Power Supply Procurement Plan 2020 - 2029

SURIGAO DEL SUR I ELECTRIC COOPERATIVE, INC.

Historical Consumption Data

	Coincident Peak MW	MWh Offtake	WESM	MWh Input	MWh Output	MWh System Loss	Load Factor	Discrepancy	Transm'n Loss	System Loss
2000	6.88	31,424	0	31,424	27,727	3,697	52%	0.00%	0.00%	11.76%
2001	6.96	31,077	0	31,077	27,513	3,564	51%	0.00%	0.00%	11.47%
2002	7.74	32,247	0	32,247	28,368	3,879	48%	0.00%	0.00%	12.03%
2003	9.38	36,108	0	36,108	31,329	4,779	44%	0.00%	0.00%	13.24%
2004	8.94	40,173	0	40,173	34,915	5,258	51%	0.00%	0.00%	13.09%
2005	8.34	37,160	0	37,160	32,177	4,983	51%	0.00%	0.00%	13.41%
2006	8.52	38,023	0	38,023	32,516	5,507	51%	0.00%	0.00%	14.48%
2007	8.61	40,824	0	40,824	35,152	5,852	54%	0.44%	0.00%	14.33%
2008	9.48	43,690	0	43,690	38,406	5,284	53%	0.00%	0.00%	12.09%
2009	9.50	47,210	0	47,210	41,969	5,241	57%	0.00%	0.00%	11.10%
2010	9.77	43,954	0	43,954	38,468	5,486	51%	0.00%	0.00%	12.48%
2011	9.10	46,342	0	46,342	40,748	5,594	58%	0.00%	0.00%	12.07%
2012	9.39	49,511	0	49,439	43,655	5,856	60%	0.15%	0.15%	11.84%
2013	9.65	52,384	0	52,384	46,538	5,846	62%	0.00%	0.00%	11.16%
2014	10.24	53,209	0	53,209	47,502	5,768	59%	0.12%	0.00%	10.84%
2015	10.48	55,093	0	55,093	49,635	5,789	60%	0.60%	0.00%	10.51%
2016	10.97	62,446	0	62,446	55,950	6,496	65%	0.00%	0.00%	10.40%
2017	11.84	62,181	0	57,668	55,716	6,217	56%	7.40%	7.26%	10.78%
2018	11.91	67,799	0	67,005	60,652	7,147	64%	1.19%	1.17%	10.67%
2019	12.86	70,008	0	71,672	64,456	7,217	64%	0.00%	-2.38%	10.07%

Peak Demand is increased from 6.88 MW in 2000 to 12.86 MW in 2019 at an average rate of 4.57% due to the fast development of the second district of Surigao del Sur. MWh Offtake was increased from 31,424 MWh in 2000 to 71,672 MWh in 2019 at a rate of 6.74% due to the increase of demand. Within the same period, Load Factor ranged from 44% to 64%. There was an abrupt change in consumption on 2017 due to the entry of GAISANO Capital. Also, due to the growing number of consumer connections brought about by the continuous implementation of the Sitio Electrification Program and the Nationwide Electrification of Household Electrification, aside from the constant inflow of regular service connections.



To illustrate the historical consumption data, MWh Output increased from year 2000 to year 2019 at a rate of 6.97%, while MWh System Loss increased at a rate of 5.01% within the same period. The above graph shows that as the Coop's purchase power grows along with the increased demand for power. This increasing trend in Energy Sales and Purchase is also expected to escalate the Coop's system loss. The Coop, however, has programmed System Loss reduction activities such as replacement of defective and inefficient kilowatt-hour meters and the installation of 5MVA Tagasaka Substation in its CAPAEX application for 2021 – 2023 to mitigate such increase in System Loss. This is in addition to the Coop's continuing implementation of SL reduction activities such as connections, pilferage apprehension, ROW clearing, among others.



Historically, Transmission Loss ranged from 0% to 7.26% while System Loss ranged from 14.48% to 10.07%. Transmission Loss peaked at 1.04% on year 2015 because it is beyond the Coop's control. System Loss peaked at 14.48% on year 2006 due to the transfer of load of 2 Municipality, namely Lianga and San Agustine, to SURSECO 2.



With the Previous Year's Shares of Energy Sales, SURSECO – I's Residential customers account for the bulk of energy sales at 56.64% due to the high number of connections. In contrast, Industrial customers accounted for only 2.72% of energy sales due to the low number of connections.



For 2019, the total Offtake for the last historical year is higher than the quantity stipulated in the PSA. The PSA with NPC-PSALM accounts for the bulk of MWh Offtake.

Previous Year's Load Profile



Based on the Load Duration Curve, the minimum load is 4.26 MW and the maximum load is 12.86 MW for the last historical year. The Possible entry of indicative big load consumers is seen to contribute to the increase in the demand for power. Among these indicative loads are commercial buildings that are set to be built at the Tourism spots of Bislig City and Hinatuan. The entry of Imperial Plywood in Hinatuan, Oil Mill in Tagasaka and the expected Central Warehouse and Provincial Hospital in Barobo are also considered to boost system demand.



Peak MW occurred on December due to long holiday season in which Malls increased their demand due to midnight sales. Peak daily MWh occurred on 18:00 because most of the residential consumers used electricity at that time. As shown in the Load Curves, the available supply is higher than the Peak Demand.



The Non-coincident Peak Demand is 12.97 MW, which is around 64.85% of the total substation capacity of 20 MVA at a power factor of 98%. The load factor or the ratio between the Average Load of 8.39MW and the Non-coincident Peak Demand is 64.69% of. A safe estimate of the true minimum load is the fifth percentile load of 5.72 MW which is 44.10% of the Non-coincident Peak Demand.

Metering Point	Substation MVA	Substation Peak MW		
M1-San Fernando	5	4.147		
M2-Barobo	5	3.529		
M3-Tabon	10	5.289		

SURSECO – 1 has a total capacity of 20MVA, subdivided into three substations namely, (M1) San Fernando Substation [5MVA], (M2) Barobo Substation [5MVA], and (M3) Tabon Substation [10MVA]. Tabon Substation considered has the highest peak demand with 5.289MW as it caters the commercial area of the franchise coverage area. With the current situation of M1 substation, the peak demand reached to ideal loading of 80% and it is expected to increase more due to large indicative commercial establishment. In line with this, the management planned to upgrade the aforementioned substation to 10MVA.

Forecasted Consumption Data

		Coincident Peak MW	Contracted MW	Pending MW	Planned MW	Retail Electricity Suppliers MW	Existing Contracting Level	Target Contracting Level	MW Surplus / Deficit
2020	Jan	12.25	15.39	0.00	0.000	0.00	126%	126%	3.14
	Feb	11.23	15.39	0.00	0.000	0.00	137%	137%	4.16
	Mar	12.38	15.39	0.00	0.000	0.00	124%	124%	3.01
	Apr	11.15	15.39	0.00	0.000	0.00	138%	138%	4.24
	May	11.59	15.39	0.00	0.000	0.00	133%	133%	3.80
	Jun	12.05	15.39	0.00	0.000	0.00	128%	128%	3.34
	Jul	12.51	15.39	0.00	0.000	0.00	123%	123%	2.88
	Aug	12.91	15.39	0.00	0.000	0.00	119%	119%	2.48
	Sep	12.68	15.39	0.00	0.000	0.00	121%	121%	2.71
	Oct	13.38	15.39	0.00	0.000	0.00	115%	115%	2.01
	Nov	13.38	15.39	0.00	0.000	0.00	115%	115%	2.01
	Dec	13.43	15.39	0.00	0.000	0.00	115%	115%	1.96
2021	Jan	12.88	13.39	0.00	0.000	0.00	104%	104%	0.51
	Feb	11.81	13.39	0.00	0.000	0.00	113%	113%	1.58
	Mar	12.07	13.39	0.00	0.000	0.00	111%	111%	1.32
	Apr	12.55	13.39	0.00	0.000	0.00	107%	107%	0.84
	May	13.58	13.39	0.00	0.000	0.00	99%	99%	-0.19
	Jun	13.52	13.39	0.00	0.000	0.00	99%	99%	-0.13
	Jul	13.16	13.39	0.00	0.000	0.00	102%	102%	0.23
	Aug	13.57	13.39	0.00	0.000	0.00	99%	99%	-0.18
	Sep	13.34	13.39	0.00	0.000	0.00	100%	100%	0.05
	Oct	14.07	13.39	0.00	0.000	0.00	95%	95%	-0.68
	Nov	14.07	13.39	0.00	0.000	0.00	95%	95%	-0.68
	Dec	14.13	13.39	0.00	0.000	0.00	95%	95%	-0.74
2022	Jan	13.56	13.39	0.00	2.680	0.00	99%	119%	2.51
	Feb	12.43	13.39	0.00	2.680	0.00	108%	129%	3.64
	Mar	12.70	13.39	0.00	2.680	0.00	105%	127%	3.37
	Apr	13.20	13.39	0.00	2.680	0.00	101%	122%	2.87

	May	14.29	13.39	0.00	2.680	0.00	94%	112%	1.78
	Jun	14.23	13.39	0.00	2.680	0.00	94%	113%	1.84
	Jul	13.85	13.39	0.00	2.680	0.00	97%	116%	2.22
	Aug	14.28	13.39	0.00	2.680	0.00	94%	113%	1.79
	Sep	14.03	13.39	0.00	2.680	0.00	95%	115%	2.04
	Oct	14.80	13.39	0.00	2.680	0.00	90%	109%	1.27
	Nov	14.81	13.39	0.00	2.680	0.00	90%	109%	1.26
	Dec	14.86	13.39	0.00	2.680	0.00	90%	108%	1.21
2023	Jan	14.20	13.39	0.00	2.680	0.00	94%	113%	1.87
	Feb	13.02	13.39	0.00	2.680	0.00	103%	123%	3.05
	Mar	13.30	13.39	0.00	2.680	0.00	101%	121%	2.77
	Apr	13.83	13.39	0.00	2.680	0.00	97%	116%	2.24
	May	14.97	13.39	0.00	2.680	0.00	89%	107%	1.10
	Jun	14.91	13.39	0.00	2.680	0.00	90%	108%	1.16
	Jul	14.51	13.39	0.00	2.680	0.00	92%	111%	1.56
	Aug	14.96	13.39	0.00	2.680	0.00	89%	107%	1.11
	Sep	14.70	13.39	0.00	2.680	0.00	91%	109%	1.37
	Oct	15.51	13.39	0.00	2.680	0.00	86%	104%	0.56
	Nov	15.51	13.39	0.00	2.680	0.00	86%	104%	0.56
	Dec	15.57	13.39	0.00	2.680	0.00	86%	103%	0.50
2024	Jan	14.66	13.39	0.00	2.680	0.00	91%	110%	1.41
	Feb	13.43	13.39	0.00	2.680	0.00	100%	120%	2.64
	Mar	13.73	13.39	0.00	2.680	0.00	98%	117%	2.34
	Apr	14.27	13.39	0.00	2.680	0.00	94%	113%	1.80
	May	15.45	13.39	0.00	2.680	0.00	87%	104%	0.62
	Jun	15.38	13.39	0.00	2.680	0.00	87%	104%	0.69
	Jul	14.97	13.39	0.00	2.680	0.00	89%	107%	1.10
	Aug	15.44	13.39	0.00	2.680	0.00	87%	104%	0.63
	Sep	15.17	13.39	0.00	2.680	0.00	88%	106%	0.90
	Oct	16.00	13.39	0.00	2.680	0.00	84%	100%	0.07
	Nov	16.01	13.39	0.00	2.680	0.00	84%	100%	0.06
	Dec	16.07	13.39	0.00	2.680	0.00	83%	100%	0.00
2025	Jan	15.10	13.39	0.00	4.990	0.00	89%	122%	3.28

	Feb	13.84	13.39	0.00	4.990	0.00	97%	133%	4.54
	Mar	14.14	13.39	0.00	4.990	0.00	95%	130%	4.24
	Apr	14.70	13.39	0.00	4.990	0.00	91%	125%	3.68
	May	15.91	13.39	0.00	4.990	0.00	84%	116%	2.47
	Jun	15.84	13.39	0.00	4.990	0.00	85%	116%	2.54
	Jul	15.42	13.39	0.00	4.990	0.00	87%	119%	2.96
	Aug	15.90	13.39	0.00	4.990	0.00	84%	116%	2.48
	Sep	15.62	13.39	0.00	4.990	0.00	86%	118%	2.76
	Oct	16.48	13.39	0.00	4.990	0.00	81%	112%	1.90
	Nov	16.49	13.39	0.00	4.990	0.00	81%	111%	1.89
	Dec	16.55	13.39	0.00	4.990	0.00	81%	111%	1.83
2026	Jan	15.52	13.39	0.00	4.990	0.00	86%	118%	2.86
	Feb	14.23	13.39	0.00	4.990	0.00	94%	129%	4.15
	Mar	14.54	13.39	0.00	4.990	0.00	92%	126%	3.84
	Apr	15.12	13.39	0.00	4.990	0.00	89%	122%	3.26
	May	16.36	13.39	0.00	4.990	0.00	82%	112%	2.02
	Jun	16.29	13.39	0.00	4.990	0.00	82%	113%	2.09
	Jul	15.86	13.39	0.00	4.990	0.00	84%	116%	2.52
	Aug	16.36	13.39	0.00	4.990	0.00	82%	112%	2.02
	Sep	16.07	13.39	0.00	4.990	0.00	83%	114%	2.31
	Oct	16.95	13.39	0.00	4.990	0.00	79%	108%	1.43
	Nov	16.96	13.39	0.00	4.990	0.00	79%	108%	1.42
	Dec	17.02	13.39	0.00	4.990	0.00	79%	108%	1.36
2027	Jan	15.94	13.39	0.00	4.990	0.00	84%	115%	2.44
	Feb	14.62	13.39	0.00	4.990	0.00	92%	126%	3.76
	Mar	14.93	13.39	0.00	4.990	0.00	90%	123%	3.45
	Apr	15.53	13.39	0.00	4.990	0.00	86%	118%	2.85
	May	16.81	13.39	0.00	4.990	0.00	80%	109%	1.57
	Jun	16.73	13.39	0.00	4.990	0.00	80%	110%	1.65
	Jul	16.29	13.39	0.00	4.990	0.00	82%	113%	2.09
	Aug	16.80	13.39	0.00	4.990	0.00	80%	109%	1.58
	Sep	16.50	13.39	0.00	4.990	0.00	81%	111%	1.88
	Oct	17.41	13.39	0.00	4.990	0.00	77%	106%	0.97

	Nov	17.42	13.39	0.00	4.990	0.00	77%	106%	0.96
	Dec	17.48	13.39	0.00	4.990	0.00	77%	105%	0.90
2028	Jan	16.36	13.39	0.00	4.990	0.00	82%	112%	2.02
	Feb	14.99	13.39	0.00	4.990	0.00	89%	123%	3.39
	Mar	15.32	13.39	0.00	4.990	0.00	87%	120%	3.06
	Apr	15.93	13.39	0.00	4.990	0.00	84%	115%	2.45
	May	17.24	13.39	0.00	4.990	0.00	78%	107%	1.14
	Jun	17.16	13.39	0.00	4.990	0.00	78%	107%	1.22
	Jul	16.70	13.39	0.00	4.990	0.00	80%	110%	1.68
	Aug	17.23	13.39	0.00	4.990	0.00	78%	107%	1.15
	Sep	16.93	13.39	0.00	4.990	0.00	79%	109%	1.45
	Oct	17.86	13.39	0.00	4.990	0.00	75%	103%	0.52
	Nov	17.86	13.39	0.00	4.990	0.00	75%	103%	0.52
	Dec	17.93	13.39	0.00	4.990	0.00	75%	103%	0.45
2029	Jan	16.77	13.39	0.00	4.990	0.00	80%	110%	1.61
	Feb	15.37	13.39	0.00	4.990	0.00	87%	120%	3.01
	Mar	15.70	13.39	0.00	4.990	0.00	85%	117%	2.68
	Apr	16.33	13.39	0.00	4.990	0.00	82%	113%	2.05
	May	17.67	13.39	0.00	4.990	0.00	76%	104%	0.71
	Jun	17.59	13.39	0.00	4.990	0.00	76%	104%	0.79
	Jul	17.12	13.39	0.00	4.990	0.00	78%	107%	1.26
	Aug	17.66	13.39	0.00	4.990	0.00	76%	104%	0.72
	Sep	17.35	13.39	0.00	4.990	0.00	77%	106%	1.03
	Oct	18.31	13.39	0.00	4.990	0.00	73%	100%	0.07
	Nov	18.31	13.39	0.00	4.990	0.00	73%	100%	0.07
	Dec	18.38	13.39	0.00	4.990	0.00	73%	100%	0.00

The Corona Virus outbreak slightly affected SURSECO 1's demand for the month of April 2020 and May 2020. The Peak Demand was forecasted using cubic logarithmic with smoothing and was assumed to occur on the month of December due to the long holiday activities during that month. Monthly Peak Demand is at its lowest on the month of February. In general, Peak Demand is expected to grow at a rate of 5.41% annually.



The current available supply is generally below the Peak Demand. This is because of the entry of potential large loads. It is necessary to undergo into an additional contract to address the possible demand deficiency.



Based on the Supply vs. Demand projection starting from 2020 to 2029, SURSECO-I shall outsource its power from NPC-PSALM (2MW), Therma South, Inc. (TSI-2MW), HEDCOR Bukidnon, Inc. (2MW), and GN Power Kauswagan (8.39MW). The growth of households brought about by the total electrification mandate however is forecasted to cause a power deficit. Part of SURSECO – I's prudent initiative in the light of the escalating customer demand in electricity is to outsource power from renewable power source. This is in compliance with the Renewable Portfolio Standard (RPS), a DOE directive.



The first wave of supply procurement will be for 2MW planned to be available by the month of January 2022. This will be followed by 2MW planned to be available on January 2025.



Currently, there is over-contracting by 16.44%. The highest target contracting level is 130% which is expected to occur on 2025. The lowest target contracting level is 100% which is expected to occur on 2021.



For the year 2020, there is over-contracting by 1.96 MW. The highest surplus is 4.16MW which is expected to occur on the month of February 2020. The lowest surplus is 0.05 MW which is expected to occur on the month of September 2021.

		MWh Offtake	MWh Output	MWh System Loss	Transm'n Loss	System Loss
2020	Jan	6,388	5,282	567	8.43%	9.69%
	Feb	6,138	4,999	475	10.82%	8.68%
	Mar	5,801	5,165	582	0.94%	10.13%
	Apr	5,905	5,321	587	-0.04%	9.93%
	May	6,303	5,584	637	1.30%	10.24%
	Jun	6,613	5,837	702	1.12%	10.74%
	Jul	6,287	5,473	695	1.89%	11.27%
	Aug	6,660	5,833	702	1.89%	10.74%
	Sep	6,732	5,909	696	1.88%	10.54%
	Oct	6,642	5,797	719	1.90%	11.03%
	Nov	6,762	6,014	621	1.88%	9.36%
	Dec	6,324	5,597	607	1.90%	9.79%
2021	Jan	6,198	5,503	570	2.00%	9.39%
	Feb	5,801	5,208	477	2.01%	8.39%
	Mar	5,537	4,971	455	2.00%	8.39%
	Apr	6,446	5,724	593	2.00%	9.39%
	May	6,870	6,115	617	2.00%	9.17%
	Jun	7,037	6,188	709	2.00%	10.28%
	Jul	6,536	5,702	703	2.00%	10.98%
	Aug	6,923	6,077	708	2.00%	10.43%
	Sep	6,998	6,156	702	1.99%	10.24%
	Oct	6,905	6,040	727	2.01%	10.74%
	Nov	7,029	6,266	622	2.00%	9.04%
	Dec	6,574	5,831	612	2.00%	9.50%
2022	Jan	6,425	5,718	579	2.00%	9.19%
	Feb	6,014	5,411	482	2.01%	8.18%
	Mar	5,740	5,165	461	1.99%	8.19%

	Apr	6,682	5,947	602	1.99%	9.19%
	May	7,122	6,354	626	2.00%	8.97%
	Jun	7,295	6,429	721	1.99%	10.08%
	Jul	6,776	5,924	716	2.00%	10.78%
	Aug	7,177	6,314	720	2.00%	10.23%
	Sep	7,255	6,397	714	1.99%	10.04%
	Oct	7,158	6,275	739	2.00%	10.54%
	Nov	7,287	6,510	631	2.00%	8.83%
	Dec	6,816	6,058	621	2.01%	9.30%
2023	Jan	6,645	5,927	586	2.00%	8.99%
	Feb	6,220	5,609	486	2.01%	7.98%
	Mar	5,937	5,354	465	2.00%	7.99%
	Apr	6,911	6,164	609	1.99%	8.99%
	May	7,366	6,586	633	2.00%	8.77%
	Jun	7,545	6,664	730	1.99%	9.88%
	Jul	7,008	6,141	727	2.00%	10.58%
	Aug	7,423	6,544	730	2.00%	10.04%
	Sep	7,504	6,630	724	2.00%	9.84%
	Oct	7,403	6,505	750	2.00%	10.34%
	Nov	7,537	6,748	638	2.00%	8.63%
	Dec	7,049	6,280	628	2.00%	9.10%
2024	Jan	6,859	6,131	591	2.01%	8.79%
	Feb	6,419	5,802	489	2.00%	7.78%
	Mar	6,128	5,538	467	2.01%	7.78%
	Apr	7,133	6,376	614	2.00%	8.79%
	May	7,603	6,812	638	2.01%	8.57%
	Jun	7,788	6,893	739	2.01%	9.68%
	Jul	7,233	6,352	736	2.00%	10.39%
	Aug	7,661	6,769	739	2.00%	9.84%
	Sep	7,745	6,858	732	2.00%	9.64%
	Oct	7,641	6,728	760	2.00%	10.15%
	Nov	7,779	6,980	643	2.01%	8.43%
	Dec	7,275	6,496	634	2.00%	8.90%
2025	Jan	7,065	6,438	486	1.99%	7.03%
	Feb	6,613	5,990	491	2.00%	7.57%
	Mar	6,312	5,717	469	1.99%	7.58%
	Apr	7,348	6,583	618	1.99%	8.59%
	May	7,832	7,033	642	2.00%	8.36%
	Jun	8,023	7,117	745	2.01%	9.48%
	Jul	7,451	6,558	744	2.00%	10.19%
	Aug	7,892	6,989	746	2.00%	9.64%
	Sep	7,978	7,081	738	1.99%	9.44%
	Oct	7,871	6,947	767	1.99%	9.95%
	Nov	8,013	7,207	646	2.00%	8.23%
	Dec	7,495	6,706	639	2.00%	8.69%
2026	Jan	7,266	6,626	495	1.99%	6.95%
	Feb	6,801	6,166	499	2.00%	7.49%
	Mar	6,492	5,885	477	2.00%	7.50%
	Apr	7,557	6,776	630	1.99%	8.51%

	May	8,055	7,239	654	2.00%	8.29%
	Jun	8,251	7,325	760	2.00%	9.40%
	Jul	7,663	6,750	760	2.00%	10.11%
	Aug	8,117	7,194	761	2.00%	9.57%
	Sep	8,205	7,288	753	2.00%	9.37%
	Oct	8,095	7,150	783	2.00%	9.87%
	Nov	8,241	7,418	658	2.00%	8.15%
	Dec	7,708	6,903	651	2.00%	8.62%
2027	Jan	7,462	6,819	493	2.00%	6.75%
	Feb	6,984	6,345	499	2.01%	7.29%
	Mar	6,666	6,056	477	2.00%	7.29%
	Apr	7,760	6,973	632	1.99%	8.31%
	May	8,271	7,450	656	2.00%	8.09%
	Jun	8,472	7,539	764	2.00%	9.21%
	Jul	7,869	6,947	765	2.00%	9.92%
	Aug	8,335	7,403	765	2.00%	9.37%
	Sep	8,426	7,500	757	2.00%	9.17%
	Oct	8,313	7,358	788	2.00%	9.68%
	Nov	8,463	7,634	659	2.01%	7.95%
	Dec	7,915	7,104	653	2.00%	8.42%
2028	Jan	7,652	7,008	491	2.00%	6.54%
	Feb	7,161	6,521	497	1.99%	7.08%
	Mar	6,836	6,224	475	2.00%	7.09%
	Apr	7,958	7,167	632	2.00%	8.11%
	May	8,482	7,656	656	2.00%	7.89%
	Jun	8,688	7,747	767	2.00%	9.01%
	Jul	8,069	7,139	769	2.00%	9.72%
	Aug	8,547	7,608	768	2.00%	9.17%
	Sep	8,640	7,708	760	2.00%	8.97%
	Oct	8,524	7,562	792	1.99%	9.48%
	Nov	8,678	7,845	659	2.00%	7.75%
	Dec	8,117	7,300	654	2.01%	8.22%
2029	Jan	7,842	7,197	488	2.01%	6.35%
	Feb	7,339	6,697	496	2.00%	6.89%
	Mar	7,006	6,392	474	2.00%	6.90%
	Apr	8,156	7,360	633	2.00%	7.92%
	May	8,692	7,863	656	2.00%	7.70%
	Jun	8,904	7,956	770	2.00%	8.82%
	Jul	8,270	7,331	773	2.01%	9.53%
	Aug	8,759	7,813	771	2.00%	8.98%
	Sep	8,855	7,916	762	2.00%	8.78%
	Oct	8,736	7,766	795	2.00%	9.29%
	Nov	8,893	8,057	659	2.00%	7.56%
	Dec	8,318	7,497	654	2.00%	8.03%

MWh Offtake was forecasted using Quadratic. System Loss was calculated using the assumption of 85% as technical loss and 15% as non – technical loss. Based on the same study, the Distribution System can adequately convey electricity to customers.



MWh Output was expected to grow at a rate of 3.79% annually.



Transmission Loss is expected to range from 1% to 2% while System Loss is expected to range from 9.71% to 7.95%.

Power Supply

Case No.	Туре	GenCo	Minimum MW	Minimum MWh/yr	PSA Start	PSA End
2017-067RC	Base	Power Sector Assets and Liabilities Management Corporation	1.60	14,016	May 2015	May 2040
2013-110RC	Intermediate	Therma South, Inc.	1.20	10,512	June 26,2019	June 25, 2040
2014-011RC	Intermediate	GN Power Kauswagan Ltd.	6.29	55,100	April 03, 2019	April 03, 2042
ERC Resolution No.24series of 2013	Base	HEDCOR Bukidnon, Inc.	2.00	17,520	June 02, 2018	December 25, 2020
ERC Case No 2016 - 139 RC	Peaking	Mapalad Power Corporation	4.00	-	December 25, 2016	December 25, 2019

The NPC - PSALM with minimum contracted demand of 1.6MW filed with ERC under Case No. 2017-067RC was procured through without CSP. It was selected to provide for base requirements due to its lower rate. Historically, the utilization of the PSA is 46%. Outages of the plant led to unserved energy of around 0.4 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 2.50 P/kWh to 2.90 P/KWh in the same period.

The Therma South, Inc. with minimum contracted demand of 1.2MW filed with ERC under Case No. 2013-110RC was procured through without CSP. It was selected to provide for Intermediate requirements due to its competitive price. Historically, the utilization of the PSA is 25%. Outages of the plant led to unserved energy of around 0.8MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 5.38 P/kWh to 6.84 P/kWh in the same period.

The GN Power Kauswagan with minimum contracted demand of 6.29MW filed with ERC under Case No. 2014-011RC was procured through PSAG COR. It was selected to provide for Intermediate requirements due to its economical price. Historically, the utilization of the PSA is 16%. Outages of the plant led to unserved energy of around 2.01 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 4.56 P/kWh to 5.74 P/kWh in the same period.

The HEDCOR Bukidnon, Inc. with minimum contracted demand of 2MW filed with ERC under Case No. ERC Resolution No.24series of 2013 was procured through Renewable Energy Supply Agreement (RESA). It was selected to provide for base requirements due to its lower rate. Historically, the utilization of the PSA is 12%. Outages of the plant led to unserved energy of around 0.4 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 4.23 P/kWh to 4.95 P/kWh in the same period.

The Mapalad Power Corporation with contracted demand of 4MW filed with ERC under Case No. 2016-139RC was procured through CSP. It was selected to provide for Peaking requirements. Historically, the utilization of the PSA is 1%. Outages of the plant led to unserved energy of around 2.01 MWh in the past year. The actual billed overall monthly charge under the PSA ranged from 4.83 P/kWh to 5.41 P/kWh in the same period.

	IPPs	IPPs
Туре	Peaking	Peaking
Minimum MW	2.68	2.31
Minimum MWh/yr	23,477	20,236
PSA Start	1/1/2022	1/1/2025
PSA End	3/1/2032	3/1/2035
Publication	1/1/2021	2/1/2024
Pre-bid	1/22/2021	2/22/2024
Opening	3/23/2021	4/22/2024
Awarding	4/22/2021	5/22/2024
PSA Signing	5/22/2021	6/21/2024
Joint Filing	5/31/2021	6/30/2024



For the procurement of 2.68MW of supply, which is planned to be available on 2022, the first publication or launch of CSP will be on January 2021. Joint filing is planned on May 2021, or 150 days later, in accordance with DOE's 2018 CSP Policy.

For the procurement of 2.31MW of supply, which is planned to be available on 2025, the first publication or launch of CSP will be on February 2024. Joint filing is planned on June 2024, or 150 days later, in accordance with DOE's 2018 CSP Policy.

Captive Customer Connections



The number of Residential connections is expected to grow at a rate of 3.18% annually. Said customer class is expected to account for 56.64% of the total consumption.