MACTAN ELECTRIC COMPANY, INC.
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 PSSP 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

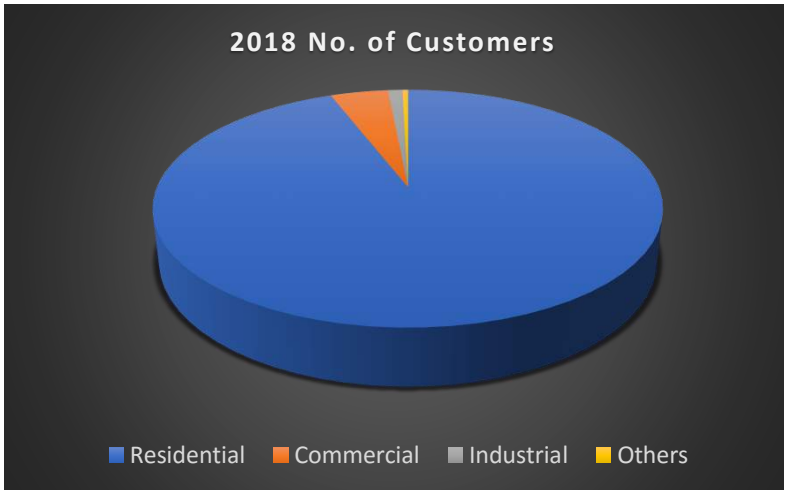
DISTRIBUTION UTILITIES PROFILE

Mactan Electric Company, Inc. (MECO) was incorporated and registered with the Securities and Exchange Commission (SEC) on January 24, 1967. The Company was granted an extension of its corporate life for 50 years on June 15, 2016. MECO is primarily engaged in the business of electric power distribution. MECO is serving its franchise areas in Lapu-Lapu City, which includes Olango Island and the Municipality of Cordova, with four (4) Schedules of customers namely: Schedule 4 (residential), Schedule 3 (commercial, public buildings and street lightings), Schedule 2 (Below 1MW), and Schedule 1 (1 MW above). During the initial operation of MECO from 1967 to 1973, it was only serving a number of residential customers and with the absence of big loads, there were limited economic activities. The major industries like General Milling Corporation, Shell Oil Company, Mobil Oil, among others, were generating their own power. However, from 1972 up to 1974, MECO registered and upsurge in its financial performance due to the operationalization of the Mactan-Mandaue Bridge, the Mactan International Airport, and the establishment of the Mactan Export Processing Zone (MEPZ). All these paved the opportunity for the opening of more industries and increased power demand. In particular, the Philippines Airlines became MECO's first industrial customer. In 1978, the National Power Corporation started its operation in Cebu. Given this, MECO was able to expand its operation, attaining a 98% of energizing the major roads within the franchised areas. On August 6, 1973, the National Electrification Commission (NEC) granted a Certificate of Franchise to MECO to operate an electric light and power for 25 years up to October 10, 1991. On July 17, 2016, the Company was granted a renewal of its franchise for another 25 years. To date, MECO performs its roles as service provider and as an economic catalyst, to the areas and the customers it serves

DU's Franchise MAP

Number of Customer	ACTUAL 2018	FORECAST 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Residential	85,229	90,157	95,186	100,472	106,162	112,154	118,446	125,100	132,148	139,583	147,430
Commercial	3,934	4,264	4,557	4,862	5,159	5,521	5,889	6,279	6,694	7,144	7,619
Industrial	986	1,082	1,167	1,261	1,369	1,486	1,609	1,744	1,891	2,050	2,222
Others	379	467	550	624	720	846	982	1,136	1,320	1,536	1,784
Contestable Customers served by RES	8	9	10	12	13	14	15	16	17	18	19
Total (Captive Customers)	90,528	95,970	101,460	107,219	113,410	120,007	126,926	134,259	142,053	150,313	159,055

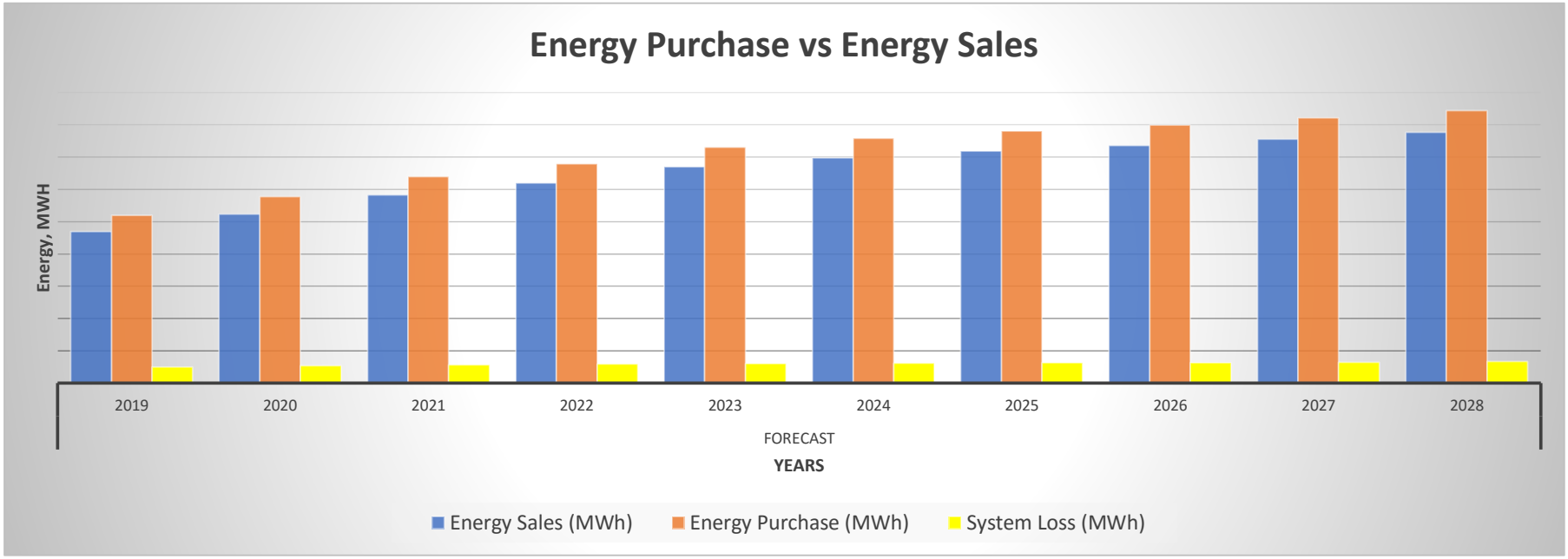
The increase in demand is due to subdivisions coming in, condo/hotels, and expansion of airport. The construction of the 3rd bridge contributes the increase in demand particularly in Cordova were currently is not yet highly urbanized compare to lapulapu city. Cordova has also planned to do reclamation.



ENERGY SALES AND PURCHASE

ENERGY SALES AND PURCHASE	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Energy Sales (MWh)	256,402.00	289,937.55	298,474.56	345,357.67	363,345.10	377,914.69	418,203.37	463,042.07	413,995.48	423,738.05
Energy Purchase (MWh)	288,181.00	324,018.02	334,200.46	373,683.31	390,735.82	412,002.01	453,950.73	504,708.59	454,598.04	467,369.52
System Loss (MWh)	31,779.00	34,080.46	35,725.90	28,325.64	27,390.73	34,087.33	35,747.36	41,666.52	40,602.56	43,631.47

ENERGY SALES AND PURCHASE	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Energy Sales (MWh)	469,684.36	523,075.88	583,319.97	620,323.19	669,475.64	697,175.15	718,566.24	736,358.77	756,233.40	777,236.83
Energy Purchase (MWh)	520,065.62	577,024.28	639,693.71	678,744.05	730,400.19	758,681.47	780,962.70	799,039.97	821,158.97	843,881.83
System Loss (MWh)	50,381.25	53,948.40	56,373.74	58,420.86	60,924.55	61,506.32	62,396.46	62,681.20	64,925.57	66,645.01

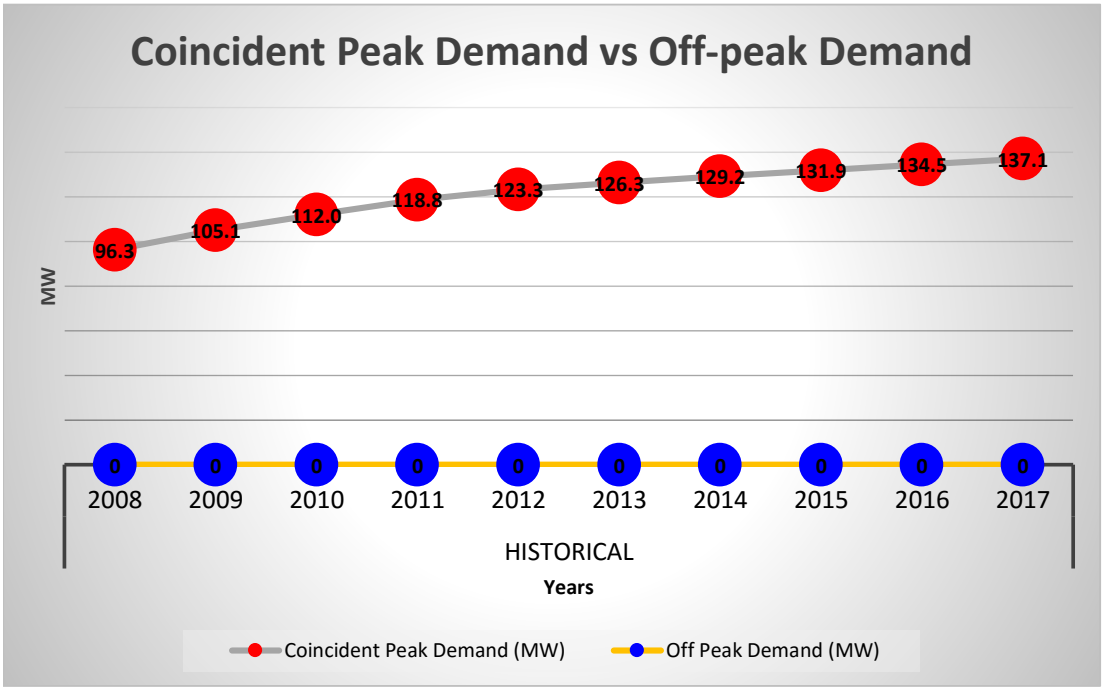


Increase in demand is attributable to the coming in of big customers, expansions of some existing customers, and reclamation plan of Cordova. There is also increase in demand requirement of some peripheral loads/customers.

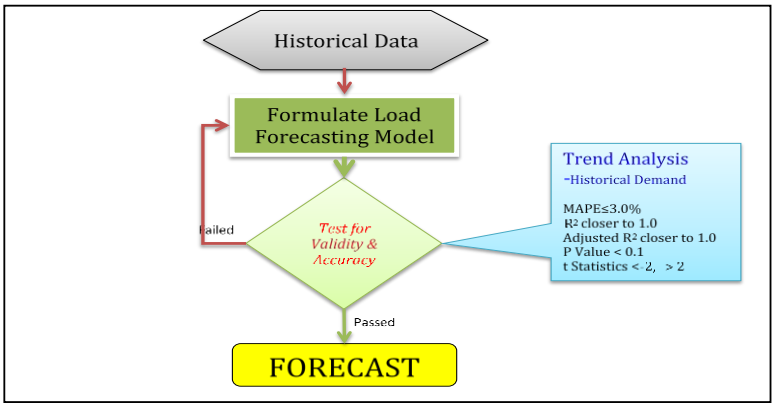
DEMAND

Demand	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Coincident Peak Demand (MW)	47.2	53.3	54.3	60.3	63.6	69.5	73.2	80.3	76.9	82.9
Off Peak Demand (MW)										

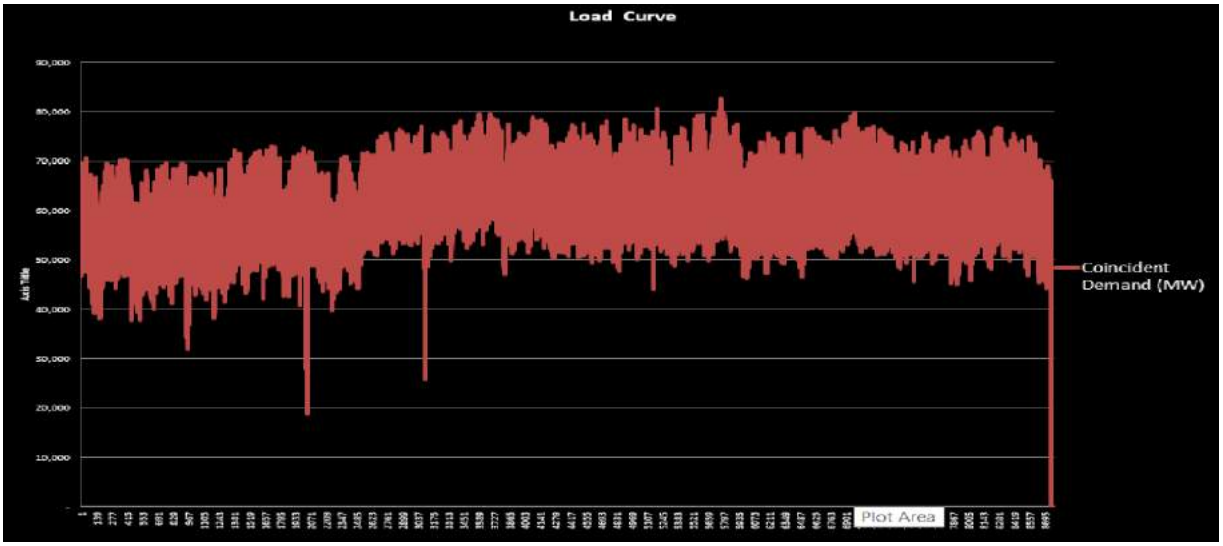
Demand	HISTORICAL									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Coincident Peak Demand (MW)	96.3	105.1	112.0	118.8	123.3	126.3	129.2	131.9	134.5	137.1
Off Peak Demand (MW)										

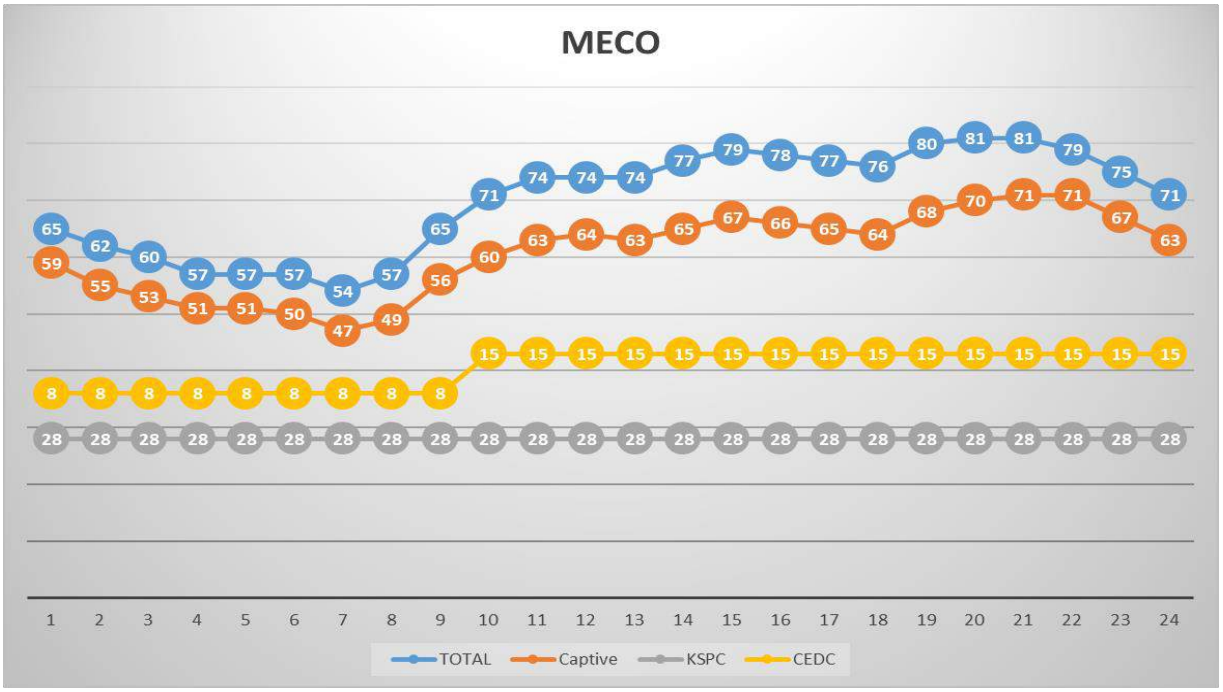


MECO uses the forecasting flow:



LOAD PROFILE AND LOAD DURATION CURVE



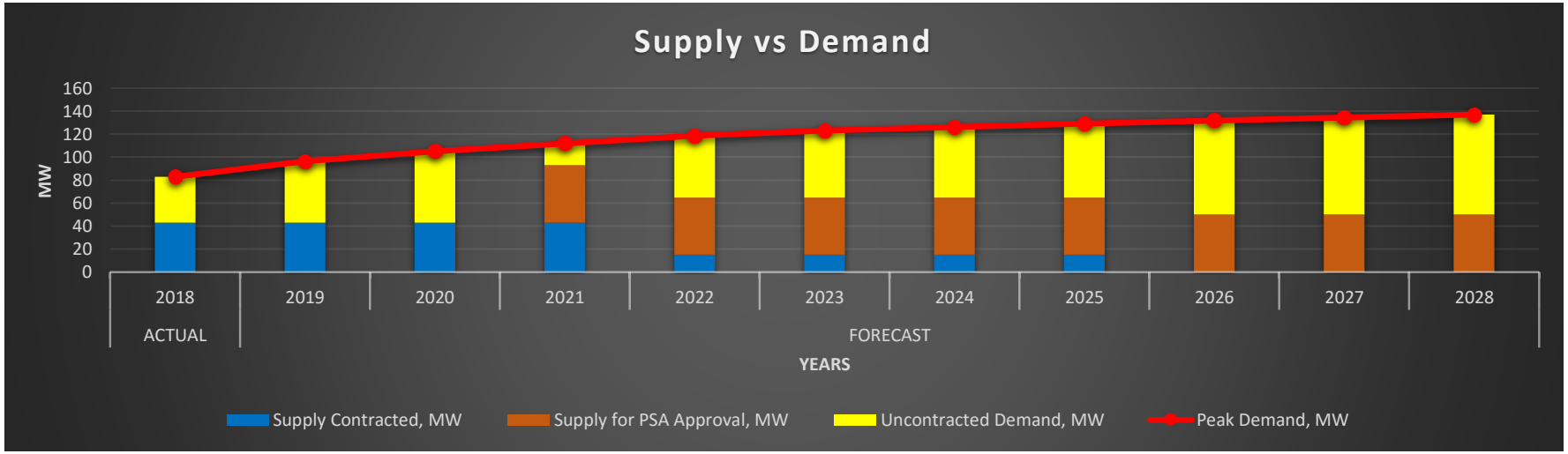


Brief highlight:

Base on the load curve identify the base-load, mid-merit and peaking. As such the data can be used for the strategy in contracting the DUs demand requirement.

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	**82.88003**	**96.299**	**105.108**	**112.029**	**118.757**	**123.311**	**126.313**	**129.178**	**131.919**	**134.545**	**137.07**
Supply Contracted, MW	**43**	**43**	**43**	**43**	**15**	**15**	**15**	**15**	**0**	**0**	**0**
KSPC	28	28	28	28							
CEDC	15	15	15	15	15	15	15	15			
Generation Plant Name 3											
Supply for PSA Approval, MW	**0**	**0**	**0**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**
SCPC				50	50	50	50	50	50	50	50
Generation Plant Name 2											
Generation Plant Name 3											
Uncontracted Demand, MW	**39.88003**	**53.299**	**62.108**	**19.029**	**53.757**	**58.311**	**61.313**	**64.178**	**81.919**	**84.545**	**87.07**



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)
KSPC	KEPCO-SALCON	100	March 26, 2011	March 25, 2021	28	2,454,816	Base	Grid-connected	IPP	Base	COAL	2 x 100	200
CEDC	GLOBAL BUSINESS POWER CORPORATION	80	March 26, 2011	March 25, 2025	15	1,841,040	Mid-merit	Grid-connected	IPP	Intermediary	COAL	3 x 82	246
GenCo 3													
GenCo 4													
GenCo 5													

KSPC and CEDC performs well in supply aspect. For the past few years, they seldom have force outages. They were able to deliver their contracted volumes. The physical availability of the plants in Cebu is also an advantage of this generating company for MECO.
For now, MECO sourced its deficit from the Market despite of the volatility of its prices rather than exposed to stranded cost due to switching of contestable customers.

DISTRIBUTION IMPACT STUDY

Not Applicable due to reason that no prospect supply will be located in the franchise area.

SCHEDULE OF CSP

Base / mid-merit / peaking	For CSP		Proposed contract		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

Note: No plan for CSP because we have just finished the process with the winning bidder that will supply 50MW this coming 2021. We are now in the process of finalizing the contract.

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	71		39,305	43	29,760	28	9,545		
Feb	72		39,948	43	29,760	29	10,188		
Mar	76		37,658	43	26,880	33	10,778		
Apr	80		43,204	43	29,760	37	13,444		
May	80		45,288	43	28,800	37	16,488		
Jun	81		46,656	43	29,760	38	16,896		
Jul	79		44,456	43	28,800	36	15,656		
Aug	81		46,652	43	29,760	38	16,892		
Sep	79		44,629	43	29,760	36	14,869		
Oct	80		45,190	43	28,800	37	16,390		
Nov	76		44,238	43	29,760	33	14,478		
Dec	77		42,842	43	28,800	34	14,042		
2020									
Jan	78		43,610	43	29,760	35	13,850		
Feb	79		44,324	43	29,760	36	14,564		
Mar	83		41,782	43	26,880	40	14,902		
Apr	87		47,935	43	29,760	44	18,175		
May	88		50,248	43	28,800	45	21,448		
Jun	88		51,766	43	29,760	45	22,006		
Jul	87		49,325	43	28,800	44	20,525		
Aug	89		51,761	43	29,760	46	22,001		
Sep	87		49,517	43	29,760	44	19,757		
Oct	88		50,140	43	28,800	45	21,340		
Nov	83		49,083	43	29,760	40	19,323		
Dec	85		47,535	43	28,800	42	18,735		
2021									
Jan	84		48,346	43	29,760	41	18,586		
Feb	85		49,138	43	29,760	42	19,378		
Mar	90		46,320	43	26,880	47	19,440		
Apr	94		53,142	15	8,928	79	44,214		
May	95		55,705	15	8,640	80	47,065		
Jun	95		57,388	15	8,928	80	48,460		
Jul	94		54,682	15	8,640	79	46,042		
Aug	96		57,383	15	8,928	81	48,455		
Sep	94		54,894	15	8,928	79	45,966		
Oct	95		55,585	15	8,640	80	46,945		
Nov	90		54,414	15	8,928	75	45,486		
Dec	91		52,697	15	8,640	76	44,057		
2022									
Jan	89		51,298	15	8,928	74	42,370		

Feb	90		52,137	15	8,928	75	43,209		
Mar	95		49,148	15	8,064	80	41,084		
Apr	99		56,386	15	8,928	84	47,458		
May	100		59,105	15	8,640	85	50,465		
Jun	100		60,891	15	8,928	85	51,963		
Jul	99		58,020	15	8,640	84	49,380		
Aug	101		60,886	15	8,928	86	51,958		
Sep	99		58,246	15	8,928	84	49,318		
Oct	100		58,979	15	8,640	85	50,339		
Nov	95		57,735	15	8,928	80	48,807		
Dec	96		55,914	15	8,640	81	47,274		
2023									
Jan	93		55,202	15	8,928	78	46,274		
Feb	94		56,105	15	8,928	79	47,177		
Mar	100		52,888	15	8,064	85	44,824		
Apr	104		60,677	15	8,928	89	51,749		
May	105		63,604	15	8,640	90	54,964		
Jun	105		65,526	15	8,928	90	56,598		
Jul	104		62,435	15	8,640	89	53,795		
Aug	106		65,520	15	8,928	91	56,592		
Sep	104		62,678	15	8,928	89	53,750		
Oct	105		63,467	15	8,640	90	54,827		
Nov	100		62,129	15	8,928	85	53,201		
Dec	101		60,170	15	8,640	86	51,530		
2024									
Jan	96		57,339	15	8,928	81	48,411		
Feb	97		58,277	15	8,928	82	49,349		
Mar	103		54,936	15	8,352	88	46,584		
Apr	107		63,026	15	8,928	92	54,098		
May	108		66,066	15	8,640	93	57,426		
Jun	108		68,063	15	8,928	93	59,135		
Jul	107		64,853	15	8,640	92	56,213		
Aug	109		68,057	15	8,928	94	59,129		
Sep	107		65,105	15	8,928	92	56,177		
Oct	108		65,925	15	8,640	93	57,285		
Nov	103		64,535	15	8,928	88	55,607		
Dec	104		62,499	15	8,640	89	53,859		
2025									
Jan	97		59,023	15	8,928	82	50,095		
Feb	99		59,989	15	8,928	84	51,061		
Mar	104		56,549	15	8,064	89	48,485		
Apr	109		64,877	15	8,928	94	55,949		
May	110		68,007	15	8,640	95	59,367		
Jun	110		70,062	15	8,928	95	61,134		
Jul	109		66,757	15	8,640	94	58,117		
Aug	111		70,055	15	8,928	96	61,127		
Sep	109		67,017	15	8,928	94	58,089		
Oct	110		67,861	15	8,640	95	59,221		
Nov	104		66,430	15	8,928	89	57,502		
Dec	105		64,335	15	8,640	90	55,695		

2026									
Jan	99		60,389	15	8,928	84	51,461		
Feb	100		61,378	15	8,928	85	52,450		
Mar	106		57,858	15	8,064	91	49,794		
Apr	111		66,379			111	66,379		
May	112		69,581			112	69,581		
Jun	112		71,683			112	71,683		
Jul	111		68,303			111	68,303		
Aug	113		71,677			113	71,677		
Sep	111		68,569			111	68,569		
Oct	112		69,432			112	69,432		
Nov	106		67,968			106	67,968		
Dec	107		65,824			107	65,824		
2027									
Jan	101		62,061			101	62,061		
Feb	102		63,077			102	63,077		
Mar	108		59,460			108	59,460		
Apr	113		68,216			113	68,216		
May	114		71,507			114	71,507		
Jun	114		73,668			114	73,668		
Jul	113		70,193			113	70,193		
Aug	115		73,661			115	73,661		
Sep	113		70,467			113	70,467		
Oct	114		71,354			114	71,354		
Nov	108		69,849			108	69,849		
Dec	109		67,646			109	67,646		
2028									
Jan	102		63,778			102	63,778		
Feb	104		64,822			104	64,822		
Mar	110		61,105			110	61,105		
Apr	115		70,104			115	70,104		
May	116		73,486			116	73,486		
Jun	116		75,706			116	75,706		
Jul	115		72,136			115	72,136		
Aug	117		75,699			117	75,699		
Sep	115		72,417			115	72,417		
Oct	116		73,328			116	73,328		
Nov	110		71,782			110	71,782		
Dec	111		69,518			111	69,518		