Power Supply Procurement Plan 2024-2033

SIIG Zumarraga

SAMAR II ELECTRIC COOPERATIVE, INC.

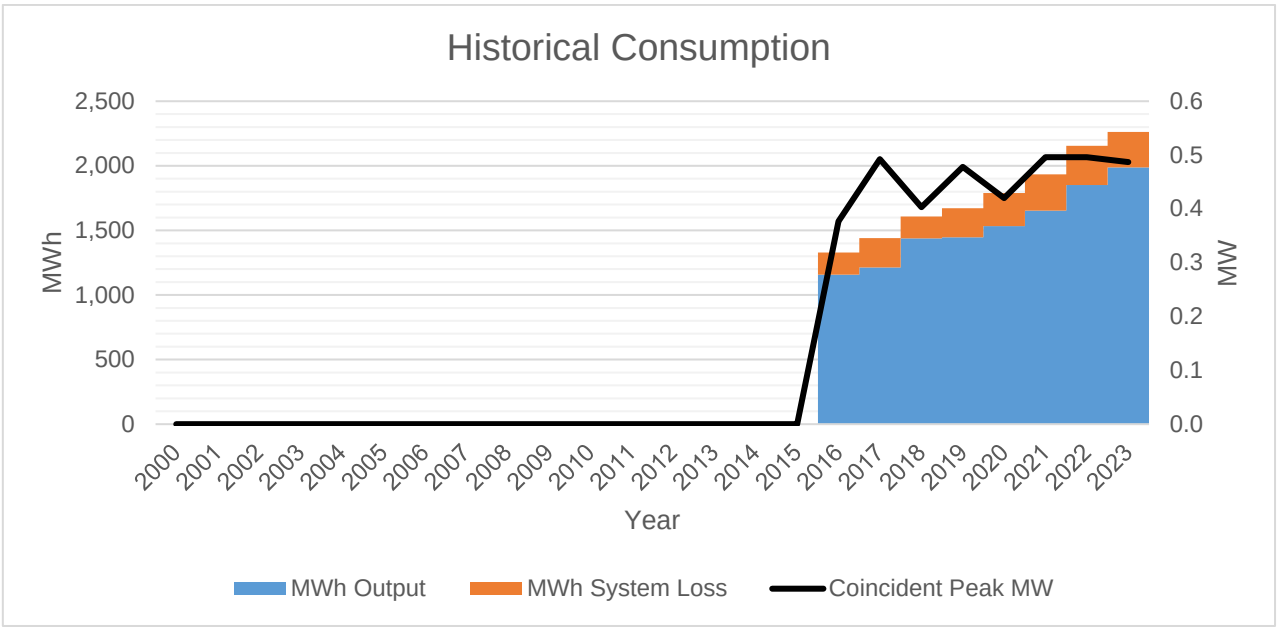
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2001	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2002	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2003	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2004	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2005	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2006	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2007	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2008	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2009	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2010	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2011	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2012	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2013	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2014	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2015	0.00	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2016	0.38	1,328	0	1,328	1,157	171	40%	0.00%	0.00%	12.84%
2017	0.49	1,440	0	1,440	1,214	226	33%	0.00%	0.00%	15.72%
2018	0.40	1,608	0	1,608	1,438	169	46%	0.00%	0.00%	10.53%
2019	0.48	1,671	0	1,671	1,446	225	40%	0.00%	0.00%	13.48%
2020	0.42	1,789	0	1,789	1,533	257	49%	0.00%	0.00%	14.35%
2021	0.50	1,933	0	1,933	1,653	280	44%	0.00%	0.00%	14.48%
2022	0.50	2,155	0	2,155	1,851	304	50%	0.00%	0.00%	14.12%
2023	0.49	2,261	0	2,261	1,987	275	53%	0.00%	0.00%	12.15%

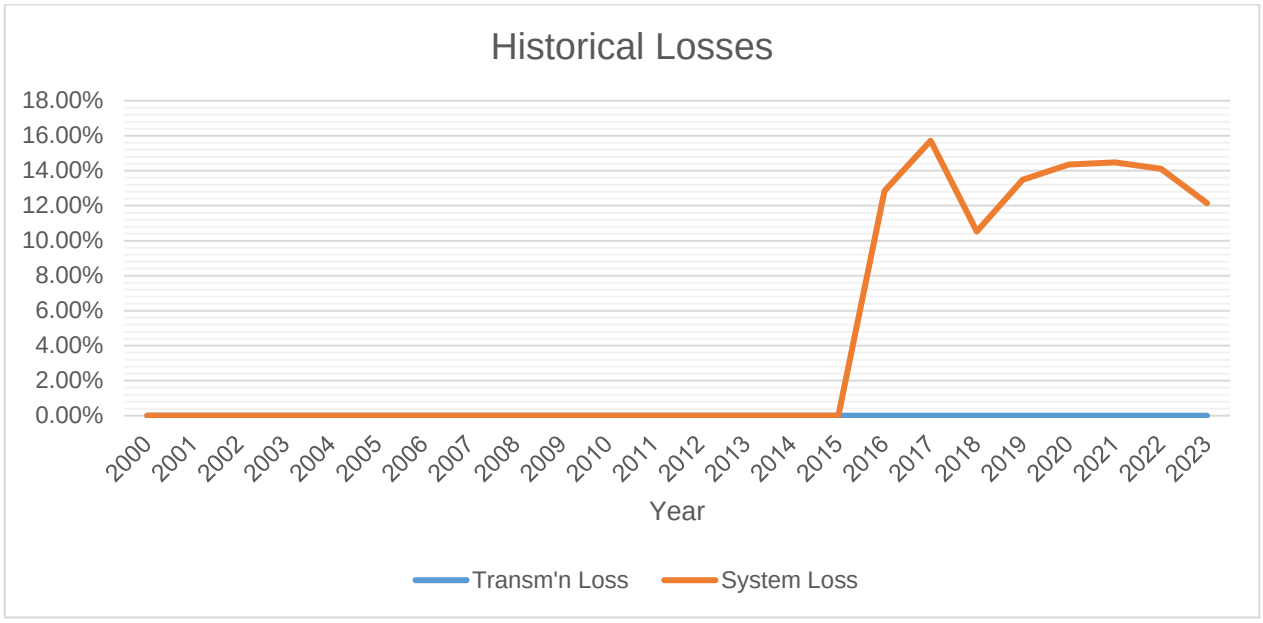
Peak Demand decreased from 0.50 MW in 2022 to 0.49 MW in 2023 at a rate of -2.0 % due to the increase in power rate which caused most residential users to save of using energy. MWh Offtake increased from 2,155 MWh in 2022 to 2,261 MWh in 2023 at a rate of 4.92% which mostly came from residential customers. Within the same period, Load Factor ranged from 58% to 61%. There was an abrupt change in consumption among residential customers due to some increase in membership in the year 2023. The negative losses result from late and reading adjustments of the billing cycle due to weather conditions and holidays.

From the historical data on feeder technical losses (in MWh) shows a general upward trend from 2016 to 2023, with losses steadily increasing, particularly after 2018. This rise is likely due to aging infrastructure, growing system loads, and insufficient upgrades to accommodate demand. Overloaded feeders and suboptimal network designs have likely exacerbated inefficiencies, while seasonal variations and environmental factors contribute to monthly fluctuations. The data also highlights peak losses in later years, reflecting compounding issues in the system. Addressing these losses will require targeted upgrades, better load management, regular maintenance, and the implementation of advanced monitoring technologies to enhance overall efficiency.

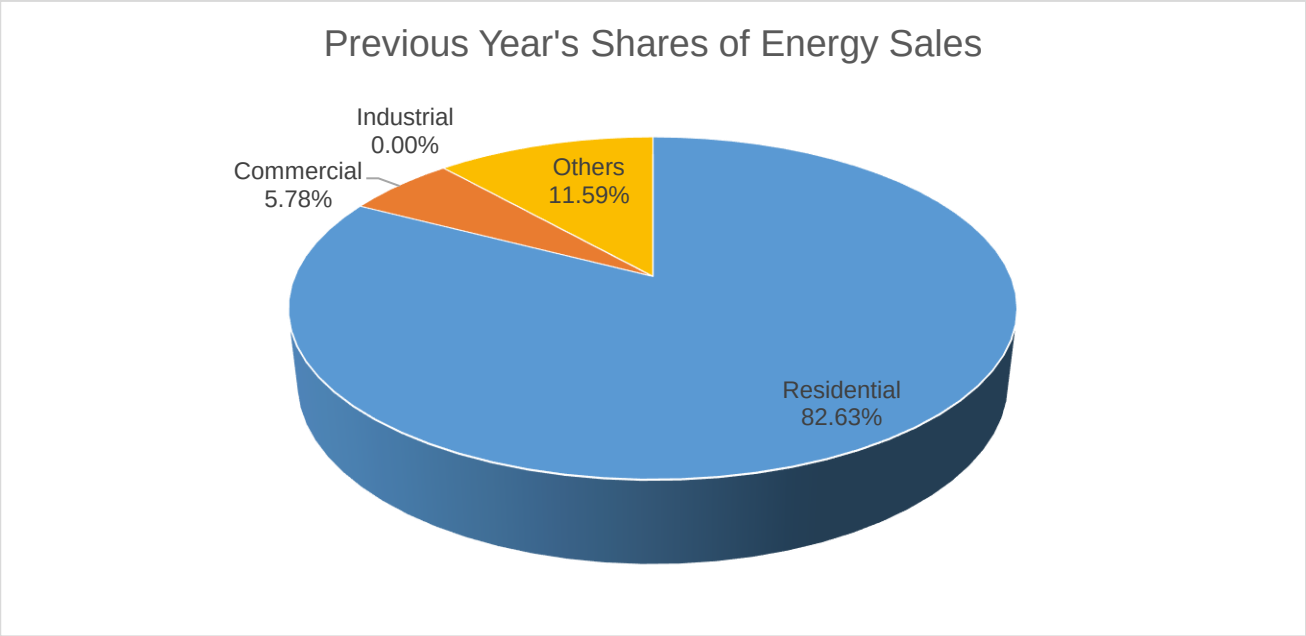
The sudden spike in non-technical losses in June 2022 may the occurrence of significant anomalies in the distribution network. This may have been caused by increased energy theft, such as unauthorized connections or tampered meters, operational failures like unbilled energy, or systemic inefficiencies in metering and billing processes. Additionally, external factors such as economic or social pressures could have heightened instances of theft or non-payment during this period. The anomaly indicates the need for a detailed audit of the system, enhanced real-time monitoring, and stronger enforcement measures to address theft and improve accountability.



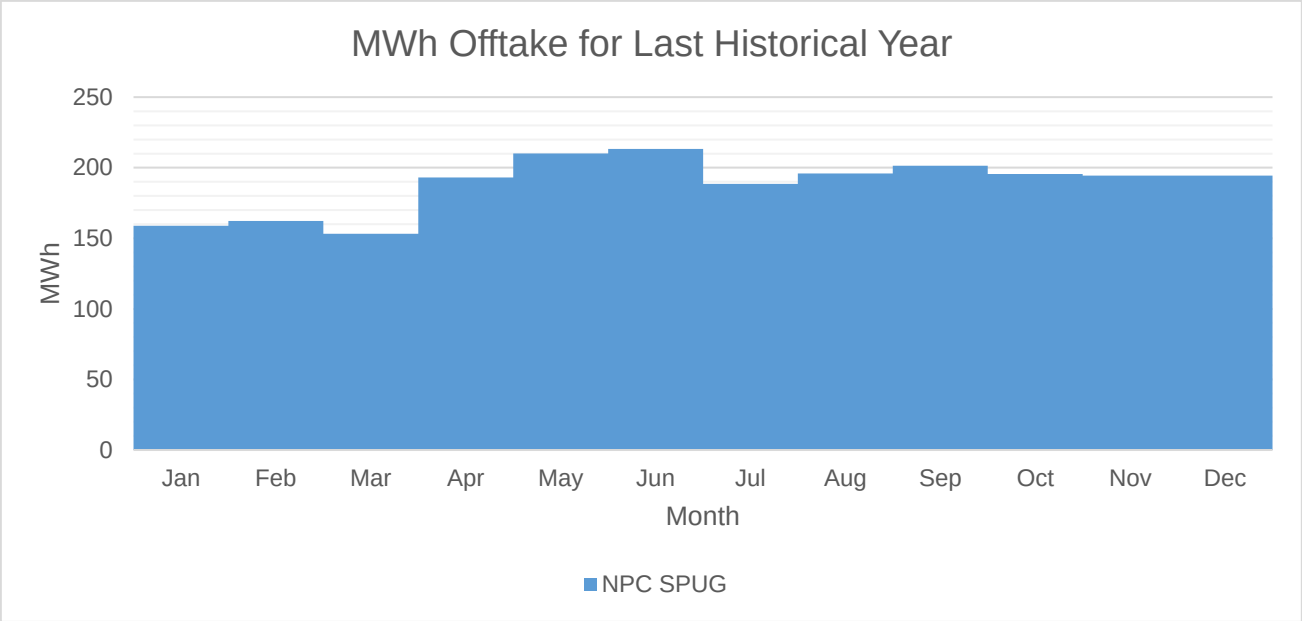
MWh Output increased from the year 2022 to the year 2023 at a rate of 0.25%, while MWh System Loss decreased at a rate of -9.69% within the same period.



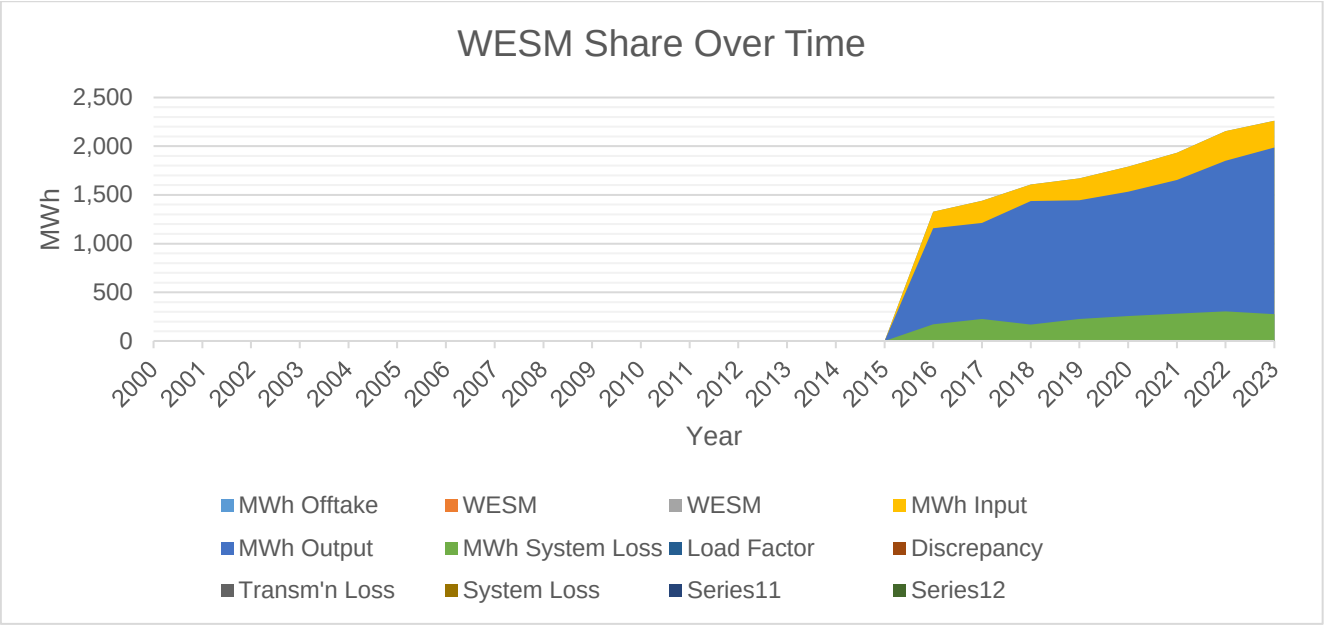
Historically, Transmission Loss ranged from 0% to 0% while System Loss ranged from 15.72% to 10.53%. Transmission Loss peaked at 0% on year 2023 because of zero transmission data. System Loss peaked at 15.72% on year 2017 because of some problems on the non-technical side that we encountered. Rampant in illegal connections, right of way problem and loose connections at the primary and secondary side taps.



Residential customers account for the bulk of energy sales at 82.63% due to the high number of connections. In contrast, Commercial customers accounted for only 5.78% of energy sales due to the low number of connections.

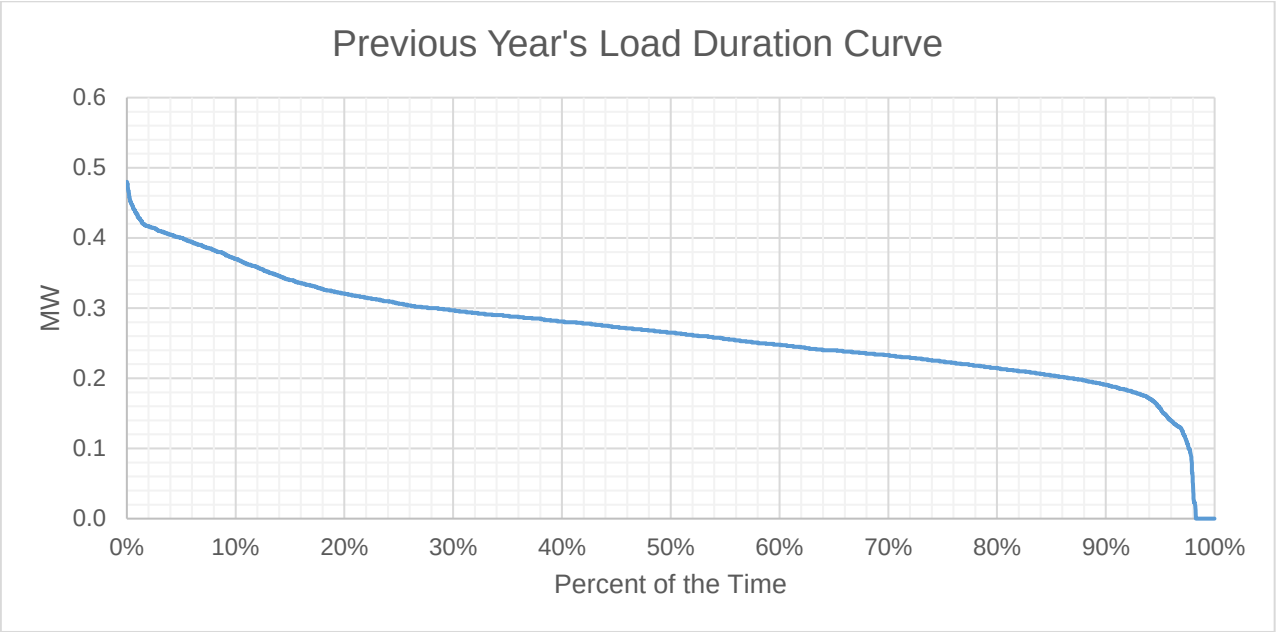


For 2023, the total Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with the NPC-SPUG accounts for the bulk of MWh Offtake.

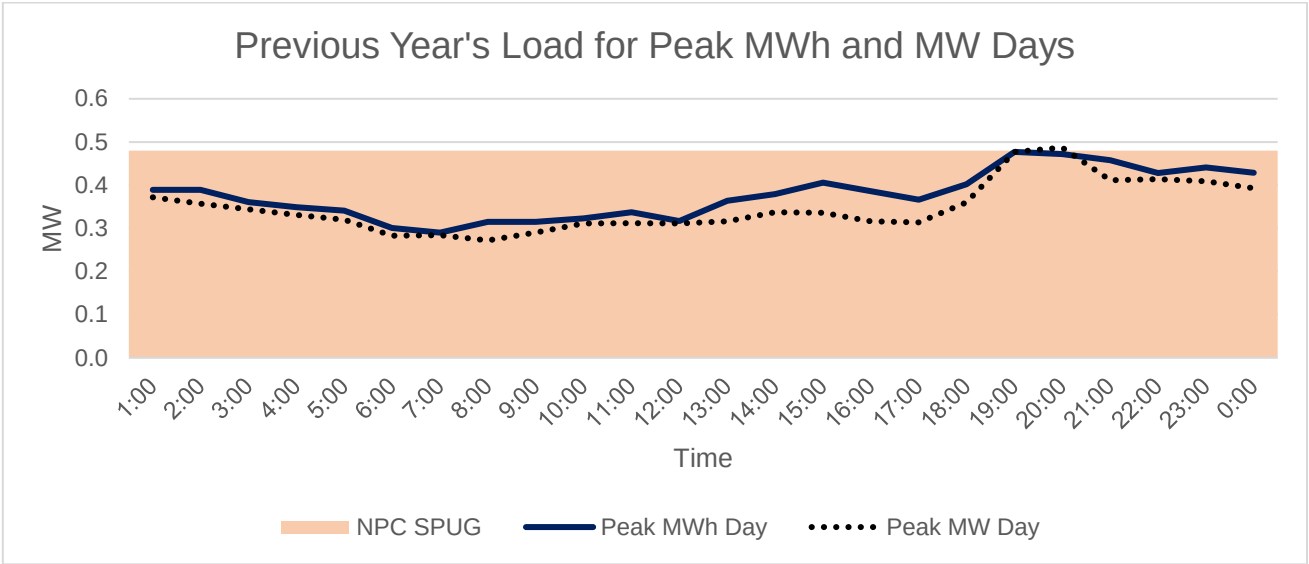


No WESM Offtake input data from SPUG. Most SPUG areas in the Philippines do not participate in WESM due to limited infrastructure, such as the absence of grid connectivity, automated systems, and WESM-compliant metering. Many operate on isolated grids with low, unpredictable demand, making market participation costly and economically unviable. WESM participation, SPUG areas must meet technical, operational, and regulatory requirements, including grid interconnection, demand-supply forecasting, real-time monitoring, and stakeholder engagement, while ensuring economic viability and alignment with missionary electrification goals.

Previous Year's Load Profile

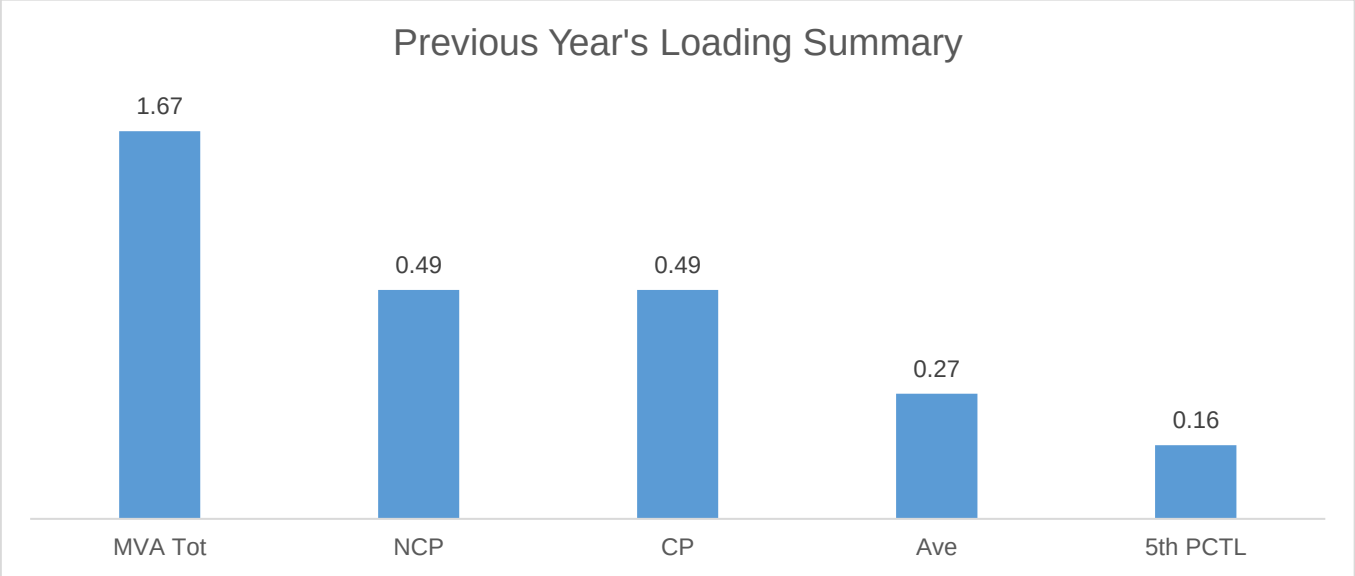


Based on the Load Duration Curve, the minimum load is 0.010 MW and the maximum load is 0.487 MW for the last historical year. The zero (0) MW caused of line fault occurs when there is a failure or malfunction in one of the power lines or components (such as transformers, circuit breakers, or conductors) that transmits electricity. This can be caused by various factors such as equipment failure, weather events (e.g., storms, lightning), physical damage (e.g., tree branches falling on power lines), or human errors. When such a fault occurs, the affected section of the lines will be disconnected or isolated to protect the system from further damage, which results in a complete loss of power (0 MW) for that section.



Experiences peak MW demand occurred on the month of June due to increased electricity usage during local fiestas and peak MWh consumption in May driven by higher temperatures and greater use of cooling appliances. The load consistently rises during evening hours (18:00–21:00), with demand often exceeding available supply, particularly during peaks, posing risks of supply shortfall.

During peak hours indicates the system is operating near its capacity limits, the available supply is lower than the Peak Demand, it makes the NPC SPUG increases the supplied MW capacity.



The Non-coincident Peak Demand of 0.49 MW, utilizing 29.40% of its total capacity of 1.67 MVA at a power factor of 0.96, indicating significant spare capacity. The load factor, calculated as the ratio of the Average Load (0.27 MW) to the Non-coincident Peak Demand (0.49 MW), is 55.10%, reflecting a moderate load consistency over time. A safe estimate of the true minimum load estimated as the fifth percentile load, is 0.16 MW, which is 32.65% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
Zumarraga	1.67	0.487

Zumarraga substation has a total capacity of 1.67 MVA and a peak load of 0.487 MW. Loading condition is within the safe operational threshold of 70%. The substations are not loaded and still safe in operation base on load parameter. This indicates that the substation is well within safe loading conditions and has substantial capacity to accommodate additional load without risk of overloading.

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	0.48	0.00	0.48	0.000		0%	100%	0.00
	Feb	0.40	0.00	0.40	0.000		0%	100%	0.00
	Mar	0.43	0.00	0.43	0.000		0%	100%	0.00
	Apr	0.43	0.00	0.43	0.000		0%	100%	0.00
	May	0.48	0.00	0.48	0.000		0%	100%	0.00
	Jun	0.49	0.00	0.49	0.000		0%	100%	0.00
	Jul	0.47	0.00	0.47	0.000		0%	100%	0.00
	Aug	0.44	0.00	0.00	0.441		0%	100%	0.00
	Sep	0.45	0.00	0.00	0.448		0%	100%	0.00
	Oct	0.47	0.00	0.00	0.466		0%	100%	0.00
	Nov	0.45	0.00	0.00	0.450		0%	100%	0.00
	Dec	0.43	0.00	0.00	0.432		0%	100%	0.00
2025	Jan	0.43	0.00	0.00	0.433		0%	100%	0.00
	Feb	0.47	0.00	0.00	0.465		0%	100%	0.00
	Mar	0.47	0.00	0.00	0.471		0%	100%	0.00
	Apr	0.47	0.00	0.00	0.470		0%	100%	0.00
	May	0.54	0.00	0.00	0.537		0%	100%	0.00
	Jun	0.56	0.00	0.00	0.556		0%	100%	0.00
	Jul	0.51	0.00	0.00	0.512		0%	100%	0.00
	Aug	0.50	0.00	0.00	0.496		0%	100%	0.00
	Sep	0.50	0.00	0.00	0.502		0%	100%	0.00
	Oct	0.49	0.00	0.00	0.491		0%	100%	0.00
	Nov	0.47	0.00	0.00	0.474		0%	100%	0.00
	Dec	0.46	0.00	0.00	0.455		0%	100%	0.00

2026	Jan	0.45	0.00	0.00	0.455		0%	100%	0.00
	Feb	0.49	0.00	0.00	0.489		0%	100%	0.00
	Mar	0.50	0.00	0.00	0.495		0%	100%	0.00
	Apr	0.49	0.00	0.00	0.494		0%	100%	0.00
	May	0.56	0.00	0.00	0.565		0%	100%	0.00
	Jun	0.58	0.00	0.00	0.585		0%	100%	0.00
	Jul	0.54	0.00	0.00	0.539		0%	100%	0.00
	Aug	0.52	0.00	0.00	0.521		0%	100%	0.00
	Sep	0.53	0.00	0.00	0.528		0%	100%	0.00
	Oct	0.52	0.00	0.00	0.516		0%	100%	0.00
	Nov	0.50	0.00	0.00	0.499		0%	100%	0.00
	Dec	0.48	0.00	0.00	0.479		0%	100%	0.00
2027	Jan	0.48	0.00	0.00	0.477		0%	100%	0.00
	Feb	0.51	0.00	0.00	0.513		0%	100%	0.00
	Mar	0.52	0.00	0.00	0.519		0%	100%	0.00
	Apr	0.52	0.00	0.00	0.518		0%	100%	0.00
	May	0.59	0.00	0.00	0.592		0%	100%	0.00
	Jun	0.61	0.00	0.00	0.613		0%	100%	0.00
	Jul	0.56	0.00	0.00	0.565		0%	100%	0.00
	Aug	0.55	0.00	0.00	0.546		0%	100%	0.00
	Sep	0.55	0.00	0.00	0.554		0%	100%	0.00
	Oct	0.54	0.00	0.00	0.541		0%	100%	0.00
	Nov	0.52	0.00	0.00	0.523		0%	100%	0.00
	Dec	0.50	0.00	0.00	0.502		0%	100%	0.00
2028	Jan	0.50	0.00	0.00	0.500		0%	100%	0.00
	Feb	0.54	0.00	0.00	0.537		0%	100%	0.00
	Mar	0.54	0.00	0.00	0.544		0%	100%	0.00
	Apr	0.54	0.00	0.00	0.542		0%	100%	0.00
	May	0.62	0.00	0.00	0.620		0%	100%	0.00
	Jun	0.64	0.00	0.00	0.642		0%	100%	0.00

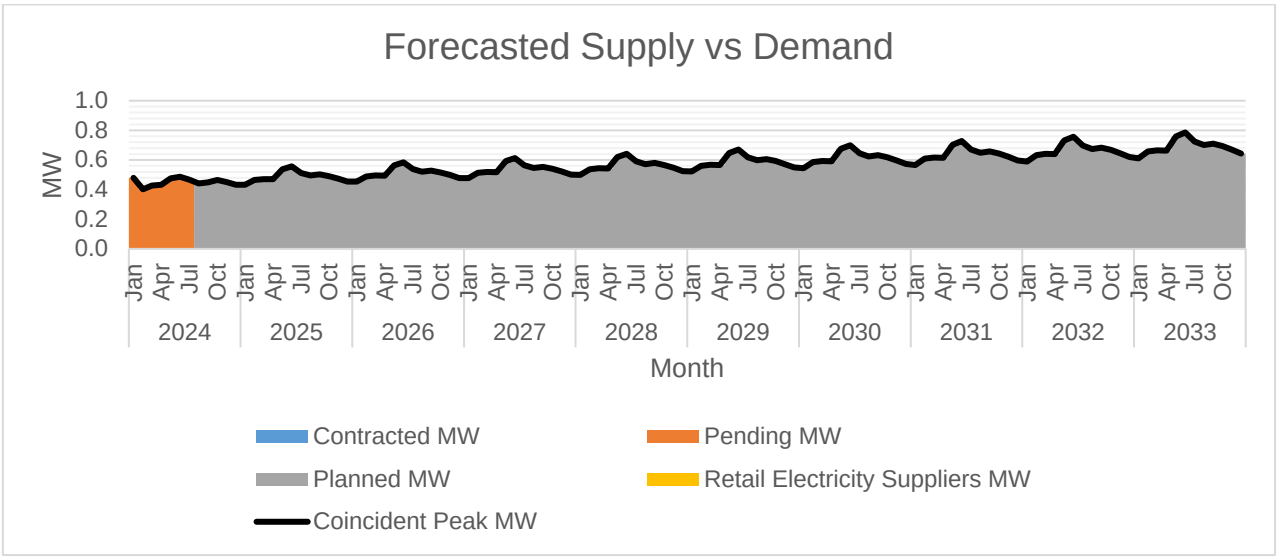
	Jul	0.59	0.00	0.00	0.591		0%	100%	0.00
	Aug	0.57	0.00	0.00	0.572		0%	100%	0.00
	Sep	0.58	0.00	0.00	0.580		0%	100%	0.00
	Oct	0.57	0.00	0.00	0.567		0%	100%	0.00
	Nov	0.55	0.00	0.00	0.547		0%	100%	0.00
	Dec	0.53	0.00	0.00	0.525		0%	100%	0.00
2029	Jan	0.52	0.00	0.00	0.522		0%	100%	0.00
	Feb	0.56	0.00	0.00	0.561		0%	100%	0.00
	Mar	0.57	0.00	0.00	0.568		0%	100%	0.00
	Apr	0.57	0.00	0.00	0.566		0%	100%	0.00
	May	0.65	0.00	0.00	0.648		0%	100%	0.00
	Jun	0.67	0.00	0.00	0.671		0%	100%	0.00
	Jul	0.62	0.00	0.00	0.618		0%	100%	0.00
	Aug	0.60	0.00	0.00	0.598		0%	100%	0.00
	Sep	0.61	0.00	0.00	0.606		0%	100%	0.00
	Oct	0.59	0.00	0.00	0.592		0%	100%	0.00
	Nov	0.57	0.00	0.00	0.572		0%	100%	0.00
	Dec	0.55	0.00	0.00	0.549		0%	100%	0.00
2030	Jan	0.54	0.00	0.00	0.544		0%	100%	0.00
	Feb	0.59	0.00	0.00	0.585		0%	100%	0.00
	Mar	0.59	0.00	0.00	0.592		0%	100%	0.00
	Apr	0.59	0.00	0.00	0.591		0%	100%	0.00
	May	0.68	0.00	0.00	0.675		0%	100%	0.00
	Jun	0.70	0.00	0.00	0.699		0%	100%	0.00
	Jul	0.64	0.00	0.00	0.644		0%	100%	0.00
	Aug	0.62	0.00	0.00	0.623		0%	100%	0.00
	Sep	0.63	0.00	0.00	0.632		0%	100%	0.00
	Oct	0.62	0.00	0.00	0.618		0%	100%	0.00
	Nov	0.60	0.00	0.00	0.596		0%	100%	0.00
	Dec	0.57	0.00	0.00	0.572		0%	100%	0.00

2031	Jan	0.57	0.00	0.00	0.567		0%	100%	0.00
	Feb	0.61	0.00	0.00	0.609		0%	100%	0.00
	Mar	0.62	0.00	0.00	0.617		0%	100%	0.00
	Apr	0.62	0.00	0.00	0.615		0%	100%	0.00
	May	0.70	0.00	0.00	0.703		0%	100%	0.00
	Jun	0.73	0.00	0.00	0.728		0%	100%	0.00
	Jul	0.67	0.00	0.00	0.671		0%	100%	0.00
	Aug	0.65	0.00	0.00	0.649		0%	100%	0.00
	Sep	0.66	0.00	0.00	0.658		0%	100%	0.00
	Oct	0.64	0.00	0.00	0.643		0%	100%	0.00
	Nov	0.62	0.00	0.00	0.621		0%	100%	0.00
	Dec	0.60	0.00	0.00	0.596		0%	100%	0.00
2032	Jan	0.59	0.00	0.00	0.589		0%	100%	0.00
	Feb	0.63	0.00	0.00	0.633		0%	100%	0.00
	Mar	0.64	0.00	0.00	0.641		0%	100%	0.00
	Apr	0.64	0.00	0.00	0.639		0%	100%	0.00
	May	0.73	0.00	0.00	0.731		0%	100%	0.00
	Jun	0.76	0.00	0.00	0.757		0%	100%	0.00
	Jul	0.70	0.00	0.00	0.697		0%	100%	0.00
	Aug	0.67	0.00	0.00	0.675		0%	100%	0.00
	Sep	0.68	0.00	0.00	0.684		0%	100%	0.00
	Oct	0.67	0.00	0.00	0.668		0%	100%	0.00
	Nov	0.65	0.00	0.00	0.646		0%	100%	0.00
	Dec	0.62	0.00	0.00	0.620		0%	100%	0.00
2033	Jan	0.61	0.00	0.00	0.612		0%	100%	0.00
	Feb	0.66	0.00	0.00	0.657		0%	100%	0.00
	Mar	0.67	0.00	0.00	0.665		0%	100%	0.00
	Apr	0.66	0.00	0.00	0.664		0%	100%	0.00
	May	0.76	0.00	0.00	0.759		0%	100%	0.00
	Jun	0.79	0.00	0.00	0.786		0%	100%	0.00

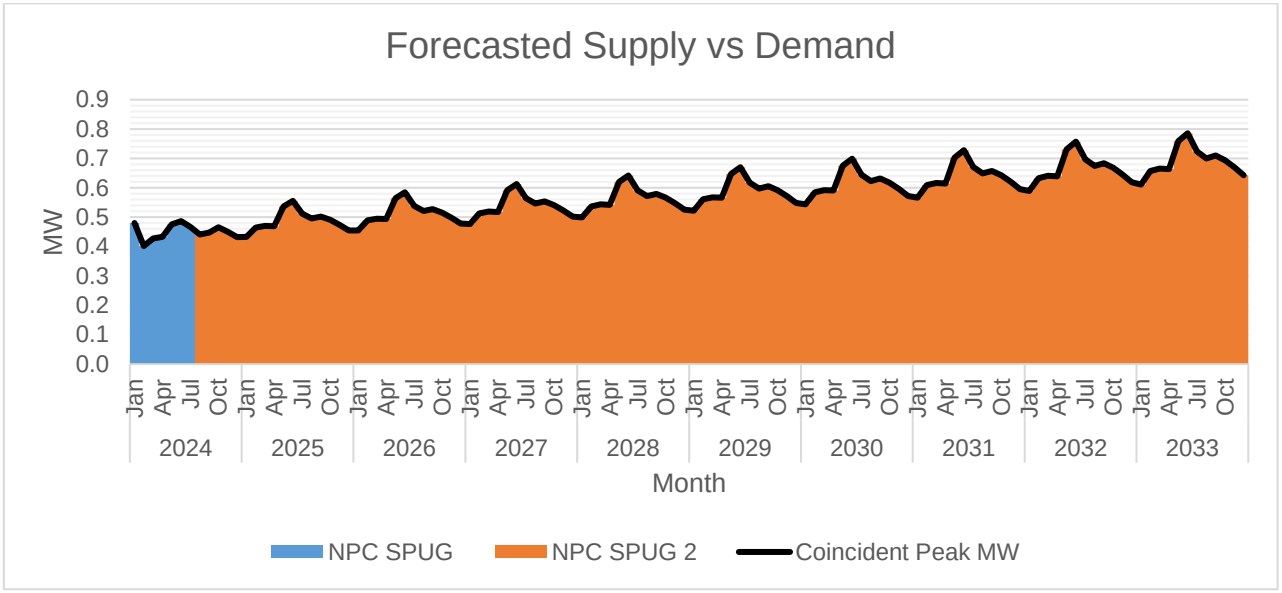
	Jul	0.72	0.00	0.00	0.724		0%	100%	0.00
	Aug	0.70	0.00	0.00	0.700		0%	100%	0.00
	Sep	0.71	0.00	0.00	0.710		0%	100%	0.00
	Oct	0.69	0.00	0.00	0.694		0%	100%	0.00
	Nov	0.67	0.00	0.00	0.670		0%	100%	0.00
	Dec	0.64	0.00	0.00	0.643		0%	100%	0.00

The Peak Demand was forecasted using growth rate analyses due to the load curve of historical data is not in linear and lack of historical data and was assumed to occur on the month of May due to the expected higher consumption due to the effect of summer season hence higher energy consumption. Monthly Peak Demand is at its lowest on the month of December due to cold weather at that time. In general, Peak Demand is expected to grow at a rate of 4 - 5% annually in the next 5 years.

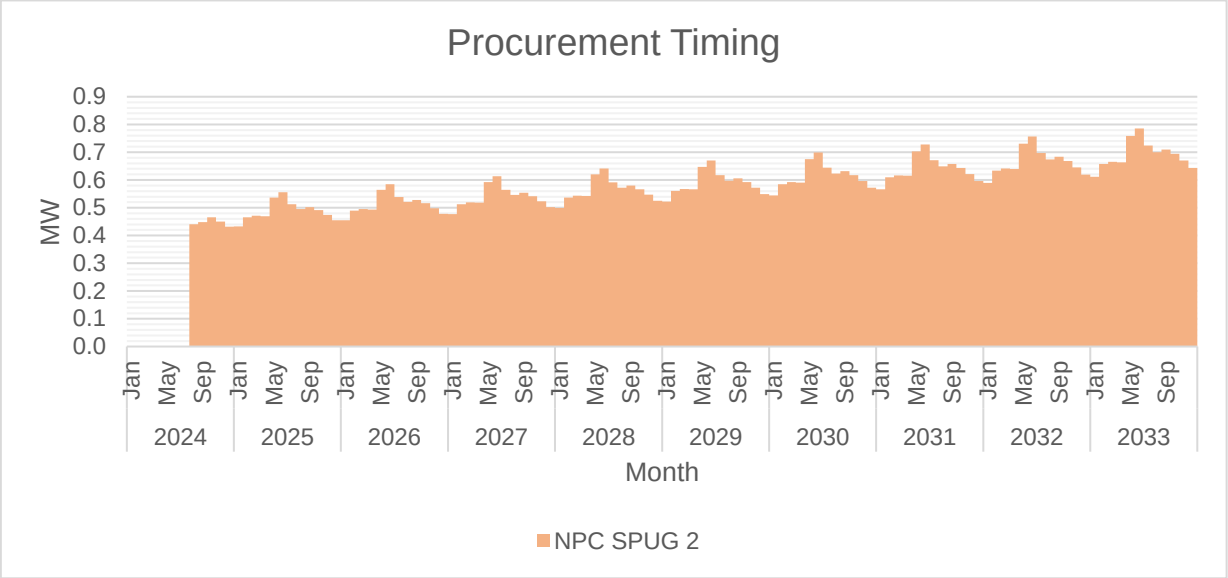
The forecasted data indicates a consistent year-over-year increase in feeder technical losses from 2024 to 2033, suggesting growing inefficiencies in the distribution system. While there are slight seasonal variations due to changing load demands, the overall trend shows a steady rise in losses over time. This increase is closely tied to load growth, as higher energy demand places additional stress on the infrastructure, leading to greater resistive losses. By the later years, such as 2030 and 2033, the losses peak at significantly higher levels, emphasizing the need for proactive measures like system upgrades, maintenance, and optimization to mitigate these inefficiencies and improve overall performance.



The available supply is generally below the Peak Demand. This is because the NPC-SPUG relies on generators to generate power, which is an expensive and inefficient method. The graph illustrates the forecasted electricity supply and demand from 2024 to 2033, highlighting various supply sources compared to peak demand. Initially, supply relies on contracted and pending sources, but planned supply becomes dominant from 2025 onward. No retail electricity suppliers contribute to the total supply. The forecasted demand, shown as a black line, fluctuates seasonally and gradually increases over time. While supply generally exceeds demand, the gap narrows by the late 2020s and early 2030s, indicating potential challenges. This underscores the importance of maintaining planned projects and monitoring demand to ensure reliable energy availability in the future.

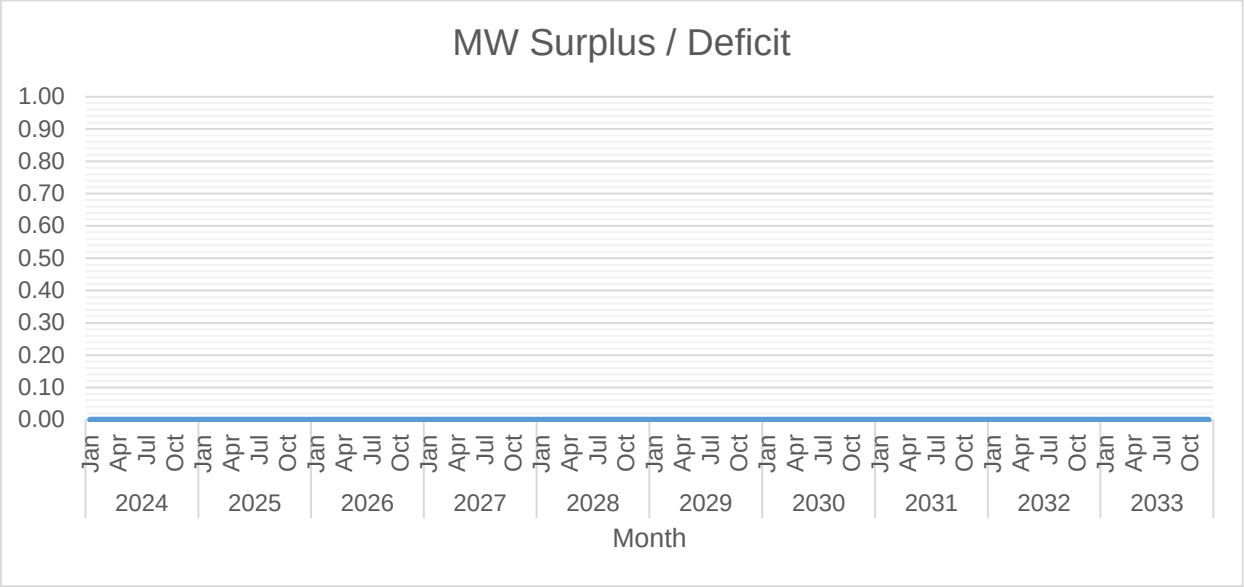


Of the available supply, the largest is 0.79 MW from NPC-SPUG 2 (Forecasted) only. The graph shows forecasted power supply and demand from 2024 to 2033. Initial supply (NPC SPUG) fades by mid-2024, with sustained supply (NPC SPUG 2) taking over. Demand fluctuates seasonally and rises over time, approaching or exceeding supply by the 2030s, highlighting the need for increased capacity or demand management.



The first wave of supply procurement will be for 0.44 MW planned to be available by the month of August 2024 to 2033 on NPC-SPUG only. The graph shows the procurement timing for electricity supply from NPC SPUG 2 between 2024 and 2033. The supply remains stable, averaging slightly above 0.6 MW, with minor annual fluctuations likely due to seasonal demand or operational adjustments. This consistent supply ensures reliability over the forecasted period, highlighting the importance of maintaining NPC SPUG 2's steady operation to meet potential demand changes.

The graph above shows the percentage (%) Contracting Levels. The highest target contracting level is 100% which is expected to occur in 2024 onwards. The contracting level is targeted to reach its highest at 100% consistently from 2024 to 2033, indicating full coverage of the forecasted demand through secured supply agreements during this period.



Currently, still zero, no contributed available for MW surplus / Deficit.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2024	Jan	203	185	19	0.00%	9.10%
	Feb	208	172	36	0.00%	17.12%
	Mar	196	174	22	0.00%	11.30%
	Apr	247	201	46	0.00%	18.68%
	May	269	242	27	0.00%	9.89%
	Jun	273	202	71	0.00%	26.05%
	Jul	241	205	36	0.00%	14.88%
	Aug	251	210	41	0.00%	16.49%
	Sep	258	215	42	0.00%	16.44%
	Oct	250	193	57	0.00%	22.73%
	Nov	249	208	41	0.00%	16.29%
	Dec	249	193	55	0.00%	22.25%
2025	Jan	219	199	21	0.00%	9.38%
	Feb	224	185	39	0.00%	17.37%
	Mar	211	187	24	0.00%	11.57%
	Apr	266	216	50	0.00%	18.93%
	May	290	260	29	0.00%	10.17%
	Jun	294	217	77	0.00%	26.27%
	Jul	260	221	39	0.00%	15.14%
	Aug	270	225	45	0.00%	16.74%
	Sep	278	232	46	0.00%	16.70%
	Oct	270	208	62	0.00%	22.97%
	Nov	268	224	44	0.00%	16.55%
	Dec	268	208	60	0.00%	22.49%
2026	Jan	237	214	22	0.00%	9.50%

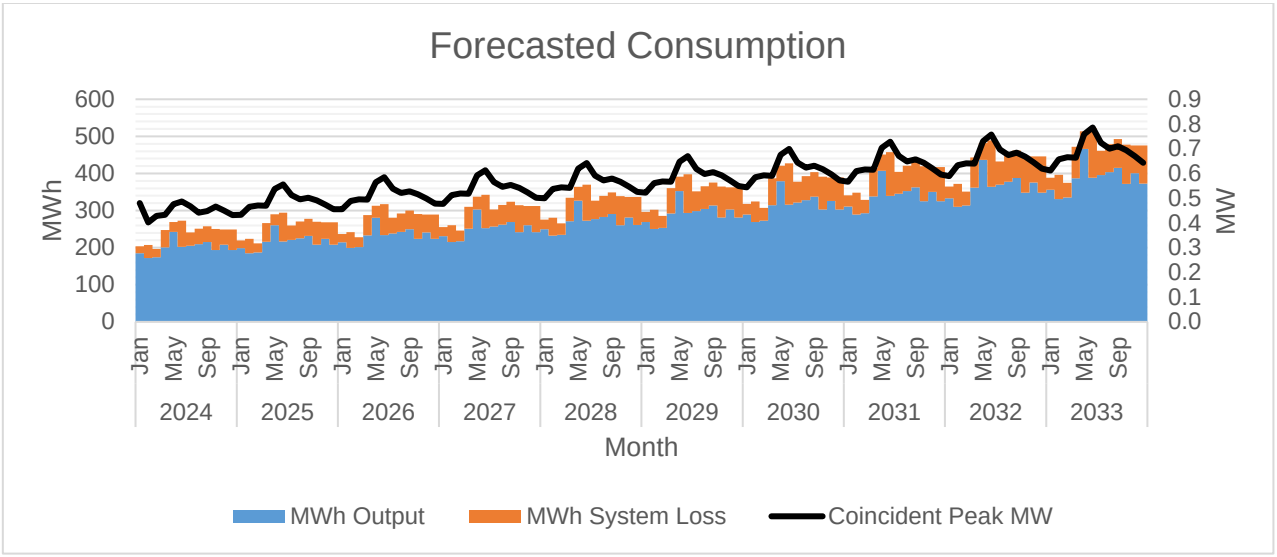
	Feb	241	199	42	0.00%	17.48%
	Mar	228	202	27	0.00%	11.68%
	Apr	288	233	55	0.00%	19.04%
	May	313	281	32	0.00%	10.29%
	Jun	318	234	84	0.00%	26.37%
	Jul	281	238	43	0.00%	15.25%
	Aug	292	243	49	0.00%	16.85%
	Sep	300	250	50	0.00%	16.81%
	Oct	291	224	67	0.00%	23.07%
	Nov	290	241	48	0.00%	16.66%
	Dec	290	224	65	0.00%	22.59%
2027	Jan	255	231	24	0.00%	9.50%
	Feb	261	215	46	0.00%	17.48%
	Mar	246	218	29	0.00%	11.68%
	Apr	310	251	59	0.00%	19.03%
	May	338	303	35	0.00%	10.28%
	Jun	343	252	90	0.00%	26.37%
	Jul	303	257	46	0.00%	15.25%
	Aug	315	262	53	0.00%	16.85%
	Sep	324	269	54	0.00%	16.81%
	Oct	314	242	72	0.00%	23.07%
	Nov	312	260	52	0.00%	16.65%
	Dec	312	242	71	0.00%	22.59%
2028	Jan	275	249	26	0.00%	9.40%
	Feb	281	232	49	0.00%	17.39%
	Mar	266	235	31	0.00%	11.59%
	Apr	335	271	63	0.00%	18.95%
	May	364	327	37	0.00%	10.19%
	Jun	370	272	97	0.00%	26.29%
	Jul	327	277	50	0.00%	15.16%
	Aug	340	283	57	0.00%	16.76%
	Sep	349	291	58	0.00%	16.72%
	Oct	339	261	78	0.00%	22.99%
	Nov	337	281	56	0.00%	16.57%
	Dec	337	261	76	0.00%	22.51%
2029	Jan	296	269	27	0.00%	9.25%
	Feb	302	250	52	0.00%	17.25%
	Mar	286	253	33	0.00%	11.44%
	Apr	360	292	68	0.00%	18.81%
	May	392	352	39	0.00%	10.04%
	Jun	398	294	104	0.00%	26.17%
	Jul	351	299	53	0.00%	15.02%
	Aug	365	305	61	0.00%	16.62%
	Sep	376	313	62	0.00%	16.58%
	Oct	364	281	83	0.00%	22.86%
	Nov	363	303	60	0.00%	16.43%

	Dec	363	281	81	0.00%	22.38%
2030	Jan	318	289	29	0.00%	9.05%
	Feb	325	269	55	0.00%	17.07%
	Mar	307	272	35	0.00%	11.25%
	Apr	387	315	72	0.00%	18.64%
	May	421	379	41	0.00%	9.85%
	Jun	427	316	111	0.00%	26.01%
	Jul	377	321	56	0.00%	14.84%
	Aug	393	328	65	0.00%	16.44%
	Sep	403	337	66	0.00%	16.40%
	Oct	391	303	89	0.00%	22.69%
	Nov	389	326	63	0.00%	16.25%
	Dec	389	303	86	0.00%	22.21%
2031	Jan	341	311	30	0.00%	8.84%
	Feb	348	289	59	0.00%	16.88%
	Mar	329	293	36	0.00%	11.04%
	Apr	414	338	76	0.00%	18.44%
	May	451	407	43	0.00%	9.63%
	Jun	458	339	118	0.00%	25.83%
	Jul	404	345	59	0.00%	14.63%
	Aug	421	352	68	0.00%	16.24%
	Sep	432	362	70	0.00%	16.20%
	Oct	419	325	94	0.00%	22.51%
	Nov	417	350	67	0.00%	16.05%
	Dec	417	325	92	0.00%	22.03%
2032	Jan	364	333	31	0.00%	8.61%
	Feb	372	310	62	0.00%	16.66%
	Mar	351	313	38	0.00%	10.81%
	Apr	443	362	81	0.00%	18.24%
	May	482	436	45	0.00%	9.40%
	Jun	489	364	125	0.00%	25.65%
	Jul	432	370	62	0.00%	14.42%
	Aug	449	377	72	0.00%	16.03%
	Sep	462	388	74	0.00%	15.99%
	Oct	448	348	100	0.00%	22.31%
	Nov	446	375	71	0.00%	15.83%
	Dec	446	349	97	0.00%	21.83%
2033	Jan	389	356	33	0.00%	8.37%
	Feb	396	331	65	0.00%	16.45%
	Mar	375	335	40	0.00%	10.58%
	Apr	472	387	85	0.00%	18.03%
	May	513	466	47	0.00%	9.17%
	Jun	521	389	133	0.00%	25.45%
	Jul	461	395	65	0.00%	14.20%
	Aug	479	403	76	0.00%	15.81%
	Sep	492	415	78	0.00%	15.77%

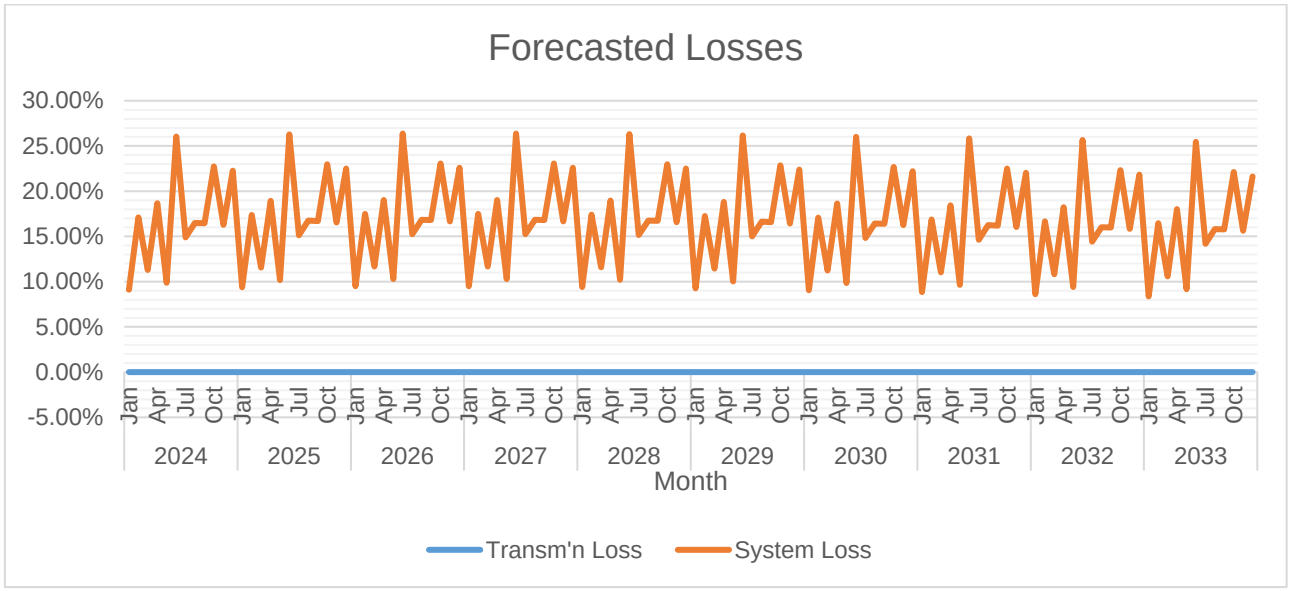
	Oct	478	372	106	0.00%	22.11%
	Nov	475	401	74	0.00%	15.62%
	Dec	475	373	103	0.00%	21.63%

MWh Offtake was forecasted using growth rate analyses due to the load curve of historical data is not in linear and lack of historical data. The assumed load factor is 60%.

System Loss was calculated through a Load Flow Study conducted on every year by Corporate Planning Department using Distribution System Application Software (DSAS) software. Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output was expected to grow at a rate of 7% annually.



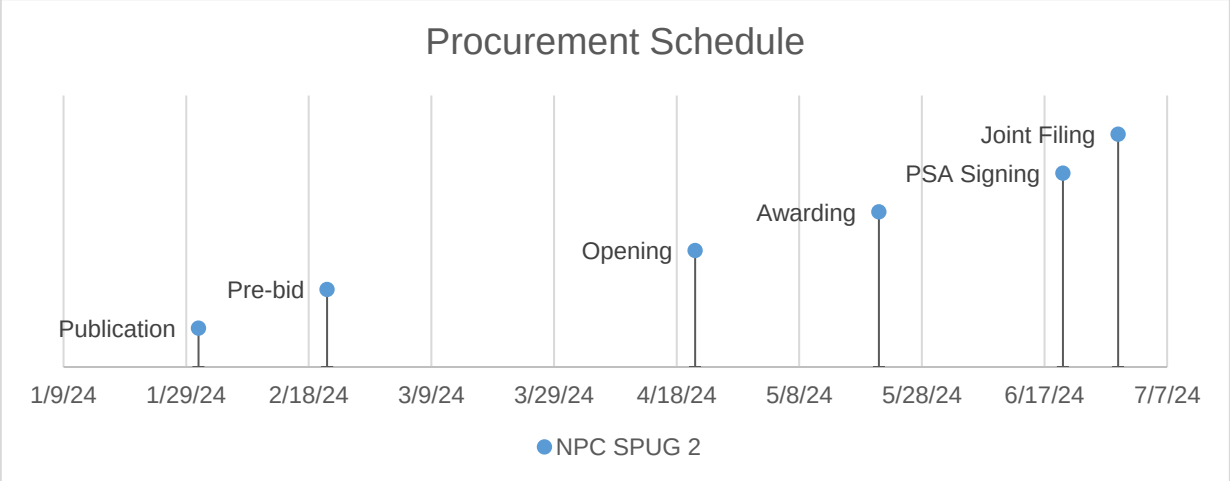
Transmission Loss is expected to range from 0% to 0% while System Loss is expected to range from 8.37% to 26.37%.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
NPC SPUG	Base	National Power Corporation	0.40	196	7/26/2023	7/25/2024

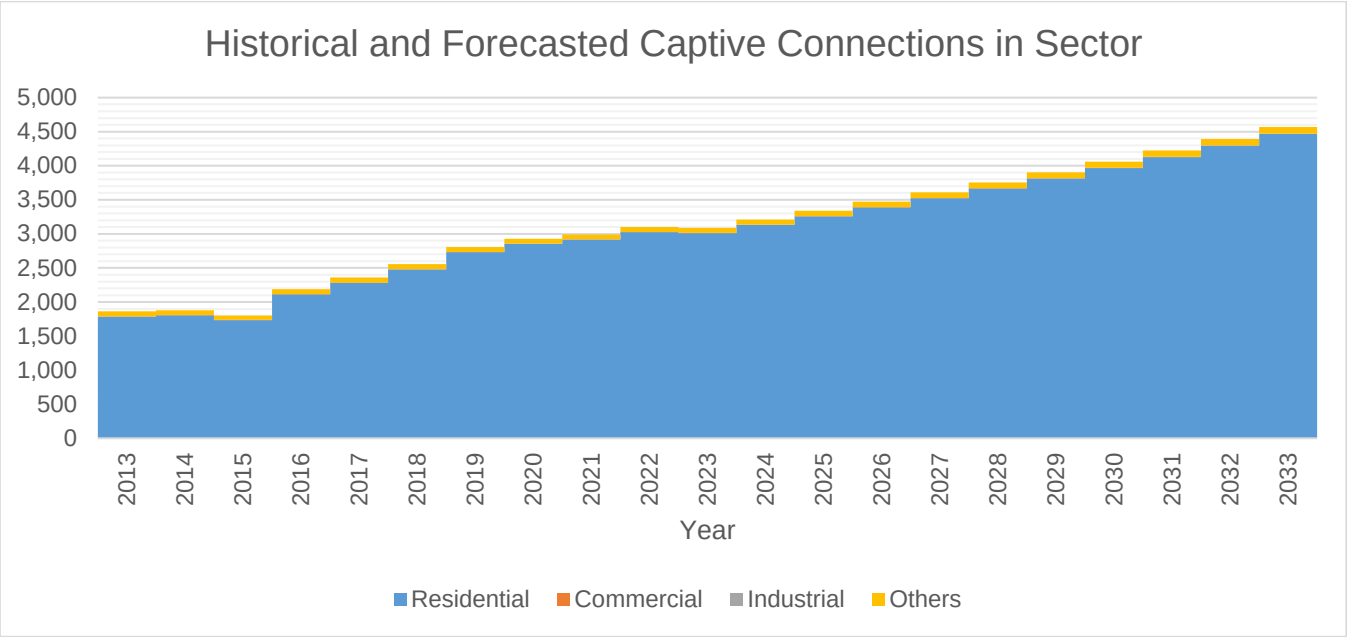
The PSA with NPC-SPUG still pending.

	NPC SPUG 2
Type	Base
Minimum MW	0.43
Minimum MWh/yr	211
PSA Start	7/26/2024
PSA End	7/25/2033
Publication	1/31/2024
Pre-bid	2/21/2024
Opening	4/21/2024
Awarding	5/21/2024
PSA Signing	6/20/2024
Joint Filing	6/29/2024



For planned NPC-SPUG 2 are based on the procurement schedule.

Captive Customer Connections



The number of residential connections is expected to grow at a rate of 4.02% annually. Said customer class is expected to account for 95.87% of the total consumption.