Power Supply Procurement Plan 2021

Misamis Oriental 1 Rural Electric Services Cooperative Inc. (MORESCO-1)

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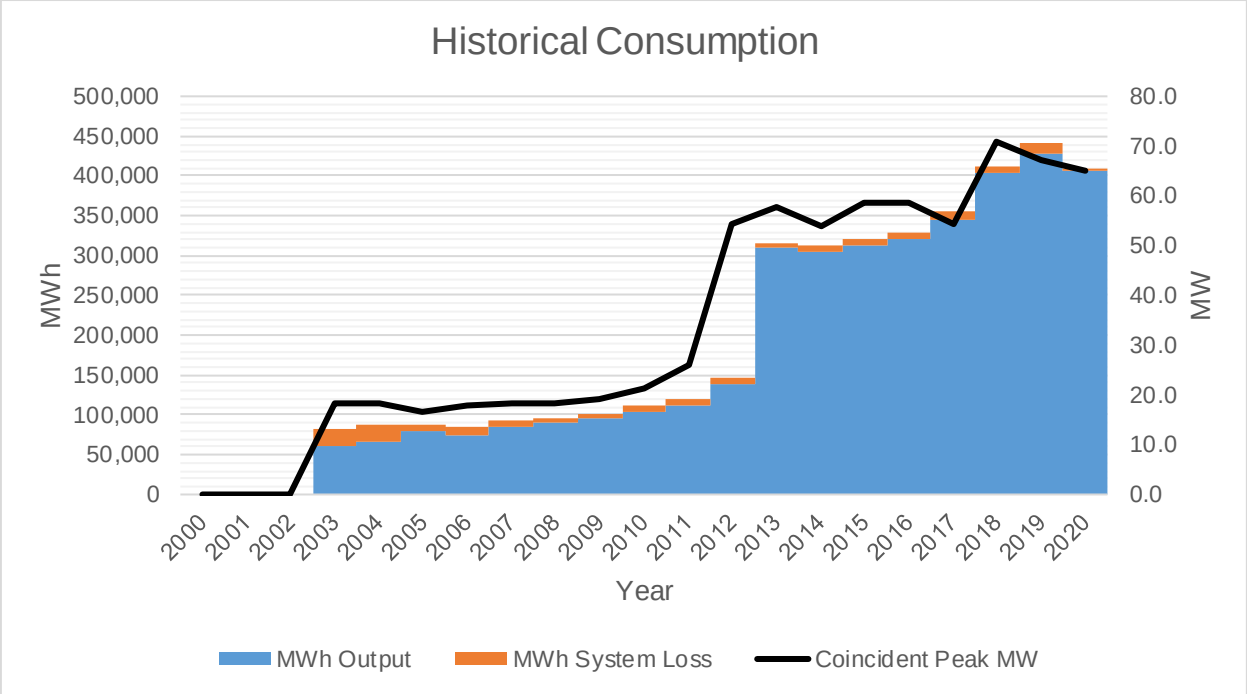
Historical Consumption Data

	Coincident Peak MW	MWh Offtake	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2003	18.47	81,604	81,604	61,123	20,480	50%	0.00%	0.00%	25.10%
2004	18.12	88,177	88,177	65,693	22,484	56%	0.00%	0.00%	25.50%
2005	16.55	86,186	86,186	80,821	5,743	59%	0.44%	0.00%	6.66%
2006	18.07	85,841	85,841	74,866	11,333	54%	0.42%	0.00%	13.20%
2007	18.13	91,313	91,313	84,149	7,647	58%	0.53%	0.00%	8.37%
2008	18.46	96,299	96,299	89,779	6,624	60%	0.11%	0.00%	6.88%
2009	19.22	102,205	102,205	95,924	6,409	61%	0.13%	0.00%	6.27%
2010	21.22	112,679	112,679	104,540	8,359	61%	0.19%	0.00%	7.42%
2011	25.84	118,837	118,837	111,435	7,914	52%	0.43%	0.00%	6.66%
2012	54.29	145,583	145,583	137,768	8,362	31%	0.38%	0.00%	5.74%
2013	57.66	315,181	315,181	309,890	5,885	62%	0.19%	0.00%	1.87%
2014	53.83	311,945	311,945	304,048	8,208	66%	0.10%	0.00%	2.63%
2015	58.69	320,452	320,719	311,580	9,449	62%	0.10%	-0.08%	2.95%
2016	58.82	334,175	328,337	321,888	7,013	64%	0.17%	1.75%	2.14%
2017	54.40	349,512	353,264	345,273	9,260	74%	0.36%	-1.07%	2.62%
2018	70.89	412,516	411,953	402,531	10,201	66%	0.19%	0.14%	2.48%
2019	67.00	442,986	441,011	428,962	13,719	75%	0.38%	0.45%	3.11%
2020	65.06	415,752	408,037	407,193	847	72%	0.00%	1.86%	0.21%

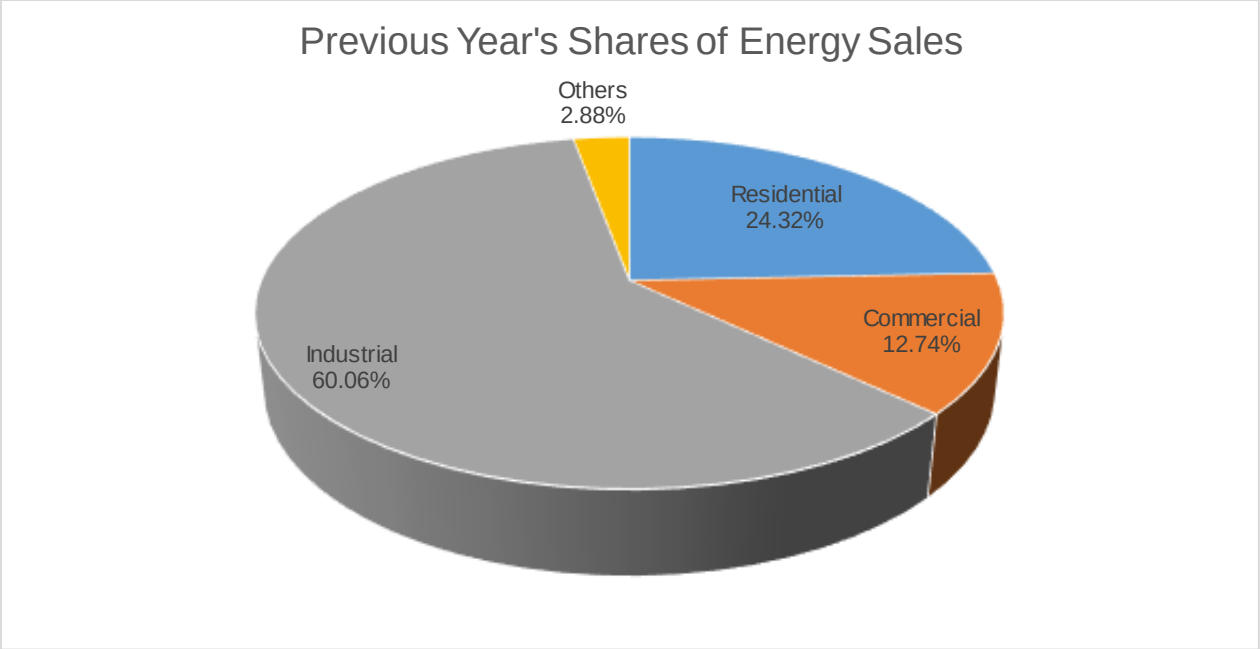
Peak Demand increased from 25.84 MW in 2011 to 54.29 MW in 2012 at a rate of 110% due to the Industrial load (HOLCIM-Lugait) as new customer. MWh Offtake significantly increased from 145,583 MWh in 2012 to 315,181 MWh in 2013 at a rate of 116% due to new industrial load is in full operation. Within the same period, Load Factor ranged from 31% to 62%. In 2020 the coincident peak demand and MWH offtake decreased by 2.90% and 6.15% respectively due to the impact of the COVID19 pandemic.

Historically MORESCO1 has a PSA only with PSALM however with the diversification of its power supply portfolio to other IPP and Totalizing of its metering at its connections points to the NGCP there has been discrepancies of metering data which results sometimes into a negative transmission loss, this is commonly due to late debit and credit memo from the IPP's bill adjustments. The formula of the transmission loss used by the cooperative is Total billed energy of the IPP minus the NGCP metered data.

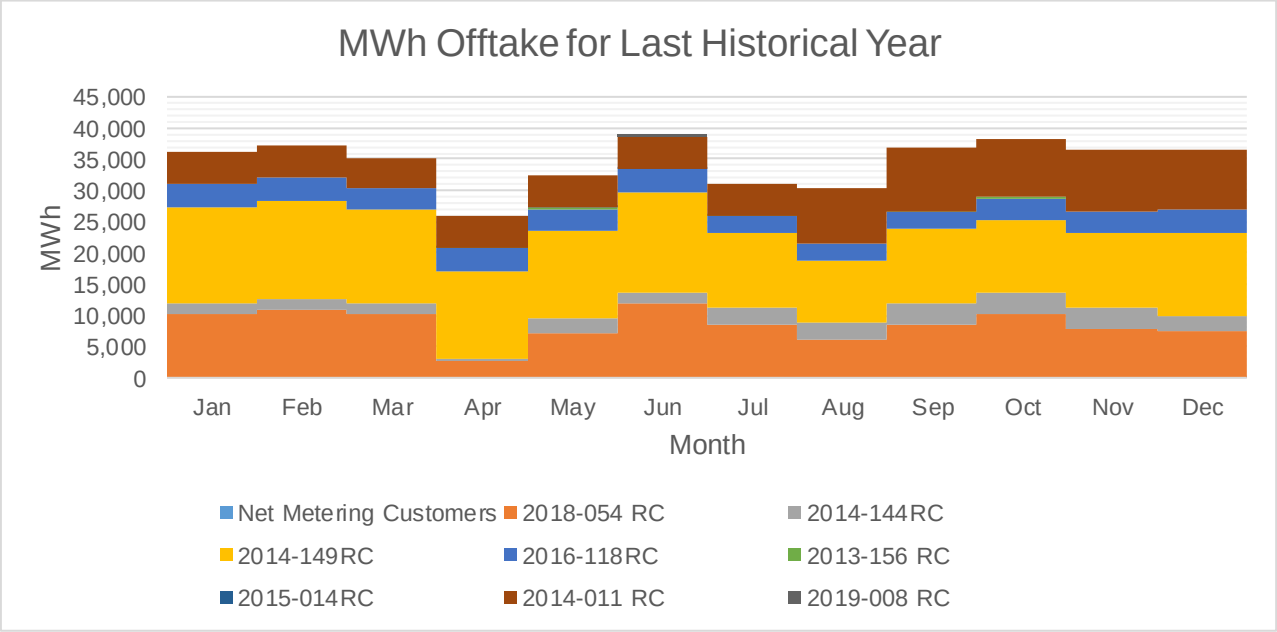


MWh Output increased from year 2012 to year 2013 at a rate of 128%, while MWh System Loss decreased at a rate of 70% within the same period.

Historically, Transmission Loss ranged from -1.17% to 1.85% while System Loss ranged from 1.87% to 25.50%. Transmission Loss peaked at 1.85% on year 2020 because during that year particularly on the billing month of July to August the Quibonbon Substation, Taboc Substation, ABI Substation were transferred to a new NGCP totalizer metering point (M21) at Patag, Opol however the NGCP at that billing months wasn't able to record the transferred loads. This resulted to a lower recorded NGCP Billing MWh metered quantity which is why there has an increase of transmission system loss. As of writing this is currently being settled with NGCP. The distribution system Loss peaked at 25.50% on year 2004 because during that time there is a limitation in technology making it difficult to bill customers on the proper billing cycle and during that time also meter reading is prone to error and the kWh is prone to tampering.



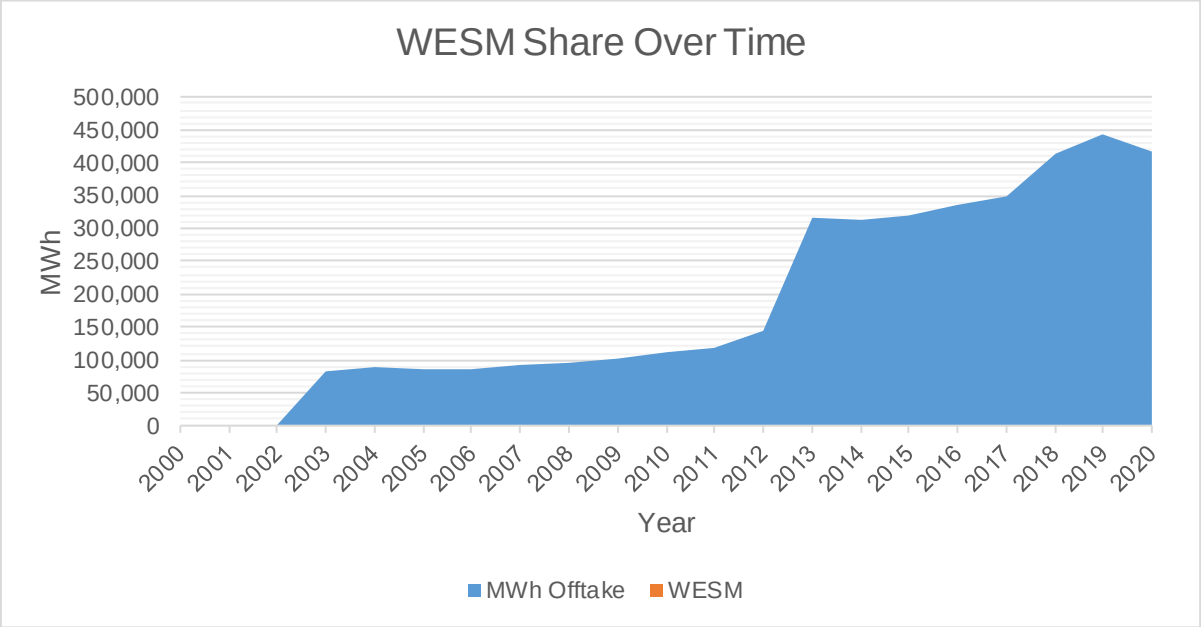
Industrial customers account for the bulk of energy sales at 60.06% despite of the low number of connections. In contrast, Residential customers accounted for only 24.32% of energy sales despite of the high number of connections. These figures are expected to drastically change in the following years due to rapid development within the franchise particularly on the Cagayan de Oro – Iligan Industrial Corridor. In the year 2020, there has been a lot of commercial and industrial customers that have reduced operations on their business and many people were advised to stay at home due to the treat and impact of the COVID 19. The impact brought by the pandemic resulted to considerable decrease in the kwh sales in industrial and commercial customers and increase in sales from the residential customers. In the same year also there has been increase in the DU's own use kwh consumption, this is because the DU has acquired equipment and tools to frequently disinfect its offices and also the coop has acquired devices to enable its workforce to work without disruption in this time of pandemic.



The total Offtake for the last historical year 2020 is lower than the quantity stipulated in the PSA. The PSA with 2018-054 RC (National Power Corporation), 2014-149 RC (FDC Misamis Power Corporation) and 2014-011 RC (GN Power Kauswagan Ltd. Co for the second half of the year) accounts for the bulk of MWh Offtake.

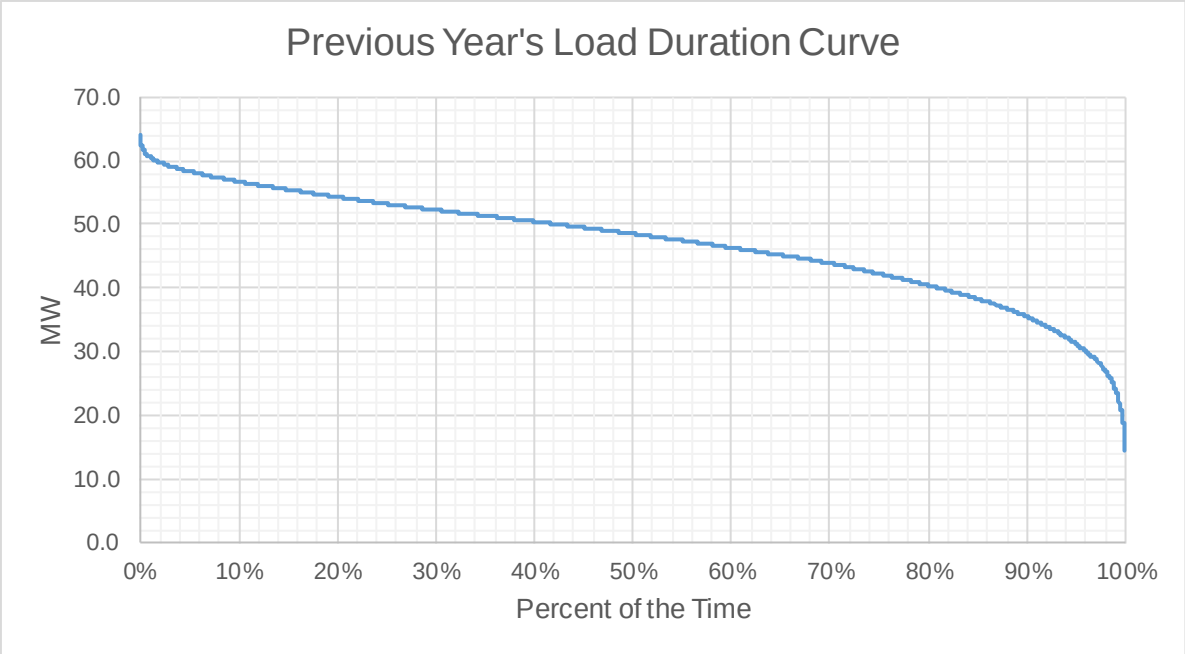
Currently MORESCO-1 has no S4Resale agreement with other DU however BUSECO and MORESCO1 has entered a Memorandum of Agreement to energize the 17 Barangays of Talakag, Bukidnon and with the acquisition of the divested 34.5kV Transco Carmen – Talakag Line, MORESCO1 was able to acquire the existing connected customers and cater portion of Nicdao, Baungon, Bukidnon..

The impact brought by the pandemic resulted to considerable decrease in the kWh sales in industrial and commercial customers due to reduced operations due to lockdown and increase in sales from the residential customers since a lot of people are forced to stay at home. In the same year also there has been increase in the DU's own use kwh consumption, this is because the DU has acquired equipment and tools to frequently disinfect its offices and also the coop has acquired devices to enable its workforce to work without disruption in this time of pandemic.

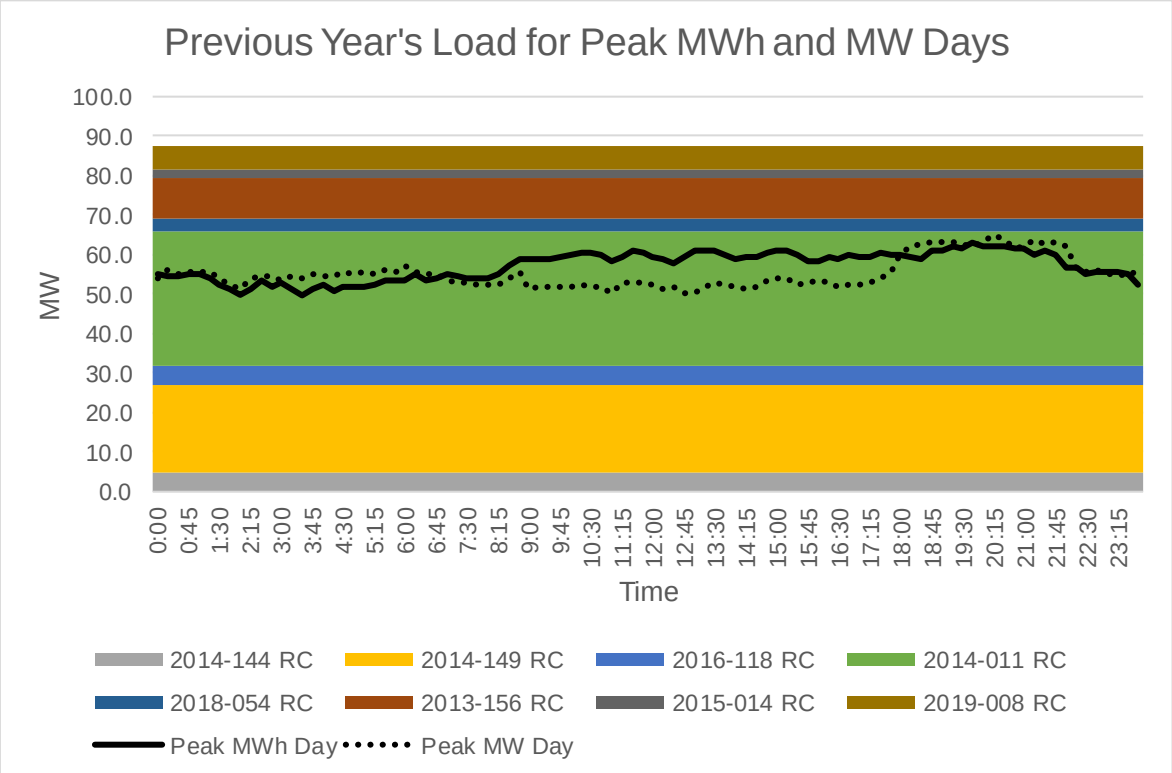


WESM share has not yet reflected in the graph since WESM in Mindanao has not yet in full commercial operation and there is no offtake from the market yet as per DC2021-06-0015. Ongoing registration for the Mindanao participants, MORESCO-1 has complied all the requirements as per stated in IEMOP's checklist including the prudential requirement. MORESCO-1 now is awaiting for the certificate of registration after IEMOP's evaluations and finalization of all the submitted documents. Over time, when WESM will be operational in Mindanao, MORESCO-1 will be actively participating in the said market.

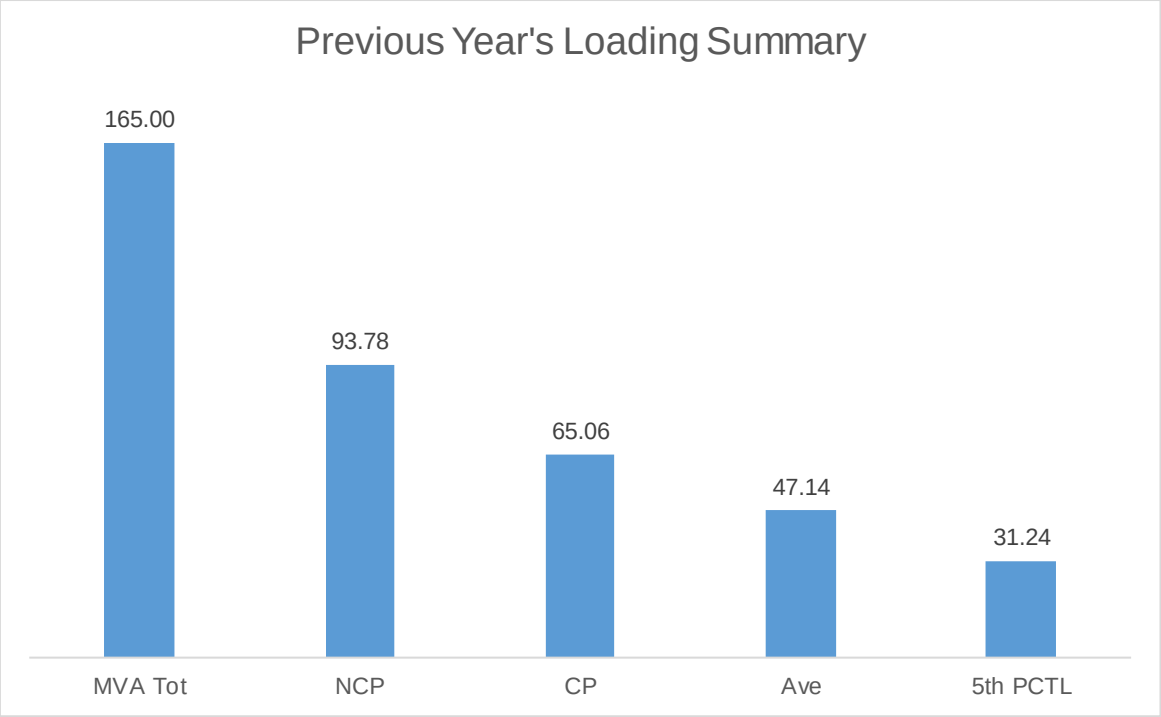
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 14.45 MW and the maximum load is 65.06 MW for the last historical year.



Peak MW occurred on interval 19-21. Peak daily MWh occurred on the same time due to high consumption of residential customers at this interval. As shown in the Load Curves, the available supply is higher than the Peak Demand.



The Non-Coincident Peak Demand is 93.78 MW, which is around 56.83% of the total substation capacity of 165 MVA at a power factor of 92.8%. The load factor or the ratio between the Average Load of 47.14 MW and the Non-coincident Peak Demand is 50.3%. A safe estimate of the true minimum load is the fifth percentile load of 31.24 MW which is 33.31% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW
M13	10	1.942
M2	10	5.939
M6	10	3.931
M10	20	5.683
M11	35	21.560
M15	10	4.785
M17	40	18.049
M18	10	6.936
M19	10	8.001
M20	10	16.951

The substation transformer at Canituan Substation under M15 is expected to be loaded at 70% in 16 months. This will be addressed by the construction of 69/13.2kV 15/18.75MVA Substation at Calaanan, Canituan, Cagayan de Oro City which would start its construction within the year of 2022. This substation project is to be applied to the ERC by the cooperative through its CAPEX 2021-2023 application

The substation transformer at Pagawan Substation under M2 is expected to be loaded at 70% in 1 month. This will be addressed by the construction of 69/13.2kV 15/18.75MVA Substation at Jampason Initao which would start its construction within the year of 2021. This substation project is to be applied to the ERC by the cooperative through its CAPEX 2021-2023 application

The substation transformer at Lumbo Substation under M17 is expected to be loaded at 70% in 20 months. This will be addressed by the construction of 69/13.2kV 15/18.75MVA Substation at

Lourdes, Alubijid which would start its construction within the year of 2022. This substation project is to be applied to the ERC by the cooperative through its CAPEX 2021-2023 application

The substation transformer at Taboc Substation under M20 is expected to be loaded at 70% in 3 months. This will be addressed by the construction of 69/13.2kV 15/18.75MVA Substation at Igpit, Opol which would start its construction within the year of 2021. This substation project is to be applied to the ERC by the cooperative through its CAPEX 2021-2023 application

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	76.21	81.55	6.00	0.000		107%	115%	11.34
	Feb	67.79	81.55	6.00	0.000		120%	129%	19.76
	Mar	69.35	81.55	6.00	0.000		118%	126%	18.20
	Apr	72.80	81.55	6.00	0.000		112%	120%	14.75
	May	75.33	81.55	6.00	0.000		108%	116%	12.22
	Jun	76.21	81.55	6.00	0.000		107%	115%	11.34
	Jul	72.41	81.55	6.00	0.000		113%	121%	15.14
	Aug	75.87	81.55	6.00	0.000		107%	115%	11.68
	Sep	75.89	81.55	6.00	0.000		107%	115%	11.66
	Oct	74.96	81.55	6.00	0.000		109%	117%	12.59
	Nov	75.10	81.55	6.00	0.000		109%	117%	12.45
	Dec	74.61	81.55	6.00	0.000		109%	117%	12.94
2022	Jan	82.51	81.55	6.00	0.000		99%	106%	5.04
	Feb	73.55	81.55	6.00	0.000		111%	119%	14.00
	Mar	75.23	81.55	6.00	0.000		108%	116%	12.32
	Apr	78.96	81.55	6.00	0.000		103%	111%	8.59
	May	81.70	81.55	6.00	0.000		100%	107%	5.85
	Jun	82.51	81.55	6.00	0.000		99%	106%	5.04
	Jul	78.45	81.55	6.00	0.000		104%	112%	9.10
	Aug	82.19	81.55	6.00	0.000		99%	107%	5.36
	Sep	82.39	81.55	6.00	0.000		99%	106%	5.16
	Oct	81.24	81.55	6.00	0.000		100%	108%	6.31
	Nov	81.40	81.55	6.00	0.000		100%	108%	6.15
	Dec	80.63	81.55	6.00	0.000		101%	109%	6.92
2023	Jan	88.89	78.55	6.00	5.000		88%	101%	0.66
	Feb	79.15	78.55	6.00	5.000		99%	113%	10.40
	Mar	81.02	78.55	6.00	5.000		97%	111%	8.53
	Apr	85.02	78.55	6.00	5.000		92%	105%	4.53

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	May	88.10	78.55	6.00	5.000		89%	102%	1.45
	Jun	88.87	78.55	6.00	5.000		88%	101%	0.68
	Jul	84.48	78.55	6.00	5.000		93%	106%	5.07
	Aug	88.53	78.55	6.00	5.000		89%	101%	1.02
	Sep	88.89	78.55	6.00	5.000		88%	101%	0.66
	Oct	87.53	78.55	6.00	5.000		90%	102%	2.02
	Nov	87.65	78.55	6.00	5.000		90%	102%	1.90
	Dec	86.86	78.55	6.00	5.000		90%	103%	2.69
2024	Jan	94.55	78.55	6.00	11.500		83%	102%	1.50
	Feb	83.94	78.55	6.00	11.500		94%	114%	12.11
	Mar	86.00	78.55	6.00	11.500		91%	112%	10.05
	Apr	90.20	78.55	6.00	11.500		87%	106%	5.85
	May	93.72	78.55	6.00	11.500		84%	102%	2.33
	Jun	94.46	78.55	6.00	11.500		83%	102%	1.59
	Jul	89.77	78.55	6.00	11.500		88%	107%	6.28
	Aug	94.02	78.55	6.00	11.500		84%	102%	2.03
	Sep	94.55	78.55	6.00	11.500		83%	102%	1.50
	Oct	93.07	78.55	6.00	11.500		84%	103%	2.98
	Nov	93.05	78.55	6.00	11.500		84%	103%	3.00
	Dec	92.55	78.55	6.00	11.500		85%	104%	3.50
2025	Jan	100.91	78.55	6.00	16.000		78%	100%	-0.36
	Feb	89.38	78.55	6.00	16.000		88%	112%	11.17
	Mar	91.69	78.55	6.00	16.000		86%	110%	8.86
	Apr	96.29	78.55	6.00	16.000		82%	104%	4.26
	May	100.02	78.55	6.00	16.000		79%	101%	0.53
	Jun	100.70	78.55	6.00	16.000		78%	100%	-0.15
	Jul	95.70	78.55	6.00	16.000		82%	105%	4.85
	Aug	100.21	78.55	6.00	16.000		78%	100%	0.34
	Sep	100.91	78.55	6.00	16.000		78%	100%	-0.36
	Oct	99.26	78.55	6.00	16.000		79%	101%	1.29

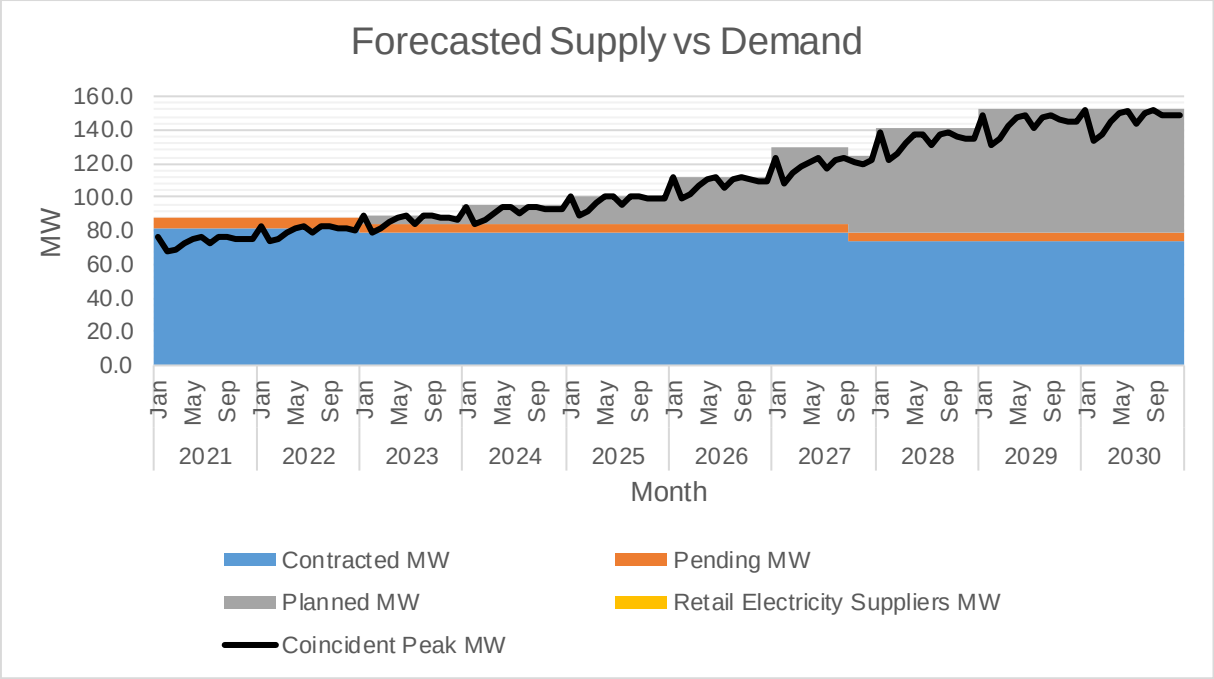
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Nov	99.14	78.55	6.00	16.000		79%	101%	1.41
	Dec	98.78	78.55	6.00	16.000		80%	102%	1.77
2026	Jan	112.12	78.55	6.00	28.000		70%	100%	0.43
	Feb	99.10	78.55	6.00	28.000		79%	114%	13.45
	Mar	101.75	78.55	6.00	28.000		77%	111%	10.80
	Apr	106.99	78.55	6.00	28.000		73%	105%	5.56
	May	111.12	78.55	6.00	28.000		71%	101%	1.43
	Jun	111.86	78.55	6.00	28.000		70%	101%	0.69
	Jul	106.22	78.55	6.00	28.000		74%	106%	6.33
	Aug	111.30	78.55	6.00	28.000		71%	101%	1.25
	Sep	112.12	78.55	6.00	28.000		70%	100%	0.43
	Oct	110.19	78.55	6.00	28.000		71%	102%	2.36
	Nov	110.02	78.55	6.00	28.000		71%	102%	2.53
	Dec	109.68	78.55	6.00	28.000		72%	103%	2.87
2027	Jan	123.41	78.55	6.00	45.000		64%	105%	6.14
	Feb	108.58	78.55	6.00	45.000		72%	119%	20.97
	Mar	114.22	78.55	6.00	45.000		69%	113%	15.33
	Apr	118.70	78.55	6.00	45.000		66%	109%	10.85
	May	121.46	78.55	6.00	45.000		65%	107%	8.09
	Jun	123.13	78.55	6.00	45.000		64%	105%	6.42
	Jul	117.28	78.55	6.00	45.000		67%	110%	12.27
	Aug	122.09	78.55	6.00	45.000		64%	106%	7.46
	Sep	123.41	78.55	6.00	45.000		64%	105%	6.14
	Oct	120.88	73.55	6.00	45.000		61%	103%	3.67
	Nov	119.99	73.55	6.00	45.000		61%	104%	4.56
	Dec	121.95	73.55	6.00	45.000		60%	102%	2.60
2028	Jan	138.33	73.55	6.00	62.000		53%	102%	3.22
	Feb	121.66	73.55	6.00	62.000		60%	116%	19.89
	Mar	125.28	73.55	6.00	62.000		59%	113%	16.27
	Apr	132.06	73.55	6.00	62.000		56%	107%	9.49

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	May	137.03	73.55	6.00	62.000		54%	103%	4.52
	Jun	137.90	73.55	6.00	62.000		53%	103%	3.65
	Jul	130.74	73.55	6.00	62.000		56%	108%	10.81
	Aug	137.22	73.55	6.00	62.000		54%	103%	4.33
	Sep	138.33	73.55	6.00	62.000		53%	102%	3.22
	Oct	135.65	73.55	6.00	62.000		54%	104%	5.90
	Nov	135.33	73.55	6.00	62.000		54%	105%	6.22
	Dec	135.18	73.55	6.00	62.000		54%	105%	6.37
2029	Jan	148.77	73.55	6.00	72.500		49%	102%	3.28
	Feb	130.64	73.55	6.00	72.500		56%	116%	21.41
	Mar	134.50	73.55	6.00	72.500		55%	113%	17.55
	Apr	142.03	73.55	6.00	72.500		52%	107%	10.02
	May	147.40	73.55	6.00	72.500		50%	103%	4.65
	Jun	148.22	73.55	6.00	72.500		50%	103%	3.83
	Jul	140.53	73.55	6.00	72.500		52%	108%	11.52
	Aug	147.51	73.55	6.00	72.500		50%	103%	4.54
	Sep	148.77	73.55	6.00	72.500		49%	102%	3.28
	Oct	145.82	73.55	6.00	72.500		50%	104%	6.23
	Nov	145.47	73.55	6.00	72.500		51%	105%	6.58
	Dec	145.25	73.55	6.00	72.500		51%	105%	6.80
2030	Jan	151.85	73.55	6.00	72.500		48%	100%	0.20
	Feb	133.06	73.55	6.00	72.500		55%	114%	18.99
	Mar	137.11	73.55	6.00	72.500		54%	111%	14.94
	Apr	145.01	73.55	6.00	72.500		51%	105%	7.04
	May	150.43	73.55	6.00	72.500		49%	101%	1.62
	Jun	151.19	73.55	6.00	72.500		49%	101%	0.86
	Jul	143.30	73.55	6.00	72.500		51%	106%	8.75
	Aug	150.50	73.55	6.00	72.500		49%	101%	1.55
	Sep	151.85	73.55	6.00	72.500		48%	100%	0.20
	Oct	148.71	73.55	6.00	72.500		49%	102%	3.34

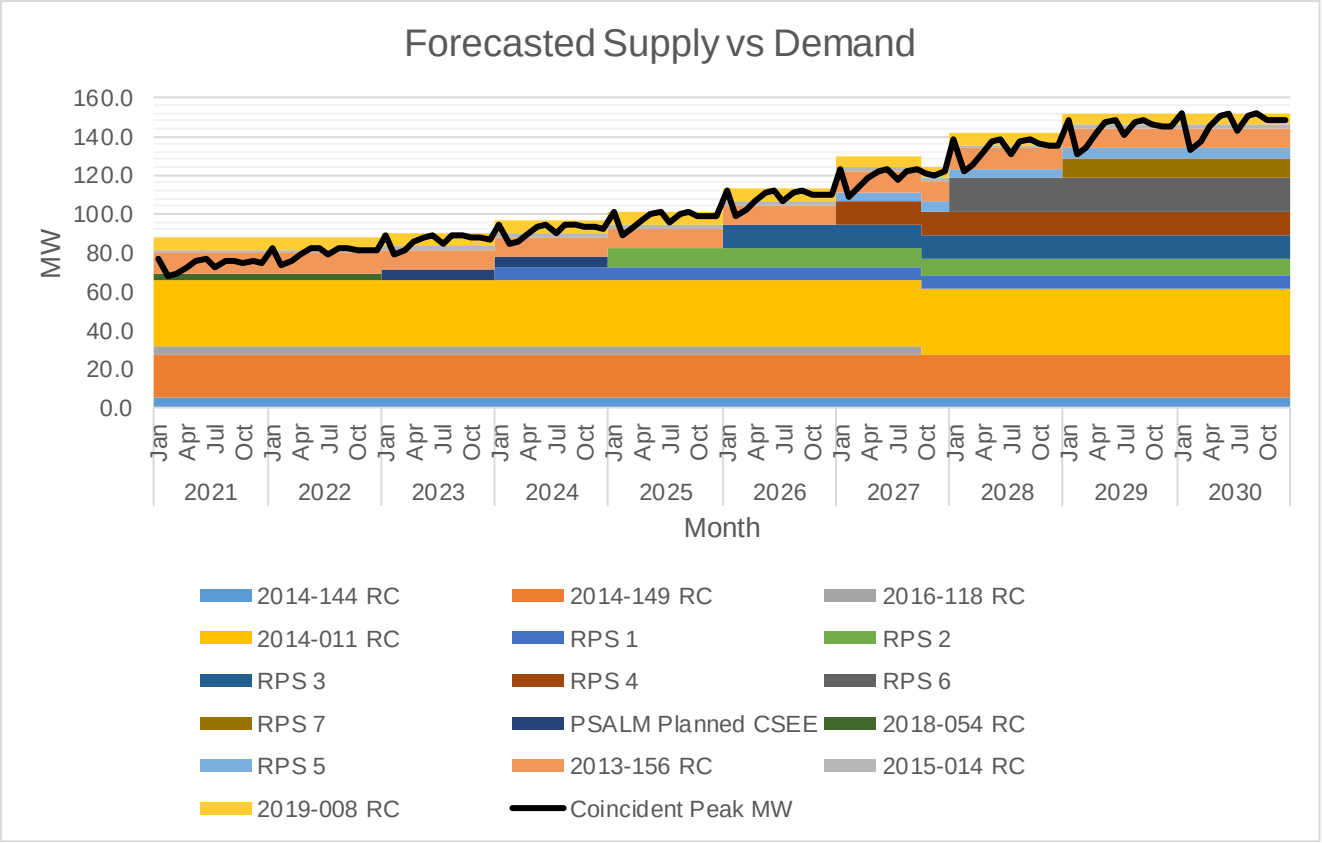
		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
	Nov	148.32	73.55	6.00	72.500		50%	103%	3.73
	Dec	148.16	73.55	6.00	72.500		50%	103%	3.89

The Peak Demand was forecasted using annual demand/load forecast of per customer class per substation then using the 8760 metering load profiles of the cooperative to derive the monthly peak demand forecast and was assumed to occur on the month of January based on 8760 load profile of the cooperative. Monthly Peak Demand is at its lowest on the month of February base on the 8760 load profile of the cooperative. In general, Peak Demand is expected to grow at a rate of 8.92% annually.

The impact brought by the pandemic resulted to considerable decrease in the kWh sales in industrial and commercial customers due to reduced operations due to lockdown and increase in sales from the residential customers since a lot of people are forced to stay at home. In the same year also there has been increase in the DU's own use kwh consumption, this is because the DU has acquired equipment and tools to frequently disinfect its offices and also the coop has acquired devices to enable its workforce to work without disruption in this time of pandemic.



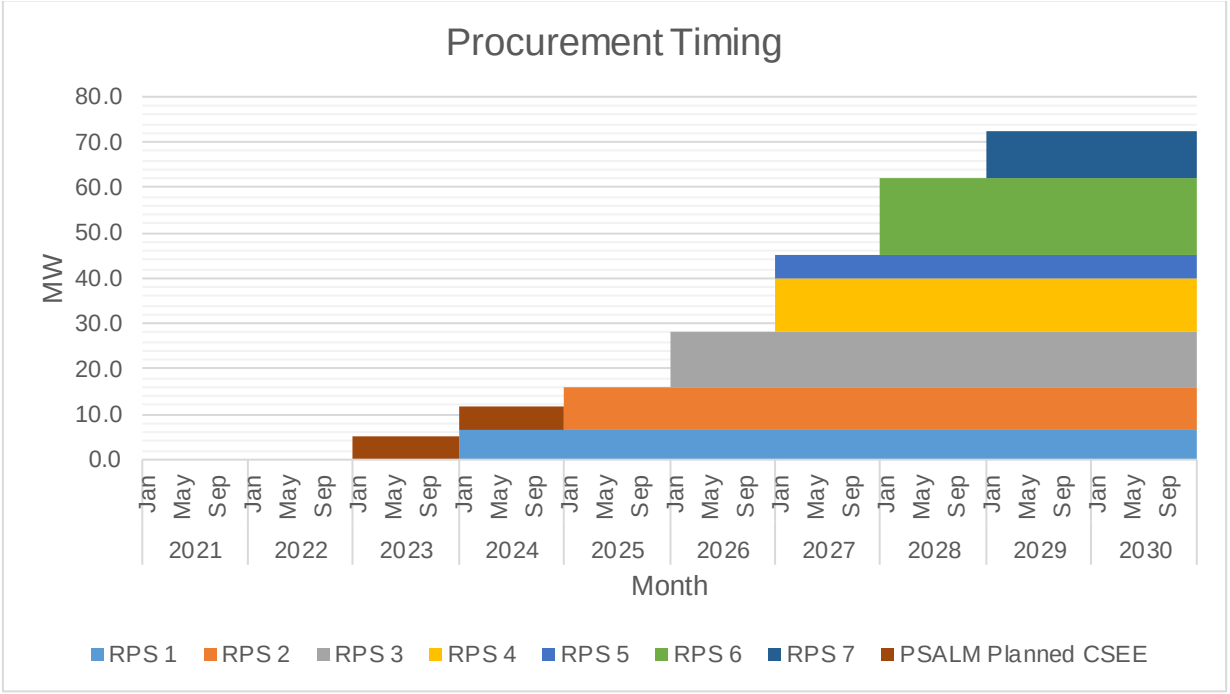
The available supply is generally above especially in the year 2021 to 2023 to address the growing the Peak Demand. As years would come, planned additional capacity will be need to address natural load growth of demand at the same time RPS requirement compliance.



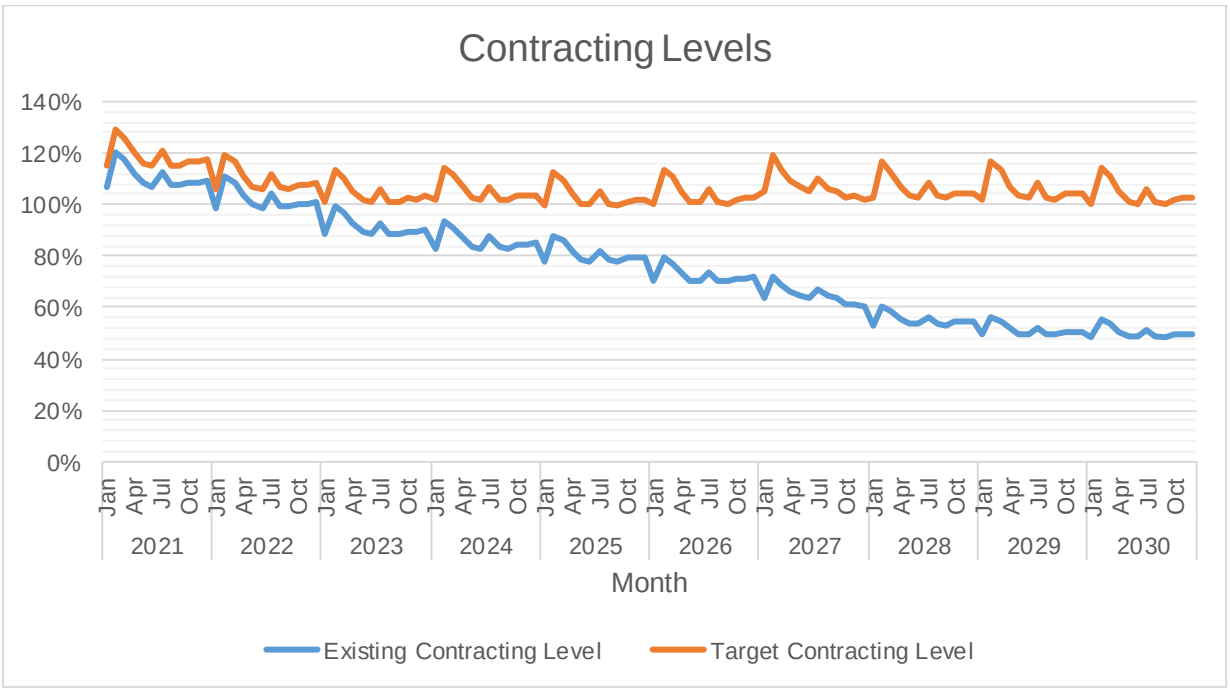
Of the available supply, the largest is 34.05 MW from 2014-011 RC (GN Power Kauswagan Ltd.). This is followed by 22 MW from 2014-149 RC (FDC Misamis Power Corporation).

The MORESCO-1 DU-Owned Embedded generator of 3 x 2MW with ERC Case No. 2019-008 RC has been denied by ERC its request for Provisional approval, with this, MORESCO-1 has applied a Motion for Reconsideration following the said event. The embedded generator was part of the

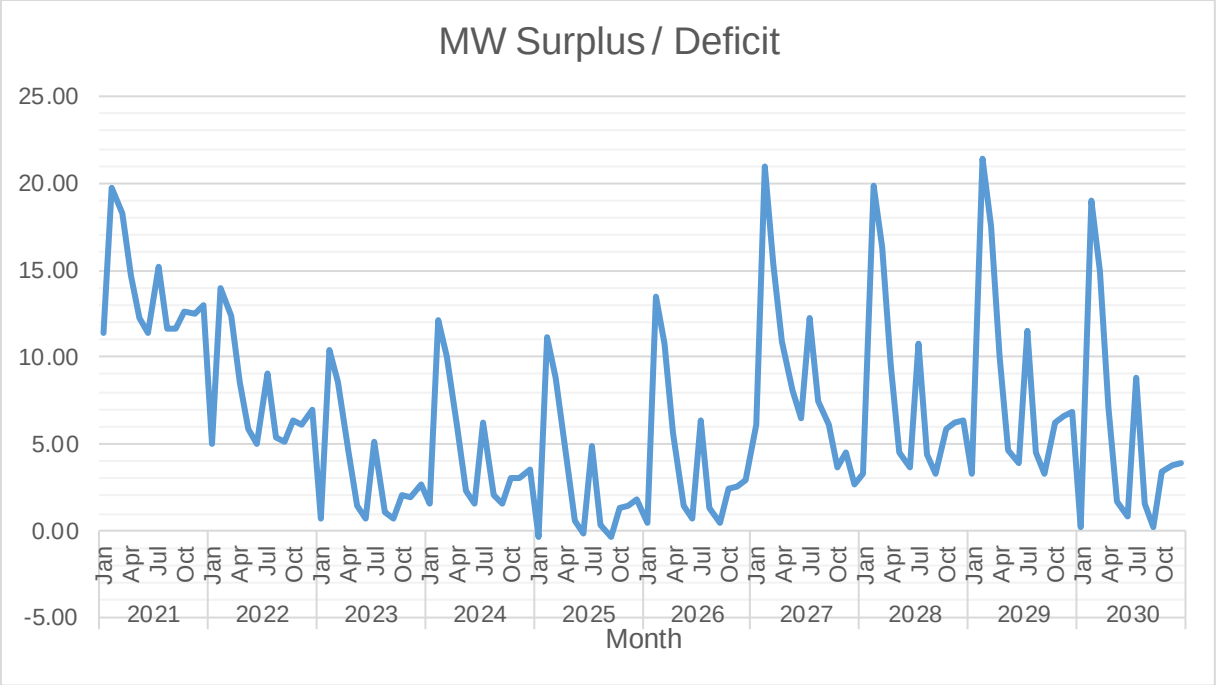
program of DOE in pursuing the distribution utilities especially the Electric cooperatives to have its own emergency embedded power supply



The first wave of supply procurement will be for 5 MW planned to be available by the month of January 2023 billing period. This will be followed by contracting supply of renewable energy for the RPS requirement of 6.5 MW, 9.5MW, 12 MW, 12 MW, 5MW, 17 MW, 20.5 MW that is expected to be delivered on year 2024, 2025, 2026, 2027, 2027, 2028 and 2029 respectively.



Currently, there is over-contracting by an average of 6%. The highest target contracting level is 60% which is expected to occur on February 2029. The lowest target contracting level is 7% which is expected to occur on years of 2021-2022.



Currently, there is over-contracting of an average of 6.12 MW. The highest surplus is 21.41 MW which is expected to occur on the month of February 2029. The lowest deficit is 0.35 MW which is expected to occur on the month of January 2025. Over contracting is due to the RPS compliance that there is a need to source out for RE technology.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2021	Jan	38,795	37,206	1,590	0.00%	4.10%
	Feb	36,933	35,260	1,672	0.00%	4.53%
	Mar	36,446	34,768	1,677	0.00%	4.60%
	Apr	38,686	36,680	2,006	0.00%	5.18%
	May	36,376	34,698	1,678	0.00%	4.61%
	Jun	36,976	35,379	1,597	0.00%	4.32%
	Jul	34,559	33,003	1,556	0.00%	4.50%
	Aug	38,822	37,106	1,716	0.00%	4.42%
	Sep	42,255	40,020	2,236	0.00%	5.29%
	Oct	41,687	39,601	2,087	0.00%	5.01%
	Nov	41,759	39,660	2,099	0.00%	5.03%
	Dec	41,895	39,959	1,937	0.00%	4.62%
2022	Jan	40,525	38,864	1,661	0.00%	4.10%
	Feb	38,655	36,905	1,750	0.00%	4.53%
	Mar	38,291	36,528	1,762	0.00%	4.60%
	Apr	40,406	38,311	2,095	0.00%	5.19%
	May	38,075	36,318	1,757	0.00%	4.61%
	Jun	38,530	36,866	1,665	0.00%	4.32%
	Jul	36,254	34,622	1,632	0.00%	4.50%
	Aug	40,553	38,760	1,793	0.00%	4.42%
	Sep	43,900	41,577	2,323	0.00%	5.29%
	Oct	43,331	41,162	2,169	0.00%	5.01%
	Nov	43,455	41,271	2,184	0.00%	5.03%
	Dec	43,697	41,677	2,020	0.00%	4.62%
2023	Jan	45,386	43,525	1,860	0.00%	4.10%

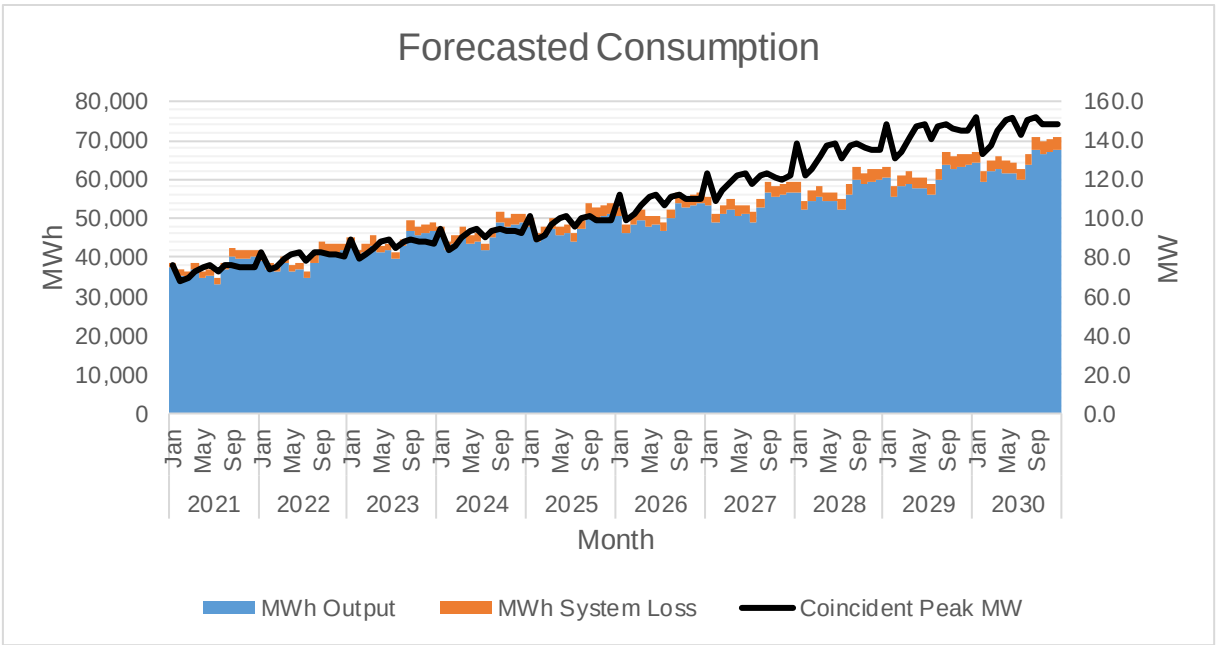
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Feb	41,846	39,951	1,895	0.00%	4.53%
	Mar	43,252	41,261	1,991	0.00%	4.60%
	Apr	45,491	43,132	2,359	0.00%	5.19%
	May	43,124	41,134	1,990	0.00%	4.61%
	Jun	43,729	41,840	1,889	0.00%	4.32%
	Jul	41,468	39,600	1,867	0.00%	4.50%
	Aug	44,761	42,782	1,979	0.00%	4.42%
	Sep	49,253	46,647	2,606	0.00%	5.29%
	Oct	47,915	45,516	2,399	0.00%	5.01%
	Nov	48,589	46,147	2,442	0.00%	5.03%
	Dec	48,860	46,601	2,259	0.00%	4.62%
2024	Jan	47,728	45,772	1,956	0.00%	4.10%
	Feb	44,018	42,025	1,993	0.00%	4.53%
	Mar	45,570	43,472	2,098	0.00%	4.60%
	Apr	47,704	45,230	2,474	0.00%	5.19%
	May	45,441	43,344	2,097	0.00%	4.61%
	Jun	45,953	43,967	1,986	0.00%	4.32%
	Jul	43,729	41,760	1,969	0.00%	4.50%
	Aug	47,142	45,058	2,084	0.00%	4.42%
	Sep	51,623	48,891	2,732	0.00%	5.29%
	Oct	50,274	47,757	2,517	0.00%	5.01%
	Nov	50,953	48,392	2,561	0.00%	5.03%
	Dec	51,225	48,857	2,368	0.00%	4.62%
2025	Jan	50,060	48,008	2,052	0.00%	4.10%
	Feb	46,190	44,098	2,092	0.00%	4.53%
	Mar	47,909	45,703	2,206	0.00%	4.60%
	Apr	49,922	47,333	2,589	0.00%	5.19%
	May	47,801	45,596	2,206	0.00%	4.61%
	Jun	48,215	46,131	2,083	0.00%	4.32%
	Jul	46,089	44,013	2,076	0.00%	4.50%
	Aug	49,507	47,318	2,189	0.00%	4.42%
	Sep	54,010	51,152	2,858	0.00%	5.29%
	Oct	52,670	50,033	2,637	0.00%	5.01%
	Nov	53,365	50,682	2,682	0.00%	5.03%
	Dec	53,650	51,170	2,481	0.00%	4.62%
2026	Jan	52,737	50,576	2,162	0.00%	4.10%
	Feb	48,671	46,467	2,204	0.00%	4.53%
	Mar	50,573	48,245	2,328	0.00%	4.60%
	Apr	52,417	49,699	2,718	0.00%	5.19%
	May	50,442	48,114	2,328	0.00%	4.61%
	Jun	50,743	48,550	2,193	0.00%	4.32%
	Jul	48,723	46,528	2,194	0.00%	4.50%
	Aug	52,190	49,883	2,307	0.00%	4.42%
	Sep	56,710	53,709	3,001	0.00%	5.29%
	Oct	55,376	52,604	2,773	0.00%	5.01%
	Nov	56,085	53,266	2,819	0.00%	5.03%
	Dec	56,373	53,767	2,607	0.00%	4.62%

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2027	Jan	55,495	53,220	2,275	0.00%	4.10%
	Feb	51,229	48,909	2,320	0.00%	4.53%
	Mar	53,353	50,897	2,456	0.00%	4.60%
	Apr	55,044	52,189	2,855	0.00%	5.19%
	May	53,234	50,777	2,457	0.00%	4.61%
	Jun	53,391	51,084	2,307	0.00%	4.32%
	Jul	51,507	49,187	2,320	0.00%	4.50%
	Aug	54,976	52,545	2,431	0.00%	4.42%
	Sep	59,516	56,366	3,149	0.00%	5.29%
	Oct	58,192	55,279	2,914	0.00%	5.01%
	Nov	58,920	55,959	2,962	0.00%	5.03%
	Dec	59,230	56,491	2,739	0.00%	4.62%
2028	Jan	59,114	56,690	2,423	0.00%	4.10%
	Feb	54,590	52,118	2,472	0.00%	4.53%
	Mar	56,951	54,329	2,622	0.00%	4.60%
	Apr	58,502	55,468	3,034	0.00%	5.19%
	May	56,795	54,174	2,621	0.00%	4.62%
	Jun	56,759	54,306	2,453	0.00%	4.32%
	Jul	54,926	52,452	2,474	0.00%	4.50%
	Aug	58,657	56,063	2,594	0.00%	4.42%
	Sep	63,134	59,793	3,341	0.00%	5.29%
	Oct	61,781	58,688	3,094	0.00%	5.01%
	Nov	62,508	59,366	3,142	0.00%	5.03%
	Dec	62,772	59,870	2,903	0.00%	4.62%
2029	Jan	63,032	60,448	2,584	0.00%	4.10%
	Feb	58,198	55,562	2,636	0.00%	4.53%
	Mar	60,801	58,002	2,800	0.00%	4.60%
	Apr	62,068	58,848	3,219	0.00%	5.19%
	May	60,566	57,771	2,795	0.00%	4.62%
	Jun	60,397	57,787	2,610	0.00%	4.32%
	Jul	58,729	56,084	2,646	0.00%	4.50%
	Aug	62,516	59,751	2,764	0.00%	4.42%
	Sep	67,019	63,472	3,547	0.00%	5.29%
	Oct	65,691	62,401	3,289	0.00%	5.01%
	Nov	66,434	63,094	3,340	0.00%	5.03%
	Dec	66,704	63,619	3,085	0.00%	4.62%
2030	Jan	67,027	64,279	2,748	0.00%	4.10%
	Feb	61,903	59,100	2,804	0.00%	4.53%
	Mar	64,803	61,820	2,984	0.00%	4.60%
	Apr	65,857	62,441	3,416	0.00%	5.19%
	May	64,554	61,575	2,979	0.00%	4.62%
	Jun	64,181	61,407	2,774	0.00%	4.32%
	Jul	62,693	59,869	2,824	0.00%	4.50%
	Aug	66,531	63,589	2,942	0.00%	4.42%
	Sep	71,040	67,280	3,760	0.00%	5.29%
	Oct	69,726	66,234	3,492	0.00%	5.01%
	Nov	70,487	66,943	3,544	0.00%	5.03%

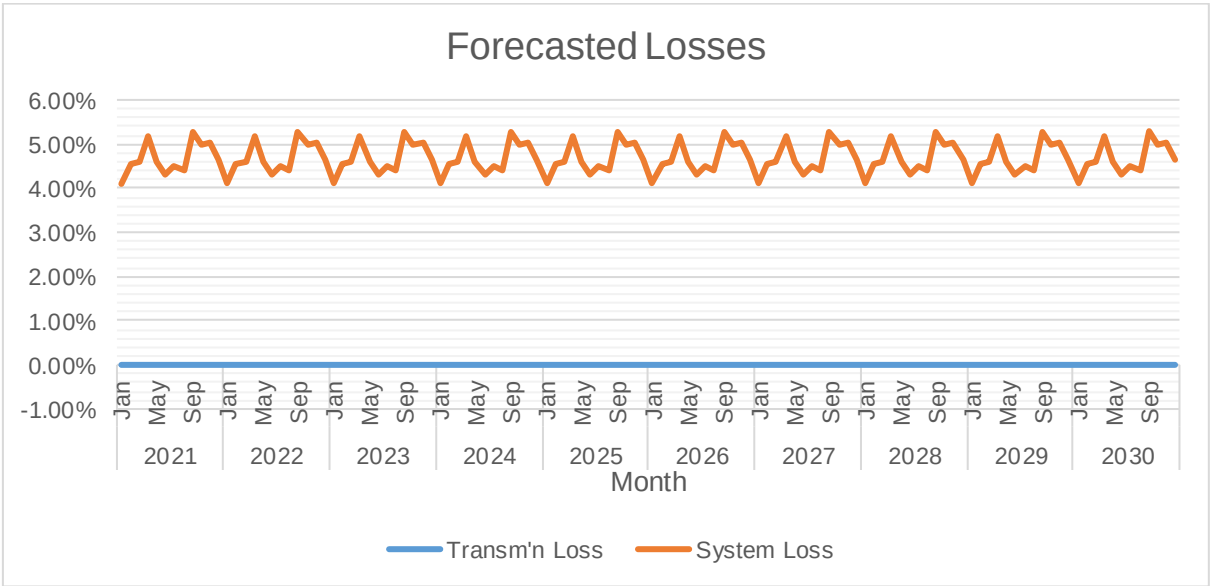
		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
	Dec	70,759	67,486	3,272	0.00%	4.62%

MWh Offtake was forecasted using the contracted energy capacity of IPP's PSA in consideration to its plant maintenance outages. The assumed load factor is 81.74%.

System Loss was calculated through a Load Flow Study conducted every 27th of the month for the system loss calculation of the previous month which is then compiled for the annual system loss segregation requirement of ERC by Engr. Raff Shawn M. Laput, REE, Distribution Network Section Head and Engr. Christine V. Morales, REE, Power Systems Engineer of MORESCO-1, using Synergy Electric Solution 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 6.26% annually.



Transmission Loss is forecasted to be at 0.00% while the overall System Loss ranged from 4.10% to 5.29%.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2018-054 RC	Intermediate	Power Sector Assets and Liabilities Management Corporation	2.00	17,520	12/26/2020	12/25/2022
2014-144 RC	Base	Therma South, Inc.	2.00	17,520	09/18/2015	09/18/2040
2014-149 RC	Base	FDC Misamis Power Corporation	8.80	77,088	10/14/2016	10/25/2041
2016-118 RC	Base	San Miguel Consolidated Power Corporation	2.00	17,520	09/26/2017	09/25/2027
2013-156 RC	Peaking	PACERM 1 Energy Corporation	0.00	0	7/1/2017	7/1/2032
2015-014 RC	Peaking	DU-owned	0.00	0	06/13/2016	6/13/2031
2014-011 RC	Base	GN Power Kauswagan Ltd.	17.03	192,389	6/26/2019	6/25/2049

The **PSA with PACERM-1 Energy Corporation filed with ERC under Case No. 2013-156RC** was procured through competitive bidding under the NEA Procurement Guidelines. It was selected to provide for peaking requirements due to supply deficiency experience by Mindanao since starting 2010 until 2015 because there was no new plant operating yet in Mindanao during that time and PSALM is curtailed. Historically, the utilization of the PSA is 76% for baseload coal technology. Outages of the plant led to unserved energy of around 10,800MWh in the past year. However with the sufficient supply in Mindanao, MORESCO-1 has able to negotiate with the existing Power Suppliers where it can accommodate for excess energy provision. The actual billed overall monthly charge under the PSA ranged from 4.6469P/kWh to 5.5784P/KWh exclusive of VAT in the same period of year 2020.

The **PSA with NPC – PSALM Corporation** is an extension of two years of the original PSA under ERC Case No. 2018-054 RC. Starting 12/26/2020 up to 12/25/2020 with a demand requirement of 3MW and an average energy requirement of 1,785.6MWH monthly. It is planned to be extended for another 2 more years given that PSALM is a hydro power plant, though not RE eligible it still one of the most cheapest source of energy in Mindanao.

The **PSA with TSI with ERC Case No. 2014-144 RC** with a demand requirement of 5MW and 3, 720 MWH monthly has a validity starting 9/18/2015 up until 9/18/2040. TSI is a coal power plant and would partly supply MORESCO 1's base load requirement.

The **PSA with FDC-MPC with ERC Case No. 2014-149 RC** with a demand requirement of 22MW and 16, 368 MWH monthly has a validity starting 10/14/2016 up until 10/25/2041. FDC-MPC is a coal power plant and would partly supply MORESCO 1's base load requirement.

The **PSA with SMCPC with ERC Case No. 2016-118 RC** with a demand requirement of 5MW and 3, 720 MWH monthly has a validity starting 9/26/2017 up until 9/25/2027. SMCPC is a coal power plant and would partly supply MORESCO 1's base load requirement.

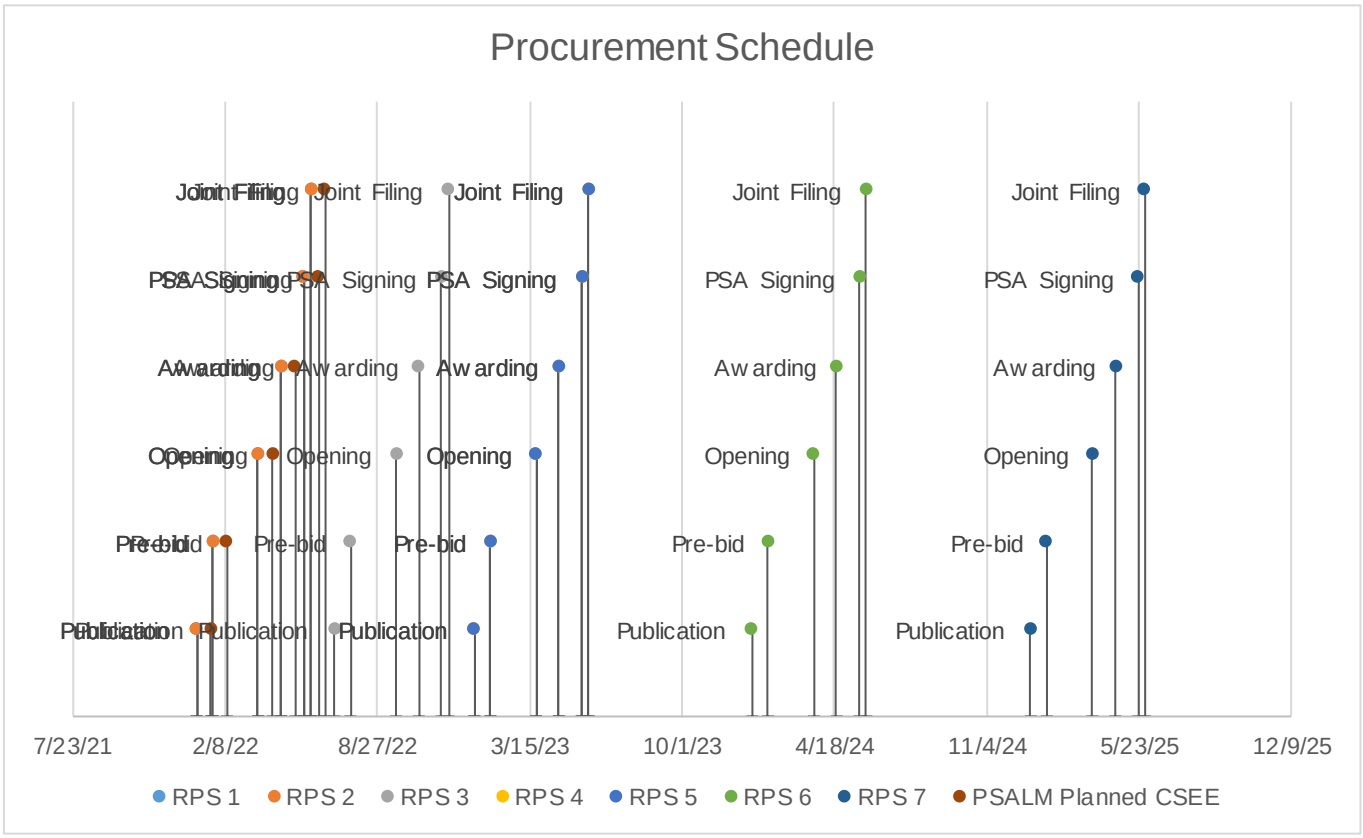
The **PSA with GNPK with ERC Case No. 2014-011 RC** with a demand requirement of 34.05MW and 25, 333 MWH monthly has a validity starting 6/26/2019 up until 6/25/204. GNPK is a coal power plant and would partly supply MORESCO 1's base load requirement.

ERC Case No. 2016-014 RC is MORESCO 1's Embedded Modular Generator Set with a capacity of 2MW that is situated in Moog, Laguindingan near the Laguindingan airport. This is a diesel power plant that will address not just peaking load requirement of MORESCO 1 but also a contingency supply for scheduled, unscheduled and emergency power interruptions.

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2019-008 RC	Peaking	DU-owned	0.00	0	12/1/2019	12/1/2034

The **MORESCO-1 DU-Owned Embedded generator of 3 x 2MW with ERC Case No. 2019-008 RC** has been denied by ERC its request for Provisional approval, with this, MORESCO-1 has applied a Motion for Reconsideration following the said event. The embedded generator was part of the program of DOE in pursuing the distribution utilities especially the Electric cooperatives to have its own emergency embedded power supply.

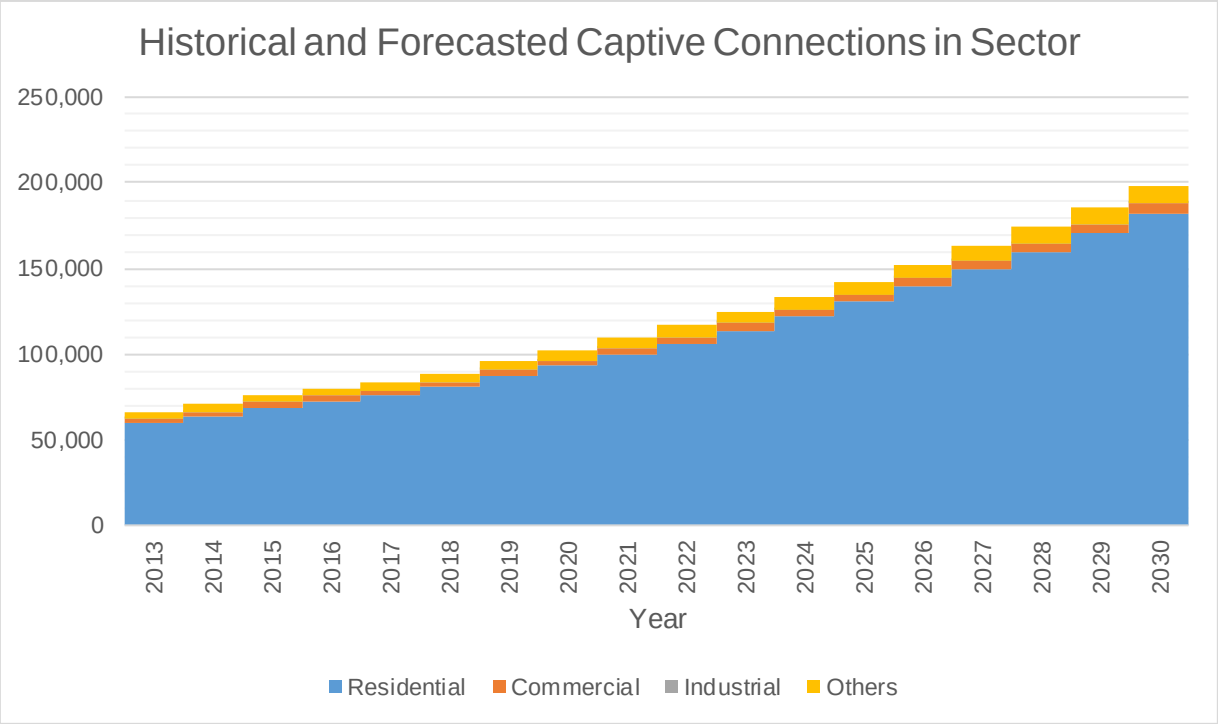
	RPS 1	RPS 2	RPS 3	RPS 4	RPS 5	RPS 6	RPS 7	PSALM Planned CSEE
Type	Base	Base	Base	Base	Intermediate	Base	Base	Base
Minimum MW	6.50	9.50	12.00	12.00	5.00	17.00	20.50	5.00
Minimum MWh/yr	22,776	33,288	42,048	42,048	10,950	59,568	71,832	35,040
PSA Start	1/1/2024	1/1/2025	1/1/2026	1/1/2027	1/1/2027	1/1/2028	1/1/2029	12/26/2022
PSA End	1/1/2039	1/1/2040	1/1/2041	1/1/2042	1/1/2042	1/1/2048	1/1/2049	12/25/2024
Publication	1/1/2022	1/1/2022	7/1/2022	1/1/2023	1/1/2023	1/1/2024	1/1/2025	1/20/2022
Pre-bid	1/22/2022	1/22/2022	7/22/2022	1/22/2023	1/22/2023	1/22/2024	1/22/2025	2/10/2022
Opening	3/23/2022	3/23/2022	9/20/2022	3/23/2023	3/23/2023	3/22/2024	3/23/2025	4/11/2022
Awarding	4/22/2022	4/22/2022	10/20/2022	4/22/2023	4/22/2023	4/21/2024	4/22/2025	5/11/2022
PSA Signing	5/22/2022	5/22/2022	11/19/2022	5/22/2023	5/22/2023	5/21/2024	5/22/2025	6/10/2022
Joint Filing	5/31/2022	5/31/2022	11/28/2022	5/31/2023	5/31/2023	5/30/2024	5/31/2025	6/19/2022



For the procurement of 5 MW of supply which is planned to be available on January 2023 billing period, there will be no need for the publication under CSP since we plan to secure through the renewal of our CSEE to NPC/PSALM. Hence, a certificate of exemption will be needed only in accordance with DOE's 2018 CSP Policy.

For the procurement of 6.5 MW of supply which is planned to be available on January 2024 intended for the RPS compliance, the first publication of launch of CSP will be on January 2022. Joint filing is planned on last week of February 2022, accordance with DOE's 2018 CSP Policy.

Captive Customer Connections



The number of Residential connections is expected to grow at a rate of 10.07% annually. Said customer class is expected to account for 24.22% of the total energy consumption.