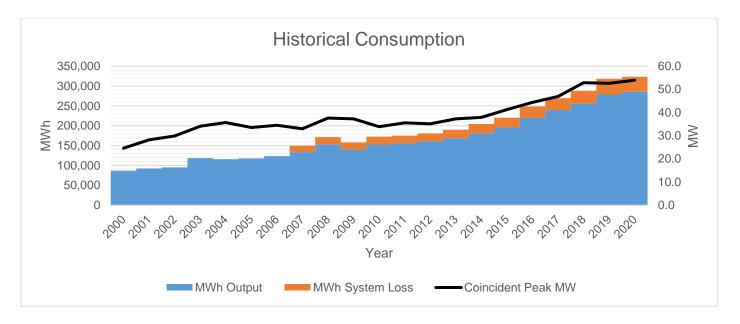
# Power Supply Procurement Plan 2021

**NOCECO** 

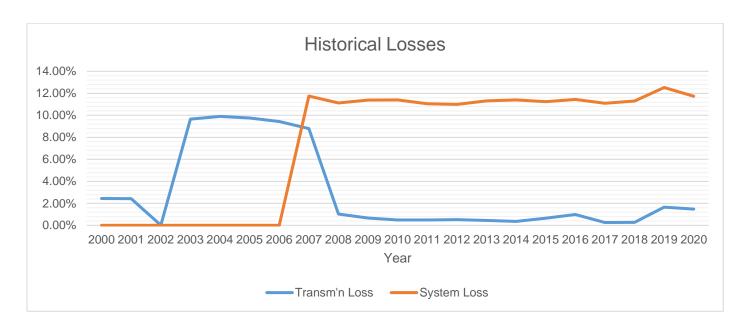
## **Historical Consumption Data**

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	24.60	102,426	0	99,936	87,059	0	46%	-12.89%	2.43%	0.00%
2001	28.19	109,060	0	106,412	92,667	0	43%	-12.92%	2.43%	0.00%
2002	29.90	113,970	0	113,959	95,237	0	44%	-16.43%	0.01%	0.00%
2003	34.08	136,723	0	123,527	118,560	0	41%	-4.02%	9.65%	0.00%
2004	35.71	132,838	0	119,686	115,809	0	38%	-3.24%	9.90%	0.00%
2005	33.52	135,287	0	122,082	117,847	0	42%	-3.47%	9.76%	0.00%
2006	34.49	139,893	0	126,691	123,620	0	42%	-2.42%	9.44%	0.00%
2007	32.97	149,996	0	136,802	133,446	16,073	47%	9.30%	8.80%	11.75%
2008	37.64	162,823	0	161,154	153,503	17,921	49%	6.37%	1.02%	11.12%
2009	37.27	157,936	0	156,887	140,191	17,859	48%	0.74%	0.66%	11.38%
2010	33.89	172,415	0	171,583	153,020	19,563	58%	0.58%	0.48%	11.40%
2011	35.56	174,820	28,326	173,957	155,782	19,221	56%	0.60%	0.49%	11.05%
2012	35.16	180,505	28,508	179,578	160,962	19,733	58%	0.62%	0.51%	10.99%
2013	37.29	189,814	30,023	188,968	168,644	21,389	58%	0.56%	0.45%	11.32%
2014	37.90	204,162	40,339	203,436	181,206	23,182	61%	0.47%	0.36%	11.40%
2015	41.30	219,819	66,610	218,405	195,519	24,561	60%	0.77%	0.64%	11.25%
2016	44.41	247,972	93,399	245,548	220,210	28,096	63%	1.12%	0.98%	11.44%
2017	46.92	268,827	114,545	268,130	239,451	29,729	65%	0.39%	0.26%	11.09%
2018	52.86	287,429	132,463	286,666	255,393	32,376	62%	0.38%	0.27%	11.29%
2019	52.61	317,916	160,321	312,660	278,752	39,165	68%	1.68%	1.65%	12.53%
2020	53.95	328,322	164,794	323,485	285,506	37,979	68%	0.00%	1.47%	11.74%

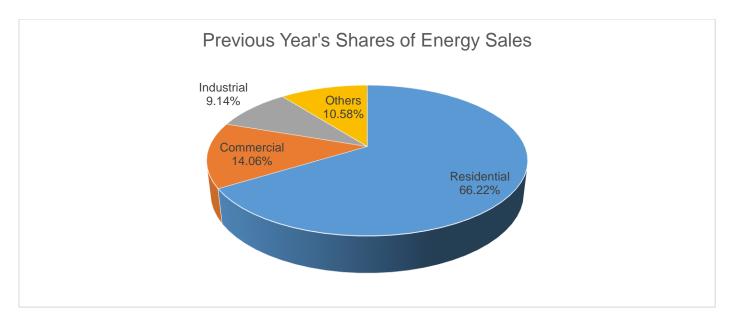
Peak Demand increased from 52.61 MW in 2019 to 53.95 MW in 2020 at a rate of 2.55% due to the increasing number of residential connections. MWh Offtake increased from 317,916 MWh in 2019 to 328,322 MWh in 2020 at a rate of 3.27% due to the increase in demand of residential consumers. Within the same period, Load Factor is at 68%.



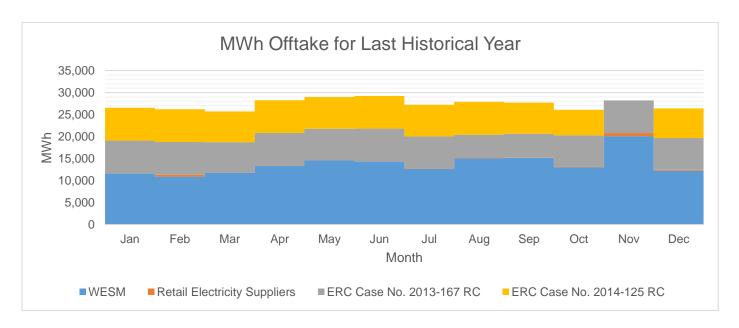
MWh Output increased from year 2019 to year 2020 at a rate of 2.42%, while MWh System Loss decreased at a rate of 3.12% within the same period.



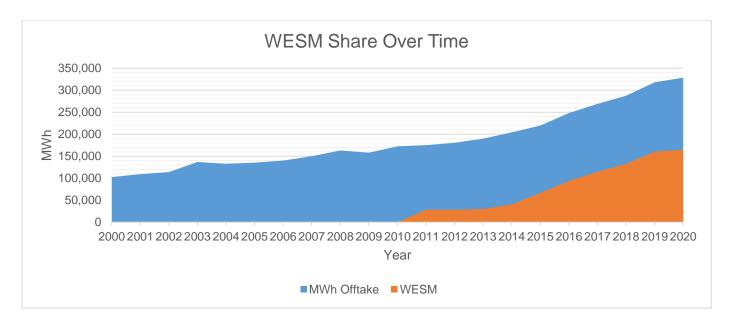
Historically, Transmission Loss ranged from 0% to 10% while System Loss ranged from 10% to 13%. Transmission Loss peaked at 9.90% on year 2004 due to the fact that the power transformers were inefficient during that time. System Loss peaked at 12.53% on year 2019 because of circuit configurations and optimization of maximum loading capacities of adjacent feeders that needs to be addressed.



Residential customers account for the bulk of energy sales at 66.22% due to the high number of connections. In contrast, Industrial customers accounted for only 9.14% of energy sales due to the low number of connections and the switching of Contestable customers to RES. Majority of the energy sales came from the Residential consumers which composes most of the bulk of NOCECO's consumers.

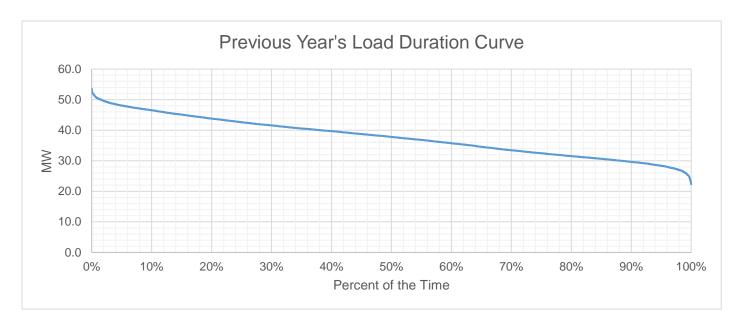


For 2020, the total Offtake for the last historical year is higher than the quantity stipulated in the PSA. MWh taken from the WESM accounts for the bulk of MWh Offtake.

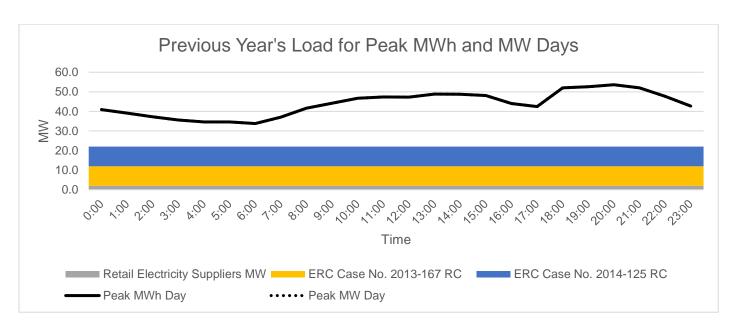


WESM Offtake increased from 160,321 MWh in 2019 to 164,794 MWh in 2020 at a rate of 2.79% due to the increase in demand, and NOCECO's contracted demand from PSA is only 20 MW. The share of WESM in the total Offtake ranged from 16% to 70%.

#### **Previous Year's Load Profile**



Based on the Load Duration Curve, the minimum load is 25 MW and the maximum load is 54 MW for the last historical year.



Peak MW occurred on the month of May at hour 20 due to the increase in demand of residential consumers brought about by the lockdown during the pandemic. Peak daily MWh occurred on the month of May at hour 21 due to the increase in energy demand of consumers which comprise mainly of residential type. As shown in the Load Curves, the available supply is lower than the Peak Demand.



The Non-coincident Peak Demand is 60.51 MW, which is around 75.64% of the total substation capacity of 80 MVA at a power factor of 0.978. The load factor or the ratio between the Average Load of 37.80 MW and the Non-coincident Peak Demand is 62.47%. A safe estimate of the true minimum load is the fifth percentile load of 28.38 MW which is 46.90% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
Kabankalan-Naga	15	10.508
Valladolid	10	5.780
Binalbagan	10	10.144
Sipalay	10	5.759
Cauayan	5	4.114
San Enrique	10	9.686
La Castellana	10	7.148
Kabankalan-Overflow	10	7.367

The substations loaded at above 70% are Binalbagan, Cauayan, San Enrique, La Castellana, and Kabankalan-Overflow. This loading problem will be solved by the proposed projects in CapEx such as reconductoring of distribution lines, additional substations, and replacement of damaged network assets.

# **Forecasted Consumption Data**

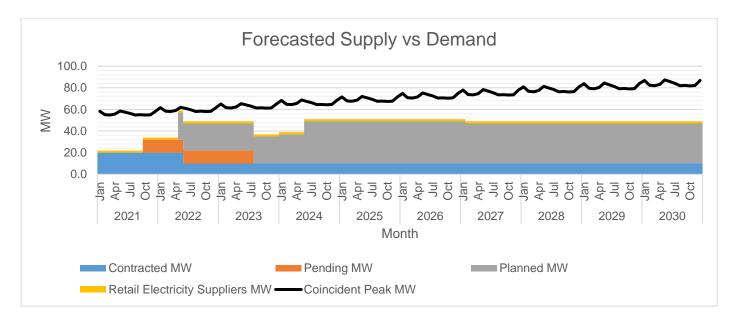
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2021	Jan	58.20	20.00	0.00	0.000	2.00	36%	36%	-36.20
	Feb	55.16	20.00	0.00	0.000	2.00	38%	38%	-33.16
	Mar	54.88	20.00	0.00	0.000	2.00	38%	38%	-32.88
	Apr	55.71	20.00	0.00	0.000	2.00	37%	37%	-33.71
	May	58.53	20.00	0.00	0.000	2.00	35%	35%	-36.53
	Jun	57.44	20.00	0.00	0.000	2.00	36%	36%	-35.44
	Jul	56.35	20.00	0.00	0.000	2.00	37%	37%	-34.35
	Aug	54.90	20.00	0.00	0.000	2.00	38%	38%	-32.90
	Sep	55.06	20.00	0.00	0.000	2.00	38%	38%	-33.06
	Oct	54.81	20.00	12.00	0.000	2.00	38%	61%	-20.81
	Nov	54.96	20.00	12.00	0.000	2.00	38%	60%	-20.96
	Dec	58.23	20.00	12.00	0.000	2.00	36%	57%	-24.23
2022	Jan	61.65	20.00	12.00	0.000	2.00	34%	54%	-27.65
	Feb	58.44	20.00	12.00	0.000	2.00	35%	57%	-24.44
	Mar	58.14	20.00	12.00	0.000	2.00	36%	57%	-24.14
	Apr	59.02	20.00	12.00	0.000	2.00	35%	56%	-25.02
	May	62.00	20.00	12.00	25.000	2.00	33%	95%	-3.00
	Jun	60.85	10.00	12.00	25.000	2.00	17%	80%	-11.85
	Jul	59.69	10.00	12.00	25.000	2.00	17%	81%	-10.69
	Aug	58.16	10.00	12.00	25.000	2.00	18%	84%	-9.16
	Sep	58.33	10.00	12.00	25.000	2.00	18%	83%	-9.33
	Oct	58.06	10.00	12.00	25.000	2.00	18%	84%	-9.06
	Nov	58.22	10.00	12.00	25.000	2.00	18%	84%	-9.22
	Dec	61.68	10.00	12.00	25.000	2.00	17%	79%	-12.68
2023	Jan	65.04	10.00	12.00	25.000	2.00	16%	75%	-16.04
	Feb	61.64	10.00	12.00	25.000	2.00	17%	79%	-12.64
	Mar	61.33	10.00	12.00	25.000	2.00	17%	79%	-12.33
	Apr	62.26	10.00	12.00	25.000	2.00	17%	78%	-13.26
	May	65.41	10.00	12.00	25.000	2.00	16%	74%	-16.41
	Jun	64.19	10.00	12.00	25.000	2.00	16%	76%	-15.19

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	Jul	62.97	10.00	12.00	25.000	2.00	16%	77%	-13.97
	Aug	61.35	10.00	0.00	25.000	2.00	17%	59%	-24.35
	Sep	61.53	10.00	0.00	25.000	2.00	17%	59%	-24.53
	Oct	61.24	10.00	0.00	25.000	2.00	17%	59%	-24.24
	Nov	61.42	10.00	0.00	25.000	2.00	17%	59%	-24.42
	Dec	65.07	10.00	0.00	25.000	2.00	16%	55%	-28.07
2024	Jan	68.35	10.00	0.00	27.000	2.00	15%	56%	-29.35
	Feb	64.78	10.00	0.00	27.000	2.00	16%	59%	-25.78
	Mar	64.45	10.00	0.00	27.000	2.00	16%	59%	-25.45
	Apr	65.43	10.00	0.00	27.000	2.00	16%	58%	-26.43
	May	68.74	10.00	0.00	27.000	2.00	15%	55%	-29.74
	Jun	67.46	10.00	0.00	39.000	2.00	15%	75%	-16.46
	Jul	66.18	10.00	0.00	39.000	2.00	16%	76%	-15.18
	Aug	64.48	10.00	0.00	39.000	2.00	16%	78%	-13.48
	Sep	64.66	10.00	0.00	39.000	2.00	16%	78%	-13.66
	Oct	64.36	10.00	0.00	39.000	2.00	16%	79%	-13.36
	Nov	64.54	10.00	0.00	39.000	2.00	16%	78%	-13.54
	Dec	68.38	10.00	0.00	39.000	2.00	15%	74%	-17.38
2025	Jan	71.59	10.00	0.00	39.000	2.00	14%	70%	-20.59
	Feb	67.85	10.00	0.00	39.000	2.00	15%	74%	-16.85
	Mar	67.51	10.00	0.00	39.000	2.00	15%	75%	-16.51
	Apr	68.53	10.00	0.00	39.000	2.00	15%	74%	-17.53
	May	72.00	10.00	0.00	39.000	2.00	14%	70%	-21.00
	Jun	70.66	10.00	0.00	39.000	2.00	15%	71%	-19.66
	Jul	69.32	10.00	0.00	39.000	2.00	15%	73%	-18.32
	Aug	67.54	10.00	0.00	39.000	2.00	15%	75%	-16.54
	Sep	67.73	10.00	0.00	39.000	2.00	15%	75%	-16.73
	Oct	67.42	10.00	0.00	39.000	2.00	15%	75%	-16.42
	Nov	67.61	10.00	0.00	39.000	2.00	15%	75%	-16.61
	Dec	71.62	10.00	0.00	39.000	2.00	14%	70%	-20.62
2026	Jan	74.77	10.00	0.00	39.000	2.00	14%	67%	-23.77
	Feb	70.86	10.00	0.00	39.000	2.00	15%	71%	-19.86
	Mar	70.50	10.00	0.00	39.000	2.00	15%	72%	-19.50
	Apr	71.57	10.00	0.00	39.000	2.00	14%	70%	-20.57
	May	75.19	10.00	0.00	39.000	2.00	14%	67%	-24.19
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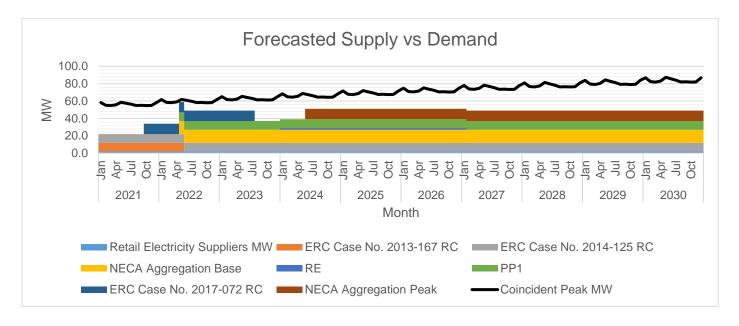
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	Jun	73.79	10.00	0.00	39.000	2.00	14%	68%	-22.79
	Jul	72.39	10.00	0.00	39.000	2.00	14%	70%	-21.39
	Aug	70.53	10.00	0.00	39.000	2.00	15%	72%	-19.53
	Sep	70.73	10.00	0.00	39.000	2.00	15%	71%	-19.73
	Oct	70.40	10.00	0.00	39.000	2.00	15%	72%	-19.40
	Nov	70.60	10.00	0.00	39.000	2.00	15%	71%	-19.60
	Dec	74.80	10.00	0.00	39.000	2.00	14%	67%	-23.80
2027	Jan	77.87	10.00	0.00	39.000	2.00	13%	65%	-26.87
	Feb	73.81	10.00	0.00	37.000	2.00	14%	65%	-24.81
	Mar	73.44	10.00	0.00	37.000	2.00	14%	66%	-24.44
	Apr	74.55	10.00	0.00	37.000	2.00	14%	65%	-25.55
	May	78.32	10.00	0.00	37.000	2.00	13%	62%	-29.32
	Jun	76.86	10.00	0.00	37.000	2.00	13%	63%	-27.86
	Jul	75.40	10.00	0.00	37.000	2.00	14%	64%	-26.40
	Aug	73.46	10.00	0.00	37.000	2.00	14%	66%	-24.46
	Sep	73.67	10.00	0.00	37.000	2.00	14%	66%	-24.67
	Oct	73.33	10.00	0.00	37.000	2.00	14%	66%	-24.33
	Nov	73.54	10.00	0.00	37.000	2.00	14%	66%	-24.54
	Dec	77.91	10.00	0.00	37.000	2.00	13%	62%	-28.91
2028	Jan	80.92	10.00	0.00	37.000	2.00	13%	60%	-31.92
	Feb	76.70	10.00	0.00	37.000	2.00	13%	63%	-27.70
	Mar	76.31	10.00	0.00	37.000	2.00	13%	63%	-27.31
	Apr	77.46	10.00	0.00	37.000	2.00	13%	62%	-28.46
	May	81.38	10.00	0.00	37.000	2.00	13%	59%	-32.38
	Jun	79.87	10.00	0.00	37.000	2.00	13%	60%	-30.87
	Jul	78.35	10.00	0.00	37.000	2.00	13%	62%	-29.35
	Aug	76.34	10.00	0.00	37.000	2.00	13%	63%	-27.34
	Sep	76.56	10.00	0.00	37.000	2.00	13%	63%	-27.56
	Oct	76.20	10.00	0.00	37.000	2.00	13%	63%	-27.20
	Nov	76.42	10.00	0.00	37.000	2.00	13%	63%	-27.42
	Dec	80.96	10.00	0.00	37.000	2.00	13%	60%	-31.96
2029	Jan	83.91	10.00	0.00	37.000	2.00	12%	57%	-34.91
	Feb	79.53	10.00	0.00	37.000	2.00	13%	61%	-30.53
	Mar	79.12	10.00	0.00	37.000	2.00	13%	61%	-30.12
	Apr	80.32	10.00	0.00	37.000	2.00	13%	60%	-31.32
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	May	84.38	10.00	0.00	37.000	2.00	12%	57%	-35.38
	Jun	82.81	10.00	0.00	37.000	2.00	12%	58%	-33.81
	Jul	81.24	10.00	0.00	37.000	2.00	13%	59%	-32.24
	Aug	79.15	10.00	0.00	37.000	2.00	13%	61%	-30.15
	Sep	79.38	10.00	0.00	37.000	2.00	13%	61%	-30.38
	Oct	79.01	10.00	0.00	37.000	2.00	13%	61%	-30.01
	Nov	79.24	10.00	0.00	37.000	2.00	13%	61%	-30.24
	Dec	83.94	10.00	0.00	37.000	2.00	12%	57%	-34.94
2030	Jan	86.83	10.00	0.00	37.000	2.00	12%	55%	-37.83
	Feb	82.30	10.00	0.00	37.000	2.00	12%	59%	-33.30
	Mar	81.88	10.00	0.00	37.000	2.00	13%	59%	-32.88
	Apr	83.12	10.00	0.00	37.000	2.00	12%	58%	-34.12
	May	87.33	10.00	0.00	37.000	2.00	12%	55%	-38.33
	Jun	85.70	10.00	0.00	37.000	2.00	12%	56%	-36.70
	Jul	84.07	10.00	0.00	37.000	2.00	12%	57%	-35.07
	Aug	81.91	10.00	0.00	37.000	2.00	13%	59%	-32.91
	Sep	82.15	10.00	0.00	37.000	2.00	12%	59%	-33.15
	Oct	81.77	10.00	0.00	37.000	2.00	13%	59%	-32.77
	Nov	82.00	10.00	0.00	37.000	2.00	12%	59%	-33.00
	Dec	86.87	10.00	0.00	37.000	2.00	12%	55%	-37.87

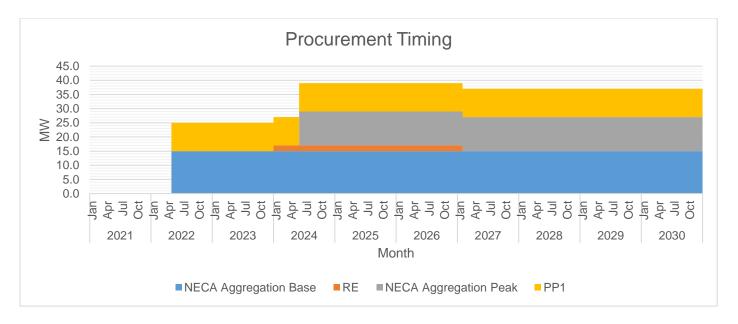
The Peak Demand was forecasted using logarithmic transformation in regression and was assumed to occur on the month of May due to the increase in demand of residential consumers brought about by the lockdown during the pandemic. Monthly Peak Demand is at its lowest on the month of October due to decrease in demand of industrial consumers caused by the start of the milling season. In general, Peak Demand is expected to grow at a rate of 4.55% annually.



The available supply is generally below the Peak Demand. This is because the contracted demand is only 20 MW, and the remaining uncontracted power demand is taken from the WESM.



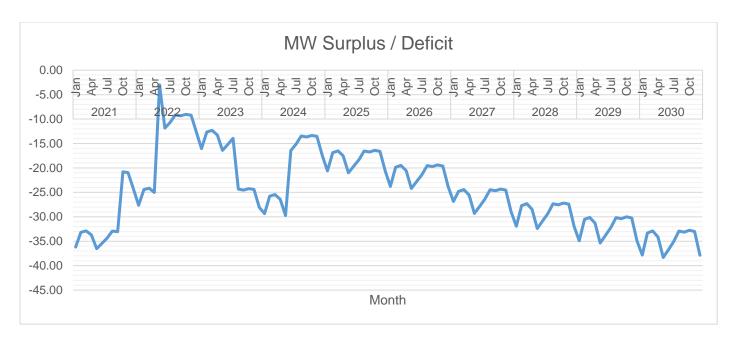
Of the available supply, the largest is 15 MW from the power supply aggregation of NECA for the base requirement. This is followed by 12 MW from ERC Case No. 2017-072 RC or Panay Power Corporation, and the power supply aggregation of NECA for the peaking requirement. A 10 MW supply is also planned to be procured as an additional base requirement.



The first wave of supply procurement will be for 15 MW and 10 MW planned to be available by the month of May 2022. This will be followed by the RE at 2 MW by the month of January 2024, and by the 12 MW for the peak requirement expected to commence by June 2024.



Currently, there is under-contacting by 62.70%. The highest target contracting level is 95% which is expected to occur on May 2022. The lowest target contracting level is 54% which is expected to occur on January 2022.



Currently, there is under-contacting by 34 MW. The highest deficit is 38 MW which is expected to occur on the month of May 2030. The lowest deficit is 3 MW which is expected to occur on the month of May 2022.

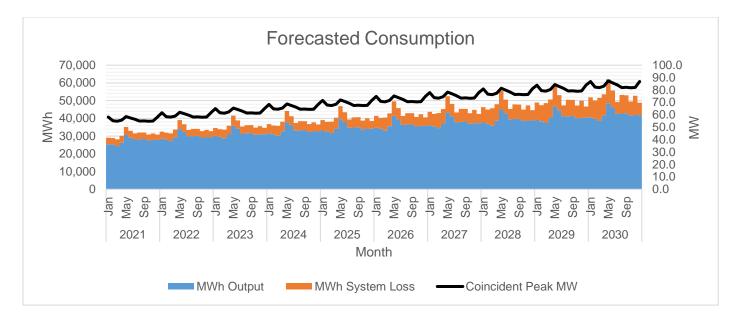
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	16,406	25,417	3,637	-77.10%	12.52%
	Feb	16,406	25,408	3,457	-75.94%	11.98%
	Mar	14,818	24,352	3,838	-90.24%	13.61%
	Apr	16,406	26,216	3,943	-83.83%	13.07%
	May	15,876	30,606	4,564	-121.53%	12.98%
	Jun	16,406	29,046	3,927	-100.99%	11.91%
	Jul	15,876	28,121	3,380	-98.42%	10.73%
	Aug	16,406	28,278	3,654	-94.64%	11.44%
	Sep	16,406	28,399	3,593	-95.01%	11.23%
	Oct	16,992	27,530	3,319	-81.55%	10.76%
	Nov	17,486	27,810	3,661	-79.98%	11.63%
	Dec	16,992	27,784	3,103	-81.77%	10.05%
2022	Jan	17,522	28,497	4,062	-85.82%	12.48%
	Feb	17,486	28,041	3,849	-82.38%	12.07%
	Mar	15,934	27,206	4,320	-97.86%	13.70%
	Apr	17,486	29,330	4,397	-92.88%	13.04%
	May	21,432	33,980	5,082	-82.26%	13.01%
	Jun	28,682	32,333	4,312	-27.77%	11.77%
	Jul	27,684	29,802	3,676	-20.93%	10.98%
	Aug	28,682	29,964	4,059	-18.62%	11.93%
	Sep	28,646	30,085	3,993	-18.97%	11.72%
	Oct	27,792	29,149	3,641	-17.98%	11.10%
	Nov	28,646	29,447	4,077	-17.03%	12.16%
	Dec	27,792	29,408	3,378	-17.97%	10.30%
2023	Jan	28,682	30,064	4,569	-20.75%	13.19%
	Feb	28,646	29,567	4,312	-18.27%	12.73%
	Mar	26,014	28,696	4,904	-29.16%	14.60%
	Apr	28,646	30,934	4,935	-25.22%	13.76%

	May	27,792	35,882	5,693	-49.59%	13.69%
	Jun	28,682	34,134	4,746	-35.56%	12.21%
	Jul	27,684	31,455	3,990	-28.03%	11.26%
	Aug	27,566	31,621	4,534	-31.16%	12.54%
	Sep	27,566	31,744	4,459	-31.33%	12.32%
	Oct	26,676	30,744	4,002	-30.25%	11.52%
	Nov	27,566	31,058	4,569	-29.24%	12.82%
	Dec	26,676	31,008	3,687	-30.06%	10.63%
2024				•	+	
2024	Jan Feb	29,054	31,610	5,166	-26.58%	14.05% 13.51%
	Mar	29,054	31,072	4,854	-23.66%	
		27,179	30,164	5,602	-31.59%	15.66%
	Apr	29,054	32,515	5,567	-31.08%	14.62%
	May	28,116	37,754	6,409	-57.07%	14.51%
	Jun	30,170	35,908	5,232	-36.36%	12.72%
	Jul	29,196	33,084	4,324	-28.13%	11.56%
	Aug	30,170	33,255	5,088	-27.09%	13.27%
	Sep	30,170	33,379	4,997	-27.20%	13.02%
	Oct	29,196	32,319	4,406	-25.79%	12.00%
	Nov	30,170	32,647	5,146	-25.27%	13.62%
	Dec	29,196	32,588	4,032	-25.43%	11.01%
2025	Jan	30,170	33,139	5,864	-29.28%	15.03%
	Feb	30,170	32,560	5,485	-26.10%	14.42%
	Mar	27,250	31,663	6,424	-39.77%	16.87%
	Apr	30,170	34,079	6,302	-33.85%	15.61%
	May	29,196	39,599	7,240	-60.43%	15.46%
	Jun	30,170	37,657	5,777	-43.97%	13.30%
	Jul	29,196	34,692	4,678	-34.85%	11.88%
	Aug	30,170	34,868	5,728	-34.56%	14.11%
	Sep	30,170	34,995	5,617	-34.61%	13.83%
	Oct	29,196	33,877	4,857	-32.67%	12.54%
	Nov	30,170	34,216	5,818	-32.70%	14.53%
	Dec	29,196	34,151	4,418	-32.10%	11.46%
2026	Jan	30,170	34,654	6,671	-36.98%	16.14%
	Feb	30,170	34,035	6,211	-33.40%	15.43%
	Mar	27,250	33,053	7,384	-48.39%	18.26%
	Apr	30,170	35,628	7,150	-41.79%	16.71%
	May	29,196	41,420	8,196	-69.94%	16.52%
	Jun	30,170	39,387	6,385	-51.72%	13.95%
	Jul	29,196	36,283	5,055	-41.59%	12.23%
	Aug	30,170	36,465	6,463	-42.29%	15.05%
	Sep	30,170	36,594	6,324	-42.26%	14.74%
	Oct	29,196	35,421	5,358	-39.67%	13.14%
	Nov	30,170	35,770	6,591	-40.41%	15.56%
	Dec	29,196	35,700	4,847	-38.88%	11.95%
2027	Jan	30,130	36,158	7,596	-45.22%	17.36%
	Feb	28,682	35,499	7,040	-48.31%	16.55%
	Mar	25,906	34,479	8,491	-65.87%	19.76%
	Apr	28,682	37,165	8,119	-57.89%	17.93%
	May	27,756	43,220	9,288	-89.18%	17.69%
	Jun	28,682	41,101	7,060	-67.91%	14.66%
	Jul	27,756	37,860	5,455	-56.05%	12.59%

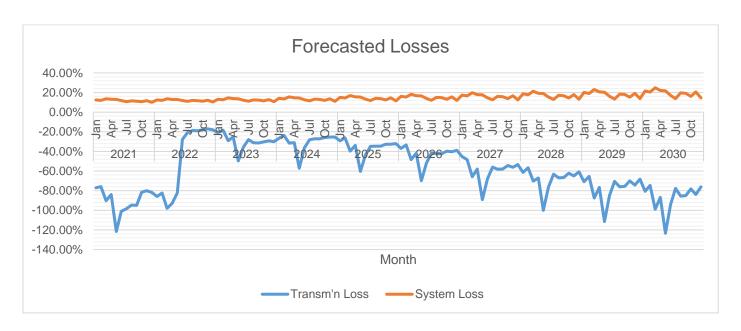
	Aug	28,682	38,048	7,298	-58.10%	16.09%
	Sep	28,682	38,180	7,127	-57.96%	15.73%
	Oct	27,756	36,954	5,913	-54.44%	13.79%
	Nov	28,682	37,311	7,476	-56.15%	16.69%
	Dec	27,756	37,239	5,322	-53.34%	12.51%
2028	Jan	28,682	37,654	8,649	-61.44%	18.68%
	Feb	28,682	36,954	7,979	-56.66%	17.76%
	Mar	26,831	35,896	9,758	-70.16%	21.37%
	Apr	28,682	38,694	9,218	-67.05%	19.24%
	May	27,756	45,004	10,525	-100.06%	18.95%
	Jun	28,682	42,800	7,806	-76.44%	15.43%
	Jul	27,756	39,426	5,878	-63.22%	12.97%
	Aug	28,682	39,619	8,243	-66.88%	17.22%
	Sep	28,682	39,755	8,030	-66.61%	16.81%
	Oct	27,756	38,479	6,525	-62.14%	14.50%
	Nov	28,682	38,843	8,479	-64.99%	17.92%
	Dec	27,756	38,769	5,847	-60.74%	13.10%
2029	Jan	28,682	39,143	9,837	-70.77%	20.08%
	Feb	28,682	38,404	9,038	-65.41%	19.05%
	Mar	25,906	37,356	11,196	-87.42%	23.06%
	Apr	28,682	40,215	10,458	-76.67%	20.64%
	May	27,756	46,773	11,917	-111.44%	20.30%
	Jun	28,682	44,489	8,630	-85.20%	16.25%
	Jul	27,756	40,983	6,326	-70.44%	13.37%
	Aug	28,682	41,183	9,304	-76.03%	18.43%
	Sep	28,682	41,322	9,043	-75.60%	17.95%
	Oct	27,756	39,998	7,198	-70.04%	15.25%
	Nov	28,682	40,366	9,609	-74.24%	19.23%
	Dec	27,756	40,294	6,423	-68.31%	13.75%
2030	Jan	28,682	40,629	11,170	-80.60%	21.56%
	Feb	28,682	39,850	10,221	-74.58%	20.41%
	Mar	25,906	38,715	12,816	-98.91%	24.87%
	Apr	28,682	41,732	11,845	-86.80%	22.11%
	May	27,756	48,530	13,474	-123.38%	21.73%
	Jun	28,682	46,169	9,533	-94.21%	17.11%
	Jul	27,756	42,533	6,800	-77.74%	13.78%
	Aug	28,682	42,740	10,489	-85.58%	19.70%
	Sep	28,682	42,884	10,171	-84.98%	19.17%
	Oct	27,756	41,513	7,936	-78.15%	16.05%
	Nov	28,682	41,884	10,873	-83.94%	20.61%
	Dec	27,756	41,814	7,054	-76.06%	14.43%

MWh Offtake was forecasted using time series and regression analysis. The assumed load factor is 67.55%.

System Loss was calculated through a Load Flow Study conducted on September 6, 2021 by the Planning Assistant of Power Systems Planning Division using 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 5.84% annually.



Transmission Loss is expected to range from 0% to 5% while System Loss is expected to range from 9% to 10.25%.

### **Power Supply**

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
ERC Case No. 2013-167 RC	Base	KEPCO SPC Power Corporation	10.00	87,600	May 21, 2014	May 21, 2022
ERC Case No. 2014-125 RC	Base	Palm Concepcion Power Corporation	10.00	87,600	June 26, 2016	June 26, 2031

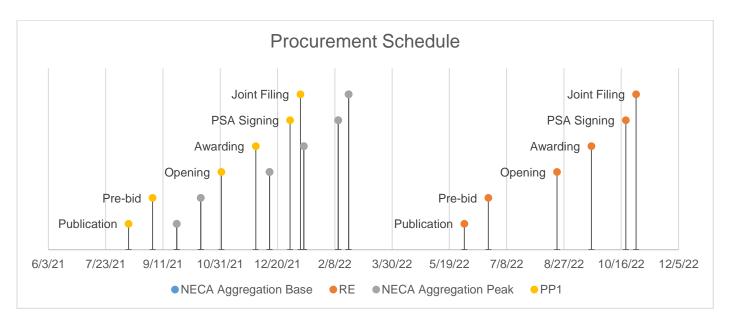
The PSA with KEPCO (KSPC) filed with ERC under Case No. 2013-167 RC was procured through a negotiation between both parties. It was selected to provide for base requirements due to the increasing demand, and to compensate for the expiration of contract with NPC/PSALM. Historically, the utilization of the PSA is 100%. Outages of the plant led to unserved energy of around 3,935 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 5.175 P/kWh to 5.783 P/KWh in the same period.

The PSA with Palm Concepcion (PCPC) filed with ERC under Case No. 2014-125 RC was procured through a negotiation between both parties. It was selected to provide for base requirements due to the increasing demand, and to compensate for the expiration of contract with various power suppliers such as Green Core, Salcon Power, Filinvest, and Good Friends Hydro. Historically, the utilization of the PSA is 100%. Outages of the plant led to unserved energy of around 9,470 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 5.092 P/kWh to 5.638 P/KWh in the same period.

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
ERC Case No. 2017-072 RC	Peaking	Panay Power Corporation	12.00	13,140	10/1/2021	7/1/2023

The PSA with Panay Power (PPC) filed with ERC under Case No. 2017-072 was procured through a Competitive Selection Process. It was selected to provide for peaking requirements to compensate the increase in peak demand. NOCECO and PPC are still waiting for the ERC's approval of the said PSA. Note that, the PSA will start once approved and will end at the 22nd month from start of PSA.

	NECA Aggregation Base	RE	NECA Aggregation Peak	PP1
Туре	Base	Base	Peaking	Base
Minimum MW	15.00	2.00	12.00	10.00
Minimum MWh/yr	131,400	17,520	13,140	87,600
PSA Start	5/22/2022	1/1/2024	6/1/2024	5/26/2022
PSA End	6/25/2032	1/1/2027	6/25/2032	6/25/2032
Publication	9/23/2021	6/1/2022	9/23/2021	8/12/2021
Pre-bid	10/14/2021	6/22/2022	10/14/2021	9/2/2021
Opening	12/13/2021	8/21/2022	12/13/2021	11/1/2021
Awarding	1/12/2022	9/20/2022	1/12/2022	12/1/2021
PSA Signing	2/11/2022	10/20/2022	2/11/2022	12/31/2021
Joint Filing	2/20/2022	10/29/2022	2/20/2022	1/9/2022



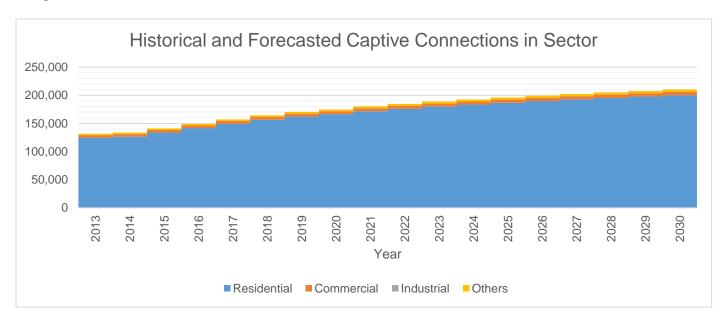
For the procurement of 15 MW of supply which is planned to be available on May 2022, the first publication or launch of CSP will be on September 23, 2021. Joint filing is planned on February 20, 2022, or 150 days later, in accordance with DOE's 2018 CSP Policy.

For the procurement of 12 MW of supply which is planned to be available on June 2024, the first publication or launch of CSP will be on September 23, 2021. Joint filing is planned on February 20, 2022, or 150 days later, in accordance with DOE's 2018 CSP Policy.

For the procurement of 2 MW of supply which is planned to be available on January 2024, the first publication or launch of CSP will be on June 2022. Joint filing is planned on October 29, 2022, or 150 days later, in accordance with DOE's 2018 CSP Policy.

For the procurement of 10 MW of supply which is planned to be available on May 2022, the first publication or launch of CSP will be on August 12, 2021. Joint filing is planned on January 9, 2022, or 150 days later, in accordance with DOE's 2018 CSP Policy.

# **Captive Customer Connections**



The number of Residential connections is expected to grow at a rate of 1.708% annually. Said customer class is expected to account for 66% of the total consumption.