PSPP A Power Supply Procurement Plan 2025

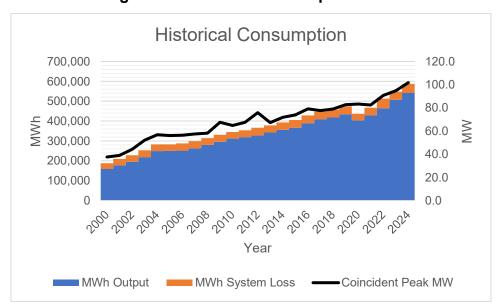
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Historical Consumption Data

Table 1: Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	37.54	187,181	0	187,181	158,470	28,888	57%	0.09%	0.00%	15.43%
2001	38.92	208,287	0	208,287	176,926	32,257	61%	0.43%	0.00%	15.49%
2002	44.24	228,114	0	228,114	194,709	33,570	59%	0.07%	0.00%	14.72%
2003	52.11	252,600	0	252,600	218,143	34,664	55%	0.08%	0.00%	13.72%
2004	56.70	282,682	0	282,682	249,032	33,837	57%	0.07%	0.00%	11.97%
2005	56.08	282,763	0	282,763	250,660	32,324	58%	0.08%	0.00%	11.43%
2006	56.37	287,559	0	287,559	251,000	36,545	58%	0.00%	0.00%	12.71%
2007	57.47	298,760	0	298,760	262,337	36,408	59%	0.00%	0.00%	12.19%
2008	58.16	313,847	37,110	313,847	280,308	33,524	62%	0.00%	0.00%	10.68%
2009	67.52	331,005	63,118	331,005	295,379	35,576	56%	-0.02%	0.00%	10.75%
2010	64.76	344,695	23,487	344,695	312,073	32,596	61%	-0.01%	0.00%	9.46%
2011	67.47	353,907	68,308	353,907	319,029	34,752	60%	-0.04%	0.00%	9.82%
2012	75.83	366,510	84,711	366,510	326,664	39,714	55%	-0.04%	0.00%	10.84%
2013	67.20	377,798	112,376	377,798	341,997	35,665	64%	-0.04%	0.00%	9.44%
2014	71.82	393,522	80,752	393,522	355,727	37,289	63%	-0.13%	0.00%	9.48%
2015	73.91	405,150	132,666	405,150	366,670	38,481	63%	0.00%	0.00%	9.50%
2016	79.11	428,295	279,569	428,295	389,410	38,883	62%	0.00%	0.00%	9.08%
2017	77.57	446,768	63,692	446,768	408,317	38,451	66%	0.00%	0.00%	8.61%
2018	78.92	420,696	36,763	420,696	418,333	39,127	61%	8.74%	0.00%	9.30%
2019	82.67	474,606	37,786	474,606	434,137	40,474	66%	0.00%	0.00%	8.53%
2020	83.28	436,272	38,811	436,272	403,749	32,467	60%	-0.01%	0.00%	7.44%
2021	82.49	467,472	37,752	467,472	429,175	38,302	65%	0.00%	0.00%	8.19%
2022	90.67	513,475	0	513,475	463,708	49,771	65%	0.00%	0.00%	9.69%
2023	94.69	548,519	0	548,519	506,983	41,536	66%	0.00%	0.00%	7.57%
2024	101.74	587,280	35,564	587,280	541,708	45,574	66%	0.00%	0.00%	7.76%

Figure 1: Historical Consumption Data



Through the past years, the energy consumption gradually increases not until the year 2020. Figure 1 illustrates the decrease of the energy consumption in 2020 as compared from the year 2019 because

of the Covid-19 pandemic. While the energy consumption gradually increases as the years passed by (except on the year 2020), the peak demand changes unpredictably.

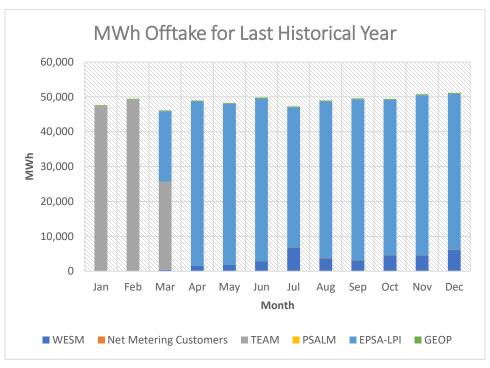


Figure 2: 2024 MWh Offtake

The MWh offtake reflected in Table 1 includes the power sourced from PSALM and from BENECO's power suppliers - Team (Phils.) Energy Corporation (TPEC) and Limay Power Inc. (LPI) as shown in Figure 2. BENECO also has customers under the Net Metering Program and the Green Energy Option Program which contributes to the total purchased power of BENECO. The transmission losses are accounted in the billing of the National Grid Corporation of the Philippines (NGCP) for the MW.

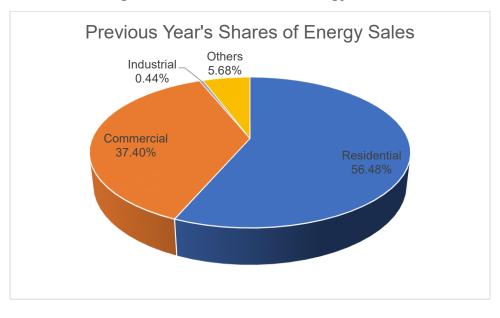


Figure 3: 2024 Shares of Energy Sales

The largest share of energy sales is the residential customers followed by the commercial customers. The commercial customers connected at the 23kV and 230V voltage level are combined in Figure 3 graphical presentation.

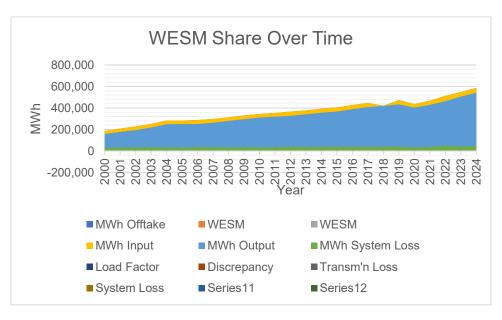


Figure 4: Historical WESM Share

BENECO sourced majority of its power requirements from Team (Philippines) Energy Corporation (TPEC) from May until March 12, 2024. Certain areas within the franchise are being supplied by PSALM and LUELCO. BENECO also secured an Emergency Power Supply Agreement (EPSA) with Limay Power Inc. from March 13, 2024 to February 25, 2025. Anticipating the expiration of the PSA with TEAM, BENECO registered as a direct WESM member in May 31, 2024. Since then, the excess of the contracted MW with LPI is being sourced from the WESM.



Figure 5: Historical System Losses

While BENECO's demand grows throughout the years, BENECO, through its programs and projects, was able to lower its system loss from 15.43% in 2000 to 7.76% in 2024 as seen in Figure 5.

Previous Year's Load Profile

Previous Year's Load Duration Curve

120.0
100.0
80.0
40.0
20.0
0%
20%
40%
60%
80%
100%
Percent of the Time

Figure 6: 2024 Load Duration Curve

Figure 6 shows that the minimum demand of BENECO is around 30 MW. 60% of the time, the demand of BENECO ranges from 65MW to 75MW.

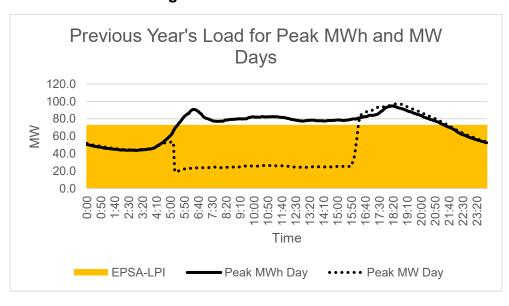
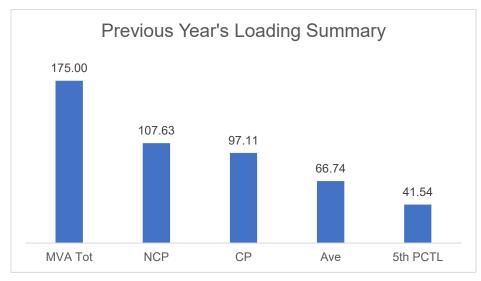


Figure 7: 2024 Load Profile

As shown in Figure 7, based on the year 2024 load profile, the peak demand happened at around 6:30 pm on August 23, 2024. The sudden spike in demand was due to the energization of the four (4) substations affected by the NGCP interruption on that day. At normal operation, the peak demand reflects during the month of December. In this case, the peak hours of energy and demand occurs almost at the same time. This implicates the simultaneous use of energy by the member-consumerowners in a certain time.

Figure 8: 2024 Loading Summary



The non-coincident peak demand is at 107.63MW while the coincident peak demand is at 97.11MW as seen in the Figure 8. The 5th PCTL is the 95 % of time. This implies that almost 95% of time the demand is 41.54 MW. However, the adjusted peak demand was presented in the PSPP template to reflect the peak demand during normal operations. The adjustment / normalization of data is brought by the NGCP interruption scheduled on April 11, 2024 from 6:00 AM to 6:00 PM affecting the NSC, Irisan, Atok, Mankayan and Sinipsip substations causing the demands of the affected substations to spike.

Table 2: Substation Peak Demand

Metering Point	Substation MVA	Substation Peak MW
Irisan	20	14.24
Lamut	30	22.19
Mankayan	10	4.82
Atok	5	4.47
Tapsan		0.07
North Sanitary	100	55.75
Sinipsip	10	1.26
Itogon		4.82

The North Sanitary Camp Substation has the largest peak demand among the metering points contributing 51.80% share in the total peak demand. Followed by the Lamut Substation having 20.62% of the total peak demand.

Atok Substation has the highest percent loading at 89.44%. BENECO has procured one (1) unit 10MVA power transformer which is expected to be energized this 1st quarter of 2025 to increase the substation capacity of Atok Substation and address the increasing demand in the area.

The Itogon Substation and Tapsan Line are owned by NGCP. BENECO connected to these substation and line to cater the loads of Virac and Ampucao, Itogon, Benguet.

Table 3: Forecasted Distribution Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2025	Jan	94.97	73.00	0	0.000	0.44	77%	77%	-21.53
	Feb	97.19	73.00	0	0.000	0.5	76%	76%	-23.69
	Mar	98.69	0.00	73	0.000	0.4	0%	74%	-25.26
	Apr	102.20	0.00	73	0.000	0.5	0%	72%	-28.73
	May	95.11	0.00	73	0.000	0.5	0%	77%	-21.62
	Jun	93.39	0.00	73	0.000	0.4	0%	79%	-19.95
	Jul	97.25	0.00	73	0.000	0.4	0%	75%	-23.81
	Aug	101.59	0.00	73	0.000	0.4	0%	72%	-28.15
	Sep	99.25	0.00	73	0.000	0.5	0%	74%	-25.79
	Oct	100.14	0.00	73	0.000	0.4	0%	73%	-26.70
	Nov	100.49	0.00	73	0.000	0.5	0%	73%	-27.00
	Dec	101.45	0.00	73	0.000	0.4	0%	72%	-28.02
2026	Jan	100.79	0.00	73	0.000	0.4	0%	73%	-27.36
	Feb	103.15	0.00	73	0.000	0.5	0%	71%	-29.65
	Mar	104.75	0.00	73	0.000	0.4	0%	70%	-31.31
	Apr	108.47	0.00	73	0.000	0.5	0%	68%	-35.01
	May	100.95	0.00	73	0.000	0.5	0%	73%	-27.46
	Jun	99.13	0.00	73	0.000	0.4	0%	74%	-25.68
	Jul	103.22	0.00	73	0.000	0.4	0%	71%	-29.78
	Aug	107.82	0.00	73	0.000	0.4	0%	68%	-34.39
	Sep	105.34	0.00	73	0.000	0.5	0%	70%	-31.88
	Oct	106.28	0.00	73	0.000	0.4	0%	69%	-32.85
	Nov	106.65	0.00	73	0.000	0.5	0%	69%	-33.17
	Dec	107.68	0.00	73	0.000	0.4	0%	68%	-34.24
2027	Jan	106.84	0.00	73	0.000	0.4	0%	69%	-33.40
	Feb	109.34	0.00	73	0.000	0.5	0%	67%	-35.84
	Mar	111.03	0.00	73	0.000	0.4	0%	66%	-37.60
	Apr	114.97	0.00	73	0.000	0.5	0%	64%	-41.51
	May	107.01	0.00	73	0.000	0.5	0%	69%	-33.51
	Jun	105.07	0.00	73	0.000	0.4	0%	70%	-31.63
	Jul	109.42	0.00	73	0.000	0.4	0%	67%	-35.97
	Aug	114.29	0.00	73	0.000	0.4	0%	64%	-40.86
	Sep	111.66	0.00	73	0.000	0.5	0%	66%	-38.20
	Oct	112.66	0.00	73	0.000	0.4	0%	65%	-39.22
	Nov	113.05	0.00	73	0.000	0.5	0%	65%	-39.57
2222	Dec	114.14	0.00	73	0.000	0.4	0%	64%	-40.70
2028	Jan	113.04	0.00	73	0.000	0.4	0%	65%	-39.60
	Feb	115.68	0.00	73	0.000	0.5	0%	63%	-42.18
	Mar	117.48	0.00	73	0.000	0.4	0%	62%	-44.04
	Apr	121.65	0.00	73	0.000	0.5	0%	60%	-48.18
	May	113.22	0.00	73	0.000	0.5	0%	65%	-39.72
	Jun	111.17	0.00	73	0.000	0.4	0%	66%	-37.72
	Jul	115.76	0.00	73	0.000	0.4	0%	63%	-42.32 47.40
	Aug	120.92	0.00	73	0.000	0.4	0%	61%	-47.49
	Sep	118.14	0.00	73 73	0.000	0.5	0%	62%	-44.68 45.76
	Oct	119.20	0.00	73	0.000	0.4	0%	61% 61%	-45.76 -46.13
	Nov	119.61	0.00	73	0.000	0.5	0% 0%	61%	
2020	Dec	120.76				0.4			-47.32 45.00
2029	Jan	119.34	0.00	73	0.000	0.4	0%	61%	-45.90

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	Feb	122.13	0.00	73	0.000	0.5	0%	60%	-48.63
	Mar	124.02	0.00	73	0.000	0.4	0%	59%	-50.59
	Apr	128.43	0.00	73	0.000	0.5	0%	57%	-54.96
	May	119.53	0.00	73	0.000	0.5	0%	61%	-46.03
	Jun	117.37	0.00	73	0.000	0.4	0%	62%	-43.92
	Jul	122.22	0.00	73	0.000	0.4	0%	60%	-48.77
	Aug	127.66	0.00	73	0.000	0.4	0%	57%	-54.23
	Sep	124.72	0.00	73	0.000	0.5	0%	59%	-51.26
	Oct	125.84	0.00	73	0.000	0.4	0%	58%	-52.40
	Nov	126.28	0.00	73	0.000	0.5	0%	58%	-52.79
	Dec	127.49	0.00	73	0.000	0.4	0%	57%	-54.05
2030	Jan	125.71	0.00	73	0.000	0.4	0%	58%	-52.27
2000	Feb	128.64	0.00	73	0.000	0.5	0%	57%	-55.14
	Mar	130.64	0.00	73	0.000	0.4	0%	56%	-57.20
	Apr	135.27	0.00	73	0.000	0.5	0%	54%	-61.81
	May	125.90	0.00	73	0.000	0.5	0%	58%	-52.41
	Jun	123.62	0.00	73	0.000	0.3	0%	59%	-50.18
	Jul	123.62	0.00	73	0.000	0.4	0%	57%	-50.16 -55.29
		134.47	0.00	73	0.000	0.4	0%	54%	-55.29 -61.03
	Aug	134.47	0.00	73	0.000	0.4	0%	56%	-61.03 -57.91
	Sep		0.00	73	0.000		0%	55%	
	Oct	132.55				0.4			-59.11
	Nov	133.01	0.00	73	0.000	0.5	0%	55%	-59.53
2024	Dec	134.29	0.00	73	0.000	0.4	0%	55%	-60.85
2031	Jan	132.11	0.00	73	0.000	0.4	0%	55%	-58.67
	Feb	135.19	0.00	73	0.000	0.5	0%	54%	-61.69
	Mar	137.29	0.00	73	0.000	0.4	0%	53%	-63.85
	Apr	142.16	0.00	73	0.000	0.5	0%	52%	-68.70
	May	132.31	0.00	73	0.000	0.5	0%	55%	-58.82
	Jun	129.92	0.00	73	0.000	0.4	0%	56%	-56.47
	Jul	135.29	0.00	73	0.000	0.4	0%	54%	-61.85
	Aug	141.31	0.00	73	0.000	0.4	0%	52%	-67.88
	Sep	138.06	0.00	73	0.000	0.5	0%	53%	-64.60
	Oct	139.30	0.00	73	0.000	0.4	0%	53%	-65.86
	Nov	139.79	0.00	73	0.000	0.5	0%	52%	-66.30
	Dec	141.13	0.00	73	0.000	0.4	0%	52%	-67.69
2032	Jan	138.52	0.00	73	0.000	0.4	0%	53%	-65.08
	Feb	141.76	0.00	73	0.000	0.5	0%	52%	-68.26
	Mar	143.96	0.00	73	0.000	0.4	0%	51%	-70.52
	Apr	149.07	0.00	73	0.000	0.5	0%	49%	-75.61
	May	138.74	0.00	73	0.000	0.5	0%	53%	-65.24
	Jun	136.23	0.00	73	0.000	0.4	0%	54%	-62.78
	Jul	141.86	0.00	73	0.000	0.4	0%	52%	-68.42
	Aug	148.18	0.00	73	0.000	0.4	0%	49%	-74.74
	Sep	144.77	0.00	73	0.000	0.5	0%	51%	-71.31
	Oct	146.07	0.00	73	0.000	0.4	0%	50%	-72.63
	Nov	146.58	0.00	73	0.000	0.5	0%	50%	-73.09
	Dec	147.98	0.00	73	0.000	0.4	0%	49%	-74.54
2033	Jan	144.94	0.00	73	0.000	0.4	0%	51%	-71.50
	Feb	148.32	0.00	73	0.000	0.5	0%	49%	-74.82
	Mar	150.62	0.00	73	0.000	0.4	0%	49%	-77.19
	Apr	155.97	0.00	73	0.000	0.5	0%	47%	-82.51
	May	145.16	0.00	73	0.000	0.5	0%	50%	-71.67
	Jun	142.54	0.00	73	0.000	0.4	0%	51%	-69.09
	Jul	148.43	0.00	73	0.000	0.4	0%	49%	-74.99

	Aug	155.04	0.00	73	0.000	0.4	0%	47%	-81.61
	Sep	151.47	0.00	73	0.000	0.5	0%	48%	-78.01
	Oct	152.83	0.00	73	0.000	0.4	0%	48%	-79.39
	Nov	153.36	0.00	73	0.000	0.5	0%	48%	-79.88
	Dec	154.83	0.00	73	0.000	0.4	0%	47%	-81.40
2034	Jan	151.34	0.00	73	0.000	0.4	0%	48%	-77.90
	Feb	154.87	0.00	73	0.000	0.5	0%	47%	-81.37
	Mar	157.28	0.00	73	0.000	0.4	0%	47%	-83.84
	Apr	162.86	0.00	73	0.000	0.5	0%	45%	-89.40
	May	151.57	0.00	73	0.000	0.5	0%	48%	-78.08
	Jun	148.83	0.00	73	0.000	0.4	0%	49%	-75.39
	Jul	154.98	0.00	73	0.000	0.4	0%	47%	-81.54
	Aug	161.89	0.00	73	0.000	0.4	0%	45%	-88.45
	Sep	158.16	0.00	73	0.000	0.5	0%	46%	-84.70
	Oct	159.58	0.00	73	0.000	0.4	0%	46%	-86.14
	Nov	160.14	0.00	73	0.000	0.5	0%	46%	-86.65
	Dec	161.67	0.00	73	0.000	0.4	0%	45%	-88.24

The average existing contracting level is 76.36% supplied by Limay Power Inc. (LPI). BENECO's emergency power supply agreement with LPI will expire on February 25, 2025. BENECO is in the process of completing its Competitive Selection Process (CSP), which will be further discussed in the Power Supply Section of this write-up.

The proposed / target contracting level to suffice the forecasted energy and demand has a minimum utilization of 65%. The MW Surplus / Deficit as shown in Figure 9 means that this is the excess from the contracted / planned MW which will be sourced from the WESM. However, since the utilization is pegged at 65%, BENECO may still source from the power supplier up to 100% This means that the energy to be sourced from WESM will range from 0% to 35%.

MW Surplus / Deficit 0.00 -10.00 -20.00 2027 2028 2029 2030 2031 2032 2033 2034 -30.00 -40.00 phy Why Why -50.00 -60.00 -70.00 -80.00 -90.00 -100.00 Month

Figure 9: Forecasted MW Surplus/Deficit

Table 4: Forecasted Consumption Data

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2025	Jan	50,563	48,172	2,390	0.00%	4.73%
	Feb	52,497	48,470	4,027	0.00%	7.67%
	Mar	48,958	45,133	3,825	0.00%	7.81%
	Apr	51,973	47,744	4,229	0.00%	8.14%
	May	51,204	48,092	3,113	0.00%	6.08%
	Jun	52,839	47,815	5,025	0.00%	9.51%
	Jul	50,174	47,467	2,707	0.00%	5.40%
	Aug	51,972	48,607	3,365	0.00%	6.48%
	Sep	52,619	48,095	4,524	0.00%	8.60%
	Oct	52,462	48,684	3,778	0.00%	7.20%
	Nov	53,848	49,785	4,062	0.00%	7.54%
	Dec	54,286	48,906	5,380	0.00%	9.91%
2026	Jan	53,665	51,128	2,537	0.00%	4.73%
	Feb	55,718	51,444	4,274	0.00%	7.67%
	Mar	51,962	47,902	4,060	0.00%	7.81%
	Apr	55,162	50,674	4,488	0.00%	8.14%
	May	54,346	51,042	3,304	0.00%	6.08%
	Jun	56,081	50,748	5,333	0.00%	9.51%
	Jul	53,252	50,379	2,873	0.00%	5.40%
	Aug	55,161	51,590	3,572	0.00%	6.48%
	Sep	55,848	51,046	4,802	0.00%	8.60%
	Oct	55,681	51,671	4,010	0.00%	7.20%
	Nov	57,152	52,840	4,311	0.00%	7.54%
	Dec	57,617	51,907	5,710	0.00%	9.91%
2027	Jan	56,885	54,196	2,689	0.00%	4.73%
	Feb	59,061	54,531	4,531	0.00%	7.67%
	Mar	55,080	50,776	4,304	0.00%	7.81%
	Apr	58,472	53,714	4,757	0.00%	8.14%
	May	57,607	54,105	3,502	0.00%	6.08%
	Jun	59,446	53,793	5,653	0.00%	9.51%
	Jul	56,447	53,402	3,045	0.00%	5.40%
	Aug	58,471	54,685	3,786	0.00%	6.48%
	Sep	59,198	54,109	5,090	0.00%	8.60%
	Oct	59,021	54,771	4,250	0.00%	7.20%
	Nov	60,581	56,011	4,570	0.00%	7.54%
0000	Dec	61,074	55,021	6,053	0.00%	9.91%
2028	Jan	60,185	57,340	2,845	0.00%	4.73%
	Feb	62,488	57,695	4,794	0.00%	7.67%
	Mar	58,276	53,722	4,553	0.00%	7.81%
	Apr	61,864	56,831	5,033	0.00%	8.14%
	May	60,949	57,244	3,705	0.00%	6.08%
	Jun	62,895	56,914	5,981	0.00%	9.51%
	Jul	59,723	56,500	3,222	0.00%	5.40%
	Aug	61,864	57,858	4,006	0.00%	6.48%
	Sep	62,633	57,248	5,385	0.00%	8.60%
	Oct	62,446	57,949	4,497	0.00%	7.20%
	Nov	64,096	59,260	4,835	0.00%	7.54%
	Dec	64,618	58,214	6,404	0.00%	9.91%

2029	Jan	63,540	60,536	3,004	0.00%	4.73%
	Feb	65,971	60,910	5,061	0.00%	7.67%
	Mar	61,524	56,716	4,807	0.00%	7.81%
	Apr	65,312	59,998	5,314	0.00%	8.14%
	May	64,346	60,435	3,912	0.00%	6.08%
	Jun	66,401	60,086	6,314	0.00%	9.51%
	Jul	63,051	59,650	3,402	0.00%	5.40%
	Aug	65,312	61,083	4,229	0.00%	6.48%
	Sep	66,124	60,439	5,685	0.00%	8.60%
	Oct	65,926	61,179	4,748	0.00%	7.20%
	Nov	67,668	62,563	5,105	0.00%	7.54%
	Dec	68,219	61,458	6,761	0.00%	9.91%
2030	Jan	66,928	63,764	3,164	0.00%	4.73%
	Feb	69,489	64,159	5,331	0.00%	7.67%
	Mar	64,805	59,741	5,063	0.00%	7.81%
	Apr	68,795	63,198	5,597	0.00%	8.14%
	May	67,778	63,658	4,120	0.00%	6.08%
	Jun	69,942	63,291	6,651	0.00%	9.51%
	Jul	66,414	62,831	3,583	0.00%	5.40%
	Aug	68,795	64,340	4,455	0.00%	6.48%
	Sep	69,651	63,662	5,988	0.00%	8.60%
	Oct	69,442	64,441	5,001	0.00%	7.20%
	Nov	71,277	65,900	5,377	0.00%	7.54%
	Dec	71,858	64,736	7,122	0.00%	9.91%
2031	Jan	70,336	67,011	3,325	0.00%	4.73%
	Feb	73,028	67,425	5,602	0.00%	7.67%
	Mar	68,104	62,783	5,321	0.00%	7.81%
	Apr	72,298	66,416	5,882	0.00%	8.14%
	May	71,229	66,899	4,330	0.00%	6.08%
	Jun	73,503	66,514	6,990	0.00%	9.51%
	Jul	69,795	66,030	3,766	0.00%	5.40%
	Aug	72,297	67,616	4,681	0.00%	6.48%
	Sep	73,197	66,904	6,293	0.00%	8.60%
	Oct	72,978	67,723	5,255	0.00%	7.20%
	Nov	74,906	69,255	5,651	0.00%	7.54%
	Dec	75,516	68,032	7,484	0.00%	9.91%
2032	Jan	73,752	70,266	3,486	0.00%	4.73%
	Feb	76,574	70,700	5,874	0.00%	7.67%
	Mar	71,412	65,832	5,580	0.00%	7.81%
	Apr	75,809	69,641	6,168	0.00%	8.14%
	May	74,688	70,148	4,540	0.00%	6.08%
	Jun	77,073	69,744	7,329	0.00%	9.51%
	Jul	73,185	69,237	3,948	0.00%	5.40%
	Aug	75,809	70,900	4,909	0.00%	6.48%
	Sep	76,752	70,153	6,599	0.00%	8.60%
	Oct	76,522	71,012	5,511	0.00%	7.20%
	Nov	78,544	72,619	5,925	0.00%	7.54%
	Dec	79,184	71,336	7,848	0.00%	9.91%
2033	Jan	77,167	73,519	3,648	0.00%	4.73%
	Feb	80,120	73,974	6,146	0.00%	7.67%
	Mar	74,719	68,881	5,838	0.00%	7.81%
	Apr	79,320	72,866	6,453	0.00%	8.14%

	May	78,147	73,396	4,751	0.00%	6.08%
	Jun	80,642	72,973	7,668	0.00%	9.51%
	Jul	76,574	72,443	4,131	0.00%	5.40%
	Aug	79,319	74,183	5,136	0.00%	6.48%
	Sep	80,306	73,401	6,905	0.00%	8.60%
	Oct	80,066	74,300	5,766	0.00%	7.20%
	Nov	82,181	75,981	6,200	0.00%	7.54%
	Dec	82,851	74,639	8,211	0.00%	9.91%
2034	Jan	80,576	76,767	3,809	0.00%	4.73%
	Feb	83,659	77,241	6,418	0.00%	7.67%
	Mar	78,019	71,923	6,096	0.00%	7.81%
	Apr	82,823	76,085	6,738	0.00%	8.14%
	May	81,599	76,638	4,961	0.00%	6.08%
	Jun	84,204	76,196	8,007	0.00%	9.51%
	Jul	79,956	75,642	4,314	0.00%	5.40%
	Aug	82,822	77,460	5,363	0.00%	6.48%
	Sep	83,853	76,643	7,210	0.00%	8.60%
	Oct	83,602	77,582	6,020	0.00%	7.20%
	Nov	85,811	79,337	6,473	0.00%	7.54%
	Dec	86,510	77,936	8,574	0.00%	9.91%

BENECO has a projected annual growth of 5% - 6%. BENECO targets to maintain an annual system loss of less than 8% in the next 10 years.

Forecasted Consumption 100,000 180.0 90,000 160.0 80,000 140.0 70,000 120.0 60,000 50,000 40,000 30,000 100.0 0.08 60.0 40.0 20,000 20.0 10,000 0.0 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 Month MWh Output MWh System Loss Coincident Peak MW

Figure 10: Forecasted Consumption

The forecasted consumption of BENECO consumers continue to increase as shown in Figure 10.

Forecasted Losses

12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
-2.00%

2025 2026 2027 2028 2029 2030 2031 2032 2033 2034

Month

— Transm'n Loss

System Loss

Figure 11: Forecasted Losses

The target minimum and maximum system loss per month in the next 10 years is 4.72% and 9.91% respectively. Based on ERC Resolution No. 20 series of 2017, BENECO is included in Cluster 2 where the system loss is capped at 10.25% from 2021 onwards, thus the target system losses are still within the cap.

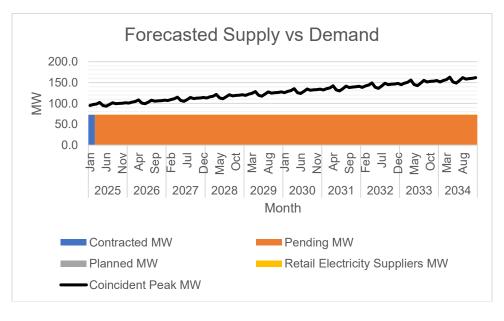


Figure 12: Forecasted Supply versus Contracted Demand

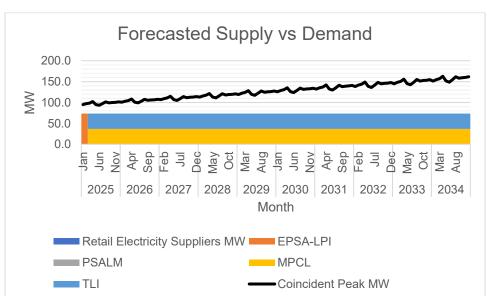


Figure 13: Forecasted Peak Demand versus Contracted and Planned Demand

Figures 12 and 13 illustrates the difference of the forecasted demand as compared to the existing and proposed power supply. The Emergency Power Supply Agreement (EPSA) with Limay Power Inc. (LPI) is at 73 MW demand will end on February 25, 2025. BENECO is in the process of completing its Competitive Selection Process (CSP), which will be further discussed in the Power Supply Section of this write-up.

The pending contracted demand is a total of 73 MW from February 26, 2025 to December 25, 2039. The difference between the coincident peak demand from the contracted and planned demand will be sourced from the WESM or BENECO will review its power supply plan annually to determine if there is a need to conduct another CSP for its load growth.



Figure 14: Existing and Planned Contracting Levels

Since the power supply contract between LPI and BENECO will expire on February 25, 2025, the power supply requirement of BENECO will be sourced from the Winning Suppliers of the recently conducted CSP, conducted by NEA for the Luzon ECs, as well as from WESM. However, in the event that the supply from the CSP does not commence as planned on February 26, 2025, BENECO shall execute another EPSA to cover the gap between the expiration of the EPSA with LPI on February 26, 2025 and the approval of the PSA for the Luzon ECs.

Power Supply

Table 5: Existing Power Supply Agreement

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
TEAM	Base	Limay Power Inc. (LPI)	73.00	90,841	3/13/2004	3/12/2024
PSALM	Base	Power Sector Assets and Liabilities Management Corporation	0	109	12/3/2003	6/25/2026

On March 13, 2024, BENECO entered into an Emergency Power Supply Agreement (EPSA) with Limay Power Inc. (LPI).

On the other hand, PSALM supplies only 0.03% of the total energy of BENECO, thus the zero MW in the table shown above. The agreement with PSALM was executed prior to the enactment of the Electric Power Industry Reform Act (EPIRA). Since the energy being supplied by PSALM is minimal, it will not have an effect on our planned CSPs. Moreover, BENECO will not conduct a separate CSP for the energy being supplied by PSALM. When the agreement with PSALM ends, BENECO will supply the connected loads currently supplied by PSALM from the grid.

Table 6: Pending Power Supply Agreement

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
MPCL	Base	Masinloc Power Partners Company, Ltd.	36.50	172,528	2/26/2025	12/25/2039
TLI	Base	Therma Luzon, Inc.	36.50	172,528	2/26/2025	12/25/2039

BENECO conducted its Competitive Selection Process for the supply of its short-term base load requirements of 73MW for 2024-2028 last October 2023. However, there were no offers received during the opening of bids, thus the failure of bidding. BENECO

requested the National Electrification Administration (NEA) for a Notice to Proceed (NTP) for the conduct of the 2nd round of bidding for its short-term power requirements, however, the Department of Energy (DOE) issued Department Order (DO) No. 2023-10-0022 Directing the National Electrification Administration (NEA) to facilitate the Joint Conduct of Competitive Selection Process for the Joint Power Supply of Electric Cooperatives using the Indigenous Natural Gas as Transition Fuel. BENECO will be participating in the Joint CSP for its 2024-2028 power requirements.

Awaiting for the conduct of the Joint Competitive Power Selection to be administered by the NEA, BENECO conducted its Emergency Power Supply Agreement (EPSA). BENECO solicited offers from different generation companies, however only San Miguel Global Power – Limay Power Inc. (LPI) submitted its offer. The EPSA between BENECO and LPI was executed last March 12, 2024 and took effect on March 13, 2024. The same was already pre-filed before the Energy Regulatory Commission (ERC) for approval.

On March 5, 2024, BENECO received an advisory from the NEA stating that NEA will temporarily hold in abeyance the conduct of the Joint Competitive Selection Process (CSP) for Indigenous Natural Gas and all activities relative hereto until further notice.

Since the EPSA is effective for a maximum of one (1) year only, BENECO started its preparation for its short-term power supply contracting to cover its power requirements from 2025-2028. Upon the approval of a board resolution for the conduct of the CSP, BENECO prepared the guidelines for the selection of the CSP BAC, TWG and Secretariat. BENECO also prepared the PSPP in accordance with the planned CSP. The TWG prepared the draft documents for the bidding schedule, Terms of Reference (TOR), Instruction to Bidders and Power Supply Agreement.

On April 29, 2024, BENECO received a letter from the NEA regarding the creation of a Special Bids and Awards Committee (SBAC) to conduct the Competitive Selection Process for the procurement of power supply for the aggregation of Luzon Electric Cooperatives who have not yet commenced their respective CSPs within one year before the expiration of their current and subsisting power supply agreement or projected increase in demand based on their latest and posted Power Supply Procurement Plan. With this, BENECO, along with the other 17 electric cooperatives as identified by the NEA, participated in the power supply aggregation of the Luzon Electric Cooperatives.

On December 3, 2024, the NEA SBAC and Technical Working Group (TWG) facilitated the Opening of Bids for the Joint Competitive Selection Process for the Aggregated Baseload Supply of Luzon On-Grid Electric Cooperatives. Following a comprehensive

evaluation of the submitted eligibility documents and bid proposals, Masinloc Power Co. Ltd. (MPCL) and Therma Luzon Inc. (TLI) were identified as the Lowest and Second Lowest Calculated Bidders, respectively.

The Notices of Award were issued to MPCL and TLI on December 27, 2024. Finally, on February 3, 2025, the LECA Member ECs and the Winning Suppliers held the ceremonial signing of the Power Supply Agreements at the NEA Office.

Renewable Portfolio Standards (RPS)

Table 6: RPS Compliance

REC Shortfall	2023	2024	2025	2026	2027	2028
2021 Template (Submitted March 2021)	-	35,205	51,837	68,786	86,627	105,361
2021 Template (Submitted November 2021)	-	31,694	46,740	61,545	77,284	94,062
2022 Template (Submitted September 2022)	-	8,958	25,460	32,688	39,688	47,127
2023 Template (Submitted August 2023)	10,108	4,843	-	-	-	-
2024 Template (Without RE Sources)		36,221	55,094	69,884	87,814	106,853
2024 Template (With RE Sources)		36,221	55,094	47,108	65,038	84,015

REC Shortfall	2029	2030	2031	2032	2033	2034
2021 Template (Submitted March 2021)	124,984	145,498	-	-		
2021 Template (Submitted November 2021)	94,062	111,985	131,160	-		
2022 Template (Submitted September 2022)	54,764	62,597	70,628	-		
2023 Template (Submitted August 2023)	-	-	58,010	91,889		
2024 Template (Without RE Sources)	127,017	148,341	170,871	194,654	219,746	246,192
2024 Template (With RE Sources)	104,240	115,054	137,583	161,275	188,457	212,904

Based on the template provided in 2021, it was determined that BENECO had a shortfall of 35,205 MWh (REC) for 2024 and 51,837 (REC) for 2025. Consequently, these were included in the RPS energy requirements that were bid out by the R1+CAR+S1 aggregation for the 2022-2025 power supply requirements. However, the bidding held in June 2022 failed due to the lack of interested bidders particularly for the RPS requirements.

The Joint Third-Party Bids and Awards Committee (JTPBAC) identified challenges in the RPS requirements as the primary reason for the absence of bids. In June 2022, the

JTPBAC submitted a Revised Terms of Reference (TOR) to DOE and NEA to initiate a second round of bidding excluding RPS requirements.

In 2023, a new RPS template was issued by the DOE, indicating that BENECO no longer had RPS requirements for 2025-2030. This led BENECO to believe that it is compliant with its requirements. Consequently, no further RPS procurement was undertaken. In January 2024, BENECO submitted its updated RPS requirements to DOE along with its Distribution Development Plan (DDP) but received no comments.

The issuance of a new template in November 2024 showing significant RPS obligations for 2025-2030 has created a major challenge for BENECO. With these unforeseen requirements, additional REC procurement would result in added costs to consumers or if energy is procured, it may lead to over contracting.

Depending on the actual conditions, BENECO may need to secure new power supply contracts to fully or partially comply with the RPS. BENECO is also awaiting a response from the DOE regarding the concerns raised about its compliance with the RPS requirements.

Captive Customer Connections

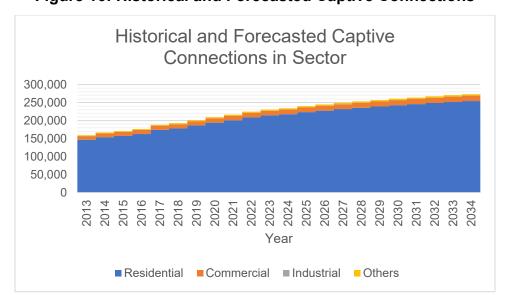


Figure 16: Historical and Forecasted Captive Connections

Figure 16 shows the that the residential has the largest number of captive customers followed by the commercial customers.

