Power Supply Procurement Plan 2020

Agusan Del Norte Electric Cooperative, Inc.

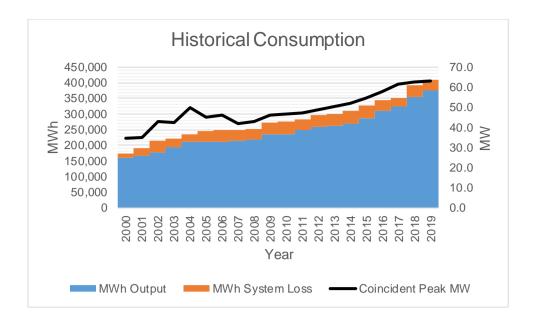
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	MWh Input	MWh Output	MWh System Loss	Load Factor	Transm'n Loss	System Loss
2000	34.66	175,214	175,214	159,658	15,556	58%	0.00%	8.88%
2001	35.14	190,802	190,802	165,751	25,051	62%	0.00%	13.13%
2002	43.13	213,875	213,875	176,680	37,195	57%	0.00%	17.39%
2003	42.38	222,018	222,018	195,549	26,468	60%	0.00%	11.92%
2004	49.71	235,598	235,598	212,246	23,353	54%	0.00%	9.91%
2005	45.33	246,512	246,512	210,000	36,512	62%	0.00%	14.81%
2006	46.41	247,636	247,636	211,882	35,754	61%	0.00%	14.44%
2007	41.79	250,492	250,492	214,540	35,952	68%	0.00%	14.35%
2008	43.12	253,768	253,768	217,878	35,890	67%	0.00%	14.14%
2009	46.11	273,824	273,824	233,799	40,025	68%	0.00%	14.62%
2010	46.93	275,420	275,420	235,669	39,750	67%	0.00%	14.43%
2011	47.06	284,353	284,353	248,902	35,451	69%	0.00%	12.47%
2012	48.89	295,621	295,621	260,707	34,913	69%	0.00%	11.81%
2013	50.48	299,286	299,286	263,809	35,476	68%	0.00%	11.85%
2014	51.83	311,420	310,318	271,004	39,315	68%	0.35%	12.67%
2015	54.50	332,398	327,941	287,796	40,145	69%	1.34%	12.24%
2016	57.75	350,201	344,511	311,355	33,156	68%	1.62%	9.62%
2017	61.44	359,490	353,002	322,616	30,386	66%	1.80%	8.61%
2018	62.61	398,387	393,165	353,566	39,599	72%	1.31%	10.07%
2019	63.15	418,284	410,567	375,915	34,652	74%	1.84%	8.44%

Peak Demand increased from 34.66 MW in 2000 to 63.15 MW in 2019 at a rate of 3% due to additional loads.

MWh Offtake increased from 175,214 MWh in 2000 to 418,284 MWh in 2019 at the average rate of 5% due to growing demand within the franchise area.

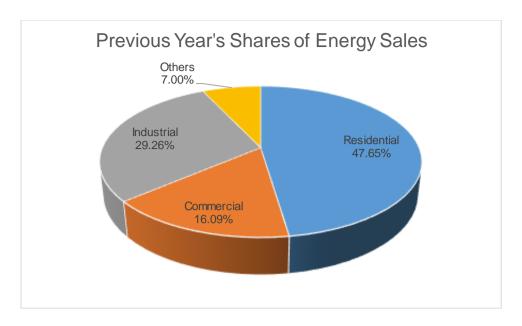
Within the same period, Load Factor ranged from 58% to 74%. There was an abrupt change in consumption on 2019 due to additional commercial and industrial loads.



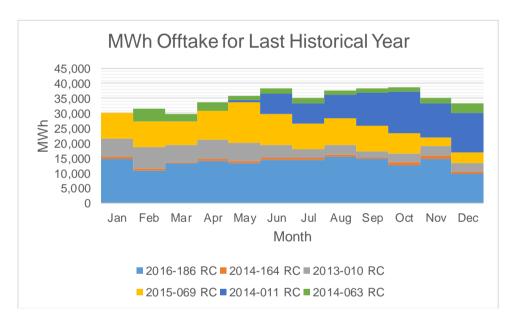
MWh Output increased from year 2000 to year 2019 at the average rate of 5%, while MWh System Loss increased at an average rate of 2% within the same period.



Historically, Transmission Loss ranged from 0.35% to 1.84% while, System Loss ranged from 8.88% to 8.44%.



Residential customers account for the bulk of energy sales at around 48% due to the high number of connections. In contrast, the Public Building & Street Light customers accounted for only 7% of energy sales due to the low number of connections.

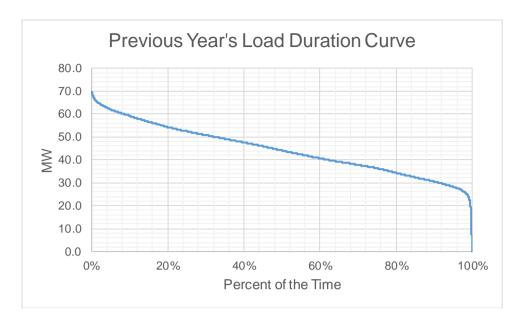


For 2019, the total Offtake quantity for the last historical year is within the range stipulated in the PSA. The PSA with 6 accounts for the bulk of MWh Offtake.

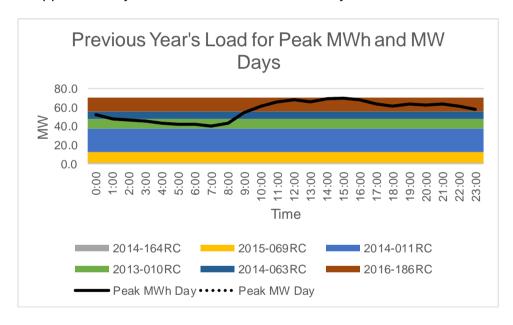
List of Power Suppliers as of the present

Case No.	GenCo	Minimum MW	Minimum MWh/yr
2014-164RC	Therma South, Inc.	1	4,818
2013-010RC	Sarangani Energy Corporation	10	74,460
2016-186RC	Power Sector Assets and Liabilities Management Corporation	40	157,680
2015-069RC	FDC Misamis Power Corporation	12	89,352
2014-011RC	GN Power Kauswagan Ltd.	25	164,250
2014-063 RC	Asiga Green Energy Corporation	8	34,059
2019-072RC	DU-owned (Modular Genset)	10	30,744
2012-112RC	Agusan Power Corporation	25	97,565

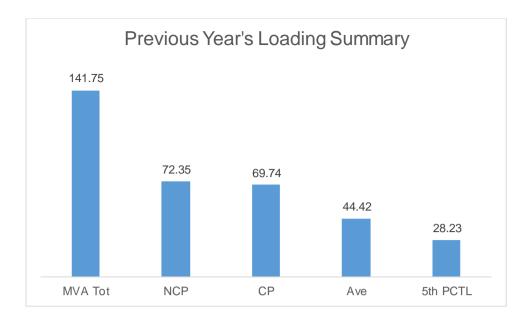
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is approximately 20 MW and the maximum load is approximately 70 MW for the last historical year.



Peak demand (MW) occurred on 2PM due to the change of demand of commercial consumers brought about by major utilization of air-conditioning units. As shown in the Load Curves, the available supply is higher than the Peak Demand.



The Non-coincident Peak Demand is 72.35 MW, which is around 51% of the total substation capacity of 142MVA at a power factor of 0.98. The load factor or the ratio between the Average Load of 44.42MW and the Non-coincident Peak Demand is 61%. A safe estimate of the true minimum load is the fifth percentile load of 28.23MW which is 39% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW	
M10	81.75	32.054	
M8	6.25	4.524	
M5	6.25	4.350	
M1	47.5	31.420	

The Substations per metering point (as per NGCP metering point format) are the following:

- M1: Ambago, Libertad and Bayanihan Substations
- M5: Kinabjangan Substation
- M8: Manapa Substation
- M10: Ampayon, Cabadbaran, Santiago, Soriano and Villakananga Substations as well as privately owned Gaisano, EMCO and PSPI Substations

The substation loaded at above 70% is connected at M8. This loading problem will be solved by transferring load to neighboured substation and by uprating of power transformer capacity.

Forecasted Consumption Data

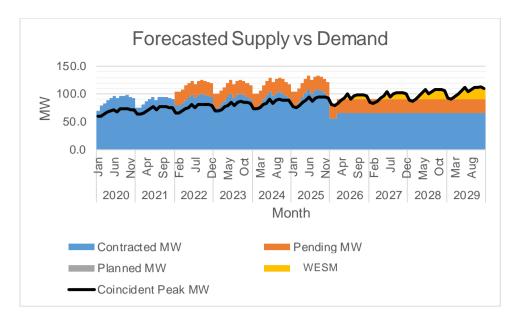
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	WESM MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2020	Jan	60.82	69.96	0.00	0.000		115%	115%	9.14
	Feb	60.17	79.13	0.00	0.000		132%	132%	18.96
	Mar	63.10	84.07	0.00	0.000		133%	133%	20.96
	Apr	66.93	89.89	0.00	0.000		134%	134%	22.96
	May	69.24	93.70	0.00	0.000		135%	135%	24.46
	Jun	72.44	96.90	0.00	0.000		134%	134%	24.46
	Jul	68.58	93.04	0.00	0.000		136%	136%	24.46
	Aug	72.77	97.23	0.00	0.000		134%	134%	24.46
	Sep	72.99	97.45	0.00	0.000		134%	134%	24.46
	Oct	73.19	97.65	0.00	0.000		133%	133%	24.46
	Nov	71.93	94.89	0.00	0.000		132%	132%	22.96
	Dec	72.15	93.11	0.00	0.000		129%	129%	20.96
2021	Jan	63.74	75.98	0.00	0.000		119%	119%	12.24
	Feb	63.14	75.38	0.00	0.000		119%	119%	12.24
	Mar	66.08	80.32	0.00	0.000		122%	122%	14.24
	Apr	70.24	86.48	0.00	0.000		123%	123%	16.24
	May	72.66	90.40	0.00	0.000		124%	124%	17.74
	Jun	76.93	94.67	0.00	0.000		123%	123%	17.74
	Jul	72.07	89.81	0.00	0.000		125%	125%	17.74
	Aug	76.58	94.32	0.00	0.000		123%	123%	17.74
	Sep	77.50	95.24	0.00	0.000		123%	123%	17.74
	Oct	77.18	94.92	0.00	0.000		123%	123%	17.74
	Nov	76.10	92.34	0.00	0.000		121%	121%	16.24
	Dec	75.99	90.23	0.00	0.000		119%	119%	14.24
2022	Jan	66.82	79.06	25.00	0.000		118%	156%	37.24
	Feb	66.23	78.47	25.00	0.000		118%	156%	37.24
	Mar	69.17	83.41	25.00	0.000		121%	157%	39.24
	Apr	73.64	89.88	25.00	0.000		122%	156%	41.24

	May	76.25	93.99	25.00	0.000	123%	156%	42.74
	Jun	81.47	99.21	25.00	0.000	122%	152%	42.74
	Jul	75.68	93.42	25.00	0.000	123%	156%	42.74
	Aug	80.42	98.16	25.00	0.000	122%	153%	42.74
	Sep	81.97	99.71	25.00	0.000	122%	152%	42.74
	Oct	81.24	98.98	25.00	0.000	122%	153%	42.74
	Nov	80.36	96.60	25.00	0.000	120%	151%	41.24
	Dec	79.91	94.15	25.00	0.000	118%	149%	39.24
2023	Jan	70.06	76.30	25.00	0.000	109%	145%	31.24
	Feb	69.43	75.67	25.00	0.000	109%	145%	31.24
	Mar	72.38	80.62	25.00	0.000	111%	146%	33.24
	Apr	77.14	87.38	25.00	0.000	113%	146%	35.24
	May	80.01	93.75	25.00	0.000	117%	148%	38.74
	Jun	86.02	99.76	25.00	0.000	116%	145%	38.74
	Jul	79.39	93.13	25.00	0.000	117%	149%	38.74
	Aug	84.28	98.02	25.00	0.000	116%	146%	38.74
	Sep	86.38	100.12	25.00	0.000	116%	145%	38.74
	Oct	85.39	99.13	25.00	0.000	116%	145%	38.74
	Nov	84.73	94.97	25.00	0.000	112%	142%	35.24
	Dec	83.93	90.17	25.00	0.000	107%	137%	31.24
2024	Jan	73.46	75.70	25.00	0.000	103%	137%	27.24
	Feb	72.76	75.00	25.00	0.000	103%	137%	27.24
	Mar	75.72	81.96	25.00	0.000	108%	141%	31.24
	Apr	80.75	90.99	25.00	0.000	113%	144%	35.24
	May	83.95	97.69	25.00	0.000	116%	146%	38.74
	Jun	90.56	104.30	25.00	0.000	115%	143%	38.74
	Jul	83.21	96.95	25.00	0.000	117%	147%	38.74
	Aug	88.17	101.91	25.00	0.000	116%	144%	38.74
	Sep	90.71	104.45	25.00	0.000	115%	143%	38.74
	Oct	89.62	101.36	25.00	0.000	113%	141%	36.74
	Nov	89.19	97.43	25.00	0.000	109%	137%	33.24
	Dec	88.05	92.29	25.00	0.000	105%	133%	29.24
2025	Jan	77.02	79.26	25.00	0.000	103%	135%	27.24

	Feb	76.20	78.44	25.00	0.000		103%	136%	27.24
	Mar	79.20	85.44	25.00	0.000		108%	139%	31.24
	Apr	84.48	94.72	25.00	0.000		112%	142%	35.24
	May	88.06	101.80	25.00	0.000		116%	144%	38.74
	Jun	95.08	108.82	25.00	0.000		114%	141%	38.74
	Jul	87.14	100.88	25.00	0.000		116%	144%	38.74
	Aug	92.07	105.81	25.00	0.000		115%	142%	38.74
	Sep	94.97	108.71	25.00	0.000		114%	141%	38.74
	Oct	93.93	105.67	25.00	0.000		112%	139%	36.74
	Nov	93.74	101.98	25.00	0.000		109%	135%	33.24
	Dec	92.25	96.49	25.00	0.000		105%	132%	29.24
2026	Jan	80.73	55.96	25.00	0.000		69%	100%	0.23
	Feb	79.76	55.96	25.00	0.000		70%	101%	1.20
	Mar	82.85	65.96	25.00	0.000		80%	110%	8.11
	Apr	88.34	65.96	25.00	0.000		75%	103%	2.62
	May	92.35	65.96	25.00	0.000	2.00	73%	101%	0.61
	Jun	99.56	65.96	25.00	0.000	9.00	73%	100%	0.40
	Jul	91.17	65.96	25.00	0.000	1.00	73%	101%	0.79
	Aug	96.00	65.96	25.00	0.000	6.00	73%	101%	0.96
	Sep	99.13	65.96	25.00	0.000	9.00	73%	101%	0.83
	Oct	98.31	65.96	25.00	0.000	8.00	73%	101%	0.65
	Nov	98.40	65.96	25.00	0.000	8.00	73%	101%	0.56
	Dec	96.55	65.96	25.00	0.000	6.00	73%	100%	0.41
2027	Jan	84.59	65.96	25.00	0.000		78%	108%	6.37
	Feb	83.44	65.96	25.00	0.000		79%	109%	7.52
	Mar	86.67	65.96	25.00	0.000		76%	105%	4.29
	Apr	92.34	65.96	25.00	0.000	2.00	73%	101%	0.62
	May	96.81	65.96	25.00	0.000	6.00	73%	100%	0.15
	Jun	104.01	65.96	25.00	0.000	14.00	73%	101%	0.95
	Jul	95.32	65.96	25.00	0.000	5.00	73%	101%	0.64
	Aug	99.96	65.96	25.00	0.000	10.00	73%	101%	1.00
	Sep	103.21	65.96	25.00	0.000	13.00	73%	101%	0.75
	Oct	102.78	65.96	25.00	0.000	12.00	73%	100%	0.18

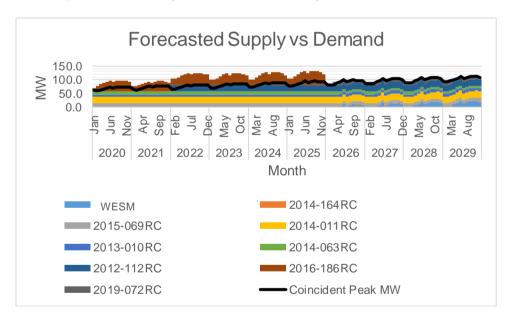
	Nov	103.14	65.96	25.00	0.000	13.00	73%	101%	0.82
	Dec	100.94	65.96	25.00	0.000	10.00	73%	100%	0.02
2028	Jan	88.62	65.96	25.00	0.000		74%	103%	2.34
	Feb	87.24	65.96	25.00	0.000		76%	104%	3.72
	Mar	90.67	65.96	25.00	0.000		73%	100%	0.29
	Apr	96.49	65.96	25.00	0.000	6.00	73%	101%	0.47
	May	101.44	65.96	25.00	0.000	11.00	73%	101%	0.52
	Jun	108.40	65.96	25.00	0.000	18.00	73%	101%	0.56
	Jul	99.57	65.96	25.00	0.000	9.00	73%	100%	0.39
	Aug	103.93	65.96	25.00	0.000	13.00	73%	100%	0.03
	Sep	107.21	65.96	25.00	0.000	17.00	73%	101%	0.75
	Oct	107.32	65.96	25.00	0.000	17.00	73%	101%	0.64
	Nov	107.99	65.96	25.00	0.000	18.00	73%	101%	0.97
	Dec	105.43	65.96	25.00	0.000	15.00	73%	101%	0.53
2029	Jan	92.80	65.96	25.00	0.000	2.00	73%	100%	0.16
	Feb	91.16	65.96	25.00	0.000	1.00	73%	101%	0.80
	Mar	94.86	65.96	25.00	0.000	4.00	73%	100%	0.10
	Apr	100.80	65.96	25.00	0.000	10.00	73%	100%	0.16
	May	106.25	65.96	25.00	0.000	16.00	73%	101%	0.71
	Jun	112.75	65.96	25.00	0.000	22.00	73%	100%	0.21
	Jul	103.93	65.96	25.00	0.000	13.00	73%	100%	0.03
	Aug	107.93	65.96	25.00	0.000	17.00	73%	100%	0.03
	Sep	111.12	65.96	25.00	0.000	21.00	73%	101%	0.84
	Oct	111.95	65.96	25.00	0.000	21.00	73%	100%	0.01
	Nov	112.93	65.96	25.00	0.000	22.00	73%	100%	0.03
	Dec	110.01	65.96	25.00	0.000	20.00	73%	101%	0.95

The monthly Peak Demand was forecasted using Cubic & Logarithmic Trending with Horizon. The highest peak demand for year 2020 is assumed to occur on the month of October due to additional loads. Monthly Peak Demand is at its lowest on the month of February due to weather condition, as this month falls to rainy season. In general, Peak Demand is expected to grow at an average rate of 0.65% for the ten-year forecast period. All of ANECO's power suppliers have been evaluated and approved by the ERC thus, there is no pending power supplier. Except that ANECO's contract with APC under ERC Case No. 2012-112RC is still under construction and is expected to go online on year 2022.



The available supply is generally above the Peak Demand. This is to ensure availability of power supply, as this can cope for any unscheduled emergency shutdown of other power plants.

There's a slight deficiency in power supply on 2026 to 2029 during peak hours. This slim deficiency will be addressed through Wholesale Electricity Spot Market (WESM) or extension/renewal of NPC-PSALM CSEE, and/or utilization of ANECO's 10MW Modular Generator Sets (ERC Case No. 2019-072RC) whichever is practicable and competitive.



Of the available supply, the largest is 25 MW from 2012-112RC. This is followed by 24.95 MW from 2014-011RC.

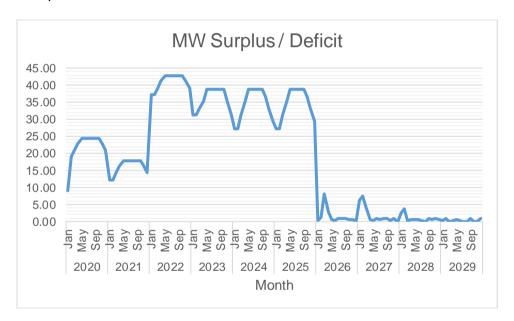
Forecasted Power Supply Deficit

	Days	Time Projected to Occur	No. of Hours	Max. Deficit MW
	Monday to Friday	10:01 AM to 12:00 NN	2 hours	8
2000		1:01 PM to 4:00 PM	3 hours	9
2026		6:01 PM to 9:00 PM	3 hours	7
	Saturday	1:01 PM to 4:00 PM	3 hours	8
		6:01 PM to 9:00 PM	3 hours	7
	Holidays and Sundays	6:01 PM to 9:00 PM	3 hours	6
	Monday to Friday	10:01 AM to 12:00 NN	2 hours	13
		1:01 PM to 4:00 PM	3 hours	14
2027		6:01 PM to 9:00 PM	3 hours	12
2027	Saturday	1:01 PM to 4:00 PM	3 hours	13
		6:01 PM to 9:00 PM	3 hours	12
	Holidays and Sundays	6:01 PM to 9:00 PM	3 hours	11
	Monday to Friday	10:01 AM to 12:00 NN	2 hours	17
		1:01 PM to 4:00 PM	3 hours	18
2028		6:01 PM to 9:00 PM	3 hours	16
2020	Saturday	1:01 PM to 4:00 PM	3 hours	17
		6:01 PM to 9:00 PM	3 hours	16
	Holidays and Sundays	6:01 PM to 9:00 PM	3 hours	15
	Monday to Friday	10:01 AM to 12:00 NN	2 hours	21
		1:01 PM to 4:00 PM	3 hours	22
2029		6:01 PM to 9:00 PM	3 hours	20
2029	Saturday	1:01 PM to 4:00 PM	3 hours	21
		6:01 PM to 9:00 PM	3 hours	20
	Holidays and Sundays	6:01 PM to 9:00 PM	3 hours	19

Shown in the table above are the maximum deficit demand that is projected to occur during the peak periods, which as stipulated will then be addressed through WESM/ Extension or Renewal of NPC-PSALM CSEE and/or 10MW Genset of ANECO. This solution has the least effect to ANECO's power rate which will be remunerated by the Member-Consumer-Owners as compared to having a contract with a new power supplier wherein the cooperative pays a monthly capacity fee whether or not the contract is fully utilized, aside from the energy it would dispatch. Furthermore, considering that the time of occurrence is during peak periods, then ANECO will need a plant that could address the sudden increase in demand which can generally be supplied by a rate intensive Diesel Plant.



In year 2026, power supply contract reduced to 100 %. The highest target contracting level is 160% which is expected to occur on 2022.



The table would suggest that, currently, there is over-contracting more or less by 42 MW. However, that is not the case because the table did not consider the capacity factor of each of the generating plants but only its rated capacity. And based on each plant rated capacity, the highest surplus is 42 MW which is expected to occur on the month of May, while the lowest surplus is 4 MW which is expected to occur on the month of January in year 2028.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2020	Jan	34,580	29,971	3,210	4.05%	9.67%
	Feb	34,577	30,099	3,076	4.06%	9.27%
	Mar	35,512	30,840	3,218	4.09%	9.45%
	Apr	36,756	31,871	3,414	4.00%	9.68%
	May	37,588	32,823	3,245	4.04%	9.00%
	Jun	40,078	34,923	3,511	4.10%	9.13%
	Jul	38,598	33,688	3,299	4.17%	8.92%
	Aug	40,833	35,583	3,586	4.08%	9.15%
	Sep	40,157	34,792	3,721	4.09%	9.66%

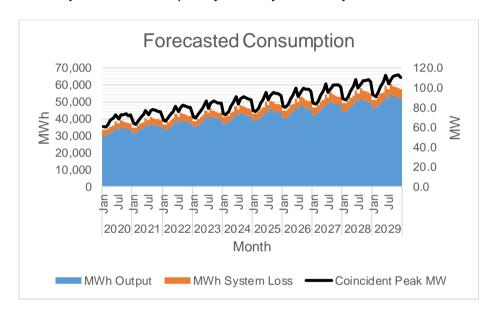
	Oct	39,380	34,368	3,392	4.11%	8.98%
	Nov	39,008	33,830	3,614	4.11%	9.65%
	Dec					
2024		38,784	33,674	3,530	4.07%	9.49%
2021	Jan Feb	36,498	31,626	3,384	4.07%	9.67% 9.26%
		36,497	31,761	3,243	4.09%	
	Mar	37,471	32,544	3,393	4.09%	9.44%
	Apr	38,808	33,631	3,600	4.06%	9.67%
	May	39,651	34,636	3,421	4.02%	8.99%
	Jun Jul	42,251	36,851	3,702	4.02%	9.13%
		40,684	35,548	3,479	4.07%	8.91%
	Aug	43,092	37,548	3,781	4.09%	9.15%
	Sep	42,355	36,714	3,923	4.06%	9.65%
	Oct	41,540	36,266	3,576	4.09%	8.98%
	Nov	41,171	35,698	3,811	4.04%	9.65%
0000	Dec	40,931	35,534	3,722	4.09%	9.48%
2022	Jan	38,447	33,310	3,579	4.05%	9.70%
	Feb	38,457	33,452	3,430	4.09%	9.30%
	Mar	39,487	34,277	3,589	4.11%	9.48%
	Apr	40,887	35,422	3,807	4.05%	9.70%
	May	41,814	36,481	3,619	4.10%	9.03%
	Jun	44,560	38,814	3,916	4.11%	9.16%
	Jul	42,858	37,442	3,680	4.05%	8.95%
	Aug	45,400	39,548	3,999	4.08%	9.18%
	Sep	44,641	38,669	4,149	4.08%	9.69%
	Oct	43,766	38,198	3,783	4.08%	9.01%
	Nov	43,399	37,599	4,030	4.08%	9.68%
	Dec	43,135	37,427	3,936	4.11%	9.52%
2023	Jan	40,456	35,134	3,682	4.06%	9.48%
	Feb	40,437	35,284	3,525	4.03%	9.08%
	Mar	41,534	36,154	3,689	4.07%	9.26%
	Apr	43,019	37,361	3,917	4.05%	9.49%
	May	43,994	38,478	3,716	4.09%	8.81%
	Jun	46,859	40,939	4,022	4.05%	8.95%
	Jul	45,106	39,492	3,778	4.07%	8.73%
	Aug	47,786	41,713	4,108	4.11%	8.97%
	Sep	46,987	40,786	4,268	4.11%	9.47%
	Oct	46,044	40,289	3,884	4.06%	8.79%
	Nov	45,675	39,658	4,145	4.10%	9.46%
2024	Dec	45,350	39,476	4,047	4.03%	9.30%
2024	Jan	42,505	36,875	3,914	4.04%	9.60%
	Feb	42,515	37,032	3,750	4.08%	9.19%
	Mar	43,624	37,945	3,924	4.03%	9.37%
	Apr	45,218	39,212	4,164	4.07%	9.60%
	May	46,208	40,384	3,955	4.05%	8.92%
	Jun	49,249	42,967	4,279	4.07%	9.06%
	Jul	47,405	41,448	4,021	4.08%	8.84%
	Aug	50,176	43,779	4,371	4.04%	9.08%
	Sep	49,336	42,807	4,538	4.04%	9.58%
	Oct	48,372	42,285	4,134	4.04%	8.91%
	Nov	47,992	41,623	4,408	4.09%	9.58%
	Dec	47,672	41,431	4,304	4.06%	9.41%

2025	Jan	44,626	38,717	4,091	4.07%	9.56%
2023	Feb	44,618	38,882	3,918	4.07%	9.36%
	Mar	45,816	39,841	4,100	4.09%	9.33%
		47,469	41,172	4,352	4.09%	9.56%
	Apr May	48,511	41,172	4,332	4.10%	9.50% 8.88%
	Jun	51,696	45,114	4,471	4.08%	9.02%
	Jul				4.06%	8.80%
		49,729	43,519 45,067	4,200		
	Aug Sep	52,679 51,801	45,967 44,946	4,567	4.07% 4.08%	9.04% 9.54%
	Oct		44,398	4,742		
	Nov	50,754		4,319	4.01%	8.86% 9.53%
		50,344	43,702	4,606	4.04%	
2026	Dec	50,012	43,502	4,498	4.02%	9.37%
2026	Jan	46,787	40,514	4,358	4.09%	9.71%
	Feb	46,745	40,687	4,177	4.02%	9.31%
	Mar	48,025	41,689	4,371	4.09%	9.49%
	Apr	49,738	43,082	4,636	4.06%	9.72%
	May	50,846	44,370	4,408	4.07%	9.04%
	Jun	54,164	47,208	4,769	4.04%	9.17%
	Jul	52,123	45,539	4,482	4.03%	8.96%
	Aug	55,198	48,100	4,870	4.04%	9.19%
	Sep	54,264	47,032	5,053	4.02%	9.70%
	Oct	53,237	46,458	4,608	4.08%	9.02%
	Nov	52,752	45,731	4,908	4.01%	9.69%
	Dec	52,439	45,520	4,794	4.05%	9.53%
2027	Jan	48,985	42,414	4,568	4.09%	9.72%
	Feb	48,939	42,594	4,379	4.02%	9.32%
	Mar	50,255	43,644	4,581	4.04%	9.50%
	Apr	52,088	45,102	4,859	4.08%	9.73%
	May	53,212	46,450	4,620	4.03%	9.05%
	Jun	56,698	49,421	4,999	4.02%	9.19%
	Jul	54,582	47,674	4,698	4.05%	8.97%
	Aug	57,818	50,355	5,105	4.08%	9.21%
	Sep	56,814	49,237	5,296	4.02%	9.71%
	Oct	55,716	48,637	4,830	4.04%	9.03%
	Nov	55,252	47,875	5,144	4.04%	9.70%
	Dec	54,886	47,655	5,024	4.02%	9.54%
2028	Jan	51,221	44,268	4,868	4.07%	9.91%
	Feb	51,221	44,457	4,670	4.09%	9.51%
	Mar	52,575	45,552	4,884	4.07%	9.68%
	Apr	54,458	47,074	5,178	4.05%	9.91%
	May	55,652	48,481	4,930	4.03%	9.23%
	Jun	59,298	51,582	5,333	4.02%	9.37%
	Jul	57,067	49,758	5,015	4.02%	9.16%
	Aug	60,428	52,557	5,446	4.01%	9.39%
	Sep	59,448	51,389	5,643	4.06%	9.89%
	Oct	58,291	50,763	5,155	4.07%	9.22%
	Nov	57,787	49,968	5,482	4.05%	9.89%
	Dec	57,413	49,738	5,356	4.04%	9.72%
2029	Jan	53,502	46,226	5,108	4.05%	9.95%
	Feb	53,488	46,423	4,901	4.04%	9.55%
	Mar	54,905	47,567	5,126	4.03%	9.73%

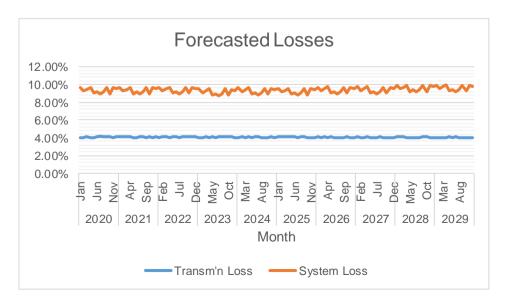
Apr	56,892	49,156	5,433	4.05%	9.95%
May	58,164	50,626	5,175	4.06%	9.27%
Jun	61,967	53,863	5,598	4.05%	9.41%
Jul	59,646	51,959	5,264	4.06%	9.20%
Aug	63,140	54,881	5,717	4.03%	9.43%
Sep	62,095	53,662	5,922	4.04%	9.94%
Oct	60,878	53,008	5,411	4.04%	9.26%
Nov	60,368	52,178	5,752	4.04%	9.93%
Dec	59,968	51,938	5,621	4.02%	9.77%

MWh Offtake was forecasted using Cubic & Logarithmic Trending with Horizon. The assumed load factor is 65%.

System Loss was calculated through a Load Flow Study conducted on January 28, 2020 by our System Analysts using Distribution System Application Software (DSAS). Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output is expected to grow at an average rate of 0.53% for the ten-year forecast period.



Transmission Loss is expected to range from 4.05% to 4.02% while System Loss is expected to range from 9.67% to 9.77%.

Power Supply

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2014-164RC	Base	Therma South, Inc.	1.00	4,818	12/26/2015	12/25/2040
2013-010RC	Intermediate	Sarangani Energy Corporation	10.00	74,460	12/26/2015	12/25/2040
2016-186RC	Peaking	Power Sector Assets and Liabilities Management Corporation	40.00	157,680	12/26/2020	12/25/2025
2015-069RC	Base	FDC Misamis Power Corporation	12.00	89,352	12/26/2015	12/25/2040
2014-011RC	Base	GN Power Kauswagan Ltd.	25.00	164,250	12/25/2017	12/25/2042
2014-063RC	Intermediate	ASIGA Green Energy Corporation	8.00	34,059	4/26/2019	4/25/2044
2019-072RC	Peaking	DU-owned	10.00	30,744	12/26/2021	12/25/2046

The PSA with Provisional Authority filed with ERC under Case No. 2014-164RC Therma South, Inc. was procured through Bilateral Contract. It was selected to provide for base requirements due to twenty-four (24) hours operations. Historically, the utilization of the PSA is 100%. Outages of the plant led to unserved energy of around 328.5 MWh in the past year. The actual billed overall monthly charge under the PSA with approved base rate of 2.0551 Php/kWh and 2,323.95 Php/kW.

The PSA with Provisional Authority filed with ERC under Case No. 2013-010RC Sarangani Energy Corporation was procured through Bilateral Contract. It was selected to provide for base/intermediate requirements due to twenty-four (24) hours operations. Historically, the utilization of the PSA is 40%. Outages of the plant led to unserved energy of around 365 MWh in the past year. The actual billed overall monthly charge under the PSA with approved base rate of 2.7792 Php/kWh and 2,292.49 Php/kW.

The PSA with Provisional Authority filed with ERC under Case No. 2016-186RC Power Sector Assets and Liabilities Management Corporation (PSALM Corp.) was procured through Contract for the Supply of Electric Energy. It was selected to provide for intermediate/peaking requirements due to optimization of power suppliers. Historically, the utilization of the PSA is 100%. Outages of the plant led to unserved energy of around 4,380 MWh in the past year. The actual billed overall monthly charge under the PSA with approved base rate of around 3.00 Php/kWh. Furthermore, the NPC-PSALM CSEE has already commenced while waiting for the DOE issuance of COE-CSP. Therefore, it is supplying ANECO until year 2025 while waiting for the DOE issuance of DOE-COE-CSP for the CSEE renewal.

The PSA with Provisional Authority filed with ERC under Case No. 2015-069RC FDC Misamis Power Corporation was procured through Bilateral Contract. It was selected to provide for base requirements due to twenty-four (24) hours operations. Historically, the utilization of the PSA is 60%. Outages of the plant led to unserved energy of around 876 MWh in the past year. The actual billed overall monthly charge under the PSA with approved base rate of 2.1467 Php/kWh and 2,290.64 Php/kW.

The PSA with Provisional Authority filed with ERC under Case No. 2014-011RC GN Power Kauswagan Ltd. was procured through Bilateral Contract. It was selected to provide for base requirements due to twenty-four (24) hours operations. Historically, the utilization of the PSA is 75%. Outages of the plant led to unserved energy of around 4,563 MWh in the past year. The actual billed overall monthly charge under the PSA with approved base rate of 0.0976 \$/kWh.

The PSA with Provisional Authority filed with ERC under Case No. 2014-063RC ASIGA Green Energy Corporation was procured through Bilateral Contract. It was selected to provide for intermediate requirements due to optimization of power suppliers. Historically, the utilization of the PSA is 75%. Outages of the plant led to unserved energy of around 2,976 MWh in the past year. The actual billed overall monthly charge under the PSA with approved base rate of 5.90 Php/kWh.

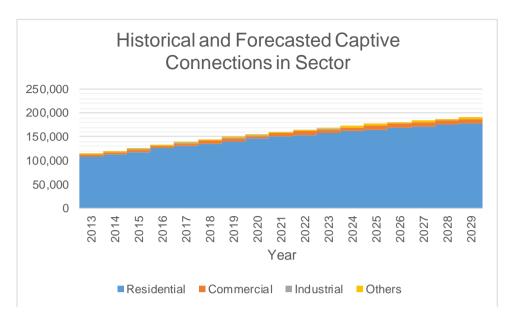
The DU owned 10MW Modular Gensets was procured through Competitive Selection Process (CSP) availing of the government's "Mindanao Modular Generator Sets Program" under Executive Order No. 137. The Modular Gensets is already operational and was already granted by the ERC of Certificate of Compliance (COC) valid for the period of 5 years from May 18, 2018 to May 17, 2023. On September 17, 2019, ANECO filed an instant application for the approval of the Generation Rate for the use (acquisition and operation) of 5 units of 2MW Modular Gensets and the corresponding loan from the NEA under ERC Case No. 2019-072RC. ANECO as of to date is still waiting for ERC's approval of the application; though the Modular Gensets can be used anytime when needed using the rate of Mapalad Power Corporation for recovery.

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2012-112RC	Intermediate	Agusan Power Corporation	25.00	97,565	12/26/2021	12/25/2046

The PSA with Provisional Authority filed with ERC under Case No. 2012-112RC Agusan Power Corporation was procured through Bilateral Contract. It was selected to provide for intermediate requirements due to optimization of power suppliers. Outages of the plant led to unserved energy of around 4,500 MWh as projected. The expected billed overall monthly charge under the PSA ranged from 6.3499 Php/kWh.

The Agusan Power Corporation (APC) is listed in the pending power supplier of ANECO in consideration that its PSA approval issued by the ERC is still provisional. Furthermore, the said plant is still under construction and expected to go online on year 2022.

Captive Customer Connections



The number of connections is expected to grow at the average rate of 5% annually.

Below is the average percentage breakdown of the Captive Customer Connection:

Туре	Percentage
Residential	93%
Commercial	4%
Industrial	1%
Others	<u>2%</u>
Total	100%