

Appendix B: Summary Tables

Table B1. The BCES and alternative cases compared to the Reference case, 2025

| | 2009 | 2025 | 2025 | | | | | | | |
|---|-------|-------|-------|-----------|----------------|------------------|-----------------|----------------|----------------|------------|
| | Ref | Ref | BCES | All Clean | Partial Credit | Revised Baseline | Small Utilities | Credit Cap 2.1 | Credit Cap 3.0 | Stnds+ Cds |
| Generation (billion kilowatthours) | | | | | | | | | | |
| Coal | 1,772 | 2,049 | 1,431 | 1,305 | 1,387 | 1,180 | 1,767 | 1,714 | 1,571 | 1,358 |
| Petroleum | 41 | 45 | 43 | 44 | 44 | 44 | 45 | 45 | 45 | 43 |
| Natural Gas | 931 | 1,002 | 1,341 | 1,342 | 1,269 | 1,486 | 1,164 | 1,193 | 1,243 | 1,314 |
| Nuclear | 799 | 871 | 859 | 906 | 942 | 889 | 878 | 857 | 843 | 826 |
| Conventional Hydropower | 274 | 306 | 322 | 319 | 300 | 321 | 316 | 298 | 312 | 322 |
| Geothermal | 15 | 25 | 28 | 25 | 31 | 24 | 27 | 22 | 23 | 24 |
| Municipal Waste | 18 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| Wood and Other Biomass | 38 | 162 | 303 | 289 | 295 | 301 | 241 | 266 | 314 | 296 |
| Solar | 3 | 18 | 18 | 33 | 18 | 35 | 18 | 18 | 18 | 21 |
| Wind | 71 | 153 | 233 | 251 | 285 | 252 | 179 | 193 | 226 | 216 |
| Other | 18 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Total Generation | 3,981 | 4,665 | 4,612 | 4,547 | 4,603 | 4,566 | 4,669 | 4,640 | 4,627 | 4,452 |
| Capacity (gigawatts) | | | | | | | | | | |
| Coal | 317 | 323 | 278 | 254 | 275 | 252 | 297 | 298 | 288 | 267 |
| Petroleum | 116 | 87 | 86 | 85 | 92 | 86 | 88 | 91 | 90 | 83 |
| Natural Gas | 351 | 382 | 407 | 400 | 383 | 407 | 395 | 384 | 385 | 391 |
| Nuclear | 101 | 110 | 109 | 115 | 119 | 112 | 111 | 108 | 106 | 105 |
| Conventional Hydropower | 78 | 79 | 83 | 82 | 78 | 82 | 81 | 79 | 80 | 83 |
| Geothermal | 2 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 3 |
| Municipal Waste | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Wood and Other Biomass | 7 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| Solar | 2 | 11 | 11 | 17 | 11 | 18 | 11 | 11 | 11 | 12 |
| Wind | 32 | 53 | 77 | 86 | 97 | 86 | 61 | 67 | 78 | 75 |
| Other (including pumped storage) | 24 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Total | 1,033 | 1,095 | 1,101 | 1,089 | 1,106 | 1,093 | 1,094 | 1,087 | 1,087 | 1,065 |

Table B1. The BCES and alternative cases compared to the Reference case, 2025 (cont)

| | 2009 | 2025 | 2025 | | | | | | | |
|--|--------|--------|--------|-----------|----------------|------------------|-----------------|----------------|----------------|-------------|
| | Ref | Ref | BCES | All Clean | Partial Credit | Revised Baseline | Small Utilities | Credit Cap 2.1 | Credit Cap 3.0 | Stnds + Cds |
| Prices (2009 cents/kWh) | | | | | | | | | | |
| Credit Price | 0.0 | 0.0 | 6.1 | 6.4 | 5.9 | 8.3 | 2.9 | 3.4 | 4.9 | 6.0 |
| Electricity Price | 9.8 | 9.0 | 9.4 | 10.0 | 9.5 | 9.8 | 8.9 | 9.2 | 9.3 | 9.3 |
| Residential | 11.5 | 10.7 | 11.2 | 11.7 | 11.3 | 11.5 | 10.7 | 11.0 | 11.1 | 11.2 |
| Commercial | 10.1 | 9.3 | 9.5 | 10.2 | 9.7 | 10.0 | 9.1 | 9.4 | 9.5 | 9.4 |
| Industrial | 6.8 | 6.3 | 6.5 | 7.0 | 6.6 | 6.9 | 6.2 | 6.4 | 6.5 | 6.4 |
| Average Delivered Natural Gas Price (2009 dollars/Mcf) | 7.5 | 8.1 | 8.5 | 8.5 | 8.4 | 8.7 | 8.2 | 8.3 | 8.4 | 8.3 |
| Expenditures (billion 2009 dollars) | | | | | | | | | | |
| Total Electricity Expenditures | 350 | 373 | 383 | 399 | 387 | 396 | 370 | 379 | 382 | 365 |
| Residential Electricity Expenditures | 156 | 157 | 161 | 167 | 162 | 165 | 156 | 159 | 160 | 152 |
| Household Electricity Expenditures (2009 Dollars/Household) | 1,379 | 1,162 | 1,198 | 1,237 | 1,205 | 1,227 | 1,158 | 1,181 | 1,189 | 1,124 |
| Natural Gas Expenditures | 156 | 187 | 211 | 212 | 209 | 227 | 197 | 201 | 206 | 206 |
| Electricity Sector Natural Gas Expenditures | 34 | 39 | 59 | 57 | 57 | 70 | 48 | 51 | 54 | 57 |
| Non-Electricity Sector Natural Gas Expenditures | 122 | 148 | 153 | 155 | 152 | 158 | 149 | 151 | 152 | 149 |
| CES Compliance | | | 34 | 60 | 37 | 46 | 25 | 34 | 34 | 0 |
| Credits Required (percent of sales) | | | 31 | 59 | 35 | 34 | 25 | 25 | 28 | 0 |
| Credits Achieved (percent of sales) | | | 33 | 60 | 36 | 34 | 25 | 25 | 34 | 0 |
| Generation Achieved (percent of sales) | | | 44 | 72 | 71 | 49 | 35 | 36 | 40 | 0 |
| Total Electricity Sales (billion kilowatthours) ¹ | 3,556 | 4,105 | 4,073 | 3,981 | 4,065 | 4,022 | 4,128 | 4,089 | 4,080 | 3,924 |
| Emissions | | | | | | | | | | |
| Sulfur Dioxide (short tons) | 5.7 | 4.1 | 3.4 | 3.3 | 3.2 | 3.3 | 3.8 | 3.3 | 3.2 | 3.0 |
| Nitrogen Oxide (short tons) | 2.0 | 2.0 | 1.8 | 1.7 | 1.7 | 1.5 | 1.9 | 2.0 | 1.9 | 1.7 |
| Mercury (short tons) | 40.7 | 29.1 | 19.4 | 17.6 | 18.3 | 15.9 | 24.4 | 23.4 | 21.1 | 18.1 |
| Carbon Dioxide (million metric tons CO ₂) | 2,160 | 2,345 | 1,840 | 1,704 | 1,762 | 1,623 | 2,118 | 2,082 | 1,955 | 1,762 |
| Macroeconomic | | | | | | | | | | |
| GDP (billion 2005 dollars) | 12,881 | 20,012 | 19,963 | 19,947 | 19,951 | 19,947 | 19,994 | 19,990 | 19,983 | 19,942 |
| Per Capita GDP (thousand 2005 dollars/person) | 42 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Employment, Non-Farm (million) | 131 | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 156 |
| Employment, Manufacturing (million) | 12 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

¹ Excludes sales in Alaska and Hawaii

Source: U.S. Energy Information Administration, National Energy Modeling System, runs rehall.d082611b, cesbingbk.d100611a, cesbingbkac.d100611a, cesbingbkbr.d2100311a, cesbingbkpc.d100611a, cesbingbksm.d100311b, cesbingbk21.d100311b, cesbingbk30.d100311a, cesbingbksc.d100611a.

Table B2. The BCES and alternative cases compared to the Reference case, 2035

| | 2009 | 2035 | | 2035 | | | | | | |
|---|-------|-------|-------|-----------|----------------|------------------|-----------------|----------------|----------------|------------|
| | Ref | Ref | BCES | All Clean | Partial Credit | Revised Baseline | Small Utilities | Credit Cap 2.1 | Credit Cap 3.0 | Stnds+ Cds |
| Generation (billion kilowatthours) | | | | | | | | | | |
| Coal | 1,772 | 2,184 | 1,044 | 747 | 936 | 737 | 1,629 | 1,619 | 1,212 | 983 |
| Petroleum | 41 | 47 | 43 | 43 | 43 | 44 | 45 | 44 | 43 | 42 |
| Natural Gas | 931 | 1,293 | 1,980 | 1,840 | 1,658 | 2,007 | 1,277 | 1,432 | 1,582 | 1,778 |
| Nuclear | 799 | 868 | 783 | 1,114 | 1,269 | 999 | 1,105 | 932 | 1,048 | 748 |
| Conventional Hydropower | 274 | 314 | 312 | 319 | 300 | 323 | 322 | 322 | 329 | 321 |
| Geothermal | 15 | 42 | 49 | 51 | 55 | 50 | 53 | 50 | 51 | 52 |
| Municipal Waste | 18 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| Wood and Other Biomass | 38 | 181 | 295 | 243 | 271 | 245 | 323 | 350 | 301 | 285 |
| Solar | 3 | 21 | 24 | 65 | 22 | 66 | 23 | 25 | 47 | 53 |
| Wind | 71 | 159 | 351 | 355 | 363 | 327 | 319 | 241 | 360 | 325 |
| Other | 18 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Total Generation | 3,981 | 5,142 | 4,916 | 4,811 | 4,950 | 4,831 | 5,131 | 5,049 | 5,007 | 4,620 |
| Capacity (gigawatts) | | | | | | | | | | |
| | | | | 1 | | | | | | |
| Coal | 317 | 330 | 260 | 249 | 269 | 249 | 304 | 305 | 290 | 243 |
| Petroleum | 116 | 87 | 83 | 83 | 86 | 83 | 84 | 86 | 82 | 81 |
| Natural Gas | 351 | 455 | 496 | 458 | 448 | 483 | 443 | 455 | 470 | 450 |
| Nuclear | 101 | 110 | 155 | 142 | 163 | 127 | 141 | 118 | 138 | 138 |
| Conventional Hydropower | 78 | 81 | 83 | 82 | 78 | 83 | 83 | 83 | 84 | 83 |
| Geothermal | 2 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Municipal Waste | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Wood and Other Biomass | 7 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Solar | 2 | 13 | 14 | 33 | 13 | 33 | 13 | 14 | 24 | 26 |
| Wind | 32 | 55 | 116 | 120 | 123 | 109 | 105 | 81 | 119 | 108 |
| Other (including pumped storage) | 24 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Total | 1,033 | 1,185 | 1,263 | 1,222 | 1,236 | 1,221 | 1,228 | 1,198 | 1,262 | 1,185 |

Table B2. The BCES and alternative cases compared to the Reference case, 2035 (cont)

| | 2009 | 2035 | | 2035 | | | | | | |
|--|--------|--------|--------|-----------|----------------|------------------|-----------------|----------------|----------------|-------------|
| | Ref | Ref | BCES | All Clean | Partial Credit | Revised Baseline | Small Utilities | Credit Cap 2.1 | Credit Cap 3.0 | Stnds + Cds |
| Prices (2009 cents/kWh) | | | | | | | | | | |
| Credit Price | 0.0 | 0.0 | 11.6 | 11.4 | 9.9 | 13.7 | 4.7 | 5.6 | 8.0 | 10.6 |
| Electricity Price | 9.8 | 9.4 | 11.3 | 11.9 | 11.1 | 12.0 | 9.5 | 10.2 | 10.6 | 11.0 |
| Residential | 11.5 | 10.9 | 13.0 | 13.5 | 12.8 | 13.5 | 11.2 | 11.9 | 12.3 | 13.0 |
| Commercial | 10.1 | 9.4 | 11.4 | 12.0 | 11.2 | 12.1 | 9.5 | 10.3 | 10.6 | 11.0 |
| Industrial | 6.8 | 6.6 | 8.2 | 8.7 | 8.0 | 8.8 | 6.6 | 7.3 | 7.6 | 8.0 |
| Average Delivered Natural Gas Price (2009 dollars/Mcf) | 7.5 | 9.2 | 9.7 | 9.3 | 9.3 | 9.5 | 8.9 | 9.1 | 9.2 | 9.3 |
| Expenditures (billion 2009 dollars) | | | | | | | | | | |
| Total Electricity Expenditures | 350 | 417 | 480 | 490 | 471 | 498 | 423 | 445 | 456 | 436 |
| Residential Electricity Expenditures | 156 | 176 | 201 | 205 | 197 | 207 | 179 | 187 | 192 | 176 |
| Household Electricity Expenditures (2009 Dollars/Household) | 1,379 | 1,196 | 1,366 | 1,398 | 1,342 | 1,409 | 1,217 | 1,276 | 1,307 | 1,198 |
| Natural Gas Expenditures | 156 | 227 | 279 | 261 | 256 | 277 | 217 | 230 | 241 | 253 |
| Electricity Sector Natural Gas Expenditures | 34 | 55 | 97 | 80 | 79 | 94 | 52 | 59 | 67 | 84 |
| Non-Electricity Sector Natural Gas Expenditures | 122 | 171 | 182 | 180 | 176 | 183 | 165 | 171 | 174 | 169 |
| CES Compliance | | | | | | | | | | |
| Credits Required (percent of sales) | | | 56 | 80 | 58 | 74 | 42 | 56 | 56 | 56 |
| Credits Achieved (percent of sales) | | | 55 | 77 | 58 | 52 | 35 | 32 | 44 | 55 |
| Generation Achieved (percent of sales) | | | 72 | 92 | 93 | 70 | 45 | 43 | 56 | 70 |
| Total Electricity Sales (billion kilowatthours) ¹ | 3,556 | 4,428 | 4,220 | 4,085 | 4,225 | 4,136 | 4,435 | 4,328 | 4,282 | 3,938 |
| Emissions | | | | | | | | | | |
| Sulfur Dioxide (short tons) | 5.7 | 3.7 | 2.7 | 1.7 | 2.5 | 1.6 | 3.5 | 3.6 | 3.3 | 2.8 |
| Nitrogen Oxide (short tons) | 2.0 | 2.0 | 1.4 | 1.0 | 1.1 | 0.9 | 1.8 | 1.9 | 1.5 | 1.3 |
| Mercury (short tons) | 40.7 | 29.2 | 14.5 | 11.1 | 13.5 | 11.4 | 21.4 | 22.2 | 16.1 | 13.7 |
| Carbon Dioxide (million metric tons CO ₂) | 2,160 | 2,500 | 1,428 | 1,008 | 986 | 962 | 1,921 | 1,950 | 1,491 | 1,235 |
| Macroeconomic | | | | | | | | | | |
| GDP (billion 2005 dollars) | 12,881 | 25,686 | 25,562 | 25,528 | 25,563 | 25,610 | 25,641 | 25,650 | 25,606 | 25,472 |
| Per Capita GDP (thousand 2005 dollars/person) | 42 | 66 | 66 | 65 | 66 | 66 | 66 | 66 | 66 | 65 |
| Employment, Non-Farm (million) | 131 | 171 | 171 | 171 | 171 | 171 | 171 | 171 | 171 | 171 |
| Employment, Manufacturing (million) | 12 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |

¹ Excludes sales in Alaska and Hawaii

Source: U.S. Energy Information Administration, National Energy Modeling System, runs rehall.d082611b, cesbingbk.d100611a, cesbingbkac.d100611a, cesbingbkrb.d2100311a, cesbingbkpc.d100611a, cesbingbksm.d100311b, cesbingbk21.d100311b, cesbingbk30.d100311a, cesbingbksc.d100611a.