

# **Power Supply Procurement Plan 2021**

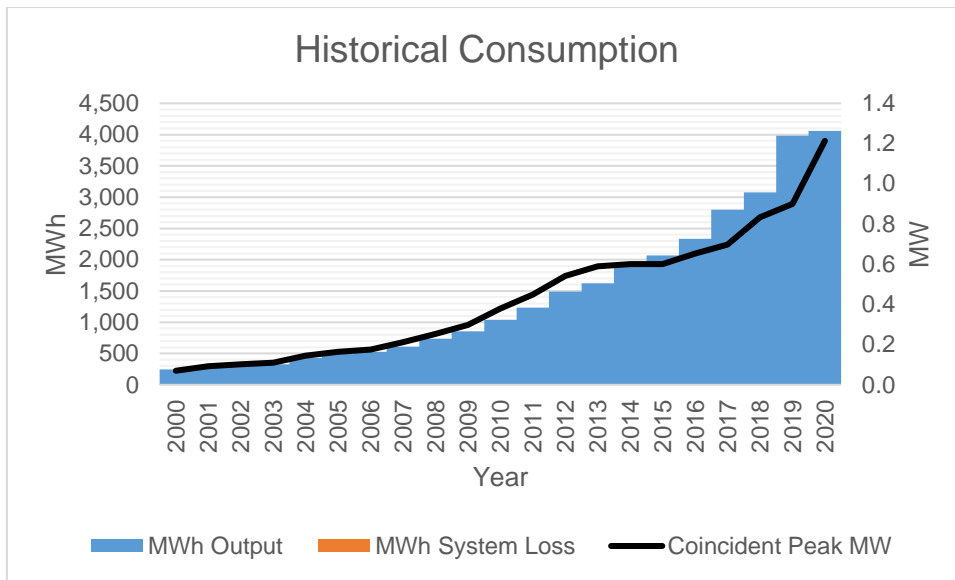
**Semirara Island**

## Historical Consumption Data

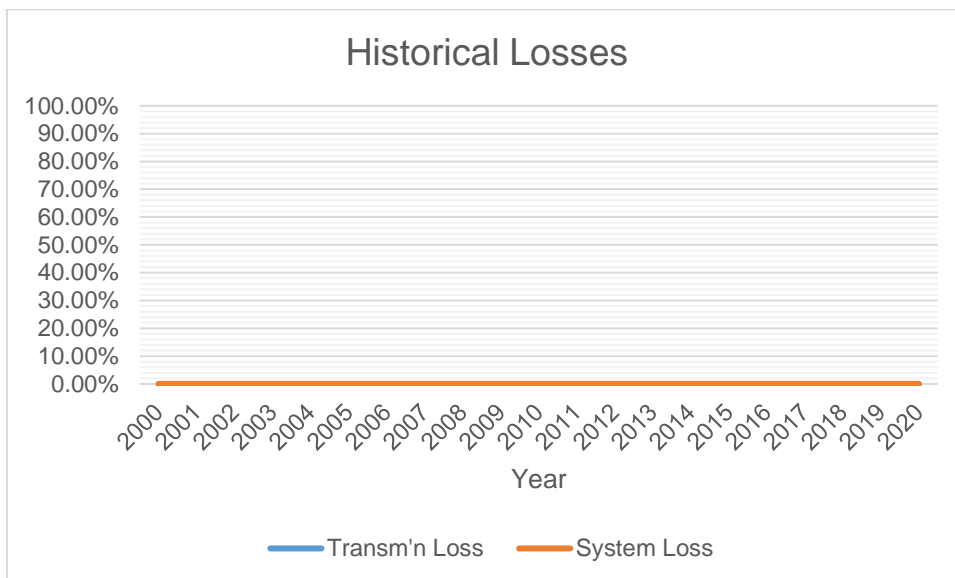
	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	0.07	244	0	244	244	0	40%	0.00%	0.00%	0.00%
2001	0.09	276	0	276	276	0	34%	0.00%	0.00%	0.00%
2002	0.10	305	0	305	305	0	34%	0.00%	0.00%	0.00%
2003	0.11	330	0	330	330	0	34%	0.00%	0.00%	0.00%
2004	0.14	430	0	430	430	0	34%	0.00%	0.00%	0.00%
2005	0.16	493	0	493	493	0	34%	0.00%	0.00%	0.00%
2006	0.17	528	0	528	528	0	35%	0.00%	0.00%	0.00%
2007	0.21	611	0	611	611	0	33%	0.00%	0.00%	0.00%
2008	0.25	735	0	735	735	0	33%	0.00%	0.00%	0.00%
2009	0.30	853	0	853	853	0	33%	0.00%	0.00%	0.00%
2010	0.38	1,039	0	1,039	1,039	0	31%	0.00%	0.00%	0.00%
2011	0.45	1,232	0	1,232	1,232	0	31%	0.00%	0.00%	0.00%
2012	0.54	1,489	0	1,489	1,489	0	31%	0.00%	0.00%	0.00%
2013	0.59	1,620	0	1,620	1,620	0	31%	0.00%	0.00%	0.00%
2014	0.60	1,927	0	1,927	1,927	0	37%	0.00%	0.00%	0.00%
2015	0.60	2,067	0	2,067	2,067	0	39%	0.00%	0.00%	0.00%
2016	0.65	2,333	0	2,333	2,333	0	41%	0.00%	0.00%	0.00%
2017	0.70	2,798	0	2,798	2,798	0	46%	0.00%	0.00%	0.00%
2018	0.83	3,075	0	3,075	3,075	0	42%	0.00%	0.00%	0.00%
2019	0.90	3,980	0	3,980	3,980	0	51%	0.00%	0.00%	0.00%
2020	1.21	4,057	0	4,057	4,057	0	38%	0.00%	0.00%	0.00%

Peak Demand increased from 0.90 MW in 2019 to 1.21 MW in 2020 at a rate of 34% due to load growth. MWh Offtake increased from 3,980MWh in 2019 to 4,057MWh in 2020 at a rate of 1.9% due to increase of demand. Within the same period, Load Factor ranged from 38% to 51%. There was an abrupt change in consumption due to load growth.

MWh offtake and MWh Input was adjusted from previous PSPP due to inconsistency to the sum of sales per customer type. And it was corrected in this present PSPP 2021.

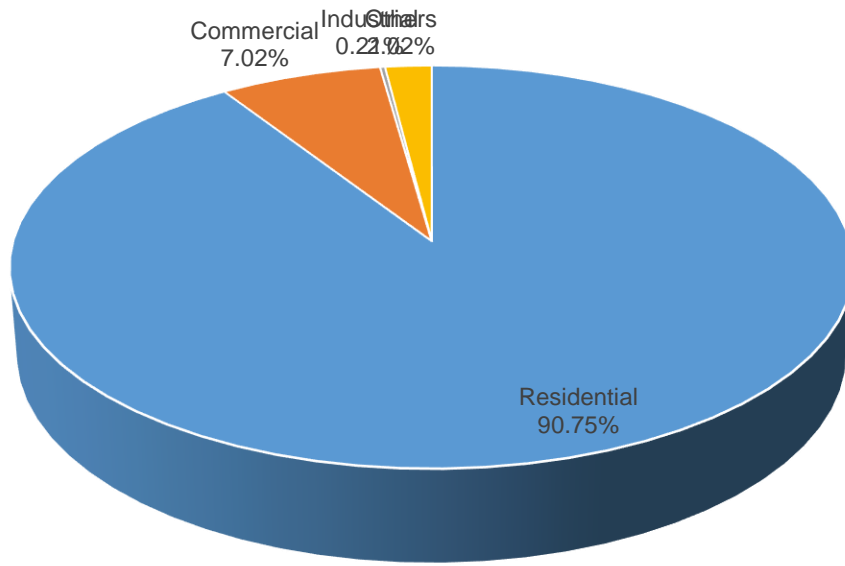


MWh Output increased from year 2019 to year 2020 at a rate of 1.9%, while MWh System Loss remains at zero within the same period.



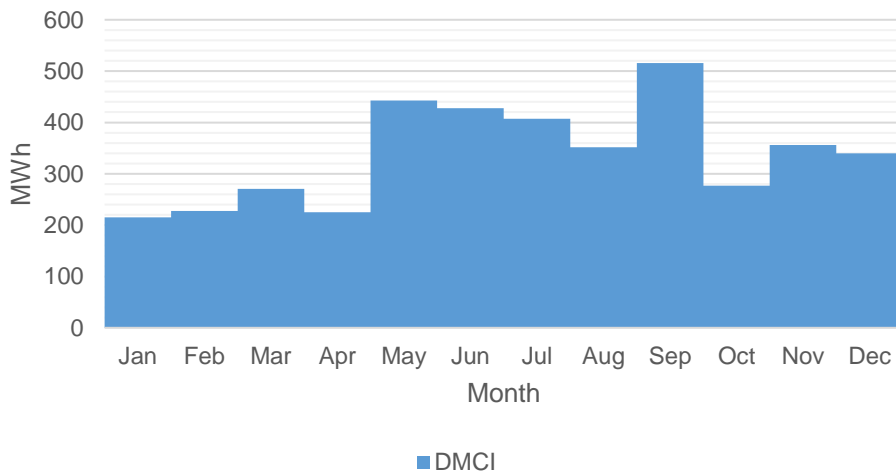
Historically, Transmission Loss ranged from 0% to 0% while System Loss is zero. Transmission Loss is also zero for the year 2000 to 2019 because of the agreement of the company that ANTECO will only pay the MWh used by the consumers to the supplier. System Loss is zero all throughout.

### Previous Year's Shares of Energy Sales

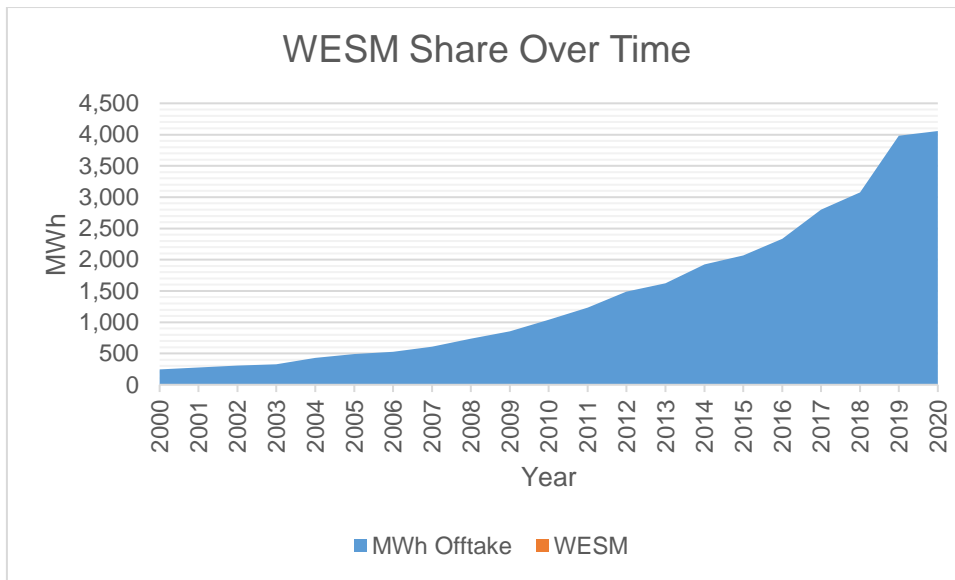


Residential customers account for the bulk of energy sales at 90.75% due to the high number of connections. In contrast, Industrial customers accounted for only 0.21% of energy sales due to the low number of connections.

### MWh Offtake for Last Historical Year

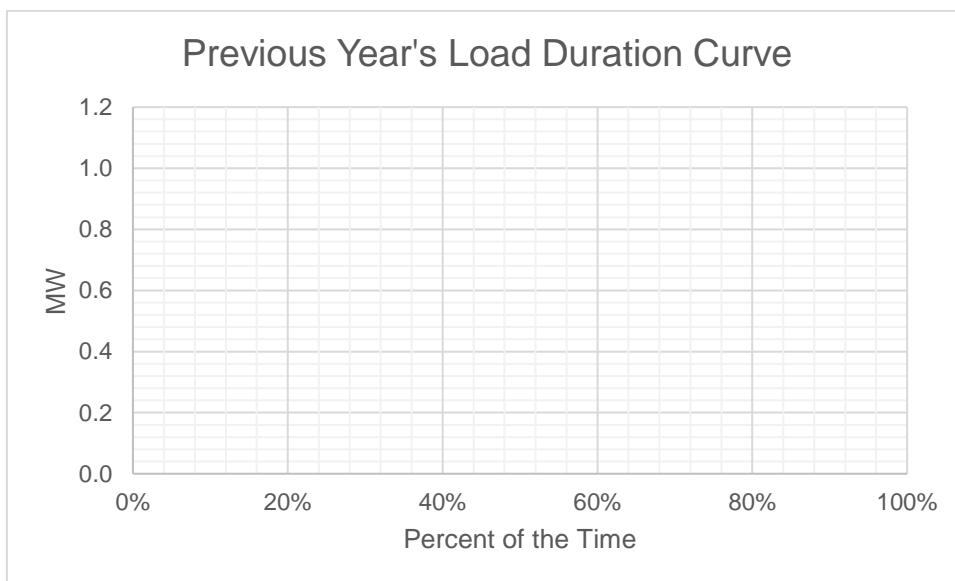


For 2020, the total Offtake for the last historical year is the same as the quantity stipulated

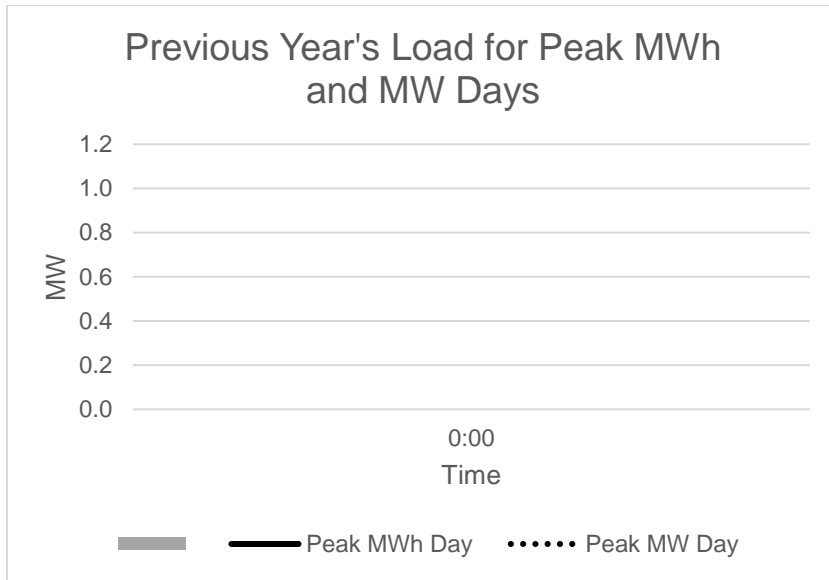


WESM Offtake is zero. Semirara Island is not connected to grid.

## Previous Year's Load Profile



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



Peak MW occurred on \_\_\_ due to \_\_\_. Peak daily MWh occurred on \_\_\_ due to \_\_\_. As shown in the Load Curves, the available supply is [higher/lower] than the Peak Demand.

### Previous Year's Loading Summary

0.00	0.00	0.00	0.00	0.00
MVA Tot	NCP	CP	Ave	5th PCTL

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

Metering Point	Substation MVA	Substation Peak MW
		0.000

The substations loaded at above 70% are \_\_\_. This loading problem will be solved by \_\_\_.

## 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
2021	Jan	1.04	0.00	0.00	1.037		0%	100%	0.00
	Feb	1.06	0.00	0.00	1.060		0%	100%	0.00
	Mar	1.10	0.00	0.00	1.101		0%	100%	0.00
	Apr	1.12	0.00	0.00	1.120		0%	100%	0.00
	May	1.22	0.00	0.00	1.218		0%	100%	0.00
	Jun	1.22	0.00	0.00	1.224		0%	100%	0.00
	Jul	1.16	0.00	0.00	1.156		0%	100%	0.00
	Aug	1.16	0.00	0.00	1.158		0%	100%	0.00
	Sep	1.15	0.00	0.00	1.154		0%	100%	0.00
	Oct	1.15	0.00	0.00	1.150		0%	100%	0.00
	Nov	1.18	0.00	0.00	1.179		0%	100%	0.00
	Dec	1.16	0.00	0.00	1.161		0%	100%	0.00
2022	Jan	1.13	0.00	0.00	1.130		0%	100%	0.00
	Feb	1.16	0.00	0.00	1.156		0%	100%	0.00
	Mar	1.20	0.00	0.00	1.200		0%	100%	0.00
	Apr	1.22	0.00	0.00	1.221		0%	100%	0.00
	May	1.33	0.00	0.00	1.328		0%	100%	0.00
	Jun	1.33	0.00	0.00	1.334		0%	100%	0.00
	Jul	1.26	0.00	0.00	1.259		0%	100%	0.00
	Aug	1.26	0.00	0.00	1.262		0%	100%	0.00
	Sep	1.26	0.00	0.00	1.258		0%	100%	0.00
	Oct	1.25	0.00	0.00	1.253		0%	100%	0.00
	Nov	1.29	0.00	0.00	1.285		0%	100%	0.00
	Dec	1.27	0.00	0.00	1.265		0%	100%	0.00
2023	Jan	1.22	0.00	0.00	1.220		0%	100%	0.00
	Feb	1.25	0.00	0.00	1.247		0%	100%	0.00
	Mar	1.30	0.00	0.00	1.295		0%	100%	0.00
	Apr	1.32	0.00	0.00	1.317		0%	100%	0.00

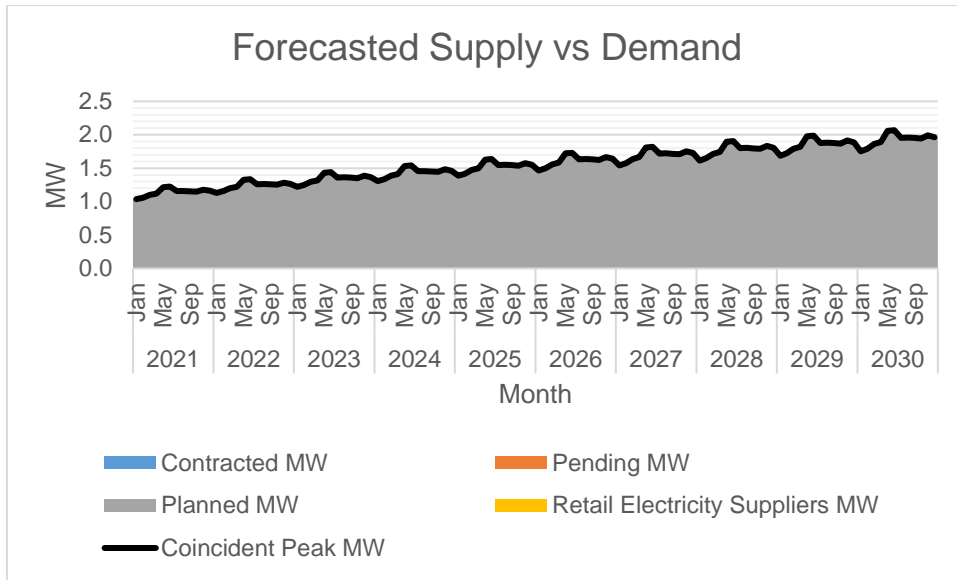
	May	1.43	0.00	0.00	1.432		0%	100%	0.00
	Jun	1.44	0.00	0.00	1.439		0%	100%	0.00
	Jul	1.36	0.00	0.00	1.359		0%	100%	0.00
	Aug	1.36	0.00	0.00	1.362		0%	100%	0.00
	Sep	1.36	0.00	0.00	1.357		0%	100%	0.00
	Oct	1.35	0.00	0.00	1.352		0%	100%	0.00
	Nov	1.39	0.00	0.00	1.386		0%	100%	0.00
	Dec	1.37	0.00	0.00	1.365		0%	100%	0.00
2024	Jan	1.31	0.00	0.00	1.305		0%	100%	0.00
	Feb	1.33	0.00	0.00	1.334		0%	100%	0.00
	Mar	1.39	0.00	0.00	1.386		0%	100%	0.00
	Apr	1.41	0.00	0.00	1.410		0%	100%	0.00
	May	1.53	0.00	0.00	1.533		0%	100%	0.00
	Jun	1.54	0.00	0.00	1.540		0%	100%	0.00
	Jul	1.45	0.00	0.00	1.454		0%	100%	0.00
	Aug	1.46	0.00	0.00	1.457		0%	100%	0.00
	Sep	1.45	0.00	0.00	1.452		0%	100%	0.00
	Oct	1.45	0.00	0.00	1.447		0%	100%	0.00
	Nov	1.48	0.00	0.00	1.483		0%	100%	0.00
	Dec	1.46	0.00	0.00	1.461		0%	100%	0.00
2025	Jan	1.39	0.00	0.00	1.387		0%	100%	0.00
	Feb	1.42	0.00	0.00	1.418		0%	100%	0.00
	Mar	1.47	0.00	0.00	1.473		0%	100%	0.00
	Apr	1.50	0.00	0.00	1.498		0%	100%	0.00
	May	1.63	0.00	0.00	1.629		0%	100%	0.00
	Jun	1.64	0.00	0.00	1.636		0%	100%	0.00
	Jul	1.55	0.00	0.00	1.545		0%	100%	0.00
	Aug	1.55	0.00	0.00	1.549		0%	100%	0.00
	Sep	1.54	0.00	0.00	1.544		0%	100%	0.00
	Oct	1.54	0.00	0.00	1.538		0%	100%	0.00
	Nov	1.58	0.00	0.00	1.576		0%	100%	0.00
	Dec	1.55	0.00	0.00	1.553		0%	100%	0.00
2026	Jan	1.47	0.00	0.00	1.466		0%	100%	0.00



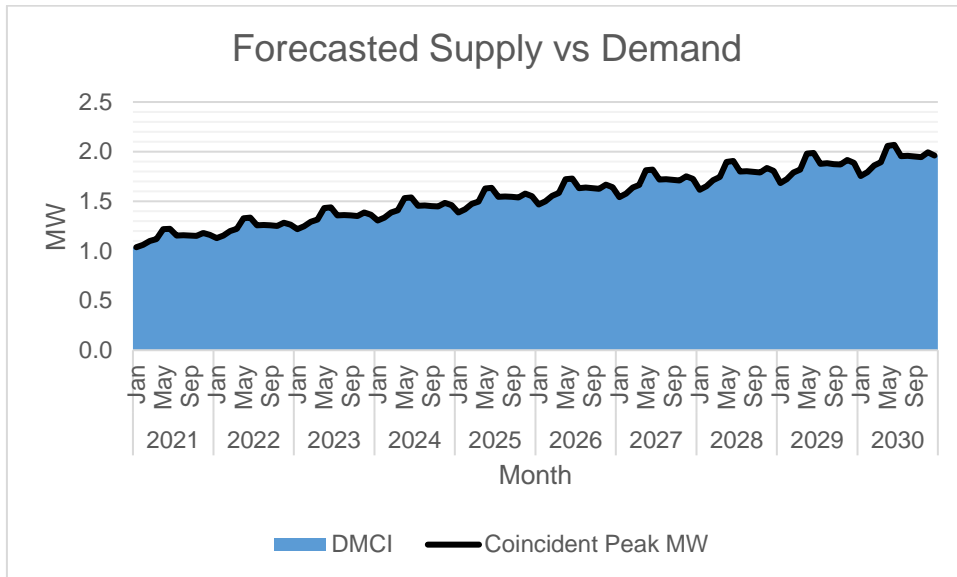
	Feb	1.50	0.00	0.00	1.499		0%	100%	0.00
	Mar	1.56	0.00	0.00	1.556		0%	100%	0.00
	Apr	1.58	0.00	0.00	1.583		0%	100%	0.00
	May	1.72	0.00	0.00	1.722		0%	100%	0.00
	Jun	1.73	0.00	0.00	1.729		0%	100%	0.00
	Jul	1.63	0.00	0.00	1.633		0%	100%	0.00
	Aug	1.64	0.00	0.00	1.637		0%	100%	0.00
	Sep	1.63	0.00	0.00	1.631		0%	100%	0.00
	Oct	1.63	0.00	0.00	1.625		0%	100%	0.00
	Nov	1.67	0.00	0.00	1.666		0%	100%	0.00
	Dec	1.64	0.00	0.00	1.641		0%	100%	0.00
2027	Jan	1.54	0.00	0.00	1.542		0%	100%	0.00
	Feb	1.58	0.00	0.00	1.576		0%	100%	0.00
	Mar	1.64	0.00	0.00	1.637		0%	100%	0.00
	Apr	1.67	0.00	0.00	1.665		0%	100%	0.00
	May	1.81	0.00	0.00	1.811		0%	100%	0.00
	Jun	1.82	0.00	0.00	1.819		0%	100%	0.00
	Jul	1.72	0.00	0.00	1.718		0%	100%	0.00
	Aug	1.72	0.00	0.00	1.722		0%	100%	0.00
	Sep	1.72	0.00	0.00	1.716		0%	100%	0.00
	Oct	1.71	0.00	0.00	1.710		0%	100%	0.00
	Nov	1.75	0.00	0.00	1.752		0%	100%	0.00
	Dec	1.73	0.00	0.00	1.726		0%	100%	0.00
2028	Jan	1.62	0.00	0.00	1.615		0%	100%	0.00
	Feb	1.65	0.00	0.00	1.651		0%	100%	0.00
	Mar	1.71	0.00	0.00	1.714		0%	100%	0.00
	Apr	1.74	0.00	0.00	1.744		0%	100%	0.00
	May	1.90	0.00	0.00	1.896		0%	100%	0.00
	Jun	1.91	0.00	0.00	1.905		0%	100%	0.00
	Jul	1.80	0.00	0.00	1.799		0%	100%	0.00
	Aug	1.80	0.00	0.00	1.803		0%	100%	0.00
	Sep	1.80	0.00	0.00	1.797		0%	100%	0.00
	Oct	1.79	0.00	0.00	1.790		0%	100%	0.00

	Nov	1.84	0.00	0.00	1.835		0%	100%	0.00
	Dec	1.81	0.00	0.00	1.807		0%	100%	0.00
2029	Jan	1.69	0.00	0.00	1.685		0%	100%	0.00
	Feb	1.72	0.00	0.00	1.723		0%	100%	0.00
	Mar	1.79	0.00	0.00	1.789		0%	100%	0.00
	Apr	1.82	0.00	0.00	1.820		0%	100%	0.00
	May	1.98	0.00	0.00	1.979		0%	100%	0.00
	Jun	1.99	0.00	0.00	1.988		0%	100%	0.00
	Jul	1.88	0.00	0.00	1.877		0%	100%	0.00
	Aug	1.88	0.00	0.00	1.882		0%	100%	0.00
	Sep	1.88	0.00	0.00	1.875		0%	100%	0.00
	Oct	1.87	0.00	0.00	1.869		0%	100%	0.00
	Nov	1.92	0.00	0.00	1.915		0%	100%	0.00
	Dec	1.89	0.00	0.00	1.886		0%	100%	0.00
2030	Jan	1.75	0.00	0.00	1.753		0%	100%	0.00
	Feb	1.79	0.00	0.00	1.792		0%	100%	0.00
	Mar	1.86	0.00	0.00	1.861		0%	100%	0.00
	Apr	1.89	0.00	0.00	1.893		0%	100%	0.00
	May	2.06	0.00	0.00	2.059		0%	100%	0.00
	Jun	2.07	0.00	0.00	2.068		0%	100%	0.00
	Jul	1.95	0.00	0.00	1.953		0%	100%	0.00
	Aug	1.96	0.00	0.00	1.958		0%	100%	0.00
	Sep	1.95	0.00	0.00	1.951		0%	100%	0.00
	Oct	1.94	0.00	0.00	1.944		0%	100%	0.00
	Nov	1.99	0.00	0.00	1.992		0%	100%	0.00
	Dec	1.96	0.00	0.00	1.962		0%	100%	0.00

The Peak Demand was forecasted using 7-year historical data and was assumed to occur on the month of June due to Festival for the last week of May or first week of June. Monthly Peak Demand is at its lowest on the month of January due to decrease in consumption. In general, Peak Demand is expected to grow at a rate of 5.99% annually.



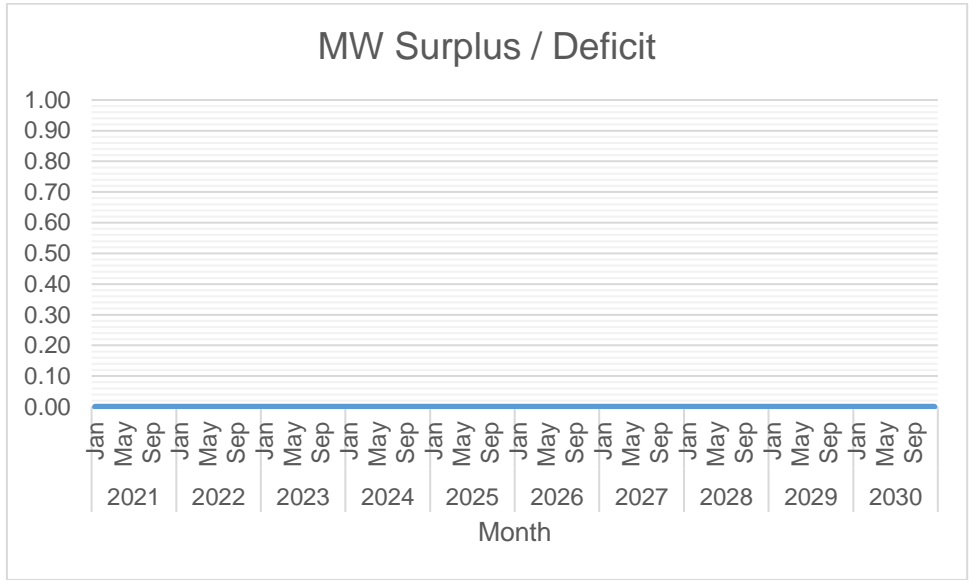
The available supply is generally equal to the Peak Demand.



Of the available supply, the largest is 2.07 MW from June 2030. This is followed by 2.06 MW from May 2030.



The highest target contracting level is set to 100%.



Currently, there is no under-contacting/over-contacting. There is no surplus/deficit.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	303	303	0	0.00%	0.00%
	Feb	295	295	0	0.00%	0.00%
	Mar	300	300	0	0.00%	0.00%
	Apr	347	347	0	0.00%	0.00%
	May	373	373	0	0.00%	0.00%
	Jun	382	382	0	0.00%	0.00%
	Jul	390	390	0	0.00%	0.00%
	Aug	362	362	0	0.00%	0.00%
	Sep	361	361	0	0.00%	0.00%
	Oct	369	369	0	0.00%	0.00%
	Nov	386	386	0	0.00%	0.00%
	Dec	362	362	0	0.00%	0.00%
2022	Jan	327	327	0	0.00%	0.00%

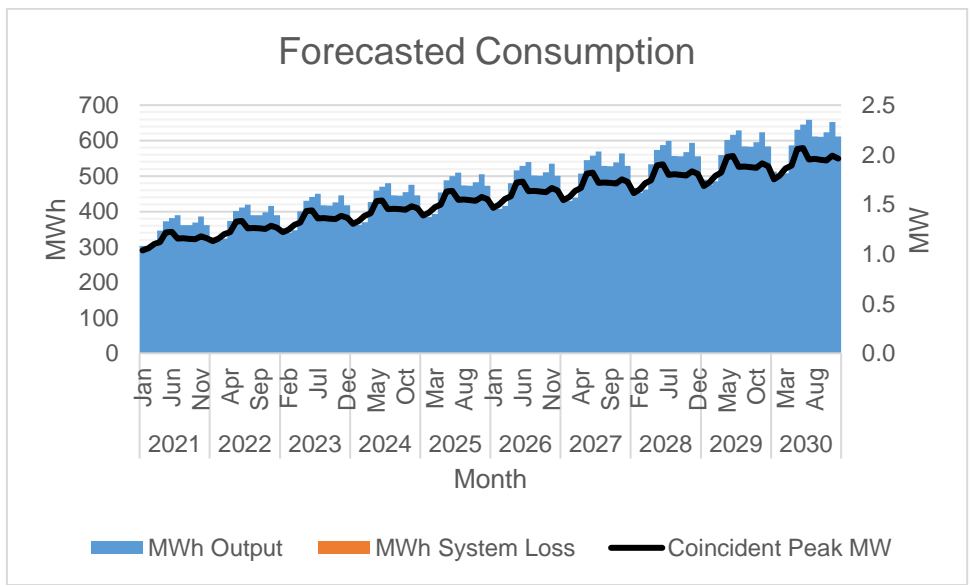
	Feb	317	317	0	0.00%	0.00%
	Mar	324	324	0	0.00%	0.00%
	Apr	374	374	0	0.00%	0.00%
	May	402	402	0	0.00%	0.00%
	Jun	411	411	0	0.00%	0.00%
	Jul	420	420	0	0.00%	0.00%
	Aug	390	390	0	0.00%	0.00%
	Sep	389	389	0	0.00%	0.00%
	Oct	397	397	0	0.00%	0.00%
	Nov	416	416	0	0.00%	0.00%
	Dec	390	390	0	0.00%	0.00%
2023	Jan	350	350	0	0.00%	0.00%
	Feb	340	340	0	0.00%	0.00%
	Mar	347	347	0	0.00%	0.00%
	Apr	400	400	0	0.00%	0.00%
	May	431	431	0	0.00%	0.00%
	Jun	441	441	0	0.00%	0.00%
	Jul	450	450	0	0.00%	0.00%
	Aug	418	418	0	0.00%	0.00%
	Sep	417	417	0	0.00%	0.00%
	Oct	426	426	0	0.00%	0.00%
	Nov	446	446	0	0.00%	0.00%
	Dec	417	417	0	0.00%	0.00%
2024	Jan	374	374	0	0.00%	0.00%
	Feb	363	363	0	0.00%	0.00%
	Mar	370	370	0	0.00%	0.00%
	Apr	427	427	0	0.00%	0.00%
	May	459	459	0	0.00%	0.00%
	Jun	470	470	0	0.00%	0.00%
	Jul	480	480	0	0.00%	0.00%
	Aug	446	446	0	0.00%	0.00%
	Sep	445	445	0	0.00%	0.00%
	Oct	454	454	0	0.00%	0.00%
	Nov	475	475	0	0.00%	0.00%
	Dec	445	445	0	0.00%	0.00%
2025	Jan	397	397	0	0.00%	0.00%
	Feb	385	385	0	0.00%	0.00%
	Mar	393	393	0	0.00%	0.00%
	Apr	454	454	0	0.00%	0.00%
	May	488	488	0	0.00%	0.00%
	Jun	499	499	0	0.00%	0.00%
	Jul	510	510	0	0.00%	0.00%
	Aug	473	473	0	0.00%	0.00%
	Sep	473	473	0	0.00%	0.00%
	Oct	483	483	0	0.00%	0.00%
	Nov	505	505	0	0.00%	0.00%
	Dec	473	473	0	0.00%	0.00%
2026	Jan	420	420	0	0.00%	0.00%
	Feb	408	408	0	0.00%	0.00%

	Mar	416	416	0	0.00%	0.00%
	Apr	480	480	0	0.00%	0.00%
	May	516	516	0	0.00%	0.00%
	Jun	529	529	0	0.00%	0.00%
	Jul	540	540	0	0.00%	0.00%
	Aug	501	501	0	0.00%	0.00%
	Sep	500	500	0	0.00%	0.00%
	Oct	511	511	0	0.00%	0.00%
	Nov	535	535	0	0.00%	0.00%
	Dec	501	501	0	0.00%	0.00%
2027	Jan	443	443	0	0.00%	0.00%
	Feb	431	431	0	0.00%	0.00%
	Mar	439	439	0	0.00%	0.00%
	Apr	507	507	0	0.00%	0.00%
	May	545	545	0	0.00%	0.00%
	Jun	558	558	0	0.00%	0.00%
	Jul	569	569	0	0.00%	0.00%
	Aug	529	529	0	0.00%	0.00%
	Sep	528	528	0	0.00%	0.00%
	Oct	539	539	0	0.00%	0.00%
	Nov	564	564	0	0.00%	0.00%
	Dec	528	528	0	0.00%	0.00%
2028	Jan	466	466	0	0.00%	0.00%
	Feb	453	453	0	0.00%	0.00%
	Mar	462	462	0	0.00%	0.00%
	Apr	533	533	0	0.00%	0.00%
	May	574	574	0	0.00%	0.00%
	Jun	587	587	0	0.00%	0.00%
	Jul	599	599	0	0.00%	0.00%
	Aug	557	557	0	0.00%	0.00%
	Sep	556	556	0	0.00%	0.00%
	Oct	567	567	0	0.00%	0.00%
	Nov	594	594	0	0.00%	0.00%
	Dec	556	556	0	0.00%	0.00%
2029	Jan	490	490	0	0.00%	0.00%
	Feb	476	476	0	0.00%	0.00%
	Mar	485	485	0	0.00%	0.00%
	Apr	560	560	0	0.00%	0.00%
	May	602	602	0	0.00%	0.00%
	Jun	616	616	0	0.00%	0.00%
	Jul	629	629	0	0.00%	0.00%
	Aug	584	584	0	0.00%	0.00%
	Sep	583	583	0	0.00%	0.00%
	Oct	595	595	0	0.00%	0.00%
	Nov	623	623	0	0.00%	0.00%
	Dec	584	584	0	0.00%	0.00%
2030	Jan	513	513	0	0.00%	0.00%
	Feb	498	498	0	0.00%	0.00%
	Mar	508	508	0	0.00%	0.00%

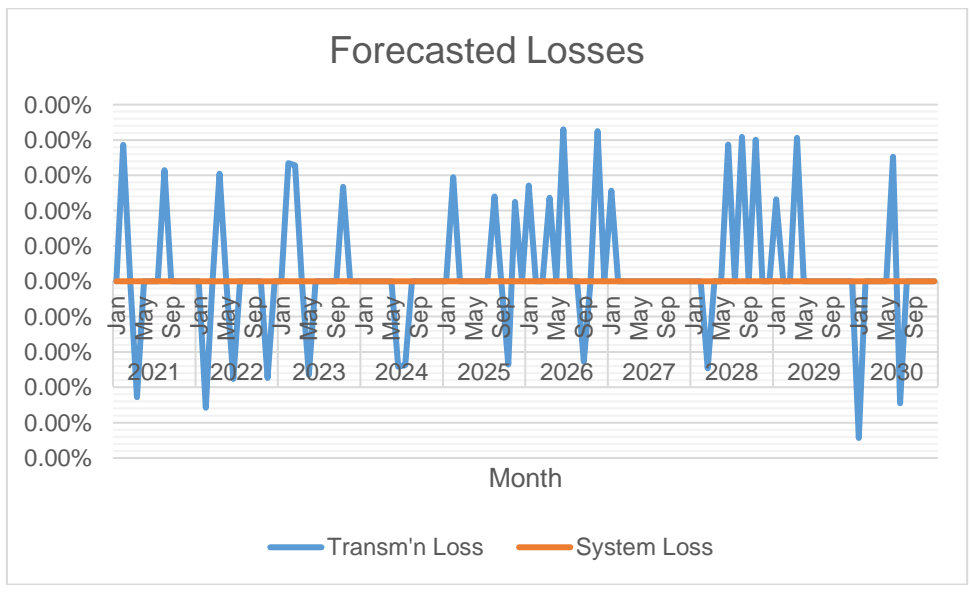
Apr	586	586	0	0.00%	0.00%
May	631	631	0	0.00%	0.00%
Jun	645	645	0	0.00%	0.00%
Jul	659	659	0	0.00%	0.00%
Aug	612	612	0	0.00%	0.00%
Sep	611	611	0	0.00%	0.00%
Oct	624	624	0	0.00%	0.00%
Nov	653	653	0	0.00%	0.00%
Dec	611	611	0	0.00%	0.00%

MWh Offtake was forecasted using 7-year historical data.

System Loss was calculated through a Load Flow Study conducted on \_\_\_ by \_\_\_ using \_\_\_ 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 7.59% annually due to the growing demand in the area.



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

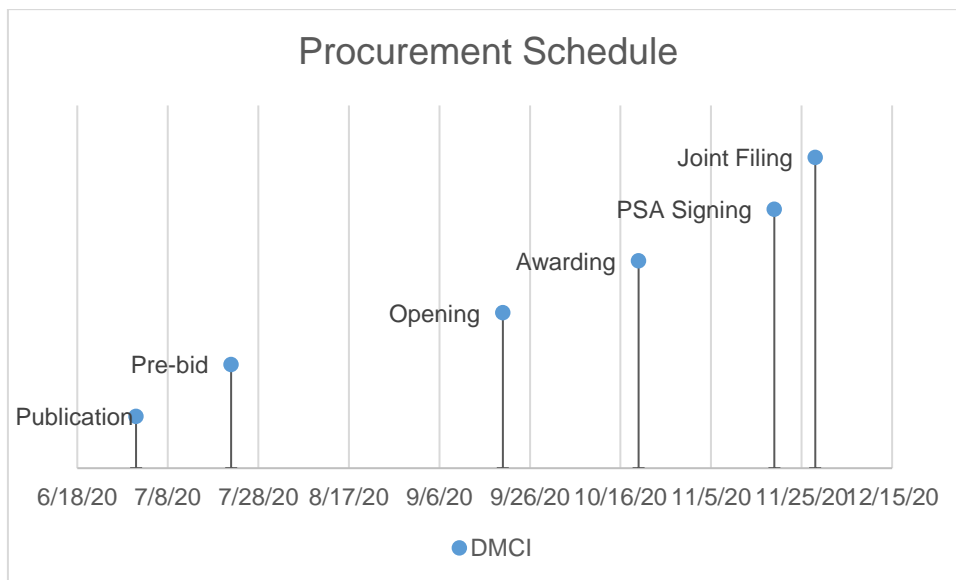
# Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PS
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Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PS
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ANTECO power supply agreement with DMCI does not undergo approval with ERC however its generation rate is 2.5Php/kWh is lower than NPC TOU rate. It was selected to provide base requirements. ANTECO are billed using ANTECO sales and zero system's loss

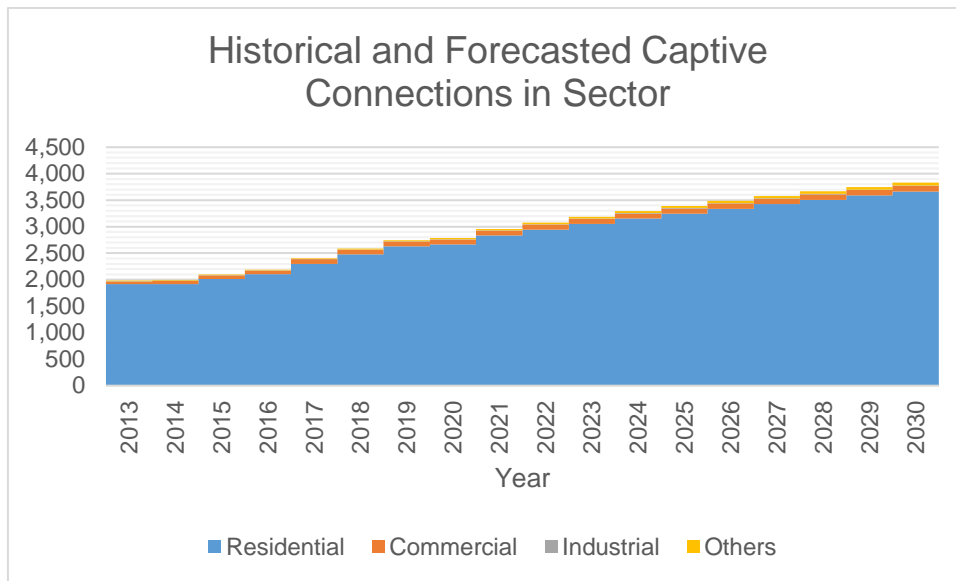
	DMCI
Type	Base
Minimum MW	1.00
Minimum MWh/yr	4,000
PSA Start	12/26/2020
PSA End	12/26/2030
Publication	7/1/2020
Pre-bid	7/22/2020
Opening	9/20/2020
Awarding	10/20/2020
PSA Signing	11/19/2020
Joint Filing	11/28/2020



ANTECO planned to conduct CSP on power supply requirement for Semirara island this year 2021.



# Captive Customer Connections



The number of residential connections is expected to grow at a rate of 5 % annually. Said customer class is expected to account for more or less 90% of the total consumption.