



Mayor
John Bramall

City Manager
Clark R. Fawcett

City of Hurricane

Power Board
Mac J. Hall, Chair
Jerry Brisk
Dean McNeill
Charles Reeve
Darin Larson
Pam Humphries

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34

The Hurricane City Power Board met on April 27, 2021 at 3:00 p.m. at the Clifton Wilson Substation on 526 W 600 N. In attendance were; Chairman Mac Hall, Darin Larson, Pam Humphries, Dean McNeill, Charles Reeve, Jerry Brisk, Dave Imlay, Scott Hughes, Brian Anderson, and April Hill.

Mac Hall welcomed everyone to the meeting; Pam Humphries led the Pledge of Allegiance, and Mac Hall offered the prayer. The Power Board reviewed the minutes from the March 2021 meeting and suggested grammatical corrections. Dean McNeill made the motion to approve the minutes from the previous meeting with the corrections, and Pam Humphries second the motion. All in favor, the motion passed.

Scott Hughes: The Anticline Differential project is still underway. Bids have been awarded for the Sky Mountain Substation Equipment. The Power Quality Meter was delivered, and is set it up to record the power on a crusher site that has been suspected of blowing fuses on the underground capacitor bank near there.

Brian Anderson: Dave Imlay reported for Brian Anderson. The reconductoring project on 1100 West is complete. Due to rapid growth the Line Crew spends much of their time pulling in wire for new services.

Follow-ups from March Meeting: Dave Imlay reported that the Interruptible Power Rate was approved by the City Council.

Generator #9 Update: The application that was submitted to the Division of Air Quality is still pending review.

Clean Futures Act Discussion: Dave Imlay reported that the Clean Futures Act if passed, will require utilities to have a 100% clean energy portfolio by 2035. Hydropower and Nuclear power will qualify as clean energy. Dave Imlay reviewed Hurricane Power's current resource portfolio.

Reliability Report: April Hill presented the 2020 Reliability Report. The Average Service Availability Index for 2020 was 99.9991%.

RECs Discussion: Dave Imlay explained that a REC is a certificate that represents 1MW-hr of energy generated at a renewable energy source. Dave Imlay presented a Power Point explaining the system for generating and selling REC's.

Capital Expenditures Update: Dave Imlay reported that 2020-2021 budgeted amount for Capital Improvements and Equipment was \$3,893,900. The amount spent to-date is \$1,490,560 with an estimated end of the year cost of \$988,894.

Budget: The cost of power per megawatt in March was \$63.64. The cost of power has been steadily increasing for the past two years. The cost of sales is 20% higher than the budgeted amount. The KWH revenue is 7.54% higher than the budgeted amount.

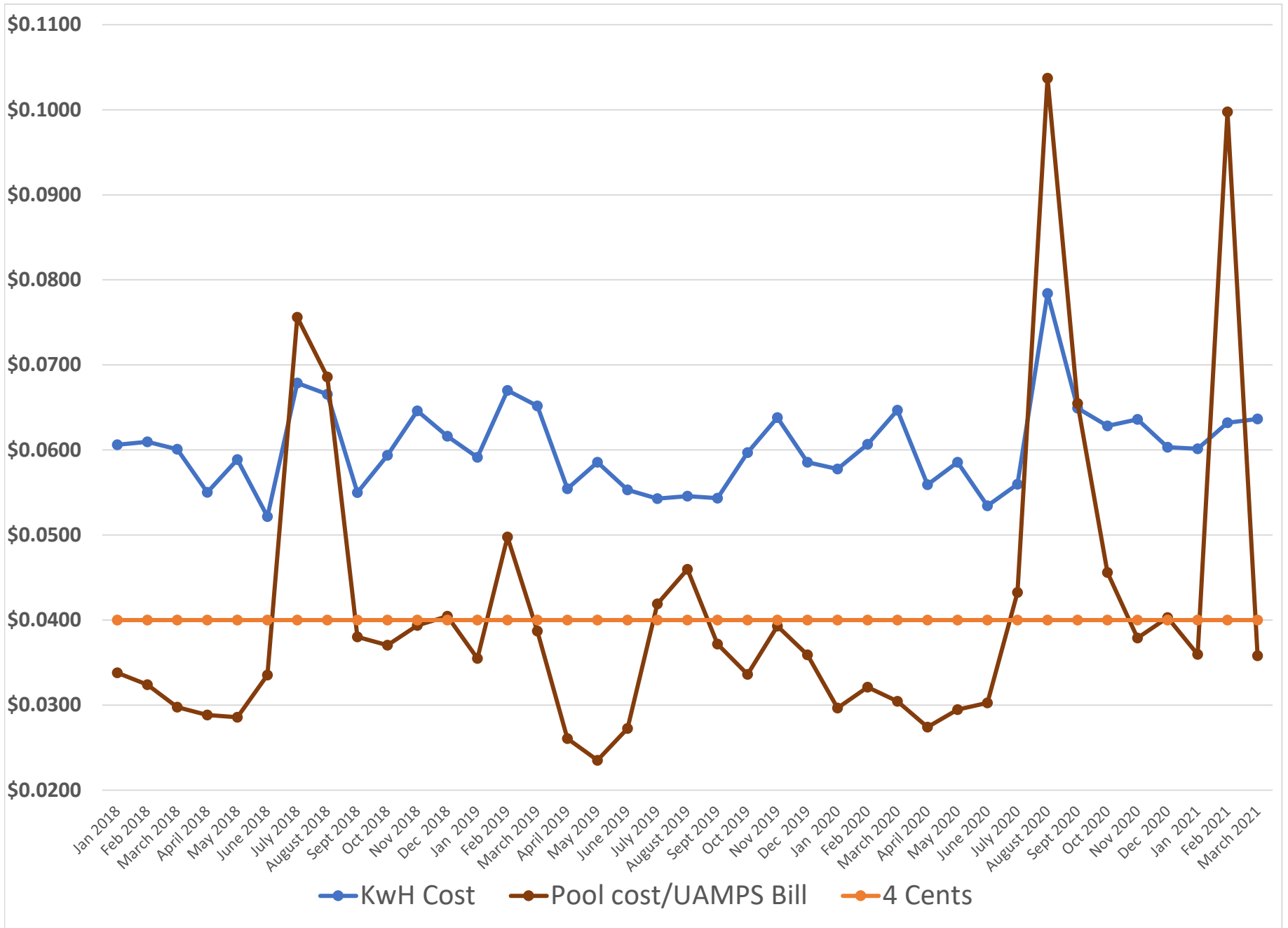
35 **UAMPS:** Dave Imlay reviewed the 2020 Drought Monitor Report. The Enchant and Steele Solar project
36 are moving forward. The UAMPS PX and Scheduling Report shows that Hurricane Power represents 14%
37 of the power purchased from the unplanned pool.

38 **Other:** Dave Imlay discussed the upcoming UAMPS Member Conference.

39 The Power Board adjourned at 5:00 p.m. The next Power Board Meeting is scheduled for May 25, 2021,
40 at 3:00 PM.

41

Agenda Item # 1
Power Cost
Review



Agenda Item # 2
CFPP Update



UAMPS

Utah Associated Municipal Power Systems



SMARTENERGY

**CARBON FREE POWER PROJECT UPDATE
MAY 2021**

AGENDA ITEM	POTENTIAL ACTION	SPEAKER
Minutes* Financial Report	Approve Accept	Bear Prairie Scott Fox
Executive Session <ul style="list-style-type: none"> • Development Coordination Agreement Outline • Project Update • Subscription Update 	Discuss Discuss Discuss	Mason Baker Shawn Hughes Mark Gendron
Other	Discuss	Bear Prairie
Adjourn		Bear Prairie

SUBSCRIPTION

- Due diligence work continues with the Washington and Arizona utilities
 - Transmission displacements with BPA and WAPA
- Five other Northwest utilities continue to review the LOI

DEVELOPMENT COORDINATION AGREEMENT OUTLINE

- Purpose:
 - Provides contractual mechanism to provide for utilities to participate contractually in the CFPP development without executing a CFPP Power Sales Contract; and provides for CFPP Development Coordination (“Development Work”)
- Parties:
 - UAMPS=Development Manager & Development Participant
 - Prospective Utilities (Grant, SPPA, others)=Development Participants
 - CFPP LLC= Owner
- Development Participants:
 - Option, but not the obligation, to become Project Participants by signing a joint ownership agreement, a Power Sales Contract, or Power Purchase Agreement

DEVELOPMENT COORDINATION AGREEMENT OUTLINE (CONT.)

- Development Coordinating Committee:
 - Provides for Symmetry in the Development Work budget and phases that mirrors the Budget and Plan of Finance
 - Establishes a Coordinating Committee
 - Comprised of Development Participants
 - Development Manager (UAMPS) = Chair of the Committee
 - CFPP LLC Participates but does not have voting rights
 - Purpose of Coordinating Committee
 - Oversee and make decisions on Development Work

PROJECT UPDATE

- Initial COLA Development:
 - Core Boring & Well Drilling Preparations Completed
 - Biological/Cultural Surveys Completed
 - Geotechnical Walkdowns Completed
 - Mowing Completed
- Next Phase:
 - Geotechnical Preparations

OPERATOR DUE DILIGENCE

- Letter of Intent was executed with potential operator
- Initial discussions focused on background information from both parties
- Work to be completed in eight weeks
- Term sheet to follow
- Operator to support to review the OPEX estimate

DOE ENGAGEMENT

- Meetings continue with DOE NE to discuss CFPP award modifications
- Two step process:
 - CFPP Cost Sharing Award
 - DOE Loan Guarantee


NUSCALE DCRA PROPOSAL FOR 6 NPM DESIGN

- Received NuScale proposal for 6 NPM configuration
- Target price of \$55/MWh (2020\$)
- Preserved the 2030 Commercial Operation Date
- The 6 NPM configuration substantially reduces subscription uncertainty
- Additional negotiations ongoing

NEXT STEPS

- Interim PMC meeting to make conditional decision on CFPP configuration
 - Conditioned on governing body feedback
 - Staff support of governing body briefings and information briefing

Agenda Item # 3
Battery Storage
Evaluation



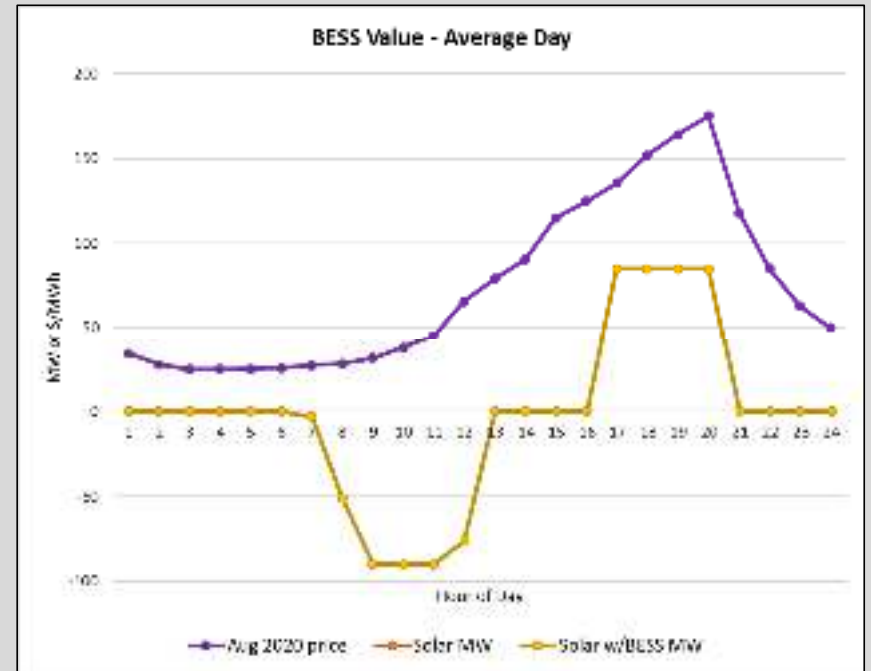
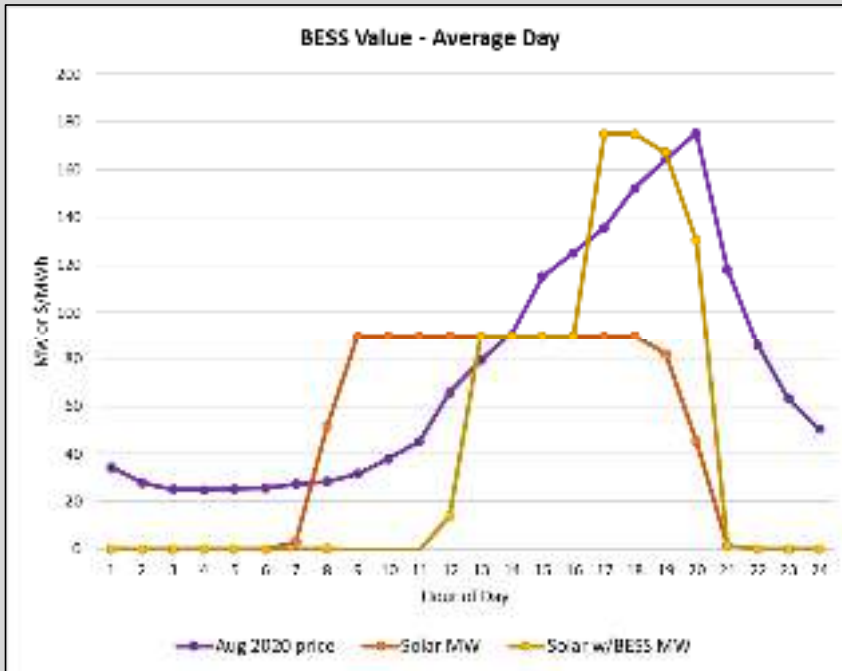
RESOURCE PROJECT

May 19th, 2020

Battery Fundamentals

- Lowest market prices correlate with highest solar output
 - Typical charge hours
- Highest market prices correlate with lowest/no solar output
 - Typical discharge hours
- Time of use valuation
 - To charge or not to charge, that is the question?
- Delta between charging hours and discharging hours must be greater than or equal to capacity payment
 - Peak hours in July and August
- Better economics if EIM participating resource or CAISO participation

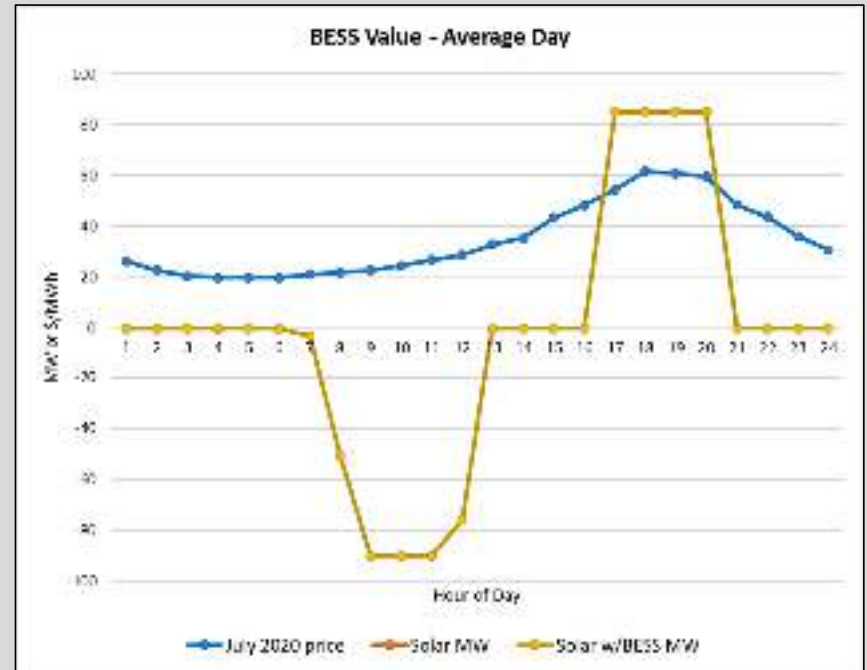
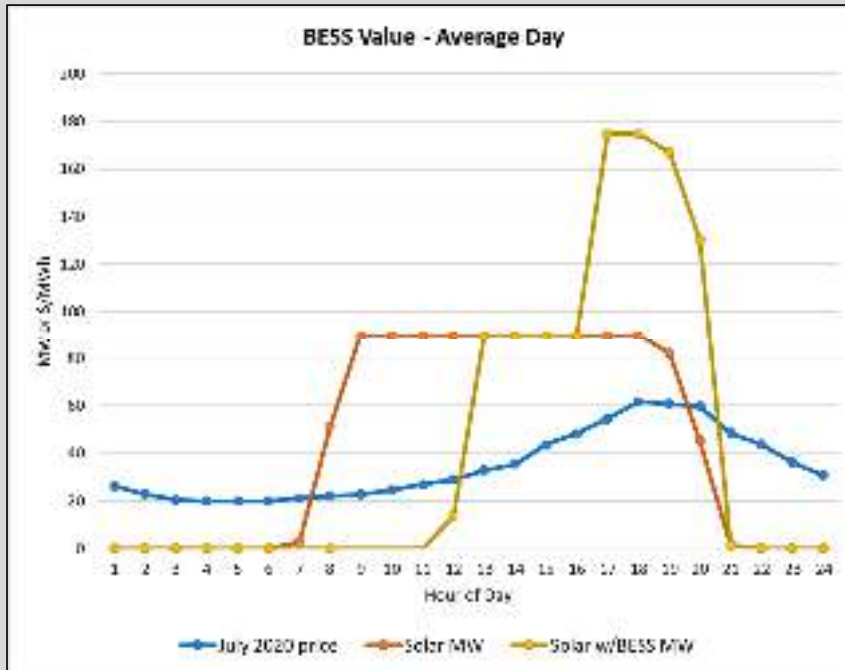
Value of Battery vs Market



- Use battery to shift early solar generation to later in the day at peak pricing (left graph)
- Equivalent analysis to just using battery to shift energy from early to later in day (right graph)
- Adds value with high August 2020 market prices

	Aug-20 Dollars
BESS cost	\$850,000
Market shifted value	\$1,130,084
Savings / (Loss)	\$280,084

Value of Battery vs Market

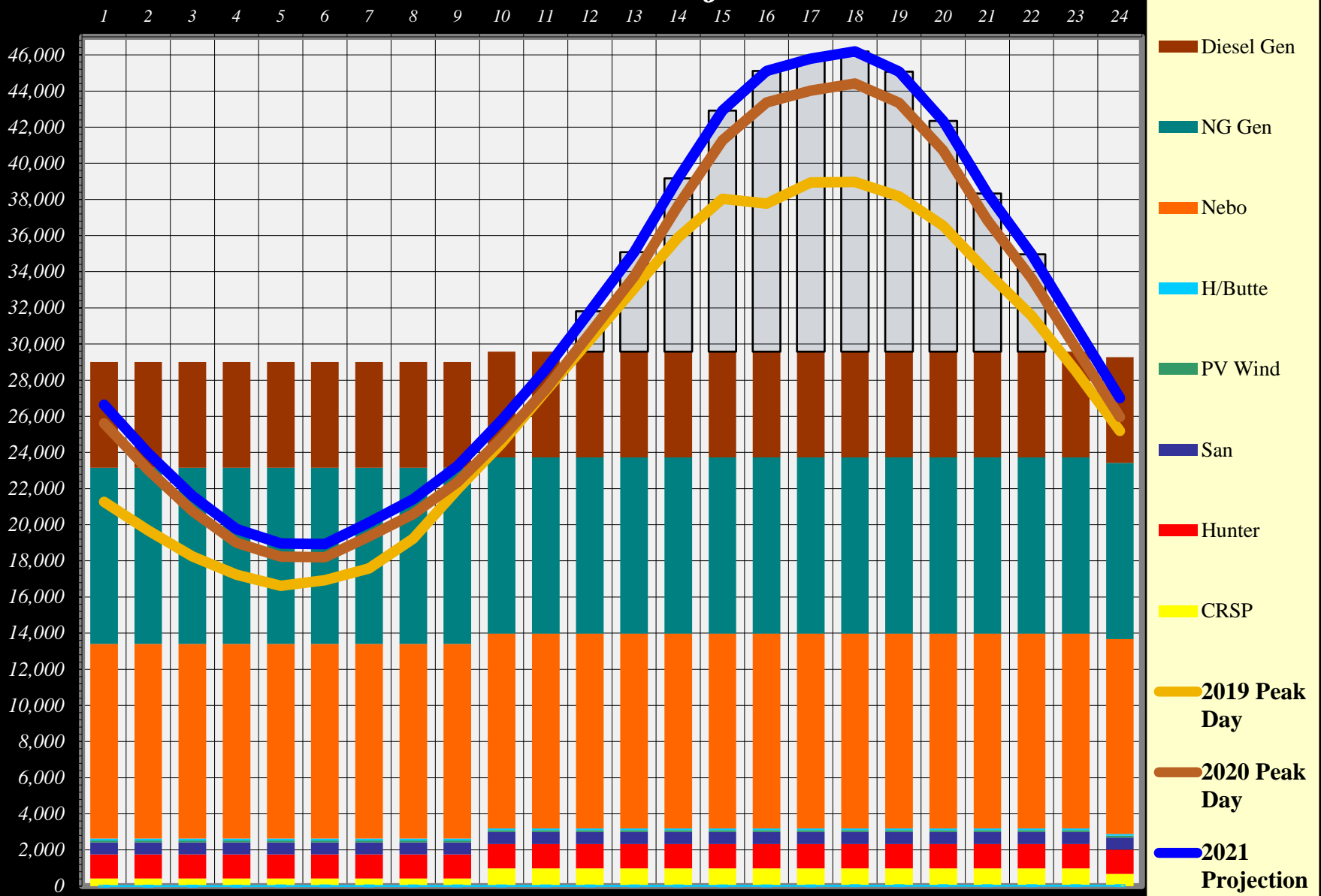


- Use battery to shift early solar generation to later in the day at peak pricing (left graph)
- Equivalent analysis to just using battery to shift energy from early to later in day (right graph)
- Does Not add value with July 2020 market prices (or for year)

	Jul-20 Dollars
BESS cost	\$850,000
Market shifted value	\$311,095
Savings / (Loss)	-\$538,905

Agenda Item # 4
Summer
Resources
Compared to
Forecasted Load

Peak Projection

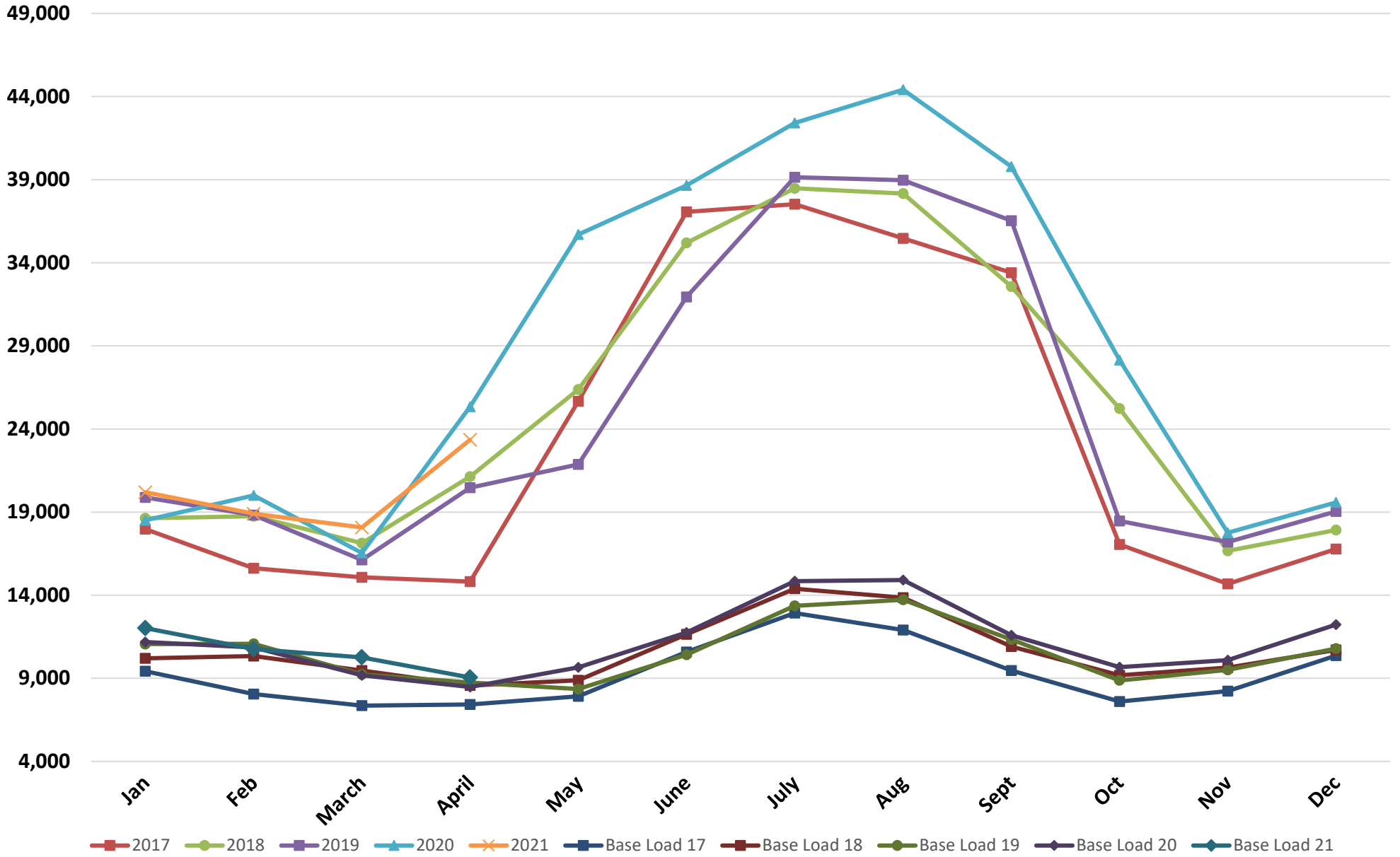


Agenda Item #7
Other

HURRICANE CITY LOAD 2016 to 2020 (All usage in Kilowatt)

	<i>Washington County 4605</i>					<i>UAMPS Meter at Millcreek 4675</i>					<i>Pacificore 4660</i>				
YEAR	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
JANUARY	507	443	430	539	1	15,498	16,745	17,406	14,183	18,737	30	0	32	0	0
FEBRUARY	499	520	473	505	1	13,340	16,625	16,456	17,698	14,118	33	0	34	0	32
MARCH	537	534	493	542	417	12,716	15,185	13,817	16,002	17,662	35	0	32	0	0
APRIL	478	526	443	537	521	12,659	17,026	18,108	23,103	22,796	33	37	33	0	36
MAY	552	538	453	503	0	23,294	7,626	19,633	34,618	0	35	34	36	0	0
JUNE	553	527	497	537	0	26,625	24,798	21,642	28,455	0	39	39	35	0	0
JULY	559	530	534	542	0	27,011	27,976	28,758	32,078	0	39	41	35	0	0
AUGUST	573	457	539	540	0	24,886	25,524	28,629	29,461	0	40	40	35	0	0
SEPTEMBER	551	434	557	540	0	22,943	30,396	26,423	31,247	0	40	38	34	0	0
OCTOBER	551	456	557	538	0	14,488	22,834	16,268	27,614	0	35	41	0	0	0
NOVEMBER	305	440	460	80	0	12,559	10,094	15,050	15,718	0	35	0	0	0	0
DECEMBER	167	198	510	69	0	14,845	15,955	18,534	19,510	0	33	32	0	0	0
YEAR MAX	573	538	557	542	521	27,011	30,396	28,758	34,618	22,796	40	41	36	0	36
	<i>Hurricane City Generators Meter 4608</i>					<i>UAMPS, Pacificore, Generators & Hurricane Hydro Meters 4646</i>					<i>PERCENTAGE OF GROWTH</i>				
YEAR	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
JANUARY	1,940	1,445	2,017	3,793	1,452	17,975	18,633	19,885	18,515	20,190	7%	4%	6%	-7%	8%
FEBRUARY	1,746	1,613	1,858	1,797	4,757	15,618	18,758	18,821	20,000	18,908	-7%	17%	0%	6%	-6%
MARCH	1,786	1,412	1,781	0	0	15,074	17,131	16,123	16,544	18,079	-1%	12%	-6%	3%	8%
APRIL	1,654	3,548	1,885	1,703	0	14,824	21,137	20,469	25,343	23,353	0%	30%	-3%	19%	-9%
MAY	1,786	18,182	1,742	575	0	25,667	26,380	21,864	35,696	0	13%	3%	-21%	39%	
JUNE	9,851	9,836	9,771	9,670	0	37,068	35,200	31,945	38,662	0	4%	-5%	-10%	17%	
JULY	9,918	9,936	9,821	9,798	0	37,527	38,483	39,148	42,418	0	0%	2%	2%	8%	
AUGUST	9,966	12,146	9,765	14,415	0	35,465	38,167	38,968	44,416	0	7%	7%	2%	12%	
SEPTEMBER	9,870	1,708	9,520	7,993	0	33,404	32,576	36,534	39,780	0	19%	-3%	11%	8%	
OCTOBER	1,984	1,902	1,641	0	0	17,058	25,233	18,466	28,152	0	-9%	32%	-37%	34%	
NOVEMBER	1,781	6,135	1,698	1,961	0	14,680	16,669	17,208	17,759	0	-3%	12%	3%	3%	
DECEMBER	1,737	1,732	0	0	0	16,782	17,917	19,044	19,579	0	-4%	6%	6%	3%	
YEAR MAX	9,966	18,182	9,821	14,415	4,757	37,527	38,483	39,148	44,416	23,353	0.3%	2.48%	1.70%	11.86%	-8.52%
									25,343	23,353					

2017 - 2021 KW LOAD



HURRICANE CITY LOAD 2016 to 2021 (All usage in Kilowatt Hours)

	<i>Washington County Conservancy District Hurricane Hydro Meter 4605</i>					<i>UAMPS Meter At Millcreek 4675 (Hurricane Substations)</i>					<i>Pacificore Gate Way Meter 4660</i>					<i>Roof Top Solar</i>				
<i>YEAR</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>
<i>JAN</i>	306,505	89,673	103,343	140,807	1	8,970,214	9,557,686	10,030,514	9,999,513	10,880,503	20,537	0	21,131	0	0	6,690	7,364	7,317	7,803	20,556
<i>FEB</i>	296,123	66,377	178,960	255,086	3	7,154,821	8,710,620	8,996,214	8,989,172	9,039,744	18,753	0	19,125	0	18,774	7,659	8,506	7,478	12,138	33,169
<i>MAR</i>	331,747	224,338	273,630	316,528	93,648	7,529,224	9,031,225	8,427,954	8,413,185	9,615,263	22,007	0	21,439	0	0	9,300	9,834	10,781	17,843	44,301
<i>APR</i>	117,788	310,394	270,380	277,767	140,891	7,488,027	8,159,008	8,447,961	8,233,034	9,129,888	20,229	15,657	20,565	0	21,608	14,017	14,323	15,715	17,726	62,029
<i>MAY</i>	210,438	345,380	283,276	234,150	0	9,305,103	10,192,518	8,678,354	11,459,879	0	21,709	20,284	22,174	0	0	17,843	17,226	16,191	29,426	0
<i>JUN</i>	377,958	244,665	315,730	367,271	0	13,074,343	12,666,791	11,662,992	13,449,454	0	23,557	24,149	21,044	0	0	16,352	18,862	18,309	30,787	0
<i>JUL</i>	390,340	280,295	378,290	390,487	0	15,187,644	14,958,654	15,120,730	16,880,022	0	24,854	25,161	20,913	0	0	12,941	12,780	16,283	31,649	0
<i>AUG</i>	393,821	259,900	373,534	366,824	0	14,243,180	14,918,740	15,717,497	16,291,152	0	24,501	24,626	21,377	0	0	9,232	8,730	16,928	22,123	0
<i>SEP</i>	386,624	234,479	379,030	349,485	0	10,917,906	12,969,115	12,595,990	13,640,861	0	24,501	23,003	21,357	0	0	8,601	11,886	13,456	27,762	0
<i>OCT</i>	199,457	299,120	360,876	258,533	0	8,075,124	8,644,867	8,742,567	10,353,276	0	22,944	11,209	0	0	0	8,164	11,090	15,698	26,360	0
<i>NOV</i>	96,117	178,581	175,234	52,434	0	7,790,753	8,512,028	8,573,596	9,337,201	0	21,958	17,755	0	0	0	8,866	12,751	18,983	22,856	0
<i>DEC</i>	92,224	120,137	200,261	39,972	0	9,117,715	9,769,888	10,067,889	11,146,326	0	2,675	21,287	0	0	0	7,013	11,130	13,098	20,556	0
<i>TOT</i>	3,199,142	2,653,339	3,292,544	3,049,344	234,543	118,854,054	128,091,140	127,062,258	138,193,075	38,665,398	248,225	183,131	189,125	0	40,382	126,678	144,482	170,237	267,029	160,055

	<i>Hurricane City Generators Meter 4608</i>					<i>UAMPS, Pacificore, Generators & Hydro Meters 4646</i>					<i>PERCENTAGE OF GROWTH</i>					
<i>YEAR</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>4or5yr Avg</i>
<i>JAN</i>	6,379	6,511	7,194	17,229	2,207	9,310,325	9,661,234	10,169,499	10,165,352	10,903,267	4.57%	3.63%	5.00%	-0.04%	6.77%	3.99%
<i>FEB</i>	6,286	6,124	6,848	6,516	175,693	7,483,642	8,791,627	9,208,625	9,262,912	9,267,383	-1.31%	14.88%	4.53%	0.59%	0.05%	3.75%
<i>MAR</i>	6,403	5,102	6,436	0	0	7,898,681	9,270,499	8,740,240	8,747,556	9,753,212	0.98%	14.80%	-6.07%	0.08%	10.31%	4.02%
<i>APR</i>	7,043	23,515	6,183	4,352	0	7,647,104	8,522,897	8,760,804	8,532,879	9,354,416	2.47%	10.28%	2.72%	-2.67%	8.78%	4.31%
<i>MAY</i>	6,554	5,872	6,486	575	0	9,561,647	10,581,280	9,006,481	11,724,030	0	9.13%	9.64%	-17.49%	23.18%		6.11%
<i>JUN</i>	412,941	1,515,276	298,601	710,737	0	13,905,151	14,469,743	12,316,676	14,558,249	0	0.13%	3.90%	-17.48%	15.40%		0.49%
<i>JUL</i>	737,165	2,095,313	1,211,592	1,770,465	0	16,352,944	17,372,203	16,747,808	19,072,623	0	4.58%	5.87%	-3.73%	12.19%		4.73%
<i>AUG</i>	772,879	1,446,526	1,295,488	2,499,025	0	15,443,613	16,658,522	17,424,824	19,179,124	0	8.47%	7.29%	4.40%	9.15%		7.33%
<i>SEP</i>	124,404	5,883	138,516	58,582	0	11,462,036	13,244,366	13,148,349	14,076,690	0	8.49%	13.46%	-0.73%	6.59%		6.95%
<i>OCT</i>	32,947	7,072	6,230	0	0	8,338,636	8,973,358	9,125,371	10,638,169	0	-3.44%	7.07%	1.67%	14.22%		4.88%
<i>NOV</i>	8,010	13,451	5,789	4,775	0	7,925,704	8,734,566	8,773,602	9,417,266	0	2.00%	9.26%	0.44%	6.83%		4.63%
<i>DEC</i>	9,689	6,463	0	0	0	9,229,316	9,928,905	10,281,248	11,206,854	0	0.07%	7.05%	3.43%	8.26%		4.70%
<i>TOT</i>	2,130,700	5,137,108	2,989,363	5,072,256	177,900	124,558,799	136,209,200	133,703,527	146,581,704	39,278,278	3.72%	8.55%	-1.84%	8.79%	6.54%	5.15%
<i>TOT</i>		5,137		5,072				133,703,527	36,708,699	39,278,278				YTD	6.54%	

2016 - 2021 KWH LOAD

