# Power Supply Procurement Plan [First Forecast Year]

[Quezon 1 Electric Cooperative, Inc.]

#### **Historical Consumption Data**

	Coincident Peak MW	MWhOfftake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	System Loss
2000	20.28	89,709	0	89,709	78,666	11,044	50%	12.31%
2001	21.54	95,740	0	95,740	83,094	12,646	51%	13.21%
2002	22.87	97,805	0	97,805	85,787	12,018	49%	12.29%
2003	23.19	109,648	0	109,648	94,017	15,631	54%	14.26%
2004	25.21	114,716	0	114,716	98,300	16,416	52%	14.31%
2005	21.30	113,047	0	113,047	94,547	18,500	61%	16.36%
2006	21.93	101,478	0	101,478	82,759	18,719	53%	18.45%
2007	22.20	106,900	0	106,900	86,208	20,693	55%	19.36%
2008	21.95	111,848	0	111,848	89,919	21,929	58%	19.61%
2009	23.57	118,791	0	118,791	98,027	20,764	58%	17.48%
2010	26.94	134,875	0	134,875	112,261	22,614	57%	16.77%
2011	26.21	133,063	0	133,063	109,416	23,647	58%	17.77%
2012	26.80	144,479	26,802	144,479	119,574	24,905	62%	17.24%
2013	31.83	154,795	34,145	154,795	127,098	27,697	56%	17.89%
2014	30.11	142,575	26,562	142,575	117,806	24,769	54%	17.37%
2015	29.12	160,710	33,086	160,710	132,498	28,212	63%	17.55%
2016	32.99	183,377	51,748	183,377	149,340	34,037	63%	18.56%
2017	35.27	193,308	28,628	193,308	159,225	34,084	63%	17.63%
2018	36.10	207,093	35,934	207,093	170,383	36,710	65%	17.73%
2019	38.49	216,119	49,882	216,119	179,293	36,825	64%	17.04%
2020	39.89	222,022	65,679	222,022	186,307	35,715	64%	16.09%

Peak Demand increased from 32.99 MW in 2016 to 39.89 MW in 2020 at a rate of 7% due to continuous increase in service connections of residential, commercial and big load consumers. MWh Offtake increased from 183,377 MWh in 2016 to 222,049 MWh in 2020 at a rate of 5% due to continuous flow of consumers. Within the same period, Load Factor ranged from 63% to 65%. There was an abrupt change in consumption 2014 onslaught Glenda within on due to the of typhoon the coop's coverage.



MWh Output increased from year 2018 to year 2020 at a rate of 4%, while MWh System Loss decreased at a rate of 1% within the same period.



Historically, System Loss ranged from 16.16% to 18.56%. System Loss peaked at 18.56% on year 2016.



Residential customers account for the bulk of energy sales at 72% due to the high number of connections. In contrast, Commercial customers accounted for only 8.93% of energy sales due to the low number of connections.



For 2020, the total Offtake for the last historical year is lower than the quantity stipulated in the PSA. The PSA with 27MW capacity accounts for the bulk of MWh Offtake.



WESM Offtake increased from 28,628 MWh in 2017 to 65,705 MWh in 202 at a rate of 31% due to understated contract level. The share of WESM in the total Offtake ranged from 10% to 40%.

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



Based on the Load Duration Curve, the minimum load is 32.160 MW and the maximum load is 39.890 MW for the last historical year.



Peak MW occurred on August 2020 due to warm weather during that time. Peak daily MWh occurred on 7:00 P.M. due to the reason that majority of the coop's consumers is residential. As shown in the Load Curves, the available supply is lower than the Peak Demand.



The Non-coincident Peak Demand is 53.70 MW, which is around 89.50% of the total substation capacity of 60 MVA at a power factor of 97.52%. The load factor or the ratio between the Average Load of 25.21 MW and the Non-coincident Peak Demand is 46.95% of. A safe estimate of the true minimum load is the fifth percentile load of 16.95 MW which is 31.56% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
MF3MGUMQUE101	5	4.148
MF3MGUMQUE103	2.5	2.429
MF3MGUMQUE104	5	7.303
MF3MGUMQUE105	10	7.778
MF3MGUMQUE106	2.5	1.795
MF3MGUMQUE107	10	7.998
MF3MGUMQUE108	5	4.236
MF3MGUMQUE109		0.000
MF3MGUMQUE110	5	7.019
MF3MGUMQUE111	10	7.988
MF3MGUMQUE112	5	3.003

The substations loaded at above 70% are SSATMN01, SSHNDG04, SSTGKN05, SSMLNY06 and SSCATN08. This loading problem will be solved by installing substations to relieve the stated substations.

## 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	33.37	0.00	27.00	0.000	1.03	0%	83%	-5.34
	Feb	32.02	0.00	27.00	0.000	1.08	0%	87%	-3.94
	Mar	36.07	0.00	27.00	0.000	1.36	0%	78%	-7.71
	Apr	39.17	0.00	27.00	0.000	1.43	0%	72%	-10.74
	May	43.78	0.00	27.00	0.000	1.05	0%	63%	-15.74
	Jun	43.81	0.00	27.00	0.000	1.51	0%	64%	-15.30
	Jul	42.25	0.00	27.00	0.000	1.24	0%	66%	-14.01
	Aug	41.81	0.00	27.00	0.000	1.72	0%	67%	-13.10
	Sep	40.93	0.00	27.00	0.000	1.43	0%	68%	-12.51
	Oct	41.77	0.00	27.00	0.000	1.25	0%	67%	-13.51
	Nov	39.49	0.00	27.00	0.000	1.05	0%	70%	-11.44
	Dec	38.46	0.00	27.00	0.000	1.55	0%	73%	-9.91
2022	Jan	35.01	0.00	27.00	5.000	1.08	0%	94%	-1.92
	Feb	33.59	0.00	27.00	5.000	1.13	0%	99%	-0.46
	Mar	37.84	0.00	27.00	5.000	1.43	0%	88%	-4.41
	Apr	41.09	0.00	27.00	5.000	1.50	0%	81%	-7.60
	May	45.93	0.00	27.00	5.000	1.10	0%	71%	-12.84
	Jun	45.96	0.00	27.00	5.000	1.58	0%	72%	-12.38
	Jul	44.32	0.00	27.00	5.000	1.30	0%	74%	-11.03
	Aug	43.87	0.00	27.00	5.000	1.80	0%	76%	-10.07
	Sep	42.94	0.00	27.00	5.000	1.50	0%	77%	-9.45
	Oct	43.82	0.00	27.00	5.000	1.32	0%	75%	-10.50
	Nov	41.43	0.00	27.00	5.000	1.11	0%	79%	-8.33
	Dec	40.35	0.00	27.00	5.000	1.62	0%	83%	-6.73
2023	Jan	36.61	0.00	27.00	6.000	1.13	0%	93%	-2.48
	Feb	35.14	0.00	27.00	6.000	1.19	0%	97%	-0.95
	Mar	39.58	0.00	27.00	6.000	1.49	0%	87%	-5.09
	Apr	42.98	0.00	27.00	6.000	1.57	0%	80%	-8.41
	May	48.04	0.00	27.00	6.000	1.15	0%	70%	-13.90

		Coincident Peak	Contracted	Pending	Planned	Retail Electricity Suppliers	Existing Contracting	Target Contracting	MW Surplus /
	li un	<u>MW</u>				MW 1.05	Level		Deficit
	Jun	48.07	0.00	27.00	6.000	1.65	0%	71%	-13.42
	Jul	46.36	0.00	27.00	6.000	1.36	0%	73%	-12.00
	Aug	45.88	0.00	27.00	6.000	1.89	0%	75%	-11.00
	Sep	44.92	0.00	27.00	6.000	1.57	0%	76%	-10.35
	Oct	45.83	0.00	27.00	6.000	1.38	0%	74%	-11.46
	Nov	43.34	0.00	27.00	6.000	1.16	0%	78%	-9.18
	Dec	42.20	0.00	27.00	6.000	1.70	0%	81%	-7.50
2024	Jan	38.19	0.00	27.00	7.000	1.18	0%	92%	-3.01
	Feb	36.65	0.00	27.00	7.000	1.24	0%	96%	-1.41
	Mar	41.28	0.00	27.00	7.000	1.56	0%	86%	-5.72
	Apr	44.83	0.00	27.00	7.000	1.63	0%	79%	-9.20
	May	50.11	0.00	27.00	7.000	1.20	0%	70%	-14.91
	Jun	50.14	0.00	27.00	7.000	1.72	0%	70%	-14.42
	Jul	48.35	0.00	27.00	7.000	1.42	0%	72%	-12.94
	Aug	47.86	0.00	27.00	7.000	1.97	0%	74%	-11.89
	Sep	46.85	0.00	27.00	7.000	1.63	0%	75%	-11.21
	Oct	47.80	0.00	27.00	7.000	1.44	0%	73%	-12.37
	Nov	45.20	0.00	27.00	7.000	1.21	0%	77%	-9.99
	Dec	44.02	0.00	27.00	7.000	1.77	0%	80%	-8.25
2025	Jan	39.73	0.00	27.00	8.000	1.23	0%	91%	-3.50
	Feb	38.13	0.00	27.00	8.000	1.29	0%	95%	-1.84
	Mar	42.95	0.00	27.00	8.000	1.62	0%	85%	-6.32
	Apr	46.64	0.00	27.00	8.000	1.70	0%	78%	-9.94
	May	52.13	0.00	27.00	8.000	1.25	0%	69%	-15.88
	Jun	52.16	0.00	27.00	8.000	1.79	0%	69%	-15.37
	Jul	50.30	0.00	27.00	8.000	1.47	0%	72%	-13.83
	Aug	49.78	0.00	27.00	8.000	2.05	0%	73%	-12.74
	Sep	48.74	0.00	27.00	8.000	1.70	0%	74%	-12.04
	Oct	49.73	0.00	27.00	8.000	1.49	0%	73%	-13.24
	Nov	47.02	0.00	27.00	8.000	1.25	0%	76%	-10.77
	Dec	45.79	0.00	27.00	8.000	1.84	0%	80%	-8.95
2026	Jan	41.23	0.00	27.00	9.000	1.27	0%	90%	-3.96
	Feb	39.57	0.00	27.00	9.000	1.34	0%	94%	-2.23

		Coincident Peak	Contracted	Pending	Planned	Retail Electricity Suppliers	Existing Contracting	Target Contracting	MW Surplus /
	Mor			27.00					
	Iviai	44.57	0.00	27.00	9.000	1.00	0%	04%	-0.09
	Apr	48.40	0.00	27.00	9.000	1.76	0%	11%	-10.64
	way	54.10	0.00	27.00	9.000	1.29	0%	68%	-10.81
	Jun	54.14	0.00	27.00	9.000	1.86	0%	69%	-16.27
	Jul	52.21	0.00	27.00	9.000	1.53	0%	/1%	-14.68
	Aug	51.67	0.00	27.00	9.000	2.12	0%	/3%	-13.55
	Sep	50.58	0.00	27.00	9.000	1.76	0%	74%	-12.82
	Oct	51.61	0.00	27.00	9.000	1.55	0%	72%	-14.06
	Nov	48.80	0.00	27.00	9.000	1.30	0%	76%	-11.50
	Dec	47.53	0.00	27.00	9.000	1.91	0%	79%	-9.61
2027	Jan	42.70	0.00	27.00	10.000	1.32	0%	89%	-4.38
	Feb	40.98	0.00	27.00	10.000	1.38	0%	93%	-2.59
	Mar	46.16	0.00	27.00	10.000	1.74	0%	83%	-7.42
	Apr	50.13	0.00	27.00	10.000	1.83	0%	77%	-11.30
	May	56.03	0.00	27.00	10.000	1.34	0%	68%	-17.69
	Jun	56.06	0.00	27.00	10.000	1.93	0%	68%	-17.14
	Jul	54.07	0.00	27.00	10.000	1.58	0%	70%	-15.48
	Aug	53.51	0.00	27.00	10.000	2.20	0%	72%	-14.31
	Sep	52.38	0.00	27.00	10.000	1.83	0%	73%	-13.56
	Oct	53.45	0.00	27.00	10.000	1.61	0%	71%	-14.85
	Nov	50.54	0.00	27.00	10.000	1.35	0%	75%	-12.19
	Dec	49.22	0.00	27.00	10.000	1.98	0%	78%	-10.24
2028	Jan	44.14	0.00	0.00	47.000	1.36	0%	110%	4.23
	Feb	42.36	0.00	0.00	47.000	1.43	0%	115%	6.07
	Mar	47.71	0.00	0.00	47.000	1.80	0%	102%	1.09
	Apr	51.81	0.00	0.00	47.000	1.89	0%	94%	-2.92
	May	57.91	0.00	0.00	47.000	1.38	0%	83%	-9.53
	Jun	57.95	0.00	0.00	47.000	1.99	0%	84%	-8.95
	Jul	55.88	0.00	0.00	47.000	1.64	0%	87%	-7.25
	Aug	55.31	0.00	0.00	47.000	2.27	0%	89%	-6.04
	Sep	54.14	0.00	0.00	47.000	1.89	0%	90%	-5.26
	Oct	55,25	0.00	0.00	47.000	1,66	0%	88%	-6.59
	Nov	52.24	0.00	0.00	47.000	1.39	0%	92%	-3.85

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Dec	50.87	0.00	0.00	47.000	2.05	0%	96%	-1.83
2029	Jan	45.54	0.00	0.00	47.000	1.41	0%	107%	2.87
	Feb	43.70	0.00	0.00	47.000	1.48	0%	111%	4.78
	Mar	49.23	0.00	0.00	47.000	1.86	0%	99%	-0.37
	Apr	53.45	0.00	0.00	47.000	1.95	0%	91%	-4.51
	May	59.75	0.00	0.00	47.000	1.43	0%	81%	-11.32
	Jun	59.79	0.00	0.00	47.000	2.06	0%	81%	-10.73
	Jul	57.66	0.00	0.00	47.000	1.69	0%	84%	-8.97
	Aug	57.07	0.00	0.00	47.000	2.34	0%	86%	-7.72
	Sep	55.86	0.00	0.00	47.000	1.95	0%	87%	-6.92
	Oct	57.00	0.00	0.00	47.000	1.71	0%	85%	-8.29
	Nov	53.90	0.00	0.00	47.000	1.44	0%	90%	-5.46
	Dec	52.49	0.00	0.00	47.000	2.11	0%	93%	-3.38
2030	Jan	46.91	0.00	0.00	47.000	1.45	0%	103%	1.54
	Feb	45.02	0.00	0.00	47.000	1.52	0%	108%	3.51
	Mar	50.71	0.00	0.00	47.000	1.91	0%	96%	-1.79
	Apr	55.06	0.00	0.00	47.000	2.01	0%	89%	-6.06
	May	61.55	0.00	0.00	47.000	1.47	0%	78%	-13.08
	Jun	61.59	0.00	0.00	47.000	2.12	0%	79%	-12.47
	Jul	59.39	0.00	0.00	47.000	1.74	0%	82%	-10.65
	Aug	58.78	0.00	0.00	47.000	2.42	0%	83%	-9.37
	Sep	57.54	0.00	0.00	47.000	2.01	0%	85%	-8.54
	Oct	58.72	0.00	0.00	47.000	1.76	0%	83%	-9.95
	Nov	55.52	0.00	0.00	47.000	1.48	0%	87%	-7.04
	Dec	54.07	0.00	0.00	47.000	2.18	0%	91%	-4.89

The Peak Demand was forecasted using Regression Analysis and was assumed to occur on the month of June due to summer duration. Monthly Peak Demand is at its lowest on the month of February due to the end of holiday season. In general, Peak Demand is expected to grow at a rate of 5% annually. The Retail Electricity Supplier (RES) is AC Energy Philippines Inc. that supplies the power of the Philippine Flour Mills.



The available supply is generally above/below the Peak Demand. This is because the coop is contracted to GNPower Inc. at 27MW and the coop is planning to conduct CSP to have additional demand capacity to supply its MCOs.



Of the available supply, the largest is 27 MW from GNPower Inc.



The first wave of supply procurement will be for 5 MW planned to be available by the month of January 2022. This will be followed by 6 MW, 7 MW, 8 MW, 9 MW and 10 MW for the years 2022, 2023, 2024, 2025, 2026 and 2027, respectively. After the contract with GNPower ended, a 47 MW demand capacity must be available for the coop's whole system.



Currently, there is under-contracting by 44%. The highest target contracting level is 115% which is expected to occur on 2027. The lowest target contracting level is 62% which is expected to occur on 2021.



Currently, there is under-contracting by 12 MW. The highest deficit is 19.10 MW which is expected to occur on the month of June 2026. The lowest surplus is 1.98 MW which is expected to occur on the month of February 2030.

		MWhOfftake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	16,929	14,683	2,247	0.00%	13.27%
	Feb	16,634	14,430	2,204	0.00%	13.25%
	Mar	17,228	14,955	2,272	0.00%	13.19%
	Apr	21,559	18,702	2,857	0.00%	13.25%
	May	21,720	18,827	2,893	0.00%	13.32%

		MWhOfftake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Jun	22,540	19,556	2,984	0.00%	13.24%
	Jul	21,399	18,558	2,842	0.00%	13.28%
	Aug	22,513	19,541	2,972	0.00%	13.20%
	Sep	21,701	18,826	2,875	0.00%	13.25%
	Oct	21,144	18,336	2,808	0.00%	13.28%
	Nov	20,837	18,064	2,773	0.00%	13.31%
	Dec	20,616	17,892	2,723	0.00%	13.21%
2022	Jan	17,787	15,916	1,871	0.00%	10.52%
	Feb	17,476	15,641	1,835	0.00%	10.50%
	Mar	18,101	16,207	1,893	0.00%	10.46%
	Apr	22,650	20,272	2,378	0.00%	10.50%
	May	22,822	20,412	2,410	0.00%	10.56%
	Jun	23,684	21,197	2,487	0.00%	10.50%
	Jul	22,485	20,117	2,368	0.00%	10.53%
	Aug	23,655	21,179	2,477	0.00%	10.47%
	Sep	22,800	20,406	2,394	0.00%	10.50%
	Oct	22,213	19,876	2,337	0.00%	10.52%
	Nov	21,893	19,583	2,310	0.00%	10.55%
	Dec	21,660	19,392	2,268	0.00%	10.47%
2023	Jan	19,105	17,273	1,832	0.00%	9.59%
	Feb	18,770	16,974	1,796	0.00%	9.57%
	Mar	19,438	17,586	1,852	0.00%	9.53%
	Apr	24,328	22,000	2,328	0.00%	9.57%
	May	24,516	22,157	2,358	0.00%	9.62%
	Jun	25,438	23,004	2,434	0.00%	9.57%
	Jul	24,153	21,834	2,319	0.00%	9.60%
	Aug	25,405	22,981	2,424	0.00%	9.54%
	Sep	24,489	22,146	2,344	0.00%	9.57%
	Oct	23,861	21,573	2,288	0.00%	9.59%
	Nov	23,520	21,257	2,263	0.00%	9.62%
	Dec	23,262	21,042	2,219	0.00%	9.54%
2024	Jan	20,748	18,756	1,992	0.00%	9.60%
	Feb	20,385	18,430	1,955	0.00%	9.59%
	Mar	21,106	19,090	2,016	0.00%	9.55%
	Apr	26,421	23,887	2,534	0.00%	9.59%
	May	26,632	24,064	2,567	0.00%	9.64%
	Jun	27,624	24,977	2,646	0.00%	9.58%
	Jul	26,231	23,710	2,521	0.00%	9.61%
	Aug	27,587	24,949	2,637	0.00%	9.56%
	Sep	26,597	24,046	2,551	0.00%	9.59%
	Oct	25,916	23,426	2,491	0.00%	9.61%
	Nov	25,546	23,086	2,460	0.00%	9.63%
	Dec	25,260	22,845	2,415	0.00%	9.56%
2025	Jan	22,532	20,364	2,168	0.00%	9.62%
	Feb	22,137	20,009	2,127	0.00%	9.61%
	Mar	22,915	20,722	2,193	0.00%	9.57%
	Apr	28,688	25,934	2,754	0.00%	9.60%
	May	28,924	26,133	2,791	0.00%	9.65%
	Jun	29,997	27,117	2,880	0.00%	9.60%
	Jul	28,489	25,745	2,743	0.00%	9.63%

		MWhOfftake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Aug	29,950	27,084	2,866	0.00%	9.57%
	Sep	28,879	26,107	2,772	0.00%	9.60%
	Oct	28,143	25,435	2,707	0.00%	9.62%
	Nov	27,747	25,070	2,678	0.00%	9.65%
	Dec	27,427	24,799	2,627	0.00%	9.58%
2026	Jan	24,467	22,098	2,368	0.00%	9.68%
	Feb	23,877	21,712	2,166	0.00%	9.07%
	Mar	24,841	22,481	2,360	0.00%	9.50%
	Apr	31,154	28,141	3,013	0.00%	9.67%
	May	31,418	28,364	3,054	0.00%	9.72%
	Jun	32,575	29,425	3,150	0.00%	9.67%
	Jul	30,937	27,940	2,998	0.00%	9.69%
	Aug	32,519	29,384	3,135	0.00%	9.64%
	Sep	31,361	28,328	3,033	0.00%	9.67%
	Oct	30,564	27,602	2,962	0.00%	9.69%
	Nov	30,135	27,209	2,926	0.00%	9.71%
	Dec	29,780	26,906	2,874	0.00%	9.65%
2027	Jan	26,517	23,958	2,559	0.00%	9.65%
	Feb	26,049	23,538	2,511	0.00%	9.64%
	Mar	26,955	24,367	2,588	0.00%	9.60%
	Apr	33,759	30,508	3,251	0.00%	9.63%
	May	34,054	30,758	3,296	0.00%	9.68%
	Jun	35,299	31,900	3,399	0.00%	9.63%
	Jul	33,532	30,293	3,239	0.00%	9.66%
	Aug	35,238	31,851	3,386	0.00%	9.61%
	Sep	33,988	30,711	3,276	0.00%	9.64%
	Oct	33,123	29,927	3,196	0.00%	9.65%
	Nov	32,666	29,504	3,162	0.00%	9.68%
	Dec	32,266	29,165	3,101	0.00%	9.61%
2028	Jan	28,719	25,944	2,774	0.00%	9.66%
	Feb	28,210	25,487	2,722	0.00%	9.65%
	Mar	29,188	26,380	2,808	0.00%	9.62%
	Apr	36,564	33,035	3,528	0.00%	9.65%
	May	36,888	33,314	3,574	0.00%	9.69%
	Jun	38,231	34,542	3,689	0.00%	9.65%
	Jul	36,318	32,806	3,512	0.00%	9.67%
	Aug	38,156	34,485	3,671	0.00%	9.62%
	Sep	36,808	33,256	3,552	0.00%	9.65%
	Oct	35,878	32,409	3,469	0.00%	9.67%
	Nov	35,383	31,955	3,429	0.00%	9.69%
	Dec	34,942	31,577	3,365	0.00%	9.63%
2029	Jan	31,063	28,057	3,007	0.00%	9.68%
	Feb	30,511	27,561	2,950	0.00%	9.67%
	Mar	31,561	28,521	3,039	0.00%	9.63%
	Apr	39,543	35,723	3,820	0.00%	9.66%
	May	39,908	36,033	3,875	0.00%	9.71%
	Jun	41,346	37,352	3,994	0.00%	9.66%
	Jul	39,282	35,479	3,802	0.00%	9.68%
	Aug	41,264	37,286	3,978	0.00%	9.64%
	Sep	39,807	35,962	3,845	0.00%	9.66%

		MWhOfftake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Oct	38,805	35,049	3,756	0.00%	9.68%
	Nov	38,274	34,561	3,713	0.00%	9.70%
	Dec	37,785	34,142	3,642	0.00%	9.64%
2030	Jan	33,546	30,295	3,251	0.00%	9.69%
	Feb	32,948	29,758	3,189	0.00%	9.68%
	Mar	34,079	30,790	3,289	0.00%	9.65%
	Apr	42,705	38,571	4,134	0.00%	9.68%
	May	43,104	38,914	4,190	0.00%	9.72%
	Jun	44,647	40,330	4,317	0.00%	9.67%
	Jul	42,423	38,312	4,111	0.00%	9.69%
	Aug	44,553	40,254	4,299	0.00%	9.65%
	Sep	42,990	38,829	4,161	0.00%	9.68%
	Oct	41,907	37,846	4,061	0.00%	9.69%
	Nov	41,338	37,324	4,014	0.00%	9.71%
	Dec	40,802	36,860	3,941	0.00%	9.66%

MWh Offtake was forecasted using Regression Analysis. The assumed load factor is 60%.

System Loss was calculated through a Load Flow Study conducted on 2020 by Distribution Impact Study using Synergi and DSAS software. Based on the same study, the Distribution System cannot adequately convey electricity to customers.



MWh Output was expected to grow at a rate of 6% annually.



System Loss is expected to range from 10.25% to 16.16%. The coop is currently data gathering nine (9) feeders of its distribution system to formulate segregated losses. In the meantime, 5.6% of its energy purchased is technical losses, 0.3% is the substation losses and 10.2% is the technical losses. This is based from the segregation of losses of the ten (10) remaining feeders that were segregated.

On MWh Output, the Residential and All Others in the MWh Sales (Old) are added and reflected in the Residential for MWh Sales (New). The All Others customers are the Barangay Power Association (BAPA) connections which are all residential consumers. While for the MWh Sales (New) Low Voltage, these are the Commercial, Public Buildings and Street Light consumers.

### **Power Supply**

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2017-084RC	Base	GN Power Dinginin	27.00	233,280	12/27/2019	12/25/2026

The PSA with GNPower, Inc. filed with ERC under Case No. 2017-084RC was procured through CSP. It was selected to provide for base requirements. Historically, the utilization of the PSA is above 100%. Outages of the plant led to unserved energy of around 640MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 4.638084813 P/kWh to 5.107211215 P/KWh in the same period.

	NEW 1	NEW 2
Туре	Intermediate	Base
Minimum MW	5.00	47.00
Minimum MWh/yr	43,800	406,080
PSA Start	3/26/2022	12/26/2027
PSA End	12/25/2027	12/25/2030
Publication	12/1/2021	6/1/2026
Pre-bid	12/22/2021	6/22/2026
Opening	2/20/2022	8/21/2026
Awarding	3/22/2022	9/20/2026
PSA Signing	4/21/2022	10/20/2026
Joint Filing	4/30/2022	10/29/2026



For the procurement of 5 MW of supply which is planned to be available on March 2022, the first publication or launch of CSP will be on December 1, 2021. Joint filing is planned on April 30, 2022, or 150 days later, in accordance with DOE's 2018 CSP Policy.

For the procurement of 47 MW of supply which is planned to be available on January 2027, the first publication or launch of CSP will be on June 1, 2026. Joint filing is planned on October 29, 2026, 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 6% annually. Said customer class is expected to account for 72% of the total consumption.