

Power Supply Procurement Plan 2021

SOUTH COTABATO II ELECTRIC COOPERATIVE (SOCOTECO II)

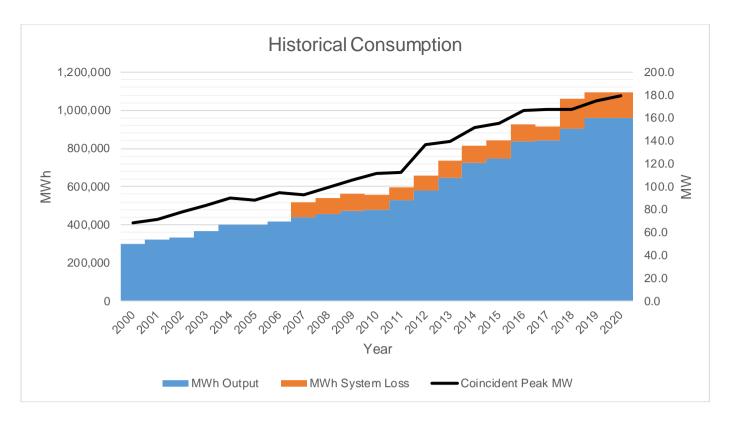
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	68.30	377,844	0	361,408	299,343	0	60%	-17.17%	4.35%	0.00%
2001	71.73	407,239	0	389,524	322,695	0	62%	-17.16%	4.35%	0.00%
2002	77.72	425,412	0	406,907	332,188	0	60%	-18.36%	4.35%	0.00%
2003	83.62	453,362	0	433,640	363,646	0	59%	-16.14%	4.35%	0.00%
2004	89.94	488,425	0	467,179	399,165	0	59%	-14.56%	4.35%	0.00%
2005	87.95	497,716	0	476,065	401,277	0	62%	-15.71%	4.35%	0.00%
2006	94.48	510,856	0	488,634	414,368	0	59%	-15.20%	4.35%	0.00%
2007	92.91	540,193	0	516,695	439,406	76,065	63%	-0.24%	4.35%	14.72%
2008	99.08	562,341	0	537,879	456,451	81,156	62%	-0.05%	4.35%	15.09%
2009	106.24	593,326	0	567,517	474,433	89,926	61%	-0.56%	4.35%	15.85%
2010	111.56	597,581	0	571,587	480,701	78,333	58%	-2.20%	4.35%	13.70%
2011	112.74	629,280	0	601,907	530,179	68,002	61%	-0.62%	4.35%	11.30%
2012	136.64	688,430	0	658,483	579,102	78,597	55%	-0.12%	4.35%	11.94%
2013	139.79	767,752	0	734,355	647,686	89,422	60%	0.37%	4.35%	12.18%
2014	151.32	816,330	0	780,820	727,105	89,467	59%	4.58%	4.35%	11.46%
2015	155.25	839,799	0	803,268	747,992	91,902	59%	4.56%	4.35%	11.44%
2016	166.64	905,234	0	865,856	838,826	89,742	59%	7.24%	4.35%	10.36%
2017	167.29	910,836	0	871,214	842,089	72,019	59%	4.92%	4.35%	8.27%
2018	167.38	1,039,193	0	993,988	904,200	156,814	68%	6.74%	4.35%	15.78%
2019	174.65	1,094,395	0	1,046,789	960,626	136,367	68%	4.80%	4.35%	13.03%
2020	179.39	1,095,933	0	1,048,258	959,155	133,560	67%	4.24%	4.35%	12.74%

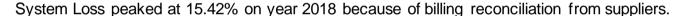
Peak Demand increased from 174.65 MW in 2019 to 179.39 MW in 2020 at a rate of 2.71%. However, the highest recorded demand happens in January and February 2020 wherein lockdowns due to pandemic has not been implemented. MWh Offtake slightly increased from 1,094,395 MWh in 2019 to 1,095,933 MWh in 2020 at a rate of 0.14% due to effects of lockdown and home quarantine wherein business operations were paralyzed. Within the same period, the average Load Factor ranged is 67%. There was a slight increase in consumption of energy due to pandemic.

Transmission Loss with National Grid Corporation of the Philippines remained to be 4.35 percent throughout the years. However, SOCOTECO II requested to revisit such transmission loss charging.

There were no increase in the total energy consumed in the SOCOTECO II franchise area due to the impact of the Pandemic. Significantly, the energy consumed by commercial customers dropped due to closure of various establishment and lockdowns. However, increase in energy demand to residential customers were observed since people were encouraged to stay home. No, observable increase and decrease to industrial customer consumption.



MWh Output increased from year 2018 to year 2019 at a rate of 5.23%, while MWh System Loss decreased at a rate of 2.68% within the same period.





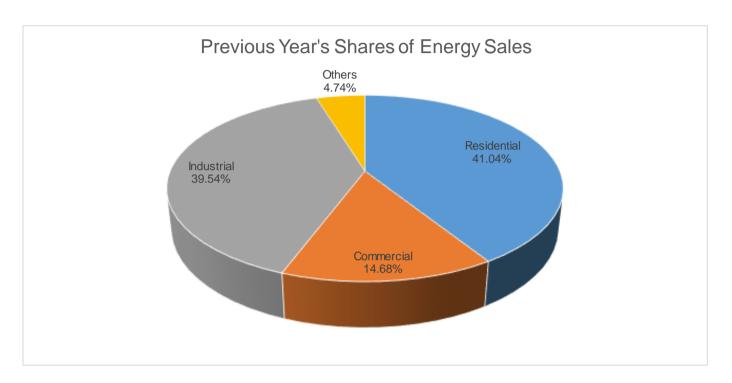
Historically, Transmission Loss is based on NGCP simulation of losses in the Mindanao Grid that remained to be 4.35 percent. However, a review on this loss is requested to determine the actual loss to date.

Historical losses of SOCOTECO II is relatively high during 2006 to 2010. It significantly dropped in the year 2011 when significant number of mechanical meters were changed into digital meters. It continually go down from 2011 to 2017 when almost all meters were changed.

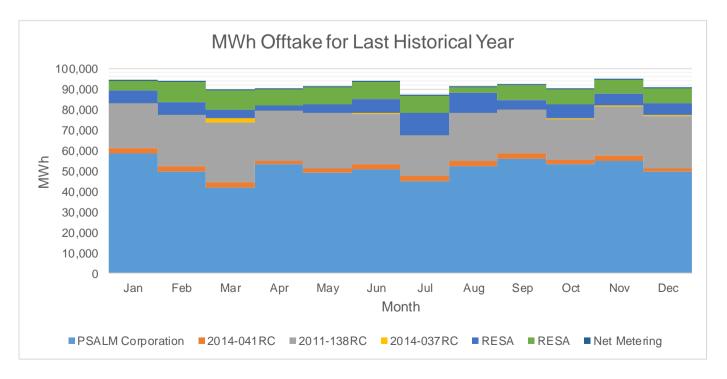
It increased in the years 2018, 2019 and 2020 due to increase of pilferers that increased the non-technical losses of the cooperative.

To lessen the non-technical loss caused by pilferers, a team specifically for apprehension of pilferers will be formed.

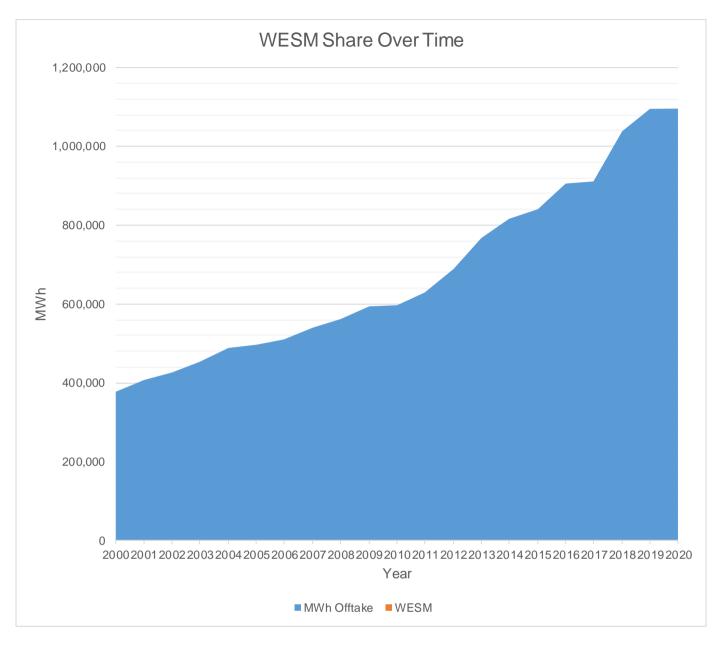
Moreover, CAPEX projects to install and rehabilitate meters of all 69kV sub-transmission, substation and feeder with higher accuracy class is included in the 2022-2024 CAPEX Application.



Residential customers account for the bulk of energy sales at 41.04% despite of the pandemic. In addition, commercial customers accounted for only 14.68% of energy sales due to closure of businesses. Further, industrial consumers is 39.54% of the total energy consumption for the year 2020.



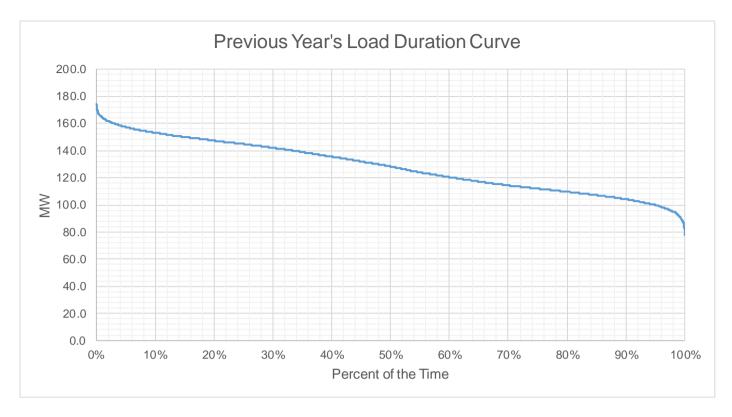
For SOCOTECO II, the total Offtake for the last historical year is lower than the quantity stipulated in the PSA which means that there is enough supply to the growing power requirements.



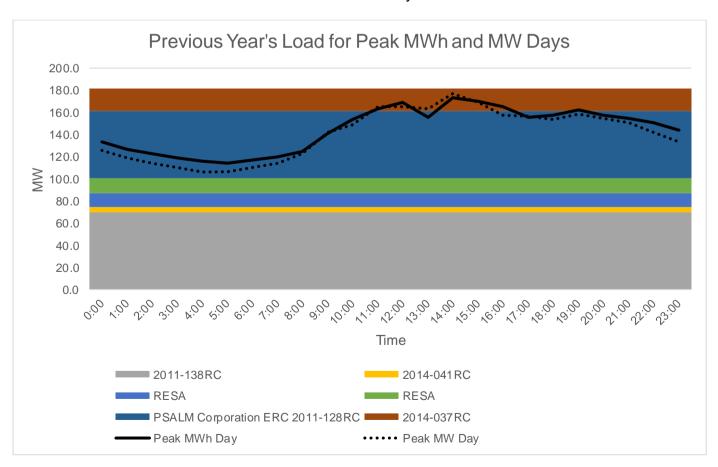
WESM still has no share in the MWhr Offtake of SOCOTECO II since it has not yet present in Mindanao.

SOCOTECO II Status of application for WESM Mindanao is compliant to the rules set by the Department of Energy.

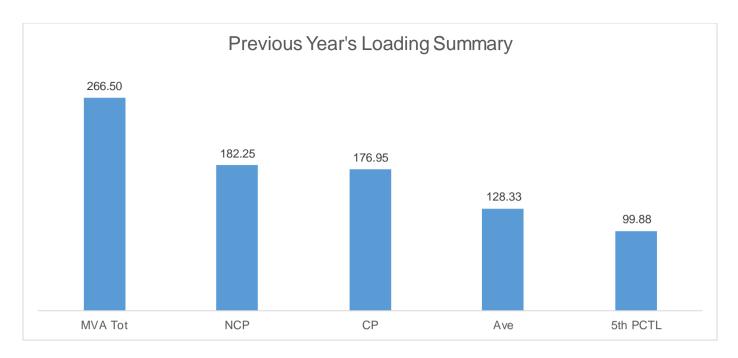
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 77.09 MW during normal conditions and the maximum load is 176.951 MW for the last historical year.



Peak MW occurred on 2 pm due to simultaneous demand of power from residential, commercial, and industrial consumers plus the significant usage of air conditioning units. As shown in the Load Curves, the available supply is higher than the Peak Demand which means that supply is sufficient.



The Non-coincident Peak Demand is 182.25 MW, which is around 68.39% of the total substation capacity of 266.5 MVA at a power factor of 97.65%. A safe estimate of the true minimum load is the fifth percentile load of 77.09 MW which is 42.29% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
SARI	20	13.797
MALANDAG	10	5.302
LIGAYA	10	6.899
GLAN	5	3.449
TUPI TOTALIZER	35	24.145
SEGUIL LINE 2	36.5	25.180
KCC	10	6.899
MAIN	35	24.145
SEGUIL LINE 1	105	72.436

The substations loaded below 70% of its total capacity.

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	173.11	181.20	0.00	0.000		105%	105%	8.09
	Feb	173.49	183.70	0.00	0.000		106%	106%	10.21
	Mar	173.87	185.90	0.00	0.000		107%	107%	12.03
	Apr	174.26	189.40	0.00	0.000		109%	109%	15.14
	May	174.64	192.20	0.00	0.000		110%	110%	17.56
	Jun	175.02	188.70	0.00	0.000		108%	108%	13.68
	Jul	175.40	183.30	0.00	0.000		105%	105%	7.90
	Aug	175.78	183.40	0.00	0.000		104%	104%	7.62
	Sep	176.16	184.70	0.00	0.000		105%	105%	8.54
	Oct	176.54	185.10	0.00	0.000		105%	105%	8.56
	Nov	176.92	183.30	0.00	0.000		104%	104%	6.38
	Dec	177.31	183.50	0.00	0.000		103%	103%	6.19
2022	Jan	177.69	204.00	0.00	0.000		115%	115%	26.31
	Feb	178.07	204.00	0.00	0.000		115%	115%	25.93
	Mar	178.45	204.00	0.00	0.000		114%	114%	25.55
	Apr	178.83	205.00	0.00	0.000		115%	115%	26.17
	May	179.21	205.00	0.00	0.000		114%	114%	25.79
	Jun	335.59	237.00	0.00	100.000		71%	100%	1.41
	Jul	335.97	237.00	0.00	100.000		71%	100%	1.03
	Aug	336.36	237.00	0.00	100.000		70%	100%	0.64
	Sep	336.74	238.00	0.00	100.000		71%	100%	1.26
	Oct	337.12	238.00	0.00	100.000		71%	100%	0.88
	Nov	337.50	239.00	0.00	100.000		71%	100%	1.50
	Dec	337.88	239.00	0.00	100.000		71%	100%	1.12
2023	Jan	338.26	239.00	0.00	115.000		71%	105%	15.74
	Feb	338.64	240.00	0.00	115.000		71%	105%	16.36
	Mar	339.02	240.00	0.00	115.000		71%	105%	15.98
	Apr	339.40	240.00	0.00	115.000		71%	105%	15.60

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	May	339.79	241.00	0.00	115.000		71%	105%	16.21
	Jun	340.17	241.00	0.00	115.000		71%	105%	15.83
	Jul	340.55	242.00	0.00	115.000		71%	105%	16.45
	Aug	340.93	242.00	0.00	115.000		71%	105%	16.07
	Sep	341.31	242.00	0.00	115.000		71%	105%	15.69
	Oct	341.69	243.00	0.00	115.000		71%	105%	16.31
	Nov	342.07	243.00	0.00	115.000		71%	105%	15.93
	Dec	342.45	243.00	0.00	115.000		71%	105%	15.55
2024	Jan	342.84	120.00	0.00	235.000		35%	104%	12.16
	Feb	343.22	120.00	0.00	235.000		35%	103%	11.78
	Mar	343.60	120.00	0.00	235.000		35%	103%	11.40
	Apr	343.98	120.00	0.00	235.000		35%	103%	11.02
	May	344.36	120.00	0.00	235.000		35%	103%	10.64
	Jun	344.74	120.00	0.00	235.000		35%	103%	10.26
	Jul	345.12	120.00	0.00	235.000		35%	103%	9.88
	Aug	345.50	120.00	0.00	235.000		35%	103%	9.50
	Sep	345.89	120.00	0.00	235.000		35%	103%	9.11
	Oct	346.27	120.00	0.00	235.000		35%	103%	8.73
	Nov	346.65	120.00	0.00	235.000		35%	102%	8.35
	Dec	347.03	120.00	0.00	235.000		35%	102%	7.97
2025	Jan	347.41	120.00	0.00	235.000		35%	102%	7.59
	Feb	347.79	120.00	0.00	235.000		35%	102%	7.21
	Mar	348.17	120.00	0.00	235.000		34%	102%	6.83
	Apr	348.55	120.00	0.00	235.000		34%	102%	6.45
	May	348.94	120.00	0.00	235.000		34%	102%	6.06
	Jun	349.32	120.00	0.00	235.000		34%	102%	5.68
	Jul	349.70	120.00	0.00	235.000		34%	102%	5.30
	Aug	350.08	120.00	0.00	235.000		34%	101%	4.92
	Sep	350.46	120.00	0.00	235.000		34%	101%	4.54
	Oct	350.84	120.00	0.00	235.000		34%	101%	4.16

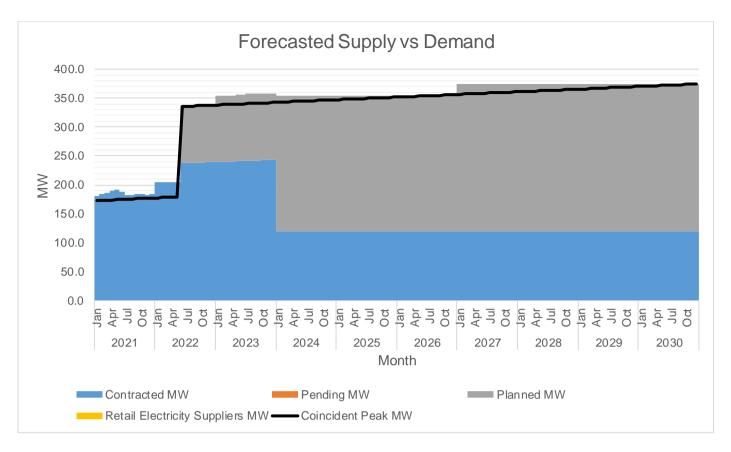
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Nov	351.22	120.00	0.00	235.000		34%	101%	3.78
	Dec	351.60	120.00	0.00	235.000		34%	101%	3.40
2026	Jan	351.98	120.00	0.00	235.000		34%	101%	3.02
	Feb	352.37	120.00	0.00	235.000		34%	101%	2.63
	Mar	352.75	120.00	0.00	235.000		34%	101%	2.25
	Apr	353.13	120.00	0.00	235.000		34%	101%	1.87
	May	353.51	120.00	0.00	235.000		34%	100%	1.49
	Jun	353.89	120.00	0.00	235.000		34%	100%	1.11
	Jul	354.27	120.00	0.00	235.000		34%	100%	0.73
	Aug	354.65	120.00	0.00	235.000		34%	100%	0.35
	Sep	355.03	120.00	0.00	235.000		34%	100%	-0.03
	Oct	355.42	120.00	0.00	235.000		34%	100%	-0.42
	Nov	355.80	120.00	0.00	235.000		34%	100%	-0.80
	Dec	356.18	120.00	0.00	235.000		34%	100%	-1.18
2027	Jan	356.56	120.00	0.00	255.000		34%	105%	18.44
	Feb	356.94	120.00	0.00	255.000		34%	105%	18.06
	Mar	357.32	120.00	0.00	255.000		34%	105%	17.68
	Apr	357.70	120.00	0.00	255.000		34%	105%	17.30
	May	358.08	120.00	0.00	255.000		34%	105%	16.92
	Jun	358.47	120.00	0.00	255.000		33%	105%	16.53
	Jul	358.85	120.00	0.00	255.000		33%	105%	16.15
	Aug	359.23	120.00	0.00	255.000		33%	104%	15.77
	Sep	359.61	120.00	0.00	255.000		33%	104%	15.39
	Oct	359.99	120.00	0.00	255.000		33%	104%	15.01
	Nov	360.37	120.00	0.00	255.000		33%	104%	14.63
	Dec	360.75	120.00	0.00	255.000		33%	104%	14.25
2028	Jan	361.13	120.00	0.00	255.000		33%	104%	13.87
	Feb	361.52	120.00	0.00	255.000		33%	104%	13.48
	Mar	361.90	120.00	0.00	255.000		33%	104%	13.10
	Apr	362.28	120.00	0.00	255.000		33%	104%	12.72

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	May	362.66	120.00	0.00	255.000		33%	103%	12.34
	Jun	363.04	120.00	0.00	255.000		33%	103%	11.96
	Jul	363.42	120.00	0.00	255.000		33%	103%	11.58
	Aug	363.80	120.00	0.00	255.000		33%	103%	11.20
	Sep	364.18	120.00	0.00	255.000		33%	103%	10.82
	Oct	364.56	120.00	0.00	255.000		33%	103%	10.44
	Nov	364.95	120.00	0.00	255.000		33%	103%	10.05
	Dec	365.33	120.00	0.00	255.000		33%	103%	9.67
2029	Jan	365.71	120.00	0.00	255.000		33%	103%	9.29
	Feb	366.09	120.00	0.00	255.000		33%	102%	8.91
	Mar	366.47	120.00	0.00	255.000		33%	102%	8.53
	Apr	366.85	120.00	0.00	255.000		33%	102%	8.15
	May	367.23	120.00	0.00	255.000		33%	102%	7.77
	Jun	367.61	120.00	0.00	255.000		33%	102%	7.39
	Jul	368.00	120.00	0.00	255.000		33%	102%	7.00
	Aug	368.38	120.00	0.00	255.000		33%	102%	6.62
	Sep	368.76	120.00	0.00	255.000		33%	102%	6.24
	Oct	369.14	120.00	0.00	255.000		33%	102%	5.86
	Nov	369.52	120.00	0.00	255.000		32%	101%	5.48
	Dec	369.90	120.00	0.00	255.000		32%	101%	5.10
2030	Jan	370.28	120.00	0.00	255.000		32%	101%	4.72
	Feb	370.66	120.00	0.00	255.000		32%	101%	4.34
	Mar	371.05	120.00	0.00	255.000		32%	101%	3.95
	Apr	371.43	120.00	0.00	255.000		32%	101%	3.57
	May	371.81	120.00	0.00	255.000		32%	101%	3.19
	Jun	372.19	120.00	0.00	255.000		32%	101%	2.81
	Jul	372.57	120.00	0.00	255.000		32%	101%	2.43
	Aug	372.95	120.00	0.00	255.000		32%	101%	2.05
	Sep	373.33	120.00	0.00	255.000		32%	100%	1.67
	Oct	373.71	120.00	0.00	255.000		32%	100%	1.29

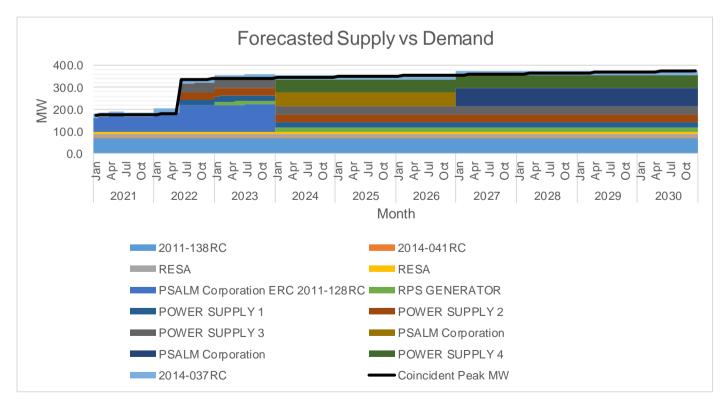
	Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
Nov	374.10	120.00	0.00	255.000		32%	100%	0.90
Dec	374.48	120.00	0.00	255.000		32%	100%	0.52

The Peak Demand was forecasted using time series analysis and was assumed to occur on the month of December due to high demand on power. Monthly Peak Demand is at its lowest on the month of January. In general, Peak Demand is expected to grow at a rate of 5.8% annually but because of pandemic a decrease of 0.21% of the total sales were evident in the year 2020. However, on the year 2022 a spot load of 156MW steel mill will be entering SOCOTECO II franchise that will boost energy sales and demand abruptly.

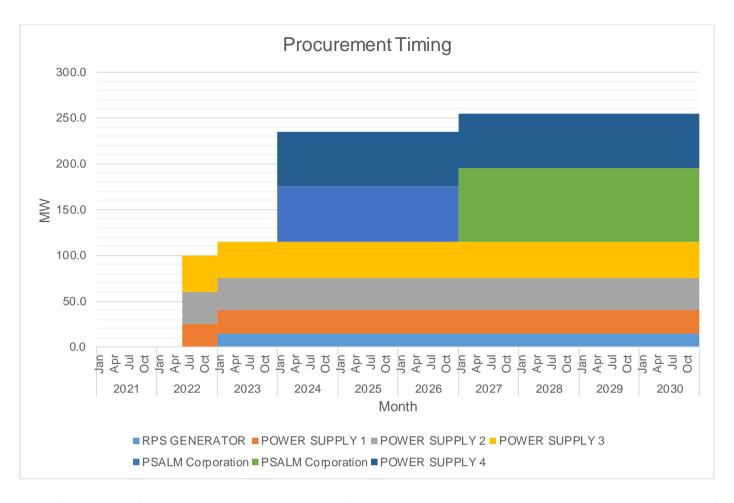
The Electric Cooperative own use is slightly increasing all throughout the 10-year forecast. This is due to the development of new buildings included in the CAPEX plan of SOCOTECO II.



The available supply is generally above the Peak Demand. We can notice that by the year 2024 the demand will eventually exceed the supply, this happens when the contract for PSALM Corporation will end on December 25, 2023, thus, the cooperative seek to renew contract and will get supply from PSALM Corporation by January 2022. Other contracted capacity like RESA will end when WESM enters. By 2024 onwards, the consideration in sourcing supply from WESM will be SOCOTECO II's option to ensure adequate supply. Other supply requirements will be sourced to WESM once available in Mindanao.



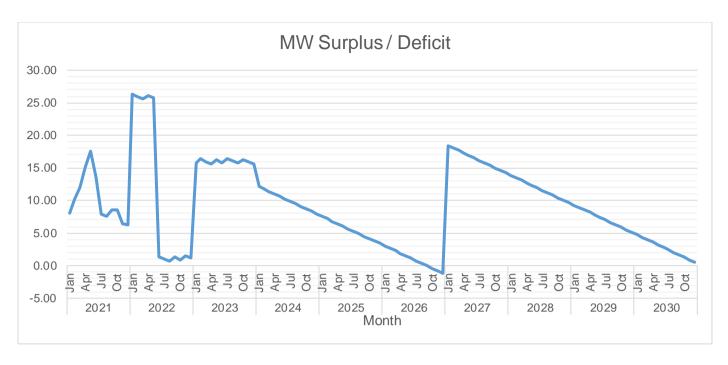
Of the available supply, the largest is 70 MW from Sarangani Energy Corporation (2011-138RC). This is followed by 60 MW from PSALM Corporation.



The first wave of supply procurement will be for 15 MW planned to be available by the month of January 2022 for Renewable Portfolio Standard compliance. This will be followed by 124 MW base power supply on May 2022, that is, divided into four power supply to increase system reliability in order to supply the steel mill.



Currently, there is over-contracting by 5% which is enough and justifiable surplus for contingency purposes. The highest target contracting level is 112% which is expected to occur on February 2028. The lowest target contracting level is 95% which is expected to occur on November 2025 and that deficiency would be source out from WESM.



Currently, there is over-contracting by 5 MW.

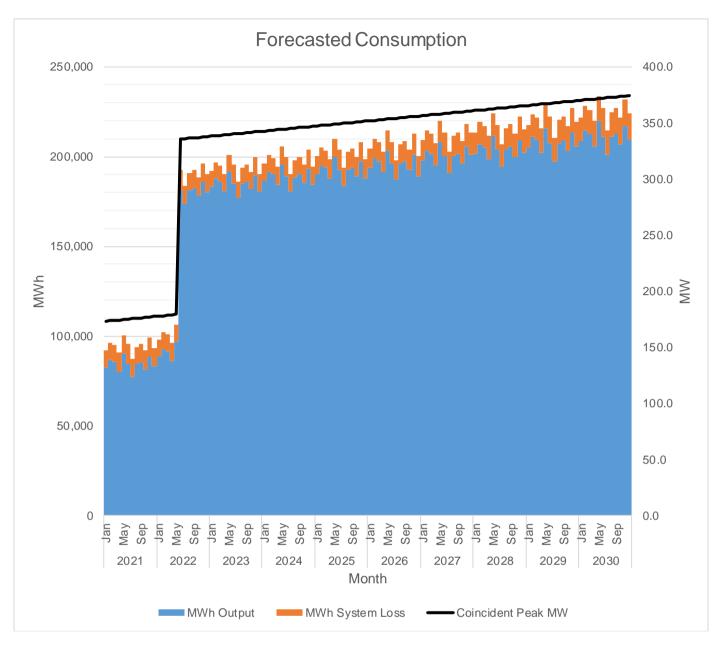
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	123,635	82,530	9,604	25.48%	10.42%
	Feb	130,272	86,503	9,987	25.93%	10.35%
	Mar	129,451	85,240	9,725	26.64%	10.24%
	Apr	128,524	80,225	10,674	29.27%	11.74%
	May	132,961	90,066	10,353	24.47%	10.31%
	Jun	133,391	84,192	11,370	28.36%	11.90%
	Jul	133,172	76,977	10,155	34.57%	11.65%
	Aug	126,733	84,092	9,963	25.78%	10.59%
	Sep	126,848	85,279	10,352	24.61%	10.82%
	Oct	129,636	81,189	10,684	29.13%	11.63%
	Nov	126,451	88,221	10,895	21.62%	10.99%
	Dec	127,657	82,854	10,671	26.74%	11.41%
2022	Jan	140,051	88,628	9,161	30.18%	9.37%
	Feb	144,888	92,895	9,526	29.31%	9.30%
	Mar	142,483	91,538	9,276	29.24%	9.20%
	Apr	139,756	86,152	10,183	31.07%	10.57%
	May	142,177	96,720	9,876	25.03%	9.26%
	Jun	238,179	181,517	10,846	19.24%	5.64%
	Jul	241,849	173,769	9,687	24.14%	5.28%
	Aug	235,337	181,410	9,504	18.88%	4.98%
	Sep	235,236	182,684	9,875	18.14%	5.13%
	Oct	237,737	178,292	10,192	20.72%	5.41%
	Nov	236,567	185,843	10,393	17.05%	5.30%
	Dec	237,630	180,080	10,179	19.93%	5.35%
2023	Jan	242,347	183,317	8,653	20.79%	4.51%
	Feb	247,903	187,756	8,998	20.63%	4.57%
	Mar	245,499	186,344	8,762	20.53%	4.49%
	Apr	242,052	180,741	9,617	21.36%	5.05%
	May	245,193	191,736	9,328	18.00%	4.64%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Jun	248,143	185,173	10,244	21.25%	5.24%
	Jul	252,532	177,112	9,149	26.24%	4.91%
	Aug	246,021	185,062	8,976	21.13%	4.63%
	Sep	245,200	186,388	9,327	20.18%	4.77%
	Oct	248,420	181,818	9,626	22.94%	5.03%
	Nov	246,531	189,674	9,816	19.08%	4.92%
	Dec	247,593	180,513	9,614	23.21%	5.06%
2024	Jan	240,001	186,901	9,181	18.30%	4.68%
	Feb	244,837	191,512	9,547	17.88%	4.75%
	Mar	242,433	190,046	9,297	17.77%	4.66%
	Apr	238,985	184,225	10,205	18.64%	5.25%
	May	241,406	195,647	9,898	14.86%	4.82%
	Jun	244,356	188,830	10,870	18.27%	5.44%
	Jul	248,025	180,455	9,708	23.33%	5.10%
	Aug	241,514	188,714	9,525	17.92%	4.80%
	Sep	240,693	190,091	9,897	16.91%	4.95%
	Oct	243,194	185,344	10,214	19.59%	5.22%
	Nov	241,304	193,506	10,416	15.49%	5.11%
	Dec	242,367	184,048	10,201	19.85%	5.25%
2025	Jan	240,001	190,485	9,742	16.57%	4.87%
	Feb	244,837	195,269	10,131	16.11%	4.93%
	Mar	242,433	193,748	9,865	16.01%	4.84%
	Apr	238,985	187,709	10,828	16.92%	5.45%
	May	241,406	199,559	10,502	12.98%	5.00%
	Jun	244,356	192,486	11,534	16.51%	5.65%
	Jul	248,025	183,798	10,301	21.74%	5.31%
	Aug	241,514	192,366	10,107	16.17%	4.99%
	Sep	240,693	193,795	10,501	15.12%	5.14%
	Oct	243,194	188,870	10,838	17.88%	5.43%
	Nov	241,304	197,337	11,052	13.64%	5.30%
	Dec	242,367	187,583	10,825	18.14%	5.46%
2026	Jan	240,001	194,069	10,337	14.83%	5.06%
	Feb	244,837	199,026	10,749	14.32%	5.12%
	Mar	242,433	197,450	10,468	14.24%	5.03%
	Apr	238,985	191,193	11,490	15.19%	5.67%
	May	241,406	203,470	11,144	11.10%	5.19%
	Jun	244,356	196,143	12,239	14.72%	5.87%
	Jul	248,025	187,141	10,930	20.14%	5.52%
	Aug	241,514	196,018	10,724	14.40%	5.19%
	Sep	240,693	197,499	11,143	13.32%	5.34%
	Oct	243,194	192,396	11,500	16.16%	5.64%
	Nov	241,304	201,168	11,727	11.77%	5.51%
	Dec	242,367	188,896	11,486	17.32%	5.73%
2027	Jan	248,334	198,178	10,969	15.78%	5.24%
	Feb	253,170	203,333	11,406	15.18%	5.31%
	Mar	250,766	201,694	11,107	15.14%	5.22%
	Apr	247,318	195,187	12,192	16.15%	5.88%
	May	249,740	207,955	11,825	12.00%	5.38%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Jun	252,689	200,334	12,987	15.58%	6.09%
	Jul	256,359	190,974	11,598	20.98%	5.73%
	Aug	249,848	200,205	11,379	15.31%	5.38%
	Sep	249,027	201,745	11,824	14.24%	5.54%
	Oct	251,527	196,438	12,203	17.05%	5.85%
	Nov	249,638	205,561	12,444	12.67%	5.71%
	Dec	250,700	201,008	12,188	14.96%	5.72%
2028	Jan	248,334	201,780	11,639	14.06%	5.45%
	Feb	253,170	207,108	12,103	13.41%	5.52%
	Mar	250,766	205,414	11,786	13.39%	5.43%
	Apr	247,318	198,689	12,937	14.43%	6.11%
	May	249,740	211,885	12,547	10.13%	5.59%
	Jun	252,689	204,009	13,780	13.81%	6.33%
	Jul	256,359	194,334	12,307	19.39%	5.96%
	Aug	249,848	203,875	12,075	13.57%	5.59%
	Sep	249,027	205,466	12,546	12.45%	5.75%
	Oct	251,527	199,981	12,948	15.35%	6.08%
	Nov	249,638	209,411	13,204	10.82%	5.93%
	Dec	250,700	202,214	12,932	14.18%	6.01%
2029	Jan	248,334	205,382	12,350	12.32%	5.67%
	Feb	253,170	210,883	12,843	11.63%	5.74%
	Mar	250,766	209,135	12,506	11.61%	5.64%
	Apr	247,318	202,190	13,727	12.70%	6.36%
	May	249,740	215,816	13,314	8.25%	5.81%
	Jun	252,690	207,683	14,622	12.02%	6.58%
	Jul	256,359	197,693	13,059	17.79%	6.20%
	Aug	249,848	207,545	12,812	11.80%	5.81%
	Sep	249,027	209,188	13,312	10.65%	5.98%
	Oct	251,527	203,525	13,739	13.62%	6.32%
	Nov	249,638	213,261	14,011	8.96%	6.16%
	Dec	250,700	205,830	13,723	12.42%	6.25%
2030	Jan	248,334	208,984	13,105	10.57%	5.90%
	Feb	253,170	214,659	13,627	9.83%	5.97%
	Mar	250,766	212,855	13,270	9.83%	5.87%
	Apr	247,318	205,691	14,566	10.94%	6.61%
	May	249,740	219,747	14,127	6.35%	6.04%
	Jun	252,690	211,358	15,516	10.22%	6.84%
	Jul	256,359	201,053	13,856	16.17%	6.45%
	Aug	249,848	211,215	13,595	10.02%	6.05%
	Sep	249,027	212,910	14,126	8.83%	6.22%
	Oct	251,527	207,068	14,579	11.88%	6.58%
	Nov	249,638	217,112	14,867	7.07%	6.41%
	Dec	250,700	209,446	14,561	10.65%	6.50%

MWh Offtake was forecasted using Trend time series analysis. The assumed load factor is 70%.

System Loss was calculated through a Load Flow Study conducted using ETAP software. Based on the same study, the Distribution System can adequately convey electricity to customers. The system loss will significantly drop due to the entry of Panhua Steel Mill.



MWh Output was expected to grow at a rate of 5-6% annually. However, there is an abrupt increase in energy consumption due to the entry of a large steel mill having 156 MW peak demand.

System Loss is expected to range below 7% due to entry of Panua Steel Mill that will double energy sales by 2023.

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Power Supply

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2011-138RC	Base	Sarangani Energy Corporation	70.00	544,320	6/3/2011	6/11/2036
2014-041RC	Base	Therma South, Inc.	5.00	38,400	9/27/2013	9/28/2038
RESA	Base	Hedcor, Inc.	20.00	113,880	7/2/2018	12/30/2021
RESA	Base	Lamsan Power Corporation	13.50	110,000	5/1/2018	12/30/2021
2014-037RC	Peaking	Peakpower Soccsargen, Inc.	19.50	145,197	3/20/2013	3/20/2028
PSALM Corporation ERC 2011-128RC	Base	Power Sector Assets and Liabilities Management Corporation	63.45	555,779	12/26/2020	12/25/2023

The **PSA with Sarangani Energy Corporation filed with ERC under Case No. 2011-138RC** was procured through Swiss challenge. It was selected to provide for base requirements due to lack of power in the Mindanao grid resulting to manual load dropping in 2010. Historically, the utilization of the PSA is 40-100%. The actual billed overall monthly charge under the PSA ranged from 5.00 P/kWh to 11.00 P/kWh in the same period.

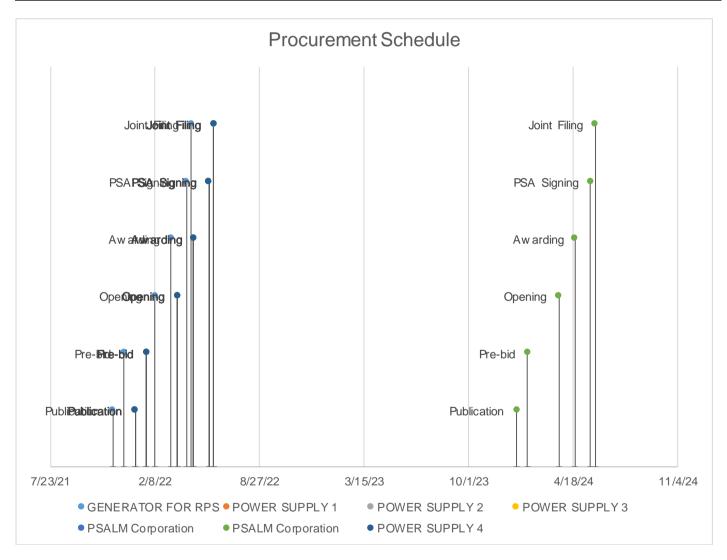
The **PSA** with Therma South, Inc. filed with ERC under Case No. 2014-041RC was procured through Swiss challenge. It was selected to provide for base requirements due to immediate need of power to adequately supply the growing need in power in the SOCOTECO II franchise area. Historically, the utilization of the PSA is 40-100%. The actual billed overall monthly charge under the PSA ranged from 5.00 P/kWh to 7.00 P/kWh in the same period.

The **PSA with Hedcor and Lamsan filed with ERC RESA** was procured. It was selected to provide for base requirements due to immediate need of power to adequately supply the growing need in power in the SOCOTECO II franchise area as priority dispatch because it is a Renewable Energy Source. The actual billed overall monthly charge under the PSA is based on previous month's blended rate of SOCOTECO II.

The **PSA with Peak Power was procured ERC under Case No. 2014-037RC**. It was selected to provide for peak requirements to cater the peak demand of SOCOTECO II without interruption and for voltage support in case of plant shutdown due to maintenance.

The **PSA with PSALM Corporation 2018-054RC** was selected to provide for base requirements to maintain enough supply and minimize the generation cost. Historically, the utilization of the PSA is 40-100%. The actual billed overall monthly charge under the PSA ranged from 2.00 P/kWh to 3.00 P/kWh in the same period. The PSA was renewed for another 3 years last December 26, 2020 and will end on December 25, 2023.

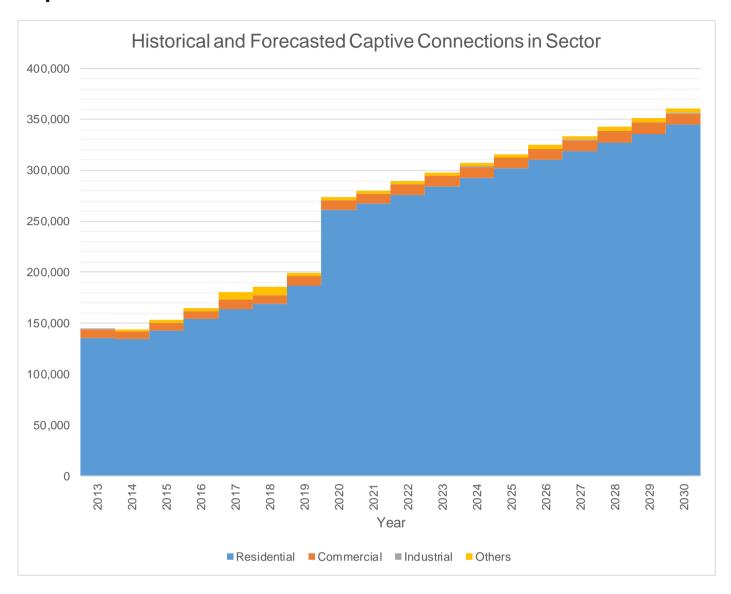
	GENERATOR FOR RPS	POWER SUPPLY 1	POWER SUPPLY 2	POWER SUPPLY 3	PSALM Corporation	PSALM Corporation	POWER SUPPLY 4
Туре	Base	Base	Base	Base	Base	Base	Base
Minimum MW	15.00	25.00	35.00	40.00	60.00	80.00	60.00
Minimum MWh/yr	85,000	216,000	291,270	332,880	500,000	600,000	500,000
PSA Start	1/1/2023	5/26/2022	5/27/2022	5/28/2022	12/26/2023	12/26/2026	12/26/2023
PSA End	1/1/2038	12/25/2037	12/25/2037	12/25/2037	12/25/2026	12/25/2029	12/25/2038
Publication	11/19/2021	1/1/2022	1/1/2022	1/1/2022	1/1/2022	1/1/2024	1/1/2022
Pre-bid	12/10/2021	1/22/2022	1/22/2022	1/22/2022	1/22/2022	1/22/2024	1/22/2022
Opening	2/8/2022	3/23/2022	3/23/2022	3/23/2022	3/23/2022	3/22/2024	3/23/2022
Awarding	3/10/2022	4/22/2022	4/22/2022	4/22/2022	4/22/2022	4/21/2024	4/22/2022
PSA Signing	4/9/2022	5/22/2022	5/22/2022	5/22/2022	5/22/2022	5/21/2024	5/22/2022
Joint Filing	4/18/2022	5/31/2022	5/31/2022	5/31/2022	5/31/2022	5/30/2024	5/31/2022



For the procurement of 15 MW of supply which is planned to be available on 2022 for RPS compliance; then a 124 MW supply for Panhua Steel Mill which was divided into four different PSA's 25MW, and a three 33MW power supply. The steel mill will proceed with its construction in the later quarter of 2021 and is expected to be operational on the 2nd Quarter of 2022 having a peak demand of 156 MW.

SOCOTECO II will proceed with its publication of the 15 MW supply on November 19, 2021 in compliance to the Renewable Portfolio Standard. The cooperative will have deficiency in Renewable Energy Certificate by 2023.

Captive Customer Connections



The number of residential connections is expected to grow at a rate of 5-6% annually. However, a survey is made from SOCOTECO II actual connection to determine the true level of energization. The survey determined series connections, these series connections consists of household that are not qualified to get permits from the government that causes surge in energization level in the year 2020.