

POWER SUPPLY PROCUREMENT PLAN

CAMARINES NORTE ELECTRIC COOPERATIVE, INC. (CANORECO) POWER SUPPLY PROCUREMENT PLAN

In compliance with the Department of Energy's (DOE) Department Circular No. DC 2018-02-0003, "Adopting and Prescribing the Policy for the Competitive Selection Process in the Procurement by the Distribution Utilities of Power Supply Agreement for the Captive Market" or the Competitive Selection process (CSP) Policy, the Power Supply Procurement Plan (PSPP) Report is hereby created, pursuant to the Section 4 of the said Circular.

The PSPP refers to the DUs' plan for the acquisition of a variety of demand-side and supply-side resources to cost-effectively meet the electricity needs of its customers. The PSPP is an integral part of the Distribution Utilities' Distribution Development Plan (DDP) and must be submitted to the Department of Energy with supported Board Resolution and/or notarized Secretary's Certificate.

The Third-Party Bids and Awards Committee (TPBAC), Joint TPBAC or Third Party Auctioneer (TPA) shall submit to the DOE and in the case of Electric Cooperatives (ECs), through the National Electrification Administration (NEA) the following:

- a. Power Supply Procurement Plan;
- b. Distribution Impact Study/ Load Flow Analysis conducted that served as the basis of the Terms of Reference; and
- c. Due diligence report of the existing generation plant

All Distribution Utilities' shall follow and submit the attached report to the Department of Energy for posting on the DOE CSP Portal. For ECs such reports shall be submitted to DOE and NEA. The NEA shall review the submitted report within ten (10) working days upon receipt prior to its submission to DOE for posting at the DOE CSP Portal.

The content of the PSPP shall be consistent with the DDP. The tables and graph format to be use on the PSPP report is provided on the following sheets. Further, the PSPP shall contain the following sections:

- I. Table of Contents
- II. Introduction
- III. Energy and Demand Forecast (10 year historical and forecast)
- IV. Energy Sales and Purchase
- V. Daily Load Profile and Load Duration Curve
- VI. Existing Contracts & Existing GenCos due diligence report
- VII. Currently approved SAGR for Off-Grid ECs to be passed-on to consumers;
- VIII. DU's Current Supply and Demand
- IX. Distribution Impact Study
- X. Schedule of Power Supply Procurement
- XI. Timeline of the CSP

For inquiries, you may send it at doe.csp@gmail.com or you may contact us through telephone numbers (02) 840-2173 and (02) 479-2900 local 202.

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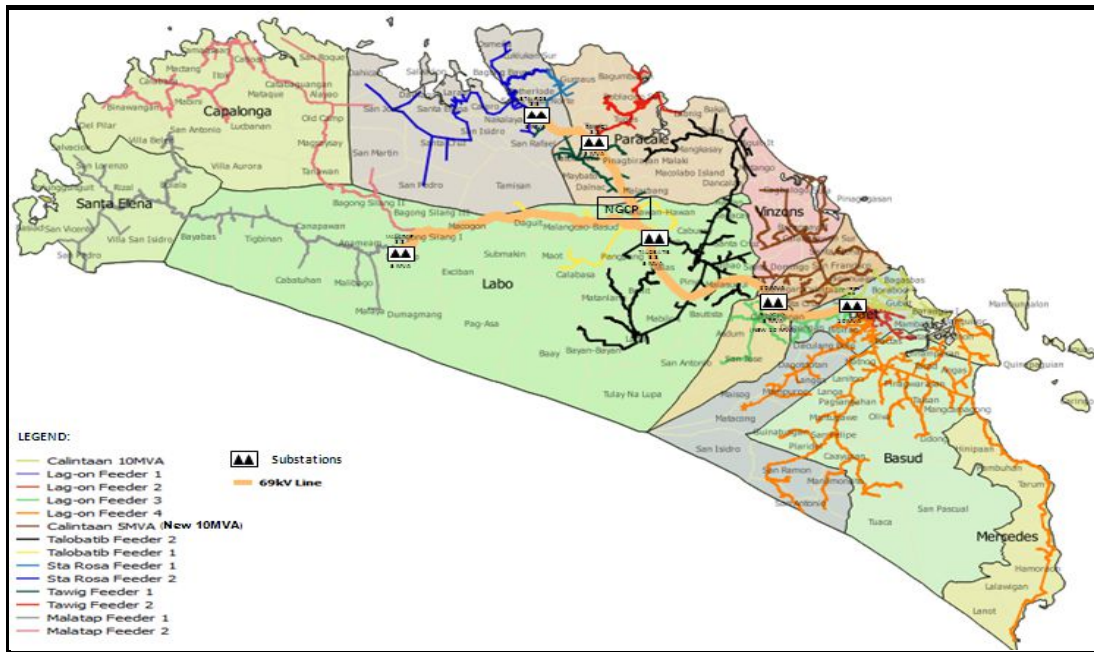
INTRODUCTION

CANORECO PROFILE

CANORECO area coverage includes the Province of Camarines Norte which has twelve municipalities namely: Basud, Capalonga, Daet, Jose Panganiban, Labo, Mercedes, Paracale, San Lorenzo Ruiz, San Vicente, Sta. Elena, Talisay and Vinzons. CANORECO has 3 barangays which will be connected on off-grid namely; Mangcawayan Island, Banocboc and Pinagtigasan. CANORECO has two metering points serving as totalizers.

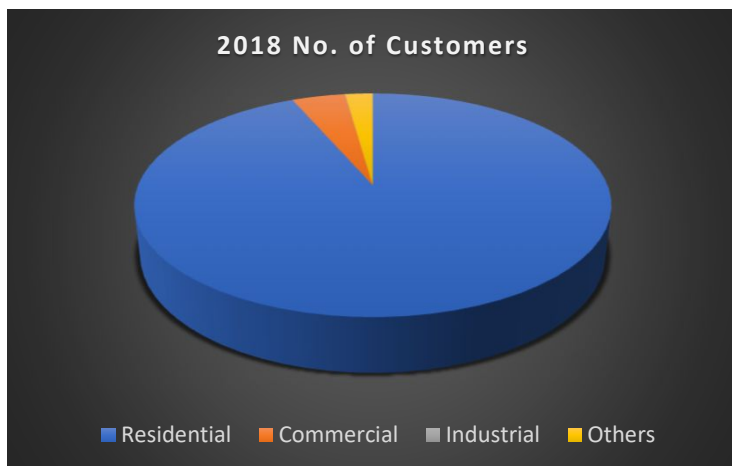
As of December 2018, CANORECO's peak demand is 34.62 MW.

CANORECO's Franchise MAP



Number of Customer Connections in Franchise	ACTUAL	FORECAST									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Residential	95,620	99,820	103,434	106,884	110,168	113,287	116,241	119,030	121,654	124,113	126,407
Commercial	4,383	4,617	4,784	4,943	5,095	5,240	5,376	5,505	5,627	5,740	5,846
Industrial	33	35	37	38	39	40	41	42	43	44	45
Others	2,253	2,362	2,448	2,529	2,607	2,681	2,751	2,817	2,879	2,937	2,992
Contestable Customers served by RES	0	0	0	0	0	0	0	0	0	0	0
Total (Captive Customers)	102,289	106,834	110,702	114,394	117,909	121,248	124,409	127,395	130,203	132,835	135,290

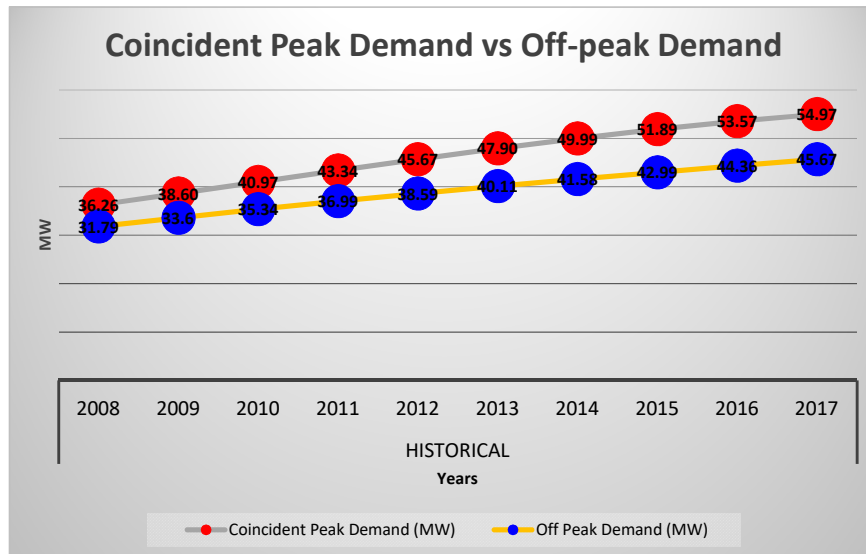
As shown in the figure, CANORECO's customers were predominantly residential, representing 93.48% of the total number, while the remaining 6.52% are high and low voltage customers. As of the fourth quarter of 2018, CANORECO has around 101,972 active member-consumers composed of residential customers, high voltage and low voltage customers.



DEMAND

Demand	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Coincident Peak Demand (MW)	21.78	23.23	22.28	30.97	30.77	27.92	29.57	33.36	32.11	34.62
Off Peak Demand (MW)	17.45	18.15	20.43	20.96	20.88	22.58	23.26	27.14	26.91	28.95

Demand	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Coincident Peak Demand (MW)	36.26	38.60	40.97	43.34	45.67	47.90	49.99	51.89	53.57	54.97
Off Peak Demand (MW)	31.79	33.6	35.34	36.99	38.59	40.11	41.58	42.99	44.36	45.67



Based on CANORECO's historical data the annual average demand growth is 5.99%. CANORECO's Demand is increasing due to uprising of several commercial, industrial, and business establishments within its franchise area.

Description of methodology used in load forecasting:

Model No.	Forecasting Model	Model Description	Validity Tests	Accuracy Tests	Remarks (Pass/Fail)
1	Linear Trend	Regression	adj. r ² /T-stat/p-value	Mape	Passed
2	Quadratic with Horizon	Regression	adj. r ² /T-stat/p-value	Mape	Passed
3	Quadratic Logarithmic	Regression	adj. r ² /T-stat/p-value	Mape	Passed
4	Cubic Logarithmic	Regression	adj. r ² /T-stat/p-value	Mape	Passed
5	Cubic with Horizon	Regression	adj. r ² /T-stat/p-value	Mape	Passed
6	Cubic with Smoothing	Regression	adj. r ² /T-stat/p-value	Mape	Passed
7	Logarithmic Trend	Regression	adj. r ² /T-stat/p-value	Mape	Passed

10 Year Monthly Data

Year	Historical	
	Coincident Peak Demand (MW)	Energy Requirement (MWh)
2009		
Jan	17.67	6,135.45
Feb	17.76	6,574.21
Mar	17.82	6,977.15
Apr	17.71	7,971.43
May	17.55	7,374.18
Jun	17.45	8,149.18
Jul	17.48	8,093.66
Aug	17.88	8,641.50
Sep	18.01	8,704.47
Oct	18.01	7,929.60
Nov	18.06	6,507.56
Dec	17.99	7,038.44
2010		
Jan	18.15	7,317.61
Feb	18.21	7,789.66
Mar	18.30	7,335.69
Apr	18.60	9,108.69
May	18.95	9,614.48
Jun	19.26	9,946.61
Jul	19.47	8,473.42
Aug	19.67	9,185.10
Sep	19.69	9,422.87
Oct	19.96	9,265.75
Nov	19.96	8,837.40
Dec	19.96	8,837.40
2011		
Jan	18.71	7,878.37
Feb	18.51	7,858.77
Mar	19.34	7,126.02
Apr	19.92	8,395.93
May	21.27	9,290.55
Jun	21.36	9,768.76
Jul	21.12	9,627.49
Aug	21.19	9,549.09
Sep	21.69	10,123.97
Oct	21.24	9,310.43
Nov	21.59	9,673.90

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Dec	22.31	9,176.18
2012		
Jan	20.96	9,098.61
Feb	21.18	9,074.83
Mar	21.32	8,945.22
Apr	21.50	10,158.91
May	21.63	11,040.16
Jun	21.78	11,314.43
Jul	21.92	10,356.29
Aug	22.01	10,575.93
Sep	22.01	10,593.58
Oct	22.36	9,904.70
Nov	22.48	10,781.04
Dec	22.55	10,345.12
2013		
Jan	21.91	9,623.89
Feb	20.88	9,696.55
Mar	22.91	9,452.35
Apr	25.22	12,100.14
May	25.22	12,229.29
Jun	25.50	12,483.46
Jul	24.88	11,514.39
Aug	25.88	11,811.22
Sep	30.77	12,086.72
Oct	25.49	11,360.92
Nov	25.38	11,055.16
Dec	24.71	10,628.72
2014		
Jan	25.37	9,585.96
Feb	22.58	9,653.66
Mar	23.27	9,369.59
Apr	24.44	11,765.56
May	27.17	12,785.85
Jun	27.92	13,724.26
Jul	26.56	9,943.50
Aug	26.34	12,680.36
Sep	26.13	11,737.43
Oct	26.29	11,699.70
Nov	25.72	11,893.74
Dec	26.29	10,761.46
2015		
Jan	23.26	9,260.08
Feb	23.64	9,968.23
Mar	23.81	10,008.74
Apr	26.04	12,215.29

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May	26.04	12,437.05
Jun	28.22	13,855.76
Jul	27.45	13,055.65
Aug	28.31	13,737.64
Sep	27.91	13,573.16
Oct	29.57	12,950.29
Nov	28.13	13,498.57
Dec	27.14	12,329.12
2016		
Jan	27.14	12,396.31
Feb	27.90	11,317.00
Mar	28.01	11,884.75
Apr	29.82	14,196.40
May	30.62	14,849.09
Jun	33.36	14,987.03
Jul	30.69	14,574.89
Aug	30.77	15,197.73
Sep	31.56	15,635.47
Oct	30.24	13,362.20
Nov	28.85	13,844.79
Dec	28.72	12,770.64
2017		
Jan	27.58	12,548.99
Feb	26.91	12,322.01
Mar	28.53	12,135.35
Apr	29.94	14,771.32
May	30.52	15,715.79
Jun	31.27	16,340.79
Jul	30.65	15,203.19
Aug	32.09	16,737.41
Sep	32.00	15,832.38
Oct	32.11	14,921.60
Nov	31.18	15,029.37
Dec	30.43	13,270.91
2018		
Jan	29.26	13,319.30
Feb	28.95	13,490.33
Mar	30.65	13,177.60
Apr	31.53	15,435.21
May	33.63	16,618.72
Jun	33.87	17,591.71
Jul	34.62	16,183.45
Aug	32.46	17,027.96
Sep	32.77	16,753.64
Oct	33.67	16,481.06

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Nov	32.30	16,351.70
Dec	32.17	15,619.88

10 Year Monthly Data

Year	Forecast			Contracted and For PSA Approval Demand and Energy		Uncontracted Demand and Energy		Committed for CSP	
	Coincident Peak Demand (MW)	Off Peak Demand (MW)	Energy Requirement (MWh)	Demand (MW)	Energy (MWh)	Uncontracted Demand (MW)	Uncontracted Energy (MWh)	Demand (MW)	Energy (MWh)
2019									
Jan	31.18	27.34	14,433.13	26.77	8,400	4.41	6,033.13		
Feb	30.81	27.01	14,618.44	26.77	8,500	4.04	6,118.44		
Mar	32.21	28.24	14,280.34	26.77	8,300	5.43	5,980.34		
Apr	33.30	29.20	16,726.14	26.77	10,000	6.53	6,726.14		
May	34.83	30.54	18,009.18	26.77	10,200	8.06	7,809.18		
Jun	35.65	31.25	19,063.57	26.77	10,700	8.87	8,363.57		
Jul	36.26	31.79	17,536.71	26.77	10,200	9.48	7,336.71		
Aug	34.75	30.47	18,452.39	34.89	15,408	-	0.14	3,044.39	
Sep	33.99	29.80	18,155.47	34.89	15,608	-	0.90	2,547.47	
Oct	35.84	31.42	17,859.63	34.89	15,240	0.95	2,619.63		
Nov	34.31	30.08	17,719.84	34.89	15,208	-	0.58	2,511.84	
Dec	33.98	29.79	16,926.61	34.89	14,908	-	0.91	2,018.61	
2020									
Jan	32.70	28.46	15,500.67	36.28	13,908	-	3.58	1,592.67	
Feb	32.36	28.17	15,699.68	36.28	14,008	-	3.92	1,691.68	
Mar	33.88	29.49	15,336.57	36.28	13,672	-	2.40	1,664.57	
Apr	34.90	30.38	17,963.27	36.28	17,889	-	1.38	74.47	
May	36.58	31.85	19,341.21	36.28	17,921	0.30	1,420.41		
Jun	37.36	32.52	20,473.59	36.28	18,589	1.08	1,884.79		
Jul	38.60	33.60	18,833.80	36.28	17,921	2.32	913.00		
Aug	36.46	31.74	19,817.21	36.28	18,089	0.18	1,728.41		
Sep	35.54	30.94	19,498.33	36.28	15,908	-	0.74	3,590.33	
Oct	37.89	32.98	19,180.61	36.28	15,540	1.61	3,640.61		
Nov	36.23	31.54	19,030.48	36.28	15,408	-	0.05	3,622.48	
Dec	35.96	31.30	18,178.58	36.28	14,940	-	0.32	3,238.58	
2021									
Jan	34.22	29.52	16,577.80	37.74	14,208	-	3.52	2,369.80	
Feb	33.92	29.25	16,790.64	37.74	13,872	-	3.82	2,918.64	
Mar	35.55	30.66	16,402.30	37.74	14,008	-	2.19	2,394.30	
Apr	36.49	31.48	19,211.53	37.74	15,640	-	1.25	3,571.53	
May	38.34	33.07	20,685.22	37.74	16,108	0.60	4,577.22		
Jun	39.07	33.70	21,896.29	37.74	16,340	1.33	5,556.29		
Jul	40.97	35.34	20,142.54	37.74	16,008	3.23	4,134.54		
Aug	38.21	32.96	21,194.29	37.74	16,008	0.47	5,186.29		
Sep	37.19	32.08	20,853.25	37.74	16,040	-	0.55	4,813.25	
Oct	40.00	34.50	20,513.46	37.74	15,908	2.26	4,605.46		
Nov	38.22	32.96	20,352.89	37.74	15,440	0.48	4,912.89		
Dec	38.02	32.80	19,441.79	37.74	15,308	0.28	4,133.79		
2022									
Jan	35.74	30.50	17,657.69			35.74	17,657.69	26.02	14,769.85
Feb	35.47	30.27	17,884.40			35.47	17,884.40	25.33	14,459.87
Mar	37.22	31.76	17,470.76			37.22	17,470.76	28.66	14,677.03
Apr	38.08	32.50	20,462.98			38.08	20,462.98	32.12	18,460.32
May	40.09	34.21	22,032.67			40.09	22,032.67	33.73	19,549.68
Jun	40.78	34.80	23,322.63			40.78	23,322.63	34.99	20,563.92
Jul	43.35	36.99	21,454.65			43.35	21,454.65	33.52	19,055.71
Aug	39.98	34.12	22,574.91			39.98	22,574.91	32.81	19,534.66
Sep	38.92	33.22	22,211.65			38.92	22,211.65	32.61	19,200.41

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Oct	42.13	35.96	21,849.72			42.13	21,849.72	32.23	17,887.17
Nov	40.24	34.35	21,678.70			40.24	21,678.70	31.13	17,806.23
Dec	40.15	34.26	20,708.25			40.15	20,708.25	28.08	14,340.23
2023									
Jan	37.26	31.48	18,735.67			37.26	18,735.67	27.58	15,656.04
Feb	37.02	31.28	18,976.22			37.02	18,976.22	26.85	15,327.46
Mar	38.89	32.86	18,537.33			38.89	18,537.33	30.38	15,557.66
Apr	39.68	33.53	21,712.22			39.68	21,712.22	34.05	19,567.94
May	41.84	35.35	23,377.74			41.84	23,377.74	35.75	20,722.66
Jun	42.49	35.90	24,746.45			42.49	24,746.45	37.09	21,797.76
Jul	45.67	38.59	22,764.42			45.67	22,764.42	35.54	20,199.05
Aug	41.72	35.25	23,953.08			41.72	23,953.08	34.78	20,706.74
Sep	40.71	34.40	23,567.64			40.71	23,567.64	34.56	20,352.43
Oct	44.27	37.40	23,183.62			44.27	23,183.62	34.17	18,960.40
Nov	42.28	35.72	23,002.15			42.28	23,002.15	33.00	18,874.61
Dec	42.30	35.75	21,972.46			42.30	21,972.46	29.76	15,200.64
2024									
Jan	38.78	32.47	19,808.55			38.78	19,808.55	29.24	16,595.41
Feb	38.57	32.30	20,062.87			38.57	20,062.87	28.47	16,247.11
Mar	40.56	33.96	19,598.85			40.56	19,598.85	32.20	17,080.08
Apr	41.27	34.56	22,955.55			41.27	22,955.55	36.09	20,742.01
May	43.59	36.50	24,716.44			43.59	24,716.44	37.89	21,966.02
Jun	44.20	37.01	26,163.53			44.20	26,163.53	39.32	23,105.62
Jul	47.90	40.11	24,068.01			47.90	24,068.01	37.67	21,410.99
Aug	43.42	36.36	25,324.73			43.42	25,324.73	36.86	21,949.14
Sep	42.55	35.63	24,917.22			42.55	24,917.22	36.64	21,573.58
Oct	46.36	38.82	24,511.21			46.36	24,511.21	36.22	20,098.02
Nov	44.29	37.09	24,319.35			44.29	24,319.35	34.98	20,007.08
Dec	44.47	37.24	23,230.69			44.47	23,230.69	31.55	16,112.68
2025									
Jan	40.30	33.52	20,874.07			40.30	20,874.07	30.99	17,591.13
Feb	40.13	33.38	21,142.06			40.13	21,142.06	30.17	17,221.94
Mar	42.23	35.12	20,653.09			42.23	20,653.09	34.13	17,480.58
Apr	42.86	35.65	24,190.35			42.86	24,190.35	38.25	21,986.53
May	45.34	37.71	26,045.96			45.34	26,045.96	40.17	23,283.98
Jun	45.91	38.19	27,570.88			45.91	27,570.88	41.68	24,491.96
Jul	49.99	41.58	25,362.64			49.99	25,362.64	39.93	22,695.65
Aug	45.05	37.47	26,686.96			45.05	26,686.96	39.07	23,266.09
Sep	44.42	36.95	26,257.53			44.42	26,257.53	38.84	22,868.00
Oct	48.39	40.25	25,829.68			48.39	25,829.68	38.39	21,303.90
Nov	46.26	38.48	25,627.50			46.26	25,627.50	37.07	21,207.51
Dec	46.62	38.78	24,480.28			46.62	24,480.28	33.44	17,079.44
2026									
Jan	41.81	34.64	21,930.66			41.81	21,930.66	32.85	18,646.60
Feb	41.68	34.53	22,212.22			41.68	22,212.22	31.98	18,255.25
Mar	43.90	36.37	21,698.49			43.90	21,698.49	36.18	18,529.42
Apr	44.46	36.83	25,414.80			44.46	25,414.80	40.55	23,305.72
May	47.09	39.02	27,364.33			47.09	27,364.33	42.58	24,681.02
Jun	47.62	39.45	28,966.45			47.62	28,966.45	44.18	25,961.48
Jul	51.89	42.99	26,646.43			51.89	26,646.43	42.32	24,057.39
Aug	46.59	38.60	28,037.78			46.59	28,037.78	41.42	24,662.05
Sep	46.32	38.38	27,586.62			46.32	27,586.62	41.17	24,240.08
Oct	50.32	41.69	27,137.11			50.32	27,137.11	40.69	22,582.14
Nov	48.15	39.89	26,924.70			48.15	26,924.70	39.30	22,479.96
Dec	48.73	40.37	25,719.41			48.73	25,719.41	35.45	18,104.21
2027									
Jan	43.33	35.88	22,977.19			43.33	22,977.19	34.17	19,392.46
Feb	43.23	35.80	23,272.19			43.23	23,272.19	33.26	18,985.46

POWER SUPPLY PROCUREMENT PLAN

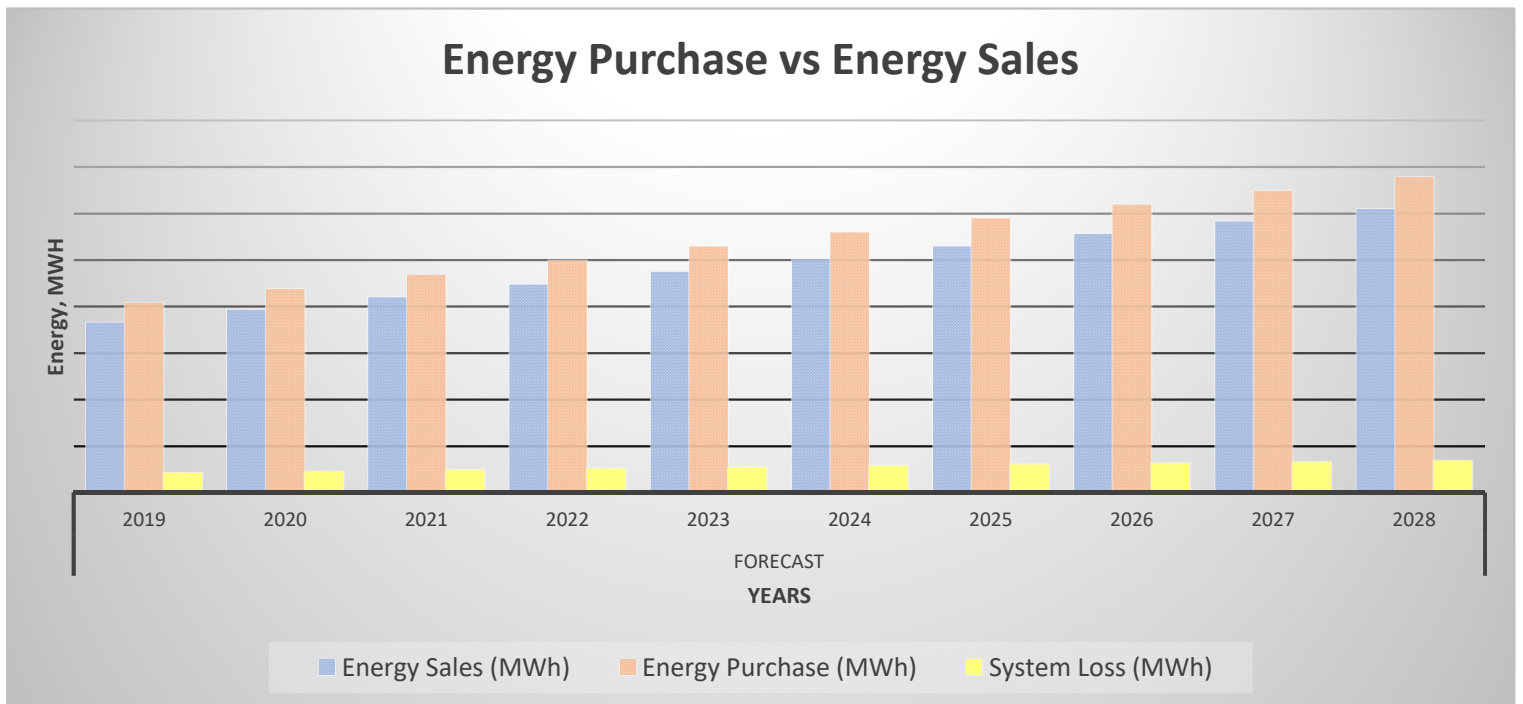
Mar	45.57	37.74	22,733.94			45.57	22,733.94	37.63	19,270.60
Apr	46.05	38.13	26,627.59			46.05	26,627.59	42.17	24,237.95
May	48.85	40.45	28,670.16			48.85	28,670.16	44.28	25,668.26
Jun	49.33	40.85	30,348.73			49.33	30,348.73	45.95	26,999.94
Jul	53.57	44.36	27,918.00			53.57	27,918.00	44.02	25,019.69
Aug	47.99	39.74	29,375.75			47.99	29,375.75	43.08	25,648.54
Sep	48.24	39.95	28,903.06			48.24	28,903.06	42.81	25,209.68
Oct	52.12	43.16	28,432.09			52.12	28,432.09	42.32	23,485.42
Nov	49.94	41.35	28,209.55			49.94	28,209.55	40.87	23,379.16
Dec	50.76	42.03	26,946.74			50.76	26,946.74	36.87	18,828.37
2028									
Jan	44.85	37.26	24,012.96			44.85	24,012.96	35.53	20,168.16
Feb	44.78	37.21	24,321.25			44.78	24,321.25	34.59	19,744.88
Mar	47.24	39.25	23,758.75			47.24	23,758.75	39.13	20,757.18
Apr	47.65	39.59	27,827.91			47.65	27,827.91	43.86	25,207.47
May	50.60	42.04	29,962.56			50.60	29,962.56	46.05	26,694.99
Jun	51.04	42.41	31,716.79			51.04	31,716.79	47.79	28,079.94
Jul	54.97	45.67	29,176.49			54.97	29,176.49	45.78	26,020.47
Aug	49.24	40.91	30,699.95			49.24	30,699.95	44.80	26,674.48
Sep	50.18	41.69	30,205.95			50.18	30,205.95	44.53	26,218.07
Oct	53.74	44.65	29,713.76			53.74	29,713.76	44.01	24,424.84
Nov	51.58	42.86	29,481.18			51.58	29,481.18	42.51	24,314.32
Dec	52.69	43.78	28,161.45			52.69	28,161.45	38.34	19,581.51

ENERGY SALES AND PURCHASE

ENERGY SALES AND PURCHASE	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Energy Sales (MWh)	80,328	94,291	96,911	108,910	119,908	121,816	132,966	148,454	156,579	168,079
Energy Purchase (MWh)	90,097	104,703	107,781	122,189	134,045	135,601	146,890	165,016	174,829	188,051
System Loss (MWh)	9,769	10,412	10,870	13,279	14,137	13,785	13,924	16,562	18,250	19,972

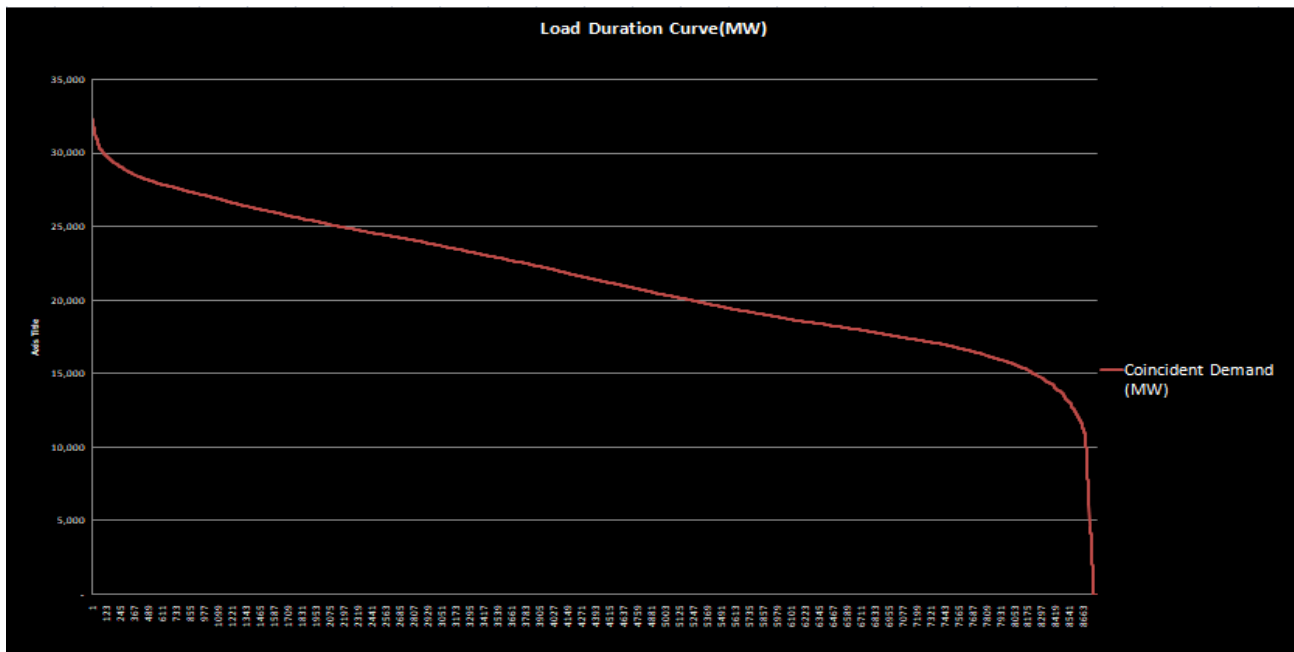
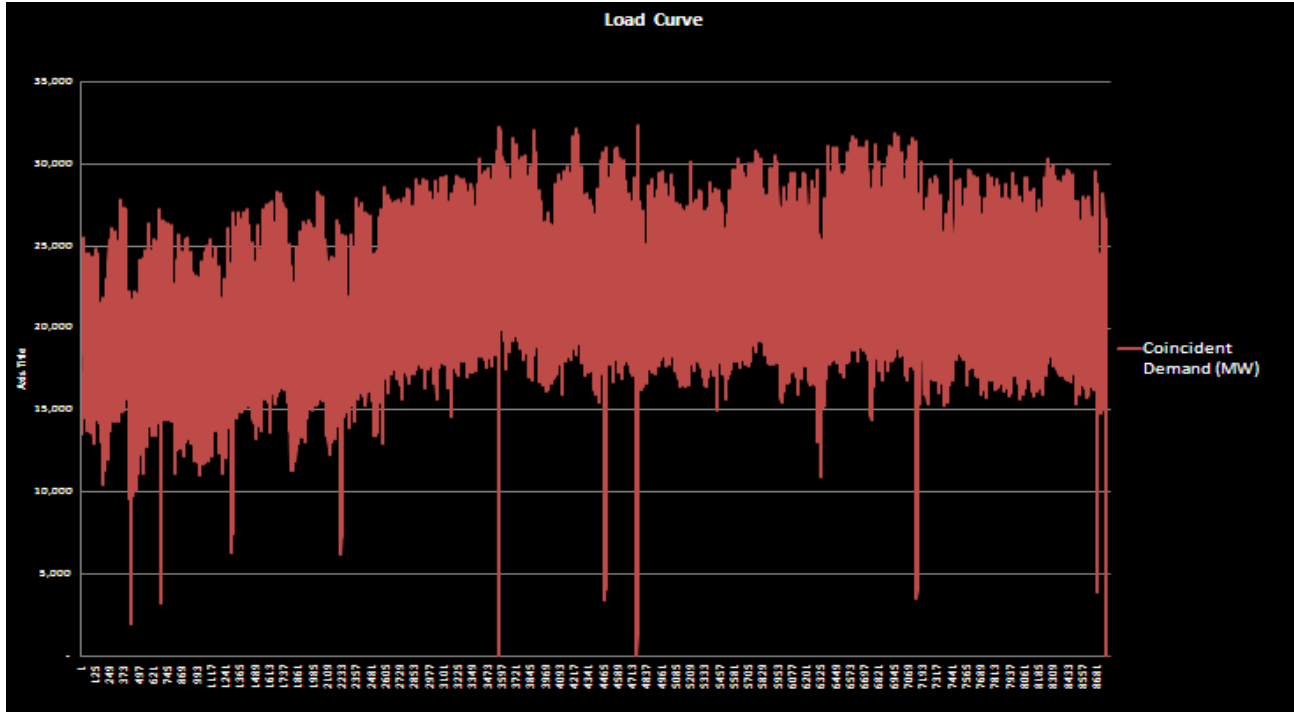
ENERGY SALES AND PURCHASE	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Energy Sales (MWh)	182,656	196,171	209,834	223,553	237,268	250,933	264,519	278,002	291,369	304,608
Energy Purchase (MWh)	203,781	218,854	234,062	249,309	264,529	279,677	294,721	309,639	324,415	339,039
System Loss (MWh)	21,125	22,683	24,228	25,755	27,261	28,744	30,202	31,636	33,046	34,431

Energy Purchase vs Energy Sales



Historical purchase and sales data (2009-2018) showed an average annual load growth of 8.62% and 8.65% respectively. Commercial establishments, industrial, hotels, provincial and city development plans are prime indicators in the increased in energy.

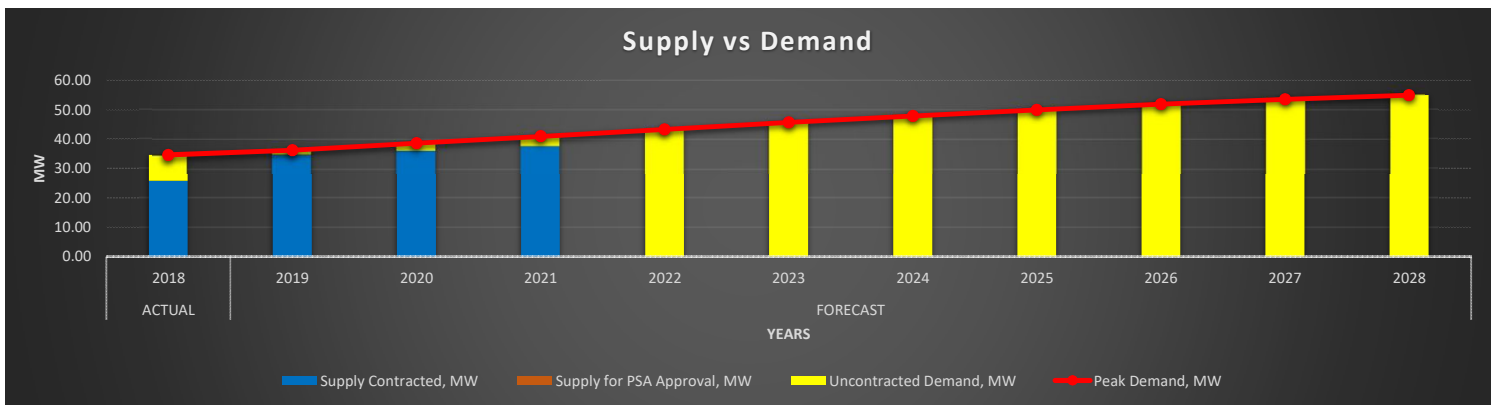
LOAD PROFILE AND LOAD DURATION CURVE



As of December 2018, CANORECO's peak demand is 34.618 MW.

MIXSUPPLY VS DEMAND AND THE OPTIMAL SUPPLY

Supply Demand	ACTUAL	FORECAST									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Peak Demand, MW	34.62	36.26	38.60	40.97	43.34	45.67	47.90	49.99	51.89	53.57	54.97
Supply Contracted, MW	25.74	34.89	36.28	37.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRI	25.74	34.89	36.28	37.74							
Supply for PSA Approval, MW											
Uncontracted Demand, MW	8.88	1.37	2.32	3.24	43.34	45.67	47.90	49.99	51.89	53.57	54.97



List of Existing Contracts and Details

Supply Contracted	Plant Owner/ Operator	Capacity Factor	PSA Effectivity (MM/YR)	PSA Expiration (MM/YR)	Contracted Capacity, MW	Contracted Energy, MWH	Base / Mid-merit / Peaking	Embedded/ Grid Connected	Utility-owned/ NPC/ IPP/ NPC-IPP	Status	Fuel Type	Installed Capacity (MW)	Net Dependable Capacity (MW)
APRI	Aboitiz Power Renewable Inc.		12/2011	12/2021	20.35	94,900	Base	Grid Connected	IPP	ERC case#2011-155RC (Provisional Authority)	Geothermal/ Steam	797	
					21.16	97,500							
					22.01	101,100							
					22.89	104,500							
					23.80	107,800							
					24.75	110,900							
					25.74	113,900							
					34.89	142,672							
36.28	193,792												
					37.74	184,888							

CANORECO enters into a power supply agreement with Aboitiz Power Renewable Inc. (APRI) for ten (10) years from December 26, 2011 to December 25, 2021. Excess demand from this agreement will be purchased at Wholesale Electricity Spot Market (WESM). As of today, CANORECO's exposure to WESM is more or less 40% and now planning to look for other power supplier to fill the increasing demand. CANORECO has availed an additional of 7 MW starting August 2019 up to the end of contract from its Bilateral Counterpart (APRI) to the increasing demand and mitigate volatile wesm prices.

DISTRIBUTION IMPACT STUDY

CANORECO's existing distribution system includes 69 KV sub-transmission lines which supply power to seven (7) power transformers installed in six (6) substation locations across the province namely Lag-on 10 MVA, Calintaan 20 MVA (on going replacement of power transformer from 5 MVA to 10 MVA), Talobatib 5 MVA, Tawig 5 MVA, Sta. Rosa 5 MVA and Malatap 5 MVA with a total rated capacity of 50 MVA. Lag-on Substation situated at Brgy. Lag-on, Daet has four (4) feeders supplying power to the municipalities of Basud, Daet, Mercedes, San Vicente and San Lorenzo Ruiz. Calintaan Substation supplies power to the Municipalities of Talisay, Vinzons and portion of Daet and Mercedes. Talobatib Substation provides power to the municipality of Labo which has the largest land area in the province. The source of power of the mining towns of Jose Panganiban and Paracale is the Tawig Substation. The Malatap Substation is serving the portion of Labo and the municipalities of Sta. Elena and Capalonga. As of to date, the percent loading of the substations are as follows: Lag-On 10MVA= 90.73%, Calintaan 10MVA= 82.99%, Old Calintaan 5MVA= 69.96%, Tawig 5MVA= 50.74%, Talobatib 5MVA= 71.79%, Sta.Rosa 5MVA= 76.64%, and Malatap 5MVA= 65.89%. The demand of electricity in the coverage area of Lag-on substation is increasing based on the historical data and because of the operation of commercial establishments which has an impact in power demand. CANORECO's pending CAPEX application for year 2015-2017 includes the uprating of Lag-on substation from 10MVA power transformer to 20MVA. Other accesories will be replaced but the location of substation and its feeder connection will be the same.

SCHEDULE OF CSP

YEAR	Base / mid-merit / peaking	For CSP		Proposed contract period		Proposed schedule (MM/YYYY)						
		Demand (MW)	Energy (MWh)	Start Month and Year	End Month and Year	Publication of Invitation to Bid	Pre-bid Conference	Submission and Opening of Bids	Bid Evaluation	Awarding	PSA Signing	Joint Application to ERC
2022	Base	12.00	151,849.02	12/26/2021	12/25/2036	09/2020	09/2020	11/2020	11/2020	12/2020	01/2021	01/2021
	Intermediate	11.00	58,456.06									