

# **Power Supply Procurement Plan 2024**

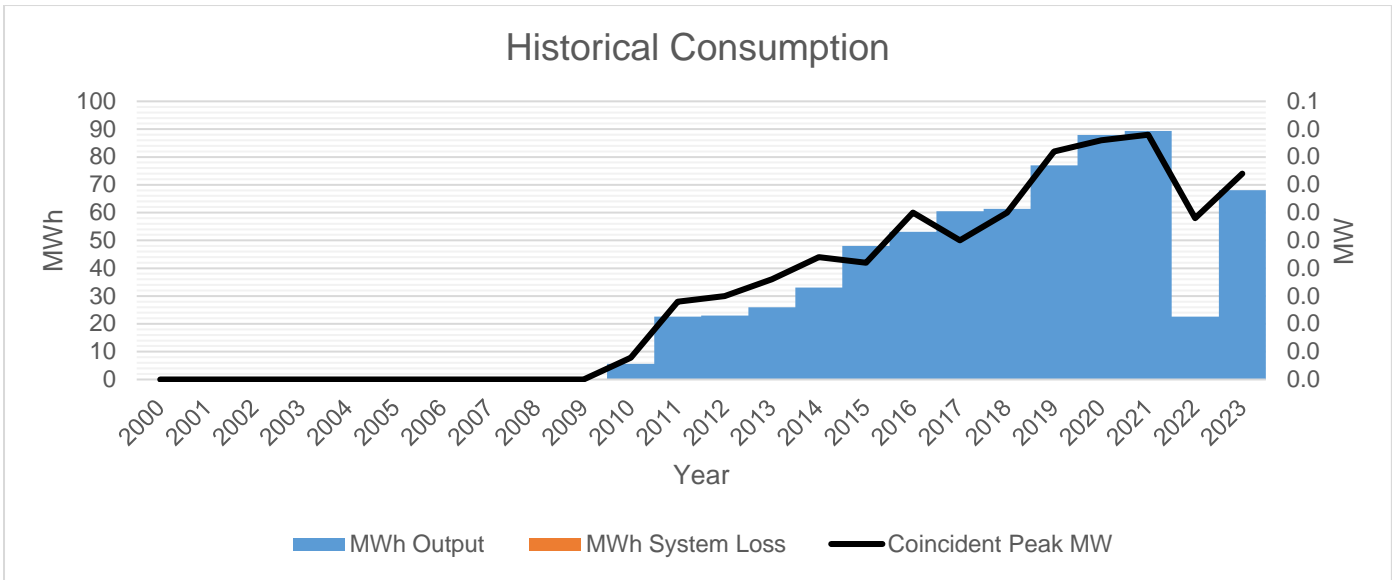
**BOHOL I ELECTRIC COOPERATIVE, INC.  
(BOHECO I)**

**BAGONGBANWA ISLAND**

## Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	Load Factor
2010	0.004	6	n/a	6	6	16%
2011	0.01	23	n/a	23	23	18%
2012	0.02	23	n/a	23	23	18%
2013	0.02	26	n/a	26	26	16%
2014	0.02	33	n/a	33	33	17%
2015	0.02	48	n/a	48	48	26%
2016	0.03	53	n/a	53	53	20%
2017	0.03	60	n/a	60	60	28%
2018	0.03	61	n/a	61	61	23%
2019	0.04	77	n/a	77	77	21%
2020	0.04	88	n/a	88	88	23%
2021	0.04	89	n/a	89	89	23%
2022	0.03	23	n/a	23	23	9%
2023	0.04	68	n/a	68	68	21%

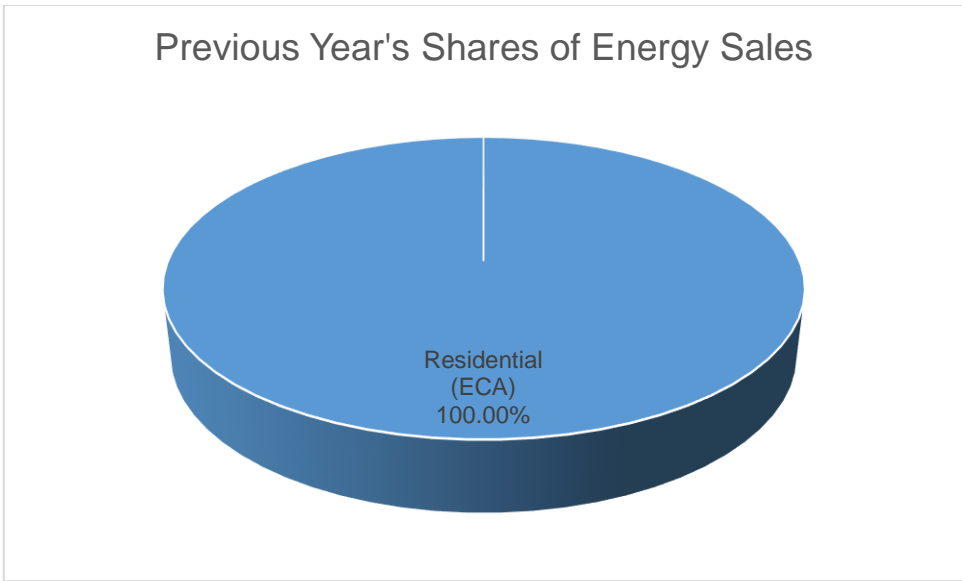
The above historical data was the only available/retrieved data as of the moment. The Peak Demand exhibited increase from 0.004 MW in 2010 to 0.04 MW in 2023 at an average rate of 26.78%. The MWh Offtake also increased from 6 MWh in 2010 to 68 MWh in 2023, marking a growth rate of 42.86% primarily attributed to the escalating load connections. Throughout this period, the Load Factor fluctuated from 9% to 28%. There was an abrupt change in consumption in year 2022 due to the occurrence of Typhoon Odette affecting the entire province of Bohol .



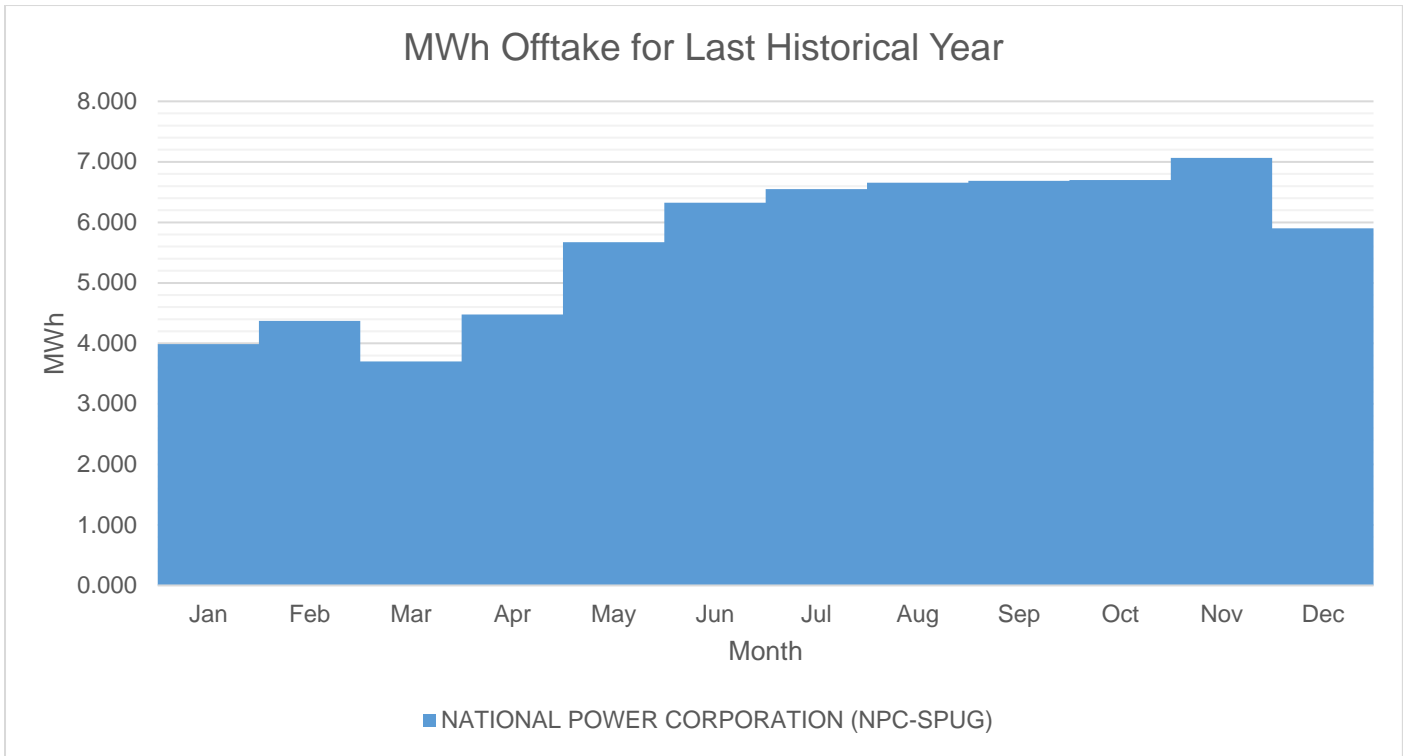
The above figure presents a graphical representation of energy consumption over the past years. The MWh Output demonstrated an increase from year 2010 to year 2023 with an average growth rate of 42.86%. On the other hand, the MWh Output in year 2022 significantly drops to -74.16% due to the occurrence of Typhoon Odette affecting the entire province of Bohol.

**System Loss**

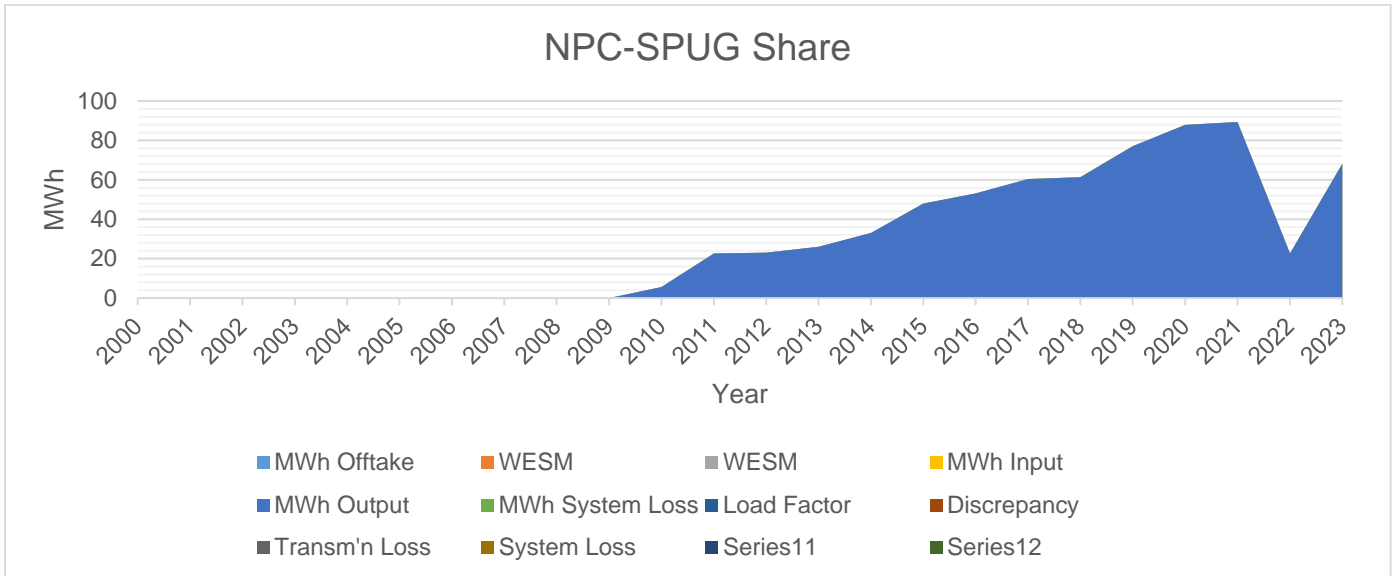
BOHECO I's report shows NO system loss in supplying power to Island Barangays through SPUG. This is because the kWh meter reading used for NPC SPUG's billing to BOHECO I is identical to BOHECO I's meter reading for sales to the Island Barangays. This alignment stems from a clustering setup, employing 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.

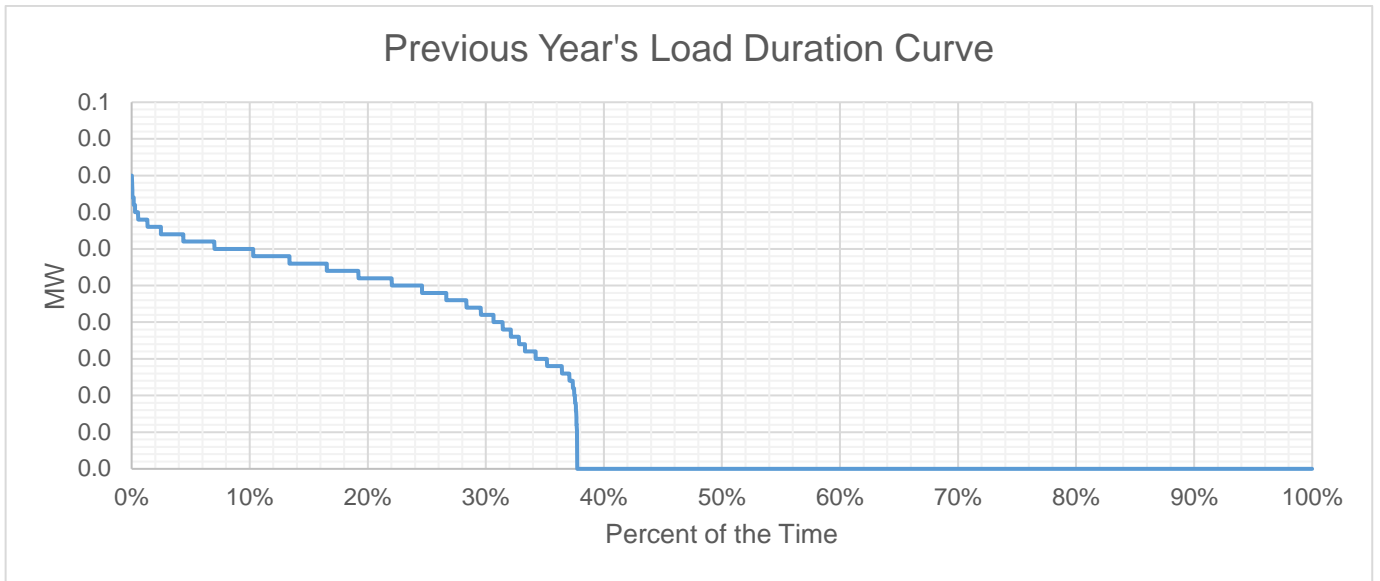


For NPC-SPUG, the total Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with NPC-SPUG constitutes solely for the MWh Offtake.

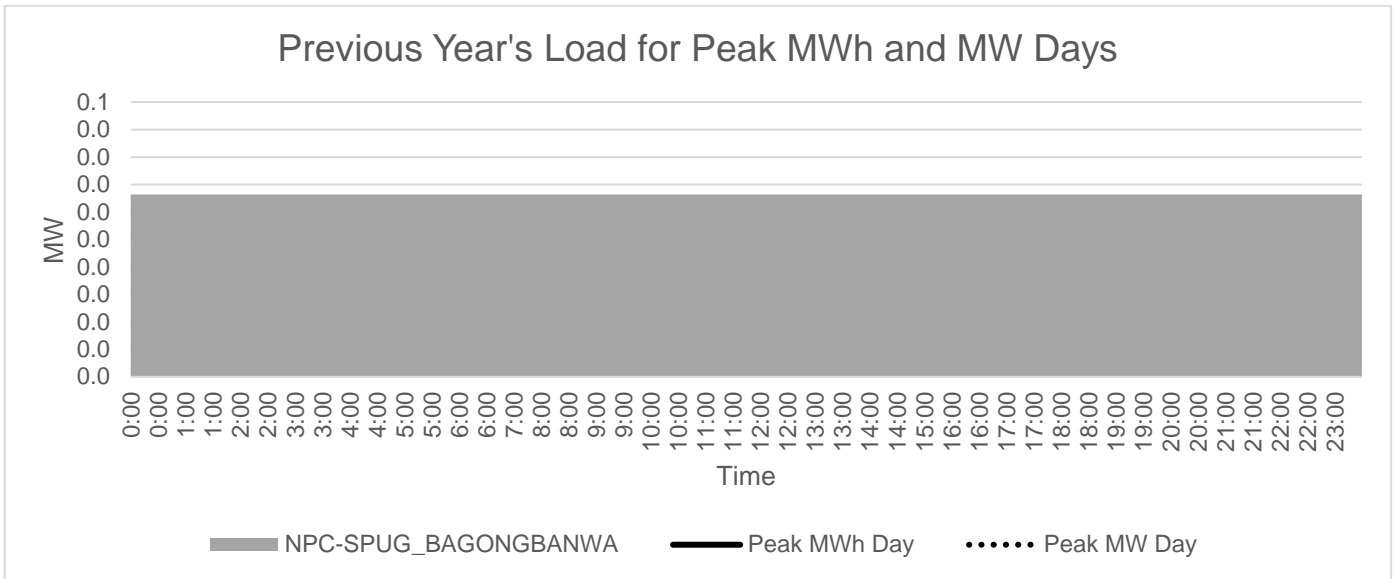


There is no share of WESM in the offtake since this is solely supplied by National Power Corporation – Small Power Utilities Group (NPC-SPUG).

# Previous Year's Load Profile

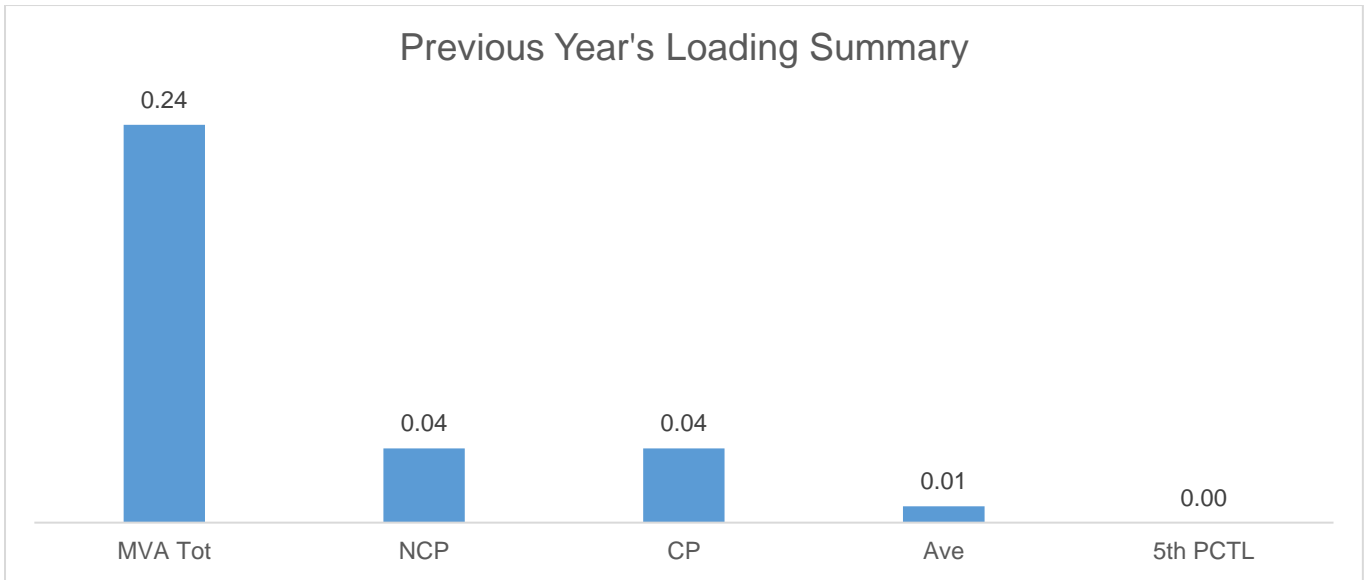


Based on the Load Duration Curve, the minimum load is 0.005 MW and the maximum load is 0.044 MW for the last historical year. The normal operating hours for islands is from 8-10 hours per day.



Peak MW occurred on December 31, 2023. Peak daily MWh occurred on December 31, 2023 at 4:00 P.M.

### Previous Year's Loading Summary



The Non-coincident Peak Demand is 0.04 MW, which is around 20.49% of the total substation capacity of 0.236 MVA at a power factor of 91%. The load factor or the ratio between the Average Load of 0.0096 MW and the Non-coincident Peak Demand is 21.87%. A safe estimate of the true minimum load is the fifth percentile load of 0 MW.

Metering Point	Substation MVA	Substation Peak MW
BAGONGBANWA	0.236	0.044

No substation is loaded at 70% and above.

## 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	0.033	0.033	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.035	0.035	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.032	0.032	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.033	0.033	0.000	0.000	0.000	100%	100%	0.00
	May	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.034	0.034	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.036	0.036	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.037	0.037	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.038	0.038	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.035	0.035	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.037	0.037	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.035	0.035	0.000	0.000	0.000	100%	100%	0.00
2025	Jan	0.035	0.035	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.037	0.037	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.034	0.034	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.035	0.035	0.000	0.000	0.000	100%	100%	0.00
	May	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.036	0.036	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.038	0.038	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.037	0.037	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.037	0.037	0.000	0.000	0.000	100%	100%	0.00
2026	Jan	0.037	0.037	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.038	0.038	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.036	0.036	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.037	0.037	0.000	0.000	0.000	100%	100%	0.00
	May	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.038	0.038	0.000	0.000	0.000	100%	100%	0.00

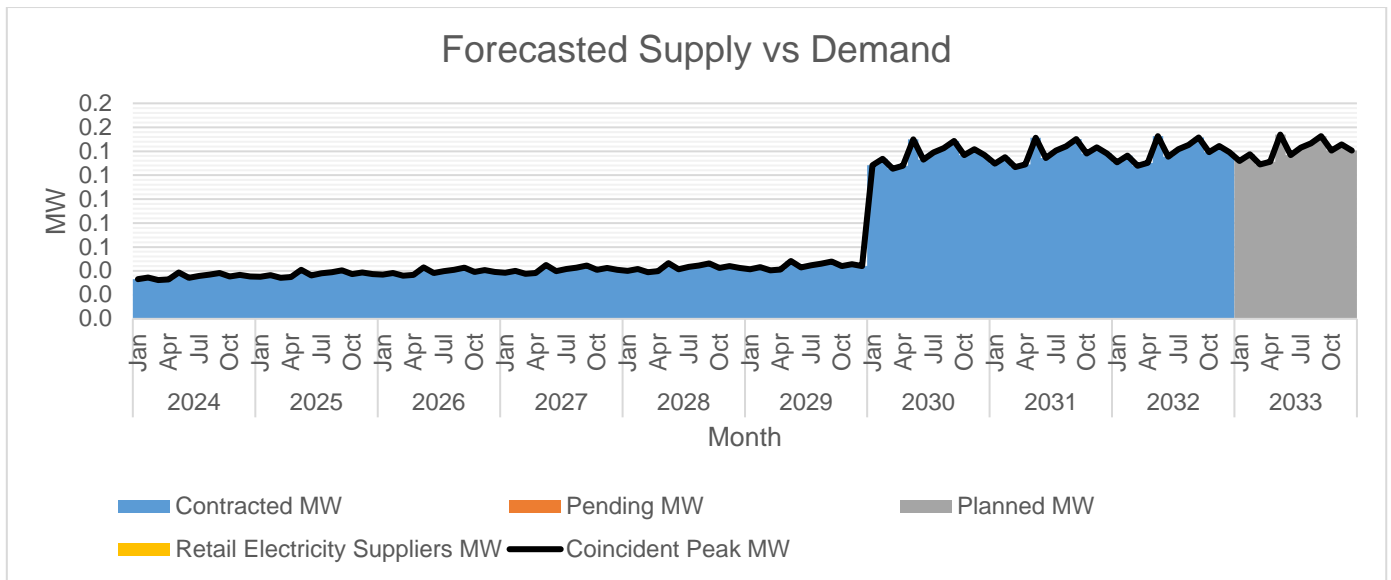
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Jul	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
2027	Jan	0.038	0.038	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.038	0.038	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.038	0.038	0.000	0.000	0.000	100%	100%	0.00
	May	0.045	0.045	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.042	0.042	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.045	0.045	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.042	0.042	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
2028	Jan	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.042	0.042	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
	May	0.047	0.047	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.044	0.044	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.046	0.046	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.044	0.044	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
2029	Jan	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00



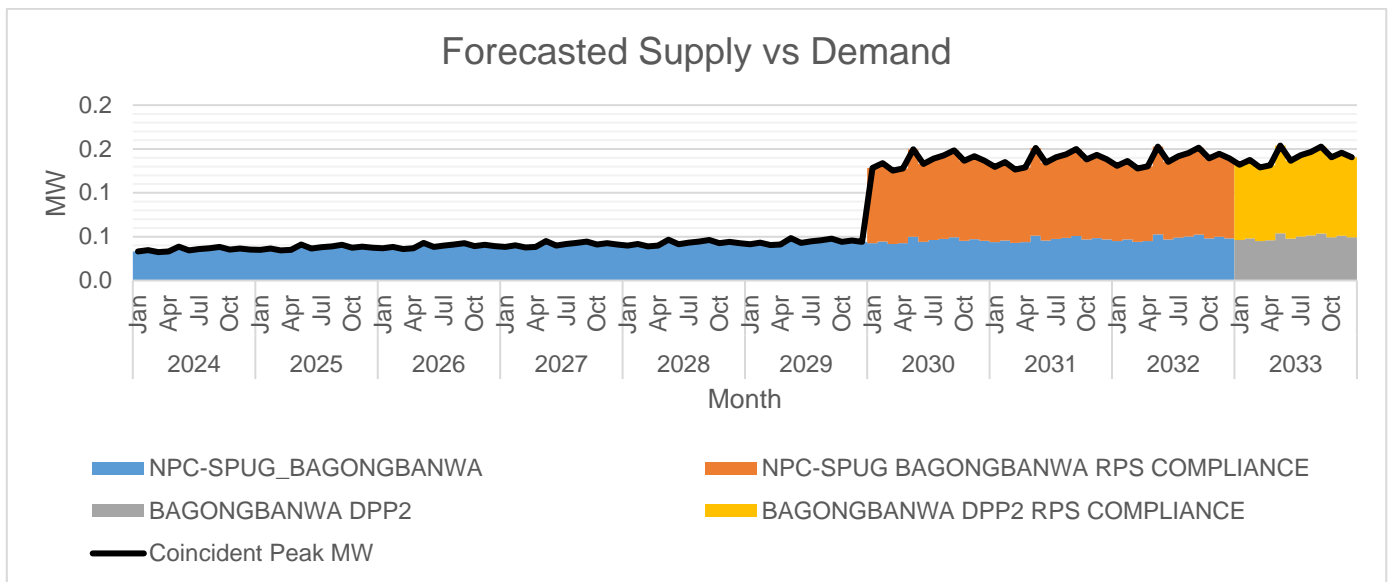
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Mar	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	May	0.048	0.048	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.045	0.045	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.046	0.046	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.048	0.048	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.044	0.044	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.046	0.046	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.044	0.044	0.000	0.000	0.000	100%	100%	0.00
2030	Jan	0.128	0.128	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.134	0.134	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.125	0.125	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.128	0.128	0.000	0.000	0.000	100%	100%	0.00
	May	0.150	0.150	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.133	0.133	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.139	0.139	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.143	0.143	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.149	0.149	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.137	0.137	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.142	0.142	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.137	0.137	0.000	0.000	0.000	100%	100%	0.00
2031	Jan	0.130	0.130	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.135	0.135	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.127	0.127	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.129	0.129	0.000	0.000	0.000	100%	100%	0.00
	May	0.151	0.151	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.134	0.134	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.140	0.140	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.144	0.144	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.150	0.150	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.138	0.138	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
	Nov	0.143	0.143	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.138	0.138	0.000	0.000	0.000	100%	100%	0.00
2032	Jan	0.131	0.131	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.136	0.136	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.128	0.128	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.130	0.130	0.000	0.000	0.000	100%	100%	0.00
	May	0.153	0.153	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.136	0.136	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.142	0.142	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.145	0.145	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.151	0.151	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.139	0.139	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.144	0.144	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.139	0.139	0.000	0.000	0.000	100%	100%	0.00
2033	Jan	0.132	0.000	0.000	0.132	0.000	0%	100%	0.00
	Feb	0.137	0.000	0.000	0.137	0.000	0%	100%	0.00
	Mar	0.129	0.000	0.000	0.129	0.000	0%	100%	0.00
	Apr	0.131	0.000	0.000	0.131	0.000	0%	100%	0.00
	May	0.154	0.000	0.000	0.154	0.000	0%	100%	0.00
	Jun	0.137	0.000	0.000	0.137	0.000	0%	100%	0.00
	Jul	0.143	0.000	0.000	0.143	0.000	0%	100%	0.00
	Aug	0.147	0.000	0.000	0.147	0.000	0%	100%	0.00
	Sep	0.153	0.000	0.000	0.153	0.000	0%	100%	0.00
	Oct	0.140	0.000	0.000	0.140	0.000	0%	100%	0.00
	Nov	0.146	0.000	0.000	0.146	0.000	0%	100%	0.00
	Dec	0.140	0.000	0.000	0.140	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 26.26%.



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.



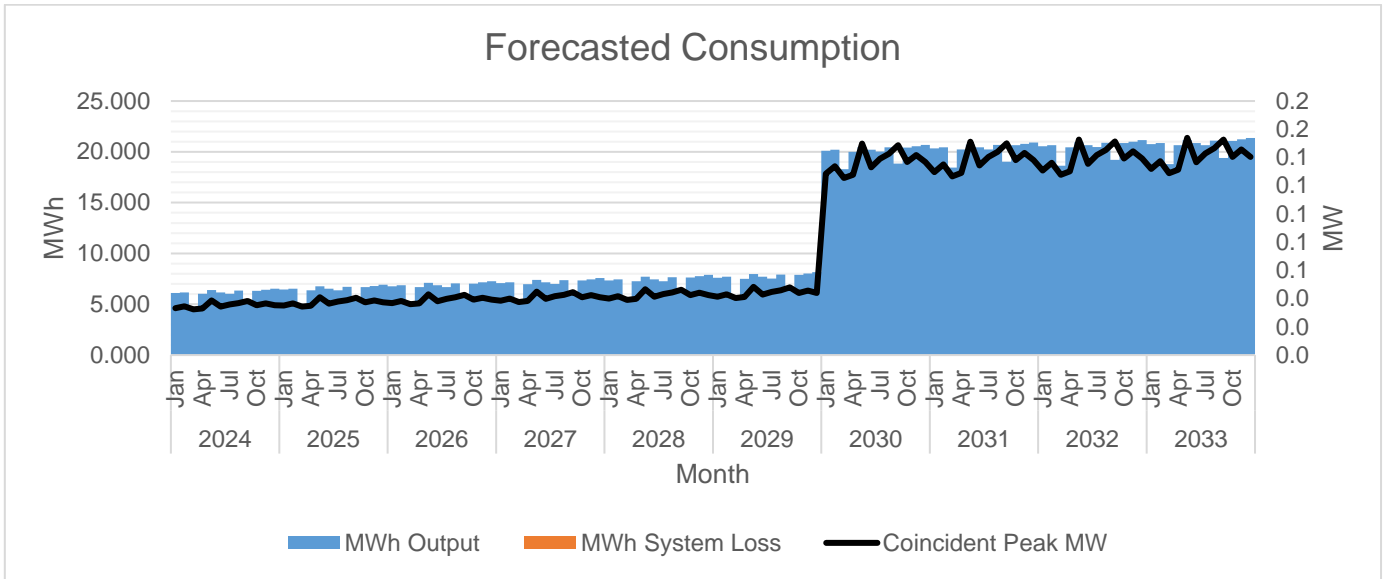
The highest target contracting level is 100% which is expected to occur in the entire contract period.

		<b>MWh Offtake</b>	<b>MWh Output</b>
2024	Jan	6.098	6.098
	Feb	6.175	6.175
	Mar	4.681	4.681
	Apr	6.019	6.019
	May	6.388	6.388
	Jun	6.173	6.173
	Jul	6.031	6.031
	Aug	6.351	6.351
	Sep	5.115	5.115
	Oct	6.330	6.330
	Nov	6.433	6.433
	Dec	6.542	6.542
2025	Jan	6.452	6.452
	Feb	6.534	6.534
	Mar	4.953	4.953
	Apr	6.368	6.368
	May	6.759	6.759
	Jun	6.531	6.531
	Jul	6.381	6.381
	Aug	6.720	6.720
	Sep	5.412	5.412
	Oct	6.698	6.698
	Nov	6.806	6.806
	Dec	6.921	6.921
2026	Jan	6.776	6.776
	Feb	6.862	6.862
	Mar	5.202	5.202
	Apr	6.687	6.687
	May	7.098	7.098
	Jun	6.859	6.859
	Jul	6.701	6.701
	Aug	7.057	7.057
	Sep	5.683	5.683
	Oct	7.034	7.034
	Nov	7.148	7.148
	Dec	7.269	7.269
2027	Jan	7.074	7.074
	Feb	7.164	7.164
	Mar	5.431	5.431
	Apr	6.982	6.982
	May	7.410	7.410
	Jun	7.161	7.161
	Jul	6.996	6.996
	Aug	7.368	7.368
	Sep	5.933	5.933
	Oct	7.343	7.343
	Nov	7.462	7.462
	Dec	7.589	7.589
2028	Jan	7.351	7.351

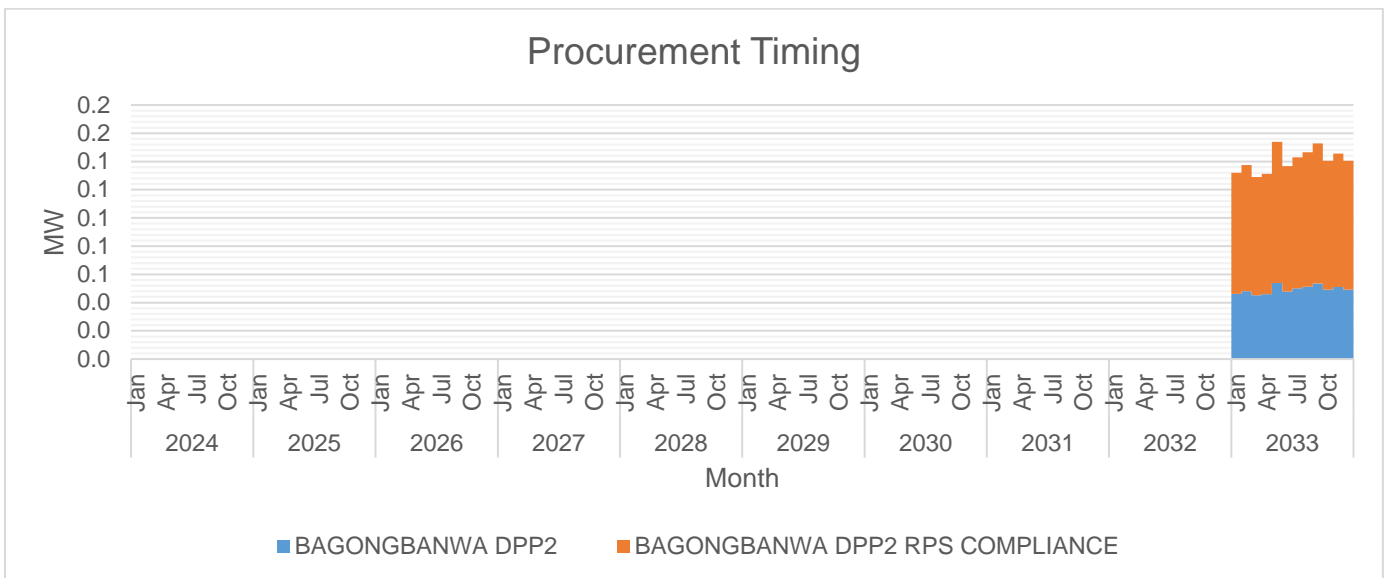
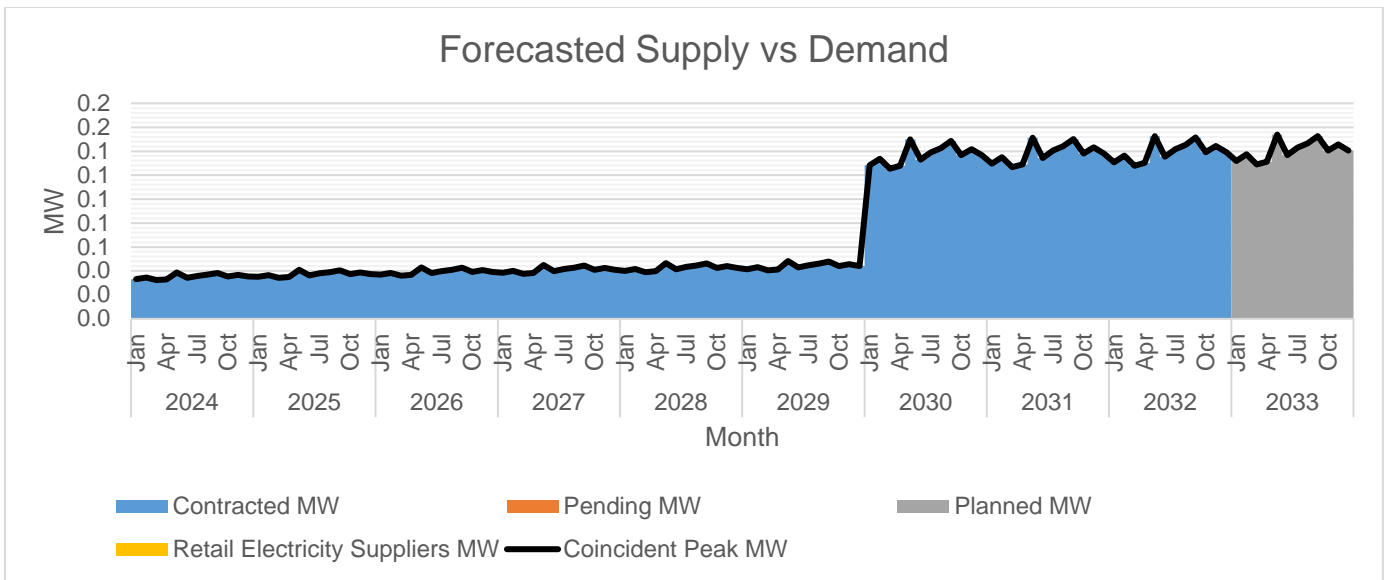
		MWh Offtake	MWh Output
	Feb	7.444	7.444
	Mar	5.643	5.643
	Apr	7.255	7.255
	May	7.700	7.700
	Jun	7.441	7.441
	Jul	7.270	7.270
	Aug	7.656	7.656
	Sep	6.166	6.166
	Oct	7.631	7.631
	Nov	7.754	7.754
	Dec	7.885	7.885
2029	Jan	7.609	7.609
	Feb	7.705	7.705
	Mar	5.841	5.841
	Apr	7.510	7.510
	May	7.970	7.970
	Jun	7.702	7.702
	Jul	7.525	7.525
	Aug	7.925	7.925
	Sep	6.382	6.382
	Oct	7.899	7.899
	Nov	8.027	8.027
	Dec	8.162	8.162
2030	Jan	20.109	20.109
	Feb	20.208	20.208
	Mar	18.285	18.285
	Apr	20.006	20.006
	May	20.482	20.482
	Jun	20.205	20.205
	Jul	20.022	20.022
	Aug	20.434	20.434
	Sep	18.843	18.843
	Oct	20.408	20.408
	Nov	20.540	20.540
	Dec	20.680	20.680
2031	Jan	20.337	20.337
	Feb	20.439	20.439
	Mar	18.460	18.460
	Apr	20.231	20.231
	May	20.720	20.720
	Jun	20.435	20.435
	Jul	20.247	20.247
	Aug	20.672	20.672
	Sep	19.034	19.034
	Oct	20.644	20.644
	Nov	20.780	20.780
	Dec	20.924	20.924
2032	Jan	20.552	20.552
	Feb	20.656	20.656
	Mar	18.625	18.625
	Apr	20.443	20.443

		MWh Offtake	MWh Output
	May	20.945	20.945
	Jun	20.653	20.653
	Jul	20.460	20.460
	Aug	20.895	20.895
	Sep	19.214	19.214
	Oct	20.867	20.867
	Nov	21.006	21.006
	Dec	21.154	21.154
2033	Jan	20.755	20.755
	Feb	20.862	20.862
	Mar	18.781	18.781
	Apr	20.644	20.644
	May	21.158	21.158
	Jun	20.859	20.859
	Jul	20.661	20.661
	Aug	21.107	21.107
	Sep	19.385	19.385
	Oct	21.078	21.078
	Nov	21.221	21.221
	Dec	21.373	21.373

MWh Offtake was forecasted using an Excel-based forecasting model. The assumed load factor averages at 21.34%.



MWh Output was expected to grow at an average rate of 19.52% annually.



The first wave of supply procurement will be for 0.045 MW minimum and 0.10 MW minimum from an eligible RE which is planned to be available on December 26, 2032. The planned CSP will address the forecasted demand requirement for the year 2033 onwards.

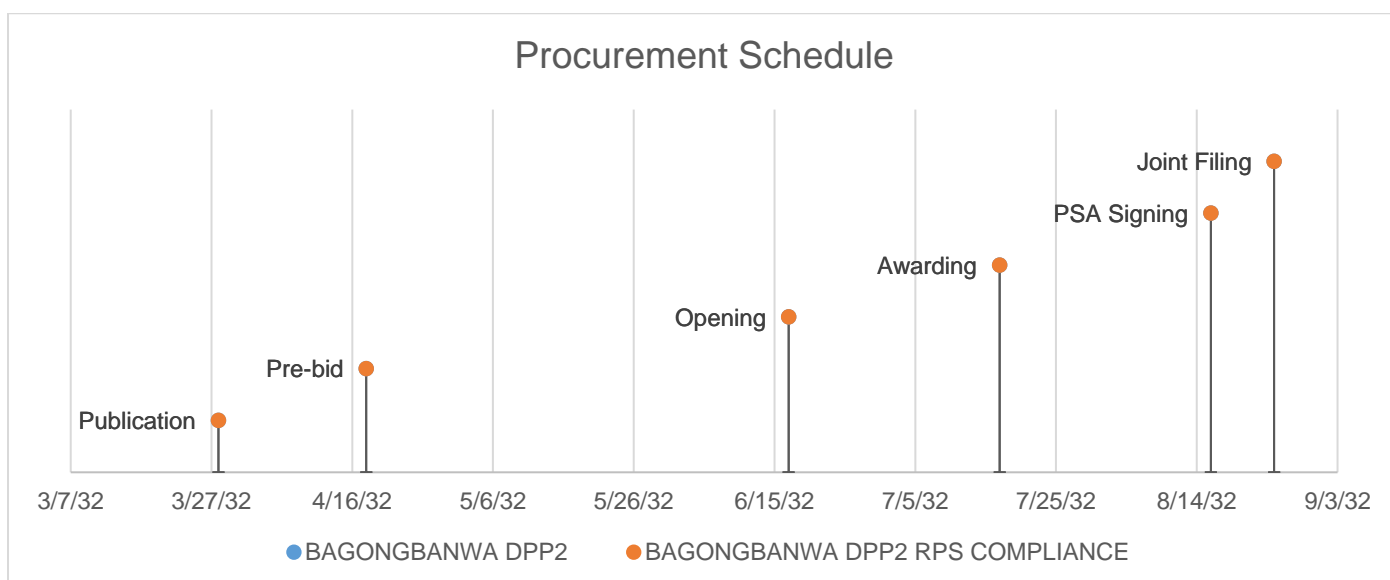
## Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
NPC-SPUG_BAGONGBANWA	Base	National Power Corporation	0.032	72	12/26/2022	12/25/2032
NPC-SPUG_BAGONGBANWA RPS COMPLIANCE	Base	National Power Corporation	0.10	147	12/26/2022	12/25/2032

The Power Supply Agreement (PSA) with Bagongbanwa 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.”*

	BAGONGBANWA DPP2	BAGONGBANWA DPP2 RPS COMPLIANCE
Type	Base	Base
Minimum MW	0.045	0.10
Minimum MWh/yr	101	147
PSA Start	12/26/2032	12/26/2032
PSA End	12/25/2042	12/25/2042
Publication	3/28/2032	3/28/2032
Pre-bid	4/18/2032	4/18/2032
Opening	6/17/2032	6/17/2032
Awarding	7/17/2032	7/17/2032
PSA Signing	8/16/2032	8/16/2032
Joint Filing	8/25/2032	8/25/2032

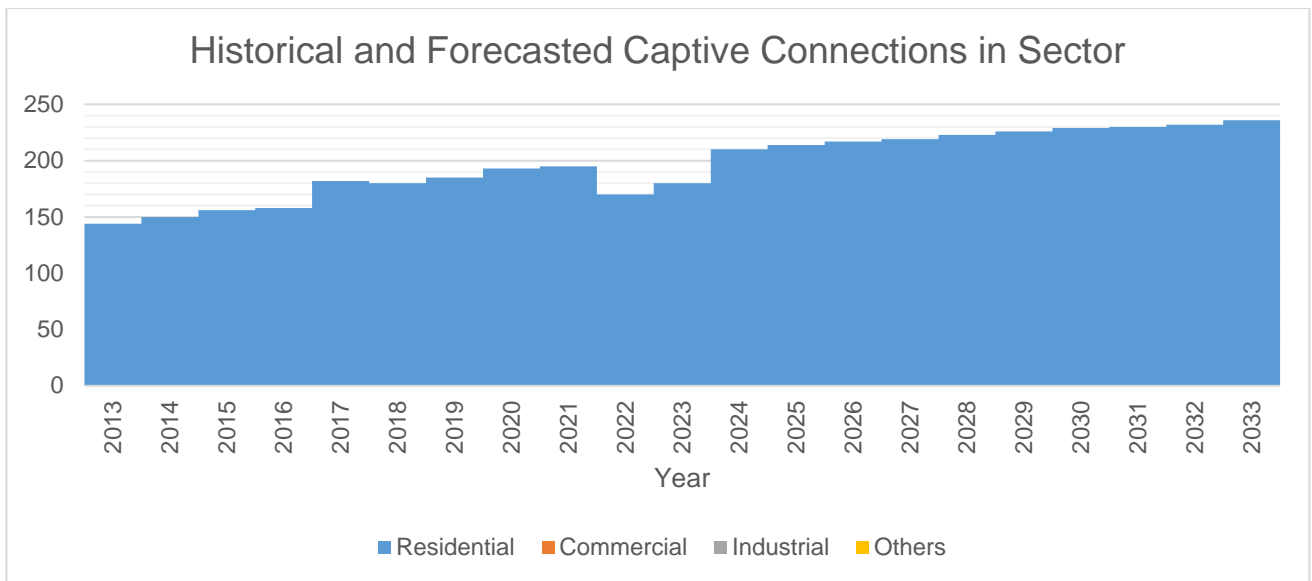


For the procurement of 0.045 MW minimum and 0.10 MW minimum from an eligible RE which is planned to be available on December 26, 2032, the first publication or launch of CSP will be on March 28, 2032. The planned CSP will address the forecasted demand requirement of BAGONGBANWA ISLAND.

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.