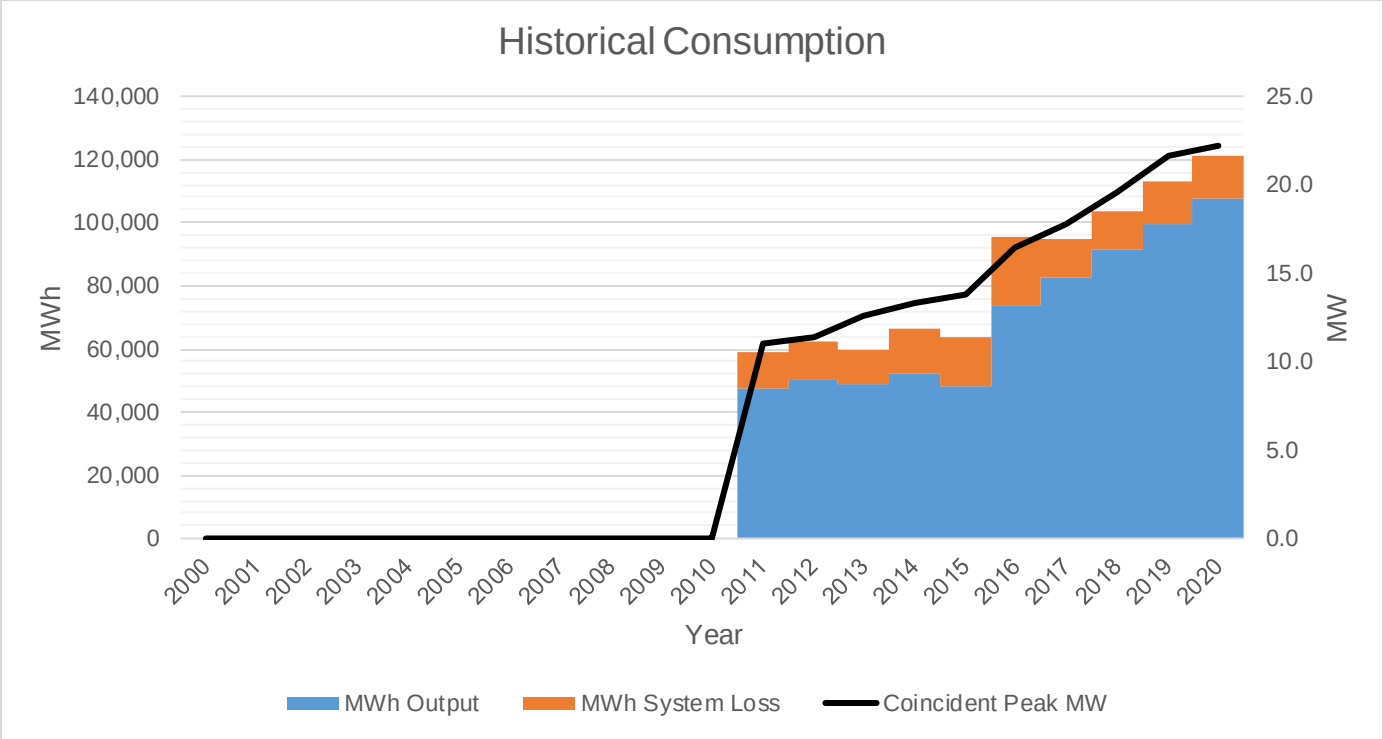
# Power Supply Procurement Plan
# 2021-2030

## Cotabato Electric Cooperative Inc. - PPALMA
### (COTELCO-PPALMA)

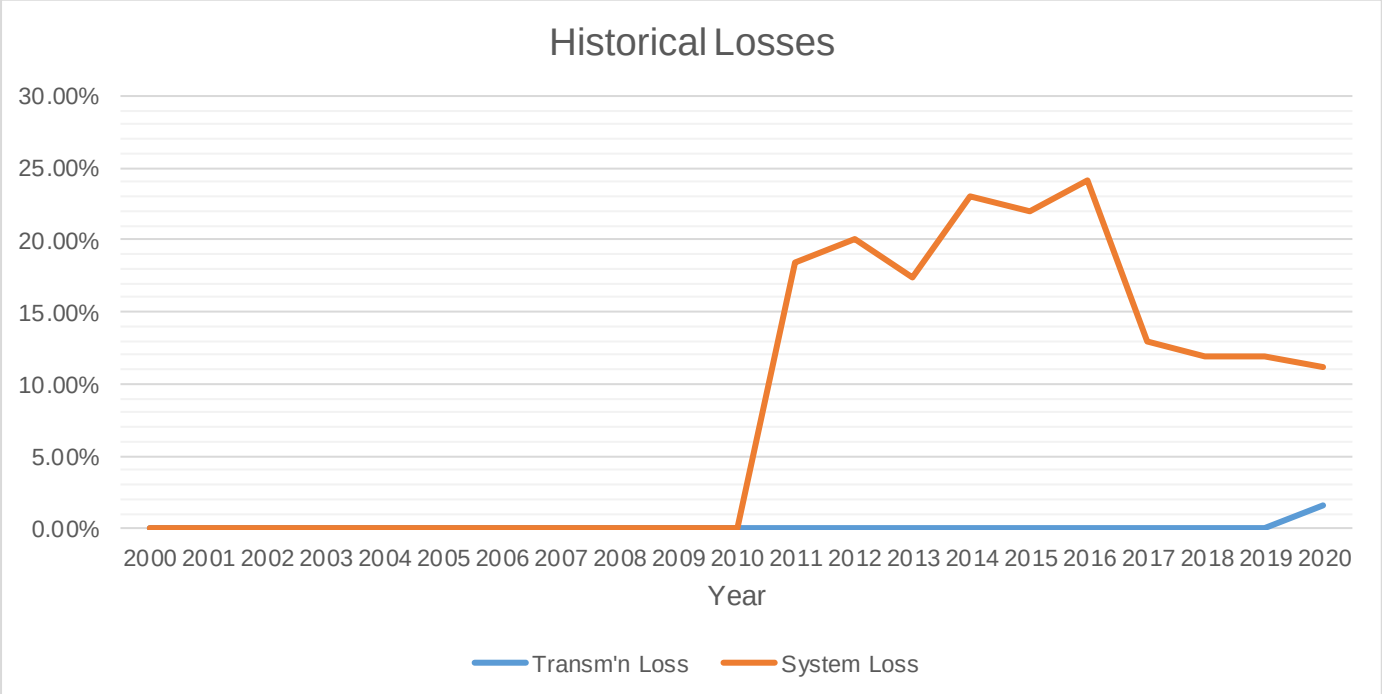
## Historical Consumption Data

| | Coincident Peak MW | MWh Offtake | WESM | MWh Input | MWh Output | MWh System Loss | Load Factor | Discrepancy | Transm'n Loss | System Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| 2011 | 11.04 | 61,611 | 0 | 61,611 | 47,528 | 11,358 | 64% | -4.42% | 0.00% | 18.44% |
| 2012 | 11.44 | 61,053 | 0 | 61,053 | 50,253 | 12,220 | 61% | 2.33% | 0.00% | 20.02% |
| 2013 | 12.53 | 63,120 | 0 | 63,120 | 48,833 | 10,980 | 58% | -5.24% | 0.00% | 17.40% |
| 2014 | 13.37 | 62,836 | 0 | 62,836 | 52,140 | 14,459 | 54% | 5.99% | 0.00% | 23.01% |
| 2015 | 13.80 | 70,091 | 0 | 70,091 | 48,377 | 15,371 | 58% | -9.05% | 0.00% | 21.93% |
| 2016 | 16.48 | 88,721 | 0 | 88,721 | 73,776 | 21,420 | 61% | 7.30% | 0.00% | 24.14% |
| 2017 | 17.78 | 94,976 | 0 | 94,976 | 82,596 | 12,317 | 61% | -0.07% | 0.00% | 12.97% |
| 2018 | 19.64 | 103,771 | 0 | 103,771 | 91,290 | 12,441 | 60% | -0.04% | 0.00% | 11.99% |
| 2019 | 21.66 | 113,428 | 0 | 113,428 | 99,753 | 13,578 | 60% | -0.09% | 0.00% | 11.97% |
| 2020 | 22.21 | 123,018 | 0 | 121,076 | 107,501 | 13,567 | 62% | -0.01% | 1.58% | 11.21% |

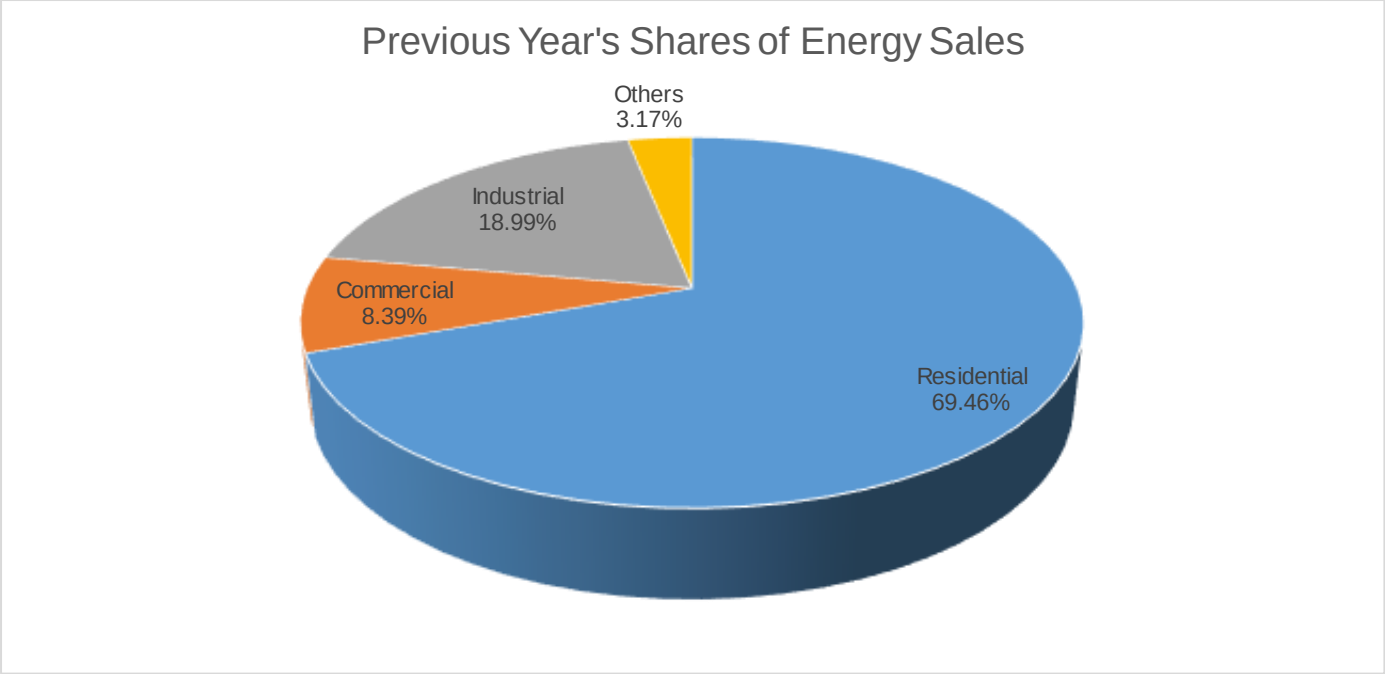
Peak Demand increase from 21.66MW in 2019 to 22.21 MW in 2020 at a rate of 2.5%. MWh Offtake increased from 113,428 MWh in 2019 to 121,076 MWh in 2020. The Peak demand for 2020 was expected to reach 23MW by the end of 2020 but due to the pandemic, it only reached 22MW during the 1st quarter before the nationwide lockdown.




The total energy consumption of the cooperative in 2010 is 61,611MWh. With the average annual growth rate of 4% the MWh input has now reach to 121,076 which ha an increase of about 96% of year 2010. Base on the historical data, during the year of 2016 and 2017 which rapidly increased from 70,000MWh at the end of 2015 up to 94,976MWh at the end of 2017.

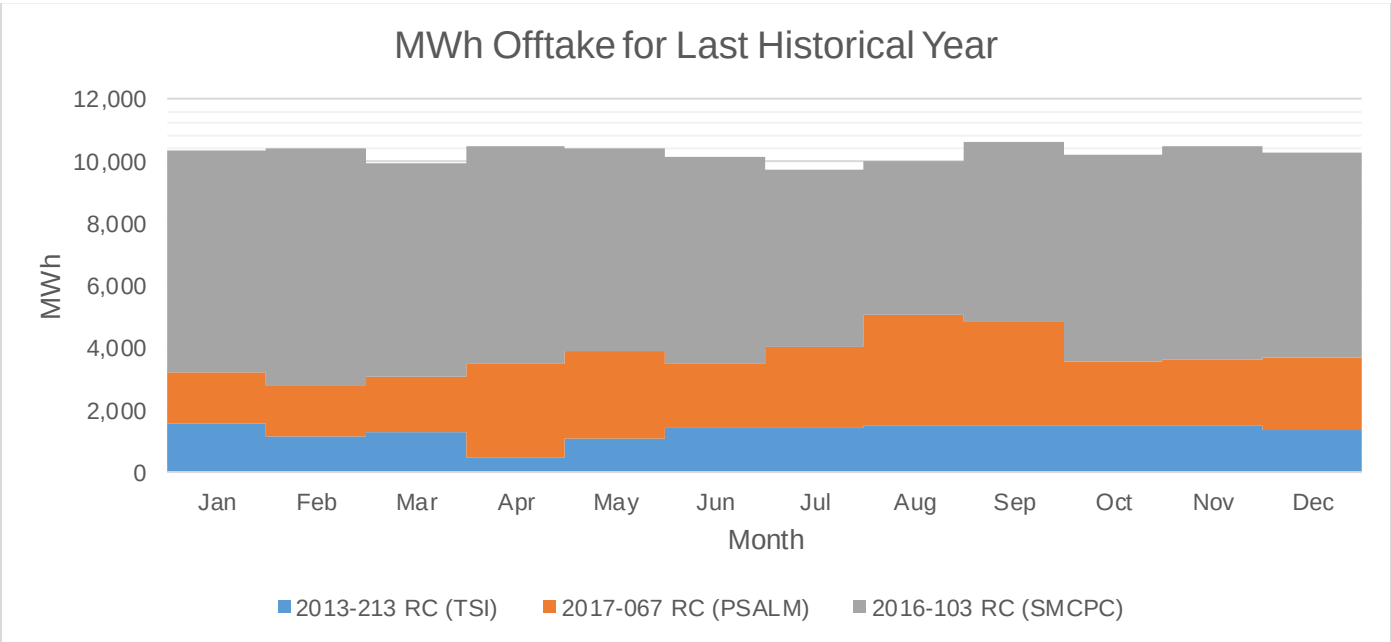



Historically, the Average System Loss of COTELCO-PPALMA has reach its highest point on 2016 of about 24%. With the projects implemented by the cooperative from its approved capital expenditure, the Average System Loss has now decreased down to 11.21% of 2020.

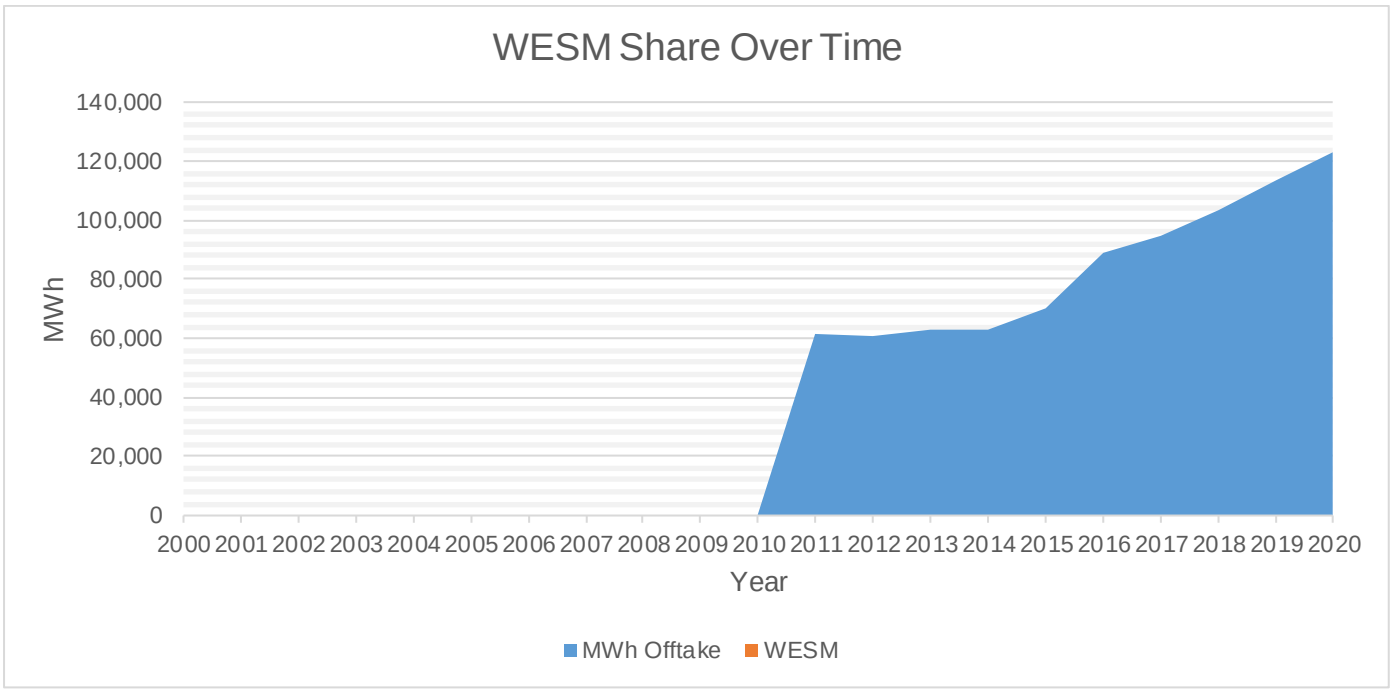



The consumer type with the biggest consumption for the year 2020 is the Residential Type, the same with the historical energy consumption. When the COVID-19 Pandemic has entered the country, it resulted in a nationwide lock down which led to the closure of some business establishments. This has greatly affected the consumption per consumer type, increasing the consumption of the residential consumers for everyone was compelled to stay at home and decrease in both industrial and commercial type consumers where in some were compelled to temporarily close.

For the MWh sales New, COTELCO-PPALMA is still currently applying the for the approval of its RSEC-WR to the Energy Regulatory Commission (ERC), thus, the Cooperative is using the old COTELCO rate with the old consumer classifications of residential, commercial, industrial, and others.

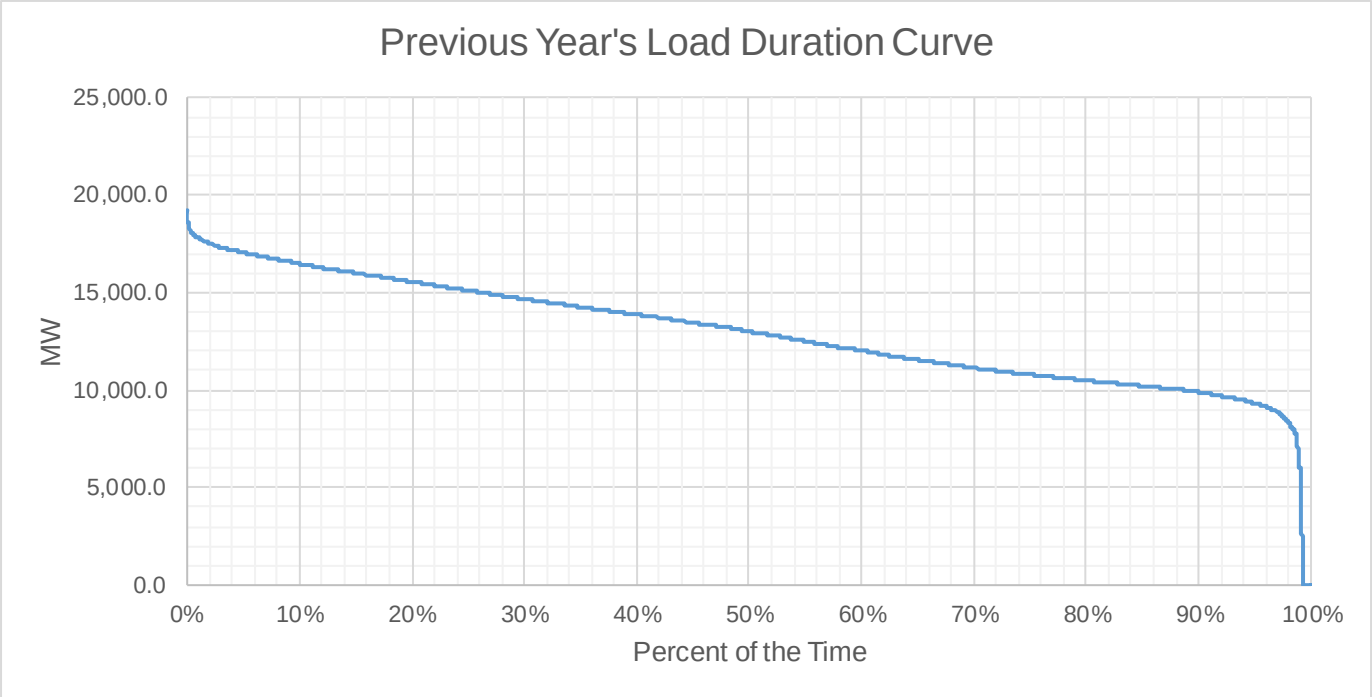



SMCPC is the biggest power supplier of the cooperative with a total contracted capacity of 10MW followed by TSI with a contracted capacity of 4MW followed by PSALM for Peaking at a maximum of 5MW and minimum of 1 MW for the year 2020.

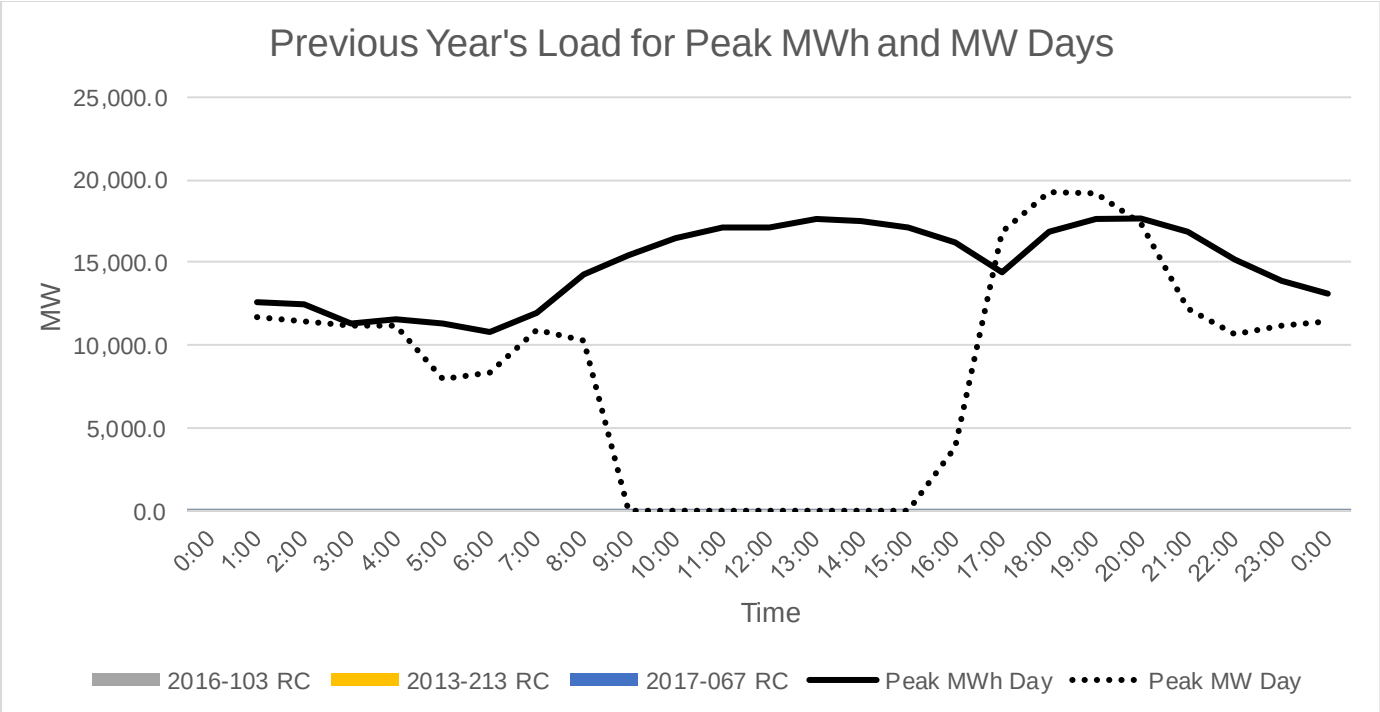



With the current Power Supply contact of the Cooperative, it is expected to be exposed in the Spot market without the any additional PSA. But in line with the RPS and the increasing demand of the cooperative, it is expected to enter into contract with future renewable energy supply and additional coal fired power plant.

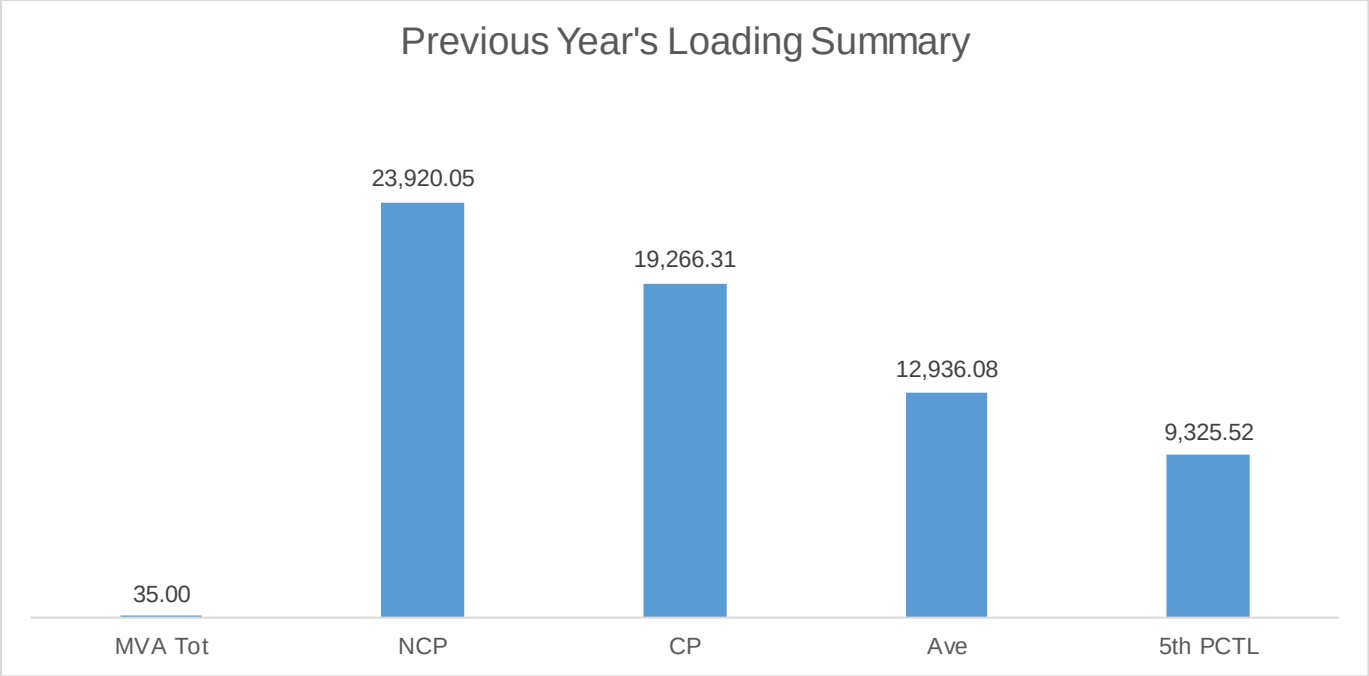
## Previous Year's Load Profile




For the year 2020, the peak demand took place on the first quarter of the year but due to the nationwide lockdown caused by the COVID-19 Pandemic demand decreased down to 18MW. During the last quarter the demand was able to reach back the peak of 22MW




For 2020, the energy (kWh) consumption of the entire franchise area is different from its previous consumption. There was a decrease in the peak but a significantly increase in the off peak. With this scenario, COTELCO-PPALMA's demand has decreased in its peak hours but the demand in off-peak has increased.




The Non-coincident Peak Demand is 23.9 MW, which is around 68% of the total substation capacity of 35 MVA.

| Metering Point | Substation MVA | Substation Peak MW |
|---|---|---|
| Villarica Sub-station | 10 | 6159.300 |
| Gumaga Sub-station | 10 | 9483.600 |
| Dualing Sub-station | 15 | 8277.150 |

Gumaga substation has reached the peak demand of almost 90% of its capacity during the year. But before the year ended, the cooperative was able to construct additional lines which enabled the cooperative to transfer load from Guamaga to Villarica and Dualing substation. As of last quarter of the year 2020, Gumaga consist of 7MW, Villarica of 4MW, and Dualing of 8 MW.

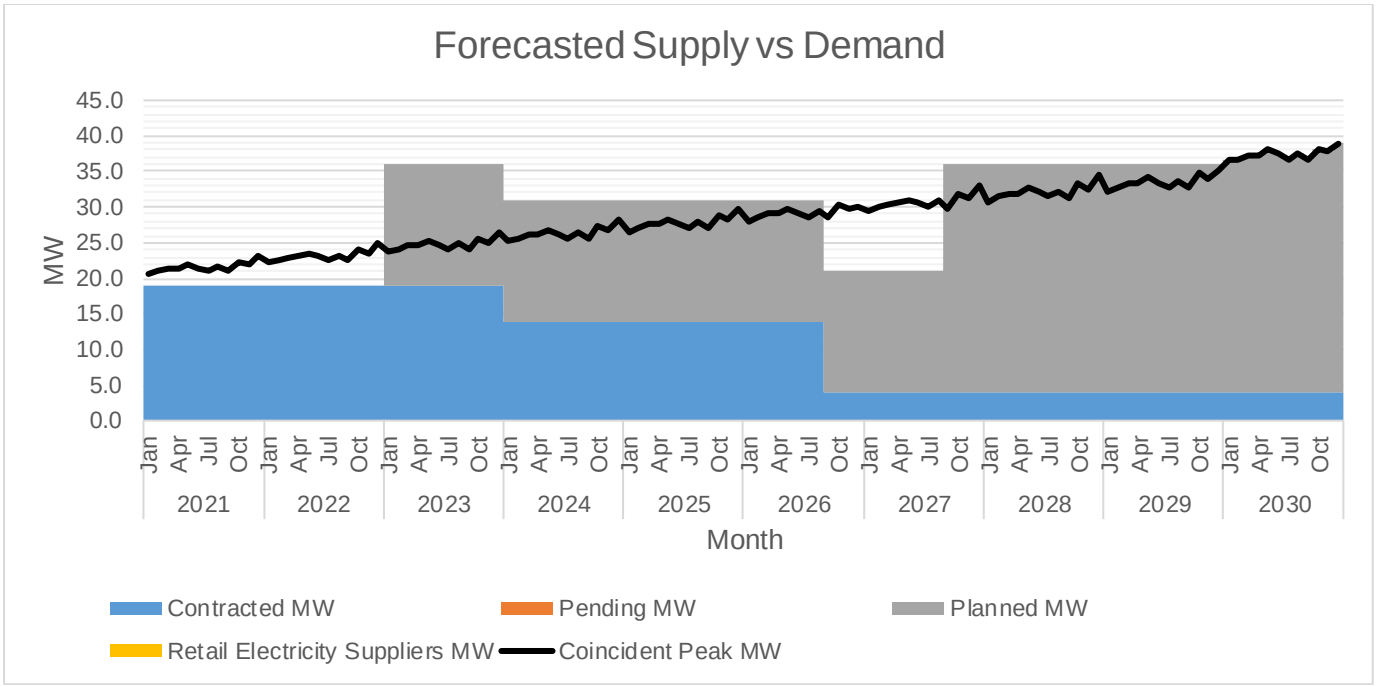
# Forecasted Consumption Data

| | | Coincident Peak MW | Contracted MW | Pending MW | Planned MW | Retail Electricity Suppliers MW | Existing Contracting Level | Target Contracting Level | MW Surplus / Deficit |
|---|---|---|---|---|---|---|---|---|---|
| 2021 | Jan | 20.60 | 19.00 | 0.00 | 0.000 | | 92% | 92% | -1.60 |
| | Feb | 21.04 | 19.00 | 0.00 | 0.000 | | 90% | 90% | -2.04 |
| | Mar | 21.36 | 19.00 | 0.00 | 0.000 | | 89% | 89% | -2.36 |
| | Apr | 21.42 | 19.00 | 0.00 | 0.000 | | 89% | 89% | -2.42 |
| | May | 21.90 | 19.00 | 0.00 | 0.000 | | 87% | 87% | -2.90 |
| | Jun | 21.48 | 19.00 | 0.00 | 0.000 | | 88% | 88% | -2.48 |
| | Jul | 21.04 | 19.00 | 0.00 | 0.000 | | 90% | 90% | -2.04 |
| | Aug | 21.62 | 19.00 | 0.00 | 0.000 | | 88% | 88% | -2.62 |
| | Sep | 20.95 | 19.00 | 0.00 | 0.000 | | 91% | 91% | -1.95 |
| | Oct | 22.33 | 19.00 | 0.00 | 0.000 | | 85% | 85% | -3.33 |
| | Nov | 21.80 | 19.00 | 0.00 | 0.000 | | 87% | 87% | -2.80 |
| | Dec | 23.12 | 19.00 | 0.00 | 0.000 | | 82% | 82% | -4.12 |
| 2022 | Jan | 22.14 | 19.00 | 0.00 | 0.000 | | 86% | 86% | -3.14 |
| | Feb | 22.61 | 19.00 | 0.00 | 0.000 | | 84% | 84% | -3.61 |
| | Mar | 22.95 | 19.00 | 0.00 | 0.000 | | 83% | 83% | -3.95 |
| | Apr | 23.02 | 19.00 | 0.00 | 0.000 | | 83% | 83% | -4.02 |
| | May | 23.53 | 19.00 | 0.00 | 0.000 | | 81% | 81% | -4.53 |
| | Jun | 23.08 | 19.00 | 0.00 | 0.000 | | 82% | 82% | -4.08 |
| | Jul | 22.61 | 19.00 | 0.00 | 0.000 | | 84% | 84% | -3.61 |
| | Aug | 23.24 | 19.00 | 0.00 | 0.000 | | 82% | 82% | -4.24 |
| | Sep | 22.51 | 19.00 | 0.00 | 0.000 | | 84% | 84% | -3.51 |
| | Oct | 24.00 | 19.00 | 0.00 | 0.000 | | 79% | 79% | -5.00 |
| | Nov | 23.43 | 19.00 | 0.00 | 0.000 | | 81% | 81% | -4.43 |
| | Dec | 24.85 | 19.00 | 0.00 | 0.000 | | 76% | 76% | -5.85 |
| 2023 | Jan | 23.66 | 19.00 | 0.00 | 17.000 | | 80% | 152% | 12.34 |
| | Feb | 24.16 | 19.00 | 0.00 | 17.000 | | 79% | 149% | 11.84 |
| | Mar | 24.52 | 19.00 | 0.00 | 17.000 | | 77% | 147% | 11.48 |
| | Apr | 24.59 | 19.00 | 0.00 | 17.000 | | 77% | 146% | 11.41 |
| | May | 25.14 | 19.00 | 0.00 | 17.000 | | 76% | 143% | 10.86 |
| | Jun | 24.66 | 19.00 | 0.00 | 17.000 | | 77% | 146% | 11.34 |
| | Jul | 24.16 | 19.00 | 0.00 | 17.000 | | 79% | 149% | 11.84 |
| | Aug | 24.83 | 19.00 | 0.00 | 17.000 | | 77% | 145% | 11.17 |
| | Sep | 24.05 | 19.00 | 0.00 | 17.000 | | 79% | 150% | 11.95 |
| | Oct | 25.64 | 19.00 | 0.00 | 17.000 | | 74% | 140% | 10.36 |
| | Nov | 25.03 | 19.00 | 0.00 | 17.000 | | 76% | 144% | 10.97 |
| | Dec | 26.55 | 19.00 | 0.00 | 17.000 | | 72% | 136% | 9.45 |
| 2024 | Jan | 25.14 | 14.00 | 0.00 | 17.000 | | 56% | 123% | 5.86 |
| | Feb | 25.67 | 14.00 | 0.00 | 17.000 | | 55% | 121% | 5.33 |
| | Mar | 26.06 | 14.00 | 0.00 | 17.000 | | 54% | 119% | 4.94 |
| | Apr | 26.13 | 14.00 | 0.00 | 17.000 | | 54% | 119% | 4.87 |
| | May | 26.72 | 14.00 | 0.00 | 17.000 | | 52% | 116% | 4.28 |
| | Jun | 26.20 | 14.00 | 0.00 | 17.000 | | 53% | 118% | 4.80 |
| | Jul | 25.67 | 14.00 | 0.00 | 17.000 | | 55% | 121% | 5.33 |
| | Aug | 26.38 | 14.00 | 0.00 | 17.000 | | 53% | 117% | 4.62 |
| | Sep | 25.56 | 14.00 | 0.00 | 17.000 | | 55% | 121% | 5.44 |

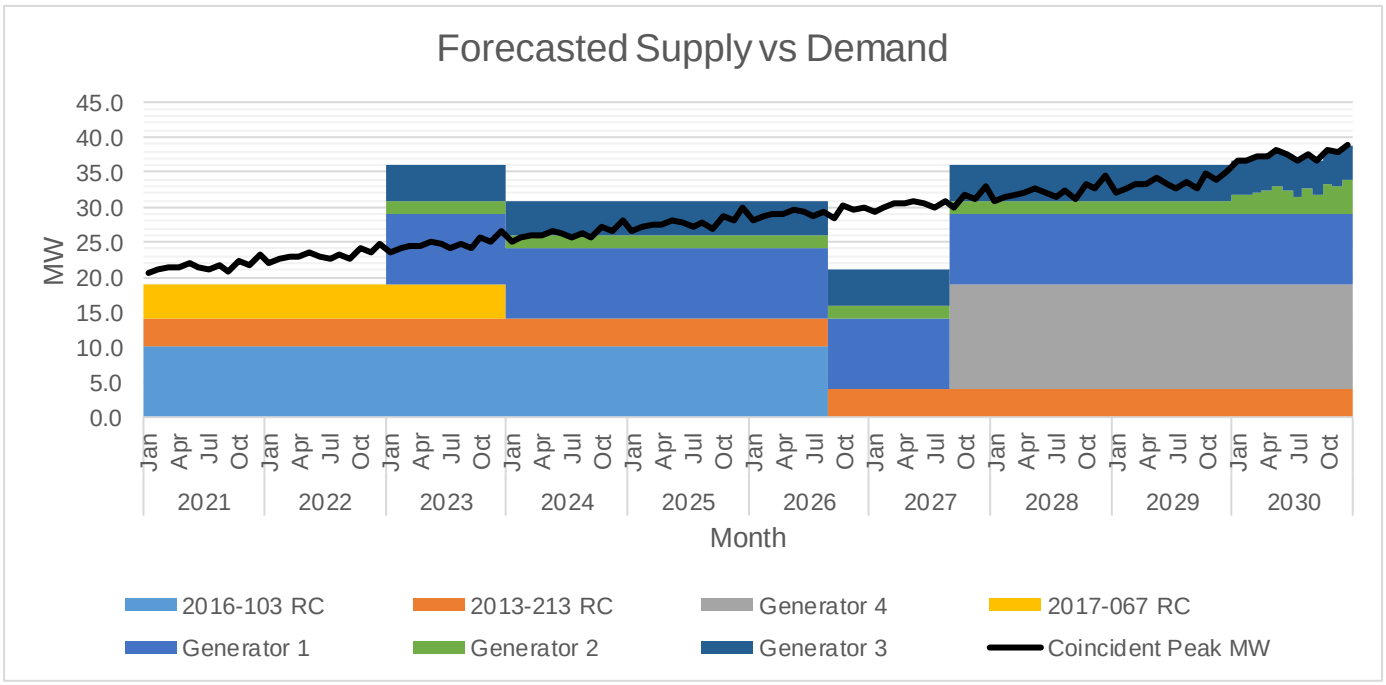
| | | Coincident Peak MW | Contracted MW | Pending MW | Planned MW | Retail Electricity Suppliers MW | Existing Contracting Level | Target Contracting Level | MW Surplus / Deficit |
|---|---|---|---|---|---|---|---|---|---|
| | Oct | 27.25 | 14.00 | 0.00 | 17.000 | | 51% | 114% | 3.75 |
| | Nov | 26.60 | 14.00 | 0.00 | 17.000 | | 53% | 117% | 4.40 |
| | Dec | 28.21 | 14.00 | 0.00 | 17.000 | | 50% | 110% | 2.79 |
| 2025 | Jan | 26.59 | 14.00 | 0.00 | 17.000 | | 53% | 117% | 4.41 |
| | Feb | 27.15 | 14.00 | 0.00 | 17.000 | | 52% | 114% | 3.85 |
| | Mar | 27.56 | 14.00 | 0.00 | 17.000 | | 51% | 112% | 3.44 |
| | Apr | 27.64 | 14.00 | 0.00 | 17.000 | | 51% | 112% | 3.36 |
| | May | 28.26 | 14.00 | 0.00 | 17.000 | | 50% | 110% | 2.74 |
| | Jun | 27.72 | 14.00 | 0.00 | 17.000 | | 51% | 112% | 3.29 |
| | Jul | 27.15 | 14.00 | 0.00 | 17.000 | | 52% | 114% | 3.85 |
| | Aug | 27.91 | 14.00 | 0.00 | 17.000 | | 50% | 111% | 3.09 |
| | Sep | 27.03 | 14.00 | 0.00 | 17.000 | | 52% | 115% | 3.97 |
| | Oct | 28.82 | 14.00 | 0.00 | 17.000 | | 49% | 108% | 2.18 |
| | Nov | 28.14 | 14.00 | 0.00 | 17.000 | | 50% | 110% | 2.86 |
| | Dec | 29.84 | 14.00 | 0.00 | 17.000 | | 47% | 104% | 1.16 |
| 2026 | Jan | 28.01 | 14.00 | 0.00 | 17.000 | | 50% | 111% | 2.99 |
| | Feb | 28.60 | 14.00 | 0.00 | 17.000 | | 49% | 108% | 2.40 |
| | Mar | 29.04 | 14.00 | 0.00 | 17.000 | | 48% | 107% | 1.97 |
| | Apr | 29.12 | 14.00 | 0.00 | 17.000 | | 48% | 106% | 1.89 |
| | May | 29.77 | 14.00 | 0.00 | 17.000 | | 47% | 104% | 1.23 |
| | Jun | 29.20 | 14.00 | 0.00 | 17.000 | | 48% | 106% | 1.81 |
| | Jul | 28.60 | 14.00 | 0.00 | 17.000 | | 49% | 108% | 2.40 |
| | Aug | 29.40 | 14.00 | 0.00 | 17.000 | | 48% | 105% | 1.60 |
| | Sep | 28.47 | 4.00 | 0.00 | 17.000 | | 14% | 74% | -7.47 |
| | Oct | 30.36 | 4.00 | 0.00 | 17.000 | | 13% | 69% | -9.36 |
| | Nov | 29.64 | 4.00 | 0.00 | 17.000 | | 13% | 71% | -8.64 |
| | Dec | 30.00 | 4.00 | 0.00 | 17.000 | | 13% | 70% | -9.00 |
| 2027 | Jan | 29.40 | 4.00 | 0.00 | 17.000 | | 14% | 71% | -8.40 |
| | Feb | 30.02 | 4.00 | 0.00 | 17.000 | | 13% | 70% | -9.02 |
| | Mar | 30.47 | 4.00 | 0.00 | 17.000 | | 13% | 69% | -9.47 |
| | Apr | 30.56 | 4.00 | 0.00 | 17.000 | | 13% | 69% | -9.56 |
| | May | 31.00 | 4.00 | 0.00 | 17.000 | | 13% | 68% | -10.00 |
| | Jun | 30.64 | 4.00 | 0.00 | 17.000 | | 13% | 69% | -9.64 |
| | Jul | 30.02 | 4.00 | 0.00 | 17.000 | | 13% | 70% | -9.02 |
| | Aug | 30.85 | 4.00 | 0.00 | 17.000 | | 13% | 68% | -9.85 |
| | Sep | 29.89 | 4.00 | 0.00 | 32.000 | | 13% | 120% | 6.12 |
| | Oct | 31.87 | 4.00 | 0.00 | 32.000 | | 13% | 113% | 4.13 |
| | Nov | 31.11 | 4.00 | 0.00 | 32.000 | | 13% | 116% | 4.89 |
| | Dec | 32.99 | 4.00 | 0.00 | 32.000 | | 12% | 109% | 3.01 |
| 2028 | Jan | 30.75 | 4.00 | 0.00 | 32.000 | | 13% | 117% | 5.25 |
| | Feb | 31.40 | 4.00 | 0.00 | 32.000 | | 13% | 115% | 4.60 |
| | Mar | 31.88 | 4.00 | 0.00 | 32.000 | | 13% | 113% | 4.12 |
| | Apr | 31.97 | 4.00 | 0.00 | 32.000 | | 13% | 113% | 4.03 |
| | May | 32.69 | 4.00 | 0.00 | 32.000 | | 12% | 110% | 3.31 |
| | Jun | 32.05 | 4.00 | 0.00 | 32.000 | | 12% | 112% | 3.95 |
| | Jul | 31.40 | 4.00 | 0.00 | 32.000 | | 13% | 115% | 4.60 |
| | Aug | 32.28 | 4.00 | 0.00 | 32.000 | | 12% | 112% | 3.72 |

| | | Coincident Peak MW | Contracted MW | Pending MW | Planned MW | Retail Electricity Suppliers MW | Existing Contracting Level | Target Contracting Level | MW Surplus / Deficit |
|---|---|---|---|---|---|---|---|---|---|
| | Sep | 31.26 | 4.00 | 0.00 | 32.000 | | 13% | 115% | 4.74 |
| | Oct | 33.34 | 4.00 | 0.00 | 32.000 | | 12% | 108% | 2.66 |
| | Nov | 32.55 | 4.00 | 0.00 | 32.000 | | 12% | 111% | 3.45 |
| | Dec | 34.52 | 4.00 | 0.00 | 32.000 | | 12% | 104% | 1.49 |
| 2029 | Jan | 32.08 | 4.00 | 0.00 | 32.000 | | 12% | 112% | 3.92 |
| | Feb | 32.76 | 4.00 | 0.00 | 32.000 | | 12% | 110% | 3.24 |
| | Mar | 33.25 | 4.00 | 0.00 | 32.000 | | 12% | 108% | 2.75 |
| | Apr | 33.34 | 4.00 | 0.00 | 32.000 | | 12% | 108% | 2.66 |
| | May | 34.10 | 4.00 | 0.00 | 32.000 | | 12% | 106% | 1.90 |
| | Jun | 33.44 | 4.00 | 0.00 | 32.000 | | 12% | 108% | 2.56 |
| | Jul | 32.76 | 4.00 | 0.00 | 32.000 | | 12% | 110% | 3.24 |
| | Aug | 33.67 | 4.00 | 0.00 | 32.000 | | 12% | 107% | 2.33 |
| | Sep | 32.61 | 4.00 | 0.00 | 32.000 | | 12% | 110% | 3.39 |
| | Oct | 34.77 | 4.00 | 0.00 | 32.000 | | 12% | 104% | 1.23 |
| | Nov | 33.95 | 4.00 | 0.00 | 32.000 | | 12% | 106% | 2.05 |
| | Dec | 35.00 | 4.00 | 0.00 | 32.000 | | 11% | 103% | 1.00 |
| 2030 | Jan | 36.75 | 4.00 | 0.00 | 32.750 | | 11% | 100% | 0.00 |
| | Feb | 36.76 | 4.00 | 0.00 | 32.760 | | 11% | 100% | 0.00 |
| | Mar | 37.21 | 4.00 | 0.00 | 33.210 | | 11% | 100% | 0.00 |
| | Apr | 37.34 | 4.00 | 0.00 | 33.340 | | 11% | 100% | 0.00 |
| | May | 38.10 | 4.00 | 0.00 | 34.100 | | 10% | 100% | 0.00 |
| | Jun | 37.44 | 4.00 | 0.00 | 33.440 | | 11% | 100% | 0.00 |
| | Jul | 36.62 | 4.00 | 0.00 | 32.620 | | 11% | 100% | 0.00 |
| | Aug | 37.67 | 4.00 | 0.00 | 33.670 | | 11% | 100% | 0.00 |
| | Sep | 36.65 | 4.00 | 0.00 | 32.650 | | 11% | 100% | 0.00 |
| | Oct | 38.20 | 4.00 | 0.00 | 34.200 | | 10% | 100% | 0.00 |
| | Nov | 37.95 | 4.00 | 0.00 | 33.950 | | 11% | 100% | 0.00 |
| | Dec | 38.90 | 4.00 | 0.00 | 34.900 | | 10% | 100% | 0.00 |

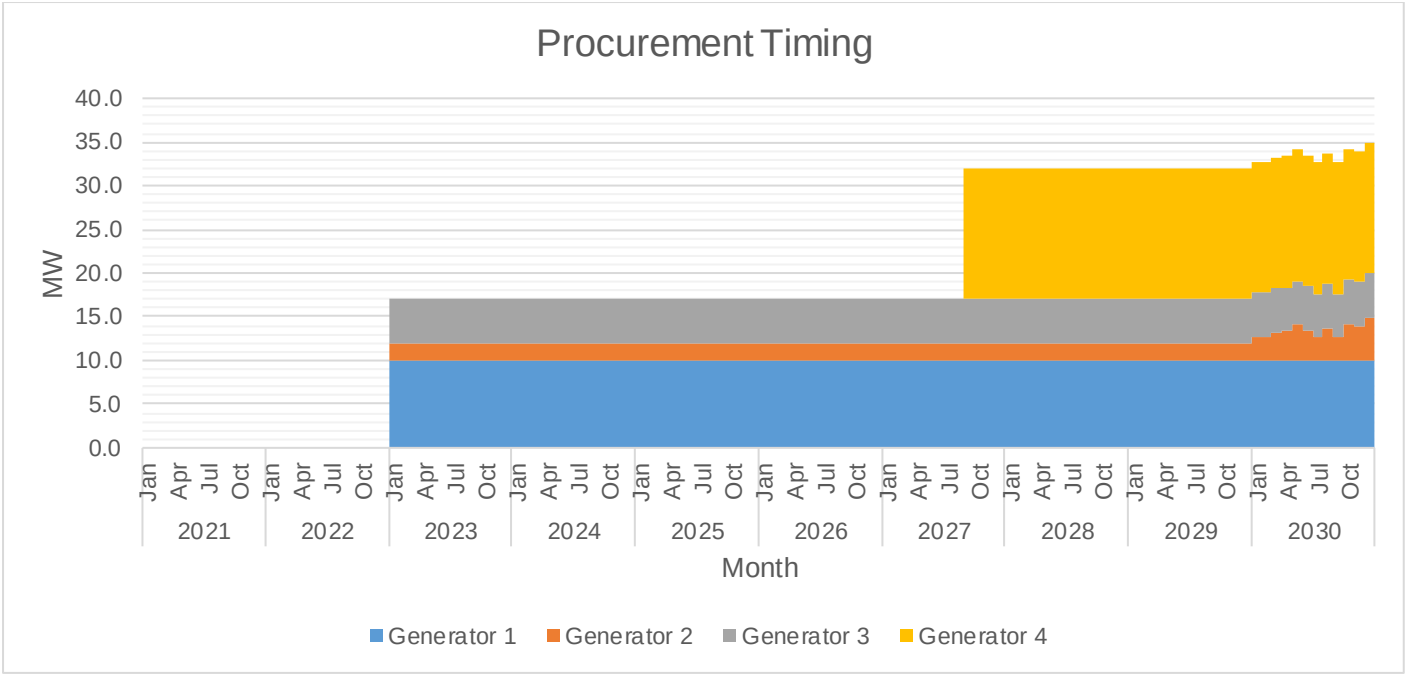
The forecast methodology that was used is Quadratic Logarithmic with smoothing which is expressed in Y= e(t)–1+cln(t)2+bln(t)+a. Base on the table as a result of the forecast, it is projected that the coincidental peak for these years will take place in December of each year. This is due to the holiday season in which the demand of the industrial and commercial consumers will rise along with the demand of the residential type of consumers.



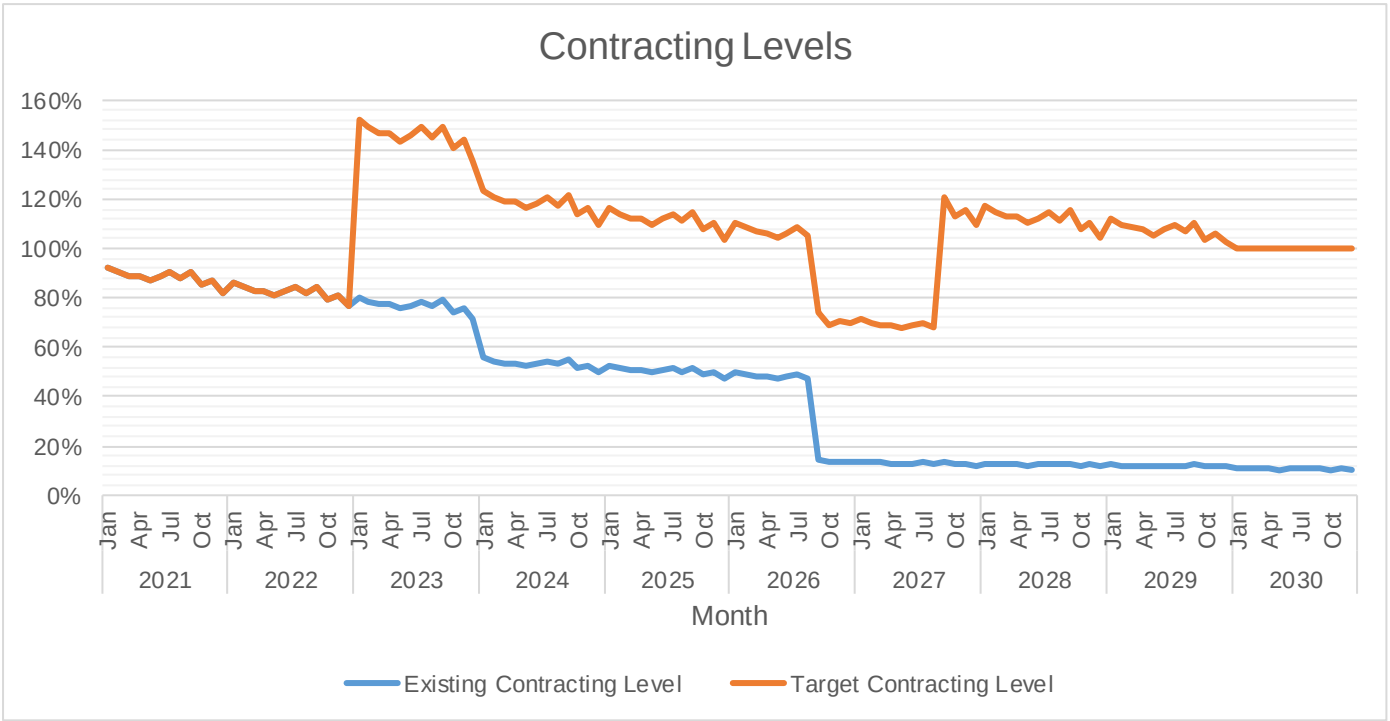

The available supply is generally Below the Peak Demand from 2021to 2022 this is due to the expected implementation of the 21835 beneficiaries of the National Intensification of House Electrification funded by the Department of Energy. In the year 2023 the cooperative is expecting the energization of the Hydro Power Plant by Eurohydro and the construction of a 11MW Solar Power Plant which will satisfy the increasing demand of the cooperative.



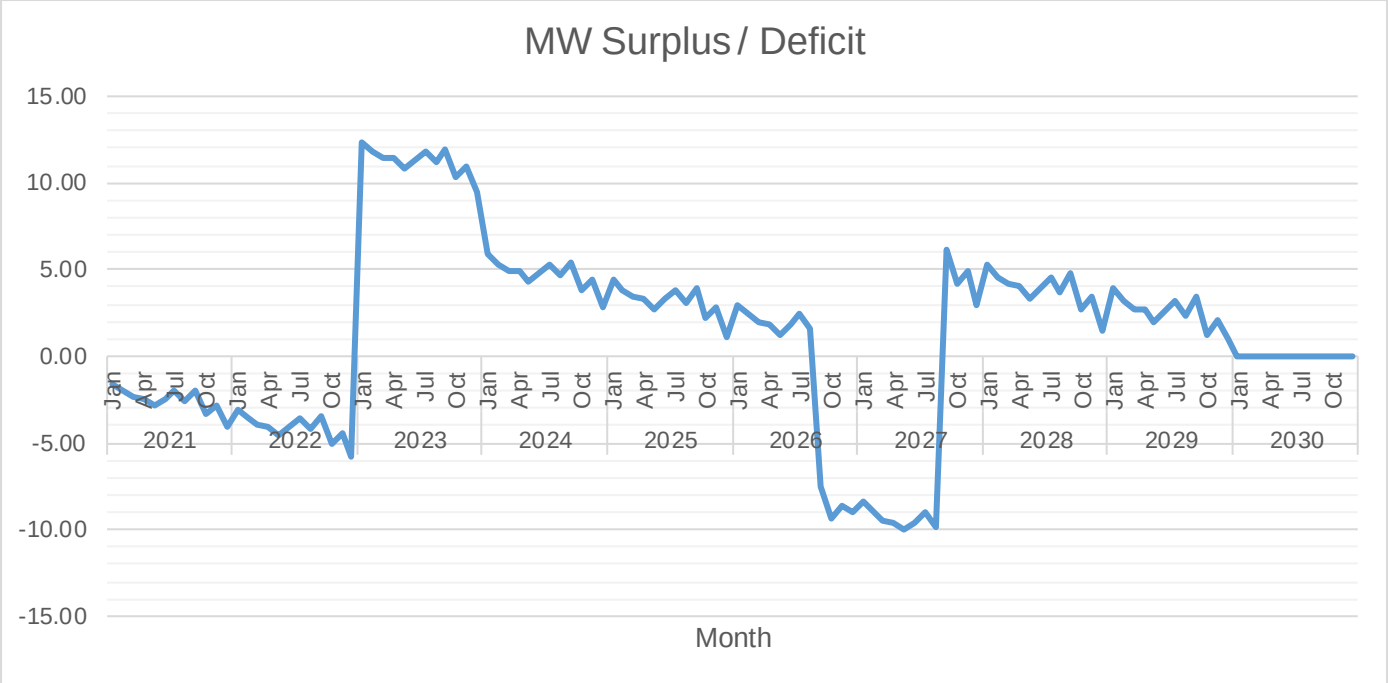

Of the available supply, the largest is 10 MW from SMCPC. This is followed by 4MW from TSI. With the contracting forecast of the cooperative, considering the expiration of the 10MW contract with SMCPC by 2026, the cooperative is expected to enter into a contract with at least 3 different Independent Power Producers, taking into consideration the required energy to be drawn from a renewable source as required by the Renewable Portfolio Standard as part of the EPIRA Law mandate.




The first wave of supply procurement will be for 10MW planned to be available by the month of January 2023. This will be followed by a 2MW and 5MW on the same year. Following the expiration of the 10MW contract with SMCPC, a 15MW contract is expected to enter by 4th quarter of 2026.




Base on the data forecast of the cooperative the difference between the demand and supply contact is not significantly high thus over contracting is not problem. In case of supply contract deficiency, the cooperative is open to procuring energy in the Spot Market for it is registered as a direct member.

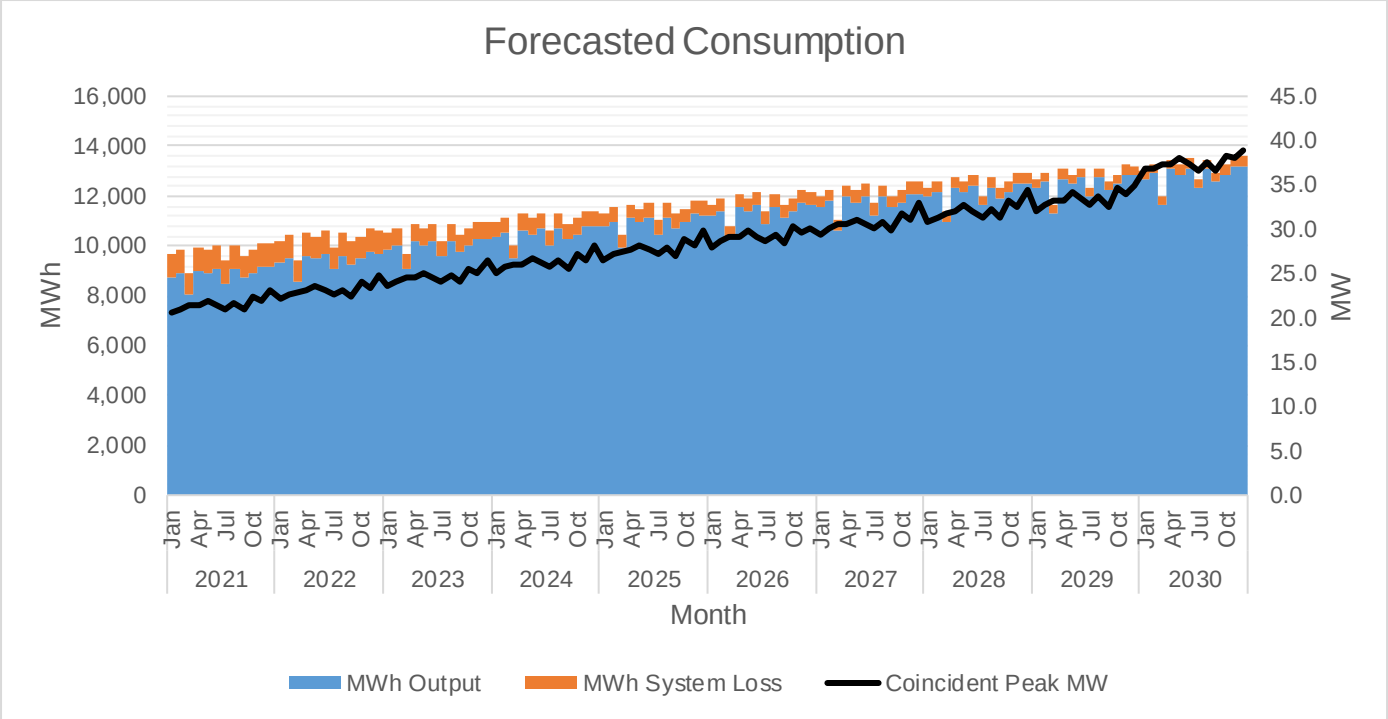



Currently, the contracted supply of COTELCO-PPALMA is sufficient with its demand. The highest deficit is around 9 MW which is expected to occur on the month of July 2027. The highest surplus is around 10 MW which is expected to occur on the first quarter of 2023 for approximately two renewable source.

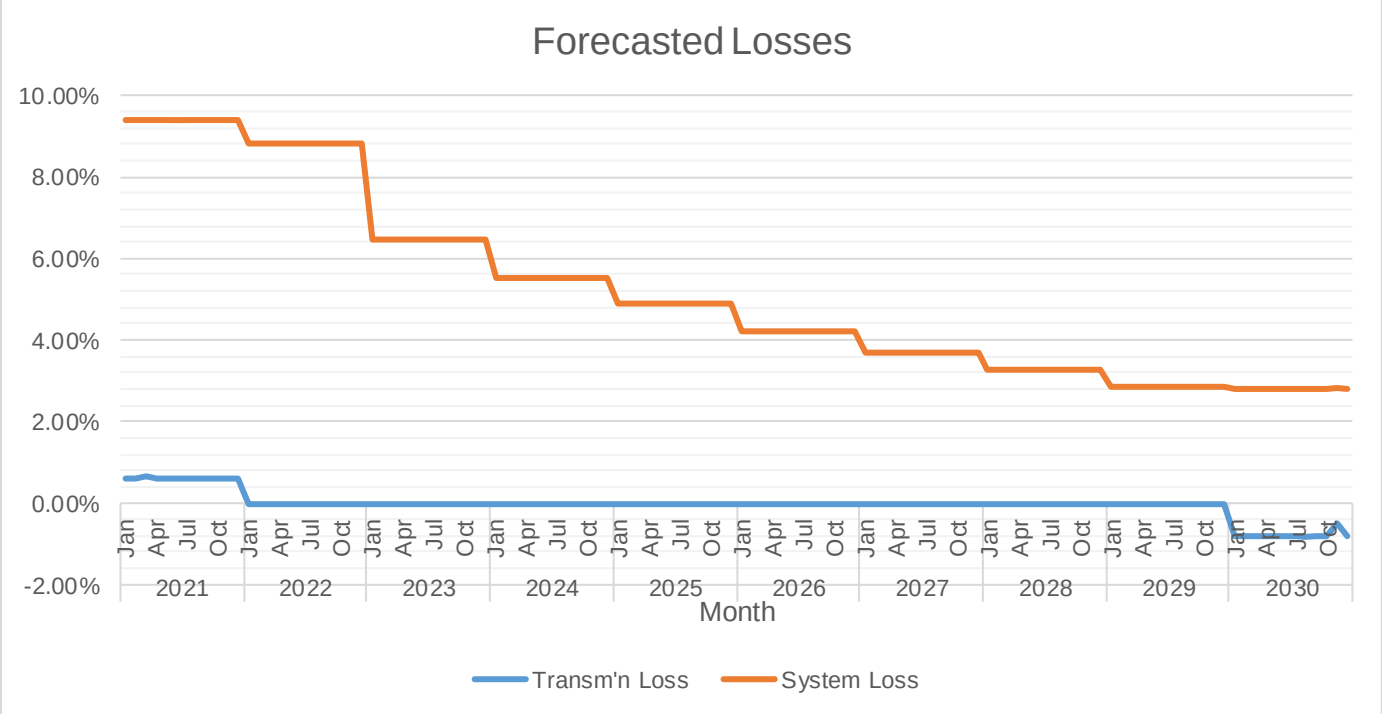
| | | MWh Offtake | MWh Output | MWh System Loss | Transm'n Loss | System Loss |
|---|---|---|---|---|---|---|
| 2021 | Jan | 9,657 | 8,750 | 907 | 0.00% | 9.39% |
| | Feb | 9,860 | 8,934 | 926 | 0.00% | 9.39% |
| | Mar | 8,886 | 8,052 | 834 | 0.00% | 9.39% |
| | Apr | 9,966 | 9,031 | 936 | 0.00% | 9.39% |
| | May | 9,812 | 8,890 | 921 | 0.00% | 9.39% |
| | Jun | 10,017 | 9,077 | 941 | 0.00% | 9.39% |
| | Jul | 9,386 | 8,505 | 881 | 0.00% | 9.39% |
| | Aug | 9,986 | 9,048 | 938 | 0.00% | 9.39% |
| | Sep | 9,613 | 8,710 | 903 | 0.00% | 9.39% |
| | Oct | 9,816 | 8,895 | 922 | 0.00% | 9.39% |
| | Nov | 10,099 | 9,150 | 948 | 0.00% | 9.39% |
| | Dec | 10,075 | 9,129 | 946 | 0.00% | 9.39% |
| 2022 | Jan | 10,237 | 9,315 | 900 | 0.20% | 8.81% |
| | Feb | 10,432 | 9,512 | 919 | 0.01% | 8.81% |
| | Mar | 9,550 | 8,572 | 829 | 1.57% | 8.81% |
| | Apr | 10,562 | 9,614 | 929 | 0.18% | 8.81% |
| | May | 10,424 | 9,465 | 915 | 0.43% | 8.81% |
| | Jun | 10,607 | 9,663 | 934 | 0.10% | 8.81% |
| | Jul | 9,995 | 9,054 | 875 | 0.66% | 8.81% |
| | Aug | 10,579 | 9,632 | 931 | 0.15% | 8.81% |
| | Sep | 10,247 | 9,273 | 896 | 0.76% | 8.81% |
| | Oct | 10,428 | 9,469 | 915 | 0.42% | 8.81% |
| | Nov | 10,710 | 9,741 | 942 | 0.25% | 8.81% |
| | Dec | 10,658 | 9,718 | 939 | 0.01% | 8.81% |
| 2023 | Jan | 12,217 | 9,837 | 680 | 13.92% | 6.47% |
| | Feb | 12,438 | 10,044 | 695 | 13.67% | 6.47% |

| | | MWh Offtake | MWh Output | MWh System Loss | Transm'n Loss | System Loss |
|---|---|---|---|---|---|---|
| | Mar | 11,377 | 9,051 | 626 | 14.94% | 6.47% |
| | Apr | 12,554 | 10,152 | 702 | 13.54% | 6.47% |
| | May | 12,385 | 9,994 | 691 | 13.73% | 6.47% |
| | Jun | 12,609 | 10,203 | 706 | 13.48% | 6.47% |
| | Jul | 11,922 | 9,561 | 661 | 14.26% | 6.47% |
| | Aug | 12,575 | 10,171 | 704 | 13.52% | 6.47% |
| | Sep | 12,169 | 9,792 | 677 | 13.97% | 6.47% |
| | Oct | 12,390 | 9,999 | 692 | 13.72% | 6.47% |
| | Nov | 12,698 | 10,286 | 712 | 13.39% | 6.47% |
| | Dec | 12,672 | 10,262 | 710 | 13.42% | 6.47% |
| 2024 | Jan | 10,922 | 10,319 | 603 | 0.00% | 5.52% |
| | Feb | 11,152 | 10,536 | 615 | 0.00% | 5.52% |
| | Mar | 10,050 | 9,495 | 555 | 0.00% | 5.52% |
| | Apr | 11,272 | 10,650 | 622 | 0.00% | 5.52% |
| | May | 11,097 | 10,484 | 612 | 0.00% | 5.52% |
| | Jun | 11,329 | 10,704 | 625 | 0.00% | 5.52% |
| | Jul | 10,615 | 10,029 | 586 | 0.00% | 5.52% |
| | Aug | 11,293 | 10,670 | 623 | 0.00% | 5.52% |
| | Sep | 10,872 | 10,272 | 600 | 0.00% | 5.52% |
| | Oct | 11,102 | 10,489 | 613 | 0.00% | 5.52% |
| | Nov | 11,421 | 10,791 | 630 | 0.00% | 5.52% |
| | Dec | 11,394 | 10,765 | 629 | 0.00% | 5.52% |
| 2025 | Jan | 11,321 | 10,768 | 554 | 0.00% | 4.89% |
| | Feb | 11,560 | 10,994 | 565 | 0.00% | 4.89% |
| | Mar | 10,417 | 9,908 | 509 | 0.00% | 4.89% |
| | Apr | 11,684 | 11,113 | 571 | 0.00% | 4.89% |
| | May | 11,503 | 10,940 | 562 | 0.00% | 4.89% |
| | Jun | 11,744 | 11,169 | 574 | 0.00% | 4.89% |
| | Jul | 11,004 | 10,466 | 538 | 0.00% | 4.89% |
| | Aug | 11,707 | 11,134 | 572 | 0.00% | 4.89% |
| | Sep | 11,270 | 10,719 | 551 | 0.00% | 4.89% |
| | Oct | 11,508 | 10,945 | 563 | 0.00% | 4.89% |
| | Nov | 11,839 | 11,260 | 579 | 0.00% | 4.89% |
| | Dec | 11,811 | 11,234 | 577 | 0.00% | 4.89% |
| 2026 | Jan | 11,682 | 11,187 | 495 | 0.00% | 4.24% |
| | Feb | 11,928 | 11,422 | 505 | 0.00% | 4.24% |
| | Mar | 10,749 | 10,294 | 456 | 0.00% | 4.24% |
| | Apr | 12,056 | 11,545 | 511 | 0.00% | 4.24% |
| | May | 11,869 | 11,366 | 503 | 0.00% | 4.24% |
| | Jun | 12,118 | 11,604 | 514 | 0.00% | 4.24% |
| | Jul | 11,354 | 10,873 | 481 | 0.00% | 4.24% |
| | Aug | 12,080 | 11,568 | 512 | 0.00% | 4.24% |
| | Sep | 3,974 | 11,136 | 493 | -192.60% | 4.24% |
| | Oct | 3,974 | 11,371 | 503 | -198.78% | 4.24% |
| | Nov | 3,974 | 11,698 | 518 | -207.38% | 4.24% |
| | Dec | 3,974 | 11,671 | 516 | -206.65% | 4.24% |
| 2027 | Jan | 3,974 | 11,580 | 446 | -202.58% | 3.71% |
| | Feb | 3,974 | 11,824 | 455 | -208.95% | 3.71% |

| | | MWh Offtake | MWh Output | MWh System Loss | Transm'n Loss | System Loss |
|---|---|---|---|---|---|---|
| | Mar | 3,974 | 10,655 | 410 | -178.42% | 3.71% |
| | Apr | 3,974 | 11,951 | 460 | -212.27% | 3.71% |
| | May | 3,974 | 11,765 | 453 | -207.43% | 3.71% |
| | Jun | 3,974 | 12,012 | 462 | -213.86% | 3.71% |
| | Jul | 3,974 | 11,255 | 433 | -194.09% | 3.71% |
| | Aug | 3,974 | 11,974 | 461 | -212.87% | 3.71% |
| | Sep | 11,971 | 11,527 | 444 | 0.00% | 3.71% |
| | Oct | 12,224 | 11,771 | 453 | 0.00% | 3.71% |
| | Nov | 12,575 | 12,109 | 466 | 0.00% | 3.71% |
| | Dec | 12,546 | 12,081 | 465 | 0.00% | 3.71% |
| 2028 | Jan | 12,352 | 11,949 | 403 | 0.00% | 3.26% |
| | Feb | 12,612 | 12,201 | 411 | 0.00% | 3.26% |
| | Mar | 11,366 | 10,995 | 371 | 0.00% | 3.26% |
| | Apr | 12,748 | 12,332 | 416 | 0.00% | 3.26% |
| | May | 12,550 | 12,141 | 409 | 0.00% | 3.26% |
| | Jun | 12,813 | 12,395 | 418 | 0.00% | 3.26% |
| | Jul | 12,006 | 11,614 | 392 | 0.00% | 3.26% |
| | Aug | 12,773 | 12,356 | 417 | 0.00% | 3.26% |
| | Sep | 12,296 | 11,895 | 401 | 0.00% | 3.26% |
| | Oct | 12,556 | 12,146 | 410 | 0.00% | 3.26% |
| | Nov | 12,917 | 12,496 | 421 | 0.00% | 3.26% |
| | Dec | 12,887 | 12,466 | 420 | 0.00% | 3.26% |
| 2029 | Jan | 12,661 | 12,298 | 363 | 0.00% | 2.86% |
| | Feb | 12,927 | 12,557 | 370 | 0.00% | 2.86% |
| | Mar | 11,650 | 11,316 | 334 | 0.00% | 2.86% |
| | Apr | 13,067 | 12,692 | 374 | 0.00% | 2.86% |
| | May | 12,864 | 12,495 | 368 | 0.00% | 2.86% |
| | Jun | 13,133 | 12,757 | 376 | 0.00% | 2.86% |
| | Jul | 12,306 | 11,953 | 352 | 0.00% | 2.86% |
| | Aug | 13,092 | 12,717 | 375 | 0.00% | 2.86% |
| | Sep | 12,603 | 12,242 | 361 | 0.00% | 2.86% |
| | Oct | 12,870 | 12,501 | 369 | 0.00% | 2.86% |
| | Nov | 13,240 | 12,861 | 379 | 0.00% | 2.86% |
| | Dec | 13,209 | 12,830 | 378 | 0.00% | 2.86% |
| 2030 | Jan | 12,914 | 12,653 | 368 | -0.82% | 2.82% |
| | Feb | 13,186 | 12,919 | 375 | -0.82% | 2.82% |
| | Mar | 11,883 | 11,643 | 338 | -0.82% | 2.82% |
| | Apr | 13,328 | 13,058 | 380 | -0.82% | 2.82% |
| | May | 13,121 | 12,856 | 374 | -0.82% | 2.82% |
| | Jun | 13,396 | 13,125 | 381 | -0.82% | 2.82% |
| | Jul | 12,552 | 12,298 | 357 | -0.82% | 2.82% |
| | Aug | 13,354 | 13,084 | 380 | -0.82% | 2.82% |
| | Sep | 12,855 | 12,595 | 366 | -0.82% | 2.82% |
| | Oct | 13,127 | 12,862 | 374 | -0.82% | 2.82% |
| | Nov | 13,505 | 13,186 | 383 | -0.48% | 2.82% |
| | Dec | 13,473 | 13,200 | 384 | -0.82% | 2.82% |




MWh Output was expected to grow at a rate of 5% annually. The 5% load growth has been the average load growth of the cooperative for the previous years, however it is expected to increase with the implementation of the National Intensification of Household Electrification funded by the Department of Energy which as approximately twenty one thousand beneficiaries which comprises almost 38% of the total connections of the cooperative as of December 2020.



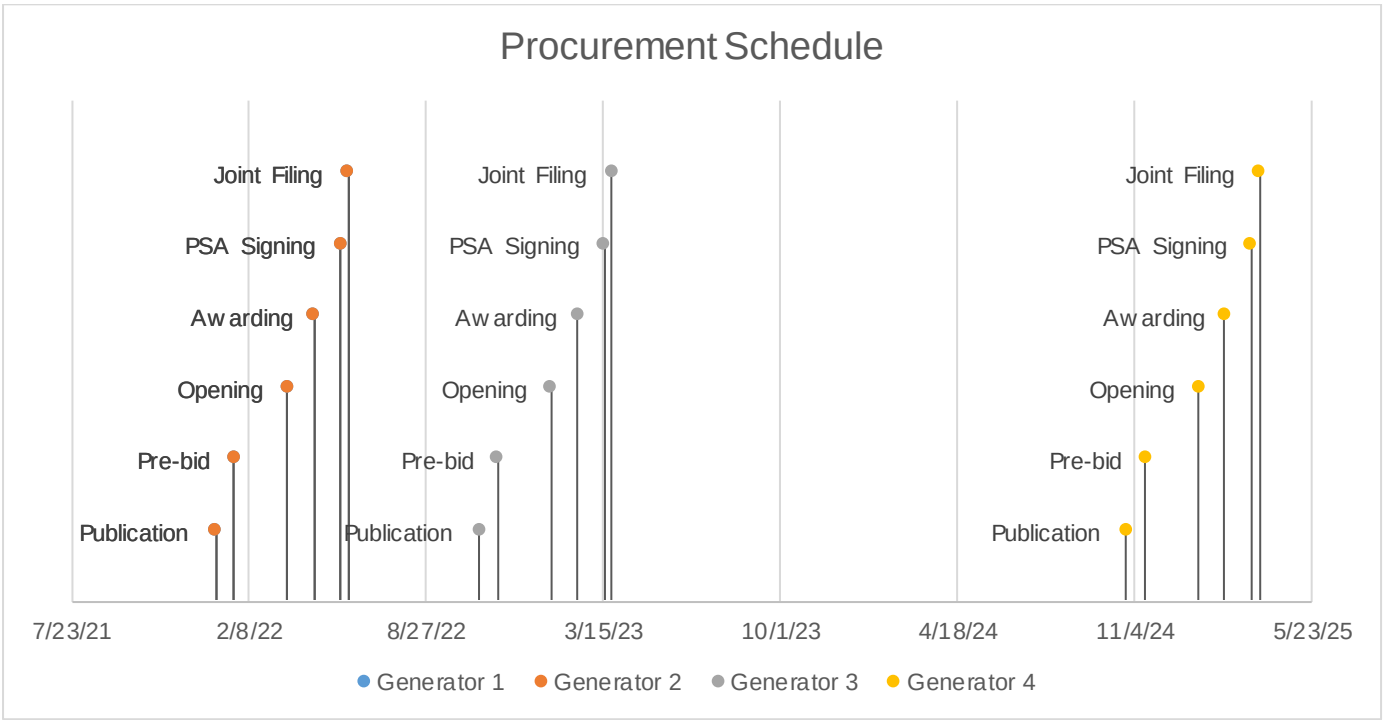

Ideally, the cooperatives system Loss is expected to reduce from 9% of 2021 to 2% of 2029, with the implementation of the Capital Expenditures Project of the cooperative which is focused on the reduction of System Loss.

## Power Supply

| Case No. | Type | GenCo | Minimum MW | Minimum MWh/yr | PSA Start | PSA End |
|---|---|---|---|---|---|---|
| 2016-103 RC | Base | San Miguel Consolidated Power Corporation | 4.00 | 34,560 | 8/1/2016 | 8/1/2026 |
| 2013-213 RC | Base | Therma South, Inc. | 1.60 | 12,096 | 2/1/2014 | 2/1/2039 |
| 2017-067 RC | Peaking | Power Sector Assets and Liabilities Management Corporation | 1.00 | 8,640 | 12/26/2021 | 12/25/2023 |

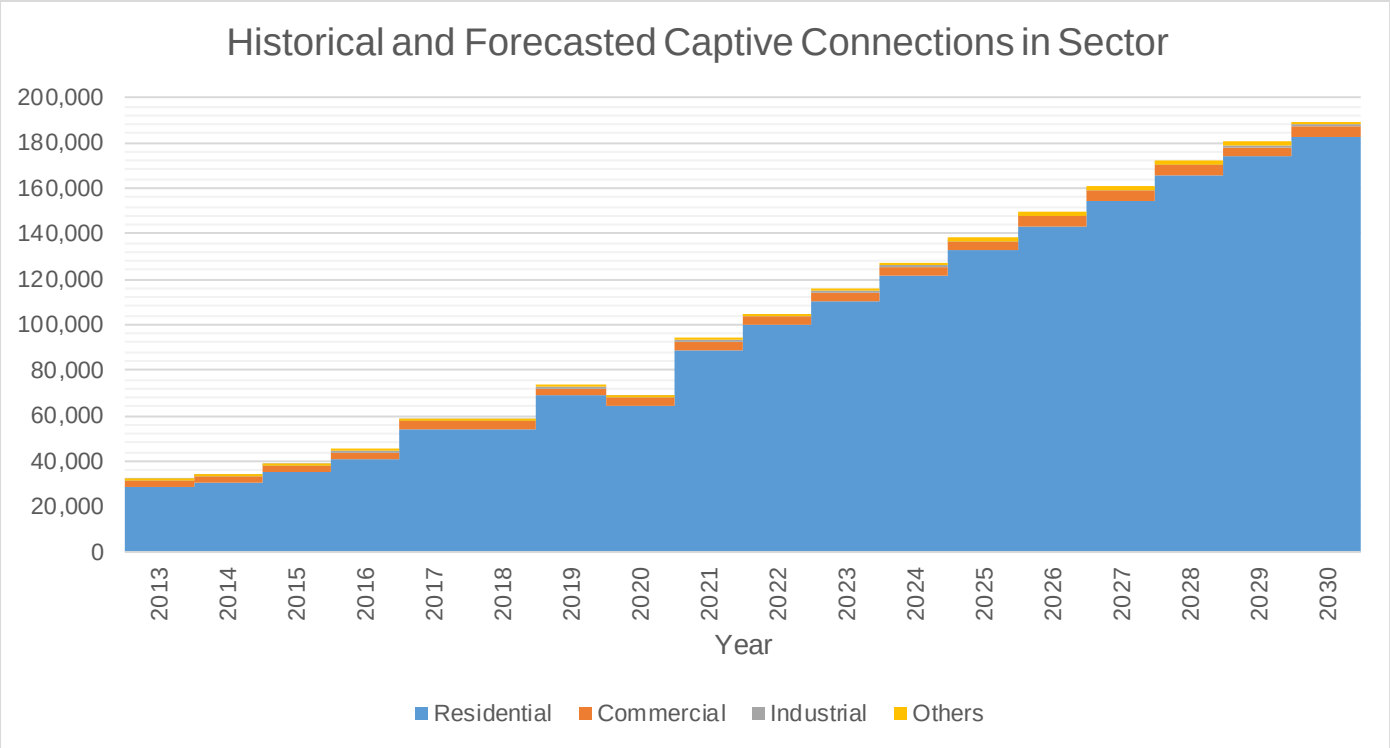
The PSA with 10MW of San Miguel Consolidated Power Corp. filed with ERC under ERC Case No. 2016-103 RC was procured to a competitive selection process. It was selected to provide for the base requirements. Historically, the said PSA started on September of 2016 and is expected to end by 2026 with its ten-year contract. The second highest contract of 4 MW is with the ThermaSouth Inc. with Aboitiz Power. the contact of 4 MW was procured to provide for the base requirement of the cooperative. The third PSA is with PSALM Corp. which is acquired through a renewed CSEE. As of 2021, the cooperative was able to secure a contracted capacity of 5MW for three years starting 2021 to 2023.

| | Generator 1 | Generator 2 | Generator 3 | Generator 4 |
|---|---|---|---|---|
| Type | Peaking | Peaking | Peaking | Base |
| Minimum MW | 10 | 2 | 5 | 15 |
| Minimum MWh/yr | 59 | 648 | 800 | 7996 |
| PSA Start | 1/26/2023 | 1/26/2023 | 1/26/2023 | 10/26/2026 |
| PSA End | 1/26/2046 | 1/26/2042 | 1/26/2025 | 10/26/2051 |
| Publication | 1/1/2022 | 1/1/2022 | 10/26/2022 | 10/26/2024 |
| Pre-bid | 1/22/2022 | 1/22/2022 | 11/16/2022 | 11/16/2024 |
| Opening | 3/23/2022 | 3/23/2022 | 1/15/2023 | 1/15/2025 |
| Awarding | 4/22/2022 | 4/22/2022 | 2/14/2023 | 2/14/2025 |
| PSA Signing | 5/22/2022 | 5/22/2022 | 3/16/2023 | 3/16/2025 |
| Joint Filing | 5/31/2022 | 5/31/2022 | 3/25/2023 | 3/25/2025 |




Above is the indicative schedule for the power supply that is projected to materialized in the future. The renewable source and the extension in our PSALM contract (CSEE) are projected for our Peaking and from a non-renewable for the intermediate. Also shown in the table the Minimum Energy per year per supplier that the cooperative will draw base on its forecasted energy consumption

## Captive Customer Connections




The projection on the number of customers in the future is based on the growth in the past years as seen in the cooperatives historical data. Residential type of customers is still expected to dominate in the future with the implementation of the National Intensification of Household Electrification funded by the Department of Energy which as approximately twenty-one thousand beneficiaries which comprises almost 38% of the total connections of the cooperative as of December 2020.