

Power Supply Procurement Plan 2024



**BOHOL II ELECTRIC COOPERATIVE, INC.
[BOHECO II]**

BILANGBILANGAN ISLAND

Historical Consumption Data

Bohol II Electric Cooperative, Inc. (BOHECO II) and National Power Corporation (NPC) had an existing supply contract with a term from 26 March 2021 to 25 December 2023 to supply Cabulan Island. With existing distribution lines, Bilangbilangan Island with six (6) other new areas were included in the existing contract through Board Resolution No. 87 Series of 2022 titled: "*A Resolution requesting for the inclusion of seven (7) new areas to the existing PSA between NPC and BOHECO II*", with effectiveness term of 26 June 2022 to 25 December 2023.

Despite facing challenges, such as the extensive damage inflicted by Typhoon Odette on the distribution facilities, a commendable achievement was marked by the full restoration, concluding in the final quarter of 2022. However, the energization of the island faced a setback due to delays in obtaining the Certificate of Compliance (COC) from the Energy Regulatory Commission, hindering NPC's ability to proceed with the necessary power supply.

The contract with NPC underwent renewal, now extending over a ten-year term from December 26, 2023, to December 25, 2033. Notably, this renewal was executed without the inclusion of the energization component for the island, reflecting the prevailing challenges in obtaining the required regulatory approvals.

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	0.079	0.09	0.00	0.000		113%	113%	0.01
	Feb	0.071	0.08	0.00	0.000		118%	118%	0.01
	Mar	0.073	0.09	0.00	0.000		125%	125%	0.02
	Apr	0.076	0.09	0.00	0.000		124%	124%	0.02
	May	0.080	0.10	0.00	0.000		121%	121%	0.02
	Jun	0.094	0.10	0.00	0.000		110%	110%	0.01
	Jul	0.077	0.09	0.00	0.000		118%	118%	0.01
	Aug	0.075	0.09	0.00	0.000		124%	124%	0.02
	Sep	0.074	0.09	0.00	0.000		123%	123%	0.02
	Oct	0.078	0.09	0.00	0.000		118%	118%	0.01
	Nov	0.090	0.10	0.00	0.000		106%	106%	0.01
	Dec	0.077	0.09	0.00	0.000		116%	116%	0.01
2025	Jan	0.085	0.09	0.00	0.000		108%	108%	0.01
	Feb	0.076	0.09	0.00	0.000		114%	114%	0.01
	Mar	0.078	0.09	0.00	0.000		121%	121%	0.02
	Apr	0.082	0.10	0.00	0.000		118%	118%	0.02
	May	0.086	0.10	0.00	0.000		116%	116%	0.01
	Jun	0.101	0.11	0.00	0.000		105%	105%	0.00
	Jul	0.083	0.09	0.00	0.000		113%	113%	0.01
	Aug	0.081	0.10	0.00	0.000		119%	119%	0.02
	Sep	0.080	0.09	0.00	0.000		118%	118%	0.01
	Oct	0.084	0.10	0.00	0.000		113%	113%	0.01
	Nov	0.096	0.10	0.00	0.000		102%	102%	0.00
	Dec	0.083	0.09	0.00	0.000		111%	111%	0.01
2026	Jan	0.090	0.10	0.00	0.000		106%	106%	0.01
	Feb	0.081	0.09	0.00	0.000		111%	111%	0.01
	Mar	0.083	0.10	0.00	0.000		117%	117%	0.01
	Apr	0.087	0.10	0.00	0.000		116%	116%	0.01
	May	0.091	0.10	0.00	0.000		113%	113%	0.01

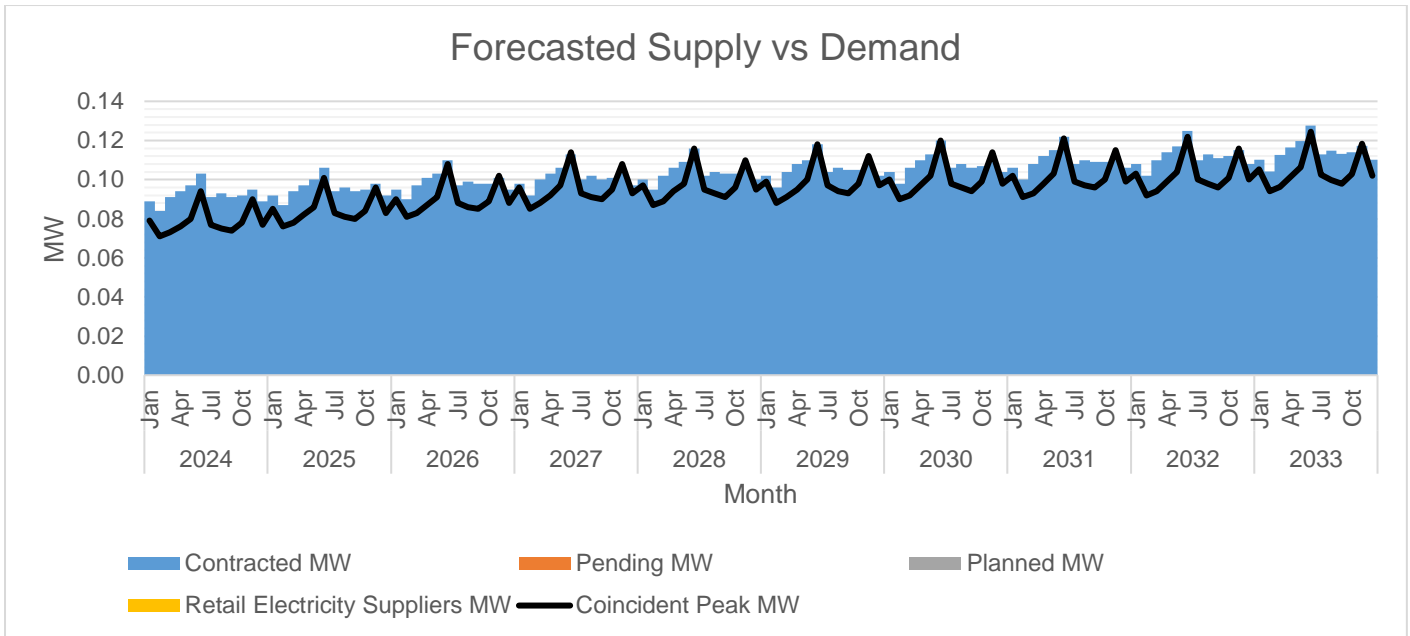
	Jun	0.108	0.11	0.00	0.000		102%	102%	0.00
	Jul	0.088	0.10	0.00	0.000		110%	110%	0.01
	Aug	0.086	0.10	0.00	0.000		115%	115%	0.01
	Sep	0.085	0.10	0.00	0.000		115%	115%	0.01
	Oct	0.089	0.10	0.00	0.000		110%	110%	0.01
	Nov	0.102	0.10	0.00	0.000		99%	99%	0.00
	Dec	0.088	0.10	0.00	0.000		108%	108%	0.01
2027	Jan	0.096	0.10	0.00	0.000		102%	102%	0.00
	Feb	0.085	0.09	0.00	0.000		108%	108%	0.01
	Mar	0.088	0.10	0.00	0.000		114%	114%	0.01
	Apr	0.092	0.10	0.00	0.000		112%	112%	0.01
	May	0.097	0.11	0.00	0.000		109%	109%	0.01
	Jun	0.114	0.11	0.00	0.000		99%	99%	0.00
	Jul	0.093	0.10	0.00	0.000		108%	108%	0.01
	Aug	0.091	0.10	0.00	0.000		112%	112%	0.01
	Sep	0.090	0.10	0.00	0.000		111%	111%	0.01
	Oct	0.095	0.10	0.00	0.000		106%	106%	0.01
	Nov	0.108	0.10	0.00	0.000		96%	96%	0.00
	Dec	0.093	0.10	0.00	0.000		104%	104%	0.00
2028	Jan	0.097	0.10	0.00	0.000		103%	103%	0.00
	Feb	0.087	0.10	0.00	0.000		109%	109%	0.01
	Mar	0.089	0.10	0.00	0.000		115%	115%	0.01
	Apr	0.094	0.11	0.00	0.000		113%	113%	0.01
	May	0.098	0.11	0.00	0.000		111%	111%	0.01
	Jun	0.116	0.12	0.00	0.000		100%	100%	0.00
	Jul	0.095	0.10	0.00	0.000		107%	107%	0.01
	Aug	0.093	0.10	0.00	0.000		112%	112%	0.01
	Sep	0.091	0.10	0.00	0.000		113%	113%	0.01
	Oct	0.096	0.10	0.00	0.000		107%	107%	0.01
	Nov	0.110	0.11	0.00	0.000		96%	96%	0.00
	Dec	0.095	0.10	0.00	0.000		105%	105%	0.01
2029	Jan	0.099	0.10	0.00	0.000		103%	103%	0.00
	Feb	0.088	0.10	0.00	0.000		109%	109%	0.01
	Mar	0.091	0.10	0.00	0.000		114%	114%	0.01

	Apr	0.095	0.11	0.00	0.000		114%	114%	0.01
	May	0.100	0.11	0.00	0.000		110%	110%	0.01
	Jun	0.118	0.12	0.00	0.000		100%	100%	0.00
	Jul	0.097	0.10	0.00	0.000		107%	107%	0.01
	Aug	0.094	0.11	0.00	0.000		113%	113%	0.01
	Sep	0.093	0.11	0.00	0.000		113%	113%	0.01
	Oct	0.098	0.11	0.00	0.000		107%	107%	0.01
	Nov	0.112	0.11	0.00	0.000		96%	96%	0.00
	Dec	0.097	0.10	0.00	0.000		105%	105%	0.00
2030	Jan	0.100	0.10	0.00	0.000		104%	104%	0.00
	Feb	0.090	0.10	0.00	0.000		109%	109%	0.01
	Mar	0.092	0.11	0.00	0.000		115%	115%	0.01
	Apr	0.097	0.11	0.00	0.000		113%	113%	0.01
	May	0.102	0.11	0.00	0.000		111%	111%	0.01
	Jun	0.120	0.12	0.00	0.000		100%	100%	0.00
	Jul	0.098	0.11	0.00	0.000		108%	108%	0.01
	Aug	0.096	0.11	0.00	0.000		113%	113%	0.01
	Sep	0.094	0.11	0.00	0.000		113%	113%	0.01
	Oct	0.099	0.11	0.00	0.000		108%	108%	0.01
	Nov	0.114	0.11	0.00	0.000		96%	96%	0.00
	Dec	0.098	0.10	0.00	0.000		106%	106%	0.01
2031	Jan	0.102	0.11	0.00	0.000		104%	104%	0.00
	Feb	0.091	0.10	0.00	0.000		110%	110%	0.01
	Mar	0.093	0.11	0.00	0.000		116%	116%	0.02
	Apr	0.098	0.11	0.00	0.000		114%	114%	0.01
	May	0.103	0.12	0.00	0.000		112%	112%	0.01
	Jun	0.121	0.12	0.00	0.000		101%	101%	0.00
	Jul	0.099	0.11	0.00	0.000		109%	109%	0.01
	Aug	0.097	0.11	0.00	0.000		113%	113%	0.01
	Sep	0.096	0.11	0.00	0.000		114%	114%	0.01
	Oct	0.100	0.11	0.00	0.000		109%	109%	0.01
	Nov	0.115	0.11	0.00	0.000		97%	97%	0.00
	Dec	0.099	0.11	0.00	0.000		107%	107%	0.01
2032	Jan	0.103	0.11	0.00	0.000		105%	105%	0.01

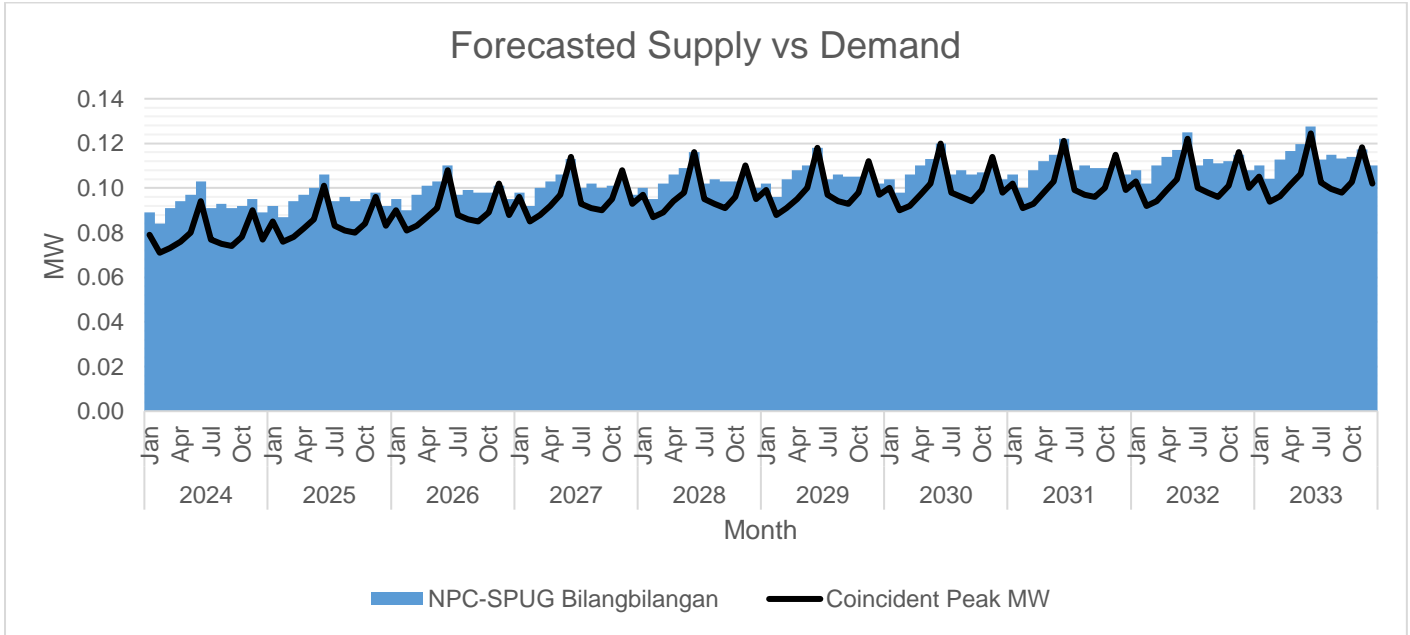
	Feb	0.092	0.10	0.00	0.000		111%	111%	0.01
	Mar	0.094	0.11	0.00	0.000		117%	117%	0.02
	Apr	0.099	0.11	0.00	0.000		115%	115%	0.02
	May	0.104	0.12	0.00	0.000		113%	113%	0.01
	Jun	0.122	0.13	0.00	0.000		102%	102%	0.00
	Jul	0.100	0.11	0.00	0.000		110%	110%	0.01
	Aug	0.098	0.11	0.00	0.000		115%	115%	0.02
	Sep	0.096	0.11	0.00	0.000		116%	116%	0.02
	Oct	0.101	0.11	0.00	0.000		111%	111%	0.01
	Nov	0.116	0.12	0.00	0.000		99%	99%	0.00
	Dec	0.100	0.11	0.00	0.000		108%	108%	0.01
2033	Jan	0.105	0.11	0.00	0.000		105%	105%	0.01
	Feb	0.094	0.10	0.00	0.000		111%	111%	0.01
	Mar	0.096	0.11	0.00	0.000		117%	117%	0.02
	Apr	0.101	0.12	0.00	0.000		115%	115%	0.02
	May	0.106	0.12	0.00	0.000		113%	113%	0.01
	Jun	0.124	0.13	0.00	0.000		102%	102%	0.00
	Jul	0.103	0.11	0.00	0.000		110%	110%	0.01
	Aug	0.100	0.11	0.00	0.000		115%	115%	0.02
	Sep	0.098	0.11	0.00	0.000		116%	116%	0.02
	Oct	0.103	0.11	0.00	0.000		111%	111%	0.01
	Nov	0.118	0.12	0.00	0.000		99%	99%	0.00
	Dec	0.102	0.11	0.00	0.000		108%	108%	0.01

Forecasting of Peak Demand is determined by the quotient of forecasted energy and by the product of time (t) in year [8760 hours] and the system load factor. Furthermore, for the purpose of calculation, the system load factor was assumed to vary from 53% to 73% in the next succeeding period of forecasting based on its historical trend in the previous year.

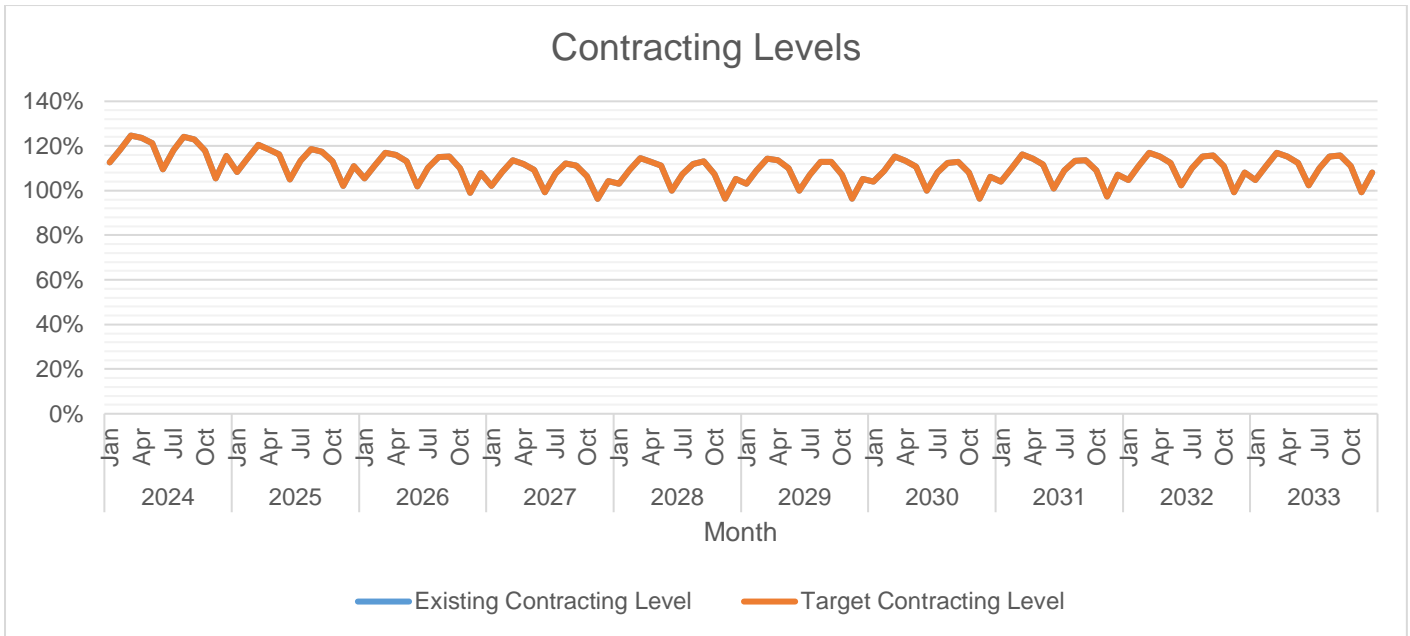
The Peak Demand was assumed to occur in the month of June. Monthly Peak Demand is at its lowest on the month of February. In general, Peak Demand is expected to grow at an average rate of 3% annually.



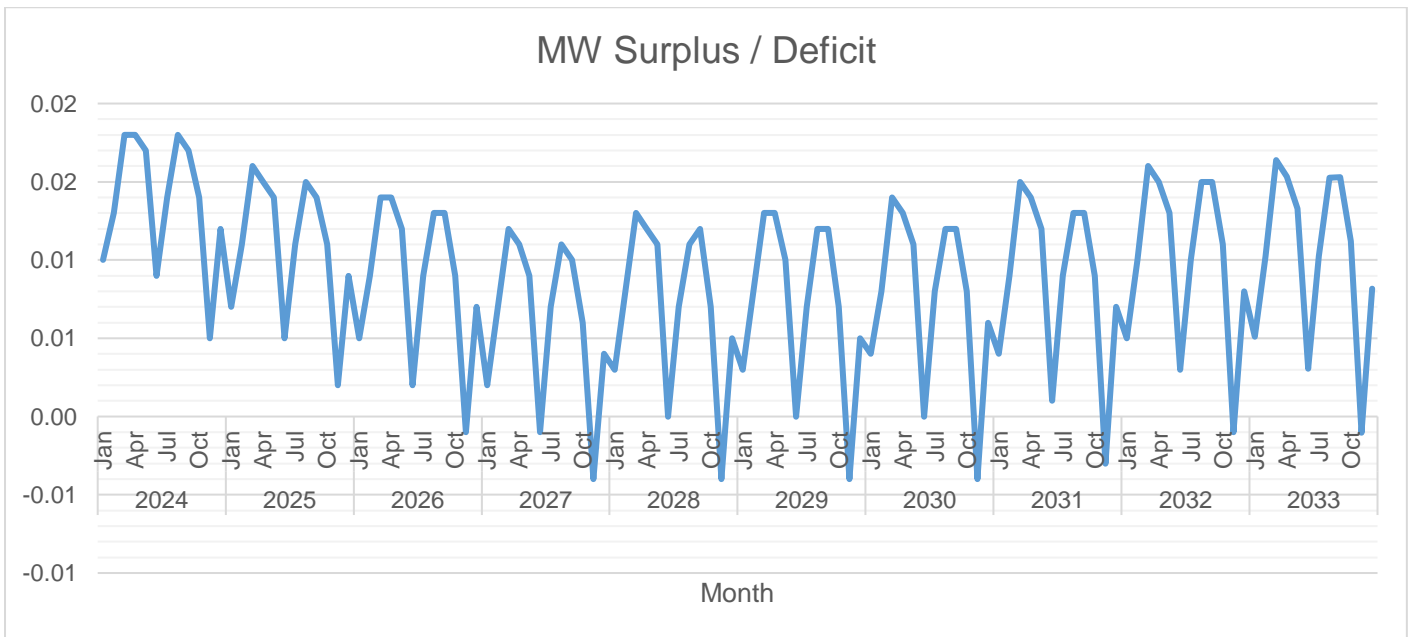
The available supply is generally above the Peak Demand. This is because the expected total installed capacity of the diesel generator is 0.125MW, generally higher than the Peak Demand.



The available supply that ranges from 0.08 MW to 0.13 MW will solely come from NPC's Bilangbilangan Diesel Power Plant.



Currently, there is over-contracting by 113%. The highest target contracting level is 125% which is expected to occur in March 2024. The lowest target contracting level is 96% which is expected to occur in November 2029.



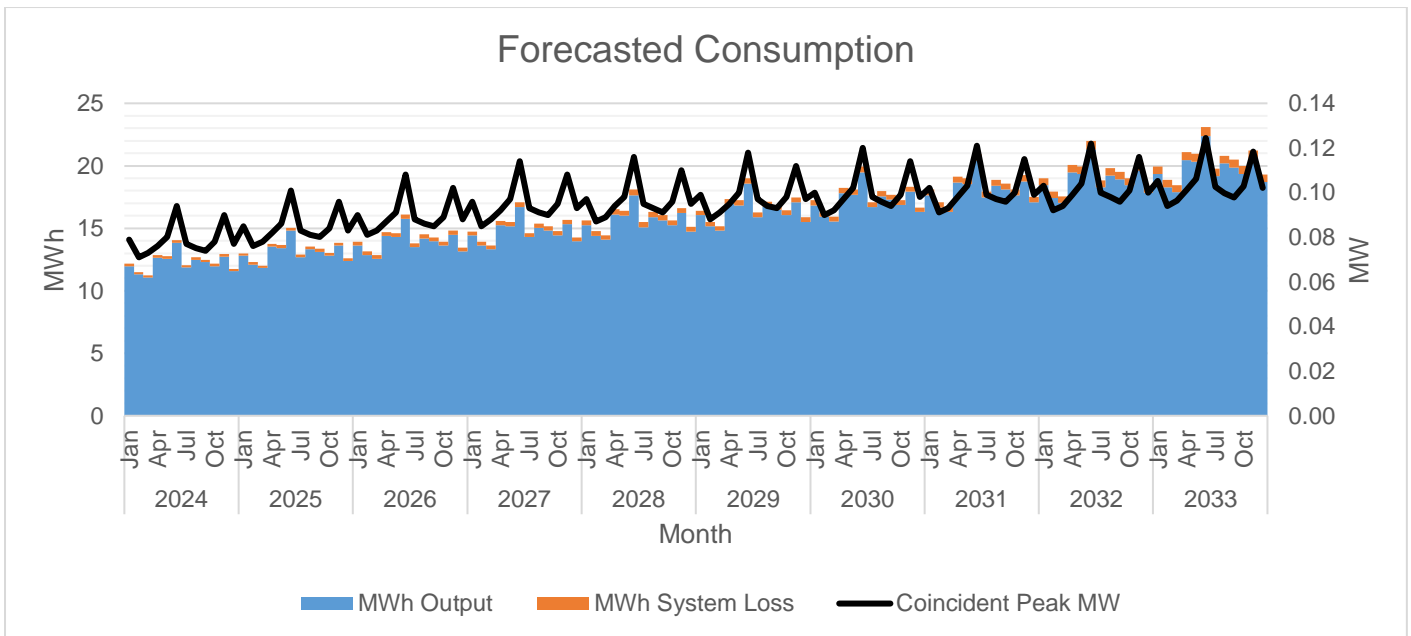
Currently, there is over-contracting by 0.01 MW. The highest surplus is 0.02 MW which is expected to occur in the month of March 2024.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2024	Jan	12	12	0	0.00%	1.51%
	Feb	11	11	0	0.00%	1.51%
	Mar	11	11	0	0.00%	1.51%
	Apr	13	13	0	0.00%	1.51%
	May	13	13	0	0.00%	1.51%
	Jun	14	14	0	0.00%	1.51%
	Jul	12	12	0	0.00%	1.51%
	Aug	13	12	0	0.00%	1.51%
	Sep	12	12	0	0.00%	1.51%
	Oct	12	12	0	0.00%	1.51%
	Nov	13	13	0	0.00%	1.51%
	Dec	12	12	0	0.00%	1.51%
2025	Jan	13	13	0	0.00%	1.62%
	Feb	12	12	0	0.00%	1.62%
	Mar	12	12	0	0.00%	1.62%
	Apr	14	14	0	0.00%	1.62%
	May	14	13	0	0.00%	1.62%
	Jun	15	15	0	0.00%	1.62%
	Jul	13	13	0	0.00%	1.62%
	Aug	14	13	0	0.00%	1.62%
	Sep	13	13	0	0.00%	1.62%
	Oct	13	13	0	0.00%	1.62%
	Nov	14	14	0	0.00%	1.62%
	Dec	13	12	0	0.00%	1.62%
2026	Jan	14	14	0	0.00%	2.17%
	Feb	13	13	0	0.00%	2.17%
	Mar	13	13	0	0.00%	2.17%
	Apr	15	14	0	0.00%	2.17%
	May	15	14	0	0.00%	2.17%
	Jun	16	16	0	0.00%	2.17%
	Jul	14	13	0	0.00%	2.17%
	Aug	15	14	0	0.00%	2.17%
	Sep	14	14	0	0.00%	2.17%
	Oct	14	14	0	0.00%	2.17%
	Nov	15	14	0	0.00%	2.17%
	Dec	13	13	0	0.00%	2.17%
2027	Jan	15	14	0	0.00%	2.18%
	Feb	14	14	0	0.00%	2.18%
	Mar	14	13	0	0.00%	2.18%
	Apr	16	15	0	0.00%	2.18%
	May	15	15	0	0.00%	2.18%
	Jun	17	17	0	0.00%	2.18%
	Jul	15	14	0	0.00%	2.18%
	Aug	15	15	0	0.00%	2.18%
	Sep	15	15	0	0.00%	2.18%
	Oct	15	14	0	0.00%	2.18%
	Nov	16	15	0	0.00%	2.18%
	Dec	14	14	0	0.00%	2.18%

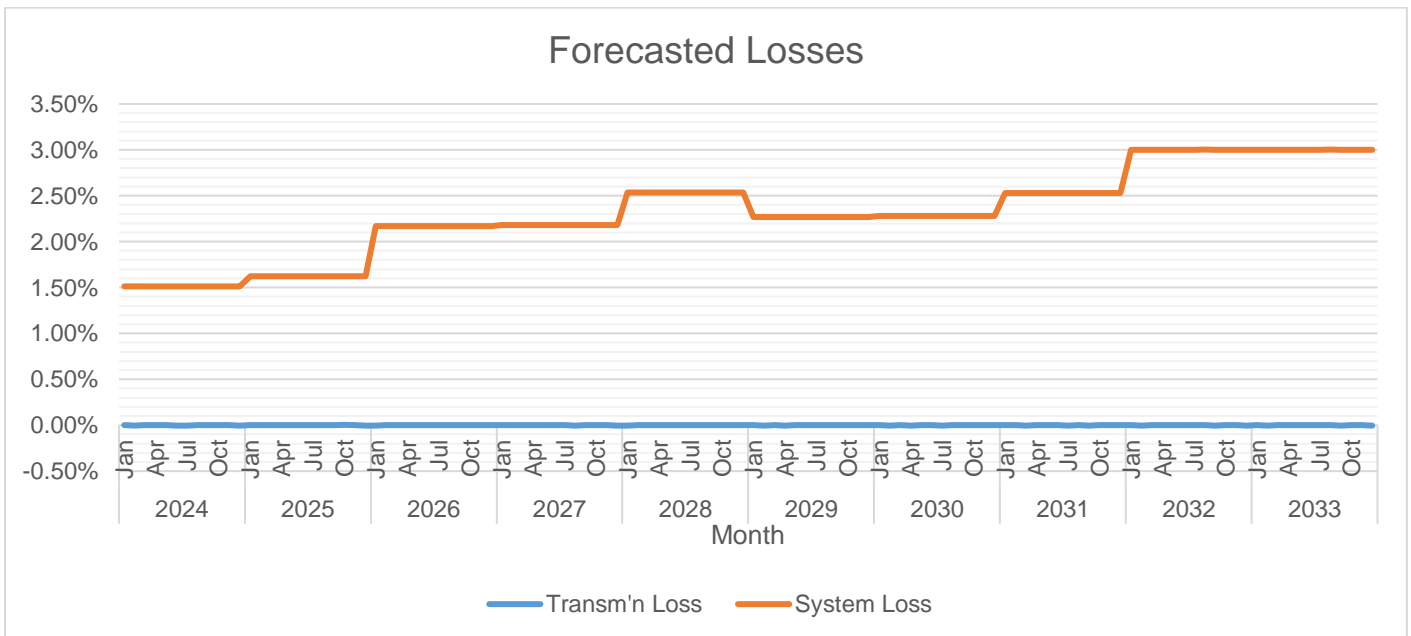
2028	Jan	16	15	0	0.00%	2.54%
	Feb	15	14	0	0.00%	2.54%
	Mar	14	14	0	0.00%	2.54%
	Apr	17	16	0	0.00%	2.54%
	May	16	16	0	0.00%	2.54%
	Jun	18	18	0	0.00%	2.54%
	Jul	15	15	0	0.00%	2.54%
	Aug	16	16	0	0.00%	2.54%
	Sep	16	16	0	0.00%	2.54%
	Oct	16	15	0	0.00%	2.54%
	Nov	17	16	0	0.00%	2.54%
	Dec	15	15	0	0.00%	2.54%
2029	Jan	16	16	0	0.00%	2.27%
	Feb	16	15	0	0.00%	2.27%
	Mar	15	15	0	0.00%	2.27%
	Apr	17	17	0	0.00%	2.27%
	May	17	17	0	0.00%	2.27%
	Jun	19	19	0	0.00%	2.27%
	Jul	16	16	0	0.00%	2.27%
	Aug	17	17	0	0.00%	2.27%
	Sep	17	16	0	0.00%	2.27%
	Oct	16	16	0	0.00%	2.27%
	Nov	17	17	0	0.00%	2.27%
	Dec	16	16	0	0.00%	2.27%
2030	Jan	17	17	0	0.00%	2.28%
	Feb	16	16	0	0.00%	2.28%
	Mar	16	16	0	0.00%	2.28%
	Apr	18	18	0	0.00%	2.28%
	May	18	18	0	0.00%	2.28%
	Jun	20	19	0	0.00%	2.28%
	Jul	17	17	0	0.00%	2.28%
	Aug	18	18	0	0.00%	2.28%
	Sep	18	17	0	0.00%	2.28%
	Oct	17	17	0	0.00%	2.28%
	Nov	18	18	0	0.00%	2.28%
	Dec	17	16	0	0.00%	2.28%
2031	Jan	18	18	0	0.00%	2.53%
	Feb	17	17	0	0.00%	2.53%
	Mar	17	16	0	0.00%	2.53%
	Apr	19	19	0	0.00%	2.53%
	May	19	19	0	0.00%	2.53%
	Jun	21	20	1	0.00%	2.53%
	Jul	18	17	0	0.00%	2.53%
	Aug	19	18	0	0.00%	2.53%
	Sep	19	18	0	0.00%	2.53%
	Oct	18	18	0	0.00%	2.53%
	Nov	19	19	0	0.00%	2.53%
	Dec	18	17	0	0.00%	2.53%
2032	Jan	19	18	1	0.00%	3.00%
	Feb	18	17	1	0.00%	3.00%
	Mar	18	17	1	0.00%	3.00%

	Apr	20	19	1	0.00%	3.00%
	May	20	19	1	0.00%	3.00%
	Jun	22	21	1	0.00%	3.00%
	Jul	19	18	1	0.00%	3.00%
	Aug	20	19	1	0.00%	3.00%
	Sep	20	19	1	0.00%	3.00%
	Oct	19	18	1	0.00%	3.00%
	Nov	20	20	1	0.00%	3.00%
	Dec	18	18	1	0.00%	3.00%
2033	Jan	20	19	1	0.00%	3.00%
	Feb	19	18	1	0.00%	3.00%
	Mar	18	18	1	0.00%	3.00%
	Apr	21	20	1	0.00%	3.00%
	May	21	20	1	0.00%	3.00%
	Jun	23	22	1	0.00%	3.00%
	Jul	20	19	1	0.00%	3.00%
	Aug	21	20	1	0.00%	3.00%
	Sep	20	20	1	0.00%	3.00%
	Oct	20	19	1	0.00%	3.00%
	Nov	21	21	1	0.00%	3.00%
	Dec	19	19	1	0.00%	3.00%

MWh Offtake was forecasted using the average hourly consumption per consumer from the existing Cabul-an Island multiplied by the number of potential consumers and eight (8) hours of operational hours. For forecasting simulation, the growth rate used varies from 5% to 8%.



MWh Output was expected to grow at an average rate of 6% annually.



System Loss is expected to range from 0.99% to 3.0%.

System loss is anticipated to increase due to the rising demand on the island, which puts additional strain on the existing infrastructure. As more residents and businesses require electricity, the system may become less efficient, leading to higher overall losses. Furthermore, it is important to note that there are currently no non-technical losses reflected in the submission. This is primarily because BOHECO II has yet to implement a system for segregating its off-grid system losses. Without this segregation, it becomes challenging to accurately identify and address areas of non-technical loss, such as theft, billing inaccuracies, and administrative inefficiencies.

Power Supply

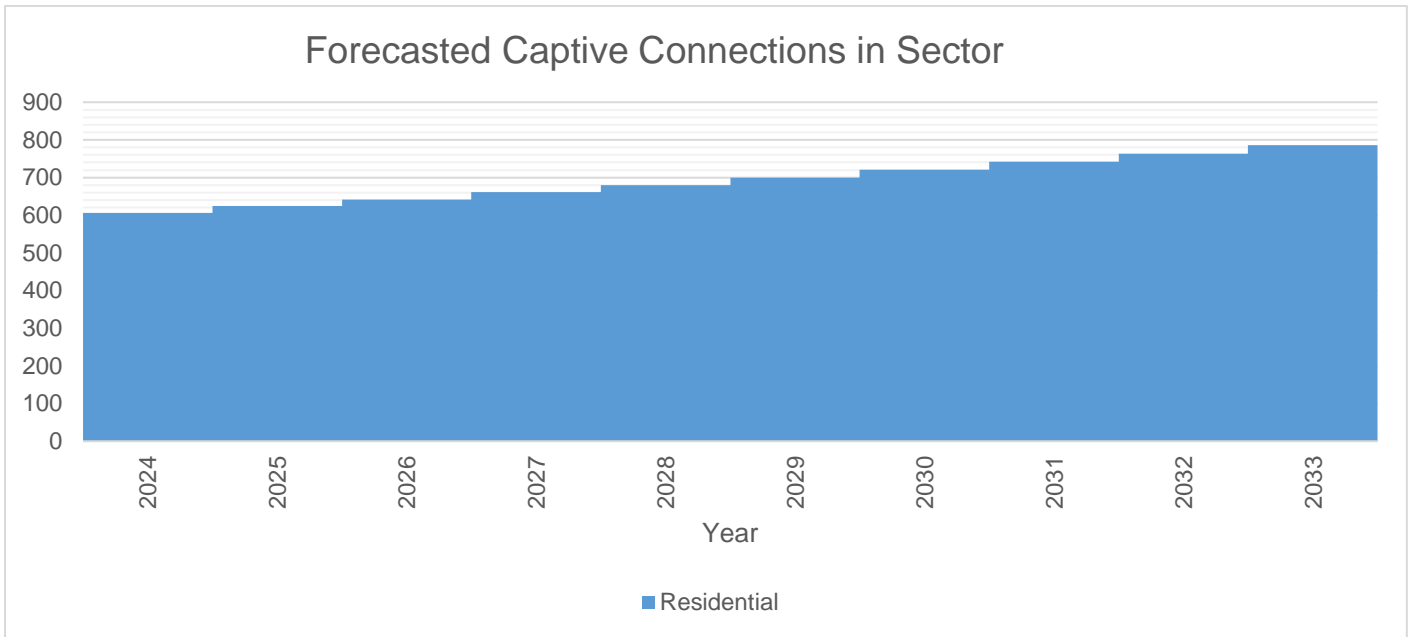
Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
NPC-SPUG Bilangbilangan	Base	National Power Corporation	0.084	148.561	12/26/2023	12/25/2033

The Power Supply Agreement on the Sale of Electricity with the National Power Corporation (NPC) is pursuant to Section 70 of Republic Act No. 9136 and Section 1.a and Section 3.a of Rule 13 of the Implementing Rules and Regulations (IRR) of Republic Act No. 9136, which provides that the Small Power Utilities Group (SPUG) of NPC is responsible for providing power generation and its associated power delivery systems in areas that are not connected to the transmission system.

Through BOHECO II Board Resolution No. 87 Series of 2022 titled: “*A Resolution requesting for the inclusion of seven (7) new areas to the existing PSA between NPC and BOHECO II*”, the Island of Bilangbilangan, being one of the new seven areas, was granted supply contract effective 26 June 2022 to 25 December 2033. The initial energization target was scheduled on the 2nd quarter of 2022 but was delayed due to the challenge NPC is facing on securing a Certificate of Compliance (COC) from the Energy Regulatory Commission (ERC). The distribution lines are ready for energization.

The contract was then renewed for a ten-year period (December 26, 2023 – December 25, 2033) without the energization of the island, reflecting the prevailing challenges in obtaining the required regulatory approvals.

Captive Customer Connections



The number of Residential connections is expected to grow at a rate of 3% annually. Said customer class accounts for 100% of the total consumption.