

**Appendix E**

# **Projections of Nuclear Generating Capacity**

- **Reference**
- **High Growth**
- **Low Growth**



**Table E1. World Nuclear Generating Capacity by Region and Country, Reference Case, 2000-2025**  
(Megawatts)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	2000	2001	2002	2010	2015	2020	2025	
<b>Industrialized Countries</b>								
<b>North America</b> . . . . .	<b>109,238</b>	<b>109,537</b>	<b>110,035</b>	<b>116,489</b>	<b>118,042</b>	<b>119,252</b>	<b>116,395</b>	<b>0.3</b>
United States . . . . .	97,860	98,159	98,657	100,570	102,123	102,603	102,603	0.2
Canada . . . . .	10,018	10,018	10,018	14,477	14,477	15,207	12,351	0.9
Mexico . . . . .	1,360	1,360	1,360	1,442	1,442	1,442	1,442	0.2
<b>Western Europe</b> . . . . .	<b>125,926</b>	<b>125,926</b>	<b>125,530</b>	<b>125,002</b>	<b>119,541</b>	<b>103,856</b>	<b>92,737</b>	<b>-1.3</b>
United Kingdom . . . . .	12,498	12,498	12,102	9,639	7,229	6,019	3,619	-5.0
France . . . . .	63,073	63,073	63,073	66,610	68,210	69,810	69,810	0.4
Germany . . . . .	21,283	21,283	21,283	17,320	12,669	1,345	0	-100.0
Netherlands . . . . .	450	450	450	450	450	450	0	-100.0
Other . . . . .	28,622	28,622	28,622	30,982	30,982	26,231	19,307	-1.6
<b>Industrialized Asia</b> . . . . .	<b>43,245</b>	<b>43,245</b>	<b>43,602</b>	<b>50,308</b>	<b>53,148</b>	<b>56,882</b>	<b>54,281</b>	<b>1.0</b>
Japan . . . . .	43,245	43,245	43,602	50,308	53,148	56,882	54,281	1.0
<b>Total Industrialized</b> . . . . .	<b>278,409</b>	<b>278,708</b>	<b>279,167</b>	<b>291,798</b>	<b>290,730</b>	<b>279,989</b>	<b>263,413</b>	<b>-0.2</b>
<b>EE/FSU</b>								
<b>Former Soviet Union</b> . . . . .	<b>33,796</b>	<b>34,746</b>	<b>34,746</b>	<b>41,226</b>	<b>42,750</b>	<b>39,280</b>	<b>35,615</b>	<b>0.1</b>
Russia . . . . .	19,843	20,793	20,793	25,886	27,786	24,501	20,835	0.0
Other FSU . . . . .	13,953	13,953	13,953	15,340	14,964	14,779	14,779	0.2
<b>Eastern Europe</b> . . . . .	<b>10,676</b>	<b>11,588</b>	<b>11,684</b>	<b>12,175</b>	<b>13,830</b>	<b>12,965</b>	<b>12,965</b>	<b>0.5</b>
<b>Total EE/FSU</b> . . . . .	<b>44,472</b>	<b>46,334</b>	<b>46,430</b>	<b>53,401</b>	<b>56,580</b>	<b>52,245</b>	<b>48,580</b>	<b>0.2</b>
<b>Developing Countries</b>								
<b>Developing Asia</b> . . . . .	<b>22,814</b>	<b>23,016</b>	<b>27,987</b>	<b>40,939</b>	<b>52,844</b>	<b>61,772</b>	<b>66,712</b>	<b>4.5</b>
China . . . . .	2,167	2,167	5,328	8,803	15,803	17,803	20,793	9.9
India . . . . .	2,348	2,550	2,460	6,176	7,406	8,923	8,923	5.4
South Korea . . . . .	12,990	12,990	14,890	17,646	21,446	26,257	27,607	3.2
Other . . . . .	5,309	5,309	5,309	8,314	8,189	8,789	9,389	2.4
<b>Middle East</b> . . . . .	<b>0</b>	<b>0</b>	<b>0</b>	<b>915</b>	<b>2,111</b>	<b>2,111</b>	<b>2,111</b>	<b>—</b>
<b>Africa</b> . . . . .	<b>1,800</b>	<b>1,800</b>	<b>1,800</b>	<b>1,908</b>	<b>2,038</b>	<b>2,038</b>	<b>2,038</b>	<b>0.5</b>
<b>Central/South America</b> . . . . .	<b>2,836</b>	<b>2,836</b>	<b>2,836</b>	<b>2,836</b>	<b>2,836</b>	<b>2,501</b>	<b>2,501</b>	<b>-0.5</b>
Brazil . . . . .	1,901	1,901	1,901	1,901	1,901	1,901	1,901	0.0
Other . . . . .	935	935	935	935	935	600	600	-1.8
<b>Total Developing</b> . . . . .	<b>27,450</b>	<b>27,652</b>	<b>32,623</b>	<b>46,598</b>	<b>59,829</b>	<b>68,422</b>	<b>73,362</b>	<b>4.1</b>
<b>Total World</b> . . . . .	<b>350,331</b>	<b>352,694</b>	<b>358,220</b>	<b>391,798</b>	<b>407,140</b>	<b>400,656</b>	<b>385,355</b>	<b>0.4</b>

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding.

Sources: **History:** International Atomic Energy Agency, *Nuclear Power Reactors in the World 2001* (Vienna, Austria, April 2003). **Projections:** Energy Information Administration (EIA), *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A9; and EIA, Office of Coal, Nuclear, Electric and Alternate Fuels, based on detailed assessments of country-specific nuclear power plants.

**Table E2. World Nuclear Generating Capacity by Region and Country, High Growth Case, 2000-2025**  
(Megawatts)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	2000	2001	2002	2010	2015	2020	2025	
<b>Industrialized Countries</b>								
<b>North America</b> . . . . .	<b>109,238</b>	<b>109,537</b>	<b>110,035</b>	<b>116,489</b>	<b>119,502</b>	<b>121,712</b>	<b>122,712</b>	<b>0.5</b>
United States . . . . .	97,860	98,159	98,657	100,570	102,123	102,603	102,603	0.2
Canada . . . . .	10,018	10,018	10,018	14,477	15,937	16,667	16,667	2.1
Mexico . . . . .	1,360	1,360	1,360	1,442	1,442	2,442	3,442	3.9
<b>Western Europe</b> . . . . .	<b>125,926</b>	<b>125,926</b>	<b>125,530</b>	<b>130,819</b>	<b>134,039</b>	<b>141,639</b>	<b>148,037</b>	<b>0.7</b>
United Kingdom . . . . .	12,498	12,498	12,102	10,619	10,639	12,639	11,674	-0.3
France . . . . .	63,073	63,073	63,073	66,610	69,810	71,410	73,010	0.6
Germany . . . . .	21,283	21,283	21,283	21,521	21,521	21,521	22,284	0.2
Italy . . . . .	0	0	0	0	0	1,000	1,000	—
Netherlands . . . . .	450	450	450	450	450	450	1,450	5.0
Other . . . . .	28,622	28,622	28,622	31,618	31,618	34,618	38,618	1.3
<b>Industrialized Asia</b> . . . . .	<b>43,245</b>	<b>43,245</b>	<b>43,602</b>	<b>52,555</b>	<b>59,671</b>	<b>65,371</b>	<b>72,771</b>	<b>2.2</b>
Japan . . . . .	43,245	43,245	43,602	52,555	59,671	65,371	72,771	2.2
<b>Total Industrialized</b> . . . . .	<b>278,409</b>	<b>278,708</b>	<b>279,167</b>	<b>299,862</b>	<b>313,211</b>	<b>328,721</b>	<b>343,519</b>	<b>0.9</b>
<b>EE/FSU</b>								
<b>Former Soviet Union</b> . . . . .	<b>33,796</b>	<b>34,746</b>	<b>34,746</b>	<b>43,946</b>	<b>47,496</b>	<b>55,375</b>	<b>65,341</b>	<b>2.7</b>
Russia . . . . .	19,843	20,793	20,793	28,606	31,156	37,686	43,742	3.1
Other FSU . . . . .	13,953	13,953	13,953	15,340	16,340	17,689	21,599	1.8
<b>Eastern Europe</b> . . . . .	<b>10,676</b>	<b>11,588</b>	<b>11,684</b>	<b>12,563</b>	<b>15,606</b>	<b>18,336</b>	<b>22,066</b>	<b>2.7</b>
<b>Total EE/FSU</b> . . . . .	<b>44,472</b>	<b>46,334</b>	<b>46,430</b>	<b>56,509</b>	<b>63,102</b>	<b>73,711</b>	<b>87,407</b>	<b>2.7</b>
<b>Developing Countries</b>								
<b>Developing Asia</b> . . . . .	<b>22,814</b>	<b>23,016</b>	<b>27,987</b>	<b>43,989</b>	<b>58,573</b>	<b>71,954</b>	<b>89,173</b>	<b>5.8</b>
China . . . . .	2,167	2,167	5,328	10,903	17,903	20,903	24,903	10.7
India . . . . .	2,348	2,550	2,460	6,176	8,960	11,860	12,123	6.7
South Korea . . . . .	12,990	12,990	14,890	18,596	22,796	26,846	32,246	3.9
Other . . . . .	5,309	5,309	5,309	8,314	8,914	12,345	19,901	5.7
<b>Middle East</b> . . . . .	<b>0</b>	<b>0</b>	<b>0</b>	<b>915</b>	<b>2,111</b>	<b>3,111</b>	<b>7,111</b>	<b>—</b>
Turkey . . . . .	0	0	0	0	0	0	2,000	—
Other . . . . .	0	0	0	915	2,111	3,111	5,111	—
<b>Africa</b> . . . . .	<b>1,800</b>	<b>1,800</b>	<b>1,800</b>	<b>2,038</b>	<b>2,298</b>	<b>2,558</b>	<b>4,818</b>	<b>4.2</b>
<b>Central/South America</b> . . . . .	<b>2,836</b>	<b>2,836</b>	<b>2,836</b>	<b>2,836</b>	<b>4,757</b>	<b>4,757</b>	<b>5,757</b>	<b>3.0</b>
Brazil . . . . .	1,901	1,901	1,901	1,901	3,130	3,130	4,130	3.3
Other . . . . .	935	935	935	935	1,627	1,627	1,627	2.3
<b>Total Developing</b> . . . . .	<b>27,450</b>	<b>27,652</b>	<b>32,623</b>	<b>49,778</b>	<b>67,739</b>	<b>82,380</b>	<b>106,859</b>	<b>5.8</b>
<b>Total World</b> . . . . .	<b>350,331</b>	<b>352,694</b>	<b>358,220</b>	<b>406,149</b>	<b>444,053</b>	<b>484,813</b>	<b>537,786</b>	<b>1.8</b>

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding.

Sources: **History:** International Atomic Energy Agency, *Nuclear Power Reactors in the World 2001* (Vienna, Austria, April 2003). **Projections:** Energy Information Administration (EIA), *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A9; and EIA, Office of Coal, Nuclear, Electric and Alternate Fuels, based on detailed assessments of country-specific nuclear power plants.

**Table E3. World Nuclear Generating Capacity by Region and Country, Low Growth Case, 2000-2025**  
(Megawatts)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	2000	2001	2002	2010	2015	2020	2025	
<b>Industrialized Countries</b>								
<b>North America</b> . . . . .	<b>109,238</b>	<b>109,537</b>	<b>110,035</b>	<b>116,489</b>	<b>115,185</b>	<b>113,990</b>	<b>110,731</b>	<b>0.0</b>
United States . . . . .	97,860	98,159	98,657	100,570	102,123	102,603	102,603	0.2
Canada . . . . .	10,018	10,018	10,018	14,477	11,621	9,946	6,687	-1.7
Mexico . . . . .	1,360	1,360	1,360	1,442	1,442	1,442	1,442	0.2
<b>Western Europe</b> . . . . .	<b>125,926</b>	<b>125,926</b>	<b>125,530</b>	<b>112,807</b>	<b>97,181</b>	<b>79,205</b>	<b>43,734</b>	<b>-4.3</b>
United Kingdom . . . . .	12,498	12,498	12,102	6,019	2,994	1,814	1,259	-9.1
France . . . . .	63,073	63,073	63,073	66,610	66,610	59,412	36,442	-2.3
Germany . . . . .	21,283	21,283	21,283	12,669	1,345	0	0	-100.0
Netherlands . . . . .	450	450	450	450	0	0	0	-100.0
Other . . . . .	28,622	28,622	28,622	27,058	26,231	17,979	6,033	-6.3
<b>Industrialized Asia</b> . . . . .	<b>43,245</b>	<b>43,245</b>	<b>43,602</b>	<b>49,396</b>	<b>49,470</b>	<b>42,492</b>	<b>38,074</b>	<b>-0.5</b>
Japan . . . . .	43,245	43,245	43,602	49,396	49,470	42,492	38,074	-0.5
<b>Total Industrialized</b> . . . . .	<b>278,409</b>	<b>278,708</b>	<b>279,167</b>	<b>278,692</b>	<b>261,836</b>	<b>235,687</b>	<b>192,539</b>	<b>-1.5</b>
<b>EE/FSU</b>								
<b>Former Soviet Union</b> . . . . .	<b>33,796</b>	<b>34,746</b>	<b>34,746</b>	<b>35,954</b>	<b>32,365</b>	<b>27,457</b>	<b>16,638</b>	<b>-3.0</b>
Russia . . . . .	19,843	20,793	20,793	22,174	18,585	13,678	7,689	-4.1
Other FSU . . . . .	13,953	13,953	13,953	13,779	13,779	13,779	8,949	-1.8
<b>Eastern Europe</b> . . . . .	<b>10,676</b>	<b>11,588</b>	<b>11,684</b>	<b>11,310</b>	<b>11,310</b>	<b>11,965</b>	<b>10,017</b>	<b>-0.6</b>
<b>Total EE/FSU</b> . . . . .	<b>44,472</b>	<b>46,334</b>	<b>46,430</b>	<b>47,264</b>	<b>43,675</b>	<b>39,423</b>	<b>26,655</b>	<b>-2.3</b>
<b>Developing Countries</b>								
<b>Developing Asia</b> . . . . .	<b>22,814</b>	<b>23,016</b>	<b>27,987</b>	<b>37,813</b>	<b>42,628</b>	<b>51,088</b>	<b>51,698</b>	<b>3.4</b>
China . . . . .	2,167	2,167	5,328	8,603	9,793	14,793	16,514	8.8
India . . . . .	2,348	2,550	2,460	3,964	5,689	7,821	7,572	4.6
South Korea . . . . .	12,990	12,990	14,890	17,057	18,957	21,566	24,000	2.6
Other . . . . .	5,309	5,309	5,309	8,189	8,189	6,909	3,612	-1.6
<b>Middle East</b> . . . . .	<b>0</b>	<b>0</b>	<b>0</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>—</b>
<b>Africa</b> . . . . .	<b>1,800</b>	<b>1,800</b>	<b>1,800</b>	<b>1,908</b>	<b>2,038</b>	<b>1,908</b>	<b>0</b>	<b>-100.0</b>
<b>Central/South America</b> . . . . .	<b>2,836</b>	<b>2,836</b>	<b>2,836</b>	<b>2,501</b>	<b>2,501</b>	<b>1,275</b>	<b>1,275</b>	<b>-3.3</b>
Brazil . . . . .	1,901	1,901	1,901	1,901	1,901	1,275	1,275	-1.7
Other . . . . .	935	935	935	600	600	0	0	-100.0
<b>Total Developing</b> . . . . .	<b>27,450</b>	<b>27,652</b>	<b>32,623</b>	<b>43,137</b>	<b>48,082</b>	<b>55,186</b>	<b>53,888</b>	<b>2.8</b>
<b>Total World</b> . . . . .	<b>350,331</b>	<b>352,694</b>	<b>358,220</b>	<b>369,092</b>	<b>353,593</b>	<b>330,296</b>	<b>273,083</b>	<b>-1.1</b>

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding.

Sources: **History:** International Atomic Energy Agency, *Nuclear Power Reactors in the World 2001* (Vienna, Austria, April 2003). **Projections:** Energy Information Administration (EIA), *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A9; and EIA, Office of Coal, Nuclear, Electric and Alternate Fuels, based on detailed assessments of country-specific nuclear power plants.