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# Energy Market and Economic Impacts of S.1766, the Low Carbon Economy Act of 2007

**Table ES3: Summary Energy Market Results for the High Technology, S. 1766 High Technology, and S. 1766 High Technology Plus Policies Cases**

(million metric tons $CO_2$ equivalent, except as noted)

| | 2005 | 2020 | | | 2030 | | |
|---|---|---|---|---|---|---|---|
| | | High Tech | S. 1766 High Tech | S. 1766 High Tech & Policies | High Tech | S. 1766 High Tech | S. 1766 High Tech & Policies |
| **Greenhouse gas emissions** | | | | | | | |
| Energy-related carbon dioxide | 5945 | 6531 | 6066 | 5960 | 7235 | 5739 | 5674 |
| Other covered emissions | 194 | 378 | 306 | 307 | 559 | 468 | 468 |
| Total covered emissions | 6140 | 6909 | 6372 | 6267 | 7793 | 6207 | 6142 |
| Total greenhouse gas emissions | 7147 | 8029 | 7386 | 7281 | 9020 | 7275 | 7210 |
| **Emissions reduction from Reference case** | | | | | | | |
| Energy-related carbon dioxide | | n.a. | 465 | 571 | n.a. | 1495 | 1561 |
| *Carbon capture and storage* | | *n.a.* | *84* | *68* | *n.a.* | *586* | *486* |
| Other covered emissions | | n.a. | 72 | 71 | n.a. | 91 | 91 |
| Offset credits | | n.a. | 103 | 103 | n.a. | 153 | 153 |
| Nonenergy carbon dioxide | | n.a. | 3 | 2 | n.a. | 5 | 5 |
| Total emissions reduction | | | 643 | 747 | | 1744 | 1809 |
| Biogenic carbon sequestration | | | 140 | 135 | | 479 | 479 |
| Total (including carbon sequestration) | | | 783 | 882 | | 2223 | 2288 |
| **Compliance summary** | | | | | | | |
| Allowances issued (cap) | n.a. | 6189 | 6189 | 6189 | 4818 | 4818 | 4818 |
| Covered emissions, less offset credits | 6151 | 6909 | 6268 | 6164 | 7794 | 6055 | 5989 |
| Net allowance bank change | 0 | 0 | -79 | 25 | 0 | 0 | 0 |
| TAP sales | 0 | 0 | 0 | 0 | 0 | 1237 | 1171 |
| **Allowance price** (2005 dollars per metric ton $CO_2$ equivalent) | n.a. | 0 | 13 | 13 | 0 | 25 | 25 |
| **TAP price** (2005 dollars per metric ton $CO_2$ equivalent) | n.a. | 0 | 15 | 15 | 0 | 25 | 25 |
| **Delivered energy prices** (2005 dollars per unit indicated) | | | | | | | |
| Motor gasoline, transport (per gallon) | 2.32 | 1.95 | 2.04 | 2.01 | 2.14 | 2.32 | 2.18 |
| Jet fuel (per gallon) | 1.77 | 1.37 | 1.49 | 1.48 | 1.50 | 1.74 | 1.75 |
| Diesel (per gallon) | 2.41 | 2.05 | 2.18 | 2.21 | 2.21 | 2.47 | 2.53 |
| Natural gas (per thousand cubic feet) | | | | | | | |
| Residential | 12.80 | 10.73 | 11.32 | 11.25 | 11.67 | 12.50 | 12.44 |
| Electric power | 8.41 | 5.73 | 6.16 | 6.04 | 6.32 | 6.73 | 6.71 |
| Coal, electric power sector (per million Btu) | 1.53 | 1.53 | 2.77 | 2.72 | 1.61 | 3.89 | 3.88 |
| Electricity (cents per kilowatthour) | 8.10 | 7.65 | 8.05 | 8.08 | 7.83 | 8.43 | 8.44 |
| **Energy consumption** (quadrillion Btu) | | | | | | | |
| Liquid fuels | 40.7 | 44.2 | 43.1 | 42.2 | 48.3 | 46.6 | 45.2 |
| Natural gas | 22.7 | 26.2 | 25.6 | 25.2 | 26.3 | 23.4 | 23.3 |
| Coal | 22.9 | 25.3 | 22.5 | 21.9 | 29.9 | 23.2 | 22.4 |
| Nuclear power | 8.1 | 8.9 | 9.1 | 9.2 | 8.8 | 11.8 | 12.7 |
| Renewable/Other | 6.0 | 8.5 | 10.0 | 11.1 | 9.1 | 12.5 | 12.5 |
| Total | 100.3 | 113.1 | 110.2 | 109.7 | 122.4 | 117.4 | 116.0 |
| Purchased electricity | 12.5 | 14.7 | 14.5 | 14.5 | 16.3 | 16.0 | 15.9 |
| **Electricity generation** (billion kilowatthours) | | | | | | | |
| Petroleum | 141 | 117 | 58 | 59 | 120 | 53 | 54 |
| Natural gas | 752 | 1024 | 1100 | 1041 | 967 | 721 | 741 |
| Coal | 2015 | 2298 | 2058 | 1993 | 2911 | 2405 | 2275 |
| Nuclear power | 780 | 858 | 871 | 885 | 846 | 1131 | 1219 |
| Renewable | 350 | 512 | 664 | 772 | 543 | 956 | 976 |
| Total | 4038 | 4808 | 4752 | 4749 | 5387 | 5265 | 5264 |

TAP: Technology Accelerator Payment
Source: NEMS runs S1766HTBASE.D102307A, S1766HT.D110807C, and S1766POLRP.D120507B.