

BATANGAS II ELECTRIC COOPERATIVE, 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 PSSP 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

TABLE OF CONTENTS

I. Introduction	1
II. Energy Sales and Purchase	2
III. Demand	3
IV. Load Profile and Load Duration Curve	4
V. MixSupply vs. Demand and the Optimal Supply	5
VI. Existing Power Supply Contracts	6
VII. Distribution Impact Study	7
VIII. Schedule of CSP	8
ANNEX A - 10 Year Monthly Forecasted Data	9
ANNEX B - 10 Year Monthly Historical Data	12

INTRODUCTION

DISTRIBUTION UTILITIES PROFILE

DU's Franchise MAP

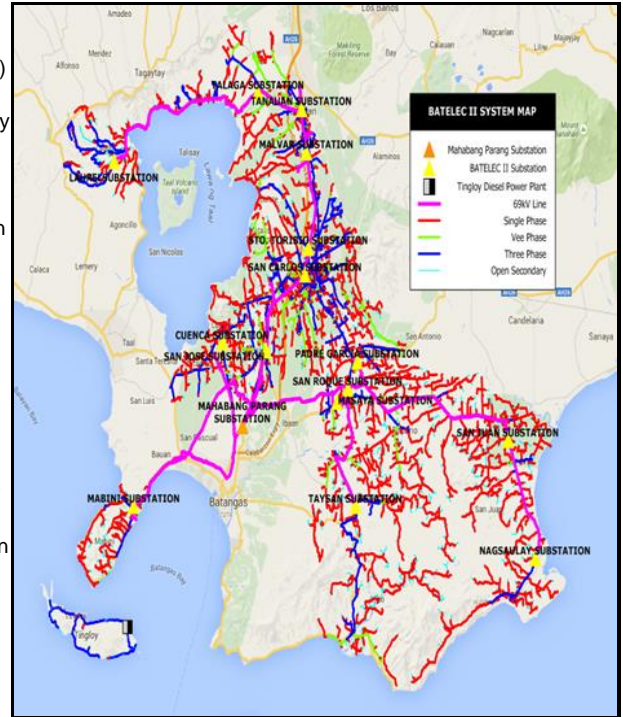
BATELEC II PROFILE AS OF DECEMBER 2018

The Batangas II Electric Cooperative, Inc. (BATELEC II) is one of the two (2) Electric Cooperatives that distribute electricity to Batangas province with its principal office at Antipolo del Norte, Lipa City. It was organized and was duly registered with the National Electrification Administration (NEA) on August 12, 1977.

Its franchise area encompasses two(2) cities and fifteen(15) municipalities in the province of Batangas, distributed in a geographical tract approximately 3,166 sq. kms. in size. The two cities are Lipa and Tanauan while the fifteen municipalities are Alitagtag, Cuenca, Mataas na Kahoy, Balete, San Jose, Mabini, Tingloy, Rosario, Padre Garcia, Taysan, San Juan, Lobo, Malvar, Talisay and Laurel.

A total of 316,195 active connections was recorded as of December 2018 with twenty two(22) units of power transformers installed in fifteen(15) distribution substations with a total capacity of 210.6 MVA. A total of 949,179,304 kWh energy (including customers served by RES) was sold for 2018, posting a 5-year compounded annual load growth rate of 6.39%. Meanwhile, peak demand for 2018 was recorded at 180.741 MW higher than 2017 at 171.876 MW.

Line projects were continuously implemented franchise wide to improve the system reliability and maintain the systems loss within the cap of 11%. The 12-month average systems loss as of December 2018 is 10.21%.

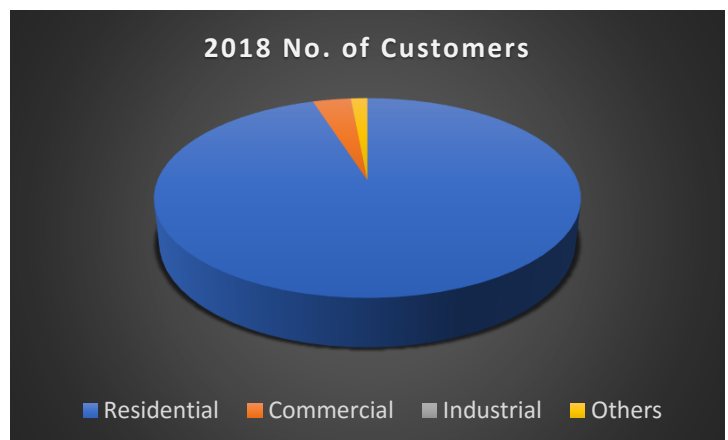


Number of Customer Connections in Franchise	ACTUAL	FORECAST									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Residential	256,168	258,134	265,038	272,544	280,921	290,404	301,202	313,512	327,520	343,407	361,345
Commercial	9,250	9,288	9,421	9,569	9,733	9,914	10,112	10,328	10,562	10,813	11,083
Industrial	41	41	41	42	42	42	43	43	44	44	44
Others	3,977	4,057	4,183	4,316	4,458	4,610	4,774	4,947	5,133	5,331	5,545
Contestable Customers served by RES	10	10	10	10	11	11	12	12	13	13	13
Total (Captive Customers)	269,446	271,530	278,693	286,481	295,165	304,981	316,143	328,842	343,272	359,608	378,030

The increase in demand is attributable to the continuously growing number of billed connections from captive market.

Urbanization and industrialization is remarkable not only in the two cities in the franchise area but also in top class municipalities.

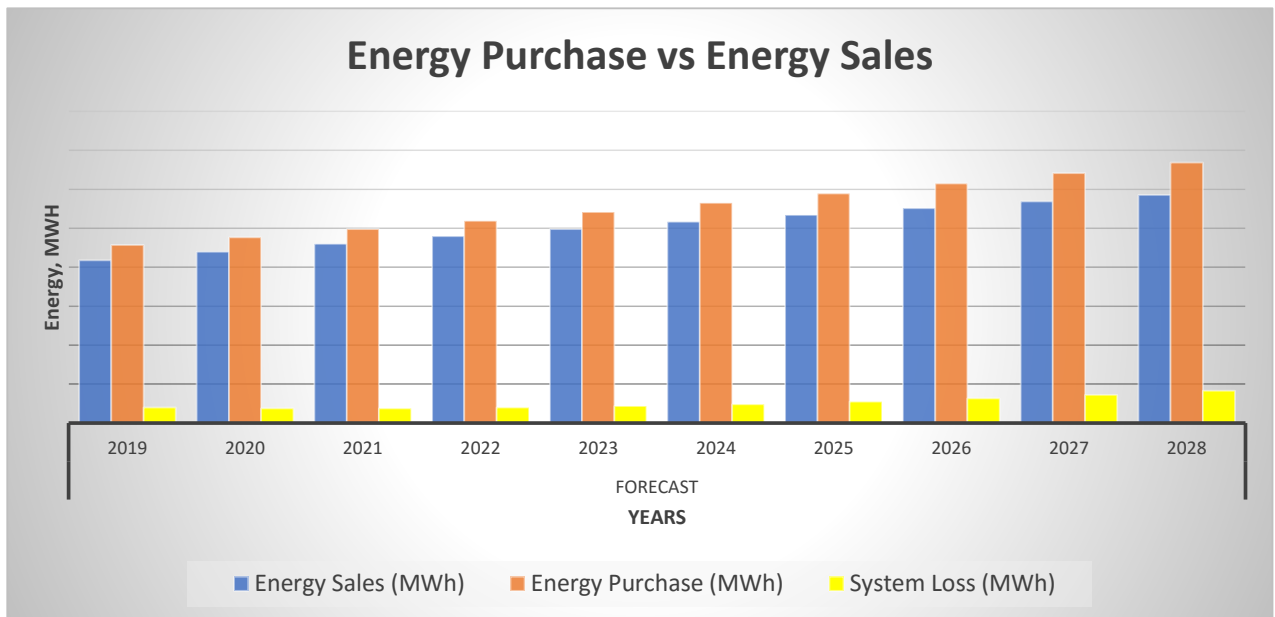
Commercial buildings, schools, BPOs, and other industries continuously sprouts in the coverage area of BATELEC II.



ENERGY SALES AND PURCHASE

ENERGY SALES AND PURCHASE	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Energy Sales (MWh)	543,732	627,637	662,625	693,679	663,242	681,479	732,554	811,790	769,988	788,141
Energy Purchase (MWh)	611,760	704,984	739,494	779,233	753,282	777,732	834,965	921,664	861,951	876,209
System Loss (MWh)	68,028	77,347	76,869	85,555	90,040	80,481	83,135	90,052	91,963	88,068

ENERGY SALES AND PURCHASE	FORECAST									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Energy Sales (MWh)	834,980	878,367	919,316	958,371	995,946	1,032,366	1,067,900	1,102,771	1,137,169	1,171,263
Energy Purchase (MWh)	914,061	953,548	994,742	1,037,714	1,082,544	1,129,310	1,178,096	1,228,989	1,282,082	1,337,468
System Loss (MWh)	79,081	75,182	75,425	79,343	86,598	96,943	110,195	126,219	144,913	166,205



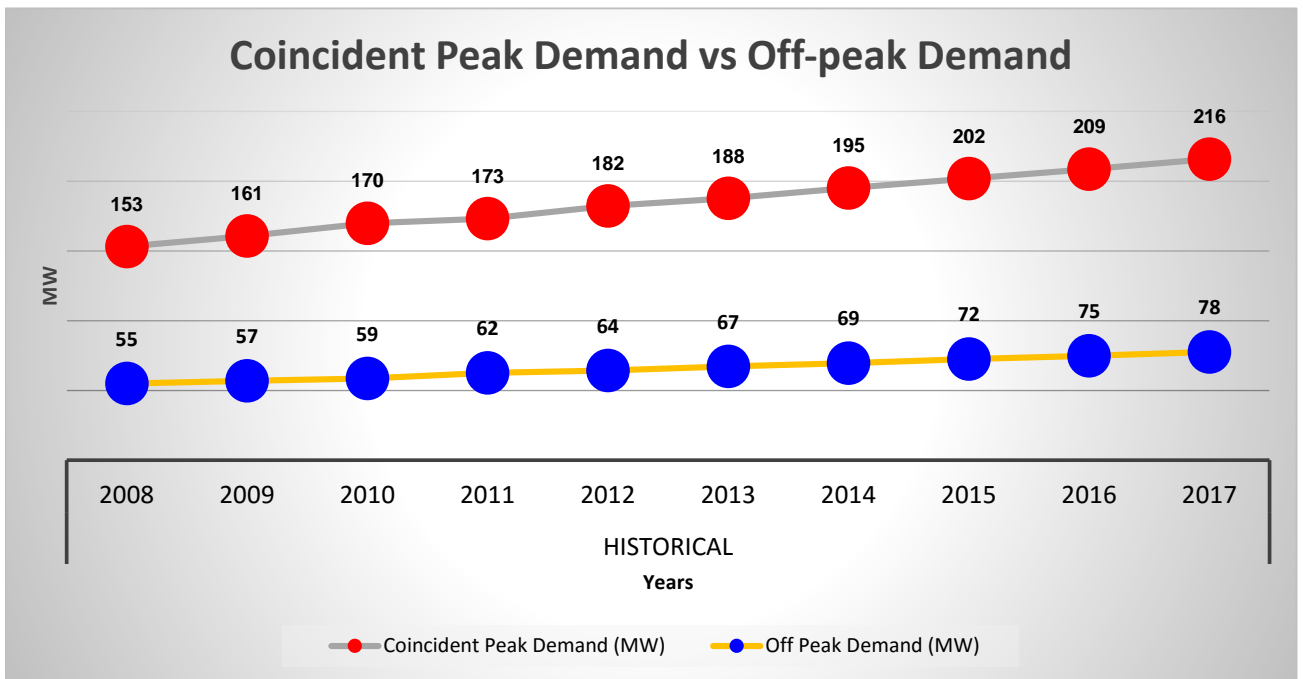
Brief highlight/report

Presently, BATELEC II was being supplied by GN Mariveles Coal Plant, Ltd. (GMCP), with long term contract of 20years which commenced its operation in the year 2014. Recently, BATELEC II engaged in another contract of additional 20MW to be utilized by year 2020. The additional contracted capacity was considered to augment the existing capacity which will spare the cooperative from sourcing power from the market. This will introduce a reasonable rate to the existing consumers and competitive rate that can be offered to contestable customers. Generally, it can be realized that there is a drop of losses in terms of mwh in the year 2014 and 2015. This was due to system improvement campaign of Batelec II by reducing the technical and non-technical losses. There were launching of meter clustering, massive replacement of defective meters, massive program to eliminate pilferage and many more.

DEMAND

Demand	HISTORICAL									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Coincident Peak Demand (MW)	105.95	116.85	120.49	130.23	119.32	129.26	129.29	136.7	124.87	138.97
Off Peak Demand (MW)	30.503	34.59	41.392	51.185	51.792	49.774	51.42	56.75	59.692	48.801

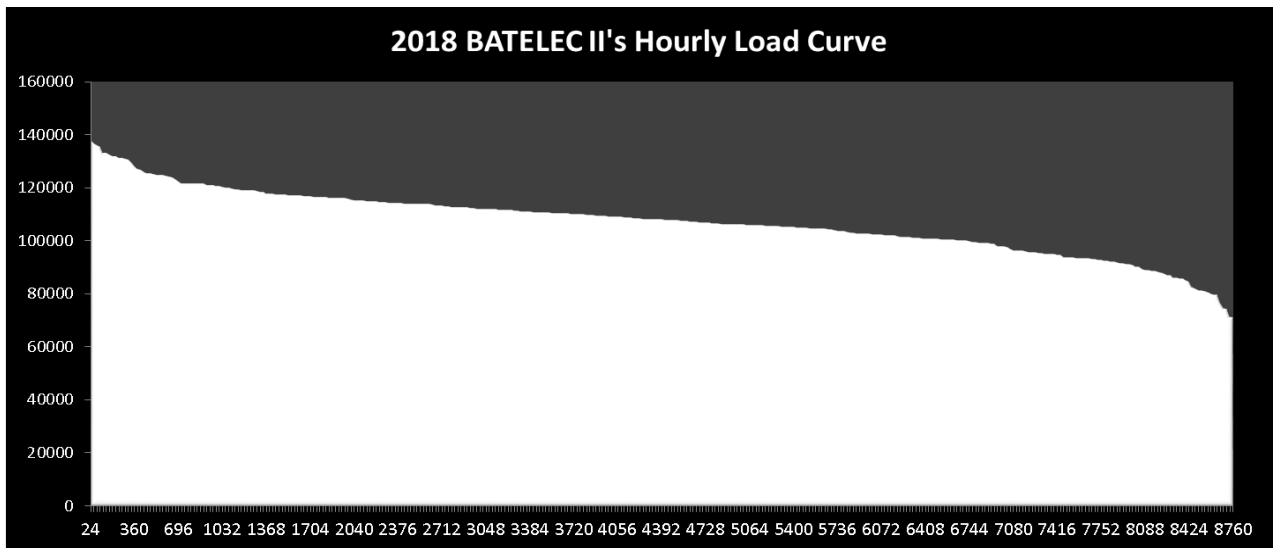
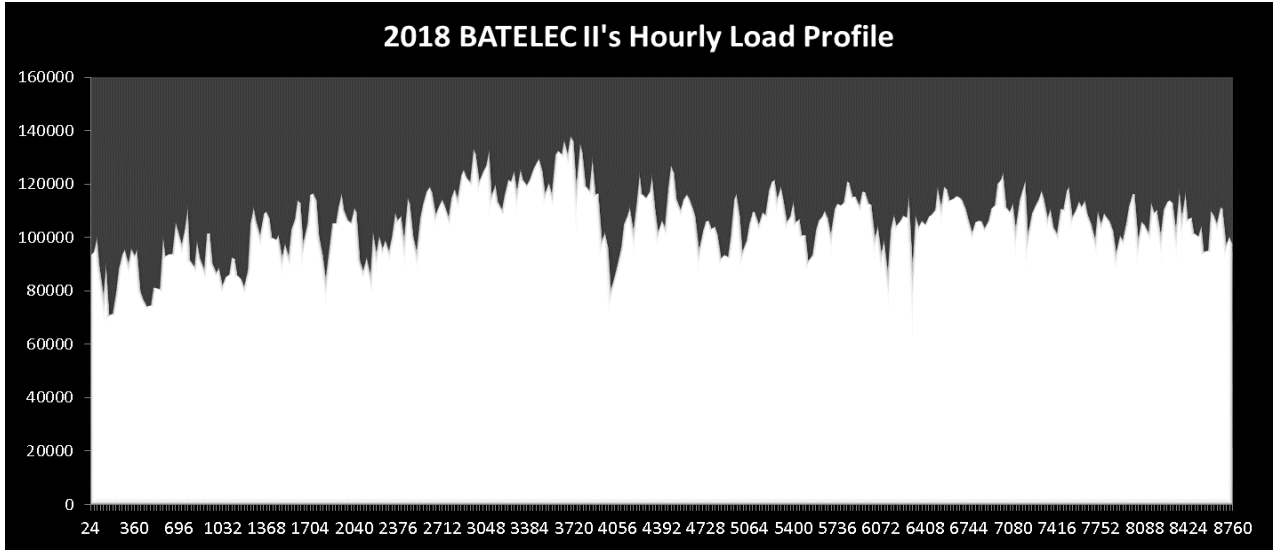
Demand	FORECASTED									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Coincident Peak Demand (MW)	153.17	160.58	169.82	173.21	182.17	187.66	195.06	201.79	208.65	215.83
Off Peak Demand (MW)	54.9	56.95	58.596	62.499	64.348	67.284	69.487	72.428	74.891	77.535



Brief highlight of historical demand and forecasting methodology and result

Based from the trendline, it can be seen that the projectory is conservatively increasing. Even though there's customer switch from captive market to competitive retail electricity market, there still potential load growth to be consider for captive market.

LOAD PROFILE AND LOAD DURATION CURVE

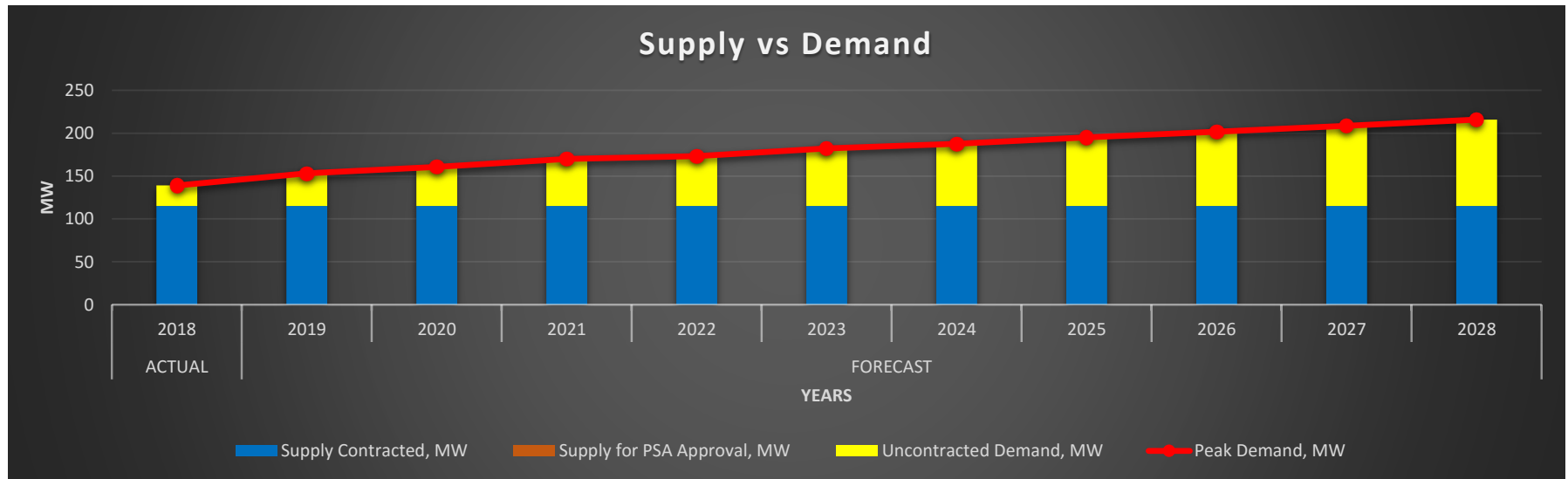


Brief highlight:

Based from the graph above, it is shown that the peaking is at 120 mega-watt level and above. There is also instance/s of major drop in demand. This is primarily due to power interruption. By eliminating the outlier in the data (or those trading days that has power outage) - - it can be declared that the baseload is somewhere in the level of 50 mega-watt. Meanwhile, it can also be seen that the intermediate or mid-merit requirement of BATELEC II is between 60MW to 90MW level.

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	138.97	153.17	160.58	169.82	173.21	182.17	187.66	195.06	201.79	208.65	215.83
Supply Contracted, MW	115	115	115	115	115	115	115	115	115	115	115
GMCP	115	115	115	115	115	115	115	115	115	115	115
Generation Plant Name 2											
Generation Plant Name 3											
Supply for PSA Approval, MW	0	0	0	0	0	0	0	0	0	0	0
Generation Plant Name 1											
Generation Plant Name 2											
Generation Plant Name 3											
Uncontracted Demand, MW	24	38	46	55	58	67	73	80	87	94	101



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)
GenCo 1	GMCP	65% to 100%	26-Feb-14	25-Feb-29	115	563136.6	Base / Mid-merit / Peaking	Grid Connected	IPP	Commercial Operation	coal-fired: sub-critical	651.6	632
GenCo 2													
GenCo 3													
GenCo 4													
GenCo 5													

BATELEC II (BII) strategically entered in to power supply contract with GMCP by nominating bilateral contract quantities (bcq) with much flexibility. This means BATELEC II can nominate bcq with resulting capacity factor ranging from 65% to 100%. Logically, Batelec II buys power from WESM during off-peak periods (where most of the time spot prices are low) and buys power from bilateral supplier during peak periods. Contract with GMCP will expire come CY 2028. In consideration of BII's potential load growth, BII opted to increase its contracted capacity by conducting in-house CSP way back 2016. The contract was awarded to GNPD being the least cost evaluated offer for baseload requirement of Batelec II and will commence on 2020.

DISTRIBUTION IMPACT STUDY

Brief discussion on the following:

BATELEC II power distribution is composed of distribution substations, sub transmission lines and distribution lines. With distribution line voltage ranging from 13.2kV and 13.8 kV, and sub-transmission line voltage of 69 kV, it covers 15 municipalities and 2 cities composing of 482 Barangays.

Given this, the system forecast for demand, energy losses and load factor, if done separately, would become complicated. This is due to very dynamic nature of the feeders within the system's load transfers and switching would render it hard to have a normalized loading for a specific substation or feeder. Thus, we only did forecast on our system energy sales and purchases to derive system loss. From this forecast, we derived all substation and feeder loading using weighted average method for the next 5 years.

The 2-year projects are formulated to address the issues on safety, capacity, reliability, statutory compliance and customer requests. BATELEC II system will be ready for the load growth if the said projects will be implemented. After 2 years, new projects are yet to be determined.

The loading of substations were also considered in the project formulation so that the load growth will not be an issue in the coming years. Substation loadings are always closely monitored.

For project formulation, compliance to regulatory standards is always considered especially on system loss and power quality issues. Ongoing analysis of all BATELEC II feeders using engineering software like Distribution System Application Software is used to come up with projects to meet the minimum standards set by PGC and PDC. Compliance to these standards is always a priority because it will always provide benefits to the electric cooperative.

POWER SUPPLY PROCUREMENT PLAN

SCHEDULE OF CSP

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 / mid-merit	5	37,230	12/2020	12/2029	3/8/2020 and 3/15/2020	3/24/2020	4/13/2020	4/21/2020	5/15/2020	6/15/2020	8/1/2020
Base / mid-merit	20	175,200	12/2020	12/2029	3/8/2020 and 3/15/2020	3/24/2020	4/13/2020	4/21/2020	5/15/2020	6/15/2020	8/1/2020

Note:

The scheduled CSP timeline, scheduled demand and energy is in compliance with Mandatory RPS. The scheduled CSP also is deemed necessary to seek cheaper cost of generation, thus lowering the generation charge of BATELEC II. May vary upon DOE confirmation and TPBAC availability and BATELEC II's most appropriate timeline (can be earlier if there are already approved TOR and other related compliances). The demand and energy data is based on template issued by DOE subject for finalization. Based on the said DOE template, BATELEC II will be needing additional RECs by 2023 subject to DOE confirmation.

Since BATELEC II was affected by the recent decision of the Supreme Court in G.R. No. 227670, therefore the management plan to procure 20 MW power supply subject to the provision of Section 2.2.2 of DC2018-02-003, within the limitation stated therein, to wit " Negotiated procurement of emergency power supply; Provided, that the cooperation period of the corresponding PSA shall not exceed one (1) year; provided further, that the rate shall not be higher than the latest ERC approved generation tariff for the same or similar technology in the area."

10 Year Monthly Forecasted 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	129.25	58.78	81,552	115.00	52,121	14.25	29,431		
Feb	131.48	54.90	64,101	115.00	57,691	16.48	6,410		
Mar	134.44	60.74	61,369	115.00	52,217	19.44	9,152		
Apr	145.61	67.72	69,354	115.00	59,256	30.61	10,099		
May	150.23	78.00	73,262	115.00	64,643	35.23	8,619		
Jun	153.17	79.64	71,414	115.00	65,301	38.17	6,113		
Jul	143.92	70.86	66,804	115.00	60,690	28.92	6,114		
Aug	145.64	70.19	70,231	115.00	62,229	30.64	8,003		
Sep	149.56	76.59	69,916	115.00	62,947	34.56	6,969		
Oct	143.63	71.38	69,954	115.00	60,506	28.63	9,448		
Nov	145.87	67.27	69,880	115.00	57,610	30.87	12,270		
Dec	141.17	67.19	67,143	115.00	55,309	26.17	11,834		
2020									
Jan	133.48	62.43	64,911	131.72	55,483	1.76	9,428		
Feb	137.66	56.95	69,329	121.00	61,412	16.67	7,917		
Mar	142.23	63.04	66,456	125.50	55,585	16.73	10,870		
Apr	153.59	68.73	74,856	134.26	63,078	19.33	11,778		
May	157.60	81.50	78,967	135.00	68,812	22.60	10,154		
Jun	160.58	82.27	77,022	134.47	69,513	26.12	7,510		
Jul	149.15	70.96	72,173	125.83	64,604	23.33	7,568		
Aug	152.21	74.23	75,779	128.56	66,243	23.64	9,536		
Sep	154.97	77.53	75,447	134.19	67,008	20.78	8,439		
Oct	149.87	72.36	75,487	127.16	64,409	22.70	11,078		
Nov	151.70	68.21	75,409	127.51	61,326	24.19	14,083		
Dec	147.25	71.07	72,530	119.01	58,877	28.24	13,653		
2021									
Jan	140.90	65.97	67,938	139.90	61,805	1.00	6,132		
Feb	146.42	58.60	72,562	128.40	68,079	18.02	4,483		
Mar	152.32	68.12	69,554	134.46	61,914	17.85	7,640		
Apr	160.83	69.61	78,346	140.00	69,841	20.83	8,505		
May	167.28	86.72	82,648	140.00	75,908	27.28	6,740		
Jun	169.82	86.03	80,613	140.00	76,649	29.82	3,964		
Jul	158.74	74.23	75,537	134.25	71,456	24.49	4,081		
Aug	161.22	78.49	79,312	136.71	73,190	24.52	6,122		
Sep	164.59	80.44	78,965	140.00	73,999	24.59	4,966		
Oct	158.33	77.77	79,006	134.90	71,249	23.43	7,757		
Nov	160.16	70.49	78,925	135.40	67,987	24.76	10,938		
Dec	155.25	71.75	75,911	125.72	65,396	29.53	10,515		

POWER SUPPLY PROCUREMENT PLAN

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)
2022									
Jan	148.37	74.44	70,824	140.00	64,893	8.37	5,931		
Feb	148.77	62.50	75,644	131.90	71,496	16.87	4,148		
Mar	153.07	71.37	72,509	136.65	65,007	16.42	7,502		
Apr	164.83	74.69	81,674	140.00	73,351	24.83	8,323		
May	170.26	91.12	86,159	140.00	79,738	30.26	6,421		
Jun	173.21	89.87	84,038	140.00	80,518	33.21	3,520		
Jul	161.98	76.69	78,746	135.66	75,051	26.32	3,695		
Aug	164.40	80.36	82,681	136.94	76,876	27.46	5,805		
Sep	167.71	83.76	82,319	140.00	77,728	27.71	4,591		
Oct	161.89	81.46	82,363	136.88	74,834	25.01	7,529		
Nov	164.10	75.80	82,278	137.48	71,400	26.62	10,878		
Dec	158.93	75.80	79,136	127.40	68,673	31.53	10,464		
2023									
Jan	154.18	73.14	73,600	140.00	67,858	14.18	5,742		
Feb	156.67	64.35	78,610	132.00	74,779	24.67	3,831		
Mar	161.49	72.68	75,351	137.42	67,978	24.07	7,373		
Apr	173.43	77.67	84,876	140.00	76,723	33.43	8,154		
May	179.07	93.30	89,537	140.00	83,416	39.07	6,122		
Jun	182.17	93.44	87,333	140.00	84,233	42.17	3,100		
Jul	170.15	80.93	81,834	137.10	78,504	33.06	3,329		
Aug	172.79	83.76	85,923	139.10	80,417	33.69	5,506		
Sep	176.36	87.89	85,547	140.00	81,309	36.36	4,237		
Oct	169.99	83.65	85,592	138.70	78,276	31.30	7,316		
Nov	172.19	77.77	85,504	139.06	74,678	33.13	10,826		
Dec	166.78	78.87	82,239	128.31	71,819	38.48	10,419		
2024									
Jan	159.52	78.17	76,292	140.00	70,711	19.52	5,581		
Feb	161.44	67.28	81,485	133.64	77,936	27.81	3,549		
Mar	166.75	76.34	78,107	139.86	70,836	26.89	7,271		
Apr	178.71	80.67	87,980	140.00	79,966	38.71	8,014		
May	184.56	97.90	92,811	140.00	86,954	44.56	5,858		
Jun	187.66	97.55	90,526	140.00	87,807	47.66	2,719		
Jul	175.03	83.92	84,826	138.24	81,826	36.78	3,000		
Aug	177.92	87.83	89,065	140.00	83,823	37.92	5,242		
Sep	181.40	91.29	88,675	140.00	84,755	41.40	3,920		
Oct	175.01	87.34	88,722	140.00	81,588	35.01	7,134		
Nov	177.14	80.89	88,630	140.00	77,831	37.14	10,800		
Dec	171.61	82.34	85,246	129.14	74,847	42.47	10,400		
2025									
Jan	165.30	80.61	78,918	140.00	73,459	25.30	5,459		
Feb	167.85	69.49	84,289	134.74	80,978	33.10	3,311		
Mar	173.41	79.43	80,795	140.00	73,589	33.41	7,206		
Apr	185.49	83.29	91,009	140.00	83,091	45.49	7,918		
May	191.90	101.73	96,006	140.00	90,362	51.90	5,644		
Jun	195.06	101.08	93,642	140.00	91,250	55.06	2,392		
Jul	182.11	86.89	87,746	139.26	85,026	42.85	2,720		
Aug	184.94	90.95	92,130	140.00	87,104	44.94	5,026		
Sep	188.64	94.47	91,727	140.00	88,074	48.64	3,653		
Oct	181.81	90.85	91,776	140.00	84,778	41.81	6,997		
Nov	184.06	83.80	91,681	140.00	80,869	44.06	10,812		
Dec	178.25	84.83	88,180	129.59	77,763	48.66	10,417		

POWER SUPPLY PROCUREMENT PLAN

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)
2026									
Jan	171.56	84.27	81,495	140.00	76,111	31.56	5,384		
Feb	173.55	72.43	87,042	135.77	83,913	37.78	3,129		
Mar	179.00	82.45	83,434	140.00	76,246	39.00	7,188		
Apr	192.09	87.00	93,980	140.00	86,105	52.09	7,875		
May	198.45	105.74	99,141	140.00	93,651	58.45	5,490		
Jun	201.79	105.11	96,700	140.00	94,572	61.79	2,128		
Jul	188.35	90.27	90,611	139.80	88,113	48.55	2,498		
Aug	191.26	94.25	95,139	140.00	90,270	51.26	4,869		
Sep	195.10	98.27	94,723	140.00	91,276	55.10	3,446		
Oct	188.07	94.34	94,773	140.00	87,856	48.07	6,916		
Nov	190.44	87.40	94,675	140.00	83,799	50.44	10,875		
Dec	184.39	88.36	91,060	129.92	80,577	54.47	10,483		
2027									
Jan	177.21	86.80	84,037	140.00	78,672	37.21	5,365		
Feb	179.47	74.89	89,757	135.89	86,748	43.59	3,009		
Mar	185.22	85.19	86,036	140.00	78,812	45.22	7,224		
Apr	198.62	90.09	96,912	140.00	89,017	58.62	7,895		
May	205.21	109.40	102,233	140.00	96,827	65.21	5,406		
Jun	208.65	108.98	99,716	140.00	97,781	68.65	1,935		
Jul	194.65	93.73	93,438	140.00	91,096	54.65	2,342		
Aug	197.70	97.78	98,106	140.00	93,328	57.70	4,779		
Sep	201.65	101.94	97,677	140.00	94,369	61.65	3,308		
Oct	194.35	97.57	97,729	140.00	90,830	54.35	6,899		
Nov	196.75	90.30	97,628	140.00	86,630	56.75	10,998		
Dec	190.49	91.53	93,900	129.90	83,295	60.59	10,605		
2028									
Jan	183.38	90.22	86,556	140.00	71,055	43.38	15,501		
Feb	185.66	77.54	92,448	140.00	75,680	45.66	16,767		
Mar	191.67	88.37	88,616	140.00	72,672	51.67	15,944		
Apr	205.46	93.21	99,817	140.00	81,466	65.46	18,351		
May	212.31	113.51	105,298	140.00	85,769	72.31	19,530		
Jun	215.83	112.92	102,706	140.00	83,734	75.83	18,972		
Jul	201.30	96.94	96,239	140.00	78,657	61.30	17,582		
Aug	204.45	101.34	101,048	140.00	82,432	64.45	18,616		
Sep	208.51	105.49	100,606	140.00	82,085	68.51	18,521		
Oct	200.95	101.10	100,659	140.00	82,126	60.95	18,532		
Nov	203.40	93.46	100,555	140.00	82,045	63.40	18,510		
Dec	196.91	94.73	96,715	140.00	79,031	56.91	17,685		

Notes:

1. The management plan to procure 20 MW emergency power supply for 2020 as stated in the notes in Schedule of CSP.
2. From 2021, a total of 25 MW plan for CSP (see details in the Schedule of CSP Sheet).

10 Year Monthly Data

Year	Historical			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)	
2009										
Jan	88.71	30.50	37,904	under NAPOCOR (NPC)						
Feb	90.66	38.61	40,436	under NAPOCOR (NPC)						
Mar	95.34	45.24	40,564	under NAPOCOR (NPC)						
Apr	95.54	45.02	45,962	under NAPOCOR (NPC)						
May	102.49	47.96	46,552	under NAPOCOR (NPC)						
Jun	101.33	48.59	48,060	under NAPOCOR (NPC)						
Jul	104.34	48.58	46,781	under NAPOCOR (NPC)						
Aug	105.95	42.48	47,330	under NAPOCOR (NPC)						
Sep	104.54	44.81	48,479	under NAPOCOR (NPC)						
Oct	101.68	53.11	47,658	under NAPOCOR (NPC)						
Nov	103.96	43.33	48,706	under NAPOCOR (NPC)						
Dec	104.62	47.71	45,300	under NAPOCOR (NPC)						
2010										
Jan	93.67	34.59	48,094							
Feb	107.00	49.16	49,346							
Mar	110.16	53.47	47,377	Contract before was Energy based	53,402		(6,025)			
Apr	110.38	53.36	52,669		49,709		2,961			
May	116.85	59.32	55,437		58,850		(3,413)			
Jun	116.47	56.08	58,599		60,284		(1,686)			
Jul	110.52	56.45	51,639		47,838		3,801			
Aug	109.98	56.02	54,057		49,709		4,349			
Sep	110.92	55.79	54,021		50,525		3,497			
Oct	107.90	57.44	52,788		49,741		3,047			
Nov	106.10	52.28	52,594		51,206		1,388			
Dec	108.44	52.26	51,016		53,746		(2,730)			
2011										
Jan	108.12	41.39	50,594			57,240		(6,646)		
Feb	107.60	50.40	51,065		57,200		(6,135)			
Mar	111.79	56.88	48,275		53,402		(5,126)			
Apr	113.51	53.43	54,714		58,808		(4,094)			
May	117.15	63.17	56,166		59,222		(3,057)			
Jun	113.65	41.68	55,693		59,938		(4,245)			
Jul	113.26	56.39	55,319		61,188		(5,869)			
Aug	114.91	51.63	58,396		61,577		(3,181)			
Sep	115.34	56.88	58,988		61,415		(2,427)			
Oct	118.21	59.43	55,826		58,458		(2,632)			
Nov	120.49	58.74	59,571		61,425		(1,854)			
Dec	113.24	57.80	58,018		60,500		(2,482)			

POWER SUPPLY PROCUREMENT PLAN

Year	Historical			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)
2012									
Jan	114.70	53.21	57,201		56,613		589		
Feb	120.80	54.03	58,882		57,455		1,427		
Mar	121.92	61.39	57,766		54,301		3,465		
Apr	125.21	59.74	59,542		61,753		(2,211)		
May	130.23	69.87	64,043		65,196		(1,153)		
Jun	127.85	69.81	64,557		57,435		7,122		
Jul	124.11	57.78	59,160		61,024		(1,864)		
Aug	119.29	51.18	55,149		64,195		(9,046)		
Sep	110.06	58.61	57,649		63,807		(6,158)		
Oct	109.68	55.02	52,855		62,127		(9,272)		
Nov	111.47	57.18	53,795		63,052		(9,257)		
Dec	115.31	55.89	53,080		60,989		(7,909)		
2013									
Jan	105.13	53.51	49,685		-		49,685		
Feb	104.64	51.79	50,579		-		50,579		
Mar	112.70	63.03	50,917		849		50,068		
Apr	118.96	65.21	60,096		2,272		57,823		
May	117.71	66.89	59,228		8,481		50,747		
Jun	108.72	63.60	58,505		52,285		6,220		
Jul	111.09	57.34	56,631		61,861		(5,230)		
Aug	111.64	57.72	56,582		50,747		5,835		
Sep	114.73	63.36	54,452		63,427		(8,975)		
Oct	119.32	63.02	55,233		44,762		10,471		
Nov	117.84	59.85	55,262		49,867		5,394		
Dec	119.10	62.76	56,073		46,716		9,358		
2014									
Jan	104.86	49.77	53,321		32,871		20,450		
Feb	107.65	51.58	52,350		30,763		21,587		
Mar	111.62	54.15	50,505	115.00	28,337	-	22,168		
Apr	115.85	65.19	60,927	115.00	52,020	0.85	8,907		
May	125.68	76.69	63,199	115.00	70,050	10.68	(6,852)		
Jun	121.78	72.05	64,651	115.00	67,149	6.78	(2,498)		
Jul	121.22	57.69	51,282	115.00	34,166	6.22	17,116		
Aug	115.75	58.05	57,616	115.00	41,225	0.75	16,391		
Sep	129.26	77.11	56,456	115.00	44,561	14.26	11,894		
Oct	123.84	73.98	57,544	115.00	47,965	8.84	9,579		
Nov	127.48	71.46	57,844	115.00	33,454	12.48	24,390		
Dec	122.74	62.78	55,783	115.00	25,631	7.74	30,152		
2015									
Jan	112.66	51.42	52,248	115.00	50,631	-	1,617		
Feb	111.24	54.99	53,858	115.00	27,863	-	25,995		
Mar	109.54	59.86	53,059	115.00	12,316	-	40,743		
Apr	120.09	71.14	60,418	115.00	65,851	5.09	(5,433)		
May	127.11	73.89	64,566	115.00	59,194	12.11	5,372		
Jun	129.29	77.60	68,192	115.00	69,634	14.29	(1,442)		
Jul	127.15	77.12	62,659	115.00	59,578	12.15	3,081		
Aug	124.75	64.38	64,019	115.00	63,857	9.75	162		
Sep	129.02	76.87	64,301	115.00	59,212	14.02	5,089		
Oct	123.19	74.08	63,558	115.00	50,158	8.19	13,400		
Nov	127.24	71.22	63,601	115.00	61,479	12.24	2,123		
Dec	122.50	62.19	62,075	115.00	58,985	7.50	3,090		

Contract before was Energy based

POWER SUPPLY PROCUREMENT PLAN

Year	Historical			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)
2016									
Jan	118.84	62.48	59,025	115.00	60,437	3.84	(1,413)		
Feb	117.74	61.95	60,326	115.00	61,321	2.74	(995)		
Mar	117.86	56.75	62,951	115.00	59,328	2.86	3,623		
Apr	136.57	74.73	70,370	115.00	62,240	21.57	8,130		
May	132.51	72.81	70,747	115.00	59,551	17.51	11,196		
Jun	136.70	78.11	72,136	115.00	62,708	21.70	9,429		
Jul	124.63	68.68	68,495	115.00	59,778	9.63	8,716		
Aug	129.13	68.55	71,033	115.00	63,115	14.13	7,918		
Sep	130.96	77.01	72,587	115.00	60,572	15.96	12,015		
Oct	128.54	63.10	69,439	115.00	59,082	13.54	10,357		
Nov	129.80	68.40	68,041	115.00	61,455	14.80	6,586		
Dec	126.65	75.97	66,639	115.00	58,569	11.65	8,070		
2017									
Jan	98.03	64.05	56,483	115.00	61,864	-	(5,381)		
Feb	104.23	59.69	62,519	115.00	59,707	-	2,812		
Mar	113.61	69.80	56,588	115.00	56,629	-	(41)		
Apr	118.37	65.28	64,215	115.00	60,920	3.37	3,295		
May	123.38	84.28	70,053	115.00	60,926	8.38	9,127		
Jun	124.07	84.71	70,766	115.00	60,659	9.07	10,107		
Jul	117.17	77.93	65,769	115.00	59,245	2.17	6,524		
Aug	124.10	83.60	67,437	115.00	60,490	9.10	6,947		
Sep	124.87	78.99	68,216	115.00	60,013	9.87	8,203		
Oct	116.48	77.62	65,570	115.00	58,235	1.48	7,336		
Nov	118.19	64.96	62,431	115.00	59,751	3.19	2,681		
Dec	111.56	70.52	59,938	115.00	58,069	-	1,870		
2018									
Jan	114.42	62.54	56,588	115.00	59,902	-	(3,314)		
Feb	121.18	48.80	61,192	115.00	56,024	6.18	5,168		
Mar	124.36	59.07	59,530	115.00	32,211	9.36	27,319		
Apr	127.76	56.01	67,423	115.00	61,175	12.76	6,247		
May	136.60	73.52	70,043	115.00	58,880	21.60	11,163		
Jun	138.97	68.43	68,247	115.00	58,509	23.97	9,738		
Jul	127.57	54.02	65,351	115.00	58,025	12.57	7,327		
Aug	124.28	60.17	66,691	115.00	59,104	9.28	7,587		
Sep	128.07	63.26	70,259	115.00	59,036	13.07	11,223		
Oct	126.31	65.25	67,560	115.00	58,171	11.31	9,390		
Nov	127.19	60.29	67,406	115.00	59,240	12.19	8,166		
Dec	125.89	56.81	67,851	115.00	52,849	10.89	15,002		