Report #:DOE/EIA-0383(2006) Release date full report: February 2006 Next release date full report: February 2007

 $Table\ 19.\ Forecasts\ of\ annual\ average\ economic\ growth,\ 2004-2030$ 

|                | $Average\ annual\ percentage\ growth$ |           |           |           |  |  |  |  |  |  |
|----------------|---------------------------------------|-----------|-----------|-----------|--|--|--|--|--|--|
| Forecast       | 2004-2010                             | 2010-2015 | 2015-2020 | 2020-2030 |  |  |  |  |  |  |
| AEO2005        | 3.2                                   | 3.1       | 3.0       | NA        |  |  |  |  |  |  |
| AEO2006        |                                       |           |           |           |  |  |  |  |  |  |
| Reference      | 3.3                                   | 3.0       | 3.1       | 2.8       |  |  |  |  |  |  |
| Low growth     | 2.6                                   | 2.3       | 2.7       | 2.4       |  |  |  |  |  |  |
| High growth    | 3.9                                   | 3.5       | 3.4       | 3.7       |  |  |  |  |  |  |
| GII            | 3.2                                   | 3.0       | 3.0       | 2.8       |  |  |  |  |  |  |
| OMB            | 3.3                                   | NA        | NA        | NA        |  |  |  |  |  |  |
| CBO            | 3.3                                   | 2.6       | NA        | NA        |  |  |  |  |  |  |
| Blue Chip      | 3.3                                   | 3.2       | NA        | NA        |  |  |  |  |  |  |
| INFORUM        | 2.9                                   | 2.5       | 2.6       | NA        |  |  |  |  |  |  |
| EEA            | 2.8                                   | 2.8       | 2.8       | 2.8       |  |  |  |  |  |  |
| EVA            | 3.2                                   | NA        | $N\!A$    | $N\!A$    |  |  |  |  |  |  |
| NA = not avail | lable.                                |           |           |           |  |  |  |  |  |  |

Report #:DOE/EIA-0383(2006) Release date full report: February 2006 Next release date full report: February 2007

Table 20. Forecasts of world oil prices, 2010-2030 (2004 dollars per barrel)

| Forecast                  | 2010  | 2015  | 2020  | 2025  | 2030   |
|---------------------------|-------|-------|-------|-------|--------|
| AEO2005 (reference case)  | 27.18 | 28.97 | 30.88 | 32.95 | $N\!A$ |
| AEO2006                   |       |       |       |       |        |
| Reference                 | 47.29 | 47.79 | 50.70 | 54.08 | 56.97  |
| High price                | 62.65 | 76.30 | 85.06 | 90.27 | 95.71  |
| Low price                 | 40.29 | 33.78 | 33.99 | 34.44 | 33.73  |
| GII                       | 37.82 | 34.06 | 31.53 | 33.50 | 34.50  |
| Altos                     | 27.58 | 31.14 | 34.02 | 37.89 | 40.03  |
| IEA (reference)           | 35.00 | 36.00 | 37.00 | 38.00 | 39.00  |
| IEA (deferred investment) | 41.00 | 43.50 | 46.00 | 49.00 | 52.00  |
| PEL                       | 47.84 | 47.84 | 49.80 | 50.77 | $N\!A$ |
| PIRA                      | 44.10 | 49.95 | 63.35 | NA    | $N\!A$ |
| EEA                       | 46.74 | 43.85 | 42.79 | 41.76 | $N\!A$ |
| DB                        | 31.75 | 31.75 | 31.75 | 31.75 | 31.75  |
| SEER                      | 29.54 | 31.00 | 32.00 | 34.18 | 36.50  |
| Delphi                    | NA    | 52.50 | 57.50 | 62.50 | 72.50  |

Primary energy

Report #:DOE/EIA-0383(2006) Release date full report: February 2006 Next release date full report: February 2007

Table 21. Forecasts of average annual growth rates for energy consumption, 2004-2030 (percent)

|                       |                       | Project | tions |
|-----------------------|-----------------------|---------|-------|
| Energy use            | $History \ 1980-2004$ | AEO2006 | GII   |
| Petroleum*            | 0.9                   | 1.2     | 1.3   |
| Natural gas*          | 0.2                   | 0.7     | 0.9   |
| Coal*                 | -1.5                  | 2.0     | -0.4  |
| Electricity           | 2.2                   | 1.6     | 1.5   |
| Delivered energy      | 0.7                   | 1.1     | 1.1   |
| $Electricity\ losses$ | 1.9                   | 1.2     | 0.9   |

<sup>\*</sup>Excludes consumption by electricity generators in the electric power sector; includes consumption for end-use combined heat and power generation.

1.2

1.1

1.0

Release date full report: February 2006 Next release date full report: February 2007

Table 22. Comparison of electricity forecasts, 2015 and 2030 (billion kilowatthours, except where noted)

|   |       |           | Other forecasts           |                            |       |       |       |       |       |
|---|-------|-----------|---------------------------|----------------------------|-------|-------|-------|-------|-------|
| Projection                              | 2004  | Reference | Low<br>economic<br>growth | High<br>economic<br>growth | GII   | EVA   | EEA   | SEER  | PIRA  |
|   |       |           |                           |                            | 2015  |       |       |       |       |
| Average end-use price                   |       |           |                           |                            |       |       |       |       |       |
| (2003 cents per kilowatthour)           | 7.6   | 7.1       | 6.9                       | 7.3                        | 7.6   | NA    | NA    | NA    | NA    |
| Residential                             | 8.9   | 8.3       | 8.1                       | 8.5                        | 8.8   | 9.0   | NA    | NA    | NA    |
| Commercial                              | 8.0   | 7.4       | 7.2                       | 7.6                        | 8.2   | 8.0   | NA    | NA    | NA    |
| Industrial                              | 5.3   | 5.1       | 4.9                       | 5.3                        | 5.2   | 5.8   | NA    | NA    | NA    |
| Net energy for load, including CHP      | 3,614 | 4,813     | 4,642                     | 4,984                      | 4,663 | 4,966 | 4,970 | 4,875 | 4,658 |
| Coal                                    | 1,977 | 2,277     | 2,245                     | 2,360                      | 2,217 | 2,267 | 2,281 | 2,211 | 2,293 |
| Oil                                     | 136   | 120       | 116                       | 126                        | 56    | 37    | 96    | 126   | 90    |
| Natural gas a                           | 326   | 1,018     | 929                       | 1,069                      | 1,080 | 1,286 | 1,323 | 1,238 | 1,004 |
| Nuclear                                 | 789   | 829       | 807                       | 840                        | 814   | 842   | 811   | 826   | 819   |
| $Hydroelectric/other^b$                 | 349   | 482       | 469                       | 495                        | 496   | 521   | 381   | 457   | 452   |
| Nonutility sales to grid <sup>c</sup>   | 26    | 62        | 57                        | 70                         | NA    | NA    | 41    | NA    | NA    |
| Net imports                             | 11    | 23        | 19                        | 25                         | 17    | 13    | 38    | 17    | 22    |
| Electricity sales                       | 3,567 | 4,300     | 4,147                     | 4,449                      | 4,239 | 4,638 | 4,456 | NA    | NA    |
| Residential                             | 1,293 | 1,576     | 1,539                     | 1,613                      | 1,593 | 1,697 | 1,575 | NA    | NA    |
| Commercial/other d                      | 1,253 | 1,620     | 1,583                     | 1,650                      | 1,493 | 1,718 | 1,602 | NA    | NA    |
| Industrial                              | 1,021 | 1,103     | 1,024                     | 1,185                      | 1,153 | 1,225 | 1,278 | NA    | NA    |
| Capability, including CHP (gigawatts) e | 965   | 1,002     | 977                       | 1,026                      | 1,008 | 1,055 | 1,046 | NA    | NA    |
| Coal                                    | 314   | 326       | 323                       | 336                        | 331   | 338   | 331   | NA    | NA    |
| Oil and natural gas                     | 433   | 439       | 422                       | 451                        | 429   | 487   | 478   | NA    | NA    |
| Nuclear                                 | 100   | 104       | 101                       | 105                        | 101   | 105   | 102   | NA    | NA    |
| Hydroelectric/other                     | 118   | 133       | 131                       | 134                        | 147   | 125   | 136   | NA    | NA    |
|   |       |           |                           |                            | 2030  |       |       |       |       |
| Average end-use price                   |       |           |                           |                            |       |       |       |       |       |
| (2002 cents per kilowatthour)           | 7.6   | 7.5       | 7.2                       | 7.8                        | 7.4   | NA    | NA    | NA    | NA    |
| Residential                             | 8.9   | 8.5       | 8.2                       | 8.8                        | 8.5   | NA    | NA    | NA    | NA    |
| Commercial                              | 8.0   | 7.8       | 7.4                       | 8.2                        | 8.0   | NA    | NA    | NA    | NA    |
| Industrial                              | 5.3   | 5.4       | 5.2                       | 5.7                        | 5.0   | NA    | NA    | NA    | NA    |
| Net energy for load, including CHP      | 3,614 | 6,119     | 5,496                     | 6,748                      | 5,828 | NA    | NA    | 6,237 | NA    |
| Coal                                    | 1,977 | 3,381     | 2,835                     | 3,897                      | 3,032 | NA    | NA    | 3,221 | NA    |
| Oil                                     | 136   | 131       | 121                       | 138                        | 27    | NA    | NA    | 127   | NA    |
| Natural gas a                           | 326   | 993       | 1,010                     | 990                        | 1,453 | NA    | NA    | 1,407 | NA    |
| Nuclear                                 | 789   | 871       | 856                       | 871                        | 774   | NA    | NA    | 926   | NA    |
| Hydroelectric/other <sup>b</sup>        | 349   | 550       | 517                       | 609                        | 542   | NA    | NA    | 528   | NA    |
| Nonutility sales to grid <sup>c</sup>   | 26    | 179       | 143                       | 229                        | NA    | NA    | NA    | NA    | NA    |
| Net imports                             | 11    | 14        | 13                        | 15                         | 12    | NA    | NA    | 28    | NA    |
| Electricity sales                       | 3,567 | 5,341     | 4,828                     | 5,854                      | 5,289 | NA    | NA    | NA    | NA    |
| Residential                             | 1,293 | 1,897     | 1,759                     | 2,036                      | 2,001 | NA    | NA    | NA    | NA    |
| Commercial/other d                      | 1,253 | 2,182     | 1,997                     | 2,366                      | 1,926 | NA    | NA    | NA    | NA    |
| Industrial                              | 1,021 | 1,262     | 1,073                     | 1,453                      | 1,362 | NA    | NA    | NA    | NA    |
| Capability, including CHP (gigawatts) e | 965   | 1,248     | 1,134                     | 1,362                      | 1,209 | NA    | NA    | NA    | NA    |
| Coal                                    | 314   | 481       | 405                       | 555                        | 449   | NA    | NA    | NA    | NA    |
| Oil and natural gas                     | 433   | 513       | 483                       | 545                        | 501   | NA    | NA    | NA    | NA    |
| Nuclear                                 | 100   | 109       | 107                       | 109                        | 101   | NA    | NA    | NA    | NA    |
| Hydroelectric/other                     | 118   | 145       | 139                       | 154                        | 158   | NA    | NA    | NA    | NA    |

<sup>&</sup>quot;Includes supplemental gaseous fuels. b" Other" includes conventional hydroelectric, pumped storage, geothermal, wood, wood waste, municipal waste, other biomass, solar and wind power, plus a small quantity of petroleum coke. "For AEO2006, includes only net sales from combined heat and power plants. "Other" includes sales of electricity to government, railways, and street lighting authorities. "EIA capacity is net summer capability, including combined heat and power plants. GII capacity is net summer capability, including combined heat and power plants. GII capacity is nemeplate, excluding cogeneration plants. CHP = combined heat and power. NA = not available.

Sources: 2004 and AEO2006: AEO2006 National Energy Modeling System, runs AEO2006.D111905A (reference case), LM2006. D113005A (low economic growth case), and HM2006.D112505B (high economic growth case). GII: Global Insight, Inc., Summer 2005 U.S. Energy Outlook (August 2005). EVA: Energy Ventures Analysis, Inc., FUELCAST: Long-Term Outlook (August 2005). EEA: Energy and Environmental Analysis, Inc., EEA's Compass Service Base Case (October 2005). SEER: Strategic Energy and Economic Research, Inc., 2005 Energy Outlook (October 2005). PIRA: PIRA Energy Group (October 2005).

Release date full report: February 2006 Next release date full report: February 2007

Table 23 Comparison of natural gas forecasts, 2015, 2025, and 2030 (trillion cubic feet, except where noted)

|   |              | AEO2006       | 2025, and 2030 (trillion cubic feet, except where noted) Other forecasts |              |                    |                         |          |       |               |  |
|---|--------------|---------------|--|--------------|--------------------|-------------------------|----------|-------|---------------|--|
| Projection  | 2004         | reference     |  |              |                    |                         |          |       |               |  |
|   |              | case          | GII  | EEA          | 2015               |                         | DB       | SEER  | Altos         |  |
| Down days and days the con-                                       | 18.46        | 20.36         | 19.19  | 01 10        | 18.64 <sup>d</sup> |                         | 21.38    | 19.68 | 20.74         |  |
| Dry gas production c  | 3.40         | 20.36<br>5.10 | 6.80   | 21.12 $7.11$ | 9.67               | 17.61<br>7.33           | 4.30     | 7.86  | 7.92          |  |
| Net imports   |              |               |  |              |                    |                         |          |       |               |  |
| Pipeline  | 2.81         | 2.05 e        | 2.17   | 2.82         | 4.78               | 3.28                    | 1.75     | 3.00  | 1.82          |  |
| LNG   | 0.59         | 3.05          | 4.63   | 4.29         | 4.89               | 4.05                    | 2.55     | 4.85  | 6.10          |  |
| Consumption   | 22.41        | 25.91         | 26.16  | 27.98        | 28.32              | 25.32                   | 25.67    | 28.18 | NA            |  |
| Residential   | 4.88         | 5.36          | 5.15   | 5.49         | 5.33               | 5.24                    | 5.53     | 5.45  | 5.41          |  |
| Commercial  | 3.00         | 3.36          | 3.09   | 3.35         | 3.41               | 3.53                    | 3.53     | 3.28  | 3.54          |  |
| Industrial f  | 7.41         | 8.08          | 7.57g  | $6.98^{h}$   | $7.99^{i}$         | $6.61^{j}$              | 8.17     | 7.83  | 7.53          |  |
| Electricity generators <sup>k</sup>                               | 5.32         | 7.14          | $8.44^{l}$   | $10.08^{m}$  | 9.42               | $8.01^{n}$              | 6.63     | 9.61  | 9.30          |  |
| Other o   | 1.80         | 1.97          | 1.92   | 2.08         | $2.17^{p}$         | 1.95                    | 1.81     | 2.01  | NA            |  |
| Lower 48 wellhead price<br>(2004 dollars per thousand cubic feet) | 5.49         | 4.52          | 4.73   | 5.91         | 5.53               | $\boldsymbol{5.55}^{q}$ | 5.03     | 4.65  | 4.15          |  |
| End-use prices<br>(2004 dollars per thousand cubic feet)          |              |               |  |              |                    |                         |          |       |               |  |
| Residential   | 10.72        | 10.11         | 9.21   | 9.33         | NA                 | NA                      | NA       | 9.68  | NA            |  |
| Commercial  | 9.38         | 8.37          | 8.11   | 8.57         | NA<br>NA           | NA<br>NA                | NA<br>NA | 7.97  | NA<br>NA      |  |
| Industrial <sup>f</sup>   | 9.38<br>6.29 | 5.32          | $6.09^{r}$   | 6.81         | NA<br>NA           | NA<br>NA                | NA<br>NA | 5.75  | NA<br>NA      |  |
|   |              |               |  |              | NA<br>NA           | NA<br>NA                | NA<br>NA |       | NA<br>NA      |  |
| Electricity generators <sup>k</sup>                               | 6.07         | 5.21          | 5.13   | 6.62         |                    |                         | IVA      | 5.32  | IVA           |  |
|   |              |               |  |              | 2025               | í                       |          |       |               |  |
| Dry gas production <sup>c</sup>                                   | 18.46        | 21.16         | 20.46  | 21.38        | $19.27^{d}$        | NA                      | 18.95    | 21.53 | 25.77         |  |
| Net imports   | 3.40         | 5.37          | 8.64   | 8.89         | 11.80              | NA                      | 8.19     | 8.47  | 7.69          |  |
| Pipeline  | 2.81         | $1.24^{e}$    | 1.61   | 1.81         | 3.64               | NA                      | 4.75     | 1.90  | 0.70          |  |
| LNG   | 0.59         | 4.13          | 7.03   | 7.07         | 8.16               | NA                      | 3.44     | 6.57  | 6.99          |  |
| Consumption   | 22.41        | 26.99         | 29.28  | 30.33        | 31.08              | NA                      | 27.74    | 30.44 | NA            |  |
| Residential   | 4.88         | 5.57          | 5.61   | 5.88         | 5.44               | NA                      | 6.11     | 5.89  | 6.09          |  |
| Commercial  | 3.00         | 3.77          | 3.34   | 3.56         | 3.76               | NA                      | 3.99     | 3.49  | 4.19          |  |
| $Industrial^f$  | 7.41         | 8.51          | $8.14^{g}$   | $7.64^{h}$   | $8.95^{i}$         | NA                      | 9.03     | 8.37  | 7.73          |  |
| Electricity generators k  | 5.32         | 7.05          | $10.10^{l}$  | $11.14^{m}$  | 10.55              | NA                      | 6.97     | 10.50 | 11.37         |  |
| Other o   | 1.80         | 2.08          | 2.09   | 2.12         | $2.38^{p}$         | NA                      | 1.64     | 2.19  | NA            |  |
| Lower 48 wellhead price<br>(2003 dollars per thousand cubic feet) | 5.49         | 5.43          | 4.52   | 6.45         | 6.07               | NA                      | 5.03     | 5.13  | 5.67          |  |
| End-use prices  |              |               |  |              |                    |                         |          |       |               |  |
| $(2003\ dollars\ per\ thousand\ cubic\ feet)$                     |              |               |  |              |                    |                         |          |       |               |  |
| Residential   | 10.72        | 11.10         | 8.82   | 9.71         | NA                 | NA                      | NA       | 9.92  | NA            |  |
| Commercial  | 9.38         | 9.11          | 7.73   | 8.99         | NA                 | NA                      | NA       | 8.30  | NA            |  |
| $Industrial^j$  | 6.29         | 6.18          | $5.81^{r}$   | 7.22         | NA                 | NA                      | NA       | 6.07  | NA            |  |
| Electricity generators o  | 6.07         | 6.02          | 4.90   | 6.86         | NA                 | NA                      | NA       | 5.61  | NA            |  |
|   |              |               |  |              | 203                | 0                       |          |       |               |  |
| ry gas production <sup>c</sup>                                    | 18.46        | 20.83         | 21.40  | NA           | 18.96 d            | NA                      | 18.95    | 21.70 | 28.1          |  |
| let imports   | 3.40         | 5.57          | 9.06   | NA           | 13.30              | NA                      | 9.86     | 9.33  | 7.9           |  |
| Pipeline  | 2.81         | 1.22 €        | 1.37   | NA           | 2.80               | NA                      | 1.75     | 1.00  | 0.2           |  |
| LNG   | 0.59         | 4.36          | 7.68   | NA           | 10.50              | NA                      | 8.11     | 8.33  | 7.7           |  |
| Consumption   | 22,41        | 26.86         | 30.64  | NA.          | 32.39              | NA                      | 28.81    | 31.56 | N             |  |
| Residential   | 4.88         | 5.64          | 5.84   | NA           | 5.49               | NA.                     | 6.42     | 6.12  | 6.4           |  |
| Residential<br>Commercial   | 3.00         | 3.99          | 3.48   | NA<br>NA     | 3.96               | NA<br>NA                | 4.20     | 3.63  | 4.5           |  |
|   |              |               |  |              | $9.45^{i}$         |                         |          |       |               |  |
| Industrial f  | 7.41         | 8.81          | 8.48g  | NA           |                    | NA<br>NA                | 9.49     | 8.73  | 7.8           |  |
| Electricity generators k  | 5.32         | 6.38          | 10.67 <sup>l</sup>   | NA           | 11.01              | NA                      | 7.14     | 10.85 | 12.5          |  |
| Other <sup>o</sup>  | 1.80         | 2.04          | 2.17   | NA           | $2.48^{p}$         | NA                      | 1.56     | 2.24  | $N_{L}$       |  |
| ower 48 wellhead price<br>2004 dollars per thousand cubic feet)   | 5.49         | 5.92          | 4.65   | NA           | 6.52               | NA                      | 5.02     | 5.42  | 6.3           |  |
| nd-use prices<br>2004 dollars per thousand cubic feet)            |              |               |  |              |                    |                         |          |       |               |  |
| Residential   | 10.72        | 11.67         | 8.86   | NA           | NA                 | NA                      | NA       | 10.16 | $N_{L}$       |  |
| Commercial  | 9.38         | 9.58          | 7.79   | NA           | NA                 | NA                      | NA       | 8.60  | $N_{\lambda}$ |  |
| Industrial <sup>f</sup>   | 6.29         | 6.65          | $5.90^{r}$   | NA           | NA                 | NA                      | NA       | 6.37  | $N_{\lambda}$ |  |
| Electricity generators k  | 6.07         | 6.41          | 5.02   | NA           | NA                 | NA                      | NA       | 5.92  | $N_{\ell}$    |  |

NA = not available

NA = not available.

"February 2005 (previously DRI-WEFA). Conversion factors: 1,000 cubic feet = 1.027 million Btu for production, 1.028 million Btu for electric power. The EEA projection shows a cyclical price trend; forecast values for an isolated year may be misleading. Does not include supplemental fuels. Includes supplemental fuels. Includes LNG imports into Florida via the Bahamas. Includes consumption for industrial combined heat and power (CHP) plants and a small number of electricity-only plants; excludes consumption by nonutility generators. Excludes gas used in cogeneration or other nonutility generation. Includes transportation fuel consumed in natural gas vehicles. Jexcludes gas demand for nonutility generation. Includes transportation and CHP plants whose primary business is to sell electricity, or electricity and heat, to the public; includes electric utilities, small power producers, and exempt wholesale generators. Includes gas used in cogeneration or other nonutility generation. MICIG) and for utility generation expendent power producers; excludes cogenerators. "Equals the sum of natural gas demand for nonutility generation. MICIG) and for utility generation. Plantudes lease, plant, and pipeline fuel and fuel consumed in natural gas vehicles. Plncludes lease, plant, and pipeline fuel and fuel consumed in natural gas vehicles. Plncludes lease, and a REO2006 and REO2006 Autional Energy Modeling System, run AEO2006.D111905A (reference case). GH: Global Insight, Inc., Summer 2005 U.S. Energy Outlook (August 2005). EEA: Energy and Environmental Analysis, Inc., EEA's Compass Service Base Case (October 2005). BE Deutsche Bank AG, e-mail from Adam Sieminski on October 31, 2005. SEER: Strategic Energy and Economic Research, Inc., 2005 Energy Outlook (October 2005). Altos: Altos Partners North American Regional Gas Model (NARG) Long-Term Base Case (October 7, 2005).

Report #:DOE/EIA-0383(2006) Release date full report: February 2006 Next release date full report: February 2007

Table 24. Comparison of petroleum forecasts, 2015 and 2030 (million barrels per day, except where noted)

| D :  | 2004  |           | Other forecasts |            |      |       |       |            |
|--|-------|-----------|-----------------|------------|------|-------|-------|------------|
| Projection                                 | 2004  | Reference | Low price       | High price | GII  | DB    | EVA   | PIRA       |
|  |       |           |                 | 20         | 15   |       |       |            |
| Crude oil and NGL production               | 7.23  | 7.72      | 7.34            | 6.49       | 6.56 | NA    | 7.88  | 7.61       |
| Crude oil                                  | 5.42  | 5.84      | 5.02            | 4.98       | NA   | 4.99  | 5.99  | 5.76       |
| Natural gas liquids                        | 1.81  | 1.88      | 2.32            | 1.51       | NA   | NA    | 1.89  | 1.85       |
| Total net imports                          | 12.11 | 13.23     | 15.08           | 15.31      | NA   | 14.37 | 14.06 | 11.87      |
| Crude oil                                  | 10.06 | 10.47     | 11.28           | NA         | NA   | 11.74 | 11.06 | 9.65       |
| Petroleum products                         | 2.05  | 2.76      | 3.79            | NA         | NA   | 2.63  | 3.00  | 2.22       |
| Petroleum demand                           | 20.76 | 23.53     | 23.71           | 23.43      | NA   | 23.01 | 24.48 | 22.21      |
| Motor gasoline                             | 9.10  | 10.63     | 10.69           | 10.39      | NA   | 9.14  | 11.07 | 9.85       |
| Jet fuel                                   | 1.63  | 2.06      | 1.98            | 1.88       | NA   | 2.11  | 2.09  | 2.03       |
| Distillate fuel                            | 4.06  | 4.91      | 4.60            | 4.81       | NA   | 4.83  | 5.05  | 4.72       |
| Residual fuel                              | 0.87  | 0.73      | 0.71            | 0.83       | NA   | 0.72  | 0.83  | 0.66       |
| Other                                      | 5.10  | 5.20      | 5.74            | 5.51       | NA   | 6.21  | 5.44  | 4.95       |
| Import share of product supplied (percent) | 58    | 56        | 64              | 65         | NA   | 62    | 57    | <b>5</b> 3 |
|  |       |           |                 | 20         | 30   |       |       |            |
| Crude oil and NGL production               | 7.23  | 6.44      | 7.17            | 4.78       | 4.70 | NA    | 6.41  | 6.85       |
| Crude oil                                  | 5.42  | 4.57      | 4.59            | 3.69       | NA   | NA    | 4.49  | 4.96       |
| Natural gas liquids                        | 1.81  | 1.87      | 2.58            | 1.09       | NA   | NA    | 1.92  | 1.89       |
| Total net imports                          | 12.11 | 17.24     | 19.69           | 21.13      | NA   | NA    | 20.21 | 13.28      |
| Crude oil                                  | 10.06 | 13.51     | 13.01           | NA         | NA   | NA    | 15.51 | 11.24      |
| Petroleum products                         | 2.05  | 3.73      | 6.67            | NA         | NA   | NA    | 4.70  | 2.04       |
| Petroleum demand                           | 20.76 | 27.57     | 28.24           | 27.74      | NA   | NA    | 29.57 | 25.17      |
| Motor gasoline                             | 9.10  | 12.49     | 12.59           | 12.25      | NA   | NA    | 13.68 | 10.96      |
| Jet fuel                                   | 1.63  | 2.31      | 2.89            | 2.29       | NA   | NA    | 2.33  | 2.09       |
| Distillate fuel                            | 4.06  | 6.09      | 5.31            | 5.81       | NA   | NA    | 6.29  | 5.99       |
| Residual fuel                              | 0.87  | 0.78      | 0.64            | 0.91       | NA   | NA    | 1.01  | 0.70       |
| Other                                      | 5.10  | 5.89      | 6.80            | 6.49       | NA   | NA    | 6.26  | 5.44       |
| Import share of product supplied (percent) | 58    | 62        | 70              | 76         | NA   | NA    | 68    | 53         |

NA = Not available.
Sources: 2004 and AEO2006: AEO2006 National Energy Modeling System, runs AEO2006.D111905A (reference case), LP2006. D113005A (low price case), and HP2006.D120105A (high price case). GH: Global Insight, Inc., Summer 2005 U.S. Energy Outlook (August 2005). DB: Deutsche Bank AG, e-mail from Adam Sieminski on October 31, 2005. EVA: Energy Ventures Analysis, Inc., FUELCAST: Long-Term Outlook (August 2005). PIRA: PIRA Energy Group (October 2005).

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 $Table\ 25.\ Comparison\ of\ coal\ forecasts,\ 2015,\ 2025,\ and\ 2030\ (million\ short\ tons,\ except\ where\ noted)$ 

|                                 |       |           | AEO2006                   | Other forecasts            |          |               |             |
|---------------------------------|-------|-----------|---------------------------|----------------------------|----------|---------------|-------------|
| Projection                      | 2004  | Reference | Low<br>economic<br>growth | High<br>economic<br>growth | PIRA     | EVA           | GII         |
|                                 |       |           |                           | 20.                        | 15       |               |             |
| Production                      | 1,125 | 1,272     | 1,251                     | 1,318                      | 1,250    | 1,234         | 1,149       |
| Consumption by sector           | 1,120 | 1,212     | 1,201                     | 1,010                      | 1,200    | 1,201         | 1,110       |
| Electric power                  | 1.015 | 1,161     | 1,145                     | 1,199                      | 1,171    | 1.140         | 1.071       |
| Coke plants                     | 24    | 22        | 21                        | 23                         | NA       | 29            | 19          |
| Coal-to-liquids                 | 0     | 22        | 19                        | 27                         | NA       | NA            | NA          |
| Industrial/other                | 65    | 71        | 69                        | 72                         | 88 a     | 65            | 66          |
| Total                           | 1,104 | 1,276     | 1,254                     | 1,321                      | 1,259    | 1,234         | 1,156       |
| Net coal exports                | 20.7  | -4.8      | -4.8                      | -4.8                       | -8.0     | -17.3         | -7.7        |
| Exports                         | 48.0  | 22.0      | 22.0                      | 22.0                       | NA       | 28.0          | 28.6        |
| Imports                         | 27.3  | 26.7      | 26.7                      | 26.8                       | NA<br>NA | 45.3          | 36.3        |
| Imports<br>Minemouth price      | 27.3  | 20.7      | 20.7                      | 20.0                       | 2V24     | 40.3          | 0.00        |
|                                 | 20.07 | 20.39     | 20.04                     | 20.67                      | NA       | 19.69 b       | 17.82       |
| (2004 dollars per short ton)    |       |           |                           |                            | NA<br>NA | $0.99^{c}$    | 0.86        |
| (2004 dollars per million Btu)  | 0.98  | 1.01      | 0.99                      | 1.02                       | IVA      | 0.99          | 0.86        |
| Average delivered price         |       |           |                           |                            |          |               |             |
| to electricity generators       | 07.40 | 00.10     | 05.54                     | 00.50                      | 37.4     | $29.45^{\ b}$ | 00.15       |
| (2004 dollars per short ton)    | 27.43 | 28.12     | 27.74                     | 28.50                      | NA       |               | 28.17       |
| (2004 dollars per million Btu)  | 1.36  | 1.40      | 1.39                      | 1.42                       | NA       | $1.48^{\ b}$  | 1.36        |
|                                 |       |           |                           | 202                        | 25       |               |             |
| Production                      | 1,125 | 1,530     | 1,394                     | 1,710                      | NA       | 1,404         | 1,296       |
| Consumption by sector           | -,    |           | -,                        |                            |          | -,            |             |
| Electric power                  | 1,015 | 1,354     | 1,248                     | 1,486                      | NA       | 1,329         | 1,226       |
| Coke plants                     | 24    | 21        | 19                        | 23                         | NA       | 26            | 16          |
| Coal-to-liquids                 | 0     | 146       | 115                       | 192                        | NA       | NA            | NA          |
| Industrial/other                | 65    | 71        | 68                        | 73                         | NA       | 60            | 67          |
| Total                           | 1.104 | 1.592     | 1,450                     | 1,774                      | NA       | 1,415         | 1.309       |
| Net coal exports                | 20.7  | -62.8     | -57.9                     | -65.5                      | NA.      | -29.2         | -15.1       |
| Exports                         | 48.0  | 19.6      | 19.6                      | 18.4                       | NA       | 30.1          | 23.4        |
| Imports                         | 27.3  | 82.4      | 77.4                      | 84.0                       | NA       | 59.3          | 38.5        |
| Minemouth price                 | 27.0  | 02.4      | 77.4                      | 04.0                       | 2421     | 55.5          | 56.5        |
| (2004 dollars per short ton)    | 20.07 | 20.63     | 19.40                     | 21.73                      | NA       | 20.15 b       | 16.12       |
| (2004 dollars per million Btu)  | 0.98  | 1.03      | 0.98                      | 1.09                       | NA       | 1.02°         | 0.78        |
| Average delivered price         | 0.30  | 1.05      | 0.30                      | 1.03                       | 1424     | 1.02          | 0.70        |
| to electricity generators       |       |           |                           |                            |          |               |             |
| (2004 dollars per short ton)    | 27.43 | 29.02     | 27.48                     | 30.87                      | NA       | $30.12^{\ b}$ | 25.84       |
| (2004 dollars per million Btu)  | 1.36  | 1.44      | 1.37                      | 1.52                       | NA<br>NA | 1.53 b        | 1.28        |
| (2004 dollars per million Bill) | 1.50  | 1.44      | 1.57                      | 203                        |          | 1.55          | 1.2         |
| roduction                       | 1,125 | 1,703     | 1,497                     | 1,936                      | NA       | NA            | 1,395       |
| onsumption by sector            | -,    |           |                           |                            |          |               |             |
| Electric power                  | 1.015 | 1.502     | 1.331                     | 1.680                      | NA       | NA            | 1.330       |
| Coke plants                     | 24    | 21        | 19                        | 23                         | NA       | NA            | 14          |
| Coal-to-liquids                 | 0     | 190       | 153                       | 247                        | NA       | NA            | NA          |
| Industrial/other                | 65    | 72        | 68                        | 75                         | NA       | NA            | 67          |
| Total                           | 1,104 | 1,784     | 1,571                     | 2,025                      | NA       | NA            | 1,411       |
| let coal exports                | 20.7  | -82.7     | -69.3                     | -89.0                      | NA       | NA            | -18.7       |
| Exports                         | 48.0  | 16.7      | 16.4                      | 16.8                       | NA       | NA.           | 22.3        |
| Exports  Imports                | 27.3  | 99.4      | 85.7                      | 105.8                      | NA<br>NA | NA<br>NA      | 41.0        |
|                                 | 21.0  | 00.7      | 00.7                      | 100.0                      | 1121     | 1121          | 41.0        |
| inemouth price                  | 20.07 | 91 79     | 10.01                     | 23.05                      | NA       | NA            | $15.65^{d}$ |
| (2004 dollars per short ton)    | 20.07 | 21.73     | 19.91                     |                            | NA $NA$  |               | $0.76^{d}$  |
| (2004 dollars per million Btu)  | 0.98  | 1.09      | 1.00                      | 1.15                       | IVA      | NA            | 0.70 "      |
| verage delivered price          |       |           |                           |                            |          |               |             |
| electricity generators          | 97.49 | 20 50     | 90 00                     | 20.70                      | A7.4     | A7.4          | 05.000      |
| (2004 dollars per short ton)    | 27.43 | 30.58     | 28.28                     | 32.79                      | NA       | NA            | 25.23 e     |
| (2004 dollars per million Btu)  | 1.36  | 1.51      | 1.41                      | 1.61                       | NA       | NA            | 1.22        |

Btu = British thermal unit. NA = Not available.

aIncludes coal consumed at coke plants.

bThe average coal price is a weighted average of the projected spot market price for the electric power sector only and was converted from 2005 dollars to 2004 dollars to be consistent with AEO2006.

cEstimated by dividing the minemouth price in dollars per short ton by the average heat content of coal delivered to the electric power

sector.  $^{
m d}$ The minemouth prices are average prices for the electric power sector only and are calculated as a weighted average from Census region

<sup>&</sup>lt;sup>9</sup>The minemouth prices are average prices for the electric power sector in dollars per million Btu by the average heat content of coal delivered to the electric power sector.

\*Calculated by multiplying the delivered price of coal to the electric power sector in dollars per million Btu by the average heat content of coal delivered to the electric power sector.

Sources: 2004 end AEO2006: AEO2006 National Energy Modeling System, runs AEO2006.D111905A (reference case), LM2006.D113005A (low economic growth case), and HM2006.D112505B (high economic growth case). PIRA: PIRA Energy Group (October 2005).

EVA: Energy Ventures Analysis, Inc., FUELCAST: Long-Term Outlook (August 2005). GII: Global Insight, Inc., U.S. Energy Outlook (Summer 2005).

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 $Table\ 25.\ Comparison\ of\ coal\ forecasts,\ 2015,\ 2025,\ and\ 2030\ (continued)$ (million short tons, except where noted)

|                                |       |           | AEO2006                   |                            | Other forecasts |     |  |  |
|--------------------------------|-------|-----------|---------------------------|----------------------------|-----------------|-----|--|--|
| Projection                     | 2004  | Reference | Low<br>economic<br>growth | High<br>economic<br>growth | PIRA            | EVA | 1,395 1,330 14 NA 67 1,411 -18.7 22.3 41.0 15.65 d |  |
|                                |       |           |                           | 203                        | 30              |     |  |  |
| Production                     | 1,125 | 1,703     | 1,497                     | 1,936                      | NA              | NA  | 1,395  |  |
| Consumption by sector          |       |           | -                         |                            |                 |     |  |  |
| Electric power                 | 1,015 | 1,502     | 1,331                     | 1,680                      | NA              | NA  | 1,330  |  |
| Coke plants                    | 24    | 21        | 19                        | 23                         | NA              | NA  | 14   |  |
| Coal-to-liquids                | 0     | 190       | 153                       | 247                        | NA              | NA  | NA   |  |
| Industrial/other               | 65    | 72        | 68                        | 75                         | NA              | NA  | 67   |  |
| Total                          | 1,104 | 1,784     | 1,571                     | 2,025                      | NA              | NA  | 1,411  |  |
| Net coal exports               | 20.7  | -82.7     | -69.3                     | -89.0                      | NA              | NA. | -18.7  |  |
| Exports                        | 48.0  | 16.7      | 16.4                      | 16.8                       | NA              | NA  | 22.3   |  |
| Imports                        | 27.3  | 99.4      | 85.7                      | 105.8                      | NA              | NA  | 41.0   |  |
| Minemouth price                |       |           |                           |                            |                 |     |  |  |
| (2004 dollars per short ton)   | 20.07 | 21.73     | 19.91                     | 23.05                      | NA              | NA  | $15.65^{d}$  |  |
| (2004 dollars per million Btu) | 0.98  | 1.09      | 1.00                      | 1.15                       | NA              | NA  | $0.76^{d}$   |  |
| Average delivered price        |       |           |                           |                            |                 |     |  |  |
| to electricity generators      |       |           |                           |                            |                 |     |  |  |
| (2004 dollars per short ton)   | 27.43 | 30.58     | 28.28                     | 32.79                      | NA              | NA  | 25.23 e  |  |
| (2004 dollars per million Btu) | 1.36  | 1.51      | 1.41                      | 1.61                       | NA              | NA  | 1.22   |  |

Btu = British thermal unit. NA = Not available.

a Includes coal consumed at coke plants.

b The average coal price is a weighted average of the projected spot market price for the electric power sector only and was converted from 2005 dollars to 2004 dollars to be consistent with AEO2006.

Estimated by dividing the minemouth price in dollars per short ton by the average heat content of coal delivered to the electric power

sector.

<sup>&</sup>lt;sup>d</sup>The minemouth prices are average prices for the electric power sector only and are calculated as a weighted average from Census region

Calculated by multiplying the delivered price of coal to the electric power sector in dollars per million Btu by the average heat content of

coal delivered to the electric power sector.

Sources: 2004 and AEO2006: AEO2006 National Energy Modeling System, runs AEO2006.D111905A (reference case), LM2006. D113005A (low economic growth case), and HM2006.D112505B (high economic growth case). PIRA: PIRA Energy Group (October 2005). EVA: Energy Ventures Analysis, Inc., FUELCAST: Long-Term Outlook (August 2005). GII: Global Insight, Inc., U.S. Energy Outlook (Summer 2005).