Power Supply Procurement Plan 2024

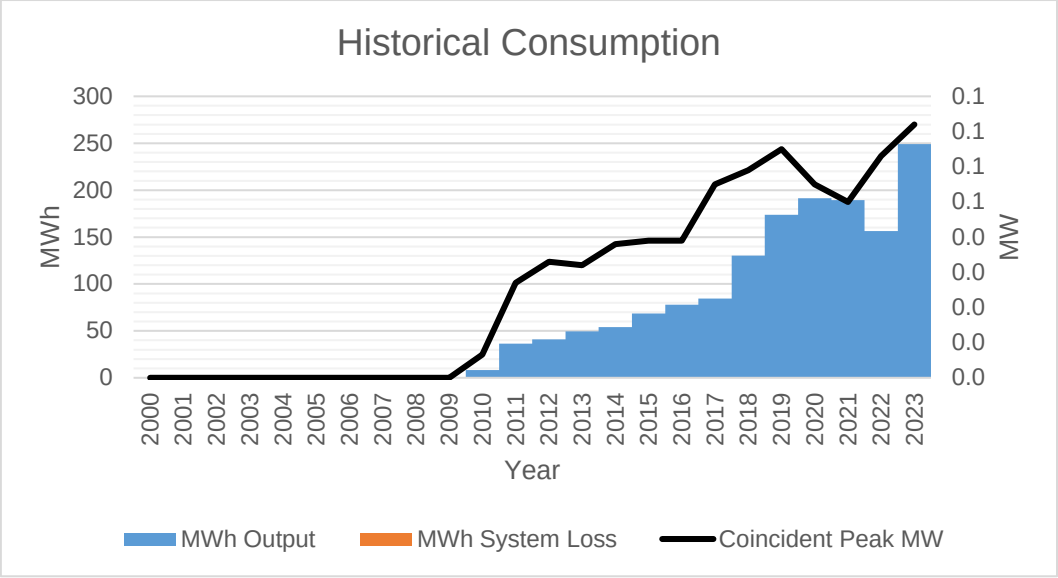
BOHOL I ELECTRIC COOPERATIVE, INC.
(BOHECO I)

PAMILACAN ISLAND

Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	Load Factor
2010	0.01	8	n/a	8	8	14%
2011	0.03	36	n/a	36	36	15%
2012	0.03	41	n/a	41	41	14%
2013	0.03	50	n/a	50	50	18%
2014	0.04	54	n/a	54	54	16%
2015	0.04	69	n/a	69	69	20%
2016	0.04	78	n/a	78	78	23%
2017	0.06	84	n/a	84	84	18%
2018	0.06	130	n/a	130	130	25%
2019	0.07	174	n/a	174	174	31%
2020	0.06	191	n/a	191	191	40%
2021	0.05	189	n/a	189	189	43%
2022	0.06	156	n/a	156	156	28%
2023	0.07	249	n/a	249	249	40%

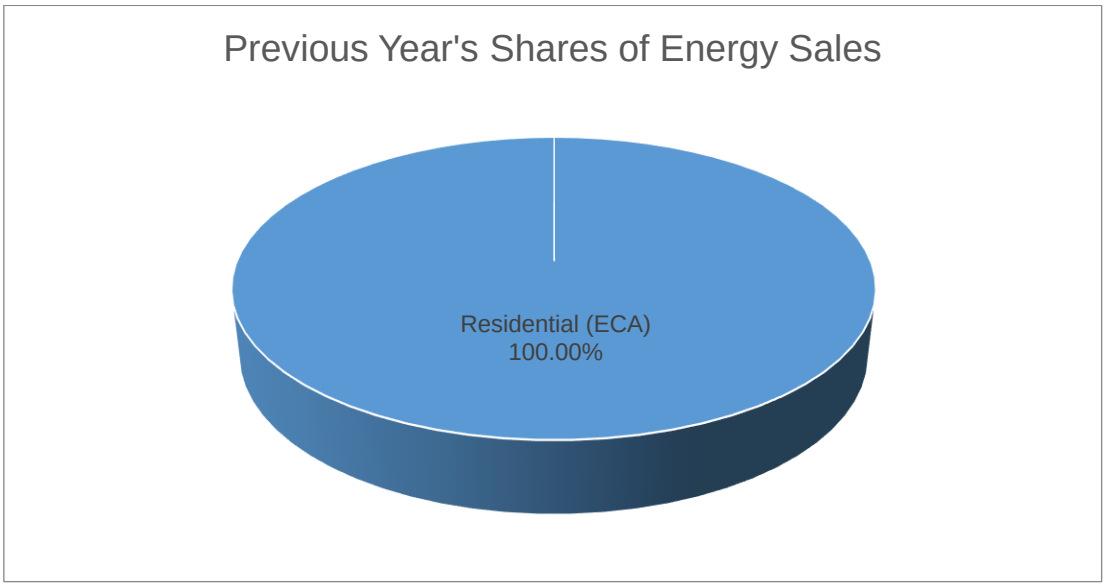
The above historical data was the only available/retrieved data as of the moment. The Peak Demand exhibited minimal increased from 0.01 MW in 2010 to 0.07 MW in 2023 at an average growth rate of 23.52%. The MWh Offtake also increased from 8 MWh in 2010 to 249 MWh in 2023, marking a growth rate of 44.76% primarily attributed to the escalating load connections. Throughout this period, the Load Factor fluctuated from 14% to 43%. There was an abrupt change in consumption in year 2022 due to the occurrence of Typhoon Odette affecting the entire province of Bohol.



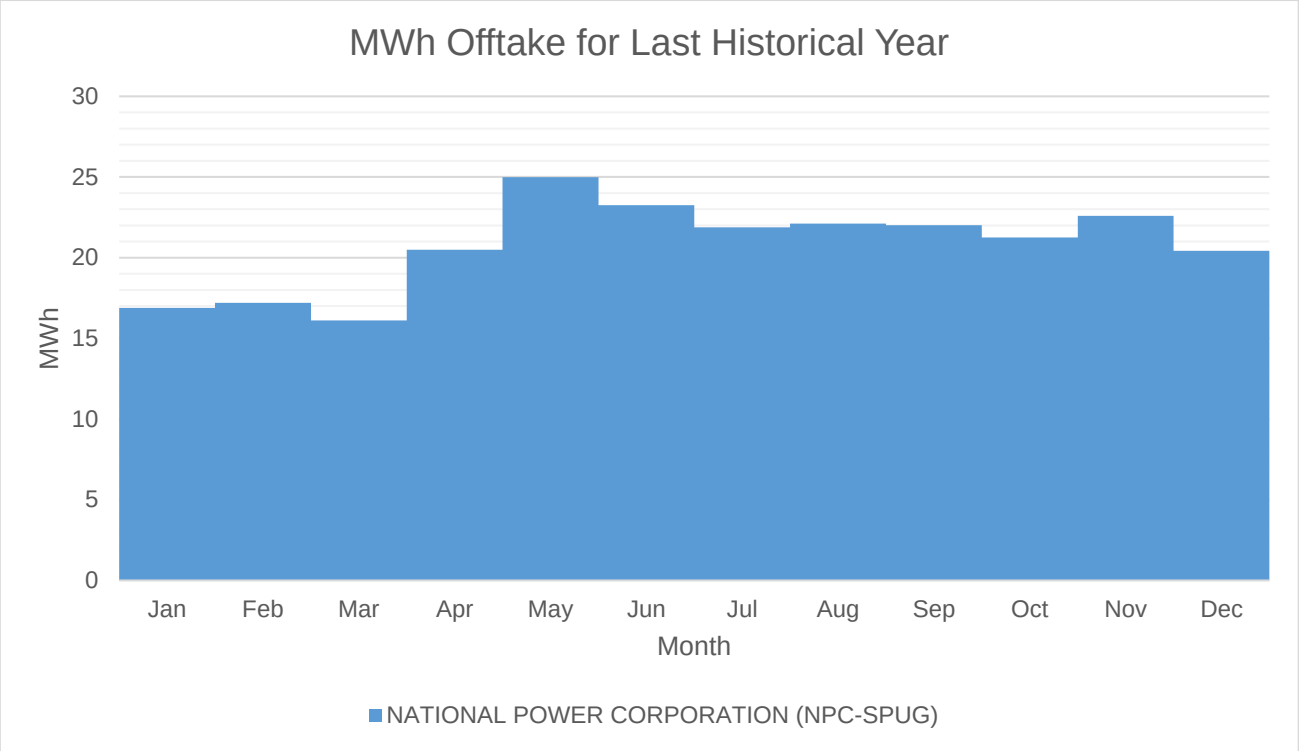
The above figure presents a graphical representation of energy consumption over the past 14 years. The MWh Output demonstrated a consistent increased from year 2010 to year 2023 with an average growth rate of 44.76%. On the other hand, the MWh Output in year 2022 significantly drops to -17.46% due to the occurrence of Typhoon Odette affecting the entire province of Bohol.

System Loss

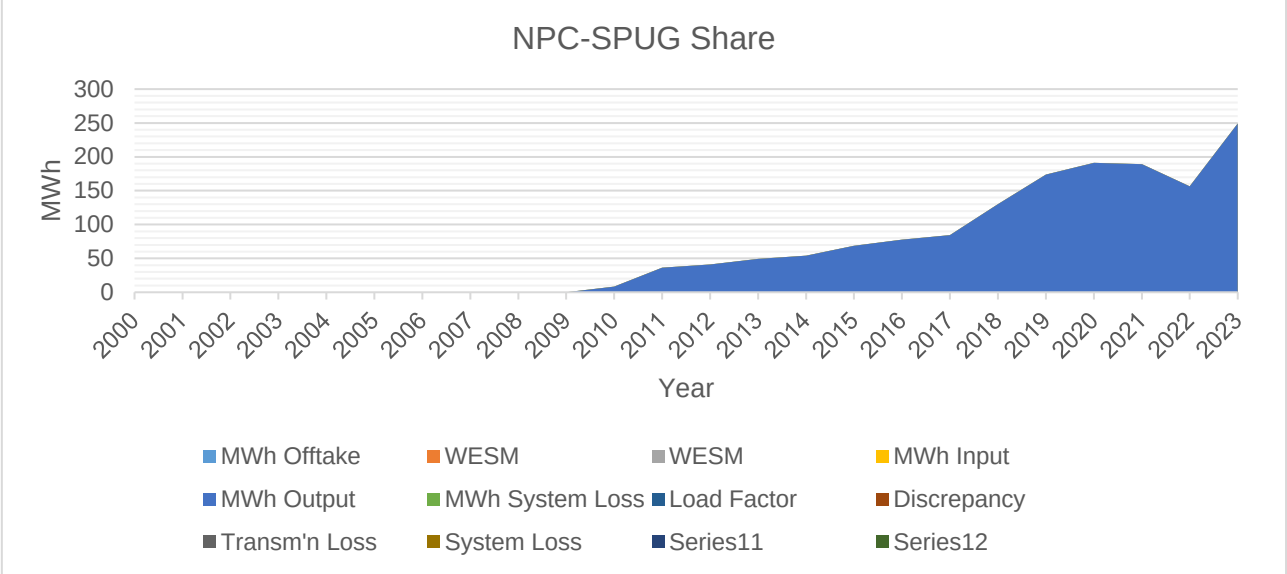
BOHECO I's report shows NO system loss in supplying power to Island Barangays through SPUG. This is because the kWh meter reading used for NPC SPUG's billing to BOHECO I is identical to BOHECO I's meter reading for sales to the Island Barangays. This alignment stems from a clustering setup, employing a single meter known as the Mother Meter for meter reading. NPC SPUG also utilizes this Mother Meter. Individual consumer bills are then generated internally, with the system loss prorated accordingly.



Residential customers constitute the entire energy sales on this island.

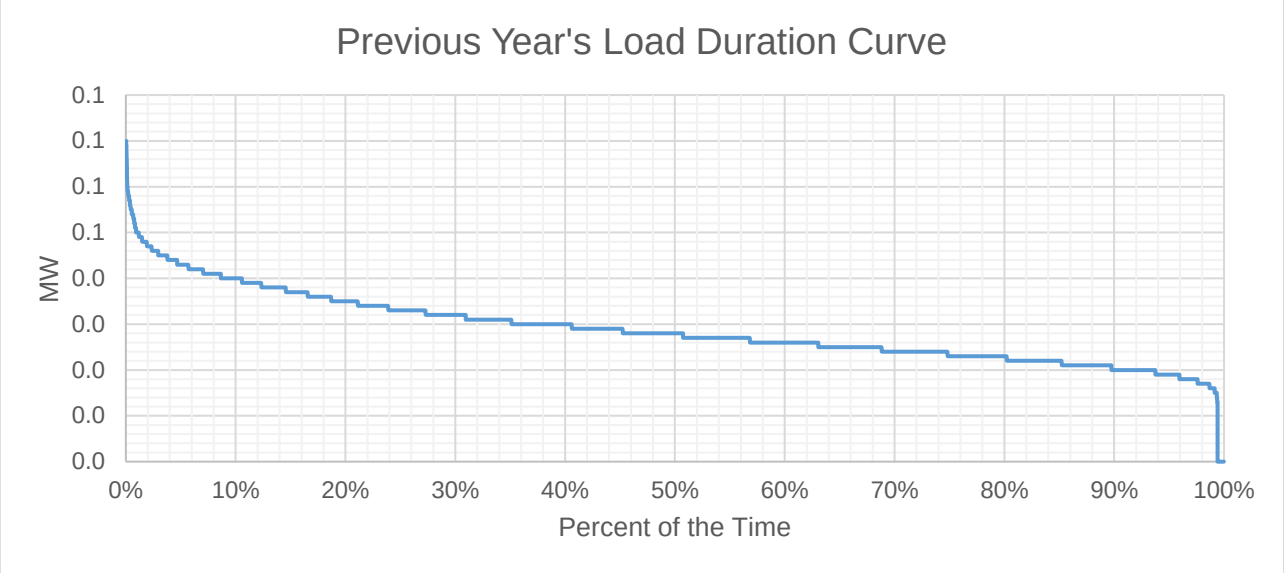


For NPC-SPUG, the total Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with NPC-SPUG constitutes solely for the MWh Offtake.

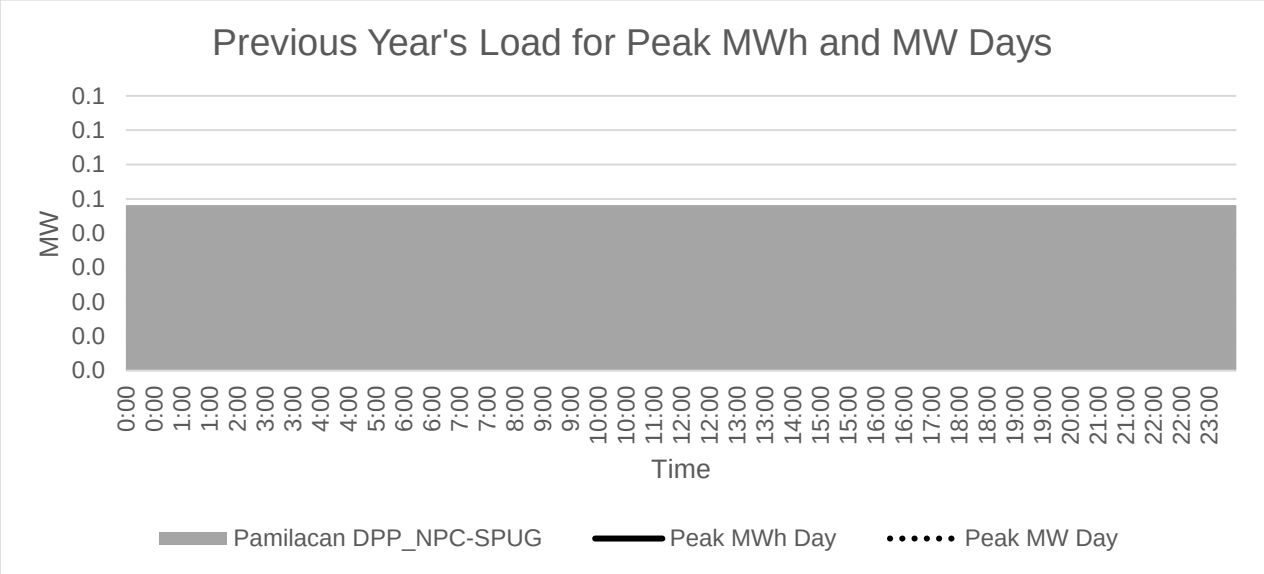


There is no share of WESM in the offtake since this is solely supplied by National Power Corporation – Small Power Utilities Group (NPC-SPUG).

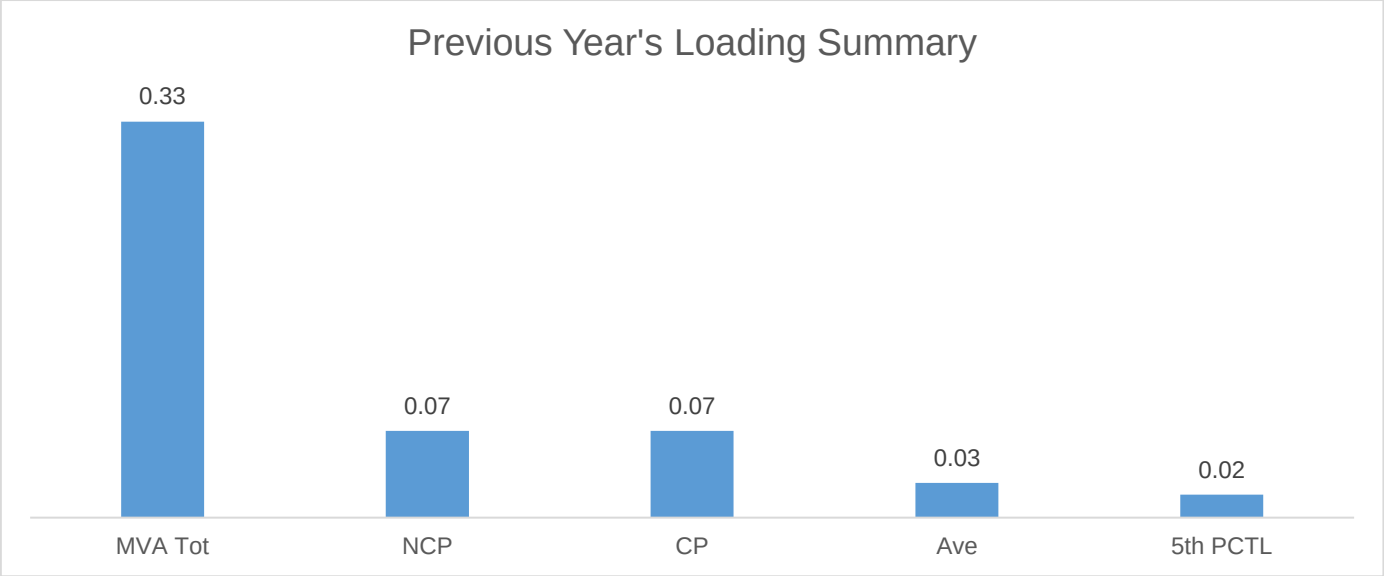
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0.013 MW and the maximum load is 0.072 MW for the last historical year.



Peak MW occurred on May 14, 2023. Peak daily MWh occurred on May 14, 2023 at 9:00 P.M.



The Non-coincident Peak Demand is 0.072 MW, which is around 21.88% of the total substation capacity of 0.329 MVA at a power factor of 91%. The load factor or the ratio between the Average Load of 0.03 MW and the Non-coincident Peak Demand is 40.12%. A safe estimate of the true minimum load is the fifth percentile load of 0.01 MW.

Metering Point	Substation MVA	Substation Peak MW
PAMILACAN	0.329	0.072

The Pamilacan Diesel Power Plant is loaded more than 70%.

Forecasted Consumption Data

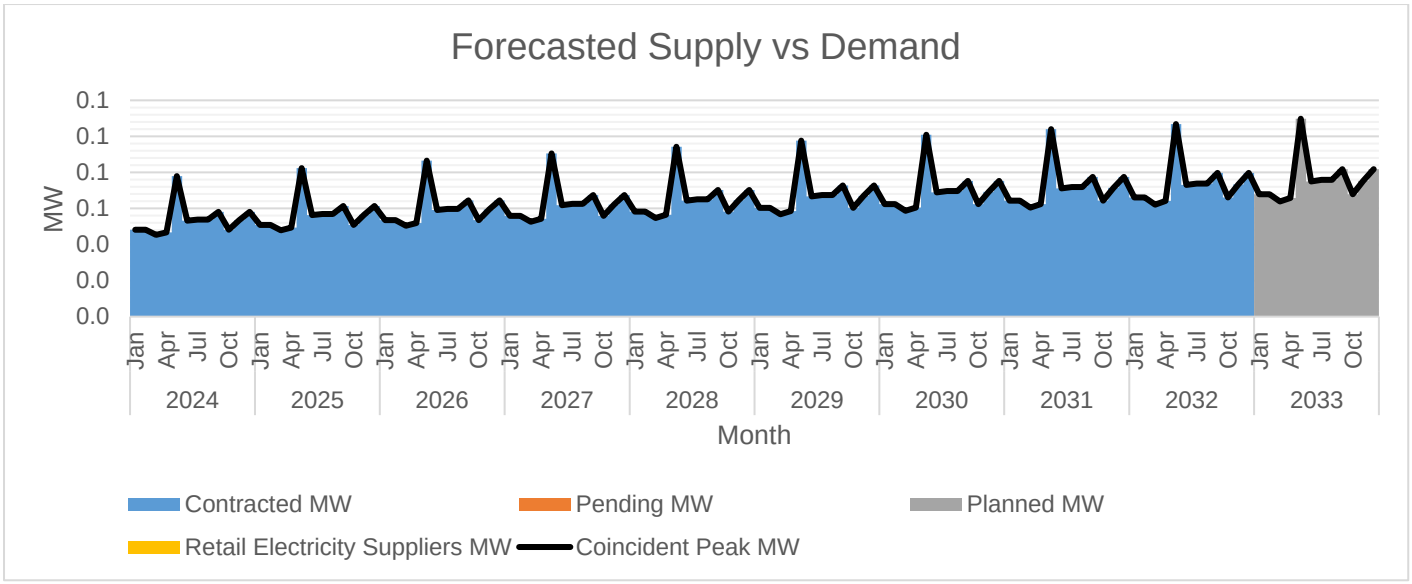
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2024	Jan	0.048	0.048	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.048	0.048	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.045	0.045	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.047	0.047	0.000	0.000	0.000	100%	100%	0.00
	May	0.078	0.078	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.053	0.053	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.054	0.054	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.054	0.054	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.058	0.058	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.048	0.048	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.054	0.054	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.058	0.058	0.000	0.000	0.000	100%	100%	0.00
2025	Jan	0.051	0.051	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.051	0.051	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.048	0.048	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.049	0.049	0.000	0.000	0.000	100%	100%	0.00
	May	0.082	0.082	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.056	0.056	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.057	0.057	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.057	0.057	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.061	0.061	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.051	0.051	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.057	0.057	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.061	0.061	0.000	0.000	0.000	100%	100%	0.00
2026	Jan	0.054	0.054	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.054	0.054	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.050	0.050	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.052	0.052	0.000	0.000	0.000	100%	100%	0.00
	May	0.087	0.087	0.000	0.000	0.000	100%	100%	0.00

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Jun	0.059	0.059	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.060	0.060	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.060	0.060	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.065	0.065	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.054	0.054	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.059	0.059	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.065	0.065	0.000	0.000	0.000	100%	100%	0.00
2027	Jan	0.056	0.056	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.056	0.056	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.053	0.053	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.054	0.054	0.000	0.000	0.000	100%	100%	0.00
	May	0.090	0.090	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.062	0.062	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.063	0.063	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.063	0.063	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.067	0.067	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.056	0.056	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.062	0.062	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.067	0.067	0.000	0.000	0.000	100%	100%	0.00
2028	Jan	0.058	0.058	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.058	0.058	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.055	0.055	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.057	0.057	0.000	0.000	0.000	100%	100%	0.00
	May	0.094	0.094	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.064	0.064	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.065	0.065	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.065	0.065	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.070	0.070	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.058	0.058	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.065	0.065	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.070	0.070	0.000	0.000	0.000	100%	100%	0.00
2029	Jan	0.060	0.060	0.000	0.000	0.000	100%	100%	0.00

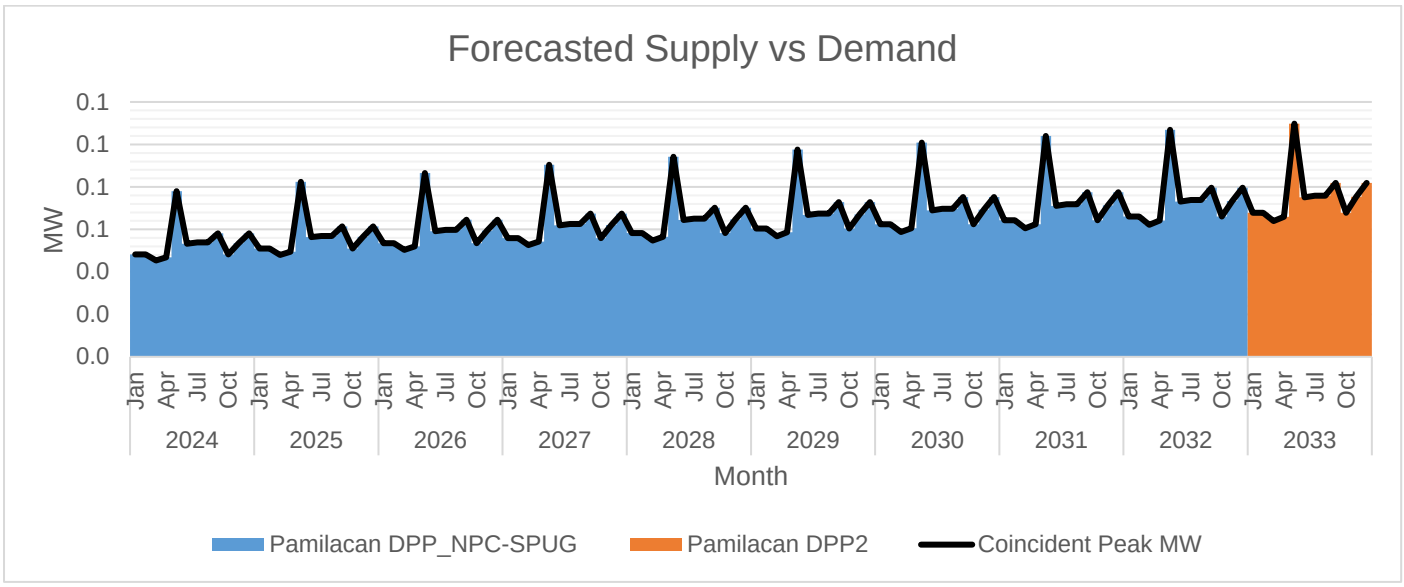
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Feb	0.060	0.060	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.057	0.057	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.059	0.059	0.000	0.000	0.000	100%	100%	0.00
	May	0.098	0.098	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.067	0.067	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.067	0.067	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.067	0.067	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.073	0.073	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.060	0.060	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.067	0.067	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.073	0.073	0.000	0.000	0.000	100%	100%	0.00
2030	Jan	0.062	0.062	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.062	0.062	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.059	0.059	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.061	0.061	0.000	0.000	0.000	100%	100%	0.00
	May	0.101	0.101	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.069	0.069	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.070	0.070	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.070	0.070	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.075	0.075	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.062	0.062	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.069	0.069	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.075	0.075	0.000	0.000	0.000	100%	100%	0.00
2031	Jan	0.064	0.064	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.064	0.064	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.061	0.061	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.062	0.062	0.000	0.000	0.000	100%	100%	0.00
	May	0.104	0.104	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.071	0.071	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.072	0.072	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.072	0.072	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.078	0.078	0.000	0.000	0.000	100%	100%	0.00

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Oct	0.064	0.064	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.071	0.071	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.078	0.078	0.000	0.000	0.000	100%	100%	0.00
2032	Jan	0.066	0.066	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.066	0.066	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.062	0.062	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.064	0.064	0.000	0.000	0.000	100%	100%	0.00
	May	0.107	0.107	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.073	0.073	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.074	0.074	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.074	0.074	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.080	0.080	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.066	0.066	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.073	0.073	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.080	0.080	0.000	0.000	0.000	100%	100%	0.00
2033	Jan	0.068	0.000	0.000	0.068	0.000	0%	100%	0.00
	Feb	0.068	0.000	0.000	0.068	0.000	0%	100%	0.00
	Mar	0.064	0.000	0.000	0.064	0.000	0%	100%	0.00
	Apr	0.066	0.000	0.000	0.066	0.000	0%	100%	0.00
	May	0.110	0.000	0.000	0.110	0.000	0%	100%	0.00
	Jun	0.075	0.000	0.000	0.075	0.000	0%	100%	0.00
	Jul	0.076	0.000	0.000	0.076	0.000	0%	100%	0.00
	Aug	0.076	0.000	0.000	0.076	0.000	0%	100%	0.00
	Sep	0.082	0.000	0.000	0.082	0.000	0%	100%	0.00
	Oct	0.068	0.000	0.000	0.068	0.000	0%	100%	0.00
	Nov	0.075	0.000	0.000	0.075	0.000	0%	100%	0.00
	Dec	0.082	0.000	0.000	0.082	0.000	0%	100%	0.00

Employing an Excel-based forecasting model, the Peak Demand was projected to peak in May due to high temperature and high economic activities of small businesses in the island during summer season. Conversely, the Monthly Peak Demand experiences its lowest point is in March, a phenomenon attributed to a shorter billing cycle, which effectively reduces the number of days in that particular month. In general, the Peak Demand is anticipated to exhibit a growth trajectory with an average annual rate of 3.88%.



The available supply is generally equal to the Demand. This is because the kWh meter reading used for NPC SPUG's billing to BOHECO I is identical to BOHECO I's meter reading for sales to the Island Barangays. This alignment stems from a clustering setup, employing a single meter known as the Mother Meter for meter reading. NPC SPUG also utilizes this Mother Meter.



Power Supply Contracting.

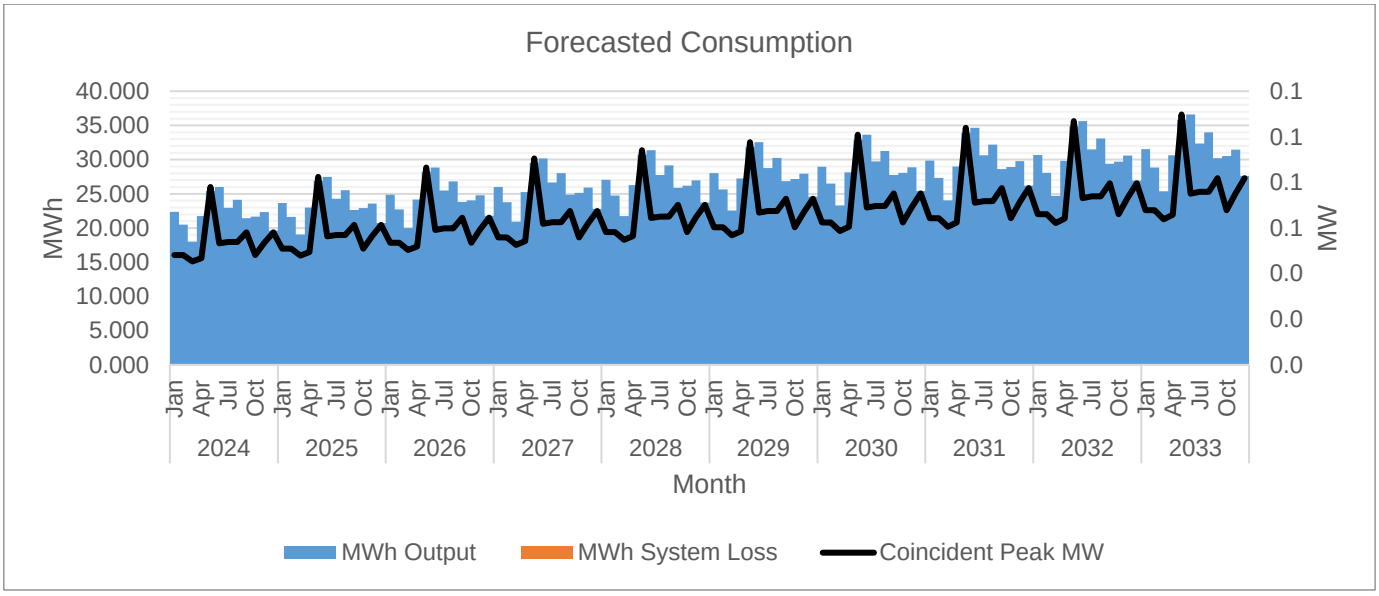
The highest target contracting level is 100% which is expected to occur in the entire contract period.

		MWh Offtake	MWh Output
2024	Jan	22.389	22.389
	Feb	20.485	20.485
	Mar	18.024	18.024
	Apr	21.756	21.756
	May	25.434	25.434
	Jun	25.999	25.999
	Jul	22.973	22.973
	Aug	24.143	24.143
	Sep	21.444	21.444
	Oct	21.681	21.681
	Nov	22.331	22.331
	Dec	19.639	19.639
2025	Jan	23.659	23.659
	Feb	21.647	21.647
	Mar	19.047	19.047
	Apr	22.991	22.991
	May	26.877	26.877
	Jun	27.474	27.474
	Jul	24.276	24.276
	Aug	25.513	25.513
	Sep	22.660	22.660
	Oct	22.911	22.911
	Nov	23.598	23.598
	Dec	20.753	20.753
2026	Jan	24.855	24.855
	Feb	22.741	22.741
	Mar	20.009	20.009
	Apr	24.152	24.152
	May	28.235	28.235
	Jun	28.862	28.862
	Jul	25.503	25.503
	Aug	26.802	26.802
	Sep	23.805	23.805
	Oct	24.068	24.068
	Nov	24.790	24.790
	Dec	21.801	21.801
2027	Jan	25.980	25.980
	Feb	23.771	23.771
	Mar	20.915	20.915
	Apr	25.246	25.246
	May	29.513	29.513
	Jun	30.169	30.169
	Jul	26.657	26.657
	Aug	28.015	28.015
	Sep	24.883	24.883

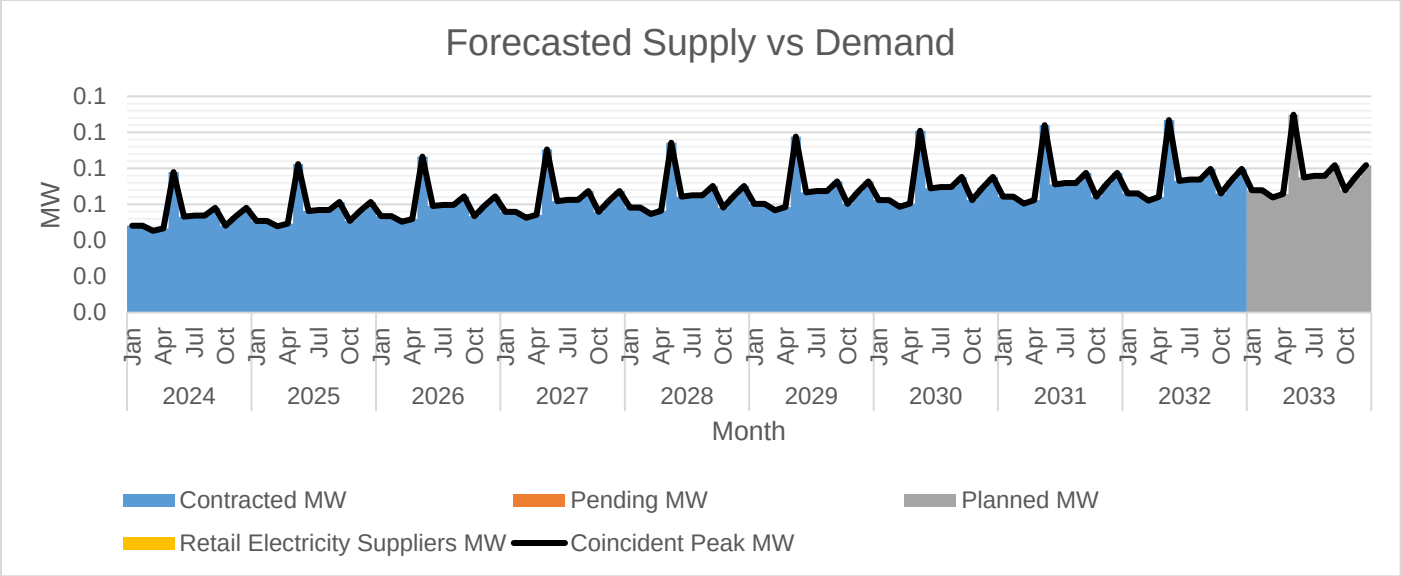
		MWh Offtake	MWh Output
	Oct	25.158	25.158
	Nov	25.913	25.913
	Dec	22.788	22.788
2028	Jan	27.040	27.040
	Feb	24.740	24.740
	Mar	21.768	21.768
	Apr	26.275	26.275
	May	30.716	30.716
	Jun	31.399	31.399
	Jul	27.744	27.744
	Aug	29.158	29.158
	Sep	25.898	25.898
	Oct	26.184	26.184
	Nov	26.969	26.969
	Dec	23.718	23.718
2029	Jan	28.037	28.037
	Feb	25.653	25.653
	Mar	22.571	22.571
	Apr	27.244	27.244
	May	31.850	31.850
	Jun	32.557	32.557
	Jul	28.768	28.768
	Aug	30.233	30.233
	Sep	26.853	26.853
	Oct	27.150	27.150
	Nov	27.964	27.964
	Dec	24.593	24.593
2030	Jan	28.976	28.976
	Feb	26.512	26.512
	Mar	23.327	23.327
	Apr	28.157	28.157
	May	32.916	32.916
	Jun	33.648	33.648
	Jul	29.732	29.732
	Aug	31.246	31.246
	Sep	27.752	27.752
	Oct	28.059	28.059
	Nov	28.901	28.901
	Dec	25.416	25.416
2031	Jan	29.860	29.860
	Feb	27.321	27.321
	Mar	24.039	24.039
	Apr	29.016	29.016
	May	33.921	33.921
	Jun	34.674	34.674
	Jul	30.639	30.639
	Aug	32.199	32.199
	Sep	28.599	28.599

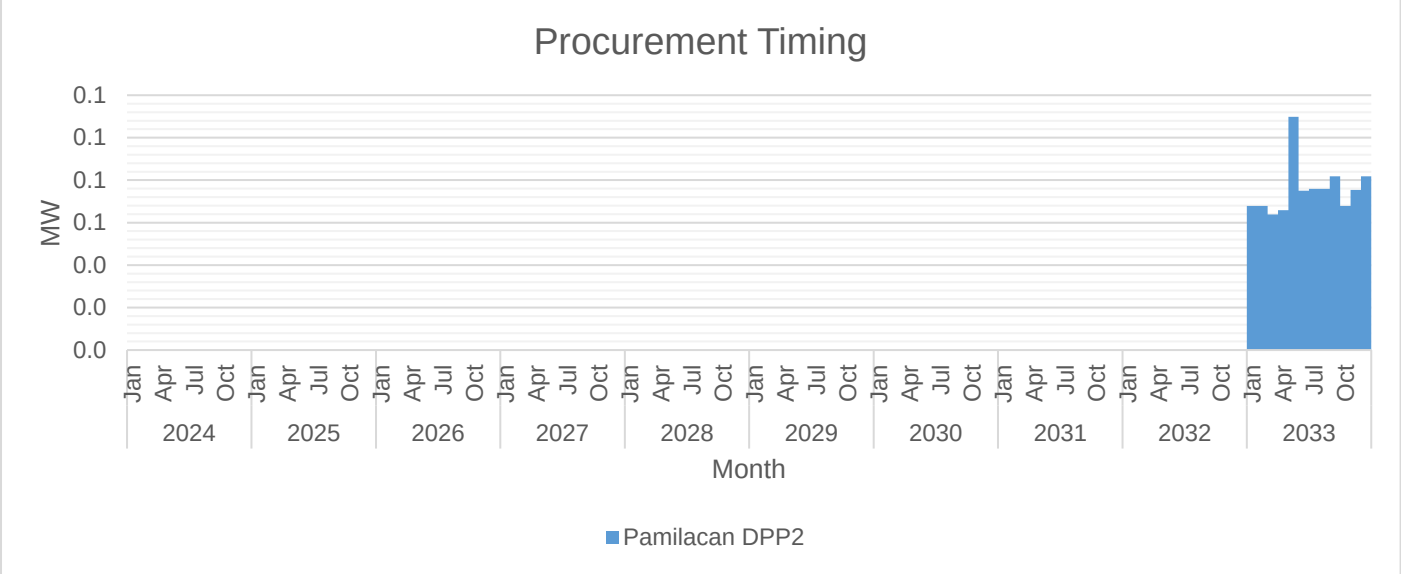
		MWh Offtake	MWh Output
	Oct	28.915	28.915
	Nov	29.783	29.783
	Dec	26.192	26.192
2032	Jan	30.692	30.692
	Feb	28.082	28.082
	Mar	24.709	24.709
	Apr	29.825	29.825
	May	34.866	34.866
	Jun	35.641	35.641
	Jul	31.492	31.492
	Aug	33.096	33.096
	Sep	29.396	29.396
	Oct	29.721	29.721
	Nov	30.613	30.613
	Dec	26.922	26.922
2033	Jan	31.524	31.524
	Feb	28.843	28.843
	Mar	25.379	25.379
	Apr	30.634	30.634
	May	35.811	35.811
	Jun	36.607	36.607
	Jul	32.346	32.346
	Aug	33.993	33.993
	Sep	30.193	30.193
	Oct	30.527	30.527
	Nov	31.443	31.443
	Dec	27.652	27.652

MWh Offtake was forecasted using an Excel-based forecasting model. The assumed load factor averages at 38.98%.



MWh Output was expected to grow at an average rate of 3.88% annually.





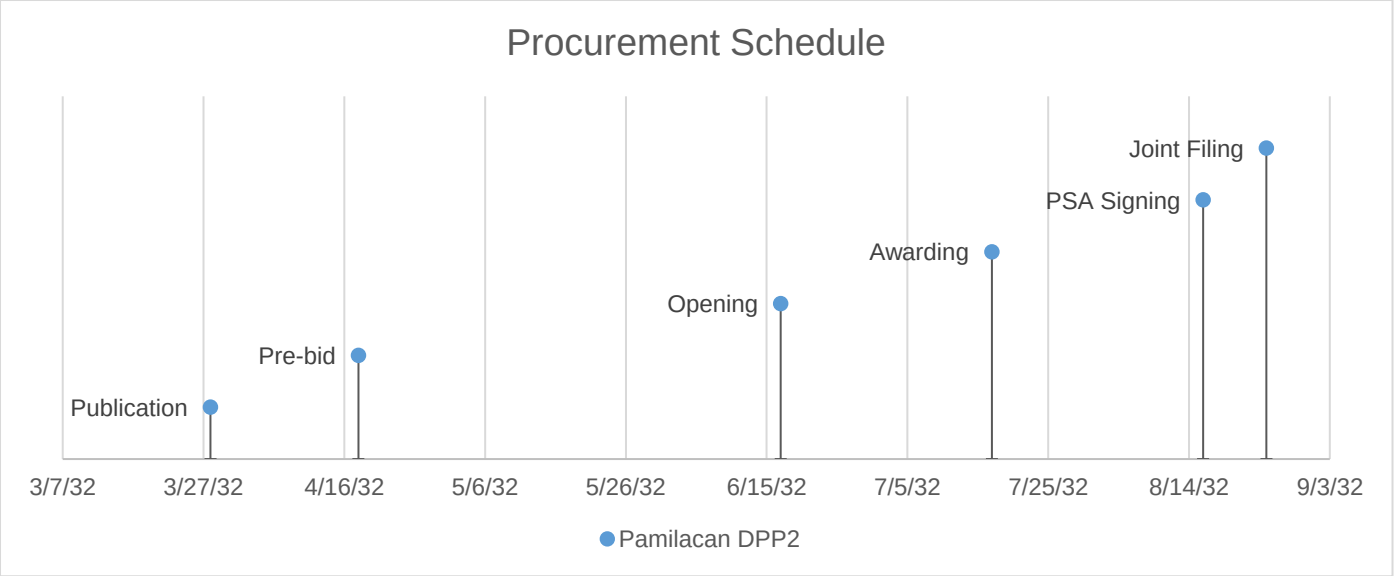
The first wave of supply procurement will be for 0.064 MW minimum which is planned to be available on December 26, 2032. The planned CSP will address the forecasted demand requirement for the year 2033 onwards.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
Pamilacan DP _NPC-SPUG	Base	National Power Corporation	0.043	250	12/26/2022	12/25/2032

The Power Supply Agreement (PSA) with Pamilacan Island as well as other islands under the coverage area of BOHECO I was renewed up to ten years. Under Section 3 of the approved PSA states that, "*This PSA shall remain in full force and effect for TEN (10) years from 26 December 2022 to 25 December 2032 covering the areas of Bagongbanwa, Balicasag, Batasan, Bilangbilangan, Cuaming. Hambongan, Mantatao, Mocaboc, Pamilacan, Pangapasan, and Ubay, renewable by mutual consent of the Parties*."

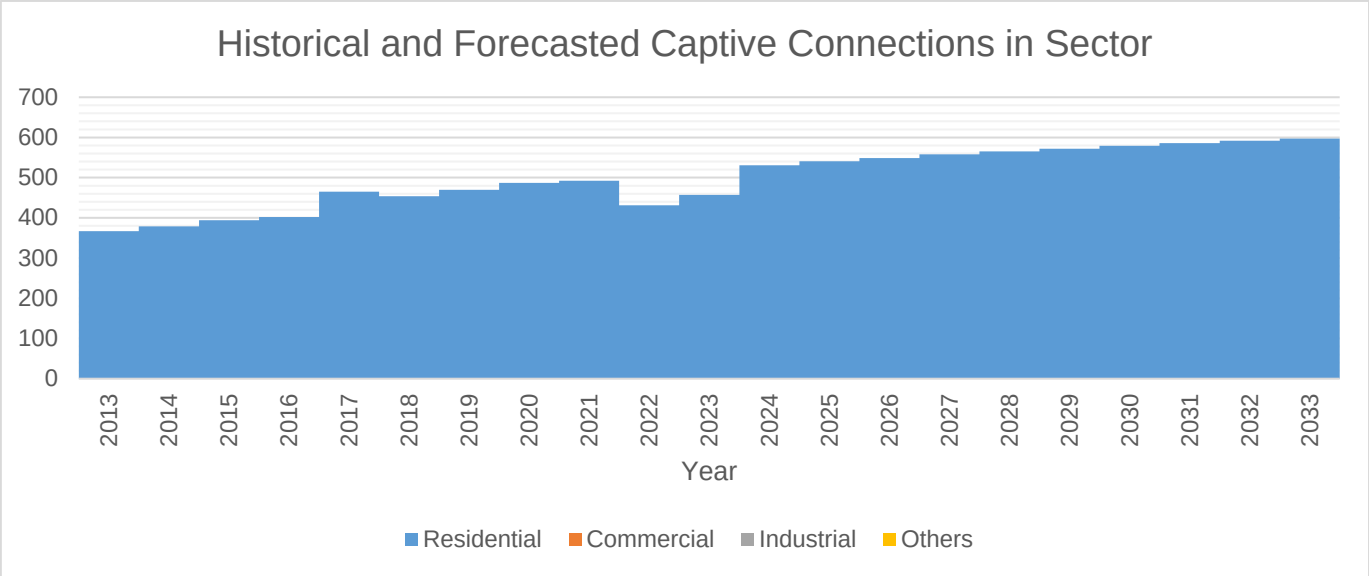
	Pamilacan DPP2
Type	Base
Minimum MW	0.064
Minimum MWh/yr	375
PSA Start	12/26/2032
PSA End	12/25/2042
Publication	3/28/2032
Pre-bid	4/18/2032
Opening	6/17/2032
Awarding	7/17/2032
PSA Signing	8/16/2032
Joint Filing	8/25/2032



For the procurement of 0.064 MW minimum of supply which is planned to be available on December 26, 2032, the first publication or launch of CSP will be on March 28, 2032. The planned CSP will address the forecasted demand requirement of PAMILACAN ISLAND.

Joint filing is planned on August 25, 2032. However, the above schedule is subject to change to comply the CSP rulings and/or the completeness of the CSP process.

Captive Customer Connections



The number of Residential connections is expected to grow at an average rate of 1.31% annually. Said customer class is expected to account for 100% of the total consumption.