0.2% |
| Renewable Energy ¹⁶ | 5.96 | 5.33 | 6.71 | 7.23 | 7.75 | 8.28 | 8.78 | 2.1% |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Electricity Imports | 0.31 | 0.21 | 0.32 | 0.29 | 0.27 | 0.17 | 0.07 | -4.5% |
| Total | 99.38 | 97.30 | 103.16 | 113.26 | 121.91 | 130.12 | 139.07 | 1.5% |
| Energy Use and Related Statistics | | | | | | | | |
| Delivered Energy Use | 72.68 | 71.29 | 76.16 | 84.10 | 91.22 | 97.70 | 104.91 | 1.6% |
| Total Energy Use | 99.38 | 97.30 | 103.16 | 113.26 | 121.91 | 130.12 | 139.07 | 1.5% |
| Population (millions) | 275.69 | 278.18 | 288.09 | 300.24 | 312.66 | 325.32 | 338.24 | 0.8% |
| Gross Domestic Product (billion 1996 dollars) ... | 9191 | 9215 | 10361 | 12258 | 14288 | 16450 | 18917 | 3.0% |
| Carbon Dioxide Emissions (million metric tons carbon equivalent) | 1578.2 | 1558.6 | 1623.7 | 1800.5 | 1944.2 | 2082.5 | 2236.9 | 1.5% |

¹Includes wood used for residential heating. See Table A18 estimates of nonmarketed renewable energy consumption for geothermal heat pumps, solar thermal hot water heating, and solar photovoltaic electricity generation.

²Includes ethanol (blends of 10 percent or less) and ethers blended into gasoline.

³Includes commercial sector consumption of wood and wood waste, landfill gas, municipal solid waste, and other biomass for combined heat and power. See Table A18 for estimates of nonmarketed renewable energy consumption for solar thermal hot water heating and solar photovoltaic electricity generation.

⁴Fuel consumption includes consumption for combined heat and power, which produces electricity, both for sale to the grid and for own use, and other useful thermal energy.

⁵Includes petroleum coke, asphalt, road oil, lubricants, still gas, and miscellaneous petroleum products.

⁶Represents natural gas used in the field gathering and processing plant machinery.

⁷Includes consumption of energy from hydroelectric, wood and wood waste, municipal solid waste, and other biomass.

⁸Diesel fuel containing 500 parts per million (ppm) or 15 ppm sulfur.

⁹Includes only kerosene type.

¹⁰Includes aviation gasoline and lubricants.

¹¹E85 is 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable).

¹²Includes unfinished oils, natural gasoline, motor gasoline blending compounds, aviation gasoline, lubricants, still gas, asphalt, road oil, petroleum coke, and miscellaneous petroleum products.

¹³Includes electricity generated for sale to the grid and for own use from renewable sources, and non-electric energy from renewable sources. Excludes nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters.

¹⁴Includes consumption of energy by electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

¹⁵Includes conventional hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, petroleum coke, wind, photovoltaic and solar thermal sources. Excludes net electricity imports.

¹⁶Includes hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, wind, photovoltaic and solar thermal sources. Includes ethanol components of E85; excludes ethanol blends (10 percent or less) in motor gasoline. Excludes net electricity imports and nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Consumption values of 0.00 are values that round to 0.00, because they are less than 0.005.

Sources: 2000 natural gas lease, plant, and pipeline fuel values: Energy Information Administration (EIA), *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 and 2001 electric utility fuel consumption: EIA, *Electric Power Annual 2000, Volume 1*, DOE/EIA-0348(2000)/1 (Washington, DC, August 2001). 2000 and 2001 nonutility consumption estimates: EIA, Form EIA-860: "Annual Electric Generator Report" (preliminary). Other 2000 values: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. Other 2001 values: EIA, *Short-Term Energy Outlook, September 2002*, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A3. Energy Prices by Sector and Source
(2001 Dollars per Million Btu, Unless Otherwise Noted)

| Sector and Source | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------------|--------------|--------------|--------------|--------------|--------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Residential | 14.58 | 15.80 | 13.74 | 13.84 | 14.25 | 14.53 | 14.82 | -0.3% |
| Primary Energy ¹ | 8.50 | 9.73 | 7.82 | 7.96 | 8.18 | 8.27 | 8.50 | -0.6% |
| Petroleum Products ² | 11.12 | 10.85 | 9.74 | 9.90 | 10.32 | 10.70 | 11.01 | 0.1% |
| Distillate Fuel | 9.67 | 8.99 | 7.88 | 7.96 | 8.36 | 8.72 | 8.93 | -0.0% |
| Liquefied Petroleum Gas | 13.85 | 14.84 | 13.70 | 14.01 | 14.31 | 14.52 | 14.84 | -0.0% |
| Natural Gas | 7.75 | 9.41 | 7.31 | 7.48 | 7.68 | 7.74 | 7.99 | -0.7% |
| Electricity | 24.49 | 25.35 | 22.83 | 22.34 | 22.66 | 22.93 | 23.07 | -0.4% |
| Commercial | 14.14 | 15.47 | 13.16 | 13.35 | 13.96 | 14.55 | 15.00 | -0.1% |
| Primary Energy ¹ | 6.74 | 7.81 | 6.00 | 6.34 | 6.61 | 6.74 | 7.01 | -0.4% |
| Petroleum Products ² | 7.82 | 7.27 | 6.67 | 6.78 | 7.15 | 7.50 | 7.78 | 0.3% |
| Distillate Fuel | 7.27 | 6.40 | 5.57 | 5.66 | 6.09 | 6.49 | 6.75 | 0.2% |
| Residual Fuel | 3.53 | 3.46 | 3.91 | 4.01 | 4.12 | 4.23 | 4.38 | 1.0% |
| Natural Gas | 6.64 | 8.09 | 5.99 | 6.38 | 6.64 | 6.75 | 7.02 | -0.6% |
| Electricity | 21.86 | 23.22 | 20.12 | 19.73 | 20.25 | 20.96 | 21.26 | -0.4% |
| Industrial³ | 7.08 | 7.10 | 5.97 | 6.26 | 6.63 | 6.88 | 7.15 | 0.0% |
| Primary Energy | 5.91 | 5.83 | 4.77 | 5.07 | 5.44 | 5.62 | 5.88 | 0.0% |
| Petroleum Products ² | 8.21 | 7.72 | 6.66 | 6.94 | 7.42 | 7.63 | 7.94 | 0.1% |
| Distillate Fuel | 7.38 | 6.55 | 5.62 | 5.73 | 6.28 | 6.80 | 7.25 | 0.4% |
| Liquefied Petroleum Gas | 12.03 | 12.34 | 9.33 | 9.59 | 9.91 | 10.12 | 10.40 | -0.7% |
| Residual Fuel | 3.34 | 3.28 | 3.60 | 3.71 | 3.82 | 3.94 | 4.10 | 0.9% |
| Natural Gas ⁴ | 4.62 | 4.87 | 3.52 | 3.89 | 4.18 | 4.32 | 4.57 | -0.3% |
| Metallurgical Coal | 1.66 | 1.69 | 1.57 | 1.51 | 1.46 | 1.41 | 1.35 | -0.9% |
| Steam Coal | 1.43 | 1.46 | 1.44 | 1.38 | 1.35 | 1.31 | 1.29 | -0.5% |
| Electricity | 13.46 | 14.10 | 12.75 | 12.64 | 12.78 | 13.25 | 13.46 | -0.2% |
| Transportation | 11.11 | 10.28 | 9.93 | 10.28 | 10.19 | 10.39 | 10.81 | 0.2% |
| Primary Energy | 11.08 | 10.25 | 9.90 | 10.25 | 10.16 | 10.37 | 10.79 | 0.2% |
| Petroleum Products ² | 11.08 | 10.25 | 9.91 | 10.26 | 10.17 | 10.37 | 10.80 | 0.2% |
| Distillate Fuel ⁵ | 10.99 | 10.05 | 9.36 | 10.22 | 10.09 | 10.16 | 10.52 | 0.2% |
| Jet Fuel ⁶ | 7.26 | 6.20 | 5.61 | 5.62 | 6.03 | 6.33 | 6.72 | 0.3% |
| Motor Gasoline ⁷ | 12.42 | 11.57 | 11.30 | 11.53 | 11.34 | 11.60 | 12.08 | 0.2% |
| Residual Fuel | 4.48 | 3.90 | 3.45 | 3.55 | 3.66 | 3.77 | 3.94 | 0.0% |
| Liquefied Petroleum Gas ⁸ | 16.45 | 16.93 | 14.89 | 15.21 | 15.46 | 15.50 | 15.63 | -0.3% |
| Natural Gas ⁹ | 6.76 | 7.65 | 6.12 | 7.08 | 7.57 | 7.75 | 8.07 | 0.2% |
| Ethanol (E85) ¹⁰ | 17.72 | 17.72 | 19.50 | 21.32 | 22.43 | 22.87 | 23.44 | 1.2% |
| Electricity | 22.07 | 21.84 | 19.72 | 18.99 | 18.75 | 18.37 | 17.82 | -0.8% |
| Average End-Use Energy | 10.63 | 10.74 | 9.67 | 9.92 | 10.13 | 10.42 | 10.78 | 0.0% |
| Primary Energy | 8.65 | 8.52 | 7.67 | 8.05 | 8.22 | 8.43 | 8.80 | 0.1% |
| Electricity | 20.17 | 21.30 | 19.06 | 18.65 | 18.95 | 19.45 | 19.66 | -0.3% |
| Electric Power¹¹ | | | | | | | | |
| Fossil Fuel Average | 2.01 | 2.14 | 1.71 | 1.82 | 1.94 | 2.02 | 2.14 | 0.0% |
| Petroleum Products | 4.62 | 4.73 | 4.13 | 4.27 | 4.43 | 4.60 | 4.98 | 0.2% |
| Distillate Fuel | 6.73 | 6.20 | 5.01 | 5.13 | 5.60 | 6.06 | 6.18 | -0.0% |
| Residual Fuel | 4.39 | 4.50 | 3.85 | 3.97 | 4.07 | 4.21 | 4.40 | -0.1% |
| Natural Gas | 4.42 | 4.78 | 3.27 | 3.79 | 4.14 | 4.30 | 4.60 | -0.2% |
| Steam Coal | 1.23 | 1.25 | 1.22 | 1.17 | 1.15 | 1.12 | 1.10 | -0.5% |

Table A3. Energy Prices by Sector and Source (Continued)
(2001 Dollars per Million Btu, Unless Otherwise Noted)

| Sector and Source | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|--------|--------|--------|--------|--------|---------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Average Price to All Users ¹² | | | | | | | | |
| Petroleum Products ² | 10.23 | 9.54 | 9.13 | 9.48 | 9.56 | 9.78 | 10.18 | 0.3% |
| Distillate Fuel | 10.05 | 9.16 | 8.47 | 9.17 | 9.26 | 9.46 | 9.83 | 0.3% |
| Jet Fuel | 7.26 | 6.20 | 5.61 | 5.62 | 6.03 | 6.33 | 6.72 | 0.3% |
| Liquefied Petroleum Gas | 12.38 | 12.85 | 10.20 | 10.42 | 10.67 | 10.85 | 11.11 | -0.6% |
| Motor Gasoline ⁷ | 12.42 | 11.57 | 11.29 | 11.53 | 11.34 | 11.60 | 12.08 | 0.2% |
| Residual Fuel | 4.28 | 4.11 | 3.57 | 3.68 | 3.80 | 3.92 | 4.08 | -0.0% |
| Natural Gas | 5.59 | 6.40 | 4.74 | 5.03 | 5.26 | 5.35 | 5.60 | -0.6% |
| Coal | 1.24 | 1.26 | 1.24 | 1.18 | 1.16 | 1.13 | 1.12 | -0.5% |
| Ethanol (E85) ¹⁰ | 17.72 | 17.72 | 19.50 | 21.32 | 22.43 | 22.87 | 23.44 | 1.2% |
| Electricity | 20.17 | 21.30 | 19.06 | 18.65 | 18.95 | 19.45 | 19.66 | -0.3% |
| Non-Renewable Energy Expenditures by Sector (billion \$\$\$\$ dollars) | | | | | | | | |
| Residential | 155.98 | 166.69 | 157.91 | 166.98 | 178.50 | 190.35 | 202.99 | 0.8% |
| Commercial | 114.28 | 127.06 | 116.43 | 127.99 | 144.89 | 164.11 | 182.88 | 1.5% |
| Industrial | 143.44 | 135.20 | 118.73 | 135.28 | 153.72 | 169.19 | 188.45 | 1.4% |
| Transportation | 290.84 | 270.40 | 280.74 | 332.93 | 367.91 | 408.34 | 461.42 | 2.3% |
| Total Non-Renewable Expenditures | 704.53 | 699.35 | 673.81 | 763.18 | 845.02 | 932.00 | 1035.75 | 1.6% |
| Transportation Renewable Expenditures | 0.01 | 0.01 | 0.03 | 0.05 | 0.07 | 0.10 | 0.13 | 10.2% |
| Total Expenditures | 704.54 | 699.36 | 673.84 | 763.22 | 845.09 | 932.10 | 1035.88 | 1.7% |

¹Weighted average price includes fuels below as well as coal.

²This quantity is the weighted average for all petroleum products, not just those listed below.

³Includes combined heat and power.

⁴Excludes use for lease and plant fuel.

⁵Diesel fuel containing 500 parts per million (ppm) or 15 ppm sulfur. Price includes Federal and State taxes while excluding county and local taxes.

⁶Kerosene-type jet fuel. Price includes Federal and State taxes while excluding county and local taxes.

⁷Sales weighted-average price for all grades. Includes Federal, State and local taxes.

⁸Includes Federal and State taxes while excluding county and local taxes.

⁹Compressed natural gas used as a vehicle fuel. Price includes estimated motor vehicle fuel taxes.

¹⁰E85 is 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable).

¹¹Includes combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.

¹²Weighted averages of end-use fuel prices are derived from the prices shown in each sector and the corresponding sectoral consumption.

Btu = British thermal unit.

Note: Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 prices for gasoline, distillate, and jet fuel are based on prices in the Energy Information Administration (EIA), *Petroleum Marketing Annual 2000*, http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_marketing_annual/pma_historical.html (August 2001). 2001 prices for gasoline, distillate, and jet fuel are based on prices in the Petroleum Marketing Annual 2001, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_marketing_annual/current/pdf/pmaall.pdf. (September 2002). 2000 and 2001 prices for all other petroleum products are derived from the EIA, *State Energy Price and Expenditure Report 1997*, DOE/EIA-0376(97) (Washington, DC, July 2000). 2000 residential, commercial, and transportation natural gas delivered prices: EIA, *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 electric generators natural gas delivered prices, Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." 2000 and 2001 industrial gas delivered prices are based on EIA, *Manufacturing Energy Consumption Survey 1998*. 2001 residential and commercial natural gas delivered prices: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). 2000 and 2001 coal prices based on EIA, *Quarterly Coal Report, October-December 2001*, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002) and EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. 2000 residential electricity prices derived from EIA, *Short-Term Energy Outlook, September 2002*, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. 2000 and 2001 electricity prices for commercial, industrial, and transportation: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A4. Residential Sector Key Indicators and Consumption
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|--------|--------|--------|--------|--------|--------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Key Indicators | | | | | | | | |
| Households (millions) | | | | | | | | |
| Single-Family | 76.57 | 77.50 | 81.18 | 85.79 | 90.14 | 93.77 | 97.27 | 1.0% |
| Multifamily | 22.01 | 22.19 | 22.86 | 24.12 | 25.61 | 27.05 | 28.78 | 1.1% |
| Mobile Homes | 6.61 | 6.57 | 6.73 | 7.33 | 7.76 | 8.01 | 8.23 | 0.9% |
| Total | 105.19 | 106.27 | 110.78 | 117.24 | 123.51 | 128.84 | 134.28 | 1.0% |
| | | | | | | | | |
| Average House Square Footage | 1678 | 1685 | 1710 | 1737 | 1760 | 1780 | 1797 | 0.3% |
| Energy Intensity | | | | | | | | |
| (million Btu per household) | | | | | | | | |
| Delivered Energy Consumption | 105.6 | 102.9 | 107.5 | 106.4 | 104.7 | 104.8 | 105.0 | 0.1% |
| Total Energy Consumption | 193.7 | 189.0 | 195.4 | 194.1 | 190.1 | 189.9 | 189.4 | 0.0% |
| (thousand Btu per square foot) | | | | | | | | |
| Delivered Energy Consumption | 62.9 | 61.1 | 62.8 | 61.3 | 59.5 | 58.9 | 58.4 | -0.2% |
| Total Energy Consumption | 115.4 | 112.2 | 114.2 | 111.7 | 108.0 | 106.7 | 105.4 | -0.3% |
| Delivered Energy Consumption by Fuel | | | | | | | | |
| Electricity | | | | | | | | |
| Space Heating | 0.41 | 0.39 | 0.43 | 0.46 | 0.49 | 0.51 | 0.52 | 1.2% |
| Space Cooling | 0.52 | 0.52 | 0.57 | 0.60 | 0.62 | 0.65 | 0.68 | 1.1% |
| Water Heating | 0.46 | 0.45 | 0.47 | 0.47 | 0.45 | 0.44 | 0.44 | -0.1% |
| Refrigeration | 0.43 | 0.42 | 0.38 | 0.34 | 0.32 | 0.32 | 0.33 | -1.0% |
| Cooking | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 | 1.1% |
| Clothes Dryers | 0.22 | 0.22 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 1.0% |
| Freezers | 0.11 | 0.11 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | -0.8% |
| Lighting | 0.74 | 0.74 | 0.83 | 0.93 | 0.98 | 1.03 | 1.07 | 1.5% |
| Clothes Washers ¹ | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | -0.2% |
| Dishwashers ¹ | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 1.2% |
| Color Televisions | 0.13 | 0.13 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 2.9% |
| Personal Computers | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 2.7% |
| Furnace Fans | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 1.6% |
| Other Uses ² | 0.78 | 0.83 | 1.04 | 1.26 | 1.46 | 1.66 | 1.87 | 3.5% |
| Delivered Energy | 4.07 | 4.10 | 4.53 | 4.93 | 5.25 | 5.59 | 5.94 | 1.6% |
| Natural Gas | | | | | | | | |
| Space Heating | 3.32 | 3.13 | 3.52 | 3.73 | 3.90 | 4.12 | 4.32 | 1.4% |
| Space Cooling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.2% |
| Water Heating | 1.48 | 1.48 | 1.58 | 1.56 | 1.55 | 1.59 | 1.64 | 0.4% |
| Cooking | 0.20 | 0.20 | 0.21 | 0.22 | 0.24 | 0.25 | 0.25 | 0.9% |
| Clothes Dryers | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 1.9% |
| Other Uses ³ | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.08 | 1.0% |
| Delivered Energy | 5.12 | 4.94 | 5.45 | 5.66 | 5.85 | 6.12 | 6.40 | 1.1% |
| Distillate | | | | | | | | |
| Space Heating | 0.71 | 0.74 | 0.77 | 0.76 | 0.73 | 0.71 | 0.69 | -0.3% |
| Water Heating | 0.14 | 0.16 | 0.16 | 0.14 | 0.13 | 0.12 | 0.11 | -1.4% |
| Other Uses ⁴ | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | -0.5% |
| Delivered Energy | 0.86 | 0.91 | 0.94 | 0.91 | 0.87 | 0.83 | 0.81 | -0.5% |
| Liquefied Petroleum Gas | | | | | | | | |
| Space Heating | 0.30 | 0.26 | 0.26 | 0.25 | 0.25 | 0.25 | 0.25 | -0.1% |
| Water Heating | 0.10 | 0.09 | 0.08 | 0.07 | 0.07 | 0.06 | 0.06 | -1.5% |
| Cooking | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -0.6% |
| Other Uses ³ | 0.13 | 0.12 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 | 0.6% |
| Delivered Energy | 0.54 | 0.50 | 0.48 | 0.47 | 0.47 | 0.47 | 0.48 | -0.2% |
| | | | | | | | | |
| Marketed Renewables (wood) ⁵ | 0.41 | 0.39 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.2% |
| Other Fuels ⁶ | 0.10 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | 0.07 | -1.8% |

Table A4. Residential Sector Key Indicators and Consumption (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|-------|-------|-------|-------|-------|-------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Delivered Energy Consumption by End-Use | | | | | | | | |
| Space Heating | 5.24 | 5.01 | 5.49 | 5.70 | 5.86 | 6.06 | 6.26 | 0.9% |
| Space Cooling | 0.52 | 0.52 | 0.57 | 0.60 | 0.62 | 0.65 | 0.68 | 1.1% |
| Water Heating | 2.18 | 2.19 | 2.29 | 2.24 | 2.20 | 2.21 | 2.26 | 0.1% |
| Refrigeration | 0.43 | 0.42 | 0.38 | 0.34 | 0.32 | 0.32 | 0.33 | -1.0% |
| Cooking | 0.32 | 0.33 | 0.34 | 0.36 | 0.38 | 0.39 | 0.40 | 0.9% |
| Clothes Dryers | 0.28 | 0.28 | 0.31 | 0.33 | 0.35 | 0.36 | 0.38 | 1.2% |
| Freezers | 0.11 | 0.11 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | -0.8% |
| Lighting | 0.74 | 0.74 | 0.83 | 0.93 | 0.98 | 1.03 | 1.07 | 1.5% |
| Clothes Washers | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | -0.2% |
| Dishwashers | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 1.2% |
| Color Televisions | 0.13 | 0.13 | 0.17 | 0.20 | 0.22 | 0.25 | 0.27 | 2.9% |
| Personal Computers | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 2.7% |
| Furnace Fans | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 1.6% |
| Other Uses ⁷ | 0.98 | 1.01 | 1.24 | 1.46 | 1.67 | 1.87 | 2.09 | 3.1% |
| Delivered Energy | 11.11 | 10.94 | 11.90 | 12.47 | 12.93 | 13.51 | 14.10 | 1.1% |
| Electricity Related Losses | 9.26 | 9.15 | 9.74 | 10.28 | 10.54 | 10.96 | 11.33 | 0.9% |
| Total Energy Consumption by End-Use | | | | | | | | |
| Space Heating | 6.18 | 5.89 | 6.42 | 6.66 | 6.83 | 7.05 | 7.25 | 0.9% |
| Space Cooling | 1.69 | 1.68 | 1.78 | 1.85 | 1.88 | 1.93 | 1.98 | 0.7% |
| Water Heating | 3.22 | 3.20 | 3.30 | 3.22 | 3.10 | 3.08 | 3.09 | -0.1% |
| Refrigeration | 1.39 | 1.36 | 1.19 | 1.05 | 0.97 | 0.95 | 0.96 | -1.4% |
| Cooking | 0.54 | 0.55 | 0.56 | 0.59 | 0.61 | 0.63 | 0.64 | 0.7% |
| Clothes Dryers | 0.78 | 0.78 | 0.82 | 0.85 | 0.86 | 0.88 | 0.91 | 0.6% |
| Freezers | 0.37 | 0.36 | 0.30 | 0.27 | 0.26 | 0.26 | 0.27 | -1.2% |
| Lighting | 2.43 | 2.40 | 2.61 | 2.88 | 2.96 | 3.04 | 3.10 | 1.1% |
| Clothes Washers | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 | -0.7% |
| Dishwashers | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.8% |
| Color Televisions | 0.42 | 0.43 | 0.53 | 0.60 | 0.67 | 0.75 | 0.77 | 2.4% |
| Personal Computers | 0.19 | 0.19 | 0.22 | 0.25 | 0.28 | 0.31 | 0.33 | 2.2% |
| Furnace Fans | 0.23 | 0.23 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 1.2% |
| Other Uses ⁷ | 2.76 | 2.86 | 3.48 | 4.08 | 4.61 | 5.12 | 5.65 | 2.9% |
| Total | 20.37 | 20.09 | 21.64 | 22.75 | 23.47 | 24.47 | 25.43 | 1.0% |
| Non-Marketed Renewables | | | | | | | | |
| Geothermal ⁸ | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 2.8% |
| Solar ⁹ | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 2.2% |
| Total | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 2.3% |

¹Does not include electric water heating portion of load.

²Includes small electric devices, heating elements, and motors.

³Includes such appliances as swimming pool heaters, outdoor grills, and outdoor lighting (natural gas).

⁴Includes such appliances as swimming pool and hot tub heaters.

⁵Includes wood used for primary and secondary heating in wood stoves or fireplaces as reported in the *Residential Energy Consumption Survey 1997*.

⁶Includes kerosene and coal.

⁷Includes all other uses listed above.

⁸Includes primary energy displaced by geothermal heat pumps in space heating and cooling applications.

⁹Includes primary energy displaced by solar thermal water heaters and electricity generated using photovoltaics.

N/A = Not applicable.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001: Energy Information Administration (EIA), *Short-Term Energy Outlook, September 2002*, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A5. Commercial Sector Key Indicators and Consumption
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|-------|-------|-------|-------|-------|-------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Key Indicators | | | | | | | | |
| Total Floorspace (billion square feet) | | | | | | | | |
| Surviving | 65.1 | 66.6 | 73.0 | 78.7 | 85.0 | 91.2 | 97.6 | 1.6% |
| New Additions | 3.4 | 3.6 | 3.0 | 3.1 | 3.2 | 3.4 | 3.5 | -0.1% |
| Total | 68.5 | 70.2 | 76.1 | 81.8 | 88.2 | 94.6 | 101.1 | 1.5% |
| Energy Consumption Intensity (thousand Btu per square foot) | | | | | | | | |
| Delivered Energy Consumption | 119.5 | 118.4 | 117.7 | 118.5 | 118.9 | 120.3 | 121.6 | 0.1% |
| Electricity Related Losses | 131.5 | 129.9 | 126.7 | 127.9 | 127.3 | 128.3 | 128.9 | -0.0% |
| Total Energy Consumption | 251.0 | 248.3 | 244.4 | 246.4 | 246.2 | 248.6 | 250.5 | 0.0% |
| Delivered Energy Consumption by Fuel | | | | | | | | |
| Purchased Electricity | | | | | | | | |
| Space Heating ¹ | 0.15 | 0.14 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.2% |
| Space Cooling ¹ | 0.41 | 0.43 | 0.43 | 0.44 | 0.45 | 0.47 | 0.48 | 0.5% |
| Water Heating ¹ | 0.15 | 0.15 | 0.15 | 0.16 | 0.16 | 0.16 | 0.15 | 0.2% |
| Ventilation | 0.17 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.20 | 0.6% |
| Cooking | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | -0.8% |
| Lighting | 1.02 | 1.02 | 1.13 | 1.21 | 1.27 | 1.31 | 1.34 | 1.1% |
| Refrigeration | 0.21 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 1.0% |
| Office Equipment (PC) | 0.15 | 0.16 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 3.5% |
| Office Equipment (non-PC) | 0.30 | 0.31 | 0.36 | 0.47 | 0.60 | 0.75 | 0.93 | 4.7% |
| Other Uses ² | 1.36 | 1.46 | 1.64 | 1.90 | 2.21 | 2.57 | 2.93 | 2.9% |
| Delivered Energy | 3.96 | 4.09 | 4.49 | 5.02 | 5.59 | 6.20 | 6.83 | 2.2% |
| Natural Gas | | | | | | | | |
| Space Heating ¹ | 1.45 | 1.32 | 1.54 | 1.58 | 1.62 | 1.70 | 1.76 | 1.2% |
| Space Cooling ¹ | 0.01 | 0.01 | 0.01 | 0.02 | 0.03 | 0.03 | 0.04 | 4.9% |
| Water Heating ¹ | 0.59 | 0.57 | 0.65 | 0.70 | 0.76 | 0.82 | 0.87 | 1.8% |
| Cooking | 0.26 | 0.25 | 0.29 | 0.30 | 0.32 | 0.35 | 0.37 | 1.6% |
| Other Uses ³ | 0.99 | 1.17 | 1.13 | 1.20 | 1.27 | 1.39 | 1.52 | 1.1% |
| Delivered Energy | 3.30 | 3.33 | 3.62 | 3.80 | 4.00 | 4.29 | 4.56 | 1.3% |
| Distillate | | | | | | | | |
| Space Heating ¹ | 0.17 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 1.2% |
| Water Heating ¹ | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.1% |
| Other Uses ⁴ | 0.22 | 0.22 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | -0.4% |
| Delivered Energy | 0.47 | 0.46 | 0.46 | 0.48 | 0.49 | 0.49 | 0.49 | 0.3% |
| Other Fuels ⁵ | 0.35 | 0.34 | 0.28 | 0.29 | 0.30 | 0.30 | 0.31 | -0.4% |
| Marketed Renewable Fuels | | | | | | | | |
| Biomass | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Delivered Energy | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Delivered Energy Consumption by End-Use | | | | | | | | |
| Space Heating ¹ | 1.77 | 1.63 | 1.89 | 1.94 | 1.99 | 2.07 | 2.13 | 1.1% |
| Space Cooling ¹ | 0.42 | 0.44 | 0.44 | 0.46 | 0.48 | 0.50 | 0.52 | 0.7% |
| Water Heating ¹ | 0.81 | 0.79 | 0.88 | 0.93 | 0.99 | 1.05 | 1.10 | 1.4% |
| Ventilation | 0.17 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.20 | 0.6% |
| Cooking | 0.29 | 0.29 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 1.4% |
| Lighting | 1.02 | 1.02 | 1.13 | 1.21 | 1.27 | 1.31 | 1.34 | 1.1% |
| Refrigeration | 0.21 | 0.21 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 1.0% |
| Office Equipment (PC) | 0.15 | 0.16 | 0.19 | 0.24 | 0.28 | 0.32 | 0.36 | 3.5% |
| Office Equipment (non-PC) | 0.30 | 0.31 | 0.36 | 0.47 | 0.60 | 0.75 | 0.93 | 4.7% |
| Other Uses ⁶ | 3.03 | 3.30 | 3.36 | 3.69 | 4.09 | 4.57 | 5.07 | 1.8% |
| Delivered Energy | 8.19 | 8.32 | 8.95 | 9.69 | 10.49 | 11.38 | 12.30 | 1.6% |

Table A5. Commercial Sector Key Indicators and Consumption (Continued)
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------------|--------------|--------------|--------------|--------------|--------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Electricity Related Losses | 9.01 | 9.12 | 9.64 | 10.46 | 11.23 | 12.14 | 13.03 | 1.5% |
| Total Energy Consumption by End-Use | | | | | | | | |
| Space Heating ¹ | 2.13 | 1.95 | 2.22 | 2.26 | 2.30 | 2.37 | 2.42 | 0.9% |
| Space Cooling ¹ | 1.35 | 1.39 | 1.35 | 1.37 | 1.39 | 1.41 | 1.43 | 0.1% |
| Water Heating ¹ | 1.15 | 1.12 | 1.21 | 1.26 | 1.30 | 1.35 | 1.39 | 0.9% |
| Ventilation | 0.56 | 0.55 | 0.55 | 0.56 | 0.56 | 0.56 | 0.57 | 0.2% |
| Cooking | 0.38 | 0.37 | 0.39 | 0.41 | 0.42 | 0.44 | 0.45 | 0.9% |
| Lighting | 3.34 | 3.31 | 3.54 | 3.73 | 3.81 | 3.87 | 3.89 | 0.7% |
| Refrigeration | 0.69 | 0.69 | 0.71 | 0.73 | 0.75 | 0.77 | 0.78 | 0.5% |
| Office Equipment (PC) | 0.50 | 0.52 | 0.60 | 0.74 | 0.85 | 0.95 | 1.05 | 3.0% |
| Office Equipment (non-PC) | 0.98 | 0.99 | 1.12 | 1.44 | 1.80 | 2.21 | 2.69 | 4.2% |
| Other Uses ⁶ | 6.13 | 6.56 | 6.89 | 7.65 | 8.54 | 9.60 | 10.65 | 2.0% |
| Total | 17.20 | 17.44 | 18.59 | 20.15 | 21.72 | 23.52 | 25.33 | 1.6% |
| Non-Marketed Renewable Fuels | | | | | | | | |
| Solar ⁷ | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.3% |
| Total | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.3% |

¹Includes fuel consumption for district services.

²Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, and medical equipment.

³Includes miscellaneous uses, such as pumps, emergency electric generators, combined heat and power in commercial buildings, and manufacturing performed in commercial buildings.

⁴Includes miscellaneous uses, such as cooking, emergency electric generators, and combined heat and power in commercial buildings.

⁵Includes residual fuel oil, liquefied petroleum gas, coal, motor gasoline, and kerosene.

⁶Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, medical equipment, pumps, lighting, emergency electric generators, combined heat and power in commercial buildings, manufacturing performed in commercial buildings, and cooking (distillate), plus residual fuel oil, liquefied petroleum gas, coal, motor gasoline, and kerosene.

⁷Includes primary energy displaced by solar thermal space heating and water heating, and electricity generation by solar photovoltaic systems.

N/A = Not applicable.

Btu = British thermal unit.

PC = Personal computer.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001: Energy Information Administration (EIA), *Short-Term Energy Outlook, September 2002*, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A6. Industrial Sector Key Indicators and Consumption
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------------|--------------|--------------|--------------|--------------|--------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Key Indicators | | | | | | | | |
| Value of Shipments (billion 1996 dollars) | | | | | | | | |
| Manufacturing | 4378 | 4079 | 4542 | 5453 | 6393 | 7220 | 8257 | 3.0% |
| Nonmanufacturing | 1341 | 1346 | 1340 | 1505 | 1636 | 1743 | 1869 | 1.4% |
| Total | 5719 | 5425 | 5882 | 6959 | 8029 | 8963 | 10126 | 2.6% |
| Energy Prices (2001 dollars per million Btu) | | | | | | | | |
| Electricity | 13.46 | 14.10 | 12.75 | 12.64 | 12.78 | 13.25 | 13.46 | -0.2% |
| Natural Gas | 4.62 | 4.87 | 3.52 | 3.89 | 4.18 | 4.32 | 4.57 | -0.3% |
| Steam Coal | 1.43 | 1.46 | 1.44 | 1.38 | 1.35 | 1.31 | 1.29 | -0.5% |
| Residual Oil | 3.34 | 3.28 | 3.60 | 3.71 | 3.82 | 3.94 | 4.10 | 0.9% |
| Distillate Oil | 7.38 | 6.55 | 5.62 | 5.73 | 6.28 | 6.80 | 7.25 | 0.4% |
| Liquefied Petroleum Gas | 12.03 | 12.34 | 9.33 | 9.59 | 9.91 | 10.12 | 10.40 | -0.7% |
| Motor Gasoline | 12.39 | 11.57 | 10.82 | 11.49 | 11.28 | 11.56 | 12.07 | 0.2% |
| Metallurgical Coal | 1.66 | 1.69 | 1.57 | 1.51 | 1.46 | 1.41 | 1.35 | -0.9% |
| Energy Consumption ¹ | | | | | | | | |
| Purchased Electricity | 3.63 | 3.39 | 3.47 | 3.95 | 4.34 | 4.63 | 5.00 | 1.6% |
| Natural Gas | 8.48 | 7.74 | 8.35 | 9.13 | 9.79 | 10.38 | 11.22 | 1.6% |
| Lease and Plant Fuel ² | 1.16 | 1.20 | 1.32 | 1.39 | 1.51 | 1.59 | 1.74 | 1.5% |
| Natural Gas Subtotal | 9.65 | 8.94 | 9.67 | 10.52 | 11.30 | 11.97 | 12.96 | 1.6% |
| Steam Coal | 1.46 | 1.42 | 1.39 | 1.44 | 1.48 | 1.50 | 1.53 | 0.3% |
| Metallurgical Coal and Coke ³ | 0.86 | 0.74 | 0.73 | 0.77 | 0.75 | 0.71 | 0.68 | -0.3% |
| Residual Fuel | 0.24 | 0.23 | 0.17 | 0.19 | 0.19 | 0.20 | 0.20 | -0.4% |
| Distillate | 1.12 | 1.13 | 1.11 | 1.21 | 1.29 | 1.36 | 1.45 | 1.0% |
| Liquefied Petroleum Gas | 2.30 | 2.10 | 2.30 | 2.55 | 2.87 | 3.10 | 3.33 | 1.9% |
| Petrochemical Feedstocks | 1.32 | 1.14 | 1.27 | 1.43 | 1.58 | 1.69 | 1.82 | 2.0% |
| Other Petroleum ⁴ | 4.11 | 4.18 | 4.30 | 4.47 | 4.53 | 4.67 | 4.79 | 0.6% |
| Renewables ⁵ | 1.86 | 1.82 | 1.95 | 2.22 | 2.51 | 2.77 | 3.05 | 2.2% |
| Delivered Energy | 26.55 | 25.10 | 26.36 | 28.76 | 30.84 | 32.61 | 34.81 | 1.4% |
| Electricity Related Losses | 8.27 | 7.57 | 7.45 | 8.23 | 8.70 | 9.08 | 9.54 | 1.0% |
| Total | 34.82 | 32.67 | 33.82 | 36.99 | 39.54 | 41.69 | 44.35 | 1.3% |
| Energy Consumption per dollar of Shipments ¹ (thousand Btu per 1996 dollars) | | | | | | | | |
| Purchased Electricity | 0.63 | 0.63 | 0.59 | 0.57 | 0.54 | 0.52 | 0.49 | -1.0% |
| Natural Gas | 1.48 | 1.43 | 1.42 | 1.31 | 1.22 | 1.16 | 1.11 | -1.0% |
| Lease and Plant Fuel ² | 0.20 | 0.22 | 0.22 | 0.20 | 0.19 | 0.18 | 0.17 | -1.1% |
| Natural Gas Subtotal | 1.69 | 1.65 | 1.64 | 1.51 | 1.41 | 1.34 | 1.28 | -1.1% |
| Steam Coal | 0.26 | 0.26 | 0.24 | 0.21 | 0.18 | 0.17 | 0.15 | -2.3% |
| Metallurgical Coal and Coke ³ | 0.15 | 0.14 | 0.12 | 0.11 | 0.09 | 0.08 | 0.07 | -2.9% |
| Residual Fuel | 0.04 | 0.04 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | -3.0% |
| Distillate | 0.20 | 0.21 | 0.19 | 0.17 | 0.16 | 0.15 | 0.14 | -1.6% |
| Liquefied Petroleum Gas | 0.40 | 0.39 | 0.39 | 0.37 | 0.36 | 0.35 | 0.33 | -0.7% |
| Petrochemical Feedstocks | 0.23 | 0.21 | 0.22 | 0.21 | 0.20 | 0.19 | 0.18 | -0.7% |
| Other Petroleum ⁴ | 0.72 | 0.77 | 0.73 | 0.64 | 0.56 | 0.52 | 0.47 | -2.0% |
| Renewables ⁵ | 0.33 | 0.33 | 0.33 | 0.32 | 0.31 | 0.31 | 0.30 | -0.4% |
| Delivered Energy | 4.64 | 4.63 | 4.48 | 4.13 | 3.84 | 3.64 | 3.44 | -1.2% |
| Electricity Related Losses | 1.45 | 1.40 | 1.27 | 1.18 | 1.08 | 1.01 | 0.94 | -1.6% |
| Total | 6.09 | 6.02 | 5.75 | 5.32 | 4.92 | 4.65 | 4.38 | -1.3% |

¹Fuel consumption includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.

²Represents natural gas used in the field gathering and processing plant machinery.

³Includes net coke coal imports.

⁴Includes petroleum coke, asphalt, road oil, lubricants, motor gasoline, still gas, and miscellaneous petroleum products.

⁵Includes consumption of energy from hydroelectric, wood and wood waste, municipal solid waste, and other biomass.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 prices for gasoline and distillate are based on prices in the Energy Information Administration (EIA), *Petroleum Marketing Annual 2000*, http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_marketing_annual/pma_historical.html (August 2001). 2001 prices for gasoline and distillate are based on prices in the *Petroleum Marketing Annual 2001*, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_marketing_annual/current/pdf/pmaall.pdf. (September 2002). 2000 and 2001 coal prices are based on EIA, *Quarterly Coal Report, October-December 2001*, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002) and EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. 2000 and 2001 electricity prices: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. Other 2000 values and other 2001 prices derived from EIA, *State Energy Data Report 1999*, DOE/EIA-0214(99) (Washington, DC, May 2001). Other 2001 values: EIA, *Short-Term Energy Outlook, September 2002*, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A7. Transportation Sector Key Indicators and Delivered Energy Consumption

| Key Indicators and Consumption | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|-------|-------|-------|-------|-------|-------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Key Indicators | | | | | | | | |
| Level of Travel (billions) | | | | | | | | |
| Light-Duty Vehicles <8,500 pounds (VMT) | 2355 | 2409 | 2642 | 3004 | 3380 | 3753 | 4132 | 2.3% |
| Commercial Light Trucks (VMT) ¹ | 69 | 66 | 72 | 84 | 96 | 107 | 120 | 2.5% |
| Freight Trucks >10,000 pounds (VMT) | 207 | 206 | 225 | 263 | 301 | 338 | 380 | 2.6% |
| Air (seat miles available) | 1168 | 1109 | 1110 | 1355 | 1636 | 1942 | 2256 | 3.0% |
| Rail (ton miles traveled) | 1390 | 1448 | 1475 | 1669 | 1833 | 1991 | 2155 | 1.7% |
| Domestic Shipping (ton miles traveled) | 647 | 788 | 803 | 874 | 937 | 1009 | 1087 | 1.4% |
| Energy Efficiency Indicators | | | | | | | | |
| New Light-Duty Vehicle (miles per gallon) ² | 24.1 | 24.1 | 24.2 | 24.3 | 25.0 | 25.6 | 26.1 | 0.3% |
| New Car (miles per gallon) ² | 28.2 | 28.1 | 28.3 | 28.5 | 29.3 | 29.8 | 30.1 | 0.3% |
| New Light Truck (miles per gallon) ² | 20.6 | 20.7 | 20.9 | 21.0 | 21.8 | 22.5 | 23.0 | 0.4% |
| Light-Duty Fleet (miles per gallon) ³ | 20.1 | 19.8 | 19.5 | 19.3 | 19.4 | 19.8 | 20.2 | 0.1% |
| New Commercial Light Truck (MPG) ¹ | 13.9 | 13.8 | 13.9 | 13.9 | 14.4 | 14.8 | 15.2 | 0.4% |
| Stock Commercial Light Truck (MPG) ¹ | 13.6 | 13.7 | 13.9 | 13.8 | 14.0 | 14.4 | 14.8 | 0.3% |
| Aircraft Efficiency (seat miles per gallon) | 50.8 | 51.2 | 52.5 | 54.3 | 56.3 | 58.6 | 60.7 | 0.7% |
| Freight Truck Efficiency (miles per gallon) | 5.9 | 6.0 | 6.0 | 6.0 | 6.1 | 6.3 | 6.5 | 0.3% |
| Rail Efficiency (ton miles per thousand Btu) | 2.8 | 2.8 | 2.9 | 3.1 | 3.3 | 3.4 | 3.6 | 1.0% |
| Domestic Shipping Efficiency (ton miles per thousand Btu) | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 0.2% |
| Energy Use by Mode (quadrillion Btu) | | | | | | | | |
| Light-Duty Vehicles | 14.95 | 15.28 | 16.83 | 19.36 | 21.60 | 23.47 | 25.36 | 2.1% |
| Commercial Light Trucks ¹ | 0.63 | 0.60 | 0.64 | 0.76 | 0.86 | 0.93 | 1.02 | 2.2% |
| Freight Trucks ⁴ | 4.72 | 4.68 | 5.06 | 5.89 | 6.57 | 7.09 | 7.79 | 2.1% |
| Air ⁵ | 3.62 | 3.47 | 3.46 | 3.97 | 4.55 | 5.14 | 5.72 | 2.1% |
| Rail ⁶ | 0.61 | 0.63 | 0.63 | 0.68 | 0.71 | 0.75 | 0.78 | 0.9% |
| Marine ⁷ | 1.46 | 1.45 | 1.44 | 1.49 | 1.54 | 1.59 | 1.64 | 0.5% |
| Pipeline Fuel | 0.66 | 0.63 | 0.66 | 0.78 | 0.85 | 0.91 | 1.02 | 2.0% |
| Lubricants | 0.18 | 0.19 | 0.20 | 0.22 | 0.24 | 0.26 | 0.28 | 1.5% |
| Total | 26.83 | 26.94 | 28.93 | 33.17 | 36.96 | 40.20 | 43.70 | 2.0% |
| Energy Use by Mode (million barrels per day oil equivalent) | | | | | | | | |
| Light-Duty Vehicles | 7.86 | 8.05 | 8.90 | 10.23 | 11.40 | 12.38 | 13.37 | 2.1% |
| Commercial Light Trucks ¹ | 0.33 | 0.32 | 0.34 | 0.40 | 0.45 | 0.49 | 0.54 | 2.2% |
| Freight Trucks | 2.08 | 2.05 | 2.21 | 2.60 | 2.91 | 3.15 | 3.48 | 2.2% |
| Railroad | 0.23 | 0.24 | 0.24 | 0.25 | 0.27 | 0.27 | 0.28 | 0.7% |
| Domestic Shipping | 0.13 | 0.16 | 0.16 | 0.17 | 0.18 | 0.20 | 0.21 | 1.1% |
| International Shipping | 0.37 | 0.34 | 0.33 | 0.33 | 0.33 | 0.34 | 0.34 | 0.0% |
| Air ⁵ | 1.52 | 1.44 | 1.40 | 1.65 | 1.92 | 2.18 | 2.45 | 2.2% |
| Military Use | 0.28 | 0.30 | 0.33 | 0.34 | 0.35 | 0.38 | 0.40 | 1.2% |
| Bus Transportation | 0.12 | 0.12 | 0.12 | 0.13 | 0.13 | 0.13 | 0.13 | 0.4% |
| Rail Transportation ⁶ | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.08 | 1.8% |
| Recreational Boats | 0.17 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.9% |
| Lubricants | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 1.5% |
| Pipeline Fuel | 0.33 | 0.32 | 0.34 | 0.39 | 0.43 | 0.46 | 0.52 | 2.0% |
| Total | 13.56 | 13.64 | 14.70 | 16.84 | 18.75 | 20.38 | 22.13 | 2.0% |

¹Commercial trucks 8,500 to 10,000 pounds.²Environmental Protection Agency rated miles per gallon.³Combined car and light truck "on-the-road" estimate.⁴Includes energy use by buses and military distillate consumption.⁵Includes jet fuel and aviation gasoline.⁶Includes passenger rail.⁷Includes military residual fuel use and recreation boats.

Btu = British thermal unit.

VMT=Vehicle miles traveled.

MPG = Miles per gallon.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000: Energy Information Administration (EIA), *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001); Federal Highway Administration, *Highway Statistics 2000* (Washington, DC, November 2001); Oak Ridge National Laboratory, *Transportation Energy Data Book: 12, 13, 14, 15, 16, 17, 18, 19, 20, and 21* (Oak Ridge, TN, September 2001); National Highway Traffic and Safety Administration, *Summary of Fuel Economy Performance*, (Washington, DC, February 2000); EIA, *Household Vehicle Energy Consumption 1994*, DOE/EIA-0464(94) (Washington, DC, August 1997); U.S. Dept. of Commerce, Bureau of the Census, "Vehicle Inventory and Use Survey," EC97TV, (Washington, DC, October 1999); EIA, *Describing Current and Potential Markets for Alternative-Fuel Vehicles*, DOE/EIA-0604(96) (Washington, DC, March 1996); EIA, *Alternatives To Traditional Transportation Fuels 1998*, http://www.eia.doe.gov/cneaf/alt_trans98/table1.html; and EIA, *State Energy Data Report 1999*, DOE/EIA-0214(99) (Washington, DC, May 2001). 2001: U.S. Department of Transportation, Research and Special Programs Administration, *Air Carrier Statistics Monthly, December 2000/1999* (Washington, DC, 2000); EIA, *Short-Term Energy Outlook*, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>; EIA, *Fuel Oil and Kerosene Sales 2000*, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/fuel_oil_and_kerosene_sales/historical/2000/toks_2000.html; and United States Department of Defense, Defense Fuel Supply Center. **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A8. Electricity Supply, Disposition, Prices, and Emissions
(Billion Kilowatthours, Unless Otherwise Noted)

| Supply, Disposition, and Prices | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|------|------|------|------|------|------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Generation by Fuel Type | | | | | | | | |
| Electric Power Sector ¹ | | | | | | | | |
| Power Only ² | | | | | | | | |
| Coal | 1911 | 1848 | 1990 | 2189 | 2335 | 2497 | 2703 | 1.6% |
| Petroleum | 98 | 113 | 31 | 39 | 44 | 43 | 52 | -3.2% |
| Natural Gas ³ | 399 | 411 | 509 | 708 | 939 | 1143 | 1335 | 5.0% |
| Nuclear Power | 754 | 769 | 793 | 800 | 805 | 807 | 807 | 0.2% |
| Pumped Storage/Other | -5 | -9 | -1 | -1 | -1 | -1 | -1 | -8.9% |
| Renewable Sources ⁴ | 316 | 258 | 378 | 393 | 405 | 416 | 429 | 2.1% |
| Distributed Generation (Natural Gas) | 0 | 0 | 0 | 1 | 3 | 5 | 7 | N/A |
| Non-Utility Generation for Own Use | -12 | -21 | -24 | -24 | -24 | -24 | -24 | 0.6% |
| Total | 3460 | 3370 | 3677 | 4105 | 4505 | 4887 | 5309 | 1.9% |
| Combined Heat and Power ⁵ | | | | | | | | |
| Coal | 33 | 33 | 30 | 33 | 33 | 33 | 33 | 0.1% |
| Petroleum | 7 | 7 | 3 | 4 | 3 | 3 | 3 | -2.9% |
| Natural Gas | 119 | 124 | 176 | 167 | 148 | 150 | 146 | 0.7% |
| Renewable Sources | 4 | 5 | 4 | 4 | 4 | 4 | 4 | -0.6% |
| Non-Utility Generation for Own Use | -9 | -9 | -18 | -18 | -18 | -18 | -18 | 2.7% |
| Total | 155 | 162 | 196 | 190 | 171 | 173 | 169 | 0.2% |
| Net Available to the Grid | 3616 | 3532 | 3873 | 4295 | 4676 | 5059 | 5478 | 1.8% |
| End-Use Sector Generation | | | | | | | | |
| Combined Heat and Power ⁶ | | | | | | | | |
| Coal | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 0.0% |
| Petroleum | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0.5% |
| Natural Gas | 83 | 83 | 98 | 115 | 129 | 151 | 183 | 3.4% |
| Other Gaseous Fuels ⁷ | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 1.4% |
| Renewable Sources ⁴ | 31 | 31 | 34 | 39 | 45 | 50 | 56 | 2.5% |
| Other ⁸ | 11 | 11 | 11 | 11 | 11 | 11 | 11 | -0.0% |
| Total | 160 | 159 | 180 | 202 | 222 | 249 | 287 | 2.5% |
| Other End-Use Generators ⁹ | 4 | 4 | 4 | 5 | 5 | 6 | 6 | 1.6% |
| Generation for Own Use | -135 | -137 | -147 | -160 | -171 | -188 | -212 | 1.8% |
| Total Sales to the Grid | 29 | 27 | 37 | 48 | 56 | 67 | 82 | 4.7% |
| Net Imports | 31 | 20 | 32 | 28 | 26 | 17 | 7 | -4.5% |
| Electricity Sales by Sector | | | | | | | | |
| Residential | 1193 | 1201 | 1328 | 1445 | 1539 | 1640 | 1742 | 1.6% |
| Commercial | 1160 | 1197 | 1315 | 1471 | 1640 | 1816 | 2003 | 2.2% |
| Industrial | 1064 | 994 | 1017 | 1157 | 1271 | 1358 | 1466 | 1.6% |
| Transportation | 21 | 22 | 24 | 27 | 31 | 36 | 42 | 2.8% |
| Total | 3438 | 3414 | 3684 | 4101 | 4481 | 4850 | 5252 | 1.8% |
| End-Use Prices ¹⁰ | | | | | | | | |
| (2001 cents per kilowatthour) | | | | | | | | |
| Residential | 8.4 | 8.6 | 7.8 | 7.6 | 7.7 | 7.8 | 7.9 | -0.4% |
| Commercial | 7.5 | 7.9 | 6.9 | 6.7 | 6.9 | 7.2 | 7.3 | -0.4% |
| Industrial | 4.6 | 4.8 | 4.3 | 4.3 | 4.4 | 4.5 | 4.6 | -0.2% |
| Transportation | 7.5 | 7.5 | 6.7 | 6.5 | 6.4 | 6.3 | 6.1 | -0.8% |
| All Sectors Average | 6.9 | 7.3 | 6.5 | 6.4 | 6.5 | 6.6 | 6.7 | -0.3% |
| Prices by Service Category ¹⁰ | | | | | | | | |
| (2001 cents per kilowatthour) | | | | | | | | |
| Generation | 4.2 | 4.7 | 3.9 | 3.8 | 3.9 | 4.1 | 4.2 | -0.5% |
| Transmission | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7% |
| Distribution | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | -0.2% |

Table A8. Electricity Supply, Disposition, Prices, and Emissions (Continued)
(Billion Kilowatthours, Unless Otherwise Noted)

| (Emissions Known with 95% Confidence, Unless Otherwise Noted) | | | | | | | | |
|---|----------------|-------|-------|-------|-------|-------|-------|---|
| Supply, Disposition, and Prices | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Emissions | | | | | | | | |
| Sulfur Dioxide (million tons) | 11.19 | 10.63 | 10.71 | 9.57 | 8.95 | 8.95 | 8.95 | -0.7% |
| Nitrogen Oxide (million tons) | 5.09 | 4.75 | 3.61 | 3.92 | 3.99 | 4.06 | 4.12 | -0.6% |
| Mercury (tons) | 47.84 | 51.05 | 49.33 | 51.30 | 51.11 | 52.01 | 52.63 | 0.1% |

¹Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

²Includes plants that only produce electricity.

³Includes electricity generation from fuel cells.

⁴Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar, and wind power.

⁵Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report NAICS code 22).

⁶Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors.

⁷Other gaseous fuels include refinery and still gas.

⁸Other includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur and miscellaneous technologies.

⁹Other end-use generators include small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

¹⁰Prices represent average revenue per kilowatthour.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001: power only and combined heat and power generation, sales to utilities, net imports, residential, industrial, and total electricity sales, and emissions: Energy Information Administration (EIA), *Annual Energy Review 2001*, DOE/EIA-0384(2001) (Washington, DC, October 2002), and supporting databases. Commercial and transportation electricity sales: EIA estimates based on Oak Ridge National Laboratory, *Transportation Energy Data Book 20* (Oak Ridge, TN, November 2000). Prices: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A9. Electricity Generating Capacity
(Gigawatts)

| Net Summer Capacity ¹ | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|-------|-------|-------|--------|--------|--------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Electric Power Sector ² | | | | | | | | |
| Power Only ³ | | | | | | | | |
| Coal Steam | 305.4 | 305.3 | 303.1 | 306.4 | 323.0 | 343.2 | 370.6 | 0.8% |
| Other Fossil Steam ⁴ | 134.8 | 133.8 | 118.6 | 83.4 | 78.4 | 77.2 | 76.2 | -2.3% |
| Combined Cycle | 28.8 | 43.6 | 103.6 | 145.0 | 197.8 | 228.3 | 270.4 | 7.9% |
| Combustion Turbine/Diesel | 78.8 | 98.1 | 126.8 | 128.2 | 139.7 | 152.7 | 173.9 | 2.4% |
| Nuclear Power ⁵ | 98.0 | 98.2 | 100.2 | 99.3 | 99.5 | 99.6 | 99.6 | 0.1% |
| Pumped Storage | 19.8 | 19.9 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 0.1% |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 33.2% |
| Renewable Sources ⁶ | 88.4 | 90.6 | 95.1 | 97.3 | 99.8 | 102.0 | 104.3 | 0.6% |
| Distributed Generation ⁷ | 0.0 | 0.0 | 0.3 | 1.7 | 4.9 | 10.1 | 15.8 | N/A |
| Total | 754.0 | 789.4 | 868.0 | 881.8 | 963.5 | 1033.7 | 1131.2 | 1.5% |
| Combined Heat and Power ⁸ | | | | | | | | |
| Coal Steam | 5.2 | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 5.1 | -0.0% |
| Other Fossil Steam ⁴ | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 0.0% |
| Combined Cycle | 17.4 | 22.6 | 31.2 | 31.0 | 31.0 | 31.0 | 31.0 | 1.3% |
| Combustion Turbine/Diesel | 3.4 | 4.5 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 0.6% |
| Renewable Sources ⁶ | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0% |
| Total | 27.4 | 33.7 | 43.0 | 42.8 | 42.8 | 42.8 | 42.8 | 1.0% |
| Total Electric Power Industry | 781.4 | 823.1 | 911.1 | 924.7 | 1006.4 | 1076.5 | 1174.1 | 1.5% |
| Cumulative Planned Additions ⁹ | | | | | | | | |
| Coal Steam | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Other Fossil Steam ⁴ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Combined Cycle | 0.0 | 0.0 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | N/A |
| Combustion Turbine/Diesel | 0.0 | 0.0 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | N/A |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Pumped Storage | 0.0 | 0.0 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | N/A |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | N/A |
| Renewable Sources ⁶ | 0.0 | 0.0 | 3.8 | 4.9 | 5.8 | 6.4 | 6.5 | N/A |
| Distributed Generation ⁷ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Total | 0.0 | 0.0 | 95.0 | 96.2 | 97.2 | 97.9 | 98.0 | N/A |
| Cumulative Unplanned Additions ⁹ | | | | | | | | |
| Coal Steam | 0.0 | 0.0 | 0.0 | 6.8 | 23.9 | 45.5 | 74.0 | N/A |
| Other Fossil Steam ⁴ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Combined Cycle | 0.0 | 0.0 | 4.2 | 46.1 | 98.8 | 129.3 | 171.4 | N/A |
| Combustion Turbine/Diesel | 0.0 | 0.0 | 4.5 | 12.3 | 24.8 | 40.0 | 61.9 | N/A |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Pumped Storage | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Renewable Sources ⁶ | 0.0 | 0.0 | 0.4 | 1.4 | 3.0 | 4.5 | 6.7 | N/A |
| Distributed Generation ⁷ | 0.0 | 0.0 | 0.3 | 1.7 | 4.9 | 10.1 | 15.8 | N/A |
| Total | 0.0 | 0.0 | 9.3 | 68.3 | 155.4 | 229.4 | 329.8 | N/A |
| Cumulative Total Additions | 0.0 | 0.0 | 104.4 | 164.5 | 252.7 | 327.3 | 427.8 | N/A |
| Cumulative Retirements ¹⁰ | | | | | | | | |
| Coal Steam | 0.0 | 0.0 | 2.1 | 5.8 | 6.3 | 7.6 | 8.7 | N/A |
| Other Fossil Steam ⁴ | 0.0 | 0.0 | 13.7 | 48.9 | 53.9 | 55.1 | 56.1 | N/A |
| Combined Cycle | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 0.5 | 0.5 | N/A |
| Combustion Turbine/Diesel | 0.0 | 0.0 | 3.0 | 9.4 | 10.4 | 12.6 | 13.4 | N/A |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 1.8 | 2.8 | 2.8 | 2.8 | N/A |
| Pumped Storage | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Renewable Sources ⁶ | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | N/A |
| Total | 0.0 | 0.0 | 18.9 | 66.5 | 74.1 | 78.7 | 81.7 | N/A |

Table A9. Electricity Generating Capacity (Continued)
(Gigawatts)

| Net Summer Capacity ¹ | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| End-Use Sector | | | | | | | | |
| Combined Heat and Power ¹¹ | | | | | | | | |
| Coal | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 0.0% |
| Petroleum | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.6% |
| Natural Gas | 14.2 | 14.5 | 16.1 | 18.3 | 20.2 | 23.3 | 27.7 | 2.7% |
| Other Gaseous Fuels | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 0.3% |
| Renewable Sources ⁶ | 4.7 | 4.7 | 5.2 | 6.2 | 7.2 | 8.0 | 9.0 | 2.7% |
| Other | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.0% |
| Total | 27.4 | 27.6 | 29.9 | 33.1 | 36.0 | 40.0 | 45.4 | 2.1% |
| Other End-Use Generators ¹² | | | | | | | | |
| Renewable Sources ¹³ | 1.1 | 1.1 | 1.2 | 1.5 | 1.5 | 1.7 | 2.0 | 2.5% |
| Cumulative Additions ⁹ | | | | | | | | |
| Combined Heat and Power ¹¹ | 0.0 | 0.0 | 2.3 | 5.5 | 8.4 | 12.3 | 17.8 | N/A |
| Other End-Use Generators ¹² | 0.0 | 0.0 | 0.1 | 0.4 | 0.4 | 0.6 | 0.9 | N/A |

¹Net summer capacity is the steady hourly output that generating equipment is expected to supply to system load (exclusive of auxiliary power), as demonstrated by tests during summer peak demand.

²Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

³Includes plants that only produce electricity. Includes capacity increases (uprates) at existing units.

⁴Includes oil-, gas-, and dual-fired capability.

⁵Nuclear capacity reflects operating capacity of existing units, including 4.3 gigawatts of uprates through 2025.

⁶Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar, and wind power.

⁷Primarily peak load capacity fueled by natural gas.

⁸Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report NAICS code 22).

⁹Cumulative additions after December 31, 2001.

¹⁰Cumulative retirements after December 31, 2001.

¹¹Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors.

¹²Other end-use generators include small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

¹³See Table A17 for more detail.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Net summer capability has been estimated for nonutility generators to be consistent with capability estimates for electric utility generators.

Sources: 2000 and 2001 electric generating capacity and projected planned additions: Energy Information Administration (EIA), Form EIA-860: "Annual Electric Generator Report" (preliminary). **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A10. Electricity Trade
(Billion Kilowatthours, Unless Otherwise Noted)

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Firm Power Sales are capacity sales, meaning the delivery of the power is scheduled as part of the normal operating conditions of the affected electric systems. Economy Sales are subject to curtailment or cessation of delivery by the supplier in accordance with prior agreements or under specified conditions.

Sources: 2000 interregional firm electricity trade data: North American Electric Reliability Council (NERC), Electricity Sales and Demand Database 1999. 2000 international electricity trade data: DOE Form FE-718R, "Annual Report of International Electrical Export/Import Data." 2000 firm/economy share: National Energy Board, Annual Report 2000. 2001 and projections: Energy Information Administration, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A11. Petroleum Supply and Disposition Balance
(Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------------|--------------|---------------|---------------|---------------|---------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Crude Oil | | | | | | | | |
| Domestic Crude Production ¹ | 5.87 | 5.80 | 5.58 | 5.63 | 5.25 | 5.46 | 5.33 | -0.4% |
| Alaska | 0.99 | 0.97 | 0.87 | 0.64 | 0.88 | 1.23 | 1.17 | 0.8% |
| Lower 48 States | 4.89 | 4.84 | 4.71 | 4.98 | 4.37 | 4.23 | 4.16 | -0.6% |
| Net Imports | 9.02 | 9.31 | 10.23 | 11.51 | 12.36 | 12.66 | 13.06 | 1.4% |
| Gross Imports | 9.07 | 9.33 | 10.29 | 11.58 | 12.41 | 12.72 | 13.11 | 1.4% |
| Exports | 0.05 | 0.02 | 0.06 | 0.06 | 0.05 | 0.06 | 0.05 | 3.9% |
| Other Crude Supply ² | 0.23 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Crude Supply | 15.12 | 15.13 | 15.81 | 17.14 | 17.61 | 18.12 | 18.39 | 0.8% |
| Natural Gas Plant Liquids | 1.91 | 1.87 | 2.08 | 2.23 | 2.41 | 2.53 | 2.63 | 1.4% |
| Other Inputs³ | 0.35 | 0.30 | 0.43 | 0.44 | 0.41 | 0.44 | 0.45 | 1.6% |
| Refinery Processing Gain⁴ | 0.95 | 0.90 | 0.89 | 0.91 | 0.95 | 0.96 | 0.96 | 0.2% |
| Net Product Imports⁵ | 1.40 | 1.59 | 1.27 | 2.25 | 3.84 | 5.06 | 6.73 | 6.2% |
| Gross Refined Product Imports ⁶ | 2.04 | 2.08 | 1.79 | 2.59 | 3.82 | 5.02 | 6.76 | 5.0% |
| Unfinished Oil Imports | 0.27 | 0.38 | 0.39 | 0.66 | 1.04 | 1.09 | 1.07 | 4.4% |
| Ether Imports | 0.08 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Exports | 0.99 | 0.95 | 0.91 | 1.00 | 1.03 | 1.06 | 1.10 | 0.6% |
| Total Primary Supply⁷ | 19.73 | 19.80 | 20.48 | 22.97 | 25.21 | 27.11 | 29.16 | 1.6% |
| Refined Petroleum Products Supplied | | | | | | | | |
| Motor Gasoline ⁸ | 8.54 | 8.67 | 9.40 | 10.69 | 11.83 | 12.78 | 13.77 | 1.9% |
| Jet Fuel ⁹ | 1.73 | 1.66 | 1.65 | 1.90 | 2.17 | 2.46 | 2.74 | 2.1% |
| Distillate Fuel ¹⁰ | 3.72 | 3.81 | 4.03 | 4.61 | 5.05 | 5.40 | 5.87 | 1.8% |
| Residual Fuel | 0.97 | 0.97 | 0.56 | 0.60 | 0.63 | 0.64 | 0.64 | -1.7% |
| Other ¹¹ | 4.82 | 4.58 | 4.84 | 5.20 | 5.55 | 5.85 | 6.15 | 1.2% |
| Total | 19.78 | 19.69 | 20.49 | 22.99 | 25.23 | 27.13 | 29.17 | 1.7% |
| Refined Petroleum Products Supplied | | | | | | | | |
| Residential and Commercial | 1.23 | 1.21 | 1.18 | 1.17 | 1.15 | 1.13 | 1.12 | -0.3% |
| Industrial ¹² | 4.87 | 4.67 | 4.89 | 5.30 | 5.67 | 6.00 | 6.33 | 1.3% |
| Transportation | 13.18 | 13.27 | 14.26 | 16.33 | 18.20 | 19.79 | 21.48 | 2.0% |
| Electric Generators ¹³ | 0.49 | 0.55 | 0.15 | 0.19 | 0.21 | 0.20 | 0.23 | -3.5% |
| Total | 19.78 | 19.69 | 20.49 | 22.99 | 25.23 | 27.13 | 29.17 | 1.7% |
| Discrepancy¹⁴ | -0.05 | 0.10 | -0.01 | -0.01 | -0.01 | -0.02 | -0.02 | N/A |
| World Oil Price 2001 dollars per barrel¹⁵ | 28.35 | 22.01 | 23.27 | 23.99 | 24.72 | 25.48 | 26.57 | 0.8% |
| Import Share of Product Supplied | 0.53 | 0.55 | 0.56 | 0.60 | 0.64 | 0.65 | 0.68 | 0.9% |
| Net Expenditures for Imported Crude Oil and Petroleum Products (billion 2001 dollars) | 108.88 | 89.20 | 98.32 | 122.96 | 151.12 | 174.57 | 206.94 | 3.6% |
| Domestic Refinery Distillation Capacity¹⁶ | 16.6 | 16.8 | 17.6 | 18.7 | 18.9 | 19.5 | 19.8 | 0.7% |
| Capacity Utilization Rate (percent) | 93.0 | 93.0 | 91.5 | 93.2 | 94.7 | 94.6 | 94.6 | 0.1% |

¹Includes lease condensate.

²Strategic petroleum reserve stock additions plus unaccounted for crude oil and crude stock withdrawals minus crude products supplied.

³Includes alcohols, ethers, petroleum product stock withdrawals, domestic sources of blending components, other hydrocarbons, natural gas converted to liquid fuel, and coal converted to liquid fuel.

⁴Represents volumetric gain in refinery distillation and cracking processes.

⁵Includes net imports of finished petroleum products, unfinished oils, other hydrocarbons, alcohols, ethers, and blending components.

⁶Includes other hydrocarbons, alcohols, and blending components.

⁷Total crude supply plus natural gas plant liquids, other inputs, refinery processing gain, and net product imports.

⁸Includes ethanol and ethers blended into gasoline.

⁹Includes only kerosene type.

¹⁰Includes distillate and kerosene.

¹¹Includes aviation gasoline, liquefied petroleum gas, petrochemical feedstocks, lubricants, waxes, asphalt, road oil, still gas, special naphthas, petroleum coke, crude oil product supplied, and miscellaneous petroleum products.

¹²Includes consumption for combined heat and power, which produces electricity and other useful thermal energy.

¹³Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

¹⁴Balancing item. Includes unaccounted for supply, losses, and gains.

¹⁵Average refiner acquisition cost for imported crude oil.

¹⁶End-of-year capacity.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 product supplied data from Table A2. Other 2000 data: Energy Information Administration (EIA), *Petroleum Supply Annual 2000*, DOE/EIA-0340(2000/1) (Washington, DC, June 2001). Other 2001 data: EIA, *Petroleum Supply Annual 2001*, DOE/EIA-0340(2001/1) (Washington, DC, June 2002). Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A12. Petroleum Product Prices
(2001 Cents per Gallon, Unless Otherwise Noted)

| Sector and Fuel | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|--------------|--------------|--------------|--------------|--------------|--------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| World Oil Price 2001 dollars per barrel) | 28.35 | 22.01 | 23.27 | 23.99 | 24.72 | 25.48 | 26.57 | 0.8% |
| Delivered Sector Product Prices | | | | | | | | |
| Residential | | | | | | | | |
| Distillate Fuel | 134.1 | 124.6 | 109.4 | 110.4 | 116.0 | 121.0 | 123.8 | -0.0% |
| Liquefied Petroleum Gas | 118.8 | 127.3 | 117.5 | 120.2 | 122.8 | 124.5 | 127.3 | -0.0% |
| Commercial | | | | | | | | |
| Distillate Fuel | 100.8 | 88.7 | 77.3 | 78.4 | 84.4 | 90.0 | 93.7 | 0.2% |
| Residual Fuel | 52.9 | 51.8 | 58.5 | 60.0 | 61.7 | 63.3 | 65.6 | 1.0% |
| Residual Fuel (2001 dollars per barrel) | 22.22 | 21.75 | 24.59 | 25.21 | 25.92 | 26.57 | 27.55 | 1.0% |
| Industrial¹ | | | | | | | | |
| Distillate Fuel | 102.4 | 90.8 | 77.9 | 79.4 | 87.1 | 94.3 | 100.6 | 0.4% |
| Liquefied Petroleum Gas | 103.2 | 105.9 | 80.0 | 82.2 | 85.0 | 86.8 | 89.3 | -0.7% |
| Residual Fuel | 50.0 | 49.1 | 53.8 | 55.5 | 57.2 | 58.9 | 61.4 | 0.9% |
| Residual Fuel (2001 dollars per barrel) | 21.02 | 20.61 | 22.60 | 23.32 | 24.03 | 24.74 | 25.77 | 0.9% |
| Transportation | | | | | | | | |
| Diesel Fuel (distillate) ² | 152.4 | 139.4 | 129.8 | 141.7 | 139.9 | 140.9 | 145.9 | 0.2% |
| Jet Fuel ³ | 98.0 | 83.7 | 75.8 | 75.9 | 81.4 | 85.4 | 90.7 | 0.3% |
| Motor Gasoline ⁴ | 154.1 | 143.3 | 140.0 | 142.8 | 140.4 | 143.7 | 149.6 | 0.2% |
| Liquid Petroleum Gas | 141.1 | 145.2 | 127.7 | 130.5 | 132.6 | 133.0 | 134.1 | -0.3% |
| Residual Fuel | 67.0 | 58.4 | 51.7 | 53.2 | 54.8 | 56.4 | 58.9 | 0.0% |
| Residual Fuel (2001 dollars per barrel) | 28.14 | 24.52 | 21.70 | 22.35 | 23.01 | 23.71 | 24.75 | 0.0% |
| Ethanol (E85) | 158.5 | 158.4 | 174.3 | 190.7 | 200.5 | 204.4 | 209.6 | 1.2% |
| Electric Generators⁵ | | | | | | | | |
| Distillate Fuel | 93.3 | 86.0 | 69.5 | 71.1 | 77.7 | 84.0 | 85.7 | -0.0% |
| Residual Fuel | 65.7 | 67.4 | 57.7 | 59.4 | 60.9 | 62.9 | 65.9 | -0.1% |
| Residual Fuel (2001 dollars per barrel) | 27.59 | 28.30 | 24.22 | 24.94 | 25.59 | 26.44 | 27.67 | -0.1% |
| Refined Petroleum Product Prices⁶ | | | | | | | | |
| Distillate Fuel | 139.4 | 127.0 | 117.5 | 127.2 | 128.5 | 131.3 | 136.3 | 0.3% |
| Jet Fuel ³ | 98.0 | 83.7 | 75.8 | 75.9 | 81.4 | 85.4 | 90.7 | 0.3% |
| Liquefied Petroleum Gas | 106.2 | 110.3 | 87.5 | 89.4 | 91.6 | 93.1 | 95.3 | -0.6% |
| Motor Gasoline ⁴ | 154.1 | 143.3 | 139.9 | 142.8 | 140.4 | 143.7 | 149.6 | 0.2% |
| Residual Fuel | 64.0 | 61.5 | 53.4 | 55.1 | 56.9 | 58.6 | 61.1 | -0.0% |
| Residual Fuel (2001 dollars per barrel) | 26.88 | 25.85 | 22.43 | 23.16 | 23.88 | 24.62 | 25.68 | -0.0% |
| Average | 132.3 | 123.6 | 118.1 | 122.4 | 122.4 | 125.4 | 130.4 | 0.2% |

¹Includes combined heat and power.

²Diesel fuel containing 500 part per million (ppm) or 15 ppm sulfur. Includes Federal and State taxes while excluding county and local taxes.

³Kerosene-type jet fuel.

⁴Sales weighted-average price for all grades. Includes Federal, State and local taxes.

⁵Includes all electric power generators except combined heat and power, which produces electricity and other useful thermal energy. Includes small power producers and exempt wholesale generators.

⁶Weighted averages of end-use fuel prices are derived from the prices in each sector and the corresponding sectoral consumption.

Note: Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 prices for gasoline, distillate, and jet fuel are based on prices in the Energy Information Administration (EIA), *Petroleum Marketing Annual 2000*, http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_marketing_annual/pma_historical.html (August 2001). 2001 prices for gasoline, distillate, and jet fuel are based on prices in the *Petroleum Marketing Annual 2001*, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_marketing_annual/current/pmaall.pdf. (September 2002). 2000 and 2001 prices for all other petroleum products are derived from EIA, *State Energy Price and Expenditure Report 1997*, DOE/EIA-0376(97) (Washington, DC, July 2000). **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A13. Natural Gas Supply and Disposition
(Trillion Cubic Feet per Year)

| Supply and Disposition | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|--------------|--------------|--------------|--------------|--------------|--------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Production | | | | | | | | |
| Dry Gas Production ¹ | 18.99 | 19.45 | 20.13 | 21.88 | 23.83 | 25.07 | 26.75 | 1.3% |
| Supplemental Natural Gas ² | 0.09 | 0.08 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.9% |
| Net Imports | 3.54 | 3.65 | 3.86 | 4.78 | 5.27 | 6.66 | 7.76 | 3.2% |
| Canada | 3.47 | 3.61 | 3.52 | 4.05 | 4.42 | 5.08 | 5.31 | 1.6% |
| Mexico | -0.09 | -0.13 | -0.27 | -0.26 | -0.19 | 0.07 | 0.30 | N/A |
| Liquefied Natural Gas | 0.16 | 0.17 | 0.61 | 0.99 | 1.03 | 1.51 | 2.14 | 11.0% |
| Total Supply | 22.61 | 23.17 | 24.09 | 26.76 | 29.19 | 31.82 | 34.60 | 1.7% |
| Consumption by Sector | | | | | | | | |
| Residential | 4.98 | 4.81 | 5.30 | 5.50 | 5.69 | 5.96 | 6.22 | 1.1% |
| Commercial | 3.21 | 3.24 | 3.52 | 3.69 | 3.89 | 4.17 | 4.43 | 1.3% |
| Industrial ³ | 8.25 | 7.53 | 8.13 | 8.88 | 9.53 | 10.10 | 10.91 | 1.6% |
| Electric Generators ⁴ | 5.23 | 5.30 | 5.69 | 6.80 | 8.01 | 9.39 | 10.56 | 2.9% |
| Transportation ⁵ | 0.01 | 0.01 | 0.03 | 0.06 | 0.08 | 0.10 | 0.11 | 10.4% |
| Pipeline Fuel | 0.64 | 0.61 | 0.65 | 0.76 | 0.83 | 0.88 | 1.00 | 2.0% |
| Lease and Plant Fuel ⁶ | 1.13 | 1.17 | 1.29 | 1.35 | 1.47 | 1.55 | 1.69 | 1.5% |
| Total | 23.46 | 22.67 | 24.60 | 27.06 | 29.50 | 32.14 | 34.93 | 1.8% |
| Natural Gas to Liquids | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Discrepancy⁷ | -0.85 | 0.50 | -0.52 | -0.30 | -0.31 | -0.32 | -0.32 | N/A |

¹Marketed production (wet) minus extraction losses.

²Synthetic natural gas, propane air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

³Includes consumption for combined heat and power, which produces electricity and other useful thermal energy.

⁴Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

⁵Compressed natural gas used as vehicle fuel.

⁶Represents natural gas used in the field gathering and processing plant machinery.

⁷Balancing item. Natural gas lost as a result of converting flow data measured at varying temperatures and pressures to a standard temperature and pressure and the merger of different data reporting systems which vary in scope, format, definition, and respondent type. In addition, 2000 and 2001 values include net storage injections.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 supply values and consumption as lease, plant, and pipeline fuel: Energy Information Administration (EIA), *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001). Other 2000 consumption derived from: EIA, *State Energy Data Report 1999*, DOE/EIA-0214(99) (Washington, DC, May 2001). 2001 supplemental natural gas: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). 2000 imports and dry gas production derived from: EIA, *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2001 transportation sector consumption: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. Other 2001 consumption: EIA, *Short-Term Energy Outlook, September 2002*, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf> with adjustments to end-use sector consumption levels for consumption of natural gas by electric wholesale generators based on EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A14. Natural Gas Prices, Margins, and Revenues
(2001 Dollars per Thousand Cubic Feet, Unless Otherwise Noted)

| Prices, Margins, and Revenue | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|-------|-------|-------|-------|-------|-------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Source Price | | | | | | | | |
| Average Lower 48 Wellhead Price ¹ | 3.83 | 4.12 | 2.88 | 3.29 | 3.55 | 3.69 | 3.90 | -0.2% |
| Average Import Price | 4.04 | 4.43 | 2.99 | 3.33 | 3.77 | 3.81 | 4.19 | -0.2% |
| Average ² | 3.86 | 4.17 | 2.90 | 3.30 | 3.59 | 3.72 | 3.97 | -0.2% |
| Delivered Prices | | | | | | | | |
| Residential | 7.97 | 9.68 | 7.52 | 7.68 | 7.90 | 7.96 | 8.22 | -0.7% |
| Commercial | 6.82 | 8.32 | 6.16 | 6.56 | 6.83 | 6.94 | 7.22 | -0.6% |
| Industrial ³ | 4.75 | 5.00 | 3.62 | 4.00 | 4.29 | 4.44 | 4.70 | -0.3% |
| Electric Generators ⁴ | 4.51 | 4.87 | 3.33 | 3.86 | 4.21 | 4.38 | 4.69 | -0.2% |
| Transportation ⁵ | 6.95 | 7.87 | 6.29 | 7.28 | 7.78 | 7.97 | 8.30 | 0.2% |
| Average ⁶ | 5.74 | 6.57 | 4.86 | 5.17 | 5.41 | 5.50 | 5.75 | -0.6% |
| Transmission and Distribution Margins ⁷ | | | | | | | | |
| Residential | 4.11 | 5.50 | 4.61 | 4.38 | 4.30 | 4.24 | 4.25 | -1.1% |
| Commercial | 2.96 | 4.14 | 3.26 | 3.26 | 3.23 | 3.22 | 3.25 | -1.0% |
| Industrial ³ | 0.89 | 0.83 | 0.72 | 0.70 | 0.70 | 0.73 | 0.73 | -0.5% |
| Electric Generators ⁴ | 0.64 | 0.70 | 0.43 | 0.56 | 0.62 | 0.66 | 0.72 | 0.1% |
| Transportation ⁵ | 3.08 | 3.69 | 3.39 | 3.98 | 4.18 | 4.25 | 4.33 | 0.7% |
| Average ⁶ | 1.88 | 2.40 | 1.96 | 1.87 | 1.81 | 1.78 | 1.78 | -1.2% |
| Transmission and Distribution Revenue (billion 2001 dollars) | | | | | | | | |
| Residential | 20.46 | 26.45 | 24.47 | 24.12 | 24.49 | 25.26 | 26.44 | -0.0% |
| Commercial | 9.50 | 13.43 | 11.48 | 12.04 | 12.59 | 13.42 | 14.40 | 0.3% |
| Industrial ³ | 7.31 | 6.25 | 5.85 | 6.19 | 6.66 | 7.32 | 7.99 | 1.0% |
| Electric Generators ⁴ | 3.36 | 3.70 | 2.45 | 3.82 | 4.97 | 6.20 | 7.60 | 3.0% |
| Transportation ⁵ | 0.02 | 0.04 | 0.11 | 0.23 | 0.35 | 0.42 | 0.48 | 11.2% |
| Total | 40.65 | 49.86 | 44.35 | 46.41 | 49.05 | 52.62 | 56.91 | 0.6% |

¹Represents lower 48 onshore and offshore supplies.

²Quantity-weighted average of the average lower 48 wellhead price and the average price of imports at the U.S. border.

³Includes consumption for combined heat and power, which produces electricity and other useful thermal energy.

⁴Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

⁵Compressed natural gas used as a vehicle fuel. Price includes estimated motor vehicle fuel taxes.

⁶Weighted average prices and margins. Weights used are the sectoral consumption values excluding lease, plant, and pipeline fuel.

⁷Within the table, "transmission and distribution" margins equal the difference between the delivered price and the source price (average of the wellhead price and the price of imports at the U.S. border) of natural gas and, thus, reflect the total cost of bringing natural gas to market. When the term "transmission and distribution" margins is used in today's natural gas market, it generally does not include the cost of independent natural gas marketers or costs associated with aggregation of supplies, provisions of storage, and other services. As used here, the term includes the cost of all services and the cost of pipeline fuel used in compressor stations.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 residential, commercial, and transportation delivered prices; average lower 48 wellhead price; and average import price: Energy Information Administration (EIA), *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 electric generators delivered price: Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." 2000 and 2001 industrial delivered prices based on EIA, *Manufacturing Energy Consumption Survey 1998*. 2001 residential and commercial delivered prices, average lower 48 wellhead price, and average import price: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). **Other 2000 values, other 2001 values, and projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A15. Oil and Gas Supply

| Production and Supply | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------|--------|--------|--------|--------|--------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Crude Oil | | | | | | | | |
| Lower 48 Average Wellhead Price ¹ (2001 dollars per barrel) | 28.18 | 22.91 | 23.17 | 23.90 | 24.13 | 24.89 | 26.12 | 0.5% |
| Production (million barrels per day) ² | | | | | | | | |
| U.S. Total | 5.86 | 5.80 | 5.58 | 5.63 | 5.25 | 5.46 | 5.33 | -0.4% |
| Lower 48 Onshore | 3.26 | 3.13 | 2.79 | 2.51 | 2.29 | 2.12 | 1.98 | -1.9% |
| Lower 48 Offshore | 1.62 | 1.71 | 1.92 | 2.47 | 2.07 | 2.11 | 2.18 | 1.0% |
| Alaska | 0.98 | 0.97 | 0.87 | 0.64 | 0.88 | 1.23 | 1.17 | 0.8% |
| Lower 48 End of Year Reserves (billion barrels) ² | 18.66 | 19.48 | 19.03 | 17.79 | 16.23 | 15.64 | 15.31 | -1.0% |
| Natural Gas | | | | | | | | |
| Lower 48 Average Wellhead Price ¹ (2001 dollars per thousand cubic feet) | 3.83 | 4.12 | 2.88 | 3.29 | 3.55 | 3.69 | 3.90 | -0.2% |
| Dry Production (trillion cubic feet) ³ | | | | | | | | |
| U.S. Total | 18.99 | 19.45 | 20.14 | 21.88 | 23.83 | 25.07 | 26.75 | 1.3% |
| Lower 48 Onshore | 13.45 | 13.72 | 14.84 | 16.28 | 17.94 | 19.14 | 18.43 | 1.2% |
| Associated-Dissolved ⁴ | 1.75 | 1.77 | 1.50 | 1.38 | 1.29 | 1.21 | 1.15 | -1.8% |
| Non-Associated | 11.70 | 11.94 | 13.35 | 14.91 | 16.66 | 17.92 | 17.27 | 1.5% |
| Conventional | 6.52 | 6.54 | 7.03 | 7.98 | 8.21 | 8.24 | 7.75 | 0.7% |
| Unconventional | 5.18 | 5.40 | 6.32 | 6.93 | 8.45 | 9.68 | 9.53 | 2.4% |
| Lower 48 Offshore | 5.12 | 5.30 | 4.85 | 5.12 | 5.37 | 5.39 | 5.69 | 0.3% |
| Associated-Dissolved ⁴ | 1.05 | 1.08 | 0.85 | 0.79 | 0.74 | 0.77 | 0.91 | -0.7% |
| Non-Associated | 4.07 | 4.22 | 4.00 | 4.33 | 4.63 | 4.62 | 4.78 | 0.5% |
| Alaska | 0.42 | 0.43 | 0.44 | 0.48 | 0.51 | 0.55 | 2.64 | 7.8% |
| Lower 48 End of Year Dry Reserves ³ (trillion cubic feet) | 168.19 | 174.04 | 175.91 | 178.39 | 186.58 | 193.42 | 189.88 | 0.4% |
| Supplemental Gas Supplies (trillion cubic feet) ⁵ . | 0.09 | 0.08 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.9% |
| Total Lower 48 Wells (thousands) | 27.09 | 33.94 | 24.88 | 25.83 | 27.26 | 27.37 | 28.41 | -0.7% |

¹Represents lower 48 onshore and offshore supplies.

²Includes lease condensate.

³Marketed production (wet) minus extraction losses.

⁴Gas which occurs in crude oil reserves either as free gas (associated) or as gas in solution with crude oil (dissolved).

⁵Synthetic natural gas, propane air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 lower 48 onshore, lower 48 offshore, Alaska crude oil production: Energy Information Administration (EIA), *Petroleum Supply Annual 2001*, DOE/EIA-0340(2001/1) (Washington, DC, June 2002). 2000 U.S. crude oil and natural gas reserves: EIA, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, DOE/EIA-0216(2000) (Washington, DC, December 2001). 2000 natural gas lower 48 average wellhead price and total natural gas production: EIA, *Natural Gas Annual 2000*, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2001 natural gas lower 48 average wellhead price, Alaska and total natural gas production, and supplemental gas supplies: EIA, *Natural Gas Monthly*, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). Other 2000 and 2001 values: EIA, Office of Integrated Analysis and Forecasting. **Projections:** EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A16. Coal Supply, Disposition, and Prices
(Million Short Tons per Year, Unless Otherwise Noted)

| Supply, Disposition, and Prices | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------------|--------------|--------------|--------------|--------------|--------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Production¹ | | | | | | | | |
| Appalachia | 430 | 443 | 414 | 422 | 418 | 419 | 431 | -0.1% |
| Interior | 144 | 147 | 165 | 158 | 150 | 150 | 159 | 0.3% |
| West | 510 | 548 | 545 | 651 | 718 | 790 | 850 | 1.8% |
| East of the Mississippi | 518 | 539 | 521 | 528 | 526 | 529 | 553 | 0.1% |
| West of the Mississippi | 566 | 599 | 603 | 703 | 760 | 829 | 887 | 1.7% |
| Total | 1084 | 1138 | 1124 | 1231 | 1286 | 1359 | 1440 | 1.0% |
| Net Imports | | | | | | | | |
| Imports | 13 | 20 | 17 | 20 | 22 | 25 | 28 | 1.4% |
| Exports | 58 | 49 | 39 | 35 | 29 | 29 | 26 | -2.6% |
| Total | -46 | -29 | -22 | -15 | -6 | -4 | 2 | N/A |
| Total Supply² | 1038 | 1109 | 1103 | 1215 | 1280 | 1355 | 1442 | 1.1% |
| Consumption by Sector | | | | | | | | |
| Residential and Commercial | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 1.2% |
| Industrial ³ | 65 | 63 | 64 | 66 | 68 | 69 | 71 | 0.5% |
| of which: Coal to Liquids | 0 | 0 | 0 | 0 | 0 | 0 | 0 | N/A |
| Coke Plants | 29 | 26 | 25 | 24 | 22 | 20 | 18 | -1.5% |
| Electric Generators ⁴ | 983 | 957 | 1012 | 1123 | 1187 | 1263 | 1350 | 1.4% |
| Total | 1081 | 1050 | 1106 | 1218 | 1282 | 1358 | 1444 | 1.3% |
| Discrepancy and Stock Change⁵ | -43 | 59 | -3 | -3 | -3 | -3 | -3 | N/A |
| Average Minemouth Price | | | | | | | | |
| (2001 dollars per short ton) | 17.18 | 17.59 | 16.50 | 14.99 | 14.67 | 14.38 | 14.36 | -0.8% |
| (2001 dollars per million Btu) | 0.81 | 0.83 | 0.80 | 0.73 | 0.72 | 0.71 | 0.71 | -0.7% |
| Delivered Prices (2001 dollars per short ton)⁶ | | | | | | | | |
| Industrial | 32.20 | 32.83 | 31.14 | 29.97 | 29.33 | 28.40 | 27.92 | -0.7% |
| Coke Plants | 45.43 | 46.42 | 43.17 | 41.38 | 40.03 | 38.62 | 37.09 | -0.9% |
| Electric Generators | | | | | | | | |
| (2001 dollars per short ton) | 24.85 | 25.06 | 24.92 | 23.61 | 23.16 | 22.45 | 22.17 | -0.5% |
| (2001 dollars per million Btu) | 1.23 | 1.25 | 1.22 | 1.17 | 1.15 | 1.12 | 1.10 | -0.5% |
| Average | 25.85 | 26.06 | 25.70 | 24.31 | 23.78 | 23.00 | 22.64 | -0.6% |
| Exports ⁷ | 35.72 | 36.97 | 34.33 | 32.88 | 32.58 | 31.89 | 30.85 | -0.8% |

¹Includes anthracite, bituminous coal, lignite, and waste coal delivered to independent power producers. Waste coal deliveries totaled 10.1 million tons in 2000 and 10.6 million tons in 2001.

²Production plus net imports and net storage withdrawals.

³Includes consumption for combined heat and power plants, except those plants whose primary business is to sell electricity, or electricity and heat, to the public.

⁴Includes all electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

⁵Balancing item: the sum of production, net imports, and net storage withdrawals minus total consumption.

⁶Sectoral prices weighted by consumption tonnage; weighted average excludes residential/ commercial prices and export free-alongside-ship (f.a.s.) prices.

⁷F.a.s. price at U.S. port of exit.

N/A = Not applicable.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000: Energy Information Administration (EIA), *Coal Industry Annual 2000*, DOE/EIA-0584(2000) (Washington, DC, January 2002). 2001 data based on EIA, *Quarterly Coal Report, October-December 2001*, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002) and EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C. Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A17. Renewable Energy Generating Capacity and Generation
(Gigawatts, Unless Otherwise Noted)

| Capacity and Generation | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------|--------|--------|--------|--------|--------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Electric Power Sector ¹ | | | | | | | | |
| Net Summer Capacity | | | | | | | | |
| Conventional Hydropower | 78.23 | 78.36 | 78.80 | 78.92 | 78.92 | 78.92 | 78.92 | 0.0% |
| Geothermal ² | 2.85 | 2.86 | 3.03 | 3.54 | 4.08 | 5.00 | 5.64 | 2.9% |
| Municipal Solid Waste ³ | 3.10 | 3.25 | 3.78 | 4.03 | 4.22 | 4.37 | 4.37 | 1.2% |
| Wood and Other Biomass ⁴ | 1.67 | 1.77 | 2.01 | 2.07 | 2.14 | 2.18 | 2.78 | 1.9% |
| Solar Thermal | 0.33 | 0.33 | 0.42 | 0.44 | 0.46 | 0.48 | 0.50 | 1.7% |
| Solar Photovoltaic ⁵ | 0.01 | 0.02 | 0.04 | 0.10 | 0.18 | 0.27 | 0.36 | 13.9% |
| Wind | 2.45 | 4.29 | 7.24 | 8.47 | 10.06 | 11.05 | 12.00 | 4.4% |
| Total | 88.64 | 90.88 | 95.33 | 97.57 | 100.05 | 102.25 | 104.56 | 0.6% |
| Generation (billion kilowatthours) | | | | | | | | |
| Conventional Hydropower | 271.03 | 213.82 | 301.77 | 301.89 | 301.41 | 301.05 | 301.34 | 1.4% |
| Geothermal ² | 14.09 | 13.81 | 15.31 | 19.81 | 24.33 | 31.78 | 36.92 | 4.2% |
| Municipal Solid Waste ³ | 20.05 | 19.55 | 27.01 | 28.88 | 30.26 | 31.34 | 31.49 | 2.0% |
| Wood and Other Biomass ⁴ | 9.17 | 9.38 | 18.14 | 21.27 | 22.28 | 21.88 | 24.66 | 4.1% |
| Dedicated Plants | 8.36 | 7.67 | 11.56 | 12.41 | 12.86 | 13.12 | 16.47 | 3.2% |
| Cofiring | 0.81 | 1.71 | 6.58 | 8.85 | 9.41 | 8.76 | 8.19 | 6.7% |
| Solar Thermal | 0.49 | 0.49 | 0.67 | 0.77 | 0.83 | 0.90 | 0.97 | 2.9% |
| Solar Photovoltaic ⁵ | 0.00 | 0.00 | 0.10 | 0.24 | 0.44 | 0.66 | 0.88 | 26.7% |
| Wind | 5.59 | 5.78 | 19.28 | 23.62 | 29.14 | 32.70 | 36.21 | 7.9% |
| Total | 320.43 | 262.85 | 382.28 | 396.47 | 408.69 | 420.31 | 432.48 | 2.1% |
| End-Use Sector | | | | | | | | |
| Net Summer Capacity | | | | | | | | |
| Combined Heat and Power ⁶ | | | | | | | | |
| Municipal Solid Waste | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.0% |
| Biomass | 4.41 | 4.41 | 4.96 | 5.88 | 6.89 | 7.76 | 8.71 | 2.9% |
| Total | 4.69 | 4.69 | 5.24 | 6.16 | 7.17 | 8.04 | 9.00 | 2.7% |
| Other End-Use Generators ⁷ | | | | | | | | |
| Conventional Hydropower ⁸ | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 0.0% |
| Geothermal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Solar Photovoltaic | 0.01 | 0.02 | 0.11 | 0.38 | 0.44 | 0.62 | 0.93 | 16.5% |
| Total | 1.11 | 1.12 | 1.20 | 1.47 | 1.54 | 1.71 | 2.03 | 2.5% |
| Generation (billion kilowatthours) | | | | | | | | |
| Combined Heat and Power ⁶ | | | | | | | | |
| Municipal Solid Waste | 2.50 | 2.46 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | -0.6% |
| Biomass | 28.68 | 28.67 | 31.89 | 37.23 | 43.15 | 48.21 | 53.80 | 2.7% |
| Total | 31.18 | 31.13 | 34.04 | 39.38 | 45.30 | 50.36 | 55.95 | 2.5% |
| Other End-Use Generators ⁷ | | | | | | | | |
| Conventional Hydropower ⁸ | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 0.0% |
| Geothermal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Solar Photovoltaic | 0.01 | 0.02 | 0.23 | 0.82 | 0.96 | 1.33 | 1.98 | 22.1% |
| Total | 4.24 | 4.25 | 4.46 | 5.05 | 5.19 | 5.57 | 6.22 | 1.6% |

¹Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

²Includes hydrothermal resources only (hot water and steam).

³Includes landfill gas.

⁴Includes projections for energy crops after 2010.

⁵Does not include off-grid photovoltaics (PV). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications. See Annual Energy Outlook 2000, Table 10.6.

⁶Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors.

⁷Includes small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

⁸Represents own-use industrial hydroelectric power.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Net summer capability has been estimated for nonutility generators for AEO2003. Net summer capability is used to be consistent with electric utility capacity estimates. Additional retirements are determined on the basis of the size and age of the units.

Sources: 2000 and 2001 capacity: Energy Information Administration (EIA), Form EIA-860: "Annual Electric Generator Report" (preliminary). 2000 and 2001 generation: EIA, *Annual Energy Review 2001*, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A18. Renewable Energy, Consumption by Sector and Source¹
(Quadrillion Btu per Year)

| Sector and Source | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|------|------|------|------|------|------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Marketed Renewable Energy ² | | | | | | | | |
| Residential | 0.41 | 0.39 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.2% |
| Wood | 0.41 | 0.39 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.2% |
| Commercial | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Biomass | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Industrial ³ | 1.86 | 1.82 | 1.95 | 2.22 | 2.51 | 2.77 | 3.05 | 2.2% |
| Conventional Hydroelectric | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.0% |
| Municipal Solid Waste | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | -0.0% |
| Biomass | 1.82 | 1.77 | 1.90 | 2.17 | 2.46 | 2.72 | 3.01 | 2.2% |
| Transportation | 0.14 | 0.15 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 3.5% |
| Ethanol used in E85 ⁴ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Ethanol used in Gasoline Blending | 0.14 | 0.15 | 0.23 | 0.26 | 0.29 | 0.31 | 0.33 | 3.5% |
| Electric Generators ⁵ | 3.58 | 3.02 | 4.25 | 4.50 | 4.72 | 5.00 | 5.21 | 2.3% |
| Conventional Hydroelectric | 2.80 | 2.17 | 3.10 | 3.10 | 3.09 | 3.08 | 3.08 | 1.5% |
| Geothermal | 0.29 | 0.29 | 0.35 | 0.49 | 0.63 | 0.86 | 1.01 | 5.3% |
| Municipal Solid Waste ⁶ | 0.30 | 0.31 | 0.37 | 0.40 | 0.41 | 0.43 | 0.43 | 1.3% |
| Biomass | 0.14 | 0.15 | 0.23 | 0.26 | 0.28 | 0.27 | 0.30 | 2.8% |
| Dedicated Plants | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | 0.15 | 0.19 | 2.0% |
| Cofiring | 0.01 | 0.03 | 0.09 | 0.12 | 0.13 | 0.12 | 0.11 | 4.9% |
| Solar Thermal | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 5.3% |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Wind | 0.05 | 0.08 | 0.20 | 0.24 | 0.30 | 0.34 | 0.37 | 6.4% |
| Total Marketed Renewable Energy | 6.10 | 5.47 | 6.94 | 7.49 | 8.03 | 8.59 | 9.11 | 2.1% |
| Sources of Ethanol | | | | | | | | |
| From Corn | 0.14 | 0.15 | 0.23 | 0.26 | 0.28 | 0.29 | 0.29 | 2.9% |
| From Cellulose | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.05 | N/A |
| Total | 0.14 | 0.15 | 0.23 | 0.26 | 0.29 | 0.31 | 0.34 | 3.5% |
| Non-Marketed Renewable Energy ⁷ | | | | | | | | |
| Selected Consumption | | | | | | | | |
| Residential | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 2.3% |
| Solar Hot Water Heating | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 2.1% |
| Geothermal Heat Pumps | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 2.8% |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.6% |
| Commercial | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.3% |
| Solar Thermal | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.6% |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 17.5% |

¹Actual heat rates used to determine fuel consumption for all renewable fuels except hydropower, solar, and wind. Consumption at hydroelectric, solar, and wind facilities determined by using the fossil fuel equivalent of 10,280 Btu per kilowatthour.

²Includes nonelectric renewable energy groups for which the energy source is bought and sold in the marketplace, although all transactions may not necessarily be marketed, and marketed renewable energy inputs for electricity entering the marketplace on the electric power grid. Excludes electricity imports; see Table A8.

³Includes all electricity production by industrial and other combined heat and power for the grid and for own use.

⁴Excludes motor gasoline component of E85.

⁵Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

⁶Includes landfill gas.

⁷Includes selected renewable energy consumption data for which the energy is not bought or sold, either directly or indirectly as an input to marketed energy. The Energy Information Administration does not estimate or project total consumption of nonmarketed renewable energy.

N/A = Not applicable.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 ethanol: Energy Information Administration (EIA), *Annual Energy Review 2001*, DOE/EIA-0384(2001) (Washington, DC, October 2002). 2000 and 2001 electric generators: EIA, Form EIA-860: "Annual Electric Generator Report" (preliminary). Other 2000 and 2001: EIA, Office of Integrated Analysis and Forecasting. Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A19. Carbon Dioxide Emissions by Sector and Source
(Million Metric Tons Carbon Equivalent per Year)

| Sector and Source | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Residential | | | | | | | | |
| Petroleum | 27.5 | 27.2 | 28.3 | 27.6 | 26.5 | 25.7 | 25.1 | -0.3% |
| Natural Gas | 73.7 | 71.1 | 78.5 | 81.5 | 84.3 | 88.2 | 92.1 | 1.1% |
| Coal | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.4% |
| Electricity | 215.4 | 215.1 | 222.4 | 242.7 | 254.4 | 269.4 | 285.2 | 1.2% |
| Total | 317.0 | 313.8 | 329.6 | 352.1 | 365.6 | 383.7 | 402.8 | 1.0% |
| Commercial | | | | | | | | |
| Petroleum | 14.0 | 14.0 | 12.6 | 13.1 | 13.3 | 13.4 | 13.5 | -0.2% |
| Natural Gas | 47.5 | 48.0 | 52.2 | 54.7 | 57.6 | 61.7 | 65.6 | 1.3% |
| Coal | 2.3 | 2.3 | 2.3 | 2.5 | 2.6 | 2.7 | 2.8 | 0.7% |
| Electricity | 209.6 | 214.5 | 220.2 | 247.0 | 271.0 | 298.4 | 328.0 | 1.8% |
| Total | 273.5 | 278.8 | 287.3 | 317.2 | 344.5 | 376.2 | 409.9 | 1.6% |
| Industrial¹ | | | | | | | | |
| Petroleum | 96.0 | 97.9 | 93.3 | 98.6 | 102.1 | 106.5 | 110.4 | 0.5% |
| Natural Gas ² | 133.2 | 123.4 | 137.0 | 149.0 | 160.0 | 169.4 | 183.4 | 1.7% |
| Coal | 56.0 | 52.1 | 53.9 | 56.2 | 56.6 | 56.1 | 56.1 | 0.3% |
| Electricity | 192.3 | 178.1 | 170.3 | 194.3 | 210.0 | 223.1 | 240.0 | 1.3% |
| Total | 477.4 | 451.5 | 454.5 | 498.1 | 528.7 | 555.2 | 589.9 | 1.1% |
| Transportation | | | | | | | | |
| Petroleum ³ | 496.7 | 501.4 | 538.2 | 616.4 | 686.8 | 746.9 | 811.0 | 2.0% |
| Natural Gas ⁴ | 9.7 | 9.2 | 10.0 | 12.1 | 13.4 | 14.5 | 16.3 | 2.4% |
| Other ⁵ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Electricity | 3.8 | 3.9 | 4.0 | 4.6 | 5.2 | 5.9 | 6.8 | 2.4% |
| Total | 510.2 | 514.5 | 552.2 | 633.0 | 705.4 | 767.3 | 834.2 | 2.0% |
| Total Carbon Dioxide Emissions by Delivered Fuel | | | | | | | | |
| Petroleum ³ | 634.2 | 640.5 | 672.4 | 755.7 | 828.7 | 892.6 | 960.1 | 1.7% |
| Natural Gas | 264.1 | 251.7 | 277.7 | 297.2 | 315.3 | 333.8 | 357.5 | 1.5% |
| Coal | 58.7 | 54.7 | 56.6 | 59.0 | 59.5 | 59.2 | 59.3 | 0.3% |
| Other ⁵ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Electricity | 621.1 | 611.6 | 616.9 | 688.5 | 740.6 | 796.9 | 860.1 | 1.4% |
| Total | 1578.2 | 1558.6 | 1623.7 | 1800.5 | 1944.2 | 2082.5 | 2236.9 | 1.5% |
| Electric Generators⁶ | | | | | | | | |
| Petroleum | 24.5 | 27.5 | 7.2 | 8.8 | 9.8 | 9.7 | 10.9 | -3.8% |
| Natural Gas | 76.5 | 77.7 | 83.5 | 99.9 | 117.5 | 137.8 | 155.0 | 2.9% |
| Coal | 520.1 | 506.4 | 526.3 | 579.9 | 613.3 | 649.5 | 694.2 | 1.3% |
| Total | 621.1 | 611.6 | 616.9 | 688.5 | 740.6 | 796.9 | 860.1 | 1.4% |
| Total Carbon Dioxide Emissions by Primary Fuel⁷ | | | | | | | | |
| Petroleum ³ | 658.8 | 668.0 | 679.6 | 764.5 | 838.5 | 902.2 | 971.0 | 1.6% |
| Natural Gas | 340.7 | 329.4 | 361.2 | 397.1 | 432.9 | 471.6 | 512.5 | 1.9% |
| Coal | 578.7 | 561.1 | 582.9 | 638.9 | 672.8 | 708.7 | 753.4 | 1.2% |
| Other ⁵ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Total | 1578.2 | 1558.6 | 1623.7 | 1800.5 | 1944.2 | 2082.5 | 2236.9 | 1.5% |
| Carbon Dioxide Emissions (tons carbon equivalent per person) | 5.7 | 5.6 | 5.6 | 6.0 | 6.2 | 6.4 | 6.6 | 0.7% |

¹Fuel consumption includes energy for combined heat and power plants, except those plants whose primary business is to sell electricity, or electricity and heat, to the public.

²Includes lease and plant fuel.

³This includes international bunker fuel, which by convention are excluded from the international accounting of carbon dioxide emissions. In the years from 1990 through 2000, international bunker fuels accounted for 24 to 30 million metric tons carbon equivalent of carbon dioxide annually.

⁴Includes pipeline fuel natural gas and compressed natural gas used as vehicle fuel.

⁵Includes methanol and liquid hydrogen.

⁶Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Does not include emissions from the nonbiogenic component of municipal solid waste because under international guidelines these are accounted for as waste, not energy.

⁷Emissions from electric power generators are distributed to the primary fuels.

N/A = Not applicable

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 emissions and emission factors: Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States 2001*, DOE/EIA-0573(2001) (Washington, DC, December 2002). Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A20. Macroeconomic Indicators
(Billion 1996 Chain-Weighted Dollars, Unless Otherwise Noted)

| Indicators | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|-------|-------|-------|-------|-------|-------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| GDP Chain-Type Price Index (1996=1.000) | 1.069 | 1.094 | 1.195 | 1.313 | 1.486 | 1.708 | 1.981 | 2.5% |
| Real Gross Domestic Product | 9191 | 9215 | 10361 | 12258 | 14288 | 16450 | 18917 | 3.0% |
| Real Consumption | 6224 | 6377 | 7151 | 8412 | 9826 | 11351 | 13012 | 3.0% |
| Real Investment | 1763 | 1575 | 1888 | 2499 | 3151 | 3755 | 4492 | 4.5% |
| Real Government Spending | 1583 | 1640 | 1790 | 1895 | 2026 | 2212 | 2429 | 1.6% |
| Real Exports | 1137 | 1076 | 1287 | 1784 | 2426 | 3360 | 4695 | 6.3% |
| Real Imports | 1536 | 1492 | 1788 | 2301 | 3044 | 4059 | 5398 | 5.5% |
| Real Disposable Personal Income | 6630 | 6748 | 7421 | 8637 | 10087 | 11713 | 13435 | 2.9% |
| AA Utility Bond Rate (percent) | 7.91 | 7.43 | 8.10 | 7.24 | 8.05 | 9.18 | 9.63 | N/A |
| Real Yield on Government 10 Year Bonds (percent) | 4.85 | 3.51 | 5.10 | 5.26 | 5.69 | 6.56 | 6.76 | N/A |
| Real Utility Bond Rate (percent) | 6.32 | 5.45 | 5.61 | 5.35 | 5.42 | 6.32 | 6.56 | N/A |
| Energy Intensity (thousand Btu per 1996 dollar of GDP) | | | | | | | | |
| Delivered Energy | 7.91 | 7.74 | 7.36 | 6.87 | 6.39 | 5.94 | 5.55 | -1.4% |
| Total Energy | 10.82 | 10.57 | 9.96 | 9.24 | 8.54 | 7.92 | 7.36 | -1.5% |
| Consumer Price Index (1982-84=1.00) | 1.72 | 1.77 | 1.97 | 2.19 | 2.50 | 2.93 | 3.47 | 2.8% |
| Unemployment Rate (percent) | 4.02 | 4.79 | 5.57 | 4.41 | 4.88 | 5.89 | 5.77 | 0.8% |
| Housing Starts (millions) | 1.82 | 1.80 | 1.90 | 2.17 | 1.99 | 1.92 | 2.02 | 0.5% |
| Single-Family | 1.23 | 1.27 | 1.22 | 1.34 | 1.19 | 1.12 | 1.12 | -0.5% |
| Multifamily | 0.34 | 0.33 | 0.34 | 0.47 | 0.46 | 0.48 | 0.57 | 2.3% |
| Mobile Home Shipments | 0.25 | 0.19 | 0.34 | 0.37 | 0.34 | 0.32 | 0.33 | 2.3% |
| Commercial Floorspace, Total (billion square feet) | 68.5 | 70.2 | 76.1 | 81.8 | 88.2 | 94.6 | 101.1 | 1.5% |
| Value of Shipments (billion 1996 dollars) | | | | | | | | |
| Total Industrial | 5719 | 5425 | 5882 | 6959 | 8029 | 8963 | 10126 | 2.6% |
| Nonmanufacturing | 1341 | 1346 | 1340 | 1505 | 1636 | 1743 | 1869 | 1.4% |
| Manufacturing | 4378 | 4079 | 4542 | 5453 | 6393 | 7220 | 8257 | 3.0% |
| Energy-Intensive Manufacturing | 1113 | 1086 | 1141 | 1256 | 1360 | 1446 | 1532 | 1.4% |
| Non-Energy-Intensive Manufacturing | 3264 | 2993 | 3402 | 4197 | 5033 | 5774 | 6725 | 3.4% |
| Unit Sales of Light-Duty Vehicles (millions) ... | 17.36 | 17.11 | 16.50 | 18.27 | 19.77 | 19.91 | 19.97 | 0.6% |
| Population (millions) | | | | | | | | |
| Population with Armed Forces Overseas | 275.7 | 278.2 | 288.1 | 300.2 | 312.7 | 325.3 | 338.2 | 0.8% |
| Population (aged 16 and over) | 213.1 | 215.4 | 224.8 | 236.6 | 246.7 | 256.5 | 266.6 | 0.9% |
| Employment, Non-Agriculture | 131.3 | 131.7 | 137.0 | 147.1 | 154.0 | 159.2 | 165.9 | 1.0% |
| Employment, Manufacturing | 18.3 | 17.5 | 17.4 | 17.9 | 17.5 | 17.3 | 18.4 | 0.2% |
| Labor Force | 140.9 | 141.8 | 148.7 | 156.5 | 163.9 | 169.8 | 177.4 | 0.9% |

GDP = Gross domestic product.

Btu = British thermal unit.

N/A = Not applicable.

Sources: 2000 and 2001: Global Insight macroeconomic model CTL0802. **Projections:** Energy Information Administration, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table A21. International Petroleum Supply and Disposition Summary
(Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|--|----------------|--------------|--------------|--------------|---------------|---------------|---------------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| World Oil Price ¹ (2001 dollars per barrel) | 28.35 | 22.01 | 23.27 | 23.99 | 24.72 | 25.48 | 26.57 | 0.8% |
| Production² (Conventional) | | | | | | | | |
| Industrialized Countries | | | | | | | | |
| U.S. (50 states) | 9.08 | 8.88 | 8.99 | 9.20 | 9.01 | 9.39 | 9.36 | 0.2% |
| Canada | 2.07 | 2.09 | 2.20 | 1.93 | 1.75 | 1.62 | 1.54 | -1.3% |
| Mexico | 3.48 | 3.59 | 3.93 | 4.26 | 4.34 | 4.42 | 4.57 | 1.0% |
| Western Europe ³ | 6.74 | 6.92 | 6.43 | 6.33 | 5.87 | 5.45 | 5.00 | -1.3% |
| Japan | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | -0.9% |
| Australia and New Zealand | 0.85 | 0.80 | 0.77 | 0.84 | 0.81 | 0.79 | 0.78 | -0.1% |
| Total Industrialized | 22.30 | 22.35 | 22.40 | 22.64 | 21.86 | 21.74 | 21.32 | -0.2% |
| Eurasia | | | | | | | | |
| Former Soviet Union | | | | | | | | |
| Russia | 6.70 | 7.24 | 8.18 | 9.17 | 9.70 | 10.26 | 10.42 | 1.5% |
| Caspian Area ⁴ | 1.44 | 1.59 | 2.15 | 3.60 | 4.11 | 4.70 | 5.01 | 4.9% |
| Eastern Europe ⁵ | 0.24 | 0.22 | 0.25 | 0.28 | 0.32 | 0.38 | 0.42 | 2.6% |
| Total Eurasia | 8.38 | 9.05 | 10.58 | 13.04 | 14.13 | 15.34 | 15.84 | 2.4% |
| Developing Countries | | | | | | | | |
| OPEC⁶ | | | | | | | | |
| Asia | 1.51 | 1.48 | 1.44 | 1.44 | 1.46 | 1.45 | 1.46 | -0.1% |
| Middle East | 21.11 | 19.42 | 18.58 | 22.43 | 29.07 | 33.82 | 42.02 | 3.3% |
| North Africa | 2.91 | 3.06 | 3.90 | 4.60 | 5.03 | 5.62 | 6.44 | 3.2% |
| West Africa | 2.15 | 2.23 | 2.73 | 3.23 | 3.95 | 4.64 | 5.45 | 3.8% |
| South America | 2.78 | 2.92 | 3.59 | 3.87 | 3.97 | 4.26 | 4.75 | 2.1% |
| Non-OPEC | | | | | | | | |
| China | 3.25 | 3.30 | 3.36 | 3.44 | 3.41 | 3.33 | 3.28 | -0.0% |
| Other Asia | 2.39 | 2.38 | 2.39 | 2.54 | 2.64 | 2.55 | 2.53 | 0.3% |
| Middle East ⁷ | 2.02 | 1.99 | 2.11 | 2.25 | 2.35 | 2.45 | 2.61 | 1.2% |
| Africa | 2.79 | 2.70 | 3.34 | 4.47 | 5.44 | 6.60 | 6.85 | 4.0% |
| South and Central America | 3.72 | 3.72 | 4.11 | 4.59 | 5.25 | 6.10 | 6.31 | 2.2% |
| Total Developing Countries | 44.63 | 43.20 | 45.55 | 52.86 | 62.56 | 70.83 | 81.72 | 2.7% |
| Total Production (Conventional) | 75.31 | 74.61 | 78.54 | 88.54 | 98.55 | 107.92 | 118.88 | 2.0% |
| Production⁸ (Nonconventional) | | | | | | | | |
| U.S. (50 states) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Other North America | 0.69 | 0.72 | 1.00 | 1.52 | 1.82 | 2.07 | 2.22 | 4.8% |
| Western Europe | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.8% |
| Asia | 0.03 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.5% |
| Middle East ⁷ | 0.00 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 | 6.5% |
| Africa | 0.16 | 0.15 | 0.17 | 0.19 | 0.22 | 0.25 | 0.28 | 2.7% |
| South and Central America | 0.47 | 0.49 | 0.68 | 0.85 | 1.27 | 1.42 | 1.45 | 4.6% |
| Total Production (Nonconventional) | 1.38 | 1.42 | 1.92 | 2.64 | 3.39 | 3.83 | 4.05 | 4.5% |
| Total Production | 76.69 | 76.02 | 80.46 | 91.18 | 101.94 | 111.75 | 122.93 | 2.0% |

Table A21. International Petroleum Supply and Disposition Summary (Continued)
(Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | Reference Case | | | | | | | Annual Growth 2001-2025 (percent) |
|---|----------------|-------|-------|-------|--------|--------|--------|---|
| | 2000 | 2001 | 2005 | 2010 | 2015 | 2020 | 2025 | |
| Consumption ⁹ | | | | | | | | |
| Industrialized Countries | | | | | | | | |
| U.S. (50 states) | 19.78 | 19.69 | 20.49 | 22.99 | 25.23 | 27.13 | 29.17 | 1.7% |
| U.S. Territories | 0.33 | 0.35 | 0.40 | 0.44 | 0.47 | 0.49 | 0.54 | 1.9% |
| Canada | 2.07 | 1.91 | 2.06 | 2.22 | 2.32 | 2.41 | 2.50 | 1.1% |
| Mexico | 1.99 | 1.94 | 2.17 | 2.78 | 3.47 | 3.94 | 4.47 | 3.5% |
| Western Europe | 13.77 | 13.87 | 14.33 | 14.95 | 15.38 | 15.65 | 15.93 | 0.6% |
| Japan | 5.53 | 5.42 | 5.48 | 6.03 | 6.14 | 6.21 | 6.27 | 0.6% |
| Australia and New Zealand | 1.01 | 1.01 | 1.08 | 1.25 | 1.45 | 1.60 | 1.75 | 2.3% |
| Total Industrialized | 44.48 | 44.19 | 45.99 | 50.66 | 54.45 | 57.42 | 60.64 | 1.3% |
| Eurasia | | | | | | | | |
| Former Soviet Union | 3.66 | 3.63 | 3.97 | 4.67 | 5.22 | 5.50 | 5.78 | 2.0% |
| Eastern Europe | 1.35 | 1.37 | 1.46 | 1.61 | 1.85 | 2.08 | 2.33 | 2.3% |
| Total Eurasia | 5.01 | 5.00 | 5.44 | 6.28 | 7.08 | 7.58 | 8.12 | 2.0% |
| Developing Countries | | | | | | | | |
| China | 4.78 | 4.82 | 5.35 | 6.55 | 8.28 | 10.05 | 12.20 | 3.9% |
| India | 1.99 | 2.00 | 2.38 | 3.19 | 3.95 | 4.92 | 6.12 | 4.8% |
| South Korea | 2.15 | 2.22 | 2.44 | 2.86 | 3.03 | 3.10 | 3.18 | 1.5% |
| Other Asia | 5.30 | 5.34 | 5.85 | 6.98 | 8.03 | 8.98 | 10.13 | 2.7% |
| Middle East ⁷ | 5.12 | 5.13 | 5.47 | 6.17 | 7.16 | 8.20 | 9.40 | 2.6% |
| Africa | 2.44 | 2.46 | 2.72 | 3.19 | 3.60 | 4.01 | 4.46 | 2.5% |
| South and Central America | 4.83 | 4.87 | 5.14 | 5.59 | 6.67 | 7.78 | 8.98 | 2.6% |
| Total Developing Countries | 26.61 | 26.84 | 29.34 | 34.54 | 40.71 | 47.05 | 54.47 | 3.0% |
| Total Consumption | 76.10 | 76.03 | 80.76 | 91.48 | 102.24 | 112.04 | 123.23 | 2.0% |
| OPEC Production ¹⁰ | 30.81 | 29.48 | 30.76 | 36.22 | 44.44 | 50.88 | 61.24 | 3.1% |
| Non-OPEC Production ¹⁰ | 45.88 | 46.54 | 49.70 | 54.96 | 57.50 | 60.86 | 61.69 | 1.2% |
| Net Eurasia Exports | 3.38 | 4.07 | 5.16 | 6.78 | 7.07 | 7.78 | 7.74 | 2.7% |
| OPEC Market Share | 0.40 | 0.39 | 0.38 | 0.40 | 0.44 | 0.46 | 0.50 | 1.0% |

¹Average refiner acquisition cost of imported crude oil.

²Includes production of crude oil (including lease condensates), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, alcohol and other sources, and refinery gains.

³Western Europe = Austria, Belgium, Bosnia and Herzegovina, Croatia, Denmark, Finland, France, the unified Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Macedonia, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and Yugoslavia.

⁴Caspian area includes Other Former Soviet Union.

⁵Eastern Europe = Albania, Bulgaria, Czech Republic Hungary, Poland, Romania, and Slovakia.

⁶OPEC = Organization of Petroleum Exporting Countries - Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

⁷Non-OPEC Middle East includes Turkey.

⁸Includes liquids produced from energy crops, natural gas, coal, oil sands, and shale. Includes both OPEC and non-OPEC producers in the regional breakdown.

⁹Includes both OPEC and non-OPEC consumers in the regional breakdown.

¹⁰Includes both conventional and nonconventional liquids production.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 data derived from: Energy Information Administration (EIA), *Short-Term Energy Outlook, September 2002*, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

Table 1. Total Energy Supply and Disposition Summary
(Quadrillion Btu per Year, Unless Otherwise Noted)
Supply, Disposition, and Prices

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Production | | | | | | | | | | | | | |
| Crude Oil & Lease Condensate | 12.44 | 12.29 | 12.47 | 12.30 | 11.98 | 11.82 | 12.72 | 12.82 | 12.59 | 12.29 | 11.91 | 11.72 | 11.54 |
| Natural Gas Plant Liquids | 2.71 | 2.65 | 2.67 | 2.59 | 2.96 | 2.95 | 2.98 | 2.99 | 3.06 | 3.11 | 3.16 | 3.23 | 3.30 |
| Dry Natural Gas | 19.50 | 19.97 | 19.89 | 20.52 | 20.69 | 20.68 | 20.98 | 21.06 | 21.66 | 22.04 | 22.47 | 22.99 | 23.53 |
| Coal | 22.58 | 23.97 | 22.56 | 22.86 | 22.86 | 23.33 | 23.99 | 24.63 | 24.82 | 25.02 | 25.30 | 25.46 | 25.57 |
| Nuclear Power | 7.87 | 8.03 | 8.12 | 8.15 | 8.22 | 8.28 | 8.31 | 8.40 | 8.32 | 8.33 | 8.36 | 8.36 | 8.38 |
| Renewable Energy 1/ | 5.96 | 5.33 | 5.87 | 6.40 | 6.55 | 6.71 | 6.82 | 6.93 | 7.02 | 7.12 | 7.23 | 7.35 | 7.44 |
| Other 2/ | 1.09 | 0.57 | 1.17 | 0.95 | 0.82 | 0.83 | 0.84 | 0.89 | 0.93 | 0.90 | 0.84 | 0.79 | 0.76 |
| Total | 72.15 | 72.81 | 72.74 | 73.78 | 74.08 | 74.60 | 76.64 | 77.72 | 78.39 | 78.82 | 79.27 | 79.90 | 80.52 |
| Imports | | | | | | | | | | | | | |
| Crude Oil 3/ | 19.69 | 20.26 | 19.58 | 20.82 | 21.59 | 22.34 | 22.01 | 22.65 | 23.41 | 24.28 | 25.13 | 25.67 | 26.07 |
| Petroleum Products 4/ | 4.73 | 5.04 | 4.50 | 4.85 | 4.15 | 4.25 | 4.63 | 4.87 | 5.30 | 5.76 | 6.41 | 7.02 | 7.72 |
| Natural Gas | 3.86 | 4.10 | 3.76 | 3.92 | 4.33 | 4.54 | 4.69 | 4.89 | 5.14 | 5.36 | 5.52 | 5.61 | 5.72 |
| Other Imports 5/ | 0.69 | 0.73 | 0.68 | 0.79 | 0.78 | 0.81 | 0.74 | 0.79 | 0.83 | 0.84 | 0.90 | 0.92 | 0.95 |
| Total | 28.98 | 30.13 | 28.52 | 30.38 | 30.85 | 31.94 | 32.06 | 33.20 | 34.69 | 36.23 | 37.96 | 39.23 | 40.46 |
| Exports | | | | | | | | | | | | | |
| Petroleum 6/ | 2.15 | 2.01 | 1.92 | 1.92 | 2.00 | 2.05 | 2.16 | 2.19 | 2.22 | 2.21 | 2.24 | 2.24 | 2.25 |
| Natural Gas | 0.25 | 0.37 | 0.51 | 0.52 | 0.57 | 0.59 | 0.60 | 0.61 | 0.62 | 0.63 | 0.62 | 0.61 | 0.60 |
| Coal | 1.53 | 1.27 | 1.04 | 1.03 | 1.01 | 1.00 | 0.98 | 0.96 | 0.95 | 0.93 | 0.91 | 0.82 | 0.80 |
| Total | 3.92 | 3.64 | 3.47 | 3.48 | 3.58 | 3.64 | 3.75 | 3.76 | 3.79 | 3.77 | 3.76 | 3.67 | 3.65 |
| Discrepancy 7/ | -2.18 | 1.99 | 0.28 | 0.78 | -0.35 | -0.27 | -0.16 | -0.06 | 0.04 | 0.14 | 0.21 | 0.22 | 0.22 |
| Consumption | | | | | | | | | | | | | |
| Petroleum Products 8/ | 38.53 | 38.46 | 37.99 | 38.49 | 39.18 | 39.79 | 40.63 | 41.59 | 42.58 | 43.57 | 44.65 | 45.62 | 46.56 |
| Natural Gas | 24.07 | 23.26 | 23.80 | 24.62 | 25.11 | 25.24 | 25.63 | 25.86 | 26.65 | 27.20 | 27.75 | 28.38 | 29.04 |
| Coal | 22.64 | 22.02 | 21.46 | 21.90 | 22.31 | 22.82 | 23.50 | 24.19 | 24.41 | 24.66 | 24.98 | 25.24 | 25.40 |
| Nuclear Power | 7.87 | 8.03 | 8.12 | 8.15 | 8.22 | 8.28 | 8.31 | 8.40 | 8.32 | 8.33 | 8.36 | 8.36 | 8.38 |
| Renewable Energy 1/ | 5.96 | 5.33 | 5.87 | 6.40 | 6.55 | 6.71 | 6.82 | 6.93 | 7.02 | 7.12 | 7.23 | 7.36 | 7.44 |
| Other 9/ | 0.31 | 0.21 | 0.27 | 0.34 | 0.31 | 0.32 | 0.23 | 0.25 | 0.28 | 0.25 | 0.29 | 0.28 | 0.29 |
| Total | 99.38 | 97.30 | 97.51 | 99.91 | 101.69 | 103.16 | 105.12 | 107.21 | 109.26 | 111.14 | 113.26 | 115.24 | 117.11 |
| Net Imports - Petroleum | 22.28 | 23.29 | 22.16 | 23.75 | 23.73 | 24.54 | 24.48 | 25.34 | 26.50 | 27.82 | 29.31 | 30.46 | 31.53 |
| Prices (2001 dollars per unit) | | | | | | | | | | | | | |
| World Oil Price (dollars per barrel) 10/ | 28.35 | 22.01 | 23.33 | 25.83 | 24.05 | 23.27 | 23.43 | 23.57 | 23.71 | 23.85 | 23.99 | 24.14 | 24.28 |
| Natural Gas Wellhead Price (dollars per Mcf) 11/ | 3.83 | 4.12 | 2.75 | 3.13 | 2.92 | 2.88 | 2.82 | 2.91 | 3.03 | 3.15 | 3.29 | 3.36 | 3.43 |
| Coal Minemouth Price (dollars per ton) | 17.18 | 17.59 | 17.01 | 16.91 | 16.60 | 16.50 | 16.34 | 16.05 | 15.68 | 15.37 | 14.99 | 14.78 | 14.60 |
| Average Electricity (cents per kilowatthour) | 6.9 | 7.3 | 6.9 | 6.6 | 6.6 | 6.5 | 6.4 | 6.3 | 6.3 | 6.4 | 6.4 | 6.4 | 6.4 |

Table 1. Total Energy Supply and Disposition Summary
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Supply, Disposition, and Prices | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001- 2025 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|
| Production | | | | | | | | | | | | | | |
| Crude Oil & Lease Condensate | 11.30 | 11.15 | 11.11 | 11.14 | 11.17 | 11.26 | 11.51 | 11.56 | 11.55 | 11.67 | 11.59 | 11.46 | 11.29 | -0.4% |
| Natural Gas Plant Liquids | 3.34 | 3.38 | 3.42 | 3.42 | 3.42 | 3.49 | 3.54 | 3.59 | 3.62 | 3.67 | 3.70 | 3.75 | 3.76 | 1.5% |
| Dry Natural Gas | 23.85 | 24.20 | 24.47 | 24.53 | 24.57 | 25.01 | 25.38 | 25.75 | 26.20 | 26.78 | 26.95 | 27.31 | 27.47 | 1.3% |
| Coal | 25.80 | 25.99 | 26.37 | 26.57 | 26.91 | 27.14 | 27.47 | 27.69 | 27.78 | 28.08 | 28.46 | 28.75 | 29.29 | 0.8% |
| Nuclear Power | 8.42 | 8.47 | 8.41 | 8.42 | 8.42 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 0.2% |
| Renewable Energy 1/ | 7.55 | 7.65 | 7.75 | 7.84 | 7.92 | 8.01 | 8.14 | 8.28 | 8.37 | 8.46 | 8.55 | 8.67 | 8.78 | 2.1% |
| Other 2/ | 0.77 | 0.77 | 0.74 | 0.76 | 0.78 | 0.79 | 0.79 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 1.4% |
| Total | 81.04 | 81.61 | 82.25 | 82.69 | 83.20 | 84.12 | 85.26 | 86.10 | 86.75 | 87.90 | 88.48 | 89.18 | 89.83 | 0.9% |
| Imports | | | | | | | | | | | | | | |
| Crude Oil 3/ | 26.44 | 26.67 | 26.93 | 27.12 | 27.32 | 27.45 | 27.43 | 27.61 | 27.75 | 27.75 | 27.94 | 28.18 | 28.47 | 1.4% |
| Petroleum Products 4/ | 8.41 | 9.13 | 9.59 | 10.08 | 10.56 | 11.00 | 11.54 | 11.97 | 12.51 | 13.02 | 13.70 | 14.49 | 15.17 | 4.7% |
| Natural Gas | 5.79 | 5.88 | 5.94 | 6.32 | 6.63 | 6.80 | 7.01 | 7.22 | 7.40 | 7.56 | 7.89 | 8.16 | 8.30 | 3.0% |
| Other Imports 5/ | 0.95 | 0.95 | 0.98 | 0.97 | 0.96 | 0.94 | 0.92 | 0.96 | 0.94 | 0.93 | 0.92 | 0.94 | 0.94 | 1.1% |
| Total | 41.59 | 42.62 | 43.43 | 44.49 | 45.46 | 46.20 | 46.90 | 47.76 | 48.60 | 49.26 | 50.45 | 51.77 | 52.88 | 2.4% |
| Exports | | | | | | | | | | | | | | |
| Petroleum 6/ | 2.24 | 2.25 | 2.26 | 2.27 | 2.29 | 2.30 | 2.33 | 2.34 | 2.36 | 2.36 | 2.38 | 2.40 | 2.41 | 0.8% |
| Natural Gas | 0.58 | 0.57 | 0.55 | 0.52 | 0.50 | 0.47 | 0.45 | 0.41 | 0.38 | 0.38 | 0.37 | 0.37 | 0.37 | 0.1% |
| Coal | 0.81 | 0.79 | 0.74 | 0.71 | 0.72 | 0.73 | 0.73 | 0.74 | 0.69 | 0.68 | 0.68 | 0.67 | 0.67 | -2.6% |
| Total | 3.64 | 3.61 | 3.55 | 3.51 | 3.51 | 3.50 | 3.51 | 3.49 | 3.43 | 3.42 | 3.43 | 3.44 | 3.45 | -0.2% |
| Discrepancy 7/ | 0.24 | 0.25 | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | 0.25 | 0.22 | 0.19 | 0.18 | 0.20 | 0.19 | N/A |
| Consumption | | | | | | | | | | | | | | |
| Petroleum Products 8/ | 47.42 | 48.25 | 48.93 | 49.66 | 50.37 | 51.09 | 51.89 | 52.60 | 53.30 | 54.03 | 54.83 | 55.74 | 56.56 | 1.6% |
| Natural Gas | 29.44 | 29.90 | 30.25 | 30.72 | 31.10 | 31.74 | 32.34 | 32.96 | 33.63 | 34.36 | 34.86 | 35.51 | 35.81 | 1.8% |
| Coal | 25.64 | 25.85 | 26.30 | 26.54 | 26.88 | 27.12 | 27.46 | 27.68 | 27.84 | 28.16 | 28.55 | 28.87 | 29.42 | 1.2% |
| Nuclear Power | 8.42 | 8.47 | 8.41 | 8.42 | 8.42 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 0.2% |
| Renewable Energy 1/ | 7.55 | 7.65 | 7.75 | 7.85 | 7.92 | 8.01 | 8.14 | 8.28 | 8.37 | 8.46 | 8.55 | 8.67 | 8.78 | 2.1% |
| Other 9/ | 0.27 | 0.25 | 0.27 | 0.25 | 0.22 | 0.18 | 0.14 | 0.17 | 0.14 | 0.11 | 0.09 | 0.08 | 0.07 | -4.4% |
| Total | 118.75 | 120.37 | 121.91 | 123.43 | 124.92 | 126.56 | 128.40 | 130.12 | 131.71 | 133.55 | 135.31 | 137.31 | 139.07 | 1.5% |
| Net Imports - Petroleum | 32.61 | 33.54 | 34.26 | 34.93 | 35.59 | 36.15 | 36.65 | 37.24 | 37.90 | 38.42 | 39.27 | 40.28 | 41.23 | 2.4% |
| Prices (2001 dollars per unit) | | | | | | | | | | | | | | |
| World Oil Price (dollars per barrel) 10/ | 24.42 | 24.57 | 24.72 | 24.87 | 25.02 | 25.18 | 25.33 | 25.48 | 25.70 | 25.92 | 26.14 | 26.35 | 26.57 | 0.8% |
| Natural Gas Wellhead Price (dollars per Mcf) 11/ | 3.47 | 3.52 | 3.55 | 3.59 | 3.61 | 3.57 | 3.58 | 3.69 | 3.69 | 3.75 | 3.82 | 3.87 | 3.90 | -0.2% |
| Coal Minemouth Price (dollars per ton) | 14.65 | 14.63 | 14.67 | 14.59 | 14.49 | 14.51 | 14.48 | 14.38 | 14.32 | 14.28 | 14.24 | 14.32 | 14.36 | -0.8% |
| Average Electricity (cents per kilowatthour) | 6.4 | 6.4 | 6.5 | 6.5 | 6.5 | 6.6 | 6.6 | 6.6 | 6.6 | 6.7 | 6.7 | 6.8 | 6.7 | -0.3% |

Table 1. Total Energy Supply and Disposition Summary
(Quadrillion Btu per Year, Unless Otherwise Noted)

1/ Includes grid-connected electricity from conventional hydroelectric; wood and wood waste; landfill gas; municipal solid waste; other biomass; wind; photovoltaic and solar thermal sources; non-electric energy from renewable sources, such as active and passive solar systems, and wood; and both the ethanol and gasoline components of E85, but not the ethanol components of blends less than 85 percent. Excludes electricity imports using renewable sources and nonmarketed renewable energy. See Table A18 for selected nonmarketed residential and commercial renewable energy.

2/ Includes liquid hydrogen, methanol, supplemental natural gas, and some domestic inputs to refineries.

3/ Includes imports of crude oil for the Strategic Petroleum Reserve.

4/ Includes imports of finished petroleum products, imports of unfinished oils, alcohols, ethers, and blending components.

5/ Includes coal, coal coke (net), and electricity (net).

6/ Includes crude oil and petroleum products.

7/ Balancing item. Includes unaccounted for supply, losses, gains, net storage withdrawals, heat loss when natural gas is converted to liquid fuel, and heat loss when coal is converted to liquid fuel.

8/ Includes natural gas plant liquids, crude oil consumed as a fuel, and nonpetroleum-based liquids for blending, such as ethanol.

9/ Includes net electricity imports, methanol, and liquid hydrogen.

10/ Average refiner acquisition cost for imported crude oil.

11/ Represents lower 48 onshore and offshore supplies.

Btu = British thermal unit.

Mcf = Thousand cubic feet.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 natural gas values: Energy Information Administration (EIA), Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 coal minemouth prices: EIA, Coal Industry Annual 2000, DOE/EIA-0584(2000) (Washington, DC, January 2002). Other 2000 values: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). 2001 natural gas values: EIA, Natural Gas Monthly, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). 2001 petroleum values: EIA, Petroleum Supply Annual 2001, DOE/EIA-0340(2001)/1 (Washington, DC, June 2002). Other 2001 values: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002) and EIA, Quarterly Coal Report, October-December 2001, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002). Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| Energy Consumption | | | | | | | | | | | | | |
| Residential | | | | | | | | | | | | | |
| Distillate Fuel | 0.86 | 0.91 | 0.87 | 0.94 | 0.94 | 0.94 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.90 |
| Kerosene | 0.09 | 0.10 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Liquefied Petroleum Gas | 0.54 | 0.50 | 0.53 | 0.49 | 0.49 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.47 | 0.47 | 0.47 |
| Petroleum Subtotal | 1.50 | 1.50 | 1.47 | 1.51 | 1.50 | 1.50 | 1.50 | 1.49 | 1.49 | 1.47 | 1.46 | 1.45 | 1.44 |
| Natural Gas | 5.12 | 4.94 | 5.05 | 5.32 | 5.42 | 5.45 | 5.51 | 5.56 | 5.61 | 5.62 | 5.66 | 5.69 | 5.75 |
| Coal | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Renewable Energy 1/ Electricity | 0.41 4.07 | 0.39 4.10 | 0.39 4.20 | 0.41 4.37 | 0.41 4.46 | 0.41 4.53 | 0.41 4.61 | 0.41 4.69 | 0.41 4.79 | 0.41 4.85 | 0.41 4.93 | 0.41 5.00 | 0.41 5.07 |
| Delivered Energy | 11.11 | 10.94 | 11.13 | 11.62 | 11.81 | 11.90 | 12.05 | 12.17 | 12.31 | 12.38 | 12.47 | 12.56 | 12.69 |
| Electricity Related Losses | 9.26 | 9.15 | 9.17 | 9.45 | 9.60 | 9.74 | 9.88 | 10.03 | 10.16 | 10.21 | 10.28 | 10.32 | 10.39 |
| Total | 20.37 | 20.09 | 20.30 | 21.07 | 21.41 | 21.64 | 21.93 | 22.20 | 22.47 | 22.59 | 22.75 | 22.88 | 23.07 |
| Commercial | | | | | | | | | | | | | |
| Distillate Fuel | 0.47 | 0.46 | 0.45 | 0.45 | 0.46 | 0.46 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 |
| Residual Fuel | 0.09 | 0.09 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 |
| Kerosene | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Liquefied Petroleum Gas | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 |
| Motor Gasoline 2/ Petroleum Subtotal | 0.05 0.73 | 0.05 0.71 | 0.05 0.65 | 0.03 0.63 | 0.03 0.64 | 0.03 0.65 | 0.03 0.66 | 0.03 0.66 | 0.03 0.67 | 0.03 0.67 | 0.03 0.67 | 0.03 0.68 | 0.03 0.68 |
| Natural Gas | 3.30 | 3.33 | 3.32 | 3.47 | 3.57 | 3.62 | 3.67 | 3.71 | 3.74 | 3.77 | 3.80 | 3.83 | 3.87 |
| Coal | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 |
| Renewable Energy 3/ Electricity | 0.11 3.96 | 0.11 4.09 | 0.11 4.20 | 0.11 4.26 | 0.11 4.38 | 0.11 4.49 | 0.11 4.59 | 0.11 4.70 | 0.11 4.81 | 0.11 4.91 | 0.11 5.02 | 0.11 5.13 | 0.11 5.25 |
| Delivered Energy | 8.19 | 8.32 | 8.36 | 8.55 | 8.78 | 8.95 | 9.12 | 9.27 | 9.41 | 9.55 | 9.69 | 9.84 | 10.00 |
| Electricity Related Losses | 9.01 | 9.12 | 9.15 | 9.21 | 9.43 | 9.64 | 9.84 | 10.04 | 10.19 | 10.33 | 10.46 | 10.61 | 10.75 |
| Total | 17.20 | 17.44 | 17.51 | 17.77 | 18.21 | 18.59 | 18.96 | 19.31 | 19.60 | 19.88 | 20.15 | 20.45 | 20.75 |
| Industrial 4/ Distillate Fuel | 1.12 | 1.13 | 1.08 | 1.09 | 1.10 | 1.11 | 1.12 | 1.15 | 1.17 | 1.19 | 1.21 | 1.23 | 1.25 |
| Liquefied Petroleum Gas | 2.30 | 2.10 | 2.23 | 2.26 | 2.30 | 2.30 | 2.32 | 2.36 | 2.40 | 2.47 | 2.55 | 2.63 | 2.71 |
| Petrochemical Feedstocks | 1.32 | 1.14 | 1.21 | 1.25 | 1.27 | 1.27 | 1.29 | 1.32 | 1.35 | 1.39 | 1.43 | 1.47 | 1.51 |
| Residual Fuel | 0.24 | 0.23 | 0.19 | 0.20 | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 |
| Motor Gasoline 2/ Other Petroleum 5/ Petroleum Subtotal | 0.15 3.96 9.09 | 0.15 4.03 8.79 | 0.16 4.15 9.01 | 0.15 4.06 9.02 | 0.16 4.17 9.16 | 0.15 4.15 9.14 | 0.16 4.15 9.21 | 0.16 4.21 9.37 | 0.16 4.23 9.50 | 0.16 4.28 9.68 | 0.17 4.31 9.86 | 0.17 4.31 10.01 | 0.17 4.33 10.16 |
| Natural Gas | 8.48 | 7.74 | 8.22 | 8.33 | 8.31 | 8.35 | 8.52 | 8.66 | 8.74 | 8.90 | 9.13 | 9.35 | 9.49 |
| Lease and Plant Fuel 6/ Natural Gas Subtotal | 1.16 9.65 | 1.20 8.94 | 1.25 9.47 | 1.30 9.62 | 1.32 9.62 | 1.32 9.67 | 1.33 9.85 | 1.33 9.99 | 1.36 10.10 | 1.37 10.27 | 1.39 10.52 | 1.42 10.77 | 1.45 10.94 |
| Metallurgical Coal | 0.79 | 0.72 | 0.64 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.67 | 0.66 | 0.65 | 0.64 |
| Steam Coal | 1.46 | 1.42 | 1.35 | 1.38 | 1.39 | 1.39 | 1.39 | 1.41 | 1.42 | 1.43 | 1.44 | 1.45 | 1.46 |
| Net Coal Coke Imports | 0.07 | 0.03 | 0.02 | 0.04 | 0.05 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 |
| Coal Subtotal | 2.32 | 2.16 | 2.02 | 2.10 | 2.12 | 2.13 | 2.14 | 2.16 | 2.19 | 2.20 | 2.22 | 2.23 | 2.23 |
| Renewable Energy 7/ Electricity | 1.86 3.63 | 1.82 3.39 | 1.80 3.17 | 1.86 3.33 | 1.92 3.42 | 1.95 3.47 | 1.99 3.55 | 2.03 3.65 | 2.08 3.76 | 2.15 3.84 | 2.22 3.95 | 2.29 4.05 | 2.35 4.13 |
| Delivered Energy | 26.55 | 25.10 | 25.46 | 25.94 | 26.24 | 26.36 | 26.74 | 27.20 | 27.64 | 28.14 | 28.76 | 29.34 | 29.81 |
| Electricity Related Losses | 8.27 | 7.57 | 6.92 | 7.22 | 7.37 | 7.45 | 7.60 | 7.80 | 7.97 | 8.08 | 8.23 | 8.36 | 8.46 |

Table 2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total | 34.82 | 32.67 | 32.38 | 33.16 | 33.61 | 33.82 | 34.34 | 35.00 | 35.60 | 36.22 | 36.99 | 37.70 | 38.27 |
| Transportation | | | | | | | | | | | | | |
| Distillate Fuel 8/ | 5.34 | 5.44 | 5.41 | 5.62 | 5.83 | 5.98 | 6.18 | 6.40 | 6.61 | 6.83 | 7.08 | 7.31 | 7.50 |
| Jet Fuel 9/ | 3.58 | 3.43 | 3.36 | 3.34 | 3.34 | 3.41 | 3.51 | 3.60 | 3.71 | 3.83 | 3.93 | 4.03 | 4.14 |
| Motor Gasoline 2/ | 16.05 | 16.26 | 16.66 | 16.96 | 17.26 | 17.66 | 18.11 | 18.59 | 19.09 | 19.58 | 20.09 | 20.57 | 21.02 |
| Residual Fuel | 0.89 | 0.84 | 0.79 | 0.81 | 0.82 | 0.82 | 0.82 | 0.82 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Liquefied Petroleum Gas | 0.01 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 |
| Other Petroleum 10/ | 0.22 | 0.24 | 0.24 | 0.25 | 0.25 | 0.24 | 0.25 | 0.25 | 0.25 | 0.25 | 0.26 | 0.26 | 0.27 |
| Petroleum Subtotal | 26.09 | 26.22 | 26.48 | 27.01 | 27.52 | 28.15 | 28.91 | 29.70 | 30.53 | 31.37 | 32.24 | 33.06 | 33.83 |
| Pipeline Fuel Natural Gas | 0.66 | 0.63 | 0.58 | 0.63 | 0.65 | 0.66 | 0.68 | 0.69 | 0.72 | 0.75 | 0.78 | 0.79 | 0.81 |
| Compressed Natural Gas | 0.01 | 0.01 | 0.01 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.07 |
| Renewable Energy (E85) 11/ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Electricity | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 |
| Delivered Energy | 26.83 | 26.94 | 27.16 | 27.75 | 28.28 | 28.93 | 29.71 | 30.53 | 31.39 | 32.27 | 33.17 | 34.02 | 34.82 |
| Electricity Related Losses | 0.16 | 0.17 | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 |
| Total | 27.00 | 27.10 | 27.32 | 27.92 | 28.45 | 29.11 | 29.89 | 30.71 | 31.57 | 32.46 | 33.36 | 34.21 | 35.02 |
| Delivered Energy Consumption, All Sectors | | | | | | | | | | | | | |
| Distillate Fuel | 7.79 | 7.94 | 7.81 | 8.10 | 8.32 | 8.49 | 8.72 | 8.95 | 9.19 | 9.43 | 9.69 | 9.93 | 10.14 |
| Kerosene | 0.14 | 0.15 | 0.11 | 0.12 | 0.13 | 0.12 | 0.12 | 0.12 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 |
| Jet Fuel 9/ | 3.58 | 3.43 | 3.36 | 3.34 | 3.34 | 3.41 | 3.51 | 3.60 | 3.71 | 3.83 | 3.93 | 4.03 | 4.14 |
| Liquefied Petroleum Gas | 2.95 | 2.70 | 2.87 | 2.86 | 2.91 | 2.90 | 2.93 | 2.97 | 3.01 | 3.08 | 3.16 | 3.25 | 3.33 |
| Motor Gasoline 2/ | 16.25 | 16.46 | 16.86 | 17.15 | 17.45 | 17.85 | 18.30 | 18.78 | 19.28 | 19.78 | 20.29 | 20.77 | 21.22 |
| Petrochemical Feedstocks | 1.32 | 1.14 | 1.21 | 1.25 | 1.27 | 1.27 | 1.29 | 1.32 | 1.35 | 1.39 | 1.43 | 1.47 | 1.51 |
| Residual Fuel | 1.22 | 1.15 | 1.01 | 1.05 | 1.02 | 1.03 | 1.04 | 1.04 | 1.05 | 1.06 | 1.06 | 1.07 | 1.07 |
| Other Petroleum 12/ | 4.16 | 4.24 | 4.37 | 4.29 | 4.40 | 4.37 | 4.38 | 4.43 | 4.46 | 4.51 | 4.54 | 4.55 | 4.57 |
| Petroleum Subtotal | 37.41 | 37.21 | 37.61 | 38.17 | 38.83 | 39.45 | 40.28 | 41.22 | 42.18 | 43.19 | 44.23 | 45.19 | 46.11 |
| Natural Gas | 16.91 | 16.02 | 16.61 | 17.15 | 17.33 | 17.46 | 17.75 | 17.97 | 18.14 | 18.35 | 18.65 | 18.94 | 19.17 |
| Lease and Plant Fuel 6/ | 1.16 | 1.20 | 1.25 | 1.30 | 1.32 | 1.32 | 1.33 | 1.33 | 1.36 | 1.37 | 1.39 | 1.42 | 1.45 |
| Pipeline Natural Gas | 0.66 | 0.63 | 0.58 | 0.63 | 0.65 | 0.66 | 0.68 | 0.69 | 0.72 | 0.75 | 0.78 | 0.79 | 0.81 |
| Natural Gas Subtotal | 18.74 | 17.86 | 18.43 | 19.08 | 19.30 | 19.44 | 19.76 | 20.00 | 20.22 | 20.47 | 20.82 | 21.15 | 21.44 |
| Metallurgical Coal | 0.79 | 0.72 | 0.64 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.67 | 0.66 | 0.65 | 0.64 |
| Steam Coal | 1.57 | 1.53 | 1.46 | 1.48 | 1.49 | 1.50 | 1.50 | 1.52 | 1.53 | 1.54 | 1.55 | 1.56 | 1.57 |
| Net Coal Coke Imports | 0.07 | 0.03 | 0.02 | 0.04 | 0.05 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 |
| Coal Subtotal | 2.42 | 2.27 | 2.12 | 2.20 | 2.22 | 2.23 | 2.24 | 2.27 | 2.30 | 2.31 | 2.33 | 2.34 | 2.35 |
| Renewable Energy 13/ | 2.38 | 2.31 | 2.30 | 2.38 | 2.43 | 2.47 | 2.50 | 2.55 | 2.60 | 2.66 | 2.74 | 2.80 | 2.87 |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Electricity | 11.73 | 11.65 | 11.65 | 12.04 | 12.34 | 12.57 | 12.84 | 13.13 | 13.44 | 13.70 | 13.99 | 14.27 | 14.56 |
| Delivered Energy | 72.68 | 71.29 | 72.11 | 73.86 | 75.12 | 76.16 | 77.62 | 79.17 | 80.75 | 82.33 | 84.10 | 85.75 | 87.31 |
| Electricity Related Losses | 26.71 | 26.01 | 25.40 | 26.05 | 26.57 | 27.01 | 27.50 | 28.04 | 28.51 | 28.81 | 29.16 | 29.49 | 29.80 |
| Total | 99.38 | 97.30 | 97.51 | 99.91 | 101.69 | 103.16 | 105.12 | 107.21 | 109.26 | 111.14 | 113.26 | 115.24 | 117.11 |
| Electric Generators 14/ | | | | | | | | | | | | | |
| Distillate Fuel | 0.11 | 0.17 | 0.06 | 0.07 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.11 |
| Residual Fuel | 1.01 | 1.08 | 0.31 | 0.24 | 0.27 | 0.26 | 0.27 | 0.27 | 0.31 | 0.29 | 0.31 | 0.30 | 0.34 |
| Petroleum Subtotal | 1.12 | 1.25 | 0.37 | 0.32 | 0.35 | 0.34 | 0.35 | 0.36 | 0.41 | 0.38 | 0.42 | 0.43 | 0.45 |
| Natural Gas | 5.33 | 5.40 | 5.37 | 5.55 | 5.82 | 5.80 | 5.87 | 5.86 | 6.43 | 6.72 | 6.93 | 7.23 | 7.60 |
| Steam Coal | 20.22 | 19.75 | 19.34 | 19.70 | 20.09 | 20.59 | 21.26 | 21.92 | 22.10 | 22.35 | 22.65 | 22.90 | 23.05 |
| Nuclear Power | 7.87 | 8.03 | 8.12 | 8.15 | 8.22 | 8.28 | 8.31 | 8.40 | 8.32 | 8.33 | 8.36 | 8.36 | 8.38 |

Table 2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Renewable Energy/Other 15/ | 3.58 | 3.02 | 3.58 | 4.03 | 4.12 | 4.25 | 4.32 | 4.38 | 4.42 | 4.46 | 4.50 | 4.55 | 4.58 |
| Electricity Imports | 0.31 | 0.21 | 0.27 | 0.34 | 0.31 | 0.32 | 0.23 | 0.25 | 0.28 | 0.25 | 0.29 | 0.28 | 0.29 |
| Total | 38.44 | 37.66 | 37.05 | 38.08 | 38.91 | 39.58 | 40.33 | 41.17 | 41.95 | 42.50 | 43.15 | 43.76 | 44.35 |
| Total Energy Consumption | | | | | | | | | | | | | |
| Distillate Fuel | 7.90 | 8.11 | 7.87 | 8.18 | 8.39 | 8.58 | 8.80 | 9.04 | 9.28 | 9.52 | 9.80 | 10.05 | 10.25 |
| Kerosene | 0.14 | 0.15 | 0.11 | 0.12 | 0.13 | 0.12 | 0.12 | 0.12 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 |
| Jet Fuel 9/ | 3.58 | 3.43 | 3.36 | 3.34 | 3.34 | 3.41 | 3.51 | 3.60 | 3.71 | 3.83 | 3.93 | 4.03 | 4.14 |
| Liquefied Petroleum Gas | 2.95 | 2.70 | 2.87 | 2.86 | 2.91 | 2.90 | 2.93 | 2.97 | 3.01 | 3.08 | 3.16 | 3.25 | 3.33 |
| Motor Gasoline 2/ | 16.25 | 16.46 | 16.86 | 17.15 | 17.45 | 17.85 | 18.30 | 18.78 | 19.28 | 19.78 | 20.29 | 20.77 | 21.22 |
| Petrochemical Feedstocks | 1.32 | 1.14 | 1.21 | 1.25 | 1.27 | 1.27 | 1.29 | 1.32 | 1.35 | 1.39 | 1.43 | 1.47 | 1.51 |
| Residual Fuel | 2.23 | 2.23 | 1.32 | 1.30 | 1.29 | 1.29 | 1.30 | 1.32 | 1.36 | 1.34 | 1.37 | 1.37 | 1.41 |
| Other Petroleum 12/ | 4.16 | 4.24 | 4.37 | 4.29 | 4.40 | 4.37 | 4.38 | 4.43 | 4.46 | 4.51 | 4.54 | 4.55 | 4.57 |
| Petroleum Subtotal | 38.53 | 38.46 | 37.99 | 38.49 | 39.18 | 39.79 | 40.63 | 41.59 | 42.58 | 43.57 | 44.65 | 45.62 | 46.56 |
| Natural Gas | 22.24 | 21.42 | 21.98 | 22.69 | 23.14 | 23.26 | 23.62 | 23.84 | 24.57 | 25.07 | 25.58 | 26.17 | 26.78 |
| Lease and Plant Fuel 6/ | 1.16 | 1.20 | 1.25 | 1.30 | 1.32 | 1.32 | 1.33 | 1.33 | 1.36 | 1.37 | 1.39 | 1.42 | 1.45 |
| Pipeline Natural Gas | 0.66 | 0.63 | 0.58 | 0.63 | 0.65 | 0.66 | 0.68 | 0.69 | 0.72 | 0.75 | 0.78 | 0.79 | 0.81 |
| Natural Gas Subtotal | 24.07 | 23.26 | 23.80 | 24.62 | 25.11 | 25.24 | 25.63 | 25.86 | 26.65 | 27.20 | 27.75 | 28.38 | 29.04 |
| Metallurgical Coal | 0.79 | 0.72 | 0.64 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.67 | 0.66 | 0.65 | 0.64 |
| Steam Coal | 21.78 | 21.28 | 20.80 | 21.18 | 21.59 | 22.08 | 22.76 | 23.43 | 23.64 | 23.89 | 24.21 | 24.47 | 24.63 |
| Net Coal Coke Imports | 0.07 | 0.03 | 0.02 | 0.04 | 0.05 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 |
| Coal Subtotal | 22.64 | 22.02 | 21.46 | 21.90 | 22.31 | 22.82 | 23.50 | 24.19 | 24.41 | 24.66 | 24.98 | 25.24 | 25.40 |
| Nuclear Power | 7.87 | 8.03 | 8.12 | 8.15 | 8.22 | 8.28 | 8.31 | 8.40 | 8.32 | 8.33 | 8.36 | 8.36 | 8.38 |
| Renewable Energy 16/ | 5.96 | 5.33 | 5.87 | 6.40 | 6.55 | 6.71 | 6.82 | 6.93 | 7.02 | 7.12 | 7.23 | 7.36 | 7.44 |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Electricity Imports | 0.31 | 0.21 | 0.27 | 0.34 | 0.31 | 0.32 | 0.23 | 0.25 | 0.28 | 0.25 | 0.29 | 0.28 | 0.29 |
| Total | 99.38 | 97.30 | 97.51 | 99.91 | 101.69 | 103.16 | 105.12 | 107.21 | 109.26 | 111.14 | 113.26 | 115.24 | 117.11 |
| Energy Use & Related Statistics | | | | | | | | | | | | | |
| Delivered Energy Use | 72.68 | 71.29 | 72.11 | 73.86 | 75.12 | 76.16 | 77.62 | 79.17 | 80.75 | 82.33 | 84.10 | 85.75 | 87.31 |
| Total Energy Use | 99.38 | 97.30 | 97.51 | 99.91 | 101.69 | 103.16 | 105.12 | 107.21 | 109.26 | 111.14 | 113.26 | 115.24 | 117.11 |
| Population (millions) | 275.69 | 278.18 | 280.68 | 283.17 | 285.64 | 288.09 | 290.53 | 292.96 | 295.38 | 297.81 | 300.24 | 302.68 | 305.15 |
| US GDP (billion 1996 dollars) | 9191 | 9215 | 9440 | 9743 | 10074 | 10361 | 10667 | 11017 | 11408 | 11810 | 12258 | 12671 | 13082 |
| Carbon Dioxide Emissions (million metric tons carbon equivalent) | 1578.2 | 1558.6 | 1536.2 | 1567.9 | 1597.2 | 1623.7 | 1662.3 | 1699.7 | 1734.5 | 1765.8 | 1800.5 | 1832.6 | 1862.1 |

Table 2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Energy Consumption | | | | | | | | | | | | | | |
| Residential | | | | | | | | | | | | | | |
| Distillate Fuel | 0.89 | 0.88 | 0.87 | 0.86 | 0.85 | 0.85 | 0.84 | 0.83 | 0.82 | 0.82 | 0.81 | 0.81 | 0.81 | -0.5% |
| Kerosene | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | -2.2% |
| Liquefied Petroleum Gas | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.48 | 0.48 | -0.2% |
| Petroleum Subtotal | 1.43 | 1.42 | 1.41 | 1.40 | 1.39 | 1.38 | 1.37 | 1.37 | 1.36 | 1.35 | 1.35 | 1.35 | 1.34 | -0.5% |
| Natural Gas | 5.77 | 5.81 | 5.85 | 5.91 | 5.94 | 6.00 | 6.06 | 6.12 | 6.17 | 6.23 | 6.29 | 6.36 | 6.40 | 1.1% |
| Coal | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.4% |
| Renewable Energy 1/ Electricity | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.41 | 0.40 | 0.40 | 0.40 | 0.41 | 0.40 | 0.2% |
| Delivered Energy | 5.12 | 5.18 | 5.25 | 5.33 | 5.38 | 5.44 | 5.51 | 5.59 | 5.65 | 5.71 | 5.79 | 5.88 | 5.94 | 1.6% |
| Electricity Related Losses | 12.74 | 12.84 | 12.93 | 13.06 | 13.13 | 13.24 | 13.36 | 13.51 | 13.59 | 13.71 | 13.84 | 14.00 | 14.10 | 1.1% |
| Total | 10.42 | 10.46 | 10.54 | 10.65 | 10.69 | 10.75 | 10.84 | 10.96 | 10.99 | 11.07 | 11.14 | 11.26 | 11.33 | 0.9% |
| Total | 23.16 | 23.30 | 23.47 | 23.71 | 23.82 | 24.00 | 24.20 | 24.47 | 24.58 | 24.78 | 24.98 | 25.26 | 25.43 | 1.0% |
| Commercial | | | | | | | | | | | | | | |
| Distillate Fuel | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.3% |
| Residual Fuel | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | -2.5% |
| Kerosene | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -0.7% |
| Liquefied Petroleum Gas | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.4% |
| Motor Gasoline 2/ Petroleum Subtotal | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | -1.1% |
| Natural Gas | 0.68 | 0.68 | 0.68 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.70 | -0.1% |
| Coal | 3.91 | 3.96 | 4.00 | 4.05 | 4.11 | 4.17 | 4.23 | 4.29 | 4.35 | 4.40 | 4.46 | 4.51 | 4.56 | 1.3% |
| Renewable Energy 3/ Electricity | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.7% |
| Delivered Energy | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Electricity Related Losses | 5.36 | 5.48 | 5.59 | 5.71 | 5.83 | 5.95 | 6.07 | 6.20 | 6.32 | 6.45 | 6.58 | 6.70 | 6.83 | 2.2% |
| Total | 10.16 | 10.32 | 10.49 | 10.65 | 10.83 | 11.01 | 11.20 | 11.38 | 11.57 | 11.76 | 11.94 | 12.12 | 12.30 | 1.6% |
| Total | 10.92 | 11.06 | 11.23 | 11.41 | 11.57 | 11.75 | 11.94 | 12.14 | 12.32 | 12.49 | 12.66 | 12.84 | 13.03 | 1.5% |
| Total | 21.08 | 21.39 | 21.72 | 22.06 | 22.40 | 22.76 | 23.14 | 23.52 | 23.89 | 24.25 | 24.60 | 24.96 | 25.33 | 1.6% |
| Industrial 4/ | | | | | | | | | | | | | | |
| Distillate Fuel | 1.26 | 1.27 | 1.29 | 1.30 | 1.31 | 1.32 | 1.34 | 1.36 | 1.37 | 1.39 | 1.41 | 1.43 | 1.45 | 1.0% |
| Liquefied Petroleum Gas | 2.78 | 2.83 | 2.87 | 2.90 | 2.94 | 2.99 | 3.05 | 3.10 | 3.14 | 3.19 | 3.23 | 3.28 | 3.33 | 1.9% |
| Petrochemical Feedstocks | 1.53 | 1.56 | 1.58 | 1.59 | 1.62 | 1.64 | 1.67 | 1.69 | 1.72 | 1.74 | 1.77 | 1.79 | 1.82 | 2.0% |
| Residual Fuel | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | -0.4% |
| Motor Gasoline 2/ Other Petroleum 5/ Petroleum Subtotal | 0.17 | 0.17 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 1.0% |
| Natural Gas | 4.34 | 4.37 | 4.35 | 4.39 | 4.42 | 4.43 | 4.47 | 4.49 | 4.50 | 4.53 | 4.55 | 4.57 | 4.60 | 0.5% |
| Lease and Plant Fuel 6/ Natural Gas Subtotal | 10.29 | 10.40 | 10.46 | 10.55 | 10.67 | 10.77 | 10.91 | 11.02 | 11.12 | 11.24 | 11.35 | 11.47 | 11.59 | 1.2% |
| Metallurgical Coal | 9.56 | 9.67 | 9.79 | 9.86 | 9.96 | 10.10 | 10.26 | 10.38 | 10.54 | 10.72 | 10.87 | 11.06 | 11.22 | 1.6% |
| Steam Coal | 1.47 | 1.49 | 1.51 | 1.52 | 1.52 | 1.55 | 1.57 | 1.59 | 1.63 | 1.69 | 1.70 | 1.72 | 1.74 | 1.5% |
| Net Coal Coke Imports | 11.03 | 11.16 | 11.30 | 11.38 | 11.49 | 11.65 | 11.83 | 11.97 | 12.17 | 12.41 | 12.58 | 12.78 | 12.96 | 1.6% |
| Coal Subtotal | 0.62 | 0.61 | 0.60 | 0.59 | 0.58 | 0.57 | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | -1.5% |
| Renewable Energy 7/ Electricity | 1.47 | 1.48 | 1.48 | 1.48 | 1.49 | 1.49 | 1.50 | 1.50 | 1.51 | 1.51 | 1.52 | 1.53 | 1.53 | 0.3% |
| Delivered Energy | 0.14 | 0.15 | 0.15 | 0.15 | 0.15 | 0.16 | 0.16 | 0.16 | 0.16 | 0.17 | 0.17 | 0.18 | 0.18 | 8.6% |
| Electricity Related Losses | 2.24 | 2.24 | 2.23 | 2.23 | 2.22 | 2.22 | 2.22 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 2.21 | 0.1% |
| Total | 2.40 | 2.46 | 2.51 | 2.56 | 2.61 | 2.66 | 2.72 | 2.77 | 2.82 | 2.88 | 2.94 | 3.00 | 3.05 | 2.2% |
| Total | 4.21 | 4.28 | 4.34 | 4.38 | 4.44 | 4.50 | 4.58 | 4.63 | 4.69 | 4.77 | 4.85 | 4.93 | 5.00 | 1.6% |
| Total | 30.16 | 30.54 | 30.84 | 31.10 | 31.43 | 31.80 | 32.25 | 32.61 | 33.02 | 33.51 | 33.92 | 34.40 | 34.81 | 1.4% |
| Total | 8.56 | 8.64 | 8.70 | 8.76 | 8.83 | 8.90 | 8.99 | 9.08 | 9.14 | 9.24 | 9.33 | 9.44 | 9.54 | 1.0% |
| Total | 38.72 | 39.18 | 39.54 | 39.86 | 40.26 | 40.70 | 41.24 | 41.69 | 42.17 | 42.75 | 43.24 | 43.84 | 44.35 | 1.3% |
| Transportation | | | | | | | | | | | | | | |
| Distillate Fuel 8/ | 7.67 | 7.84 | 7.98 | 8.11 | 8.25 | 8.39 | 8.56 | 8.70 | 8.85 | 9.02 | 9.20 | 9.40 | 9.58 | 2.4% |

Table 2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Jet Fuel 9/ | 4.26 | 4.38 | 4.50 | 4.62 | 4.73 | 4.86 | 4.97 | 5.09 | 5.20 | 5.31 | 5.43 | 5.54 | 5.66 | 2.1% |
| Motor Gasoline 2/ | 21.46 | 21.87 | 22.25 | 22.61 | 22.96 | 23.32 | 23.72 | 24.04 | 24.36 | 24.71 | 25.09 | 25.51 | 25.90 | 2.0% |
| Residual Fuel | 0.84 | 0.84 | 0.84 | 0.84 | 0.85 | 0.85 | 0.85 | 0.85 | 0.86 | 0.86 | 0.86 | 0.87 | 0.87 | 0.2% |
| Liquefied Petroleum Gas | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 7.0% |
| Other Petroleum 10/ | 0.27 | 0.28 | 0.28 | 0.28 | 0.29 | 0.29 | 0.30 | 0.30 | 0.30 | 0.31 | 0.31 | 0.31 | 0.32 | 1.2% |
| Petroleum Subtotal | 34.57 | 35.27 | 35.92 | 36.53 | 37.15 | 37.79 | 38.47 | 39.06 | 39.65 | 40.29 | 40.98 | 41.72 | 42.41 | 2.0% |
| Pipeline Fuel Natural Gas | 0.83 | 0.84 | 0.85 | 0.85 | 0.86 | 0.88 | 0.89 | 0.91 | 0.95 | 0.99 | 1.00 | 1.01 | 1.02 | 2.0% |
| Compressed Natural Gas | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.11 | 10.4% |
| Renewable Energy (E85) 11/ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 8.9% |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Electricity | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.13 | 0.13 | 0.13 | 0.14 | 0.14 | 2.8% |
| Delivered Energy | 35.58 | 36.30 | 36.96 | 37.59 | 38.22 | 38.88 | 39.58 | 40.20 | 40.83 | 41.52 | 42.22 | 42.99 | 43.70 | 2.0% |
| Electricity Related Losses | 0.21 | 0.21 | 0.21 | 0.22 | 0.22 | 0.23 | 0.23 | 0.24 | 0.25 | 0.25 | 0.26 | 0.27 | 0.27 | 2.1% |
| Total | 35.78 | 36.51 | 37.18 | 37.81 | 38.44 | 39.11 | 39.82 | 40.44 | 41.07 | 41.77 | 42.48 | 43.26 | 43.97 | 2.0% |
| Delivered Energy Consumption, All Sectors | | | | | | | | | | | | | | |
| Distillate Fuel | 10.31 | 10.48 | 10.62 | 10.75 | 10.90 | 11.05 | 11.22 | 11.38 | 11.53 | 11.72 | 11.91 | 12.13 | 12.32 | 1.8% |
| Kerosene | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | -1.5% |
| Jet Fuel 9/ | 4.26 | 4.38 | 4.50 | 4.62 | 4.73 | 4.86 | 4.97 | 5.09 | 5.20 | 5.31 | 5.43 | 5.54 | 5.66 | 2.1% |
| Liquefied Petroleum Gas | 3.41 | 3.45 | 3.50 | 3.54 | 3.58 | 3.63 | 3.69 | 3.74 | 3.79 | 3.84 | 3.88 | 3.94 | 3.99 | 1.6% |
| Motor Gasoline 2/ | 21.67 | 22.08 | 22.46 | 22.82 | 23.17 | 23.54 | 23.93 | 24.26 | 24.58 | 24.93 | 25.32 | 25.74 | 26.13 | 1.9% |
| Petrochemical Feedstocks | 1.53 | 1.56 | 1.58 | 1.59 | 1.62 | 1.64 | 1.67 | 1.69 | 1.72 | 1.74 | 1.77 | 1.79 | 1.82 | 2.0% |
| Residual Fuel | 1.07 | 1.08 | 1.08 | 1.08 | 1.09 | 1.09 | 1.09 | 1.10 | 1.10 | 1.11 | 1.11 | 1.12 | 1.12 | -0.1% |
| Other Petroleum 12/ | 4.59 | 4.63 | 4.61 | 4.65 | 4.69 | 4.70 | 4.74 | 4.76 | 4.78 | 4.82 | 4.84 | 4.86 | 4.89 | 0.6% |
| Petroleum Subtotal | 46.97 | 47.77 | 48.46 | 49.17 | 49.90 | 50.63 | 51.44 | 52.14 | 52.82 | 53.57 | 54.36 | 55.23 | 56.03 | 1.7% |
| Natural Gas | 19.32 | 19.52 | 19.73 | 19.91 | 20.11 | 20.36 | 20.64 | 20.89 | 21.15 | 21.46 | 21.73 | 22.04 | 22.29 | 1.4% |
| Lease and Plant Fuel 6/ | 1.47 | 1.49 | 1.51 | 1.52 | 1.52 | 1.55 | 1.57 | 1.59 | 1.63 | 1.69 | 1.70 | 1.72 | 1.74 | 1.5% |
| Pipeline Natural Gas | 0.83 | 0.84 | 0.85 | 0.85 | 0.86 | 0.88 | 0.89 | 0.91 | 0.95 | 0.99 | 1.00 | 1.01 | 1.02 | 2.0% |
| Natural Gas Subtotal | 21.62 | 21.85 | 22.09 | 22.28 | 22.49 | 22.79 | 23.10 | 23.39 | 23.73 | 24.13 | 24.43 | 24.77 | 25.05 | 1.4% |
| Metallurgical Coal | 0.62 | 0.61 | 0.60 | 0.59 | 0.58 | 0.57 | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | -1.5% |
| Steam Coal | 1.58 | 1.59 | 1.60 | 1.60 | 1.60 | 1.61 | 1.62 | 1.62 | 1.63 | 1.63 | 1.64 | 1.65 | 1.65 | 0.3% |
| Net Coal Coke Imports | 0.14 | 0.15 | 0.15 | 0.15 | 0.15 | 0.16 | 0.16 | 0.16 | 0.16 | 0.17 | 0.17 | 0.18 | 0.18 | 8.6% |
| Coal Subtotal | 2.35 | 2.35 | 2.35 | 2.34 | 2.34 | 2.33 | 2.34 | 2.33 | 2.33 | 2.33 | 2.33 | 2.34 | 2.34 | 0.1% |
| Renewable Energy 13/ | 2.92 | 2.98 | 3.03 | 3.07 | 3.12 | 3.18 | 3.24 | 3.29 | 3.34 | 3.40 | 3.45 | 3.52 | 3.57 | 1.8% |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Electricity | 14.79 | 15.05 | 15.29 | 15.53 | 15.76 | 16.01 | 16.28 | 16.55 | 16.79 | 17.06 | 17.34 | 17.65 | 17.92 | 1.8% |
| Delivered Energy | 88.65 | 90.00 | 91.22 | 92.40 | 93.61 | 94.94 | 96.39 | 97.70 | 99.01 | 100.49 | 101.92 | 103.50 | 104.91 | 1.6% |
| Electricity Related Losses | 30.10 | 30.37 | 30.69 | 31.03 | 31.31 | 31.63 | 32.01 | 32.42 | 32.70 | 33.05 | 33.39 | 33.80 | 34.17 | 1.1% |
| Total | 118.75 | 120.37 | 121.91 | 123.43 | 124.92 | 126.56 | 128.40 | 130.12 | 131.71 | 133.55 | 135.31 | 137.31 | 139.07 | 1.5% |
| Electric Generators 14/ | | | | | | | | | | | | | | |
| Distillate Fuel | 0.10 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.13 | 0.10 | 0.12 | 0.15 | 0.17 | 0.0% |
| Residual Fuel | 0.35 | 0.36 | 0.36 | 0.37 | 0.37 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.35 | 0.36 | 0.36 | -4.5% |
| Petroleum Subtotal | 0.45 | 0.47 | 0.47 | 0.48 | 0.48 | 0.46 | 0.45 | 0.46 | 0.49 | 0.45 | 0.47 | 0.51 | 0.52 | -3.6% |
| Natural Gas | 7.82 | 8.05 | 8.16 | 8.44 | 8.61 | 8.95 | 9.24 | 9.57 | 9.90 | 10.23 | 10.43 | 10.73 | 10.76 | 2.9% |
| Steam Coal | 23.29 | 23.50 | 23.95 | 24.20 | 24.55 | 24.78 | 25.12 | 25.35 | 25.51 | 25.83 | 26.22 | 26.53 | 27.09 | 1.3% |
| Nuclear Power | 8.42 | 8.47 | 8.41 | 8.42 | 8.42 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 0.2% |
| Renewable Energy/Other 15/ | 4.63 | 4.68 | 4.72 | 4.77 | 4.80 | 4.83 | 4.91 | 5.00 | 5.03 | 5.06 | 5.10 | 5.16 | 5.21 | 2.3% |
| Electricity Imports | 0.27 | 0.25 | 0.27 | 0.25 | 0.22 | 0.18 | 0.14 | 0.17 | 0.14 | 0.11 | 0.09 | 0.08 | 0.07 | -4.5% |
| Total | 44.89 | 45.42 | 45.98 | 46.56 | 47.07 | 47.64 | 48.29 | 48.97 | 49.49 | 50.12 | 50.74 | 51.45 | 52.09 | 1.4% |
| Total Energy Consumption | | | | | | | | | | | | | | |
| Distillate Fuel | 10.41 | 10.59 | 10.73 | 10.87 | 11.01 | 11.16 | 11.32 | 11.48 | 11.66 | 11.81 | 12.03 | 12.28 | 12.49 | 1.8% |
| Kerosene | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | -1.5% |
| Jet Fuel 9/ | 4.26 | 4.38 | 4.50 | 4.62 | 4.73 | 4.86 | 4.97 | 5.09 | 5.20 | 5.31 | 5.43 | 5.54 | 5.66 | 2.1% |

Table 2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

| Sector and Source | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Liquefied Petroleum Gas | 3.41 | 3.45 | 3.50 | 3.54 | 3.58 | 3.63 | 3.69 | 3.74 | 3.79 | 3.84 | 3.88 | 3.94 | 3.99 | 1.6% |
| Motor Gasoline 2/ | 21.67 | 22.08 | 22.46 | 22.82 | 23.17 | 23.54 | 23.93 | 24.26 | 24.58 | 24.93 | 25.32 | 25.74 | 26.13 | 1.9% |
| Petrochemical Feedstocks | 1.53 | 1.56 | 1.58 | 1.59 | 1.62 | 1.64 | 1.67 | 1.69 | 1.72 | 1.74 | 1.77 | 1.79 | 1.82 | 2.0% |
| Residual Fuel | 1.43 | 1.44 | 1.44 | 1.45 | 1.45 | 1.45 | 1.45 | 1.46 | 1.46 | 1.47 | 1.46 | 1.48 | 1.47 | -1.7% |
| Other Petroleum 12/ | 4.59 | 4.63 | 4.61 | 4.65 | 4.69 | 4.70 | 4.74 | 4.76 | 4.78 | 4.82 | 4.84 | 4.86 | 4.89 | 0.6% |
| Petroleum Subtotal | 47.42 | 48.25 | 48.93 | 49.66 | 50.37 | 51.09 | 51.89 | 52.60 | 53.30 | 54.03 | 54.83 | 55.74 | 56.56 | 1.6% |
| Natural Gas | 27.14 | 27.57 | 27.90 | 28.35 | 28.71 | 29.31 | 29.88 | 30.46 | 31.05 | 31.68 | 32.16 | 32.77 | 33.05 | 1.8% |
| Lease and Plant Fuel 6/ | 1.47 | 1.49 | 1.51 | 1.52 | 1.52 | 1.55 | 1.57 | 1.59 | 1.63 | 1.69 | 1.70 | 1.72 | 1.74 | 1.5% |
| Pipeline Natural Gas | 0.83 | 0.84 | 0.85 | 0.85 | 0.86 | 0.88 | 0.89 | 0.91 | 0.95 | 0.99 | 1.00 | 1.01 | 1.02 | 2.0% |
| Natural Gas Subtotal | 29.44 | 29.90 | 30.25 | 30.72 | 31.10 | 31.74 | 32.34 | 32.96 | 33.63 | 34.36 | 34.86 | 35.51 | 35.81 | 1.8% |
| Metallurgical Coal | 0.62 | 0.61 | 0.60 | 0.59 | 0.58 | 0.57 | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | -1.5% |
| Steam Coal | 24.87 | 25.09 | 25.55 | 25.80 | 26.15 | 26.39 | 26.74 | 26.97 | 27.13 | 27.47 | 27.86 | 28.18 | 28.74 | 1.3% |
| Net Coal Coke Imports | 0.14 | 0.15 | 0.15 | 0.15 | 0.15 | 0.16 | 0.16 | 0.16 | 0.16 | 0.17 | 0.17 | 0.18 | 0.18 | 8.6% |
| Coal Subtotal | 25.64 | 25.85 | 26.30 | 26.54 | 26.88 | 27.12 | 27.46 | 27.68 | 27.84 | 28.16 | 28.55 | 28.87 | 29.42 | 1.2% |
| Nuclear Power | 8.42 | 8.47 | 8.41 | 8.42 | 8.42 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 8.43 | 0.2% |
| Renewable Energy 16/ | 7.55 | 7.65 | 7.75 | 7.85 | 7.92 | 8.01 | 8.14 | 8.28 | 8.37 | 8.46 | 8.55 | 8.67 | 8.78 | 2.1% |
| Liquid Hydrogen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Electricity Imports | 0.27 | 0.25 | 0.27 | 0.25 | 0.22 | 0.18 | 0.14 | 0.17 | 0.14 | 0.11 | 0.09 | 0.08 | 0.07 | -4.5% |
| Total | 118.75 | 120.37 | 121.91 | 123.43 | 124.92 | 126.56 | 128.40 | 130.12 | 131.71 | 133.55 | 135.31 | 137.31 | 139.07 | 1.5% |
| Energy Use & Related Statistics | | | | | | | | | | | | | | |
| Delivered Energy Use | 88.65 | 90.00 | 91.22 | 92.40 | 93.61 | 94.94 | 96.39 | 97.70 | 99.01 | 100.49 | 101.92 | 103.50 | 104.91 | 1.6% |
| Total Energy Use | 118.75 | 120.37 | 121.91 | 123.43 | 124.92 | 126.56 | 128.40 | 130.12 | 131.71 | 133.55 | 135.31 | 137.31 | 139.07 | 1.5% |
| Population (millions) | 307.64 | 310.14 | 312.66 | 315.19 | 317.72 | 320.26 | 322.79 | 325.32 | 327.87 | 330.43 | 333.01 | 335.61 | 338.24 | 0.8% |
| US GDP (billion 1996 dollars) | 13480 | 13893 | 14288 | 14681 | 15101 | 15540 | 16013 | 16450 | 16888 | 17363 | 17858 | 18389 | 18917 | 3.0% |
| Carbon Dioxide Emissions (million metric tons carbon equivalent) | 1889.2 | 1915.7 | 1944.2 | 1970.2 | 1996.8 | 2024.6 | 2055.5 | 2082.5 | 2108.3 | 2139.7 | 2170.8 | 2204.3 | 2236.9 | 1.5% |

Table 2. Energy Consumption by Sector and Source
(Quadrillion Btu per Year, Unless Otherwise Noted)

1/ Includes wood used for residential heating. See Table A18 estimates of nonmarketed renewable energy consumption for geothermal heat pumps, solar thermal hot water heating, and solar photovoltaic electricity generation.

2/ Includes ethanol (blends of 10 percent or less) and ethers blended into gasoline.

3/ Includes commercial sector electricity cogenerated by using wood and wood waste, landfill gas, municipal solid waste, and other biomass. See Table A18 for estimates of nonmarketed renewable energy consumption for solar thermal hot water heating and solar photovoltaic electricity generation.

4/ Fuel consumption includes consumption for combined heat and power, which produces electricity, both for sale to the grid and for own use, and other useful thermal energy.

5/ Includes petroleum coke, asphalt, road oil, lubricants, still gas, and miscellaneous petroleum products.

6/ Represents natural gas used in the field gathering and processing plant machinery.

7/ Includes consumption of energy from hydroelectric, wood and wood waste, municipal solid waste, and other biomass.

8/ Diesel fuel containing 500 parts per million (ppm) or 15 ppm sulfur.

9/ Includes only kerosene type.

10/ Includes aviation gasoline and lubricants.

11/ E85 is 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable).

12/ Includes unfinished oils, natural gasoline, motor gasoline blending compounds, aviation gasoline, lubricants, still gas, asphalt, road oil, petroleum coke, and miscellaneous petroleum products.

13/ Includes electricity generated for sale to the grid and for own use from renewable sources, and non-electric energy from renewable sources. Excludes nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters.

14/ Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

15/ Includes conventional hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, petroleum coke, wind, photovoltaic and solar thermal sources. Excludes net electricity imports.

16/ Includes hydroelectric, geothermal, wood and wood waste, municipal solid waste, other biomass, wind, photovoltaic and solar thermal sources. Includes ethanol components of E85; excludes ethanol blends (10 percent or less) in motor gasoline. Excludes net electricity imports and nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal hot water heaters.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Consumption values of 0.00 are values that round to 0.00, because they are less than 0.005.

Sources: 2000 natural gas lease, plant, and pipeline fuel values: Energy Information Administration (EIA), Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 and 2001 electric utility fuel consumption: EIA, Electric Power Annual 2000, Volume I, DOE/EIA-0348(2000)/1 (Washington, DC, August 2001). 2000 and 2001 nonutility consumption estimates: EIA, Form EIA-860: "Annual Electric Generator Report" (preliminary). Other 2000 values: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c. Other 2001 values: EIA, Short-Term Energy Outlook, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 3. Energy Prices by Sector and Source (2001 Dollars per Million Btu, Unless Otherwise Needed)

| Sector and Source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Residential | 14.58 | 15.80 | 14.15 | 13.99 | 13.83 | 13.74 | 13.54 | 13.55 | 13.59 | 13.75 | 13.84 | 13.97 | 14.02 |
| Primary Energy 1/ | 8.50 | 9.73 | 7.84 | 8.18 | 7.97 | 7.82 | 7.72 | 7.74 | 7.81 | 7.86 | 7.96 | 8.01 | 8.05 |
| Petroleum Products 2/ | 11.12 | 10.85 | 9.77 | 10.35 | 10.14 | 9.74 | 9.58 | 9.66 | 9.71 | 9.76 | 9.90 | 10.00 | 10.06 |
| Distillate Fuel | 9.67 | 8.99 | 8.14 | 9.08 | 8.43 | 7.88 | 7.81 | 7.81 | 7.85 | 7.89 | 7.96 | 8.05 | 8.11 |
| Liquefied Petroleum Gas | 13.85 | 14.84 | 12.73 | 13.16 | 13.79 | 13.70 | 13.37 | 13.62 | 13.68 | 13.74 | 14.01 | 14.09 | 14.12 |
| Natural Gas | 7.75 | 9.41 | 7.29 | 7.58 | 7.39 | 7.31 | 7.23 | 7.25 | 7.32 | 7.38 | 7.48 | 7.52 | 7.56 |
| Electricity | 24.49 | 25.35 | 23.96 | 23.10 | 22.96 | 22.83 | 22.43 | 22.28 | 22.17 | 22.38 | 22.34 | 22.51 | 22.49 |
| Commercial | 14.14 | 15.47 | 14.13 | 13.56 | 13.29 | 13.16 | 12.92 | 12.92 | 13.02 | 13.24 | 13.35 | 13.49 | 13.57 |
| Primary Energy 1/ | 6.74 | 7.81 | 6.11 | 6.28 | 6.06 | 6.00 | 5.95 | 6.01 | 6.12 | 6.21 | 6.34 | 6.40 | 6.46 |
| Petroleum Products 2/ | 7.82 | 7.27 | 7.10 | 7.42 | 6.83 | 6.67 | 6.57 | 6.61 | 6.67 | 6.70 | 6.78 | 6.87 | 6.91 |
| Distillate Fuel | 7.27 | 6.40 | 6.08 | 6.51 | 5.75 | 5.57 | 5.50 | 5.51 | 5.55 | 5.59 | 5.66 | 5.76 | 5.82 |
| Residual Fuel | 3.53 | 3.46 | 4.15 | 4.41 | 4.01 | 3.91 | 3.93 | 3.95 | 3.97 | 3.98 | 4.01 | 4.03 | 4.06 |
| Natural Gas | 6.64 | 8.09 | 6.04 | 6.19 | 6.03 | 5.99 | 5.95 | 6.02 | 6.14 | 6.24 | 6.38 | 6.44 | 6.50 |
| Electricity | 21.86 | 23.22 | 21.90 | 20.73 | 20.39 | 20.12 | 19.63 | 19.48 | 19.48 | 19.72 | 19.73 | 19.85 | 19.86 |
| Industrial 3/ | 7.08 | 7.10 | 5.74 | 6.07 | 6.05 | 5.97 | 5.89 | 5.97 | 6.07 | 6.16 | 6.26 | 6.34 | 6.40 |
| Primary Energy | 5.91 | 5.83 | 4.55 | 4.90 | 4.86 | 4.77 | 4.70 | 4.78 | 4.86 | 4.93 | 5.07 | 5.15 | 5.22 |
| Petroleum Products 2/ | 8.21 | 7.72 | 6.27 | 6.76 | 6.79 | 6.66 | 6.58 | 6.67 | 6.73 | 6.78 | 6.94 | 7.04 | 7.10 |
| Distillate Fuel | 7.38 | 6.55 | 6.14 | 6.57 | 5.79 | 5.62 | 5.55 | 5.56 | 5.62 | 5.66 | 5.73 | 5.87 | 5.92 |
| Liquefied Petroleum Gas | 12.03 | 12.34 | 8.20 | 8.62 | 9.41 | 9.33 | 8.99 | 9.23 | 9.28 | 9.32 | 9.59 | 9.66 | 9.70 |
| Residual Fuel | 3.34 | 3.28 | 3.85 | 4.14 | 3.72 | 3.60 | 3.62 | 3.64 | 3.67 | 3.69 | 3.71 | 3.73 | 3.75 |
| Natural Gas 4/ | 4.62 | 4.87 | 3.40 | 3.72 | 3.58 | 3.52 | 3.46 | 3.53 | 3.64 | 3.75 | 3.89 | 3.96 | 4.05 |
| Metallurgical Coal | 1.66 | 1.69 | 1.62 | 1.61 | 1.59 | 1.57 | 1.57 | 1.55 | 1.53 | 1.52 | 1.51 | 1.49 | 1.48 |
| Steam Coal | 1.43 | 1.46 | 1.48 | 1.47 | 1.45 | 1.44 | 1.43 | 1.42 | 1.41 | 1.39 | 1.38 | 1.37 | 1.36 |
| Electricity | 13.46 | 14.10 | 12.99 | 12.88 | 12.82 | 12.75 | 12.55 | 12.56 | 12.63 | 12.75 | 12.64 | 12.62 | 12.61 |
| Transportation | 11.11 | 10.28 | 9.73 | 10.33 | 10.06 | 9.93 | 10.01 | 10.15 | 10.15 | 10.24 | 10.28 | 10.25 | 10.22 |
| Primary Energy | 11.08 | 10.25 | 9.70 | 10.30 | 10.03 | 9.90 | 9.99 | 10.13 | 10.12 | 10.21 | 10.25 | 10.23 | 10.19 |
| Petroleum Products 2/ | 11.08 | 10.25 | 9.70 | 10.30 | 10.03 | 9.91 | 9.99 | 10.13 | 10.13 | 10.22 | 10.26 | 10.23 | 10.20 |
| Distillate Fuel 5/ | 10.99 | 10.05 | 9.31 | 9.95 | 9.60 | 9.36 | 9.56 | 10.07 | 9.98 | 10.11 | 10.22 | 10.32 | 10.20 |
| Jet Fuel 6/ | 7.26 | 6.20 | 5.90 | 6.33 | 5.81 | 5.61 | 5.49 | 5.56 | 5.58 | 5.61 | 5.62 | 5.76 | 5.78 |
| Motor Gasoline 7/ | 12.42 | 11.57 | 10.96 | 11.58 | 11.38 | 11.30 | 11.38 | 11.41 | 11.42 | 11.50 | 11.53 | 11.42 | 11.39 |
| Residual Fuel | 4.48 | 3.90 | 3.73 | 4.01 | 3.58 | 3.45 | 3.48 | 3.49 | 3.51 | 3.53 | 3.55 | 3.58 | 3.60 |
| Liquefied Petroleum Gas 8/ | 16.45 | 16.93 | 14.83 | 15.25 | 15.02 | 14.89 | 14.62 | 14.79 | 14.88 | 14.92 | 15.21 | 15.32 | 15.25 |
| Natural Gas 9/ | 6.76 | 7.65 | 6.01 | 6.36 | 6.17 | 6.12 | 6.21 | 6.42 | 6.67 | 6.88 | 7.08 | 7.21 | 7.33 |
| Ethanol (E85) 10/ | 17.72 | 17.72 | 17.72 | 20.13 | 19.36 | 19.50 | 19.84 | 21.01 | 21.23 | 21.53 | 21.32 | 21.32 | 22.17 |
| Electricity | 22.07 | 21.84 | 20.81 | 20.09 | 19.99 | 19.72 | 19.24 | 19.03 | 18.97 | 19.02 | 18.99 | 18.97 | 18.90 |
| Average End-Use Energy | 10.63 | 10.74 | 9.65 | 9.92 | 9.76 | 9.67 | 9.62 | 9.70 | 9.74 | 9.85 | 9.92 | 9.97 | 9.99 |
| Primary Energy | 8.65 | 8.52 | 7.47 | 7.93 | 7.76 | 7.67 | 7.69 | 7.80 | 7.86 | 7.95 | 8.05 | 8.08 | 8.10 |
| Electricity | 20.17 | 21.30 | 20.21 | 19.41 | 19.22 | 19.06 | 18.68 | 18.55 | 18.52 | 18.70 | 18.65 | 18.73 | 18.71 |
| Electric Generators 11/ | | | | | | | | | | | | | |
| Fossil Fuel Average | 2.01 | 2.14 | 1.66 | 1.74 | 1.71 | 1.71 | 1.68 | 1.68 | 1.74 | 1.77 | 1.82 | 1.85 | 1.89 |
| Petroleum Products | 4.62 | 4.73 | 4.28 | 4.74 | 4.26 | 4.13 | 4.14 | 4.15 | 4.14 | 4.23 | 4.27 | 4.36 | 4.33 |
| Distillate Fuel | 6.73 | 6.20 | 5.60 | 6.04 | 5.20 | 5.01 | 4.95 | 4.96 | 5.00 | 5.04 | 5.13 | 5.23 | 5.29 |
| Residual Fuel | 4.39 | 4.50 | 4.01 | 4.35 | 3.99 | 3.85 | 3.89 | 3.90 | 3.88 | 3.96 | 3.97 | 4.01 | 4.01 |
| Natural Gas | 4.42 | 4.78 | 3.07 | 3.42 | 3.29 | 3.27 | 3.24 | 3.32 | 3.48 | 3.62 | 3.79 | 3.88 | 3.98 |

Table 3. Energy Prices by Sector and Source (2001 Dollars per Million Btu, Unless Otherwise Needed)

| Sector and Source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Steam Coal | 1.23 | 1.25 | 1.22 | 1.22 | 1.22 | 1.22 | 1.21 | 1.20 | 1.19 | 1.18 | 1.17 | 1.17 | 1.16 |
| Average Price to All Users 12/ | | | | | | | | | | | | | |
| Petroleum Products 2/ | 10.23 | 9.54 | 8.87 | 9.46 | 9.26 | 9.13 | 9.17 | 9.31 | 9.32 | 9.41 | 9.48 | 9.50 | 9.48 |
| Distillate Fuel | 10.05 | 9.16 | 8.53 | 9.17 | 8.72 | 8.47 | 8.60 | 8.98 | 8.94 | 9.06 | 9.17 | 9.29 | 9.23 |
| Jet Fuel | 7.26 | 6.20 | 5.90 | 6.33 | 5.81 | 5.61 | 5.49 | 5.56 | 5.58 | 5.61 | 5.62 | 5.76 | 5.78 |
| Liquefied Petroleum Gas | 12.38 | 12.85 | 9.18 | 9.55 | 10.29 | 10.20 | 9.86 | 10.09 | 10.14 | 10.17 | 10.42 | 10.48 | 10.49 |
| Motor Gasoline 7/ | 12.42 | 11.57 | 10.96 | 11.58 | 11.38 | 11.29 | 11.38 | 11.41 | 11.42 | 11.50 | 11.53 | 11.42 | 11.39 |
| Residual Fuel | 4.28 | 4.11 | 3.83 | 4.10 | 3.70 | 3.57 | 3.59 | 3.61 | 3.63 | 3.66 | 3.68 | 3.71 | 3.73 |
| Natural Gas | 5.59 | 6.40 | 4.61 | 4.93 | 4.78 | 4.74 | 4.67 | 4.74 | 4.82 | 4.91 | 5.03 | 5.08 | 5.15 |
| Coal | 1.24 | 1.26 | 1.24 | 1.24 | 1.23 | 1.24 | 1.23 | 1.21 | 1.20 | 1.19 | 1.18 | 1.18 | 1.17 |
| Ethanol (E85) 10/ | 17.72 | 17.72 | 17.72 | 20.13 | 19.36 | 19.50 | 19.84 | 21.01 | 21.23 | 21.53 | 21.32 | 21.32 | 22.17 |
| Electricity | 20.17 | 21.30 | 20.21 | 19.41 | 19.22 | 19.06 | 18.68 | 18.55 | 18.52 | 18.70 | 18.65 | 18.73 | 18.71 |
| Non-Renewable Energy Expenditures by Sector (billion 2001 dollars) | | | | | | | | | | | | | |
| Residential | 155.98 | 166.69 | 151.96 | 156.86 | 157.69 | 157.91 | 157.67 | 159.33 | 161.78 | 164.59 | 166.98 | 169.78 | 172.09 |
| Commercial | 114.28 | 127.06 | 116.72 | 114.57 | 115.35 | 116.43 | 116.50 | 118.42 | 121.15 | 124.99 | 127.99 | 131.40 | 134.28 |
| Industrial | 143.44 | 135.20 | 111.63 | 119.21 | 119.88 | 118.73 | 118.40 | 122.00 | 125.74 | 130.11 | 135.28 | 139.71 | 143.49 |
| Transportation | 290.84 | 270.40 | 258.62 | 279.94 | 277.92 | 280.74 | 290.64 | 302.84 | 311.14 | 322.56 | 332.93 | 340.62 | 347.34 |
| Total Non-Renewable Expenditures | 704.53 | 699.35 | 638.94 | 670.58 | 670.83 | 673.81 | 683.21 | 702.59 | 719.81 | 742.25 | 763.18 | 781.52 | 797.19 |
| Transportation Renewable Expenditures | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.06 |
| Total Expenditures | 704.54 | 699.36 | 638.95 | 670.60 | 670.86 | 673.84 | 683.24 | 702.63 | 719.85 | 742.29 | 763.22 | 781.57 | 797.25 |

Table 3. Energy Prices by Sector and Source (2001 Dollars per Million Btu, Unless Otherwise Needed)

| Sector and Source | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Residential | 14.12 | 14.21 | 14.25 | 14.33 | 14.33 | 14.37 | 14.39 | 14.53 | 14.51 | 14.64 | 14.67 | 14.83 | 14.82 | -0.3% |
| Primary Energy 1/ | 8.08 | 8.15 | 8.18 | 8.21 | 8.20 | 8.18 | 8.19 | 8.27 | 8.25 | 8.29 | 8.36 | 8.44 | 8.50 | -0.6% |
| Petroleum Products 2/ | 10.15 | 10.29 | 10.32 | 10.38 | 10.39 | 10.49 | 10.63 | 10.70 | 10.77 | 10.83 | 10.89 | 10.95 | 11.01 | 0.1% |
| Distillate Fuel | 8.21 | 8.37 | 8.36 | 8.40 | 8.40 | 8.50 | 8.66 | 8.72 | 8.78 | 8.82 | 8.86 | 8.89 | 8.93 | 0.0% |
| Liquefied Petroleum Gas | 14.18 | 14.25 | 14.31 | 14.36 | 14.38 | 14.42 | 14.47 | 14.52 | 14.58 | 14.63 | 14.70 | 14.78 | 14.84 | 0.0% |
| Natural Gas | 7.59 | 7.65 | 7.68 | 7.71 | 7.70 | 7.66 | 7.66 | 7.74 | 7.71 | 7.75 | 7.83 | 7.92 | 7.99 | -0.7% |
| Electricity | 22.62 | 22.66 | 22.66 | 22.76 | 22.70 | 22.77 | 22.74 | 22.93 | 22.87 | 23.07 | 23.02 | 23.22 | 23.07 | -0.4% |
| Commercial | 13.70 | 13.85 | 13.96 | 14.13 | 14.17 | 14.28 | 14.34 | 14.55 | 14.55 | 14.73 | 14.78 | 14.98 | 15.00 | -0.1% |
| Primary Energy 1/ | 6.50 | 6.58 | 6.61 | 6.64 | 6.64 | 6.63 | 6.65 | 6.74 | 6.73 | 6.78 | 6.86 | 6.94 | 7.01 | -0.4% |
| Petroleum Products 2/ | 7.00 | 7.13 | 7.15 | 7.19 | 7.23 | 7.32 | 7.45 | 7.50 | 7.56 | 7.60 | 7.67 | 7.72 | 7.78 | 0.3% |
| Distillate Fuel | 5.92 | 6.08 | 6.09 | 6.13 | 6.17 | 6.28 | 6.44 | 6.49 | 6.56 | 6.60 | 6.67 | 6.71 | 6.75 | 0.2% |
| Residual Fuel | 4.08 | 4.10 | 4.12 | 4.14 | 4.16 | 4.18 | 4.21 | 4.23 | 4.26 | 4.29 | 4.32 | 4.35 | 4.38 | 1.0% |
| Natural Gas | 6.54 | 6.61 | 6.64 | 6.68 | 6.67 | 6.64 | 6.65 | 6.75 | 6.73 | 6.78 | 6.86 | 6.95 | 7.02 | -0.6% |
| Electricity | 19.99 | 20.14 | 20.25 | 20.48 | 20.49 | 20.67 | 20.69 | 20.96 | 20.90 | 21.14 | 21.11 | 21.35 | 21.26 | -0.4% |
| Industrial 3/ | 6.50 | 6.59 | 6.63 | 6.70 | 6.72 | 6.75 | 6.80 | 6.88 | 6.90 | 6.99 | 7.03 | 7.13 | 7.15 | 0.0% |
| Primary Energy | 5.32 | 5.40 | 5.44 | 5.48 | 5.51 | 5.53 | 5.58 | 5.62 | 5.65 | 5.71 | 5.77 | 5.83 | 5.88 | 0.0% |
| Petroleum Products 2/ | 7.25 | 7.36 | 7.42 | 7.46 | 7.51 | 7.57 | 7.66 | 7.63 | 7.70 | 7.76 | 7.82 | 7.88 | 7.94 | 0.1% |
| Distillate Fuel | 6.06 | 6.24 | 6.28 | 6.34 | 6.47 | 6.59 | 6.75 | 6.80 | 6.93 | 7.02 | 7.13 | 7.18 | 7.25 | 0.4% |
| Liquefied Petroleum Gas | 9.78 | 9.85 | 9.91 | 9.95 | 9.99 | 10.03 | 10.08 | 10.12 | 10.17 | 10.22 | 10.28 | 10.35 | 10.40 | -0.7% |
| Residual Fuel | 3.78 | 3.80 | 3.82 | 3.85 | 3.87 | 3.89 | 3.91 | 3.94 | 3.97 | 4.00 | 4.03 | 4.07 | 4.10 | 0.9% |
| Natural Gas 4/ | 4.10 | 4.15 | 4.18 | 4.22 | 4.22 | 4.19 | 4.21 | 4.32 | 4.33 | 4.39 | 4.46 | 4.52 | 4.57 | -0.3% |
| Metallurgical Coal | 1.48 | 1.47 | 1.46 | 1.45 | 1.43 | 1.43 | 1.41 | 1.41 | 1.38 | 1.38 | 1.37 | 1.36 | 1.35 | -0.9% |
| Steam Coal | 1.36 | 1.35 | 1.35 | 1.34 | 1.33 | 1.33 | 1.32 | 1.31 | 1.30 | 1.30 | 1.29 | 1.29 | 1.29 | -0.5% |
| Electricity | 12.68 | 12.76 | 12.78 | 12.94 | 12.90 | 13.01 | 13.00 | 13.25 | 13.20 | 13.43 | 13.37 | 13.62 | 13.46 | -0.2% |
| Transportation | 10.16 | 10.18 | 10.19 | 10.22 | 10.34 | 10.39 | 10.41 | 10.39 | 10.43 | 10.48 | 10.58 | 10.63 | 10.81 | 0.2% |
| Primary Energy | 10.14 | 10.15 | 10.16 | 10.19 | 10.32 | 10.37 | 10.38 | 10.37 | 10.40 | 10.46 | 10.55 | 10.61 | 10.79 | 0.2% |
| Petroleum Products 2/ | 10.14 | 10.16 | 10.17 | 10.19 | 10.32 | 10.37 | 10.39 | 10.37 | 10.41 | 10.46 | 10.56 | 10.61 | 10.80 | 0.2% |
| Distillate Fuel 5/ | 10.08 | 10.02 | 10.09 | 10.11 | 10.16 | 10.22 | 10.20 | 10.16 | 10.29 | 10.39 | 10.45 | 10.46 | 10.52 | 0.2% |
| Jet Fuel 6/ | 5.87 | 5.96 | 6.03 | 6.05 | 6.15 | 6.24 | 6.32 | 6.33 | 6.45 | 6.57 | 6.64 | 6.66 | 6.72 | 0.3% |
| Motor Gasoline 7/ | 11.33 | 11.35 | 11.34 | 11.37 | 11.54 | 11.59 | 11.60 | 11.60 | 11.59 | 11.62 | 11.74 | 11.81 | 12.08 | 0.2% |
| Residual Fuel | 3.62 | 3.64 | 3.66 | 3.68 | 3.70 | 3.73 | 3.75 | 3.77 | 3.80 | 3.84 | 3.87 | 3.90 | 3.94 | 0.0% |
| Liquefied Petroleum Gas 8/ | 15.32 | 15.40 | 15.46 | 15.48 | 15.47 | 15.47 | 15.50 | 15.50 | 15.51 | 15.48 | 15.53 | 15.63 | 15.63 | -0.3% |
| Natural Gas 9/ | 7.41 | 7.51 | 7.57 | 7.62 | 7.62 | 7.61 | 7.63 | 7.75 | 7.74 | 7.80 | 7.88 | 7.99 | 8.07 | 0.2% |
| Ethanol (E85) 10/ | 22.21 | 22.30 | 22.43 | 22.52 | 22.65 | 22.72 | 22.78 | 22.87 | 22.91 | 23.00 | 23.13 | 23.36 | 23.44 | 1.2% |
| Electricity | 18.88 | 18.84 | 18.75 | 18.78 | 18.58 | 18.51 | 18.37 | 18.37 | 18.13 | 18.13 | 17.96 | 18.01 | 17.82 | -0.8% |
| Average End-Use Energy | 10.03 | 10.09 | 10.13 | 10.20 | 10.27 | 10.32 | 10.35 | 10.42 | 10.44 | 10.53 | 10.59 | 10.69 | 10.78 | 0.0% |
| Primary Energy | 8.13 | 8.18 | 8.22 | 8.26 | 8.34 | 8.38 | 8.41 | 8.43 | 8.46 | 8.52 | 8.61 | 8.67 | 8.80 | 0.1% |
| Electricity | 18.81 | 18.90 | 18.95 | 19.12 | 19.09 | 19.22 | 19.21 | 19.45 | 19.39 | 19.61 | 19.56 | 19.79 | 19.66 | -0.3% |
| Electric Generators 11/ | | | | | | | | | | | | | | |
| Fossil Fuel Average | 1.92 | 1.94 | 1.94 | 1.97 | 1.96 | 1.97 | 1.98 | 2.02 | 2.04 | 2.07 | 2.09 | 2.13 | 2.14 | 0.0% |
| Petroleum Products | 4.33 | 4.41 | 4.43 | 4.45 | 4.49 | 4.53 | 4.57 | 4.60 | 4.72 | 4.70 | 4.82 | 4.90 | 4.98 | 0.2% |
| Distillate Fuel | 5.42 | 5.54 | 5.60 | 5.64 | 5.74 | 5.86 | 6.02 | 6.06 | 6.04 | 6.23 | 6.22 | 6.16 | 6.18 | 0.0% |
| Residual Fuel | 4.03 | 4.04 | 4.07 | 4.08 | 4.11 | 4.14 | 4.17 | 4.21 | 4.25 | 4.29 | 4.34 | 4.36 | 4.40 | -0.1% |
| Natural Gas | 4.04 | 4.11 | 4.14 | 4.18 | 4.17 | 4.16 | 4.18 | 4.30 | 4.30 | 4.38 | 4.45 | 4.54 | 4.60 | -0.2% |
| Steam Coal | 1.16 | 1.15 | 1.15 | 1.14 | 1.14 | 1.13 | 1.13 | 1.12 | 1.11 | 1.11 | 1.11 | 1.11 | 1.10 | -0.5% |

Average Price to All Users 12/

Table 3. Energy Prices by Sector and Source (2001 Dollars per Million Btu, Unless Otherwise Needed)

| Sector and Source | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001- 2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------------|
| Petroleum Products 2/ | 9.49 | 9.53 | 9.56 | 9.59 | 9.70 | 9.76 | 9.80 | 9.78 | 9.83 | 9.89 | 9.98 | 10.03 | 10.18 | 0.3% |
| Distillate Fuel | 9.19 | 9.20 | 9.26 | 9.29 | 9.36 | 9.44 | 9.48 | 9.46 | 9.58 | 9.69 | 9.76 | 9.78 | 9.83 | 0.3% |
| Jet Fuel | 5.87 | 5.96 | 6.03 | 6.05 | 6.15 | 6.24 | 6.32 | 6.33 | 6.45 | 6.57 | 6.64 | 6.66 | 6.72 | 0.3% |
| Liquefied Petroleum Gas | 10.56 | 10.62 | 10.67 | 10.72 | 10.74 | 10.77 | 10.82 | 10.85 | 10.90 | 10.93 | 10.99 | 11.07 | 11.11 | -0.6% |
| Motor Gasoline 7/ | 11.33 | 11.35 | 11.34 | 11.37 | 11.54 | 11.59 | 11.60 | 11.60 | 11.59 | 11.62 | 11.74 | 11.81 | 12.08 | 0.2% |
| Residual Fuel | 3.75 | 3.78 | 3.80 | 3.82 | 3.84 | 3.87 | 3.89 | 3.92 | 3.95 | 3.98 | 4.02 | 4.05 | 4.08 | 0.0% |
| Natural Gas | 5.19 | 5.24 | 5.26 | 5.30 | 5.29 | 5.25 | 5.25 | 5.35 | 5.34 | 5.39 | 5.46 | 5.53 | 5.60 | -0.6% |
| Coal | 1.17 | 1.17 | 1.16 | 1.16 | 1.15 | 1.15 | 1.14 | 1.13 | 1.13 | 1.12 | 1.12 | 1.12 | 1.12 | -0.5% |
| Ethanol (E85) 10/ | 22.21 | 22.30 | 22.43 | 22.52 | 22.65 | 22.72 | 22.78 | 22.87 | 22.91 | 23.00 | 23.13 | 23.36 | 23.44 | 1.2% |
| Electricity | 18.81 | 18.90 | 18.95 | 19.12 | 19.09 | 19.22 | 19.21 | 19.45 | 19.39 | 19.61 | 19.56 | 19.79 | 19.66 | -0.3% |
| Non-Renewable Energy Expenditures by Sector (billion 2001 dollars) | | | | | | | | | | | | | | |
| Residential | 174.12 | 176.55 | 178.50 | 181.40 | 182.29 | 184.42 | 186.39 | 190.35 | 191.32 | 194.74 | 197.12 | 201.60 | 202.99 | 0.8% |
| Commercial | 137.77 | 141.54 | 144.89 | 149.01 | 151.88 | 155.76 | 159.07 | 164.11 | 166.81 | 171.64 | 174.89 | 179.95 | 182.88 | 1.5% |
| Industrial | 147.40 | 151.21 | 153.72 | 156.53 | 158.73 | 161.65 | 165.05 | 169.19 | 171.86 | 176.72 | 180.26 | 185.55 | 188.45 | 1.4% |
| Transportation | 353.17 | 360.82 | 367.91 | 375.18 | 386.39 | 394.97 | 402.66 | 408.34 | 415.83 | 424.83 | 436.01 | 446.18 | 461.42 | 2.3% |
| Total Non-Renewable Expenditures | 812.46 | 830.13 | 845.02 | 862.12 | 879.29 | 896.79 | 913.17 | 932.00 | 945.82 | 967.94 | 988.28 | 1013.29 | 1035.75 | 1.6% |
| Transportation Renewable Expenditures | 0.06 | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 | 10.2% |
| Total Expenditures | 812.52 | 830.19 | 845.09 | 862.19 | 879.38 | 896.88 | 913.27 | 932.10 | 945.93 | 968.04 | 988.40 | 1013.41 | 1035.88 | 1.7% |

Table 3. Energy Prices by Sector and Source (2001 Dollars per Million Btu, Unless Otherwise Noted)

- 1/ Weighted average price includes fuels below as well as coal.
 - 2/ This quantity is the weighted average for all petroleum products, not just those listed below.
 - 3/ Includes combined heat and power.
 - 4/ Excludes uses for lease and plant fuel.
 - 5/ Diesel fuel containing 500 parts per million (ppm) or 15 ppm sulfur. Price includes Federal and State taxes while excluding county and local taxes.
 - 6/ Kerosene-type jet fuel. Price includes Federal and State taxes while excluding county and local taxes.
 - 7/ Sales weighted-average price for all grades. Includes Federal, State, and local taxes.
 - 8/ Includes Federal and State taxes while excluding county and local taxes.
 - 9/ Compressed natural gas used as a vehicle fuel. Price includes estimated motor vehicle fuel taxes.
 - 10/ E85 is 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable).
 - 11/ Includes combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public.
 - 12/ Weighted averages of end-use fuel prices are derived from the prices shown in each sector and the corresponding sectoral consumption.
- Btu = British thermal unit.

Note: Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 prices for gasoline, distillate, and jet fuel are based on prices in the Energy Information Administration (EIA), Petroleum Marketing Annual 2000, http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_marketing_annual/pma_historical.html (August 2001). 2001 prices for gasoline, distillate, and jet fuel are based on the Petroleum Marketing Annual 2000, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_marketing_annual/current/pdf/pmaall.pdf. (September 2002). 2000 and 2001 prices for all other petroleum products are derived from the EIA, State Energy Price and Expenditure Report 1997, DOE/EIA-0376(97) (Washington, DC, July 2000). 2000 residential, commercial, and transportation natural gas delivered prices: EIA, Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 electric generators natural gas delivered prices: Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." 2000 and 2001 industrial gas delivered prices are based on EIA, Manufacturing Energy Consumption Survey 1998. 2001 residential and commercial natural gas delivered prices: EIA, Natural Gas Monthly, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). 2000 and 2001 coal prices based on EIA, Quarterly Coal Report, October-December 2001, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002) and EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c. 2000 residential electricity prices derived from EIA, Short-Term Energy Outlook, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. 2000 and 2001 electricity prices for commercial, industrial, and transportation: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c. Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 4. Residential Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Key Indicators | | | | | | | | | | | | | |
| Households (millions) | | | | | | | | | | | | | |
| Single-Family | 76.57 | 77.50 | 78.49 | 79.42 | 80.32 | 81.18 | 82.06 | 82.97 | 83.90 | 84.83 | 85.79 | 86.76 | 87.66 |
| Multifamily | 22.01 | 22.19 | 22.36 | 22.49 | 22.67 | 22.86 | 23.05 | 23.28 | 23.54 | 23.82 | 24.12 | 24.44 | 24.75 |
| Mobile Homes | 6.61 | 6.57 | 6.54 | 6.56 | 6.62 | 6.73 | 6.86 | 6.98 | 7.10 | 7.21 | 7.33 | 7.44 | 7.54 |
| Total | 105.19 | 106.27 | 107.38 | 108.46 | 109.61 | 110.78 | 111.97 | 113.23 | 114.54 | 115.86 | 117.24 | 118.65 | 119.94 |
| Average House Square Footage | 1678 | 1685 | 1692 | 1699 | 1705 | 1710 | 1716 | 1721 | 1727 | 1732 | 1737 | 1742 | 1747 |
| Energy Intensity | | | | | | | | | | | | | |
| (million Btu per household) | | | | | | | | | | | | | |
| Delivered Energy Consumption | 105.6 | 102.9 | 103.6 | 107.2 | 107.7 | 107.5 | 107.6 | 107.5 | 107.5 | 106.8 | 106.4 | 105.9 | 105.8 |
| Total Energy Consumption | 193.7 | 189.0 | 189.0 | 194.3 | 195.3 | 195.4 | 195.8 | 196.0 | 196.2 | 195.0 | 194.1 | 192.9 | 192.4 |
| (thousand Btu per square foot) | | | | | | | | | | | | | |
| Delivered Energy Consumption | 62.9 | 61.1 | 61.3 | 63.1 | 63.2 | 62.8 | 62.7 | 62.4 | 62.3 | 61.7 | 61.3 | 60.8 | 60.5 |
| Total Energy Consumption | 115.4 | 112.2 | 111.7 | 114.4 | 114.6 | 114.2 | 114.1 | 113.9 | 113.6 | 112.6 | 111.7 | 110.7 | 110.1 |
| Delivered Energy Consumption by Fuel | | | | | | | | | | | | | |
| Electricity | | | | | | | | | | | | | |
| Space Heating | 0.41 | 0.39 | 0.40 | 0.42 | 0.43 | 0.43 | 0.44 | 0.45 | 0.45 | 0.46 | 0.46 | 0.47 | 0.47 |
| Space Cooling | 0.52 | 0.52 | 0.56 | 0.54 | 0.56 | 0.57 | 0.57 | 0.58 | 0.59 | 0.59 | 0.60 | 0.60 | 0.61 |
| Water Heating | 0.46 | 0.45 | 0.45 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.48 | 0.47 | 0.47 | 0.47 | 0.46 |
| Refrigeration | 0.43 | 0.42 | 0.40 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.35 | 0.34 | 0.34 | 0.33 |
| Cooking | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| Clothes Dryers | 0.22 | 0.22 | 0.22 | 0.23 | 0.23 | 0.24 | 0.24 | 0.24 | 0.24 | 0.25 | 0.25 | 0.25 | 0.25 |
| Freezers | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 |
| Lighting | 0.74 | 0.74 | 0.76 | 0.79 | 0.81 | 0.83 | 0.85 | 0.88 | 0.90 | 0.92 | 0.93 | 0.95 | 0.96 |
| Clothes Washers 1/ | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Dishwashers 1/ | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Color Televisions | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.21 |
| Personal Computers | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 |
| Furnace Fans | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 |
| Other Uses 2/ | 0.78 | 0.83 | 0.87 | 0.97 | 1.01 | 1.04 | 1.09 | 1.13 | 1.18 | 1.22 | 1.26 | 1.30 | 1.34 |
| Delivered Energy | 4.07 | 4.10 | 4.20 | 4.37 | 4.46 | 4.53 | 4.61 | 4.69 | 4.79 | 4.85 | 4.93 | 5.00 | 5.07 |
| Natural Gas | | | | | | | | | | | | | |
| Space Heating | 3.32 | 3.13 | 3.21 | 3.43 | 3.50 | 3.52 | 3.57 | 3.62 | 3.67 | 3.69 | 3.73 | 3.76 | 3.80 |
| Space Cooling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Water Heating | 1.48 | 1.48 | 1.51 | 1.56 | 1.58 | 1.58 | 1.58 | 1.58 | 1.58 | 1.56 | 1.56 | 1.55 | 1.56 |
| Cooking | 0.20 | 0.20 | 0.21 | 0.21 | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.23 | 0.23 |
| Clothes Dryers | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 |
| Other Uses 3/ | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 |
| Delivered Energy | 5.12 | 4.94 | 5.05 | 5.32 | 5.42 | 5.45 | 5.51 | 5.56 | 5.61 | 5.62 | 5.66 | 5.69 | 5.75 |
| Distillate | | | | | | | | | | | | | |
| Space Heating | 0.71 | 0.74 | 0.71 | 0.77 | 0.77 | 0.77 | 0.78 | 0.77 | 0.77 | 0.77 | 0.76 | 0.76 | 0.75 |
| Water Heating | 0.14 | 0.16 | 0.15 | 0.16 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | 0.14 |
| Other Uses 4/ | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Delivered Energy | 0.86 | 0.91 | 0.87 | 0.94 | 0.94 | 0.94 | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.90 |

Table 4. Residential Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Liquefied Petroleum Gas | | | | | | | | | | | | | |
| Space Heating | 0.30 | 0.26 | 0.28 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Water Heating | 0.10 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 |
| Cooking | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Other Uses 3/ Delivered Energy | 0.13 0.54 | 0.12 0.50 | 0.13 0.53 | 0.12 0.49 | 0.12 0.49 | 0.12 0.48 | 0.12 0.48 | 0.12 0.48 | 0.12 0.48 | 0.13 0.48 | 0.13 0.47 | 0.13 0.47 | 0.13 0.47 |
| Marketed Renewables (wood) 5/ Other Fuels 6/ | 0.41 0.10 | 0.39 0.11 | 0.39 0.08 | 0.41 0.10 | 0.41 0.10 | 0.41 0.10 | 0.41 0.09 | 0.41 0.09 | 0.41 0.09 | 0.41 0.09 | 0.41 0.09 | 0.41 0.09 | 0.41 0.09 |
| Delivered Energy Consumption by End-Use | | | | | | | | | | | | | |
| Space Heating | 5.24 | 5.01 | 5.07 | 5.39 | 5.46 | 5.49 | 5.55 | 5.60 | 5.65 | 5.67 | 5.70 | 5.73 | 5.78 |
| Space Cooling | 0.52 | 0.52 | 0.56 | 0.54 | 0.56 | 0.57 | 0.57 | 0.58 | 0.59 | 0.59 | 0.60 | 0.60 | 0.61 |
| Water Heating | 2.18 | 2.19 | 2.21 | 2.26 | 2.29 | 2.29 | 2.29 | 2.28 | 2.28 | 2.26 | 2.24 | 2.23 | 2.23 |
| Refrigeration | 0.43 | 0.42 | 0.40 | 0.40 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.35 | 0.34 | 0.34 | 0.33 |
| Cooking | 0.32 | 0.33 | 0.33 | 0.33 | 0.34 | 0.34 | 0.34 | 0.35 | 0.35 | 0.35 | 0.36 | 0.36 | 0.37 |
| Clothes Dryers | 0.28 | 0.28 | 0.29 | 0.30 | 0.31 | 0.31 | 0.32 | 0.32 | 0.32 | 0.33 | 0.33 | 0.33 | 0.34 |
| Freezers | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 |
| Lighting | 0.74 | 0.74 | 0.76 | 0.79 | 0.81 | 0.83 | 0.85 | 0.88 | 0.90 | 0.92 | 0.93 | 0.95 | 0.96 |
| Clothes Washers | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Dishwashers | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Color Televisions | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.21 |
| Personal Computers | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 |
| Furnace Fans | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 |
| Other Uses 7/ Delivered Energy | 0.98 11.11 | 1.01 10.94 | 1.07 11.13 | 1.15 11.62 | 1.20 11.81 | 1.24 11.90 | 1.28 12.05 | 1.32 12.17 | 1.37 12.31 | 1.41 12.38 | 1.46 12.47 | 1.50 12.56 | 1.55 12.69 |
| Electricity Related Losses | 9.26 | 9.15 | 9.17 | 9.45 | 9.60 | 9.74 | 9.88 | 10.03 | 10.16 | 10.21 | 10.28 | 10.32 | 10.39 |
| Total Energy Consumption by End-Use | | | | | | | | | | | | | |
| Space Heating | 6.18 | 5.89 | 5.93 | 6.30 | 6.38 | 6.42 | 6.49 | 6.55 | 6.61 | 6.63 | 6.66 | 6.69 | 6.75 |
| Space Cooling | 1.69 | 1.68 | 1.79 | 1.72 | 1.76 | 1.78 | 1.80 | 1.81 | 1.83 | 1.83 | 1.85 | 1.85 | 1.86 |
| Water Heating | 3.22 | 3.20 | 3.20 | 3.28 | 3.31 | 3.30 | 3.31 | 3.30 | 3.29 | 3.25 | 3.22 | 3.20 | 3.18 |
| Refrigeration | 1.39 | 1.36 | 1.29 | 1.26 | 1.23 | 1.19 | 1.16 | 1.13 | 1.11 | 1.08 | 1.05 | 1.03 | 1.01 |
| Cooking | 0.54 | 0.55 | 0.54 | 0.55 | 0.56 | 0.56 | 0.57 | 0.57 | 0.58 | 0.58 | 0.59 | 0.59 | 0.60 |
| Clothes Dryers | 0.78 | 0.78 | 0.77 | 0.80 | 0.81 | 0.82 | 0.83 | 0.84 | 0.84 | 0.84 | 0.85 | 0.85 | 0.85 |
| Freezers | 0.37 | 0.36 | 0.34 | 0.33 | 0.32 | 0.30 | 0.30 | 0.29 | 0.28 | 0.28 | 0.27 | 0.27 | 0.27 |
| Lighting | 2.43 | 2.40 | 2.41 | 2.50 | 2.55 | 2.61 | 2.67 | 2.75 | 2.81 | 2.85 | 2.88 | 2.90 | 2.92 |
| Clothes Washers | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Dishwashers | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 |
| Color Televisions | 0.42 | 0.43 | 0.45 | 0.48 | 0.50 | 0.53 | 0.55 | 0.56 | 0.58 | 0.59 | 0.60 | 0.62 | 0.63 |
| Personal Computers | 0.19 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 0.23 | 0.23 | 0.24 | 0.25 | 0.25 | 0.26 | 0.26 |
| Furnace Fans | 0.23 | 0.23 | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | 0.26 | 0.26 | 0.27 | 0.27 | 0.27 | 0.27 |
| Other Uses 7/ Total | 2.76 20.37 | 2.86 20.09 | 2.98 20.30 | 3.25 21.07 | 3.37 21.41 | 3.48 21.64 | 3.60 21.93 | 3.73 22.20 | 3.86 22.47 | 3.97 22.59 | 4.08 22.75 | 4.18 22.88 | 4.30 23.07 |
| Non-Marketed Renewables | | | | | | | | | | | | | |
| Geothermal 8/ | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Solar 9/ | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 |
| Total | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |

Table 4. Residential Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Key Indicators | | | | | | | | | | | | | | |
| Households (millions) | | | | | | | | | | | | | | |
| Single-Family | 88.51 | 89.34 | 90.14 | 90.91 | 91.64 | 92.35 | 93.07 | 93.77 | 94.47 | 95.17 | 95.87 | 96.57 | 97.27 | 1.0% |
| Multifamily | 25.03 | 25.32 | 25.61 | 25.89 | 26.17 | 26.45 | 26.75 | 27.05 | 27.36 | 27.70 | 28.04 | 28.41 | 28.78 | 1.1% |
| Mobile Homes | 7.62 | 7.69 | 7.76 | 7.82 | 7.87 | 7.92 | 7.97 | 8.01 | 8.06 | 8.10 | 8.15 | 8.19 | 8.23 | 0.9% |
| Total | 121.17 | 122.36 | 123.51 | 124.62 | 125.69 | 126.73 | 127.78 | 128.84 | 129.89 | 130.97 | 132.06 | 133.17 | 134.28 | 1.0% |
| Average House Square Footage | 1752 | 1756 | 1760 | 1765 | 1769 | 1773 | 1776 | 1780 | 1784 | 1787 | 1790 | 1793 | 1797 | 0.3% |
| Energy Intensity | | | | | | | | | | | | | | |
| (million Btu per household) | | | | | | | | | | | | | | |
| Delivered Energy Consumption | 105.2 | 104.9 | 104.7 | 104.8 | 104.5 | 104.5 | 104.6 | 104.8 | 104.6 | 104.7 | 104.8 | 105.1 | 105.0 | 0.1% |
| Total Energy Consumption | 191.1 | 190.4 | 190.1 | 190.3 | 189.5 | 189.4 | 189.4 | 189.9 | 189.2 | 189.2 | 189.2 | 189.7 | 189.4 | 0.0% |
| (thousand Btu per square foot) | | | | | | | | | | | | | | |
| Delivered Energy Consumption | 60.0 | 59.7 | 59.5 | 59.4 | 59.1 | 59.0 | 58.9 | 58.9 | 58.6 | 58.6 | 58.5 | 58.6 | 58.4 | -0.2% |
| Total Energy Consumption | 109.1 | 108.4 | 108.0 | 107.8 | 107.1 | 106.8 | 106.6 | 106.7 | 106.1 | 105.9 | 105.7 | 105.8 | 105.4 | -0.3% |
| Delivered Energy Consumption by Fuel | | | | | | | | | | | | | | |
| Electricity | | | | | | | | | | | | | | |
| Space Heating | 0.48 | 0.48 | 0.49 | 0.49 | 0.49 | 0.50 | 0.50 | 0.51 | 0.51 | 0.51 | 0.51 | 0.52 | 0.52 | 1.2% |
| Space Cooling | 0.61 | 0.62 | 0.62 | 0.63 | 0.63 | 0.64 | 0.65 | 0.65 | 0.66 | 0.66 | 0.67 | 0.67 | 0.68 | 1.1% |
| Water Heating | 0.46 | 0.45 | 0.45 | 0.45 | 0.45 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | -0.1% |
| Refrigeration | 0.33 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.33 | 0.33 | 0.33 | -1.0% |
| Cooking | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.13 | 0.13 | 1.1% |
| Clothes Dryers | 0.25 | 0.25 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.28 | 1.0% |
| Freezers | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | -0.8% |
| Lighting | 0.97 | 0.97 | 0.98 | 0.99 | 1.00 | 1.01 | 1.02 | 1.03 | 1.03 | 1.04 | 1.05 | 1.06 | 1.07 | 1.5% |
| Clothes Washers 1/ | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | -0.2% |
| Dishwashers 1/ | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.2% |
| Color Televisions | 0.21 | 0.22 | 0.22 | 0.23 | 0.23 | 0.24 | 0.25 | 0.25 | 0.25 | 0.26 | 0.26 | 0.26 | 0.27 | 2.9% |
| Personal Computers | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.11 | 2.7% |
| Furnace Fans | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 1.6% |
| Other Uses 2/ | 1.38 | 1.42 | 1.46 | 1.50 | 1.54 | 1.58 | 1.62 | 1.66 | 1.69 | 1.73 | 1.78 | 1.83 | 1.87 | 3.5% |
| Delivered Energy | 5.12 | 5.18 | 5.25 | 5.33 | 5.38 | 5.44 | 5.51 | 5.59 | 5.65 | 5.71 | 5.79 | 5.88 | 5.94 | 1.6% |
| Natural Gas | | | | | | | | | | | | | | |
| Space Heating | 3.83 | 3.87 | 3.90 | 3.95 | 3.98 | 4.02 | 4.07 | 4.12 | 4.15 | 4.20 | 4.24 | 4.30 | 4.32 | 1.4% |
| Space Cooling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.2% |
| Water Heating | 1.55 | 1.55 | 1.55 | 1.56 | 1.56 | 1.57 | 1.58 | 1.59 | 1.59 | 1.61 | 1.62 | 1.64 | 1.64 | 0.4% |
| Cooking | 0.23 | 0.23 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.9% |
| Clothes Dryers | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 1.9% |
| Other Uses 3/ | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 1.0% |
| Delivered Energy | 5.77 | 5.81 | 5.85 | 5.91 | 5.94 | 6.00 | 6.06 | 6.12 | 6.17 | 6.23 | 6.29 | 6.36 | 6.40 | 1.1% |
| Distillate | | | | | | | | | | | | | | |
| Space Heating | 0.74 | 0.74 | 0.73 | 0.73 | 0.72 | 0.72 | 0.71 | 0.71 | 0.70 | 0.69 | 0.69 | 0.69 | 0.69 | -0.3% |
| Water Heating | 0.14 | 0.13 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | -1.4% |
| Other Uses 4/ | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | -0.5% |
| Delivered Energy | 0.89 | 0.88 | 0.87 | 0.86 | 0.85 | 0.85 | 0.84 | 0.83 | 0.82 | 0.82 | 0.81 | 0.81 | 0.81 | -0.5% |
| Liquefied Petroleum Gas | | | | | | | | | | | | | | |
| Space Heating | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | -0.1% |
| Water Heating | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | -1.5% |

Table 4. Residential Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Cooking | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -0.6% |
| Other Uses 3/ Delivered Energy | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.6% |
| | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.48 | 0.48 | -0.2% |
| Marketed Renewables (wood) 5/ Other Fuels 6/ | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.41 | 0.40 | 0.40 | 0.40 | 0.41 | 0.40 | 0.2% |
| | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | -1.8% |
| Delivered Energy Consumption by End-Use | | | | | | | | | | | | | | |
| Space Heating | 5.79 | 5.82 | 5.86 | 5.91 | 5.93 | 5.97 | 6.01 | 6.06 | 6.09 | 6.13 | 6.18 | 6.23 | 6.26 | 0.9% |
| Space Cooling | 0.61 | 0.62 | 0.62 | 0.63 | 0.63 | 0.64 | 0.65 | 0.65 | 0.66 | 0.66 | 0.67 | 0.67 | 0.68 | 1.1% |
| Water Heating | 2.22 | 2.21 | 2.20 | 2.20 | 2.20 | 2.20 | 2.20 | 2.21 | 2.21 | 2.22 | 2.23 | 2.25 | 2.26 | 0.1% |
| Refrigeration | 0.33 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.33 | 0.33 | 0.33 | -1.0% |
| Cooking | 0.37 | 0.37 | 0.38 | 0.38 | 0.38 | 0.38 | 0.39 | 0.39 | 0.39 | 0.39 | 0.40 | 0.40 | 0.40 | 0.9% |
| Clothes Dryers | 0.34 | 0.34 | 0.35 | 0.35 | 0.35 | 0.35 | 0.36 | 0.36 | 0.36 | 0.37 | 0.37 | 0.38 | 0.38 | 1.2% |
| Freezers | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | -0.8% |
| Lighting | 0.97 | 0.97 | 0.98 | 0.99 | 1.00 | 1.01 | 1.02 | 1.03 | 1.03 | 1.04 | 1.05 | 1.06 | 1.07 | 1.5% |
| Clothes Washers | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | -0.2% |
| Dishwashers | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.2% |
| Color Televisions | 0.21 | 0.22 | 0.22 | 0.23 | 0.23 | 0.24 | 0.25 | 0.25 | 0.25 | 0.26 | 0.26 | 0.26 | 0.27 | 2.9% |
| Personal Computers | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 0.11 | 2.7% |
| Furnace Fans | 0.09 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 1.6% |
| Other Uses 7/ Delivered Energy | 1.58 | 1.63 | 1.67 | 1.71 | 1.75 | 1.79 | 1.83 | 1.87 | 1.91 | 1.95 | 2.00 | 2.05 | 2.09 | 3.1% |
| | 12.74 | 12.84 | 12.93 | 13.06 | 13.13 | 13.24 | 13.36 | 13.51 | 13.59 | 13.71 | 13.84 | 14.00 | 14.10 | 1.1% |
| Electricity Related Losses | 10.42 | 10.46 | 10.54 | 10.65 | 10.69 | 10.75 | 10.84 | 10.96 | 10.99 | 11.07 | 11.14 | 11.26 | 11.33 | 0.9% |
| Total Energy Consumption by End-Use | | | | | | | | | | | | | | |
| Space Heating | 6.76 | 6.80 | 6.83 | 6.89 | 6.91 | 6.95 | 7.00 | 7.05 | 7.08 | 7.12 | 7.16 | 7.23 | 7.25 | 0.9% |
| Space Cooling | 1.86 | 1.87 | 1.88 | 1.89 | 1.90 | 1.90 | 1.92 | 1.93 | 1.93 | 1.94 | 1.95 | 1.97 | 1.98 | 0.7% |
| Water Heating | 3.15 | 3.12 | 3.10 | 3.10 | 3.08 | 3.07 | 3.07 | 3.08 | 3.07 | 3.07 | 3.08 | 3.09 | 3.09 | -0.1% |
| Refrigeration | 0.99 | 0.98 | 0.97 | 0.97 | 0.96 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.96 | 0.96 | -1.4% |
| Cooking | 0.60 | 0.60 | 0.61 | 0.61 | 0.61 | 0.62 | 0.62 | 0.63 | 0.63 | 0.63 | 0.64 | 0.64 | 0.64 | 0.7% |
| Clothes Dryers | 0.85 | 0.85 | 0.86 | 0.86 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 | 0.89 | 0.89 | 0.90 | 0.91 | 0.6% |
| Freezers | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.27 | 0.27 | -1.2% |
| Lighting | 2.93 | 2.94 | 2.96 | 2.98 | 2.99 | 3.00 | 3.02 | 3.04 | 3.05 | 3.06 | 3.08 | 3.10 | 3.10 | 1.1% |
| Clothes Washers | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | -0.7% |
| Dishwashers | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.8% |
| Color Televisions | 0.64 | 0.65 | 0.67 | 0.68 | 0.70 | 0.71 | 0.73 | 0.75 | 0.75 | 0.76 | 0.76 | 0.77 | 0.77 | 2.4% |
| Personal Computers | 0.27 | 0.27 | 0.28 | 0.28 | 0.29 | 0.29 | 0.30 | 0.31 | 0.31 | 0.31 | 0.32 | 0.32 | 0.33 | 2.2% |
| Furnace Fans | 0.28 | 0.28 | 0.28 | 0.28 | 0.29 | 0.29 | 0.29 | 0.30 | 0.30 | 0.30 | 0.30 | 0.31 | 0.31 | 1.2% |
| Other Uses 7/ Total | 4.39 | 4.49 | 4.61 | 4.72 | 4.80 | 4.90 | 5.00 | 5.12 | 5.21 | 5.31 | 5.42 | 5.54 | 5.65 | 2.9% |
| | 23.16 | 23.30 | 23.47 | 23.71 | 23.82 | 24.00 | 24.20 | 24.47 | 24.58 | 24.78 | 24.98 | 25.26 | 25.43 | 1.0% |
| Non-Marketed Renewables | | | | | | | | | | | | | | |
| Geothermal 8/ Solar 9/ Total | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 2.8% |
| | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 2.2% |
| | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 2.3% |

Table 4. Residential Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

1/ Does not include electric water heating portion of load.

2/ Includes small electric devices, heating elements, and motors.

3/ Includes such appliances as swimming pool heaters, outdoor grills, and outdoor lighting (natural gas).

4/ Includes such appliances as swimming pool and hot tub heaters.

5/ Includes wood used for primary and secondary heating in wood stoves or fireplaces as reported in the Residential Energy Consumption Survey 1997.

6/ Includes kerosene and coal.

7/ Includes all other uses listed above.

8/ Includes primary energy displaced by geothermal heat pumps in space heating and cooling applications.

9/ Includes primary energy displaced by solar thermal water heaters and electricity generated using photovoltaics.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Source: 2000 and 2001: Energy Information Administration (EIA), Short-Term Energy Outlook, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>.

Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 5. Commercial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Key Indicators | | | | | | | | | | | | | |
| Total Floorspace (billion square feet) | | | | | | | | | | | | | |
| Surviving | 65.1 | 66.6 | 68.4 | 70.1 | 71.6 | 73.0 | 74.3 | 75.4 | 76.4 | 77.5 | 78.7 | 79.9 | 81.2 |
| New Additions | 3.4 | 3.6 | 3.5 | 3.4 | 3.2 | 3.0 | 2.9 | 2.9 | 2.9 | 3.0 | 3.1 | 3.2 | 3.2 |
| Total | 68.5 | 70.2 | 71.9 | 73.5 | 74.9 | 76.1 | 77.2 | 78.3 | 79.4 | 80.5 | 81.8 | 83.1 | 84.4 |
| Energy Consumption Intensity (thousand Btu per square foot) | | | | | | | | | | | | | |
| Delivered Energy Consumption | 119.5 | 118.4 | 116.3 | 116.4 | 117.3 | 117.7 | 118.2 | 118.5 | 118.6 | 118.6 | 118.5 | 118.5 | 118.6 |
| Electricity Related Losses | 131.5 | 129.9 | 127.2 | 125.4 | 125.9 | 126.7 | 127.4 | 128.2 | 128.4 | 128.2 | 127.9 | 127.7 | 127.4 |
| Total Energy Consumption | 251.0 | 248.3 | 243.5 | 241.9 | 243.2 | 244.4 | 245.6 | 246.7 | 246.9 | 246.8 | 246.4 | 246.2 | 245.9 |
| Delivered Energy Consumption by Fuel | | | | | | | | | | | | | |
| Purchased Electricity | | | | | | | | | | | | | |
| Space Heating 1/ | 0.15 | 0.14 | 0.15 | 0.15 | 0.15 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Space Cooling 1/ | 0.41 | 0.43 | 0.48 | 0.41 | 0.42 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.44 | 0.44 | 0.44 |
| Water Heating 1/ | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Ventilation | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Cooking | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Lighting | 1.02 | 1.02 | 1.04 | 1.07 | 1.10 | 1.13 | 1.14 | 1.16 | 1.18 | 1.19 | 1.21 | 1.22 | 1.24 |
| Refrigeration | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | 0.23 | 0.23 | 0.23 | 0.23 | 0.24 | 0.24 | 0.24 | 0.24 |
| Office Equipment (PC) | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 |
| Office Equipment (non-PC) | 0.30 | 0.31 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.47 | 0.49 | 0.52 |
| Other Uses 2/ | 1.36 | 1.46 | 1.48 | 1.55 | 1.60 | 1.64 | 1.69 | 1.74 | 1.79 | 1.84 | 1.90 | 1.96 | 2.02 |
| Delivered Energy | 3.96 | 4.09 | 4.20 | 4.26 | 4.38 | 4.49 | 4.59 | 4.70 | 4.81 | 4.91 | 5.02 | 5.13 | 5.25 |
| Natural Gas | | | | | | | | | | | | | |
| Space Heating 1/ | 1.45 | 1.32 | 1.38 | 1.50 | 1.53 | 1.54 | 1.56 | 1.56 | 1.57 | 1.57 | 1.58 | 1.58 | 1.59 |
| Space Cooling 1/ | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Water Heating 1/ | 0.59 | 0.57 | 0.59 | 0.61 | 0.64 | 0.65 | 0.66 | 0.67 | 0.68 | 0.69 | 0.70 | 0.71 | 0.72 |
| Cooking | 0.26 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.29 | 0.29 | 0.30 | 0.30 | 0.30 | 0.31 | 0.31 |
| Other Uses 3/ | 0.99 | 1.17 | 1.07 | 1.08 | 1.11 | 1.13 | 1.15 | 1.16 | 1.17 | 1.18 | 1.20 | 1.21 | 1.22 |
| Delivered Energy | 3.30 | 3.33 | 3.32 | 3.47 | 3.57 | 3.62 | 3.67 | 3.71 | 3.74 | 3.77 | 3.80 | 3.83 | 3.87 |
| Distillate | | | | | | | | | | | | | |
| Space Heating 1/ | 0.17 | 0.17 | 0.17 | 0.18 | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 | 0.20 | 0.21 | 0.21 |
| Water Heating 1/ | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 |
| Other Uses 4/ | 0.22 | 0.22 | 0.21 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Delivered Energy | 0.47 | 0.46 | 0.45 | 0.45 | 0.46 | 0.46 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 |
| Other Fuels 5/ | 0.35 | 0.34 | 0.29 | 0.27 | 0.27 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.29 | 0.29 | 0.29 |
| Marketed Renewable Fuels | | | | | | | | | | | | | |
| Biomass | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| Delivered Energy | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |

Table 5. Commercial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Delivered Energy Consumption by End-Use | | | | | | | | | | | | | |
| Space Heating 1/ | 1.77 | 1.63 | 1.70 | 1.83 | 1.87 | 1.89 | 1.90 | 1.92 | 1.92 | 1.93 | 1.94 | 1.94 | 1.95 |
| Space Cooling 1/ | 0.42 | 0.44 | 0.49 | 0.43 | 0.43 | 0.44 | 0.44 | 0.45 | 0.45 | 0.45 | 0.46 | 0.46 | 0.47 |
| Water Heating 1/ | 0.81 | 0.79 | 0.81 | 0.84 | 0.86 | 0.88 | 0.89 | 0.90 | 0.91 | 0.92 | 0.93 | 0.94 | 0.95 |
| Ventilation | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Cooking | 0.29 | 0.29 | 0.30 | 0.31 | 0.32 | 0.32 | 0.32 | 0.33 | 0.33 | 0.34 | 0.34 | 0.34 | 0.35 |
| Lighting | 1.02 | 1.02 | 1.04 | 1.07 | 1.10 | 1.13 | 1.14 | 1.16 | 1.18 | 1.19 | 1.21 | 1.22 | 1.24 |
| Refrigeration | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | 0.23 | 0.23 | 0.23 | 0.23 | 0.24 | 0.24 | 0.24 | 0.24 |
| Office Equipment (PC) | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 |
| Office Equipment (non-PC) | 0.30 | 0.31 | 0.31 | 0.32 | 0.34 | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.47 | 0.49 | 0.52 |
| Other Uses 6/ | 3.03 | 3.30 | 3.16 | 3.20 | 3.28 | 3.36 | 3.43 | 3.49 | 3.56 | 3.62 | 3.69 | 3.77 | 3.84 |
| Delivered Energy | 8.19 | 8.32 | 8.36 | 8.55 | 8.78 | 8.95 | 9.12 | 9.27 | 9.41 | 9.55 | 9.69 | 9.84 | 10.00 |
| Electricity Related Losses | 9.01 | 9.12 | 9.15 | 9.21 | 9.43 | 9.64 | 9.84 | 10.04 | 10.19 | 10.33 | 10.46 | 10.61 | 10.75 |
| Total Energy Consumption by End-Use | | | | | | | | | | | | | |
| Space Heating 1/ | 2.13 | 1.95 | 2.01 | 2.16 | 2.20 | 2.22 | 2.24 | 2.25 | 2.26 | 2.26 | 2.26 | 2.27 | 2.27 |
| Space Cooling 1/ | 1.35 | 1.39 | 1.53 | 1.32 | 1.34 | 1.35 | 1.36 | 1.37 | 1.37 | 1.37 | 1.37 | 1.37 | 1.38 |
| Water Heating 1/ | 1.15 | 1.12 | 1.14 | 1.16 | 1.19 | 1.21 | 1.22 | 1.23 | 1.24 | 1.25 | 1.26 | 1.26 | 1.27 |
| Ventilation | 0.56 | 0.55 | 0.54 | 0.54 | 0.55 | 0.55 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 |
| Cooking | 0.38 | 0.37 | 0.37 | 0.38 | 0.39 | 0.39 | 0.40 | 0.40 | 0.40 | 0.41 | 0.41 | 0.41 | 0.41 |
| Lighting | 3.34 | 3.31 | 3.32 | 3.40 | 3.48 | 3.54 | 3.60 | 3.65 | 3.68 | 3.71 | 3.73 | 3.75 | 3.76 |
| Refrigeration | 0.69 | 0.69 | 0.69 | 0.70 | 0.71 | 0.71 | 0.72 | 0.72 | 0.73 | 0.73 | 0.73 | 0.74 | 0.74 |
| Office Equipment (PC) | 0.50 | 0.52 | 0.52 | 0.54 | 0.57 | 0.60 | 0.63 | 0.66 | 0.69 | 0.72 | 0.74 | 0.77 | 0.79 |
| Office Equipment (non-PC) | 0.98 | 0.99 | 1.00 | 1.01 | 1.06 | 1.12 | 1.19 | 1.25 | 1.31 | 1.38 | 1.44 | 1.51 | 1.58 |
| Other Uses 6/ | 6.13 | 6.56 | 6.39 | 6.54 | 6.72 | 6.89 | 7.05 | 7.21 | 7.35 | 7.50 | 7.65 | 7.81 | 7.98 |
| Total | 17.20 | 17.44 | 17.51 | 17.77 | 18.21 | 18.59 | 18.96 | 19.31 | 19.60 | 19.88 | 20.15 | 20.45 | 20.75 |
| Non-Marketed Renewable Fuels | | | | | | | | | | | | | |
| Solar 7/ | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Total | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |

Table 5. Commercial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Key Indicators | | | | | | | | | | | | | | |
| Total Floorspace (billion square feet) | | | | | | | | | | | | | | |
| Surviving | 82.5 | 83.7 | 85.0 | 86.2 | 87.5 | 88.7 | 89.9 | 91.2 | 92.5 | 93.8 | 95.1 | 96.4 | 97.6 | 1.6% |
| New Additions | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.4 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | -0.1% |
| Total | 85.7 | 86.9 | 88.2 | 89.5 | 90.7 | 92.0 | 93.3 | 94.6 | 96.0 | 97.3 | 98.6 | 99.8 | 101.1 | 1.5% |
| Energy Consumption Intensity (thousand Btu per square foot) | | | | | | | | | | | | | | |
| Delivered Energy Consumption | 118.7 | 118.8 | 118.9 | 119.1 | 119.3 | 119.7 | 120.0 | 120.3 | 120.6 | 120.9 | 121.1 | 121.4 | 121.6 | 0.1% |
| Electricity Related Losses | 127.4 | 127.3 | 127.3 | 127.5 | 127.6 | 127.7 | 128.0 | 128.3 | 128.3 | 128.4 | 128.5 | 128.6 | 128.9 | 0.0% |
| Total Energy Consumption | 246.1 | 246.0 | 246.2 | 246.6 | 246.9 | 247.4 | 248.0 | 248.6 | 248.9 | 249.3 | 249.6 | 250.0 | 250.5 | 0.0% |
| Delivered Energy Consumption by Fuel | | | | | | | | | | | | | | |
| Purchased Electricity | | | | | | | | | | | | | | |
| Space Heating 1/ | 0.16 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.2% |
| Space Cooling 1/ | 0.45 | 0.45 | 0.45 | 0.46 | 0.46 | 0.46 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.48 | 0.48 | 0.5% |
| Water Heating 1/ | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.2% |
| Ventilation | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.20 | 0.6% |
| Cooking | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | -0.8% |
| Lighting | 1.25 | 1.26 | 1.27 | 1.27 | 1.28 | 1.29 | 1.30 | 1.31 | 1.31 | 1.32 | 1.33 | 1.33 | 1.34 | 1.1% |
| Refrigeration | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.27 | 0.27 | 0.27 | 1.0% |
| Office Equipment (PC) | 0.27 | 0.27 | 0.28 | 0.29 | 0.30 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.34 | 0.35 | 0.36 | 3.5% |
| Office Equipment (non-PC) | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.68 | 0.71 | 0.75 | 0.78 | 0.81 | 0.85 | 0.89 | 0.93 | 4.7% |
| Other Uses 2/ | 2.08 | 2.15 | 2.21 | 2.28 | 2.35 | 2.42 | 2.49 | 2.57 | 2.64 | 2.71 | 2.79 | 2.86 | 2.93 | 2.9% |
| Delivered Energy | 5.36 | 5.48 | 5.59 | 5.71 | 5.83 | 5.95 | 6.07 | 6.20 | 6.32 | 6.45 | 6.58 | 6.70 | 6.83 | 2.2% |
| Natural Gas | | | | | | | | | | | | | | |
| Space Heating 1/ | 1.60 | 1.61 | 1.62 | 1.64 | 1.65 | 1.67 | 1.68 | 1.70 | 1.71 | 1.73 | 1.74 | 1.75 | 1.76 | 1.2% |
| Space Cooling 1/ | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 4.9% |
| Water Heating 1/ | 0.73 | 0.75 | 0.76 | 0.77 | 0.78 | 0.79 | 0.81 | 0.82 | 0.83 | 0.84 | 0.85 | 0.86 | 0.87 | 1.8% |
| Cooking | 0.32 | 0.32 | 0.32 | 0.33 | 0.33 | 0.34 | 0.34 | 0.35 | 0.35 | 0.36 | 0.36 | 0.37 | 0.37 | 1.6% |
| Other Uses 3/ | 1.24 | 1.25 | 1.27 | 1.29 | 1.31 | 1.34 | 1.36 | 1.39 | 1.42 | 1.45 | 1.47 | 1.50 | 1.52 | 1.1% |
| Delivered Energy | 3.91 | 3.96 | 4.00 | 4.05 | 4.11 | 4.17 | 4.23 | 4.29 | 4.35 | 4.40 | 4.46 | 4.51 | 4.56 | 1.3% |
| Distillate | | | | | | | | | | | | | | |
| Space Heating 1/ | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 1.2% |
| Water Heating 1/ | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.1% |
| Other Uses 4/ | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | -0.4% |
| Delivered Energy | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.3% |
| Other Fuels 5/ | 0.29 | 0.29 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | -0.4% |
| Marketed Renewable Fuels | | | | | | | | | | | | | | |
| Biomass | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Delivered Energy | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |

Table 5. Commercial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Delivered Energy Consumption by End-Us | | | | | | | | | | | | | | |
| Space Heating 1/ | 1.97 | 1.98 | 1.99 | 2.00 | 2.02 | 2.04 | 2.05 | 2.07 | 2.08 | 2.10 | 2.11 | 2.12 | 2.13 | 1.1% |
| Space Cooling 1/ | 0.47 | 0.47 | 0.48 | 0.48 | 0.49 | 0.49 | 0.50 | 0.50 | 0.50 | 0.50 | 0.51 | 0.51 | 0.52 | 0.7% |
| Water Heating 1/ | 0.96 | 0.98 | 0.99 | 1.00 | 1.01 | 1.02 | 1.04 | 1.05 | 1.06 | 1.07 | 1.08 | 1.09 | 1.10 | 1.4% |
| Ventilation | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.20 | 0.6% |
| Cooking | 0.35 | 0.35 | 0.36 | 0.36 | 0.37 | 0.37 | 0.38 | 0.38 | 0.38 | 0.39 | 0.39 | 0.40 | 0.40 | 1.4% |
| Lighting | 1.25 | 1.26 | 1.27 | 1.27 | 1.28 | 1.29 | 1.30 | 1.31 | 1.31 | 1.32 | 1.33 | 1.33 | 1.34 | 1.1% |
| Refrigeration | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.27 | 0.27 | 0.27 | 1.0% |
| Office Equipment (PC) | 0.27 | 0.27 | 0.28 | 0.29 | 0.30 | 0.30 | 0.31 | 0.32 | 0.33 | 0.34 | 0.34 | 0.35 | 0.36 | 3.5% |
| Office Equipment (non-PC) | 0.54 | 0.57 | 0.60 | 0.63 | 0.65 | 0.68 | 0.71 | 0.75 | 0.78 | 0.81 | 0.85 | 0.89 | 0.93 | 4.7% |
| Other Uses 6/ | 3.92 | 4.01 | 4.09 | 4.18 | 4.27 | 4.37 | 4.47 | 4.57 | 4.67 | 4.77 | 4.87 | 4.97 | 5.07 | 1.8% |
| Delivered Energy | 10.16 | 10.32 | 10.49 | 10.65 | 10.83 | 11.01 | 11.20 | 11.38 | 11.57 | 11.76 | 11.94 | 12.12 | 12.30 | 1.6% |
| Electricity Related Losses | 10.92 | 11.06 | 11.23 | 11.41 | 11.57 | 11.75 | 11.94 | 12.14 | 12.32 | 12.49 | 12.66 | 12.84 | 13.03 | 1.5% |
| Total Energy Consumption by End-Use | | | | | | | | | | | | | | |
| Space Heating 1/ | 2.28 | 2.29 | 2.30 | 2.31 | 2.33 | 2.34 | 2.36 | 2.37 | 2.38 | 2.39 | 2.40 | 2.41 | 2.42 | 0.9% |
| Space Cooling 1/ | 1.38 | 1.38 | 1.39 | 1.39 | 1.40 | 1.40 | 1.41 | 1.41 | 1.42 | 1.42 | 1.42 | 1.42 | 1.43 | 0.1% |
| Water Heating 1/ | 1.28 | 1.29 | 1.30 | 1.31 | 1.32 | 1.33 | 1.34 | 1.35 | 1.36 | 1.37 | 1.38 | 1.38 | 1.39 | 0.9% |
| Ventilation | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.57 | 0.57 | 0.2% |
| Cooking | 0.42 | 0.42 | 0.42 | 0.42 | 0.43 | 0.43 | 0.44 | 0.44 | 0.44 | 0.45 | 0.45 | 0.45 | 0.45 | 0.9% |
| Lighting | 3.79 | 3.80 | 3.81 | 3.82 | 3.83 | 3.84 | 3.85 | 3.87 | 3.87 | 3.88 | 3.88 | 3.89 | 3.89 | 0.7% |
| Refrigeration | 0.75 | 0.75 | 0.75 | 0.75 | 0.76 | 0.76 | 0.76 | 0.77 | 0.77 | 0.77 | 0.78 | 0.78 | 0.78 | 0.5% |
| Office Equipment (PC) | 0.81 | 0.83 | 0.85 | 0.87 | 0.88 | 0.91 | 0.93 | 0.95 | 0.97 | 0.99 | 1.01 | 1.03 | 1.05 | 3.0% |
| Office Equipment (non-PC) | 1.65 | 1.73 | 1.80 | 1.88 | 1.96 | 2.04 | 2.12 | 2.21 | 2.30 | 2.39 | 2.48 | 2.58 | 2.69 | 4.2% |
| Other Uses 6/ | 8.16 | 8.34 | 8.54 | 8.74 | 8.94 | 9.15 | 9.37 | 9.60 | 9.81 | 10.03 | 10.24 | 10.44 | 10.65 | 2.0% |
| Total | 21.08 | 21.39 | 21.72 | 22.06 | 22.40 | 22.76 | 23.14 | 23.52 | 23.89 | 24.25 | 24.60 | 24.96 | 25.33 | 1.6% |
| Non-Marketed Renewable Fuels | | | | | | | | | | | | | | |
| Solar 7/ | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.3% |
| Total | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.3% |

Table 5. Commercial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

1/ Includes fuel consumption for district services.

2/ Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, and medical equipment.

3/ Includes miscellaneous uses, such as pumps, emergency electric generators, combined heat and power in commercial buildings, and manufacturing performed in commercial buildings.

4/ Includes miscellaneous uses, such as cooking, emergency electric generators, and combined heat and power in commercial buildings.

5/ Includes residual fuel oil, liquefied petroleum gas, coal, motor gasoline, and kerosene.

6/ Includes miscellaneous uses, such as service station equipment, automated teller machines, telecommunications equipment, medical equipment, pumps, lighting, emergency electric generators, combined heat and power in commercial buildings, manufacturing performed in commercial buildings, and cooking (distillate), plus residual fuel oil, liquefied petroleum gas, coal, motor gasoline, and kerosene.

7/ Includes primary energy displaced by solar thermal space heating and water heating, and electricity generation by solar photovoltaic systems.

Btu = British thermal unit.

PC = Personal computer.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Source: 2000 and 2001: Energy Information Administration (EIA), Short-Term Energy Outlook, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>.

Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 6. Industrial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Key Indicators | | | | | | | | | | | | | |
| Value of Shipments (billion 1996 dollars) | | | | | | | | | | | | | |
| Manufacturing | 4378 | 4079 | 4003 | 4225 | 4423 | 4542 | 4702 | 4875 | 5039 | 5233 | 5453 | 5656 | 5857 |
| Nonmanufacturing | 1341 | 1346 | 1329 | 1320 | 1334 | 1340 | 1358 | 1402 | 1441 | 1471 | 1505 | 1542 | 1573 |
| Total | 5719 | 5425 | 5332 | 5545 | 5758 | 5882 | 6060 | 6277 | 6480 | 6704 | 6959 | 7198 | 7430 |
| Energy Prices (2001 dollars per million Btu) | | | | | | | | | | | | | |
| Electricity | 13.46 | 14.10 | 12.99 | 12.88 | 12.82 | 12.75 | 12.55 | 12.56 | 12.63 | 12.75 | 12.64 | 12.62 | 12.61 |
| Natural Gas | 4.62 | 4.87 | 3.40 | 3.72 | 3.58 | 3.52 | 3.46 | 3.53 | 3.64 | 3.75 | 3.89 | 3.96 | 4.05 |
| Steam Coal | 1.43 | 1.46 | 1.48 | 1.47 | 1.45 | 1.44 | 1.43 | 1.42 | 1.41 | 1.39 | 1.38 | 1.37 | 1.36 |
| Residual Oil | 3.34 | 3.28 | 3.85 | 4.14 | 3.72 | 3.60 | 3.62 | 3.64 | 3.67 | 3.69 | 3.71 | 3.73 | 3.75 |
| Distillate Oil | 7.38 | 6.55 | 6.14 | 6.57 | 5.79 | 5.62 | 5.55 | 5.56 | 5.62 | 5.66 | 5.73 | 5.87 | 5.92 |
| Liquefied Petroleum Gas | 12.03 | 12.34 | 8.20 | 8.62 | 9.41 | 9.33 | 8.99 | 9.23 | 9.28 | 9.32 | 9.59 | 9.66 | 9.70 |
| Motor Gasoline | 12.39 | 11.57 | 10.92 | 11.54 | 10.96 | 10.82 | 11.30 | 11.34 | 11.37 | 11.47 | 11.49 | 11.38 | 11.35 |
| Metallurgical Coal | 1.66 | 1.69 | 1.62 | 1.61 | 1.59 | 1.57 | 1.57 | 1.55 | 1.53 | 1.52 | 1.51 | 1.49 | 1.48 |
| Energy Consumption 1/ | | | | | | | | | | | | | |
| Purchased Electricity | 3.63 | 3.39 | 3.17 | 3.33 | 3.42 | 3.47 | 3.55 | 3.65 | 3.76 | 3.84 | 3.95 | 4.05 | 4.13 |
| Natural Gas | 8.48 | 7.74 | 8.22 | 8.33 | 8.31 | 8.35 | 8.52 | 8.66 | 8.74 | 8.90 | 9.13 | 9.35 | 9.49 |
| Lease and Plant Fuel 2/ | 1.16 | 1.20 | 1.25 | 1.30 | 1.32 | 1.32 | 1.33 | 1.33 | 1.36 | 1.37 | 1.39 | 1.42 | 1.45 |
| Natural Gas Subtotal | 9.65 | 8.94 | 9.47 | 9.62 | 9.62 | 9.67 | 9.85 | 9.99 | 10.10 | 10.27 | 10.52 | 10.77 | 10.94 |
| Steam Coal | 1.46 | 1.42 | 1.35 | 1.38 | 1.39 | 1.39 | 1.39 | 1.41 | 1.42 | 1.43 | 1.44 | 1.45 | 1.46 |
| Metallurgical Coal & Coke 3/ | 0.86 | 0.74 | 0.66 | 0.72 | 0.73 | 0.73 | 0.74 | 0.75 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| Residual Fuel | 0.24 | 0.23 | 0.19 | 0.20 | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 |
| Distillate | 1.12 | 1.13 | 1.08 | 1.09 | 1.10 | 1.11 | 1.12 | 1.15 | 1.17 | 1.19 | 1.21 | 1.23 | 1.25 |
| Liquefied Petroleum Gas | 2.30 | 2.10 | 2.23 | 2.26 | 2.30 | 2.30 | 2.32 | 2.36 | 2.40 | 2.47 | 2.55 | 2.63 | 2.71 |
| Petrochemical Feedstocks | 1.32 | 1.14 | 1.21 | 1.25 | 1.27 | 1.27 | 1.29 | 1.32 | 1.35 | 1.39 | 1.43 | 1.47 | 1.51 |
| Other Petroleum 4/ | 4.11 | 4.18 | 4.30 | 4.22 | 4.33 | 4.30 | 4.31 | 4.36 | 4.39 | 4.44 | 4.47 | 4.48 | 4.50 |
| Renewables 5/ | 1.86 | 1.82 | 1.80 | 1.86 | 1.92 | 1.95 | 1.99 | 2.03 | 2.08 | 2.15 | 2.22 | 2.29 | 2.35 |
| Delivered Energy | 26.55 | 25.10 | 25.46 | 25.94 | 26.24 | 26.36 | 26.74 | 27.20 | 27.64 | 28.14 | 28.76 | 29.34 | 29.81 |
| Electricity Related Losses | 8.27 | 7.57 | 6.92 | 7.22 | 7.37 | 7.45 | 7.60 | 7.80 | 7.97 | 8.08 | 8.23 | 8.36 | 8.46 |
| Total | 34.82 | 32.67 | 32.38 | 33.16 | 33.61 | 33.82 | 34.34 | 35.00 | 35.60 | 36.22 | 36.99 | 37.70 | 38.27 |
| Energy Consumption per dollar of Shipments 1/ | | | | | | | | | | | | | |
| (thousand Btu per 1996 dollar) | | | | | | | | | | | | | |
| Purchased Electricity | 0.63 | 0.63 | 0.59 | 0.60 | 0.59 | 0.59 | 0.59 | 0.58 | 0.58 | 0.57 | 0.57 | 0.56 | 0.56 |
| Natural Gas | 1.48 | 1.43 | 1.54 | 1.50 | 1.44 | 1.42 | 1.41 | 1.38 | 1.35 | 1.33 | 1.31 | 1.30 | 1.28 |
| Lease and Plant Fuel 2/ | 0.20 | 0.22 | 0.23 | 0.23 | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.20 | 0.20 |
| Natural Gas Subtotal | 1.69 | 1.65 | 1.78 | 1.74 | 1.67 | 1.64 | 1.63 | 1.59 | 1.56 | 1.53 | 1.51 | 1.50 | 1.47 |
| Steam Coal | 0.26 | 0.26 | 0.25 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 |
| Metallurgical Coal & Coke 3/ | 0.15 | 0.14 | 0.12 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 |
| Residual Fuel | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Distillate | 0.20 | 0.21 | 0.20 | 0.20 | 0.19 | 0.19 | 0.19 | 0.18 | 0.18 | 0.18 | 0.17 | 0.17 | 0.17 |
| Liquefied Petroleum Gas | 0.40 | 0.39 | 0.42 | 0.41 | 0.40 | 0.39 | 0.38 | 0.38 | 0.37 | 0.37 | 0.37 | 0.37 | 0.36 |
| Petrochemical Feedstocks | 0.23 | 0.21 | 0.23 | 0.23 | 0.22 | 0.22 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.20 | 0.20 |
| Other Petroleum 4/ | 0.72 | 0.77 | 0.81 | 0.76 | 0.75 | 0.73 | 0.71 | 0.70 | 0.68 | 0.66 | 0.64 | 0.62 | 0.61 |
| Renewables 5/ | 0.33 | 0.33 | 0.34 | 0.34 | 0.33 | 0.33 | 0.33 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Delivered Energy | 4.64 | 4.63 | 4.78 | 4.68 | 4.56 | 4.48 | 4.41 | 4.33 | 4.26 | 4.20 | 4.13 | 4.08 | 4.01 |
| Electricity Related Losses | 1.45 | 1.40 | 1.30 | 1.30 | 1.28 | 1.27 | 1.25 | 1.24 | 1.23 | 1.21 | 1.18 | 1.16 | 1.14 |
| Total | 6.09 | 6.02 | 6.07 | 5.98 | 5.84 | 5.75 | 5.67 | 5.57 | 5.49 | 5.40 | 5.32 | 5.24 | 5.15 |

Table 6. Industrial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

| Key Indicators and Consumption | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Key Indicators | | | | | | | | | | | | | | |
| Value of Shipments (billion 1996 dollars) | | | | | | | | | | | | | | |
| Manufacturing | 6046 | 6238 | 6393 | 6533 | 6693 | 6865 | 7054 | 7220 | 7394 | 7608 | 7822 | 8063 | 8257 | 3.0% |
| Nonmanufacturing | 1589 | 1614 | 1636 | 1652 | 1669 | 1687 | 1715 | 1743 | 1767 | 1793 | 1814 | 1841 | 1869 | 1.4% |
| Total | 7634 | 7853 | 8029 | 8185 | 8362 | 8551 | 8769 | 8963 | 9161 | 9401 | 9636 | 9904 | 10126 | 2.6% |
| Energy Prices (2001 dollars per million Btu) | | | | | | | | | | | | | | |
| Electricity | 12.68 | 12.76 | 12.78 | 12.94 | 12.90 | 13.01 | 13.00 | 13.25 | 13.20 | 13.43 | 13.37 | 13.62 | 13.46 | -0.2% |
| Natural Gas | 4.10 | 4.15 | 4.18 | 4.22 | 4.22 | 4.19 | 4.21 | 4.32 | 4.33 | 4.39 | 4.46 | 4.52 | 4.57 | -0.3% |
| Steam Coal | 1.36 | 1.35 | 1.35 | 1.34 | 1.33 | 1.33 | 1.32 | 1.31 | 1.30 | 1.30 | 1.29 | 1.29 | 1.29 | -0.5% |
| Residual Oil | 3.78 | 3.80 | 3.82 | 3.85 | 3.87 | 3.89 | 3.91 | 3.94 | 3.97 | 4.00 | 4.03 | 4.07 | 4.10 | 0.9% |
| Distillate Oil | 6.06 | 6.24 | 6.28 | 6.34 | 6.47 | 6.59 | 6.75 | 6.80 | 6.93 | 7.02 | 7.13 | 7.18 | 7.25 | 0.4% |
| Liquefied Petroleum Gas | 9.78 | 9.85 | 9.91 | 9.95 | 9.99 | 10.03 | 10.08 | 10.12 | 10.17 | 10.22 | 10.28 | 10.35 | 10.40 | -0.7% |
| Motor Gasoline | 11.28 | 11.30 | 11.28 | 11.32 | 11.51 | 11.55 | 11.56 | 11.56 | 11.56 | 11.60 | 11.72 | 11.79 | 12.07 | 0.2% |
| Metallurgical Coal | 1.48 | 1.47 | 1.46 | 1.45 | 1.43 | 1.43 | 1.41 | 1.41 | 1.38 | 1.38 | 1.37 | 1.36 | 1.35 | -0.9% |
| Energy Consumption 1/ | | | | | | | | | | | | | | |
| Purchased Electricity | 4.21 | 4.28 | 4.34 | 4.38 | 4.44 | 4.50 | 4.58 | 4.63 | 4.69 | 4.77 | 4.85 | 4.93 | 5.00 | 1.6% |
| Natural Gas | 9.56 | 9.67 | 9.79 | 9.86 | 9.96 | 10.10 | 10.26 | 10.38 | 10.54 | 10.72 | 10.87 | 11.06 | 11.22 | 1.6% |
| Lease and Plant Fuel 2/ | 1.47 | 1.49 | 1.51 | 1.52 | 1.52 | 1.55 | 1.57 | 1.59 | 1.63 | 1.69 | 1.70 | 1.72 | 1.74 | 1.5% |
| Natural Gas Subtotal | 11.03 | 11.16 | 11.30 | 11.38 | 11.49 | 11.65 | 11.83 | 11.97 | 12.17 | 12.41 | 12.58 | 12.78 | 12.96 | 1.6% |
| Steam Coal | 1.47 | 1.48 | 1.48 | 1.48 | 1.49 | 1.49 | 1.50 | 1.50 | 1.51 | 1.51 | 1.52 | 1.53 | 1.53 | 0.3% |
| Metallurgical Coal & Coke 3/ | 0.77 | 0.76 | 0.75 | 0.74 | 0.73 | 0.73 | 0.72 | 0.71 | 0.70 | 0.70 | 0.69 | 0.69 | 0.68 | -0.3% |
| Residual Fuel | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | -0.4% |
| Distillate | 1.26 | 1.27 | 1.29 | 1.30 | 1.31 | 1.32 | 1.34 | 1.36 | 1.37 | 1.39 | 1.41 | 1.43 | 1.45 | 1.0% |
| Liquefied Petroleum Gas | 2.78 | 2.83 | 2.87 | 2.90 | 2.94 | 2.99 | 3.05 | 3.10 | 3.14 | 3.19 | 3.23 | 3.28 | 3.33 | 1.9% |
| Petrochemical Feedstocks | 1.53 | 1.56 | 1.58 | 1.59 | 1.62 | 1.64 | 1.67 | 1.69 | 1.72 | 1.74 | 1.77 | 1.79 | 1.82 | 2.0% |
| Other Petroleum 4/ | 4.51 | 4.55 | 4.53 | 4.56 | 4.60 | 4.61 | 4.65 | 4.67 | 4.69 | 4.72 | 4.74 | 4.76 | 4.79 | 0.6% |
| Renewables 5/ | 2.40 | 2.46 | 2.51 | 2.56 | 2.61 | 2.66 | 2.72 | 2.77 | 2.82 | 2.88 | 2.94 | 3.00 | 3.05 | 2.2% |
| Delivered Energy | 30.16 | 30.54 | 30.84 | 31.10 | 31.43 | 31.80 | 32.25 | 32.61 | 33.02 | 33.51 | 33.92 | 34.40 | 34.81 | 1.4% |
| Electricity Related Losses | 8.56 | 8.64 | 8.70 | 8.76 | 8.83 | 8.90 | 8.99 | 9.08 | 9.14 | 9.24 | 9.33 | 9.44 | 9.54 | 1.0% |
| Total | 38.72 | 39.18 | 39.54 | 39.86 | 40.26 | 40.70 | 41.24 | 41.69 | 42.17 | 42.75 | 43.24 | 43.84 | 44.35 | 1.3% |
| Energy Consumption per dollar of Shipments 1/ | | | | | | | | | | | | | | |
| (thousand Btu per 1996 dollar) | | | | | | | | | | | | | | |
| Purchased Electricity | 0.55 | 0.55 | 0.54 | 0.54 | 0.53 | 0.53 | 0.52 | 0.52 | 0.51 | 0.51 | 0.50 | 0.50 | 0.49 | -1.0% |
| Natural Gas | 1.25 | 1.23 | 1.22 | 1.20 | 1.19 | 1.18 | 1.17 | 1.16 | 1.15 | 1.14 | 1.13 | 1.12 | 1.11 | -1.0% |
| Lease and Plant Fuel 2/ | 0.19 | 0.19 | 0.19 | 0.19 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.17 | 0.17 | -1.1% |
| Natural Gas Subtotal | 1.44 | 1.42 | 1.41 | 1.39 | 1.37 | 1.36 | 1.35 | 1.34 | 1.33 | 1.32 | 1.31 | 1.29 | 1.28 | -1.1% |
| Steam Coal | 0.19 | 0.19 | 0.18 | 0.18 | 0.18 | 0.17 | 0.17 | 0.17 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | -2.3% |
| Metallurgical Coal & Coke 3/ | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | -2.9% |
| Residual Fuel | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | -3.0% |
| Distillate | 0.17 | 0.16 | 0.16 | 0.16 | 0.16 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.14 | 0.14 | -1.6% |
| Liquefied Petroleum Gas | 0.36 | 0.36 | 0.36 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.34 | 0.34 | 0.34 | 0.33 | 0.33 | -0.7% |
| Petrochemical Feedstocks | 0.20 | 0.20 | 0.20 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.18 | 0.18 | 0.18 | -0.7% |
| Other Petroleum 4/ | 0.59 | 0.58 | 0.56 | 0.56 | 0.55 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | 0.49 | 0.48 | 0.47 | -2.0% |
| Renewables 5/ | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.30 | 0.30 | 0.30 | -0.4% |
| Delivered Energy | 3.95 | 3.89 | 3.84 | 3.80 | 3.76 | 3.72 | 3.68 | 3.64 | 3.61 | 3.56 | 3.52 | 3.47 | 3.44 | -1.2% |
| Electricity Related Losses | 1.12 | 1.10 | 1.08 | 1.07 | 1.06 | 1.04 | 1.03 | 1.01 | 1.00 | 0.98 | 0.97 | 0.95 | 0.94 | -1.6% |
| Total | 5.07 | 4.99 | 4.92 | 4.87 | 4.81 | 4.76 | 4.70 | 4.65 | 4.60 | 4.55 | 4.49 | 4.43 | 4.38 | -1.3% |

Table 6. Industrial Sector Key Indicators and Consumption (Quadrillion Btu per Year, Unless Otherwise Noted)

1/ Fuel consumption includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.

2/ Represents natural gas used in the field gathering and processing plant machinery.

3/ Includes net coke coal imports.

4/ Includes petroleum coke, asphalt, road oil, lubricants, motor gasoline, still gas, and miscellaneous petroleum products.

5/ Includes consumption of energy from hydroelectric, wood and wood waste, municipal solid waste, and other biomass.

Btu = British thermal unit.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 prices for gasoline and distillate are based on prices in the Energy Information Administration (EIA), Petroleum Marketing Annual 2000, [http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_marketing_annual/historical/\(August 2001\)](http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_marketing_annual/historical/(August%202001)). 2001 prices for gasoline and distillate are based on prices in the Petroleum Marketing Annual 2000, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_marketing_annual/current/pdf/pmaall.pdf. (September 2002). 2000 and 2001 coal prices are based on EIA, Quarterly Coal Report, October-December 2001, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002), and EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c. 2000 and 2001 electricity prices: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c. Other 2000 values and other 2001 prices derived from EIA, State Energy Data Report 1999, DOE/EIA-0214(99) (Washington, DC, May 2001). Other 2001 values: EIA, Short-Term Energy Outlook, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 7. Transportation Sector Key Indicators and Delivered Energy Consumption

| Key Indicators and Consumption | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Key Indicators | | | | | | | | | | | | | |
| Level of Travel (billions) | | | | | | | | | | | | | |
| Light-Duty Vehicles less than 8500 pounds (VMT) | 2355 | 2409 | 2494 | 2536 | 2582 | 2642 | 2708 | 2778 | 2852 | 2925 | 3004 | 3080 | 3156 |
| Commercial Light Trucks (VMT) 1/ | 69 | 66 | 66 | 68 | 70 | 72 | 74 | 76 | 78 | 81 | 84 | 86 | 89 |
| Freight Trucks greater than 10000 pounds (VMT) | 207 | 206 | 204 | 212 | 219 | 225 | 231 | 239 | 246 | 254 | 263 | 272 | 280 |
| Air (seat miles available) | 1168 | 1109 | 1086 | 1073 | 1074 | 1110 | 1155 | 1199 | 1250 | 1305 | 1355 | 1408 | 1462 |
| Rail (ton miles traveled) | 1390 | 1448 | 1404 | 1432 | 1454 | 1475 | 1521 | 1563 | 1593 | 1628 | 1669 | 1718 | 1749 |
| Domestic Shipping (ton miles traveled) | 647 | 788 | 775 | 786 | 796 | 803 | 823 | 837 | 850 | 862 | 874 | 889 | 902 |
| Energy Efficiency Indicators | | | | | | | | | | | | | |
| New Light-Duty Vehicle (MPG) 2/ | 24.1 | 24.1 | 24.1 | 24.2 | 24.2 | 24.2 | 24.1 | 24.1 | 24.0 | 24.1 | 24.3 | 24.4 | 24.5 |
| New Car (MPG) 2/ | 28.2 | 28.1 | 28.1 | 28.3 | 28.4 | 28.3 | 28.2 | 28.2 | 28.3 | 28.3 | 28.5 | 28.7 | 28.7 |
| New Light Truck (MPG) 2/ | 20.6 | 20.7 | 20.7 | 20.8 | 20.8 | 20.9 | 20.8 | 20.8 | 20.7 | 20.8 | 21.0 | 21.2 | 21.3 |
| Light-Duty Fleet (MPG) 3/ | 20.1 | 19.8 | 19.7 | 19.7 | 19.6 | 19.5 | 19.5 | 19.4 | 19.4 | 19.3 | 19.3 | 19.3 | 19.3 |
| New Commercial Light Truck (MPG) 1/ | 13.9 | 13.8 | 13.8 | 13.8 | 13.8 | 13.9 | 13.8 | 13.8 | 13.7 | 13.7 | 13.9 | 14.0 | 14.1 |
| Stock Commercial Light Truck (MPG) 1/ | 13.6 | 13.7 | 13.8 | 13.8 | 13.9 | 13.9 | 13.9 | 13.9 | 13.8 | 13.8 | 13.8 | 13.8 | 13.9 |
| Aircraft Efficiency (seat miles per gallon) | 50.8 | 51.2 | 51.5 | 51.8 | 52.2 | 52.5 | 52.7 | 53.1 | 53.4 | 53.9 | 54.3 | 54.7 | 55.1 |
| Freight Truck Efficiency (MPG) | 5.9 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Rail Efficiency (ton miles per thousand Btu) | 2.8 | 2.8 | 2.9 | 2.9 | 2.9 | 2.9 | 3.0 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 | 3.2 |
| Domestic Shipping Efficiency (ton miles per thousand Btu) | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| Energy Use by Mode (quadrillion Btu) | | | | | | | | | | | | | |
| Light-Duty Vehicles | 14.95 | 15.28 | 15.74 | 16.07 | 16.40 | 16.83 | 17.30 | 17.80 | 18.32 | 18.84 | 19.36 | 19.85 | 20.32 |
| Commercial Light Trucks 1/ | 0.63 | 0.60 | 0.60 | 0.61 | 0.63 | 0.64 | 0.66 | 0.69 | 0.71 | 0.73 | 0.76 | 0.78 | 0.80 |
| Freight Trucks 4/ | 4.72 | 4.68 | 4.63 | 4.80 | 4.95 | 5.06 | 5.20 | 5.36 | 5.52 | 5.69 | 5.89 | 6.07 | 6.22 |
| Air 5/ | 3.62 | 3.47 | 3.41 | 3.39 | 3.38 | 3.46 | 3.56 | 3.65 | 3.76 | 3.87 | 3.97 | 4.08 | 4.19 |
| Rail 6/ | 0.61 | 0.63 | 0.61 | 0.62 | 0.62 | 0.63 | 0.64 | 0.65 | 0.66 | 0.67 | 0.68 | 0.69 | 0.70 |
| Marine 7/ | 1.46 | 1.45 | 1.40 | 1.43 | 1.44 | 1.44 | 1.45 | 1.46 | 1.47 | 1.48 | 1.49 | 1.50 | 1.51 |
| Pipeline Fuel | 0.66 | 0.63 | 0.58 | 0.63 | 0.65 | 0.66 | 0.68 | 0.69 | 0.72 | 0.75 | 0.78 | 0.79 | 0.81 |
| Lubricants | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.20 | 0.20 | 0.21 | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 |
| Total | 26.83 | 26.94 | 27.16 | 27.75 | 28.28 | 28.93 | 29.71 | 30.53 | 31.39 | 32.27 | 33.17 | 34.02 | 34.82 |
| Energy Use by Mode (million barrels per day oil equivalent) | | | | | | | | | | | | | |
| Light-Duty Vehicles | 7.86 | 8.05 | 8.30 | 8.49 | 8.66 | 8.90 | 9.15 | 9.41 | 9.68 | 9.95 | 10.23 | 10.49 | 10.73 |
| Commercial Light Trucks 1/ | 0.33 | 0.32 | 0.31 | 0.32 | 0.33 | 0.34 | 0.35 | 0.36 | 0.37 | 0.38 | 0.40 | 0.41 | 0.42 |
| Freight Trucks | 2.08 | 2.05 | 2.02 | 2.09 | 2.16 | 2.21 | 2.28 | 2.35 | 2.42 | 2.51 | 2.60 | 2.68 | 2.75 |
| Railroad | 0.23 | 0.24 | 0.23 | 0.23 | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | 0.25 | 0.25 | 0.26 | 0.26 |
| Domestic Shipping | 0.13 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.17 | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 |
| International Shipping | 0.37 | 0.34 | 0.32 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 |
| Air 5/ | 1.52 | 1.44 | 1.40 | 1.37 | 1.37 | 1.40 | 1.45 | 1.50 | 1.55 | 1.60 | 1.65 | 1.70 | 1.75 |
| Military Use | 0.28 | 0.30 | 0.31 | 0.33 | 0.34 | 0.33 | 0.33 | 0.33 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 |
| Bus Transportation | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| Rail Transportation 6/ | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 |
| Recreational Boats | 0.17 | 0.16 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.18 |
| Lubricants | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 |
| Pipeline Fuel | 0.33 | 0.32 | 0.29 | 0.32 | 0.33 | 0.34 | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 | 0.40 | 0.41 |
| Total | 13.56 | 13.64 | 13.78 | 14.09 | 14.36 | 14.70 | 15.09 | 15.50 | 15.94 | 16.38 | 16.84 | 17.26 | 17.67 |

Table 7. Transportation Sector Key Indicators and Delivered Energy Consumption

| Key Indicators and Consumption | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Key Indicators | | | | | | | | | | | | | | |
| Level of Travel (billions) | | | | | | | | | | | | | | |
| Light-Duty Vehicles less than 8500 pounds (VMT) | 3234 | 3307 | 3380 | 3452 | 3524 | 3600 | 3680 | 3753 | 3819 | 3890 | 3968 | 4052 | 4132 | 2.3% |
| Commercial Light Trucks (VMT) 1/ | 91 | 94 | 96 | 98 | 100 | 102 | 105 | 107 | 109 | 112 | 114 | 117 | 120 | 2.5% |
| Freight Trucks greater than 10000 pounds (VMT) | 287 | 295 | 301 | 307 | 314 | 322 | 330 | 338 | 345 | 354 | 363 | 372 | 380 | 2.6% |
| Air (seat miles available) | 1519 | 1578 | 1636 | 1695 | 1756 | 1819 | 1882 | 1942 | 2002 | 2064 | 2127 | 2190 | 2256 | 3.0% |
| Rail (ton miles traveled) | 1776 | 1804 | 1833 | 1868 | 1900 | 1928 | 1963 | 1991 | 2015 | 2049 | 2083 | 2117 | 2155 | 1.7% |
| Domestic Shipping (ton miles traveled) | 912 | 925 | 937 | 948 | 961 | 977 | 996 | 1009 | 1024 | 1042 | 1056 | 1072 | 1087 | 1.4% |
| Energy Efficiency Indicators | | | | | | | | | | | | | | |
| New Light-Duty Vehicle (MPG) 2/ | 24.7 | 24.9 | 25.0 | 25.1 | 25.3 | 25.4 | 25.5 | 25.6 | 25.7 | 25.8 | 25.9 | 26.0 | 26.1 | 0.3% |
| New Car (MPG) 2/ | 28.9 | 29.2 | 29.3 | 29.3 | 29.5 | 29.6 | 29.6 | 29.8 | 29.9 | 29.9 | 30.0 | 30.0 | 30.1 | 0.3% |
| New Light Truck (MPG) 2/ | 21.5 | 21.7 | 21.8 | 22.0 | 22.1 | 22.2 | 22.3 | 22.5 | 22.6 | 22.7 | 22.8 | 22.9 | 23.0 | 0.4% |
| Light-Duty Fleet (MPG) 3/ | 19.3 | 19.4 | 19.4 | 19.5 | 19.6 | 19.7 | 19.7 | 19.8 | 19.9 | 20.0 | 20.0 | 20.1 | 20.2 | 0.1% |
| New Commercial Light Truck (MPG) 1/ | 14.2 | 14.3 | 14.4 | 14.5 | 14.6 | 14.7 | 14.8 | 14.8 | 14.9 | 15.0 | 15.1 | 15.1 | 15.2 | 0.4% |
| Stock Commercial Light Truck (MPG) 1/ | 13.9 | 13.9 | 14.0 | 14.1 | 14.1 | 14.2 | 14.3 | 14.4 | 14.4 | 14.5 | 14.6 | 14.7 | 14.8 | 0.3% |
| Aircraft Efficiency (seat miles per gallon) | 55.5 | 55.9 | 56.3 | 56.8 | 57.2 | 57.7 | 58.1 | 58.6 | 59.0 | 59.4 | 59.8 | 60.3 | 60.7 | 0.7% |
| Freight Truck Efficiency (MPG) | 6.0 | 6.1 | 6.1 | 6.2 | 6.2 | 6.2 | 6.3 | 6.3 | 6.4 | 6.4 | 6.4 | 6.4 | 6.5 | 0.3% |
| Rail Efficiency (ton miles per thousand Btu) | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.5 | 3.5 | 3.5 | 3.6 | 3.6 | 1.0% |
| Domestic Shipping Efficiency (ton miles per thousand Btu) | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 0.2% |
| Energy Use by Mode (quadrillion Btu) | | | | | | | | | | | | | | |
| Light-Duty Vehicles | 20.78 | 21.20 | 21.60 | 21.98 | 22.34 | 22.72 | 23.12 | 23.47 | 23.80 | 24.15 | 24.54 | 24.96 | 25.36 | 2.1% |
| Commercial Light Trucks 1/ | 0.82 | 0.84 | 0.86 | 0.87 | 0.88 | 0.90 | 0.92 | 0.93 | 0.94 | 0.96 | 0.98 | 1.00 | 1.02 | 2.2% |
| Freight Trucks 4/ | 6.35 | 6.47 | 6.57 | 6.66 | 6.76 | 6.86 | 6.99 | 7.09 | 7.20 | 7.34 | 7.49 | 7.65 | 7.79 | 2.1% |
| Air 5/ | 4.31 | 4.43 | 4.55 | 4.67 | 4.79 | 4.91 | 5.03 | 5.14 | 5.25 | 5.37 | 5.49 | 5.60 | 5.72 | 2.1% |
| Rail 6/ | 0.70 | 0.71 | 0.71 | 0.72 | 0.73 | 0.73 | 0.74 | 0.75 | 0.75 | 0.76 | 0.76 | 0.77 | 0.78 | 0.9% |
| Marine 7/ | 1.52 | 1.53 | 1.54 | 1.54 | 1.55 | 1.57 | 1.58 | 1.59 | 1.60 | 1.61 | 1.62 | 1.63 | 1.64 | 0.5% |
| Pipeline Fuel | 0.83 | 0.84 | 0.85 | 0.85 | 0.86 | 0.88 | 0.89 | 0.91 | 0.95 | 0.99 | 1.00 | 1.01 | 1.02 | 2.0% |
| Lubricants | 0.23 | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | 0.26 | 0.26 | 0.26 | 0.26 | 0.27 | 0.27 | 0.28 | 1.5% |
| Total | 35.58 | 36.30 | 36.96 | 37.59 | 38.22 | 38.88 | 39.58 | 40.20 | 40.83 | 41.52 | 42.22 | 42.99 | 43.70 | 2.0% |
| Energy Use by Mode (million barrels per day oil equivalent) | | | | | | | | | | | | | | |
| Light-Duty Vehicles | 10.97 | 11.19 | 11.40 | 11.60 | 11.79 | 11.99 | 12.20 | 12.38 | 12.55 | 12.73 | 12.94 | 13.16 | 13.37 | 2.1% |
| Commercial Light Trucks 1/ | 0.43 | 0.44 | 0.45 | 0.46 | 0.47 | 0.47 | 0.48 | 0.49 | 0.50 | 0.51 | 0.52 | 0.53 | 0.54 | 2.2% |
| Freight Trucks | 2.81 | 2.87 | 2.91 | 2.95 | 3.00 | 3.05 | 3.10 | 3.15 | 3.21 | 3.27 | 3.34 | 3.41 | 3.48 | 2.2% |
| Railroad | 0.26 | 0.26 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.28 | 0.28 | 0.28 | 0.28 | 0.7% |
| Domestic Shipping | 0.18 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 | 0.20 | 0.21 | 0.21 | 1.1% |
| International Shipping | 0.33 | 0.33 | 0.33 | 0.33 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.0% |
| Air 5/ | 1.81 | 1.86 | 1.92 | 1.97 | 2.02 | 2.08 | 2.13 | 2.18 | 2.24 | 2.29 | 2.34 | 2.39 | 2.45 | 2.2% |
| Military Use | 0.34 | 0.35 | 0.35 | 0.36 | 0.36 | 0.37 | 0.37 | 0.38 | 0.38 | 0.38 | 0.39 | 0.39 | 0.40 | 1.2% |
| Bus Transportation | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.4% |
| Rail Transportation 6/ | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 1.8% |
| Recreational Boats | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.9% |
| Lubricants | 0.11 | 0.11 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.13 | 0.13 | 0.13 | 0.13 | 1.5% |
| Pipeline Fuel | 0.42 | 0.42 | 0.43 | 0.43 | 0.43 | 0.44 | 0.45 | 0.46 | 0.48 | 0.50 | 0.50 | 0.51 | 0.52 | 2.0% |
| Total | 18.05 | 18.41 | 18.75 | 19.06 | 19.38 | 19.71 | 20.07 | 20.38 | 20.69 | 21.03 | 21.39 | 21.77 | 22.13 | 2.0% |

Table 7. Transportation Sector Key Indicators and Delivered Energy Consumption

- 1/ Commercial trucks 8,500 to 10,000 pounds.
- 2/ Environmental Protection Agency rated miles per gallon.
- 3/ Combined car and light truck "on-the-road" estimate.
- 4/ Includes energy use by buses and military distillate consumption.
- 5/ Includes jet fuel and aviation gasoline.
- 6/ Includes passenger rail.
- 7/ Includes military residual fuel use and recreation boats.

Btu = British thermal unit.

VMT = Vehicle miles traveled.

MPG = Miles per gallon.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000: Energy Information Administration (EIA), Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001); Federal Highway Administration, Highway Statistics 2000 (Washington, DC, November 2001); Oak Ridge National Laboratory, Transportation Energy Data Book: 12, 13, 14, 15, 16, 17, 18, 19, 20, and 21 (Oak Ridge, TN, September 2001); National Highway Traffic and Safety Administration, Summary of Fuel Economy Performance (Washington, DC, February 2000); EIA, Household Vehicle Energy Consumption 1994, DOE/EIA-0464(94) (Washington, DC, August 1997); U.S. Department of Commerce, Bureau of the Census, "Vehicle Inventory and Use Survey," EC97TV (Washington, DC, October 1999); EIA, Describing Current and Potential Markets for Alternative-Fuel Vehicles, DOE/EIA-0604(96) (Washington, DC, March 1996); EIA, Alternatives to Traditional Transportation Fuels 1998, http://www.eia.doe.gov/cneaf/alt_trans98/table1.html; and EIA, State Energy Data Report 1999, DOE/EIA-0214(99) (Washington, DC, May 2001). 2001: U.S. Department of Transportation, Research and Special Programs Administration, Air Carrier Statistics Monthly, December 1999/1998 (Washington, DC, 1999); EIA, Short-Term Energy Outlook, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>; EIA, Fuel Oil and Kerosene Sales 2000, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/fule_oil_and_kerosene_sales/historical/2000/foks_2000.html; and United States Department of Defense, Defense Fuel Supply Center. Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 8. Electricity Supply, Disposition, Prices, and Emissions (Billion Kilowatthours, Unless Otherwise Noted)

| Supply, Disposition, and Prices | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Generation by Fuel Type | | | | | | | | | | | | | |
| Electric Power Sector 1/ Power Only 2/ | | | | | | | | | | | | | |
| Coal | 1911 | 1848 | 1870 | 1902 | 1942 | 1990 | 2054 | 2117 | 2133 | 2157 | 2189 | 2217 | 2231 |
| Petroleum | 98 | 113 | 34 | 28 | 31 | 31 | 32 | 33 | 37 | 35 | 39 | 40 | 42 |
| Natural Gas 3/ | 399 | 411 | 441 | 469 | 504 | 509 | 521 | 536 | 608 | 659 | 708 | 765 | 833 |
| Nuclear Power | 754 | 769 | 777 | 781 | 787 | 793 | 796 | 804 | 797 | 798 | 800 | 801 | 803 |
| Pumped Storage/Other | -5 | -9 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 |
| Renewable Sources 4/ | 316 | 258 | 318 | 361 | 370 | 378 | 383 | 386 | 387 | 390 | 393 | 395 | 397 |
| Distributed Generation (Natural Gas) | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Non-Utility Generation for Own Use | -12 | -21 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 |
| Total | 3460 | 3370 | 3416 | 3517 | 3610 | 3677 | 3761 | 3852 | 3939 | 4016 | 4105 | 4195 | 4282 |
| Combined Heat and Power 5/ | | | | | | | | | | | | | |
| Coal | 33 | 33 | 26 | 26 | 28 | 30 | 31 | 33 | 33 | 33 | 33 | 33 | 33 |
| Petroleum | 7 | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Natural Gas | 119 | 124 | 171 | 179 | 180 | 176 | 177 | 170 | 175 | 173 | 167 | 160 | 155 |
| Renewable Sources | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Non-Utility Generation for Own Use | -9 | -9 | -17 | -17 | -17 | -18 | -18 | -18 | -18 | -18 | -18 | -18 | -18 |
| Total | 155 | 162 | 186 | 195 | 198 | 196 | 198 | 193 | 197 | 195 | 190 | 183 | 178 |
| Net Available to the Grid | 3616 | 3532 | 3602 | 3712 | 3808 | 3873 | 3959 | 4044 | 4136 | 4211 | 4295 | 4378 | 4460 |
| End-Use Sector Generation | | | | | | | | | | | | | |
| Combined Heat and Power 6/ | | | | | | | | | | | | | |
| Coal | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| Petroleum | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Natural Gas | 83 | 83 | 89 | 92 | 95 | 98 | 102 | 105 | 109 | 112 | 115 | 118 | 120 |
| Other Gaseous Fuels 7/ | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Renewable Sources 4/ | 31 | 31 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 41 | 42 |
| Other 8/ | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Total | 160 | 159 | 167 | 171 | 176 | 180 | 184 | 188 | 193 | 198 | 202 | 206 | 210 |
| Other End-Use Generators 9/ | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Generation for Own Use | -135 | -137 | -139 | -141 | -145 | -147 | -149 | -152 | -154 | -157 | -160 | -162 | -164 |
| Total Sales to the Grid | 29 | 27 | 32 | 34 | 35 | 37 | 39 | 41 | 43 | 45 | 48 | 49 | 51 |
| Net Imports | 31 | 20 | 26 | 34 | 30 | 32 | 22 | 24 | 27 | 25 | 28 | 28 | 28 |
| Electricity Sales by Sector | | | | | | | | | | | | | |
| Residential | 1193 | 1201 | 1232 | 1279 | 1307 | 1328 | 1352 | 1376 | 1405 | 1423 | 1445 | 1464 | 1487 |
| Commercial | 1160 | 1197 | 1230 | 1248 | 1283 | 1315 | 1346 | 1377 | 1409 | 1439 | 1471 | 1505 | 1538 |
| Industrial | 1064 | 994 | 930 | 977 | 1003 | 1017 | 1040 | 1070 | 1101 | 1126 | 1157 | 1186 | 1212 |
| Transportation | 21 | 22 | 22 | 23 | 23 | 24 | 25 | 25 | 26 | 27 | 27 | 28 | 29 |
| Total | 3438 | 3414 | 3414 | 3527 | 3617 | 3684 | 3762 | 3848 | 3940 | 4014 | 4101 | 4183 | 4266 |
| End-Use Prices (2001 cents per kilowatthour) 10/ | | | | | | | | | | | | | |
| Residential | 8.4 | 8.6 | 8.2 | 7.9 | 7.8 | 7.8 | 7.7 | 7.6 | 7.6 | 7.6 | 7.6 | 7.7 | 7.7 |
| Commercial | 7.5 | 7.9 | 7.5 | 7.1 | 7.0 | 6.9 | 6.7 | 6.6 | 6.6 | 6.7 | 6.7 | 6.8 | 6.8 |
| Industrial | 4.6 | 4.8 | 4.4 | 4.4 | 4.4 | 4.3 | 4.3 | 4.3 | 4.3 | 4.4 | 4.3 | 4.3 | 4.3 |

Table 8. Electricity Supply, Disposition, Prices, and Emissions (Billion Kilowatthours, Unless Otherwise Noted)

| Supply, Disposition, and Prices | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Transportation | 7.5 | 7.5 | 7.1 | 6.9 | 6.8 | 6.7 | 6.6 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.4 |
| All Sectors Average | 6.9 | 7.3 | 6.9 | 6.6 | 6.6 | 6.5 | 6.4 | 6.3 | 6.3 | 6.4 | 6.4 | 6.4 | 6.4 |
| Prices by Service Category 10/ (2001 cents per kilowatthour) | | | | | | | | | | | | | |
| Generation | 4.2 | 4.7 | 4.4 | 4.2 | 4.0 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.9 | 3.9 |
| Transmission | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Distribution | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Emissions | | | | | | | | | | | | | |
| Sulfur Dioxide (million tons) | 11.19 | 10.63 | 10.71 | 10.73 | 10.61 | 10.71 | 10.80 | 10.58 | 10.13 | 9.93 | 9.57 | 9.20 | 8.95 |
| Nitrogen Oxide (million tons) | 5.09 | 4.75 | 4.00 | 4.05 | 3.53 | 3.61 | 3.71 | 3.83 | 3.89 | 3.92 | 3.92 | 3.94 | 3.95 |
| Mercury (tons) | 47.84 | 51.05 | 48.96 | 49.49 | 48.59 | 49.33 | 50.25 | 51.05 | 51.15 | 51.34 | 51.30 | 51.16 | 50.98 |

Table 8. Electricity Supply, Disposition, Prices, and Emissions (Billion Kilowatthours, Unless Otherwise Noted)

| Supply, Disposition, and Prices | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|
| Generation by Fuel Type | | | | | | | | | | | | | | |
| Electric Power Sector 1/ Power Only 2/ | | | | | | | | | | | | | | |
| Coal | 2257 | 2282 | 2335 | 2363 | 2404 | 2433 | 2472 | 2497 | 2516 | 2555 | 2600 | 2637 | 2703 | 1.6% |
| Petroleum | 42 | 44 | 44 | 45 | 44 | 43 | 42 | 43 | 46 | 42 | 44 | 50 | 52 | -3.2% |
| Natural Gas 3/ | 875 | 921 | 939 | 980 | 1008 | 1055 | 1099 | 1143 | 1195 | 1241 | 1279 | 1322 | 1335 | 5.0% |
| Nuclear Power | 807 | 811 | 805 | 806 | 807 | 807 | 807 | 807 | 807 | 807 | 807 | 807 | 807 | 0.2% |
| Pumped Storage/Other | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -8.9% |
| Renewable Sources 4/ | 400 | 402 | 405 | 407 | 408 | 410 | 413 | 416 | 418 | 420 | 423 | 426 | 429 | 2.1% |
| Distributed Generation (Natural Gas) | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | N/A |
| Non-Utility Generation for Own Use | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | -24 | 0.6% |
| Total | 4358 | 4438 | 4505 | 4580 | 4650 | 4727 | 4813 | 4887 | 4964 | 5047 | 5135 | 5224 | 5309 | 1.9% |
| Combined Heat and Power 5/ | | | | | | | | | | | | | | |
| Coal | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 0.1% |
| Petroleum | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | -2.9% |
| Natural Gas | 151 | 147 | 148 | 147 | 147 | 148 | 148 | 150 | 149 | 150 | 148 | 148 | 146 | 0.7% |
| Renewable Sources | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | -0.6% |
| Non-Utility Generation for Own Use | -18 | -18 | -18 | -18 | -18 | -18 | -18 | -18 | -18 | -18 | -18 | -18 | -18 | 2.7% |
| Total | 174 | 170 | 171 | 170 | 170 | 171 | 171 | 173 | 172 | 173 | 170 | 171 | 169 | 0.2% |
| Net Available to the Grid | 4532 | 4608 | 4676 | 4750 | 4820 | 4898 | 4983 | 5059 | 5136 | 5219 | 5305 | 5395 | 5478 | 1.8% |
| End-Use Sector Generation | | | | | | | | | | | | | | |
| Combined Heat and Power 6/ | | | | | | | | | | | | | | |
| Coal | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 0.0% |
| Petroleum | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0.5% |
| Natural Gas | 123 | 126 | 129 | 133 | 136 | 141 | 145 | 151 | 157 | 163 | 169 | 177 | 183 | 3.4% |
| Other Gaseous Fuels 7/ | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 1.4% |
| Renewable Sources 4/ | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 54 | 55 | 56 | 2.5% |
| Other 8/ | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 0.0% |
| Total | 214 | 218 | 222 | 226 | 231 | 236 | 242 | 249 | 256 | 264 | 271 | 280 | 287 | 2.5% |
| Other End-Use Generators 9/ | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 1.6% |
| Generation for Own Use | -166 | -168 | -171 | -173 | -176 | -180 | -183 | -188 | -192 | -197 | -202 | -207 | -212 | 1.8% |
| Total Sales to the Grid | 53 | 55 | 56 | 58 | 60 | 62 | 65 | 67 | 70 | 73 | 75 | 79 | 82 | 4.7% |
| Net Imports | 26 | 24 | 26 | 24 | 21 | 18 | 14 | 17 | 13 | 10 | 9 | 8 | 7 | -4.5% |
| Electricity Sales by Sector | | | | | | | | | | | | | | |
| Residential | 1501 | 1519 | 1539 | 1562 | 1576 | 1596 | 1616 | 1640 | 1655 | 1674 | 1696 | 1722 | 1742 | 1.6% |
| Commercial | 1572 | 1607 | 1640 | 1673 | 1707 | 1743 | 1780 | 1816 | 1854 | 1890 | 1928 | 1965 | 2003 | 2.2% |
| Industrial | 1233 | 1254 | 1271 | 1285 | 1302 | 1320 | 1341 | 1358 | 1376 | 1398 | 1420 | 1444 | 1466 | 1.6% |
| Transportation | 30 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 41 | 42 | 2.8% |
| Total | 4336 | 4411 | 4481 | 4551 | 4619 | 4692 | 4772 | 4850 | 4921 | 5001 | 5083 | 5172 | 5252 | 1.8% |
| End-Use Prices (2001 cents per kilowatthour) 10/ | | | | | | | | | | | | | | |
| Residential | 7.7 | 7.7 | 7.7 | 7.8 | 7.7 | 7.8 | 7.8 | 7.8 | 7.8 | 7.9 | 7.9 | 7.9 | 7.9 | -0.4% |
| Commercial | 6.8 | 6.9 | 6.9 | 7.0 | 7.0 | 7.1 | 7.1 | 7.2 | 7.1 | 7.2 | 7.2 | 7.3 | 7.3 | -0.4% |
| Industrial | 4.3 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.5 | 4.5 | 4.6 | 4.6 | 4.6 | 4.6 | -0.2% |
| Transportation | 6.4 | 6.4 | 6.4 | 6.4 | 6.3 | 6.3 | 6.3 | 6.3 | 6.2 | 6.2 | 6.1 | 6.1 | 6.1 | -0.8% |
| All Sectors Average | 6.4 | 6.4 | 6.5 | 6.5 | 6.5 | 6.6 | 6.6 | 6.6 | 6.6 | 6.7 | 6.7 | 6.8 | 6.7 | -0.3% |

Table 8. Electricity Supply, Disposition, Prices, and Emissions (Billion Kilowatthours, Unless Otherwise Noted)

| Supply, Disposition, and Prices | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| Prices by Service Category 10/ (2001 cents per kilowatthour) | | | | | | | | | | | | | | |
| Generation | 3.9 | 3.9 | 3.9 | 4.0 | 4.0 | 4.0 | 4.0 | 4.1 | 4.1 | 4.2 | 4.2 | 4.2 | 4.2 | -0.5% |
| Transmission | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7% |
| Distribution | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | -0.2% |
| Emissions | | | | | | | | | | | | | | |
| Sulfur Dioxide (million tons) | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | 8.95 | -0.7% |
| Nitrogen Oxide (million tons) | 3.97 | 3.97 | 3.99 | 4.00 | 4.02 | 4.02 | 4.04 | 4.06 | 4.06 | 4.08 | 4.10 | 4.12 | 4.12 | -0.6% |
| Mercury (tons) | 51.05 | 51.06 | 51.11 | 51.20 | 51.43 | 51.51 | 51.64 | 52.01 | 51.97 | 52.15 | 52.40 | 52.55 | 52.63 | 0.1% |

Table 8. Electricity Supply, Disposition, Prices, and Emissions (Billion Kilowatthours, Unless Otherwise Noted)

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

2/ Includes plants that only produce electricity.

3/ Includes electricity generation by fuel cells.

4/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar, and wind power.

5/ Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report NAICS code 22).

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors.

7/ Other gaseous fuels include refinery and still gas.

8/ Other includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

9/ Other end-use generators include small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

10/ Prices represent average revenue per kilowatthour.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001: Power only and combined heat and power generation, sales to utilities, net imports, residential, industrial, and total electricity sales, and emissions: Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002), and supporting databases. Commercial and transportation electricity sales: EIA estimates based on Oak Ridge National Laboratory, Transportation Energy Data Book 20 (Oak Ridge, TN, November 2000). Prices: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c. 2001 and projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 9. Electricity Generating Capacity (Gigawatts)

| Net Summer Capacity 1/ | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Electric Power Sector 2/ | | | | | | | | | | | | | |
| Power Only 3/ | | | | | | | | | | | | | |
| Coal Steam | 305.4 | 305.3 | 305.6 | 305.4 | 304.1 | 303.1 | 302.0 | 302.2 | 301.8 | 303.2 | 306.4 | 309.4 | 310.1 |
| Other Fossil Steam 4/ | 134.8 | 133.8 | 132.6 | 131.3 | 131.0 | 118.6 | 100.1 | 93.2 | 87.3 | 84.8 | 83.4 | 82.9 | 82.3 |
| Combined Cycle | 28.8 | 43.6 | 74.8 | 94.0 | 98.8 | 103.6 | 106.0 | 113.4 | 118.8 | 131.9 | 145.0 | 158.5 | 170.2 |
| Combustion Turbine/Diesel | 78.8 | 98.1 | 121.0 | 124.5 | 126.6 | 126.8 | 125.3 | 123.4 | 124.0 | 124.6 | 128.2 | 128.6 | 132.3 |
| Nuclear Power 5/ | 98.0 | 98.2 | 98.7 | 99.0 | 99.6 | 100.2 | 100.4 | 99.9 | 99.1 | 99.1 | 99.3 | 99.3 | 99.4 |
| Pumped Storage | 19.8 | 19.9 | 20.2 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| Renewable Sources 6/ | 88.4 | 90.6 | 91.7 | 93.8 | 93.9 | 95.1 | 95.7 | 96.3 | 96.5 | 97.1 | 97.3 | 97.8 | 98.1 |
| Distributed Generation (Natural Gas) 7/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 | 0.6 | 0.9 | 1.3 | 1.7 | 2.3 | 2.7 |
| Total | 754.0 | 789.4 | 844.6 | 868.2 | 874.4 | 868.0 | 850.2 | 849.4 | 848.8 | 862.4 | 881.8 | 899.3 | 915.7 |
| Combined Heat and Power 8/ | | | | | | | | | | | | | |
| Coal Steam | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 |
| Other Fossil Steam 4/ | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Combined Cycle | 17.4 | 22.6 | 28.9 | 30.5 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 31.0 | 31.0 | 31.0 |
| Combustion Turbine/Diesel | 3.4 | 4.5 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| Renewable Sources 6/ | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Total | 27.4 | 33.7 | 40.8 | 42.3 | 43.0 | 43.0 | 43.0 | 43.0 | 43.0 | 43.0 | 42.8 | 42.8 | 42.8 |
| Total Electric Power Industry | 781.4 | 823.1 | 885.4 | 910.5 | 917.4 | 911.1 | 893.2 | 892.4 | 891.8 | 905.4 | 924.7 | 942.1 | 958.5 |
| Cumulative Planned Additions 9/ | | | | | | | | | | | | | |
| Coal Steam | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other Fossil Steam 4/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Combined Cycle | 0.0 | 0.0 | 36.9 | 57.0 | 62.6 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 |
| Combustion Turbine/Diesel | 0.0 | 0.0 | 23.7 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pumped Storage | 0.0 | 0.0 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| Renewable Sources 6/ | 0.0 | 0.0 | 1.0 | 2.8 | 3.0 | 3.8 | 4.1 | 4.3 | 4.5 | 4.7 | 4.9 | 5.1 | 5.2 |
| Distributed Generation 7/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 0.0 | 0.0 | 61.8 | 88.0 | 93.8 | 95.0 | 95.3 | 95.6 | 95.8 | 96.0 | 96.2 | 96.4 | 96.6 |
| Cumulative Unplanned Additions 9/ | | | | | | | | | | | | | |
| Coal Steam | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.2 | 2.2 | 3.7 | 6.8 | 9.8 | 10.6 |
| Other Fossil Steam 4/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Combined Cycle | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 6.6 | 14.5 | 19.8 | 32.9 | 46.1 | 59.6 | 71.2 |
| Combustion Turbine/Diesel | 0.0 | 0.0 | 0.0 | 0.3 | 2.4 | 4.5 | 4.5 | 5.1 | 7.2 | 8.4 | 12.3 | 13.2 | 17.3 |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pumped Storage | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Renewable Sources 6/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.6 | 0.9 | 0.9 | 1.3 | 1.4 | 1.7 | 1.9 |
| Distributed Generation 7/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 | 0.6 | 0.9 | 1.3 | 1.7 | 2.3 | 2.7 |
| Total | 0.0 | 0.0 | 0.0 | 0.3 | 2.5 | 9.3 | 13.0 | 23.2 | 31.1 | 47.5 | 68.3 | 86.5 | 103.6 |
| Cumulative Total Additions | 0.0 | 0.0 | 61.8 | 88.3 | 96.2 | 104.4 | 108.4 | 118.8 | 126.9 | 143.6 | 164.5 | 182.9 | 200.3 |
| Cumulative Retirements 10/ | | | | | | | | | | | | | |
| Coal Steam | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 2.1 | 4.3 | 5.3 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Other Fossil Steam 4/ | 0.0 | 0.0 | 0.1 | 0.9 | 1.3 | 13.7 | 32.2 | 39.0 | 45.0 | 47.5 | 48.9 | 49.3 | 50.0 |
| Combined Cycle | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 |

Table 9. Electricity Generating Capacity (Gigawatts)

| Net Summer Capacity 1/ | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Combustion Turbine/Diesel | 0.0 | 0.0 | 0.1 | 1.1 | 1.1 | 3.0 | 4.5 | 7.1 | 8.5 | 9.1 | 9.4 | 9.9 | 10.3 |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| Pumped Storage | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Renewable Sources 6/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Total | 0.0 | 0.0 | 0.2 | 2.0 | 3.7 | 18.9 | 41.1 | 52.7 | 61.6 | 64.6 | 66.5 | 67.5 | 68.6 |
| End-Use Sector Generators | | | | | | | | | | | | | |
| Combined Heat and Power 11/ | | | | | | | | | | | | | |
| Coal | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| Petroleum | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Natural Gas | 14.2 | 14.5 | 15.0 | 15.3 | 15.6 | 16.1 | 16.6 | 17.0 | 17.5 | 17.9 | 18.3 | 18.7 | 19.1 |
| Other Gaseous Fuels | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| Renewable Sources 6/ | 4.7 | 4.7 | 4.7 | 4.9 | 5.1 | 5.2 | 5.4 | 5.5 | 5.7 | 5.9 | 6.2 | 6.4 | 6.6 |
| Other | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Total | 27.4 | 27.6 | 28.1 | 28.7 | 29.3 | 29.9 | 30.5 | 31.1 | 31.8 | 32.5 | 33.1 | 33.7 | 34.3 |
| Other End-Use Generators 12/ | | | | | | | | | | | | | |
| Renewable Sources 13/ | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 | 1.5 |
| Cumulative Additions 9/ | | | | | | | | | | | | | |
| Combined Heat and Power 11/ | 0.0 | 0.0 | 0.5 | 1.1 | 1.7 | 2.3 | 2.9 | 3.5 | 4.1 | 4.8 | 5.5 | 6.1 | 6.7 |
| Other End-Use Generators 12/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 |

Table 9. Electricity Generating Capacity (Gigawatts)

| Net Summer Capacity 1/ | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Electric Power Sector 2/ | | | | | | | | | | | | | | |
| Power Only 3/ | | | | | | | | | | | | | | |
| Coal Steam | 312.8 | 315.7 | 323.0 | 326.4 | 331.9 | 335.5 | 340.4 | 343.2 | 345.4 | 350.7 | 356.5 | 361.4 | 370.6 | 0.8% |
| Other Fossil Steam 4/ | 80.2 | 79.3 | 78.4 | 78.1 | 77.5 | 77.5 | 77.4 | 77.2 | 77.0 | 76.6 | 76.6 | 76.6 | 76.2 | -2.3% |
| Combined Cycle | 181.2 | 192.6 | 197.8 | 202.6 | 209.9 | 215.5 | 223.5 | 228.3 | 238.9 | 244.4 | 255.6 | 260.7 | 270.4 | 7.9% |
| Combustion Turbine/Diesel | 132.5 | 136.8 | 139.7 | 142.1 | 144.3 | 146.5 | 149.2 | 152.7 | 159.0 | 163.4 | 168.0 | 169.6 | 173.9 | 2.4% |
| Nuclear Power 5/ | 99.8 | 99.3 | 99.5 | 99.6 | 99.6 | 99.6 | 99.6 | 99.6 | 99.6 | 99.6 | 99.6 | 99.6 | 99.6 | 0.1% |
| Pumped Storage | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 0.1% |
| Fuel Cells | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 33.2% |
| Renewable Sources 6/ | 98.7 | 99.2 | 99.8 | 100.2 | 100.6 | 100.9 | 101.5 | 102.0 | 102.4 | 102.8 | 103.3 | 103.8 | 104.3 | 0.6% |
| Distributed Generation (Natural Gas) 7/ | 3.2 | 4.0 | 4.9 | 5.9 | 7.0 | 8.1 | 9.1 | 10.1 | 11.2 | 12.3 | 13.5 | 14.6 | 15.8 | N/A |
| Total | 928.9 | 947.4 | 963.5 | 975.4 | 991.4 | 1004.1 | 1021.3 | 1033.7 | 1054.1 | 1070.3 | 1093.7 | 1106.8 | 1131.2 | 1.5% |
| Combined Heat and Power 8/ | | | | | | | | | | | | | | |
| Coal Steam | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 0.0% |
| Other Fossil Steam 4/ | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 0.0% |
| Combined Cycle | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 1.3% |
| Combustion Turbine/Diesel | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 0.6% |
| Renewable Sources 6/ | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0% |
| Total | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 42.8 | 1.0% |
| Total Electric Power Industry | 971.8 | 990.2 | 1006.4 | 1018.2 | 1034.3 | 1046.9 | 1064.1 | 1076.5 | 1096.9 | 1113.1 | 1136.5 | 1149.6 | 1174.1 | 1.5% |
| Cumulative Planned Additions 9/ | | | | | | | | | | | | | | |
| Coal Steam | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Other Fossil Steam 4/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Combined Cycle | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | 63.1 | N/A |
| Combustion Turbine/Diesel | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 | N/A |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Pumped Storage | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | N/A |
| Fuel Cells | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | N/A |
| Renewable Sources 6/ | 5.5 | 5.7 | 5.8 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | N/A |
| Distributed Generation 7/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Total | 96.9 | 97.1 | 97.2 | 97.4 | 97.6 | 97.6 | 97.7 | 97.9 | 97.9 | 97.9 | 97.9 | 98.0 | 98.0 | N/A |
| Cumulative Unplanned Additions 9/ | | | | | | | | | | | | | | |
| Coal Steam | 13.3 | 16.7 | 23.9 | 27.4 | 32.8 | 37.8 | 42.7 | 45.5 | 48.5 | 53.8 | 59.6 | 64.5 | 74.0 | N/A |
| Other Fossil Steam 4/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Combined Cycle | 82.2 | 93.6 | 98.8 | 103.6 | 110.9 | 116.5 | 124.6 | 129.3 | 139.9 | 145.4 | 156.6 | 161.7 | 171.4 | N/A |
| Combustion Turbine/Diesel | 17.5 | 21.7 | 24.8 | 27.5 | 29.7 | 32.5 | 36.3 | 40.0 | 46.3 | 50.7 | 55.5 | 57.7 | 61.9 | N/A |
| Nuclear Power | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Pumped Storage | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Renewable Sources 6/ | 2.2 | 2.5 | 3.0 | 3.2 | 3.5 | 3.6 | 4.1 | 4.5 | 4.9 | 5.2 | 5.8 | 6.2 | 6.7 | N/A |
| Distributed Generation 7/ | 3.2 | 4.0 | 4.9 | 5.9 | 7.0 | 8.1 | 9.1 | 10.1 | 11.2 | 12.3 | 13.5 | 14.6 | 15.8 | N/A |
| Total | 118.3 | 138.6 | 155.4 | 167.5 | 184.0 | 198.5 | 216.8 | 229.4 | 250.8 | 267.4 | 291.0 | 304.7 | 329.8 | N/A |
| Cumulative Total Additions | 215.3 | 235.7 | 252.7 | 264.9 | 281.5 | 296.1 | 314.5 | 327.3 | 348.7 | 365.3 | 388.9 | 402.7 | 427.8 | N/A |
| Cumulative Retirements 10/ | | | | | | | | | | | | | | |
| Coal Steam | 5.8 | 6.3 | 6.3 | 6.3 | 6.3 | 7.6 | 7.6 | 7.6 | 8.4 | 8.4 | 8.4 | 8.4 | 8.7 | N/A |
| Other Fossil Steam 4/ | 52.1 | 53.0 | 53.9 | 54.2 | 54.7 | 54.8 | 54.9 | 55.1 | 55.3 | 55.7 | 55.7 | 55.7 | 56.1 | N/A |
| Combined Cycle | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | N/A |

Table 9. Electricity Generating Capacity (Gigawatts)

| Net Summer Capacity 1/ | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001- 2025 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| Combustion Turbine/Diesel | 10.3 | 10.3 | 10.4 | 10.7 | 10.7 | 11.3 | 12.4 | 12.6 | 12.6 | 12.6 | 12.7 | 13.4 | 13.4 | N/A |
| Nuclear Power | 1.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | N/A |
| Pumped Storage | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Fuel Cells | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Renewable Sources 6/ | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | N/A |
| Total | 70.7 | 73.1 | 74.1 | 74.6 | 75.2 | 77.1 | 78.3 | 78.7 | 79.8 | 80.2 | 80.4 | 81.0 | 81.7 | N/A |
| End-Use Sector Generators | | | | | | | | | | | | | | |
| Combined Heat and Power 11/ | | | | | | | | | | | | | | |
| Coal | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 0.0% |
| Petroleum | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.6% |
| Natural Gas | 19.4 | 19.8 | 20.2 | 20.7 | 21.2 | 21.8 | 22.5 | 23.3 | 24.0 | 24.9 | 25.8 | 26.8 | 27.7 | 2.7% |
| Other Gaseous Fuels | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 0.3% |
| Renewable Sources 6/ | 6.8 | 7.0 | 7.2 | 7.3 | 7.5 | 7.7 | 7.9 | 8.0 | 8.2 | 8.4 | 8.6 | 8.8 | 9.0 | 2.7% |
| Other | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.0% |
| Total | 34.9 | 35.4 | 36.0 | 36.7 | 37.3 | 38.2 | 39.0 | 40.0 | 40.9 | 42.0 | 43.1 | 44.3 | 45.4 | 2.1% |
| Other End-Use Generators 12/ | | | | | | | | | | | | | | |
| Renewable Sources 13/ | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.9 | 2.0 | 2.0 | 2.5% |
| Cumulative Additions 9/ | | | | | | | | | | | | | | |
| Combined Heat and Power 11/ | 7.2 | 7.8 | 8.4 | 9.0 | 9.7 | 10.5 | 11.4 | 12.3 | 13.3 | 14.4 | 15.4 | 16.6 | 17.8 | N/A |
| Other End-Use Generators 12/ | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | N/A |

Table 9. Electricity Generating Capacity (Gigawatts)

- 1/ Net summer capacity is the steady hourly output that generating equipment is expected to supply to system load (exclusive of auxiliary power), as demonstrated by tests during summer peak demand.
- 2/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.
- 3/ Includes plants that only produce electricity. Includes capacity increases (uprates) at existing units.
- 4/ Includes oil-, gas-, and dual-fired capacity.
- 5/ Nuclear capacity reflects operating capacity of existing units, including 4.3 gigawatts of uprates through 2025.
- 6/ Includes conventional hydroelectric, geothermal, wood, wood waste, municipal solid waste, landfill gas, other biomass, solar and wind power.
- 7/ Primarily peak-load capacity fueled by natural gas.
- 8/ Includes combined heat and power plants whose primary business is to sell electricity and heat to the public (i.e., those that report NAICS code 22).
- 9/ Cumulative additions after December 31, 2001.
- 10/ Cumulative total retirements after December 31, 2001.
- 11/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors.
- 12/ Other end-use generators include small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.
- 13/ See Table 17 for more detail.
- N/A = Not applicable.
- Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Net summer capacity has been estimated for nonutility generators to be consistent with capacity estimates for electric utility generators.
- Sources: 2000 and 2001 electric generating capacity and projected planned additions: Energy Information Administration (EIA), Form EIA-860: "Annual Electric Generator Report" (preliminary). Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 10. Electricity Trade (Billion Kilowatthours, Unless Otherwise Noted)

| Electricity Trade | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Interregional Electricity Trade | | | | | | | | | | | | | |
| Gross Domestic Firm Power Sales | 157.0 | 142.7 | 138.9 | 136.7 | 132.4 | 125.3 | 117.0 | 117.0 | 115.0 | 114.4 | 102.9 | 91.5 | 80.0 |
| Gross Domestic Economy Sales | 148.4 | 176.8 | 169.9 | 200.5 | 202.6 | 202.8 | 204.8 | 201.2 | 196.0 | 203.3 | 199.8 | 198.2 | 190.1 |
| Gross Domestic Trade | 305.3 | 319.5 | 308.8 | 337.2 | 335.0 | 328.1 | 321.8 | 318.2 | 311.0 | 317.6 | 302.8 | 289.7 | 270.2 |
| Gross Domestic Firm Power Sales (million 2001 dollars) | 7748.5 | 7047.1 | 6854.9 | 6746.9 | 6537.8 | 6185.7 | 5775.6 | 5774.3 | 5679.0 | 5645.5 | 5080.9 | 4516.4 | 3951.8 |
| Gross Domestic Economy Sales (million 2001 dollars) | 6305.6 | 8240.1 | 4918.3 | 6032.4 | 5932.1 | 5806.3 | 5750.9 | 5590.8 | 5776.6 | 6094.4 | 6203.2 | 6206.6 | 6101.7 |
| Gross Domestic Sales (million 2001 dollars) | 14054.1 | 15287.3 | 11773.2 | 12779.3 | 12469.9 | 11992.0 | 11526.4 | 11365.1 | 11455.6 | 11739.9 | 11284.1 | 10723.0 | 10053.6 |
| International Electricity Trade | | | | | | | | | | | | | |
| Firm Power Imports from Canada and Mexico | 16.0 | 12.1 | 14.7 | 13.6 | 11.1 | 10.7 | 6.7 | 6.7 | 6.7 | 6.5 | 5.8 | 5.2 | 4.5 |
| Economy Imports from Canada and Mexico | 27.8 | 26.3 | 24.7 | 32.7 | 35.8 | 37.6 | 32.5 | 34.6 | 37.1 | 35.4 | 38.7 | 37.8 | 38.2 |
| Gross Imports from Canada and Mexico | 43.8 | 38.5 | 39.4 | 46.3 | 46.9 | 48.3 | 39.2 | 41.3 | 43.8 | 41.9 | 44.5 | 43.0 | 42.8 |
| Firm Power Exports to Canada and Mexico | 6.5 | 6.5 | 6.5 | 6.0 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 8.7 | 7.8 | 6.8 |
| Economy Exports to Canada and Mexico | 6.7 | 11.7 | 6.6 | 6.7 | 6.9 | 7.0 | 7.1 | 7.2 | 7.4 | 7.5 | 7.7 | 7.7 | 7.7 |
| Gross Exports to Canada and Mexico | 13.2 | 18.2 | 13.1 | 12.7 | 16.6 | 16.7 | 16.8 | 16.9 | 17.1 | 17.2 | 16.4 | 15.4 | 14.4 |

Table 10. Electricity Trade (Billion Kilowatthours, Unless Otherwise Noted)

| Electricity Trade | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Interregional Electricity Trade | | | | | | | | | | | | | | |
| Gross Domestic Firm Power Sales | 68.6 | 57.2 | 45.7 | 34.3 | 22.9 | 11.4 | 5.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Gross Domestic Economy Sales | 188.5 | 186.2 | 191.9 | 184.8 | 191.5 | 185.3 | 186.4 | 180.0 | 182.4 | 172.6 | 182.1 | 166.4 | 177.9 | 0.0% |
| Gross Domestic Trade | 257.2 | 243.4 | 237.6 | 219.1 | 214.4 | 196.7 | 192.2 | 180.0 | 182.4 | 172.6 | 182.1 | 166.4 | 177.9 | -2.4% |
| Gross Domestic Firm Power Sales (million 2001 dollars) | 3387.3 | 2822.7 | 2258.2 | 1693.6 | 1129.1 | 564.5 | 282.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Gross Domestic Economy Sales (million 2001 dollars) | 6111.2 | 6090.2 | 6295.4 | 6108.6 | 6331.8 | 6099.5 | 6173.8 | 6063.7 | 6205.3 | 5890.0 | 6289.3 | 5778.7 | 6238.5 | -1.2% |
| Gross Domestic Sales (million 2001 dollars) | 9498.5 | 8912.9 | 8553.6 | 7802.2 | 7460.9 | 6664.1 | 6456.0 | 6063.7 | 6205.3 | 5890.0 | 6289.3 | 5778.7 | 6238.5 | -3.7% |
| International Electricity Trade | | | | | | | | | | | | | | |
| Firm Power Imports from Canada and Mexico | 3.9 | 3.2 | 2.6 | 1.9 | 1.3 | 0.6 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Economy Imports from Canada and Mexico | 36.1 | 33.7 | 34.9 | 32.5 | 29.4 | 25.6 | 21.7 | 24.4 | 21.0 | 18.0 | 16.2 | 15.6 | 14.4 | -2.5% |
| Gross Imports from Canada and Mexico | 40.0 | 36.9 | 37.5 | 34.4 | 30.7 | 26.2 | 22.0 | 24.4 | 21.0 | 18.0 | 16.2 | 15.6 | 14.4 | -4.0% |
| Firm Power Exports to Canada and Mexico | 5.8 | 4.8 | 3.9 | 2.9 | 1.9 | 1.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Economy Exports to Canada and Mexico | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | -1.7% |
| Gross Exports to Canada and Mexico | 13.5 | 12.5 | 11.5 | 10.6 | 9.6 | 8.6 | 8.1 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | -3.5% |

Table 10. Electricity Trade (Billion Kilowatthours, Unless Otherwise Noted)

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Firm Power Sales are capacity sales, meaning the delivery of the power is scheduled as part of the normal operating conditions of the affected capacity sales, meaning the delivery of the power is scheduled as part of the normal operating conditions of the affected electric systems. Economy Sales are subject to curtailment or cessation of delivery by the supplier in accordance with prior agreements or under specified conditions.

Sources: 2000 interregional firm electricity trade data: North American Electric Reliability Council (NERC), Electricity Sales and Demand Database 1999. 2000 international electricity trade data: DOE Form FE-718R, "Annual Report of International Electrical Export/Import Data." 2000 firm/economy share: National Energy Board, Annual Report 2000. 2001 and Projections: Energy Information Administration, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 11. Petroleum Supply and Disposition Balance (Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|-------|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Crude Oil | | | | | | | | | | | | | |
| Domestic Crude Production 1/ | 5.87 | 5.80 | 5.89 | 5.81 | 5.66 | 5.58 | 6.01 | 6.06 | 5.95 | 5.81 | 5.63 | 5.54 | 5.45 |
| Alaska | 0.99 | 0.97 | 1.00 | 1.01 | 0.93 | 0.87 | 0.81 | 0.76 | 0.72 | 0.67 | 0.64 | 0.68 | 0.73 |
| Lower 48 States | 4.89 | 4.84 | 4.89 | 4.80 | 4.73 | 4.71 | 5.20 | 5.29 | 5.23 | 5.14 | 4.98 | 4.85 | 4.72 |
| Net Imports | 9.02 | 9.31 | 9.00 | 9.57 | 9.88 | 10.23 | 10.06 | 10.35 | 10.71 | 11.11 | 11.51 | 11.77 | 11.95 |
| Gross Imports | 9.07 | 9.33 | 9.02 | 9.59 | 9.94 | 10.29 | 10.14 | 10.43 | 10.78 | 11.18 | 11.58 | 11.82 | 12.01 |
| Exports | 0.05 | 0.02 | 0.02 | 0.02 | 0.06 | 0.06 | 0.08 | 0.08 | 0.08 | 0.07 | 0.06 | 0.06 | 0.06 |
| Other Crude Supply 2/ | 0.23 | 0.02 | 0.12 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Crude Supply | 15.12 | 15.13 | 15.01 | 15.42 | 15.54 | 15.81 | 16.07 | 16.41 | 16.65 | 16.92 | 17.14 | 17.30 | 17.40 |
| Natural Gas Plant Liquids | 1.91 | 1.87 | 1.88 | 1.90 | 2.09 | 2.08 | 2.11 | 2.11 | 2.16 | 2.19 | 2.23 | 2.28 | 2.33 |
| Other Inputs 3/ | 0.35 | 0.30 | 0.56 | 0.51 | 0.42 | 0.43 | 0.43 | 0.46 | 0.48 | 0.47 | 0.44 | 0.42 | 0.41 |
| Refinery Processing Gain 4/ | 0.95 | 0.90 | 0.94 | 0.94 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.91 | 0.92 | 0.93 |
| Net Product Imports 5/ | 1.40 | 1.59 | 1.35 | 1.53 | 1.23 | 1.27 | 1.41 | 1.53 | 1.72 | 1.95 | 2.25 | 2.56 | 2.89 |
| Gross Refined Product Imports 6/ | 2.04 | 2.08 | 1.83 | 2.04 | 1.75 | 1.79 | 2.00 | 2.04 | 2.22 | 2.43 | 2.59 | 2.81 | 3.00 |
| Unfinished Oil Imports | 0.27 | 0.38 | 0.38 | 0.35 | 0.36 | 0.39 | 0.35 | 0.44 | 0.46 | 0.49 | 0.66 | 0.74 | 0.90 |
| Ether Imports | 0.08 | 0.08 | 0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Exports | 0.99 | 0.95 | 0.91 | 0.91 | 0.88 | 0.91 | 0.94 | 0.95 | 0.97 | 0.98 | 1.00 | 1.00 | 1.01 |
| Total Primary Supply 7/ | 19.73 | 19.80 | 19.74 | 20.31 | 20.17 | 20.48 | 20.91 | 21.40 | 21.90 | 22.41 | 22.97 | 23.48 | 23.97 |
| Refined Petroleum Products Supplied | | | | | | | | | | | | | |
| Motor Gasoline 8/ | 8.54 | 8.67 | 8.88 | 9.03 | 9.19 | 9.40 | 9.63 | 9.89 | 10.15 | 10.42 | 10.69 | 10.94 | 11.18 |
| Jet Fuel 9/ | 1.73 | 1.66 | 1.62 | 1.62 | 1.61 | 1.65 | 1.70 | 1.74 | 1.79 | 1.85 | 1.90 | 1.95 | 2.00 |
| Distillate Fuel 10/ | 3.72 | 3.81 | 3.70 | 3.85 | 3.95 | 4.03 | 4.14 | 4.25 | 4.37 | 4.48 | 4.61 | 4.73 | 4.82 |
| Residual Fuel | 0.97 | 0.97 | 0.58 | 0.56 | 0.56 | 0.56 | 0.57 | 0.57 | 0.59 | 0.59 | 0.60 | 0.60 | 0.61 |
| Other 11/ | 4.82 | 4.58 | 4.79 | 4.77 | 4.86 | 4.84 | 4.88 | 4.95 | 5.01 | 5.10 | 5.20 | 5.28 | 5.37 |
| Total | 19.78 | 19.69 | 19.57 | 19.83 | 20.18 | 20.49 | 20.91 | 21.40 | 21.91 | 22.43 | 22.99 | 23.49 | 23.99 |
| Refined Petroleum Products Supplied | | | | | | | | | | | | | |
| Residential and Commercial | 1.23 | 1.21 | 1.18 | 1.17 | 1.18 | 1.18 | 1.18 | 1.18 | 1.18 | 1.17 | 1.17 | 1.16 | 1.16 |
| Industrial 12/ | 4.87 | 4.67 | 4.81 | 4.83 | 4.91 | 4.89 | 4.93 | 5.01 | 5.09 | 5.19 | 5.30 | 5.39 | 5.49 |
| Transportation | 13.18 | 13.27 | 13.42 | 13.69 | 13.94 | 14.26 | 14.64 | 15.05 | 15.47 | 15.89 | 16.33 | 16.75 | 17.14 |
| Electric Generators 13/ | 0.49 | 0.55 | 0.17 | 0.14 | 0.15 | 0.15 | 0.16 | 0.16 | 0.18 | 0.17 | 0.19 | 0.19 | 0.20 |
| Total | 19.78 | 19.69 | 19.57 | 19.83 | 20.18 | 20.49 | 20.91 | 21.40 | 21.91 | 22.43 | 22.99 | 23.49 | 23.99 |
| Discrepancy 14/ | -0.05 | 0.10 | 0.17 | 0.48 | -0.01 | -0.01 | 0.00 | -0.01 | -0.01 | -0.01 | -0.01 | -0.01 | -0.01 |
| World Oil Price (2001 dollars per barrel) 15/ | 28.35 | 22.01 | 23.33 | 25.83 | 24.05 | 23.27 | 23.43 | 23.57 | 23.71 | 23.85 | 23.99 | 24.14 | 24.28 |
| Import Share of Product Supplied | 0.53 | 0.55 | 0.53 | 0.56 | 0.55 | 0.56 | 0.55 | 0.56 | 0.57 | 0.58 | 0.60 | 0.61 | 0.62 |
| Net Expenditures for Imported Crude & Petroleum Products (billion 2001 dollars) | 108.88 | 89.20 | 87.44 | 105.35 | 97.93 | 98.32 | 99.04 | 103.48 | 108.80 | 115.85 | 122.96 | 128.97 | 135.02 |
| Domestic Refinery Distillation Capacity 16/ | 16.6 | 16.8 | 16.8 | 17.1 | 17.2 | 17.6 | 17.9 | 18.2 | 18.5 | 18.6 | 18.7 | 18.8 | 18.8 |
| Capacity Utilization Rate (percent) | 93.0 | 93.0 | 94.0 | 93.0 | 91.5 | 91.5 | 91.3 | 91.6 | 91.3 | 92.4 | 93.2 | 93.6 | 94.2 |

Table 11. Petroleum Supply and Disposition Balance (Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Crude Oil | | | | | | | | | | | | | | |
| Domestic Crude Production 1/ | 5.34 | 5.26 | 5.25 | 5.26 | 5.28 | 5.32 | 5.44 | 5.46 | 5.45 | 5.51 | 5.48 | 5.41 | 5.33 | -0.4% |
| Alaska | 0.78 | 0.82 | 0.88 | 0.97 | 1.05 | 1.11 | 1.18 | 1.23 | 1.28 | 1.28 | 1.28 | 1.24 | 1.17 | 0.8% |
| Lower 48 States | 4.56 | 4.44 | 4.37 | 4.29 | 4.23 | 4.21 | 4.26 | 4.23 | 4.17 | 4.23 | 4.20 | 4.17 | 4.16 | -0.6% |
| Net Imports | 12.13 | 12.24 | 12.36 | 12.44 | 12.53 | 12.60 | 12.58 | 12.66 | 12.73 | 12.72 | 12.82 | 12.93 | 13.06 | 1.4% |
| Gross Imports | 12.18 | 12.29 | 12.41 | 12.49 | 12.58 | 12.65 | 12.64 | 12.72 | 12.78 | 12.78 | 12.87 | 12.98 | 13.11 | 1.4% |
| Exports | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.05 | 0.05 | 3.9% |
| Other Crude Supply 2/ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Total Crude Supply | 17.47 | 17.50 | 17.61 | 17.71 | 17.81 | 17.91 | 18.02 | 18.12 | 18.18 | 18.24 | 18.29 | 18.34 | 18.39 | 0.8% |
| Natural Gas Plant Liquids | 2.36 | 2.39 | 2.41 | 2.41 | 2.42 | 2.46 | 2.49 | 2.53 | 2.55 | 2.57 | 2.59 | 2.62 | 2.63 | 1.4% |
| Other Inputs 3/ | 0.42 | 0.42 | 0.41 | 0.42 | 0.43 | 0.43 | 0.44 | 0.44 | 0.44 | 0.45 | 0.45 | 0.45 | 0.45 | 1.6% |
| Refinery Processing Gain 4/ | 0.94 | 0.94 | 0.95 | 0.95 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.2% |
| Net Product Imports 5/ | 3.25 | 3.60 | 3.84 | 4.09 | 4.34 | 4.56 | 4.84 | 5.06 | 5.35 | 5.64 | 5.98 | 6.37 | 6.73 | 6.2% |
| Gross Refined Product Imports 6/ | 3.25 | 3.56 | 3.82 | 4.07 | 4.31 | 4.53 | 4.80 | 5.02 | 5.34 | 5.65 | 6.01 | 6.40 | 6.76 | 5.0% |
| Unfinished Oil Imports | 1.01 | 1.07 | 1.04 | 1.05 | 1.07 | 1.08 | 1.08 | 1.09 | 1.08 | 1.05 | 1.05 | 1.06 | 1.07 | 4.4% |
| Ether Imports | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Exports | 1.01 | 1.02 | 1.03 | 1.03 | 1.04 | 1.05 | 1.05 | 1.06 | 1.07 | 1.07 | 1.08 | 1.09 | 1.10 | 0.6% |
| Total Primary Supply 7/ | 24.43 | 24.85 | 25.21 | 25.58 | 25.95 | 26.33 | 26.74 | 27.11 | 27.48 | 27.86 | 28.27 | 28.74 | 29.16 | 1.6% |
| Refined Petroleum Products Supplied | | | | | | | | | | | | | | |
| Motor Gasoline 8/ | 11.41 | 11.63 | 11.83 | 12.02 | 12.21 | 12.40 | 12.61 | 12.78 | 12.95 | 13.13 | 13.34 | 13.56 | 13.77 | 1.9% |
| Jet Fuel 9/ | 2.06 | 2.12 | 2.17 | 2.23 | 2.29 | 2.35 | 2.40 | 2.46 | 2.51 | 2.57 | 2.62 | 2.68 | 2.74 | 2.1% |
| Distillate Fuel 10/ | 4.89 | 4.98 | 5.05 | 5.11 | 5.18 | 5.25 | 5.32 | 5.40 | 5.48 | 5.56 | 5.66 | 5.78 | 5.87 | 1.8% |
| Residual Fuel | 0.62 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | -1.7% |
| Other 11/ | 5.45 | 5.51 | 5.55 | 5.60 | 5.66 | 5.72 | 5.79 | 5.85 | 5.91 | 5.97 | 6.03 | 6.09 | 6.15 | 1.2% |
| Total | 24.44 | 24.87 | 25.23 | 25.60 | 25.97 | 26.34 | 26.76 | 27.13 | 27.49 | 27.87 | 28.28 | 28.75 | 29.17 | 1.7% |
| Refined Petroleum Products Supplied | | | | | | | | | | | | | | |
| Residential and Commercial | 1.16 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.12 | -0.3% |
| Industrial 12/ | 5.57 | 5.63 | 5.67 | 5.73 | 5.79 | 5.85 | 5.93 | 6.00 | 6.06 | 6.13 | 6.19 | 6.26 | 6.33 | 1.3% |
| Transportation | 17.51 | 17.87 | 18.20 | 18.51 | 18.82 | 19.15 | 19.49 | 19.79 | 20.08 | 20.41 | 20.75 | 21.13 | 21.48 | 2.0% |
| Electric Generators 13/ | 0.20 | 0.21 | 0.21 | 0.22 | 0.21 | 0.20 | 0.20 | 0.20 | 0.22 | 0.20 | 0.21 | 0.23 | 0.23 | -3.5% |
| Total | 24.44 | 24.87 | 25.23 | 25.60 | 25.97 | 26.34 | 26.76 | 27.13 | 27.49 | 27.87 | 28.28 | 28.75 | 29.17 | 1.7% |
| Discrepancy 14/ | -0.01 | -0.01 | -0.01 | -0.02 | -0.02 | -0.02 | -0.02 | -0.02 | -0.01 | -0.01 | -0.01 | -0.02 | -0.02 | N/A |
| World Oil Price (2001 dollars per barrel) 15/ | 24.42 | 24.57 | 24.72 | 24.87 | 25.02 | 25.18 | 25.33 | 25.48 | 25.70 | 25.92 | 26.14 | 26.35 | 26.57 | 0.8% |
| Import Share of Product Supplied | 0.63 | 0.64 | 0.64 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.66 | 0.66 | 0.66 | 0.67 | 0.68 | 0.9% |
| Net Expenditures for Imported Crude & Petroleum Products (billion 2001 dollars) | 140.83 | 146.43 | 151.12 | 155.95 | 160.66 | 165.42 | 169.91 | 174.57 | 180.19 | 185.27 | 191.90 | 199.43 | 206.94 | 3.6% |
| Domestic Refinery Distillation Capacity 16/ | 18.8 | 18.8 | 18.9 | 19.0 | 19.2 | 19.3 | 19.4 | 19.5 | 19.5 | 19.6 | 19.7 | 19.7 | 19.8 | 0.7% |
| Capacity Utilization Rate (percent) | 94.5 | 94.7 | 94.7 | 94.7 | 94.6 | 94.6 | 94.6 | 94.6 | 94.6 | 94.6 | 94.6 | 94.6 | 94.6 | 0.1% |

Table 11. Petroleum Supply and Disposition Balance (Million Barrels per Day, Unless Otherwise Noted)

1/ Includes lease condensate.
 2/ Strategic petroleum reserve stock additions plus unaccounted for crude oil and crude stock withdrawals minus crude products supplied.
 3/ Includes alcohols, ethers, petroleum product stock withdrawals, domestic sources of blending components, other hydrocarbons, natural gas converted to liquid fuel, and coal converted to liquid fuel.
 4/ Represents volumetric gain in refinery distillation and cracking processes.
 5/ Includes net imports of finished petroleum products, unfinished oils, other hydrocarbons, alcohols, ethers, and blending components.
 6/ Includes other hydrocarbons, alcohols, and blending components.
 7/ Total crude supply plus natural gas plant liquids, other inputs, refinery processing gain, and net product imports.
 8/ Includes ethanol and ethers blended into gasoline.
 9/ Includes only kerosene type.
 10/ Includes distillate and kerosene.
 11/ Includes aviation gasoline, liquefied petroleum gas, petrochemical feedstocks, lubricants, waxes, asphalt, road oil, still gas, special naphthas, petroleum coke, crude oil product supplied, and miscellaneous petroleum products.
 12/ Includes consumption for combined heat and power, which produces electricity and other useful thermal energy.
 13/ Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.
 Includes small power producers and exempt wholesale generators.
 14/ Balancing item. Includes unaccounted for supply, losses and gains.
 15/ Average refiner acquisition cost for imported crude oil.
 16/ End-of-year capacity.
 N/A = Not applicable.
 Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.
 Sources: 2000 and 2001 product supplied data from Table A2. Other 2000 data: Energy Information Administration (EIA), Petroleum Supply Annual 2000, DOE/EIA-0340(2000)/1 (Washington, DC, June 2001). Other 2001 data: EIA, Petroleum Supply Annual 2001, DOE/EIA-0340(2001)/1 (Washington, DC, June 2002). Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 12. Petroleum Product Prices
(2001 Cents per Gallon, Unless Otherwise Noted)

| Sector and Fuel | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| World Oil Price (2001 dollars per barrel) | 28.35 | 22.01 | 23.33 | 25.83 | 24.05 | 23.27 | 23.43 | 23.57 | 23.71 | 23.85 | 23.99 | 24.14 | 24.28 |
| Delivered Sector Product Prices | | | | | | | | | | | | | |
| Residential | | | | | | | | | | | | | |
| Distillate Fuel | 134.1 | 124.6 | 112.8 | 125.9 | 117.0 | 109.4 | 108.3 | 108.3 | 108.9 | 109.4 | 110.4 | 111.6 | 112.5 |
| Liquefied Petroleum Gas | 118.8 | 127.3 | 109.2 | 112.9 | 118.3 | 117.5 | 114.7 | 116.8 | 117.4 | 117.8 | 120.2 | 120.9 | 121.1 |
| Commercial | | | | | | | | | | | | | |
| Distillate Fuel | 100.8 | 88.7 | 84.4 | 90.2 | 79.7 | 77.3 | 76.3 | 76.3 | 77.0 | 77.5 | 78.4 | 79.8 | 80.7 |
| Residual Fuel | 52.9 | 51.8 | 62.1 | 66.0 | 60.0 | 58.5 | 58.8 | 59.1 | 59.5 | 59.6 | 60.0 | 60.4 | 60.7 |
| Residual Fuel (2001 dollars per barrel) | 22.22 | 21.75 | 26.06 | 27.72 | 25.21 | 24.59 | 24.70 | 24.82 | 24.98 | 25.05 | 25.21 | 25.36 | 25.51 |
| Industrial 1/ | | | | | | | | | | | | | |
| Distillate Fuel | 102.4 | 90.8 | 85.2 | 91.1 | 80.4 | 77.9 | 77.0 | 77.1 | 77.9 | 78.5 | 79.4 | 81.4 | 82.2 |
| Liquefied Petroleum Gas | 103.2 | 105.9 | 70.3 | 74.0 | 80.8 | 80.0 | 77.1 | 79.1 | 79.6 | 79.9 | 82.2 | 82.9 | 83.2 |
| Residual Fuel | 50.0 | 49.1 | 57.7 | 61.9 | 55.7 | 53.8 | 54.2 | 54.5 | 55.0 | 55.2 | 55.5 | 55.8 | 56.2 |
| Residual Fuel (2001 dollars per barrel) | 21.02 | 20.61 | 24.23 | 26.00 | 23.38 | 22.60 | 22.77 | 22.91 | 23.09 | 23.17 | 23.32 | 23.44 | 23.60 |
| Transportation | | | | | | | | | | | | | |
| Diesel Fuel (Distillate) 2/ | 152.4 | 139.4 | 129.1 | 138.0 | 133.2 | 129.8 | 132.5 | 139.7 | 138.4 | 140.3 | 141.7 | 143.1 | 141.4 |
| Jet Fuel 3/ | 98.0 | 83.7 | 79.7 | 85.5 | 78.4 | 75.8 | 74.1 | 75.1 | 75.3 | 75.7 | 75.9 | 77.8 | 78.0 |
| Motor Gasoline 4/ | 154.1 | 143.3 | 135.7 | 143.4 | 141.0 | 140.0 | 141.0 | 141.3 | 141.5 | 142.5 | 142.8 | 141.4 | 141.1 |
| Liquefied Petroleum Gas | 141.1 | 145.2 | 127.2 | 130.8 | 128.8 | 127.7 | 125.4 | 126.9 | 127.7 | 128.0 | 130.5 | 131.5 | 130.9 |
| Residual Fuel | 67.0 | 58.4 | 55.8 | 60.0 | 53.6 | 51.7 | 52.0 | 52.3 | 52.6 | 52.9 | 53.2 | 53.5 | 53.8 |
| Residual Fuel (2001 dollars per barrel) | 28.14 | 24.52 | 23.45 | 25.19 | 22.50 | 21.70 | 21.85 | 21.97 | 22.10 | 22.22 | 22.35 | 22.48 | 22.61 |
| Ethanol (E85) | 158.5 | 158.4 | 158.4 | 180.0 | 173.1 | 174.3 | 177.4 | 187.8 | 189.8 | 192.5 | 190.7 | 190.6 | 198.2 |
| Electric Generators 5/ | | | | | | | | | | | | | |
| Distillate Fuel | 93.3 | 86.0 | 77.6 | 83.7 | 72.1 | 69.5 | 68.6 | 68.8 | 69.3 | 70.0 | 71.1 | 72.5 | 73.4 |
| Residual Fuel | 65.7 | 67.4 | 60.1 | 65.1 | 59.8 | 57.7 | 58.2 | 58.4 | 58.1 | 59.3 | 59.4 | 60.0 | 60.0 |
| Residual Fuel (2001 dollars per barrel) | 27.59 | 28.30 | 25.24 | 27.34 | 25.10 | 24.22 | 24.44 | 24.51 | 24.39 | 24.90 | 24.94 | 25.21 | 25.20 |
| Refined Petroleum Product Prices 6/ | | | | | | | | | | | | | |
| Distillate Fuel | 139.4 | 127.0 | 118.3 | 127.2 | 121.0 | 117.5 | 119.2 | 124.5 | 123.9 | 125.7 | 127.2 | 128.8 | 128.0 |
| Jet Fuel 3/ | 98.0 | 83.7 | 79.7 | 85.5 | 78.4 | 75.8 | 74.1 | 75.1 | 75.3 | 75.7 | 75.9 | 77.8 | 78.0 |
| Liquefied Petroleum Gas | 106.2 | 110.3 | 78.7 | 81.9 | 88.2 | 87.5 | 84.6 | 86.6 | 87.0 | 87.2 | 89.4 | 89.9 | 90.0 |
| Motor Gasoline 4/ | 154.1 | 143.3 | 135.7 | 143.4 | 141.0 | 139.9 | 141.0 | 141.3 | 141.5 | 142.5 | 142.8 | 141.4 | 141.1 |
| Residual Fuel | 64.0 | 61.5 | 57.3 | 61.4 | 55.3 | 53.4 | 53.8 | 54.1 | 54.4 | 54.8 | 55.1 | 55.5 | 55.8 |
| Residual Fuel (2001 dollars per barrel) | 26.88 | 25.85 | 24.05 | 25.79 | 23.24 | 22.43 | 22.60 | 22.72 | 22.84 | 23.02 | 23.16 | 23.31 | 23.46 |
| Average | 132.3 | 123.6 | 115.2 | 122.5 | 119.7 | 118.1 | 118.7 | 120.4 | 120.5 | 121.6 | 122.4 | 122.4 | 122.1 |

Table 12. Petroleum Product Prices
(2001 Cents per Gallon, Unless Otherwise Noted)

| Sector and Fuel | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001- 2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| World Oil Price (2001 dollars per barrel) | 24.42 | 24.57 | 24.72 | 24.87 | 25.02 | 25.18 | 25.33 | 25.48 | 25.70 | 25.92 | 26.14 | 26.35 | 26.57 | 0.8% |
| Delivered Sector Product Prices | | | | | | | | | | | | | | |
| Residential | | | | | | | | | | | | | | |
| Distillate Fuel | 113.8 | 116.0 | 116.0 | 116.5 | 116.4 | 117.9 | 120.1 | 121.0 | 121.7 | 122.3 | 122.9 | 123.3 | 123.8 | 0.0% |
| Liquefied Petroleum Gas | 121.7 | 122.2 | 122.8 | 123.2 | 123.3 | 123.7 | 124.2 | 124.5 | 125.1 | 125.5 | 126.1 | 126.8 | 127.3 | 0.0% |
| Commercial | | | | | | | | | | | | | | |
| Distillate Fuel | 82.1 | 84.3 | 84.4 | 85.0 | 85.6 | 87.0 | 89.3 | 90.0 | 91.0 | 91.5 | 92.5 | 93.0 | 93.7 | 0.2% |
| Residual Fuel | 61.1 | 61.4 | 61.7 | 62.0 | 62.3 | 62.6 | 63.0 | 63.3 | 63.8 | 64.2 | 64.7 | 65.1 | 65.6 | 1.0% |
| Residual Fuel (2001 dollars per barrel) | 25.64 | 25.79 | 25.92 | 26.06 | 26.18 | 26.30 | 26.44 | 26.57 | 26.78 | 26.98 | 27.17 | 27.36 | 27.55 | 1.0% |
| Industrial 1/ | | | | | | | | | | | | | | |
| Distillate Fuel | 84.1 | 86.5 | 87.1 | 87.9 | 89.8 | 91.4 | 93.7 | 94.3 | 96.1 | 97.4 | 98.8 | 99.6 | 100.6 | 0.4% |
| Liquefied Petroleum Gas | 83.9 | 84.5 | 85.0 | 85.4 | 85.7 | 86.0 | 86.5 | 86.8 | 87.3 | 87.6 | 88.1 | 88.8 | 89.3 | -0.7% |
| Residual Fuel | 56.5 | 56.9 | 57.2 | 57.6 | 57.9 | 58.2 | 58.6 | 58.9 | 59.4 | 59.9 | 60.4 | 60.9 | 61.4 | 0.9% |
| Residual Fuel (2001 dollars per barrel) | 23.74 | 23.89 | 24.03 | 24.18 | 24.32 | 24.45 | 24.60 | 24.74 | 24.95 | 25.16 | 25.36 | 25.56 | 25.77 | 0.9% |
| Transportation | | | | | | | | | | | | | | |
| Diesel Fuel (Distillate) 2/ | 139.7 | 139.0 | 139.9 | 140.2 | 140.9 | 141.7 | 141.5 | 140.9 | 142.7 | 144.0 | 145.0 | 145.1 | 145.9 | 0.2% |
| Jet Fuel 3/ | 79.2 | 80.4 | 81.4 | 81.7 | 83.0 | 84.2 | 85.3 | 85.4 | 87.1 | 88.7 | 89.6 | 89.9 | 90.7 | 0.3% |
| Motor Gasoline 4/ | 140.3 | 140.6 | 140.4 | 140.8 | 142.9 | 143.5 | 143.6 | 143.7 | 143.5 | 143.9 | 145.3 | 146.2 | 149.6 | 0.2% |
| Liquefied Petroleum Gas | 131.5 | 132.1 | 132.6 | 132.8 | 132.7 | 132.7 | 132.9 | 133.0 | 133.1 | 132.8 | 133.2 | 134.1 | 134.1 | -0.3% |
| Residual Fuel | 54.1 | 54.5 | 54.8 | 55.1 | 55.4 | 55.8 | 56.1 | 56.4 | 56.9 | 57.5 | 57.9 | 58.4 | 58.9 | 0.0% |
| Residual Fuel (2001 dollars per barrel) | 22.74 | 22.87 | 23.01 | 23.15 | 23.29 | 23.42 | 23.56 | 23.71 | 23.92 | 24.13 | 24.34 | 24.54 | 24.75 | 0.0% |
| Ethanol (E85) | 198.6 | 199.4 | 200.5 | 201.3 | 202.5 | 203.1 | 203.6 | 204.4 | 204.8 | 205.6 | 206.8 | 208.9 | 209.6 | 1.2% |
| Electric Generators 5/ | | | | | | | | | | | | | | |
| Distillate Fuel | 75.2 | 76.9 | 77.7 | 78.2 | 79.6 | 81.2 | 83.5 | 84.0 | 83.8 | 86.4 | 86.2 | 85.5 | 85.7 | 0.0% |
| Residual Fuel | 60.3 | 60.5 | 60.9 | 61.1 | 61.6 | 62.0 | 62.4 | 62.9 | 63.6 | 64.2 | 65.0 | 65.2 | 65.9 | -0.1% |
| Residual Fuel (2001 dollars per barrel) | 25.31 | 25.43 | 25.59 | 25.67 | 25.86 | 26.06 | 26.23 | 26.44 | 26.70 | 26.96 | 27.29 | 27.40 | 27.67 | -0.1% |
| Refined Petroleum Product Prices 6/ | | | | | | | | | | | | | | |
| Distillate Fuel | 127.5 | 127.6 | 128.5 | 128.9 | 129.9 | 131.0 | 131.5 | 131.3 | 132.9 | 134.4 | 135.4 | 135.6 | 136.3 | 0.3% |
| Jet Fuel 3/ | 79.2 | 80.4 | 81.4 | 81.7 | 83.0 | 84.2 | 85.3 | 85.4 | 87.1 | 88.7 | 89.6 | 89.9 | 90.7 | 0.3% |
| Liquefied Petroleum Gas | 90.6 | 91.1 | 91.6 | 91.9 | 92.2 | 92.4 | 92.8 | 93.1 | 93.5 | 93.8 | 94.3 | 94.9 | 95.3 | -0.6% |
| Motor Gasoline 4/ | 140.3 | 140.6 | 140.4 | 140.8 | 142.9 | 143.5 | 143.6 | 143.7 | 143.5 | 143.9 | 145.3 | 146.2 | 149.6 | 0.2% |
| Residual Fuel | 56.2 | 56.5 | 56.9 | 57.2 | 57.5 | 57.9 | 58.2 | 58.6 | 59.1 | 59.6 | 60.2 | 60.6 | 61.1 | 0.0% |
| Residual Fuel (2001 dollars per barrel) | 23.60 | 23.74 | 23.88 | 24.02 | 24.17 | 24.30 | 24.45 | 24.62 | 24.83 | 25.05 | 25.28 | 25.47 | 25.68 | 0.0% |
| Average | 121.8 | 122.2 | 122.4 | 122.8 | 124.3 | 125.0 | 125.3 | 125.4 | 125.9 | 126.6 | 127.7 | 128.4 | 130.4 | 0.2% |

Table 12. Petroleum Product Prices
(2001 Cents per Gallon, Unless Otherwise Noted)

1/ Includes combined heat and power.

2/ Diesel fuel containing 500 parts per million (ppm) or 15 ppm sulfur. Includes Federal and State taxes while excluding county and local taxes.

3/ Kerosene-type jet fuel.

4/ Sales weighted-average price for all grades. Includes Federal, State, and local taxes.

5/ Includes all electric power generators except combined heat and power, which produces electricity and other useful thermal energy. Includes small power producers and exempt wholesale generators.

6/ Weighted averages of end-use fuel prices are derived from the prices in each sector and the corresponding sectoral consumption.

Note: Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 prices for gasoline, distillate, and jet fuel are based on prices in the Energy Information Administration (EIA), Petroleum Marketing Annual 2000, http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_marketing_annual/pma_historical.html (August 2001). 2001 prices for gasoline, distillate, and jet fuel are based on prices in the Petroleum Marketing Annual 2001, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_marketing_annual/current/pdf/pmaall.pdf. (September 2002). 2000 and 2001 prices for all other petroleum products are derived from EIA, State Energy Price and Expenditure Report 1997, DOE/EIA-0376(97) (Washington, DC, July 2000).

Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 13. Natural Gas Supply and Disposition
(Trillion Cubic Feet per Year)

| Supply and Disposition | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Production | | | | | | | | | | | | | |
| Dry Gas Production 1/ | 18.99 | 19.45 | 19.36 | 19.98 | 20.15 | 20.13 | 20.43 | 20.51 | 21.09 | 21.46 | 21.88 | 22.39 | 22.91 |
| Supplemental Natural Gas 2/ | 0.09 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Net Imports | 3.54 | 3.65 | 3.17 | 3.32 | 3.67 | 3.86 | 3.98 | 4.17 | 4.41 | 4.62 | 4.78 | 4.88 | 5.01 |
| Canada | 3.47 | 3.61 | 3.30 | 3.38 | 3.45 | 3.52 | 3.53 | 3.61 | 3.76 | 3.90 | 4.05 | 4.14 | 4.25 |
| Mexico | -0.09 | -0.13 | -0.26 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.26 | -0.25 | -0.24 |
| Liquefied Natural Gas | 0.16 | 0.17 | 0.14 | 0.20 | 0.49 | 0.61 | 0.73 | 0.84 | 0.92 | 0.98 | 0.99 | 0.99 | 0.99 |
| Total Supply | 22.61 | 23.17 | 22.61 | 23.39 | 23.92 | 24.09 | 24.51 | 24.78 | 25.59 | 26.17 | 26.76 | 27.37 | 28.01 |
| Consumption by Sector | | | | | | | | | | | | | |
| Residential | 4.98 | 4.81 | 4.91 | 5.18 | 5.27 | 5.30 | 5.36 | 5.41 | 5.46 | 5.47 | 5.50 | 5.54 | 5.59 |
| Commercial | 3.21 | 3.24 | 3.23 | 3.38 | 3.47 | 3.52 | 3.57 | 3.61 | 3.64 | 3.67 | 3.69 | 3.73 | 3.76 |
| Industrial 3/ | 8.25 | 7.53 | 8.00 | 8.10 | 8.08 | 8.13 | 8.29 | 8.42 | 8.50 | 8.66 | 8.88 | 9.09 | 9.23 |
| Electric Generators 4/ | 5.23 | 5.30 | 5.27 | 5.44 | 5.71 | 5.69 | 5.76 | 5.76 | 6.31 | 6.60 | 6.80 | 7.10 | 7.46 |
| Transportation 5/ | 0.01 | 0.01 | 0.01 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.05 | 0.06 | 0.06 | 0.07 |
| Pipeline Fuel | 0.64 | 0.61 | 0.56 | 0.62 | 0.64 | 0.65 | 0.66 | 0.68 | 0.70 | 0.73 | 0.76 | 0.77 | 0.79 |
| Lease and Plant Fuel 6/ | 1.13 | 1.17 | 1.21 | 1.26 | 1.28 | 1.29 | 1.30 | 1.30 | 1.32 | 1.34 | 1.35 | 1.38 | 1.41 |
| Total | 23.46 | 22.67 | 23.20 | 24.00 | 24.48 | 24.60 | 24.98 | 25.21 | 25.98 | 26.52 | 27.06 | 27.68 | 28.32 |
| Gas to Liquids | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Discrepancy 7/ | -0.85 | 0.50 | -0.59 | -0.61 | -0.56 | -0.52 | -0.48 | -0.43 | -0.39 | -0.34 | -0.30 | -0.31 | -0.30 |

Table 13. Natural Gas Supply and Disposition
(Trillion Cubic Feet per Year)

| Supply and Disposition | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001- 2025 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| Production | | | | | | | | | | | | | | |
| Dry Gas Production 1/ | 23.22 | 23.56 | 23.83 | 23.89 | 23.93 | 24.35 | 24.71 | 25.07 | 25.51 | 26.08 | 26.24 | 26.60 | 26.75 | 1.3% |
| Supplemental Natural Gas 2/ | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.9% |
| Net Imports | 5.08 | 5.19 | 5.27 | 5.66 | 5.99 | 6.19 | 6.41 | 6.66 | 6.87 | 7.02 | 7.34 | 7.62 | 7.76 | 3.2% |
| Canada | 4.32 | 4.38 | 4.42 | 4.68 | 4.86 | 4.92 | 4.99 | 5.08 | 5.05 | 5.07 | 5.19 | 5.32 | 5.31 | 1.6% |
| Mexico | -0.22 | -0.21 | -0.19 | -0.16 | -0.14 | -0.11 | -0.03 | 0.07 | 0.16 | 0.15 | 0.20 | 0.25 | 0.30 | N/A |
| Liquefied Natural Gas | 0.99 | 1.01 | 1.03 | 1.15 | 1.27 | 1.38 | 1.45 | 1.51 | 1.66 | 1.81 | 1.95 | 2.05 | 2.14 | 11.0% |
| Total Supply | 28.40 | 28.84 | 29.19 | 29.65 | 30.01 | 30.64 | 31.22 | 31.82 | 32.48 | 33.20 | 33.68 | 34.31 | 34.60 | 1.7% |
| Consumption by Sector | | | | | | | | | | | | | | |
| Residential | 5.62 | 5.65 | 5.69 | 5.75 | 5.78 | 5.83 | 5.89 | 5.96 | 6.00 | 6.06 | 6.12 | 6.19 | 6.22 | 1.1% |
| Commercial | 3.81 | 3.85 | 3.89 | 3.94 | 3.99 | 4.05 | 4.11 | 4.17 | 4.23 | 4.28 | 4.34 | 4.38 | 4.43 | 1.3% |
| Industrial 3/ | 9.30 | 9.41 | 9.53 | 9.59 | 9.69 | 9.83 | 9.98 | 10.10 | 10.25 | 10.42 | 10.58 | 10.76 | 10.91 | 1.6% |
| Electric Generators 4/ | 7.68 | 7.90 | 8.01 | 8.28 | 8.45 | 8.78 | 9.07 | 9.39 | 9.71 | 10.04 | 10.24 | 10.53 | 10.56 | 2.9% |
| Transportation 5/ | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.11 | 0.11 | 10.4% |
| Pipeline Fuel | 0.80 | 0.82 | 0.83 | 0.83 | 0.84 | 0.85 | 0.87 | 0.88 | 0.92 | 0.96 | 0.97 | 0.98 | 1.00 | 2.0% |
| Lease and Plant Fuel 6/ | 1.43 | 1.45 | 1.47 | 1.48 | 1.48 | 1.51 | 1.53 | 1.55 | 1.59 | 1.64 | 1.66 | 1.68 | 1.69 | 1.5% |
| Total | 28.71 | 29.15 | 29.50 | 29.96 | 30.33 | 30.95 | 31.54 | 32.14 | 32.80 | 33.51 | 34.00 | 34.63 | 34.93 | 1.8% |
| Gas to Liquids | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Discrepancy 7/ | -0.31 | -0.31 | -0.31 | -0.31 | -0.32 | -0.32 | -0.32 | -0.32 | -0.32 | -0.31 | -0.32 | -0.32 | -0.32 | N/A |

Table 13. Natural Gas Supply and Disposition

(Trillion Cubic Feet per Year)

1/ Marketed production (wet) minus extraction losses.

2/ Synthetic natural gas, propane air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

3/ Includes consumption for combined heat and power, which produces electricity and other useful thermal energy.

4/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

5/ Compressed natural gas used as vehicle fuel.

6/ Represents natural gas used in the field gathering and processing plant machinery.

7/ Balancing item. Natural gas lost as a result of converting flow data measured at varying temperatures and pressures to a standard temperature and pressure and the merger of different data reporting systems which vary in scope, format, definition, and respondent type. In addition, 2000 and 2001 values include net storage injections.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 supply values and consumption as lease, plant, and pipeline fuel: Energy Information Administration (EIA), Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001). Other 2000 consumption derived from: EIA, State Energy Data Report 1999, DOE/EIA-0214(99) (Washington, DC, May 2001). 2001 supplemental natural gas: EIA, Natural Gas Monthly, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). 2000 imports and dry gas production derived from: EIA, Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2001 transportation sector consumption: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c. Other 2001 consumption: EIA, Short-Term Energy Outlook, September 2002, <http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf> with adjustments to end-use sector consumption levels for consumption of natural gas by electric wholesale generators based on EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 14. Natural Gas Prices, Margins and Revenues
(2001 Dollars per Thousand Cubic Feet, Unless Otherwise Noted)

| Prices, Margins, and Revenue | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Source Price | | | | | | | | | | | | | |
| Average Lower 48 Wellhead Price 1/ | 3.83 | 4.12 | 2.75 | 3.13 | 2.92 | 2.88 | 2.82 | 2.91 | 3.03 | 3.15 | 3.29 | 3.36 | 3.43 |
| Average Import Price | 4.04 | 4.43 | 3.02 | 3.10 | 3.04 | 2.99 | 2.98 | 3.03 | 3.11 | 3.21 | 3.33 | 3.44 | 3.55 |
| Average 2/ | 3.86 | 4.17 | 2.79 | 3.12 | 2.95 | 2.90 | 2.85 | 2.93 | 3.05 | 3.16 | 3.30 | 3.38 | 3.45 |
| Delivered Prices | | | | | | | | | | | | | |
| Residential | 7.97 | 9.68 | 7.50 | 7.79 | 7.59 | 7.52 | 7.43 | 7.45 | 7.52 | 7.59 | 7.68 | 7.73 | 7.77 |
| Commercial | 6.82 | 8.32 | 6.21 | 6.37 | 6.20 | 6.16 | 6.12 | 6.19 | 6.31 | 6.42 | 6.56 | 6.62 | 6.69 |
| Industrial 3/ | 4.75 | 5.00 | 3.49 | 3.82 | 3.68 | 3.62 | 3.55 | 3.63 | 3.74 | 3.85 | 4.00 | 4.07 | 4.16 |
| Electric Generators 4/ | 4.51 | 4.87 | 3.13 | 3.48 | 3.35 | 3.33 | 3.30 | 3.38 | 3.55 | 3.69 | 3.86 | 3.95 | 4.05 |
| Transportation 5/ | 6.95 | 7.87 | 6.17 | 6.54 | 6.35 | 6.29 | 6.39 | 6.60 | 6.85 | 7.07 | 7.28 | 7.41 | 7.54 |
| Average 6/ | 5.74 | 6.57 | 4.74 | 5.07 | 4.91 | 4.86 | 4.80 | 4.86 | 4.95 | 5.04 | 5.17 | 5.22 | 5.28 |
| Transmission & Distribution Margins 7/ | | | | | | | | | | | | | |
| Residential | 4.11 | 5.50 | 4.71 | 4.67 | 4.65 | 4.61 | 4.57 | 4.52 | 4.47 | 4.43 | 4.38 | 4.36 | 4.32 |
| Commercial | 2.96 | 4.14 | 3.41 | 3.25 | 3.26 | 3.26 | 3.26 | 3.25 | 3.26 | 3.26 | 3.26 | 3.25 | 3.23 |
| Industrial 3/ | 0.89 | 0.83 | 0.70 | 0.70 | 0.73 | 0.72 | 0.70 | 0.69 | 0.69 | 0.69 | 0.70 | 0.70 | 0.71 |
| Electric Generators 4/ | 0.64 | 0.70 | 0.34 | 0.36 | 0.40 | 0.43 | 0.45 | 0.45 | 0.50 | 0.53 | 0.56 | 0.58 | 0.60 |
| Transportation 5/ | 3.08 | 3.69 | 3.38 | 3.41 | 3.40 | 3.39 | 3.54 | 3.66 | 3.80 | 3.91 | 3.98 | 4.04 | 4.09 |
| Average 6/ | 1.88 | 2.40 | 1.95 | 1.94 | 1.96 | 1.96 | 1.95 | 1.93 | 1.91 | 1.88 | 1.87 | 1.85 | 1.83 |
| Transmission & Distribution Revenue (billion 2001 dollars) | | | | | | | | | | | | | |
| Residential | 20.46 | 26.45 | 23.13 | 24.18 | 24.51 | 24.47 | 24.54 | 24.42 | 24.41 | 24.25 | 24.12 | 24.12 | 24.15 |
| Commercial | 9.50 | 13.43 | 11.04 | 10.97 | 11.31 | 11.48 | 11.66 | 11.75 | 11.86 | 11.95 | 12.04 | 12.11 | 12.17 |
| Industrial 3/ | 7.31 | 6.25 | 5.62 | 5.69 | 5.91 | 5.85 | 5.81 | 5.84 | 5.89 | 6.01 | 6.19 | 6.35 | 6.51 |
| Electric Generators 4/ | 3.36 | 3.70 | 1.80 | 1.96 | 2.31 | 2.45 | 2.56 | 2.56 | 3.14 | 3.47 | 3.82 | 4.09 | 4.49 |
| Transportation 5/ | 0.02 | 0.04 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.15 | 0.18 | 0.21 | 0.23 | 0.26 | 0.29 |
| Total | 40.65 | 49.86 | 41.63 | 42.87 | 44.12 | 44.35 | 44.70 | 44.72 | 45.48 | 45.90 | 46.41 | 46.93 | 47.61 |

Table 14. Natural Gas Prices, Margins and Revenues
(2001 Dollars per Thousand Cubic Feet, Unless Otherwise Noted)

| Prices, Margins, and Revenue | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001- 2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| Source Price | | | | | | | | | | | | | | |
| Average Lower 48 Wellhead Price 1/ | 3.47 | 3.52 | 3.55 | 3.59 | 3.61 | 3.57 | 3.58 | 3.69 | 3.69 | 3.75 | 3.82 | 3.87 | 3.90 | -0.2% |
| Average Import Price | 3.65 | 3.73 | 3.77 | 3.80 | 3.73 | 3.74 | 3.76 | 3.81 | 3.78 | 3.82 | 3.92 | 4.05 | 4.19 | -0.2% |
| Average 2/ | 3.51 | 3.56 | 3.59 | 3.64 | 3.64 | 3.61 | 3.61 | 3.72 | 3.71 | 3.77 | 3.84 | 3.91 | 3.97 | -0.2% |
| Delivered Prices | | | | | | | | | | | | | | |
| Residential | 7.80 | 7.86 | 7.90 | 7.93 | 7.91 | 7.87 | 7.87 | 7.96 | 7.93 | 7.97 | 8.05 | 8.14 | 8.22 | -0.7% |
| Commercial | 6.73 | 6.79 | 6.83 | 6.87 | 6.86 | 6.83 | 6.84 | 6.94 | 6.92 | 6.97 | 7.05 | 7.15 | 7.22 | -0.6% |
| Industrial 3/ | 4.21 | 4.27 | 4.29 | 4.33 | 4.34 | 4.31 | 4.33 | 4.44 | 4.45 | 4.51 | 4.58 | 4.65 | 4.70 | -0.3% |
| Electric Generators 4/ | 4.12 | 4.19 | 4.21 | 4.26 | 4.25 | 4.24 | 4.26 | 4.38 | 4.38 | 4.46 | 4.53 | 4.62 | 4.69 | -0.2% |
| Transportation 5/ | 7.62 | 7.72 | 7.78 | 7.83 | 7.83 | 7.82 | 7.84 | 7.97 | 7.95 | 8.02 | 8.10 | 8.21 | 8.30 | 0.2% |
| Average 6/ | 5.33 | 5.38 | 5.41 | 5.44 | 5.43 | 5.39 | 5.40 | 5.50 | 5.48 | 5.54 | 5.61 | 5.68 | 5.75 | -0.6% |
| Transmission & Distribution Margins 7/ | | | | | | | | | | | | | | |
| Residential | 4.29 | 4.30 | 4.30 | 4.29 | 4.27 | 4.27 | 4.26 | 4.24 | 4.21 | 4.20 | 4.20 | 4.23 | 4.25 | -1.1% |
| Commercial | 3.22 | 3.23 | 3.23 | 3.23 | 3.22 | 3.22 | 3.22 | 3.22 | 3.21 | 3.20 | 3.21 | 3.24 | 3.25 | -1.0% |
| Industrial 3/ | 0.71 | 0.71 | 0.70 | 0.70 | 0.70 | 0.70 | 0.71 | 0.73 | 0.74 | 0.74 | 0.74 | 0.74 | 0.73 | -0.5% |
| Electric Generators 4/ | 0.61 | 0.63 | 0.62 | 0.63 | 0.61 | 0.63 | 0.64 | 0.66 | 0.67 | 0.69 | 0.69 | 0.71 | 0.72 | 0.1% |
| Transportation 5/ | 4.11 | 4.16 | 4.18 | 4.19 | 4.19 | 4.21 | 4.23 | 4.25 | 4.24 | 4.25 | 4.26 | 4.30 | 4.33 | 0.7% |
| Average 6/ | 1.82 | 1.82 | 1.81 | 1.81 | 1.79 | 1.79 | 1.78 | 1.78 | 1.77 | 1.77 | 1.76 | 1.77 | 1.78 | -1.2% |
| Transmission & Distribution Revenue (billion 2001 dollars) | | | | | | | | | | | | | | |
| Residential | 24.11 | 24.32 | 24.49 | 24.67 | 24.71 | 24.89 | 25.08 | 25.26 | 25.28 | 25.46 | 25.72 | 26.18 | 26.44 | 0.0% |
| Commercial | 12.26 | 12.43 | 12.59 | 12.73 | 12.87 | 13.05 | 13.25 | 13.42 | 13.55 | 13.72 | 13.91 | 14.19 | 14.40 | 0.3% |
| Industrial 3/ | 6.59 | 6.65 | 6.66 | 6.70 | 6.79 | 6.91 | 7.09 | 7.32 | 7.55 | 7.75 | 7.84 | 7.94 | 7.99 | 1.0% |
| Electric Generators 4/ | 4.68 | 4.94 | 4.97 | 5.19 | 5.19 | 5.57 | 5.83 | 6.20 | 6.52 | 6.95 | 7.08 | 7.48 | 7.60 | 3.0% |
| Transportation 5/ | 0.31 | 0.33 | 0.35 | 0.36 | 0.38 | 0.39 | 0.40 | 0.42 | 0.43 | 0.44 | 0.45 | 0.46 | 0.48 | 11.2% |
| Total | 47.96 | 48.68 | 49.05 | 49.66 | 49.93 | 50.82 | 51.66 | 52.62 | 53.32 | 54.32 | 55.00 | 56.25 | 56.91 | 0.6% |

Table 14. Natural Gas Prices, Margins and Revenues

(2001 Dollars per Thousand Cubic Feet, Unless Otherwise Noted)

1/ Represents lower 48 onshore and offshore supplies.

2/ Quantity-weighted average of the average lower 48 wellhead price and the average price of imports at the U.S. border.

3/ Includes consumption for combined heat and power, which produces electricity and other useful thermal energy.

4/ Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

Includes small power producers and exempt wholesale generators.

5/ Compressed natural gas used as a vehicle fuel. Price includes estimated motor vehicle fuel taxes.

6/ Weighted average prices and margins. Weights used are the sectoral consumption values excluding lease, plant, and pipeline fuel.

7/ Within the table, "transmission and distribution" margins equal the difference between the delivered price and the source price (average of the wellhead price and the price of imports at the U.S. border) of natural gas and, thus, reflect the total cost of bringing natural gas to market. When the term "transmission and distribution" margins is used in today's natural gas market, it generally does not include the cost of independent natural gas marketers or costs associated with aggregation of supplies, provisions of storage, and other services. As used here, the term includes the cost of all services and the cost of pipeline fuel used in compressor stations.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 residential, commercial, and transportation delivered prices; average lower 48 wellhead price; and average import price: Energy Information Administration (EIA) Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2000 electric generators delivered price: Form FERC- 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." 2000 and 2001 industrial delivered prices based on EIA, Manufacturing Energy Consumption Survey 1998. 2001 residential and commercial delivered prices, average lower 48 wellhead price, and average import price: EIA, Natural Gas Monthly, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). Other 2000 values, other 2001 values, and projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 15. Oil and Gas Supply

| Production and Supply | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Crude Oil | | | | | | | | | | | | | |
| Lower 48 Average Wellhead Price 1/ (2001 dollars per barrel) | 28.18 | 22.91 | 24.29 | 26.99 | 23.99 | 23.17 | 23.11 | 23.31 | 23.45 | 23.76 | 23.90 | 24.15 | 23.89 |
| Production (million barrels per day) 2/ | | | | | | | | | | | | | |
| U.S. Total | 5.86 | 5.80 | 5.89 | 5.81 | 5.66 | 5.58 | 6.01 | 6.06 | 5.95 | 5.81 | 5.63 | 5.54 | 5.45 |
| Lower 48 Onshore | 3.26 | 3.13 | 3.10 | 2.92 | 2.86 | 2.79 | 2.73 | 2.67 | 2.61 | 2.56 | 2.51 | 2.46 | 2.42 |
| Lower 48 Offshore | 1.62 | 1.71 | 1.79 | 1.88 | 1.87 | 1.92 | 2.47 | 2.63 | 2.62 | 2.58 | 2.47 | 2.39 | 2.30 |
| Alaska | 0.98 | 0.97 | 1.00 | 1.01 | 0.93 | 0.87 | 0.81 | 0.76 | 0.72 | 0.67 | 0.64 | 0.68 | 0.73 |
| Lower 48 End of Year Reserves (billion barrels) 2/ | 18.66 | 19.48 | 19.22 | 19.14 | 18.79 | 19.03 | 19.14 | 18.89 | 18.57 | 18.14 | 17.79 | 17.46 | 17.02 |
| Natural Gas | | | | | | | | | | | | | |
| Lower 48 Average Wellhead Price 1/ (2001 dollars per thousand cubic feet) | 3.83 | 4.12 | 2.75 | 3.13 | 2.92 | 2.88 | 2.82 | 2.91 | 3.03 | 3.15 | 3.29 | 3.36 | 3.43 |
| Dry Production (trillion cubic feet) 3/ | | | | | | | | | | | | | |
| U.S. Total | 18.99 | 19.45 | 19.37 | 19.99 | 20.15 | 20.14 | 20.43 | 20.51 | 21.09 | 21.46 | 21.88 | 22.39 | 22.91 |
| Lower 48 Onshore | 13.45 | 13.72 | 13.45 | 14.42 | 14.80 | 14.84 | 14.84 | 14.93 | 15.54 | 15.88 | 16.28 | 16.64 | 17.08 |
| Associated-Dissolved 4/ | 1.75 | 1.77 | 1.67 | 1.57 | 1.53 | 1.50 | 1.47 | 1.44 | 1.42 | 1.40 | 1.38 | 1.36 | 1.34 |
| Non-Associated | 11.70 | 11.94 | 11.78 | 12.85 | 13.27 | 13.35 | 13.37 | 13.49 | 14.12 | 14.49 | 14.91 | 15.29 | 15.74 |
| Conventional | 6.52 | 6.54 | 6.21 | 6.75 | 6.96 | 7.03 | 7.04 | 7.17 | 7.62 | 7.82 | 7.98 | 8.09 | 8.15 |
| Unconventional | 5.18 | 5.40 | 5.57 | 6.10 | 6.31 | 6.32 | 6.33 | 6.32 | 6.51 | 6.66 | 6.93 | 7.20 | 7.59 |
| Lower 48 Offshore | 5.12 | 5.30 | 5.53 | 5.16 | 4.92 | 4.85 | 5.14 | 5.12 | 5.08 | 5.11 | 5.12 | 5.26 | 5.35 |
| Associated-Dissolved 4/ | 1.05 | 1.08 | 1.10 | 0.88 | 0.86 | 0.85 | 0.91 | 0.89 | 0.85 | 0.83 | 0.79 | 0.77 | 0.77 |
| Non-Associated | 4.07 | 4.22 | 4.43 | 4.28 | 4.07 | 4.00 | 4.23 | 4.23 | 4.23 | 4.28 | 4.33 | 4.49 | 4.58 |
| Alaska | 0.42 | 0.43 | 0.39 | 0.40 | 0.43 | 0.44 | 0.45 | 0.46 | 0.46 | 0.47 | 0.48 | 0.48 | 0.49 |
| Lower 48 End of Year Dry Reserves (trillion cubic feet) 3/ | 168.19 | 174.04 | 173.15 | 174.37 | 174.68 | 175.91 | 175.91 | 176.42 | 176.70 | 177.02 | 178.39 | 180.11 | 181.77 |
| Supplemental Gas Supplies (trillion cubic feet) 5/ | 0.09 | 0.08 | 0.08 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Lower 48 Wells (thousands) | 27.09 | 33.94 | 25.79 | 27.60 | 25.75 | 24.88 | 24.30 | 24.13 | 24.80 | 25.30 | 25.83 | 26.43 | 26.83 |

Table 15. Oil and Gas Supply

| Production and Supply | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Crude Oil | | | | | | | | | | | | | |
| Lower 48 Average Wellhead Price 1/ (2001 dollars per barrel) | 24.11 | 24.13 | 24.28 | 24.46 | 24.61 | 24.70 | 24.89 | 25.12 | 25.34 | 25.57 | 25.81 | 26.12 | 0.5% |
| Production (million barrels per day) 2/ | | | | | | | | | | | | | |
| U.S. Total | 5.26 | 5.25 | 5.26 | 5.28 | 5.32 | 5.44 | 5.46 | 5.45 | 5.51 | 5.48 | 5.41 | 5.33 | -0.4% |
| Lower 48 Onshore | 2.33 | 2.29 | 2.25 | 2.22 | 2.18 | 2.15 | 2.12 | 2.09 | 2.06 | 2.03 | 2.00 | 1.98 | -1.9% |
| Lower 48 Offshore | 2.11 | 2.07 | 2.04 | 2.01 | 2.03 | 2.11 | 2.11 | 2.08 | 2.17 | 2.17 | 2.17 | 2.18 | 1.0% |
| Alaska | 0.82 | 0.88 | 0.97 | 1.05 | 1.11 | 1.18 | 1.23 | 1.28 | 1.28 | 1.28 | 1.24 | 1.17 | 0.8% |
| Lower 48 End of Year Reserves (billion barrels) 2/ | 16.46 | 16.23 | 16.03 | 15.92 | 15.99 | 15.85 | 15.64 | 15.68 | 15.55 | 15.46 | 15.37 | 15.31 | -1.0% |
| Natural Gas | | | | | | | | | | | | | |
| Lower 48 Average Wellhead Price 1/ (2001 dollars per thousand cubic feet) | 3.52 | 3.55 | 3.59 | 3.61 | 3.57 | 3.58 | 3.69 | 3.69 | 3.75 | 3.82 | 3.87 | 3.90 | -0.2% |
| Dry Production (trillion cubic feet) 3/ | | | | | | | | | | | | | |
| U.S. Total | 23.57 | 23.83 | 23.89 | 23.93 | 24.36 | 24.71 | 25.07 | 25.52 | 26.08 | 26.24 | 26.60 | 26.75 | 1.3% |
| Lower 48 Onshore | 17.71 | 17.94 | 18.08 | 18.22 | 18.51 | 18.75 | 19.14 | 18.72 | 18.43 | 18.73 | 18.73 | 18.43 | 1.2% |
| Associated-Dissolved 4/ | 1.30 | 1.29 | 1.27 | 1.26 | 1.24 | 1.23 | 1.21 | 1.20 | 1.19 | 1.18 | 1.16 | 1.15 | -1.8% |
| Non-Associated | 16.41 | 16.66 | 16.81 | 16.97 | 17.27 | 17.52 | 17.92 | 17.52 | 17.24 | 17.56 | 17.57 | 17.27 | 1.5% |
| Conventional | 8.17 | 8.21 | 8.23 | 8.21 | 8.19 | 8.18 | 8.24 | 8.04 | 7.93 | 7.97 | 7.89 | 7.75 | 0.7% |
| Unconventional | 8.23 | 8.45 | 8.59 | 8.75 | 9.08 | 9.34 | 9.68 | 9.48 | 9.31 | 9.58 | 9.67 | 9.53 | 2.4% |
| Lower 48 Offshore | 5.35 | 5.37 | 5.29 | 5.18 | 5.31 | 5.42 | 5.39 | 5.32 | 5.25 | 5.09 | 5.45 | 5.69 | 0.3% |
| Associated-Dissolved 4/ | 0.75 | 0.74 | 0.73 | 0.73 | 0.74 | 0.77 | 0.77 | 0.77 | 0.80 | 0.82 | 0.85 | 0.91 | -0.7% |
| Non-Associated | 4.60 | 4.63 | 4.55 | 4.45 | 4.58 | 4.66 | 4.62 | 4.55 | 4.45 | 4.28 | 4.60 | 4.78 | 0.5% |
| Alaska | 0.50 | 0.51 | 0.52 | 0.52 | 0.53 | 0.54 | 0.55 | 1.47 | 2.40 | 2.41 | 2.42 | 2.64 | 7.8% |
| Lower 48 End of Year Dry Reserves (trillion cubic feet) 3/ | 185.26 | 186.58 | 187.59 | 189.62 | 191.64 | 192.88 | 193.42 | 193.04 | 192.29 | 192.02 | 191.58 | 189.88 | 0.4% |
| Supplemental Gas Supplies (trillion cubic feet) 5/ | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.9% |
| Lower 48 Wells (thousands) | 27.30 | 27.26 | 27.26 | 27.34 | 27.25 | 27.35 | 27.37 | 26.82 | 26.87 | 27.23 | 27.30 | 28.41 | -0.7% |

Table 15. Oil and Gas Supply

1/ Represents lower 48 onshore and offshore supplies.

2/ Includes lease condensate.

3/ Marketed production (wet) minus extraction losses.

4/ Gas which occurs in crude oil reserves either as free gas (associated) or as gas in solution with crude oil (dissolved).

5/ Synthetic natural gas, propane air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 lower 48 onshore, lower 48 offshore, Alaska crude oil production: Energy Information Administration (EIA), Petroleum Supply Annual 2001, DOE/EIA-0340(2001)/1 (Washington, DC, June 2002). 2000 U.S. crude oil and natural gas reserves: EIA, U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, DOE/EIA-0216(2000) (Washington, DC, December 2001). 2000 natural gas lower 48 average wellhead price and total natural gas production: EIA, Natural Gas Annual 2000, DOE/EIA-0131(2000) (Washington, DC, November 2001). 2001 natural gas lower 48 average wellhead price, Alaska and total natural gas production, and supplemental gas supplies: EIA, Natural Gas Monthly, DOE/EIA-0130(2002/08) (Washington, DC, August 2002). Other 2000 and 2001 values: EIA, Office of Integrated Analysis and Forecasting. Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 16. Coal Supply, Disposition, and Prices
(Million Short Tons per Year, Unless Otherwise Noted)

| Supply, Disposition, and Prices | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Production 1/ | | | | | | | | | | | | | |
| Appalachia | 430 | 443 | 407 | 409 | 405 | 414 | 424 | 433 | 429 | 425 | 422 | 418 | 412 |
| Interior | 144 | 147 | 149 | 154 | 156 | 165 | 168 | 167 | 168 | 167 | 158 | 150 | 147 |
| West | 510 | 548 | 529 | 536 | 541 | 545 | 563 | 588 | 604 | 622 | 651 | 672 | 688 |
| East of the Mississippi | 518 | 539 | 505 | 513 | 506 | 521 | 534 | 541 | 538 | 534 | 528 | 522 | 513 |
| West of the Mississippi | 566 | 599 | 580 | 586 | 596 | 603 | 622 | 647 | 662 | 680 | 703 | 718 | 733 |
| Total | 1084 | 1138 | 1085 | 1099 | 1102 | 1124 | 1156 | 1188 | 1200 | 1214 | 1231 | 1239 | 1247 |
| Net Imports | | | | | | | | | | | | | |
| Imports | 13 | 20 | 16 | 16 | 17 | 17 | 18 | 18 | 19 | 19 | 20 | 20 | 21 |
| Exports | 58 | 49 | 41 | 40 | 40 | 39 | 38 | 37 | 37 | 36 | 35 | 32 | 31 |
| Total | -46 | -29 | -25 | -24 | -23 | -22 | -21 | -19 | -18 | -17 | -15 | -11 | -10 |
| Total Supply 2/ | 1038 | 1109 | 1060 | 1075 | 1080 | 1103 | 1135 | 1169 | 1182 | 1197 | 1215 | 1228 | 1236 |
| Consumption by Sector | | | | | | | | | | | | | |
| Residential and Commercial | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Industrial 3/ | 65 | 63 | 63 | 64 | 64 | 64 | 64 | 65 | 66 | 66 | 66 | 67 | 67 |
| of which: Coal to Liquids | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Coke Plants | 29 | 26 | 23 | 25 | 25 | 25 | 25 | 25 | 25 | 24 | 24 | 24 | 23 |
| Electric Generators 4/ | 983 | 957 | 949 | 966 | 989 | 1012 | 1044 | 1077 | 1090 | 1105 | 1123 | 1135 | 1144 |
| Total | 1081 | 1050 | 1040 | 1059 | 1082 | 1106 | 1138 | 1172 | 1185 | 1200 | 1218 | 1231 | 1239 |
| Discrepancy and Stock Change 5/ | -43 | 59 | 20 | 16 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -2 | -3 |
| Average Minemouth Price | | | | | | | | | | | | | |
| (2001 dollars per short ton) | 17.18 | 17.59 | 17.01 | 16.91 | 16.60 | 16.50 | 16.34 | 16.05 | 15.68 | 15.37 | 14.99 | 14.78 | 14.60 |
| (2001dollars per million Btu) | 0.81 | 0.83 | 0.82 | 0.81 | 0.80 | 0.80 | 0.79 | 0.77 | 0.76 | 0.75 | 0.73 | 0.72 | 0.71 |
| Delivered Price (2001 dollars per short ton) 6/ | | | | | | | | | | | | | |
| Industrial | 32.20 | 32.83 | 31.96 | 31.69 | 31.30 | 31.14 | 31.12 | 30.89 | 30.53 | 30.27 | 29.97 | 29.80 | 29.55 |
| Coke Plants | 45.43 | 46.42 | 44.40 | 44.08 | 43.60 | 43.17 | 42.93 | 42.46 | 42.01 | 41.67 | 41.38 | 40.81 | 40.67 |
| Electric Generators | | | | | | | | | | | | | |
| (2001 dollars / short ton) | 24.85 | 25.06 | 24.79 | 24.89 | 24.70 | 24.92 | 24.67 | 24.39 | 24.09 | 23.81 | 23.61 | 23.55 | 23.39 |
| (2001 dollars / million Btu) | 1.23 | 1.25 | 1.22 | 1.22 | 1.22 | 1.22 | 1.21 | 1.20 | 1.19 | 1.18 | 1.17 | 1.17 | 1.16 |
| Average | 25.85 | 26.06 | 25.67 | 25.75 | 25.52 | 25.70 | 25.43 | 25.13 | 24.82 | 24.53 | 24.31 | 24.22 | 24.05 |
| Exports 7/ | 35.72 | 36.97 | 35.52 | 35.14 | 34.70 | 34.33 | 34.17 | 33.85 | 33.45 | 33.19 | 32.88 | 32.18 | 32.09 |

Table 16. Coal Supply, Disposition, and Prices
(Million Short Tons per Year, Unless Otherwise Noted)

| Supply, Disposition, and Prices | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001- 2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| Production 1/ | | | | | | | | | | | | | | |
| Appalachia | 413 | 415 | 418 | 416 | 415 | 418 | 418 | 419 | 416 | 415 | 418 | 423 | 431 | -0.1% |
| Interior | 149 | 147 | 150 | 152 | 154 | 153 | 152 | 150 | 152 | 153 | 154 | 156 | 159 | 0.3% |
| West | 696 | 706 | 718 | 731 | 749 | 758 | 775 | 790 | 797 | 813 | 828 | 835 | 850 | 1.8% |
| East of the Mississippi | 518 | 520 | 526 | 525 | 526 | 529 | 531 | 529 | 529 | 530 | 535 | 542 | 553 | 0.1% |
| West of the Mississippi | 739 | 748 | 760 | 774 | 792 | 800 | 815 | 829 | 835 | 851 | 866 | 872 | 887 | 1.7% |
| Total | 1258 | 1268 | 1286 | 1299 | 1318 | 1329 | 1346 | 1359 | 1364 | 1381 | 1400 | 1414 | 1440 | 1.0% |
| Net Imports | | | | | | | | | | | | | | |
| Imports | 21 | 22 | 22 | 23 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 27 | 28 | 1.4% |
| Exports | 32 | 31 | 29 | 28 | 28 | 28 | 28 | 29 | 27 | 26 | 26 | 26 | 26 | -2.6% |
| Total | -10 | -9 | -6 | -5 | -4 | -4 | -4 | -4 | -1 | 0 | 0 | 1 | 2 | N/A |
| Total Supply 2/ | 1248 | 1259 | 1280 | 1294 | 1313 | 1325 | 1342 | 1355 | 1363 | 1381 | 1400 | 1415 | 1442 | 1.1% |
| Consumption by Sector | | | | | | | | | | | | | | |
| Residential and Commercial | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1.2% |
| Industrial 3/ | 68 | 68 | 68 | 68 | 69 | 69 | 69 | 69 | 70 | 70 | 70 | 71 | 71 | 0.5% |
| of which: Coal to Liquids | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | N/A |
| Coke Plants | 23 | 22 | 22 | 22 | 21 | 21 | 20 | 20 | 20 | 19 | 19 | 19 | 18 | -1.5% |
| Electric Generators 4/ | 1155 | 1166 | 1187 | 1202 | 1221 | 1233 | 1250 | 1263 | 1271 | 1290 | 1309 | 1323 | 1350 | 1.4% |
| Total | 1250 | 1261 | 1282 | 1297 | 1316 | 1328 | 1345 | 1358 | 1366 | 1384 | 1403 | 1418 | 1444 | 1.3% |
| Discrepancy and Stock Change 5/ | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | N/A |
| Average Minemouth Price | | | | | | | | | | | | | | |
| (2001 dollars per short ton) | 14.65 | 14.63 | 14.67 | 14.59 | 14.49 | 14.51 | 14.48 | 14.38 | 14.32 | 14.28 | 14.24 | 14.32 | 14.36 | -0.8% |
| (2001dollars per million Btu) | 0.71 | 0.71 | 0.72 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.70 | 0.70 | 0.70 | 0.70 | 0.71 | -0.7% |
| Delivered Price (2001 dollars per short ton) 6/ | | | | | | | | | | | | | | |
| Industrial | 29.53 | 29.39 | 29.33 | 29.16 | 28.96 | 28.87 | 28.69 | 28.40 | 28.23 | 28.16 | 28.00 | 27.98 | 27.92 | -0.7% |
| Coke Plants | 40.54 | 40.39 | 40.03 | 39.66 | 39.33 | 39.20 | 38.80 | 38.62 | 37.93 | 37.72 | 37.48 | 37.37 | 37.09 | -0.9% |
| Electric Generators | | | | | | | | | | | | | | |
| (2001 dollars / short ton) | 23.33 | 23.24 | 23.16 | 23.02 | 22.84 | 22.76 | 22.65 | 22.45 | 22.33 | 22.30 | 22.21 | 22.22 | 22.17 | -0.5% |
| (2001 dollars / million Btu) | 1.16 | 1.15 | 1.15 | 1.14 | 1.14 | 1.13 | 1.13 | 1.12 | 1.11 | 1.11 | 1.11 | 1.11 | 1.10 | -0.5% |
| Average | 23.98 | 23.87 | 23.78 | 23.62 | 23.43 | 23.33 | 23.21 | 23.00 | 22.86 | 22.81 | 22.71 | 22.71 | 22.64 | -0.6% |
| Exports 7/ | 32.14 | 32.30 | 32.58 | 32.27 | 32.12 | 32.13 | 31.96 | 31.89 | 31.26 | 31.13 | 30.99 | 30.96 | 30.85 | -0.8% |

Table 16. Coal Supply, Disposition, and Prices

(Million Short Tons per Year, Unless Otherwise Noted)

1/ Includes anthracite, bituminous coal, lignite, and waste coal delivered to independent power producers. Waste coal deliveries totaled 10.1 million tons in 2000 and 10.6 million tons in 2001.

2/ Production plus net imports and net storage withdrawals.

3/ Includes consumption for combined heat and power plants, except those plants whose primary business is to sell electricity, or electricity and heat, to the public.

4/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

5/ Balancing item: the sum of production, net imports, and net storage withdrawals minus total consumption.

6/ Sectoral prices weighted by consumption tonnage; weighted average excludes residential/ commercial prices and export free-alongside-ship (f.a.s.) prices.

7/ F.a.s. price at U.S. port of exit.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000: Energy Information Administration (EIA), Coal Industry Annual 2000, DOE/EIA-0584(2000) (Washington, DC, January 2002). 2001 data based on EIA, Quarterly Coal Report, October-December 2001, DOE/EIA-0121(2001/4Q) (Washington, DC, May 2002) and EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 17. Renewable Energy Generating Capacity and Generation
(Gigawatts, Unless Otherwise Noted)

| Capacity and Generation | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Electric Power Sector 1/ | | | | | | | | | | | | | |
| Net Summer Capacity | | | | | | | | | | | | | |
| Conventional Hydropower | 78.23 | 78.36 | 78.53 | 78.65 | 78.74 | 78.80 | 78.94 | 78.94 | 78.94 | 78.94 | 78.92 | 78.92 | 78.92 |
| Geothermal 2/ | 2.85 | 2.86 | 2.86 | 2.87 | 2.83 | 3.03 | 3.13 | 3.32 | 3.39 | 3.46 | 3.54 | 3.70 | 3.74 |
| Municipal Solid Waste 3/ | 3.10 | 3.25 | 3.41 | 3.50 | 3.53 | 3.78 | 3.83 | 3.86 | 3.90 | 3.98 | 4.03 | 4.07 | 4.11 |
| Wood and Other Biomass 4/ | 1.67 | 1.77 | 1.84 | 1.87 | 1.94 | 2.01 | 2.03 | 2.05 | 2.05 | 2.07 | 2.07 | 2.09 | 2.10 |
| Solar Thermal | 0.33 | 0.33 | 0.33 | 0.33 | 0.34 | 0.42 | 0.43 | 0.43 | 0.43 | 0.43 | 0.44 | 0.44 | 0.44 |
| Solar Photovoltaic 5/ | 0.01 | 0.02 | 0.02 | 0.03 | 0.04 | 0.04 | 0.05 | 0.07 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 |
| Wind | 2.45 | 4.29 | 4.99 | 6.75 | 6.75 | 7.24 | 7.58 | 7.85 | 7.95 | 8.38 | 8.47 | 8.73 | 8.93 |
| Total | 88.64 | 90.88 | 91.99 | 93.99 | 94.15 | 95.33 | 95.99 | 96.51 | 96.74 | 97.36 | 97.57 | 98.05 | 98.37 |
| Generation (billion kilowatthours) | | | | | | | | | | | | | |
| Conventional Hydropower | 271.03 | 213.82 | 258.60 | 296.33 | 301.66 | 301.77 | 302.12 | 302.22 | 302.12 | 302.05 | 301.89 | 301.70 | 301.62 |
| Geothermal 2/ | 14.09 | 13.81 | 13.78 | 13.85 | 13.97 | 15.31 | 16.44 | 17.81 | 18.63 | 19.16 | 19.81 | 20.98 | 21.42 |
| Municipal Solid Waste 3/ | 20.05 | 19.55 | 23.91 | 24.72 | 25.04 | 27.01 | 27.38 | 27.62 | 27.87 | 28.55 | 28.88 | 29.19 | 29.46 |
| Wood and Other Biomass 4/ | 9.17 | 9.38 | 12.69 | 12.86 | 14.58 | 18.14 | 19.48 | 19.44 | 20.04 | 20.47 | 21.27 | 21.77 | 21.86 |
| Dedicated Plants | 8.36 | 7.67 | 10.08 | 10.38 | 10.91 | 11.56 | 11.76 | 12.04 | 12.25 | 12.34 | 12.41 | 12.50 | 12.58 |
| Cofiring | 0.81 | 1.71 | 2.61 | 2.48 | 3.66 | 6.58 | 7.72 | 7.40 | 7.79 | 8.13 | 8.85 | 9.27 | 9.28 |
| Solar Thermal | 0.49 | 0.49 | 0.51 | 0.52 | 0.52 | 0.67 | 0.71 | 0.75 | 0.76 | 0.76 | 0.77 | 0.78 | 0.79 |
| Solar Photovoltaic 5/ | 0.00 | 0.00 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.28 | 0.32 |
| Wind | 5.59 | 5.78 | 12.16 | 16.70 | 18.02 | 19.28 | 20.53 | 21.50 | 21.82 | 23.21 | 23.62 | 24.49 | 25.19 |
| Total | 320.43 | 262.85 | 321.69 | 365.05 | 373.86 | 382.28 | 386.79 | 389.51 | 391.41 | 394.43 | 396.47 | 399.19 | 400.67 |
| End Use Sector | | | | | | | | | | | | | |
| Net Summer Capacity | | | | | | | | | | | | | |
| Combined Heat and Power 6/ | | | | | | | | | | | | | |
| Municipal Solid Waste | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 |
| Biomass | 4.41 | 4.41 | 4.41 | 4.64 | 4.83 | 4.96 | 5.07 | 5.22 | 5.39 | 5.61 | 5.88 | 6.12 | 6.33 |
| Total | 4.69 | 4.69 | 4.69 | 4.93 | 5.11 | 5.24 | 5.35 | 5.51 | 5.67 | 5.89 | 6.16 | 6.40 | 6.61 |
| Other End-Use Generators 7/ | | | | | | | | | | | | | |
| Conventional Hydropower 8/ | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 |
| Geothermal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Solar Photovoltaic | 0.01 | 0.02 | 0.04 | 0.06 | 0.08 | 0.11 | 0.14 | 0.18 | 0.24 | 0.30 | 0.38 | 0.39 | 0.40 |
| Total | 1.11 | 1.12 | 1.13 | 1.15 | 1.17 | 1.20 | 1.24 | 1.28 | 1.33 | 1.40 | 1.47 | 1.48 | 1.49 |
| Generation (billion kilowatthours) | | | | | | | | | | | | | |
| Combined Heat and Power 6/ | | | | | | | | | | | | | |
| Municipal Solid Waste | 2.50 | 2.46 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 |
| Biomass | 28.68 | 28.67 | 28.68 | 30.05 | 31.10 | 31.89 | 32.53 | 33.43 | 34.38 | 35.68 | 37.23 | 38.66 | 39.86 |
| Total | 31.18 | 31.13 | 30.83 | 32.20 | 33.25 | 34.04 | 34.68 | 35.58 | 36.53 | 37.83 | 39.38 | 40.81 | 42.01 |
| Other End-Use Generators 7/ | | | | | | | | | | | | | |
| Conventional Hydropower 8/ | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 |
| Geothermal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Solar Photovoltaic | 0.01 | 0.02 | 0.09 | 0.12 | 0.17 | 0.23 | 0.31 | 0.40 | 0.51 | 0.65 | 0.82 | 0.83 | 0.86 |
| Total | 4.24 | 4.25 | 4.32 | 4.35 | 4.40 | 4.46 | 4.54 | 4.63 | 4.74 | 4.88 | 5.05 | 5.07 | 5.09 |

Table 17. Renewable Energy Generating Capacity and Generation
(Gigawatts, Unless Otherwise Noted)

| Capacity and Generation | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Electric Power Sector 1/ | | | | | | | | | | | | | | |
| Net Summer Capacity | | | | | | | | | | | | | | |
| Conventional Hydropower | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 78.92 | 0.0% |
| Geothermal 2/ | 3.87 | 3.97 | 4.08 | 4.26 | 4.31 | 4.41 | 4.67 | 5.00 | 5.12 | 5.20 | 5.27 | 5.46 | 5.64 | 2.9% |
| Municipal Solid Waste 3/ | 4.15 | 4.18 | 4.22 | 4.26 | 4.28 | 4.31 | 4.34 | 4.37 | 4.37 | 4.37 | 4.37 | 4.37 | 4.37 | 1.2% |
| Wood and Other Biomass 4/ | 2.12 | 2.13 | 2.14 | 2.15 | 2.16 | 2.16 | 2.17 | 2.18 | 2.18 | 2.32 | 2.42 | 2.60 | 2.78 | 1.9% |
| Solar Thermal | 0.45 | 0.45 | 0.46 | 0.46 | 0.46 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 0.50 | 1.7% |
| Solar Photovoltaic 5/ | 0.15 | 0.16 | 0.18 | 0.20 | 0.22 | 0.23 | 0.25 | 0.27 | 0.29 | 0.30 | 0.32 | 0.34 | 0.36 | 13.9% |
| Wind | 9.34 | 9.64 | 10.06 | 10.20 | 10.55 | 10.61 | 10.91 | 11.05 | 11.29 | 11.43 | 11.76 | 11.86 | 12.00 | 4.4% |
| Total | 98.98 | 99.46 | 100.05 | 100.44 | 100.89 | 101.11 | 101.73 | 102.25 | 102.63 | 103.01 | 103.54 | 104.04 | 104.56 | 0.6% |
| Generation (billion kilowatthours) | | | | | | | | | | | | | | |
| Conventional Hydropower | 301.57 | 301.51 | 301.41 | 301.34 | 301.26 | 301.21 | 301.12 | 301.05 | 301.10 | 301.16 | 301.22 | 301.28 | 301.34 | 1.4% |
| Geothermal 2/ | 22.54 | 23.45 | 24.33 | 25.71 | 26.11 | 27.09 | 29.18 | 31.78 | 32.70 | 33.41 | 34.08 | 35.48 | 36.92 | 4.2% |
| Municipal Solid Waste 3/ | 29.73 | 29.99 | 30.26 | 30.53 | 30.74 | 30.94 | 31.13 | 31.34 | 31.40 | 31.41 | 31.42 | 31.44 | 31.49 | 2.0% |
| Wood and Other Biomass 4/ | 22.10 | 22.22 | 22.28 | 22.12 | 22.02 | 21.95 | 21.98 | 21.88 | 21.92 | 22.34 | 22.96 | 23.82 | 24.66 | 4.1% |
| Dedicated Plants | 12.70 | 12.79 | 12.86 | 12.94 | 12.99 | 13.03 | 13.08 | 13.12 | 13.13 | 13.70 | 14.31 | 15.36 | 16.47 | 3.2% |
| Cofiring | 9.40 | 9.43 | 9.41 | 9.19 | 9.03 | 8.91 | 8.91 | 8.76 | 8.79 | 8.64 | 8.65 | 8.47 | 8.19 | 6.7% |
| Solar Thermal | 0.81 | 0.82 | 0.83 | 0.84 | 0.86 | 0.87 | 0.88 | 0.90 | 0.91 | 0.93 | 0.94 | 0.95 | 0.97 | 2.9% |
| Solar Photovoltaic 5/ | 0.36 | 0.40 | 0.44 | 0.49 | 0.53 | 0.58 | 0.62 | 0.66 | 0.71 | 0.75 | 0.80 | 0.84 | 0.88 | 26.7% |
| Wind | 26.52 | 27.66 | 29.14 | 29.64 | 30.84 | 31.20 | 32.21 | 32.70 | 33.65 | 34.14 | 35.35 | 35.69 | 36.21 | 7.9% |
| Total | 403.62 | 406.04 | 408.69 | 410.67 | 412.36 | 413.83 | 417.14 | 420.31 | 422.39 | 424.14 | 426.76 | 429.51 | 432.48 | 2.1% |
| End Use Sector | | | | | | | | | | | | | | |
| Net Summer Capacity | | | | | | | | | | | | | | |
| Combined Heat and Power 6/ | | | | | | | | | | | | | | |
| Municipal Solid Waste | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.0% |
| Biomass | 6.52 | 6.72 | 6.89 | 7.04 | 7.21 | 7.39 | 7.59 | 7.76 | 7.92 | 8.12 | 8.31 | 8.52 | 8.71 | 2.9% |
| Total | 6.80 | 7.00 | 7.17 | 7.33 | 7.49 | 7.68 | 7.87 | 8.04 | 8.20 | 8.40 | 8.59 | 8.80 | 9.00 | 2.7% |
| Other End-Use Generators 7/ | | | | | | | | | | | | | | |
| Conventional Hydropower 8/ | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 1.09 | 0.0% |
| Geothermal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Solar Photovoltaic | 0.40 | 0.42 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.62 | 0.68 | 0.74 | 0.80 | 0.87 | 0.93 | 16.5% |
| Total | 1.50 | 1.51 | 1.54 | 1.56 | 1.59 | 1.62 | 1.65 | 1.71 | 1.77 | 1.83 | 1.90 | 1.96 | 2.03 | 2.5% |
| Generation (billion kilowatthours) | | | | | | | | | | | | | | |
| Combined Heat and Power 6/ | | | | | | | | | | | | | | |
| Municipal Solid Waste | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | -0.6% |
| Biomass | 40.98 | 42.15 | 43.15 | 44.05 | 45.03 | 46.10 | 47.21 | 48.21 | 49.18 | 50.31 | 51.44 | 52.65 | 53.80 | 2.7% |
| Total | 43.13 | 44.30 | 45.30 | 46.20 | 47.18 | 48.25 | 49.36 | 50.36 | 51.33 | 52.47 | 53.59 | 54.80 | 55.95 | 2.5% |
| Other End-Use Generators 7/ | | | | | | | | | | | | | | |
| Conventional Hydropower 8/ | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 4.23 | 0.0% |
| Geothermal | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Solar Photovoltaic | 0.87 | 0.90 | 0.96 | 1.02 | 1.08 | 1.14 | 1.20 | 1.33 | 1.45 | 1.58 | 1.71 | 1.85 | 1.98 | 22.1% |
| Total | 5.11 | 5.14 | 5.19 | 5.25 | 5.31 | 5.38 | 5.44 | 5.57 | 5.69 | 5.82 | 5.95 | 6.09 | 6.22 | 1.6% |

Table 17. Renewable Energy Generating Capacity and Generation

(Gigawatts, Unless Otherwise Noted)

1/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

2/ Includes hydrothermal resources only (hot water and steam).

3/ Includes landfill gas.

4/ Includes projections for energy crops after 2010.

5/ Does not include off-grid photovoltaics (PV). EIA estimates that another 76 megawatts of remote electricity generation PV applications were in service in 1999, plus an additional 205 megawatts in communications, transportation, and assorted other non-grid-connected applications.

6/ Includes combined heat and power plants and electricity-only plants in the commercial and industrial sectors.

7/ Includes small on-site generating systems in the residential, commercial, and industrial sectors used primarily for own-use generation, but which may also sell some power to the grid.

8/ Represents own-use industrial hydroelectric power.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports. Net summer capacity has been estimated for nonutility generators for AEO2003. Net summer capacity is used to be consistent with electric utility capacity estimates. Additional retirements are determined on the basis of the size and age of the units.

Sources: 2000 and 2001 capacity: Energy Information Administration (EIA), Form EIA-860: "Annual Electric Generator Report" (preliminary). 2000 and 2001 generation: EIA, Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 18. Renewable Energy Consumption by Sector and Source
(Quadrillion Btu per Year)

| Sector and Source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Marketed Renewable Energy 2/ | | | | | | | | | | | | | |
| Residential | 0.41 | 0.39 | 0.39 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |
| Wood | 0.41 | 0.39 | 0.39 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |
| Commercial | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| Biomass | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| Industrial 3/ | 1.86 | 1.82 | 1.80 | 1.86 | 1.92 | 1.95 | 1.99 | 2.03 | 2.08 | 2.15 | 2.22 | 2.29 | 2.35 |
| Conventional Hydroelectric | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Municipal Solid Waste | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Biomass | 1.82 | 1.77 | 1.75 | 1.82 | 1.87 | 1.90 | 1.94 | 1.99 | 2.03 | 2.10 | 2.17 | 2.24 | 2.30 |
| Transportation | 0.14 | 0.15 | 0.16 | 0.20 | 0.23 | 0.23 | 0.24 | 0.24 | 0.25 | 0.26 | 0.26 | 0.27 | 0.27 |
| Ethanol used in E85 4/ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ethanol used in Gasoline Blending | 0.14 | 0.15 | 0.16 | 0.20 | 0.23 | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | 0.26 | 0.27 | 0.27 |
| Electric Generators 5/ | 3.58 | 3.02 | 3.58 | 4.03 | 4.12 | 4.25 | 4.32 | 4.38 | 4.42 | 4.46 | 4.50 | 4.55 | 4.58 |
| Conventional Hydroelectric | 2.80 | 2.17 | 2.66 | 3.04 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.10 | 3.09 | 3.09 |
| Geothermal | 0.29 | 0.29 | 0.29 | 0.30 | 0.30 | 0.35 | 0.38 | 0.43 | 0.45 | 0.47 | 0.49 | 0.53 | 0.54 |
| Municipal Solid Waste 6/ | 0.30 | 0.31 | 0.33 | 0.34 | 0.34 | 0.37 | 0.38 | 0.38 | 0.38 | 0.39 | 0.40 | 0.40 | 0.40 |
| Biomass | 0.14 | 0.15 | 0.17 | 0.17 | 0.19 | 0.23 | 0.24 | 0.24 | 0.25 | 0.25 | 0.26 | 0.27 | 0.27 |
| Dedicated Plants | 0.12 | 0.12 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 |
| Cofiring | 0.01 | 0.03 | 0.04 | 0.04 | 0.06 | 0.09 | 0.11 | 0.11 | 0.11 | 0.11 | 0.12 | 0.13 | 0.13 |
| Solar Thermal | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Wind | 0.05 | 0.08 | 0.12 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | 0.22 | 0.24 | 0.24 | 0.25 | 0.26 |
| Total Marketed Renewable Energy | 6.10 | 5.47 | 6.04 | 6.60 | 6.78 | 6.94 | 7.06 | 7.17 | 7.26 | 7.38 | 7.49 | 7.62 | 7.71 |
| Sources of Ethanol | | | | | | | | | | | | | |
| From Corn | 0.14 | 0.15 | 0.16 | 0.20 | 0.23 | 0.23 | 0.24 | 0.24 | 0.25 | 0.26 | 0.26 | 0.27 | 0.27 |
| From Cellulose | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| Total | 0.14 | 0.15 | 0.16 | 0.20 | 0.23 | 0.23 | 0.24 | 0.24 | 0.25 | 0.26 | 0.26 | 0.27 | 0.27 |
| Non-Marketed Renewable Energy | | | | | | | | | | | | | |
| -- Selected Consumption 7/ | | | | | | | | | | | | | |
| Residential | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Solar Hot Water Heating | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Geothermal Heat Pumps | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Commercial | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Solar Thermal | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Table 18. Renewable Energy Consumption by Sector and Source
(Quadrillion Btu per Year)

| Sector and Source | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|
| Marketed Renewable Energy 2/ | | | | | | | | | | | | | | |
| Residential | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.41 | 0.40 | 0.40 | 0.40 | 0.41 | 0.40 | 0.2% |
| Wood | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 | 0.40 | 0.41 | 0.40 | 0.40 | 0.40 | 0.41 | 0.40 | 0.2% |
| Commercial | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Biomass | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.0% |
| Industrial 3/ | 2.40 | 2.46 | 2.51 | 2.56 | 2.61 | 2.66 | 2.72 | 2.77 | 2.82 | 2.88 | 2.94 | 3.00 | 3.05 | 2.2% |
| Conventional Hydroelectric | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.0% |
| Municipal Solid Waste | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.0% |
| Biomass | 2.36 | 2.41 | 2.46 | 2.51 | 2.56 | 2.62 | 2.67 | 2.72 | 2.77 | 2.83 | 2.89 | 2.95 | 3.01 | 2.2% |
| Transportation | 0.28 | 0.29 | 0.29 | 0.29 | 0.30 | 0.30 | 0.31 | 0.31 | 0.32 | 0.32 | 0.33 | 0.33 | 0.34 | 3.5% |
| Ethanol used in E85 4/ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Ethanol used in Gasoline Blending | 0.28 | 0.28 | 0.29 | 0.29 | 0.30 | 0.30 | 0.30 | 0.31 | 0.31 | 0.32 | 0.32 | 0.33 | 0.33 | 3.5% |
| Electric Generators 5/ | 4.63 | 4.68 | 4.72 | 4.77 | 4.80 | 4.83 | 4.91 | 5.00 | 5.03 | 5.06 | 5.10 | 5.16 | 5.21 | 2.3% |
| Conventional Hydroelectric | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.09 | 3.08 | 3.08 | 3.08 | 3.08 | 3.08 | 3.08 | 3.08 | 1.5% |
| Geothermal | 0.58 | 0.60 | 0.63 | 0.67 | 0.69 | 0.72 | 0.78 | 0.86 | 0.89 | 0.91 | 0.93 | 0.97 | 1.01 | 5.3% |
| Municipal Solid Waste 6/ | 0.41 | 0.41 | 0.41 | 0.42 | 0.42 | 0.42 | 0.42 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 1.3% |
| Biomass | 0.27 | 0.28 | 0.28 | 0.28 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.28 | 0.28 | 0.29 | 0.30 | 2.8% |
| Dedicated Plants | 0.14 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.16 | 0.16 | 0.18 | 0.19 | 2.0% |
| Cofiring | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 4.9% |
| Solar Thermal | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 5.3% |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Wind | 0.27 | 0.28 | 0.30 | 0.30 | 0.32 | 0.32 | 0.33 | 0.34 | 0.35 | 0.35 | 0.36 | 0.37 | 0.37 | 6.4% |
| Total Marketed Renewable Energy | 7.83 | 7.94 | 8.03 | 8.14 | 8.22 | 8.31 | 8.45 | 8.59 | 8.68 | 8.77 | 8.87 | 9.00 | 9.11 | 2.1% |
| Sources of Ethanol | | | | | | | | | | | | | | |
| From Corn | 0.27 | 0.27 | 0.28 | 0.28 | 0.28 | 0.28 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 2.9% |
| From Cellulose | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | N/A |
| Total | 0.28 | 0.29 | 0.29 | 0.29 | 0.30 | 0.30 | 0.31 | 0.31 | 0.32 | 0.32 | 0.33 | 0.33 | 0.34 | 3.5% |
| Non-Marketed Renewable Energy | | | | | | | | | | | | | | |
| -- Selected Consumption 7/ | | | | | | | | | | | | | | |
| Residential | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.06 | 2.3% |
| Solar Hot Water Heating | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 2.1% |
| Geothermal Heat Pumps | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 2.8% |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.6% |
| Commercial | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.3% |
| Solar Thermal | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.6% |
| Solar Photovoltaic | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 17.5% |

Table 18. Renewable Energy Consumption by Sector and Source

(Quadrillion Btu per Year)

1/ Actual heat rates used to determine fuel consumption for all renewable fuels except hydropower, solar, and wind. Consumption at hydroelectric, solar, and wind facilities determined by using the fossil fuel equivalent of 10,280 Btu per kilowatthour.

2/ Includes nonelectric renewable energy groups for which the energy source is bought and sold in the marketplace, although all transactions may not necessarily be marketed, and marketed renewable energy inputs for electricity entering the marketplace on the electric power grid. Excludes electricity imports; see Table A8.

3/ Includes all electricity production by industrial and other combined heat and power for the grid and for own use.

4/ Excludes motor gasoline component of E85.

5/ Includes consumption of energy by electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.

6/ Includes landfill gas.

7/ Includes selected renewable energy consumption data for which the energy is not bought or sold, either directly or indirectly as an input to marketed energy. The Energy Information Administration does not estimate or project total consumption of nonmarketed renewable energy.

Btu = British thermal unit.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 ethanol: Energy Information Administration (EIA), Annual Energy Review 2001, DOE/EIA-0384(2001) (Washington, DC, October 2002). 2000 and 2001 electric generators: EIA, Form EIA-860: "Annual Electric Generator Report" (preliminary). Other 2000 and 2001: EIA, Office of Integrated Analysis and Forecasting. Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 19. Carbon Dioxide Emissions by Sector and Source
(Million Metric Tons Carbon Equivalent, Unless Otherwise Noted)

| Sector and Source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Residential | | | | | | | | | | | | | |
| Petroleum | 27.5 | 27.2 | 27.6 | 28.5 | 28.4 | 28.3 | 28.3 | 28.2 | 28.1 | 27.8 | 27.6 | 27.4 | 27.2 |
| Natural Gas | 73.7 | 71.1 | 72.7 | 76.7 | 78.1 | 78.5 | 79.4 | 80.0 | 80.8 | 81.0 | 81.5 | 82.0 | 82.7 |
| Coal | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Electricity | 215.4 | 215.1 | 209.3 | 214.0 | 218.6 | 222.4 | 228.2 | 233.3 | 237.5 | 239.8 | 242.7 | 244.8 | 247.2 |
| Total | 317.0 | 313.8 | 309.9 | 319.6 | 325.4 | 329.6 | 336.3 | 341.9 | 346.8 | 349.0 | 352.1 | 354.5 | 357.5 |
| Commercial | | | | | | | | | | | | | |
| Petroleum | 14.0 | 14.0 | 12.6 | 12.2 | 12.5 | 12.6 | 12.8 | 12.9 | 12.9 | 13.0 | 13.1 | 13.1 | 13.2 |
| Natural Gas | 47.5 | 48.0 | 47.9 | 50.0 | 51.4 | 52.2 | 52.9 | 53.4 | 53.9 | 54.3 | 54.7 | 55.2 | 55.7 |
| Coal | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 |
| Electricity | 209.6 | 214.5 | 208.8 | 208.7 | 214.6 | 220.2 | 227.3 | 233.5 | 238.2 | 242.6 | 247.0 | 251.6 | 255.7 |
| Total | 273.5 | 278.8 | 271.6 | 273.3 | 280.8 | 287.3 | 295.4 | 302.3 | 307.5 | 312.3 | 317.2 | 322.4 | 327.2 |
| Industrial 1/ Petroleum | 96.0 | 97.9 | 92.0 | 91.9 | 93.4 | 93.3 | 94.0 | 95.2 | 96.2 | 97.5 | 98.6 | 99.3 | 100.1 |
| Natural Gas 2/ Coal | 133.2 | 123.4 | 134.1 | 136.3 | 136.3 | 137.0 | 139.6 | 141.5 | 143.0 | 145.5 | 149.0 | 152.4 | 154.8 |
| Electricity | 56.0 | 52.1 | 51.1 | 53.1 | 53.7 | 53.9 | 54.2 | 54.7 | 55.6 | 55.8 | 56.2 | 56.5 | 56.6 |
| Total | 192.3 | 178.1 | 157.9 | 163.5 | 167.8 | 170.3 | 175.6 | 181.4 | 186.3 | 189.8 | 194.3 | 198.3 | 201.4 |
| Transportation | 477.4 | 451.5 | 435.1 | 444.9 | 451.2 | 454.5 | 463.4 | 472.8 | 481.1 | 488.6 | 498.1 | 506.4 | 513.0 |
| Petroleum 3/ Natural Gas 4/ Other 5/ Electricity | 496.7 | 501.4 | 507.2 | 516.9 | 526.1 | 538.2 | 552.7 | 567.9 | 583.6 | 599.8 | 616.4 | 632.1 | 646.8 |
| Total | 9.7 | 9.2 | 8.6 | 9.4 | 9.8 | 10.0 | 10.3 | 10.6 | 11.1 | 11.6 | 12.1 | 12.4 | 12.8 |
| Electricity | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 3.8 | 3.9 | 3.8 | 3.8 | 3.9 | 4.0 | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 |
| Total by Delivered Fuel | 510.2 | 514.5 | 519.5 | 530.1 | 539.8 | 552.2 | 567.1 | 582.8 | 599.1 | 615.8 | 633.0 | 649.2 | 664.4 |
| Petroleum 3/ Natural Gas | 634.3 | 640.5 | 639.4 | 649.5 | 660.4 | 672.4 | 687.8 | 704.1 | 720.8 | 738.1 | 755.7 | 771.9 | 787.4 |
| Coal | 264.1 | 251.7 | 263.2 | 272.5 | 275.6 | 277.7 | 282.2 | 285.6 | 288.8 | 292.3 | 297.2 | 301.9 | 306.1 |
| Other 5/ Electricity | 58.7 | 54.7 | 53.8 | 55.9 | 56.3 | 56.6 | 56.9 | 57.5 | 58.4 | 58.6 | 59.0 | 59.3 | 59.5 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Electricity | 621.1 | 611.6 | 579.7 | 590.1 | 604.9 | 616.9 | 635.3 | 652.5 | 666.4 | 676.6 | 688.5 | 699.4 | 709.1 |
| Total | 1578.2 | 1558.6 | 1536.2 | 1567.9 | 1597.2 | 1623.7 | 1662.3 | 1699.7 | 1734.5 | 1765.8 | 1800.5 | 1832.6 | 1862.1 |
| Electric Power Sector 6/ Petroleum | 24.5 | 27.5 | 7.9 | 6.6 | 7.3 | 7.2 | 7.4 | 7.6 | 8.5 | 8.0 | 8.8 | 8.9 | 9.4 |
| Natural Gas | 76.5 | 77.7 | 77.3 | 79.9 | 83.8 | 83.5 | 84.5 | 84.5 | 92.5 | 96.8 | 99.9 | 104.1 | 109.5 |
| Coal | 520.1 | 506.4 | 494.6 | 503.6 | 513.8 | 526.3 | 543.5 | 560.5 | 565.4 | 571.8 | 579.9 | 586.4 | 590.3 |
| Total | 621.1 | 611.6 | 579.7 | 590.1 | 604.9 | 616.9 | 635.3 | 652.5 | 666.4 | 676.6 | 688.5 | 699.4 | 709.1 |
| Total by Primary Fuel 7/ Petroleum 3/ Natural Gas | 658.8 | 668.0 | 647.3 | 656.1 | 667.7 | 679.6 | 695.2 | 711.7 | 729.3 | 746.2 | 764.5 | 780.8 | 796.8 |
| Coal | 340.7 | 329.4 | 340.5 | 352.3 | 359.4 | 361.2 | 366.7 | 370.1 | 381.3 | 389.2 | 397.1 | 406.0 | 415.5 |
| Other 5/ Total | 578.7 | 561.1 | 548.4 | 559.4 | 570.2 | 582.9 | 600.4 | 618.0 | 623.9 | 630.4 | 638.9 | 645.7 | 649.8 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Carbon Dioxide Emissions (tons carbon equivalent per person) | 1578.2 | 1558.6 | 1536.2 | 1567.9 | 1597.2 | 1623.7 | 1662.3 | 1699.7 | 1734.5 | 1765.8 | 1800.5 | 1832.6 | 1862.1 |
| Carbon Dioxide Emissions (tons carbon equivalent per person) | 5.7 | 5.6 | 5.5 | 5.5 | 5.6 | 5.6 | 5.7 | 5.8 | 5.9 | 5.9 | 6.0 | 6.1 | 6.1 |

Table 19. Carbon Dioxide Emissions by Sector and Source
(Million Metric Tons Carbon Equivalent, Unless Otherwise Noted)

| Sector and Source | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Residential | | | | | | | | | | | | | | |
| Petroleum | 27.0 | 26.7 | 26.5 | 26.4 | 26.2 | 26.0 | 25.8 | 25.7 | 25.5 | 25.4 | 25.3 | 25.3 | 25.1 | -0.3% |
| Natural Gas | 83.1 | 83.7 | 84.3 | 85.1 | 85.6 | 86.4 | 87.2 | 88.2 | 88.8 | 89.7 | 90.6 | 91.6 | 92.1 | 1.1% |
| Coal | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4% |
| Electricity | 248.6 | 250.6 | 254.4 | 257.8 | 260.3 | 263.0 | 266.2 | 269.4 | 271.1 | 274.2 | 277.6 | 281.5 | 285.2 | 1.2% |
| Total | 359.1 | 361.4 | 365.6 | 369.7 | 372.4 | 375.8 | 379.6 | 383.7 | 385.7 | 389.6 | 393.8 | 398.7 | 402.8 | 1.0% |
| Commercial | | | | | | | | | | | | | | |
| Petroleum | 13.2 | 13.3 | 13.3 | 13.3 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.5 | 13.5 | 13.5 | 13.5 | -0.2% |
| Natural Gas | 56.4 | 57.0 | 57.6 | 58.4 | 59.1 | 60.0 | 60.9 | 61.7 | 62.6 | 63.4 | 64.2 | 64.9 | 65.6 | 1.3% |
| Coal | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.7 | 2.7 | 2.7 | 2.7 | 2.8 | 2.8 | 2.8 | 0.7% |
| Electricity | 260.5 | 265.0 | 271.0 | 276.2 | 281.9 | 287.3 | 293.2 | 298.4 | 303.7 | 309.5 | 315.5 | 321.1 | 328.0 | 1.8% |
| Total | 332.7 | 337.8 | 344.5 | 350.5 | 357.0 | 363.3 | 370.2 | 376.2 | 382.4 | 389.1 | 395.9 | 402.3 | 409.9 | 1.6% |
| Industrial 1/ Petroleum | 101.3 | 102.1 | 102.1 | 103.0 | 104.0 | 104.7 | 105.7 | 106.5 | 107.2 | 108.0 | 108.7 | 109.6 | 110.4 | 0.5% |
| Natural Gas 2/ Coal | 156.1 | 158.0 | 160.0 | 161.0 | 162.6 | 164.9 | 167.3 | 169.4 | 172.2 | 175.7 | 178.0 | 180.9 | 183.4 | 1.7% |
| Electricity | 56.7 | 56.7 | 56.6 | 56.4 | 56.3 | 56.2 | 56.3 | 56.1 | 56.1 | 56.1 | 56.1 | 56.1 | 56.1 | 0.3% |
| Total | 204.3 | 206.9 | 210.0 | 212.1 | 215.0 | 217.6 | 220.9 | 223.1 | 225.4 | 228.9 | 232.4 | 236.1 | 240.0 | 1.3% |
| Transportation | 518.5 | 523.8 | 528.7 | 532.6 | 537.9 | 543.4 | 550.2 | 555.2 | 560.9 | 568.6 | 575.2 | 582.7 | 589.9 | 1.1% |
| Petroleum 3/ | 661.0 | 674.4 | 686.8 | 698.5 | 710.3 | 722.5 | 735.6 | 746.9 | 758.0 | 770.3 | 783.5 | 797.8 | 811.0 | 2.0% |
| Natural Gas 4/ | 13.0 | 13.2 | 13.4 | 13.6 | 13.7 | 14.0 | 14.2 | 14.5 | 15.1 | 15.7 | 15.9 | 16.2 | 16.3 | 2.4% |
| Other 5/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Electricity | 4.9 | 5.0 | 5.2 | 5.3 | 5.5 | 5.6 | 5.8 | 5.9 | 6.1 | 6.3 | 6.5 | 6.6 | 6.8 | 2.4% |
| Total | 678.9 | 692.7 | 705.4 | 717.3 | 729.4 | 742.1 | 755.6 | 767.3 | 779.2 | 792.3 | 805.9 | 820.6 | 834.2 | 2.0% |
| Total by Delivered Fuel | | | | | | | | | | | | | | |
| Petroleum 3/ | 802.5 | 816.5 | 828.7 | 841.2 | 853.9 | 866.6 | 880.5 | 892.6 | 904.2 | 917.1 | 931.0 | 946.2 | 960.1 | 1.7% |
| Natural Gas | 308.6 | 311.9 | 315.3 | 318.1 | 321.0 | 325.2 | 329.7 | 333.8 | 338.7 | 344.5 | 348.7 | 353.6 | 357.5 | 1.5% |
| Coal | 59.6 | 59.7 | 59.5 | 59.4 | 59.3 | 59.2 | 59.3 | 59.2 | 59.1 | 59.1 | 59.2 | 59.3 | 59.3 | 0.3% |
| Other 5/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Electricity | 718.4 | 727.6 | 740.6 | 751.5 | 762.7 | 773.5 | 786.0 | 796.9 | 806.2 | 818.9 | 832.0 | 845.3 | 860.1 | 1.4% |
| Total | 1889.2 | 1915.7 | 1944.2 | 1970.2 | 1996.8 | 2024.6 | 2055.5 | 2082.5 | 2108.3 | 2139.7 | 2170.8 | 2204.3 | 2236.9 | 1.5% |
| Electric Power Sector 6/ Petroleum | 9.5 | 9.9 | 9.8 | 10.1 | 9.9 | 9.6 | 9.5 | 9.7 | 10.2 | 9.5 | 9.8 | 10.7 | 10.9 | -3.8% |
| Natural Gas | 112.6 | 115.9 | 117.5 | 121.5 | 124.0 | 128.9 | 133.0 | 137.8 | 142.5 | 147.3 | 150.2 | 154.6 | 155.0 | 2.9% |
| Coal | 596.3 | 601.8 | 613.3 | 619.8 | 628.7 | 634.9 | 643.6 | 649.5 | 653.6 | 662.1 | 672.0 | 680.0 | 694.2 | 1.3% |
| Total | 718.4 | 727.6 | 740.6 | 751.5 | 762.7 | 773.5 | 786.0 | 796.9 | 806.2 | 818.9 | 832.0 | 845.3 | 860.1 | 1.4% |
| Total by Primary Fuel 7/ Petroleum 3/ | 812.0 | 826.4 | 838.5 | 851.4 | 863.8 | 876.3 | 890.0 | 902.2 | 914.4 | 926.6 | 940.8 | 956.9 | 971.0 | 1.6% |
| Natural Gas | 421.3 | 427.8 | 432.9 | 439.6 | 444.9 | 454.1 | 462.7 | 471.6 | 481.2 | 491.8 | 498.9 | 508.1 | 512.5 | 1.9% |
| Coal | 655.9 | 661.5 | 672.8 | 679.2 | 688.0 | 694.2 | 702.8 | 708.7 | 712.7 | 721.3 | 731.2 | 739.3 | 753.4 | 1.2% |
| Other 5/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A |
| Total | 1889.2 | 1915.7 | 1944.2 | 1970.2 | 1996.8 | 2024.6 | 2055.5 | 2082.5 | 2108.3 | 2139.7 | 2170.8 | 2204.3 | 2236.9 | 1.5% |
| Carbon Dioxide Emissions (tons carbon equivalent per person) | 6.1 | 6.2 | 6.2 | 6.3 | 6.3 | 6.3 | 6.4 | 6.4 | 6.4 | 6.5 | 6.5 | 6.6 | 6.6 | 0.7% |

Table 19. Carbon Dioxide Emissions by Sector and Source

(Million Metric Tons Carbon Equivalent, Unless Otherwise Noted)

1/ Fuel consumption includes energy for combined heat and power plants, except those plants whose primary business is to sell electricity, or electricity and heat, to the public.

2/ Includes lease and plant fuel.

3/ This includes international bunker fuel, which by convention are excluded from the international accounting of carbon dioxide emissions. In the years from 1990 through 2000, international bunker fuels accounted for 24 to 30 million metric tons carbon equivalent of carbon dioxide annually.

4/ Includes pipeline fuel natural gas and compressed natural gas used as vehicle fuel.

5/ Includes methanol and liquid hydrogen.

6/ Includes electricity-only and combined heat and power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public. Does not include emissions from the nonbiogenic component of municipal solid waste because under international guidelines these are accounted for as waste, not energy.

7/ Emissions from the electric power sector are distributed to the primary fuels.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 emissions and emission factors: Energy Information Administration (EIA), Emissions of Greenhouse Gases in the United States 2001, DOE/EIA-0573(2001) (Washington, DC, December 2002). Projections: EIA, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 20. Macroeconomic Indicators
(Billion 1996 Chain-Weighted Dollars, Unless Otherwise Noted)

| Indicators | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| GDP Chain-Type Price Index (1996=1.000) | 1.069 | 1.094 | 1.109 | 1.140 | 1.169 | 1.195 | 1.219 | 1.242 | 1.264 | 1.288 | 1.313 | 1.342 | 1.375 |
| Real Gross Domestic Product | 9191 | 9215 | 9440 | 9743 | 10074 | 10361 | 10667 | 11017 | 11408 | 11810 | 12258 | 12671 | 13082 |
| Real Consumption | 6224 | 6377 | 6572 | 6742 | 6928 | 7151 | 7379 | 7615 | 7860 | 8123 | 8412 | 8683 | 8964 |
| Real Investment | 1763 | 1575 | 1586 | 1688 | 1819 | 1888 | 1960 | 2085 | 2222 | 2348 | 2499 | 2645 | 2779 |
| Real Government Spending | 1583 | 1640 | 1709 | 1751 | 1778 | 1790 | 1810 | 1829 | 1849 | 1870 | 1895 | 1911 | 1935 |
| Real Exports | 1137 | 1076 | 1063 | 1148 | 1227 | 1287 | 1378 | 1459 | 1556 | 1669 | 1784 | 1902 | 2021 |
| Real Imports | 1536 | 1492 | 1539 | 1630 | 1714 | 1788 | 1889 | 1992 | 2085 | 2188 | 2301 | 2418 | 2550 |
| Real Disposable Personal Income | 6630 | 6748 | 7047 | 7161 | 7249 | 7421 | 7626 | 7848 | 8094 | 8350 | 8637 | 8905 | 9181 |
| AA Utility Bond Rate (percent) | 7.91 | 7.43 | 6.90 | 6.93 | 8.08 | 8.10 | 7.77 | 7.59 | 7.42 | 7.27 | 7.24 | 7.24 | 7.26 |
| Real Yield on Government 10 Year Bonds (percent) | 4.85 | 3.51 | 3.72 | 4.06 | 5.34 | 5.10 | 5.12 | 5.25 | 5.39 | 5.30 | 5.26 | 5.18 | 5.11 |
| Real Utility Bond Rate (percent) | 6.32 | 5.45 | 4.95 | 4.74 | 5.83 | 5.61 | 5.54 | 5.57 | 5.51 | 5.42 | 5.35 | 5.22 | 5.05 |
| Energy Intensity (thousand Btu per 1996 dollar of GDP) | | | | | | | | | | | | | |
| Delivered Energy | 7.91 | 7.74 | 7.65 | 7.59 | 7.46 | 7.36 | 7.28 | 7.19 | 7.08 | 6.98 | 6.87 | 6.77 | 6.68 |
| Total Energy | 10.82 | 10.57 | 10.34 | 10.26 | 10.10 | 9.96 | 9.86 | 9.74 | 9.58 | 9.42 | 9.24 | 9.10 | 8.96 |
| Consumer Price Index (1982-4=1.00) | 1.72 | 1.77 | 1.80 | 1.86 | 1.92 | 1.97 | 2.01 | 2.05 | 2.10 | 2.14 | 2.19 | 2.24 | 2.30 |
| Unemployment Rate (percent) | 4.02 | 4.79 | 5.90 | 6.00 | 5.51 | 5.57 | 5.63 | 5.42 | 5.08 | 4.83 | 4.41 | 4.15 | 4.32 |
| Housing Starts (millions) | 1.82 | 1.80 | 1.84 | 1.81 | 1.88 | 1.90 | 1.94 | 2.02 | 2.08 | 2.09 | 2.17 | 2.21 | 2.10 |
| Single-Family | 1.23 | 1.27 | 1.33 | 1.27 | 1.25 | 1.22 | 1.24 | 1.27 | 1.29 | 1.30 | 1.34 | 1.35 | 1.28 |
| Multifamily | 0.34 | 0.33 | 0.31 | 0.28 | 0.33 | 0.34 | 0.35 | 0.39 | 0.42 | 0.43 | 0.47 | 0.48 | 0.47 |
| Mobile Home Shipments | 0.25 | 0.19 | 0.20 | 0.25 | 0.30 | 0.34 | 0.36 | 0.36 | 0.36 | 0.36 | 0.37 | 0.37 | 0.35 |
| Commercial Floorspace, Total (billion square feet) | 68.5 | 70.2 | 71.9 | 73.5 | 74.9 | 76.1 | 77.2 | 78.3 | 79.4 | 80.5 | 81.8 | 83.1 | 84.4 |
| Value of Shipments (billion 1996 dollars) | | | | | | | | | | | | | |
| Total Industrial | 5719 | 5425 | 5332 | 5545 | 5758 | 5882 | 6060 | 6277 | 6480 | 6704 | 6959 | 7198 | 7430 |
| Non-Manufacturing | 1341 | 1346 | 1329 | 1320 | 1334 | 1340 | 1358 | 1402 | 1441 | 1471 | 1505 | 1542 | 1573 |
| Manufacturing | 4378 | 4079 | 4003 | 4225 | 4423 | 4542 | 4702 | 4875 | 5039 | 5233 | 5453 | 5656 | 5857 |
| Energy Intensive | 1113 | 1086 | 1085 | 1115 | 1131 | 1141 | 1153 | 1174 | 1195 | 1223 | 1256 | 1286 | 1309 |
| Non-Intensive | 3264 | 2993 | 2918 | 3110 | 3292 | 3402 | 3549 | 3701 | 3844 | 4010 | 4197 | 4370 | 4547 |
| Unit Sales Light-Duty Vehicles (million) | 17.36 | 17.11 | 16.65 | 17.08 | 17.12 | 16.50 | 16.92 | 17.39 | 17.37 | 17.59 | 18.27 | 18.45 | 18.54 |
| Millions of People | | | | | | | | | | | | | |
| Population with Armed Forces Overseas | 275.7 | 278.2 | 280.7 | 283.2 | 285.6 | 288.1 | 290.5 | 293.0 | 295.4 | 297.8 | 300.2 | 302.7 | 305.1 |
| Population (aged 16 and over) | 213.1 | 215.4 | 217.8 | 220.1 | 222.4 | 224.8 | 227.3 | 229.7 | 232.1 | 234.4 | 236.6 | 238.7 | 240.7 |
| Employment, Non-Agriculture | 131.3 | 131.7 | 130.8 | 132.6 | 135.3 | 137.0 | 138.6 | 140.7 | 142.9 | 144.7 | 147.1 | 149.3 | 150.5 |
| Employment, Manufacturing | 18.3 | 17.5 | 16.6 | 16.8 | 17.2 | 17.4 | 17.4 | 17.6 | 17.7 | 17.7 | 17.9 | 18.1 | 18.1 |
| Labor Force | 140.9 | 141.8 | 142.6 | 144.7 | 146.8 | 148.7 | 150.5 | 152.2 | 153.7 | 155.2 | 156.5 | 157.6 | 158.8 |

Table 20. Macroeconomic Indicators
(Billion 1996 Chain-Weighted Dollars, Unless Otherwise Noted)

| Indicators | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| GDP Chain-Type Price Index (1996=1.000) | 1.410 | 1.447 | 1.486 | 1.527 | 1.570 | 1.615 | 1.660 | 1.708 | 1.757 | 1.810 | 1.864 | 1.921 | 1.981 | 2.5% |
| Real Gross Domestic Product | 13480 | 13893 | 14288 | 14681 | 15101 | 15540 | 16013 | 16450 | 16888 | 17363 | 17858 | 18389 | 18917 | 3.0% |
| Real Consumption | 9244 | 9535 | 9826 | 10112 | 10405 | 10710 | 11049 | 11351 | 11649 | 11965 | 12306 | 12674 | 13012 | 3.0% |
| Real Investment | 2901 | 3034 | 3151 | 3256 | 3368 | 3487 | 3627 | 3755 | 3880 | 4026 | 4173 | 4333 | 4492 | 4.5% |
| Real Government Spending | 1964 | 1994 | 2026 | 2059 | 2094 | 2129 | 2167 | 2212 | 2247 | 2289 | 2333 | 2380 | 2429 | 1.6% |
| Real Exports | 2151 | 2287 | 2426 | 2575 | 2750 | 2947 | 3150 | 3360 | 3588 | 3838 | 4104 | 4382 | 4695 | 6.3% |
| Real Imports | 2702 | 2868 | 3044 | 3218 | 3394 | 3593 | 3825 | 4059 | 4283 | 4533 | 4813 | 5114 | 5398 | 5.5% |
| Real Disposable Personal Income | 9467 | 9779 | 10087 | 10395 | 10712 | 11043 | 11400 | 11713 | 12003 | 12318 | 12676 | 13061 | 13435 | 2.9% |
| AA Utility Bond Rate (percent) | 7.55 | 7.85 | 8.05 | 8.37 | 8.64 | 8.95 | 9.10 | 9.18 | 9.28 | 9.40 | 9.50 | 9.57 | 9.63 | N/A |
| Real Yield on Government 10 Year Bonds (percent) | 5.29 | 5.52 | 5.69 | 5.97 | 6.15 | 6.38 | 6.49 | 6.56 | 6.65 | 6.69 | 6.72 | 6.75 | 6.76 | N/A |
| Real Utility Bond Rate (percent) | 5.15 | 5.30 | 5.42 | 5.68 | 5.89 | 6.15 | 6.27 | 6.32 | 6.43 | 6.48 | 6.54 | 6.53 | 6.56 | N/A |
| Energy Intensity (thousand Btu per 1996 dollar of GDP) | | | | | | | | | | | | | | |
| Delivered Energy | 6.58 | 6.48 | 6.39 | 6.30 | 6.20 | 6.11 | 6.02 | 5.94 | 5.87 | 5.79 | 5.71 | 5.63 | 5.55 | -1.4% |
| Total Energy | 8.81 | 8.67 | 8.54 | 8.41 | 8.28 | 8.15 | 8.02 | 7.92 | 7.80 | 7.70 | 7.58 | 7.47 | 7.36 | -1.5% |
| Consumer Price Index (1982-4=1.00) | 2.36 | 2.43 | 2.50 | 2.58 | 2.66 | 2.75 | 2.83 | 2.93 | 3.02 | 3.13 | 3.23 | 3.35 | 3.47 | 2.8% |
| Unemployment Rate (percent) | 4.60 | 4.71 | 4.88 | 5.05 | 5.28 | 5.56 | 5.69 | 5.89 | 6.05 | 5.95 | 5.95 | 5.77 | 5.77 | 0.8% |
| Housing Starts (millions) | 2.04 | 2.02 | 1.99 | 1.95 | 1.92 | 1.89 | 1.92 | 1.92 | 1.93 | 1.96 | 1.98 | 2.01 | 2.02 | 0.5% |
| Single-Family | 1.24 | 1.22 | 1.19 | 1.16 | 1.14 | 1.11 | 1.12 | 1.12 | 1.11 | 1.12 | 1.12 | 1.12 | 1.12 | -0.5% |
| Multifamily | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.48 | 0.48 | 0.49 | 0.52 | 0.53 | 0.56 | 0.57 | 2.3% |
| Mobile Home Shipments | 0.35 | 0.34 | 0.34 | 0.33 | 0.33 | 0.32 | 0.32 | 0.32 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 2.3% |
| Commercial Floorspace, Total (billion square feet) | 85.7 | 86.9 | 88.2 | 89.5 | 90.7 | 92.0 | 93.3 | 94.6 | 96.0 | 97.3 | 98.6 | 99.8 | 101.1 | 1.5% |
| Value of Shipments (billion 1996 dollars) | | | | | | | | | | | | | | |
| Total Industrial | 7634 | 7853 | 8029 | 8185 | 8362 | 8551 | 8769 | 8963 | 9161 | 9401 | 9636 | 9904 | 10126 | 2.6% |
| Non-Manufacturing | 1589 | 1614 | 1636 | 1652 | 1669 | 1687 | 1715 | 1743 | 1767 | 1793 | 1814 | 1841 | 1869 | 1.4% |
| Manufacturing | 6046 | 6238 | 6393 | 6533 | 6693 | 6865 | 7054 | 7220 | 7394 | 7608 | 7822 | 8063 | 8257 | 3.0% |
| Energy Intensive | 1327 | 1345 | 1360 | 1374 | 1391 | 1410 | 1430 | 1446 | 1461 | 1479 | 1496 | 1516 | 1532 | 1.4% |
| Non-Intensive | 4719 | 4893 | 5033 | 5159 | 5302 | 5455 | 5625 | 5774 | 5933 | 6129 | 6326 | 6547 | 6725 | 3.4% |
| Unit Sales Light-Duty Vehicles (million) | 18.79 | 19.34 | 19.77 | 19.91 | 19.91 | 19.80 | 19.99 | 19.91 | 19.67 | 19.78 | 19.76 | 20.08 | 19.97 | 0.6% |
| Millions of People | | | | | | | | | | | | | | |
| Population with Armed Forces Overseas | 307.6 | 310.1 | 312.7 | 315.2 | 317.7 | 320.3 | 322.8 | 325.3 | 327.9 | 330.4 | 333.0 | 335.6 | 338.2 | 0.8% |
| Population (aged 16 and over) | 242.7 | 244.7 | 246.7 | 248.7 | 250.6 | 252.6 | 254.5 | 256.5 | 258.5 | 260.4 | 262.5 | 264.5 | 266.6 | 0.9% |
| Employment, Non-Agriculture | 151.5 | 152.8 | 154.0 | 155.1 | 156.0 | 157.0 | 158.1 | 159.2 | 160.0 | 161.4 | 162.7 | 164.4 | 165.9 | 1.0% |
| Employment, Manufacturing | 17.9 | 17.7 | 17.5 | 17.3 | 17.2 | 17.2 | 17.2 | 17.3 | 17.4 | 17.5 | 17.7 | 18.0 | 18.4 | 0.2% |
| Labor Force | 160.4 | 162.2 | 163.9 | 165.3 | 166.3 | 167.1 | 168.3 | 169.8 | 170.9 | 172.4 | 173.9 | 175.8 | 177.4 | 0.9% |

Table 20. Macroeconomic Indicators

(Billion 1996 Chain-Weighted Dollars, Unless Otherwise Noted)

GDP = Gross domestic product.

Btu = British thermal unit.

N/A = Not applicable.

Sources: 2000 and 2001: Global Insight macroeconomic model CTL0802. Projections: Energy Information Administration, AEO2003 National Energy Modeling System run aeo2003.d110502c.

Table 21. International Petroleum Supply and Disposition Summary
(Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| World Oil Price (2001 dollars per barrel) 1/ | 28.35 | 22.01 | 23.33 | 25.83 | 24.05 | 23.27 | 23.43 | 23.57 | 23.71 | 23.85 | 23.99 | 24.14 | 24.28 |
| Production (Conventional) 2/ | | | | | | | | | | | | | |
| Industrialized Countries | | | | | | | | | | | | | |
| United States (50 states) | 9.08 | 8.88 | 9.27 | 9.17 | 9.05 | 8.99 | 9.44 | 9.51 | 9.48 | 9.35 | 9.20 | 9.16 | 9.12 |
| Canada | 2.07 | 2.09 | 2.23 | 2.24 | 2.22 | 2.20 | 2.14 | 2.08 | 2.03 | 1.98 | 1.93 | 1.89 | 1.86 |
| Mexico | 3.48 | 3.59 | 3.65 | 3.81 | 3.87 | 3.93 | 4.00 | 4.06 | 4.12 | 4.19 | 4.26 | 4.27 | 4.29 |
| Western Europe 3/ | 6.74 | 6.92 | 6.73 | 6.37 | 6.40 | 6.43 | 6.47 | 6.43 | 6.40 | 6.36 | 6.33 | 6.24 | 6.14 |
| Japan | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Australia and New Zealand | 0.85 | 0.80 | 0.79 | 0.74 | 0.76 | 0.77 | 0.78 | 0.80 | 0.81 | 0.82 | 0.84 | 0.83 | 0.83 |
| Total Industrialized | 22.30 | 22.35 | 22.76 | 22.41 | 22.38 | 22.40 | 22.90 | 22.96 | 22.92 | 22.79 | 22.64 | 22.47 | 22.31 |
| Eurasia | | | | | | | | | | | | | |
| Former Soviet Union | | | | | | | | | | | | | |
| Russia | 6.70 | 7.24 | 7.51 | 7.82 | 8.00 | 8.18 | 8.37 | 8.56 | 8.76 | 8.96 | 9.17 | 9.27 | 9.37 |
| Caspian Area 4/ | 1.44 | 1.59 | 1.68 | 1.75 | 1.94 | 2.15 | 2.38 | 2.64 | 2.93 | 3.24 | 3.60 | 3.69 | 3.79 |
| Eastern Europe 5/ | 0.24 | 0.22 | 0.23 | 0.24 | 0.25 | 0.25 | 0.26 | 0.26 | 0.27 | 0.27 | 0.28 | 0.29 | 0.29 |
| Total Eurasia | 8.38 | 9.05 | 9.42 | 9.81 | 10.19 | 10.58 | 11.01 | 11.47 | 11.95 | 12.48 | 13.04 | 13.25 | 13.46 |
| Developing Countries | | | | | | | | | | | | | |
| OPEC 6/ | | | | | | | | | | | | | |
| Asia | 1.51 | 1.48 | 1.46 | 1.45 | 1.45 | 1.44 | 1.44 | 1.44 | 1.44 | 1.44 | 1.44 | 1.45 | 1.45 |
| Middle East | 21.11 | 19.42 | 18.07 | 18.25 | 18.25 | 18.58 | 18.85 | 19.60 | 20.47 | 21.42 | 22.43 | 23.75 | 25.07 |
| North Africa | 2.91 | 3.06 | 3.23 | 3.44 | 3.66 | 3.90 | 4.03 | 4.16 | 4.30 | 4.45 | 4.60 | 4.69 | 4.77 |
| West Africa | 2.15 | 2.23 | 2.33 | 2.46 | 2.59 | 2.73 | 2.82 | 2.91 | 3.01 | 3.12 | 3.23 | 3.36 | 3.50 |
| South America | 2.78 | 2.92 | 3.05 | 3.21 | 3.39 | 3.59 | 3.64 | 3.69 | 3.75 | 3.81 | 3.87 | 3.88 | 3.90 |
| Non-OPEC | | | | | | | | | | | | | |
| China | 3.25 | 3.30 | 3.34 | 3.33 | 3.35 | 3.36 | 3.38 | 3.39 | 3.41 | 3.43 | 3.44 | 3.45 | 3.46 |
| Other Asia | 2.39 | 2.38 | 2.36 | 2.34 | 2.36 | 2.39 | 2.42 | 2.45 | 2.48 | 2.51 | 2.54 | 2.56 | 2.58 |
| Middle East 7/ | 2.02 | 1.99 | 1.97 | 2.05 | 2.08 | 2.11 | 2.14 | 2.17 | 2.19 | 2.22 | 2.25 | 2.27 | 2.29 |
| Africa | 2.79 | 2.70 | 2.88 | 2.97 | 3.15 | 3.34 | 3.54 | 3.75 | 3.98 | 4.22 | 4.47 | 4.65 | 4.83 |
| South and Central America | 3.72 | 3.72 | 3.90 | 3.95 | 4.03 | 4.11 | 4.20 | 4.30 | 4.39 | 4.49 | 4.59 | 4.71 | 4.84 |
| Total Developing Country | 44.63 | 43.20 | 42.59 | 43.45 | 44.30 | 45.55 | 46.44 | 47.86 | 49.42 | 51.10 | 52.86 | 54.77 | 56.69 |
| Total Production (Conventional) | 75.31 | 74.61 | 74.76 | 75.67 | 76.86 | 78.54 | 80.36 | 82.28 | 84.29 | 86.36 | 88.54 | 90.49 | 92.47 |
| Production (Nonconventional) 8/ | | | | | | | | | | | | | |
| United States (50 states) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other North America | 0.69 | 0.72 | 0.79 | 0.86 | 0.93 | 1.00 | 1.11 | 1.22 | 1.32 | 1.42 | 1.52 | 1.58 | 1.64 |
| Western Europe | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Asia | 0.03 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Middle East 7/ | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Africa | 0.16 | 0.15 | 0.16 | 0.16 | 0.17 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 | 0.20 | 0.20 |
| South and Central America | 0.47 | 0.49 | 0.54 | 0.58 | 0.63 | 0.68 | 0.71 | 0.75 | 0.78 | 0.82 | 0.85 | 0.94 | 1.02 |
| Total Production (Nonconventional) | 1.38 | 1.42 | 1.55 | 1.68 | 1.80 | 1.92 | 2.08 | 2.22 | 2.37 | 2.51 | 2.64 | 2.80 | 2.95 |
| Total Production | 76.69 | 76.02 | 76.31 | 77.35 | 78.66 | 80.46 | 82.43 | 84.50 | 86.66 | 88.87 | 91.18 | 93.29 | 95.42 |

Table 21. International Petroleum Supply and Disposition Summary
(Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Consumption 9/ | | | | | | | | | | | | | |
| Industrialized Countries | | | | | | | | | | | | | |
| United States (50 states) | 19.78 | 19.69 | 19.57 | 19.83 | 20.18 | 20.49 | 20.91 | 21.40 | 21.91 | 22.43 | 22.99 | 23.49 | 23.99 |
| United States Territories | 0.33 | 0.35 | 0.34 | 0.38 | 0.39 | 0.40 | 0.41 | 0.41 | 0.42 | 0.43 | 0.44 | 0.45 | 0.45 |
| Canada | 2.07 | 1.91 | 1.95 | 2.00 | 2.03 | 2.06 | 2.09 | 2.12 | 2.16 | 2.19 | 2.22 | 2.24 | 2.26 |
| Mexico | 1.99 | 1.94 | 1.97 | 1.96 | 2.06 | 2.17 | 2.28 | 2.39 | 2.52 | 2.64 | 2.78 | 2.91 | 3.04 |
| Western Europe | 13.77 | 13.87 | 13.98 | 14.08 | 14.20 | 14.33 | 14.45 | 14.57 | 14.70 | 14.82 | 14.95 | 15.04 | 15.12 |
| Japan | 5.53 | 5.42 | 5.28 | 5.27 | 5.37 | 5.48 | 5.58 | 5.69 | 5.80 | 5.91 | 6.03 | 6.05 | 6.07 |
| Australia and New Zealand | 1.01 | 1.01 | 1.02 | 1.01 | 1.04 | 1.08 | 1.11 | 1.14 | 1.18 | 1.21 | 1.25 | 1.29 | 1.32 |
| Total Industrialized | 44.48 | 44.19 | 44.10 | 44.53 | 45.28 | 45.99 | 46.83 | 47.74 | 48.68 | 49.64 | 50.66 | 51.46 | 52.26 |
| Eurasia | | | | | | | | | | | | | |
| Former Soviet Union | 3.66 | 3.63 | 3.67 | 3.73 | 3.85 | 3.97 | 4.11 | 4.24 | 4.38 | 4.52 | 4.67 | 4.77 | 4.88 |
| Eastern Europe | 1.35 | 1.37 | 1.39 | 1.41 | 1.43 | 1.46 | 1.49 | 1.52 | 1.55 | 1.58 | 1.61 | 1.65 | 1.70 |
| Total Eurasia | 5.01 | 5.00 | 5.06 | 5.13 | 5.28 | 5.44 | 5.60 | 5.76 | 5.93 | 6.10 | 6.28 | 6.43 | 6.58 |
| Developing Countries | | | | | | | | | | | | | |
| China | 4.78 | 4.82 | 4.86 | 4.94 | 5.14 | 5.35 | 5.57 | 5.80 | 6.04 | 6.29 | 6.55 | 6.86 | 7.20 |
| India | 1.99 | 2.00 | 2.05 | 2.11 | 2.24 | 2.38 | 2.52 | 2.67 | 2.84 | 3.01 | 3.19 | 3.33 | 3.47 |
| South Korea | 2.15 | 2.22 | 2.23 | 2.29 | 2.36 | 2.44 | 2.52 | 2.60 | 2.68 | 2.77 | 2.86 | 2.89 | 2.93 |
| Other Asia | 5.30 | 5.34 | 5.37 | 5.45 | 5.65 | 5.85 | 6.06 | 6.28 | 6.51 | 6.74 | 6.98 | 7.18 | 7.38 |
| Middle East 7/ | 5.12 | 5.13 | 5.17 | 5.21 | 5.34 | 5.47 | 5.60 | 5.74 | 5.88 | 6.02 | 6.17 | 6.36 | 6.55 |
| Africa | 2.44 | 2.46 | 2.49 | 2.54 | 2.63 | 2.72 | 2.80 | 2.90 | 2.99 | 3.09 | 3.19 | 3.27 | 3.35 |
| South and Central America | 4.83 | 4.87 | 4.93 | 4.97 | 5.05 | 5.14 | 5.23 | 5.32 | 5.41 | 5.50 | 5.59 | 5.79 | 6.00 |
| Total Developing Countries | 26.61 | 26.84 | 27.11 | 27.50 | 28.40 | 29.34 | 30.30 | 31.30 | 32.34 | 33.42 | 34.54 | 35.68 | 36.88 |
| Total Consumption | 76.10 | 76.03 | 76.27 | 77.17 | 78.97 | 80.76 | 82.73 | 84.80 | 86.95 | 89.16 | 91.48 | 93.58 | 95.72 |
| OPEC Production 10/ | 30.81 | 29.48 | 28.55 | 29.25 | 29.81 | 30.76 | 31.31 | 32.37 | 33.57 | 34.86 | 36.22 | 37.85 | 39.47 |
| Non-OPEC Production 10/ | 45.88 | 46.54 | 47.76 | 48.09 | 48.86 | 49.70 | 51.12 | 52.13 | 53.09 | 54.01 | 54.96 | 55.44 | 55.95 |
| Net Eurasia Exports | 3.38 | 4.07 | 4.37 | 4.69 | 4.92 | 5.16 | 5.43 | 5.72 | 6.04 | 6.39 | 6.78 | 6.83 | 6.89 |
| OPEC Market Share | 0.40 | 0.39 | 0.37 | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.39 | 0.39 | 0.40 | 0.41 | 0.41 |

Table 21. International Petroleum Supply and Disposition Summary
(Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|--|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| World Oil Price (2001 dollars per barrel) 1/ | 24.57 | 24.72 | 24.87 | 25.02 | 25.18 | 25.33 | 25.48 | 25.70 | 25.92 | 26.14 | 26.35 | 26.57 | 0.8% |
| Production (Conventional) 2/ | | | | | | | | | | | | | |
| Industrialized Countries | | | | | | | | | | | | | |
| United States (50 states) | 9.01 | 9.01 | 9.05 | 9.08 | 9.16 | 9.33 | 9.39 | 9.40 | 9.49 | 9.47 | 9.44 | 9.36 | 0.2% |
| Canada | 1.78 | 1.75 | 1.72 | 1.70 | 1.67 | 1.65 | 1.62 | 1.61 | 1.59 | 1.57 | 1.56 | 1.54 | -1.3% |
| Mexico | 4.32 | 4.34 | 4.35 | 4.37 | 4.39 | 4.40 | 4.42 | 4.45 | 4.48 | 4.51 | 4.54 | 4.57 | 1.0% |
| Western Europe 3/ | 5.96 | 5.87 | 5.78 | 5.70 | 5.61 | 5.53 | 5.45 | 5.35 | 5.26 | 5.17 | 5.09 | 5.00 | -1.3% |
| Japan | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | -0.9% |
| Australia and New Zealand | 0.82 | 0.81 | 0.81 | 0.80 | 0.80 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.78 | 0.78 | -0.1% |
| Total Industrialized | 21.97 | 21.86 | 21.79 | 21.72 | 21.71 | 21.78 | 21.74 | 21.67 | 21.68 | 21.58 | 21.47 | 21.32 | -0.2% |
| Eurasia | | | | | | | | | | | | | |
| Former Soviet Union | | | | | | | | | | | | | |
| Russia | 9.59 | 9.70 | 9.81 | 9.92 | 10.03 | 10.15 | 10.26 | 10.29 | 10.32 | 10.35 | 10.38 | 10.42 | 1.5% |
| Caspian Area 4/ | 4.00 | 4.11 | 4.22 | 4.33 | 4.45 | 4.57 | 4.70 | 4.76 | 4.82 | 4.88 | 4.94 | 5.01 | 4.9% |
| Eastern Europe 5/ | 0.31 | 0.32 | 0.33 | 0.35 | 0.36 | 0.37 | 0.38 | 0.39 | 0.40 | 0.40 | 0.41 | 0.42 | 2.6% |
| Total Eurasia | 13.90 | 14.13 | 14.36 | 14.60 | 14.84 | 15.09 | 15.34 | 15.44 | 15.54 | 15.64 | 15.74 | 15.84 | 2.4% |
| Developing Countries | | | | | | | | | | | | | |
| OPEC 6/ | | | | | | | | | | | | | |
| Asia | 1.45 | 1.46 | 1.46 | 1.46 | 1.45 | 1.45 | 1.45 | 1.46 | 1.46 | 1.46 | 1.46 | 1.46 | -0.1% |
| Middle East | 27.80 | 29.07 | 29.98 | 30.91 | 31.87 | 32.80 | 33.82 | 35.30 | 36.81 | 38.45 | 40.22 | 42.02 | 3.3% |
| North Africa | 4.94 | 5.03 | 5.14 | 5.26 | 5.38 | 5.50 | 5.62 | 5.78 | 5.94 | 6.10 | 6.27 | 6.44 | 3.2% |
| West Africa | 3.79 | 3.95 | 4.08 | 4.21 | 4.35 | 4.49 | 4.64 | 4.79 | 4.95 | 5.11 | 5.28 | 5.45 | 3.8% |
| South America | 3.95 | 3.97 | 4.03 | 4.08 | 4.14 | 4.20 | 4.26 | 4.35 | 4.45 | 4.55 | 4.65 | 4.75 | 2.1% |
| Non-OPEC | | | | | | | | | | | | | |
| China | 3.43 | 3.41 | 3.40 | 3.38 | 3.37 | 3.35 | 3.33 | 3.32 | 3.31 | 3.30 | 3.29 | 3.28 | 0.0% |
| Other Asia | 2.62 | 2.64 | 2.66 | 2.68 | 2.64 | 2.59 | 2.55 | 2.55 | 2.54 | 2.54 | 2.54 | 2.53 | 0.3% |
| Middle East 7/ | 2.33 | 2.35 | 2.37 | 2.39 | 2.41 | 2.43 | 2.45 | 2.48 | 2.51 | 2.55 | 2.58 | 2.61 | 1.2% |
| Africa | 5.23 | 5.44 | 5.66 | 5.88 | 6.11 | 6.35 | 6.60 | 6.65 | 6.70 | 6.75 | 6.80 | 6.85 | 4.0% |
| South and Central America | 5.10 | 5.25 | 5.41 | 5.57 | 5.74 | 5.92 | 6.10 | 6.14 | 6.18 | 6.23 | 6.27 | 6.31 | 2.2% |
| Total Developing Country | 60.64 | 62.56 | 64.17 | 65.82 | 67.45 | 69.08 | 70.83 | 72.82 | 74.85 | 77.03 | 79.35 | 81.72 | 2.7% |
| Total Production (Conventional) | 96.52 | 98.55 | 100.32 | 102.14 | 104.00 | 105.95 | 107.92 | 109.93 | 112.07 | 114.24 | 116.56 | 118.88 | 2.0% |
| Production (Nonconventional) 8/ | | | | | | | | | | | | | |
| United States (50 states) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| Other North America | 1.76 | 1.82 | 1.87 | 1.92 | 1.97 | 2.02 | 2.07 | 2.10 | 2.13 | 2.16 | 2.19 | 2.22 | 4.8% |
| Western Europe | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.8% |
| Asia | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 1.5% |
| Middle East 7/ | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 6.5% |
| Africa | 0.21 | 0.22 | 0.22 | 0.23 | 0.23 | 0.24 | 0.25 | 0.26 | 0.26 | 0.27 | 0.28 | 0.28 | 2.7% |
| South and Central America | 1.19 | 1.27 | 1.30 | 1.33 | 1.36 | 1.39 | 1.42 | 1.42 | 1.43 | 1.44 | 1.44 | 1.45 | 4.6% |
| Total Production (Nonconventional) | 3.25 | 3.39 | 3.48 | 3.57 | 3.66 | 3.75 | 3.83 | 3.88 | 3.92 | 3.97 | 4.01 | 4.05 | 4.5% |
| Total Production | 99.77 | 101.94 | 103.80 | 105.71 | 107.66 | 109.70 | 111.75 | 113.81 | 115.99 | 118.21 | 120.57 | 122.93 | 2.0% |

Table 21. International Petroleum Supply and Disposition Summary
(Million Barrels per Day, Unless Otherwise Noted)

| Supply and Disposition | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2001-2025 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| Consumption 9/ | | | | | | | | | | | | | |
| Industrialized Countries | | | | | | | | | | | | | |
| United States (50 states) | 24.87 | 25.23 | 25.60 | 25.97 | 26.34 | 26.76 | 27.13 | 27.49 | 27.87 | 28.28 | 28.75 | 29.17 | 1.7% |
| United States Territories | 0.46 | 0.47 | 0.47 | 0.48 | 0.48 | 0.49 | 0.49 | 0.50 | 0.51 | 0.52 | 0.53 | 0.54 | 1.9% |
| Canada | 2.30 | 2.32 | 2.34 | 2.36 | 2.38 | 2.39 | 2.41 | 2.43 | 2.45 | 2.47 | 2.48 | 2.50 | 1.1% |
| Mexico | 3.32 | 3.47 | 3.56 | 3.65 | 3.74 | 3.84 | 3.94 | 4.04 | 4.14 | 4.25 | 4.35 | 4.47 | 3.5% |
| Western Europe | 15.29 | 15.38 | 15.43 | 15.49 | 15.54 | 15.60 | 15.65 | 15.71 | 15.76 | 15.82 | 15.88 | 15.93 | 0.6% |
| Japan | 6.12 | 6.14 | 6.15 | 6.16 | 6.18 | 6.19 | 6.21 | 6.22 | 6.23 | 6.24 | 6.26 | 6.27 | 0.6% |
| Australia and New Zealand | 1.41 | 1.45 | 1.48 | 1.50 | 1.53 | 1.56 | 1.60 | 1.63 | 1.66 | 1.69 | 1.72 | 1.75 | 2.3% |
| Total Industrialized | 53.76 | 54.45 | 55.03 | 55.61 | 56.19 | 56.83 | 57.42 | 58.01 | 58.62 | 59.26 | 59.97 | 60.64 | 1.3% |
| Eurasia | | | | | | | | | | | | | |
| Former Soviet Union | 5.11 | 5.22 | 5.28 | 5.33 | 5.38 | 5.44 | 5.50 | 5.55 | 5.61 | 5.67 | 5.73 | 5.78 | 2.0% |
| Eastern Europe | 1.80 | 1.85 | 1.90 | 1.94 | 1.99 | 2.03 | 2.08 | 2.13 | 2.18 | 2.23 | 2.28 | 2.33 | 2.3% |
| Total Eurasia | 6.91 | 7.08 | 7.17 | 7.27 | 7.37 | 7.47 | 7.58 | 7.68 | 7.79 | 7.90 | 8.01 | 8.12 | 2.0% |
| Developing Countries | | | | | | | | | | | | | |
| China | 7.90 | 8.28 | 8.61 | 8.95 | 9.30 | 9.67 | 10.05 | 10.45 | 10.86 | 11.29 | 11.73 | 12.20 | 3.9% |
| India | 3.78 | 3.95 | 4.13 | 4.31 | 4.51 | 4.71 | 4.92 | 5.14 | 5.37 | 5.61 | 5.86 | 6.12 | 4.8% |
| South Korea | 3.00 | 3.03 | 3.05 | 3.06 | 3.08 | 3.09 | 3.10 | 3.12 | 3.13 | 3.15 | 3.16 | 3.18 | 1.5% |
| Other Asia | 7.81 | 8.03 | 8.21 | 8.39 | 8.58 | 8.78 | 8.98 | 9.20 | 9.42 | 9.65 | 9.89 | 10.13 | 2.7% |
| Middle East 7/ | 6.95 | 7.16 | 7.36 | 7.56 | 7.77 | 7.98 | 8.20 | 8.43 | 8.66 | 8.90 | 9.14 | 9.40 | 2.6% |
| Africa | 3.51 | 3.60 | 3.67 | 3.75 | 3.84 | 3.92 | 4.01 | 4.09 | 4.18 | 4.28 | 4.37 | 4.46 | 2.5% |
| South and Central America | 6.44 | 6.67 | 6.88 | 7.09 | 7.31 | 7.54 | 7.78 | 8.01 | 8.24 | 8.48 | 8.72 | 8.98 | 2.6% |
| Total Developing Countries | 39.39 | 40.71 | 41.90 | 43.13 | 44.39 | 45.69 | 47.05 | 48.43 | 49.87 | 51.35 | 52.89 | 54.47 | 3.0% |
| Total Consumption | 100.06 | 102.24 | 104.10 | 106.01 | 107.95 | 110.00 | 112.04 | 114.13 | 116.28 | 118.51 | 120.87 | 123.23 | 2.0% |
| OPEC Production 10/ | 42.84 | 44.44 | 45.67 | 46.94 | 48.23 | 49.51 | 50.88 | 52.77 | 54.70 | 56.77 | 58.98 | 61.24 | 3.1% |
| Non-OPEC Production 10/ | 56.92 | 57.50 | 58.13 | 58.77 | 59.43 | 60.19 | 60.86 | 61.04 | 61.29 | 61.44 | 61.58 | 61.69 | 1.2% |
| Net Eurasia Exports | 7.01 | 7.07 | 7.21 | 7.35 | 7.49 | 7.63 | 7.78 | 7.77 | 7.77 | 7.76 | 7.75 | 7.74 | 2.7% |
| OPEC Market Share | 0.43 | 0.44 | 0.44 | 0.44 | 0.45 | 0.45 | 0.46 | 0.46 | 0.47 | 0.48 | 0.49 | 0.50 | 1.0% |

Table 21. International Petroleum Supply and Disposition Summary

(Million Barrels per Day, Unless Otherwise Noted)

1/ Average refiner acquisition cost of imported crude oil.

2/ Includes production of crude oil (including lease condensates), natural gas liquids, other hydrogen and hydrocarbons for refinery feedstocks, alcohol, and refinery gains.

3/ Western Europe = Austria, Belgium, Bosnia and Herzegovina, Croatia, Denmark, Finland, France, the unified Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Macedonia, Netherlands, Norway, Portugal, Slovenia, Spain Sweden Switzerland, United Kingdom, and Yugoslavia.

4/ Caspian Area includes Other Former Soviet Union.

5/ Eastern Europe = Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, and Slovakia.

6/ OPEC = Organization of Petroleum Exporting Countries - Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

7/ Non-OPEC Middle East includes Turkey.

8/ Includes liquids produced from energy crops, natural gas, coal, oil sands, and shale.

9/ Includes both OPEC and non-OPEC producers in the regional breakdown.

10/ Includes both OPEC and non-OPEC consumers in the regional breakdown.

11/ Includes both conventional and nonconventional liquids production.

N/A = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2000 and 2001 are model results and may differ slightly from official EIA data reports.

Sources: 2000 and 2001 data derived from: Energy Information Administration (EIA), Short-Term Energy Outlook, September 2002,

<http://www.eia.doe.gov/pub/forecasting/steo/oldsteos/sep02.pdf>. Projections: EIA, AEO2003 National Energy Modeling System run AEO2003.D110502C.

AEO2003 Overview

Key Energy Issues to 2025

As has been typical over the past few years, energy prices were extremely volatile during 2002. Spot natural gas prices, about \$2 per thousand cubic feet in January, rose to between \$3 and \$4 per thousand cubic feet by the fall. Average wellhead prices, which are moderated by the inclusion of natural gas bought under contract, also increased over the year. Crude oil prices also rose in 2002, mainly because of reduced production by the Organization of Petroleum Exporting Countries (OPEC) and, to a lesser degree, fears about the potential impact of military action in Iraq. Crude oil prices began 2002 at roughly \$16 per barrel and were between \$25 and \$30 per barrel by the fall.

The impact of near-term price trends is reflected in the *Annual Energy Outlook 2003* (AEO2003), but long-term energy markets are less influenced by near-term trends, such as supply disruptions or political actions, and more by the long-term fundamentals of energy markets. AEO2003 focuses on these long-term fundamentals, including the availability of energy resources, developments in U.S. electricity markets, technology improvement, and the impact of economic growth on projected energy demand and prices through 2025.

A major consideration for energy markets through 2025 will be the availability of adequate natural gas supplies at competitive prices to meet growth in demand. AEO2003 projects growing dependence on major new, large-volume natural gas supply projects for both domestic and imported supplies to meet future demand levels, including deepwater offshore wells, new and expanded liquefied natural gas (LNG) facilities, the Mackenzie Delta pipeline in Canada, and an Alaskan pipeline that would allow delivery of natural gas to the lower 48 States.

Net imports accounted for 55 percent of total U.S. oil demand in 2001, up from 37 percent in 1980 and 42 percent in 1990. That trend is expected to continue. A growing portion of imports is projected to be refined petroleum products, such as gasoline, diesel fuel, and jet fuel, assuming the future availability of those products in world markets.

While no new nuclear plants have been built in recent years, existing facilities have substantially improved their performance and lowered operating costs. Further, it has become common practice to request extension of the operating licenses of nuclear plants from the U.S. Nuclear Regulatory Commission (NRC). As a result, the downturn in nuclear generating capacity and generation previously expected is now anticipated to be delayed or eliminated. A more

recent phenomenon has been uprating of nuclear plant capacity. The AEO2003 forecast, reflecting those trends, projects an increase in nuclear capacity and generation.

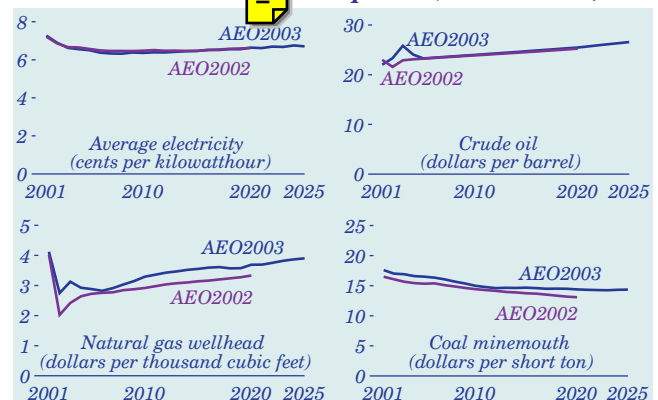
Economic Growth

The U.S. economy, as measured by gross domestic product (GDP), is projected to grow at an average annual rate of 3.0 percent from 2001 to 2025 in AEO2003, similar to the 3.1 percent rate projected in AEO2002 for 2001 to 2020. Most of the determinants of economic growth are similar to those in AEO2002, but there are some important differences. For example, the projection of vehicle miles traveled, estimated using macroeconomic variables such as GDP growth, population, and income, is higher in this year's AEO. Light-duty vehicle miles traveled are projected to grow by 2.4 percent per year through 2020 in AEO2003, compared with 2.2 percent in AEO2002. This projection, which is more consistent with recent historical trends, increases the projected demand for transportation fuels.

Energy Prices

The average world oil price is projected to increase from \$22.01 per barrel (2001 dollars) in 2001 to \$25.83 per barrel in 2003, then to decline to \$23.27 per barrel in 2005. Rising prices are projected for the longer term, to roughly \$25.50 in 2020 (about the same as in AEO2002) and roughly \$26.50 in 2025 (Figure 1), largely due to higher projected world oil demand. In nominal dollars, the average world oil price is expected to reach approximately \$48 per barrel in 2025.

Figure 1. Energy price projections, 2001-2025: AEO2002 and AEO2003 compared (2001 dollars)



World oil demand is projected to increase from 76.0 million barrels per day in 2001 to 112.0 million barrels per day in 2020 (less than the AEO2002 projection of 118.9 million barrels per day) due to lower

projected demand in the former Soviet Union and in developing nations, including China, India, Africa, and South and Central America. World oil demand, including both conventional and unconventional oil supplies, grows to 123.2 million barrels per day by 2025 in *AEO2003*. Growth in oil production in both OPEC and non-OPEC nations leads to relatively slow growth in prices through 2025. OPEC conventional oil production is expected to reach 60.1 million barrels per day in 2025, more than double the 28.3 million barrels per day produced in 2001. The forecast assumes that sufficient capital will be available to expand production capacity.

Non-OPEC conventional oil production is expected to increase from 45.5 to 58.8 million barrels per day between 2001 and 2025. A 1.0 million barrel per day decline in production in the industrialized nations (United States, Canada, Mexico, Western Europe, Japan, Australia, and New Zealand) is more than offset by increased production from Russia, the Caspian Basin, Non-OPEC Africa, and South and Central America (in particular, Brazil). Russian oil production is expected to continue to recover from the lows of the 1990s and to reach 10.4 million barrels per day by 2025, 44 percent above 2001 levels. Production from the Caspian Basin is expected to exceed 5.0 million barrels per day by 2025, compared with 1.6 million barrels per day in 2001. By 2025, projected production from South and Central America reaches 6.3 million barrels per day, up from 3.7 million barrels per day in 2001. Non-OPEC African production is projected to grow from 2.7 million barrels per day in 2001 to 6.9 million barrels per day by 2025.

Average natural gas prices (including spot purchases and contracts) are projected to drop from \$4.12 per thousand cubic feet in 2001 to \$2.75 per thousand cubic feet in 2002. After 2002, natural gas prices are projected to move higher as technology improvements prove inadequate to offset the impacts of resource depletion and increased demand. Natural gas prices are projected to increase in an uneven fashion as higher prices allow the introduction of major new, large-volume natural gas projects that temporarily depress prices when initially brought on line. Prices are projected to reach about \$3.70 per thousand cubic feet by 2020 and \$3.90 per thousand cubic feet by 2025 (equivalent to more than \$7.00 per thousand cubic feet in nominal dollars).

At roughly \$3.70 per thousand cubic feet, the 2020 wellhead natural gas price in *AEO2003* is more than 35 cents higher than the *AEO2002* projection, due to a downward revision of the potential for inferred

natural gas reserve appreciation and a reduced expectation for technology improvement over time. As demand for natural gas increases, expected technology improvements do not completely offset the effects of resource depletion.

In *AEO2003*, the average minemouth price of coal is projected to decline from \$17.59 in 2001 to about \$14.40 per short ton (2001 dollars) in 2020, remaining at about that level through 2025. Prices decline because of increased mine productivity, a shift to western production, and competitive pressures on labor costs. *AEO2003* is less optimistic about future productivity improvements in the Powder River Basin than was *AEO2002*, which projected average coal prices of roughly \$13.10 per ton by 2020.

Average electricity prices are projected to decline from 7.3 cents per kilowatthour in 2001 to a low of 6.3 cents (2001 dollars) by 2007 as a result of cost reductions in an increasingly competitive market where excess generating capacity has resulted from the recent boom in construction and the continued decline in coal prices. Electricity industry restructuring contributes to declining projected prices through reductions in operating and maintenance costs, administrative costs, and other miscellaneous costs. After 2008, average real electricity prices are projected to increase by 0.4 percent per year as a result of rising natural gas prices and a growing need for new generating capacity to meet electricity demand growth. Real electricity prices reach 6.6 cents per kilowatthour in 2020 in *AEO2003*, identical to the price in *AEO2002*, and 6.7 cents per kilowatthour by 2025 as natural gas prices continue to increase.

Energy Consumption

Total energy consumption in *AEO2003* is projected to increase from 97.3 to 130.1 quadrillion British thermal units (Btu) between 2001 and 2020, an average annual increase of 1.5 percent. This projection is slightly below the 2020 projection of 130.9 quadrillion Btu for total consumption in *AEO2002*. By 2025, total energy consumption is projected to reach 139.1 quadrillion Btu in *AEO2003*. While total energy consumption levels in 2020 are similar in *AEO2002* and *AEO2003*, consumption by sector shifts; in particular, transportation consumption is higher and industrial consumption is lower by 2020 in *AEO2003*.

Residential energy consumption is projected to grow at an average rate of 1.0 percent per year between 2001 and 2025, with the most rapid growth expected for computers, electronic equipment, and appliances. By 2020, projected residential demand is 24.5

quadrillion Btu (slightly higher than the 24.3 quadrillion Btu projected in *AEO2002*). Slightly greater growth in the number of households explains the relatively higher level of energy demand in *AEO2003*. By 2025, total residential energy consumption is projected to reach 25.4 quadrillion Btu.

Commercial energy demand is projected to grow at an average annual rate of 1.6 percent between 2001 and 2025, reaching 23.5 quadrillion Btu in 2020 (slightly higher than the 23.2 quadrillion Btu in *AEO2002*) and 25.3 quadrillion Btu by 2025 in *AEO2003*. The most rapid increases in demand are projected for computers, office equipment, telecommunications, and miscellaneous small appliance uses. Commercial floorspace is projected to grow by an average of 1.6 percent per year between 2001 and 2020, identical to the rate of growth in *AEO2002* for the same time period.

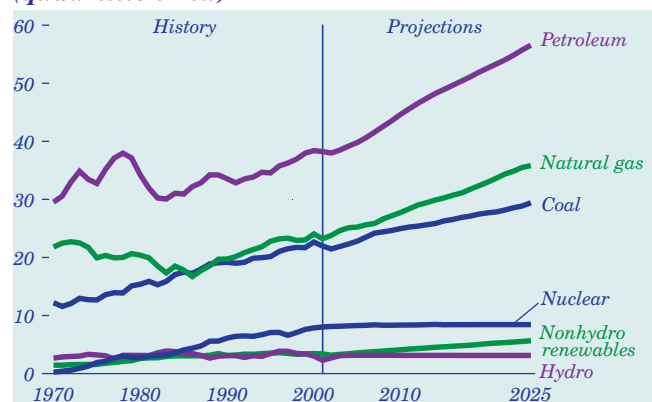
Industrial energy demand in *AEO2003* is projected to increase at an average rate of 1.3 percent per year between 2001 and 2025, reaching 41.7 quadrillion Btu in 2020 (significantly lower than the *AEO2002* projection of 43.8 quadrillion Btu) and 44.4 quadrillion Btu in 2025. The lower level of energy consumption in *AEO2003* in 2020 is partly the result of adopting an updated definition of what is included in industrial energy consumption. In earlier *AEOs*, industrial energy consumption included demand by combined heat and power (CHP) plants that were essentially independent power producers (IPPs), producing electricity but little steam. The energy demand of such “nontraditional” CHP plants is now included in the electric power sector.

Transportation energy demand in *AEO2003* is projected to grow at an average annual rate of 2.0 percent between 2001 and 2025, reaching 40.4 quadrillion Btu in 2020 (0.8 quadrillion Btu higher than in *AEO2002*) and 44.0 quadrillion Btu by 2025. The higher level of consumption in the transportation sector results from a higher forecast of vehicle miles traveled and a lower level of vehicle efficiency. Light-duty vehicle miles traveled are projected to grow by 2.4 percent per year through 2020 in *AEO2003* (compared with 2.2 percent per year in *AEO2002*) and by 2.3 percent per year through 2025. Consistent with recent trends, less improvement is projected for the average fuel efficiency of new light-duty vehicles than in *AEO2002*. New light-duty vehicle efficiency is projected to reach 25.6 miles per gallon by 2020 in *AEO2003* (down from 27.2 miles per gallon in *AEO2002*) and 26.1 miles per gallon by 2025.

Total electricity demand is projected to grow by 1.9 percent per year from 2001 through 2020 (the same as in *AEO2002*) and 1.8 percent per year from 2001 to 2025. Rapid growth in electricity use for computers, office equipment, and a variety of electrical appliances in the residential and commercial sectors is only partially offset by improved efficiency in these and other more traditional electrical applications; however, demand growth is expected to slow as regional and national market saturation is reached for air conditioning and some other applications.

Total demand for natural gas is projected to increase at an average annual rate of 1.8 percent between 2001 and 2025 (Figure 2), from 22.7 trillion cubic feet to 34.9 trillion cubic feet, primarily because of rapid growth in demand for electricity generation. With higher projected prices, total natural gas demand in 2020 (32.1 trillion cubic feet) is projected to be 1.6 trillion cubic feet lower in *AEO2003* than in *AEO2002*.

Figure 2. Energy consumption by fuel, 1970-2025 (quadrillion Btu)



In *AEO2003*, total coal consumption is projected to increase from 1,050 to 1,444 million short tons between 2001 and 2025, an average increase of 1.3 percent per year. Projected total coal demand in 2020 (based on short tons) is almost identical to that in *AEO2002* despite some shifts between sectors. Industrial coal demand is lower and electricity generation coal demand is higher in *AEO2003* as a result of the definitional changes in the data mentioned above and higher natural gas prices in *AEO2003* that lead to higher projected demand for coal in the electric power sector.

Total petroleum demand is projected to grow at an average annual rate of 1.7 percent through 2025 (reaching 29.17 million barrels per day), led by growth in the transportation sector, which is expected to account for about 75 percent of petroleum

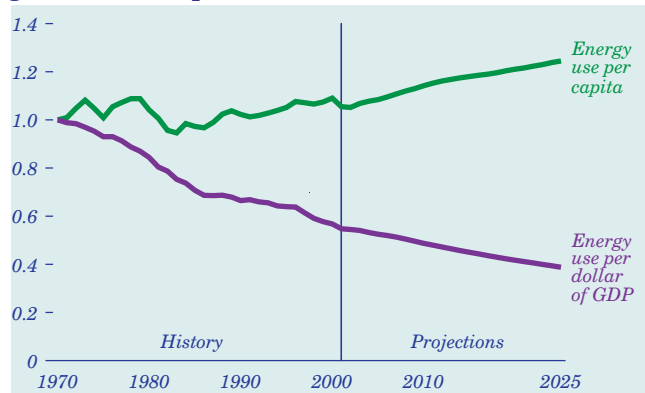
demand in 2025. Projected demand in 2020 (27.13 million barrels per day) is higher than in *AEO2002* by 470 thousand barrels per day due to higher transportation demand.

Total renewable fuel consumption, including ethanol for gasoline blending, is projected to grow at an average rate of 2.2 percent per year through 2025, primarily due to State mandates for renewable electricity generation. About 55 percent of the projected demand for renewables in 2025 is for electricity generation and the rest for dispersed heating and cooling, industrial uses (including CHP), and fuel blending. The projected demand for renewables in 2020 in *AEO2003* is 0.6 quadrillion Btu lower than in *AEO2002*, reflecting an update in historical statistics primarily regarding electricity generation at pulp and paper plants that lowers the expectation for biomass use at industrial CHP plants.

Energy Intensity

As energy prices increased between 1970 and 1986, energy intensity, as measured by energy use per dollar of GDP, declined at an average annual rate of 2.3 percent as the economy shifted to less energy-intensive industries, product mix changed, and more efficient technologies were adopted (Figure 3). With slower price increases and growth in more energy-intensive industries, intensity declines moderated to an average of 1.4 percent per year between 1986 and 2001. Energy intensity is projected to continue to decline at an average annual rate of 1.5 percent through 2025, as continued efficiency gains and structural shifts in the economy offset growth in the demand for energy services.

Figure 3. Energy use per capita and per dollar of gross domestic product, 1970-2025 (index, 1970 = 1)



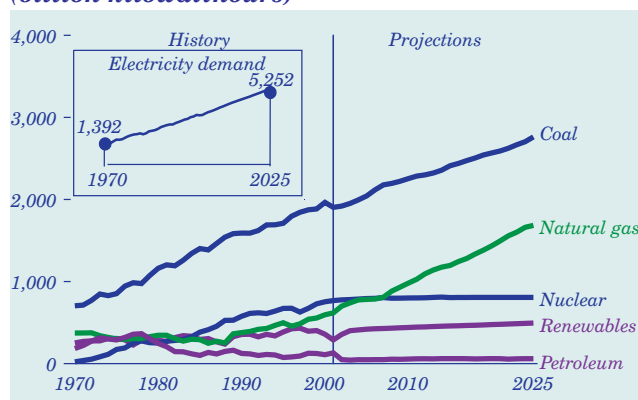
Energy use per person generally declined from 1970 through the mid-1980s but began to increase as energy prices declined in the late 1980s and 1990s.

Per capita energy use is projected to increase in the forecast, with growth in demand for energy services only partially offset by efficiency gains. Per capita energy use increases by 0.7 percent per year between 2001 and 2025 in *AEO2003*.

Electricity Generation

Generation from natural gas, coal, nuclear, and renewable fuels is projected to increase through 2025 to meet growing demand for electricity and offset the projected retirement of existing generating capacity, mostly fossil steam capacity being displaced by more efficient natural-gas-fired combined-cycle capacity brought online in the past few years and still being constructed (Figure 4). The projected levels of generation from power plants using coal, nuclear, and renewable fuels are higher than in *AEO2002* due to higher projected natural gas prices and uprates and life extensions of nuclear plants.

Figure 4. Electricity generation by fuel, 1970-2025 (billion kilowatthours)



The natural gas share of electricity generation is projected to increase from 17 percent in 2001 to 29 percent in 2025, including generation by electric utilities, IPPs, and CHP generators. The share from coal is projected to decline from 52 percent in 2001 to 48 percent in 2025 as a more competitive electricity industry invests in less capital-intensive and more efficient natural gas generation technologies. Nonetheless, coal remains the primary fuel for electricity generation through 2025, and *AEO2003* projects that 74 gigawatts of new coal-fired generating capacity will be constructed between 2001 and 2025.

Nuclear generating capacity is projected to increase slightly from 2001 to 2025 in *AEO2003*. Primarily because of the relatively favorable economics of competing technologies, no new nuclear facilities are expected to be built through 2025; however, fewer expected nuclear retirements (as a result of life

extensions), uprating of existing capacity, and an expectation of higher natural gas prices lead to a projection of more nuclear capacity than in *AEO2002*. No new nuclear power plants have been built in the United States for many years, however, and the economics of new plants are highly uncertain. Total nuclear capacity is projected to increase from 98.2 gigawatts in 2001 to a peak of 100.4 gigawatts by 2006 as a result of uprates before declining to 99.6 gigawatts by 2025. Uprates of 4.2 gigawatts offset retirements of 2.8 gigawatts between 2001 and 2025.

Renewable technologies are projected to grow slowly because of the relatively low costs of fossil-fired generation and because competitive electricity markets favor less capital-intensive natural gas technologies over coal and baseload renewables in the competition for new capacity. Where enacted, State renewable portfolio standards, which specify a minimum share of generation or sales from renewable sources, are considered in the forecast. Federal subsidies for renewables (in particular, wind) are also included in the forecast.

Total renewable generation, including CHP, is projected to increase from 298 billion kilowatthours in 2001 to 476 billion kilowatthours by 2020 in *AEO2003*, an increase of 2.5 percent per year. Growth in renewable generation was projected to grow at a slower 2.1 percent per year between 2001 and 2020 in *AEO2002*. Total renewable generation reaches 495 billion kilowatthours by 2025 in *AEO2003*.

Energy Production and Imports

Total energy consumption is expected to increase more rapidly than domestic energy production through 2025. As a result, net imports of energy are projected to meet a growing share of energy demand (Figure 5). Projected U.S. crude oil production declines to 5.3 million barrels per day by 2025 in *AEO2003*, an average annual rate of 0.4 percent between 2001 and 2025. Production is 0.2 million barrels per day lower in 2020 than in *AEO2002* due to projected reduced production from the lower-48 onshore by 2020, particularly from enhanced oil recovery (EOR) operations. The lower level of lower 48 production in *AEO2003* relative to *AEO2002* is partially offset by projected increased production from Alaska and higher levels of production from the lower 48 offshore. Total domestic petroleum production (crude oil plus natural gas plant liquids) increases from 7.7 million barrels per day in 2001 to 8.0 million by 2025 due to an increase in the production of natural gas plant liquids (Figure 6).

Figure 5. Total energy production and consumption, 1970-2025 (quadrillion Btu)

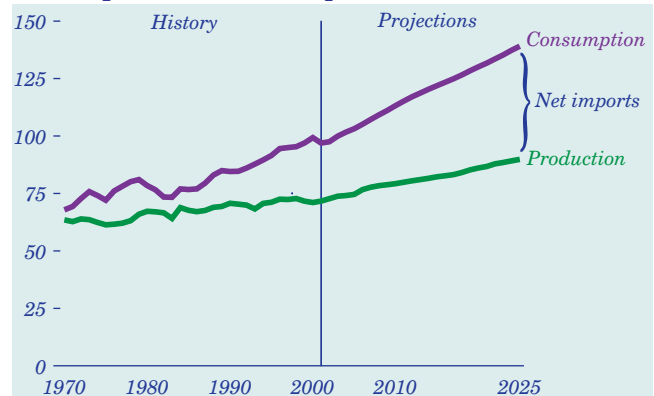
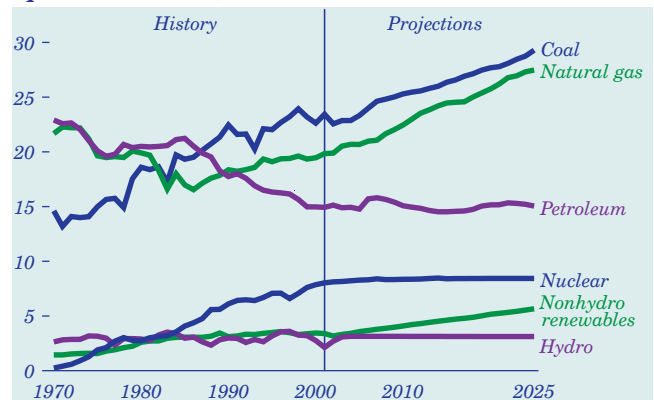


Figure 6. Energy production by fuel, 1970-2025 (quadrillion Btu)



By 2025, net petroleum imports, including both crude oil and refined products on the basis of barrels per day, are expected to account for 68 percent of demand, up from 55 percent in 2001. Despite an expected increase in domestic refinery distillation capacity of 3 million barrels per day, net refined petroleum product imports, on the basis of barrels per day, account for a growing portion of total net imports, increasing from 15 percent in 2001 to 34 percent by 2025.

Driven by growth in natural gas demand, domestic natural gas production is projected to increase from 19.5 to 25.1 trillion cubic feet between 2001 and 2020, an average rate of 1.3 percent per year. Domestic production is increasingly dependent on unconventional and more costly conventional resources in both the onshore and offshore. Projected production in 2020 is 3.4 trillion cubic feet lower than in *AEO2002* because of a reduction in the assumed potential of inferred natural gas reserves, updates to the economics of production, and reduced expectations for technology

improvement for unconventional gas. After 2020, domestic production in *AEO2003* increases noticeably with the projected completion of an Alaskan pipeline. Total domestic natural gas production reaches 26.8 trillion cubic feet by 2025 in *AEO2003*.

Despite the projected increase in domestic natural gas production, an increasing share of U.S. gas demand is met by imports, including pipeline imports from Canada and Mexico (including some from an expected facility in Baja California, Mexico), and LNG. Three of the four existing U.S. LNG import facilities are open, and the fourth has announced plans to reopen in spring 2003; and three of the four have announced capacity expansion plans. Net imports of natural gas are projected to increase from 3.7 trillion cubic feet (16 percent of total demand) in 2001 to 7.8 trillion cubic feet (22 percent of total demand) in 2025.

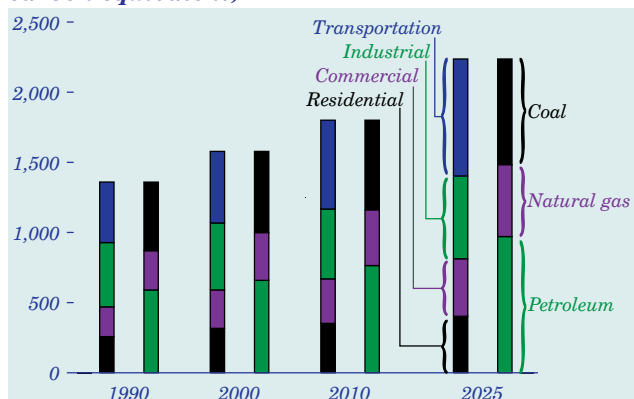
As domestic coal demand grows in *AEO2003*, U.S. coal production is projected to increase from 1,138 million short tons in 2001 to 1,359 million short tons by 2020, an average rate of 0.9 percent per year. Projected production in 2020 is 38 million short tons lower than in *AEO2002*. By 2025, U.S. coal production is projected to reach 1,440 million short tons in *AEO2003*. Net coal exports are expected to fall throughout the *AEO2003* forecast, reflecting declining coal demand in some countries and intense competition from other international producers.

Renewable energy production is projected to increase from 5.5 to 8.7 quadrillion Btu between 2001 and 2020, with growth in industrial biomass, ethanol, and all sources of renewable electricity generation. Renewable energy production in 2020 is 0.6 quadrillion Btu lower than projected in *AEO2002*, due to lower expected levels of industrial biomass use and generation from geothermal energy, offsetting higher levels of wind energy. By 2025, renewable energy production reaches 9.2 quadrillion Btu in *AEO2003*.

Carbon Dioxide Emissions

The *AEO* projections do not include future policy actions that might be taken to reduce carbon dioxide emissions. Carbon dioxide emissions from energy use are projected to increase from 1,559 to 2,082 million metric tons carbon equivalent between 2001 and 2020 in *AEO2003*, an average annual increase of 1.5 percent. This forecast is consistent with the 2,088 million metric tons carbon equivalent in 2020 projected in *AEO2002*. By 2025, total carbon dioxide emissions are projected to reach 2,237 million metric tons carbon equivalent in *AEO2003* (Figure 7). While total emissions in 2020 are virtually the same as in *AEO2002*, the amounts vary by sector. Projected industrial carbon dioxide emissions were 5 percent higher in 2020 in *AEO2002* due to differences in the definition of what is included in the industrial sector. As a result of the definitional change, carbon dioxide emissions in the electric power sector are higher in *AEO2003* in 2020 by 6.7 million metric tons carbon equivalent (1 percent). Carbon dioxide emissions are higher by 14.6 million metric tons carbon equivalent in 2020 in the transportation sector in *AEO2003* due to projections of less improvement in vehicle efficiency and more vehicle miles traveled.

Figure 7. Projected U.S. carbon dioxide emissions by sector and fuel, 1990-2025 (million metric tons carbon equivalent)





Un tarif EDF se compose de deux prix :

- **Le prix de l'abonnement** qui est la prime fixe de votre facture. Ce prix augmente avec le niveau de puissance que vous souscrivez dans votre contrat et dépend de votre option tarifaire.
- **Le prix de l'énergie** qui est utilisé pour calculer le montant de votre consommation, prime variable de votre facture. Ce prix ne dépend que de votre option tarifaire.

Il y a toujours une option tarifaire qui correspond à vos besoins.

Choisissez votre tarif en fonction de vos équipements électriques et de la façon dont vous les utilisez.

Option de base

Option Heures Creuses

Tempo

Sauf Corse et DOM-TOM



Pour déterminer l'option tarifaire la plus avantageuse pour votre logement !

TARIF BLEU - CLIENTS DOMESTIQUES ET AGRICOLES**Prix hors taxes au (1): 12-nov-2001**

| Option Base | Code Tarif ind-col | Code variante | | Réglage Disjoncteur | Abonnement annuel (Euros) | Prix de l'énergie (c€/kWh) |
|-----------------------------------|-----------------------|---------------|---------|------------------------|---------------------------------|-------------------------------|
| | | Dom | Agri | | | |
| 3 kVA (Petites fournitures) | 013 | 0-4 | 5 | 15 A | 19,80 | 7,87 |
| 6 | 014 | 0-4 | 5 | 30 A | 50,40 | |
| 9 | 015 | 0-4 | 5 | 45 A | 99,36 | |
| 12 | 012-010 | 0 | (012)-5 | 60 A | 142,56 | |
| 15 | 012-010 | 1 | (012)-6 | 75 A | 185,76 | |
| 18 | 012-010 | 2 | (012)-7 | 90 A | 228,96 | |
| 24 | 012-010 | 3-3 | 8 | 40 A | 382,32 | |
| 30 | 012-010 | 3-4 | 8 | 50 A | 535,68 | |
| 36 | 012-010 | 3-5 | 8 | 60 A | 689,04 | |

| Option Heures Creuses | Code Tarif ind-col | Code variante | | Réglage Disjoncteur | Abonnement annuel (Euros) | Heures Pleines | Heures Creuses (8 heures)(*) |
|----------------------------------|-----------------------|---------------|------|------------------------|---------------------------------|-------------------|------------------------------------|
| | | Dom | Agri | | | | |
| 6 | 024 | 0-4 | 5 | 30 A | 87,36 | 7,87 | 4,82 |
| 9 | 026 | 0-4 | 5 | 45 A | 156,84 | | |
| 12 | 020-004 | 0-0 | 5 | 60 A | 226,32 | | |
| 15 | 020-004 | 1 | 6 | 75 A | 295,80 | | |
| 18 | 020-004 | 2 | 7 | 90 A | 365,28 | | |
| 24 | 028-004 | 1-3 | 6 | 40 A | 610,80 | | |
| 30 | 028-004 | 2-4 | 7 | 50 A | 856,32 | | |
| 36 | 028-004 | 3-5 | 8 | 60 A | 1101,84 | | |

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

(*) Les horaires sont déterminés localement par les centres EDF GDF SERVICES

TARIF BLEU - OPTION TEMPO**- Option TEMPO - 6 prix -****Prix hors taxes au :****12-nov-2001**

| Clientèle | | Codes tarifs | |
|------------------------------------|--|---------------------------------|--|
| Domestiques et agricoles | | 030 /031/032/033/034/035 | |
| Professionnels et Services publics | | 060 /061/062/063/064/065 | |
| Services Communaux et intercom. | | 080 /081/082/083/084/085 | |

| Puissance | Codes variantes | | | | |
|--------------|-----------------|-----------|-------|-------------|------|
| | Dom. Ind. | Dom. Col. | Agri. | Prof. et SP | SPC. |
| 9 kVA | 0 | 4 | 5 | 0/5 | 0 |
| 12-15-18 kVA | 1 | 4 | 6 | 1/6 | 1 |
| 24-30 kVA | 2 | 9 | 7 | 2/7 | 2 |
| 36 kVA | 3 | 9 | 8 | 3/8 | 3 |

| ABONNEMENTS Puissance souscrite (en kVA) | Abonnement annuel Euros/an | Prix de l'énergie (en cents €/par kWh) | | | | | |
|--|----------------------------------|--|-------------------|---------------------|-------------------|---------------------|-------------------|
| | | Jours Bleus (300 j) | | Jours Blancs (43 j) | | Jours Rouges (22 j) | |
| | | Heures Creuses | Heures Pleines | Heures Creuses | Heures Pleines | Heures Creuses | Heures Pleines |
| 9 kVA | 134,76 | | | | | | |
| 12-15-18 kVA | 184,56 | | | | | | |
| | | 3,35 | 4,15 | 6,77 | 8,01 | 12,50 | 34,87 |
| 24-30 kVA | 339,48 | | | | | | |
| 36 kVA | 456,12 | | | | | | |

NB: Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

Heures Creuses : jours Bleus , Blancs et Rouges de 22 h à 6h

Les Jours Rouges sont choisis entre le 1er novembre et le 31 mars (hors Samedi et Dimanche).

Les Dimanches sont des jours Bleus.

TARIF BLEU - OPTION EJP
(n'est plus proposée à la clientèle)

Prix hors taxes (1) au : **12-nov-2001**

- Clients domestiques et Agricoles

| Option EJP | Code Tarif ind-col | Code variante | | Réglage Disjoncteur | Abonnement annuel (Euros) | Heures Normales | Heures de Pointe Mobile |
|---------------|-----------------------|---------------|------|------------------------|---------------------------------|--------------------|-------------------------------|
| | | Dom | Agri | | | | |
| 12 | 006 | 0-4 | 5 | 60 A | 94,68 | 5,68 | 45,34 |
| 15 | 006 | 1 | 6 | 75 A | 94,68 | | |
| 18 | 006 | 2-4 | 7 | 90 A | 94,68 | | |
| 36 | 008 | 0-4 | 5 | 60 A | 377,88 | | |

- Clients Professionnels et Services Publics non communaux

| Option EJP | Code Tarif | Code variante | | Réglage Disjoncteur | Abonnement annuel (Euros) | Heures Normales | Heures de Pointe Mobile |
|---------------|------------|---------------|----------------|------------------------|---------------------------------|--------------------|-------------------------------|
| | | Prof | Serv. Publ. | | | | |
| 12 (2) | 066 | 0 | 5 | 60 A | 108,48 | 5,68 | 45,34 |
| 18 | 066 | 1 | 6 | 90 A | 108,48 | | |
| 36 | 068 | 0 | 5 | 60 A | 428,16 | | |

- Clients Services Publics Communaux et Intercommunaux

| Option EJP | Code Tarif | Code variante | Réglage Disjoncteur | Abonnement annuel (Euros) | Heures Normales | Heures de Pointe Mobile |
|---------------|------------|---------------|------------------------|---------------------------------|--------------------|-------------------------------|
| 12 (2) | 098 | 0 | 60 A | 99,60 | 5,68 | 45,34 |
| 18 | 098 | 1 | 90 A | 99,60 | | |
| 36 | 098 | 3 | 60 A | 399,00 | | |

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

(2) 12 kVA si le branchement n'est pas capable de délivrer, sans travaux de renforcement, une puissance plus importante

Pointe Mobile : 22 jours de 18 heures, de 7 heures à 1 heure le lendemain.

**TARIF BLEU - CLIENTS PROFESSIONNELS
ET SERVICES PUBLICS NON COMMUNAUX**

Prix hors taxes au (1): 12-nov-2001

| Option Base | Code Tarif | Code variante | | Réglage Disjoncteur | Abonnement annuel (Euros) | Prix de l'énergie (c€/kWh) |
|-----------------------------------|------------|---------------|----------------|------------------------|---------------------------------|-------------------------------|
| | | Prof | Serv. Publ. | | | |
| 3 kVA (Petites fournitures) | 043 | 0 | 5 | 15 A | 19,80 | 7,87 |
| 6 | 044 | 0 | 5 | 30 A | 50,40 | |
| 9 | 044 | 1 | 6 | 45 A | 99,36 | |
| 12 | 044 | 2 | 7 | 60 A | 142,56 | |
| 15 | 044 | 3 | 8 | 75 A | 185,76 | |
| 18 | 044 | 4 | 9 | 90 A | 228,96 | |
| 24 | 047 | 0 | 5 | 40 A | 382,32 | |
| 30 | 047 | 1 | 6 | 50 A | 535,68 | |
| 36 | 047 | 2 | 7 | 60 A | 689,04 | |

| Option Heures Creuses | Code Tarif | Code variante | | Réglage Disjoncteur | Abonnement annuel (Euros) | Heures Plaines | Heures Creuses (8 heures)(*) |
|--------------------------|------------|---------------|----------------|------------------------|---------------------------------|-------------------|------------------------------------|
| | | Prof | Serv. Publ. | | | | |
| 6 | 054 | 0 | 5 | 30 A | 87,36 | 7,87 | 4,82 |
| 9 | 054 | 1 | 6 | 45 A | 156,84 | | |
| 12 | 054 | 2 | 7 | 60 A | 226,32 | | |
| 15 | 054 | 3 | 8 | 75 A | 295,80 | | |
| 18 | 054 | 4 | 9 | 90 A | 365,28 | | |
| 24 | 056 | 0 | 5 | 40 A | 610,80 | | |
| 30 | 056 | 1 | 6 | 50 A | 856,32 | | |
| 36 | 056 | 2 | 7 | 60 A | 1101,84 | | |

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

(*) Les horaires sont déterminés localement par les centres EDF GDF SERVICES

TARIF BLEU
SERVICES PUBLICS COMMUNAUX ET INTERCOMMUNAUX

1.3.1. Besoins Généraux**Prix hors taxes au (1): 12-nov-2001**

| Option Base | Code Tarif | Code variante | Réglage Disjoncteur teur | Abonnement annuel (Euros) | Prix de l'énergie (c€/kWh) |
|-----------------------------------|-------------------|----------------------|---|--|---------------------------------------|
| 3 kVA (Petites fournitures) | 086 | 0 | 15 A | 19,80 | 9,60 |
| 6 | 077 | 0 | 30 A | 50,40 | 7,87 |
| 9 | 077 | 0 | 45 A | 99,36 | |
| 12 | 077 | 1 | 60 A | 142,56 | |
| 15 | 077 | 1 | 75 A | 185,76 | |
| 18 | 077 | 1 | 90 A | 228,96 | |
| 24 | 077 | 2 | 40 A | 382,32 | |
| 30 | 077 | 2 | 50 A | 535,68 | |
| 36 | 077 | 2 | 60 A | 689,04 | |

| Option Heures Creuses | Code Tarif | Code variante | Réglage Disjoncteur | Abonnement annuel (Euros) | Heures Plaines | Heures Creuses (8 heures)(*) |
|----------------------------------|-------------------|----------------------|--------------------------------|--|---------------------------|---|
| 6 | 078 | 0 | 30 A | 87,36 | 7,87 | 4,82 |
| 9 | 078 | 0 | 45 A | 156,84 | | |
| 12 | 078 | 1 | 60 A | 226,32 | | |
| 15 | 078 | 1 | 75 A | 295,80 | | |
| 18 | 078 | 1 | 90 A | 365,28 | | |
| 24 | 078 | 2 | 40 A | 610,80 | | |
| 30 | 078 | 2 | 50 A | 856,32 | | |
| 36 | 078 | 2 | 60 A | 1101,84 | | |

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

(*) Les horaires sont déterminés localement par les centres EDF GDF SERVICES

TARIF BLEU - ECLAIRAGE PUBLIC**Prix hors taxes au (1):****12-nov-2001****1.1. Modalités introduites en 1987 et 1997 :**

| | Code Tarif | Code variante | Abonnement annuel en Euros/kVA | Prix de l'énergie cents/kWh |
|---|------------|-------------------|-----------------------------------|--------------------------------|
| Longues Utilisations | 071 (2) | 0 (avec comptage) | 103,56 | 3,77 |
| | | 1 (sans comptage) | | |
| Courtes Utilisations (< à 2350 heures) | 094 (3) | 0 (avec comptage) | 72,48 | 4,98 |

1.2. Illuminations (4):

| Sur réseau | Code Tarif | Code variante | Saison | Abonnement Euros/kVA/an | Energie cents/kWh |
|------------------------------|------------|---------------|--------|----------------------------|----------------------|
| Eclairage Public | 470 | 0 | Hiver | 72,48 | cf. contrat |
| | 471 | 0 | Eté | 72,48 | EP existant |
| Distribution Publique | 472 | 0 | Hiver | 72,48 | 4,98 |
| | 473 | 0 | Eté | 72,48 | 4,98 |

2.1. Anciennes modalités :

| Abonnements avec comptage | Code Tarif | Abonnement annuel Euros/kVA | | Prix de l'énergie cents/kWh | |
|------------------------------|------------|-----------------------------------|--------------|--------------------------------|-------------------|
| SIMPLE TARIF | 070 | 23,88 | | 8,89 | |
| | | Terme fixe | F/kVA | Heures Pleines | Heures Creuses |
| DOUBLE TARIF | 072 | 19,32 | 29,88 | 8,89 | 5,10 |

| Abonnements en l'absence de comptage | Code Tarif | Code variante | Abonnement annuel en Euros/kVA | Prix de l'énergie cents/kWh |
|--|------------|---------------|-----------------------------------|--------------------------------|
| Eclairage matin & soir | 076 | 1 | 85,56 | 5,10 |
| Eclairage soir seul | 076 | 2 | 73,08 | 5,10 |
| Feux signalisation (5) | 076 | 3 | 252,48 | 5,10 |
| Illuminations été | 076 | 7 | 39,24 | 5,10 |

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie. Les fournitures d'éclairage public sont exonérées des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements.

(2) Ou 074-075 si le compteur à deux cadrans est provisoirement maintenu. La variante sans comptage (code 071-1) est limitée à une puissance de 500 W par point de livraison.

(3) réservé aux points de livraison dont la durée d'utilisation de la puissance est inférieure à 2350 heures.

(4) Abonnements applicables aux illuminations d'hiver et d'été. Ils sont perçus uniquement pendant la durée de la période d'illumination.

(5) Les feux clignotants sont comptés pour la moitié de leur puissance.

En EUROS - €

TARIF BLEU - FOURNITURES DIVERSES -

Prix applicables au : **12-nov-2001**

1. - Télé-distribution

Tarif pour les téléamplificateurs code 043.6 :
Même barème que le 3 kVA petites fournitures pour les services publics non communaux

2. - Bleu Utilisations Longues codes 0420, 0425, 0870 et 040

- **Modalités sans comptage (limitées à 2,2 kVA) code 0420, 0425, 0870**

Forfait par kVA et en Euros par an : **482,16**

- **Modalités avec comptage 6kVA code 040**

Abonnement en Euros par an **990,24**

Prix d'énergie en cents/kWh **3,13**

3. - Fournitures à partir de moyens de production non connectés au réseau

- **Générateur photovoltaïque code 045**

Forfait pour 1 kW (*) en Euros par an **115,68**

par hW supplémentaire en Euros par an **9,60**

- **Générateur éolien puissance < ou = 4 kW code 046**

-- Forfait pour 2 kW (*) en Euros par an **231,36**

par hW supplémentaire en Euros par an **9,60**

- **Micro centrale hydraulique ou générateur éolien de puissance > à 4 kW - code 041**

Abonnement en Euros par kW/an **65,88**

Prix d'énergie en cents/kWh **3,12**

(*) Puissance minimum à facturer

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

BAREME A : Tarif Universel**2.1. Tarifs 3 kVA****Prix hors taxes au (1): 12-nov-2001**

| ABONNEMENTS | | CODE TARIF | CODE VARIANTE | | Mensualités d'abon- nements en Euros | | Prix d'énergie cents/kWh | |
|-----------------------------|-----------------|---------------|---------------------|----------------|---|-------|-----------------------------|-------------|
| | | | Domestiq ind-col | Agricoles | | | H.P. | H.C. |
| Domestiques et agricoles | 3 kVA avec H.C. | 022 | 0-4 | 5 | 7,72 | ..... | 8,89 | 5,06 |
| Professionnels | 3 kVA avec H.C. | 052 | Profess. 0 | Serv Publ 5 | 10,53 | ..... | 10,35 | 5,06 |
| Communaux | 3 kVA avec H.C. | 088 | 0 | | 8,30 | ..... | 10,35 | 5,06 |

2.3. Tarifs supérieurs à 36 kVA

| ABONNEMENTS | | CODE TARIF | CODE VARIANTE | | Mensualités d'abon- nements en Euros (2) | | Prix d'énergie cents/kWh | |
|-----------------------------|--------------------|---------------|---------------|----------------|---|----------------------|-----------------------------|-------------|
| | | | Domestiq | Agricoles | Terme fixe "(2)" | +E/kVA au delà 36 | H.P. | H.C. |
| Domestiques et agricoles | > 36 kVA avec H.C. | 002 | 0 | 5 | 116,08 | 4,25 | 8,89 | 5,06 |
| Professionnels et | > 36 kVA sans H.C. | 048 | Profess. 3 | Serv Publ 8 | 148,16 | 7,93 | 8,89 | ..... |
| Services Publics | > 36 kVA avec H.C. | 058 | 3 | 8 | 182,85 | 9,44 | 8,89 | 5,06 |
| Communaux | > 36 kVA sans H.C. | 090 | ... | 3 | 97,96 | 3,52 | 8,89 | ..... |
| | > 36 kVA avec H.C. | 002 | ... | 3 | 116,05 | 4,25 | 8,89 | 5,06 |

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

(2) Le tarif Jaune n'étant pas appliqué dans les DOM, le terme fixe y est identique à celui appliqué pour une puissance de 36 kVA

BAREME B : Tarif Universel

Prix hors taxes au (1):

12-nov-2001

2.4. Modalités particulières pour les abonnements avec heures creuses à partir de 12 kVA

| | | Code | | Code variante | | | |
|---|--------------------------------------|------|------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | | | Domestiques | Agricoles | Communaux | |
| Sans prix particulier H.P. Eté Domestiques ou Agricoles Communaux | P.S. de base <=18 kVA et >=24 kVA | 002 | | 1 | 6 à 8 | | |
| | | 002 | | 1 | 6 à 8 | | |
| | | 002 | | | | 4 | |
| Avec prix particulier H.P. Eté | P.S. de base > 24 kVA | 002 | | sans sup. H.C. sans FMA | avec sup. H.C. sans FMA | sans sup. H.C. avec FMA | avec sup. H.C. avec FMA |
| | | | Domestiq. Agricoles | 0 5 | 1 6 | - 7 | - 8 |

| PRIX | Prix d'énergie (Cents/kWh) | | | Mensualités d'abonnement (Euros) | | | | |
|--|----------------------------|------|------------------|--|----------------|-----------------------------|--------------------|--------------|
| ABONNEMENTS | H.P. | | H.C. | Terme fixe pour une puissance de base de | | Par kVA supplé- mentaire | Majoration par kVA | |
| | Hiver | Eté | | | | | | |
| | | | | | | Compl. FMA | Suppl. HC | |
| Sans prix particulier H.P. Eté Domestiques Communaux | 8,89 | 8,89 | ! ! 5,06 | > ou égale à |  | ..... ..... ..... | 3,04 | 1,70 1,70 |
| | | | | • 12 kVA | 19,55 19,55 | 1,97 1,97 | | |
| Avec prix particulier H.P. Eté | 8,89 | 8,89 | ! ! ! ! | 24 kVA | 56,69 | | 3,04 | 1,70 |
| | | | | 30 kVA | 82,01 | | | |
| | | | | 36 kVA | 107,33 | 4,23 | | |
| | | | | >36 kVA | 116,05 | 4,25 | | |

(1) Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

En EUROS - €

TARIF BLEU - OPTIONS EXPERIMENTALES

Ces options en extinction ne sont plus proposées à la clientèle

Prix hors taxes au : **12-nov-2001**

- Option Bleu Blanc Rouge - 4 prix - Code tarif: 036/037/038/039

| ABONNEMENTS Puissance souscrite (en kVA) | Abonnement annuel Euros/an | Prix de l'énergie (en cents € par kWh) | | | | | |
|--|----------------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | Jours Bleus | | Jours Blancs | | Jours Rouges | |
| | | Heures Creuses | Heures Pleines | Heures Creuses | Heures Pleines | Heures Creuses | Heures Pleines |
| 18 kVA | 184,68 | 3,35 | 4,15 | 4,15 | 10,34 | 10,34 | 45,34 |

- Option Saisonnalisée à postes fixes - prix hors taxes au 12-11-2001 Code tarif: 016/017/018/019

| ABONNEMENTS Puissance souscrite (en kVA) | Abonnement annuel Euros/an | Prix de l'énergie (en cents € par kWh) | | | |
|--|----------------------------------|--|-------------------|-------------------|-------------------|
| | | Hiver | | Eté | |
| | | Heures Pleines | Heures Creuses | Heures Pleines | Heures Creuses |
| 9 kVA | 185,16 | 11,69 | 6,40 | 4,53 | 2,70 |
| 12 kVA | 253,56 | | | | |
| 15 kVA | 321,96 | | | | |
| 18 kVA | 390,36 | | | | |
| 24 kVA | 579,72 | | | | |
| 30 kVA | 769,08 | | | | |
| 36 kVA | 958,44 | | | | |

NB: Ces prix sont à majorer de la T.V.A. au taux réduit de 5,5% pour les abonnements, de 19,6% pour les prix de l'énergie et, éventuellement, des taxes à des taux divers instituées par les communes (ou syndicats de communes) et les départements. Le montant de ces taxes est soumis à la TVA au taux de 19,6%.

En EUROS - €

TARIF BLEU

Prix de l'énergie dans les départements et territoires d'outre-mer (en Cent d'Euros hors TVA par kWh)

y compris l'octroi de mer au : **12-nov-2001**

Applicables au: 12-nov-2001

| DEPARTEMENT | OCTROI DE MER cents/kWh | Petites Fournitures (3kVA) | Option Base | Option Heures creuses | | Heures Creuses Ecl. Public |
|-------------|-------------------------------|----------------------------------|----------------|-----------------------|------------|----------------------------------|
| | | | | H. Pleines | H. Creuses | |
| MARTINIQUE | 0,21 | 9,81 | 8,08 | 8,08 | 5,03 | 3,98 |
| GUADELOUPE | 0,09 | 9,69 | 7,96 | 7,96 | 4,91 | 3,86 |
| LA REUNION | 0,03 | 9,63 | 7,90 | 7,90 | 4,85 | 3,80 |
| GUYANE | 0,00 | 9,60 | 7,87 | 7,87 | 4,82 | 3,77 |

NOTA: les prix des abonnements sont identiques à ceux appliqués en métropole

TARIF JAUNE BASE en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kVA + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | |
|---------------------------------|----|---|--|-------|-------|-------|
| | | | HIVER | | ETE | |
| | | | HPH | HCH | HPE | HCE |
| JAUNE | UL | 46,32 | 7,833 | 5,661 | 2,972 | 2,411 |
| | UM | 15,36 | 11,298 | 7,692 | 3,104 | 2,544 |
| COEFFICIENT PUISSANCE REDUITE * | | | 0,52 | 0,36 | 0,20 | |
| CALCUL DES DEPASSEMENTS | | | 10,46 €/HEURE (1) | | | |
| HIVER | | | : de novembre à mars inclus | | | |
| ETE | | | : d'avril à octobre inclus | | | |
| POINTE EN UL | | | : 2h le matin et 2h le soir de décembre à février inclus | | | |
| HEURES CREUSES | | | : 8h par jour tous les jours | | | |

* UL: une seule dénivelée possible en Heures Pleines d'Hiver hors pointe : **0,52**
0,36 en Heures Creuses d' Hiver, ou **0,2** en Heures Pleines d'Eté

TARIF JAUNE EJP en €

| BAREME DU 12/11/01 | PRIME FIXE ANNUELLE €/kVA + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|---------------------------------|---|--|----|-------|--------|-------|
| | | HIVER | | ETE | | |
| | | PM | HH | HPE | HCE | |
| | | JAUNE EJP | UL | 46,32 | 25,818 | 5,420 | 2,972 | 2,411 |
| COEFFICIENT PUISSANCE REDUITE * | | 0,44 | | 0,20 | | |
| CALCUL DES DEPASSEMENTS | | 10,46 €/HEURE (1) | | | | |
| HIVER | | : de novembre à mars inclus | | | | |
| ETE | | : d'avril à octobre inclus | | | | |
| POINTE MOBILE | | : 22 périodes de 18h de novembre à mars inclus | | | | |
| HEURES CREUSES | | : 8h par jour tous les jours de l'été | | | | |

* Une seule dénivelée possible: 0,44 en F **0,44** en Heures d'Hiver, ou
0,2 en Heures Pleines d'Eté

(1) : DANS LE CAS DE COMPTAGE EQUIPE DE CONTROLEUR ELECTRONIQUE

TARIF VERT A5 BASE en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|---|-----------------------|--|--|--------------|-------------------|--------------|--------------|
| | | | HIVER | | | ETE | |
| | | | PTE | HPH | HCH | HPE | HCE |
| A5 | TLU | 105,24 | 5,535 | 4,337 | 3,410 | 2,728 | 1,859 |
| | LU | 64,68 | 9,565 | 5,652 | 3,940 | 2,879 | 1,992 |
| | MU | 38,40 | 13,491 | 6,962 | 4,487 | 3,093 | 2,180 |
| | CU | 16,32 | 19,614 | 8,987 | 5,320 | 3,324 | 2,374 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,754 | | | | |
| Coefficients Puissance réduite A5 | TLU | | 1,00 | 0,76 | 0,31 | 0,15 | 0,06 |
| | LU | | 1,00 | 0,76 | 0,31 | 0,15 | 0,06 |
| | MU | | 1,00 | 0,76 | 0,31 | 0,15 | 0,06 |
| | CU | | 1,00 | 0,77 | 0,33 | 0,18 | 0,08 |
| CALCUL DEPASSEMENT | COMPTAGE ELECTRONIQUE | | K.N.(PMAX-P) | | K.(PMAX-P) | | |
| | (k3 k2 k1) | 3,16 €/kW | 1,05 €/kW | | 26,31 €/kW | | |
| Coefficients par poste | | | 1,00 | 0,76 | 0,31 | 0,15 | 0,06 |
| TARIF APPLICABLE AUX CLIENTS EN HTA INFERIEURS A 10000 kW | | | | | | | |
| HIVER | | | : de novembre à mars inclus | | | | |
| ETE | | | : d'avril à octobre inclus | | | | |
| POINTE | | | : 2h le matin et 2h le soir de décembre à février inclus | | | | |
| HEURES CREUSES | | | : 8h par jour et dimanche toute la journée | | | | |

TARIF VERT A5 EJP en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (c €/kWh) + TVA 19,6 % | | | |
|-----------------------------------|------|--|---|------------|---------|-------|
| | | | HIVER | | ETE | |
| | | | PM | HH | HPE | HCE |
| A5 | TLU | 105,24 | 7,258 | 3,647 | 2,728 | 1,859 |
| EJP | MU | 38,40 | 20,105 | 4,707 | 3,093 | 2,180 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,754 | | | |
| Coefficients | TLU | | 1,00 | 0,48 | 0,15 | 0,06 |
| Puissance réduite | MU | | 1,00 | 0,48 | 0,15 | 0,06 |
| ENER (€/kWh) | | ELECTRON. | K.N.(PMAX-P) | K.(PMAX-P) | (E/kWh) | |
| CALCUL | 0,54 | 3,16 | 1,05 | 26,31 | | |
| DEPASSEMENT | | | | | | |
| Coefficients par poste | | | 1,00 | 0,48 | 0,15 | 0,06 |
| HIVER | | : de novembre à mars inclus | | | | |
| ETE | | : d'avril à octobre inclus | | | | |
| POINTE MOBILE | | : 22 périodes de 18h de novembre à mars inclus | | | | |
| HEURES CREUSES | | : 8h par jour et dimanche toute la journée | | | | |

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | | | | | |
|---|------------------------|--|--|--------|-------|-------------|-------|------------|-------|-------|--|
| | | | HIVER ET DEMI-SAISON | | | | | ETE | | | |
| | | | PTE | HPH | HPD | HCH | HCD | HPE | HCE | JA | |
| A8 | TLU | 105,24 | 5,738 | 5,132 | 3,759 | 3,987 | 2,508 | 3,040 | 1,804 | 2,158 | |
| | LU | 64,68 | 10,268 | 7,185 | 4,499 | 4,559 | 2,913 | 3,207 | 1,961 | 2,237 | |
| | MU | 38,4 | 14,642 | 9,193 | 5,241 | 5,141 | 3,327 | 3,436 | 2,183 | 2,343 | |
| | CU | 16,32 | 21,493 | 12,328 | 6,395 | 6,046 | 3,969 | 3,701 | 2,412 | 2,482 | |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,754 | | | | | | | | |
| Coefficients | TLU | | 1,00 | 0,78 | 0,43 | 0,32 | 0,21 | 0,15 | 0,09 | 0,02 | |
| | LU | | 1,00 | 0,78 | 0,43 | 0,32 | 0,21 | 0,15 | 0,09 | 0,02 | |
| Puissance réduite | MU | | 1,00 | 0,78 | 0,43 | 0,32 | 0,21 | 0,15 | 0,09 | 0,02 | |
| | CU | | 1,00 | 0,78 | 0,44 | 0,34 | 0,22 | 0,18 | 0,10 | 0,05 | |
| CALCUL | COMPTAGE | | ELECTRONIQUE | | | KN.(PMAX-P) | | K.(PMAX-P) | | | |
| | (k3 k2 k1) | | 3,16 | €/kW | 1,05 | | €/kW | 26,31 €/kW | | | |
| DEPASSEMENT | | | | | | | | | | | |
| | Coefficients par poste | | 1,00 | 0,78 | 0,43 | 0,32 | 0,21 | 0,15 | 0,09 | 0,02 | |
| HIVER : de décembre à février inclus | | | | | | | | | | | |
| DEMI-SAISON : novembre et mars | | | | | | | | | | | |
| ETE : d'avril à octobre inclus | | | | | | | | | | | |
| POINTE : 2h le matin et 2h le soir de décembre à février inclus | | | | | | | | | | | |
| HEURES CREUSES : de 1h à 7h et samedi, dimanche, jours fériés et ponts toute la journée | | | | | | | | | | | |

TARIF VERT A8 EJP en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | | |
|---|-----|--|--|-------|--------------|-------|--------------|-------|
| | | | HIVER ET DEMI-SAISON | | | ETE | | |
| | | | PM | HH | HD | HPE | HCE | JA |
| A8 | TLU | 105,24 | 7,258 | 4,243 | 2,819 | 3,040 | 1,804 | 2,158 |
| EJP | MU | 38,4 | 20,105 | 5,606 | 3,389 | 3,436 | 2,183 | 2,343 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,754 | | | | | |
| Coefficients | TLU | | 1,00 | 0,48 | 0,23 | 0,15 | 0,09 | 0,02 |
| Puissance réduite | MU | | 1,00 | 0,48 | 0,23 | 0,15 | 0,09 | 0,02 |
| COMPTAGE | | | ENERGIE | | ELECTRONIQUE | | K.N.(PMAX-P) | |
| (k3 k2) | | | 0,54 €/kWh | | 3,16 €/kW | | 1,05 €/kW | |
| DEPASSEMENT | | | | | | | | |
| Coefficients par poste | | | 1,00 | 0,48 | 0,23 | 0,15 | 0,09 | 0,02 |
| HIVER : de décembre à février inclus | | | | | | | | |
| DEMI-SAISON : novembre et mars | | | | | | | | |
| ETE : d'avril à octobre inclus | | | | | | | | |
| POINTE MOBILE : 22 périodes de 18h de novembre à mars inclus | | | | | | | | |
| HEURES CREUSES : de 1h à 7h et samedi, dimanche, jours fériés et ponts toute la journée | | | | | | | | |

TARIF VERT A MODULABLE en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | |
|--|------------------------|--|--|---------|----------------------------|-------|
| | | | JOUR | SEMAINE | | |
| | | | PM | HM | DSM | SCM |
| A | TLU | 105,24 | 7,258 | 4,733 | 3,104 | 2,121 |
| MODULABLE | MU | 38,4 | 20,105 | 6,428 | 3,665 | 2,437 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,754 | | | |
| Coefficients | TLU | | 1,00 | 0,48 | 0,28 | 0,12 |
| Puissance réduite | MU | | 1,00 | 0,48 | 0,28 | 0,12 |
| CALCUL DEPASSEMENT | ENERGIE | | ELECTRONIQUE | | K.N. (P _{MAX} -P) | |
| | 0,54 | €/kWh | 3,16 | €/kW | 1,05 | €/kW |
| | Coefficients par poste | | 1,00 | 0,48 | 0,28 | 0,12 |
| HIVER MOBILE : 9 semaines | | | | | | |
| DEMI-SAISON MOBILE : 19 semaines | | | | | | |
| SAISON CREUSE MOBILE : 24 semaines | | | | | | |
| POINTE MOBILE : 22 périodes de 18h de novembre à mars inclus | | | | | | |

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | | | | |
|---|------------|--|--|--------|-------------|-------|-------|------------|-------|-------|
| | | | HIVER ET DEMI-SAISON | | | | | ETE | | |
| | | | PTE | HPH | HPD | HCH | HCD | HPE | HCE | JA |
| B | TLU | 75,12 | 5,317 | 4,880 | 3,606 | 3,791 | 2,369 | 2,928 | 1,761 | 2,082 |
| | LU | 49,56 | 8,265 | 6,265 | 4,008 | 4,112 | 2,591 | 3,045 | 1,862 | 2,133 |
| | MU | 28,2 | 11,746 | 7,901 | 4,483 | 4,490 | 2,851 | 3,169 | 1,995 | 2,198 |
| | CU | 13,32 | 16,822 | 10,284 | 5,174 | 5,044 | 3,234 | 3,273 | 2,098 | 2,249 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,553 | | | | | | | |
| Coefficients Puissance réduite | TLU | | 1,00 | 0,77 | 0,39 | 0,29 | 0,19 | 0,14 | 0,08 | 0,02 |
| | LU | | 1,00 | 0,77 | 0,39 | 0,29 | 0,19 | 0,14 | 0,08 | 0,02 |
| | MU | | 1,00 | 0,77 | 0,39 | 0,29 | 0,19 | 0,14 | 0,08 | 0,02 |
| | CU | | 1,00 | 0,78 | 0,40 | 0,31 | 0,21 | 0,17 | 0,10 | 0,05 |
| CALCUL DEPASSEMENT | COMPTAGE | | ELECTRONIQUE | | KN.(PMAX-P) | | | K.(PMAX-P) | | |
| | (k3 k2 k1) | | 2,25 | €/kW | | 0,75 | | €/kW | 18,78 | €/kW |
| Coefficients par poste | | | 1,00 | 0,77 | 0,39 | 0,29 | 0,19 | 0,14 | 0,08 | 0,02 |
| HIVER : de décembre à février inclus | | | | | | | | | | |
| DEMI-SAISON : novembre et mars | | | | | | | | | | |
| ETE : d'avril à octobre inclus | | | | | | | | | | |
| POINTE : 2h le matin et 2h le soir de décembre à février inclus | | | | | | | | | | |
| HEURES CREUSES : de 1h à 7h et samedi, dimanche, jours fériés et ponts toute la journée | | | | | | | | | | |

TARIF VERT B EJP en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | | |
|-----------------------------------|-----------|--|--|-------|--------------|-------|--------------|-------|
| | | | HIVER ET DEMI-SAISON | | | ETE | | |
| | | | PM | HH | HD | HPE | HCE | JA |
| B | TLU | 75,12 | 6,619 | 4,068 | 2,699 | 2,928 | 1,761 | 2,082 |
| EJP | MU | 28,2 | 15,219 | 5,147 | 3,092 | 3,169 | 1,995 | 2,198 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,553 | | | | | |
| Coefficients | TLU | | 1,00 | 0,50 | 0,22 | 0,14 | 0,08 | 0,02 |
| Puissance réduite | MU | | 1,00 | 0,50 | 0,22 | 0,14 | 0,08 | 0,02 |
| COMPTAGE | | | ENERGIE | | ELECTRONIQUE | | K.N.(PMAX-P) | |
| CALCUL | (k3 & k2) | | 0,38 €/kWh | | 2,25 €/kW | | 0,75 €/kW | |
| DEPASSEMENT | | | | | | | | |
| Coefficients par poste | | | 1,00 | 0,50 | 0,22 | 0,14 | 0,08 | 0,02 |
| HIVER | | | : de décembre à février inclus | | | | | |
| DEMI-SAISON | | | : novembre et mars | | | | | |
| ETE | | | : d'avril à octobre inclus | | | | | |
| POINTE MOBILE | | | : 22 périodes de 18h de novembre à mars inclus | | | | | |
| HEURES CREUSES | | | : de 1h à 7h et samedi, dimanche, jours fériés et ponts toute la journée | | | | | |

TARIF VERT B MODULABLE en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | |
|-----------------------------------|---------|--|--|---------|---------------|-------|
| | | | JOUR | SEMAINE | | |
| | | | | PM | HM | DSM | SCM |
| B | TLU | 75,12 | 6,619 | 4,532 | 2,995 | 2,044 |
| MODULABLE | MU | 28,2 | 15,219 | 5,869 | 3,389 | 2,241 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,553 | | | |
| Coefficients | TLU | | 1,00 | 0,50 | 0,28 | 0,11 |
| Puissance réduite | MU | | 1,00 | 0,50 | 0,28 | 0,11 |
| CALCUL | ENERGIE | | ELECTRONIQUE | | K.N. (PMAX-P) | |
| | 0,38 | €/kWh | 2,25 | €/kW | 0,75 | €/kW |
| DEPASSEMENT | | | | | | |
| Coefficients par poste | | | 1,00 | 0,50 | 0,28 | 0,11 |
| HIVER MOBILE | | : 9 semaines | | | | |
| DEMI-SAISON MOBILE | | : 19 semaines | | | | |
| SAISON CREUSE MOBILE | | : 24 semaines | | | | |
| POINTE MOBILE | | : 22 périodes de 18h de novembre à mars inclus | | | | |

| TARIF VERT C BASE en € | |
|------------------------|--|
|------------------------|--|

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | | | | |
|-----------------------------------|------------|--|--|-------|-------|-------------|-------|------------|-------|-------|
| | | | HIVER ET DEMI-SAISON | | | | | ETE | | |
| | | | PTE | HPH | HPD | HCH | HCD | HPE | HCE | JA |
| C UNIFIE | TLU | 55,92 | 5,264 | 4,839 | 3,582 | 3,768 | 2,356 | 2,911 | 1,756 | 2,076 |
| | LU | 36,84 | 7,678 | 6,020 | 3,821 | 3,973 | 2,490 | 2,974 | 1,812 | 2,106 |
| | MU | 21,12 | 10,531 | 7,416 | 4,106 | 4,216 | 2,645 | 3,042 | 1,883 | 2,141 |
| | CU | 9,84 | 14,687 | 9,451 | 4,520 | 4,566 | 2,871 | 3,099 | 1,938 | 2,170 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,402 | | | | | | | |
| Coefficients | TLU | | 1,00 | 0,75 | 0,31 | 0,23 | 0,14 | 0,10 | 0,06 | 0,02 |
| | LU | | 1,00 | 0,75 | 0,31 | 0,23 | 0,14 | 0,10 | 0,06 | 0,02 |
| Puissance réduite | MU | | 1,00 | 0,75 | 0,31 | 0,23 | 0,14 | 0,10 | 0,06 | 0,02 |
| | CU | | 1,00 | 0,76 | 0,33 | 0,25 | 0,18 | 0,14 | 0,09 | 0,05 |
| CALCUL | COMPTAGE | | ELECTRONIQUE | | | KN.(PMAX-P) | | K.(PMAX-P) | | |
| | (k3 k2 k1) | | 1,68 €/kW | | | 0,56 €/kW | | 13,97 €/kW | | |
| DEPASSEMENT | | | | | | | | | | |
| Coefficients par poste | | | 1,00 | 0,75 | 0,31 | 0,23 | 0,14 | 0,10 | 0,06 | 0,02 |
| HIVER | | | : de décembre à février inclus | | | | | | | |
| DEMI-SAISON | | | : novembre et mars | | | | | | | |
| ETE | | | : d'avril à octobre inclus | | | | | | | |
| POINTE | | | : 2h le matin et 2h le soir de décembre à février inclus | | | | | | | |
| HEURES CREUSES | | | : de 1h à 7h et samedi, dimanche, jours fériés et ponts toute la journée | | | | | | | |

TARIF VERT C EJP en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | | |
|---|-----------|--|--|-------|--------------|-------|--------------|-------|
| | | | HIVER ET DEMI-SAISON | | | ETE | | |
| | | | PM | HH | HD | HPE | HCE | JA |
| C UNIFIE | TLU | 55,92 | 6,431 | 4,066 | 2,684 | 2,911 | 1,756 | 2,076 |
| EJP | MU | 21,12 | 12,942 | 4,964 | 2,946 | 3,042 | 1,883 | 2,141 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,402 | | | | | |
| Coefficients | TLU | | 1,00 | 0,50 | 0,17 | 0,10 | 0,06 | 0,02 |
| Puissance réduite | MU | | 1,00 | 0,50 | 0,17 | 0,10 | 0,06 | 0,02 |
| COMPTAGE | | | ENERGIE | | ELECTRONIQUE | | K.N.(PMAX-P) | |
| CALCUL | (k3 & k2) | | 0,29 | €/kWh | 1,68 | €/kW | 0,56 €/kW | |
| DEPASSEMENT | | | | | | | | |
| Coefficients par poste | | | 1,00 | 0,50 | 0,17 | 0,10 | 0,06 | 0,02 |
| HIVER : de décembre à février inclus | | | | | | | | |
| DEMI-SAISON : novembre et mars | | | | | | | | |
| ETE : d'avril à octobre inclus | | | | | | | | |
| POINTE MOBILE : 22 périodes de 18h de novembre à mars inclus | | | | | | | | |
| HEURES CREUSES : de 1h à 7h et samedi, dimanche, jours fériés et ponts toute la journée | | | | | | | | |

TARIF VERT C MODULABLE en €

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | |
|--|-----|--|--|---------|----------------------------|-------|
| | | | JOUR | SEMAINE | | |
| | | | | PM | HM | DSM | SCM |
| C UNIFIE | TLU | 55,92 | 6,431 | 4,546 | 2,974 | 2,038 |
| MODULABLE | MU | 21,12 | 12,942 | 5,637 | 3,259 | 2,146 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,402 | | | |
| Coefficients | TLU | | 1,00 | 0,50 | 0,25 | 0,08 |
| Puissance réduite | MU | | 1,00 | 0,50 | 0,25 | 0,08 |
| CALCUL | | ENERGIE 0,29 €/kWh | ELECTRONIQUE 1,68 €/kW | | K.N. (PMAX-P) 0,56 €/kW | |
| DEPASSEMENT | | | | | | |
| Coefficients par poste | | | 1,00 | 0,50 | 0,25 | 0,08 |
| HIVER MOBILE : 9 semaines | | | | | | |
| DEMI-SAISON MOBILE : 19 semaines | | | | | | |
| SAISON CREUSE MOBILE : 24 semaines | | | | | | |
| POINTE MOBILE : 22 périodes de 18h de novembre à mars inclus | | | | | | |

TARIFICATION A LA PUISSANCE
MAJORATION - MINORATION EN €

| BAREME DU : 12-nov-2001 | TARIF A + TVA 5,5 % | TARIF B + TVA 5,5 % | TARIF C + TVA 5,5 % |
|--|---|---|--|
| MT | ..... ..... | B + en k€ 94,60 €/kW 12,08 | ..... ..... |
| HT | A - €/kW 26,73 A - €/kW 7,52 (BP) | B + en k€ 35,04 (BP) €/kW 8,05 | C + en k€ 262,78 €/kW 10,50 |
| 225 kV | ..... ..... ..... | B - €/kW 14,89 B - €/kW 7,35 (BP) | C + en k€ 122,62 (BP) €/kW 5,25 |
| 400 kV | ..... ..... | ..... ..... | C - €/kW 8,18 |
| - LA PARTIE PROPORTIONNELLE DE LA MAJORATION EST CALCULEE SUR LA PUISSANCE MAXIMALE SOUSCRITE - LA MINORATION EST CALCULEE SUR LA PUISSANCE REDUITE, ELLE EST REDUITE DE 50 % POUR LES COURTES UTILISATIONS. - La tension prise en référence correspond à la tension à laquelle est réputé être alimenté le client : <i>par exemple: B+(BP), client de taille > ou = à 10 MW, alimenté en aval d'un poste source HTB/HTA et ayant participé en capital dans la transformation du poste: le client est réputé être alimenté en HTB.</i> | | | |

TARIF VERT MT en €
(Contrats à la tension en extinction)

| BAREME DU 12/11/01 | | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|--|-----|--|--|--------|-------|-------|-------|
| | | | HIVER | | | ETE | |
| | | | PTE | HPH | HCH | HPE | HCE |
| MT | TLU | 129,84 | 8,477 | 6,490 | 4,792 | 3,005 | 1,957 |
| | LU | 80,28 | 13,258 | 8,296 | 5,440 | 3,169 | 2,073 |
| | MU | 49,32 | 18,933 | 9,878 | 6,080 | 3,396 | 2,230 |
| | CU | 20,04 | 26,871 | 12,753 | 7,442 | 3,615 | 2,394 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 2,111 | | | | |
| Coefficients Puissance réduite | TLU | | 1,00 | 0,76 | 0,31 | 0,15 | 0,06 |
| | LU | | 1,00 | 0,76 | 0,31 | 0,15 | 0,06 |
| | MU | | 1,00 | 0,76 | 0,31 | 0,15 | 0,06 |
| | CU | | 1,00 | 0,77 | 0,33 | 0,18 | 0,08 |
| TARIF APPLICABLE AUX CLIENTS MT INFERIEURS A 10000 kW (contrats MT à la tension) | | | | | | | |
| HIVER | | | : de novembre à mars inclus | | | | |
| ETE | | | : d'avril à octobre inclus | | | | |
| POINTE | | | : 2h le matin et 2h le soir de décembre à février inclus | | | | |
| HEURES CREUSES | | | : 8h par jour et dimanche toute la journée | | | | |

TARIFS D'ACHAT AUX PRODUCTEURS AUTONOMES EN EUROS €

I - TARIF SIMPLIFIE (*) (PRODUCTEURS HYDRAULICIENS livrant en HTA)

| BAREME DU : 12-nov-2001 | COUT DE L'ENERGIE EN cent €/kWh | | | | |
|-------------------------|---------------------------------|--------------|--------------|--------------|--------------|
| | HIVER | | | ETE | |
| | P | HPH | HCH | HPE | HCE |
| TARIF 2 PRIX | 5,147 | | | 2,307 | |
| MAJ. MAX DE QUALITE | 1,165 | | | 0,000 | |
| TARIF 4 PRIX | 6,079 | | 3,751 | 2,643 | 1,801 |
| MAJ. MAX DE QUALITE | 1,650 | | 0,438 | 0,000 | 0,000 |
| TARIF 5 PRIX | 9,324 | 5,430 | 3,751 | 2,643 | 1,801 |
| MAJ. MAX DE QUALITE | 3,883 | 1,203 | 0,438 | 0,000 | 0,000 |

ENERGIE REACTIVE (cent €/par kvarh) **1,754**

Sur instruction des Pouvoirs publics, le seuil d'application du tarif simplifié pour les hydrauliciens est porté de 4500 kW à 8000 kVA.

(*) Ces prix ne s'appliquent pas au contrat N° 97-07 approuvé par le Ministère de l'industrie le 9 octobre 1997.

II - TARIF POUR FOURNITURES PARTIELLEMENT GARANTIES - OPTION BASE

| BAREME DU : 12-nov-2001 | PRIME FIXE ANNUELLE €/kW | COUT DE L'ENERGIE EN cent €/kWh | | | | | | | |
|-------------------------|-----------------------------------|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | P | HPH | HPD | HCH | HCD | HPE | HCE | J/A |
| TARIF A5 MT | 87,48 | 5,258 | 4,120 | .... | 3,240 | .... | 2,592 | 1,766 | .... |
| | | 24% | 45% | | 16% | | 9% | 6% | |
| TARIF A8 | 87,48 | 5,451 | 4,875 | 3,571 | 3,788 | 2,383 | 2,888 | 1,714 | 2,050 |
| | | 22% | 35% | 11% | 11% | 6% | 6% | 7% | 2% |
| TARIF B | 68,52 | 5,104 | 4,685 | 3,462 | 3,639 | 2,274 | 2,811 | 1,691 | 1,999 |
| | | 23% | 38% | 10% | 10% | 5% | 6% | 6% | 2% |

ENERGIE REACTIVE (cent €/par kvarh) : tarif A5 ou A8 : **1,754** tarif B **1,553**

| BAREME DU : 12-nov-2001 | COUT DES kWh DEFAILLANTS EN €/kWh | | | | | | | |
|-------------------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | P | HPH | HPD | HCH | HCD | HPE | HCE | J/A |
| TARIF A5 MT | 0,219 | 0,077 | .... | 0,028 | .... | 0,008 | 0,007 | .... |
| TARIF A8 | 0,247 | 0,117 | 0,040 | 0,028 | 0,022 | 0,008 | 0,010 | 0,003 |
| TARIF B | 0,204 | 0,101 | 0,028 | 0,020 | 0,014 | 0,007 | 0,007 | 0,003 |

TARIFS D'ACHAT AUX PRODUCTEURS AUTONOMES EN EUROS € (suite)

III - TARIF POUR FOURNITURES PARTIELLEMENT GARANTIES - OPTION EJP

| BAREME DU : 12-nov-2001 | PRIME FIXE ANNUELLE €/kW | COUT DE L'ENERGIE EN CENT € PAR kWh | | | | | |
|-------------------------|-----------------------------------|-------------------------------------|--------------|-------------|-------------|-------------|-------------|
| | | PM | HH | HD | HPE | HCE | J/A |
| TARIF A5 | 87,48 | 6,895 52% | 3,465 33% | .... | 2,592 9% | 1,766 6% | .... |
| TARIF A8 | 87,48 | 6,895 52% | 4,031 25% | 2,678 8% | 2,888 6% | 1,714 7% | 2,050 2% |
| TARIF B | 68,52 | 6,354 50% | 3,905 28% | 2,591 8% | 2,811 6% | 1,691 6% | 1,999 2% |

ENERGIE REACTIVE (cent €par kvarh) : tarif A5 ou A8 : 1,754 tarif B 1,553

| BAREME DU : 12-nov-2001 | COUT DES KWH DEFAILLANTS EN €/KWH | | | | | |
|-------------------------|-----------------------------------|-------|-------|-------|-------|-------|
| | PM | HH | HD | HPE | HCE | J/A |
| TARIF A5 | 0,402 | 0,029 | .... | 0,008 | 0,007 | .... |
| TARIF A8 | 0,402 | 0,037 | 0,016 | 0,008 | 0,010 | 0,003 |
| TARIF B | 0,303 | 0,033 | 0,012 | 0,007 | 0,007 | 0,003 |

IV - TARIF POUR FOURNITURES PARTIELLEMENT GARANTIES - OPTION MODULABLE

| BAREME DU : 12-nov-2001 | PRIME FIXE ANNUELLE €/kW | COUT DE L'ENERGIE EN CENT €PAR kWh <i>Part de prime fixe attachée à chaque poste horaire en %</i> | | | |
|-------------------------|-----------------------------------|--|--------------|--------------|--------------|
| | | PM | HM | DSM | SCM |
| TARIF A | 87,48 | 6,895 52% | 4,496 20% | 2,949 16% | 2,015 12% |
| TARIF B | 68,52 | 6,354 50% | 4,351 22% | 2,875 17% | 1,962 11% |

ENERGIE REACTIVE (cent €par kvarh) : tarif A5 ou A8 : 1,754 tarif B 1,553

| BAREME DU : 15-nov-2001 | COUT DES KWH DEFAILLANTS EN €/kWh | | | |
|-------------------------|-----------------------------------|-------|-------|-------|
| | PM | HM | DSM | SCM |
| TARIF A | 0,402 | 0,047 | 0,014 | 0,008 |
| TARIF B | 0,303 | 0,041 | 0,012 | 0,006 |

**TARIFS D'ACHAT AUX PRODUCTEURS AUTONOMES
 LIVRANT EN HTA (Suite)**

V - TARIF SIMPLIFIE (PRODUCTEURS EOLIENS)

| BAREME DU : 12-nov-2001 | COUT DE L'ENERGIE EN cent €/kWh | | | | |
|----------------------------|---------------------------------|--------------|--------------|--------------|--------------|
| | HIVER | | | ETE | |
| | P | HPH | HCH | HPE | HCE |
| TARIF 2 PRIX | 4,553 | | | 2,307 | |
| MAJ. MAX DE QUALITE | 1,747 | | | 0,000 | |
| TARIF 4 PRIX | 5,237 | 3,528 | | 2,643 | 1,801 |
| MAJ. MAX DE QUALITE | 2,474 | 0,657 | | 0,000 | 0,000 |
| TARIF 5 PRIX | 7,344 | 4,816 | 3,528 | 2,643 | 1,801 |
| MAJ. MAX DE QUALITE | 5,824 | 1,804 | 0,657 | 0,000 | 0,000 |

ENERGIE REACTIVE (cent €/par kvarh) : 1,754

Le tarif d'achat simplifié pour producteurs éoliens ne préjuge pas des dispositions particulières prises par les Pouvoirs Publics au titre du soutien à des opérations de recherche-développement ou à des opérations de démonstration relatives à l'énergie éolienne (programme EOLE 2005)

VI - TARIF SIMPLIFIE (PRODUCTION PHOTOVOLTAIQUE inférieure à 10 kWc en BT) (*)

| BAREME DU : 12-nov-01 | COUT DE L'ENERGIE EN cent €/kWh |
|--------------------------|---------------------------------|
| TARIF 1 PRIX | 3,678 |

(*) Ce prix ne s'applique pas au contrat approuvé par le Ministère de l'industrie en décembre 1999

TARIF VERT EN €

DANS LES DEPARTEMENTS D'OUTRE-MER, EN CORSE ET A SAINT PIERRE & MIQUELON

Prix applicables au : **12-nov-2001**

| Département | Version | Prime fixe €/kW/an | Prix de l'énergie en cent €/kWh (*) | | | | | Coefficients de calcul de la puissance réduite | | | | | Energie Réact. |
|--------------------------|---------|-----------------------|-------------------------------------|-------|-------|-------|-------|--|------|------|-------------|-------|----------------|
| | | | Pointe | HP | | HC | | Pointe | HP | HC | (€ €/kvarh) | | |
| MARTINIQUE | LU | 72,36 | 9,535 | 5,311 | | 2,455 | | 1,00 | 0,35 | 0,07 | | 0,867 | |
| | MU | 46,08 | 12,101 | 5,618 | | 2,584 | | 1,00 | 0,35 | 0,07 | | | |
| | CU | 20,40 | 16,621 | 6,158 | | 2,811 | | 1,00 | 0,35 | 0,07 | | | |
| GUADELOUPE | LU | 68,16 | 8,834 | 4,875 | | 2,501 | | 1,00 | 0,29 | 0,09 | | 0,867 | |
| | MU | 36,84 | 12,026 | 5,219 | | 2,714 | | 1,00 | 0,29 | 0,09 | | | |
| | CU | 19,80 | 15,189 | 5,560 | | 2,922 | | 1,00 | 0,29 | 0,09 | | | |
| GUYANE | LU | 81,60 | 6,341 | 4,608 | | 3,038 | | 1,00 | 0,52 | 0,22 | | 0,867 | |
| | MU | 52,92 | 10,029 | 5,522 | | 3,127 | | 1,00 | 0,50 | 0,19 | | | |
| | CU | 19,32 | 15,451 | 6,890 | | 3,790 | | 1,00 | 0,52 | 0,27 | | | |
| CORSE (en extinction) | LU | 90,72 | 10,109 | 5,261 | | 2,996 | | 1,00 | 0,60 | 0,27 | | 1,982 | |
| | MU | 57,24 | 17,426 | 6,374 | | 3,086 | | 1,00 | 0,57 | 0,22 | | | |
| | CU | 18,48 | 25,259 | 8,614 | | 3,774 | | 1,00 | 0,60 | 0,37 | | | |
| ST PIERRE & MIQUELON | LU | 85,44 | 6,912 | 4,571 | | 2,683 | | 1,00 | 0,60 | 0,27 | | 0,867 | |
| | MU | 53,88 | 11,583 | 5,537 | | 2,683 | | 1,00 | 0,57 | 0,22 | | | |
| | CU | 17,40 | 17,475 | 7,484 | | 3,279 | | 1,00 | 0,60 | 0,37 | | | |
| LA REUNION | | | Pointe | HPE | HCE | HPH | HCH | Pointe | HPE | HCE | HPH | HCH | 1,485 |
| | LU | 66,48 | 8,602 | 5,741 | 4,023 | 3,208 | 2,869 | 1,00 | 0,52 | 0,22 | 0,12 | 0,05 | |
| | MU | 37,44 | 11,265 | 6,568 | 4,447 | 3,497 | 3,138 | 1,00 | 0,52 | 0,22 | 0,12 | 0,05 | |
| | CU | 18,84 | 14,468 | 7,565 | 4,958 | 3,844 | 3,461 | 1,00 | 0,52 | 0,22 | 0,12 | 0,05 | |

| | Octroi de mer en cent €/kWh | Structure horosaisonnière | TVA Prime fixe | TVA Energie |
|-------------------------|-----------------------------|--|----------------|-------------|
| MARTINIQUE | 0,190 | - Pointe : 5h/jour (9h-12h30 & 18h-19h30 sauf samedi et dimanche) - Heures Creuses: 8 heures par jour, tous les jours | 2,1% | 8,5% |
| GUADELOUPE | 0,080 | - Pointe : 5h/jour (9h30-12h30 & 18h-20h sauf dimanche) - Heures Creuses: 8 heures par jour, tous les jours | 2,1% | 8,5% |
| GUYANE | 0,000 | - Pointe : 5h/jour (10h30-12h30 & 19h-22h sauf dimanche) - Heures Creuses: 8 heures par jour, tous les jours | 0,0% | 0,0% |
| CORSE | - | - Pointe : de 18h à 22h de novembre à mars - Heures Creuses: 8 heures par jour, tous les jours de 23h à 7 h | 5,5% | 19,6% |
| ST PIERRE & MIQUELON | - | - Pointe : 4 heures par jour, tous les jours - Heures Creuses: 8 heures par jour, tous les jours | - | - |
| LA REUNION | 0,029 | - Pointe : 5h/jour (9h-11h30 & 18h-20h30 sauf samedi et dimanche) - Heures Creuses: 8 heures par jour, tous les jours - Eté : du 1er octobre au 30 avril | 2,1% | 8,5% |

(*) Prix majorés au titre de l'octroi de mer

TARIF JAUNE EN CORSE EN €

| BAREME DU 12-nov-2001 | | PRIME FIXE ANNUELLE €/kVA + TVA 2,1 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 8 % | | | |
|---------------------------------|----|---|---|-------|--------------|-------|
| | | | HIVER (4 mois) | | ETE (8 mois) | |
| | | | HPH | HCH | HPE | HCE |
| JAUNE | UL | 60,24 | 6,722 | 5,243 | 3,642 | 3,395 |
| | UM | 22,08 | 9,575 | 6,814 | 3,947 | 3,663 |
| COEFFICIENT PUISSANCE REDUITE * | | | 0,79 OU 0,37 OU 0,20 | | | |
| CALCUL DES DEPASSEMENTS | | | 12,05 €/HEURE | | | |
| HIVER | | | : de novembre à février inclus | | | |
| ETE | | | : mars à octobre inclus | | | |
| POINTE EN UL | | | : de 18h à 22h de novembre à février inclus | | | |
| HEURES CREUSES | | | : 8h par jour, de 23 h à 7 h tous les jours | | | |

* UL: une seule dénivelée possible en Heures Pleines d'Hiver hors pointe -0,79-,
 en Heures Creuses d' Hiver -0.37- , en Heures Pleines d'Eté -0.20-.

TARIF VERT A5 EN CORSE EN €

| BAREME DU 12-nov-2001 | | PRIME FIXE ANNUELLE €/kVA + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|---|-----|---|--|--------|------------|--------------|-------|
| | | | HIVER (4 mois) | | | ETE (8 mois) | |
| | | | PTE | HPH | HCH | HPE | HCE |
| A5 | TLU | 100,68 | 4,445 | 4,325 | 3,982 | 3,475 | 3,253 |
| | LU | 51,60 | 7,491 | 6,299 | 5,075 | 3,682 | 3,426 |
| | MU | 27,84 | 10,270 | 8,102 | 6,073 | 3,869 | 3,584 |
| | CU | 11,40 | 14,132 | 10,608 | 7,459 | 4,132 | 3,806 |
| ENERGIE REACTIVE (cent €/kvarh) | | | 1,755 | | | | |
| Coefficients Puissance réduite A5 | TLU | | 1,00 | 0,78 | 0,34 | 0,18 | 0,05 |
| | LU | | 1,00 | 0,78 | 0,34 | 0,18 | 0,05 |
| | MU | | 1,00 | 0,78 | 0,34 | 0,18 | 0,05 |
| | CU | | 1,00 | 0,78 | 0,34 | 0,18 | 0,05 |
| CALCUL DEPASSEMENT | | COMPTAGE ELECTRONIQUE | K.N.(PMAX-P) | | K.(PMAX-P) | | |
| | | (k3 k2 k1) | 3,02 €/kW | | 1,01 €/kW | | |
| Coefficients par poste | | | 1,00 | 0,78 | 0,34 | 0,18 | 0,05 |
| TARIF APPLICABLE AUX CLIENTS ALIMENTES EN HTA INFERIEURS A 10000 kW | | | | | | | |
| HIVER | | | : de novembre à février inclus | | | | |
| ETE | | | : de mars à octobre inclus | | | | |
| POINTE | | | : de 18h à 22h de novembre à février inclus | | | | |
| HEURES CREUSES | | | : 8h par jour, de 23h à 7h tous les jours | | | | |

TARIF SIMPLIFIE MAJORE (*) POUR PRODUCTEURS HYDRAULICIENS

Barèmes d'achat dans les DEPARTEMENTS D'OUTRE-MER et en CORSE

Prix applicables au : **12-nov-2001**

| Département | Tarif | Prix de l'énergie (cent €/kWh) | | | | | Majoration maximale de Qualité (cent €/kWh) | | | | | Energie Réact. (c €/kvarh) |
|--------------------------|--------------|----------------------------------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------------------------------|
| | | Pointe | HP | | HC | | Pointe | HP | | HC | | |
| MARTINIQUE | Tarif 1 Prix | 4,758 | | | | | 0,643 | | | | | 0,866 |
| | Tarif 2 Prix | 6,024 | | | 2,226 | | 0,898 | | | 0,134 | | |
| | Tarif 3 Prix | 9,382 | 5,057 | | 2,226 | | 2,810 | 0,347 | | 0,134 | | |
| GUADELOUPE | Tarif 1 Prix | 4,569 | | | | | 0,658 | | | | | 0,866 |
| | Tarif 2 Prix | 5,671 | | | 2,365 | | 0,898 | | | 0,177 | | |
| | Tarif 3 Prix | 8,410 | 4,668 | | 2,365 | | 2,615 | 0,270 | | 0,177 | | |
| GUYANE | Tarif 1 Prix | 4,602 | | | | | 0,506 | | | | | 0,866 |
| | Tarif 2 Prix | 5,285 | | | 3,234 | | 0,593 | | | 0,334 | | |
| | Tarif 3 Prix | 7,030 | 4,647 | | 3,234 | | 1,361 | 0,311 | | 0,334 | | |
| CORSE (en extinction) | Tarif 1 Prix | 5,250 | | | | | 1,232 | | | | | 1,982 |
| | Tarif 2 Prix | 6,202 | | | 3,346 | | 1,349 | | | 0,993 | | |
| | Tarif 3 Prix | 12,848 | 5,436 | | 3,346 | | 2,941 | 0,808 | | 0,993 | | |
| LA REUNION | | Pointe | HPE | HCE | HPH | HCH | Pointe | HPE | HCE | HPH | HCH | 1,485 |
| | Tarif 2 Prix | 5,226 | | | 3,636 | | 0,840 | | | 0,548 | | |
| | Tarif 4 Prix | 5,931 | | 3,815 | 4,084 | 2,741 | 1,075 | | 0,371 | 0,694 | 0,257 | |
| | Tarif 5 Prix | 7,772 | 5,398 | 3,815 | 3,030 | 2,741 | 2,314 | 0,717 | 0,371 | 0,231 | 0,257 | |

Dans les départements d'outre-mer les majorations maximum de qualité sont versées en fonction de la régularité toute l'année.

Les majorations maximum de qualité sont versées en fonction de la régularité du 1er novembre au 31 mars en Corse

(*) Sur instruction des Pouvoirs publics, les tarifs d'achat pour les énergies nouvelles et renouvelables sont calculés sur la base de 98 % du tarif de vente.

TARIF SIMPLIFIE MAJORE (*) POUR PRODUCTEURS EOLIENS en HTA

Barèmes d'achat dans les DEPARTEMENTS D'OUTRE-MER et en CORSE

Prix applicables au : **12-nov-2001**

| Département | Tarif | Prix de l'énergie (cent €/kWh) | | | | Majoration maximale de Qualité (cent €/kWh) | | | | Energie Réact. | | |
|--------------------------|--------------|----------------------------------|-------|-------|-------|---|--------|-------|-------|----------------|-------|-------|
| | | Pointe | HP | HC | | Pointe | HP | | HC | (c €/kvarh) | | |
| MARTINIQUE | Tarif 1 Prix | 4,436 | | | | 0,966 | | | | 0,866 | | |
| | Tarif 2 Prix | 5,574 | | 2,158 | | 1,347 | | 0,202 | | | | |
| | Tarif 3 Prix | 7,977 | 4,883 | | 2,158 | | 4,216 | 0,522 | | | 0,202 | |
| GUADELOUPE | Tarif 1 Prix | 4,240 | | | | 0,987 | | | | 0,866 | | |
| | Tarif 2 Prix | 5,222 | | 2,277 | | 1,346 | | 0,266 | | | | |
| | Tarif 3 Prix | 7,102 | 4,534 | | 2,277 | | 3,922 | 0,404 | | | 0,266 | |
| GUYANE | Tarif 1 Prix | 4,348 | | | | 0,760 | | | | 0,866 | | |
| | Tarif 2 Prix | 4,989 | | 3,067 | | 0,889 | | 0,501 | | | | |
| | Tarif 3 Prix | 6,349 | 4,491 | | 3,067 | | 2,042 | 0,467 | | | 0,501 | |
| CORSE (en extinction) | Tarif 1 Prix | 4,996 | | | | 1,525 | | | | 1,982 | | |
| | Tarif 2 Prix | 5,925 | | 3,140 | | 1,544 | | 1,489 | | | | |
| | Tarif 3 Prix | 11,378 | 5,295 | | 3,140 | | 4,413 | 1,213 | | | 1,489 | |
| ST PIERRE & MIQUELON | Tarif 1 Prix | 4,483 | | | | 0,716 | | | | 0,866 | | |
| | Tarif 2 Prix | 5,314 | | 2,822 | | 0,784 | | 0,580 | | | | |
| | Tarif 3 Prix | 7,347 | 4,637 | | 2,822 | | 1,719 | 0,473 | | | 0,580 | |
| LA REUNION | | Pointe | HPE | HCE | HPH | HCH | Pointe | HPE | HCE | HPH | HCH | 1,485 |
| | Tarif 2 Prix | 4,806 | | | 3,362 | | 1,260 | | | 0,822 | | |
| | Tarif 4 Prix | 5,392 | | 3,630 | 3,737 | 2,613 | 1,613 | | 0,557 | 1,041 | 0,385 | |
| | Tarif 5 Prix | 6,616 | 5,040 | 3,630 | 2,914 | 2,613 | 3,471 | 1,076 | 0,557 | 0,346 | 0,385 | |

Dans les départements d'outre-mer les majorations maximum de qualité sont versées en fonction de la régularité toute l'année.

Les majorations maximum de qualité sont versées en fonction de la régularité du 1er novembre au 31 mars en Corse et toute l'année à St Pierre et Miquelon.

(*) Sur instruction des Pouvoirs publics, les tarifs d'achat pour les énergies nouvelles et renouvelables sont calculés sur la base de 98 % du tarif de vente.

**TARIF POUR FOURNITURES PARTIELLEMENT GARANTIES :
 POUR LES ENERGIES NOUVELLES ET RENOUVELABLES**

Barèmes d'Achat majorés (*) en Corse et dans les Départements d'Outre-Mer

Prix hors taxes applicables au : **12-nov-2001**

| Département | Prime fixe Annuelle €/kW | Coût de l'énergie (cent €/kWh) | | | | Coût de l'énergie réactive | |
|--------------------------|--------------------------------|--|-------|-------|-------|----------------------------------|--------------|
| | | Part de la Prime fixe attachée à chaque poste horaire en % | | | | | |
| | | Coût des kWh défaillants (cent €/kWh) | | | | | |
| | | PTE | HP | | HC | | (c €/kvarh) |
| MARTINIQUE | 112,80 | 6,572 | 4,709 | | 2,091 | | 0,866 |
| | | 65 % | 28 % | | 7 % | | |
| | | 0,281 | 0,112 | | 0,048 | | |
| GUADELOUPE | 115,32 | 5,794 | 4,399 | | 2,188 | | 0,866 |
| | | 71 % | 20 % | | 9 % | | |
| | | 0,255 | 0,102 | | 0,053 | | |
| GUYANE | 88,80 | 5,668 | 4,335 | | 2,900 | | 0,866 |
| | | 48 % | 30 % | | 22 % | | |
| | | 0,186 | 0,103 | | 0,076 | | |
| CORSE (en extinction) | 88,80 | 9,907 | 5,156 | | 2,935 | | 1,982 |
| | | 40 % | 33 % | | 27 % | | |
| | | 0,355 | 0,117 | | 0,080 | | |
| LA REUNION | 125,88 | PTE | HPE | HCE | HPH | HCH | 1,485 |
| | | 5,458 | 4,680 | 3,444 | 2,799 | 2,484 | |
| | | 48 % | 30 % | 10 % | 7 % | 5 % | |
| | | 0,232 | 0,131 | 0,088 | 0,068 | 0,063 | |

(*) sur instruction des Pouvoirs publics, les tarifs d'achat pour les énergies nouvelles et renouvelables sont calculés sur la base de 98% du tarif de vente.

| (1) Ces prix sont à majorer de la T.V.A. au taux de : | | | | | |
|---|------------|------------|--------|-------|------------|
| | MARTINIQUE | GUADELOUPE | GUYANE | CORSE | LA REUNION |
| Prime fixe | 2,1% | 2,1% | 0% | 5,5% | 2,1% |
| Energie | 8,5% | 8,5% | 0% | 19,6% | 8,5% |

TARIF POUR FOURNITURES PARTIELLEMENT GARANTIES :

Barèmes d'Achat en Corse et dans les Départements d'Outre-Mer

Prix hors taxes applicables au : **12-nov-2001**

| Département | Prime fixe | Coût de l'énergie (cent €/kWh) | | | | Coût de l'énergie réactive (c €/kvarh) | |
|--------------------------|------------|--|--------|-------|--------|--|-------|
| | Annuelle | Part de la Prime fixe attachée à chaque poste horaire en % | | | | | |
| | €/kW | Coût des kWh défaillants (cent €/kWh) | | | | | |
| | | PTE | HP | | HC | | |
| MARTINIQUE | 95,76 | 6,370 | 4,565 | | 2,026 | | 0,866 |
| | | 65 % | 28 % | | 7 % | | |
| | | 1,670 | 0,702 | | 0,306 | | |
| GUADELOUPE | 97,80 | 5,62 | 4,264 | | 2,121 | | 0,866 |
| | | 71 % | 20 % | | 9 % | | |
| | | 0,230 | 0,097 | | 0,049 | | |
| GUYANE | 75,36 | 36,04 | 27,571 | | 18,443 | | 0,866 |
| | | 48 % | 30 % | | 22 % | | |
| | | 0,171 | 0,098 | | 0,071 | | |
| CORSE (en extinction) | 75,36 | 9,603 | 4,997 | | 2,845 | | 1,982 |
| | | 40 % | 33 % | | 27 % | | |
| | | 0,324 | 0,112 | | 0,075 | | |
| LA REUNION | 106,80 | PTE | HPE | HCE | HPH | HCH | 1,485 |
| | | 5,290 | 4,538 | 3,339 | 2,713 | 2,408 | |
| | | 48 % | 30 % | 10 % | 7 % | 5 % | |
| | | 0,210 | 0,122 | 0,083 | 0,065 | 0,060 | |

(1) Ces prix sont à majorer de la T.V.A. au taux de :

| | MARTINIQUE | GUADELOUPE | GUYANE | CORSE | LA REUNION |
|-------------------|------------|------------|--------|-------|------------|
| Prime fixe | 2,1% | 2,1% | 0% | 5,5% | 2,1% |
| Energie | 8,5% | 8,5% | 0% | 19,6% | 8,5% |

TARIF SIMPLIFIE MAJORE POUR LES ENERGIES RENOUVELABLES

EN CORSE

1. Barèmes d'achat pour les producteurs hydrauliciens

| BAREME DU 12-nov-2001 | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|-----------------------------|--|--------------|--------------|--------------|--------------|
| | HIVER (4 mois) | | | ETE (8 mois) | |
| | PTE | HPH | HCH | HPE | HCE |
| Tarif 2 Prix | 5,858 | | | 3,333 | |
| Maj. Max de Qualité | 1,712 | | | 0,000 | |
| Tarif 4 Prix | 6,348 | | 4,879 | 3,406 | 3,188 |
| Maj. Max de Qualité | 2,080 | | 0,976 | 0,000 | 0,000 |
| Tarif 5 Prix | 7,130 | 6,087 | 4,879 | 3,406 | 3,188 |
| Maj. Max de Qualité | 2,773 | 1,848 | 0,976 | 0,000 | 0,000 |

ENERGIE REACTIVE (cent € par kvarh) **1,754**

(*) Ces prix ne s'appliquent pas au contrat approuvé par le Ministère de l'industrie

2. Barèmes d'achat pour les producteurs éoliens

| BAREME DU 12-nov-2001 | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|-----------------------------|--|--------------|--------------|--------------|--------------|
| | HIVER (4 mois) | | | ETE (8 mois) | |
| | PTE | HPH | HCH | HPE | HCE |
| Tarif 2 Prix | 5,003 | | | 3,333 | |
| Maj. Max de Qualité | 2,567 | | | 0,000 | |
| Tarif 4 Prix | 5,308 | | 4,391 | 3,406 | 3,188 |
| Maj. Max de Qualité | 3,120 | | 1,463 | 0,000 | 0,000 |
| Tarif 5 Prix | 5,743 | 5,163 | 4,391 | 3,406 | 3,188 |
| Maj. Max de Qualité | 4,160 | 2,773 | 1,463 | 0,000 | 0,000 |

ENERGIE REACTIVE (cent € par kvarh) **1,754**

Les majorations maximum de qualité sont versées en fonction de la régularité du 1er novembre au 28 février.

(*) sur instruction des Pouvoirs publics, les tarifs d'achat pour les énergies nouvelles et renouvelables sont calculés sur la base de 98% du tarif de vente.

(*) Ces prix ne s'appliquent pas au contrat approuvé par le Ministère de l'industrie

TARIF POUR FOURNITURES PARTIELLEMENT GARANTIES :

EN CORSE

1. Barèmes d'Achat majorés (*) pour les énergies renouvelables

| BAREME DU 12-nov-2001 | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|---|--|--|----------------------|----------------------|----------------------|---------------------|
| | | HIVER (4 mois) | | | ETE (8 mois) | |
| | | PTE | HPH | HCH | HPE | HCE |
| Part de prime fixe attachée à chaque poste horaire en % | 98,64 | 4,356 22 % | 4,238 44 % | 3,904 16 % | 3,406 13 % | 3,188 5 % |
| kWh défaillants en €/kW | | 0,207 | 0,165 | 0,121 | 0,077 | 0,070 |
| ENERGIE REACTIVE (cent € par kvarh) | | | 1,754 | | | |

(*) sur instruction des Pouvoirs publics, les tarifs d'achat pour les énergies nouvelles et renouvelables sont calculés sur la base de 98 % du tarif de vente.

2. Barèmes d'Achat pour fournitures partiellement garanties

| BAREME DU 12-nov-2001 | PRIME FIXE ANNUELLE €/kW + TVA 5,5 % | PRIX DE L'ENERGIE (cent €/kWh) + TVA 19,6 % | | | | |
|---|--|--|----------------------|----------------------|----------------------|---------------------|
| | | HIVER (4 mois) | | | ETE (8 mois) | |
| | | PTE | HPH | HCH | HPE | HCE |
| Part de prime fixe attachée à chaque poste horaire en % | 83,64 | 4,223 22 % | 4,109 44 % | 3,783 16 % | 3,302 13 % | 3,091 5 % |
| kWh défaillants en €/kW | | 0,186 | 0,149 | 0,112 | 0,073 | 0,067 |
| ENERGIE REACTIVE (cent € par kvarh) | | | 1,754 | | | |

L'option de base.

Notre conseil

Ce contrat est recommandé si vous utilisez peu d'appareils électriques.

Description

Pour une puissance de 3 à 18 kVA

- Le coût de l'abonnement dépend de la puissance souscrite.

- Le prix du kWh est unique, tout au long de l'année

Tarification de l'option Base

METROPOLE

DOM-TOM

Option Base (Metropole)

| Puissance souscrite (kVA) | Réglage Disjoncteur (A) | Abonnement annuel TTC (Euros) | Prix du kWh TTC (Euros) |
|--------------------------------|-------------------------|-------------------------------|-------------------------|
| 3 (Petites fournitures) | 15 | 23,16 | 0,1258 |
| 6 | 30 | 58,92 | 0,1032 |
| 9 | 45 | 116,23 | |
| 12 | 60 | 166,80 | |
| 15 | 75 | 217,32 | |
| 18 | 90 | 267,84 | |
| 24 | 40 | 447,24 | |
| 30 | 50 | 626,64 | |
| 36 | 60 | 806,04 | |

Option Base (Dom-Tom hors)

| Département | Octroi de mer TTC Pour 1 kWh (Centimes euros) | Abonnement* Petites fournitures TTC (Euros) (3 kVA) | Prix du kWh TTC (Euros) |
|-------------|---|---|----------------------------|
| MARTINIQUE | 0,213 | 11,04 | 0,0961 |
| GUADELOUPE | 0,091 | 10,90 | 0,0947 |
| LA REUNION | 0,03 | 10,84 | 0,0939 |

* Pour une puissance souscrite supérieure à 3 kVA, le prix des abonnements est identique à ceux appliqués en métropole.

| Option Base (Guyane) | | | |
|------------------------------|------------------------|----------|----------------------------|
| Puissance souscrite (kVA) | Abonnement TTC (Euros) | | Prix du kWh TTC (Euros) |
| | Par an | Par mois | |
| 3 (Petites fournitures) | 24,48 | 2,04 | 0,1187 |
| 6 | 62,31 | 5,19 | 0,0973 |
| 9 | 122,83 | 10,24 | |
| 12 | 176,24 | 14,69 | |
| 15 | 229,65 | 19,14 | |
| 18 | 283,05 | 23,59 | |
| 24 | 472,64 | 39,39 | |
| 30 | 662,23 | 55,19 | |
| 36 | 851,83 | 70,99 | |

*N'hésitez pas à demander le "Conseil juste Prix" à votre agence **EDF GDF SERVICES**.*



L'option Heures Creuses.

Notre conseil

Vous disposez :

- d'un chauffage électrique à accumulation
- de machines à laver programmables
- d'un chauffe eau

Profitez des heures creuses proposées par cette option.

Description

Pour une puissance de 6 à 36 kVA :

- Pendant 8 heures par jour, généralement la nuit un prix réduit du kWh.
- Le reste du temps, le même prix du kWh qu'avec l'option de base.
- Un prix d'abonnement un peu plus élevé qu'en option de base.

Tarification de l'option Heures Creuses

METROPOLE

DOM-TOM

Option Heures Creuses (8 heures/jour) en METROPOLE

| Puissance souscrite (kVA) | Réglage Disjoncteur (A) | Abonnement annuel TTC (Euros) | Heures Pleines pour 1 kWh TTC (Euros) | Heures Creuses pour 1 kWh TTC (Euros) |
|---------------------------|-------------------------|-------------------------------|---------------------------------------|---------------------------------------|
| 6 | 30 | 102,24 | 0,1032 | 0,0632 |
| 9 | 45 | 183,48 | | |
| 12 | 60 | 264,72 | | |
| 15 | 75 | 346,08 | | |
| 18 | 90 | 427,32 | | |
| 24 | 40 | 714,48 | | |
| 30 | 50 | 1001,76 | | |
| 36 | 60 | 1288,92 | | |

Option Heures Creuses (Dom-Tom hors)

| Département | Octroi de mer TTC pour 1 kWh (Centimes euros) | Abonnement* Petites fournitures TTC (Euros) (3 kVA) | Prix du kWh TTC (Euros) | |
|-------------------|---|--|----------------------------|---------------|
| | | | H Pleines | H Creuses |
| MARTINIQUE | 0,213 | 11,04 | 0,0961 | 0,0598 |
| GUADELOUPE | 0,091 | 10,90 | 0,0947 | 0,0584 |
| LA REUNION | 0,03 | 10,84 | 0,0939 | 0,0577 |

* Pour une puissance souscrite supérieure à 3 kVA, le prix des abonnements est identique à ceux appliqués en métropole.

Option Heures Creuses (Guyane)

| Puissance souscrite (kVA) | Abonnement TTC (Euros) | | Prix du kWh TTC (Euros) | |
|------------------------------|------------------------|---------------|----------------------------|----------------|
| | Par an | Par mois | Heures Creuses* | Heures Pleines |
| 6 | 108,00 | 9,00 | 0,0596 | 0,0973 |
| 9 | 193,89 | 16,16 | | |
| 12 | 279,79 | 23,32 | | |
| 15 | 365,68 | 30,47 | | |
| 18 | 451,58 | 37,63 | | |
| 24 | 755,10 | 62,93 | | |
| 30 | 1058,63 | 88,22 | | |
| 36 | 1362,15 | 113,51 | | |

* Heures creuses : 8 heures par jour (les horaires figurent sur votre facture).

*N'hésitez pas à demander le "Conseil juste Prix" à votre agence **EDF GDF SERVICES**.*

L'option Tempo. (Tarif indisponible en Corse et dans les DOM-TOM)

| Nos conseils | Description |
|--|--|
| <p>Pour réaliser des économies avec l'option Tempo, nous vous conseillons de :</p> <ul style="list-style-type: none"> - faire installer un gestionnaire d'énergie, qui gèrera automatiquement la mise en route ou l'arrêt des appareils en fonction de la couleur du jour. (prévoir de 300 à 800 € TTC pièce et main d'oeuvre comprise). - réduire au maximum vos consommations pendant les jours rouges, en reportant l'utilisation de certains équipements (lave-linge, sèche-linge, lave-vaisselle), ou en utilisant une autre source d'énergie que l'électricité pour le chauffage et l'eau chaude. | <p>L'option tempo offre des prix du kWh qui varient selon les jours et les heures d'utilisation. Elle s'adresse aux logements dont la puissance souscrite est égale ou supérieure à 9 kVA.</p> <p>L'année tempo commence le 1er septembre et se termine le 31 août de l'année suivante afin de prendre en compte les saisons les plus froides dans une même année de référence.</p> <p>L'année tempo comprend :</p> <ul style="list-style-type: none"> - 300 jours Bleus, dont tous les dimanches, pendant lesquels le prix de l'électricité est avantageux. - 43 jours Blancs où le prix est proche de celui de l'option Heures Creuses. - 22 jours Rouges, où le prix du kWh est plus élevé. Ces jours sont répartis aléatoirement du 1er novembre au 31 mars, sauf week-end et jours fériés. Il ne peut pas y avoir plus de 5 jours rouges consécutifs. <p>Chaque jour comporte des heures pleines et des heures creuses, d'où six niveaux de prix du kWh. Les heures creuses se situent entre 22 h et 6 h, quelle que soit la couleur du jour.</p> <p>L'option tempo est proposée pour un an minimum, et est reconductible tacitement.</p> <p>L'option tempo nécessite l'installation par nos soins :</p> <ul style="list-style-type: none"> - d'un compteur électronique qui vous permettra de programmer votre chauffe-eau, et votre chauffage à condition que votre installateur ait mis en place les circuits de commande nécessaires. - d'un boîtier "signal de veille", grâce auquel vous serez informé chaque jour dès 20 h de la couleur du lendemain. |

| Option Tempo | | | | | | | |
|---------------------------|----------------------------------|----------------------------------|----------------|--------------------------|----------------|--------------------------|----------------|
| Puissance souscrite (kVA) | Abonnement annuel TTC (Euros/an) | Prix de l'énergie TTC (Euro/kWh) | | | | | |
| | | Jours Bleus 300 jours | | Jours Blancs 43 jours | | Jours Rouges 22 jours | |
| | | Heures Creuses | Heures Pleines | Heures Creuses | Heures Pleines | Heures Creuses | Heures Pleines |
| 9 kVA | 157,64 | 0,0439 | 0,0544 | 0,0887 | 0,1050 | 0,1639 | 0,4571 |
| 12-15-18 kVA | 215,90 | | | | | | |
| 24-30 kVA | 397,13 | | | | | | |
| 36 kVA | 533,58 | | | | | | |

Les prix TTC indiqués ont été calculés d'après :

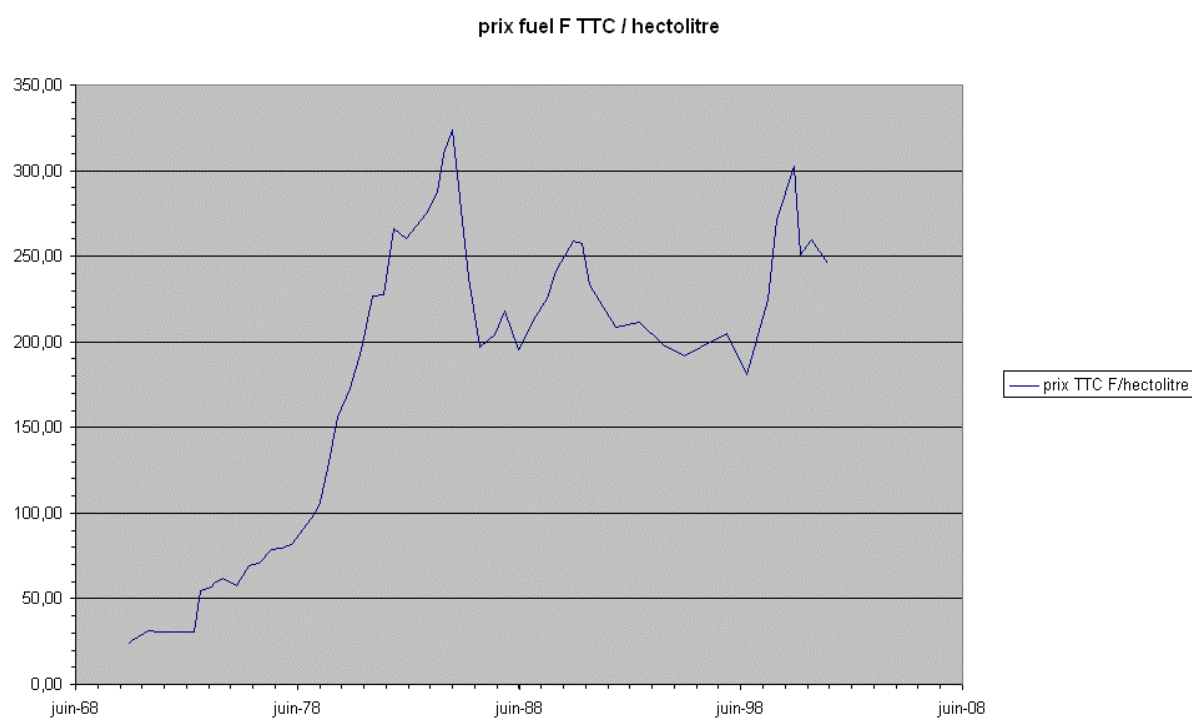
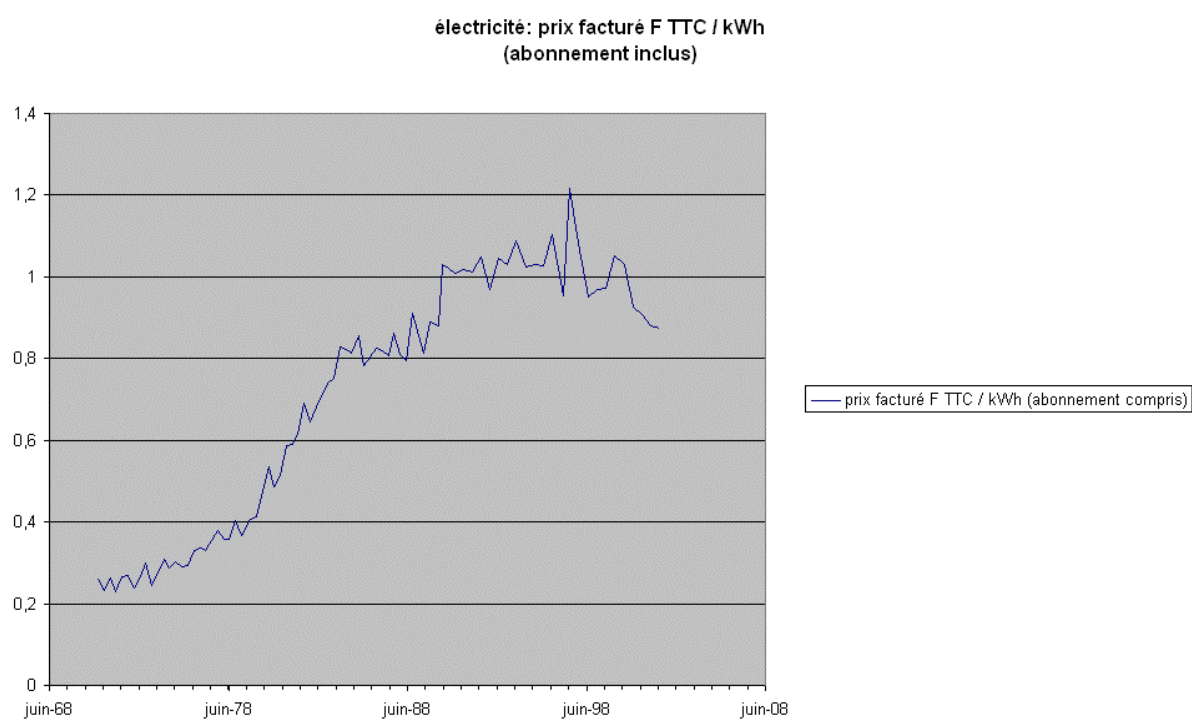
- l'hypothèse des taxes locales suivantes : 4 % pour la taxe départementale et 8 % pour la taxe communale, les taux pratiqués par votre commune sont indiqués sur votre facture. Elles sont calculées sur 80 % du montant total HT de la facture. Ces taxes sont versées aux collectivités locales.
- une TVA de 5,5 % sur le montant de l'abonnement et de 19,6 % sur la consommation. Ces taux ne s'appliquent pas à la Corse.

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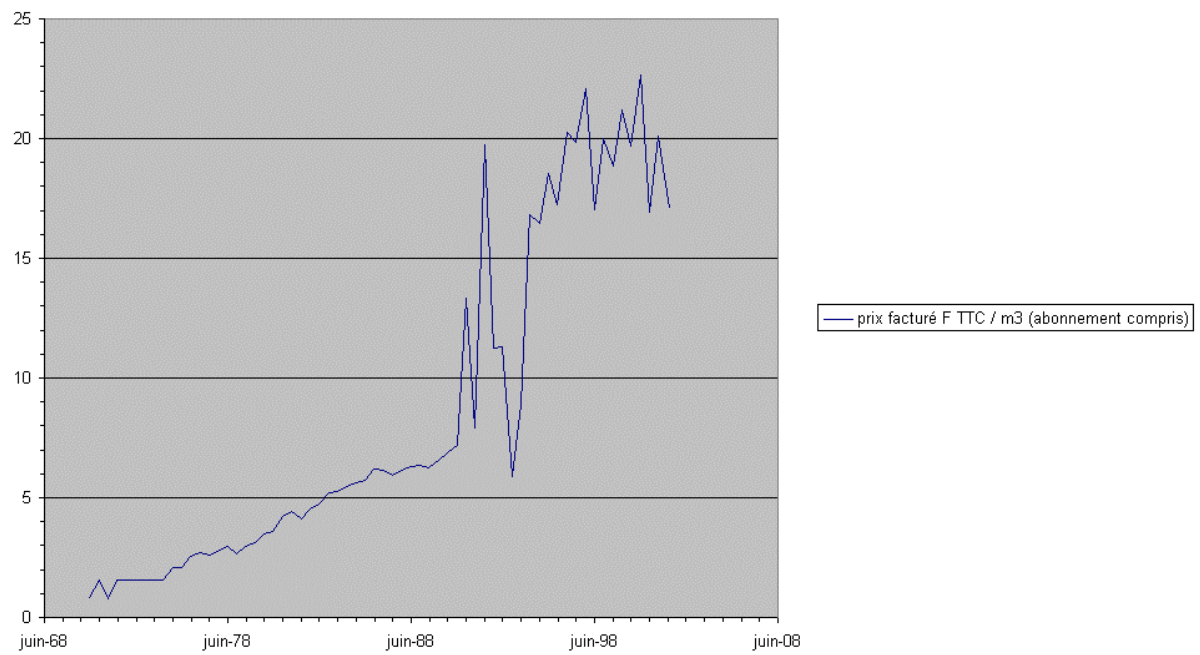
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France

France is one of the world's largest nuclear power producers, but has very limited fossil fuel resources. The 1999 merger of its top two oil companies formed the fourth largest oil company in the world.

The information in this report is the best available as of January 2002 and is subject to change.



BACKGROUND

One of the world's largest economies, France is a founding member of the European Union (EU) and a member of the Group of Seven (G-7) industrialized nations, the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO), the International Energy Agency (IEA), and the International Atomic Energy Agency (IAEA). France joined the common European currency, the euro, on January 1, 1999.

France's economy has had stronger growth than that of many of its neighbors in recent years, having experienced a cyclical upturn since late 1997 that is now winding down. France's economy grew 3.4% in 2000, but growth is estimated to have declined to 2.1% in 2001. France's economy in 2002 will closely track the eurozone as whole, where growth for 2002 is forecast at 1.4%. Euro coins and bills were introduced beginning January 1, 2002, though the French franc has been pegged to the euro since 1999.

Traditionally, the role of the state has been stronger in France than in other Western European countries. France is one of the most centralized countries in Europe with a strong history of state ownership in the aviation, telecommunications, and energy industries. However, the role of the government now is changing. Important economic and political changes in France include widespread privatization and increasingly frequent mergers and acquisitions (M&As) and hostile corporate takeovers, once virtually

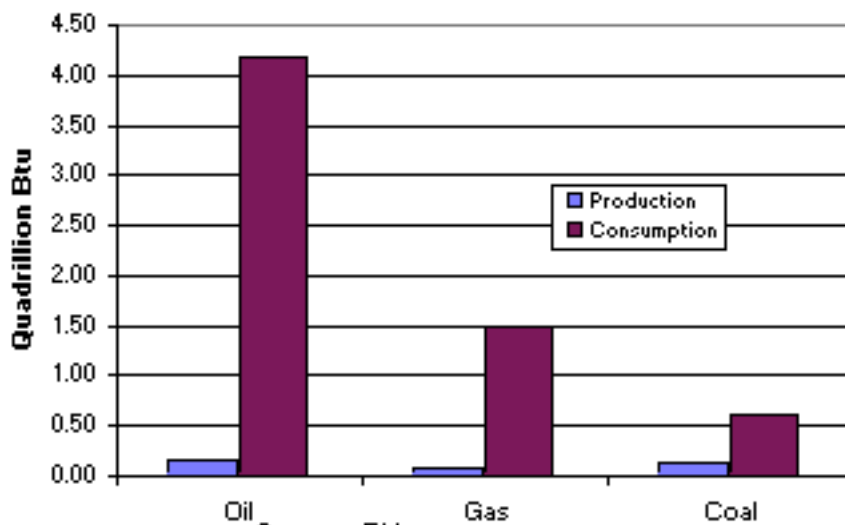
unheard of in France.

International pressures of globalization and more direct pressure from the EU are behind the current trend away from government involvement in industry. The French government is headed by the moderate socialist prime minister, Lionel Jospin, and the Gaullist president, Jacques Chirac, under the French system of governmental "cohabitation." The divided government has moved very slowly toward privatization of the country's energy industry, despite an EU directive that calls for member states to relinquish control of their energy companies to the private sector. This has caused friction between France and other EU members, particularly in regard to acquisitions by Electricite de France (EdF).

ENERGY

French energy policy has been relatively consistent in recent decades, with the main objectives including: securing energy supply, achieving international competitiveness, and protecting the environment. The focus on energy security has led France to become one of the world's top producers and consumers of nuclear power. France's production of primary energy rose by 2.1% in 2000, to about 5.04 quadrillion Btu. France's energy demand rose by 1.1% to about 10.3 quadrillion Btu. However, France's total energy bill rose by 102% in 2000, to 155.2 billion French francs (FFR).

French Fossil Fuel Energy Production and Consumption, 1999 (2000 for Oil)



OIL

About 1.9 million barrels per day (bbl/d) of France's approximate 2 million bbl/d oil consumption are imported. France has reserves totaling only 140 million barrels. Exploration increased in 2000-2001 because of higher oil prices, and France's proven reserves increased in 2000,

though they are still extremely small, and fell slightly in 2001. France's domestic crude oil production comes from numerous wells producing very small amounts of oil. Because of France's limited domestic fossil fuel energy sources, security of supply historically has been a major concern.

Despite France's limited domestic reserves and production, the French oil industry is an important actor in world energy markets. Major oil assets of French oil companies are located in the North Sea, Africa, and Latin America. French imports come primarily from Saudi Arabia and Norway, followed by the United Kingdom (UK), Iraq, Iran, Nigeria, and Russia. In July 2001, the Iraqi government stated that it would reconsider oil projects with French companies and no longer give French companies "priority" due to France's support of the U.S.-British "Smart Sanctions" proposal at the United Nations Security Council. Iraq has letters of intent with TotalFinaElf that would take effect when sanctions are lifted.

In early 1999, French oil company Total merged with Belgian oil company Petrofina to create TotalFina, the world's sixth-largest oil company and the third-largest oil company in Europe. Only months later, TotalFinaElf was formed by TotalFina's acquisition of Elf Aquitaine. After the deal was completed in 2000, TotalFinaElf became the fourth-largest publicly listed oil company in the world, after ExxonMobil, Royal Dutch/Shell, and BP. TotalFinaElf has proven reserves of about 10.8 billion barrels of oil equivalent and production of about 2.1 million bbl/d. TotalFinaElf has very little crude oil production in North America or Asia (outside of the Middle East), unlike the other super majors. The company claims to have raised hydrocarbon output by 6% in 2001 and plans to raise production by 9% in 2002 as major new resources come on stream. TotalFinaElf owns more than 50% of the refinery capacity in France, and is the seventh-largest refiner in the world.

Downstream

France's crude oil refining capacity is 1.9 million bbl/d. The country's largest refinery is TotalFinaElf's refinery at Gonfreville l'Orcher with a capacity of

323,643 bbl/d. Increasingly strict EU environmental regulations for refineries are in large measure behind recent upgrades in the French refining sector. The regulations will become considerably more strict in 2005, and substantial investment in the refining sector will be necessary to meet these new mandatory targets. ExxonMobil has begun adapting its Port Jerome refinery to 2005 EU specifications.

Because oil security has been such a concern for French energy policy-makers, there is a French law allowing the French government to refuse to close a refinery if it believes its supply or price security is at risk. Essentially, this gives the French government veto power over EU legislation regarding refineries. This could become an important issue as the EU's environmental standards are strengthened further.

NATURAL GAS

France has very limited natural gas resources and therefore imports almost all of the natural gas it consumes. Natural gas consumption increased 3.6% in 2000, and the share of natural gas in the French energy market rose to 14.5%. Industry's share of consumption rose from 44% to 48% year-on-year 1999-2000, but household use declined from a 39% share to a 36% share year-on-year 1999-2000.

The French natural gas industry is run by Gaz de France (GdF), the state-held company with a monopoly on importation and distribution of natural gas in France. By 2003, Gaz de France aims to possess sufficient reserves to produce at least 15% of the natural gas it sells. The company's annual production capacity stands at more than 70 billion cubic feet (Bcf). GdF also has the largest underground storage capacity in western Europe, with 318 Bcf, about 3 months supply. In November 2001, the French government decided to privatize the country's natural gas transport network, allowing the operators, GdF and a subsidiary of TotalFinaElf, to purchase it. However, Communist members of parliament blocked the plan in December, though it seems likely that a version will take effect sometime in 2002. France is the only EU country that owns a franchised natural gas network. GdF has increased

substantially its holdings in North Sea natural gas over the past few years, including interests in Norway's Snoehvit and Njord fields. The company acquired holdings in twelve exploration licences in the UK North Sea with an average equity of 21% from Texaco in June 2001. GdF supplies about a fifth of total French consumption from its holdings in France and abroad. Norway is France's top natural gas imports supplier, followed by Russia and Algeria. Natural gas imports from Russia have been declining in recent years, while imports from Algeria have been rising. However, there has been discussion of a new pipeline to connect Russian natural gas to France. The Netherlands is a smaller source of French natural gas imports. GdF also imports liquefied natural gas (LNG) to its two terminals. In addition to long-term contracts, GdF buys natural gas on the spot market or with short-term contracts from the UK's North Sea.

France is the only country in the EU that has not yet enacted any legislation adopting the rules of the EU's 1998 Gas Directive. However, there have been some changes in France's natural gas market since 1998. The EU directive required that 20% of member countries' natural gas markets become competitive. Without a legal basis, GdF nonetheless opened its grid to third-party access in August 2000. About 100 of the country's largest industrial consumers now are able to choose their suppliers. The companies allowed to choose other suppliers and use GdF's network are limited to 20% of the market, the minimum prescribed in the directive. However, no progress has yet been made on plans to change the status of GdF from a wholly-owned state enterprise to a joint stock company, that could then be partially privatized. Because France has been one of the slower countries to pave the way for competition, it has come under harsh criticism from the EU and fellow member countries. In September 2000, the European Commission (EC, the executive body of the EU) sent a formal warning letter to France for failure to notify the EC of national laws enacted to ensure implementation of the 1998 Natural Gas Directive. Although France adopted draft legislation in May 2000, the full national parliament has not yet passed a law to open the market, and is not likely to do so until after the parliamentary and presidential elections in the spring of 2002.

GdF is establishing France as a hub for Western European natural gas. In October 1998, France for the first time became linked via pipeline to a foreign production field. The NorFra pipeline linked Norway's Troll gas field in the North Sea to the French natural gas grid. The pipeline is 840 kilometers (521 miles) long, and is the longest undersea natural gas pipeline in the world. About half of the natural gas from the pipeline will transit through France to points in Italy and Spain, while the other half will be consumed in France. By 2005, the Norwegian pipeline is expected to supply one-third of France's total natural gas consumption. GdF is increasing its trading activities in partnership with Societe Generale, a French Bank. GdF's trading affiliate, Gaselys, carried out 600 transactions in 2000, six times the volume of 1999. GdF has invested abroad heavily, and owns distribution networks in several countries. However, France's lack of liberalization may cause problems with GdF's business in other EU countries. In 2001, Spain's Enagas refused access to its pipelines to GdF on the grounds that there is a "lack of reciprocity with France." In addition, this has prevented GdF from entering partnerships that have cross-ownership with foreign companies, such as Statoil.

GdF is constructing the Les Marches du Nord-Est pipeline in two parts. The first 124-mile part went operational in October 2001, and the second 186-mile part is expected to go operational in October 2002. GdF has signed a 25-year contract with Italy's Snam for delivery of 6 billion cubic meters (Bcm, or 212 Bcf) of Norwegian natural gas through the pipeline. GdF plans to spend \$2.5 billion 2001-2003 on developing its pipeline network and installations in France.

Liquefied Natural Gas

GdF has two liquefied natural gas (LNG) terminals: the 159-Bcf-per-year capacity facility at Fos-sur-Mer near Marseille and the 353-Bcf-per-year capacity facility at Montoir-de-Bretagne, near Nantes. Increasing France's importance as a transit center, GdF receives Nigerian LNG at its Montoir-de-Bretagne terminal that is swapped out to Italy's Enel. The terminal receives 4 Bcm (141 Bcf) annually, 3.5 Bcm (124 Bcf) under the Italian contract and 0.5

Bcm (18 Bcf) under a contract signed by GdF.

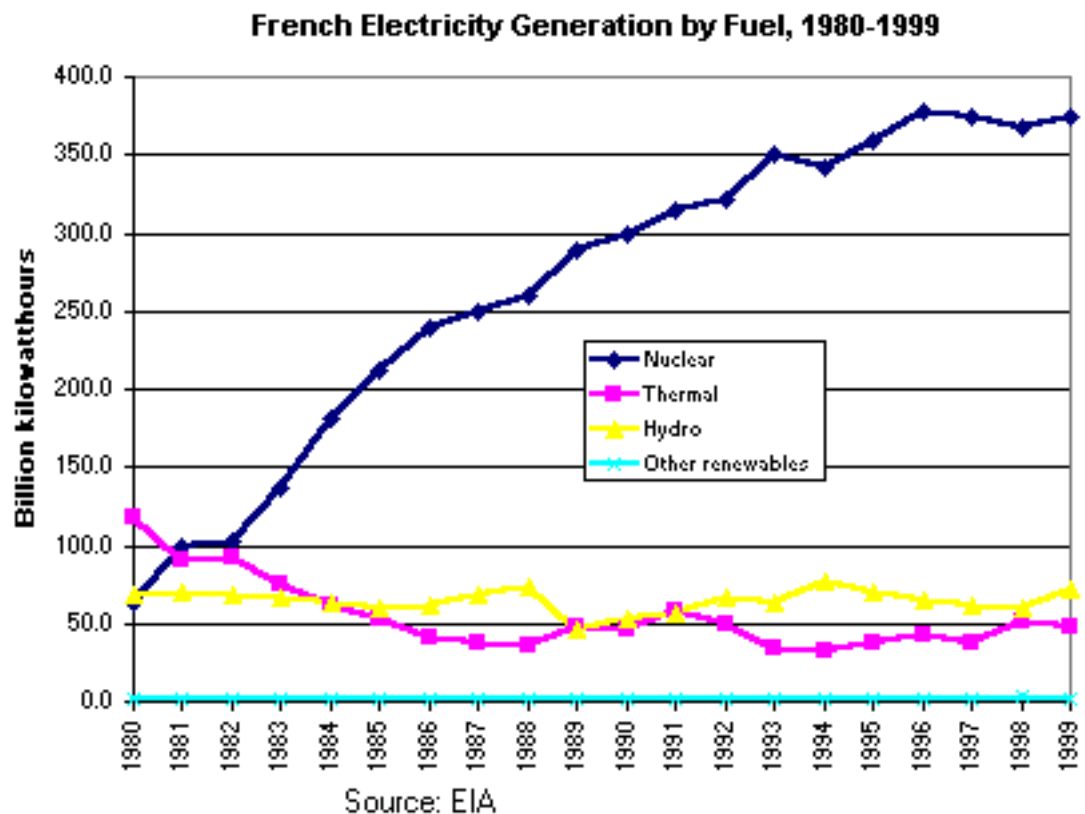
COAL

France has very limited coal reserves and neither produces nor consumes significant amounts of coal. Coal-fired electricity has been mostly replaced by nuclear power. Coal imports come from Australia, the United States, and South Africa.

The French government has supported the coal industry since the 1994 National Coal Pact between Charbonnages de France (CdF), the state coal company, and French coal miners unions. According to the agreement, the industry would receive state support as it gradually phased out the industry all together. All French coal mines are slated to be shut down by 2005. In May 2001, the EC authorized France to pay EUR 991 million in state aid to the coal industry. The number of mine workers is to have been reduced to 2,800 at the end of 2001 and production to just 2.2 million short tons, according to the government's plan.

ELECTRICITY

France is the second-largest electricity market in Europe (behind Germany). France's electricity sector is dominated by the state-held monopolist, Electricite de France (EdF), which produces, transports, and distributes over 95% of electricity in France. EdF is the last major state-run



electricity monopolist in the EU, as most of France's neighbors have privatized their electricity companies. However, there has been partial liberalization of some aspects of France's electricity sector.

A 1996 EU directive required that at least 26% of electricity sales in member countries be opened to competition, beginning in February 1999. This requirement increased to 28% in February 2000 and will increase further to 33% in 2003. In February 2000, a full year after the first EU deadline, France passed legislation that began the electricity sector's liberalization. Since that time, about 1,800 large industrial and commercial consumers (those using more than 16 million kilowatthours per year) comprising about 30% of the market have been able to choose their electricity supplier (although few of these consumers actually have changed suppliers). There has been criticism that the February 2000 law's requirement of three-year contracts is an obstacle to the real establishment of a free market.

Another step toward liberalization has been the creation of the Electricity Transmission Network (Reseau de Transport d'Electricite, RTE) that owns the country's high tension transmission network. RTE's mission is to assure all clients fair access to the network. The single tariff for international electricity transport proposed by RTE was given a positive reception by the European council of energy ministers in May 2001. In addition, an energy regulatory body has been established to oversee the deregulation process. The Commission for the Regulation of Electricity (CRE), which also will oversee natural gas deregulation when the time comes, has four main purposes: (1) advising the government in nearly all matters relating to electricity, (2) the close monitoring of the rules governing the access to the networks and compliance therewith, (3) the auditing of EdF's unbundled accounts, and (4) sanctions against infringements in certain cases, mainly in relation to network access. CRE is gradually taking on more responsibility as liberalization continues.

In late November 2001, the Powernext electricity trading market was launched in France. Powernext auctions standard hourly contracts for physical

delivery of electricity to business customers under responsibility of the RTE and guaranteed by Clearnet, a subsidiary of the Euronext stock exchange. Powernext aims to trade 10% of the French market by 2003-2004, and also to act as a price reference for the electricity market. In an additional liberalizing step, in accordance with the terms of EdF's acquisition of a controlling stake in Germany's EnBW, EdF sold 1200 megawatts (MW) of virtual power capacity to some 20 competitors (generators, traders, etc.), French and foreign, in 2001.

There are currently only two companies of any size in France that may be able to compete on a limited basis with EdF in the future. France's second-largest electricity group is Compagnie Nationale de Rhone (CNR), which produces about 3% of France's electricity, mostly from hydroelectric plants. In August 2001, a company for the commercialization of CNR's production was created by CNR and Electrabel of Belgium that is called Energie du Rhone. It will also market electricity produced by Electrabel. The French government has made EdF divest itself from its small holding in CNR in an effort to liberalize the market. The other producer is SNET, a subsidiary of French coal utility Charbonnages de France. In an effort to get into the French market, ENDESA of Spain has purchased about 30% of SNET. Because of interconnectors, other foreign companies are also attempting to get a foothold in the French electricity market. So far, EnBW (34.5% owned by EdF) and RWE, both of Germany, have attracted a small amount of industrial customers.

EdF has come under criticism and scrutiny from member EU countries, the European Commission (EC), and others on several counts. One is that liberalization around the world, and in the EU in particular, has made many electricity assets available abroad while EdF's assets (which are about 95% of the market) are unavailable. Hence, EdF can purchase foreign companies, but foreign companies cannot purchase assets in France. Another charge is that EdF's status as a state-owned monopoly has made it easier for it to purchase and outbid competitors abroad. EdF allegedly enjoys a lower cost of capital than private-sector rivals and a management that can focus on expansion rather than domestic competitors. In addition, it is alleged that taxpayers

finance the expansion while the company does not have to justify its expansion to shareholders as would be necessary in a private sector company. In June 2001, the EC launched an investigation into EdF to see whether the company has benefitted from illegal state aid such as tax breaks or certain financial guarantees.

In any event, EdF has made many large foreign purchases in the past few years, such that 25% of EdF's 2000 revenues of EUR 34.4 billion came from assets in 19 foreign countries. The contract between the French government and EdF for 2001-2003 plans for EUR 19 billion in purchases abroad by 2005. In response, Spain and Italy passed laws or adopted regulations that make it difficult for EdF to purchase their electricity assets. Spain compromised October by allowing the takeover of part of Hidrocantabrico in return for France increasing the interconnection between the two countries from 1,000 MW to 4,000 MW by 2006. In terms of Italy's law, the EC ruled in June 2001, that capital flows may not be restricted merely because of varying degrees of liberalization. However, the initial privatization sale may be restricted, but such restrictions can only be in place for a limited period, after which the privatized companies can be resold to state-owned companies.

In December 2001, Laurent Fabius, Minister for Finance and the Economy, stated his opposition to a proposed 5% increase in electricity rates by EdF in 2002. EdF raised rates 1% in November 2001.

Nuclear

France is the world's largest nuclear power generator on a per capita basis, and ranks second in total installed nuclear capacity (behind the United States). Because of France's extremely limited domestic energy sources, energy supply security and reliance on imports are major issues in France.

Government policy has promoted a dramatic increase in nuclear power generation over the past three decades. Currently, about 75% of French electricity comes from France's 57 nuclear power plants. This represents a dramatic change from 1973, when fossil fuels accounted for more than 80% of French power generation. The government nuclear regulator is DSIN, and

EdF operates the plants. In July 2001, France and the United States signed an accord to jointly fund U.S.-French research on advanced reactors and fuel cycle development.

France is now seen to be retreating slowly from its staunchly pro-nuclear position. Previously, the government planned to have nuclear power reach 100% of electricity generation. Environmental objections have increased in recent years. Germany's decision to phase out nuclear power started a public debate within France about the future of its own industry, and public opinion polls showed that a growing percentage of the public favors an end to nuclear power.

France now must decide whether to replace obsolete nuclear plants with more modern nuclear plants, or to begin phasing out nuclear power. Since 1997, the ruling government of Prime Minister Jospin has included members of the Green Party, *Les Verts*. The government has generally come to the conclusion that the volume of nuclear capacity exceeds its economically efficient contribution to the electricity market. Nevertheless, costs will fall when plants continue functioning past their 30-year capital amortisation periods, though how much longer they can function past thirty years is an open question.

In July 2001, the reorganization of the French nuclear sector commenced with the nomination of a management committee for a new holding company, Topco, that will preside over the country's major nuclear enterprises. Its nuclear operations will include mining, fuels, treatment, recycling, decontamination and engineering. As part of a restructuring program announced in Nov 2000, CEA-Industrie, Cogema and Framatome announced plans to merge Framatome with a company holding Cogema's stakes in Framatome, Eramet, TotalFinaElf and Cogemap. CEA-Industrie is the holding company for the state's Commissariat à l'Energie Atomique. The capital of the new company - Topco - eventually would be open to industrial partners and the amount of stock available on the market would be increased over time. The EC required this new structure in order to approve the merger of Framatome's nuclear business with that of Siemens of Germany that was

approved in February 2001. EdF divested itself of Framatome, and EdF will now be able to have competitive bidding for nuclear services and supplies that formerly had been exclusively sourced from Framatome.

France is one of the few countries in the world with a nuclear reprocessing plant. Cogema's La Hague facility received authorization from DSIN to start operations of two new facilities, hull and end-pieces compacting and plutonium purification and conditioning, in January 2002.

ENVIRONMENT

In terms of environmental issues, France is noted for using nuclear energy that results in less greenhouse gases, but this creates other environmental concerns. The country's lack of fossil fuel resources, in addition to making France keenly aware of the importance of energy security, paradoxically has made France rely on cleaner energy sources. However, air pollution, especially in Paris, remains a pertinent environmental issue to urban dwellers.

In general, however, most energy-related environmental trends in France appear to be headed for greater efficiency and less environmental impact. The country's rate of energy consumption is holding steady, and France's energy and carbon intensity are on the decline. In addition, France has announced an extensive 10-year plan to curb its carbon emissions in order to meet its commitments under the Kyoto Protocol--one of the first countries to do so.

As part of this plan, France has reiterated its need to develop renewable energy sources to maintain its energy self-sufficiency. Although nuclear energy has helped to provide France with the energy independence the country desires, objections to nuclear energy are increasing. In the 21st century energy efficiency measures in all sectors of the economy likely will be needed in order to make further environmental improvement a realistic proposition.

Sources for this report include: CIA World Factbook; Dow Jones News Wire

service; Economist; Economist Intelligence Unit ViewsWire; Financial Times; Petroleum Economist; Petroleum Intelligence Weekly; U.S. Energy Information Administration; WEFA World Economic Outlook.

COUNTRY OVERVIEW

President: Jacques Chirac (since May 1995)

Prime Minister: Lionel Jospin (since June 1997)

Independence: 486 (unified by Clovis)

Population (July 2001E): 59.6 million

Location/Size: Western Europe, bordering the Bay of Biscay and English Channel, between Belgium and Spain southeast of the UK; bordering the Mediterranean Sea, between Italy and Spain/547,030 sq km (slightly less than twice the size of Colorado)

Language: French 100%, rapidly declining regional dialects and languages (Provençal, Breton, Alsatian, Corsican, Catalan, Basque, Flemish)

Ethnic groups: Celtic and Latin with Teutonic, Slavic, North African, Indochinese, Basque minorities

Religions: Roman Catholic 90%, Protestant 2%, Jewish 1%, Muslim (North African workers) 3%, unaffiliated 4%

Defense (8/98): Army 203,200; Air Force 78,100; Navy 63,300

ECONOMIC OVERVIEW

Economy, Finance, and Industry Minister: Laurent Fabius

Currency: Euro (EUR)

Exchange Rate (1/10/02): 1 U.S. Dollar = EUR 1.12

Gross Domestic Product (GDP, 2001E): \$1.21 trillion

Real GDP Growth Rate (2001E): 2.1% **(2002F):** 1.1%

Inflation Rate (consumer prices, 2001E): 1.7% **(2002F):** 1.3%

Unemployment Rate (2001E): 8.9% **(2002F):** 9.8%

Exports of Goods and Services (2001E): \$294.3 billion

Imports of Goods and Services (2001E): \$295.3 billion

Major Trading Partners: Germany, Italy, Belgium, the United Kingdom, the United States

Major Export Products: Machinery and transport equipment, agricultural

products, chemical products

Major Import Products: Machinery and transport equipment, agricultural products, chemical products, and energy

ENERGY OVERVIEW

Proven Oil Reserves (1/1/02E): 140 million barrels

Oil Production (2001E): 78,000 barrels per day (bbl/d), of which 28,000 bbl/d is crude oil

Oil Consumption (2001E): 2 million bbl/d

Net Oil Imports (2001E): 1.9 million bbl/d

Crude Oil Refining Capacity (1/1/02E): 1.9 million bbl/d

Natural Gas Reserves (1/1/02E): 403 billion cubic feet (Bcf)

Natural Gas Production (1999E): 0.07 trillion cubic feet (Tcf)

Natural Gas Consumption (1999E): 1.35 Tcf

Net Natural Gas Imports (1999E): 1.28 Tcf

Coal Reserves (12/31/96E): 128 million short tons (Mmst)

Coal Production (1999E): 6 Mmst

Coal Consumption (1999E): 26 Mmst

Electric Generation Capacity (1/1/99E): 108 gigawatts

Electricity Generation (1999E): 497 billion kilowatthours (bkwh), 75% nuclear, 14% hydro, 10% thermal, less than 1% other renewables

Electricity Consumption (1999E): 399 bkwh

Net Electricity Exports (1999E): 98 bkwh

ENVIRONMENTAL OVERVIEW

Minister of Regional Development and Environment: Yves Cochet

Total Energy Consumption (1999E): 10.3 quadrillion Btu* (2.7% of world total energy consumption)

Energy-Related Carbon Emissions (1999E): 108.6 million metric tons of carbon (1.7% of world carbon emissions)

Per Capita Energy Consumption (1999E): 173.5 million Btu (vs. U.S. value of 355.8 million Btu)

Per Capita Carbon Emissions (1999E): 1.8 metric tons of carbon (vs. U.S. value of 5.5 metric tons of carbon)

Energy Intensity (1999E): 7,324 Btu/ \$1990 (vs U.S. value of 12,638 Btu/ \$1990)**

Carbon Intensity (1999E): 0.08 metric tons of carbon/thousand \$1990 (vs U.S. value of 0.19 metric tons/thousand \$1990)**

Sectoral Share of Energy Consumption (1998E): Industrial (40.0%), Residential (23.8%), Transportation (20.7%), Commercial (15.5%)

Sectoral Share of Carbon Emissions (1998E): Transportation (38.7%), Industrial (34.4%), Commercial (10.7%), Residential (16.2%)

Fuel Share of Energy Consumption (1999E): Oil (40.8%), Natural Gas (14.5%), Coal (5.9%)

Fuel Share of Carbon Emissions (1999E): Oil (66.4%), Natural Gas (19.7%), Coal (13.9%)

Renewable Energy Consumption (1998E): 1,161 trillion Btu* (2% increase from 1997)

Number of People per Motor Vehicle (1998): 1.9 (vs. U.S. value of 1.3)

Status in Climate Change Negotiations: Annex I country under the United Nations Framework Convention on Climate Change (ratified March 25th, 1994). Signatory to the Kyoto Protocol (April 29th, 1998)- not yet ratified.

Major Environmental Issues: Some forest damage from acid rain; air pollution from industrial and vehicle emissions; water pollution from urban wastes and agricultural runoff.

Major International Environmental Agreements: A party to Conventions on Air Pollution, Air Pollution-Nitrogen Oxides, Air Pollution-Sulphur 85, Air Pollution-Sulphur 94, Air Pollution-Volatile Organic Compounds, Antarctic-Environmental Protocol, Antarctic Treaty, Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping, Marine Life Conservation, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands and Whaling. Has signed, but not ratified: Air Pollution-Persistent Organic Pollutants, Climate Change-Kyoto Protocol.

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International

Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

****GDP based on EIA International Energy Annual 1999.**

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January 2002

France

France is one of the world's largest nuclear power producers, but has very limited fossil fuel resources. The 1999 merger of its top two oil companies formed the fourth largest oil company in the world.

The information in this report is the best available as of January 2002 and is subject to change.

[Background](#)[Energy](#)[Oil](#)[Natural Gas](#)[Coal](#)[Electricity](#)[Environment](#)[Profile](#)[Links](#)[Mailing Lists](#)**BACKGROUND**

One of the world's largest economies, France is a founding member of the [European Union \(EU\)](#) and a member of the Group of Seven (G-7) industrialized nations, the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO), the International Energy Agency (IEA), and the International Atomic Energy Agency (IAEA). France joined the common European currency, the euro, on January 1, 1999. France's economy has had stronger growth than that of many of its neighbors in recent years, having experienced a cyclical upturn since late 1997 that is now winding down. France's economy grew 3.4% in 2000, but growth is estimated to have declined to 2.1% in 2001. France's economy in 2002 will closely track the eurozone as whole, where growth for 2002 is forecast at 1.4%. Euro coins and bills were

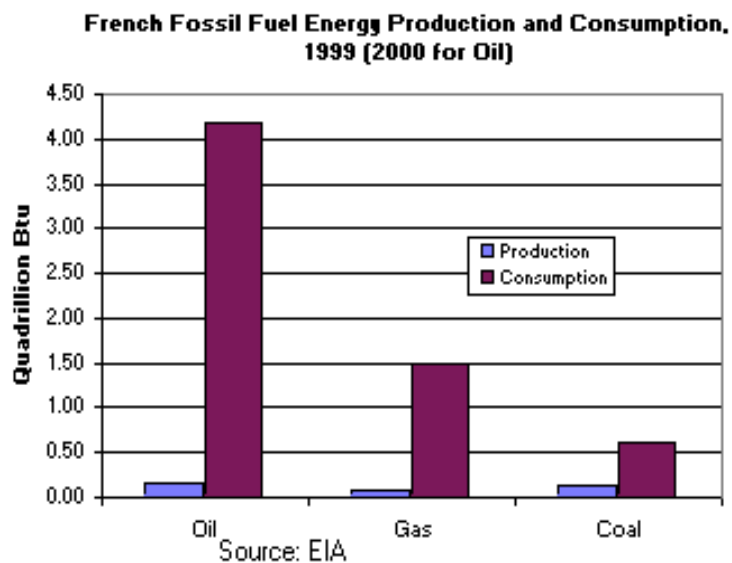
introduced beginning January 1, 2002, though the French franc has been pegged to the euro since 1999.

Traditionally, the role of the state has been stronger in France than in other Western European countries. France is one of the most centralized countries in Europe with a strong history of state ownership in the aviation, telecommunications, and energy industries. However, the role of the government now is changing. Important economic and political changes in France include widespread privatization and increasingly frequent mergers and acquisitions (M&As) and hostile corporate takeovers, once virtually unheard of in France.

International pressures of globalization and more direct pressure from the EU are behind the current trend away from government involvement in industry. The French government is headed by the moderate socialist prime minister, Lionel Jospin, and the Gaullist president, Jacques Chirac, under the French system of governmental "cohabitation." The divided government has moved very slowly toward privatization of the country's energy industry, despite an EU directive that calls for member states to relinquish control of their energy companies to the private sector. This has caused friction between France and other EU members, particularly in regard to acquisitions by Electricite de France (EdF).

ENERGY

French energy policy has been relatively consistent in recent decades, with the main objectives including: securing energy supply, achieving international competitiveness, and protecting the environment. The focus on energy security has led France to become one of the world's top producers and consumers of nuclear power. France's production of primary energy rose by 2.1% in 2000, to about 5.04 quadrillion Btu. France's energy demand rose by 1.1% to about 10.3 quadrillion Btu. However, France's total energy bill rose by 102% in 2000, to 155.2 billion French francs (FFR).



OIL

About 1.9 million barrels per day (bbl/d) of France's approximate 2 million bbl/d oil consumption are imported. France has reserves totaling only 140 million barrels. Exploration increased in 2000-2001 because of higher oil prices, and France's proven reserves increased in 2000, though they are still extremely small, and fell slightly in 2001. France's domestic crude oil production comes from numerous wells producing very small amounts of oil. Because of France's limited domestic fossil fuel energy sources, security of supply historically has been a major concern.

Despite France's limited domestic reserves and production, the French oil industry is an important actor in world energy markets. Major oil assets of French oil companies are located in the North Sea, Africa, and Latin America. French imports come primarily from Saudi Arabia and Norway, followed by the United Kingdom (UK), Iraq, Iran, Nigeria, and Russia. In July 2001, the Iraqi government stated that it would reconsider oil projects with French companies and no longer give French companies "priority" due to France's support of the U.S.-British "Smart Sanctions" proposal at the United Nations Security Council. Iraq has letters of intent with TotalFinaElf that would take effect when sanctions are lifted.

In early 1999, French oil company Total merged with Belgian oil company Petrofina to create TotalFina, the world's sixth-largest oil company and the third-largest oil company in Europe. Only months later, TotalFinaElf was formed by TotalFina's acquisition of Elf Aquitaine. After the deal was completed in 2000, TotalFinaElf became the fourth-largest publicly listed oil company in the world, after ExxonMobil, Royal Dutch/Shell, and BP. TotalFinaElf has proven reserves of about 10.8 billion barrels of oil equivalent and production of about 2.1 million bbl/d. TotalFinaElf has very little crude oil production in North America or Asia (outside of the Middle East), unlike the other super majors. The company claims to have raised hydrocarbon output by 6% in 2001 and plans to raise production by 9% in 2002 as major new resources come on stream. TotalFinaElf owns more than 50% of the refinery capacity in France, and is the seventh-largest refiner in the world.

Downstream

France's crude oil refining capacity is 1.9 million bbl/d. The country's largest refinery is TotalFinaElf's refinery at Gonfreville l'Orcher with a capacity of 323,643 bbl/d. Increasingly strict EU environmental

regulations for refineries are in large measure behind recent upgrades in the French refining sector. The regulations will become considerably more strict in 2005, and substantial investment in the refining sector will be necessary to meet these new mandatory targets. ExxonMobil has begun adapting its Port Jerome refinery to 2005 EU specifications.

Because oil security has been such a concern for French energy policy-makers, there is a French law allowing the French government to refuse to close a refinery if it believes its supply or price security is at risk. Essentially, this gives the French government veto power over EU legislation regarding refineries. This could become an important issue as the EU's environmental standards are strengthened further.

NATURAL GAS

France has very limited natural gas resources and therefore imports almost all of the natural gas it consumes. Natural gas consumption increased 3.6% in 2000, and the share of natural gas in the French energy market rose to 14.5%. Industry's share of consumption rose from 44% to 48% year-on-year 1999-2000, but household use declined from a 39% share to a 36% share year-on-year 1999-2000.

The French natural gas industry is run by Gaz de France (GdF), the state-held company with a monopoly on importation and distribution of natural gas in France. By 2003, Gaz de France aims to possess sufficient reserves to produce at least 15% of the natural gas it sells. The company's annual production capacity stands at more than 70 billion cubic feet (Bcf). GdF also has the largest underground storage capacity in western Europe, with 318 Bcf, about 3 months supply. In November 2001, the French government decided to privatize the country's natural gas transport network, allowing the operators, GdF and a subsidiary of TotalFinaElf, to purchase it. However, Communist members of parliament blocked the plan in December, though it seems likely that a version will take effect sometime in 2002. France is the only EU country that owns a franchised natural gas network. GdF has increased substantially its holdings in North Sea natural gas over the past few years, including interests in Norway's Snoehvit and Njord fields. The company acquired holdings in twelve exploration licences in the UK North Sea with an average equity of 21% from Texaco in June 2001. GdF supplies about a fifth of total French consumption from its holdings in France and abroad. Norway is France's top natural gas imports supplier, followed by Russia and Algeria. Natural gas imports from Russia have been declining in recent years, while imports from Algeria have been rising. However, there has been discussion of a new pipeline to connect Russian natural gas to France. The Netherlands is a smaller source of French natural gas imports. GdF also imports liquefied natural gas (LNG) to its two terminals. In addition to long-term contracts, GdF buys natural gas on the spot market or with short-term contracts from the UK's North Sea.

France is the only country in the EU that has not yet enacted any legislation adopting the rules of the EU's 1998 Gas Directive. However, there have been some changes in France's natural gas market since 1998. The EU directive required that 20% of member countries' natural gas markets become competitive. Without a legal basis, GdF nonetheless opened its grid to third-party access in August 2000. About 100 of the country's largest industrial consumers now are able to choose their suppliers. The companies allowed to choose other suppliers and use GdF's network are limited to 20% of the market, the minimum prescribed in the directive. However, no progress has yet been made on plans to change the status of GdF from a wholly-owned state enterprise to a joint stock company, that could then be partially privatized. Because France has been one of the slower countries to pave the way for competition, it has come under harsh criticism from the EU and fellow member countries. In September 2000, the European Commission (EC, the executive body of the EU) sent a formal warning letter to France for failure to notify the EC of national laws enacted to ensure implementation of the 1998 Natural Gas Directive. Although France adopted draft legislation in May 2000, the full national parliament has not yet passed a law to open the market, and is not likely to do so until after the parliamentary and presidential elections in the spring of 2002.

GdF is establishing France as a hub for Western European natural gas. In October 1998, France for the first time became linked via pipeline to a foreign production field. The NorFra pipeline linked Norway's Troll gas field in the North Sea to the French natural gas grid. The pipeline is 840 kilometers (521 miles) long, and is the longest undersea natural gas pipeline in the world. About half of the natural gas from the pipeline will transit through France to points in Italy and Spain, while the other half will be consumed in France. By

2005, the Norwegian pipeline is expected to supply one-third of France's total natural gas consumption. GdF is increasing its trading activities in partnership with Societe Generale, a French Bank. GdF's trading affiliate, Gaselys, carried out 600 transactions in 2000, six times the volume of 1999. GdF has invested abroad heavily, and owns distribution networks in several countries. However, France's lack of liberalization may cause problems with GdF's business in other EU countries. In 2001, Spain's Enagas refused access to its pipelines to GdF on the grounds that there is a "lack of reciprocity with France." In addition, this has prevented GdF from entering partnerships that have cross-ownership with foreign companies, such as Statoil.

GdF is constructing the Les Marches du Nord-Est pipeline in two parts. The first 124-mile part went operational in October 2001, and the second 186-mile part is expected to go operational in October 2002. GdF has signed a 25-year contract with Italy's Snam for delivery of 6 billion cubic meters (Bcm, or 212 Bcf) of Norwegian natural gas through the pipeline. GdF plans to spend \$2.5 billion 2001-2003 on developing its pipeline network and installations in France.

Liquefied Natural Gas

GdF has two liquefied natural gas (LNG) terminals: the 159-Bcf-per-year capacity facility at Fos-sur-Mer near Marseille and the 353-Bcf-per-year capacity facility at Montoir-de-Bretagne, near Nantes. Increasing France's importance as a transit center, GdF receives Nigerian LNG at its Montoir-de-Bretagne terminal that is swapped out to Italy's Enel. The terminal receives 4 Bcm (141 Bcf) annually, 3.5 Bcm (124 Bcf) under the Italian contract and 0.5 Bcm (18 Bcf) under a contract signed by GdF.

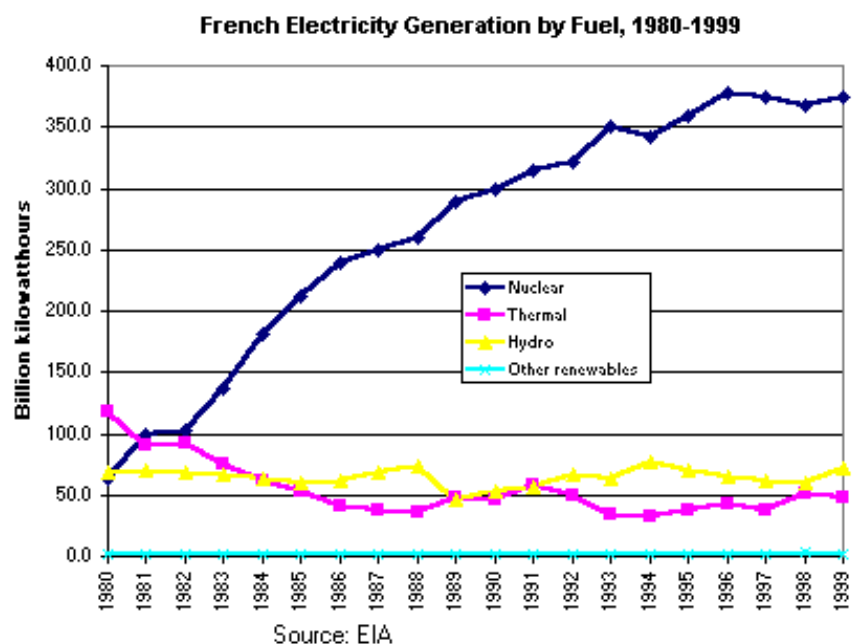
COAL

France has very limited coal reserves and neither produces nor consumes significant amounts of coal. Coal-fired electricity has been mostly replaced by nuclear power. Coal imports come from Australia, the United States, and South Africa.

The French government has supported the coal industry since the 1994 National Coal Pact between Charbonnages de France (CdF), the state coal company, and French coal miners unions. According to the agreement, the industry would receive state support as it gradually phased out the industry all together. All French coal mines are slated to be shut down by 2005. In May 2001, the EC authorized France to pay EUR 991 million in state aid to the coal industry. The number of mine workers is to have been reduced to 2,800 at the end of 2001 and production to just 2.2 million short tons, according to the government's plan.

ELECTRICITY

France is the second-largest electricity market in Europe (behind Germany). France's electricity sector is dominated by the state-held monopolist, Electricite de France (EdF), which produces, transports, and distributes over 95% of electricity in France. EdF is the last major state-run electricity monopolist in the EU, as most of France's neighbors have privatized their electricity companies. However, there has been partial liberalization of some aspects of France's electricity sector.



A 1996 EU directive required that at least 26% of electricity sales in member counties be opened to competition, beginning in February 1999. This requirement increased to 28% in February 2000 and will

increase further to 33% in 2003. In February 2000, a full year after the first EU deadline, France passed legislation that began the electricity sector's liberalization. Since that time, about 1,800 large industrial and commercial consumers (those using more than 16 million kilowatthours per year) comprising about 30% of the market have been able to choose their electricity supplier (although few of these consumers actually have changed suppliers). There has been criticism that the February 2000 law's requirement of three-year contracts is an obstacle to the real establishment of a free market.

Another step toward liberalization has been the creation of the Electricity Transmission Network (Reseau de Transport d'Electricite, RTE) that owns the country's high tension transmission network. RTE's mission is to assure all clients fair access to the network. The single tariff for international electricity transport proposed by RTE was given a positive reception by the European council of energy ministers in May 2001. In addition, an energy regulatory body has been established to oversee the deregulation process. The Commission for the Regulation of Electricity (CRE), which also will oversee natural gas deregulation when the time comes, has four main purposes: (1) advising the government in nearly all matters relating to electricity, (2) the close monitoring of the rules governing the access to the networks and compliance therewith, (3) the auditing of EdF's unbundled accounts, and (4) sanctions against infringements in certain cases, mainly in relation to network access. CRE is gradually taking on more responsibility as liberalization continues.

In late November 2001, the Powernext electricity trading market was launched in France. Powernext auctions standard hourly contracts for physical delivery of electricity to business customers under responsibility of the RTE and guaranteed by Clearnet, a subsidiary of the Euronext stock exchange. Powernext aims to trade 10% of the French market by 2003-2004, and also to act as a price reference for the electricity market. In an additional liberalizing step, in accordance with the terms of EdF's acquisition of a controlling stake in Germany's EnBW, EdF sold 1200 megawatts (MW) of virtual power capacity to some 20 competitors (generators, traders, etc.), French and foreign, in 2001.

There are currently only two companies of any size in France that may be able to compete on a limited basis with EdF in the future. France's second-largest electricity group is Compagnie Nationale de Rhone (CNR), which produces about 3% of France's electricity, mostly from hydroelectric plants. In August 2001, a company for the commercialization of CNR's production was created by CNR and Electrabel of Belgium that is called Energie du Rhone. It will also market electricity produced by Electrabel. The French government has made EdF divest itself from its small holding in CNR in an effort to liberalize the market. The other producer is SNET, a subsidiary of French coal utility Charbonnages de France. In an effort to get into the French market, ENDESA of Spain has purchased about 30% of SNET. Because of interconnectors, other foreign companies are also attempting to get a foothold in the French electricity market. So far, EnBW (34.5% owned by EdF) and RWE, both of Germany, have attracted a small amount of industrial customers.

EdF has come under criticism and scrutiny from member EU countries, the European Commission (EC), and others on several counts. One is that liberalization around the world, and in the EU in particular, has made many electricity assets available abroad while EdF's assets (which are about 95% of the market) are unavailable. Hence, EdF can purchase foreign companies, but foreign companies cannot purchase assets in France. Another charge is that EdF's status as a state-owned monopoly has made it easier for it to purchase and outbid competitors abroad. EdF allegedly enjoys a lower cost of capital than private-sector rivals and a management that can focus on expansion rather than domestic competitors. In addition, it is alleged that taxpayers finance the expansion while the company does not have to justify its expansion to shareholders as would be necessary in a private sector company. In June 2001, the EC launched an investigation into EdF to see whether the company has benefitted from illegal state aid such as tax breaks or certain financial guarantees.

In any event, EdF has made many large foreign purchases in the past few years, such that 25% of EdF's 2000 revenues of EUR 34.4 billion came from assets in 19 foreign countries. The contract between the French government and EdF for 2001-2003 plans for EUR 19 billion in purchases abroad by 2005. In response, Spain and Italy passed laws or adopted regulations that make it difficult for EdF to purchase their

electricity assets. Spain compromised October by allowing the takeover of part of Hidrocantabrico in return for France increasing the interconnection between the two countries from 1,000 MW to 4,000 MW by 2006. In terms of Italy's law, the EC ruled in June 2001, that capital flows may not be restricted merely because of varying degrees of liberalization. However, the initial privatization sale may be restricted, but such restrictions can only be in place for a limited period, after which the privatized companies can be resold to state-owned companies.

In December 2001, Laurent Fabius, Minister for Finance and the Economy, stated his opposition to a proposed 5% increase in electricity rates by EdF in 2002. EdF raised rates 1% in November 2001.

Nuclear

France is the world's largest nuclear power generator on a per capita basis, and ranks second in total installed nuclear capacity (behind the United States). Because of France's extremely limited domestic energy sources, energy supply security and reliance on imports are major issues in France. Government policy has promoted a dramatic increase in nuclear power generation over the past three decades. Currently, about 75% of French electricity comes from France's 57 nuclear power plants. This represents a dramatic change from 1973, when fossil fuels accounted for more than 80% of French power generation. The government nuclear regulator is DSIN, and EdF operates the plants. In July 2001, France and the United States signed an accord to jointly fund U.S.-French research on advanced reactors and fuel cycle development.

France is now seen to be retreating slowly from its staunchly pro-nuclear position. Previously, the government planned to have nuclear power reach 100% of electricity generation. Environmental objections have increased in recent years. Germany's decision to phase out nuclear power started a public debate within France about the future of its own industry, and public opinion polls showed that a growing percentage of the public favors an end to nuclear power.

France now must decide whether to replace obsolete nuclear plants with more modern nuclear plants, or to begin phasing out nuclear power. Since 1997, the ruling government of Prime Minister Jospin has included members of the Green Party, *Les Verts*. The government has generally come to the conclusion that the volume of nuclear capacity exceeds its economically efficient contribution to the electricity market. Nevertheless, costs will fall when plants continue functioning past their 30-year capital amortisation periods, though how much longer they can function past thirty years is an open question.

In July 2001, the reorganization of the French nuclear sector commenced with the nomination of a management committee for a new holding company, Topco, that will preside over the country's major nuclear enterprises. Its nuclear operations will include mining, fuels, treatment, recycling, decontamination and engineering. As part of a restructuring program announced in Nov 2000, CEA-Industrie, Cogema and Framatome announced plans to merge Framatome with a company holding Cogema's stakes in Framatome, Eramet, TotalFinaElf and Cogera. CEA-Industrie is the holding company for the state's Commissariat a l'Energie Atomique. The capital of the new company - Topco - eventually would be open to industrial partners and the amount of stock available on the market would be increased over time. The EC required this new structure in order to approve the merger of Framatome's nuclear business with that of Siemens of Germany that was approved in February 2001. EdF divested itself of Framatome, and EdF will now be able to have competitive bidding for nuclear services and supplies that formerly had been exclusively sourced from Framatome.

France is one the few countries in the world with a nuclear reprocessing plant. Cogema's La Hague facility received authorization from DSIN to start operations of two new facilities, hull and end-pieces compacting and plutonium purification and conditioning, in January 2002.

ENVIRONMENT

In terms of [environmental issues](#), France is noted for using nuclear energy that results in less greenhouse gases, but this creates other environmental concerns. The country's lack of fossil fuel resources, in addition

to making France keenly aware of the importance of energy security, paradoxically has made France rely on cleaner energy sources. However, [air pollution](#), especially in Paris, remains a pertinent environmental issue to urban dwellers.

In general, however, most energy-related environmental trends in France appear to be headed for greater efficiency and less environmental impact. The country's rate of [energy consumption](#) is holding steady, and France's [energy and carbon intensity](#) are on the decline. In addition, France has announced an extensive 10-year plan to curb its [carbon emissions](#) in order to meet its commitments under the Kyoto Protocol—one of the first countries to do so.

As part of this plan, France has reiterated its need to develop [renewable energy sources](#) to maintain its energy self-sufficiency. Although [nuclear energy](#) has helped to provide France with the energy independence the country desires, objections to nuclear energy are increasing. In the [21st century](#) energy efficiency measures in all sectors of the economy likely will be needed in order to make further environmental improvement a realistic proposition.

Sources for this report include: CIA World Factbook; Dow Jones News Wire service; Economist; Economist Intelligence Unit ViewsWire; Financial Times; Petroleum Economist; Petroleum Intelligence Weekly; U.S. Energy Information Administration; WEFA World Economic Outlook.

COUNTRY OVERVIEW

President: Jacques Chirac (since May 1995)

Prime Minister: Lionel Jospin (since June 1997)

Independence: 486 (unified by Clovis)

Population (July 2001E): 59.6 million

Location/Size: Western Europe, bordering the Bay of Biscay and English Channel, between Belgium and Spain southeast of the UK; bordering the Mediterranean Sea, between Italy and Spain/547,030 sq km (slightly less than twice the size of Colorado)

Language: French 100%, rapidly declining regional dialects and languages (Provençal, Breton, Alsatian, Corsican, Catalan, Basque, Flemish)

Ethnic groups: Celtic and Latin with Teutonic, Slavic, North African, Indochinese, Basque minorities

Religions: Roman Catholic 90%, Protestant 2%, Jewish 1%, Muslim (North African workers) 3%, unaffiliated 4%

Defense (8/98): Army 203,200; Air Force 78,100; Navy 63,300

ECONOMIC OVERVIEW

Economy, Finance, and Industry Minister: Laurent Fabius

Currency: Euro (EUR)

Exchange Rate (1/10/02): 1 U.S. Dollar = EUR 1.12

Gross Domestic Product (GDP, 2001E): \$1.21 trillion

Real GDP Growth Rate (2001E): 2.1% **(2002F):** 1.1%

Inflation Rate (consumer prices, 2001E): 1.7% **(2002F):** 1.3%

Unemployment Rate (2001E): 8.9% **(2002F):** 9.8%

Exports of Goods and Services (2001E): \$294.3 billion

Imports of Goods and Services (2001E): \$295.3 billion

Major Trading Partners: Germany, Italy, Belgium, the United Kingdom, the United States

Major Export Products: Machinery and transport equipment, agricultural products, chemical products

Major Import Products: Machinery and transport equipment, agricultural products, chemical products, and energy

ENERGY OVERVIEW

Proven Oil Reserves (1/1/02E): 140 million barrels

Oil Production (2001E): 78,000 barrels per day (bbl/d), of which 28,000 bbl/d is crude oil

Oil Consumption (2001E): 2 million bbl/d

Net Oil Imports (2001E): 1.9 million bbl/d

Crude Oil Refining Capacity (1/1/02E): 1.9 million bbl/d

Natural Gas Reserves (1/1/02E): 403 billion cubic feet (Bcf)

Natural Gas Production (1999E): 0.07 trillion cubic feet (Tcf)

Natural Gas Consumption (1999E): 1.35 Tcf

Net Natural Gas Imports (1999E): 1.28 Tcf

Coal Reserves (12/31/96E): 128 million short tons (Mmst)

Coal Production (1999E): 6 Mmst

Coal Consumption (1999E): 26 Mmst

Electric Generation Capacity (1/1/99E): 108 gigawatts

Electricity Generation (1999E): 497 billion kilowatthours (bkwh), 75% nuclear, 14% hydro, 10% thermal, less than 1% other renewables

Electricity Consumption (1999E): 399 bkwh

Net Electricity Exports (1999E): 98 bkwh

ENVIRONMENTAL OVERVIEW

Minister of Regional Development and Environment: Yves Cochet

Total Energy Consumption (1999E): 10.3 quadrillion Btu* (2.7% of world total energy consumption)

Energy-Related Carbon Emissions (1999E): 108.6 million metric tons of carbon (1.7% of world carbon emissions)

Per Capita Energy Consumption (1999E): 173.5 million Btu (vs. U.S. value of 355.8 million Btu)

Per Capita Carbon Emissions (1999E): 1.8 metric tons of carbon (vs. U.S. value of 5.5 metric tons of carbon)

Energy Intensity (1999E): 7,324 Btu/ \$1990 (vs U.S. value of 12,638 Btu/ \$1990)**

Carbon Intensity (1999E): 0.08 metric tons of carbon/thousand \$1990 (vs U.S. value of 0.19 metric tons/thousand \$1990)**

Sectoral Share of Energy Consumption (1998E): Industrial (40.0%), Residential (23.8%), Transportation (20.7%), Commercial (15.5%)

Sectoral Share of Carbon Emissions (1998E): Transportation (38.7%), Industrial (34.4%), Commercial (10.7%), Residential (16.2%)

Fuel Share of Energy Consumption (1999E): Oil (40.8%), Natural Gas (14.5%), Coal (5.9%)

Fuel Share of Carbon Emissions (1999E): Oil (66.4%), Natural Gas (19.7%), Coal (13.9%)

Renewable Energy Consumption (1998E): 1,161 trillion Btu* (2% increase from 1997)

Number of People per Motor Vehicle (1998): 1.9 (vs. U.S. value of 1.3)

Status in Climate Change Negotiations: Annex I country under the United Nations Framework Convention on Climate Change (ratified March 25th, 1994). Signatory to the Kyoto Protocol (April 29th, 1998)- not yet ratified.

Major Environmental Issues: Some forest damage from acid rain; air pollution from industrial and vehicle emissions; water pollution from urban wastes and agricultural runoff.

Major International Environmental Agreements: A party to Conventions on Air Pollution, Air Pollution-Nitrogen Oxides, Air Pollution-Sulphur 85, Air Pollution-Sulphur 94, Air Pollution-Volatile Organic Compounds, Antarctic-Environmental Protocol, Antarctic Treaty, Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping, Marine Life Conservation, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands and Whaling. Has signed, but not ratified: Air Pollution-Persistent Organic Pollutants, Climate Change-Kyoto Protocol.

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

**GDP based on EIA International Energy Annual 1999.

Links

For more information from EIA on France, please see:

[EIA - Country Information on France](#)

Links to other U.S. Government sites:

[CIA World Factbook - France](#)

[U.S. Department of Energy on French Nuclear Sector](#)

[U.S. State Department Consular Information Sheet - France](#)

[U.S. Department of Commerce Country Commercial Guide - France](#)

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[French Agency for Environment and Energy Management \(ADEME\)](#)

[Gaz de France](#)

[Charbonnages de France](#)

[Electricite de France](#)

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[International Energy Agency on France](#)

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October 2001

Regional Indicators: European Union (EU)

The European Union, with increasingly integrated economies and energy sectors, is the world's second-largest energy consumer (behind the United States). EU members include: [Austria](#), [Belgium](#), [Denmark](#), [Finland](#), [France](#), [Germany](#), [Greece](#), [Ireland](#), [Italy](#), [Luxembourg](#), [the Netherlands](#), [Portugal](#), [Spain](#), [Sweden](#), and the [United Kingdom](#).

Note: Information contained in this report is the best available as of October 2001 and is subject to change.

BACKGROUND

The European Union (EU) was founded as the European Economic Community (EEC) by the Treaty of Rome in 1957 to promote economic and political integration in Europe. The founding of the EEC followed the creation of the European Coal and Steel Community, established after World War II as a means of promoting integration among former enemies. The EEC has expanded from its original six members (Belgium, France, the Federal Republic of Germany, Italy, Luxembourg, and the Netherlands) to include the United Kingdom, Ireland, and Denmark in 1973; Greece in 1981; Spain and Portugal in 1986; and Austria, Finland, and Sweden (former members of the European Free Trade Association) in 1995. The Treaty on European Union (known as the Maastricht Treaty) ushered in a new stage in European history when it entered into force on November 1, 1993. Maastricht renamed the community (now known as the EU), created European citizenship, strengthened the power of the European Parliament, laid out plans for Economic and Monetary Union (EMU), and committed members to negotiate for expansion of the EU to include Central and Eastern European countries. In 2000, EU members were estimated to account for 29% of world economic activity (see [Table 1](#)), a share that remained about constant during the 1990s. The United States has extensive trade relations with the EU. In 2000, 22% of U.S. exports (\$152 billion) went to EU members, and 19% of U.S. imports (\$195 billion) originated in EU countries.



As part of EMU, 11 EU member countries (Belgium, France, Germany, Italy, Spain, Portugal, Finland, Austria, the Netherlands, Ireland and Luxembourg) adopted a new common European currency, called the "euro," on January 1, 1999. The European Central Bank (ECB) is housed in Frankfurt, Germany. This means that a single monetary policy for the 12 participating countries is elaborated at the ECB. Euro banknotes and coins are scheduled to begin circulating in all participating countries no later than January 1, 2002, and the euro is to replace completely all participating countries' national currencies by July 1, 2002. Most countries' banks have already been frontloaded with coins and banknotes, starting in September 2001.

Greece was the only EU member country that applied but was denied entry to EMU at its introduction; in June 2000, Greece's application was accepted and Greece became a member of the euro-zone on January 1, 2001. The

United Kingdom and Denmark opted out and Sweden purposely did not meet requirements. The euro-zone represents about 80% of the EU's GDP. The euro currently functions as a base currency for the currencies of all the countries participating in the euro; they are all fixed to the euro, and although the euro is not used as banknotes or coinage, the euro is the only currency that fluctuates in value with other currencies, including the U.S. dollar. The euro fell in value initially against the dollar, from being worth \$1.18 in January 1999, to about \$1.00 by the end of 1999, and \$0.85 in October 2000, before rising again to \$0.93 in January 2001. Since then, the euro has stabilized at between \$0.93 and \$0.85, being valued most recently at \$0.91.

In 2001, the Treaty of Nice was signed by member governments. This treaty changes the way the institutions of the EU operate in order to make possible the admission of new member states in the future. Central and Eastern European EU applicants expected to join in the next phase of EU expansion include Poland, Hungary, the Czech Republic, Estonia, Slovenia and Cyprus. Some EU members are calling for a target date by which these applicants will be admitted officially. No date has been set, but membership is expected to extend to these six countries by about 2005. Slovakia, Bulgaria, Romania, Latvia, Lithuania, Turkey and Malta also have begun discussions of accession.

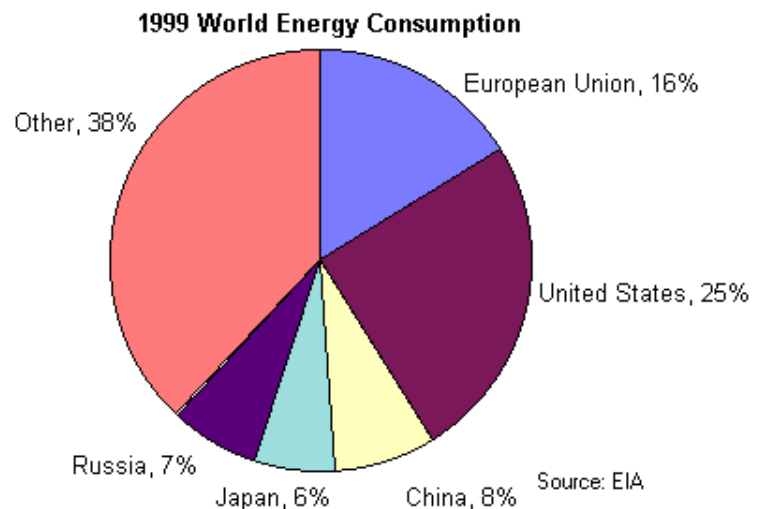
EU legislation has played a significant role in member countries' domestic energy policies. The [EU Directive on Electricity](#) was passed in January 1997 and required members to begin opening up their electricity markets to competition within two years (Greece, Belgium and Ireland were granted waivers). The [EU Natural Gas Directive](#) was passed in June 1998 (Greece, Belgium, and Ireland again were granted waivers), requiring the opening of EU members' gas markets. The Gas Directive has also affected Norway, as it is a member of the European Economic Area (EEA).

ENERGY CONSUMPTION

In 1999, EU countries consumed 62.7 quadrillion British thermal units (Btu) of energy (16% of the world's total) and generated 915 million metric tons of energy-related carbon emissions (15% of the world's total). Oil is the dominant fuel (see [Table 2](#)), accounting for 44% of 1999 total energy consumption in the region, followed by natural gas at 22%. In 1999, EU members consumed about 34% of the world's nuclear power, 18% of the world's oil, 16% of the world's natural gas, and over 10% of the world's coal. Over the past decade, natural gas has been the fastest growing fuel source in the EU, mainly at the expense of coal, whose share has declined sharply. This is in part due to environmental

considerations, but also due to increased availability of natural gas supplies because of pipelines from Algeria, Norway, and Russia. Nuclear power generation has grown only slightly over the past decade. Nuclear power is gradually being phased out in Germany over the next twenty years, so its share of EU energy consumption is likely to drop. Hydroelectric power generation has remained about constant over the past decade. Other "renewables" (geothermal, biomass, solar, wind) doubled between 1992 and 1999, from a relatively small base level. Renewable energy and natural gas are expected to be the two fastest growing fuels in the EU over the next 20 years.

The combined economies of the EU are similar in size to the U.S. economy (\$8.5 trillion gross domestic product for the EU in 2000 and \$10 trillion for the United States), and the EU population of 379 million exceeds the U.S. population of 278 million. However, EU total energy consumption for 1999 of 63 quads is less than the U.S.



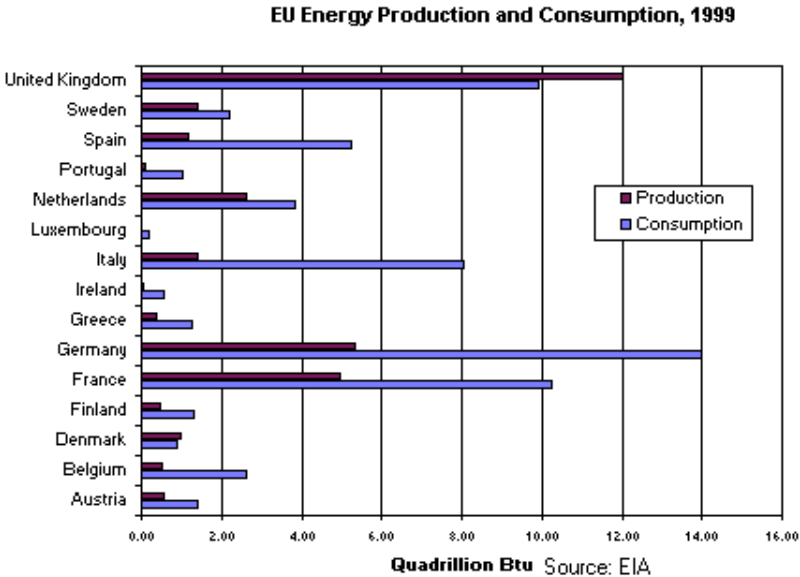
consumption of 97 quads.

ENERGY RESOURCES AND SUPPLY

EU members possess only about 0.7% of the world's proven reserves of oil and 2.2% of the world's natural gas reserves (see [Table 3](#)). However, they have 7.4% of proven coal reserves, 16% of the world's capacity for refining crude oil into petroleum products, and 16% of the world's electric generating capacity. In 1999, they produced 5% of the world's crude oil, 9% of the world's natural gas, and 8% of the world's coal.

IMPORT DEPENDENCY

The EU region is a net importer of energy. In 1999, while the EU's 15 members consumed 16% of the world's energy, they produced only 8%. Import dependency varies by fuel and individual country, with an overall import dependency for the entire EU of around 50%. In 1999, the EU was a net importer of coal (8% of world production in terms of tonnage vs. 11% of consumption in terms of tonnage); natural gas (9% of world production vs. 16% of consumption); and oil (5% of world production vs. 18% of consumption). Germany, Italy, and France are the EU's largest net importers of energy; the United Kingdom is the only significant net exporter. EU oil is imported primarily from Russia, the Persian Gulf region, Norway, and North Africa.



ENERGY USE AND CARBON EMISSIONS

The 15 EU countries collectively emitted 915 million metric tons (Mmt) of carbon from the consumption of fossil fuels in 1999. This accounted for 15% of world carbon emissions in that year. Of the EU countries, Germany emitted the most carbon (230 Mmt), followed by the United Kingdom (152 Mmt), Italy (121 Mmt) and France (109 Mmt). Overall, the EU emitted 2.4 metric tons of carbon per person in 1999, compared to a U.S. average of 5.6 metric tons per person. Under the December 1997 Kyoto Protocol, the EU is obligated to reduce its greenhouse gas emissions 8% from 1990 levels (in that year, the EU emitted 913 Mmt of carbon) by 2008-2012. All EU member states signed the Kyoto Protocol on April 29, 1998. On June 17, 1998, the EU agreed on how it would meet the 8% reduction. Under this agreement, different EU member states are assigned varying degrees of emission cuts, ranging from a 4% increase in the case of Sweden, to a reduction of 28% in the case of Luxembourg, with other countries somewhere in between.

Table 1. Economic and Demographic Indicators for EU Countries

| Table 1. Economic and Demographic Indicators for EU Countries | | | | | |
|---|--|----------------------|-----------------|---------------------------------|------------------------------|
| | Gross Domestic Product (GDP) (purchasing power parity) | | | | Population, 2001E (Millions) |
| | 2000E (Billions of U.S. Dollars) | Real GDP Growth Rate | | Per Capita, 2000E(U.S. Dollars) | |
| | | 2000 Estimate | 2001 Projection | | |
| | | | | | |

| | | | | | |
|-----------------------|------------------|-------------|-------------|-----------------|--------------|
| Austria | \$203 | 3.1% | 2.6% | \$25,000 | 8.2 |
| Belgium | \$259.2 | 4.1% | 2.5% | \$25,300 | 10.3 |
| Denmark | \$136.2 | 2.8% | 2.2% | \$25,500 | 5.4 |
| Finland | \$118.3 | 5.6% | 4% | \$22,900 | 5.2 |
| France | \$1,448 | 3.1% | 2.7% | \$24,400 | 59.6 |
| Germany | \$1,936 | 3% | 2.4% | \$23,400 | 83 |
| Greece | \$181.9 | 3.8% | 3.9% | \$17,200 | 10.6 |
| Ireland | \$81.9 | 9.9% | 8.4% | \$21,600 | 3.8 |
| Italy | \$1,273 | 2.7% | 2.5% | \$22,100 | 57.7 |
| Luxembourg | 15.9 | 5.7% | 5.5% | \$36,400 | 0.4 |
| Netherlands | \$388.4 | 4% | 3.2% | \$24,400 | 16 |
| Portugal | \$159 | 2.7% | 2.8% | \$15,800 | 10 |
| Spain | \$720.8 | 4% | 4.4% | \$18,000 | 40 |
| Sweden | \$197 | 4.3% | 2.8% | \$22,200 | 8.9 |
| United Kingdom | \$1,360 | 3% | 2.4% | \$22,800 | 59.6 |
| Total | \$8,478.6 | 3.3% | 2.8% | \$22,446 | 378.7 |

Source: CIA, WEFA World Economic Outlook.

Table 2. Energy Consumption and Carbon Emissions in EU Countries, 1999

| | Energy Consumption | | | | | | | | Carbon Emissions (Million metric tons) |
|----------------|----------------------------|-----------|-------------|------|---------|---------------|-----------------------------|-------------------------|---|
| | Total (Quadrillion Btu) | Petroleum | Natural Gas | Coal | Nuclear | Hydroelectric | Other Renewable Electricity | Net Electricity Imports | |
| Austria | 1.39 | 39% | 22% | 9% | 0% | 30% | 1% | -1% | 18 |

| | | | | | | | | | |
|-----------------------|--------------|------------|------------|------------|------------|-----------|-----------|-------------|------------|
| Belgium | 2.61 | 46% | 23% | 12% | 18% | 0.1% | 0.4% | 0.3% | 38 |
| Denmark | 0.89 | 53% | 23% | 22% | 0% | 0.03% | 5% | -3% | 17 |
| Finland | 1.31 | 34% | 11% | 11% | 17% | 10% | 8% | 9% | 13 |
| France | 10.26 | 41% | 14% | 6% | 38% | 7% | 0.2% | -6% | 109 |
| Germany | 13.98 | 41% | 21% | 23% | 12% | 1% | 1% | 0.1% | 230 |
| Greece | 1.28 | 63% | 4% | 29% | 0% | 4% | 0.3% | 0.1% | 26 |
| Ireland | 0.56 | 62% | 23% | 12% | 0% | 2% | 0.5% | 0.4% | 10 |
| Italy | 8.04 | 51% | 30% | 6% | 0% | 6% | 1% | 5% | 121 |
| Luxembourg | 0.19 | 49% | 15% | 2% | 0% | 2% | 0.4% | 31% | 2 |
| Netherlands | 3.85 | 45% | 40% | 8% | 1% | 0.03% | 1% | 5% | 64 |
| Portugal | 1.02 | 68% | 8% | 15% | 0% | 7% | 1% | -1% | 17 |
| Spain | 5.23 | 57% | 11% | 14% | 11% | 5% | 1% | 1% | 82 |
| Sweden | 2.20 | 34% | 1% | 4% | 30% | 33% | 1% | -4% | 16 |
| United Kingdom | 9.92 | 35% | 35% | 16% | 11% | 1% | 1% | % | 152 |
| Total | 62.73 | 44% | 22% | 13% | 14% | 5% | 1% | 0.4% | 915 |

Source: Energy Information Administration *Note: Percentages may not add to 100% due to independent rounding.*

Table 3. Energy Supply Indicators--EU Countries

| | Fossil Fuel Proved Reserves | | | Fossil Fuel Production, 1999 | | | Electric Generating Capacity, 1/1/99 (Million kilowatts) | Crude Oil Refining Capacity, 1/1/01 (Thousand barrels/day) |
|--|-------------------------------------|---|---------------------------|---|-----------------------------------|---------------------------|--|--|
| | Crude Oil, 1/1/01 (Million barrels) | Natural Gas, 1/1/01 (Trillion cubic feet) | Coal (Billion short tons) | Oil (Crude, liquids, and processing gain; Thousand barrels/day) | Natural Gas (Trillion cubic feet) | Coal (Million short tons) | | |

| | | | | | | | | |
|--------------------|--------------|--------------|-------------|--------------|------------|--------------|------------|---------------|
| Austria | 86 | 0.9 | 0.0 | 21 | 0.1 | 1.3 | 14 | 209 |
| Belgium | 0 | 0.0 | 0.0 | 12 | 0.0 | 0.4 | 13 | 768 |
| Denmark | 1,069 | 3.4 | 0.0 | 304 | 0.3 | 0.0 | 13 | 176 |
| Finland | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 16 | 200 |
| France | 145 | 0.5 | 0.1 | 80 | 0.1 | 6.3 | 108 | 1,895 |
| Germany | 380 | 11.5 | 73.9 | 132 | 0.8 | 226.1 | 108 | 2,259 |
| Greece | 10 | 0.0 | 3.2 | 4 | 0.0 | 67.2 | 9 | 407 |
| Ireland | 0 | 0.7 | 0.0 | 1 | 0.0 | 0.0 | 4 | 71 |
| Italy | 622 | 8.1 | 0.0 | 147 | 0.6 | 0.0 | 66 | 2,359 |
| Luxembourg | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0 |
| Netherlands | 107 | 62.5 | 0.5 | 114 | 2.6 | 0.0 | 14 | 1,204 |
| Portugal | 0 | 0.0 | 0.0 | 2 | 0.0 | 0.0 | 10 | 304 |
| Spain | 21 | 0.0 | 0.7 | 20 | 0.0 | 26.7 | 45 | 1,294 |
| Sweden | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 33 | 423 |
| U.K. | 5,003 | 26.8 | 1.7 | 2,967 | 3.5 | 40.9 | 70 | 1,771 |
| Total | 7,443 | 114.4 | 80.1 | 3,804 | 8.0 | 368.9 | 523 | 13,340 |

Sources: Energy Information Administration, *Oil & Gas Journal*.

Sources for this report include: Energy Information Administration, International Energy Agency; European Union; Oil and Gas Journal.

LINKS

Links to other U.S. government sites:

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United States Energy Information Administration

May 2000

France: Environmental Issues

Introduction

After being hard hit by the oil shocks of the 1970s, France dedicated itself to attaining energy independence and improving its environment. With few fossil energy resources and only small opportunities for increasing electricity generation using hydropower, however, France imported almost all of the oil and gas it used at that time. Since the late 1970s, however, and despite its lack of fossil fuel resources, France has reduced its energy import dependence, largely by developing and expanding its domestic nuclear power program.

In addition to reducing energy imports, France's nuclear program has become a critical component of the country's environmental protection efforts, which began in earnest with the establishment of the French Ministry of the Environment in 1971. By developing and enhancing nuclear energy options, France has been able to adhere to the goals stated in the Environment Ministry's mission: monitor the environment, protect nature, prevent, reduce, or totally eliminate pollution and other nuisances, and enhance the quality of life. The Ministry has carried out its mission in two main ways -- by preserving and protecting spaces and species, and by developing research to improve environmental knowledge.

In addition to the use of nuclear energy, which has reduced pollution from carbon emissions and other greenhouse gases, significant efforts by the French government to improve energy efficiency and promote conservation have resulted in a relatively low level of energy intensity. However, while the overall trends have been very positive for France's environment, several recent events have had negative impacts and resulted in significant environmental damage.

Recent Problems

Erika Oil Spill

On December 12, 1999, the Maltese-registered oil tanker *Erika* broke in two and sank in stormy seas off the Brittany coast of France, spilling nearly 90,000 barrels of heavy oil into the Bay of Biscay. Although the oil spill occurred over 50 miles from shore, stormy weather and easterly winds conspired against cleanup efforts, and on Christmas Day part of the 14-mile oil slick began washing up on the French coastline, killing tens of thousands of birds and endangering fishing grounds, and eventually covering a 250-mile stretch of coastline. Total Fina Elf, the French-Belgian oil company that chartered the *Erika* from an Italian management company, at first pledged \$85 million to clean up the spill, then vowed to make a larger financial contribution, as well as agreeing to fund directly the pumping of some 150,000 barrels of fuel oil remaining in the sunken hull of the ship. France also sought emergency funds from the European Union to clean up the pollution, as well as funding for a European oil spill monitoring service.



In response to the *Erika* disaster--which occurred because of corrosion in a bulkhead, creating structural weakness that caused the ship to break in two--the European Parliament passed a resolution urging member states to impose tougher shipping laws. French President Jacques Chirac has called for stricter ship inspections, and the French government has vowed to make shippers pay for damage caused by their products--France is likely to push this agenda when it holds the rotating presidency of the EU during the second half of 2000. Chirac also called for tougher controls on ships flying so-called "flags of convenience" from countries with less stringent environmental legislation and regulation.

Natural Disasters: Storms

Unfortunately for France, environmental damage from the *Erika* spill was exacerbated by a series of storms that ripped through France in late December 1999. In addition to hindering cleanup of oil along the coastline, the unprecedented storms devastated large parts of France, destroying between 260 million and 300 million trees and causing major damage to Electricité de France's transmission system, which left 3.4 million customers without power for up to several days. Officials have estimated that the total cost of the storms could run to \$12 billion.

Nitrate-Polluted Water

The European Union recently began legal proceedings against France for failure to respect EU

environmental protection laws. France was admonished for "non-respect" of the EU's Nitrates Directive, which aims to curb the introduction of excessive levels of nitrates into surface waters, groundwater, and marine waters from fertilizers and waste. Excessive nitrate levels cause harmful algal blooms and have adverse public health implications. The EU cited France for failing to identify nitrate-polluted or threatened waters in accordance with the criteria set down in the Directive, noting that France has not chosen to apply the Directive throughout its territory, instead designating specific vulnerable zones.

Air Pollution

Pollution from transportation has become the main cause of air pollution in France. According to a European Commission report, over 50% of emissions of polluting agents such as nitrogen oxides (NOx) or carbon monoxide come from road transport vehicles. A European Commission survey found that 70% of Europeans were more worried in 1999 than they were in 1994 about air quality. In addition, the survey found that air pollution was at the top of Europeans' list of environmental concerns, with traffic being blamed as the number one culprit.

In Paris, about 3 million cars enter the capital daily, and the resulting smog that engulfs the city causes health problems like asthma and chronic coughing, filling emergency rooms with people suffering from bronchial ailments. The French tourist industry is becoming worried that visitors to Paris will depart with memories of clogged streets, hazy skies, and pictures of the Eiffel Tower shrouded in smoke. France is also the biggest emitter of dioxins in Europe.

To control its air pollution problem, the French Environment and Energy Control Agency (ADEME) is attempting to equip the country with a monitoring system that meets the requirements of the national Air Pollution Act. The International Energy Agency (IEA) has recommended that France increase its air quality monitoring and emission reduction efforts, as well as formulate and implement measures to enhance the use of environmentally sound fuels in order to tackle urban pollution problems. In addition to supporting investments to clean up industrial processes, ADEME is stepping up its work in the transport sector, attempting to change individuals' behavior by encouraging the use of public transport.

In that vein, European Car-Free Day is scheduled for September 22, 2000. Environmentalists are hoping this "day without cars," which is being held for the third time, will force drivers to think about pollution and their role in creating it. On September 22, 1999, 66 French towns (almost twice as many as in 1998) participated in the car-free day. In areas where air quality was monitored, pollution directly linked to automobile traffic dropped considerably--between 20 and 50% depending on the pollutants and the towns.

In addition, in July 1999 BP Amoco announced the introduction of a range of cleaner fuels for motorists in the Paris region, which should lead to a significant reduction in automobile and transport emissions. The new Ultra Low Sulfur Diesel (ULSD), which was launched in Paris in September 1999, reduces emissions by 90% on all diesel vehicles, without any detrimental impact on performance and at no extra cost. BP claims that ULSD also reduces other emissions substantially and enables new particulate reduction technology to be fitted on buses and other

transport vehicles

Energy Consumption

France's total energy consumption in 1998 was 10 quadrillion Btu, 2.6% of the world's total energy consumption. After holding steady for most of the 1980s, French energy consumption, which was 8.5 quads in 1980, rose significantly in the early 1990s. (The upward trend now has slowed.) Even with this increase, 1998 per capita energy consumption in France, at 170 million Btu, was less than half the level of the United States (350.7 million Btu per capita energy consumption).

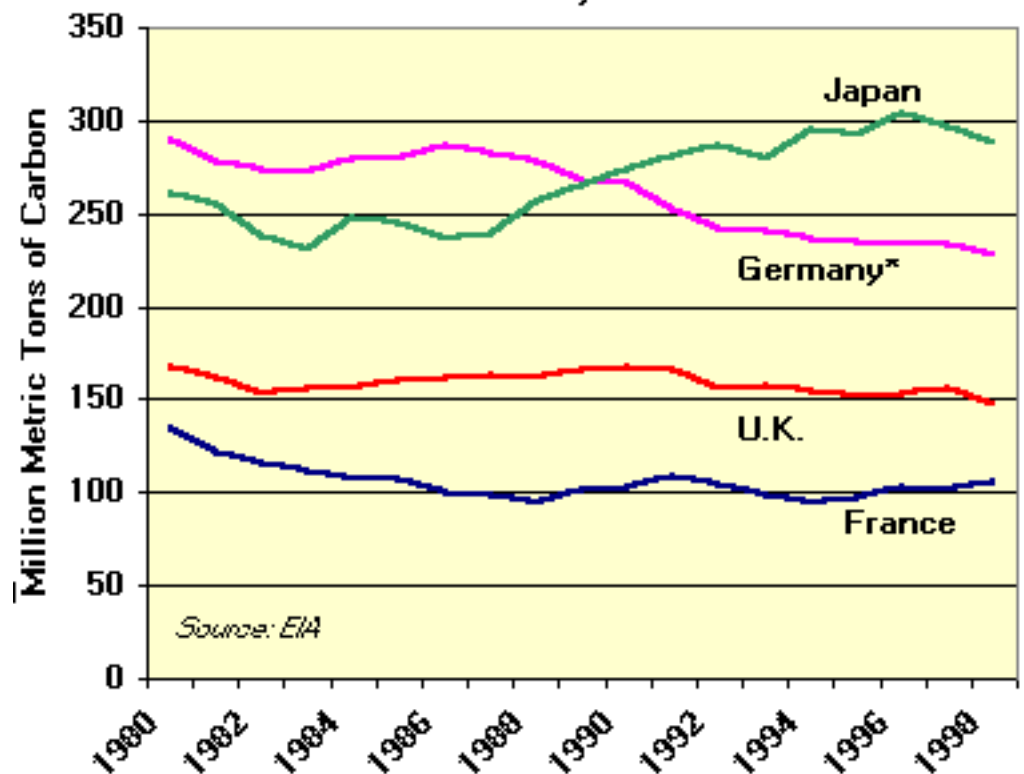
Industrial consumption accounted for 40.3% of France's total energy consumption in 1997, with residential at 23.8%, transportation at 20.3%, and commercial at 15.6%. The transportation sector increase its overall energy consumption by 3.5% in 1998, following a 2.4% boost in 1997, and transportation may soon overtake residential as the number two energy-consuming sector in France.

On January 19th, the French government released its plan to discourage consumption of fossil fuels while relaunching France's energy management policy. The program seeks to discourage consumption through the use of ecological tax measures, targeting corporations as well as individuals by taxing polluting behavior while rewarding "ecologically useful conduct" with reductions in the value-added tax.

Carbon and Energy-Related Emissions

In 1998, France emitted 106.6 million metric tons of carbon compared to 147.4 million metric tons of carbon in the United Kingdom, 227.5 million metric tons in Germany, 288.5 million in Japan, and 1,494.6 million in the United States. The 4.7% increase in France's carbon emissions between 1997 and 1998--partly in response to a decline in production of nuclear and hydropower (which emit no carbon), forcing the country to rely on more imported oil and gas--confirmed the government's view that the nuclear option is unavoidable if the country is to meet its international

Energy-Related Carbon Emissions, 1980-1998



*Germany data includes statistics for East and West Germany until 1990, unified Germany from 1991-1998

environmental obligations. Over the past 20 years, France's nuclear energy program has allowed the power sector to reduce its carbon dioxide emissions per kilowatt-hour by a factor of nine. Additionally, the country's per capita carbon emissions (1.8 metric tons of carbon) are substantially lower than in other developed countries (for example, carbon emissions in the United States in 1998 were 5.5 metric tons of carbon per capita) due to France's preferred use of nuclear power rather than fossil fuels for energy.

Under the Kyoto Protocol, France is an Annex I country and has pledged to reduce its carbon emissions to 1990 levels (a 0% change from 1990). Although France has not yet ratified the Protocol, in January 2000 the French government unveiled an extensive and detailed plan for the next ten years to curb carbon emissions. France was the first country to announce such measures to meet its commitments under Kyoto. The 96-point plan includes a carbon tax, which will take effect in 2001 at \$23 to \$30 per metric ton of carbon emitted, rising to about \$75 by 2010. The tax will be applied to the General Tax on Polluting Activities, an ecology tax that was introduced in 1999, which will be gradually extended to energy consumption by businesses and by electricity producers.

According to the Inter-Ministerial Greenhouse Effect Mission, the government body which drew up the January 2000 program, the plan was necessary for France to meet its obligations under the climate change protocol. Although France is currently emitting carbon levels slightly above the country's 1990 level, increased economic activity and energy consumption have threatened to increase France's carbon emissions even more. Thus, the recently announced program became necessary so that France would avoid that increase in emissions in its attempt to maintain 1990 emissions levels.

An independent report has stated that most of the burden of reducing France's greenhouse gas emissions will fall onto French industry, even though it is responsible for only 34% of total French emissions. The report notes that, in order to meet Kyoto commitments, French industry will need to make a 20%-30% emission reduction. In comparison, the January 2000 program aims to stabilize (at 40 million tons) by 2020 carbon emissions from the transportation sector, which accounts for 39% of France's carbon emissions.

In conjunction with the announcement of measures to meet its Kyoto commitments, France also stated that it is ready to consider tradable carbon emission permits in an international context that includes stringent regulation. The government has set guidelines for creating a market in carbon, involving industries that are large energy consumers and that sign a voluntary agreement to limit emissions of greenhouse gases.

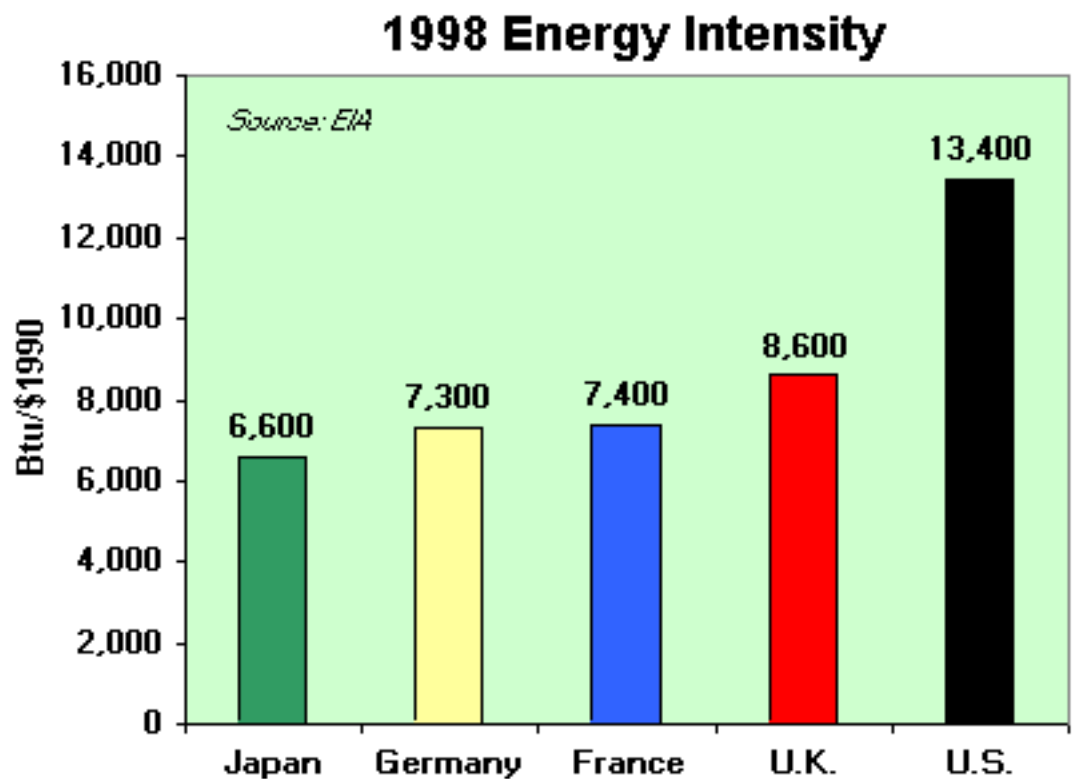
France's statement on trading of carbon emissions permits marks a potentially major shift in French policy, which until now had opposed the tradable permits scheme, arguing that it was ineffective and unenforceable. However, details of the plan still need to be worked out, and Environment Minister Dominique Voynet has said that she believes the public will view carbon permits as "pollution permits" for rich companies, rather than as a way to reduce carbon emissions. The French government has emphasized that, in order to be effective, similar permit

plans must eventually be taken on a European scale.

Energy and Carbon Intensity

France's preference for nuclear power over coal, oil, and gas has allowed it to maintain relatively low levels of fossil energy intensity and carbon intensity. In 1998, France's overall energy intensity, at 7,400/Btu \$1990, was slightly higher than that of Japan (6,600 Btu/\$1990) and Germany (7,300 Btu/\$1990), but below the U.K.'s level of 8,600 Btu/\$1990, and considerably lower than the U.S.'s energy intensity of 13,400 Btu/\$1990. To reduce its energy intensity further, France is undertaking a major effort at energy management. This effort, especially in research, will focus on transport, new buildings, household equipment, and innovations in small- and medium-sized industries employing industrial processes that are energy efficient and clean.

In terms of carbon intensity, France's move away from fossil fuels such as coal is clear. France's 1998 carbon intensity was 0.08 metric tons of carbon/thousand \$1990, with Japan following at 0.09 metric tons of carbon/thousand \$1990, Germany (0.12), the United Kingdom (0.13), and the United States (0.21). After Sweden, France has the lowest emissions of carbon dioxide in relation to its GDP in all of Europe.



Renewable Energy

Because of its lack of indigenous natural resources, France's energy self-sufficiency depends to a great extent on conserving energy and developing renewable energy sources. However, France has little in the way of hydropower, and little potential. In addition, renewable energy consumption in France in 1997 actually decreased by 2%, to 1,133 trillion Btu.

Recognizing that something must be done to spur the growth of renewable energy, the French government, in its January 2000 plan to meet its Kyoto commitments, included several long-term structural measures to encourage the use of renewable energy resources. The government's aim is to achieve a market "breakthrough" for renewable energy sources while consolidating the market

share of wood and hydroelectricity. In addition, greater use of renewable energy resources would help reduce carbon emissions. ADEME is a major participant in the development of research into alternative engines and fuel (electric, gas, bio-fuel vehicles), but it is likely that renewable energy use will not see a real surge until the French government removes market barriers (such as subsidies for other energy sources) that inhibit the use of renewables for electricity and heat production.

Nuclear Energy

When France initiated its nuclear energy program in the early 1970s, environmental protection issues did not generate the concern that they do today in Western countries. Although domestic opposition has been increasing, France has maintained its position that nuclear energy, because it does not pollute the same way that coal, oil, or natural gas do, contributes to the preservation of the environment. Since nuclear energy does not release nitrogen, sulfur, carbon, or dust into the atmosphere, France has argued that nuclear power is one of the best responses to demands for environmental protection.

Between 1980, when nuclear energy provided just 15% of France's electricity, and 1993, when the share of nuclear-generated electricity rose to 75%, France has recorded sizeable reductions in emissions of harmful pollutants from energy generation. During that 13-year time period, sulfur dioxide emissions, which to a large degree are responsible for acid rain, decreased by 70%, reductions in nitrous oxides that contribute to smog were 12%, and dust emissions were reduced by 52%. According to the Ministry of Industry, French nuclear power plants prevent the emission of 1.7 million tons of sulfur dioxide and 890,000 tons of nitrous oxides each year. The French government has announced that the January 2000 "ecotax" will not apply to France's nuclear industry. The tax actually could encourage an increase in France's use of nuclear energy.

In a recent public opinion survey on nuclear power, the share of French citizens who said that nuclear power was less harmful to the environment than other sources stood at 33%, up slightly from 30% in 1992. The



government pointed to these results as evidence that public perceptions of nuclear power have improved. Since France has a good nuclear safety record, and since power produced by French nuclear plants is one of the least expensive forms of energy in the EU, nuclear energy is a natural export market for France.

France's unilateral decision in 1995 to resume nuclear weapons testing in the South Pacific, which came despite the condemnation of European ecologists, "green" politicians, and anti-nuclear pressure groups all across the globe, angered many of its neighbors who do not share France's commitment to the nuclear option. The French government, which stands by its decision to test nuclear weapons, did acknowledge, however, the shifting attitudes towards nuclear power in February 1998 when it decided that the fast breeder reactor Super-Phénix, located at Creys-Malville in the Lyon area, would be shut down permanently.

France in the 21st Century

Despite entering the new century suffering from the twin blows of the *Erika* oil spill and the devastating storms of December 1999, France's environmental outlook appears positive. France has taken the initiative in pushing Europe to honor its climate change commitments, and the country has demonstrated its willingness to cut its carbon emissions to 1990 levels. With ADEME seeking solutions to reduce energy consumption in the medium- and long-term (in order to make progress towards sustainable development), combined with France's strong commitment to nuclear energy, France may very well meet those emission reduction levels.

On the other hand, the IEA has chastised France because progress in promoting energy efficiency has stalled during the last 10 years, mainly due to low energy prices and a slackening of government efforts. Government subsidies for energy efficiency investments and funding for research and development programs have experienced a sizeable reduction. In addition, France is under pressure from the European Union to liberalize its energy sector.

According to the IEA, France can boost its energy efficiency simply by fully implementing existing regulations in the industrial, commercial, government, and residential sectors. By continuing to monitor and evaluate the cost-effectiveness of energy efficiency programs, France should be able to determine which programs are the most beneficial. However, the IEA believes that France must institute a major new program of energy efficiency measures across all end-use sectors--only then will the country be able to harness its significant energy savings potential.

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