

# World Nuclear Power Reactors & Uranium Requirements

2 March 2011

This table includes only those future reactors envisaged in specific plans and proposals and expected to be operating by 2030. Longer-range estimates based on national strategies, capabilities and needs may be found in the WNA [Nuclear Century Outlook](#). The WNA country papers linked to this table cover both areas: near-term developments and the prospective long-term role for nuclear power in national energy policies.

COUNTRY <small>(Click name for Country Profile)</small>	NUCLEAR ELECTRICITY GENERATION 2009		REACTORS OPERABLE 1 Mar 2011		REACTORS UNDER CONSTRUCTION 1 Mar 2011		REACTORS PLANNED March 2011		REACTORS PROPOSED March 2011		URANIUM REQUIRED 2011
	billion kWh	% e	No.	MWe net	No.	MWe gross	No.	MWe gross	No.	MWe gross	tonnes U
Argentina	7.6	7.0	2	935	1	745	2	773	1	740	208
Armenia	2.3	45	1	376	0	0	1	1060			56
Bangladesh	0	0	0	0	0	0	2	2000	0	0	0
Belarus	0	0	0	0	0	0	2	2000	2	2000	0
Belgium	45	51.7	7	5943	0	0	0	0	0	0	1052
Brazil	12.2	3.0	2	1901	1	1405	0	0	4	4000	311
Bulgaria	14.2	35.9	2	1906	0	0	2	1900	0	0	275
Canada	85.3	14.8	18	12679	2	1500	3	3300	3	3800	1884
Chile	0	0	0	0	0	0	0	0	4	4400	0
China	65.7	1.9	13	10234	27	29790	50	57830	110	108000	4402
Czech Republic	25.7	33.8	6	3722	0	0	2	2400	1	1200	680
Egypt	0	0	0	0	0	0	1	1000	1	1000	0
Finland	22.6	32.9	4	2721	1	1700	0	0	2	3000	468
France	391.7	75.2	58	63130	1	1720	1	1720	1	1100	9221
Germany	127.7	26.1	17	20339	0	0	0	0	0	0	3453
Hungary	14.3	43	4	1880	0	0	0	0	2	2200	295
India	14.8	2.2	20	4385	5	3900	18	15700	40	49000	1053
Indonesia	0	0	0	0	0	0	2	2000	4	4000	0
Iran	0	0	0	0	1	1000	2	2000	1	300	150
Israel	0	0	0	0	0	0	0	0	1	1200	0
Italy	0	0	0	0	0	0	0	0	10	17000	0
Japan	263.1	28.9	55	47348	2	2756	12	16538	1	1300	8195
Jordan	0	0	0	0	0	0	1	1000			0
Kazakhstan	0	0	0	0	0	0	2	600	2	600	0
Korea DPR (North)	0	0	0	0	0	0	0	0	1	950	0

Korea RO (South)	141.1	34.8	21	18675	5	5800	6	8400	0	0	3586
Lithuania	10.0	76.2	0	0	0	0	0	0	1	1700	0
Malaysia	0	0	0	0	0	0	0	0	1	1200	0
Mexico	10.1	4.8	2	1600	0	0	0	0	2	2000	247
Netherlands	4.0	3.7	1	485	0	0	0	0	1	1000	107
Pakistan	2.6	2.7	2	400	1	300	2	600	2	2000	68
Poland	0	0	0	0	0	0	6	6000	0	0	0
Romania	10.8	20.6	2	1310	0	0	2	1310	1	655	175
Russia	152.8	17.8	32	23084	10	8960	14	16000	30	28000	3757
Slovakia	13.1	53.5	4	1816	2	880	0	0	1	1200	267
Slovenia	5.5	37.9	1	696	0	0	0	0	1	1000	145
South Africa	11.6	4.8	2	1800	0	0	0	0	6	9600	321
Spain	50.6	17.5	8	7448	0	0	0	0	0	0	1458
Sweden	50.0	34.7	10	9399	0	0	0	0	0	0	1537
Switzerland	26.3	39.5	5	3252	0	0	0	0	3	4000	557
Thailand	0	0	0	0	0	0	0	0	5	5000	0
Turkey	0	0	0	0	0	0	4	4800	4	5600	0
Ukraine	77.9	48.6	15	13168	0	0	2	1900	20	27000	2037
UAE	0	0	0	0	0	0	4	5600	10	14400	0
United Kingdom	62.9	17.9	19	10962	0	0	4	6680	9	12000	2235
USA	798.7	20.2	104	101229	1	1218	9	11662	23	34000	19427
Vietnam	0	0	0	0	0	0	2	2000	12	13000	0
<b>WORLD**</b>	<b>2560</b>	<b>14</b>	<b>443</b>	<b>377,750</b>	<b>62</b>	<b>64,374</b>	<b>158</b>	<b>176,773</b>	<b>324</b>	<b>368,295</b>	<b>68,971</b>
	<b>billion kWh</b>	<b>% e</b>	<b>No.</b>	<b>MWe</b>	<b>No.</b>	<b>MWe</b>	<b>No.</b>	<b>MWe</b>	<b>No.</b>	<b>MWe</b>	<b>tonnes U</b>
	<b>NUCLEAR ELECTRICITY GENERATION</b>		<b>REACTORS OPERATING</b>		<b>REACTORS BUILDING</b>		<b>ON ORDER or PLANNED</b>		<b>PROPOSED</b>		<b>URANIUM REQUIRED</b>

## Sources:

Reactor data: WNA to 1/3/11

IAEA- for nuclear electricity production &amp; percentage of electricity (% e) 3/5/10.

WNA: Global Nuclear Fuel Market report 2009 (reference scenario) - for U.

Operating = Connected to the grid;

Building/Construction = first concrete for reactor poured, or major refurbishment under way;

Planned = Approvals, funding or major commitment in place, mostly expected in operation within 8-10 years;

Proposed = Specific program or site proposals, expected operation mostly within 15 years.

New plants coming on line are balanced by old plants being retired. Over 1996-2009, 43 reactors were retired as 49 started operation. There are no firm projections for retirements over the period covered by this Table, but WNA estimates that at least 60 of those now operating will close by 2030, most being small plants. The 2009 WNA Market Report reference case has 143 reactors closing by 2030.

TWh = Terawatt-hours (billion kilowatt-hours), MWe = Megawatt (electrical as distinct from thermal), kWh = kilowatt-hour.

 68,971 tU = 81,338 t U<sub>3</sub>O<sub>8</sub>

\*\* The world total includes 6 reactors operating on [Taiwan](#) with a combined capacity of 4927 MWe, which generated a total of 39.9 billion kWh in 2009 (accounting for 20.7% of Taiwan's total electricity generation). Taiwan has two reactors under construction with a combined capacity of 2700 MWe, and one proposed, 1350 MWe. U demand of 1344 t is expected in 2011.

See also: [WANO map](#) (PDF, 1.5 MB)

Note: This table is routinely updated every two months, and more frequently as required.

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