

Department of Energy
2021 POWER STATISTICS

Gross Power Generation per Grid, by Plant Type
In MWh

LUZON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	% Share - 2021
Generation per Technology (Grid)																				
Coal	14,351,121	15,548,335	14,653,275	14,099,158	14,417,796	13,503,727	14,091,376	20,046,584	19,681,127	21,877,501	25,755,945	27,346,492	29,679,511	33,143,458	33,952,671	37,362,128	40,508,183	40,575,727	43,133,237	57.33%
Oil-based	3,595,860	4,590,814	2,021,641	1,711,415	2,192,044	1,928,244	1,864,281	3,287,173	1,290,685	1,800,321	1,600,626	2,342,360	1,844,787	2,561,831	2,379,192	2,187,694	2,673,944	1,804,176	996,287	1.32%
Combined Cycle	438,755	738,437	90,608	238,870	652,834	513,442	636,520	1,202,040	123,556	227,354	247,159	514,980	275,892	693,685	405,022	522,115	728,239	494,880	416,603	0.55%
Diesel	2,317,101	2,688,194	1,910,774	1,315,067	1,348,033	952,751	594,559	1,003,383	890,321	1,099,123	1,183,466	1,820,521	1,483,116	1,622,749	1,692,212	1,520,177	1,736,224	1,297,301	550,541	0.73%
Gas Turbine	1,737	1,433	0	0	0	0	0	0	0	0	0	0	499	0	0	25,605	10,694	28,094	0.04%	
Oil Thermal	838,268	1,164,000	18,226	157,478	191,162	462,051	631,203	1,091,749	276,807	473,844	170,001	306,859	75,489	244,899	291,958	145,402	183,876	1,310	1,059	0.00%
Natural Gas	13,139,410	12,384,467	16,860,917	16,365,960	18,789,414	19,575,855	19,886,827	19,517,854	20,591,323	19,641,527	18,783,471	18,685,808	18,877,915	19,853,783	20,547,239	21,333,789	22,354,378	19,496,927	19,059,682	25.33%
Renewable Energy (RE)	6,448,239	7,330,296	7,090,897	9,064,924	8,220,653	9,191,708	9,132,372	7,413,115	8,454,125	8,993,077	8,679,476	8,391,821	9,710,650	10,938,477	11,633,318	11,844,758	10,640,206	10,541,880	12,053,335	16.02%
Geothermal	2,600,465	3,033,417	2,742,203	3,519,417	3,600,503	3,729,921	3,515,964	3,323,495	3,485,813	3,588,417	3,398,601	3,817,330	4,096,454	4,226,913	3,909,704	3,871,484	3,646,931	3,808,053	3,837,742	5.10%
Hydro	3,847,774	4,296,879	4,331,224	5,492,271	4,562,309	5,400,402	5,549,227	4,013,529	4,836,470	5,292,482	5,155,521	4,357,160	4,768,825	5,011,100	5,729,567	5,944,913	5,083,913	4,510,267	5,411,540	7.19%
Biomass	0	0	0	0	0	0	2,752	14,375	43,638	36,839	59,699	65,279	187,188	438,807	598,665	593,968	592,051	779,872	988,186	1.31%
Solar	0	0	0	0	0	0	0	0	0	0	0	0	66,427	494,346	495,384	593,131	493,250	588,092	720,691	0.96%
Wind	0	0	17,469	53,235	57,842	61,386	64,428	61,717	88,204	75,339	65,655	102,052	591,756	766,711	899,397	931,264	824,061	855,456	1,095,177	1.46%
Total Grid Generation	37,534,630	39,853,911	40,626,730	41,241,457	43,619,911	44,199,534	44,974,855	50,264,725	50,017,259	52,312,426	54,819,517	56,766,481	60,112,863	66,497,549	68,512,419	72,728,369	76,176,710	72,418,709	75,242,541	100.00%
BESS																				718
Total Offgrid Generation																				1,302,991

VISAYAS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	% Share - 2021
Generation per Technology (Grid)																				
Coal	587,628	646,077	903,903	718,663	849,428	745,896	822,007	1,528,692	4,032,202	4,701,053	4,689,683	4,449,483	4,968,437	5,270,242	6,623,593	6,784,714	7,961,889	7,696,119	8,998,853	55.32%
Oil-based	1,850,583	1,997,708	1,799,876	1,281,766	1,477,089	1,654,892	1,863,970	1,726,580	683,226	724,172	796,470	765,893	672,207	637,405	541,923	524,266	524,266	297,933	467,659	2.87%
Diesel	1,480,745	1,649,383	1,486,431	1,165,700	1,334,868	1,432,627	1,554,155	1,446,180	448,577	514,274	528,780	614,558	672,207	637,405	541,022	352,598	524,266	297,933	468,993	2.91%
Gas Turbine	40,236	23,862	38,045	193	9,045	36,485	61,972	3,164	0	0	0	0	0	0	0	0	0	0	58,667	0.36%
Oil Thermal	339,582	266,231	289,562	115,873	133,176	195,690	247,843	277,236	234,649	219,899	267,689	151,335	0	0	0	0	0	0	0	0.00%
Natural Gas	0	0	0	0	0	0	0	0	0	7,815	4,269	0	0	0	0	0	0	0	0	0.00%
Renewable Energy (RE)	6,393,997	6,372,594	6,294,573	6,128,295	5,776,075	6,239,206	6,038,321	5,820,003	5,740,314	6,047,489	5,605,626	5,794,279	6,529,839	7,047,239	6,889,270	7,128,177	7,573,431	7,490,880	6,801,309	41.81%
Geothermal	6,360,964	6,338,317	6,267,377	6,100,202	5,746,878	6,199,159	5,984,957	5,771,218	5,615,561	5,930,484	5,463,017	5,627,241	6,105,383	5,974,487	5,563,581	5,737,443	6,277,914	6,205,193	5,535,416	34.03%
Hydro	33,033	34,277	27,196	28,093	29,197	40,047	42,406	35,889	53,117	46,161	36,936	35,475	38,375	63,532	90,087	72,562	56,850	64,730	89,296	0.55%
Biomass	0	0	0	0	0	0	10,957	12,896	71,636	70,844	105,673	116,523	158,864	276,053	414,483	439,269	355,646	373,758	349,842	2.15%
Solar	0	0	0	0	0	0	0	0	0	0	0	15,040	70,559	524,658	626,957	658,244	665,422	652,271	740,255	4.01%
Wind	0	0	0	0	0	0	0	0	0	0	0	0	156,658	208,509	194,161	221,660	217,599	170,954	174,485	1.07%
Total Grid Generation	8,842,186	9,016,379	8,698,352	8,128,723	8,101,593	8,649,694	8,724,298	9,075,264	10,455,743	11,462,714	11,099,593	11,013,924	12,176,483	12,954,886	14,053,885	14,266,489	16,059,588	15,484,942	16,267,822	100.00%
BESS																				13,394
Total Offgrid Generation																				118,657

MINDANAO	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	% Share - 2021
Generation per Technology (Grid)																				
Coal	0	0	0	476,245	1,570,872	1,499,380	1,562,753	1,725,839	1,628,848	1,686,314	1,635,380	1,257,542	2,037,738	4,889,542	6,271,010	7,785,345	9,420,357	9,904,156	9,920,155	67.93%
Oil-based	1,713,693	1,915,799	2,319,927	1,671,619	1,478,868	1,275,288	1,652,415	2,087,250	1,423,688	1,719,521	2,093,504	2,599,495	3,369,442	2,462,172	866,879	632,525	554,092	371,779	152,432	1.04%
Diesel	1,711,563	1,915,500	2,319,772	1,671,376	1,478,775	1,275,010	1,622,575	2,082,124	1,423,433	1,718,684	2,092,831	2,595,139	3,365,393	2,462,172	866,879	632,525	554,092	371,779	152,432	1.04%
Oil Thermal	2,129	299	155	242	93	278	29,840	5,126	256	837	673	4,350	0	0	0	0	0	0	0	0.00%
Natural Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Renewable Energy (RE)	4,850,029	5,171,340	4,922,732	5,265,085	4,840,544	5,197,088	5,020,111	4,589,680	5,650,112	5,721,036	5,617,847	5,623,555	4,722,686	3,993,743	4,666,147	4,351,990	3,830,743	3,576,134	4,531,763	31.02%
Geothermal	861,015	909,815	892,863	845,660	867,308	793,700	822,926	834,439	840,956	731,089	742,980	863,542	841,857	869,002	796,792	826,378	765,959	743,569	643,320	4.40%
Hydro	3,989,013	4,261,525	4,028,352	4,419,049	3,971,927	4,402,084	4,195,934	3,753,987	4,807,945	4,913,491	4,826,651	4,744,638	3,857,878	3,036,282	3,791,144	3,366,284	2,884,729	2,617,022	3,684,487	25.23%
Biomass	0	0	0	0	0	0	0	0	75,136	46,602	13,897	21,403	11,046	0	0	0	0	0	107,367	0.74%
Solar	0	0	1,517	1,376	1,309	1,304	1,232	1,254	1,212	1,320	1,414	1,477	1,548	77,412	78,211	87,742	87,409	108,257	96,589	0.66%
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Total Grid Generation	6,563,721	7,087,140	7,242,659	7,413,949	7,890,283	7,971,756	8,235,278	8,402,769	8,702,648	8,126,871	9,346,731	9,480,592	10,129,886	11,345,457	1					

Gross Power Generation per Grid, by Plant Type

PHILIPPINES by Plant Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	% Share - 2021
In MWh																				
Generation per Technology (Grid)																				
Coal	14,938,748	16,194,412	15,257,178	15,294,066	16,837,096	15,748,794	16,476,136	23,301,105	25,342,176	28,264,867	32,081,007	33,053,518	36,685,685	43,303,242	46,847,274	51,932,187	57,890,429	58,176,002	62,052,246	58.48%
Oil-based	7,170,115	8,504,321	6,141,444	4,664,799	5,148,006	4,868,333	5,380,666	7,101,002	3,397,599	4,254,015	4,490,600	5,707,748	5,886,437	5,661,408	3,787,093	3,172,817	3,752,302	2,473,888	1,616,378	1.52%
<i>Combined Cycle</i>	438,755	738,437	90,608	238,870	652,834	513,442	638,520	1,202,040	123,556	227,354	247,159	514,980	275,892	693,685	405,022	522,115	728,239	494,880	416,603	0.39%
<i>Diesel</i>	5,509,409	6,253,077	5,716,977	4,152,144	4,161,675	3,660,388	3,771,289	4,531,688	2,762,331	3,332,081	3,805,078	4,730,219	5,820,716	4,722,326	3,100,113	2,505,300	2,814,582	1,967,013	1,111,566	1.05%
<i>Gas Turbine</i>	41,972	82,277	25,295	193	9,045	36,485	61,972	3,164	0	0	0	0	10,290	499	0	0	25,605	10,684	86,751	0.08%
<i>Oil Thermal</i>	1,179,979	1,430,529	308,564	273,593	324,462	658,018	908,885	1,364,111	511,712	694,580	438,363	462,550	79,539	244,898	281,958	145,402	183,876	1,310	1,059	0.00%
Natural Gas	13,139,410	12,384,467	16,860,917	16,365,960	18,789,414	19,575,855	19,886,827	19,517,854	20,591,323	19,641,527	18,791,286	18,690,077	18,877,915	19,853,783	20,547,239	21,333,789	22,354,378	19,496,927	19,059,682	17.96%
Renewable Energy (RE)	17,692,264	18,874,230	18,308,202	20,459,304	18,837,272	20,628,003	20,190,804	17,822,798	19,844,551	20,761,602	19,902,949	19,809,655	20,963,175	21,979,459	23,188,735	23,325,925	22,044,380	21,608,904	23,396,408	22.04%
<i>Geothermal</i>	9,822,444	10,281,550	9,902,443	10,465,279	10,214,688	10,722,780	10,323,847	9,929,152	9,942,330	10,249,990	9,604,598	10,308,113	11,043,694	11,070,403	10,270,077	10,435,305	10,690,804	10,756,815	10,016,478	9.44%
<i>Hydro</i>	7,869,820	8,382,681	8,386,773	9,339,413	8,563,433	9,842,534	9,787,567	7,803,405	9,697,532	10,252,134	10,019,308	9,137,273	8,666,078	8,110,915	9,610,799	9,383,758	8,025,492	7,192,019	9,185,324	8.66%
<i>Biomass</i>	0	0	0	0	0	0	13,710	27,270	115,274	182,819	211,973	195,690	367,456	725,906	1,013,148	1,104,823	1,040,343	1,261,016	1,445,395	1.36%
<i>Solar</i>	0	0	1,517	1,376	1,309	1,304	1,252	1,254	1,212	1,320	1,414	16,517	138,534	1,097,016	1,201,152	1,249,116	1,246,082	1,372,604	1,469,550	1.38%
<i>Wind</i>	0	0	17,469	53,235	57,842	61,386	64,428	61,717	88,204	75,339	65,855	152,052	748,414	975,219	1,093,558	1,152,923	1,041,660	1,026,450	1,269,662	1.20%
Total Grid Generation	52,940,537	55,957,430	56,567,740	56,784,130	59,611,788	60,820,985	61,934,432	67,742,759	69,175,650	72,922,011	75,265,842	77,260,997	82,413,213	90,797,891	94,370,341	99,764,718	106,041,488	101,755,720	106,114,713	100.00%
BESS																				14,151
Total Offgrid Generation																				1,654,491
Total Grid and Offgrid Generation																				107,769,204

Note:
 Gross Generation - the total amount of electric energy produced by generating units and measured at the generating terminal
 Generation data includes grid connected, embedded and off-grid generation.
 BESS and Offgrid Generation separated from Grid Generation starting 2021
 Offgrid generation composed of NPC-SPUG and NPP generation
 Updated as of 15 June 2022