



POWER SUPPLY PROCUREMENT PLAN				
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Power Supply Procurement Plan 2024

PENINSULA ELECTRIC COOPERATIVE, INC.

City of Balanga, Bataan



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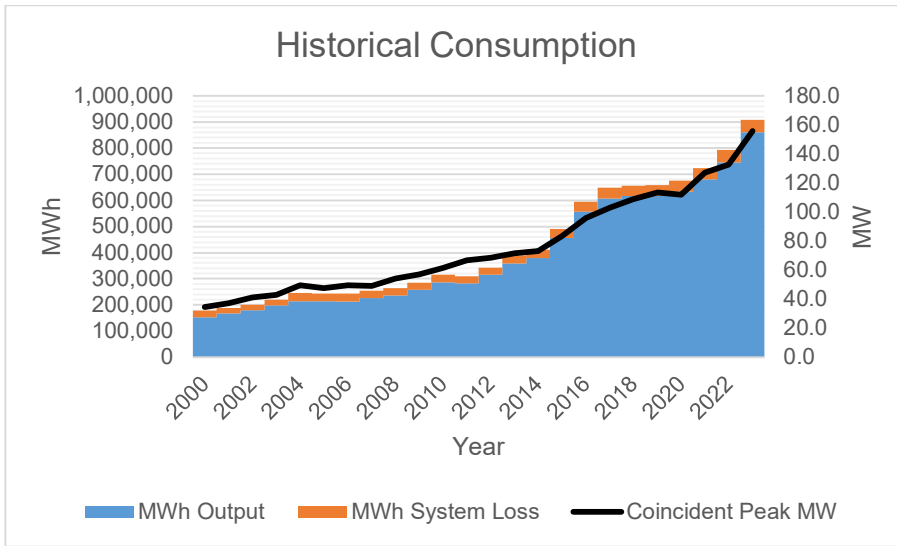
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	34.57	178,427	0	178,427	153,529	24,898	59%	0.00%	0.00%	13.95%
2001	37.08	187,209	0	187,209	166,974	20,236	58%	0.00%	0.00%	10.81%
2002	41.16	200,254	0	200,254	180,124	20,130	56%	0.00%	0.00%	10.05%
2003	42.87	220,022	0	220,022	197,574	22,448	59%	0.00%	0.00%	10.20%
2004	49.55	245,856	0	245,856	214,222	31,635	57%	0.00%	0.00%	12.87%
2005	47.38	242,655	0	242,655	214,646	28,009	58%	0.00%	0.00%	11.54%
2006	49.48	243,064	0	243,064	213,267	29,798	56%	0.00%	0.00%	12.26%
2007	49.04	254,364	0	254,364	225,934	28,430	59%	0.00%	0.00%	11.18%
2008	54.14	265,379	0	265,379	236,589	28,791	56%	0.00%	0.00%	10.85%
2009	57.10	285,121	0	285,121	258,076	27,045	57%	0.00%	0.00%	9.49%
2010	61.55	315,857	45,770	315,857	286,256	29,601	59%	0.00%	0.00%	9.37%
2011	66.77	310,221	30,244	310,221	282,440	27,781	53%	0.00%	0.00%	8.96%
2012	68.39	343,012	62,913	343,012	315,374	27,638	57%	0.00%	0.00%	8.06%
2013	71.50	388,742	218,200	388,742	358,324	30,418	62%	0.00%	0.00%	7.82%
2014	73.25	411,201	99,172	411,201	379,172	32,029	64%	0.00%	0.00%	7.79%
2015	83.49	490,637	122,736	490,637	457,544	33,093	67%	0.00%	0.00%	6.74%
2016	95.68	595,724	180,110	595,724	557,283	38,441	71%	0.00%	0.00%	6.45%
2017	103.08	648,393	161,030	648,393	606,708	41,685	72%	0.00%	0.00%	6.43%
2018	108.84	656,209	141,789	656,209	617,610	38,600	69%	0.00%	0.00%	5.88%
2019	113.60	665,158	166,368	658,118	616,735	41,383	66%	0.00%	1.06%	6.29%
2020	111.83	683,479	93,539	675,758	633,790	41,968	69%	0.00%	1.13%	6.21%
2021	126.99	729,888	157,604	723,203	679,837	43,366	65%	0.00%	0.92%	6.00%
2022	132.56	804,380	100,684	793,239	746,273	46,966	68%	0.00%	1.39%	5.92%
2023	155.88	918,336	65,403	907,799	859,576	48,223	66%	0.00%	1.15%	5.31%

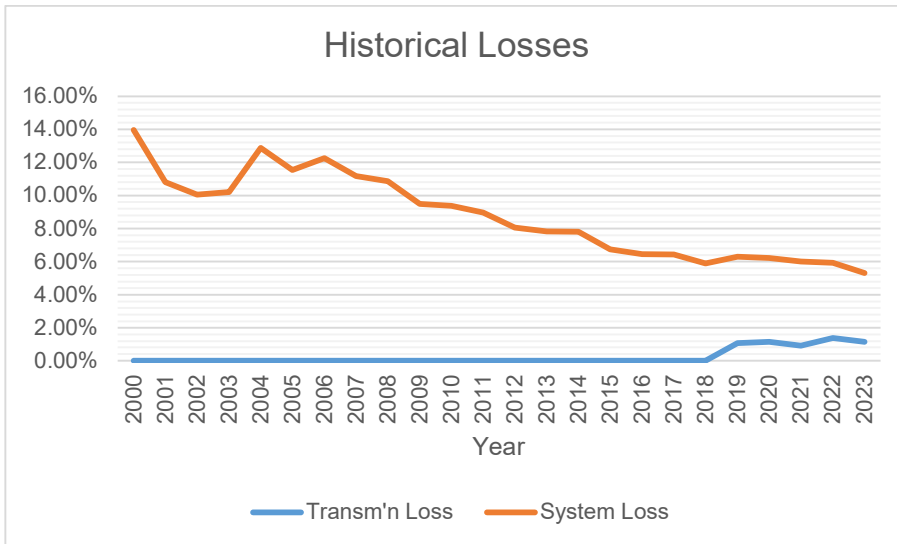
Peak Demand increased from 34.57 MW in 2000 to 155.88 MW in 2023 at an annual average growth rate of 6.91%. MWh Offtake increased from 178,427 MWh in 2000 to 918,336 MWh in 2023 at an average annual rate of 7.53% due to the increase in customer connections. Within the same period, the Load Factor ranged from 53% to 72%. There was an abrupt change in consumption in 2016 due to the increase in industrial customers.



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MWh Output increased from the year 2000 to year 2023 at an annual average growth rate of 7.94%, while MWh System Loss decreased at a rate of 3.49% within the same period.



Historically, from the year 2000 to 2023, Transmission Loss ranged from 0% to 1.39% while System Loss ranged from 5.31% to 13.95%. Transmission Loss peaked at 1.39% in the year 2022. System Loss peaked at 13.95% in the year 2000. This is the highest in the past 20 historical years, but it has been on a consistent downward trend since PENELCO was established in 1990. As of December 2023, the System Loss is at 5.31% which is 2.94% lower than the established system loss cap, which is 8.25% for Cluster 3 ECs for the year 2022 as indicated in ERC Resolution No. 20, Series of 2017.

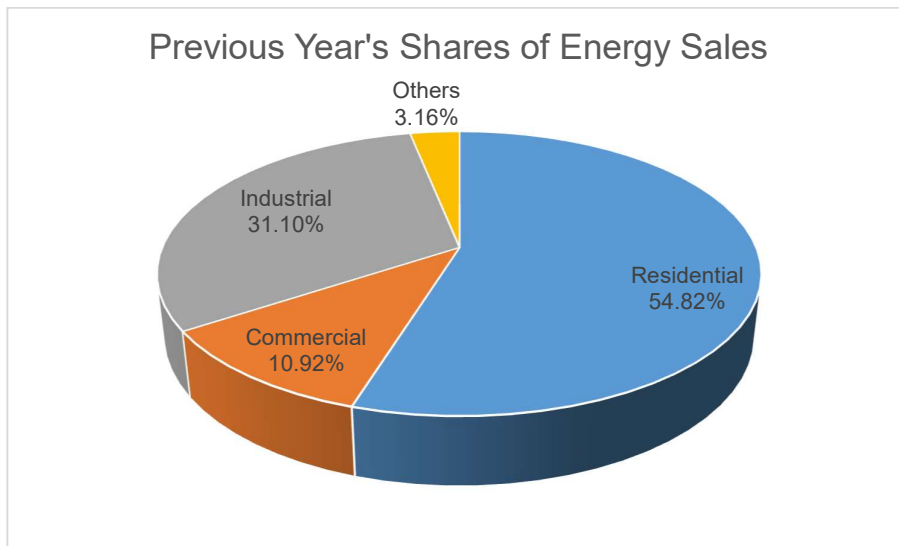
There was no available data for Transmission Loss from year 2000 to 2017 since according to the Rule, System Loss Segregation was implemented in 2018. Thus, in compliance with the ERC resolution, PENELCO installed metering equipment to all acquired 69kV sub-transmission facilities, substation and feeders to accurately measure the actual losses in PENELCO's distribution system.



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Regarding the abrupt changes in the Feeder Technical Loss for the months of May, August and November, the main reason is the difference in reading cycle. There were instances wherein the reading cycle was started either in advance or sometimes delayed of the scheduled date for the month. If the feeder loss of the prior month was quite higher, it was expected to decrease on the succeeding month. However, taking into consideration the average feeder loss for the year, it was consistent with the targeted system loss of the cooperative.

Currently, PENELCO has no available data for the Non-technical Loss. In order to address this, the Cooperative has established a plan for the segregation of Technical and Non-Technical loss. The on-going first phase includes data gathering to address and comply with the directives of ERC.

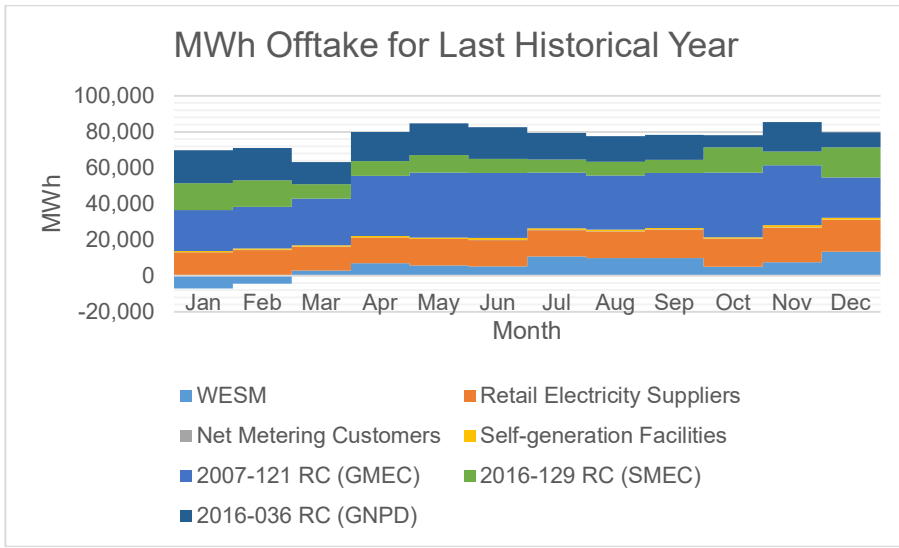


Residential customers account for the bulk of energy sales at 54.82% due to the high number of connections. The total number of residential customers as of December 31, 2023, is 202,049 while the total number of industrial, commercial and “others” customers is 15,982. Despite the emerging number of industrial and commercial customers, the majority of Bataan’s consumption is still residential customers. In contrast, “Others” customers (Public Buildings, Water Systems, and Streetlights) accounted for only 3.16% of energy sales due to the low number of connections, totalling 2,651 at the end of the previous year (2023).

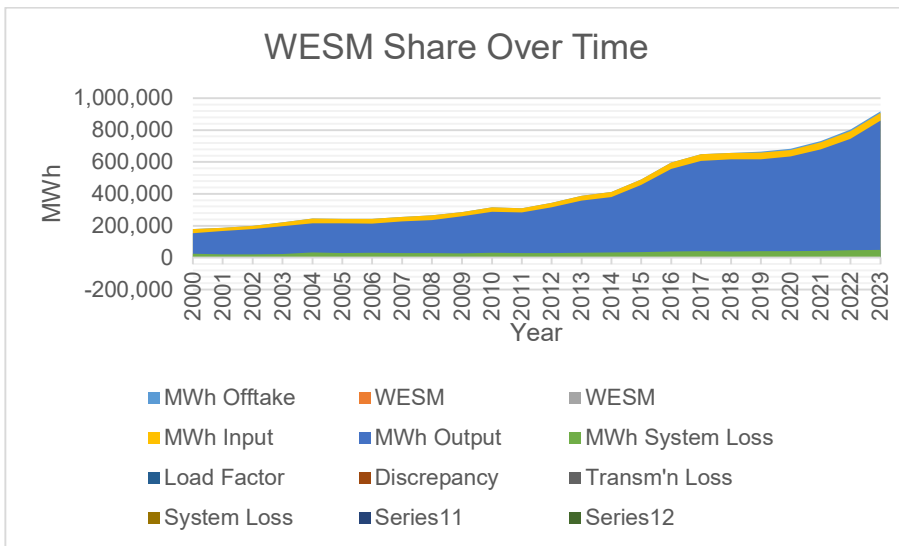
As for the four barangays outside Bataan that are being served by PENELCO, those are not considered as Sale for Resale (S4R) as Seller customers. There are no existing S4R agreements between the cooperatives. ZAMECO II has issued a Waiver Agreement for Brgy. Batiawan, Subic, Zambales while Brgy. Malabo, Brgy. Bodega and Brgy. Dampe, Florida Blanca, Pampanga are served long before the incorporation of PENELCO.



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The total Offtake for the last historical year (2023) is higher than the quantity stipulated in the Power Supply Agreement (PSA). The PSA with 2007-121 RC (GMEC) accounts for the bulk of MWh Offtake. For the negative WESM values from January to February 2023, it pertains to the sale of Contracted Energy due to the abrupt decline in demand. Based on record, PENELCO’s demand for January and February 2023 decreased by 3.3% and 2.39% respectively as compared to the same months in 2022. The corresponding amount from the WESM sale were deducted from the total generation costs in the said months.

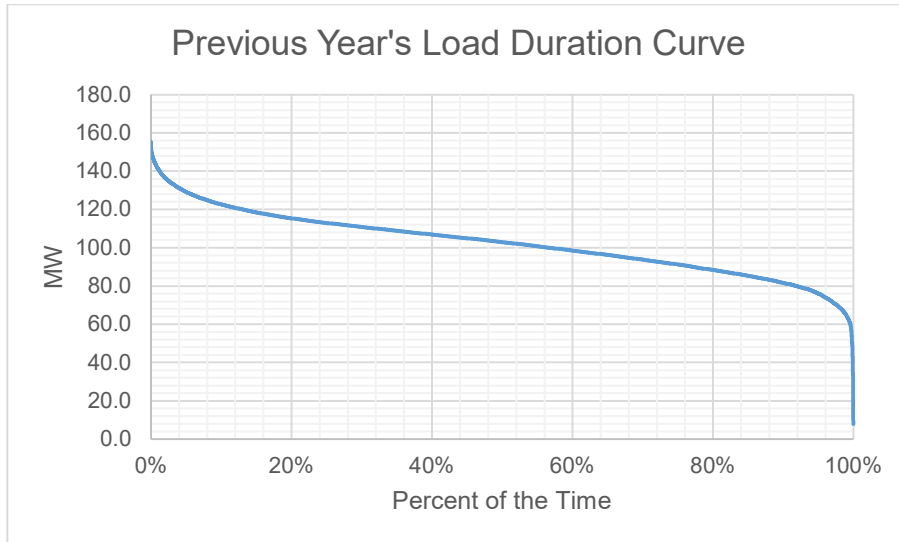


WESM Offtake decreased from 100,684 MWh in 2022 to 65,403 MWh in 2023 at a rate of 35% due to lesser plant outage of PENELCO’s power suppliers and the commencement of Power Supply Agreement with GNPowder Dinginin (GNPD). The share of WESM in the total Offtake ranged from 7% to 56%. There was a decrease in the WESM share in 2020 which is attributed to the effect of the community restrictions due to the COVID-19 outbreak. Despite that, the net WESM transaction is positive from 2010 to 2023 because of the increase in the load requirements of the customers of Bataan.

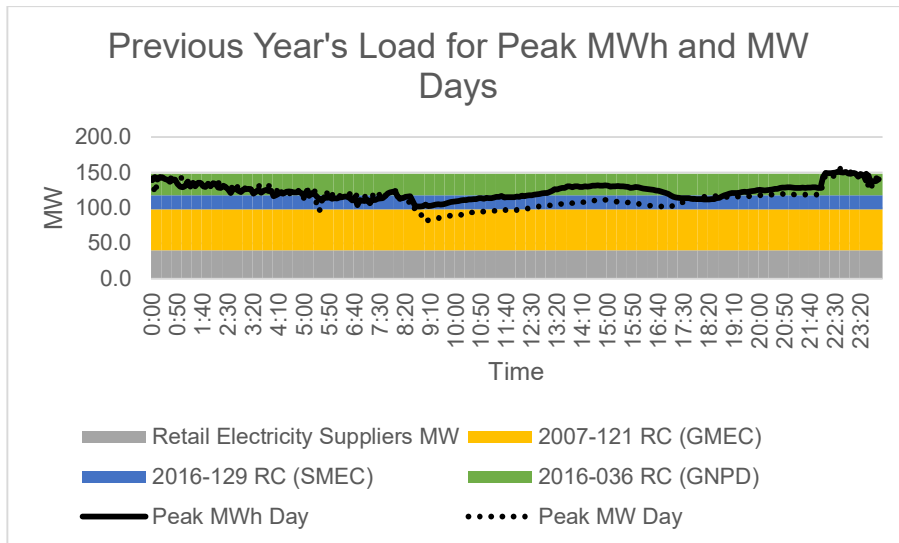


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Previous Year's Load Profile



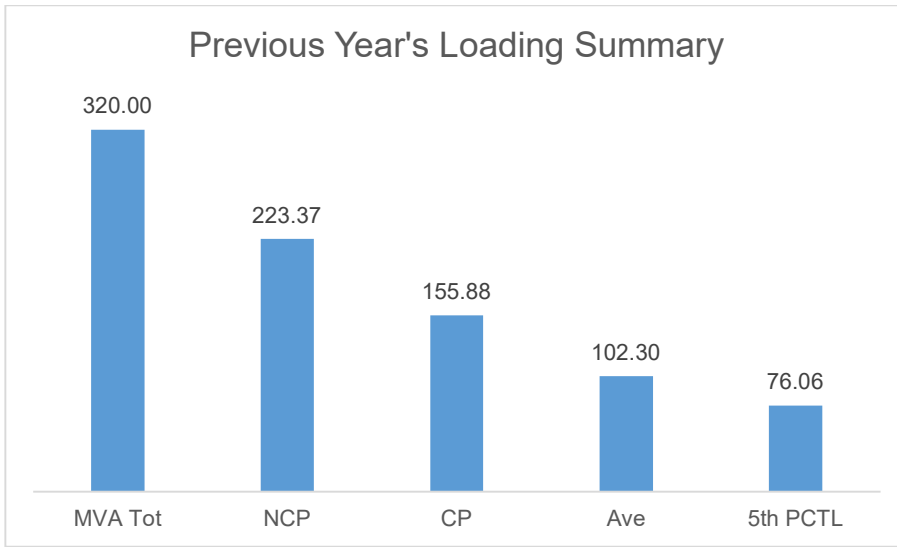
Based on the Load Duration Curve, PENELCO's baseload requirement is approximately 75MW. The minimum load is 8 MW and the maximum load is 155.88 MW for the last historical year (2023). The minimum was in July and occurred outside of unforeseen outages and scheduled interruptions. The maximum load occurred in November 2023, 10:35 PM due to the peak consumption of the Residential customers at night time.



Peak MW occurred at 22:35. This is attributed to the majority (92%) of the electricity users being residential customers that use the most electricity at night. As shown in the Load Curves, the available supply is lower than the Actual Peak Demand thus WESM shares over the gap.



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The Non-coincident Peak Demand is 223.37 MW, which is around 70% of the total substation capacity of 320 MVA at a power factor of 98%. The load factor or the ratio between the Average Load of 102.30 MW and the Non-coincident Peak Demand is 46%. A safe estimate of the true minimum load is the fifth percentile load of 76.06 MW which is 34% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
17-MF3MLMYPENE19 (MAAP)	5	1.096
15-MF3MLIMPENE25 (Limay Totalizer)	95	62.950
7-MF3MLIMPENE26 (Alasasin)	20	2.987
14-MF3MHERPENE24 (Hermosa Totalizer)	120	76.910
3-MF3MBTPPENE10 (Cabcabén)	10	5.268
5-MF3MHERPENE08 (Din Totalizer)	50	66.417
MF3MLIMPENE28 (Mariveles)	10	7.112
3-MF3MBTPPYTV01 (Puyat Vinyl)	10	0.624

The metering points loaded at above 70% are the Mariveles Metering Point and Dinalupihan Totalizer.

The Mariveles Metering Point will be addressed by a proposed 20MVA Substation Project in Mariveles.

The Dinalupihan Totalizer additional load is due to the new contestable customer LianSheng Manufacturing Corporation, with an installed capacity of 100MVA and a maximum demand of 46.5MW, temporarily connected to the Hermosa-Dinalupihan 69kV line. They are proposed to have an exclusive 69kV line pending approval from the NGCP.



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Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2024	Jan	148.31	108.00	0.00	0.000	40.08	100%	100%	-0.23
	Feb	148.46	108.00	0.00	0.000	40.38	100%	100%	-0.08
	Mar	148.01	108.00	0.00	0.000	43.48	103%	103%	3.46
	Apr	158.90	108.00	0.00	0.000	50.88	100%	100%	-0.02
	May	159.13	108.00	0.00	0.000	51.21	100%	100%	0.08
	Jun	159.64	108.00	0.00	0.000	52.32	101%	101%	0.69
	Jul	156.89	98.00	0.00	0.000	48.28	90%	90%	-10.61
	Aug	152.86	98.00	0.00	0.000	43.65	90%	90%	-11.21
	Sep	152.88	98.00	0.00	0.000	43.69	90%	90%	-11.19
	Oct	158.34	98.00	0.00	0.000	49.65	90%	90%	-10.69
	Nov	155.05	98.00	0.00	0.000	46.89	91%	91%	-10.16
	Dec	154.67	98.00	0.00	0.000	46.14	90%	90%	-10.53
2025	Jan	165.35	103.00	0.00	0.000	40.48	82%	82%	-21.87
	Feb	165.52	103.00	0.00	0.000	40.78	83%	83%	-21.74
	Mar	170.92	103.00	0.00	0.000	45.48	82%	82%	-22.44
	Apr	177.16	103.00	0.00	30.000	51.39	82%	106%	7.22
	May	177.42	103.00	0.00	30.000	51.72	82%	106%	7.30
	Jun	177.98	103.00	0.00	30.000	52.85	82%	106%	7.86
	Jul	174.92	103.00	0.00	30.000	48.77	82%	105%	6.85
	Aug	170.43	103.00	0.00	30.000	44.09	82%	105%	6.66
	Sep	170.45	103.00	0.00	30.000	44.13	82%	105%	6.68
	Oct	176.54	103.00	0.00	30.000	50.15	81%	105%	6.61
	Nov	172.87	103.00	0.00	30.000	47.35	82%	106%	7.49
	Dec	172.44	103.00	0.00	30.000	46.60	82%	106%	7.16
2026	Jan	172.02	108.00	0.00	30.000	40.88	82%	105%	6.87
	Feb	172.19	108.00	0.00	30.000	41.19	82%	105%	7.00
	Mar	177.81	108.00	0.00	30.000	45.94	82%	105%	6.13
	Apr	184.31	108.00	0.00	30.000	51.90	82%	104%	5.60
	May	184.57	108.00	0.00	30.000	52.24	82%	104%	5.67
	Jun	185.16	108.00	0.00	30.000	53.38	82%	105%	6.22
	Jul	181.97	108.00	0.00	30.000	49.25	81%	104%	5.28
	Aug	177.30	108.00	0.00	30.000	44.53	81%	104%	5.23
	Sep	177.32	108.00	0.00	30.000	44.57	81%	104%	5.25
	Oct	183.65	108.00	0.00	30.000	50.65	81%	104%	5.00
	Nov	179.84	108.00	0.00	30.000	47.83	82%	105%	5.99
	Dec	179.40	108.00	0.00	30.000	47.07	82%	104%	5.67
2027	Jan	178.68	113.00	0.00	30.000	41.29	82%	104%	5.61
	Feb	178.86	113.00	0.00	30.000	41.60	82%	104%	5.74
	Mar	184.69	113.00	0.00	30.000	46.39	82%	103%	4.70
	Apr	191.45	113.00	0.00	30.000	52.42	81%	103%	3.98
	May	191.72	113.00	0.00	30.000	52.76	81%	103%	4.04
	Jun	192.33	113.00	0.00	30.000	53.91	82%	103%	4.58
	Jul	189.02	113.00	0.00	30.000	49.75	81%	103%	3.72
	Aug	184.17	113.00	0.00	30.000	44.98	81%	103%	3.81
	Sep	184.19	113.00	0.00	30.000	45.02	81%	103%	3.83
	Oct	190.77	113.00	0.00	30.000	51.16	81%	102%	3.39
	Nov	186.80	113.00	0.00	30.000	48.31	82%	103%	4.50
	Dec	186.35	113.00	0.00	30.000	47.54	81%	103%	4.19
2028	Jan	185.34	118.00	0.00	30.000	41.70	82%	103%	4.36
	Feb	185.53	118.00	0.00	30.000	42.02	82%	103%	4.48
	Mar	184.98	118.00	0.00	30.000	45.24	84%	106%	8.27



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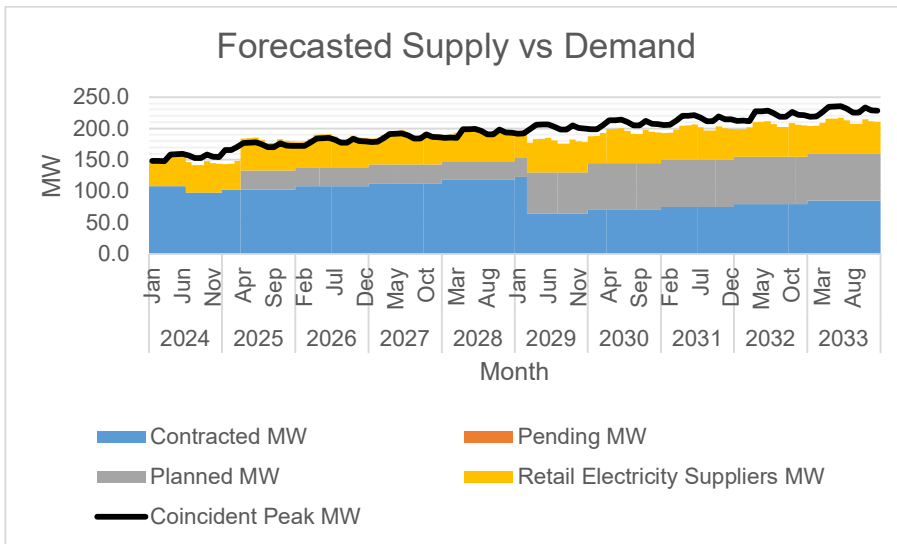
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Apr	198.59	118.00	0.00	30.000	52.95	81%	102%	2.36
	May	198.87	118.00	0.00	30.000	53.29	81%	102%	2.42
	Jun	199.50	118.00	0.00	30.000	54.45	81%	102%	2.95
	Jul	196.07	118.00	0.00	30.000	50.24	81%	101%	2.17
	Aug	191.03	118.00	0.00	30.000	45.43	81%	102%	2.39
	Sep	191.06	118.00	0.00	30.000	45.47	81%	102%	2.41
	Oct	197.88	118.00	0.00	30.000	51.67	81%	101%	1.79
	Nov	193.77	118.00	0.00	30.000	48.79	81%	102%	3.02
	Dec	193.30	118.00	0.00	30.000	48.01	81%	102%	2.72
2029	Jan	192.01	123.00	0.00	30.000	42.12	82%	102%	3.11
	Feb	192.21	123.00	0.00	30.000	42.44	82%	102%	3.23
	Mar	198.47	65.00	0.00	65.000	47.33	43%	86%	-21.15
	Apr	205.73	65.00	0.00	65.000	53.48	43%	85%	-22.25
	May	206.03	65.00	0.00	65.000	53.83	43%	85%	-22.20
	Jun	206.68	65.00	0.00	65.000	54.99	43%	86%	-21.69
	Jul	203.12	65.00	0.00	65.000	50.75	43%	85%	-22.38
	Aug	197.90	65.00	0.00	65.000	45.88	43%	86%	-22.02
	Sep	197.93	65.00	0.00	65.000	45.92	43%	86%	-22.01
	Oct	205.00	65.00	0.00	65.000	52.18	43%	85%	-22.81
	Nov	200.74	65.00	0.00	65.000	49.28	43%	86%	-21.46
	Dec	200.25	65.00	0.00	65.000	48.49	43%	86%	-21.76
2030	Jan	198.68	70.00	0.00	75.000	42.54	45%	93%	-11.14
	Feb	198.89	70.00	0.00	75.000	42.86	45%	93%	-11.03
	Mar	205.37	70.00	0.00	75.000	47.80	44%	92%	-12.57
	Apr	212.88	70.00	0.00	75.000	54.01	44%	91%	-13.87
	May	213.19	70.00	0.00	75.000	54.36	44%	91%	-13.82
	Jun	213.86	70.00	0.00	75.000	55.54	44%	92%	-13.32
	Jul	210.18	70.00	0.00	75.000	51.25	44%	91%	-13.93
	Aug	204.78	70.00	0.00	75.000	46.34	44%	92%	-13.44
	Sep	204.81	70.00	0.00	75.000	46.38	44%	92%	-13.43
	Oct	212.12	70.00	0.00	75.000	52.71	44%	91%	-14.42
	Nov	207.72	70.00	0.00	75.000	49.77	44%	92%	-12.95
	Dec	207.21	70.00	0.00	75.000	48.98	44%	92%	-13.23
2031	Jan	205.37	75.00	0.00	75.000	42.97	46%	92%	-12.40
	Feb	205.58	75.00	0.00	75.000	43.29	46%	92%	-12.29
	Mar	212.28	75.00	0.00	75.000	48.28	46%	91%	-14.00
	Apr	220.04	75.00	0.00	75.000	54.55	45%	91%	-15.49
	May	220.36	75.00	0.00	75.000	54.91	45%	91%	-15.45
	Jun	221.06	75.00	0.00	75.000	56.10	45%	91%	-14.96
	Jul	217.25	75.00	0.00	75.000	51.77	45%	91%	-15.49
	Aug	211.67	75.00	0.00	75.000	46.80	45%	91%	-14.87
	Sep	211.70	75.00	0.00	75.000	46.84	45%	91%	-14.86
	Oct	219.26	75.00	0.00	75.000	53.23	45%	90%	-16.03
	Nov	214.70	75.00	0.00	75.000	50.27	46%	91%	-14.44
	Dec	214.18	75.00	0.00	75.000	49.47	46%	91%	-14.71
2032	Jan	212.07	80.00	0.00	75.000	43.40	47%	92%	-13.67
	Feb	212.29	80.00	0.00	75.000	43.72	47%	92%	-13.57
	Mar	211.65	80.00	0.00	75.000	47.08	49%	94%	-9.57
	Apr	227.22	80.00	0.00	75.000	55.10	46%	90%	-17.13
	May	227.55	80.00	0.00	75.000	55.46	46%	90%	-17.09
	Jun	228.27	80.00	0.00	75.000	56.66	47%	90%	-16.61
	Jul	224.34	80.00	0.00	75.000	52.28	46%	90%	-17.06
	Aug	218.58	80.00	0.00	75.000	47.27	47%	90%	-16.31
	Sep	218.61	80.00	0.00	75.000	47.31	47%	90%	-16.30



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	Oct	226.42	80.00	0.00	75.000	53.77	46%	90%	-17.65
	Nov	221.71	80.00	0.00	75.000	50.77	47%	91%	-15.94
	Dec	221.17	80.00	0.00	75.000	49.96	47%	91%	-16.21
2033	Jan	218.79	85.00	0.00	75.000	43.83	49%	91%	-14.96
	Feb	219.02	85.00	0.00	75.000	44.16	49%	92%	-14.86
	Mar	226.16	85.00	0.00	75.000	49.25	48%	90%	-16.91
	Apr	234.43	85.00	0.00	75.000	55.65	48%	89%	-18.78
	May	234.77	85.00	0.00	75.000	56.01	48%	90%	-18.76
	Jun	235.51	85.00	0.00	75.000	57.23	48%	90%	-18.28
	Jul	231.46	85.00	0.00	75.000	52.81	48%	90%	-18.65
	Aug	225.51	85.00	0.00	75.000	47.74	48%	90%	-17.77
	Sep	225.54	85.00	0.00	75.000	47.79	48%	90%	-17.75
	Oct	233.60	85.00	0.00	75.000	54.30	47%	89%	-19.29
	Nov	228.74	85.00	0.00	75.000	51.28	48%	90%	-17.46
	Dec	228.18	85.00	0.00	75.000	50.46	48%	90%	-17.72

The Peak Demand was forecasted using Quadratic and Logarithmic Trending with Smoothing and was determined to occur every June due to the summer season. Monthly Peak Demand is at its lowest in January due to the holiday (off-work) season and cold weather condition. In general, Peak Demand is expected to grow at an average rate of 4% annually.



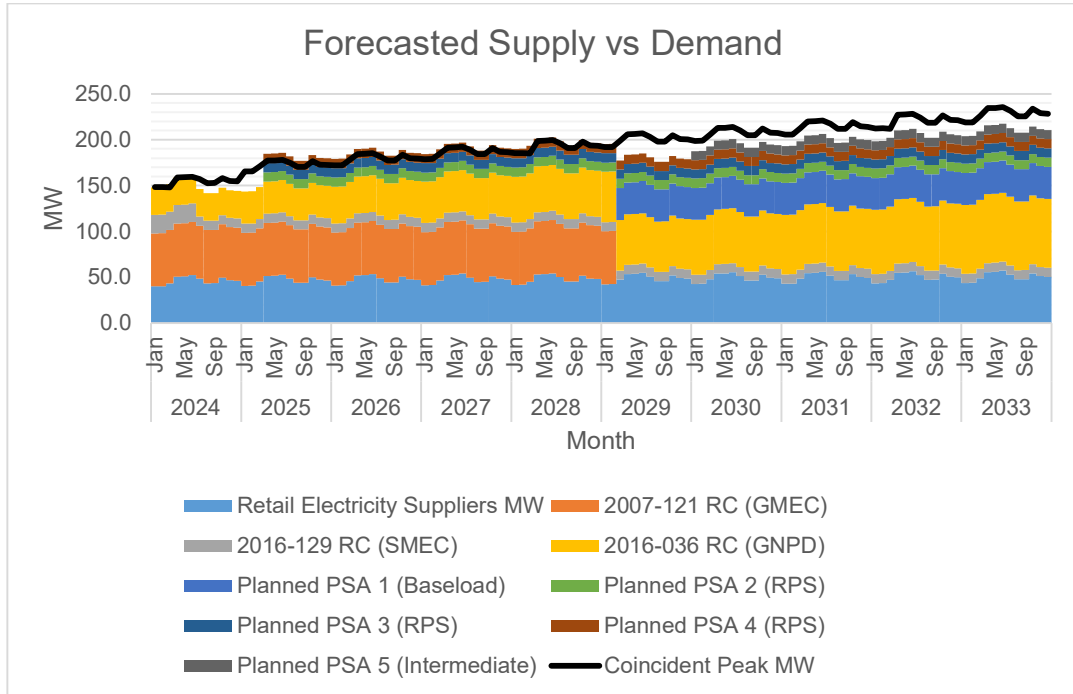
The available supply (Contracted PSA) is sufficient for the forecasted Peak Demand from years 2025 to first quarter of 2029. From July 2024 to March 2025, the deficit in supply requirements shall be sourced from WESM. Also, for the succeeding years (from March 2029 onwards), the available supply is below the forecasted peak demand due to the expiration of 58MW contract capacity from GMEC. To address the deficit, PENELCO projects an additional 35MW base load capacity in March 2029 and another 10MW intermediate load in January 2030.

Further, the forecasted supply of additional 30 MW by April 2025, which will be sourced from eligible renewable energy power suppliers, is planned for PENELCO's compliance with the Renewable Portfolio Standards (RPS) pursuant to the department circulars issued and promulgated by the DOE.

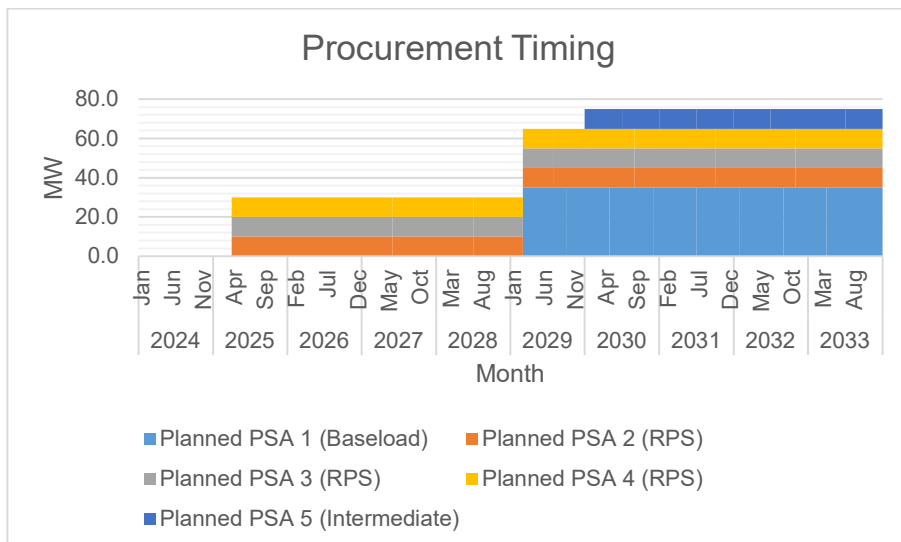


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The rationale behind the forecasted WESM values is that PENELCO opted not to fully contract the forecasted demand taking into consideration the future RPS compliance and it maintains energy purchase from the spot market of at least ten percent (10%) of its consumption.



Of the available contracted supply, the largest is 58 MW from GNPowder Mariveles Energy Center, or GMEC (2007-121 RC), which will expire in March 2029. This is followed by 25 MW capacity from GNPowder Dinginin (2016-036 RC) with an increase in capacity of 5 MW every year until 25 December 2037 and lastly, 10 MW capacity from San Miguel Energy Corporation or SMEC (2016-129 RC).





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The first wave of supply procurement will be for three-10 MW contract capacity (eligible renewable energy facility) planned to be available by April 2025.

As mentioned, the DOE through Department Circular No. DC2022-09-0030 issued and promulgated the Adjusted Annual Increment RE Percentage (K_m), which effectively increased the K_m from 1% to 2.52% starting 2023 to meet the aspirational targets of increasing the RE share in the power generation mix. With this, PENELCO's RPS requirement increased significantly for Year 4 (2023) that resulted to non-compliance with a shortfall of 11,349 MWh (2023) and 52,684 MWh (2024). For RPS compliance, PENELCO shall conduct CSP for the supply of renewable energy requirement.

This will be followed by 35 MW base load contract capacity (non-renewable) planned to be available by March 2029 and an additional 10MW intermediate load planned to be available by January 2030 anticipating the expiration of the power supply agreement with GMEC and the growth in demand in the province of Bataan.

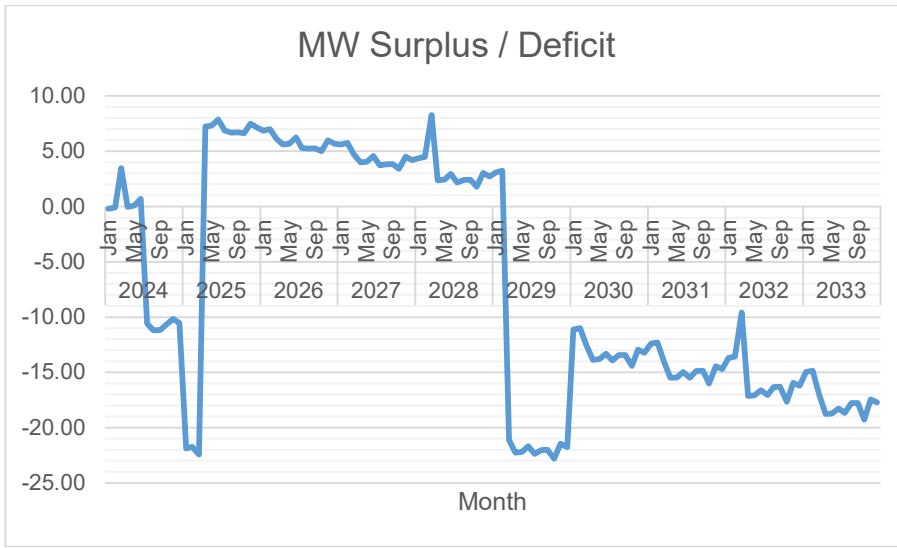


The highest target contracting level is 106% which is expected to occur in April 2025. The lowest target contracting level is 85% which is expected to occur in October 2029.

PENELCO shall be undertaking regular assessment of its power supply requirement to determine whether the coop needs to contract for additional power supply.



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Currently, the existing PSAs are sufficient to meet the forecasted demand. The highest deficit is 22.81 MW which is expected to occur on the month of October 2029. The highest surplus is 8.27 MW which is expected to occur on March 2028.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2024	Jan	79,486	75,070	4,376	0.05%	5.51%
	Feb	79,572	75,243	4,284	0.06%	5.39%
	Mar	74,215	70,235	3,938	0.06%	5.31%
	Apr	85,173	80,927	4,195	0.06%	4.93%
	May	82,552	78,508	3,987	0.07%	4.83%
	Jun	85,567	81,725	3,790	0.06%	4.43%
	Jul	81,379	76,963	4,369	0.06%	5.37%
	Aug	81,928	77,017	4,867	0.05%	5.94%
	Sep	81,939	77,039	4,856	0.05%	5.93%
	Oct	82,129	77,689	4,395	0.06%	5.35%
	Nov	83,101	78,774	4,284	0.05%	5.16%
	Dec	80,222	75,840	4,341	0.05%	5.41%
2025	Jan	92,313	87,481	4,784	0.05%	5.19%
	Feb	92,413	87,668	4,692	0.06%	5.08%
	Mar	86,191	81,645	4,497	0.06%	5.22%
	Apr	98,918	93,819	5,039	0.06%	5.10%
	May	95,874	91,000	4,808	0.07%	5.02%
	Jun	99,374	94,682	4,632	0.06%	4.66%
	Jul	94,511	89,328	5,129	0.06%	5.43%
	Aug	95,149	89,588	5,510	0.05%	5.79%
	Sep	95,161	89,612	5,499	0.05%	5.78%
	Oct	95,382	90,113	5,216	0.06%	5.47%
	Nov	96,511	91,489	4,972	0.05%	5.15%



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		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Dec	93,168	88,113	5,007	0.05%	5.38%
2026	Jan	96,034	91,084	4,901	0.05%	5.11%
	Feb	96,138	91,276	4,808	0.06%	5.00%
	Mar	89,666	84,967	4,648	0.06%	5.19%
	Apr	102,905	97,585	5,258	0.06%	5.11%
	May	99,739	94,649	5,021	0.07%	5.04%
	Jun	103,380	98,470	4,849	0.06%	4.69%
	Jul	98,321	92,935	5,330	0.06%	5.42%
	Aug	98,984	93,245	5,687	0.05%	5.75%
	Sep	98,998	93,270	5,675	0.05%	5.74%
	Oct	99,227	93,740	5,433	0.06%	5.48%
	Nov	100,401	95,195	5,155	0.05%	5.14%
	Dec	96,923	91,688	5,186	0.05%	5.35%
2027	Jan	99,754	94,688	5,016	0.05%	5.03%
	Feb	99,862	94,884	4,922	0.06%	4.93%
	Mar	93,139	88,289	4,798	0.06%	5.15%
	Apr	106,892	101,351	5,476	0.06%	5.13%
	May	103,602	98,299	5,232	0.07%	5.05%
	Jun	107,385	102,258	5,063	0.06%	4.72%
	Jul	102,130	96,542	5,530	0.06%	5.42%
	Aug	102,819	96,903	5,862	0.05%	5.70%
	Sep	102,833	96,928	5,850	0.05%	5.69%
	Oct	103,071	97,367	5,648	0.06%	5.48%
	Nov	104,291	98,901	5,336	0.05%	5.12%
	Dec	100,678	95,264	5,363	0.05%	5.33%
2028	Jan	103,474	98,292	5,129	0.05%	4.96%
	Feb	103,586	98,493	5,034	0.06%	4.86%
	Mar	96,612	91,612	4,946	0.06%	5.12%
	Apr	110,878	105,118	5,693	0.06%	5.14%
	May	107,466	101,950	5,441	0.07%	5.07%
	Jun	111,390	106,048	5,275	0.06%	4.74%
	Jul	105,938	100,150	5,728	0.06%	5.41%
	Aug	106,653	100,561	6,035	0.05%	5.66%
	Sep	106,667	100,587	6,024	0.05%	5.65%
	Oct	106,915	100,995	5,861	0.06%	5.48%
	Nov	108,180	102,608	5,515	0.05%	5.10%
	Dec	104,432	98,841	5,538	0.05%	5.31%
2029	Jan	107,196	101,899	5,242	0.05%	4.89%
	Feb	107,312	102,106	5,146	0.06%	4.80%
	Mar	100,087	94,938	5,092	0.06%	5.09%
	Apr	114,866	108,889	5,907	0.06%	5.15%
	May	111,331	105,605	5,649	0.07%	5.08%
	Jun	115,396	109,841	5,486	0.06%	4.76%



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		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Jul	109,749	103,762	5,924	0.06%	5.40%
	Aug	110,489	104,223	6,208	0.05%	5.62%
	Sep	110,504	104,249	6,196	0.05%	5.61%
	Oct	110,760	104,627	6,072	0.06%	5.49%
	Nov	112,071	106,319	5,693	0.05%	5.08%
	Dec	108,189	102,421	5,712	0.05%	5.28%
2030	Jan	110,922	105,512	5,353	0.05%	4.83%
	Feb	111,042	105,723	5,256	0.06%	4.74%
	Mar	103,566	98,269	5,238	0.06%	5.06%
	Apr	118,858	112,665	6,121	0.06%	5.15%
	May	115,200	109,265	5,855	0.07%	5.09%
	Jun	119,407	113,640	5,695	0.06%	4.77%
	Jul	113,563	107,378	6,119	0.06%	5.39%
	Aug	114,329	107,890	6,378	0.05%	5.58%
	Sep	114,344	107,917	6,366	0.05%	5.57%
	Oct	114,610	108,265	6,282	0.06%	5.48%
	Nov	115,966	110,036	5,870	0.05%	5.06%
	Dec	111,949	106,007	5,885	0.05%	5.26%
2031	Jan	114,654	109,132	5,463	0.05%	4.77%
	Feb	114,778	109,348	5,365	0.06%	4.68%
	Mar	107,050	101,607	5,382	0.06%	5.03%
	Apr	122,857	116,450	6,332	0.06%	5.16%
	May	119,076	112,934	6,060	0.07%	5.09%
	Jun	123,424	117,447	5,903	0.06%	4.79%
	Jul	117,384	111,003	6,313	0.06%	5.38%
	Aug	118,176	111,565	6,548	0.05%	5.54%
	Sep	118,192	111,593	6,536	0.05%	5.53%
	Oct	118,466	111,910	6,491	0.06%	5.48%
	Nov	119,867	113,760	6,045	0.05%	5.05%
	Dec	115,715	109,600	6,056	0.05%	5.24%
2032	Jan	118,395	112,763	5,572	0.05%	4.71%
	Feb	118,524	112,984	5,472	0.06%	4.62%
	Mar	110,544	104,955	5,526	0.06%	5.00%
	Apr	126,866	120,247	6,543	0.06%	5.16%
	May	122,962	116,613	6,264	0.07%	5.10%
	Jun	127,452	121,266	6,109	0.06%	4.80%
	Jul	121,215	114,639	6,506	0.06%	5.37%
	Aug	122,032	115,251	6,717	0.05%	5.51%
	Sep	122,049	115,279	6,704	0.05%	5.50%
	Oct	122,332	115,566	6,698	0.06%	5.48%
	Nov	123,779	117,496	6,219	0.05%	5.03%
	Dec	119,492	113,204	6,227	0.05%	5.21%
2033	Jan	122,150	116,407	5,680	0.05%	4.65%

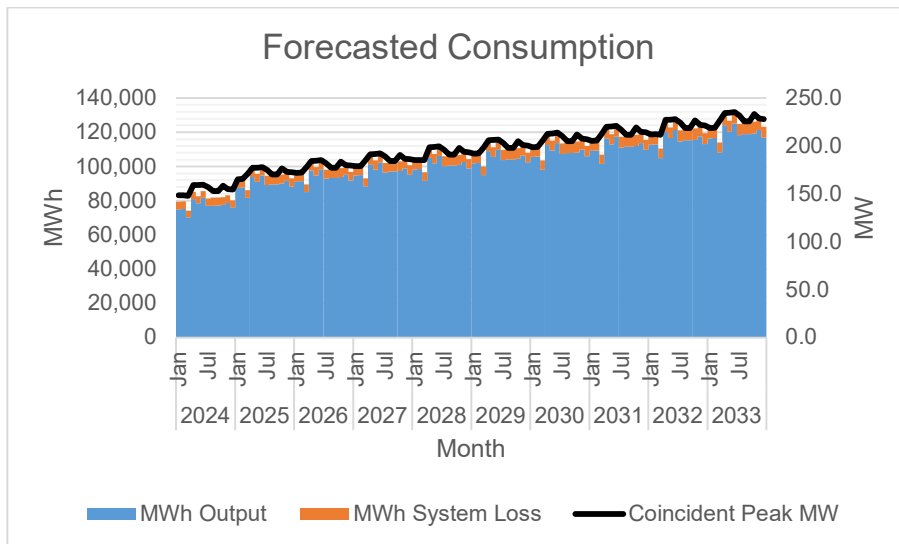


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		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Feb	122,282	116,634	5,579	0.06%	4.56%
	Mar	114,049	108,316	5,668	0.06%	4.97%
	Apr	130,889	124,057	6,753	0.06%	5.16%
	May	126,861	120,307	6,467	0.07%	5.10%
	Jun	131,494	125,100	6,314	0.06%	4.80%
	Jul	125,058	118,289	6,698	0.06%	5.36%
	Aug	125,902	118,951	6,884	0.05%	5.47%
	Sep	125,919	118,980	6,872	0.05%	5.46%
	Oct	126,211	119,237	6,905	0.06%	5.47%
	Nov	127,704	121,246	6,392	0.05%	5.01%
	Dec	123,281	116,822	6,396	0.05%	5.19%

MWh Offtake was forecasted using Cubic and Logarithmic Trending. The assumed load factor is 70%.

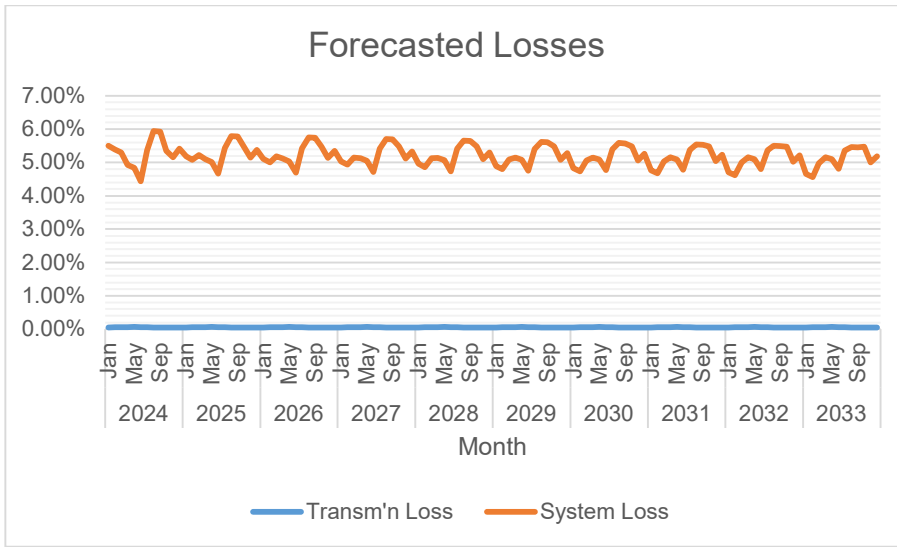
System Loss was calculated using the actual Sub-transmission, Substation and Feeder losses registered through the metering equipment installed in every sub-transmission, substations and feeders of PENELCO. Based on this forecasted data, PENELCO distribution system can adequately convey electricity to its member-consumers.



MWh Output was expected to grow at a rate of 4.98% annually.



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Transmission Loss is expected to range from 0.05% to 0.07% while System Loss is expected to range from 4.43% to 5.94%. This is a good indicator since the expected peak is way below the cap for Cluster 3 ECs is 8.25% on the year 2022 and onwards as specified in ERC Resolution No. 20, Series of 2017.

Currently, PENELCO has no available data for the Non-technical Loss. Instead, actual sub-transmission losses, substation losses and feeder losses registered through the metering equipment installed in every sub-transmissions, substations and feeders of PENELCO are used in the computation of forecasted monthly system loss. For the year 2023, PENELCO's average system loss is 5.31%.

The segregation of Technical and Non-Technical loss is on-going and in the process of data gathering to address and comply with the directives of ERC.

As stated above, the average actual feeder loss is 4.65% for 2023 is lower than the feeder loss cap and even 2.94% lower using the total system loss. PENELCO evidently maintains and strives to further lower the feeder and total system loss even without the segregation of non-technical loss. Deferring the additional cost of system loss segregation and utilizing the resources for system loss reduction projects such as: 1) construction of at least one (1) substation per municipality, 2) using digital electric / electronic kilowatt hour meters, 3) rehabilitation of transmission and distributions lines, and 4) extension of distribution lines among others. These projects will benefit the member-consumers through reduction in rates and reliability of the distribution system, which will result to improved customer satisfaction.



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Power Supply

Case No.	Type	GenCo	Maximum MW	Maximum MWh/yr	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2007-121 RC (GMEC)	Base	GN Power Mariveles Coal Plant Ltd.	58.00	508,080	37.70	284,017	2/26/2014	2/25/2029
2016-129 RC (SMEC)	Base	San Miguel Energy Corporation	10.00	87,600	4.00	35,040	12/26/2013	12/25/2033
2016-036 RC (GNPD)	Base	GN Power Dinginin	25.00	219,000	16.25	141,325	12/26/2022	12/25/2037

The PSA with GNPower Mariveles Energy Center, GMEC (former GMCP) filed with ERC under Case No. 2007-121 RC was procured through direct negotiation. It was selected to provide for baseload requirements due to its beneficial rate structure and favorable location of the plant to PENELCO. Historically, the utilization of the PSA is 71%. Outages of the plant were addressed by the replacement power sourced from GNPower Dinginin in the past year. The actual billed overall monthly charge under the PSA ranged from 6.18 P/kWh to 10.90 P/KWh in the same period. The highest actual billed in February 2023 is due to the increase in the Energy Fee affected by the high cost of coal in the world market.

The PSA with San Miguel Energy Corporation (SMEC) filed with ERC under Case No. 2016-129 RC was procured through Competitive Selection Process (CSP) via Swiss Challenge. It was selected to provide for baseload requirements due to its cost structure. Historically, the utilization of the PSA is around 70%. The actual billed overall monthly charge under the PSA ranged from 7.84 P/kWh to 11.96 P/KWh in the same period. The highest actual billed in 2023 is due to the increase in the Energy Fee affected by the high cost of coal in the world market. The contract term with SMEC is until the Commercial Operation Date of San Miguel Consolidated Power Corporation (SCPC) – Limay.

The PSA with GNPower Dinginin (GNPD) filed with ERC under Case No. 2016-036 RC was procured through the Competitive Selection Process. It was selected to provide for the baseload requirement considering that the plant is located in Bataan, thus incurring lower line rental trading amount and its rate composition is beneficial for the member-consumers and PENELCO. For 2023, the utilization of the PSA is 84%. The actual billed overall monthly charge under the PSA ranged from 5.63 P/kWh to 8.16 P/KWh in the same period. The contract capacity with GNPD is 25MW on the first year, 2023 and additional 5MW every year for fifteen (15) years or until 2037.

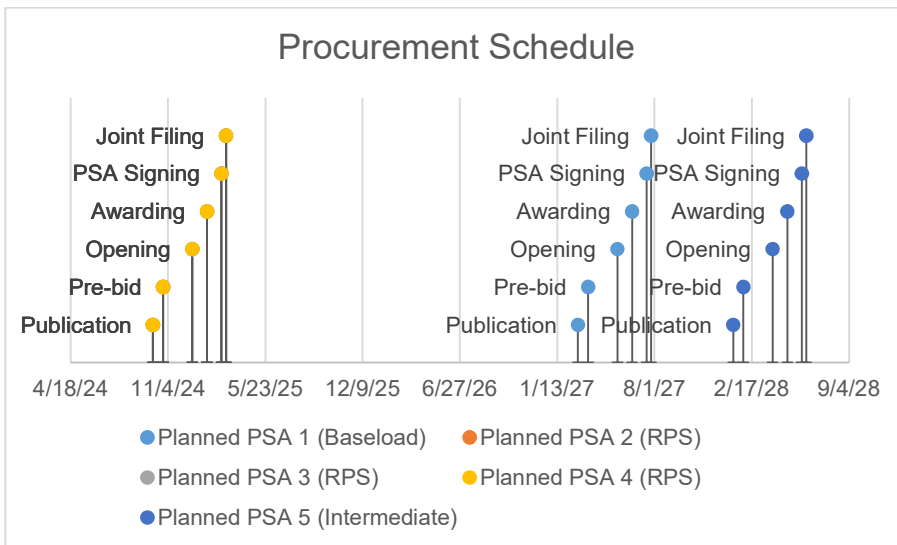
Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
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There is no pending application to the ERC.



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	Planned PSA 1 (Baseload)	Planned PSA 2 (RPS)	Planned PSA 3 (RPS)	Planned PSA 4 (RPS)	Planned PSA 5 (Intermediate)
Type	Base	Intermediate	Intermediate	Intermediate	Intermediate
Minimum MW	25.00	10.00	10.00	10.00	5.00
Maximum MW	35.00	10.00	10.00	10.00	10.00
Minimum MWh/yr	214,620	13,260	13,260	13,260	43,800
Maximum MWh/yr	306,600	13,260	13,260	13,260	87,600
PSA Start	2/26/2029	3/26/2025	3/26/2025	3/26/2025	12/26/2029
PSA End	2/25/2039	3/25/2045	3/25/2045	3/25/2045	12/25/2039
Publication	2/25/2027	10/4/2024	10/4/2024	10/4/2024	1/10/2028
Pre-bid	3/18/2027	10/25/2024	10/25/2024	10/25/2024	1/31/2028
Opening	5/17/2027	12/24/2024	12/24/2024	12/24/2024	3/31/2028
Awarding	6/16/2027	1/23/2025	1/23/2025	1/23/2025	4/30/2028
PSA Signing	7/16/2027	2/22/2025	2/22/2025	2/22/2025	5/30/2028
Joint Filing	7/25/2027	3/3/2025	3/3/2025	3/3/2025	6/8/2028



For the procurement of three-10 MW of supply from eligible generating renewable energy facilities which is planned to be available on March 2025, the first publication or launch of CSP will be in October 2024. Joint filing is planned on March 2025, or 150 days later, in accordance with DOE’s 2023 CSP Policy. The 30 MW total capacity is intended for PENELCO’s RPS Compliance.

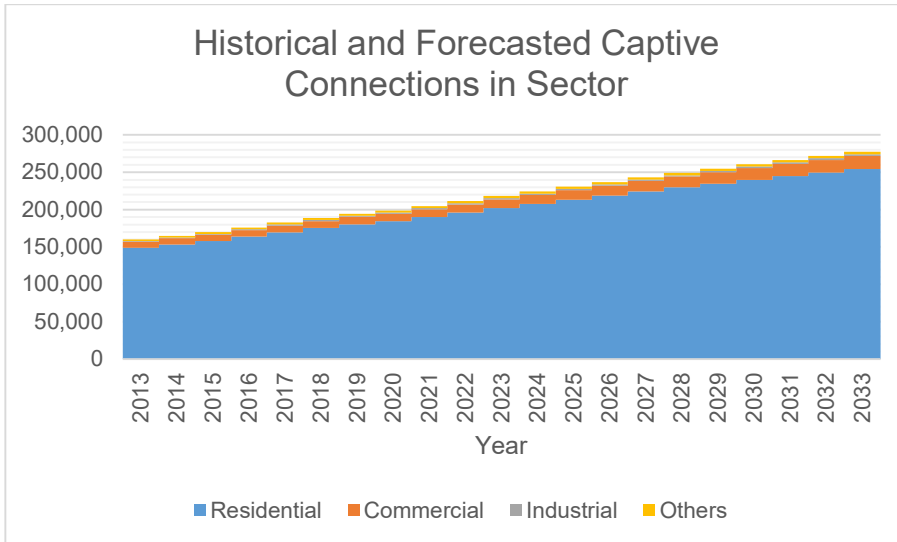
For the procurement of 35 MW (baseload) of supply which is planned to be available on March 2029, the first publication or launch of CSP will be in February 2027. Joint filing is planned on July 2027, or 150 days later, in accordance with DOE’s 2023 CSP Policy. This is anticipating the expiration of 58MW capacity of GMEC.

For the procurement of 10 MW (intermediate) of supply which is planned to be available on January 2030, the first publication or launch of CSP will be in January 2028. Joint filing is planned on June 2028, or 150 days later, in accordance with DOE’s 2023 CSP Policy. This is to address the forecasted increase in demand for the succeeding years.



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Captive Customer Connections



The number of Residential connections is expected to grow at an average rate of 3 % annually. Said customer class is expected to account for 92% of the total number of customers.