Power Supply Procurement Plan 2024

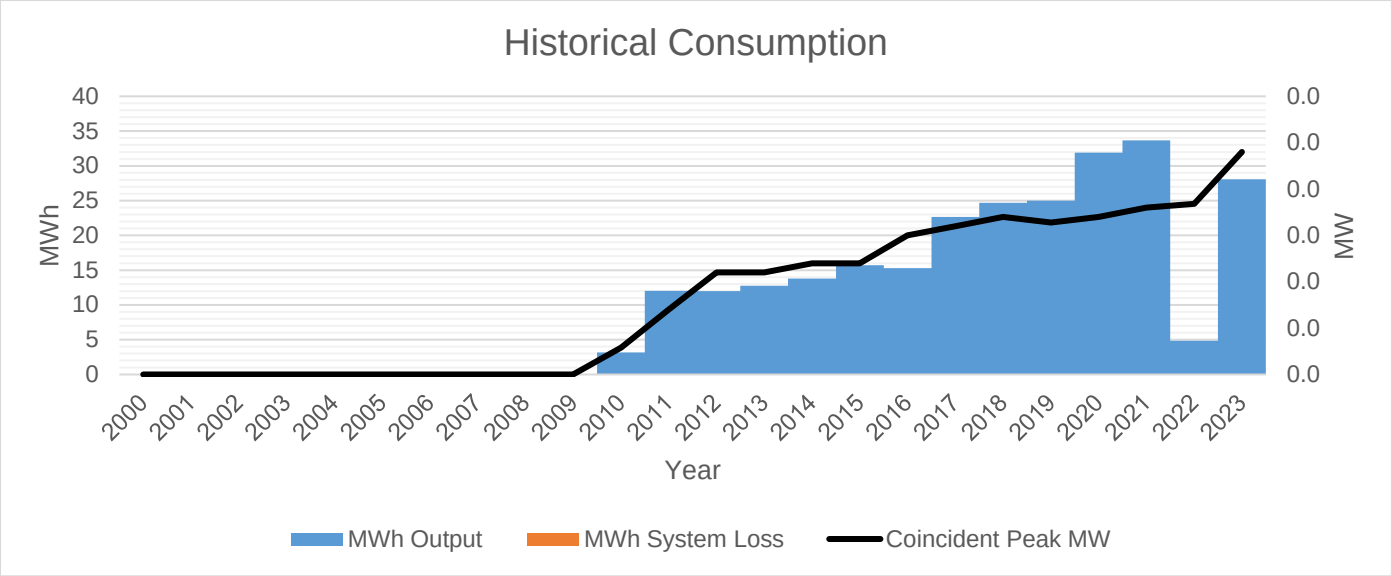
BOHOL I ELECTRIC COOPERATIVE, INC.
(BOHECO I)

MOCABOC ISLAND

Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	Load Factor
2010	0.003	3	n/a	3	3	12%
2011	0.01	12	n/a	12	12	20%
2012	0.01	12	n/a	12	12	12%
2013	0.01	13	n/a	13	13	13%
2014	0.01	14	n/a	14	14	13%
2015	0.01	16	n/a	16	16	15%
2016	0.02	15	n/a	15	15	12%
2017	0.02	23	n/a	23	23	16%
2018	0.02	25	n/a	25	25	17%
2019	0.02	25	n/a	25	25	17%
2020	0.02	32	n/a	32	32	21%
2021	0.02	34	n/a	34	34	21%
2022	0.02	5	n/a	5	5	3%
2023	0.02	28	n/a	28	28	13%

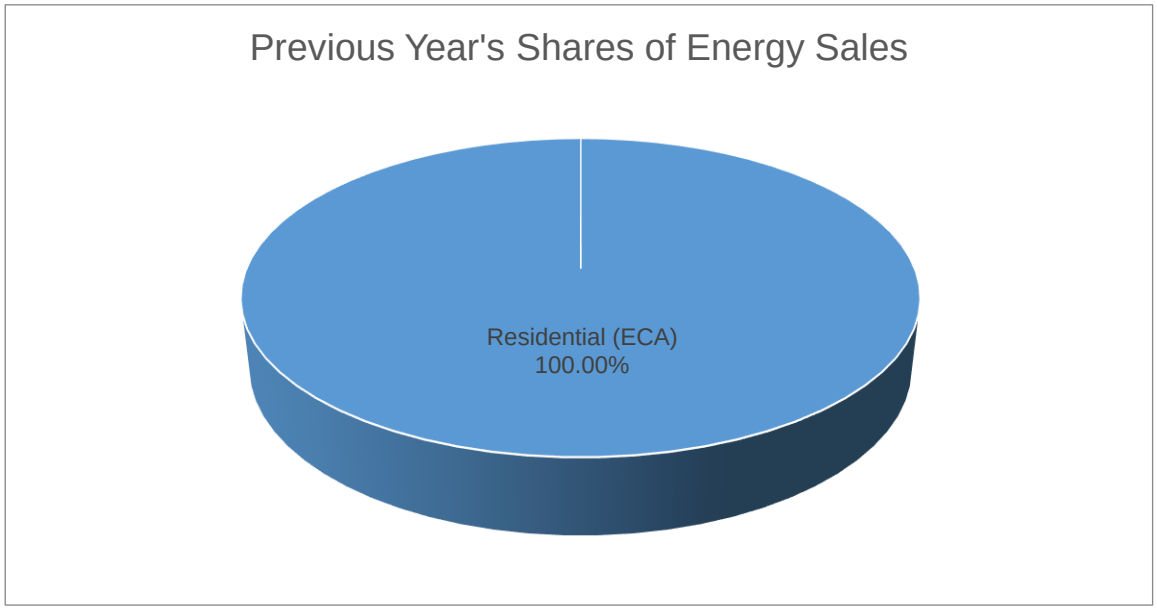
The above historical data was the only available/retrieved data as of the moment. The Peak Demand exhibited minimal increased from 0.003 MW in 2010 to 0.02 MW in 2023 at an average rate of 25.64%. The MWh Offtake also increased from 3 MWh in 2010 to 28 MWh in 2023, marking a growth rate of 61.16% primarily attributed to the escalating load connections. Throughout this period, the Load Factor fluctuated from 3% to 21%. There was an abrupt change in consumption in year 2022 due to the occurrence of Typhoon Odette affecting the entire province of Bohol.



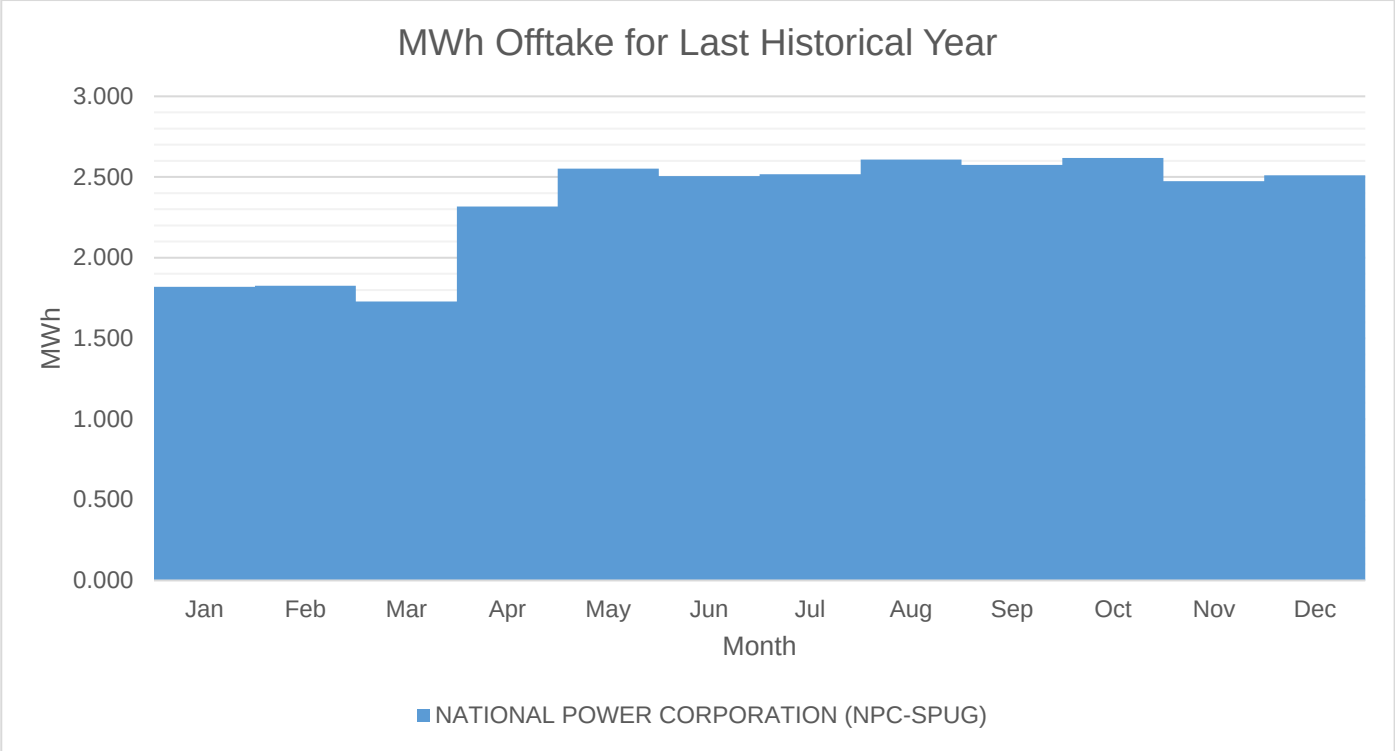
The above figure presents a graphical representation of energy consumption over the past 14 years. The MWh Output demonstrated a consistent increased from year 2010 to year 2023 with an average growth rate of 61.16%. On the other hand, the MWh Output in year 2022 significantly drops to -85.29% due to the occurrence of Typhoon Odette affecting the entire province of Bohol.

System Loss

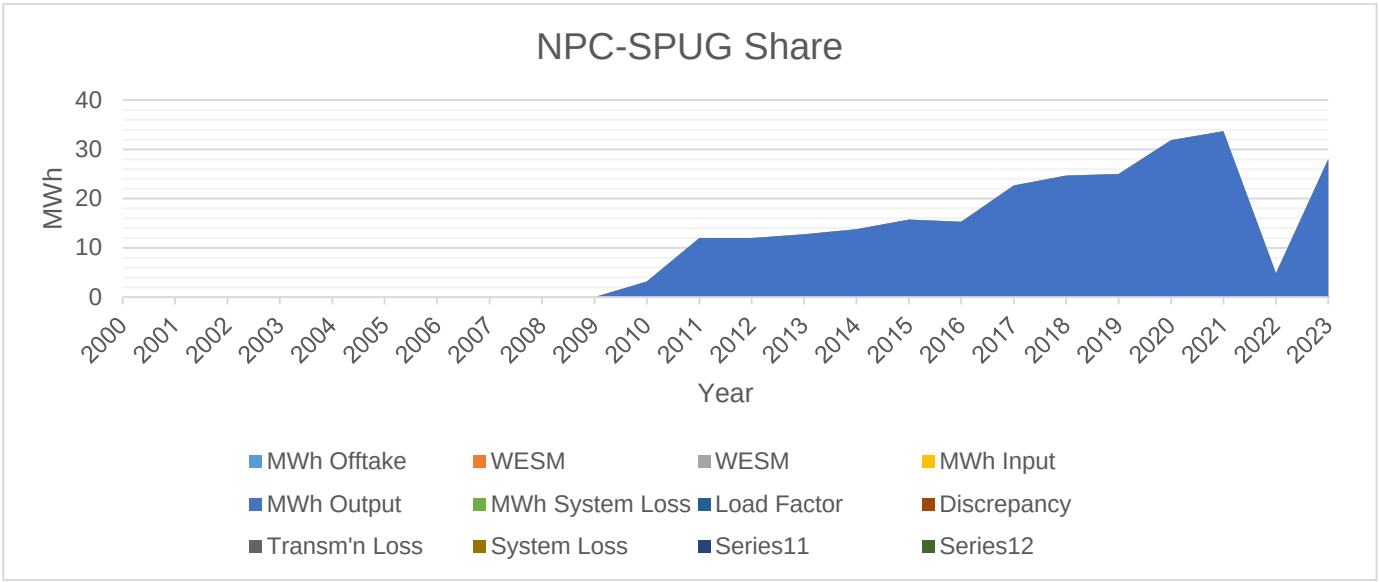
BOHECO I's report shows NO system loss in supplying power to Island Barangays through SPUG. This is because the kWh meter reading used for NPC SPUG's billing to BOHECO I is identical to BOHECO I's meter reading for sales to the Island Barangays. This alignment stems from a clustering setup, employing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

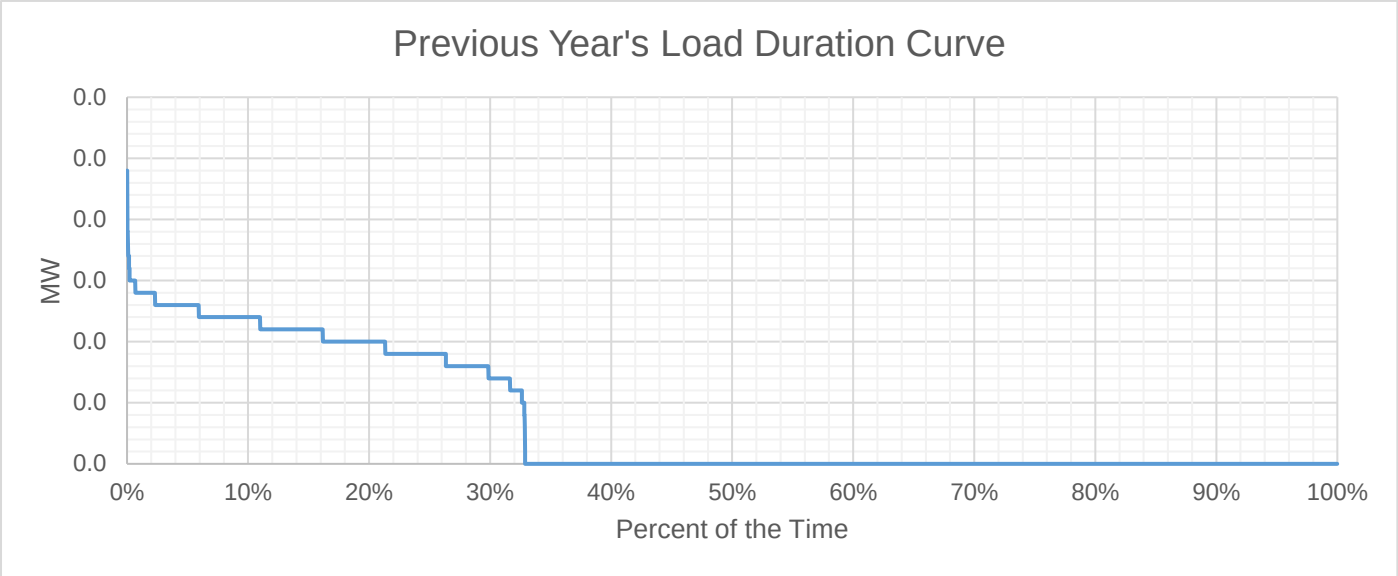


For NPC-SPUG, the total Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with NPC-SPUG constitutes solely for the MWh Offtake.

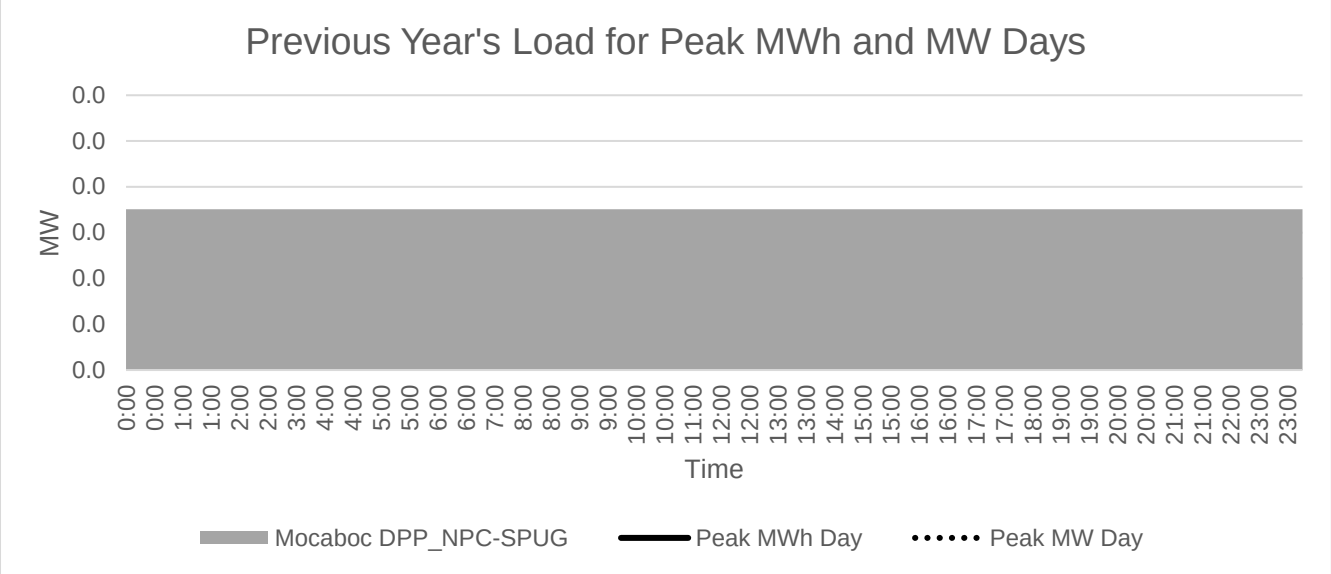


There is no share of WESM in the offtake since this is solely supplied by National Power Corporation – Small Power Utilities Group (NPC-SPUG).

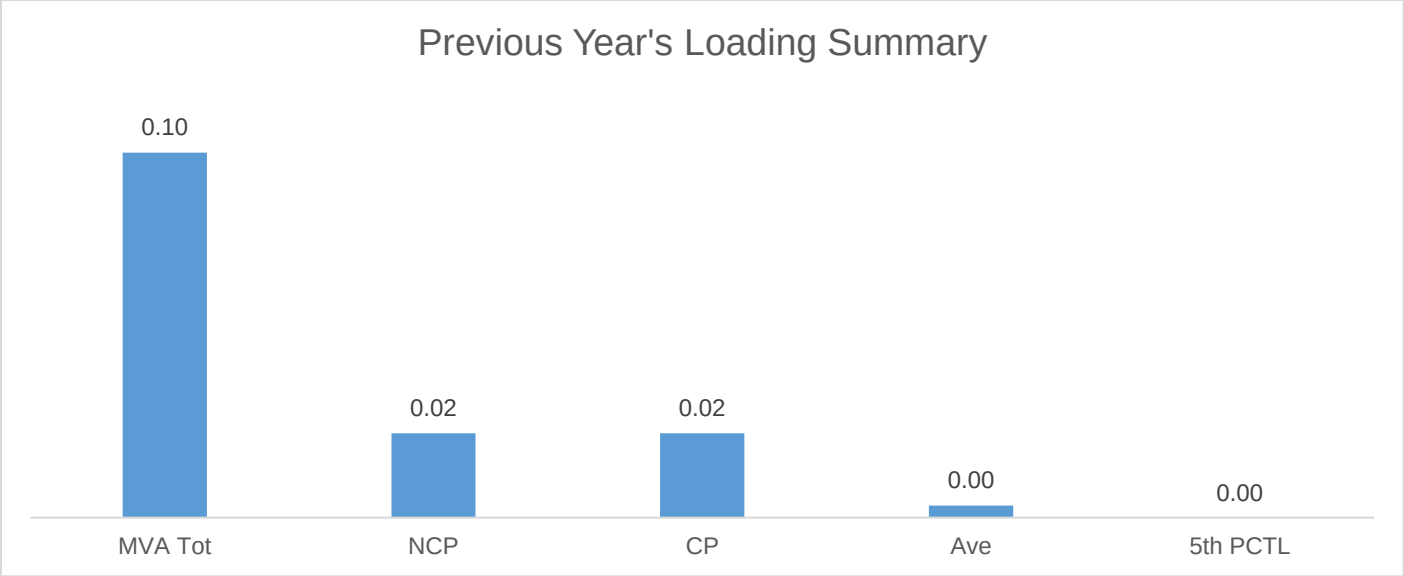
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0.001 MW and the maximum load is 0.024 MW for the last historical year. The normal operating hours for islands is from 8-10 hours per day.



Peak MW occurred on May 18, 2023. Peak daily MWh occurred on May 18, 2023 at 8:00 P.M. and 9:00 P.M.



The Non-coincident Peak Demand is 0.024 MW, which is around 25% of the total substation capacity of 0.10 MVA at a power factor of 91%. The load factor or the ratio between the Average Load of 0.003 MW and the Non-coincident Peak Demand is 14.29%. A safe estimate of the true minimum load is the fifth percentile load of 0 MW.

Metering Point	Substation MVA	Substation Peak MW
MOCABOC	0.104	0.024

There is no substation loaded at 70% and above.

Forecasted Consumption Data

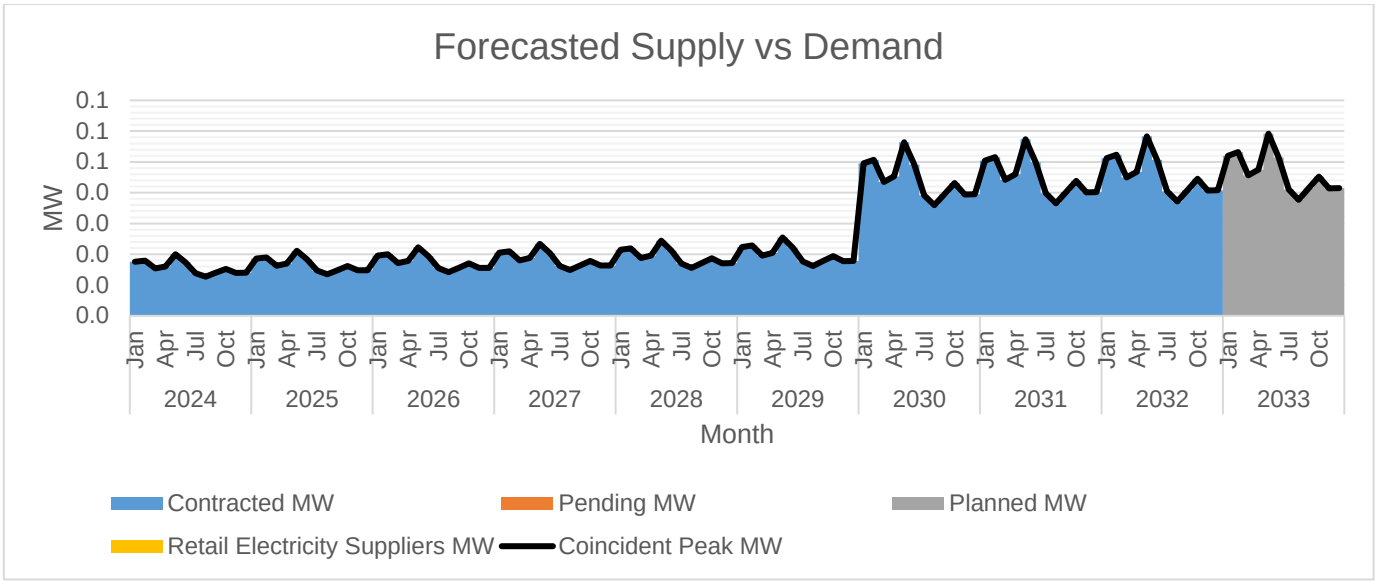
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2024	Jan	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	May	0.020	0.020	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.014	0.014	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.013	0.013	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.014	0.014	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.014	0.014	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.014	0.014	0.000	0.000	0.000	100%	100%	0.00
2025	Jan	0.019	0.019	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.019	0.019	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
	May	0.021	0.021	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.013	0.013	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
2026	Jan	0.020	0.020	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.020	0.020	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	May	0.022	0.022	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.019	0.019	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	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.014	0.014	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
2027	Jan	0.021	0.021	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.021	0.021	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.019	0.019	0.000	0.000	0.000	100%	100%	0.00
	May	0.023	0.023	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.020	0.020	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.015	0.015	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
2028	Jan	0.021	0.021	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.022	0.022	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.019	0.019	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.020	0.020	0.000	0.000	0.000	100%	100%	0.00
	May	0.024	0.024	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.021	0.021	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.019	0.019	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.017	0.017	0.000	0.000	0.000	100%	100%	0.00
2029	Jan	0.022	0.022	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.023	0.023	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.020	0.020	0.000	0.000	0.000	100%	100%	0.00

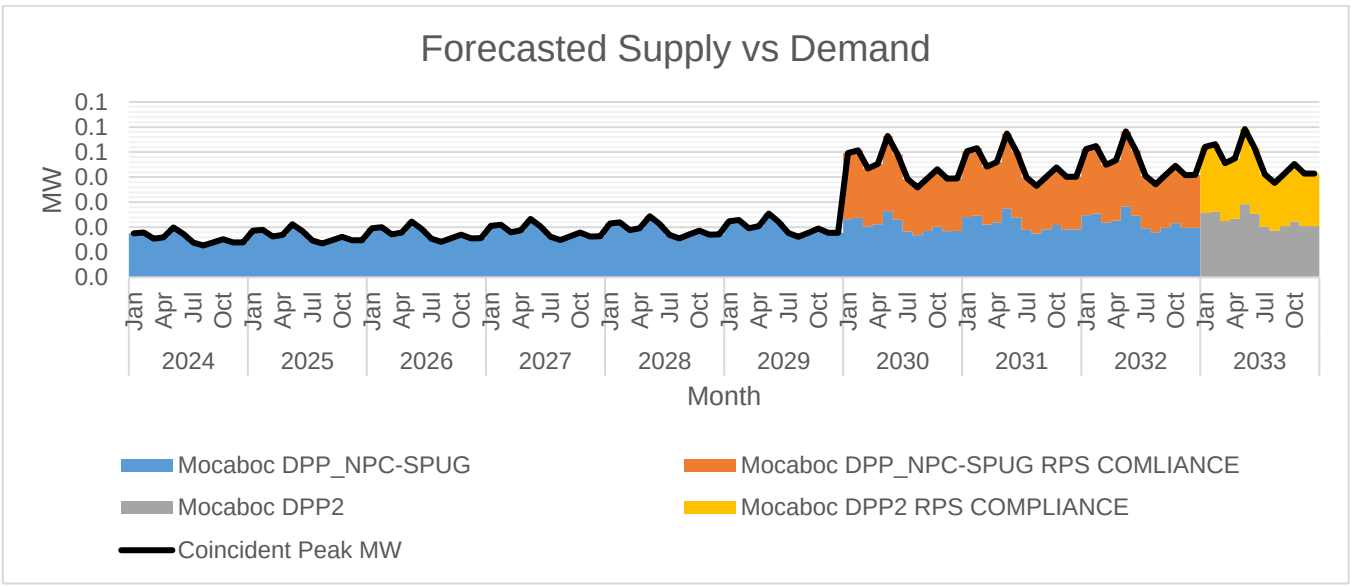
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Apr	0.020	0.020	0.000	0.000	0.000	100%	100%	0.00
	May	0.025	0.025	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.022	0.022	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.016	0.016	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.019	0.019	0.000	0.000	0.000	100%	100%	0.00
	Nov	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.018	0.018	0.000	0.000	0.000	100%	100%	0.00
2030	Jan	0.050	0.050	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	0.043	0.043	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.045	0.045	0.000	0.000	0.000	100%	100%	0.00
	May	0.056	0.056	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.049	0.049	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
	Aug	0.036	0.036	0.000	0.000	0.000	100%	100%	0.00
	Sep	0.040	0.040	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	0.039	0.039	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
2031	Jan	0.050	0.050	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.052	0.052	0.000	0.000	0.000	100%	100%	0.00
	Mar	0.044	0.044	0.000	0.000	0.000	100%	100%	0.00
	Apr	0.046	0.046	0.000	0.000	0.000	100%	100%	0.00
	May	0.057	0.057	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.050	0.050	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.040	0.040	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	0.040	0.040	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	0.040	0.040	0.000	0.000	0.000	100%	100%	0.00
	Dec	0.040	0.040	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
2032	Jan	0.051	0.051	0.000	0.000	0.000	100%	100%	0.00
	Feb	0.052	0.052	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	0.058	0.058	0.000	0.000	0.000	100%	100%	0.00
	Jun	0.051	0.051	0.000	0.000	0.000	100%	100%	0.00
	Jul	0.040	0.040	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	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
	Oct	0.045	0.045	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	0.041	0.041	0.000	0.000	0.000	100%	100%	0.00
2033	Jan	0.052	0.000	0.000	0.052	0.000	0%	100%	0.00
	Feb	0.053	0.000	0.000	0.053	0.000	0%	100%	0.00
	Mar	0.046	0.000	0.000	0.046	0.000	0%	100%	0.00
	Apr	0.047	0.000	0.000	0.047	0.000	0%	100%	0.00
	May	0.059	0.000	0.000	0.059	0.000	0%	100%	0.00
	Jun	0.051	0.000	0.000	0.051	0.000	0%	100%	0.00
	Jul	0.041	0.000	0.000	0.041	0.000	0%	100%	0.00
	Aug	0.038	0.000	0.000	0.038	0.000	0%	100%	0.00
	Sep	0.041	0.000	0.000	0.041	0.000	0%	100%	0.00
	Oct	0.045	0.000	0.000	0.045	0.000	0%	100%	0.00
	Nov	0.041	0.000	0.000	0.041	0.000	0%	100%	0.00
	Dec	0.041	0.000	0.000	0.041	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 August maybe due to less economic activities. In general, the Peak Demand is anticipated to exhibit a growth trajectory with an average annual rate of 16.83%.



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.

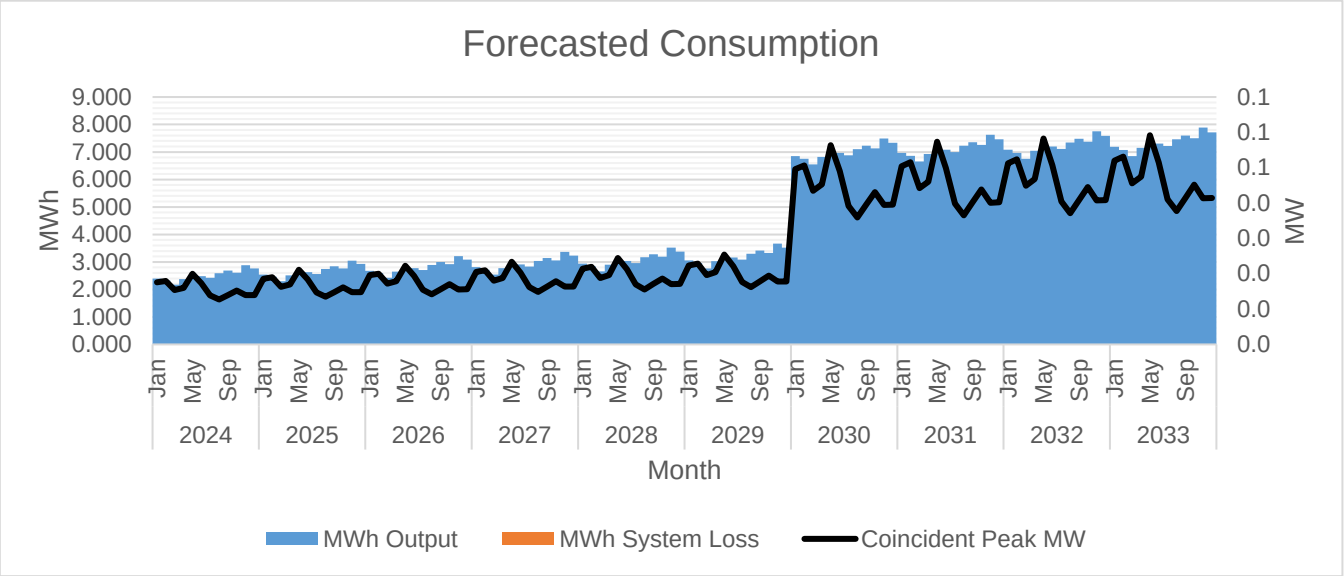
The highest target contracting level is 100% which is expected to occur in the entire contract period.

		MWh Offtake	MWh Output
2024	Jan	2.400	2.400
	Feb	2.324	2.324
	Mar	2.170	2.170
	Apr	2.373	2.373
	May	2.413	2.413
	Jun	2.483	2.483
	Jul	2.421	2.421
	Aug	2.590	2.590
	Sep	2.682	2.682
	Oct	2.612	2.612
	Nov	2.879	2.879
	Dec	2.763	2.763
2025	Jan	2.542	2.542
	Feb	2.461	2.461
	Mar	2.299	2.299
	Apr	2.514	2.514
	May	2.556	2.556
	Jun	2.630	2.630
	Jul	2.565	2.565
	Aug	2.744	2.744
	Sep	2.841	2.841
	Oct	2.767	2.767
	Nov	3.049	3.049
	Dec	2.926	2.926
2026	Jan	2.679	2.679
	Feb	2.593	2.593
	Mar	2.422	2.422
	Apr	2.648	2.648
	May	2.693	2.693
	Jun	2.771	2.771
	Jul	2.702	2.702
	Aug	2.891	2.891
	Sep	2.993	2.993
	Oct	2.915	2.915
	Nov	3.213	3.213
	Dec	3.083	3.083
2027	Jan	2.810	2.810
	Feb	2.720	2.720
	Mar	2.540	2.540
	Apr	2.778	2.778
	May	2.824	2.824
	Jun	2.907	2.907
	Jul	2.834	2.834
	Aug	3.032	3.032
	Sep	3.140	3.140

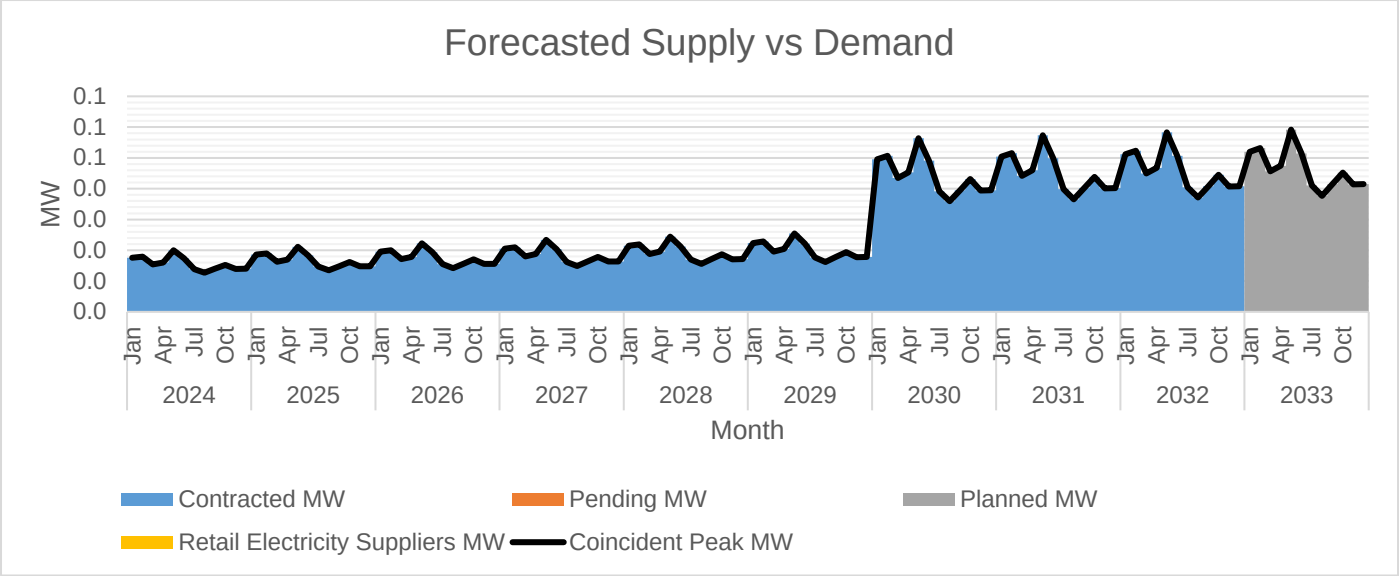
		MWh Offtake	MWh Output
	Oct	3.058	3.058
	Nov	3.370	3.370
	Dec	3.234	3.234
2028	Jan	2.936	2.936
	Feb	2.842	2.842
	Mar	2.654	2.654
	Apr	2.903	2.903
	May	2.951	2.951
	Jun	3.037	3.037
	Jul	2.962	2.962
	Aug	3.168	3.168
	Sep	3.281	3.281
	Oct	3.195	3.195
	Nov	3.521	3.521
	Dec	3.379	3.379
2029	Jan	3.058	3.058
	Feb	2.960	2.960
	Mar	2.765	2.765
	Apr	3.023	3.023
	May	3.074	3.074
	Jun	3.163	3.163
	Jul	3.085	3.085
	Aug	3.300	3.300
	Sep	3.417	3.417
	Oct	3.328	3.328
	Nov	3.668	3.668
	Dec	3.520	3.520
2030	Jan	6.853	6.853
	Feb	6.752	6.752
	Mar	6.548	6.548
	Apr	6.817	6.817
	May	6.869	6.869
	Jun	6.962	6.962
	Jul	6.881	6.881
	Aug	7.104	7.104
	Sep	7.226	7.226
	Oct	7.133	7.133
	Nov	7.486	7.486
	Dec	7.332	7.332
2031	Jan	6.967	6.967
	Feb	6.862	6.862
	Mar	6.652	6.652
	Apr	6.930	6.930
	May	6.984	6.984
	Jun	7.081	7.081
	Jul	6.996	6.996
	Aug	7.228	7.228
	Sep	7.354	7.354

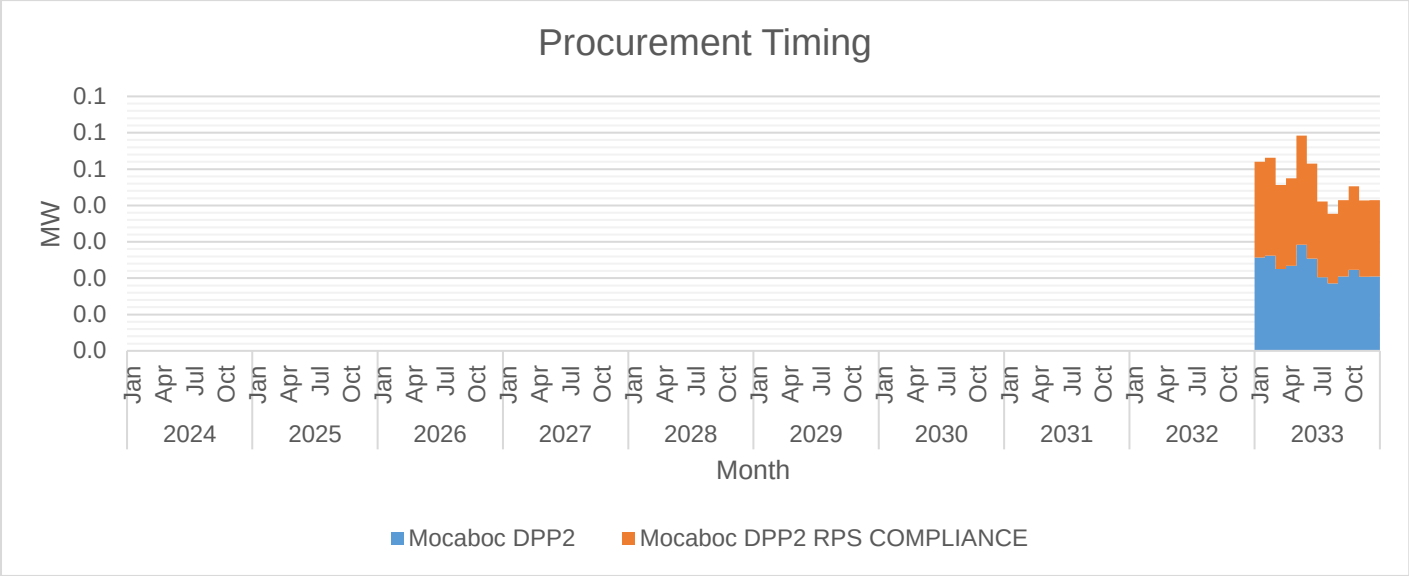
		MWh Offtake	MWh Output
	Oct	7.257	7.257
	Nov	7.623	7.623
	Dec	7.464	7.464
2032	Jan	7.078	7.078
	Feb	6.970	6.970
	Mar	6.752	6.752
	Apr	7.039	7.039
	May	7.096	7.096
	Jun	7.195	7.195
	Jul	7.108	7.108
	Aug	7.347	7.347
	Sep	7.477	7.477
	Oct	7.378	7.378
	Nov	7.756	7.756
	Dec	7.592	7.592
2033	Jan	7.186	7.186
	Feb	7.074	7.074
	Mar	6.849	6.849
	Apr	7.146	7.146
	May	7.204	7.204
	Jun	7.307	7.307
	Jul	7.217	7.217
	Aug	7.464	7.464
	Sep	7.598	7.598
	Oct	7.495	7.495
	Nov	7.885	7.885
	Dec	7.716	7.716

MWh Offtake was forecasted using an Excel-based forecasting model. The assumed load factor averages at 17.22%.



MWh Output was expected to grow at an average rate of 14.91% annually.





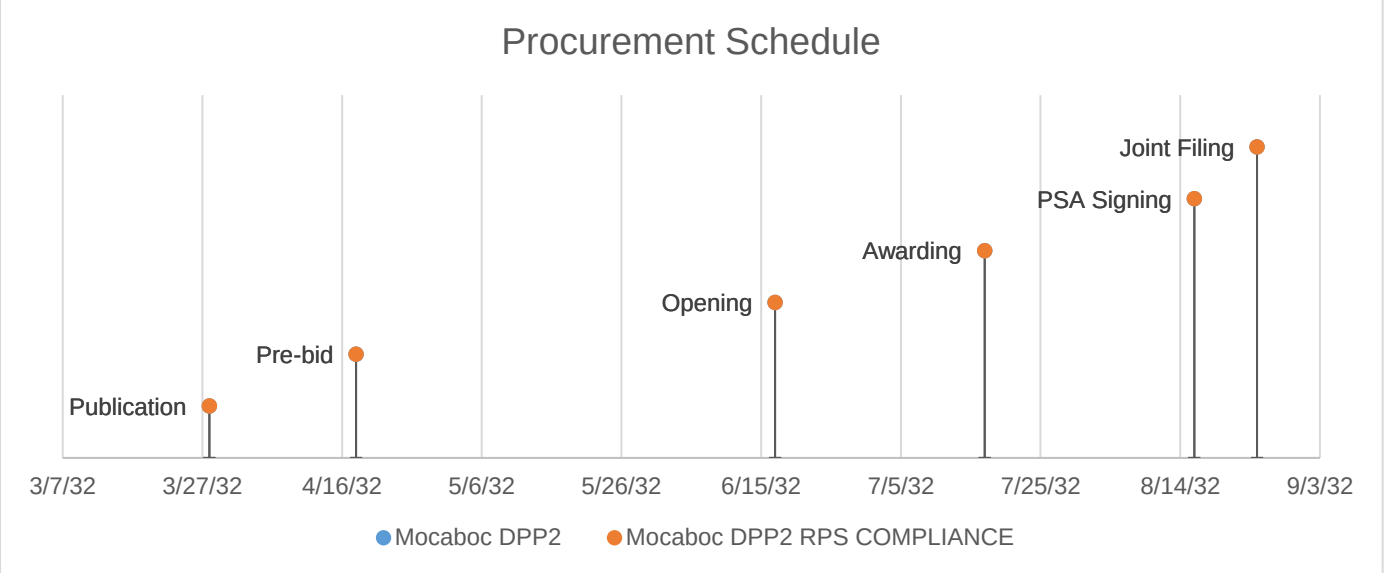
The first wave of supply procurement will be for 0.019 MW minimum and 0.030 MW minimum from an eligible RE which is planned to be available on December 26, 2032. The planned CSP will address the forecasted demand requirement for the year 2033 onwards.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
Mocaboc DPP_NPC-SPUG	Base	National Power Corporation	0.011	42	12/26/2022	12/25/2032
Mocaboc DPP_NPC-SPUG RPS COMLIANCE	Base	National Power Corporation	0.030	44	12/26/2022	12/25/2032

The Power Supply Agreement (PSA) with Mocaboc 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*."

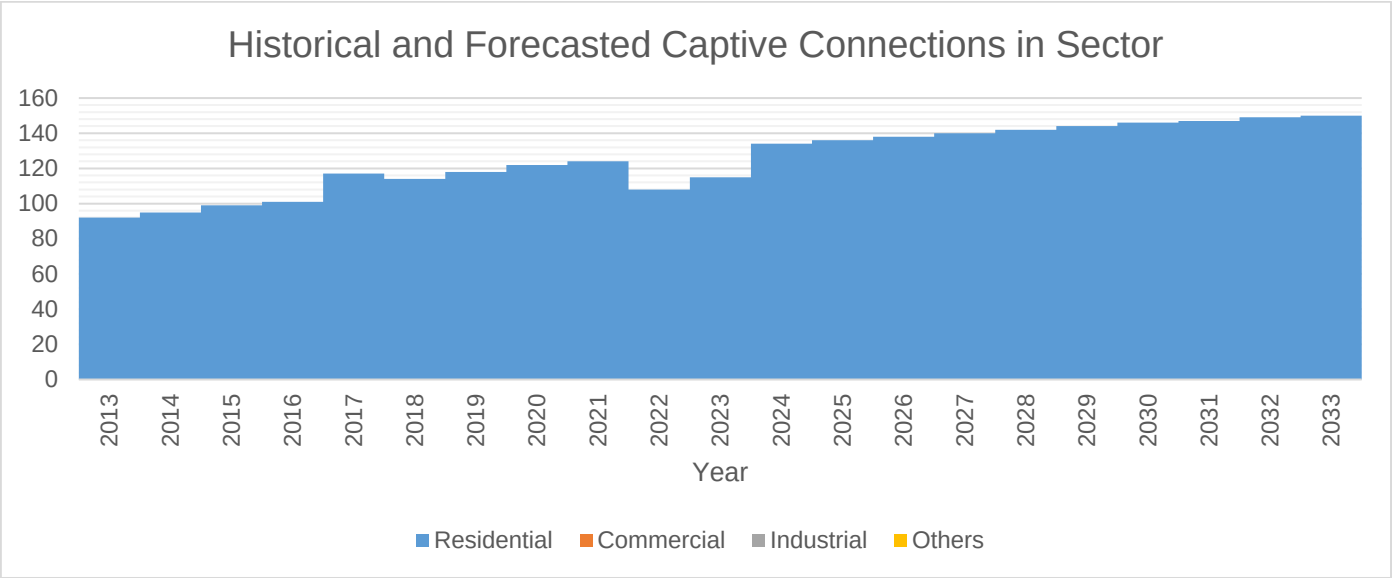
	Mocaboc DPP2	Mocaboc DPP2 RPS COMPLIANCE
Type	Base	Base
Minimum MW	0.019	0.030
Minimum MWh/yr	44	44
PSA Start	12/26/2032	12/26/2032
PSA End	12/25/2042	12/25/2042
Publication	3/28/2032	3/28/2032
Pre-bid	4/18/2032	4/18/2032
Opening	6/17/2032	6/17/2032
Awarding	7/17/2032	7/17/2032
PSA Signing	8/16/2032	8/16/2032
Joint Filing	8/25/2032	8/25/2032



For the procurement of 0.019 MW minimum and 0.030 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 MOCABOC 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 1.26% annually. Said customer class is expected to account for 100% of the total consumption.