OCCIDENTAL MINDORO ELECTRIC COOPERATIVE, INC. (OMECO)

POWER SUPPLY PROCUREMENT PLAN (PSPP)

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I. Introduction

Occidental Mindoro Electric Cooperative, Inc. (OMECO) is a non-stock and non-profit electric service distribution cooperative. It is duly organized under Presidential Decree No.269, as amended and incorporated on March 25, 1974. It is under the direct supervision of the National Electrification Administration (NEA) by virtue of PD 269 and RA 10531.

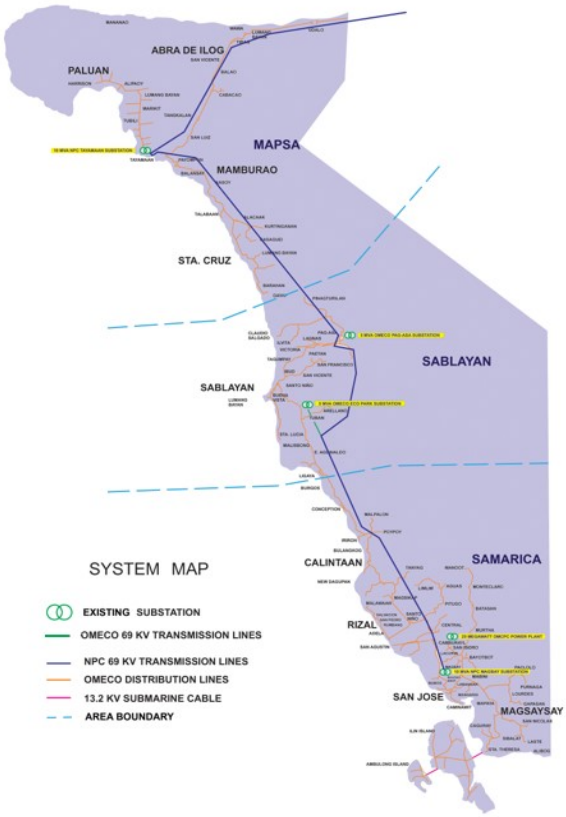

Figure 1 - OMECO System Map

In the quest for sustainable development for the people of Mainland Occidental Mindoro, OMECO with the cooperation of the Energy Development Advisory Group (EDAG) enabled by the Provincial Government is conducting regular review and update of the Energy Development Plan of the Province since year 2011. The key members OccMin EDAG include among others the Provincial Planning and Development Office, National Statistics Authority, Department of Environment and Natural Resources, the Academe and other Government and Non-Government Organizations based in the province, i.e. with the support of the University of the Philippines Electrical and Electronic Engineering Institute.

Geared to secure adequate, reliable, efficient and least-cost power services for the people, the EDAG came up with the Power Supply Plan (PSP) in 2012 that was legislated by the Sangguniang Panlalawigan.

Insofar as barriers to the implementation of 2012 PSP resulted to suppression of demand, the EDAG pursued and submitted to the Department of Energy (DOE) its comprehensive input the Mindoro Integrated Energy Development Plan (MIEDP) in 2016 that focused on Generation, Transmission, Distribution and Total Electrification for development of policies and structures needed to support the reduction of dependence to subsidy form Universal Charge for Missionary Electrification fund and achieve the afore stated goals.

Figure 1 shows the transmission and distribution system, and location of substations in OMECO.

Transmission Lines. The transmission lines of NPC cover all the municipalities in the franchise area of OMECO. The transmission can physically interconnect OMECO to neighboring ORMECO through the existing transmission lines from Mamburao to Calapan up North passing through Abra de Ilog and Puerto Galera. The entire Mamburao-Sablayan-San Jose transmission segments are newly repaired using concrete transmission poles (and steel towers in rivers or peak-to-peak mountain ranges) while the Mamburao-Puerto Galera segments are scheduled for rehabilitation this year. The San Jose-Mansalay section down South that will close the *Mindoro transmission loop is expected to be in place this year.*

Distribution Lines. OMECO has electrified 100% of the barangays in its coverage and nearly powered up 90% of its known sitios through a network of 2,238.42 linear kilometers distribution lines. **Table 1** describes the coverage of distribution lines in the service areas.

DISTRIBUTION LINE (Linear Km.)			
Line Configuration	**SAMARICA**	**SABLAYAN**	**MAPSA**
69kV Sub-Transmission		9.30	
Double Circuit	0.22	4.07	
Three Phase	137.16	55.99	84.76
Two Phase	51.00	32.20	18.85
Single Phase	422.69	136.24	164.04
Secondary	647.97	240.63	233.32
TOTAL	**1,259.04**	**478.42**	**500.96**

Table 1- Distribution Lines in Service Areas

Substation Facilities. OMECO owns and operates two (2) existing substations at Sablayan, the Pag-Asa 5 MVA and Eco-Park 5 MVA Substation while the OMCPC has two (2) power stations with 13.2 kV and 69 kV output. The NPC has two (2) substation located at San Jose and Tayamaan, Mamburao. The substations are located in the service areas listed in **Table 2** and could be seen **Figure 1**.

SUBSTATION		
Service Area	**Owner/Location**	**Substation Capacity (MVA)**
SAMARICA	OMCPC Substation, Pulang lupa, Central, San Jose	25.00
	NPC Substation, Magbay, San Jose	10.00
SABLAYAN	OMECO Substation, Pag-Asa, Sablayan	5.00
	OMECO Substation, Eco-Park, Sto. Nino, Sablayan	5.00
MAPSA	NPC Substation, Tayamaan, Mamburao	10.00

Table 2 - Existing Substations in Service Area

Technical Performance

Load Factor and Power Factor. In as much as the connected loads in SAMARICA dominate the shape of the daily load curve. The prevailing conditions in the area where the day and night peak levels are almost the same resulted to a load factor of 61.70% and 60.09% for the year 2017 and 2018 respectively, characterized by significant economic activities during the day. The system has **94-95%** power factor as shown in **Table 3**

Year	POWER FACTOR	LOAD FACTOR
2017	94.67%	61.70%
2018	94.28%	60.09%

Table 3 - Historical Load and Power Factor

System Loss. OMECO suffered from high system loss consequent to unfavorable condition of supply and transmission lines specifically in Sablayan and Samarica areas. The severe under voltages experienced (as worst as 30% under voltage) without the 69 KV transmission lines manifested to over-all system loss higher than the caps set by the regulators. **Table 4** shows high system loss levels above 13% cap in 2017 and 12% in 2018, the system loss reduced from 15.33% to 14.55% in year 2018 with the utilization of 69 kV transmission lines and San Jose (Magbay) substation from July 2017. The system loss of OMECO from July to October 2017 average at 14.42%.

With the addition of 69 kVA transmission line and new 5MVA substation at Sablayan, the system loss of Sablayan Area reduced by 8% in the month of May 2019. Severe under voltage was also addressed which contributes to the said system loss reduction.

SYSTEM LOSS		
Year	**MWh**	**%**
2017	16,879.85	15.33%
2018	17,426.37	14.55%

Table 4 - System Loss

Reliability. **Table 5** highlights the extent of power outages that the consumers experienced in the franchise area. Improvements and programs in the system with remote controlled reclosers, rigid clearing of lines rights-of-way through incentivized contracts and shift to larger insulators are expected to improve the reliability.

Reliability Indices												
YEAR	All Others			Scheduled			Power Supplier			Major Storm		
	SAIFI (int/year/ cust)	SAIDI (mins/year /cust)	MAIFI (int/year/ cust)	SAIFI (int/year/ cust)	SAIDI (mins/year /cust)	MAIFI (int/year/ cust)	SAIFI (int/year/ cust)	SAIDI (mins/year / cust)	MAIFI (int/year/ cust)	SAIFI (int/year/ cust)	SAIDI (mins/year /cust)	MAIFI (int/year/ cust)
2017	73.95	3,197.74	34.73	53.87	10,550.41	2.38	229.50	18,902.13	5.54	22.13	1,816.15	139.40
2018	48.10	1,074.65	57.51	31.05	5,872.73	4.11	204.88	10,144.96	7.02	13.21	1,793.99	3.36
2019(Jan-May)	16.14	655.00	16.02	3.90	1,205.03	160.10	17.55	993.57	0.96	1.49	94.38	0.04

Table 5 - Historical Power Outages Categorized by Source

Financial Performance

OMECO used to belong to Category A Electric Cooperative group before the effect of its power supply problem related to its pre-EPIRA supply contract almost bled it to closure, had there not been a change of management in 2009. The economic and operational predicaments of the IPP resulted to imposition of penalty charges (Php 11.47M) for over-the-contract purchases from NPC-SPUG – who became the default supplier. That started OMECO 's financial hardship: the loss of entitlement for prompt payment discount (3% PPD – Php 0.48M reversal) then later the inability to fully pay its monthly billings as consequence of rental fees (Php 34.8M) it paid for 2 MW modular diesel gensets because NPC-SPUG was incapable to provide the generators in 2005-2006. There were also advances for NPC-SPUG

(Php 12.22M) that were not claimed because of various technicalities. Except the genset rental fees, NPC-SPUG carved out the payments for all these charges, including the interests from the current months' power payments. Thus, the unpaid balance bloated until the accounts were restructured, and eventually refinanced by NEA in 2017.

RESTRUCTURED ACCOUNTS WITH NPC			
Details of Restructuring	**Amount (PhP)**	**Principal Payments (PhP)**	**Interest Payments (PhP)**
Accounts, First Restructuring (Approved April 2008 by NPC)			
Power Billings	73,265,639	32,528,101	
Penalties for Excess Purchases	11,474,563		
Total Interest Charges	23,990,366		20,356,921
Accounts, Second Restructuring (Approved April 2010 by NPC)			
Power Bill, May 2008	31,220,615	45,061,566	101,688,089
Interest Charges, May 2008 Power Bill	1,870,138		
Capitalized Interest *	18,403,202		
Total	**160,224,523**	**77,589,667**	**122,045,010**
Actual Power Bill Accounts, Php	**104,486,253**	**Total Payments**	**199,634,677**
Balance refinanced by NEA	**82,634,856.0**		
Balance as of December 31, 2018	**46,476,660.0**		
Notes:			
**** Interest for Tranching of Payments***			

Table 6 - Summary of Restructured Accounts with NPC-SPUG and Payments

It could be found that only Php 104.5M of the Php 160.2M of the restructured accounts are monthly power bills, i.e. not to overstress the power payments that were reclassified to interest payments and others following the Policy on Onerous Accounts of NPC-SPUG. OMECO already paid about Php 77.6M of the principal power accounts and Php 122M in interests before NEA refinanced the Php 82.6M balance of account in July 2017.

Financial Performance for the Years 2016 - 2018			
Financial Indicators	***2018***	***2017***	***2016***
Total Assets	1,140,861,109	1,022,725,048	945,944,835
Net Margin Before Reinvestment	57,769,252	45,888,493	32,958,290
Net Income /(Loss)	14,159,306	6,151,168	(3,603,996)
Year-End Cash Balance	61,050,576	96,515,926	59,780,022
Power Cost Ratio*	0.82	0.86	0.85
Current Ratio**	0.83	0.92	1.07
Debt Ratio**	0.67	0.67	0.59
Collection Efficiency	95%	95%	97%
Average Collection Period	46.40 days	41.78 days	38.88 days
Notes:			
* *Considered net margin before depreciation and interest charges.*			
** *NEA subsidy funds for BLEP/SEP projects for liquidation are considered as liabilities (2018=PhP 117M; 2017=PhP 85M)*			

Table 7 - Key Financial Indicators for 2016 - 2018 Operations

The total assets of the cooperative increased from Php 946M in 2016 to Php 1,141M in 2018. The sharp appreciation of assets is attributable to the completion of expansion projects from grants (NEA Subsidy) under the Barangay Line Enhancement, Sitio Electrification Programs of the government and completion of major CAPEX Projects.

The Net Margin before Reinvestment Funds for Sustainable Capex (RFSC) increased from Php 33M in 2016 to Php 57.8M in 2018 with Php 45.9M as value for 2017. The increase in sales from improvement of power supply and load growth accounts for the improved financial performance.

Similarly, the Net loss recovered from Php 3.6M in 2016 to net margin of Php 14.1M in 2018. The net loss recovery from 2016 was due to the increase in revenue and prudent utilization of funds.

The year-end cash balance increased from PhP 59.8M in 2016 to PhP 96.5 in 2017. Thus, amortization payment of deferred VAT was declined to PhP 61M in 2018.

The Power Cost Ratio improved from 0.85 in 2016 to 0.82 in 2018. OMECO can continue to prioritize the payments to its power suppliers.

On the other hand, disregard of government subsidy grants booked (BLEP/SEP) as liabilities pending liquidation of electrification projects also improved the Current Ratio from 1.04; 1.12 and 0.83 from 2016 to 2018. This means that the cooperative has the capability to pay its currently maturing obligations.

OMECO maintains 95% over-all collection efficiency with average collection period of 42 days. OMECO continues to prioritize payments of its matured obligation to its creditors since the change of management in year 2009 as reflected in **Table 7** . From a Category "C" (Extra Large Cooperative) in 2017, OMECO was categorized by NEA as "B" for its 2018 performance.

Credit History					
Year	**NPC**	**OMCPC**	**NGCP**	**NEA**	**REFC**
2016	Restructured/Current	n/a	n/a	Current	Current
2017	Restructured/Current	Current	n/a	Current	Current
2018	Restructured/Current	Current	n/a	Current	Current

Table 8 - Credit History

Consumers in OMECO are predominantly the Residential users (92%) while 5.4% are Commercials. Figure **2** and Error! Reference source not found. illustrate the distribution of consumers according to type of use.

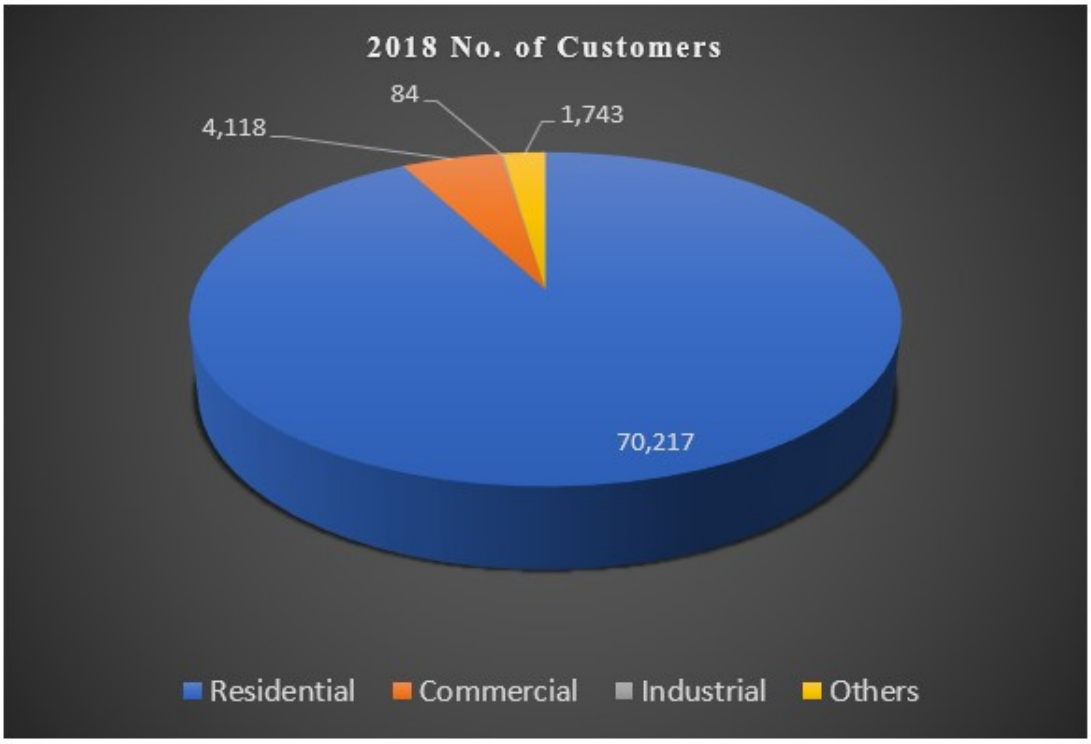

Figure 2 - Number of Customer

Number of Customer Connections in Franchise	ACTUAL	FORECAST									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Residential	70,217	73,348	76,696	80,106	83,581	87,121	90,728	94,402	98,145	101,959	105,844
Commercial	4,118	4,302	4,498	4,698	4,902	5,109	5,321	5,536	5,756	5,980	6,207
Industrial	84	88	91	96	100	104	109	113	117	122	126
Others	1,743	1,820	1,904	1,989	2,075	2,163	2,252	2,344	2,436	2,531	2,627
Total (Captive Customers)	**76,162**	**79,558**	**83,189**	**86,889**	**90,658**	**94,497**	**98,410**	**102,395**	**106,454**	**110,592**	**114,804**

Table 9 – Number of Customers Connection

II. Energy and Demand Forecast

In its three (3) periodic power supply planning, the OMECO established with accepted statistical reliability, validity and accuracy that Population is the only identifiable driver of demand and energy requirement in OMECO. Using either (Demographic) Linear Model and Linear Smoothing template of NEA e-ICPM, forecast results were statistically identical.

Using 2018 as the base year, OMECO determined the forecast quantities for the 2019 CSP for NPP and established the system requirements for the period of the PSA.

Demand	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Coincident Peak Demand (MW)	11.97	13.04	13.43	13.90	15.50	16.35	17.34	19.48	20.38	22.76
Off Peak Demand (MW)	6.73	7.33	7.55	7.82	8.72	9.19	9.75	10.95	11.46	11.85

Table 10 – Historical Demand

Demand	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Coincident Peak Demand (MW)	25.103	27.013	28.958	30.939	32.958	35.015	37.110	39.245	41.419	43.635
Off Peak Demand (MW)	13.071	14.065	15.078	16.110	17.161	18.232	19.323	20.434	21.567	22.720

Table 11 – Forecast Demand

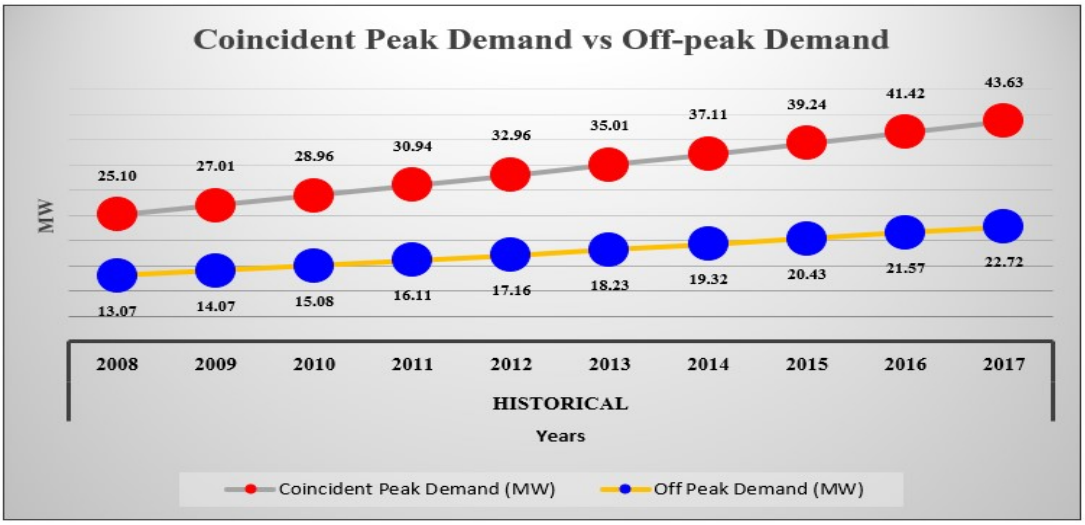

Figure 3 – Coincident Peak vs. Off-peak Demand

OMECO determined the future needs for electricity based on Historical Purchased Energy with the foregone energy (demand) at the time of outages is added back to the records of energy served during the hour. This tedious process of normalization is the key to the track record of OMECO in maintaining its demand and energy purchase levels within ±3% of contracted quantities – with the variance attributed to severe supply outages.

Consequently, the forecast hourly demand allocated from the normalized 8760-Hour Load Curve of the base year can facilitate the dispatch.

III. Energy Sales and Purchase

The historical Energy Sales (MWh) average growth rate is 9.76%, while the Energy Purchase (MWh) is 9.54%.

ENERGY SALES AND PURCHASE	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Energy Sales (MWh)	50,221.75	58,176.08	57,078.95	58,556.22	64,101.78	70,058.62	75,898.58	85,858.17	93,264.03	102,376.67
Energy Purchase (MWh)	60,263.90	68,454.35	67,426.51	69,295.42	76,016.71	81,779.07	89,269.40	101,424.93	110,143.88	119,803.04
System Loss (MWh)	10,042.15	10,278.27	10,347.56	10,739.20	11,914.93	11,720.45	13,370.82	15,566.76	16,879.85	17,426.37
ENERGY SALES AND PURCHASE	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Energy Sales (MWh)	120,145.49	129,833.63	139,056.02	148,451.57	158,023.51	167,775.16	177,709.90	187,831.15	198,142.43	208,647.31
Energy Purchase (MWh)	135,254.95	145,541.47	156,021.11	166,697.50	177,574.34	188,655.38	199,944.47	211,445.51	223,162.48	235,099.43
System Loss (MWh)	15,109.46	15,707.84	16,965.08	18,245.93	19,550.83	20,880.22	22,234.58	23,614.36	25,020.04	26,452.12

Table 11- Historical Sales and Purchase

The forecast Energy Sales (MWh) average growth rate is 6.43% from 2019 to 2028, while the Energy Purchase (MWh) is 6.51%.

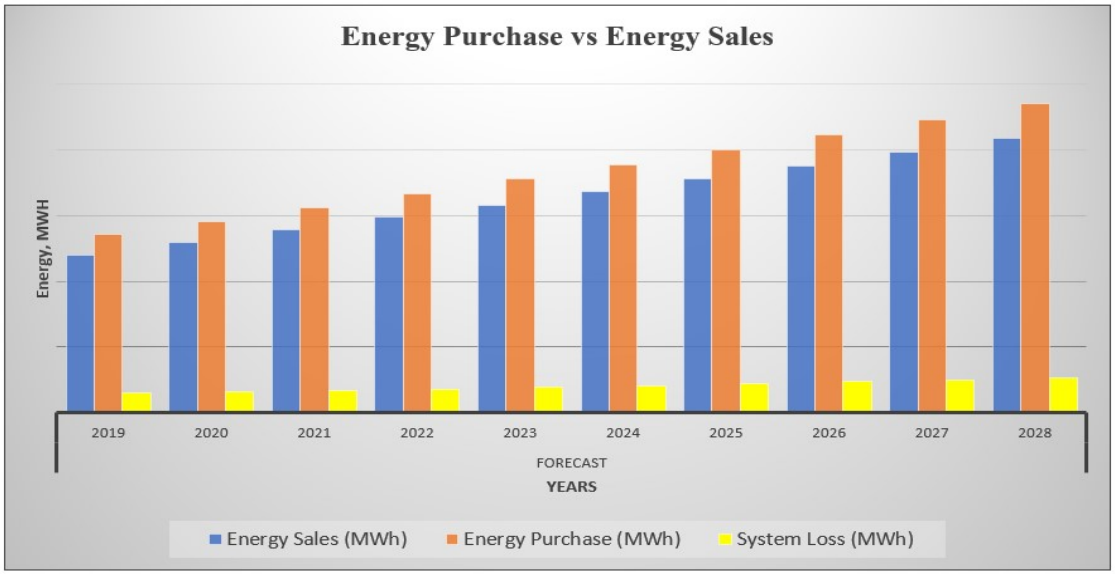

Figure 4 – Energy Purchase vs. Energy Sales

Figure 4 illustrates the level of forecast Energy Sales (MWh), Energy Purchase (MWh), and the System Loss (MWh).

IV. Daily Load Profile and Load Duration Curve

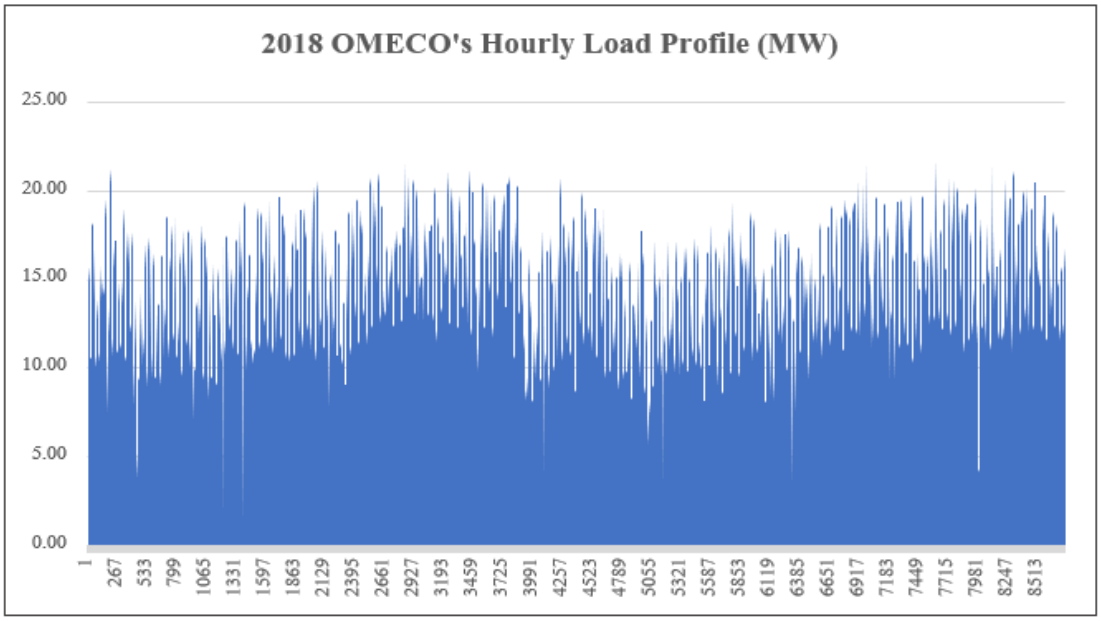

Figure 5 – OMECO 2018 Load Profile (MW)

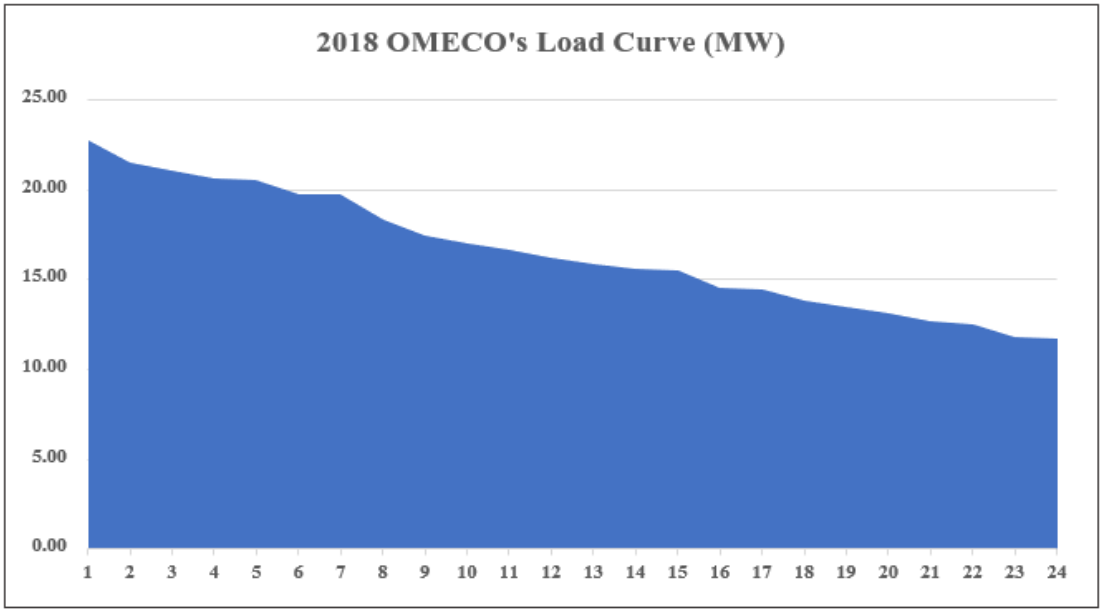

Figure 6 – OMECO 2018 Load Curve (MW)

OMECO's Baseload in 2018 is between eleven (11) and twelve (12) Megawatts. Its Peaking Demand is about twelve (12) to twenty-two and 76/100 (22.76) Megawatts.

V. Existing Contracts & Existing GenCos due diligence report

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)
MDPP	NPC-SPUG	0.80	Sep. 2014	Aug. 2019	4	29,952	Base / Peaking		NPC	Operational	Diesel	5	4
OMCPC	OMCPC	0.83	Apr. 19, 2017	Apr. 18, 2042	20	161,184	Base / Peaking		IPP	Operational	Bunker	21.667	20

Table 12 – Existing Contracts and Details

OMECO had extended its Power Supply Agreement with NPC from August 2019 until such time as OMECO is able to secure sufficient supply to address its total load requirement.

OMECO entered into a new Power Supply Agreement with Emerging Power Incorporated (EPI)and signed the 25 years contract last February 28, 2014. EPI assigned its obligation to Occidental Mindoro Consolidated Power Corporation (OMCPC) and Mindoro Geothermal Power Corporation (MGPC). OMCPC begun its commercial operation since April 19, 2017. At present OMCPC electrifies almost eighty five percent (85%) of the OMECO franchise. Because of the OMCPC entitlement to collect subsidy from UC-ME issue, the Energy Regulatory Commission (ERC) issued series of order pertaining to UC-ME subsidy entitlement of OMCPC. The ERC issued its latest Order (ERC Case No. 2014-102 RC) dated 26 June 2019 xXx "*Therefore, in light of all the measures already undertaken and the commitments made by OMECO in various meetings and correspondences, the commission hereby AUTHORIZES the Backup/Standby Bunker Fired Power Plant of OMCPC to collect UC-ME subsidy payments from NPC from 01 July 2019 to 20 December 2019, or until such time as OMECO is able to secure sufficient supply to address its total load requirement, whichever comes earlier, in the amount corresponding to the plant in actual operation, but not exceeding the amounts computed from the approved Power Supply Agreement. The Commission reiterates that the cap of PHP 9.9780/kWh provided under the Order dated 03 December 2018 is still lifted and OMCPC's entitlement to UC-ME subsidy payments from NPC should be in accordance with the pronouncements made in the Decision dated 03 November 2014* "xXx.. OMECO is oblige to conduct CSP until December 20, 2019 to resolve the power supply deficiency of the mainland Occidental Mindoro.

VI. Currently approved SAGR for Off-Grid ECs to be passed-on to Consumers

The current Subsidized Approved Generation Rate (SAGR) collects by OMECO from its member consumers is **PHP 5.6404** per kWh, exclusive of Value Added Tax (VAT).

VII. DU's Current Supply and Demand

Supply Demand	ACTUAL	FORECAST									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Peak Demand, MW	22.76	25.13	27.04	28.99	30.97	32.99	35.05	37.15	39.29	41.46	43.63
Supply Contracted, MW	26.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NPC-SPUG	6.00	4.00									
OMCPC	20.00	20.00									
Supply for PSA Approval, MW	0	0	0	0	0	0	0	0	0	0	0
Uncontracted Demand, MW	0	1.13	27.04	28.99	30.97	32.99	35.05	37.15	39.29	41.46	43.63

Table 13 – Existing Contracts and GenCos

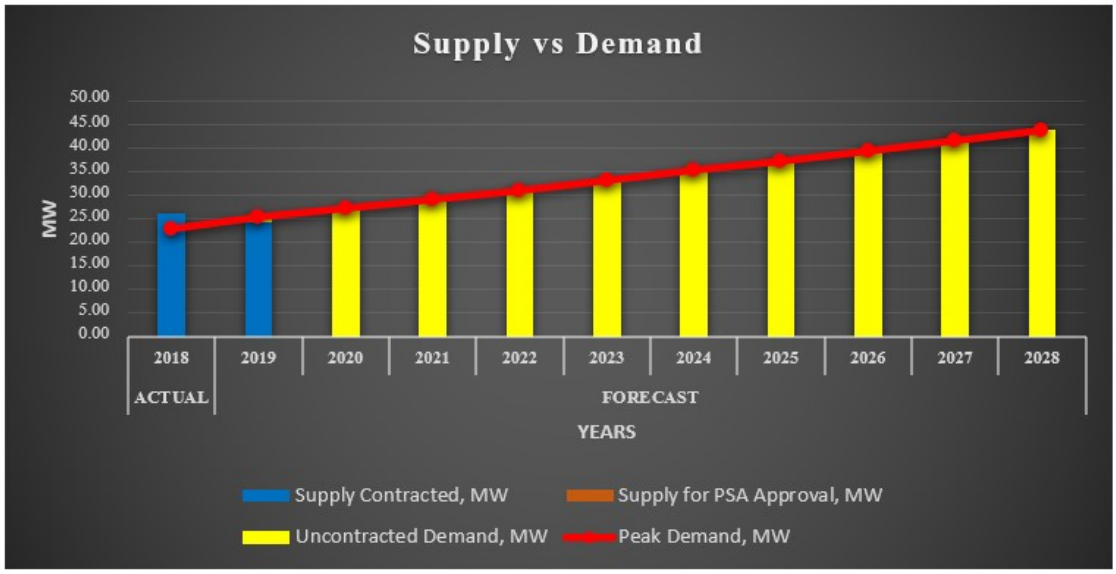

Figure 7 – Supply vs. Demand

The OMECO's available supply is **24MW** last May 2018, the coincident peak demand reached at **22.76MW**.

The main source of supply is the Occidental Mindoro Consolidated Power Corporation (OMCPC) in San Jose, and NPC-SPUG located in Tayamaan, Mamburao provides ancillary

services to control the voltage quality and to restore power in MAPSA Area at the earliest time when required.

VIII. Distribution Impact Study

PowerSolv, Inc. conducted PQ analysis which consist of load flow and technical loss analysis. After simulating different scenarios, the following observations were observed:

1. Undervoltage improved by approximately 8% upon the addition of the 42 MW power plant to the existing OMECO distribution system.
2. Customers who experiences voltage problems greatly reduced as the new Sablayan substation and generators were introduced to the OMECO network.
3. Throughout the primary network of all the feeders in OMECO network.
4. Technical losses were reduced by almost 20%.

Thus, they could say that the 42 MW power plant introduced improvements in the power quality.

As for the short circuit analysis, it was found that the current protective devices are sufficient to handle the currents introduced by the 42 MW power plants. However, OMECO may need to perform adjustments on the protective device settings due to the changes in the short circuit current level.

In summary, the 42 MW power plant will produce positive impact on OMECO distribution system and will greatly improve its power quality, efficiency and safety.

IX. Schedule of Power Supply Procurement

Base / mid-merit / peaking	For CSP		Proposed contract period (MM/YYYY)		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
Base/Peaking	42	-	Dec. 26, 2022	Dec. 25, 2037	09/01/2019 & 09/08/2019	10/03/2019	11/06/2019	11/07/2019	11/23 - 25/2019	12/10 - 14/2019	12/16 - 20/2019

Table 14 - Schedule of Power Supply Procurement

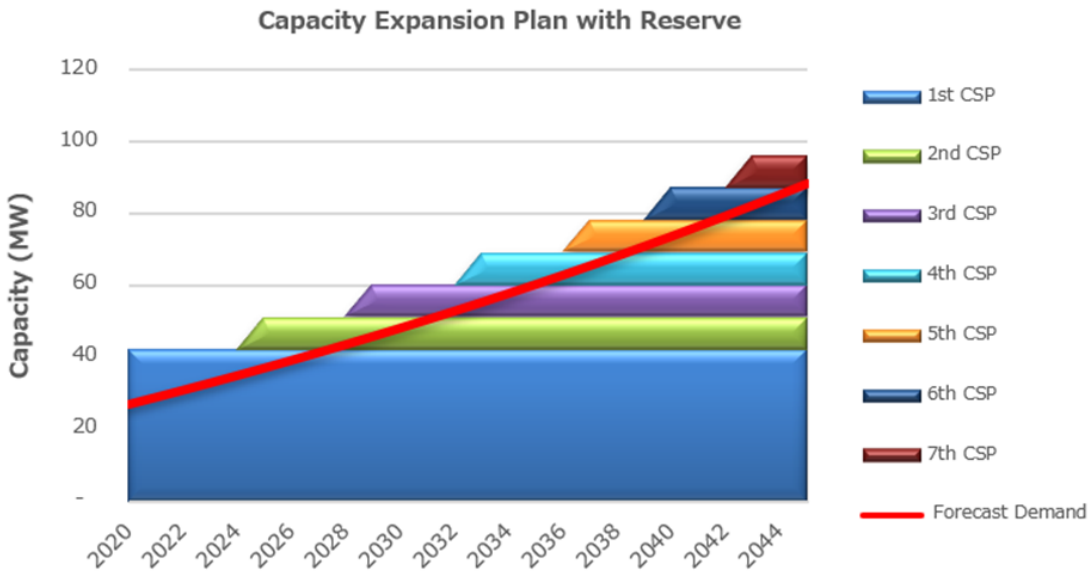

Figure 8 – Generation Capacity Expansion Plan

The generation capacity expansion plan for Occidental Mindoro is shown in **Figure 8.** The 42MW capacity will meet the required demand up to 2025 that also meet the reliability criteria. The timing of the conduct of CSP, the COD year and capacity to be placed are shown in **Table 15**

CSP Year	Commisioning Year	Capacity (MW)
2019	2020	42.0
2022	2025	9.0
2026	2029	9.0
2030	2033	9.0
2034	2037	9.0
2037	2040	9.0
2040	2043	9.0
2043	2046	9.0

Table 15 - Planned Schedule of CSP and New Power Plant Capacities

ANNEX A

10 Year Monthly Data

10 Year Monthly Historical Data

Year	Historical		
	Coincident Peak Demand (MW)	Energy Purchased (MWh)	Energy Sales (MWh)
2009			
Jan	10.81	4,852.65	3,995.80
Feb	11.21	5,131.87	4,306.95
Mar	11.97	4,986.90	4,165.62
Apr	11.48	5,689.72	4,739.08
May	11.05	5,303.14	4,421.18
Jun	11.11	5,117.05	4,246.21
Jul	10.66	4,937.66	4,083.38
Aug	10.33	4,234.17	3,552.45
Sep	11.02	4,872.07	3,959.09
Oct	10.05	4,592.28	3,910.20
Nov	11.29	5,431.74	4,546.60
Dec	11.20	5,114.64	4,295.20
2010			
Jan	11.72	5,341.47	4,499.50
Feb	12.15	5,251.11	4,464.31
Mar	13.04	5,210.62	4,426.80
Apr	12.44	6,238.56	5,316.36
May	11.97	6,316.97	5,481.45
Jun	12.04	6,282.01	5,302.38
Jul	11.55	5,549.21	4,701.45
Aug	11.20	5,561.23	4,754.69
Sep	11.94	5,635.31	4,823.08
Oct	10.89	5,333.27	4,569.58
Nov	12.23	5,903.58	4,914.43
Dec	12.14	5,830.99	4,922.06
2011			
Jan	12.07	5,637.60	4,784.15
Feb	12.51	5,705.27	4,852.07
Mar	13.43	5,322.83	4,492.81
Apr	12.81	6,078.50	5,237.82
May	12.32	6,068.09	5,020.56
Jun	12.40	5,637.54	4,833.23
Jul	11.90	5,301.14	4,585.02
Aug	11.53	5,038.92	4,397.38
Sep	12.29	4,999.99	4,159.31
Oct	11.22	5,265.40	4,429.78
Nov	12.60	6,156.01	5,083.96
Dec	12.50	6,215.23	5,202.86

10 Year Monthly Historical Data

Year	Historical		
	Coincident Peak Demand (MW)	Energy Purchased (MWh)	Energy Sales (MWh)
2012			
Jan	13.33	6,114.66	5,206.57
Feb	11.75	5,490.22	4,567.96
Mar	13.90	5,844.53	4,903.74
Apr	12.05	6,178.26	5,105.41
May	12.80	6,379.83	5,312.08
Jun	12.82	6,176.64	5,133.63
Jul	11.65	5,612.19	4,828.49
Aug	10.69	5,083.18	4,349.85
Sep	11.67	5,517.34	4,686.38
Oct	11.30	5,434.94	4,659.77
Nov	11.82	5,948.26	5,086.02
Dec	11.60	5,515.37	4,716.32
2013			
Jan	13.62	6,244.23	5,420.23
Feb	13.00	6,071.35	5,206.32
Mar	13.94	6,011.67	5,046.10
Apr	14.57	7,473.63	6,271.83
May	14.65	7,302.47	6,144.17
Jun	13.61	6,556.97	5,575.36
Jul	13.47	6,492.14	5,504.86
Aug	11.72	5,570.21	4,780.11
Sep	12.34	5,829.83	4,833.24
Oct	12.45	5,991.34	4,956.52
Nov	11.99	6,033.95	4,979.53
Dec	13.55	6,438.91	5,383.52
2014			
Jan	14.15	6,477.29	5,591.08
Feb	13.17	6,390.21	5,481.52
Mar	13.85	6,170.30	5,302.34
Apr	14.80	7,635.28	6,497.75
May	16.35	7,650.34	6,475.98
Jun	15.18	7,484.13	6,404.49
Jul	14.14	6,076.22	5,252.62
Aug	12.85	6,605.04	5,565.75
Sep	12.32	6,386.00	5,426.10
Oct	13.59	6,830.91	5,853.55
Nov	14.47	7,673.72	6,551.02
Dec	14.42	6,399.62	5,677.33

10 Year Monthly Historical Data

Year	Historical		
	Coincident Peak Demand (MW)	Energy Purchased (MWh)	Energy Sales (MWh)
2015			
Jan	15.44	6,662.08	5,740.74
Feb	15.66	6,383.34	5,409.62
Mar	15.00	6,201.05	5,267.69
Apr	17.34	7,727.41	6,509.72
May	17.12	8,077.46	6,883.69
Jun	17.33	8,300.42	7,105.04
Jul	16.00	7,149.89	6,129.18
Aug	16.00	7,537.10	6,504.27
Sep	16.31	7,786.73	6,608.60
Oct	16.35	7,568.84	6,479.15
Nov	16.80	8,356.52	6,966.72
Dec	16.33	7,518.55	6,294.17
2016			
Jan	16.29	7,795.20	6,603.21
Feb	16.70	7,790.64	6,590.20
Mar	17.00	7,874.70	6,627.77
Apr	19.48	9,217.33	7,699.66
May	18.87	9,348.15	7,957.11
Jun	18.97	9,227.14	7,828.38
Jul	18.32	8,401.30	7,077.95
Aug	18.68	8,261.90	7,056.02
Sep	18.33	8,690.23	7,333.53
Oct	17.68	7,938.09	6,776.56
Nov	17.60	8,668.85	7,320.99
Dec	19.15	8,210.01	6,986.79
2017			
Jan	16.34	8,592.25	7,311.39
Feb	17.47	8,361.43	7,165.75
Mar	18.63	8,045.63	6,745.11
Apr	19.65	9,488.52	8,072.68
May	20.38	10,192.02	8,281.99
Jun	19.14	10,049.66	8,417.98
Jul	18.12	9,122.83	7,783.62
Aug	20.37	8,944.00	7,729.76
Sep	18.93	9,214.39	7,719.21
Oct	19.64	9,000.31	7,786.56
Nov	20.05	9,804.83	8,286.66
Dec	19.59	9,328.02	7,963.34

10 Year Monthly Historical Data

Year	Historical		
	Coincident Peak Demand (MW)	Energy Purchased (MWh)	Energy Sales (MWh)
2018			
Jan	22.14	9,312.53	8,025.25
Feb	19.72	9,576.63	8,187.49
Mar	21.73	9,379.74	8,039.64
Apr	22.41	10,803.94	9,170.33
May	22.76	11,022.72	9,430.89
Jun	21.96	10,071.00	8,607.05
Jul	19.95	8,953.54	7,822.55
Aug	19.51	9,289.41	7,758.75
Sep	20.00	9,606.45	8,384.11
Oct	22.05	10,495.45	8,974.96
Nov	22.13	10,682.64	9,238.09
Dec	22.04	10,609.01	8,953.82

10 Year Monthly Forecast Data

Year	Forecast			Contracted 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	22.08	10.80	10,229.40	24	16,186				
Feb	20.31	10.39	10,521.10	24	16,186				
Mar	21.30	11.23	10,316.43	24	14,861				
Apr	23.85	13.37	12,117.95	24	16,186				
May	25.10	13.07	13,111.27	24	15,744				
Jun	23.86	14.15	11,909.16	24	16,186				
Jul	20.65	10.18	10,152.27	24	15,744				
Aug	20.26	12.62	10,635.78	24	16,186				
Sep	19.72	10.53	10,610.46	24	16,186				
Oct	21.95	11.64	11,778.77	24	15,744				
Nov	22.74	12.73	12,324.55	24	16,186				
Dec	22.17	11.42	11,547.81	24	15,744				
2020									
Jan	23.76	11.62	11,007.38	-	-	23.76	11,007.38	23.76	11,007.38
Feb	21.86	11.18	11,321.26	-	-	21.86	11,321.26	21.86	11,321.26
Mar	22.92	12.09	11,101.02	-	-	22.92	11,101.02	22.92	11,101.02
Apr	25.67	14.39	13,039.56	-	-	25.67	13,039.56	25.67	13,039.56
May	27.01	14.07	14,108.42	-	-	27.01	14,108.42	27.01	14,108.42
Jun	25.67	15.22	12,814.88	-	-	25.67	12,814.88	25.67	12,814.88
Jul	22.22	10.96	10,924.37	-	-	22.22	10,924.37	22.22	10,924.37
Aug	21.80	13.58	11,444.66	-	-	21.80	11,444.66	21.80	11,444.66
Sep	21.22	11.33	11,417.42	-	-	21.22	11,417.42	21.22	11,417.42
Oct	23.62	12.52	12,674.58	-	-	23.62	12,674.58	23.62	12,674.58
Nov	24.47	13.70	13,261.86	-	-	24.47	13,261.86	24.47	13,261.86
Dec	23.85	12.28	12,426.05	-	-	23.85	12,426.05	23.85	12,426.05
2021									
Jan	25.47	12.45	11,799.96	-	-	25.47	11,799.96	25.47	11,799.96
Feb	23.43	11.98	12,136.44	-	-	23.43	12,136.44	23.43	12,136.44
Mar	24.57	12.96	11,900.34	-	-	24.57	11,900.34	24.57	11,900.34
Apr	27.51	15.42	13,978.46	-	-	27.51	13,978.46	27.51	13,978.46
May	28.96	15.08	15,124.29	-	-	28.96	15,124.29	28.96	15,124.29
Jun	27.52	16.32	13,737.61	-	-	27.52	13,737.61	27.52	13,737.61
Jul	23.82	11.74	11,710.98	-	-	23.82	11,710.98	23.82	11,710.98
Aug	23.37	14.56	12,268.73	-	-	23.37	12,268.73	23.37	12,268.73
Sep	22.75	12.15	12,239.52	-	-	22.75	12,239.52	22.75	12,239.52
Oct	25.32	13.42	13,587.21	-	-	25.32	13,587.21	25.32	13,587.21
Nov	26.23	14.69	14,216.78	-	-	26.23	14,216.78	26.23	14,216.78
Dec	25.57	13.17	13,320.79	-	-	25.57	13,320.79	25.57	13,320.79

Year	Forecast			Contracted 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)
2022									
Jan	27.22	13.31	12,607.42	-	-	27.22	12,607.42	27.22	12,607.42
Feb	25.04	12.80	12,966.92	-	-	25.04	12,966.92	25.04	12,966.92
Mar	26.25	13.84	12,714.67	-	-	26.25	12,714.67	26.25	12,714.67
Apr	29.40	16.48	14,935.00	-	-	29.40	14,935.00	29.40	14,935.00
May	30.94	16.11	16,159.24	-	-	30.94	16,159.24	30.94	16,159.24
Jun	29.41	17.43	14,677.67	-	-	29.41	14,677.67	29.41	14,677.67
Jul	25.45	12.55	12,512.35	-	-	25.45	12,512.35	25.45	12,512.35
Aug	24.97	15.56	13,108.27	-	-	24.97	13,108.27	24.97	13,108.27
Sep	24.30	12.98	13,077.06	-	-	24.30	13,077.06	24.30	13,077.06
Oct	27.06	14.34	14,516.97	-	-	27.06	14,516.97	27.06	14,516.97
Nov	28.03	15.69	15,189.62	-	-	28.03	15,189.62	28.03	15,189.62
Dec	27.32	14.07	14,232.32	-	-	27.32	14,232.32	27.32	14,232.32
2023									
Jan	28.99	14.17	13,430.04	-	-	28.99	13,430.04	28.99	13,430.04
Feb	26.67	13.64	13,813.00	-	-	26.67	13,813.00	26.67	13,813.00
Mar	27.96	14.75	13,544.29	-	-	27.96	13,544.29	27.96	13,544.29
Apr	31.32	17.56	15,909.49	-	-	31.32	15,909.49	31.32	15,909.49
May	32.96	17.16	17,213.61	-	-	32.96	17,213.61	32.96	17,213.61
Jun	31.32	18.57	15,635.37	-	-	31.32	15,635.37	31.32	15,635.37
Jul	27.11	13.37	13,328.77	-	-	27.11	13,328.77	27.11	13,328.77
Aug	26.60	16.57	13,963.57	-	-	26.60	13,963.57	26.60	13,963.57
Sep	25.89	13.82	13,930.33	-	-	25.89	13,930.33	25.89	13,930.33
Oct	28.82	15.28	15,464.19	-	-	28.82	15,464.19	28.82	15,464.19
Nov	29.86	16.72	16,180.73	-	-	29.86	16,180.73	29.86	16,180.73
Dec	29.10	14.99	15,160.96	-	-	29.10	15,160.96	29.10	15,160.96
2024									
Jan	30.80	15.06	14,268.11	-	-	30.80	14,268.11	30.80	14,268.11
Feb	28.33	14.49	14,674.96	-	-	28.33	14,674.96	28.33	14,674.96
Mar	29.71	15.67	14,389.49	-	-	29.71	14,389.49	29.71	14,389.49
Apr	33.27	18.65	16,902.28	-	-	33.27	16,902.28	33.27	16,902.28
May	35.01	18.23	18,287.78	-	-	35.01	18,287.78	35.01	18,287.78
Jun	33.28	19.73	16,611.05	-	-	33.28	16,611.05	33.28	16,611.05
Jul	28.81	14.20	14,160.51	-	-	28.81	14,160.51	28.81	14,160.51
Aug	28.26	17.61	14,834.93	-	-	28.26	14,834.93	28.26	14,834.93
Sep	27.50	14.69	14,799.61	-	-	27.50	14,799.61	27.50	14,799.61
Oct	30.62	16.23	16,429.19	-	-	30.62	16,429.19	30.62	16,429.19
Nov	31.72	17.76	17,190.44	-	-	31.72	17,190.44	31.72	17,190.44
Dec	30.92	15.92	16,107.04	-	-	30.92	16,107.04	30.92	16,107.04

Year	Forecast			Contracted 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)
2025									
Jan	32.64	15.96	15,121.91	-	-	32.64	15,121.91	32.64	15,121.91
Feb	30.03	15.35	15,553.11	-	-	30.03	15,553.11	30.03	15,553.11
Mar	31.49	16.60	15,250.55	-	-	31.49	15,250.55	31.49	15,250.55
Apr	35.26	19.77	17,913.71	-	-	35.26	17,913.71	35.26	17,913.71
May	37.11	19.32	19,382.11	-	-	37.11	19,382.11	37.11	19,382.11
Jun	35.27	20.91	17,605.05	-	-	35.27	17,605.05	35.27	17,605.05
Jul	30.53	15.05	15,007.87	-	-	30.53	15,007.87	30.53	15,007.87
Aug	29.95	18.66	15,722.64	-	-	29.95	15,722.64	29.95	15,722.64
Sep	29.15	15.57	15,685.22	-	-	29.15	15,685.22	29.15	15,685.22
Oct	32.45	17.20	17,412.30	-	-	32.45	17,412.30	32.45	17,412.30
Nov	33.62	18.82	18,219.11	-	-	33.62	18,219.11	33.62	18,219.11
Dec	32.77	16.88	17,070.88	-	-	32.77	17,070.88	32.77	17,070.88
2026									
Jan	34.52	16.88	15,991.74	-	-	34.52	15,991.74	34.52	15,991.74
Feb	31.76	16.24	16,447.74	-	-	31.76	16,447.74	31.76	16,447.74
Mar	33.30	17.56	16,127.78	-	-	33.30	16,127.78	33.30	16,127.78
Apr	37.29	20.90	18,944.13	-	-	37.29	18,944.13	37.29	18,944.13
May	39.24	20.43	20,496.99	-	-	39.24	20,496.99	39.24	20,496.99
Jun	37.30	22.11	18,617.72	-	-	37.30	18,617.72	37.30	18,617.72
Jul	32.28	15.92	15,871.14	-	-	32.28	15,871.14	32.28	15,871.14
Aug	31.67	19.73	16,627.03	-	-	31.67	16,627.03	31.67	16,627.03
Sep	30.83	16.46	16,587.45	-	-	30.83	16,587.45	30.83	16,587.45
Oct	34.32	18.19	18,413.88	-	-	34.32	18,413.88	34.32	18,413.88
Nov	35.55	19.91	19,267.10	-	-	35.55	19,267.10	35.55	19,267.10
Dec	34.66	17.85	18,052.82	-	-	34.66	18,052.82	34.66	18,052.82
2027									
Jan	36.43	17.81	16,877.90	-	-	36.43	16,877.90	36.43	16,877.90
Feb	33.52	17.14	17,359.17	-	-	33.52	17,359.17	33.52	17,359.17
Mar	35.14	18.53	17,021.48	-	-	35.14	17,021.48	35.14	17,021.48
Apr	39.36	22.06	19,993.89	-	-	39.36	19,993.89	39.36	19,993.89
May	41.42	21.57	21,632.81	-	-	41.42	21,632.81	41.42	21,632.81
Jun	39.37	23.34	19,649.39	-	-	39.37	19,649.39	39.37	19,649.39
Jul	34.07	16.80	16,750.62	-	-	34.07	16,750.62	34.07	16,750.62
Aug	33.43	20.83	17,548.39	-	-	33.43	17,548.39	33.43	17,548.39
Sep	32.54	17.37	17,506.62	-	-	32.54	17,506.62	32.54	17,506.62
Oct	36.22	19.20	19,434.26	-	-	36.22	19,434.26	36.22	19,434.26
Nov	37.52	21.01	20,334.76	-	-	37.52	20,334.76	37.52	20,334.76
Dec	36.58	18.84	19,053.19	-	-	36.58	19,053.19	36.58	19,053.19

Year	Forecast			Contracted 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)
2028									
Jan	38.38	18.76	17,780.70	-	-	38.38	17,780.70	38.38	17,780.70
Feb	35.31	18.05	18,287.71	-	-	35.31	18,287.71	35.31	18,287.71
Mar	37.02	19.52	17,931.95	-	-	37.02	17,931.95	37.02	17,931.95
Apr	41.46	23.24	21,063.36	-	-	41.46	21,063.36	41.46	21,063.36
May	43.63	22.72	22,789.95	-	-	43.63	22,789.95	43.63	22,789.95
Jun	41.47	24.59	20,700.44	-	-	41.47	20,700.44	41.47	20,700.44
Jul	35.90	17.70	17,646.61	-	-	35.90	17,646.61	35.90	17,646.61
Aug	35.22	21.94	18,487.06	-	-	35.22	18,487.06	35.22	18,487.06
Sep	34.28	18.30	18,443.05	-	-	34.28	18,443.05	34.28	18,443.05
Oct	38.16	20.23	20,473.80	-	-	38.16	20,473.80	38.16	20,473.80
Nov	39.53	22.13	21,422.46	-	-	39.53	21,422.46	39.53	21,422.46
Dec	38.53	19.84	20,072.34	-	-	38.53	20,072.34	38.53	20,072.34