#### POWER SUPPLY PROCUREMENT PLAN

#### ILIGAN LIGHT AND POWER, 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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VII	Distribution Impact Study
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IY	Timeline of the CSP

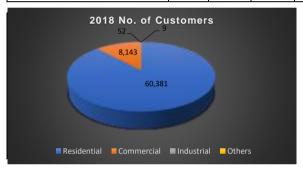
#### INTRODUCTION

#### **DISTRIBUTION UTILITIES PROFILE**

Iligan Light & Power, Inc. (ILPI) is a private corporation, duly organized and existing under and by virtue of the laws of the Republic of the Philippines, with its principal office located at Bro. Jeffrey Road, Pala-o, Iligan City. ILPI is the authorized power distribution utility by virtue of a legislative franchise issued by the Philippine Congress to operate within Iligan City comprising of forty-four (44) barangays. It owns and operates three (3) substations strategically located within its franchise area.



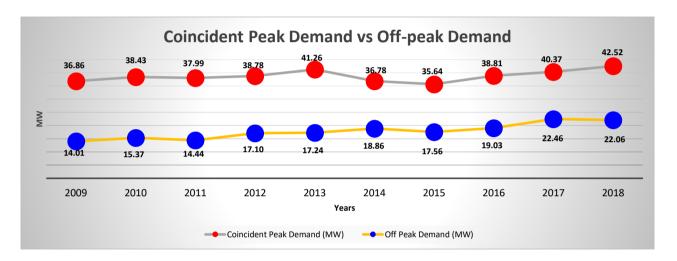
Number of Customer Connections in	ACTUAL	FORECAST										
Franchise	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
Residential	60,381	64,827	68,317	71,977	75,808	79,808	83,977	88,317	92,827	97,507	102,356	
Commercial	8,143	8,215	8,318	8,420	8,523	8,626	8,728	8,831	8,934	9,036	9,139	
Industrial	52	54	57	61	64	68	72	76	81	86	91	
Others (Flat Rate)	9	9	9	9	9	9	9	9	9	9	9	
Contestable Customers served by RES	-	-	-	-	-	-	-	-	-	-	-	
Total (Captive Customers)	68,585	73,105	76,701	80,467	84,404	88,511	92,786	97,233	101,851	106,638	111,595	



#### DEMAND

Demand		HISTORICAL													
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018					
Coincident Peak Demand (MW)	36.86	38.43	37.99	38.78	41.26	36.78	35.64	38.81	40.37	42.52					
Off Peak Demand (MW)	14.01	15.37	14.44	17.10	17.24	18.86	17.56	19.03	22.46	22.06					

Demand		FORECAST													
Demand	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028					
Coincident Peak Demand (MW)	45.77	47.39	49.08	50.85	52.69	54.61	56.61	58.69	60.84	63.06					
Off Peak Demand (MW)	23.73	24.57	25.45	26.37	27.32	28.32	29.36	30.43	31.55	32.70					

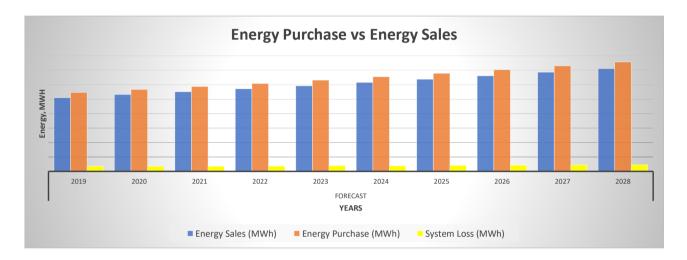


Off-peak demand is the minimum demand (baseload) recorded when the highest system demand occurred.

#### **ENERGY SALES AND PURCHASE**

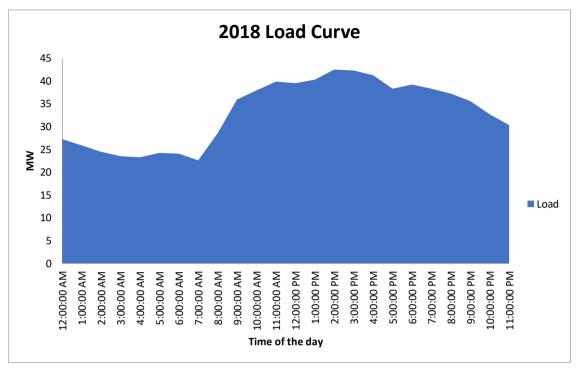
ENERGY SALES AND		HISTORICAL												
PURCHASE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018				
Energy Sales (MWh)	183,914	192,149	184,679	196,044	194,140	192,721	202,593	210,779	217,550	246,324				
Energy Purchase (MWh)	206,879	216,333	203,518	215,499	211,915	210,081	216,437	225,872	228,384	262,106				
System Loss (MWh)	22,965	24,184	18,839	19,455	17,775	17,359	13,844	15,093	10,834	15,782				

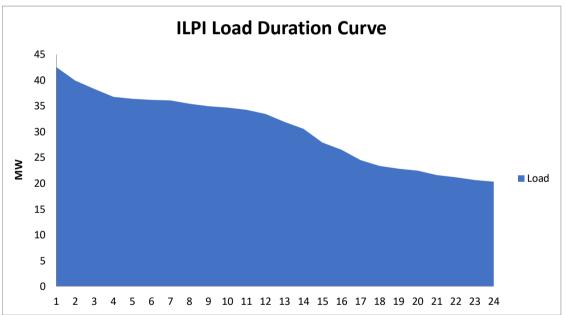
ENERGY SALES AND		FORECAST												
PURCHASE	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028				
Energy Sales (MWh)	255,442	265,915	275,806	285,696	295,940	307,969	319,006	330,929	343,250	355,961				
Energy Purchase (MWh)	273,297	283,139	293,449	304,230	315,480	327,199	339,389	352,047	365,176	378,774				
System Loss (MWh)	17,855	17,223	17,643	18,534	19,540	19,230	20,383	21,119	21,926	22,813				



Brief highlight/report

### LOAD PROFILE AND LOAD DURATION CURVE

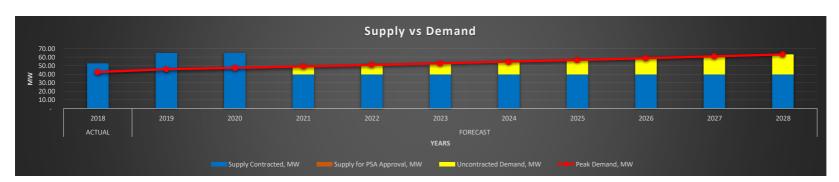




ILPI load Curve and Load Duration Curve for 2018 was based on the day (August 14, 2018) when the highest demand was recorded for the year 2018.

#### MIX SUPPLY VS DEMAND AND THE OPTIMAL SUPPLY

Supply Demand	ACTUAL					FORE	CAST				
Зирргу Белгали	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Peak Demand, MW	42.52	45.77	47.39	49.08	50.85	52.69	54.61	56.61	58.69	60.84	63.06
Supply Contracted, MW	52.75	64.75	64.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75	39.75
PSALM	25.00	25.00	25.00							-	-
Sarangani Energy Corp. (SEC)	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
PowerSource Phil. Energy, Inc. (PSPEI)	-	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Mapalad Energy Generating Corp. (MEGC)	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75
Supply for PSA Approval, MW		•		•		•	•		•	-	-
Generation Plant Name 1	-	-	-	-	-	-	-	-	-	-	-
Generation Plant Name 2		-		-						-	-
Generation Plant Name 3	-	-	-	-	-	-	-	-	-	-	-
Uncontracted Demand, MW	-	-	-	9.33	11.10	12.94	14.86	16.86	18.94	21.09	23.31



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)
PSALM	PSALM		Dec-17	Dec-20	25.00	219,000	Baseload	Grid Connected	NPC	Running	Dominant Hydro		
SEC	SEC	92%	Apr-16	Apr-41	15.00	10,050	Baseload / Mid-merit	Grid Connected	IPP	Running	Coal	210.00	
PSPEI	PSPEI	92%	Jan-19	Jan-44	12.00	8,040	Baseload / Mid-merit	Embedded	IPP	On-going Construction	Coal	20.00	
MEGC	MEGC	92%	Dec-14	Dec-29	12.75	4,271	Peaking	Embedded	IPP	Running	Bunker	15.00	12.75

Note: PSALM supply contract term will expire on December 2020, which resulted to the supply deficiency starting 2021. However, ILPI will pursue its contract renewal or extension with them beyond 2020.

## **DISTRIBUTION IMPACT STUDY**

All existing power suppliers of ILPI have undergone grid and distribution impact studies, in compliance with the requirements setforth in the Philippine Grid Code and Philippine Distribution Code.

### **SCHEDULE OF CSP**

	For	CSP	Propose	d contract			Proposed so	hedule (MN	//YYYY)		
Base / mid- merit / peaking	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 Evaluatio n	Awarding	PSA Signing	Joint Application to ERC
			( 000		DOM: N		<u>L.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	. ,		204	
	N	o schedule	of CSP ye	t. Depende	nt on PSALM	allocation afte	er contract ext	<u>ension / rer</u>	newal on 20	)21	I

#### 10 Year Monthly Data

					ioniny Data					
V		Forecast		Contracted a Approval D Ene	emand and		Demand and ergy	Committed for CSP		
Year	Coincident Peak Demand (MW)	Off Peak Demand (MW)	Energy Requiremen t (MWh)	Demand (MW)	Energy (MWh)	Uncontracted Demand (MW)	Uncontracted Energy (MWh)	Demand (MW)	Energy (MWh)	
2019										
Jan	38.03		20,777.29	64.75	48,174.00	-	-			
Feb	38.73		21,030.30	64.75	43,512.00	-	-			
Mar	39.97		19,637.69	64.75	48,174.00	-	-			
Apr	42.84		23,055.36	64.75	46,620.00	-	-			
May	42.46		24,466.58	64.75	48,174.00	-	-			
Jun	41.43 41.98		22,315.09 21,834.67	64.75	46,620.00	-	-			
Jul Aug	42.86		25,417.32	64.75 64.75	48,174.00 48,174.00	-	-			
Sep	40.83		24,598.56	64.75	46,620.00	-	-			
Oct	41.22		23,385.26	64.75	48,174.00	_	_			
Nov	40.26		23,559.48	64.75	46,620.00	-	_			
Dec	39.57		23,219.37	64.75	48,174.00	-	-			
2020			,		,					
Jan	39.56		21,286.14	64.75	48,174.00	-	-			
Feb	40.29		21,578.58	64.75	45,066.00	-	-			
Mar	41.57		19,968.92	64.75	48,174.00	-	-			
Apr	44.56		23,919.24	64.75	46,620.00	-	-			
May	44.17		25,550.40	64.75	48,174.00	-	-			
Jun	43.09		23,063.60	64.75	46,620.00	-	-			
Jul	43.66		22,508.31	64.75	48,174.00	-	-			
Aug	44.58		26,649.33	64.75 64.75	48,174.00	-	-			
Sep Oct	42.47 42.87		25,702.96 24,300.56	64.75	46,620.00 48,174.00	-	-			
Nov	41.88		24,500.56	64.75	46,620.00	-	-			
Dec	41.16		24,108.82	64.75	48,174.00	-	_			
2021	41.10		24,100.02	04.70	40,174.00					
Jan	42.77		22,075.98	39.75	29,574.00	- 3.02	-			
Feb	43.56		22,377.20	39.75	26,712.00	- 3.81	-			
Mar	44.94		20,719.19	39.75	29,574.00	- 5.19	-			
Apr	48.18		24,788.18	39.75	28,620.00	- 8.43	-			
May	47.75		26,468.34	39.75	29,574.00	- 8.00	-			
Jun	46.59		23,906.84	39.75	28,620.00	- 6.84	-			
Jul	47.21		23,334.87	39.75	29,574.00	- 7.46	-			
Aug	48.20		27,600.27	39.75	29,574.00	- 8.45	-			
Sep	45.92		26,625.48	39.75	28,620.00	- 6.17	-			
Oct	46.35		25,180.95	39.75	29,574.00	- 6.60	-			
Nov	45.28		25,388.37	39.75	28,620.00	- 5.53	-			
Dec 2022	44.50		24,983.45	39.75	29,574.00	- 4.75	-			
Jan	44.21		22,879.24	39.75	29,574.00	- 4.46	_			
Feb	45.02		23,192.51	39.75	26,712.00	- 5.27	-			
Mar	46.46		21,468.18	39.75	29.574.00	- 6.71	_			
Apr	49.79		25,699.93	39.75	28,620.00	- 10.04	-			
May	49.36		27,447.29	39.75	29,574.00		-			
Jun	48.16		24,783.33	39.75	28,620.00		-			
Jul	48.80		24,188.48	39.75	29,574.00	- 9.05	-			
Aug	49.82		28,624.50	39.75	29,574.00	- 10.07	-			
Sep	47.46		27,610.72	39.75	28,620.00	- 7.71	-			
Oct	47.91		26,108.41	39.75	29,574.00	- 8.16	-			
Nov	46.80		26,324.13	39.75	28,620.00		-			
Dec	46.00		25,903.01	39.75	29,574.00	- 6.25	-			
2023	AE 74		22 717 01	20.75	20 574 00	- F.OC	-			
Jan Feb	45.71 46.55		23,717.81 24,043.61	39.75 39.75	29,574.00 26,712.00	- 5.96 - 6.80	-			
Mar	48.03		22,250.31	39.75	29,574.00		-			
Apr	51.48		26,651.33	39.75	28,620.00		-			
May	51.03		28,468.59	39.75	29,574.00	- 11.28	-			
Jun	49.79		25,698.07	39.75	28,620.00	- 10.04	-			
Jul	50.45		25,079.42	39.75	29,574.00	- 10.70	-			
Aug	51.51		29,692.88	39.75	29,574.00	- 11.76	- 118.88			
Sep	49.07		28,638.55	39.75	28,620.00		- 18.55			
Oct	49.54		27,076.15	39.75	29,574.00	- 9.79	-			
Nov	48.38		27,300.49	39.75	28,620.00	- 8.63	-			
Dec	47.56		26,862.53	39.75	29,574.00	- 7.81	-			
2024	4- 12		04.50: ==	00 ==	00.53:5:					
Jan	47.46		24,591.57	39.75	29,574.00		-			
Feb	48.33		24,930.41	39.75	27,666.00		-			
Mar	49.87		23,065.37	39.75	29,574.00		-			
Apr	53.45 52.99		27,642.43 29,532.38	39.75 39.75	28,620.00 29,574.00	- 13.70 - 13.24	-			
May Jun	52.99		29,532.38	39.75	28,620.00		-			
Jul	52.38		26,007.65	39.75	29,574.00	- 11.95	-			
Aug	53.48		30,805.64	39.75	29,574.00	- 12.63	- 1,231.64			
Sep	50.95		29,709.13	39.75	28,620.00	- 11.20	- 1,089.13			
Oct	51.43		28,084.25	39.75	29,574.00		- 1,009.13			
Nov	50.24		28,317.56	39.75	28,620.00		_			
Dec	49.37		27,862.08	39.75	29,574.00	- 9.62	_			
	10.07		,002.00	00.10	_0,0, 7.00	5.02				

#### POWER SUPPLY PROCUREMENT PLAN

2025						1	
Jan	49.06	25,500.36	39.75	29,574.00 -	9.31	_	
Feb	49.97	25,852.75	39.75	26,712.00 -	10.22	_	
Mar	51.56	23.913.11	39.75	29,574.00 -	11.81	_	
Apr	55.26	28,673.25	39.75	28,620.00 -	15.51 -	53.25	
Mav	54.78	30.638.80	39.75	29.574.00 -	15.03 -	1.064.80	
Jun	53.45	27,642.20	39.75	28,620.00 -	13.70	-	
Jul	54.15	26,973.08	39.75	29,574.00 -	14.40	-	
Aug	55.29	31,963.00	39.75	29,574.00 -	15.54 -	2,389.00	
Sep	52.67	30,822.62	39.75	28,620.00 -	12.92 -	2,202.62	
Oct	53.17	29,132.74	39.75	29,574.00 -	13.42	-	
Nov	51.94	29,375.39	39.75	28,620.00 -	12.19 -	755.39	
Dec	51.05	28,901.68	39.75	29,574.00 -	11.30	-	
2026							
Jan	50.79	26,443.92	39.75	29,574.00 -	11.04	-	
Feb	51.73	26,810.41	39.75	26,712.00 -	11.98 -	98.41	
Mar	53.37	24,793.19	39.75	29,574.00 -	13.62	-	
Apr	57.21	29,743.73	39.75	28,620.00 -	17.46 -	1,123.73	
May	56.71	31,787.90	39.75	29,574.00 -	16.96 -	2,213.90	
Jun	55.33	28,671.44	39.75	28,620.00 -	15.58 -	51.44	
Jul	56.06	27,975.55	39.75	29,574.00 -	16.31	-	
Aug	57.24	33,165.07	39.75	29,574.00 -	17.49 -	3,591.07	
Sep	54.53	31,979.08	39.75	28,620.00 -	14.78 -	3,359.08	
Oct	55.05	30,221.60	39.75	29,574.00 -	15.30 -	647.60	
Nov	53.77	30,473.96	39.75	28,620.00 -	14.02 -	1,853.96	
Dec	52.85	29,981.31	39.75	29,574.00 -	13.10 -	407.31	
2027							
Jan	52.58	27,422.27	39.75	29,574.00 -	12.83	-	
Feb	53.55	27,803.41	39.75	26,712.00 -	- 13.80 -	1,091.41	
Mar	55.26	25,705.50	39.75	29,574.00 -	15.51	-	
Apr	59.23	30,854.07	39.75	28,620.00 -	19.48 -	2,234.07	
May	58.71	32,980.00	39.75	29,574.00 -	- 18.96 -	3,406.00	
Jun	57.28	29,738.89	39.75	28,620.00 -	17.53 -	1,118.89	
Jul	58.04	29,015.16	39.75	29,574.00 -	18.29	-	
Aug	59.26	34,412.26	39.75	29,574.00 -	19.51 -	4,838.26	
Sep	56.45	33,178.83	39.75	28,620.00 -	- 16.70 -	4,558.83	
Oct	56.99	31,351.05	39.75	29,574.00 -	17.24 -	1,777.05	
Nov	55.66	31,613.50	39.75	28,620.00 -	15.91 -	2,993.50	
Dec	54.71	31,101.14	39.75	29,574.00 -	14.96 -	1,527.14	
2028							
Jan	54.43	28,435.04	39.75	29,574.00 -	14.68	-	
Feb	55.43	28,831.43	39.75	27,666.00 -	- 15.68 -	1,165.43	
Mar	57.20	26,649.60	39.75	29,574.00 -	17.45	-	
Apr	61.31	32,004.11	39.75	28,620.00 -	- 21.56 -	3,384.11	
May	60.77	34,215.09	39.75	29,574.00 -	- 21.02 -	4,641.09	
Jun	59.29	30,844.33	39.75	28,620.00 -	19.54 -	2,224.33	
Jul	60.08	30,091.65	39.75	29,574.00 -	20.33 -	517.65	
Aug	61.34	35,704.63	39.75	29,574.00 -	- 21.59 -	6,130.63	
Sep	58.44	34,421.87	39.75	28,620.00 -	- 18.69 -	5,801.87	
Oct	58.99	32,520.98	39.75	29,574.00 -	19.24 -	2,946.98	
Nov	57.62	32,793.93	39.75	28,620.00 -	17.87 -	4,173.93	
Dec	56.63	32,261.07	39.75	29,574.00 -	- 16.88 -	2,687.07	