

Energy Indicators of Japan

Energy and Economy Indicators of Japan (Quarterly)

Quarterly	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	Growth Rate: Annual or quarterly				
						2016Q1	2016Q2	2016Q3	2016Q4	2017Q1
						%	%	%	%	%
Economy										
RGDP (Billion yen in 2005 price)	518,588	521,385	522,979	524,556	-	(0.5)	(0.5)	(0.3)	(0.3)	-
GDP (Billion yen)	535,005	536,914	537,622	539,733	-	(0.7)	(0.4)	(0.1)	(0.4)	-
IIP (2010=100)	96.1	96.3	97.6	99.6	99.8	(-1.0)	(0.2)	(1.3)	(2.0)	(0.2)
Raw Materials Production (1,000t)										
Crude Steel	25,839	26,210	26,339	26,386	26,229	-3.4	1.4	0.5	0.2	1.5
Ethylene	1,665	1,483	1,475	1,657	1,672	-5.8	-7.4	-14.7	-7.2	0.4
Cement	13,028	12,369	13,332	14,530	13,369	-4.3	-5.1	-1.8	-0.5	2.6
Paper & Pulp	6,575	6,520	6,511	6,673	-	0.1	0.4	0.3	-0.0	-
Domestic Corporate Goods PI (2015=100)										
CPI (2015=100)	97.0	96.4	96.1	96.5	98.0	-6.1	-7.0	-6.3	-2.1	1.0
Exchange Rate (¥/\$)	115.45	108.17	102.40	109.32	113.60	(-5.0)	(-6.3)	(-5.3)	(6.8)	(3.9)
Crude Oil Price (CIF, \$/Bbl)	33.07	41.02	46.24	47.28	54.93	(-28.4)	(24.1)	(12.7)	(2.2)	(16.2)
LNG Price (CIF, \$/MMBtu)	394.43	311.93	345.78	379.74	396.31	(-14.9)	(-20.9)	(10.9)	(9.8)	(4.4)
Steaming Coal (CIF, \$/t)	69.71	68.68	70.14	83.47	96.55	(-4.7)	(-1.5)	(2.1)	(19.0)	(15.7)
Heating Degree Day	624	23	0	263	679	-3.8	-42.4	-	24.9	8.9
Cooling Degree Day	0	29	393	9	0	-	64.7	29.0	-	-
Energy										
Total Primary Energy Supply (ktoe)	125,169	105,256	114,081	119,355	124,856	-0.7	-0.5	-1.6	6.5	-0.3
Coal	33,574	26,382	32,631	31,228	31,522	3.7	-3.1	-3.0	6.7	-6.1
Oil	52,579	43,476	43,828	51,308	51,040	-4.9	-3.8	-6.5	4.7	-2.9
Crude Oil	47,388	42,572	43,762	45,341	45,940	-1.0	4.1	-3.0	2.5	-3.1
Petroleum Products	5,192	905	66	5,967	5,100	-29.9	-79.0	-96.3	25.8	-1.8
Natural Gas	857	678	681	727	914	-0.8	3.9	4.6	0.4	6.7
LNG	30,950	24,616	27,613	27,701	32,193	-2.5	-0.8	0.6	3.0	4.0
Hydro	3,902	4,875	4,016	3,421	3,506	4.1	-15.9	-20.8	-4.3	-10.1
Nuclear	1,019	817	997	834	970	-	-	412.4	12.1	-4.8
New Energies ※ ¹	2,288	4,413	4,314	4,136	4,711	13.0	-	-	-	-
CO ₂ Emission (Mt- CO ₂)	317.9	253.5	284.0	298.1	307.5	-1.2	-3.0	-3.2	5.9	-3.3
Electricity										
Total Power Supply (Million kWh)	252,588	224,182	251,188	243,205	-	-1.9	-	-	-	-
Power Generation (Million kWh)	204,503	200,760	229,542	239,135	-	-2.2	-	-	-	-
Hydro	16,157	24,329	21,171	18,293	-	5.9	-	-	-	-
Thermal	182,757	169,775	200,344	198,186	-	-5.4	-	-	-	-
Nuclear	4,913	3,939	4,885	4,018	-	-	-	-	-	-
New Energies	676	2,649	3,071	3,269	-	-4.1	-	-	-	-
Fuel Consumption										
Coal (1,000t)	21,967	22,853	30,099	28,793	-	-0.1	-	-	-	-
Crude Oil (1,000kl)	1,716	643	687	586	-	-16.6	-	-	-	-
Fuel Oil (1,000kl)	2,181	980	2,086	2,070	-	-33.1	-	-	-	-
LNG (1,000t)	14,049	12,003	14,326	13,511	-	-5.6	-	-	-	-
Electricity Sale (Million kWh)										
Low voltage	91,813	66,431	75,871	70,677	-	-3.9	-	-	-	-
Lighting Contract	84,309	58,438	65,259	62,401	-	-3.7	-	-	-	-
Power Contract	7,504	7,993	10,611	8,277	-	-5.4	-	-	-	-
High voltage ※ ²	76,583	70,736	85,136	74,199	-	-0.6	-	-	-	-
Extra-High Voltage	55,277	56,787	61,056	57,347	-	-1.3	-	-	-	-
Electric Power Demand ※ ³ (Million kWh)	-	206,301	233,234	218,699	-	-	-	-	-	-
Natural Gas										
City Gas Sale (Million m ³)	11,031	8,647	8,540	9,002	11,512	-2.8	1.6	1.4	5.9	4.4
Residential	3,664	2,269	1,185	2,154	3,797	-5.3	-0.3	-4.4	4.5	3.6
Commercial	1,205	925	1,175	961	1,232	-3.7	-2.6	1.0	5.0	2.2
Industrial	5,227	4,887	5,336	5,223	5,510	-0.4	3.8	2.2	5.4	5.4
Others	934	566	844	663	972	-4.1	-0.8	6.0	15.7	4.1
Oil										
Fuel Type Product Sale (1,000kl)	49,181	40,238	41,529	47,243	47,791	-2.8	-3.6	-3.4	1.3	-2.8
Gasoline	12,641	12,702	14,096	13,404	12,301	0.1	-1.0	-0.9	-0.2	-2.7
Naphtha	11,745	10,629	10,510	11,761	11,928	-2.7	-2.1	-9.8	-1.8	1.6
Kerosene	7,353	2,022	1,526	5,441	7,246	0.9	-0.5	-3.0	9.1	-1.5
Diesel Gas Oil	8,319	7,871	8,460	8,761	8,249	-0.6	-4.0	0.5	0.9	-0.8
Fuel Oil A	3,789	2,680	2,412	3,289	3,605	1.0	3.6	3.2	4.2	-4.9
Fuel Oil B/C	4,005	2,984	3,174	3,299	3,159	-23.6	-24.2	0.9	4.5	-21.1
for Power Generation	2,063	1,858	2,021	1,978	-	-37.3	-15.1	30.5	31.8	-
LPG (1,000t)	3,502	2,927	2,819	3,333	3,697	-14.2	-1.1	-3.6	9.8	5.6
Crude Oil										
Import (1,000kl)	50,279	47,863	46,739	47,843	48,602	-2.6	3.4	-6.0	-0.8	-3.3
Middle East Ratio (%)	85.2	88.3	85.7	87.4	87.4	[2.4]	[6.6]	[2.5]	[7.8]	[2.2]
Crude Oil Processing (1,000kl)	50,194	46,037	47,361	47,527	49,640	-0.6	5.7	-1.9	1.0	-1.1

Note: Growth Rate in (xx) shows the growth rate from the previous quarter, and in [xx] shows the difference from the previous year.

※¹ The scope of the survey has been modified since April 2016.

※² The data until FY 2015 include regulated demand figures.

※³ Indicates figures are retrieved from Organization for Cross-regional Coordination of Transmission Operators, Japan "Electric Power Demand".

Source: IEEJ Databank. Original statistics are sourced and compiled from statistics of METI, MOF and Bank of Japan.

Energy and Economy Indicators of Japan(Calendar Year)

Calendar Year	2012	2013	2014	2015	2016	Annual Growth Rate				
						2012	2013	2014	2015	2016
Economy						%	%	%	%	%
RGDP (Billion yen in 2005 price)	498,803	508,781	510,489	516,714	-	1.5	2.0	0.3	1.2	-
GDP (Billion yen)	494,957	503,176	513,698	530,545	-	0.7	1.7	2.1	3.3	-
IIP (2010=100)	97.8	97.0	99.0	97.8	97.6	0.6	-0.8	2.1	-1.2	-0.2
Raw Materials Production (1,000t)										
Crude Steel	107,232	110,595	110,666	105,134	104,774	-0.3	3.1	0.1	-5.0	-0.3
Ethylene	6,145	6,696	6,647	6,883	6,279	-8.1	9.0	-0.7	3.5	-8.8
Cement	54,737	57,962	57,913	54,827	53	6.7	5.9	-0.1	-5.3	-99.9
Paper and Paperboard	25,957	26,241	26,479	26,228	24,097	-2.5	1.1	0.9	-0.9	-8.1
Domestic Corporate Goods PI (2010=100)	100.6	101.9	105.1	102.8	96.5	-0.9	1.3	3.2	-2.3	-6.1
CPI (2010=100)	96.2	96.6	99.2	100.0	99.9	-0.1	0.4	2.7	0.8	-0.1
Exchange Rate (¥/\$)	79.81	97.63	105.85	121.03	108.84	-0.0	22.3	8.4	14.3	-10.1
Crude Oil Price (CIF, \$/Bbl)	114.89	110.41	104.72	55.02	41.44	5.8	-3.9	-5.2	-47.5	-24.7
LNG Price (CIF, \$/MMBtu)	864.35	832.89	842.88	536.03	361.64	13.4	-3.6	1.2	-36.4	-32.5
Steaming Coal (CIF, \$/t)	134.00	111.42	97.79	79.57	73.20	-2.4	-16.9	-12.2	-18.6	-8.0
Heating Degree Day	1,153	1,026	1,022	900	910	6.6	-11.0	-0.4	-11.9	1.2
Cooling Degree Day	462	512	363	322	431	-2.2	10.7	-29.1	-11.3	33.8
Energy										
Total Primary Energy Supply (ktoe)	486,711	483,500	470,549	459,873	463,699	-0.6	-0.7	-2.7	-2.3	0.8
Coal	117,859	123,899	124,238	122,502	124,302	4.5	5.1	0.3	-1.4	1.5
Oil	223,950	215,923	202,541	196,353	191,059	5.4	-3.6	-6.2	-3.1	-2.7
Crude Oil	193,974	193,364	181,583	178,131	179,073	2.5	-0.3	-6.1	-1.9	0.5
Petroleum Products	29,976	22,559	20,958	18,222	11,986	28.7	-24.7	-7.1	-13.1	-34.2
Natural Gas	3,383	3,150	2,997	2,892	2,937	-1.7	-6.9	-4.8	-3.5	1.6
LNG	114,590	113,655	116,182	110,911	110,859	12.1	-0.8	2.2	-4.5	-0.0
Hydro	16,629	16,922	17,165	18,187	18,063	-7.2	1.8	1.4	6.0	-0.7
Nuclear	3,786	3,045	0	938	3,674	-89.0	-19.6	-100.0	-	-
New Energies	6,513	6,907	7,426	8,091	12,805	4.0	6.1	7.5	8.9	58.3
CO ₂ Emission (Mt- CO ₂)	1,218.2	1,221.4	1,198.0	1,158.4	1,156.9	7.0	0.3	-1.9	-3.3	-0.1
Electricity										
Total of electric power demand* (Million kWh)				898,451	885,563					-1.4
Natural Gas										
City Gas Sale (Million m ³)	36,690	36,263	37,188	36,775	37,220	4.5	-1.2	2.5	-1.1	1.2
Residential	9,911	9,521	9,612	9,448	9,273	2.6	-3.9	1.0	-1.7	-1.9
Commercial	4,525	4,460	4,335	4,280	4,266	2.1	-1.4	-2.8	-1.3	-0.3
Industrial	19,221	19,265	20,294	20,133	20,674	6.3	0.2	5.3	-0.8	2.7
Others	3,033	3,017	2,946	2,914	3,007	3.6	-0.5	-2.4	-1.1	3.2
Oil										
Fuel Type Product Sale (1,000kl)	200,534	193,196	185,450	182,410	178,202	3.8	-3.7	-4.0	-1.6	-2.3
Gasoline	57,094	55,234	53,608	53,107	52,844	0.4	-3.3	-2.9	-0.9	-0.5
Naphtha	42,822	45,336	43,651	46,561	44,645	-4.1	5.9	-3.7	6.7	-4.1
Kerosene	19,939	18,010	17,214	15,883	16,343	2.9	-9.7	-4.4	-7.7	2.9
Diesel Gas Oil	33,402	33,753	33,789	33,665	33,411	2.3	1.1	0.1	-0.4	-0.8
Fuel Oil A	14,299	13,428	12,741	11,887	12,170	-2.2	-6.1	-5.1	-6.7	2.4
Fuel Oil B/C	29,012	22,559	19,232	15,900	13,461	40.6	-22.2	-14.8	-17.3	-15.3
for Power Generation	16,486	12,642	10,690	7,838	-	75.1	-23.3	-15.4	-26.7	-
LPG (1,000t)	16,111	15,233	14,685	13,005	13,436	7.3	-5.5	-3.6	-11.4	3.3
Crude Oil										
Import (1,000kl)	212,538	210,583	199,697	195,873	192,724	2.7	-0.9	-5.2	-1.9	-1.6
Middle East Ratio (%)	83.4	83.1	83.0	81.8	86.6	[-3.5]	[-0.2]	[-0.2]	[-1.1]	[4.8]
Crude Oil Processing (1,000kl)	198,137	200,636	191,144	189,354	191,120	-0.0	1.3	-4.7	-0.9	0.9

Note: Growth Rate in [xx] shows the difference from the previous year.

*Indicates figures are retrieved from Organization for Cross-regional Coordination of Transmission Operators, Japan "Electric Power Demand".

Source: IEEJ Databank. Original statistics are sourced and compiled from statistics of METI, MOF and Bank of Japan.

Energy and Economy Indicators of Japan(Fiscal Year)

Fiscal Year (April - March)	2012FY	2013FY	2014FY	2015FY	2016FY	Annual Growth Rate					
	2012FY	2013FY	2014FY	2015FY	2016FY	2012FY	2013FY	2014FY	2015FY	2016FY	
Economy						%	%	%	%	%	%
RGDP (Billion yen in 2005 price)	499,634	512,651	510,375	517,098	-	0.9	2.6	-0.4	1.3	-	
GDP (Billion yen)	494,674	507,401	517,820	532,136	-	0.2	2.6	2.1	2.8	-	
IIP (2010=100)	95.8	98.9	98.4	97.4	97.5	-2.9	3.2	-0.5	-1.0	0.1	
Raw Materials Production (1,000t)											
Crude Steel	107,305	111,524	109,844	104,229	105,164	0.8	3.9	-1.5	-5.1	0.9	
Ethylene	6,261	6,764	6,687	6,780	6,286	-3.3	8.0	-1.1	1.4	-7.3	
Cement	55,072	58,827	56,882	54,242	53,600	4.6	6.8	-3.3	-4.6	-1.2	
Paper and Paperboard	25,731	26,667	26,295	26,234	-	-3.0	3.6	-1.4	-0.2	-	
Domestic Corporate Goods PI (2015=100)	97.9	99.7	102.5	99.1	96.8	-3.6	1.8	2.8	-3.3	-2.3	
CPI (2015=100)	96.1	96.9	99.8	100.0	100.0	-3.7	0.8	3.0	0.2	0.0	
Domestic Corporate Goods PI (2015=100)	83.08	100.23	109.92	120.13	108.37	5.1	20.6	9.7	9.3	-9.8	
CPI (2015=100)	114.19	110.11	89.21	48.89	47.66	0.1	-3.6	-19.0	-45.2	-2.5	
LNG Price (CIF, \$/MMBtu)	865.65	837.35	797.26	452.05	362.76	5.2	-3.3	-4.8	-43.3	-19.8	
Steaming Coal (CIF, \$/t)	126.97	107.93	92.62	75.55	80.66	-11.5	-15.0	-14.2	-18.4	6.8	
Heating Degree Day	1,060	1,024	994	875	966	-3.6	-3.4	-2.9	-12.0	10.4	
Cooling Degree Day	462	511	363	322	431	-2.2	10.7	-29.1	-11.3	33.8	
Energy											
Total Primary Energy Supply (ktoe)	481,648	484,633	467,394	458,969	463,547	-1.4	0.6	-3.6	-1.8	1.0	
Coal	117,753	125,917	124,396	123,687	121,764	4.4	6.9	-1.2	-0.6	-1.6	
Oil	221,555	214,559	198,962	193,642	189,652	1.7	-3.2	-7.3	-2.7	-2.1	
Crude Oil	192,448	191,859	178,285	177,679	176,174	0.9	-0.3	-7.1	-0.3	-0.8	
Petroleum Products	29,987	19,522	20,509	15,543	11,489	11.0	-34.9	5.1	-24.2	-26.1	
Natural Gas	3,279	3,143	2,901	2,869	2,961	-5.6	-4.2	-7.7	-1.1	3.2	
LNG	112,535	115,243	116,007	109,154	111,043	3.9	2.4	0.7	-5.9	1.7	
Hydro	16,584	16,834	17,535	18,341	15,818	-9.5	1.5	4.2	4.6	-13.8	
Nuclear	3,355	1,930	0	1,958	3,618	-84.3	-42.5	-100.0	-	84.8	
New Energies ※ ¹	6,587	7,009	7,594	8,354	17,573	3.1	6.4	8.3	10.0	-	
CO ₂ Emission (Mt- CO ₂)	1,206.1	1,231.4	1,188.2	1,154.5	1,143.1	3.3	2.1	-3.5	-2.8	-1.0	
Electricity (10 Major Electric Companies)											
Total Power Supply (Million kWh)	923,895	923,039	893,611	864,335	-	-1.4	-0.1	-3.2	-3.3	-	
Power Generation (Million kWh)	742,288	743,691	712,264	679,578	-	-4.4	0.2	-4.2	-4.6	-	
Hydro	57,023	58,850	60,537	63,791	-	-9.2	3.2	2.9	5.4	-	
Thermal	666,757	672,996	649,213	603,826	-	9.2	0.9	-3.5	-7.0	-	
Nuclear	15,939	9,303	0	9,437	-	-84.2	-41.6	-100.0	-	-	
New Energies	2,569	2,542	2,513	2,524	-	-0.6	-1.0	-1.1	0.4	-	
Fuel Consumption											
Coal (1,000t)	50,077	59,854	59,559	58,794	-	1.9	19.5	-0.5	-1.3	-	
Crude Oil (1,000kl)	13,476	11,576	6,764	5,702	-	16.5	-14.1	-41.6	-15.7	-	
Fuel Oil (1,000kl)	16,657	13,229	9,957	7,495	-	34.2	-20.6	-24.7	-24.7	-	
LNG (1,000t)	55,967	56,244	56,676	53,328	-	5.6	0.5	0.8	-5.9	-	
Electricity Sale (Million kWh)	851,590	848,541	822,999	797,057	-	-1.0	-0.4	-3.0	-3.2	-	
Lighting	286,220	284,341	273,103	266,850	-	-0.9	-0.7	-4.0	-2.3	-	
Power	565,370	564,201	549,896	530,207	-	-1.0	-0.2	-2.5	-3.6	-	
Commercial	190,600	189,222	181,669	172,583	-	1.3	-0.7	-4.0	-5.0	-	
Industry	330,839	332,197	327,754	318,474	-	-2.1	0.4	-1.3	-2.8	-	
Demand of Large Users (million kWh)	265,124	266,478	263,193	255,926	-	-2.4	0.5	-1.2	-2.8	-	
Foods	17,454	17,872	17,785	17,909	-	0.3	2.4	-0.5	0.7	-	
Paper & Pulp	8,525	8,462	8,052	7,515	-	-7.6	-0.7	-4.8	-6.7	-	
Chemical	26,168	26,397	26,102	25,313	-	-3.1	0.9	-1.1	-3.0	-	
Ceramics & Cement	11,144	10,711	10,422	9,921	-	-2.9	-3.9	-2.7	-4.8	-	
Iron & Steel	35,919	37,308	36,593	34,071	-	-1.4	3.9	-1.9	-6.9	-	
Non-Ferrous	15,150	14,280	14,582	14,408	-	-3.3	-5.7	2.1	-1.2	-	
Machinery	68,485	68,790	68,494	67,315	-	-3.7	0.4	-0.4	-1.7	-	
Natural Gas											
City Gas Sale (Million m ³)	36,323	36,694	37,100	36,462	37,701	1.1	1.0	1.1	-1.7	3.4	
Residential	9,799	9,554	9,582	9,242	9,406	0.1	-2.5	0.3	-3.5	1.8	
Commercial	4,500	4,472	4,315	4,233	4,292	0.4	-0.6	-3.5	-1.9	1.4	
Industrial	19,026	19,631	20,254	20,113	20,957	1.9	3.2	3.2	-0.7	4.2	
Others	2,999	3,037	2,949	2,874	3,046	1.0	1.3	-2.9	-2.5	6.0	
Oil											
Fuel Type Product Sale (1,000kl)	197,770	193,596	182,715	180,524	176,801	0.7	-2.1	-5.6	-1.2	-2.1	
Gasoline	56,207	55,477	52,981	53,127	52,503	-1.8	-1.3	-4.5	0.3	-1.2	
Naphtha	43,172	45,739	43,923	46,234	44,828	-1.2	5.9	-4.0	5.3	-3.0	
Kerosene	18,884	17,911	16,662	15,946	16,235	-3.8	-5.2	-7.0	-4.3	1.8	
Diesel Gas Oil	33,391	34,089	33,583	33,619	33,341	1.6	2.1	-1.5	0.1	-0.8	
Fuel Oil A	13,759	13,438	12,316	11,871	11,986	-6.3	-2.3	-8.3	-3.6	1.0	
Fuel Oil B/C	28,382	21,890	17,930	14,241	12,615	17.9	-22.9	-18.1	-20.6	-11.4	
for Power Generation	16,472	12,602	9,495	7,302	-	33.0	-23.5	-24.7	-23.1	-	
LPG (1,000t)	15,847	14,927	14,574	12,422	12,776	-0.2	-5.8	-2.4	-14.8	2.9	
Crude Oil											
Import (1,000kl)	211,026	210,345	195,169	194,515	191,047	0.9	-0.3	-7.2	-0.3	-1.8	
Middle East Ratio (%)	83.2	83.6	82.7	82.5	87.2	[-1.9]	[0.5]	[-0.9]	[-0.3]	[4.7]	
Crude Oil Processing (1,000kl)	197,643	200,434	189,001	189,060	190,565	0.3	1.4	-5.7	0.0	0.8	

Note: Growth Rate in [xx] shows the difference from the previous year.

※¹ The scope of the survey has been modified since April 2016.

Source: IEEJ Databank. Original statistics are sourced and compiled from statistics of METI, MOF and Bank of Japan.

Other statistics are available at IEEJ website and more for members of the EDMC Databank.