



Power Supply Procurement Plan

2021

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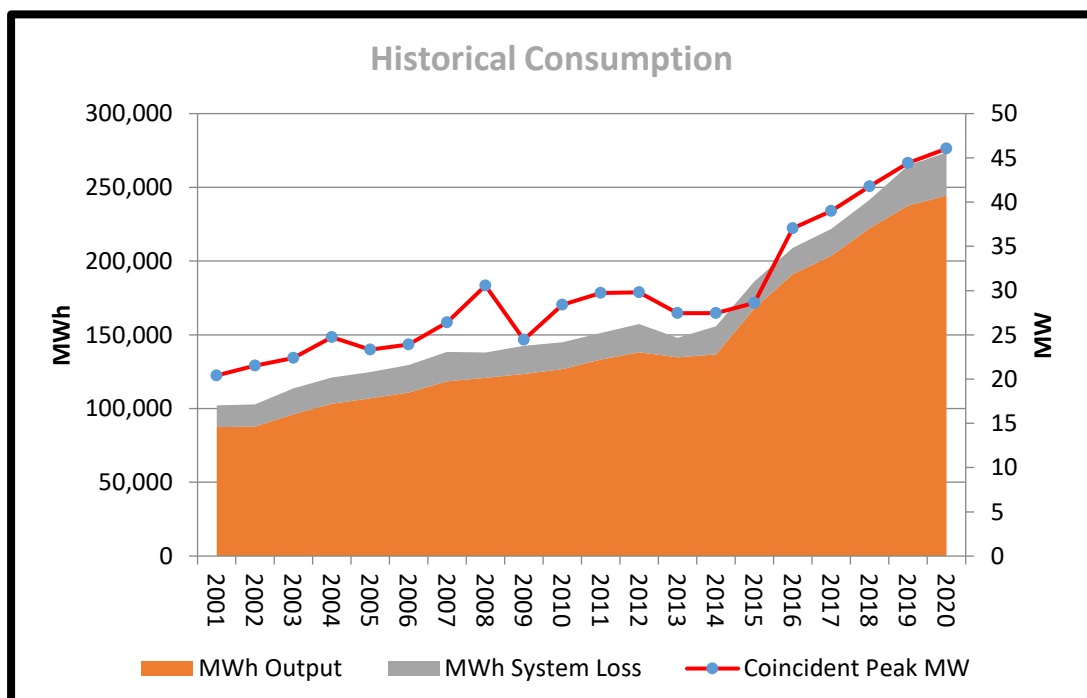
CAPIZ ELECTRIC COOPERATIVE, INC.
(CAPELCO)

BURGOS ST., ROXAS CITY, CAPIZ

Historical Consumption Data

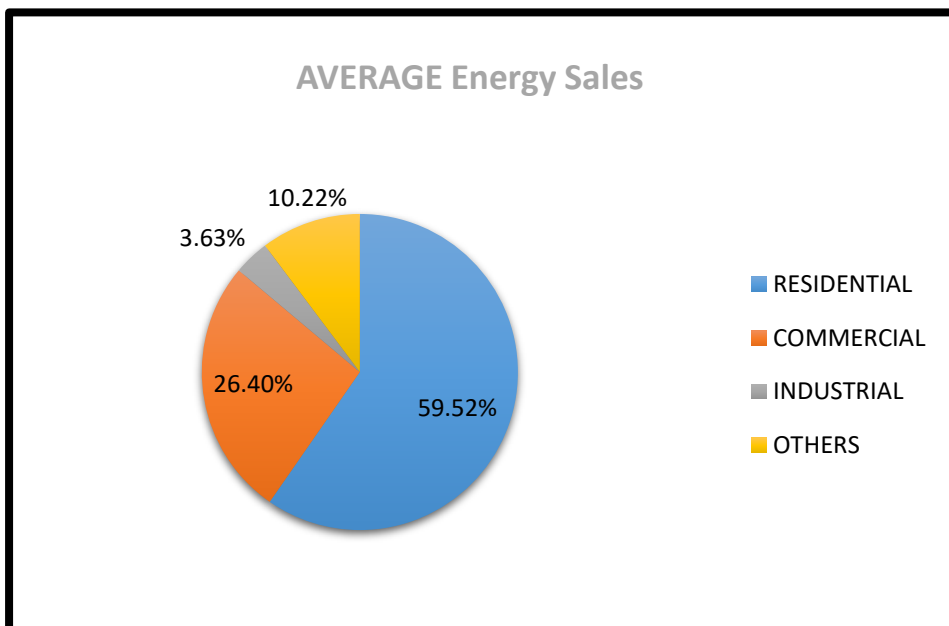
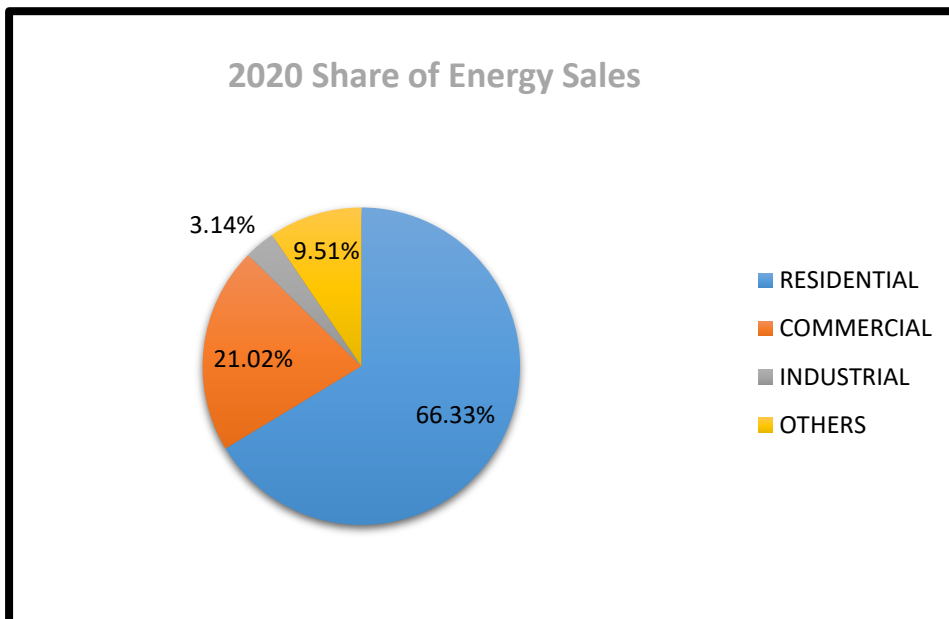
YEAR	Coincident Peak MW	MWh Input	WESM	MWh Output	MWh System Loss	Load Factor	Discrepancy	System Loss
2001	20.41	102,251	0	87,358	14,893	50%	0.00%	14.57%
2002	21.52	102,931	0	87,903	15,028	48%	0.00%	14.60%
2003	22.38	113,741	0	96,209	17,532	51%	0.00%	15.41%
2004	24.75	120,967	0	103,372	17,595	49%	0.00%	14.55%
2005	23.34	124,664	0	106,851	17,813	54%	0.00%	14.29%
2006	23.92	129,484	0	110,827	18,658	54%	0.00%	14.41%
2007	26.39	138,407	0	118,473	19,934	53%	0.00%	14.40%
2008	30.56	138,030	0	120,747	17,283	45%	0.00%	12.52%
2009	24.44	142,638	0	123,466	19,171	59%	0.00%	13.44%
2010	28.38	144,933	0	126,614	18,319	56%	0.00%	12.64%
2011	29.73	151,271	0	133,290	17,981	56%	0.00%	11.89%
2012	29.81	157,271	0	138,222	19,049	59%	0.00%	12.11%
2013	27.44	147,902	0	134,711	13,191	62%	0.00%	8.92%
2014	27.45	155,746	4,979	136,655	19,090	58%	0.00%	12.26%
2015	28.62	186,166	8,615	168,054	18,112	61%	0.00%	9.73%
2016	37.02	208,875	8,850	191,167	17,708	62%	0.00%	8.48%
2017	38.98	221,764	45,412	203,459	18,305	63%	0.00%	8.25%
2018	41.77	241,581	39,121	222,138	19,443	64%	0.00%	8.05%
2019	44.41	264,673	69,667	237,535	27,138	68%	0.00%	10.25%
2020	46.04	274,177	79,893	244,411	29,225	68%	0.00%	10.84%

The Table shows the progression of Coincident Peak MW in an increasing manner due to the increase in demand except between the years 2013 and 2014 when CAPELCO was devastated by Typhoon Yolanda and in the year 2020 abnormality of operation is caused and affected by the pandemic COVID-19. Steady increase of load factor at 68% was also observed.

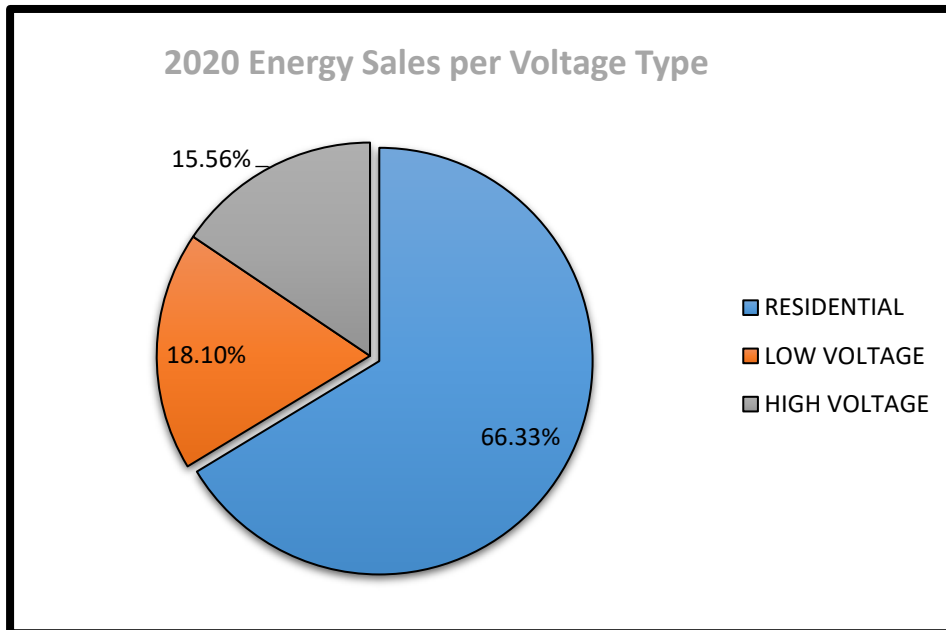


As expected of a growing economy, MWh Output increased steadily. However, there is a sharp upturn in 2014 after Typhoon Yolanda in 2013 and the abnormality during the pandemic COVID-19 in the year 2020. This is because 95% of CAPELCO's distribution facilities which are already damaged and dilapidated were replaced and rehabilitated. With the improved system reliability of the said facilities, CAPELCO was more able to support the growth of the local economy.

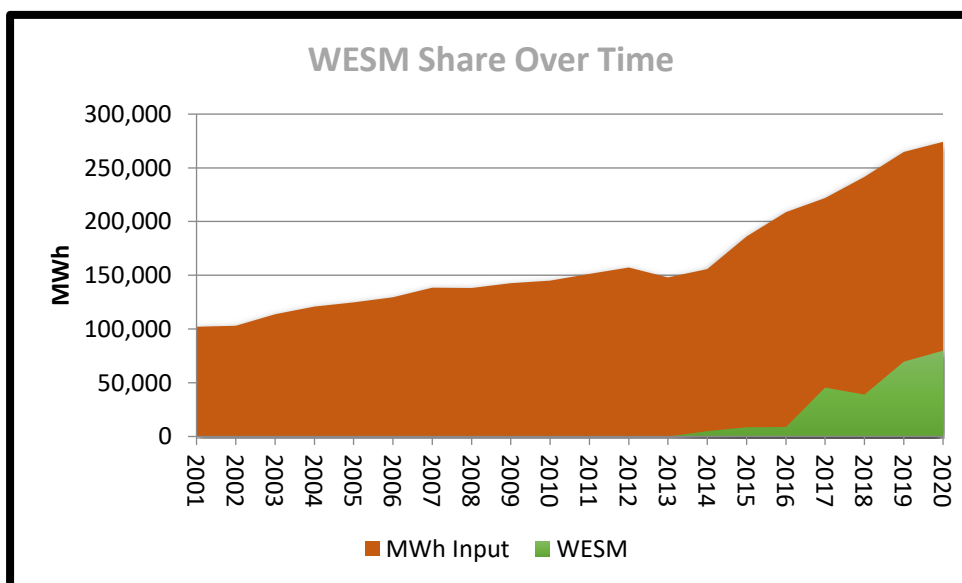
System Loss in absolute terms is quite erratic in progression specifically that again, CAPELCO was hit by Typhoon Ursula on December 24, 2019 and the spike of pandemic COVID-19 on year 2020 until now that affected our operations and subsequently resulted to a higher system loss in the year 2019-2021. However, System Loss in percentage is steadily decreasing.



Due to the pandemic COVID-19, the operation was really affected in terms of Energy Sales of CAPELCO, based on the table above, the year 2020 accounts 66.33% of the Residential customers from the average of previous years by 59.52% of total MWh sales. Followed by Commercial customers at 21.02% from the average of 26%, Industrial customers for only 3.14% from average 3.6% and 9.51% of the total energy MWh sales were shared by others from the average 10.22%. The reason there were abnormality in growth rate per customer type between actual 2020 sales and 2021 forecasted sales per customer type because we use the forecasted data from 2021-2030 forecast per customer type based on normal condition .



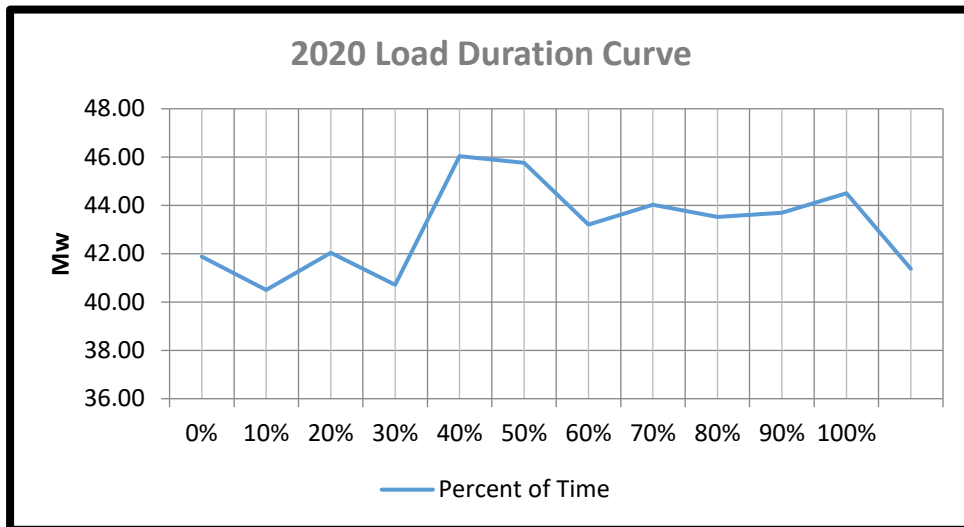
MWh Output per voltage type also drastically change due to pandemic and is comprised of Residential Customers that account 66.33% of the total energy sales followed by Low Voltage Customers at 18.10% and High Voltage Customers at 15.56% shares of the total energy sales.



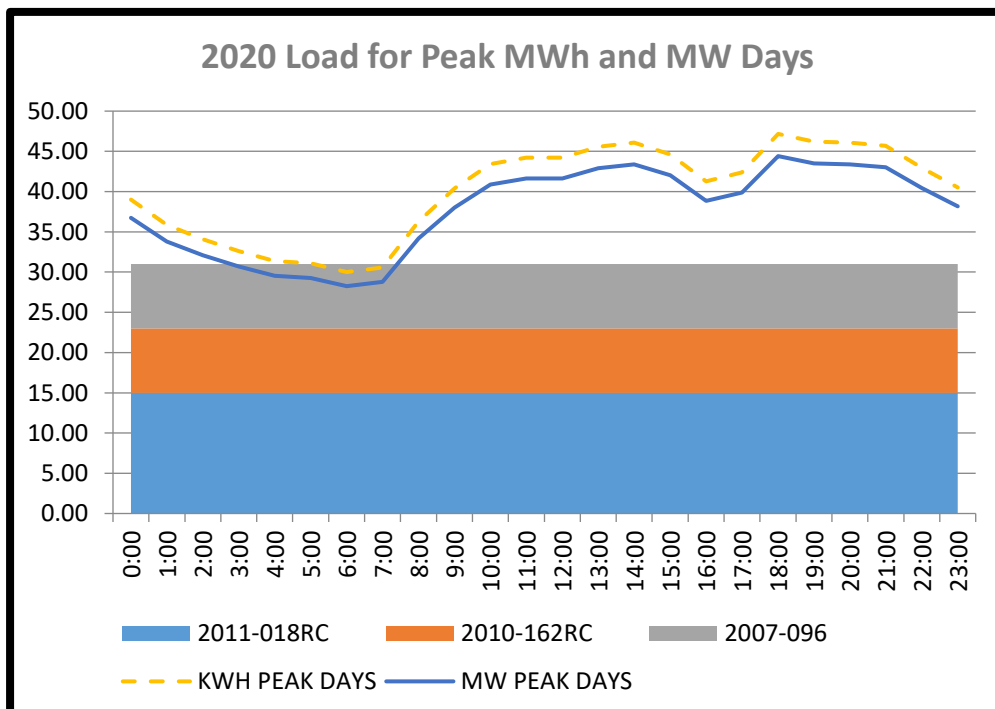
CAPELCO started WESM Energy offtake in 2010. However, due to the lack of data, we were only able to input figures for the year 2014. But, for the last three (3) years, the WESM Energy offtake increased due to the high demand of energy.

For the year 2020, the share of WESM from the MWh Input is equivalent to 29% of the total purchased energy and the remaining 71% are from CAPELCO Power Supply Agreement (PSA).

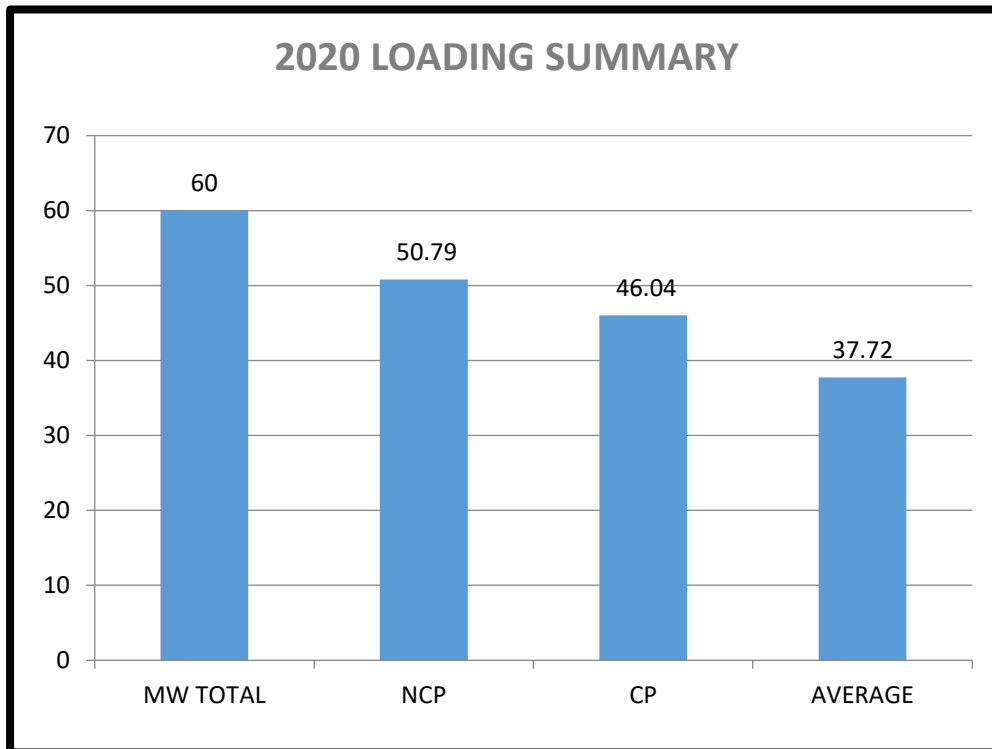
Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 40.50 MW and the maximum load is 45.77 MW (CP) for the last historical year 2020.



The Peak MW and MWh days occurred in June 2020 due to the increase of demand during summer. It can be seen that there is a substantial gap between the peak load and the available contracted supply. This can be attributed to the sudden increase in loads and effect by pandemic COVID-19 which was not expected.



The Non-coincident Peak Demand is 50.79 MW, which is around 85% of the total substation capacity of 60 MVA at a power factor of 90%. The load factor or the ratio between the Average Load and the Non-coincident Peak Demand is 68%.

Metering Point	Substation MVA	Substation Peak MW
Panitan	10	10.65
Roxas (Lawaan)	30	22.55
Dao	10	8.75
Pres. Roxas	5	4.13
Mambusao	5	4.43

In the year 2021, an additional 10 MVA power transformer at Panitan Substation will be energized to solve the capacity deficiency. Roxas City has an additional 20 MVA Substation at Burgos St., Roxas City to augment the Lawaan Substation to cater the incoming big spot loads. A new 5 MVA Substation will be built in Dumalag to serve portion of load of Dao Substation which is no longer feasible due to long distribution line and capacity problem serving six (6) municipalities. Likewise, an additional 5 MVA will be added to Mambusao Substation for the same purpose.

All five (5) substations are loaded well above the 70% loading PDC and PGC standards. This capacity problem will be solved by the year 2021-2023.

Forecasted Consumption Data

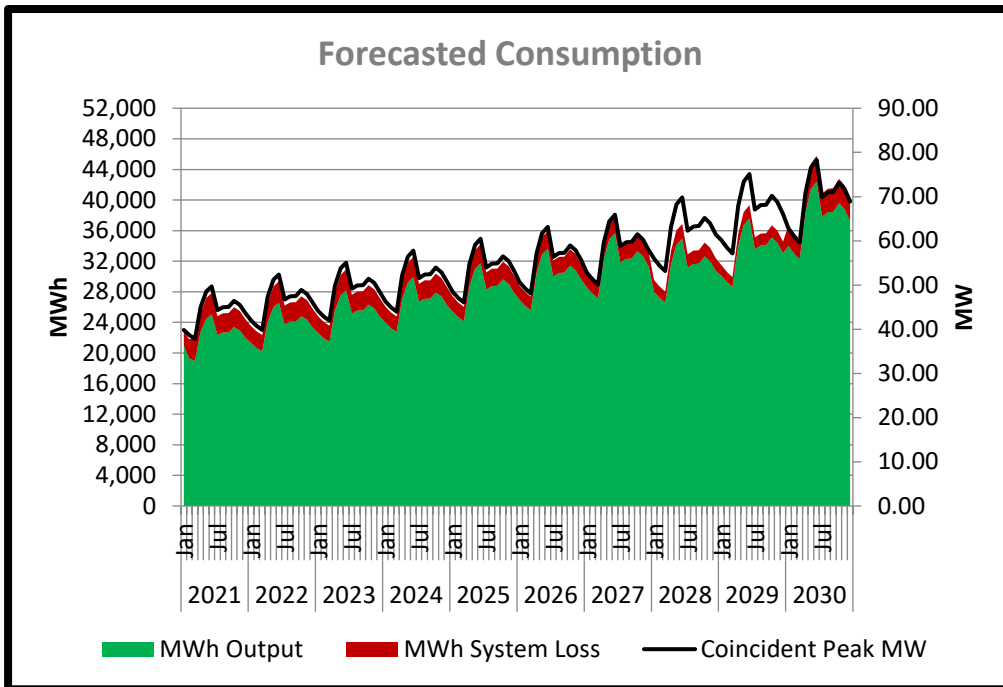
Year	Month	Coincident Peak MW	Contracted MW	Planned MW	MWh Input	MWh Output	MWh System Loss	Existing Contracting Level	Target Contracting Level	System Loss
2021	Jan	39.81	31	0	23,164	21,019	1,811	78%	78%	7.82%
	Feb	38.66	31	0	21,956	19,341	2,497	80%	80%	11.37%
	Mar	37.81	31	0	22,379	19,025	2,971	82%	82%	13.27%
	Apr	44.94	31	0	24,617	22,505	2,697	69%	69%	10.96%
	May	48.54	31	0	26,195	22,653	3,137	64%	64%	11.97%
	Jun	49.68	31	0	26,034	23,113	2,495	62%	62%	9.58%
	Jul	44.33	31	0	25,022	22,797	2,466	70%	70%	9.86%
	Aug	45.01	31	6	25,401	23,137	2,504	69%	82%	9.86%
	Sep	45.06	31	6	25,432	23,165	2,508	69%	82%	9.86%
	Oct	46.39	31	6	26,175	23,833	2,582	67%	80%	9.87%
	Nov	45.50	31	6	25,676	23,384	2,532	68%	81%	9.86%
	Dec	43.67	31	6	24,652	22,463	2,429	71%	85%	9.85%
2022	Jan	41.98	31	6	23,572	21,303	2,343	74%	88%	9.94%
	Feb	40.76	31	6	22,888	20,685	2,277	76%	91%	9.95%
	Mar	39.87	31	6	22,387	20,232	2,229	78%	93%	9.96%
	Apr	47.38	31	6	26,606	24,045	2,635	65%	78%	9.90%
	May	51.18	31	6	28,741	25,975	2,840	61%	72%	9.88%
	Jun	52.38	31	6	29,413	26,582	2,905	59%	71%	9.88%
	Jul	46.75	31	6	26,250	23,723	2,600	66%	79%	9.91%
	Aug	47.46	31	6	26,649	24,084	2,639	65%	78%	9.90%
	Sep	47.52	31	6	26,682	24,114	2,642	65%	78%	9.90%
	Oct	48.91	31	6	27,467	24,823	2,718	63%	76%	9.89%
	Nov	47.98	31	6	26,939	24,347	2,667	65%	77%	9.90%
	Dec	46.05	31	6	25,858	23,370	2,563	67%	80%	9.91%
2023	Jan	44.14	31	6	24,827	22,596	2,428	70%	84%	9.78%
	Feb	42.86	31	6	24,106	21,941	2,363	72%	86%	9.80%
	Mar	41.92	31	6	23,579	21,460	2,316	74%	88%	9.82%
	Apr	49.82	31	6	28,022	25,505	2,715	62%	74%	9.69%
	May	53.82	31	6	30,271	27,551	2,917	58%	69%	9.64%
	Jun	55.08	31	6	30,978	28,195	2,980	56%	67%	9.62%
	Jul	49.15	31	6	27,647	25,163	2,681	63%	75%	9.70%
	Aug	49.90	31	6	28,068	25,546	2,719	62%	74%	9.69%
	Sep	49.96	31	0	28,103	25,578	2,722	62%	62%	9.69%
	Oct	51.43	31	0	28,929	26,330	2,796	60%	60%	9.67%
	Nov	50.45	31	0	28,374	25,824	2,746	61%	61%	9.68%
	Dec	48.42	31	0	27,235	24,788	2,644	64%	64%	9.71%
2024	Jan	46.29	31	1	26,114	23,966	2,517	67%	67%	9.64%
	Feb	44.95	31	1	25,356	23,270	2,455	69%	69%	9.68%
	Mar	43.97	31	1	24,801	22,761	2,409	71%	71%	9.72%
	Apr	52.25	31	1	29,475	27,050	2,794	59%	59%	9.48%
	May	56.44	31	1	31,840	29,221	2,988	55%	55%	9.39%
	Jun	57.76	31	1	32,584	29,904	3,050	54%	54%	9.36%
	Jul	51.55	31	1	29,080	26,688	2,761	60%	60%	9.50%

	Aug	52.34	31	1	29,522	27,094	2,798	59%	59%	9.48%
	Sep	52.40	31	1	29,559	27,128	2,801	59%	59%	9.48%
	Oct	53.94	31	1	30,428	27,925	2,872	57%	57%	9.44%
	Nov	52.91	31	1	29,844	27,389	2,824	59%	59%	9.46%
	Dec	50.78	31	1	28,646	26,290	2,726	61%	61%	9.52%
2025	Jan	48.48	31	12	27,449	25,417	2,610	33%	95%	9.51%
	Feb	47.07	31	12	26,653	24,679	2,551	34%	98%	9.57%
	Mar	46.04	31	12	26,069	24,139	2,508	35%	100%	9.62%
	Apr	54.72	31	12	30,982	28,689	2,872	29%	84%	9.27%
	May	59.11	31	12	33,468	30,991	3,056	27%	78%	9.13%
	Jun	60.49	31	12	34,251	31,715	3,113	26%	76%	9.09%
	Jul	53.98	31	12	30,567	28,304	2,841	30%	85%	9.29%
	Aug	54.80	31	12	31,032	28,735	2,875	29%	84%	9.27%
	Sep	54.87	31	12	31,071	28,771	2,878	29%	84%	9.26%
	Oct	56.49	31	12	31,985	29,617	2,946	28%	81%	9.21%
	Nov	55.40	31	12	31,370	29,048	2,900	29%	83%	9.25%
	Dec	53.18	31	12	30,111	27,882	2,807	30%	87%	9.32%
2026	Jan	50.61	31	13	28,849	26,956	2,675	32%	91%	9.27%
	Feb	49.14	31	13	28,011	26,173	2,620	33%	94%	9.35%
	Mar	48.07	31	13	27,398	25,600	2,579	33%	96%	9.41%
	Apr	57.13	31	13	32,562	30,425	2,918	28%	81%	8.96%
	May	61.71	31	13	35,175	32,866	3,090	26%	75%	8.78%
	Jun	63.15	31	13	35,997	33,635	3,144	25%	73%	8.73%
	Jul	56.36	31	13	32,126	30,018	2,890	28%	82%	8.99%
	Aug	57.22	31	13	32,614	30,474	2,922	28%	80%	8.96%
	Sep	57.29	31	13	32,656	30,513	2,924	28%	80%	8.96%
	Oct	58.97	31	13	33,615	31,409	2,987	27%	78%	8.89%
	Nov	57.84	31	13	32,970	30,806	2,945	28%	80%	8.93%
	Dec	55.52	31	13	31,647	29,570	2,858	29%	83%	9.03%
2027	Jan	52.80	31	15	30,325	28,585	2,770	30%	87%	9.14%
	Feb	51.27	31	15	29,445	27,755	2,720	31%	90%	9.24%
	Mar	50.15	31	15	28,800	27,147	2,683	32%	92%	9.32%
	Apr	59.60	31	15	34,228	32,264	2,994	27%	77%	8.75%
	May	64.38	31	15	36,974	34,853	3,152	25%	71%	8.52%
	Jun	65.88	31	15	37,839	35,667	3,201	24%	70%	8.46%
	Jul	58.80	31	15	33,769	31,832	2,968	27%	78%	8.79%
	Aug	59.69	31	15	34,283	32,316	2,997	27%	77%	8.74%
	Sep	59.77	31	15	34,326	32,357	3,000	27%	77%	8.74%
	Oct	61.53	31	15	35,335	33,308	3,058	26%	75%	8.65%
	Nov	60.34	31	15	34,657	32,668	3,019	27%	76%	8.71%
	Dec	57.92	31	15	33,266	31,357	2,939	28%	79%	8.83%
2028	Jan	55.96	31	15	31,888	27,998	2,904	29%	82%	9.11%
	Feb	54.34	31	15	30,962	27,185	2,858	29%	85%	9.23%
	Mar	53.15	31	15	30,285	26,590	2,825	30%	87%	9.33%
	Apr	63.16	31	15	35,992	31,601	3,108	25%	73%	8.63%
	May	68.23	31	15	38,880	34,137	3,251	23%	67%	8.36%
	Jun	69.83	31	15	39,789	34,935	3,296	23%	66%	8.28%
	Jul	62.32	31	15	35,510	31,178	3,084	26%	74%	8.68%
	Aug	63.26	31	15	36,050	31,652	3,110	25%	73%	8.63%
	Sep	63.34	31	15	36,096	31,692	3,113	25%	73%	8.62%

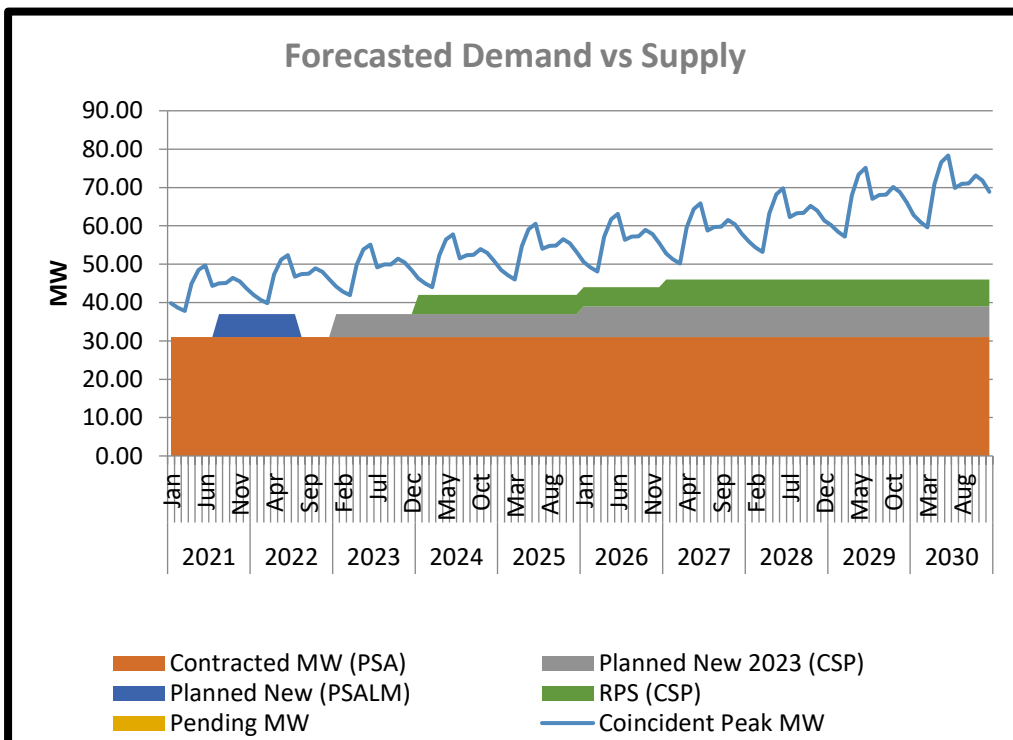
	Oct	65.21	31	15	37,157	32,624	3,165	25%	71%	8.52%
	Nov	63.95	31	15	36,443	31,997	3,130	25%	72%	8.59%
	Dec	61.39	31	15	34,981	30,713	3,057	26%	75%	8.74%
2029	Jan	60.20	31	15	33,548	30,123	3,045	27%	76%	9.08%
	Feb	58.46	31	15	32,574	29,248	3,003	27%	79%	9.22%
	Mar	57.18	31	15	31,861	28,608	2,973	28%	80%	9.33%
	Apr	67.95	31	15	37,866	34,000	3,228	24%	68%	8.52%
	May	73.40	31	15	40,904	36,728	3,357	22%	63%	8.21%
	Jun	75.12	31	15	41,860	37,586	3,398	21%	61%	8.12%
	Jul	67.04	31	15	37,359	33,544	3,206	24%	69%	8.58%
	Aug	68.06	31	15	37,927	34,055	3,231	24%	68%	8.52%
	Sep	68.15	31	15	37,975	34,097	3,233	23%	68%	8.51%
	Oct	70.15	31	15	39,091	35,100	3,280	23%	66%	8.39%
	Nov	68.80	31	15	38,340	34,426	3,248	23%	67%	8.47%
	Dec	66.04	31	15	36,802	33,044	3,183	24%	70%	8.65%
2030	Jan	62.79	31	15	36,727	33,969	3,158	25%	73%	8.60%
	Feb	60.96	31	15	35,660	32,983	3,077	26%	75%	8.63%
	Mar	59.63	31	15	34,879	32,261	3,017	27%	77%	8.65%
	Apr	70.87	31	15	41,459	38,341	3,518	23%	65%	8.48%
	May	76.55	31	15	44,789	41,417	3,771	21%	60%	8.42%
	Jun	78.34	31	15	45,837	42,385	3,851	20%	59%	8.40%
	Jul	69.92	31	15	40,903	37,827	3,475	23%	66%	8.50%
	Aug	70.98	31	15	41,526	38,403	3,523	23%	65%	8.48%
	Sep	71.07	31	15	41,578	38,451	3,527	23%	65%	8.48%
	Oct	73.16	31	15	42,802	39,581	3,620	22%	63%	8.46%
	Nov	71.75	31	15	41,979	38,821	3,557	22%	64%	8.47%
	Dec	68.88	31	15	40,293	37,263	3,429	23%	67%	8.51%

The Peak Demand was forecasted using NEA 50 forecast models - linear with smoothing and was assumed to occur in the month of June due to the summer and climate change. Monthly Peak Demand is at its lowest in the month of March due to the cool weather caused by easterly wind from Siberia. In general, Peak Demand is expected to grow at a rate of 5% annually.

Further, due to the abnormality of operation caused by the pandemic for the year 2020, we have two (2) forecasted data using the actual 2014-2020 historical data and the 2013-2019 historical data. But, we decided to use the normalized forecasted data of the later and we are confidently enough that it is within the bound of our sales target of CAPELCO operation.

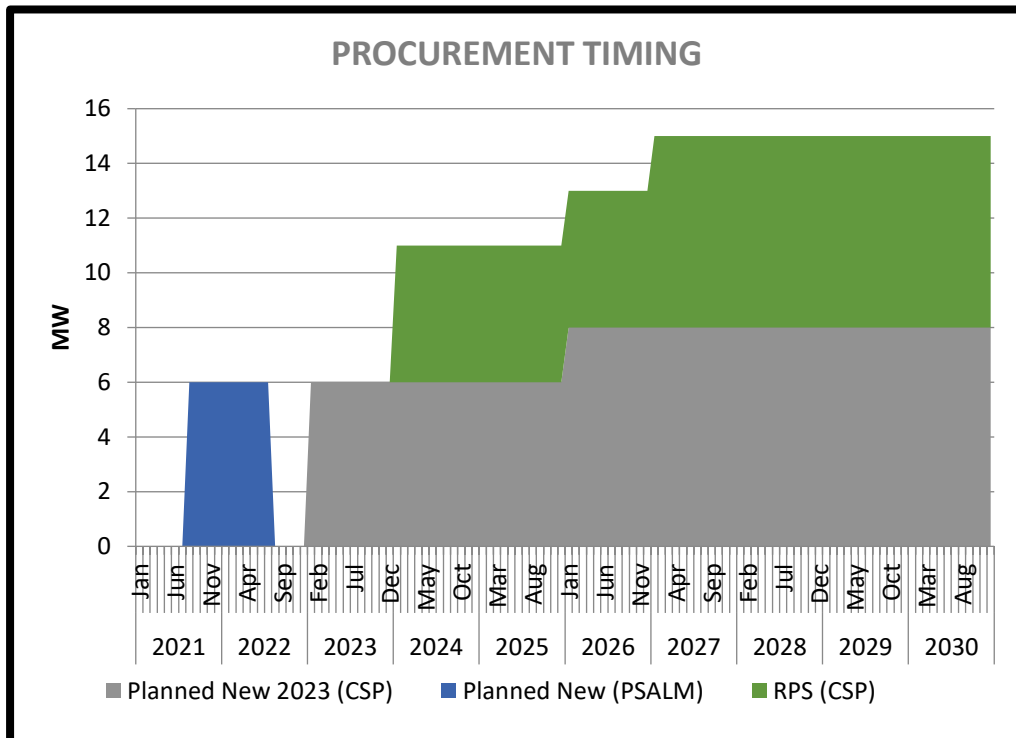


MWh Input is expected to steadily increase while System Loss in percentage is expected to be in the single digit ranges.



Currently, CAPELCO is under-contracted and is planning to enter into an agreement with PSALM for six (6) MW power supply from August 2021 to July 2022 and on-going negotiation for seven (7) MW RPS power supply with Panay-Guimaras Consortium to commence on January 2024.

By year 2023, this scenario will be addressed more by a new planned additional maximum eight (8) MW through Competitive Selection Process (CSP).



Contracting level is currently at 78% and will rise to 98% if the planned 6 MW from PSALM will materialize as scheduled and up to August 2023. However, the new PSA to be procured by 2023 will raise the contracting level at 100% for a substantial period.

Power Supply

Case No.	Type	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2010-162RC	Intermediate	Panay Energy Development Corporation	8	56,064	7/4/2012	7/29/2037
2011-018RC	Base	Green Core Geothermal, Inc.	15	131,400	7/2/2010	7/16/2040
2007-096	Peaking	Enervantage Suppliers Company, Inc.	8	60,499	7/1/2009	7/26/2034

CAPELCO Power Supply Agreement (PSA) with ERC under Case No. 2010-162RC was supplied by a coal powered plant, Panay Energy Development Corporation (PDC). It was selected to provide for intermediate requirements with 8 MW and Minimum Energy Offtake (MEOT) 56,064 MWh which started in 2012 and will end in year 2037.

A geothermal power plant Greencore Geothermal, Inc. (GCGI) PSA with ERC under Case No. 2011-018RC supplied 15 MW with a MEOT of 131,400 MWh It was selected to provide for Base requirements which started in 2010 and will end in year 2040.

Lastly, an embedded diesel/bunker power plant Enervantage Suppliers Company, Inc. (ESCI) with ERC under Case No. 2007-096 with 8 MW and MEOT 60,499 MWh was selected to provide for peaking requirements which started in 2009 and will end in year 2034.

Spot loads were not included in the forecasting due to the onset of RE law and RCOA Rule. It was already experienced that some big loads in the franchised area has already availed the RE power and affected the contracted energy by the Cooperative. Two (2) contestable Customers with an average demand of 3MW had voluntarily applied for RCOA and one of which (Robinson Mall Roxas) has recently avail and enter into contract with Retail Electricity Supplier (RES).

Planned New (PSALM)	
Type	Base
Minimum MW	6
Minimum MWh/yr	25,920
PSA Start	8/26/2021
PSA End	7/25/2022

CAPELCO is intending to enter into an agreement with PSALM when it offered at a lower rate and will not pass through a Competitive Selection Process (CSP). It will provide for base requirements of six (6) MW power supply with a minimum 25,920 MWh annually starting August 2021 to July 2022 and now waiting for approval from the ERC.

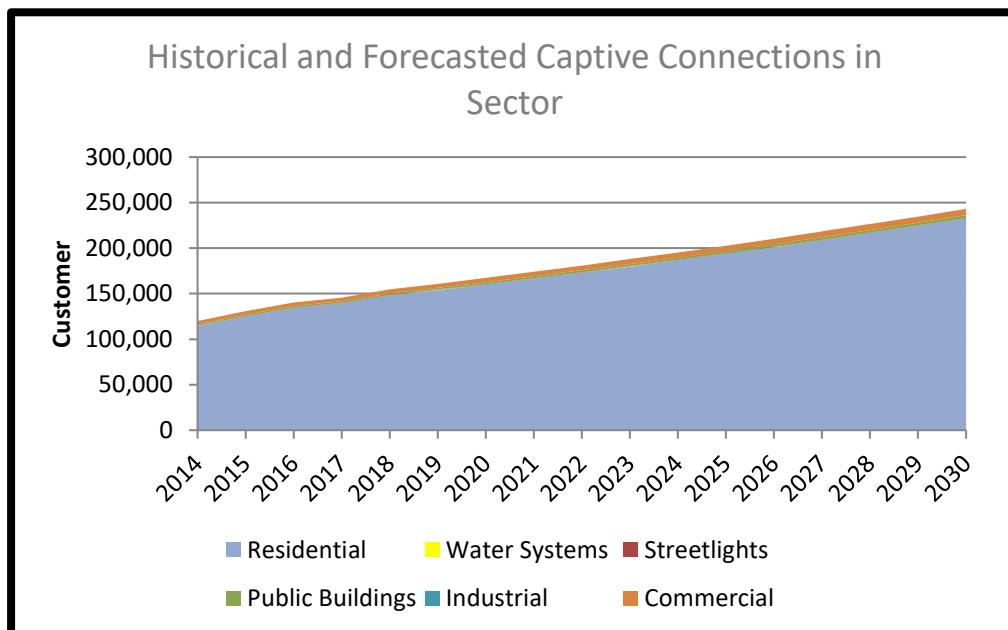
Planned RPS	
Type	Base
Minimum MW	5
Minimum MWh/yr	43,800
PSA Start	1/26/2024
PSA End	1/25/2034
Publication	11/8/2021
Pre-bid	12/16/2021
Opening	1/11/2022
Awarding	3/28/2022
PSA Signing	3/25/2022
Joint Filing	3/30/2022

CAPELCO with the rest of Panay–Guimaras Consortium are in final preparation to launch through Competitive Selection Process (CSP) for the minimum 5 MW Power Supply Agreement (PSA) by 1 January 2024 or two years before the intended commercial operations date to have an ample time for associated delays. Joint filing with ERC is projected to be on 30 March 2022 or 150 days after CSP launch in line with DOE's 2018 CSP Policy.

Planned New 2023 (PSA)	
Type	Base
Minimum MW	6
Minimum MWh/yr	52,560
PSA Start	1/26/2023
PSA End	1/25/2032
Publication	2/26/2022
Pre-bid	3/16/2022
Opening	4/17/2022
Awarding	5/16/2022
PSA Signing	6/16/2022
Joint Filing	7/25/2022

CAPELCO will again launch through Competitive Selection Process (CSP) for the minimum 6 MW Power Supply Agreement (PSA) by 26 December 2022 or two years before the intended commercial operations date to have an ample time for associated delays. Joint filing with ERC is projected to be on 25 July 2022 or 150 days after CSP launch in line with DOE's 2018 CSP Policy.

Captive Customer Connections



CAPELCO expects an increase in the number of customer connections especially with residential connections due to Sitio Electrification Program (SEP) Projects and the influx of commercial customers due to the rapid commercial growth of Roxas City. With the increase in connections comes an increase in total energy consumption.

The number of Captive Customer connections is expected to grow at a rate of 4% annually. Said customer class is expected to account for 5% of the total consumption.