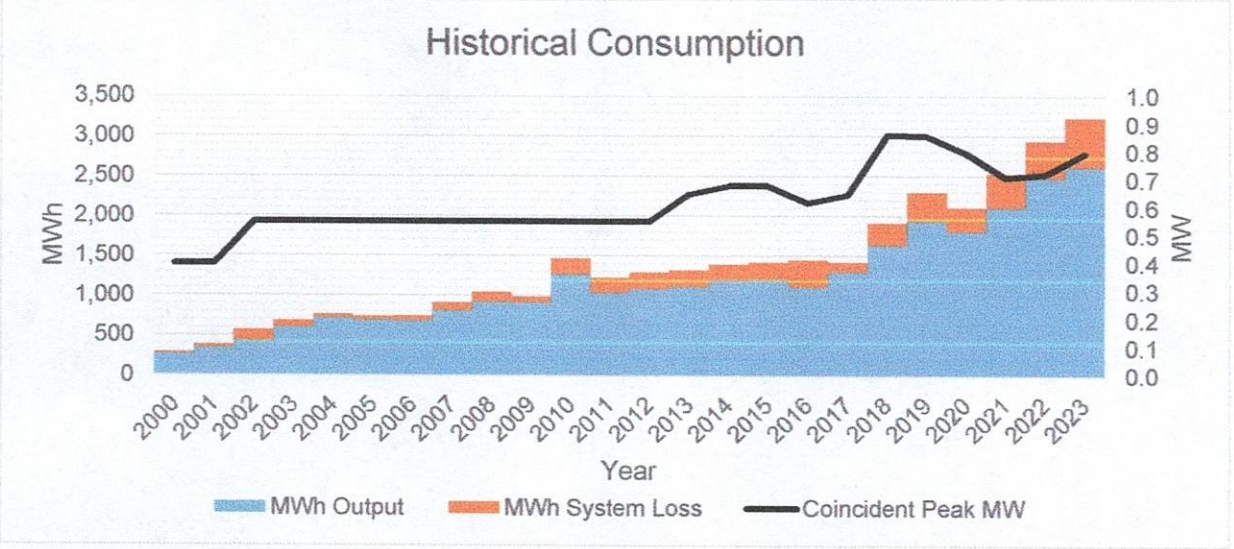
Power Supply Procurement Plan
2024

OFF-GRID

Historical Consumption Data

	Coincident Peak MW	MWh Offtake	MWh Input	MWh Output	MWh System Loss	Load Factor	System Loss
2000	0.40	294	294	271	23	8%	7.77%
2001	0.40	385	385	348	36	11%	9.49%
2002	0.55	570	570	430	141	12%	24.65%
2003	0.55	688	688	607	81	14%	11.75%
2004	0.55	764	764	717	47	16%	6.19%
2005	0.55	736	736	691	45	15%	6.11%
2006	0.55	747	747	688	60	16%	7.97%
2007	0.55	916	916	814	102	19%	11.12%
2008	0.55	1,048	1,048	920	128	22%	12.25%
2009	0.55	986	986	913	73	20%	7.42%
2010	0.55	1,466	1,466	1,268	198	30%	13.49%
2011	0.55	1,229	1,229	1,042	186	25%	15.14%
2012	0.55	1,294	1,294	1,085	208	27%	16.11%
2013	0.65	1,321	1,321	1,113	207	23%	15.71%
2014	0.68	1,392	1,392	1,192	200	23%	14.39%
2015	0.68	1,420	1,420	1,201	218	24%	15.37%
2016	0.62	1,447	1,447	1,115	332	27%	22.96%
2017	0.65	1,418	1,418	1,300	117	25%	8.29%
2018	0.86	1,915	1,915	1,636	279	25%	14.56%
2019	0.86	2,304	2,304	1,938	366	31%	15.90%
2020	0.80	2,109	2,109	1,810	299	30%	14.17%
2021	0.71	2,535	2,535	2,108	427	41%	16.82%
2022	0.72	2,943	2,943	2,476	467	47%	15.88%
2023	0.80	3,236	3,236	2,616	619	46%	19.14%

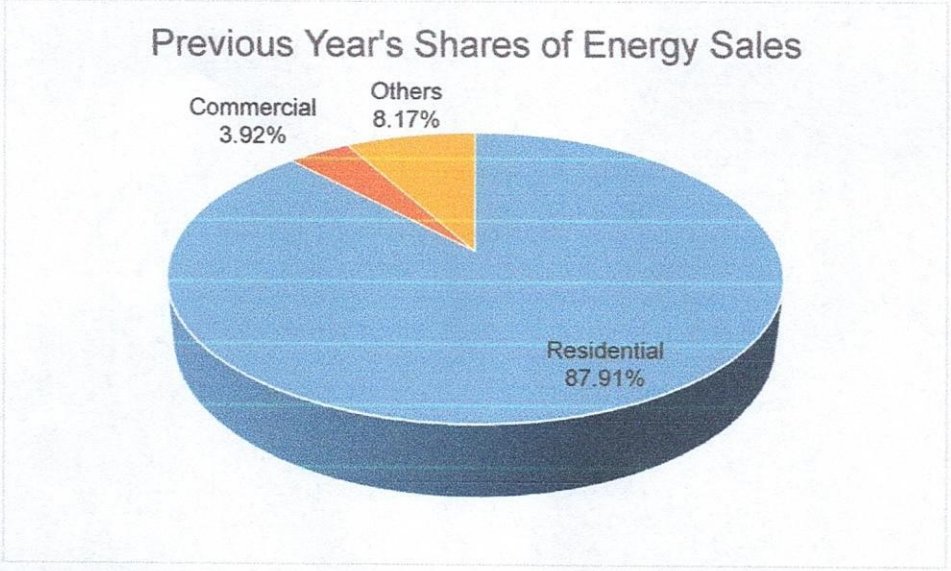
Peak Demand increased from 0.72 MW in 2022 to 0.80 MW in 2023 at a rate of 11.11%. MWh Offtake increased from 2,943 MWh in 2022 to 3,236 MWh in 2022 at a rate of 9.96% due to continuous implementation of 24 hours operation. Within the period 2022 to 2023, Load Factor ranged from 47% to 46% respectively. From year 2022 to 2023, there was an increased in energy consumption at 5.65%.



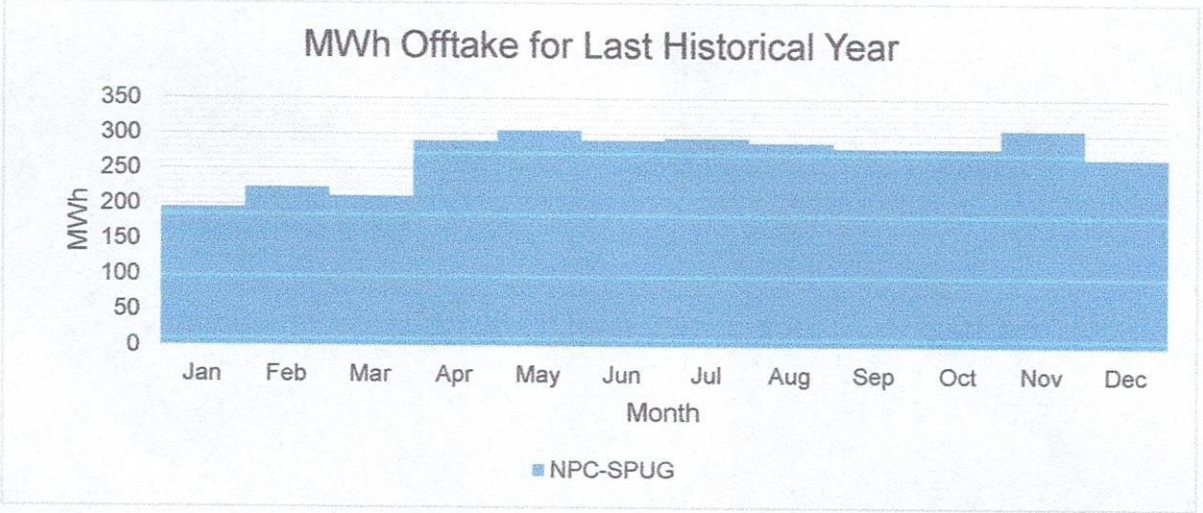
MWh Output increased from year 2022 to year 2023 at a rate of 5.65%, while MWh System Loss increased at a rate of 20.53% within the same period. Historical consumption recorded zero (0) MW and MWh for Coincident Peak Demand and MWh Offtake and Input respectively, due to late implementation of power cost due to force majeure event "Typhoon Niña" last December 2016 resulting to late MRBC cycle for the month of January 2017.

Additionally, there were zero (0) MWh recorded for own use for the year February 2017 and July 2022 due to human error in meter reading, which was subsequently corrected as an adjustment in the following billing period.

Historically, system losses peaked at 24.65% in 2002 due to technical losses. The historical data entered in the Feeder Technical Loss now represents the actual and final data, with the Segregation of MWh System Loss initiative commencing in 2021. Negative values have been recorded due to non-technical losses / administrative losses, including inconsistent meter reading cycles and variations in the number of days between the supply month and billing month.

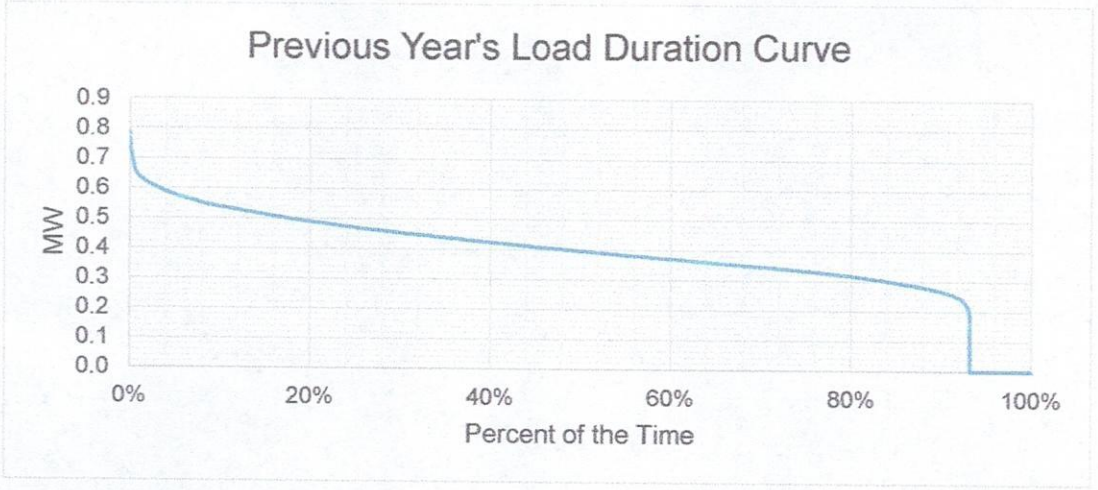


Residential customers account for the bulk of energy sales at 87.91% due to the high number of connections. In contrast, commercial customers accounted for only 3.92% of energy sales due to the low number of connections.

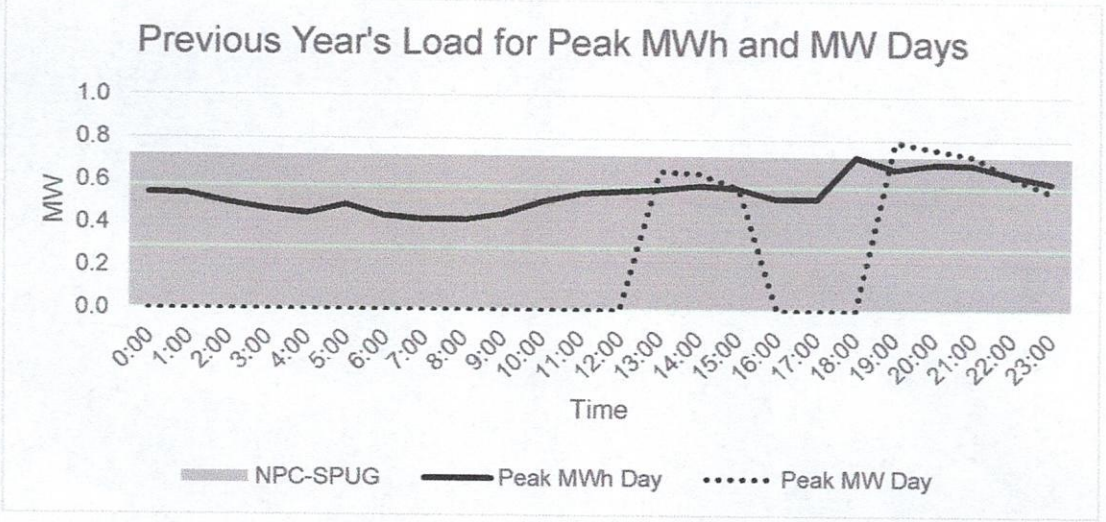


For NPC-SPUG, the total Offtake increased from year 2022 to year 2023 (3,236 MWh) due to increasing load requirement of Tingloy Island.

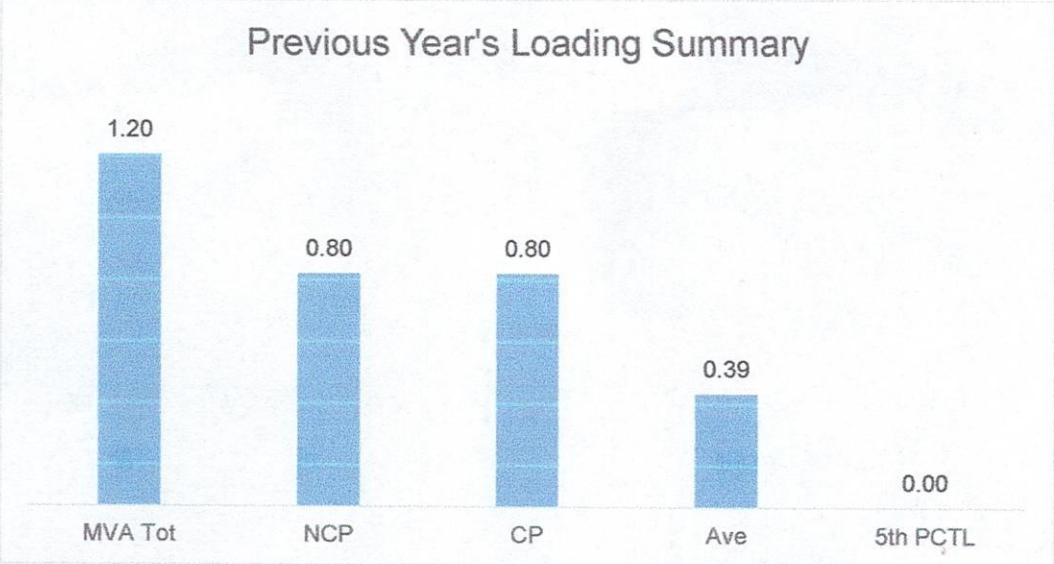
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 0 MW due to interruption in the area, and the maximum load is 0.795 MW for the last historical year.



Peak MW occurred on 7:00 PM of April 28, 2023, while Peak MWh occurred on 6:00 PM of October 31, 2023 due to heavy usage of electricity on summer or dry season. As shown in the Load Curves, the available supply is lower than the Peak Demand.



The Non-coincident Peak Demand is 0.80 MW, which is around 66.25% of the total substation capacity of 1.10 MVA at a power factor of 97.17%. The load factor or the ratio between the Average Load of 0.39 MW and the Non-coincident Peak Demand is 48.64%. A safe estimate of the true minimum load is the fifth percentile load of 0 MW.

Metering Point	Substation MVA	Substation Peak MW
DPP	1.2	0.795

Based from the above table, it was observed that the NPC –SPUG Diesel power plant percentage loading capacity does not exceed 70% based on rated capacity.

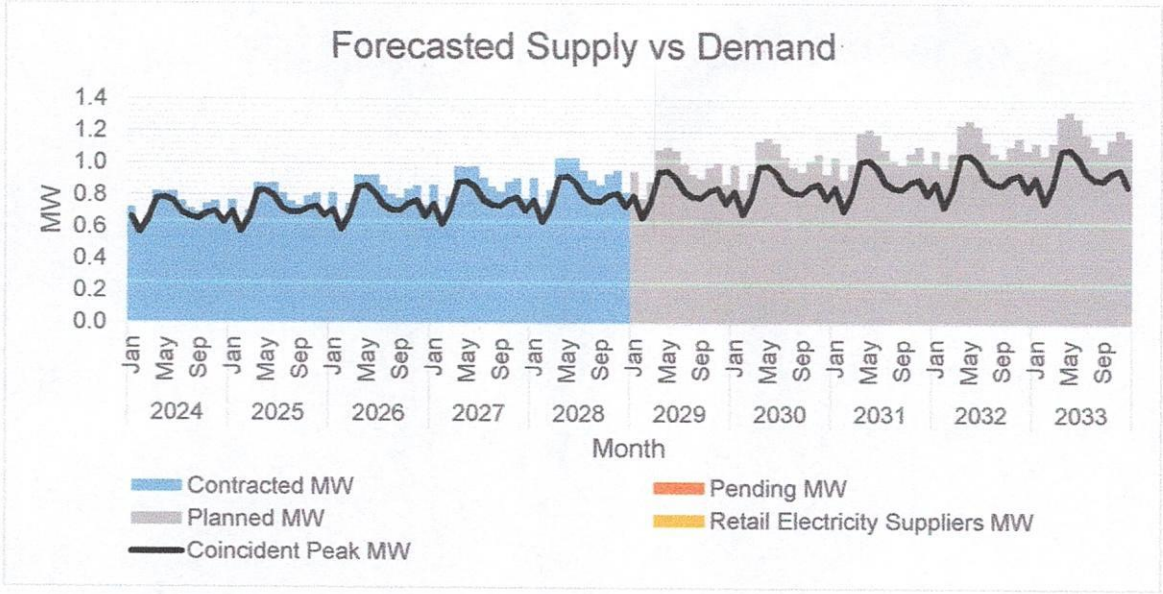
Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Planned MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2024	Jan	0.66	0.72	0.000	109%	109%	0.06
	Feb	0.57	0.58	0.000	102%	102%	0.01
	Mar	0.65	0.66	0.000	103%	103%	0.02
	Apr	0.78	0.82	0.000	106%	106%	0.04
	May	0.79	0.82	0.000	104%	104%	0.03
	Jun	0.77	0.82	0.000	107%	107%	0.06
	Jul	0.70	0.76	0.000	110%	110%	0.07
	Aug	0.67	0.72	0.000	108%	108%	0.05
	Sep	0.65	0.69	0.000	106%	106%	0.04
	Oct	0.69	0.75	0.000	109%	109%	0.06
	Nov	0.70	0.77	0.000	109%	109%	0.07
	Dec	0.63	0.66	0.000	104%	104%	0.03
2025	Jan	0.70	0.77	0.000	110%	110%	0.07
	Feb	0.57	0.62	0.000	108%	108%	0.04
	Mar	0.66	0.71	0.000	107%	107%	0.05
	Apr	0.83	0.88	0.000	106%	106%	0.05
	May	0.83	0.87	0.000	105%	105%	0.04
	Jun	0.80	0.88	0.000	110%	110%	0.08
	Jul	0.72	0.81	0.000	113%	113%	0.09
	Aug	0.69	0.76	0.000	110%	110%	0.07
	Sep	0.69	0.74	0.000	106%	106%	0.04
	Oct	0.72	0.79	0.000	110%	110%	0.07
	Nov	0.73	0.81	0.000	111%	111%	0.08
	Dec	0.67	0.70	0.000	104%	104%	0.03
2026	Jan	0.71	0.82	0.000	115%	115%	0.11
	Feb	0.59	0.66	0.000	112%	112%	0.07
	Mar	0.68	0.75	0.000	111%	111%	0.07
	Apr	0.85	0.93	0.000	109%	109%	0.08
	May	0.86	0.93	0.000	108%	108%	0.07
	Jun	0.82	0.93	0.000	114%	114%	0.11
	Jul	0.74	0.86	0.000	116%	116%	0.12
	Aug	0.71	0.81	0.000	114%	114%	0.10
	Sep	0.71	0.78	0.000	111%	111%	0.07
	Oct	0.75	0.84	0.000	112%	112%	0.09
	Nov	0.77	0.86	0.000	112%	112%	0.09
	Dec	0.67	0.74	0.000	111%	111%	0.07
2027	Jan	0.75	0.87	0.000	116%	116%	0.12
	Feb	0.62	0.70	0.000	112%	112%	0.07
	Mar	0.71	0.80	0.000	111%	111%	0.08
	Apr	0.88	0.98	0.000	111%	111%	0.10
	May	0.89	0.98	0.000	110%	110%	0.09
	Jun	0.86	0.98	0.000	115%	115%	0.13
	Jul	0.77	0.91	0.000	118%	118%	0.14
	Aug	0.74	0.86	0.000	115%	115%	0.11
	Sep	0.74	0.83	0.000	112%	112%	0.09

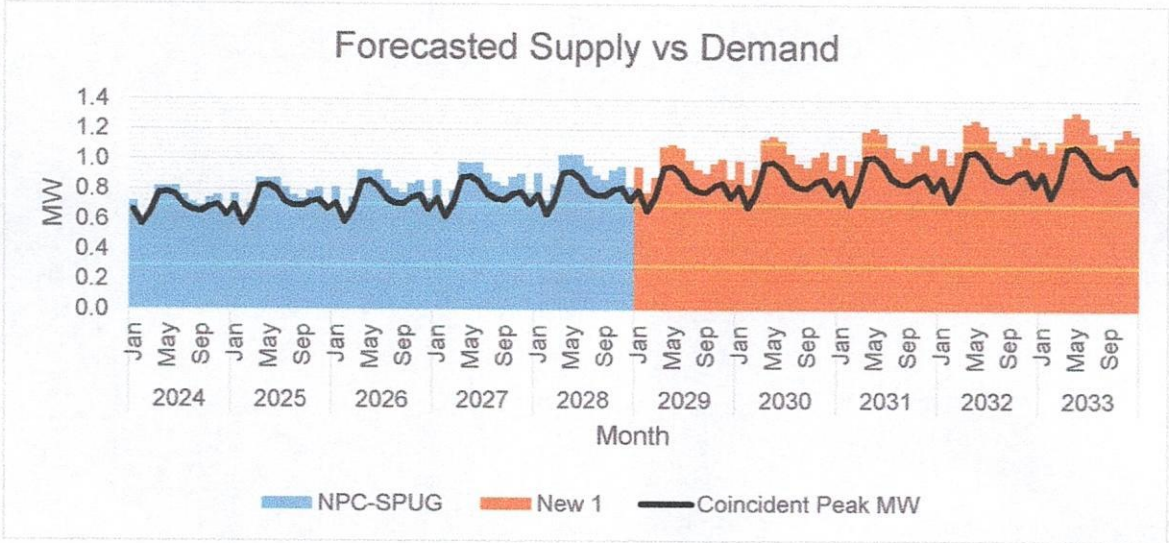
		Coincident Peak MW	Contracted MW	Planned MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Oct	0.77	0.89	0.000	115%	115%	0.11
	Nov	0.79	0.91	0.000	115%	115%	0.12
	Dec	0.71	0.78	0.000	110%	110%	0.07
2028	Jan	0.77	0.91	0.000	118%	118%	0.14
	Feb	0.64	0.73	0.000	115%	115%	0.10
	Mar	0.73	0.84	0.000	114%	114%	0.10
	Apr	0.92	1.04	0.000	113%	113%	0.12
	May	0.92	1.04	0.000	112%	112%	0.11
	Jun	0.88	1.04	0.000	117%	117%	0.15
	Jul	0.80	0.96	0.000	120%	120%	0.16
	Aug	0.77	0.90	0.000	117%	117%	0.13
	Sep	0.76	0.87	0.000	114%	114%	0.11
	Oct	0.80	0.94	0.000	117%	117%	0.13
	Nov	0.82	0.96	0.000	117%	117%	0.14
	Dec	0.73	0.82	0.000	112%	112%	0.09
2029	Jan	0.80	0.00	0.953	0%	119%	0.15
	Feb	0.66	0.00	0.785	0%	119%	0.12
	Mar	0.76	0.00	0.889	0%	117%	0.13
	Apr	0.95	0.00	1.090	0%	115%	0.14
	May	0.96	0.00	1.105	0%	115%	0.15
	Jun	0.91	0.00	1.081	0%	118%	0.17
	Jul	0.83	0.00	1.001	0%	121%	0.17
	Aug	0.80	0.00	0.940	0%	118%	0.14
	Sep	0.79	0.00	0.911	0%	115%	0.12
	Oct	0.83	0.00	0.979	0%	118%	0.15
	Nov	0.85	0.00	1.010	0%	119%	0.16
	Dec	0.75	0.00	0.878	0%	116%	0.12
2030	Jan	0.83	0.00	0.997	0%	120%	0.17
	Feb	0.69	0.00	0.843	0%	123%	0.16
	Mar	0.79	0.00	0.945	0%	120%	0.16
	Apr	0.98	0.00	1.143	0%	116%	0.16
	May	0.99	0.00	1.162	0%	117%	0.17
	Jun	0.95	0.00	1.132	0%	120%	0.19
	Jul	0.86	0.00	1.046	0%	122%	0.19
	Aug	0.82	0.00	0.983	0%	119%	0.16
	Sep	0.82	0.00	0.953	0%	117%	0.14
	Oct	0.86	0.00	1.024	0%	119%	0.17
	Nov	0.88	0.00	1.062	0%	121%	0.19
	Dec	0.78	0.00	0.940	0%	120%	0.16
2031	Jan	0.86	0.00	1.043	0%	122%	0.19
	Feb	0.71	0.00	0.908	0%	128%	0.20
	Mar	0.82	0.00	1.004	0%	123%	0.19
	Apr	1.02	0.00	1.195	0%	118%	0.18
	May	1.02	0.00	1.218	0%	119%	0.19
	Jun	0.98	0.00	1.184	0%	121%	0.20
	Jul	0.89	0.00	1.093	0%	123%	0.21
	Aug	0.85	0.00	1.027	0%	121%	0.18
	Sep	0.85	0.00	0.995	0%	118%	0.15

		Coincident Peak MW	Contracted MW	Planned MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Oct	0.89	0.00	1.069	0%	120%	0.18
	Nov	0.91	0.00	1.114	0%	123%	0.21
	Dec	0.81	0.00	1.011	0%	125%	0.20
2032	Jan	0.89	0.00	1.089	0%	123%	0.20
	Feb	0.73	0.00	0.980	0%	134%	0.25
	Mar	0.84	0.00	1.068	0%	126%	0.22
	Apr	1.05	0.00	1.247	0%	119%	0.20
	May	1.06	0.00	1.274	0%	120%	0.21
	Jun	1.01	0.00	1.238	0%	122%	0.23
	Jul	0.92	0.00	1.142	0%	124%	0.22
	Aug	0.88	0.00	1.073	0%	122%	0.19
	Sep	0.87	0.00	1.038	0%	119%	0.16
	Oct	0.92	0.00	1.114	0%	121%	0.19
	Nov	0.94	0.00	1.166	0%	124%	0.23
	Dec	0.84	0.00	1.089	0%	130%	0.25
2033	Jan	0.92	0.00	1.137	0%	124%	0.22
	Feb	0.76	0.00	1.059	0%	140%	0.30
	Mar	0.87	0.00	1.135	0%	130%	0.26
	Apr	1.09	0.00	1.297	0%	119%	0.21
	May	1.10	0.00	1.331	0%	121%	0.24
	Jun	1.05	0.00	1.293	0%	123%	0.25
	Jul	0.95	0.00	1.192	0%	126%	0.24
	Aug	0.91	0.00	1.120	0%	123%	0.21
	Sep	0.90	0.00	1.080	0%	120%	0.18
	Oct	0.95	0.00	1.158	0%	122%	0.21
	Nov	0.97	0.00	1.218	0%	126%	0.25
	Dec	0.86	0.00	1.173	0%	136%	0.31

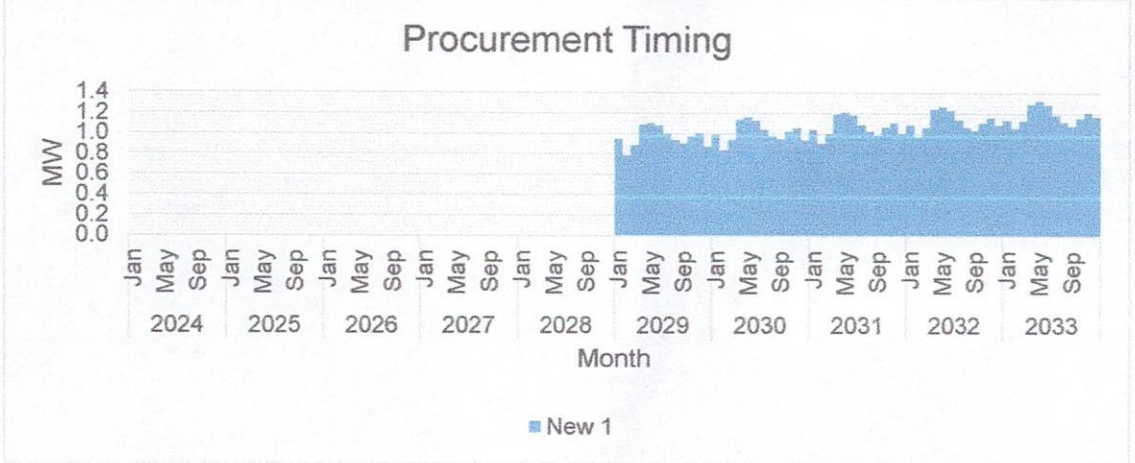
The Peak Demand was forecasted using time series forecasting method and was assumed to occur on the month of May 2033 due to high demand on electricity. Monthly Peak Demand is at its lowest on the month of February 2024 and 2025 due to lower temperature and less economic activities of small businesses. In general, Peak Demand is expected to grow at a rate of 3.76%.



The available supply which is from NPC-SPUG is generally above the Peak Demand.



A new Power Supply Agreement (PSA) contract has been implemented between BATELEC II and NPC for an additional 5 years (2024 – 2028). BATELEC II is currently in the process of exploring potential suppliers and providers of electricity for Tingloy Island. In the meantime, the renewal of the PSA with NPC for 5 years will be undertaken to ensure a stable power source for Tingloy Island.



The first wave of supply procurement will be for 0.95 MW planned to be available by the month of January 2029.

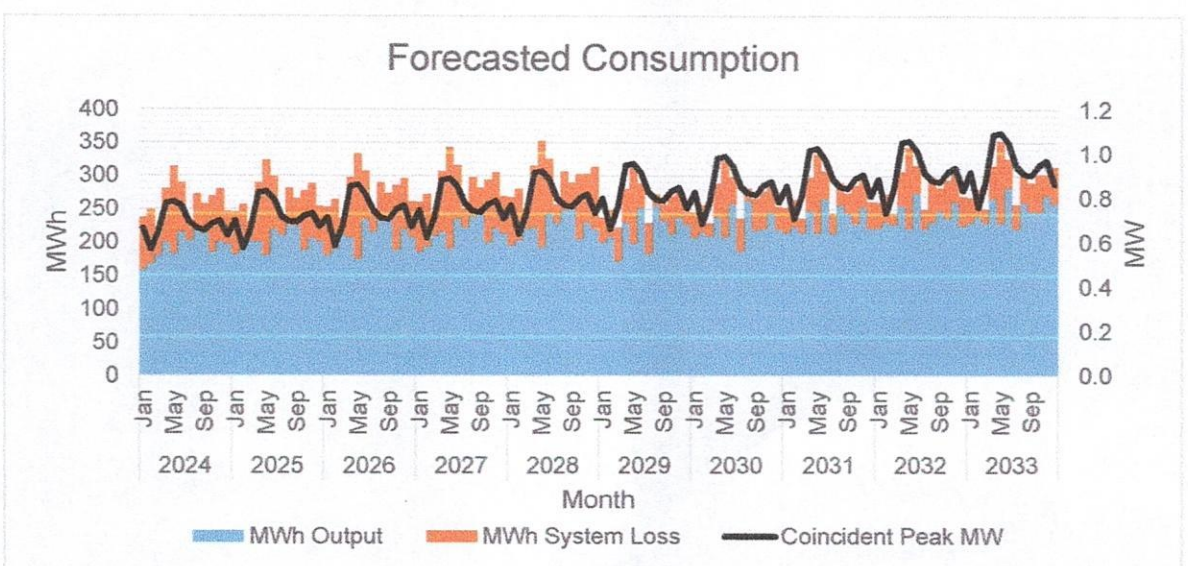
		MWh Offtake	MWh Output	MWh System Loss	System Loss
2024	Jan	238	160	79	32.99%
	Feb	249	168	81	32.44%
	Mar	223	181	42	18.92%
	Apr	281	200	81	28.92%
	May	314	183	131	41.65%
	Jun	290	215	74	25.67%
	Jul	230	203	26	11.48%
	Aug	273	217	56	20.52%
	Sep	258	213	45	17.55%
	Oct	270	185	84	31.29%
	Nov	280	201	79	28.14%
	Dec	247	197	50	20.11%
2025	Jan	246	182	64	25.86%
	Feb	257	189	68	26.40%
	Mar	230	201	29	12.52%
	Apr	290	201	89	30.57%
	May	324	181	143	44.19%
	Jun	299	220	79	26.32%
	Jul	237	211	26	11.08%
	Aug	282	226	55	19.67%
	Sep	266	224	42	15.80%
	Oct	278	189	89	32.19%
	Nov	288	207	81	28.11%
	Dec	254	201	53	20.84%
2026	Jan	253	181	72	28.48%
	Feb	265	189	76	28.55%
	Mar	237	211	26	11.08%
	Apr	298	208	91	30.35%
	May	334	175	159	47.54%
	Jun	308	236	72	23.38%
	Jul	244	216	28	11.29%
	Aug	290	237	53	18.30%
	Sep	274	240	35	12.59%
	Oct	286	189	97	33.99%
	Nov	297	220	77	25.83%
	Dec	262	208	54	20.46%
2027	Jan	261	186	75	28.74%
	Feb	273	194	78	28.72%
	Mar	244	210	34	13.99%
	Apr	307	216	91	29.60%
	May	344	191	152	44.37%
	Jun	317	236	81	25.50%
	Jul	251	222	29	11.44%
	Aug	299	240	59	19.68%
	Sep	282	241	41	14.51%
	Oct	295	200	94	31.96%
	Nov	306	222	83	27.22%

		MWh Offtake	MWh Output	MWh System Loss	System Loss
	Dec	269	214	55	20.44%
2028	Jan	268	196	72	27.01%
	Feb	280	204	76	27.27%
	Mar	251	221	30	12.06%
	Apr	316	223	93	29.44%
	May	353	195	159	44.90%
	Jun	326	244	82	25.12%
	Jul	258	230	29	11.04%
	Aug	307	249	58	19.03%
	Sep	290	252	38	13.10%
	Oct	303	207	96	31.81%
	Nov	303	230	72	23.92%
	Dec	314	221	93	29.64%
2029	Jan	274	200	38	15.86%
	Feb	289	209	40	16.08%
	Mar	260	173	51	22.67%
	Apr	323	230	50	17.97%
	May	366	199	115	36.56%
	Jun	336	252	38	12.99%
	Jul	307	184	45	19.79%
	Aug	311	256	17	6.28%
	Sep	296	234	24	9.37%
	Oct	311	213	57	21.03%
	Nov	311	239	41	14.74%
	Dec	322	228	19	7.53%
2030	Jan	279	208	38	15.52%
	Feb	297	217	40	15.73%
	Mar	268	210	20	8.77%
	Apr	332	239	51	17.43%
	May	376	208	116	35.70%
	Jun	344	258	40	13.51%
	Jul	320	188	49	20.75%
	Aug	317	263	18	6.50%
	Sep	303	219	47	17.83%
	Oct	320	222	56	20.28%
	Nov	314	245	43	14.94%
	Dec	332	220	34	13.35%
2031	Jan	285	216	38	14.91%
	Feb	305	225	40	15.20%
	Mar	278	215	23	9.55%
	Apr	340	248	51	17.07%
	May	387	215	119	35.72%
	Jun	353	266	41	13.47%
	Jul	332	214	29	12.08%
	Aug	324	257	33	11.53%
	Sep	309	246	29	10.44%
	Oct	331	229	57	19.89%
	Nov	318	254	44	14.65%

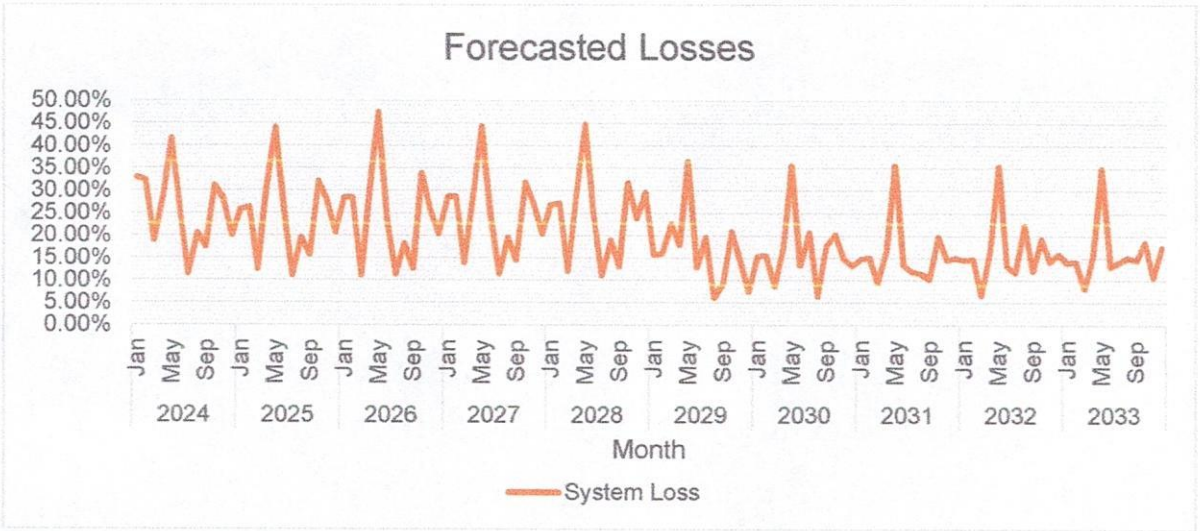
		MWh Offtake	MWh Output	MWh System Loss	System Loss
	Dec	342	222	39	15.07%
2032	Jan	291	223	38	14.63%
	Feb	313	232	41	14.91%
	Mar	289	228	16	6.71%
	Apr	349	257	51	16.50%
	May	397	222	122	35.46%
	Jun	361	275	42	13.35%
	Jul	345	221	30	11.81%
	Aug	330	232	67	22.43%
	Sep	315	248	34	12.14%
	Oct	343	238	57	19.36%
	Nov	321	262	44	14.31%
	Dec	350	226	43	15.93%
2033	Jan	297	231	38	14.05%
	Feb	321	240	40	14.34%
	Mar	300	231	21	8.21%
	Apr	357	266	50	15.77%
	May	407	230	124	34.97%
	Jun	369	283	43	13.28%
	Jul	357	222	37	14.17%
	Aug	337	260	47	15.25%
	Sep	321	248	42	14.65%
	Oct	356	246	57	18.67%
	Nov	324	270	33	10.80%
	Dec	358	259	55	17.65%

MWh Offtake based on the existing contract of BATELEC II with NPC-Spug.

System loss was calculated with mathematical representations on excel file. Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output was expected to grow at a rate of 2.83 annually.



System Loss percentage is expected to range from 6.28% to 47.54% during abnormal circumstances / unforeseen event. But during normal circumstances, BATELEC II's targeted system loss percentage is 10% to 12% (prescribed ERC SL Cap for off-grid).

Power Supply

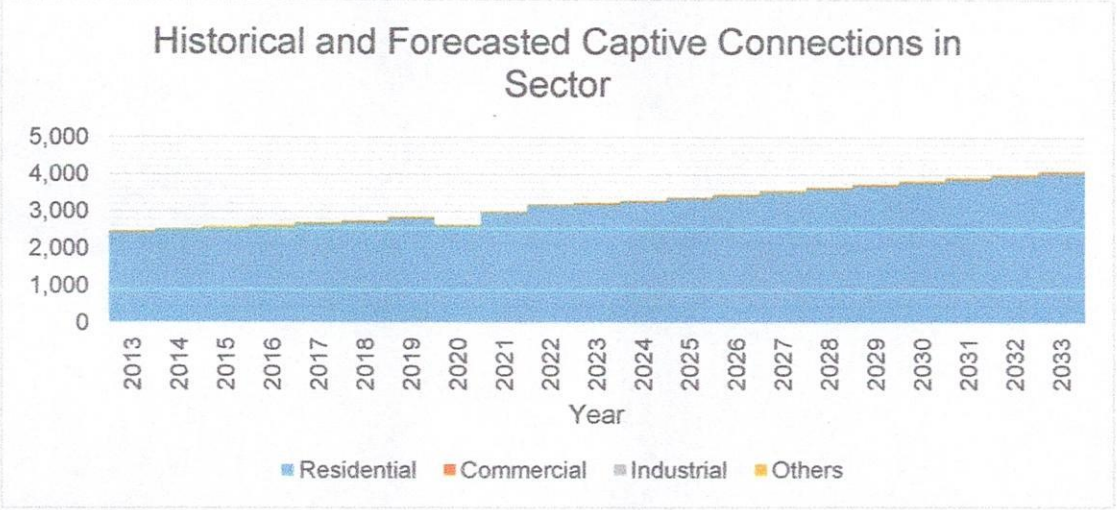
Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
NPC-SPUG	Base	National Power Corporation	0.58	3,153	12/26/2023	12/25/2028

Meanwhile, the PSA with NPC-SPUG for Tingloy, Batangas has commence into 24 hours operation. BATELEC II already renew its contract with NPC-SPUG DPP for another 5 years.

Competitive Selection Process is not applicable for the plan of BATELEC II for the renewal of contract for another 5 years. Hence, the New 1 in planned is for the renewal of contract with NPC.

But BATELEC II is in the process of looking for alternative supply in the island in preparation for more stable supply and in compliance with RPS-Off Grid.

Captive Customer Connections



The number of residential connections is expected to grow at a rate of 2.42% annually. Said customer class is expected to account for 77.7% of the total consumption.

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