



**FIRST CATANDUANES  
ELECTRIC COOPERATIVE, INC.**

**Power Supply Procurement Plan  
[2021]**

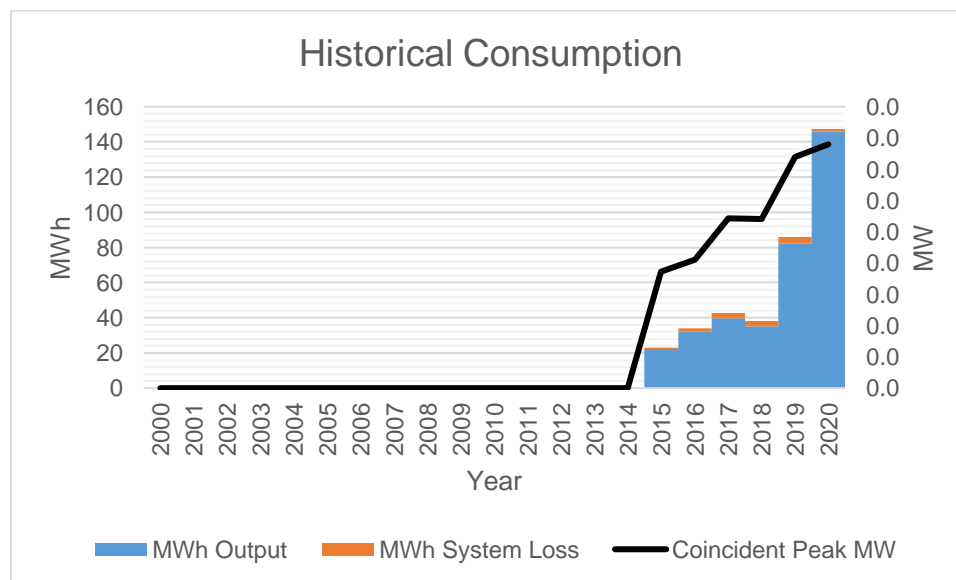
**[Palumbanes Island, Catanduanes]**

As a backgrounder, Palumbanes Island is a sitio of Barangay Toytoy, Caramoran with one hundred sixty-six (166) active member-consumers as of 2020. It was energized last 2015 through missionary electrification program of National Power Corporation (NPC) – Small Power Utility Group (SPUG). In 2020, NPC-Palumbanes Diesel Power Plants extended its operation from sixteen (16) hours to twenty-four (24) hours.

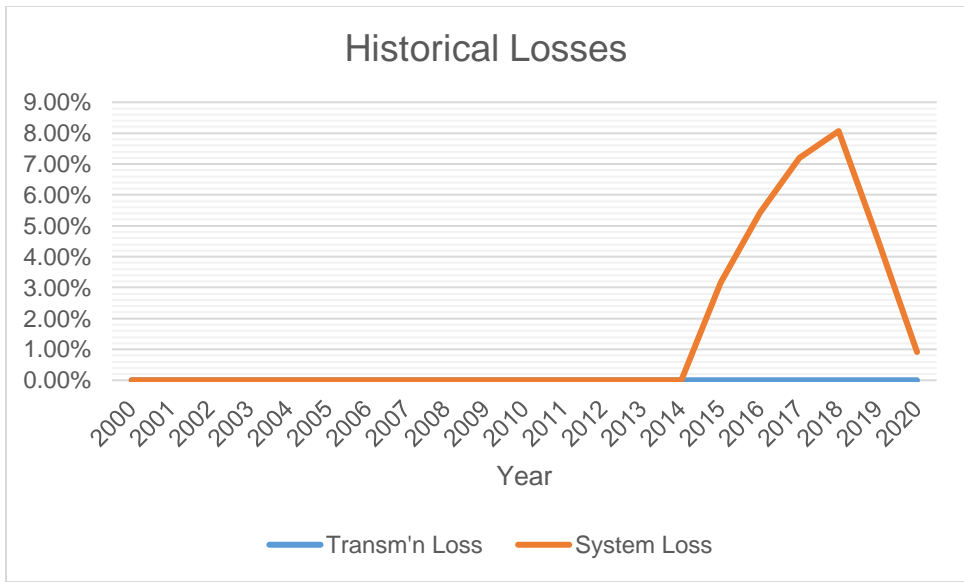
## Historical Consumption Data

	Coincident Peak MW	MWh Offtake	MWh Input	MWh Output	MWh System Loss	Load Factor	System Loss
2015	0.0186	22.8262	22.8262	22.1035	0.7227	14%	3.17%
2016	0.0205	33.9197	33.9197	32.0768	1.8429	19%	5.43%
2017	0.0272	42.7866	42.7866	39.7055	3.0811	18%	7.20%
2018	0.0270	38.0832	38.0832	35.0110	3.0722	16%	8.07%
2019	0.0370	86.0572	86.0572	82.1582	3.8990	27%	4.53%
2020	0.0390	147.3138	147.3138	145.9660	1.3478	43%	0.91%

The Peak Demand increased from 0.037 MW in 2019 to 0.039 MW in 2020 at a rate of 5.41%. MWh Offtake increased from 86 MWh in 2019 to 147 MWh in 2020 at a rate of 71.18% and the MWh output also increased from 82 MWh to 146 MWh respectively. These were attributed in extended number of hours of operation of NPC-Palumbanes Diesel Power Plant from sixteen (16) hours to twenty-four (24). Within the same period, the Load Factor ranged from 27% to 43%.

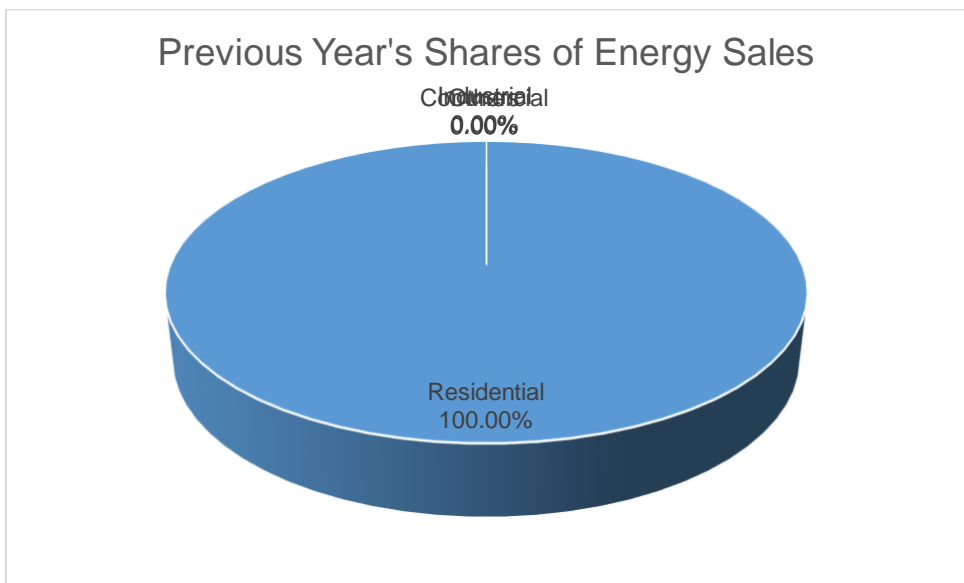


MWh Output increased from year 2020 to year 2021 at a rate of 77.66%, while MWh System Loss decreased at a rate of 79.91% within the same period.

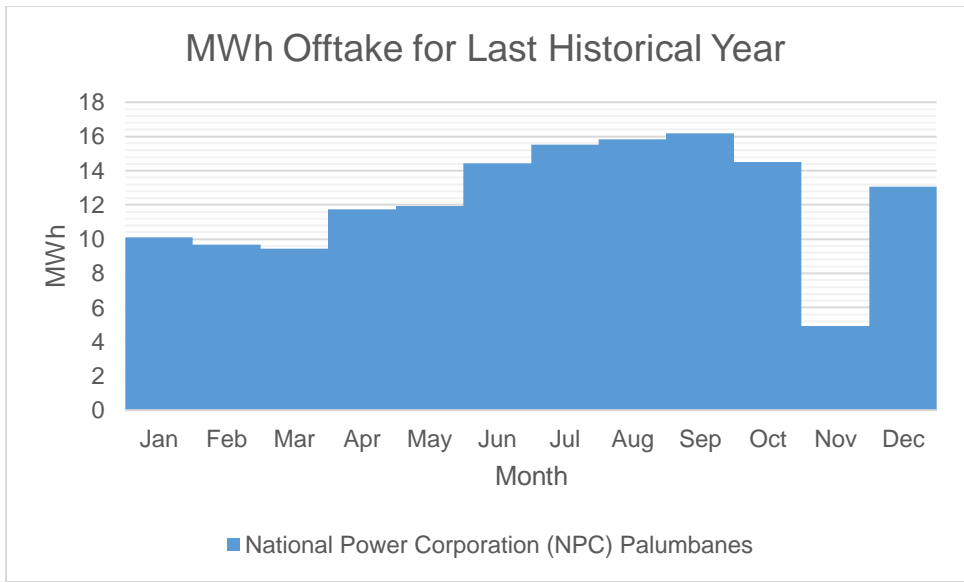


Note: NPC-Palumbanes Power Diesel Plant started its commercial operation in 2015.

Historically, System Loss ranged from 0.91% to 8.07%. System Loss peaked at 8.07% in 2018.

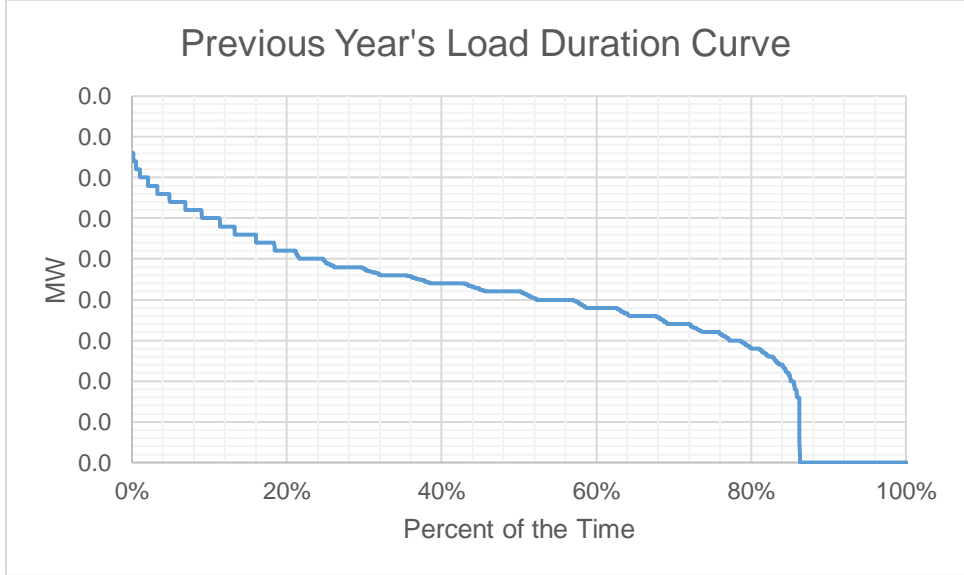


Palumbanes Island consumers were all residential customers and accounted as 100% of energy sales.



For 2020, the total Offtake for the last historical year is higher than the quantity stipulated in the PSA. The PSA with National Power Corporation - Palumbanes accounts all the MWh Offtake, since it's the sole power supplier in the island.

### Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0.031 MW and the maximum load is 0.039 MW for the last historical year.

## Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Planned MW	Existing Contracting Level	Target Contracting Level
2021	Jan	0.03	0.03	0.000	100%	100%
	Feb	0.03	0.03	0.000	100%	100%
	Mar	0.03	0.03	0.000	100%	100%
	Apr	0.03	0.03	0.000	100%	100%
	May	0.04	0.04	0.000	100%	100%
	Jun	0.04	0.04	0.000	100%	100%
	Jul	0.04	0.04	0.000	100%	100%
	Aug	0.04	0.04	0.000	100%	100%
	Sep	0.04	0.04	0.000	100%	100%
	Oct	0.04	0.04	0.000	100%	100%
	Nov	0.04	0.04	0.000	100%	100%
	Dec	0.04	0.04	0.000	100%	100%
2022	Jan	0.03	0.03	0.000	100%	100%
	Feb	0.03	0.03	0.000	100%	100%
	Mar	0.03	0.03	0.000	100%	100%
	Apr	0.03	0.03	0.000	100%	100%
	May	0.04	0.04	0.000	100%	100%
	Jun	0.05	0.05	0.000	100%	100%
	Jul	0.05	0.05	0.000	100%	100%
	Aug	0.04	0.04	0.000	100%	100%
	Sep	0.05	0.05	0.000	100%	100%
	Oct	0.05	0.05	0.000	100%	100%
	Nov	0.05	0.05	0.000	100%	100%
	Dec	0.05	0.05	0.000	100%	100%
2023	Jan	0.03	0.03	0.000	100%	100%

	Feb	0.04	0.04	0.000	100%	100%
	Mar	0.04	0.04	0.000	100%	100%
	Apr	0.04	0.04	0.000	100%	100%
	May	0.05	0.05	0.000	100%	100%
	Jun	0.05	0.05	0.000	100%	100%
	Jul	0.05	0.05	0.000	100%	100%
	Aug	0.05	0.05	0.000	100%	100%
	Sep	0.05	0.05	0.000	100%	100%
	Oct	0.05	0.05	0.000	100%	100%
	Nov	0.05	0.05	0.000	100%	100%
	Dec	0.05	0.05	0.000	100%	100%
2024	Jan	0.04	0.04	0.000	100%	100%
	Feb	0.04	0.04	0.000	100%	100%
	Mar	0.04	0.04	0.000	100%	100%
	Apr	0.04	0.04	0.000	100%	100%
	May	0.05	0.05	0.000	100%	100%
	Jun	0.06	0.06	0.000	100%	100%
	Jul	0.05	0.05	0.000	100%	100%
	Aug	0.05	0.05	0.000	100%	100%
	Sep	0.05	0.05	0.000	100%	100%
	Oct	0.06	0.06	0.000	100%	100%
	Nov	0.05	0.05	0.000	100%	100%
	Dec	0.05	0.05	0.000	100%	100%
2025	Jan	0.04	0.04	0.000	100%	100%
	Feb	0.04	0.04	0.000	100%	100%
	Mar	0.04	0.04	0.000	100%	100%
	Apr	0.04	0.04	0.000	100%	100%
	May	0.05	0.00	0.052	0%	100%
	Jun	0.06	0.00	0.061	0%	100%
	Jul	0.06	0.00	0.057	0%	100%
	Aug	0.06	0.00	0.056	0%	100%

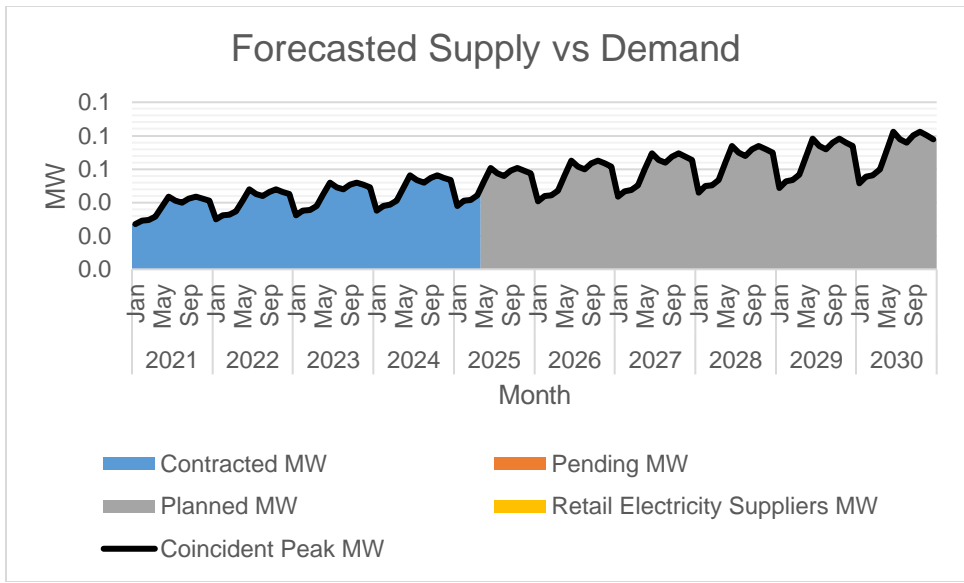
	Sep	0.06	0.00	0.059	0%	100%
	Oct	0.06	0.00	0.061	0%	100%
	Nov	0.06	0.00	0.059	0%	100%
	Dec	0.06	0.00	0.057	0%	100%
2026	Jan	0.04	0.00	0.041	0%	100%
	Feb	0.04	0.00	0.044	0%	100%
	Mar	0.04	0.00	0.044	0%	100%
	Apr	0.05	0.00	0.047	0%	100%
	May	0.06	0.00	0.056	0%	100%
	Jun	0.07	0.00	0.065	0%	100%
	Jul	0.06	0.00	0.062	0%	100%
	Aug	0.06	0.00	0.060	0%	100%
	Sep	0.06	0.00	0.063	0%	100%
	Oct	0.07	0.00	0.065	0%	100%
	Nov	0.06	0.00	0.063	0%	100%
	Dec	0.06	0.00	0.062	0%	100%
2027	Jan	0.04	0.00	0.043	0%	100%
	Feb	0.05	0.00	0.047	0%	100%
	Mar	0.05	0.00	0.047	0%	100%
	Apr	0.05	0.00	0.050	0%	100%
	May	0.06	0.00	0.060	0%	100%
	Jun	0.07	0.00	0.069	0%	100%
	Jul	0.07	0.00	0.066	0%	100%
	Aug	0.06	0.00	0.064	0%	100%
	Sep	0.07	0.00	0.067	0%	100%
	Oct	0.07	0.00	0.069	0%	100%
	Nov	0.07	0.00	0.067	0%	100%
	Dec	0.07	0.00	0.066	0%	100%
2028	Jan	0.05	0.00	0.046	0%	100%
	Feb	0.05	0.00	0.050	0%	100%
	Mar	0.05	0.00	0.050	0%	100%

	Apr	0.05	0.00	0.054	0%	100%
	May	0.06	0.00	0.064	0%	100%
	Jun	0.07	0.00	0.074	0%	100%
	Jul	0.07	0.00	0.070	0%	100%
	Aug	0.07	0.00	0.068	0%	100%
	Sep	0.07	0.00	0.072	0%	100%
	Oct	0.07	0.00	0.074	0%	100%
	Nov	0.07	0.00	0.072	0%	100%
	Dec	0.07	0.00	0.070	0%	100%
2029	Jan	0.05	0.00	0.049	0%	100%
	Feb	0.05	0.00	0.053	0%	100%
	Mar	0.05	0.00	0.053	0%	100%
	Apr	0.06	0.00	0.057	0%	100%
	May	0.07	0.00	0.067	0%	100%
	Jun	0.08	0.00	0.078	0%	100%
	Jul	0.07	0.00	0.074	0%	100%
	Aug	0.07	0.00	0.072	0%	100%
	Sep	0.08	0.00	0.076	0%	100%
	Oct	0.08	0.00	0.078	0%	100%
	Nov	0.08	0.00	0.076	0%	100%
	Dec	0.07	0.00	0.074	0%	100%
2030	Jan	0.05	0.00	0.051	0%	100%
	Feb	0.06	0.00	0.056	0%	100%
	Mar	0.06	0.00	0.056	0%	100%
	Apr	0.06	0.00	0.060	0%	100%
	May	0.07	0.00	0.071	0%	100%
	Jun	0.08	0.00	0.082	0%	100%
	Jul	0.08	0.00	0.078	0%	100%
	Aug	0.08	0.00	0.076	0%	100%
	Sep	0.08	0.00	0.080	0%	100%
	Oct	0.08	0.00	0.082	0%	100%

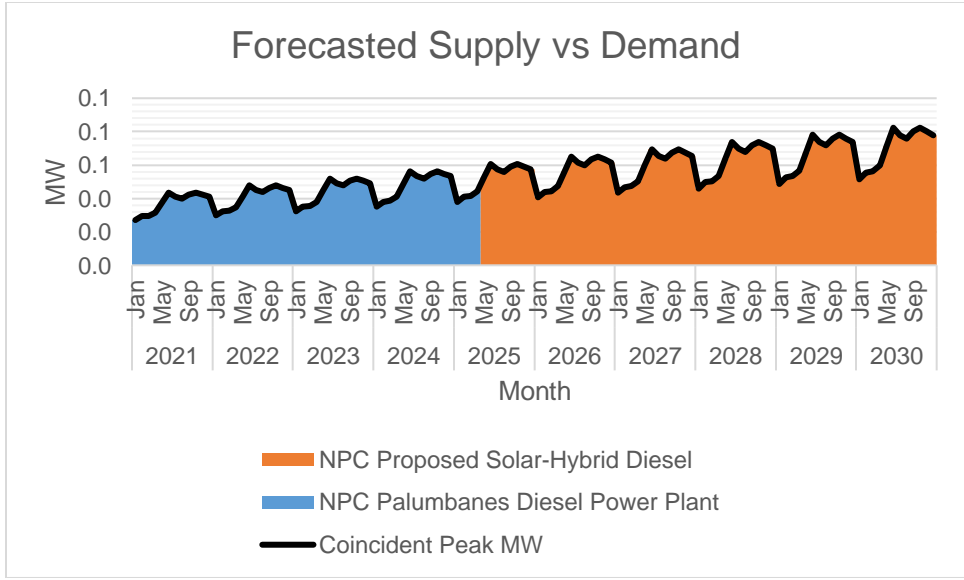


	Nov	0.08	0.00	0.080	0%	100%
	Dec	0.08	0.00	0.078	0%	100%

The Peak Demand was forecasted using Linear Forecasting Methodology and was assumed to occur on the month of June due to peak of dry season. Monthly Peak Demand is at its lowest on the month of January. In general, Peak Demand is expected to grow at a rate of 9.98 % in year 2021 to 2022.



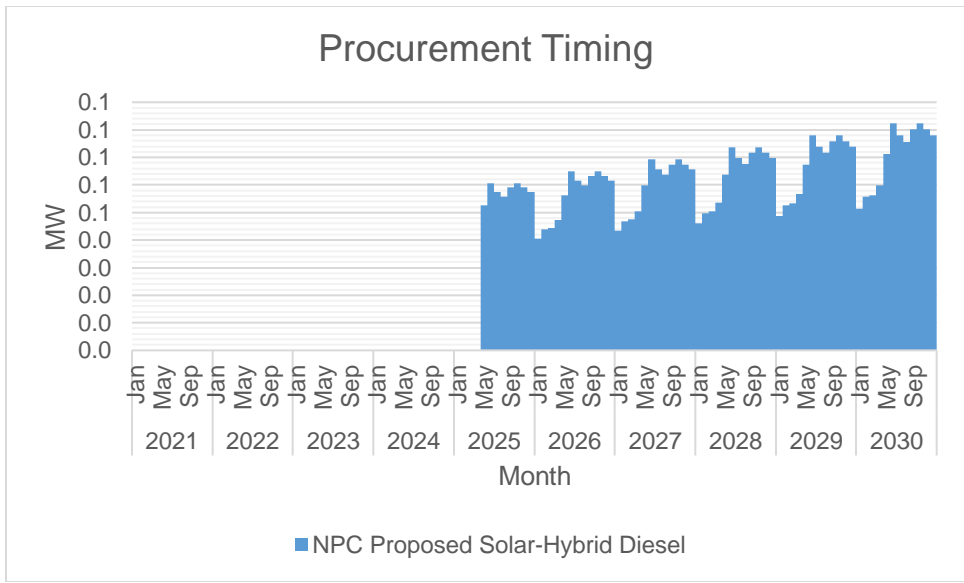
The available supply is generally equals/within the Peak Demand.



FICELCO's existing Power Supply Agreement (PSA) with NPC will expire on April 25, 2025 and the proposed Solar Hybrid PV-Diesel Project is still subject for study and negotiation. We will update/notify your office regarding the development of this proposed project of NPC.

In 2020, NPC-Palumbanes Diesel Power Plant started its twenty-four (24) hour operation as committed by NPC management.

Available supply is enough to cater the demand of the island until the expiration of the PSA.



NPC’s proposed Solar Hybrid PV-Diesel Project in Palumbanes Island planned to be available in May 2025 with a minimum load of 0.52 MW. We will update/notify your office regarding the development of this proposed project of NPC.



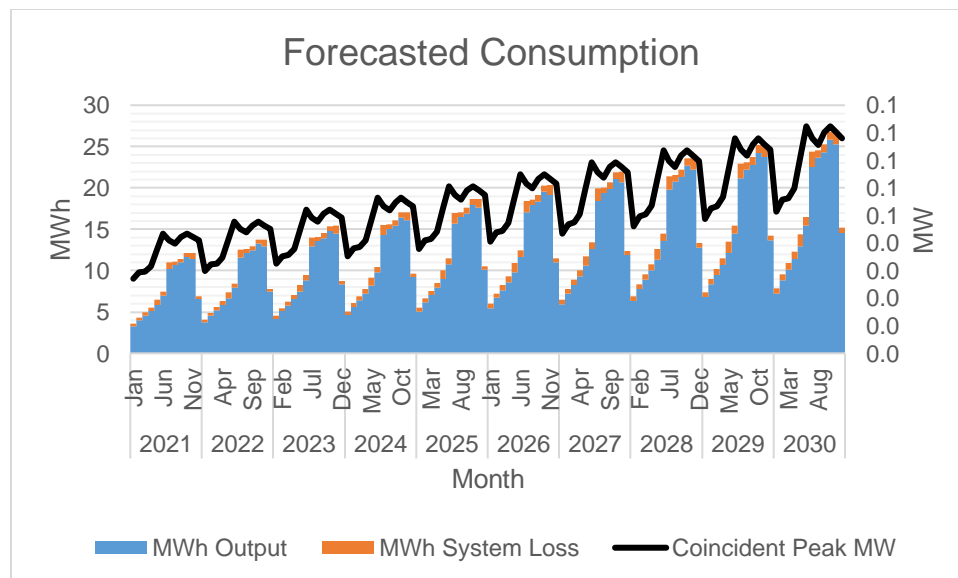
Currently, there is no under-contracting/over-contracting.

		MWh Offtake	MWh Output	MWh System Loss	System Loss
2021	Jan	4	3	0	8.16%
	Feb	4	4	0	7.18%
	Mar	5	5	0	7.21%
	Apr	6	5	0	7.06%
	May	7	6	1	10.02%
	Jun	7	7	0	6.23%
	Jul	11	10	1	7.50%
	Aug	11	11	0	3.54%
	Sep	11	11	0	3.95%
	Oct	12	12	0	3.69%
	Nov	12	11	1	5.85%
	Dec	7	7	0	4.03%
2022	Jan	4	4	0	8.17%
	Feb	5	5	0	7.19%
	Mar	6	5	0	7.21%
	Apr	6	6	0	7.07%
	May	7	7	1	10.03%
	Jun	8	8	1	6.23%
	Jul	13	12	1	7.50%
	Aug	13	12	0	3.55%
	Sep	13	12	1	3.96%
	Oct	14	13	1	3.70%
	Nov	14	13	1	5.86%
	Dec	8	7	0	4.04%
2023	Jan	5	4	0	8.17%
	Feb	5	5	0	7.19%
	Mar	6	6	0	7.22%
	Apr	7	7	0	7.08%
	May	8	7	1	10.03%
	Jun	9	9	1	6.24%
	Jul	14	13	1	7.51%
	Aug	14	14	1	3.55%
	Sep	15	14	1	3.97%
	Oct	15	15	1	3.70%
	Nov	15	15	1	5.86%
	Dec	9	8	0	4.04%
2024	Jan	5	5	0	8.18%
	Feb	6	6	0	7.20%
	Mar	7	6	0	7.22%
	Apr	8	7	1	7.08%
	May	9	8	1	10.04%
	Jun	10	10	1	6.24%
	Jul	15	14	1	7.51%
	Aug	16	15	1	3.56%
	Sep	16	15	1	3.97%
	Oct	17	16	1	3.71%
	Nov	17	16	1	5.87%
	Dec	10	9	0	4.05%
2025	Jan	5	5	0	8.18%
	Feb	7	6	0	7.20%

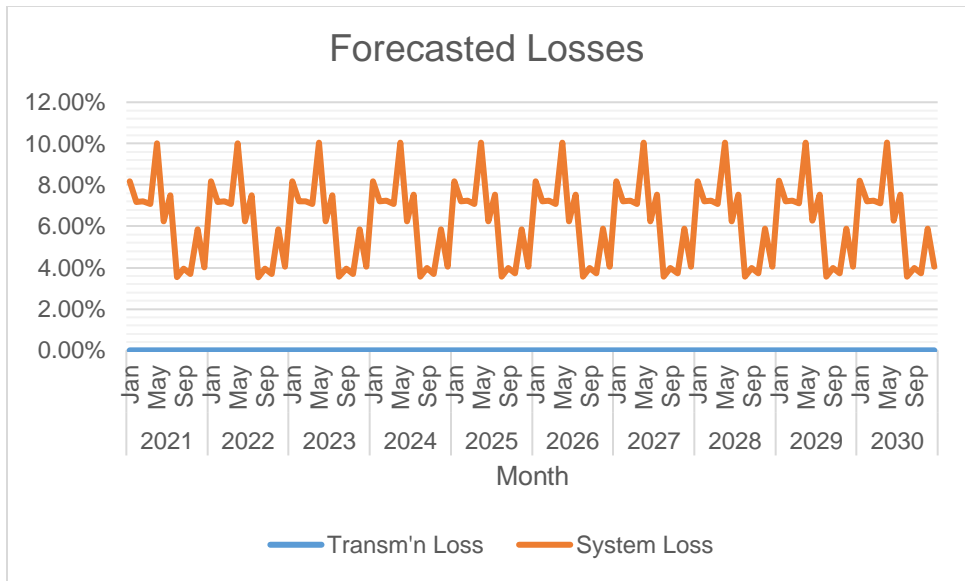
	Mar	8	7	1	7.23%
	Apr	9	8	1	7.09%
	May	10	9	1	10.04%
	Jun	11	11	1	6.25%
	Jul	17	16	1	7.52%
	Aug	17	16	1	3.56%
	Sep	18	17	1	3.97%
	Oct	19	18	1	3.71%
	Nov	19	18	1	5.87%
	Dec	11	10	0	4.05%
2026	Jan	6	5	0	8.19%
	Feb	7	7	1	7.20%
	Mar	8	8	1	7.23%
	Apr	9	9	1	7.09%
	May	11	10	1	10.04%
	Jun	12	12	1	6.25%
	Jul	18	17	1	7.52%
	Aug	19	18	1	3.57%
	Sep	19	18	1	3.98%
	Oct	20	20	1	3.72%
	Nov	20	19	1	5.87%
	Dec	11	11	0	4.06%
2027	Jan	6	6	1	8.19%
	Feb	8	7	1	7.21%
	Mar	9	8	1	7.23%
	Apr	10	9	1	7.09%
	May	12	11	1	10.05%
	Jun	13	13	1	6.25%
	Jul	20	18	2	7.52%
	Aug	20	19	1	3.57%
	Sep	21	20	1	3.98%
	Oct	22	21	1	3.72%
	Nov	22	21	1	5.88%
	Dec	12	12	1	4.06%
2028	Jan	7	6	1	8.19%
	Feb	8	8	1	7.21%
	Mar	10	9	1	7.24%
	Apr	11	10	1	7.09%
	May	13	11	1	10.05%
	Jun	14	14	1	6.26%
	Jul	21	20	2	7.53%
	Aug	22	21	1	3.57%
	Sep	22	21	1	3.98%
	Oct	24	23	1	3.72%
	Nov	24	22	1	5.88%
	Dec	13	13	1	4.06%
2029	Jan	7	7	1	8.19%
	Feb	9	8	1	7.21%
	Mar	10	9	1	7.24%
	Apr	12	11	1	7.10%
	May	14	12	1	10.05%
	Jun	15	14	1	6.26%

	Jul	23	21	2	7.53%
	Aug	23	22	1	3.57%
	Sep	24	23	1	3.99%
	Oct	25	24	1	3.72%
	Nov	25	24	1	5.88%
	Dec	14	14	1	4.06%
2030	Jan	8	7	1	8.20%
	Feb	10	9	1	7.21%
	Mar	11	10	1	7.24%
	Apr	12	11	1	7.10%
	May	14	13	1	10.05%
	Jun	16	15	1	6.26%
	Jul	24	23	2	7.53%
	Aug	25	24	1	3.58%
	Sep	25	24	1	3.99%
	Oct	27	26	1	3.73%
	Nov	27	25	2	5.88%
	Dec	15	15	1	4.06%

MWh Offtake was forecasted using Linear Forecasting Methodology.



MWh Output was expected to grow at a rate of 13.46% annually.



System Loss is expected to range from 5.74% for the year 2021 to 5.78% for the year 2030.

The generated power of NPC's three (3) gensets is directly embedded to the 13.2 kV distribution line of FICELCO. The total losses of the system was computed by the difference of the energy input (NPC's billing meter) and energy output (total kWh consumed by FICELCO's MCOs)

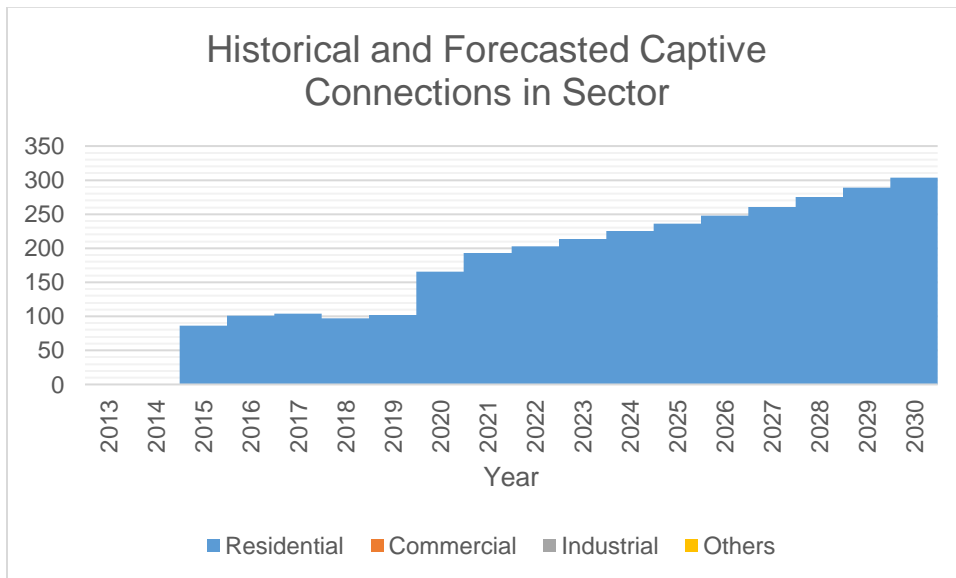
## Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
NPC Palumbanes Diesel Power Plant	Base	National Power Corporation	0.03	97	4/26/2020	4/25/2025

	<b>NPC Proposed Solar-Hybrid Diesel</b>
Type	Peaking
Minimum MW	0.05
Minimum MWh/yr	121
PSA Start	4/26/2025
PSA End	4/25/2040
Publication	8/25/2023
Pre-bid	9/15/2023
Opening	11/14/2023
Awarding	12/14/2023
PSA Signing	1/13/2024
Joint Filing	1/22/2024



## Captive Customer Connections



The abrupt increase in the number of connections in 2020 and in year 2021 was due to the implementation of joint Nationwide Intensification of Household Electrification (NIHE) project between the DOE and FICELCO.

From year 2022 onwards, the number of connections is projected to grow at a rate of 5.15%. Said customer class is expected to account for 100% of the total consumption.