

MINUTES
CITY COUNCIL
BANNING, CALIFORNIA

01/22/19
REGULAR MEETING

A regular meeting of the Banning City Council was called to order by Mayor Welch on January 22, 2019, at 5:09 p.m. at the Banning Civic Center Council Chamber, 99 E. Ramsey Street, Banning, California.

COUNCIL MEMBERS PRESENT: Council Member Andrade
Council Member Happe
Council Member Peterson
Council Member Wallace
Mayor Welch

COUNCIL MEMBERS ABSENT: None

OTHERS PRESENT Doug Schulze, City Manager
Kevin Ennis, City Attorney
Rochelle Clayton, Deputy City Manager
Tim Chavez, Fire Battalion Chief
Vincent Avila, Interim Police Chief
Heidi Meraz, Community Services Director
Tom Miller, Electric Utility Director
Maryann Marks, Interim Community Development Director
Art Vela, Public Works Director/City Engineer
Suzanne Cook, Deputy Finance Director
Ted Shove, Economic Development Manager
Marie A. Calderon, City Clerk
Laurie Sampson, Acting Deputy City Clerk
Leila Lopez, Office Specialist

Mayor Welch called the regular meeting of the City Council to order at 5:09 pm. The Invocation was given by Reverend Bill Dunn of St. Stephens Episcopal Church. Council Member Happe led the audience in the Pledge of Allegiance.

AGENDA APPROVAL

Motion Andrade/Wallace. Motion carried 5-0.

PROCLAMATION

Mayor Welch presented a proclamation in honor of the 3rd Annual National Day of Healing.

REPORT ON CLOSED SESSION

1) CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (Pursuant to Paragraph (1) of subdivision (d) of Government Code Section 54956.9). Name of Case: City of Banning and People of the State of California v. Supreme Cannabis Club, Tony Macias, and Maria Dolores Macias, Case No. RIC 1821127. **A status report was provided.** 2) CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (Pursuant to Paragraph (1) of subdivision (d) of Government Code Section 54956.9). Name of Case: 420 Vibing Solutions, Inc. v. City of Banning, Case No. RIC 1822867. **A status report was provided.** 3) CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION (Potential initiation of litigation pursuant to Paragraph (4) of subdivision (d) of Government Code Section 54956.9) (One Case). **A status report was provided.** 4) CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION (Pursuant to Paragraph (1) of subdivision (d) of Government Code Section 54956.9. Name of Case: Southern California Edison Company v. RRM Properties, Ltd. Et al. Case No. RIC 1813789. **A status report was provided.** 5) CONFERENCE WITH LEGAL COUNSEL- ANTICIPATED LITIGATION Significant Exposure to Litigation pursuant to paragraph (2) of subdivision (d) of Government Code Section 54956.9 (One Case). 6) CONFERENCE WITH REAL PROPERTY NEGOTIATORS pursuant to Government Code Section 54956.8: Property description: APNs 419-120-019, -021, 023, 024, -025, located in the general vicinity of Joshua Palmer Way and Highland Springs Avenue. City Negotiator: Douglas Schulze, City Manager and Ted Shove, Economic Development Manager- Negotiating Parties: BMW Management, Juan Carlos Trejo, and Corners, Inc.; Under Negotiation: Price and Terms. **Direction provided to staff.** 7) CONFERENCE WITH REAL PROPERTY NEGOTIATORS pursuant to Government Code Section 54956.8: Property description: APNs 532-120-001, -002, -004, -005, -008, through -012 & -020 located in the general vicinity of Ramsey Street and Hathaway Street. City Negotiator: Douglas Schulze, City Manager and Ted Shove, Economic Development Manager- Negotiating Parties: Fountain of Life Temple Church of God in Christ, Frank J. Burgess and Lorna Burgess, Burgess Family Trust, Frank J. Burgess, Humberto and Eulogia Ramirez Family Trust, James Burgess Fall and Betty Imai Fall Family Trust, Jen H. Huang, Krystal P. Cruz, Louis S. Lopez Trust, Raymond Ngoc and Lucy Nguyen Huynh Revocable Trust, Teh Shan Liang, Terra Firma Enterprises, LLC.; Under Negotiation: Price and Terms. **Direction provided to staff.** 8) CONFERENCE WITH REAL PROPERTY NEGOTIATORS pursuant to Government Code Section 54956.8: Property description: APNs: 537-100-030, and -031, located in the general vicinity of Ramsey Street and C Street. City Negotiator: Douglas Schulze, City Manager and Ted Shove, Economic Development Manager. Negotiating Parties: TLC Prop; Under Negotiation: Price and Terms. **Direction provided to staff.** 9) CONFERENCE WITH REAL PROPERTY NEGOTIATORS pursuant to Government Code Section 54956.8: Property description: APNs: 534-152-023 and -025, located in the general vicinity of Hargrave Street and Indian School Lane. City Negotiator: Douglas Schulze, City Manager and Ted Shove, Economic Development Manager- Negotiating Parties: Rifai Mousa; Under Negotiation: Price and Terms. **Direction provided to staff.**

PUBLIC COMMENTS / CORRESPONDENCE / PRESENTATIONS / APPOINTMENTS

PUBLIC COMMENTS

Mayor Welch opened Public Comment for items not on the Agenda.

Inge Schuler, Banning resident, reminded the City Council they have a fiduciary responsibility and every council member should care about the people's money. There is a five minute rule in place for public comment. "Point of Order" should be used to maintain the five minute rule.

Ellen Carr representing Tender Loving Critters advised the Animal Action League will be at the Community Center with their low cost spay and neuter clinic. Low cost shots and microchipping is also available. Now that the City is under the County for animal control, microchipping is mandatory. Citizens may call Animal Action League at 760-366-1100 to be put on a list for spay and neuter. There is no appointment required for shots or microchipping. As a Banning resident, she would like to suggest the City increase pay for the Police Department Dispatchers.

Paul Perkins, Banning resident, suggested the closed session be the first item of the day and any workshops be held directly prior to the regular meeting so more people can attend. Any session held in the council chambers should be wired and broadcast. He would also like to see status reports for ongoing projects. He asked the City to look into the ability to withdraw from participating in Social Security. (Attachment A)

Anne Price, Banning resident, would like to remind everyone Banning Little League is starting up.

CORRESPONDENCE

There was no correspondence.

APPOINTMENTS

2019 Planning Commission Appointments

A motion was made to appoint Scott Brosious to the Planning Commission

Motion: Andrade/Happe. Motion carried 5-0.

A motion was made to appoint James Price to the Planning Commission.

Motion: Peterson/Wallace. Motion carried 5-0.

CONSENT ITEMS

Items 5, and 6, were pulled for discussion by Council Member Happe. Items 10 and 11 were pulled for discussion by Council Member Peterson.

1. Approve Regular Council Meeting Minutes for January 8, 2019.
Recommendation: Accept the minutes for January 8, 2019.
2. Approve Special Council Meeting Minutes for January 22, 2019.
Recommendation: Accept the minutes for January 8, 2019.
3. Approval and Ratification of Accounts Payable and Payroll Warrants for November 2018.
Recommendation: Review and ratify the warrants for period ending November 30, 2018.
4. Approval and Ratification of Accounts Payable and Payroll Warrants for December 2018
Recommendation: Review and ratify the warrants for period ending December 31, 2018.
7. Public Works Capital Improvement Project Tracking List.
Recommendation: Receive and file report.
8. Receive and File Police Department Statistics for November 2018.
Recommendation: Receive and File Report.
9. Receive and File Police Department Statistics for December 2018.
Recommendation: Receive and File Report.

Motion: Peterson/Andrade to approve items 1-4 and 7-9. Motion carried 5-0.

5. Receive and File Cash, Investments and Reserve Report for the Month of November 2018
Recommendation: Receive and File Report.
Discussion: Staff Report was presented by Suzanne Cook, Deputy Finance Director. After Council discussion motion was made:

Motion Happe/Wallace. Motion carried 5-0.

6. Receive and File Cash, Investments and Reserve Report for the Month of December 2018
Recommendation: Receive and File Report.
Discussion: Staff Report was presented by Suzanne Cook, Deputy Finance Director. After Council discussion motion was made:

Motion Happe/Wallace. Motion carried 5-0.

10. Resolution 2019-10, Amending the Established Electric Utility Blanket Purchase Orders for the Purchase of Inventory Supplies and Commodities Not to Exceed \$500,000 for 2019 and \$600,000 for 2020.

Recommendation: Adopt Resolution 2019-10

Discussion: Staff Report was presented by Tom Miller, Electric Utility Director. After Council discussion motion was made:

Motion Peterson/Wallace. Motion Carried 5-0.

11. Electric Rule #18 Public Utility Access to Private Property.

Recommendation: Replace Rule #18- Department Right of Ingress to and Egress from Consumer's Premises, adopted by City Council on June 16, 1975, by Resolution 1975-23, and adopt revised Electric Rule #18- Public Utility Access to Private Property.

Discussion: Staff Report was presented by Tom Miller, Electric Utility Director. After Council discussion motion was made:

Motion Peterson/Andrade. Motion carried 5-0.

ANNOUNCEMENTS & REPORTS

CITY COUNCIL COMMITTEE REPORTS

None

REPORT BY CITY ATTORNEY

None

REPORT BY CITY MANAGER

1. A Cannabis Information Workshop is scheduled for Wednesday, January 23, 2019 at 6:00 p.m. in the council chambers.
2. Staff will be presenting an item, Open.Gov at the February 12, 2019 meeting. This program will help to address the status concerns brought by Mr. Perkins.
3. The Deputy City Clerk position has been filled by Daryl Betancur. His first day will be Monday, February 4, 2019.
4. The Community Development Director position has been filled. The candidate is currently in background check.

Mayor Welch, recessed the regular meeting of the Banning City Council and called to order a joint meeting of the Banning City Council, Banning Utility Authority and Housing

Authority.

REPORTS OF OFFICERS

1. Fiscal Year 2017-2018 Audited Financial Statements for the City of Banning and the Banning Utility Authority.

Recommendation: Approve the Fiscal Year 2017-2018 Comprehensive Financial Reports (CAFRs) and Independent Auditor's Reports for the City, Banning Utility Authority, and the Housing Authority which were audited by Lance, Soll, & Lunghard, LLC.

Discussion: Staff Report was presented by Debbie Harper, of Lance, Soll, & Lunghard, LLC.

Public Comment: Paul Perkins requested information on the pension liability. After council discussion motion was made:

Motion Happe/Andrade .Motion carried, 5-0.

Mayor Welch, recessed the joint meeting of the City Council, Banning Utility Authority and Housing Authority, and reconvened the regular meeting of the Banning City Council.

REPORTS OF OFFICERS

1. Resolution 2019-11, Approving a License Agreement for the Use of Real Property between the City of Banning and the Banning, San Gorgonio Pass Area Chamber of Commerce.

Recommendation: Adopt Resolution 2019-11, Approving an Agreement for Use of real Property between the City of Banning and the Banning, San Gorgonio Pass Area Chamber of Commerce.

Discussion: Staff Report was presented by Doug Schulze, City Manager.

Public Comment: Paul Perkins suggested a change to page 42, regarding approval for improvements.

The agreement was amended to change the boundaries from "southerly" Livingston Street to "northerly" Livingston Street.

After Council Discussion motion was made:

Motion Andrade/Wallace. Motion carried 3-0 to approve the agreement as amended. Council Members Happe and Peterson abstained.

2. Transit Operations, Its Budget and Impact on the City's Compressed Natural Gas "CNG" Facility.

Recommendation: Provide staff direction.

Discussion: Staff Report was presented by Rochelle Clayton, Deputy City

Public Comment: Mr. Perkins would like to know why, if the CNG station is closed to the public, there is a CNG sign on Lincoln? Does the City have a way to track the actual use of CNG by the Banning Unified School District? Rochelle Clayton responded the City does have a way to track the usage.

After council discussion staff was directed to continue with the plan to keep the proposed CNG station for City and possible School use and to work on a proposal with the Banning Unified School District with a more equitable contribution from both entities.

3. Resolution 2019-02, Amending the Fiscal Year 2018-2019 Budget for Year addition of two Code Compliance Officers and to update the Classification and Compensation Plan to Reclassify the Senior Code Compliance Officer to Code Compliance Supervisor.

Recommendation: Adopt Resolution 2019-02, Amending the Fiscal Year 2018-2019 Budget for Year addition of two Code Compliance Officers and to update the Classification and Compensation Plan to Reclassify the Senior Code Compliance Officer to Code Compliance Supervisor.

Discussion: Staff Report was presented by Rochelle Clayton, Deputy City Manager.

After Council Discussion motion was made to defer the discussion to the February 26, 2019 meeting of the City Council.

Motion Andrade/Peterson. Motion carried 5-0.

4. Resolution 2019-12, Banning Utility Long-Term Load Forecast for Power, Resources and System Planning.

Recommendation: Adopt Resolution 2019-12, Approving the Banning Utility Long-Term Load for Power resources and System Planning provided by Itron, Inc. of San Diego, CA.

Discussion: Staff Report and PowerPoint presentation (Attachment B) was presented by David Simons, of Itron, Inc.

After Council Discussion motion was made:

Motion Peterson/Wallace. Motion carried 5-0.

Mayor Welch recessed the regular meeting of the City Council and called to order a joint meeting of the Banning City Council and the City Council Sitting in its Capacity of a Successor Agency.

CONSENT ITEM

1. Resolution 2019-01 SA, Approval of the Recognized Obligation Payment schedule A & B.

Recommendation: Approve Resolution 2019-01 SA, Approving the Recognized

Discussion: Staff Report was presented by Suzanne Cook, Deputy Finance
After Council Discussion motion was made:

Motion Peterson/Wallace. Motion carried 5-0.

DISCUSSION ITEMS

None

ADJOURNMENT

By common consent the meeting was adjourned at 7:45 P.M.

Minutes Prepared by:



Laurie Sampson, Acting Deputy City Clerk

These Minutes reflect actions taken by the City Council. The entire discussion of this meeting can be found by visiting the following website: <https://banninglive.viebit.com/player.php?hash=CnzIB0BOCu2L>, or by requesting a CD or DVD at Banning City Hall located at 99 E. Ramsey Street.

Exhibit “A”

to the January 22, 2019 Regular Meeting Minutes

485
1/22/18

4808 Crenshaw Circle, Banning Ca 92220

951/769-5415

Subject: Question for the Council and Staff of Banning - Jan 22, 2019

To: City Council of Banning and City Staff

1. Can the Agenda's of the City Council sequence, be re-organized to support the Attendance of more Citizens of the City. This can be accomplished by having the open to the Citizens of the City "Special Meeting's" just before the Regular City Council meeting. This would place the order something like this: Special Meeting that goes to closed session, Special Meeting that is open to Citizens, Regular open Council Meetings
2. Status reports by City Staff on long term solutions being posted monthly in the City Website for all to see and review. This would insure that long term goals are acted upon. Example would be the automated meter readings for Electric and Water Meters. Several units of the City are supposedly working either together or ?
3. What is being accomplished to stop the Social Security Payments being made to City Employee's. I am sure that they want the CALPERS because of the bigger benefit

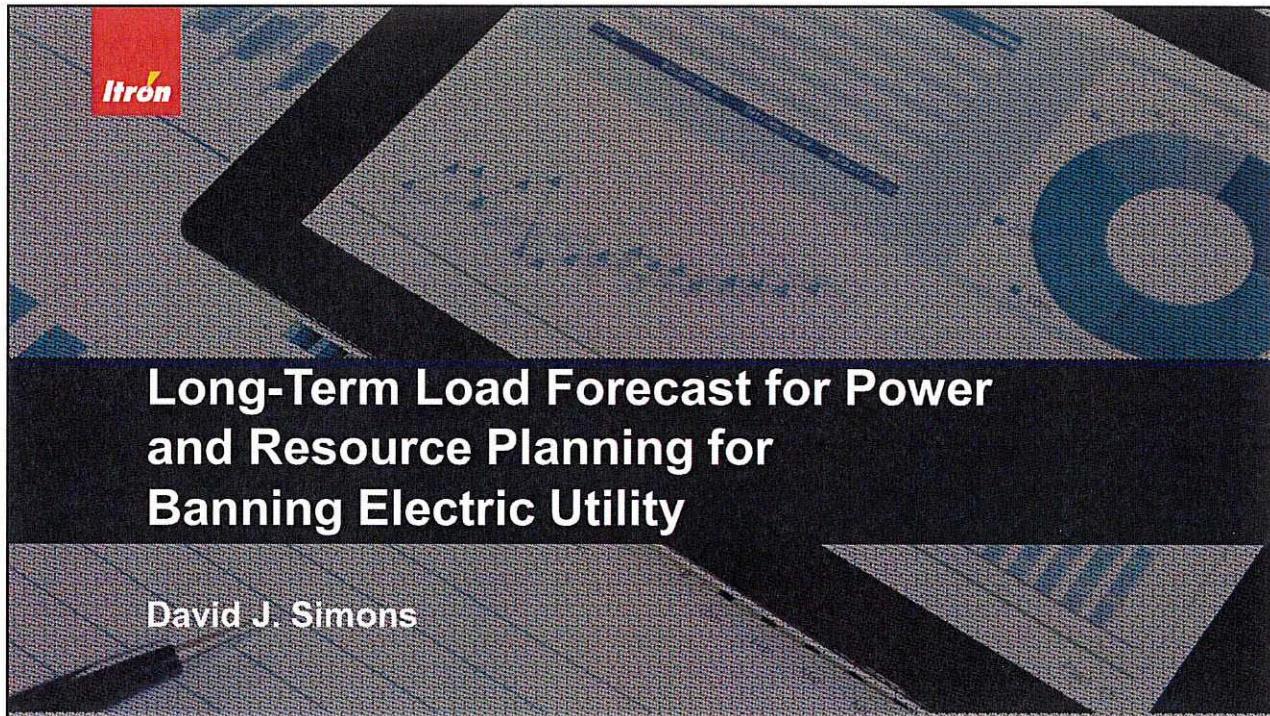
Regards,


Paul Perkins
951/769-5415
pauldperk@aol.com

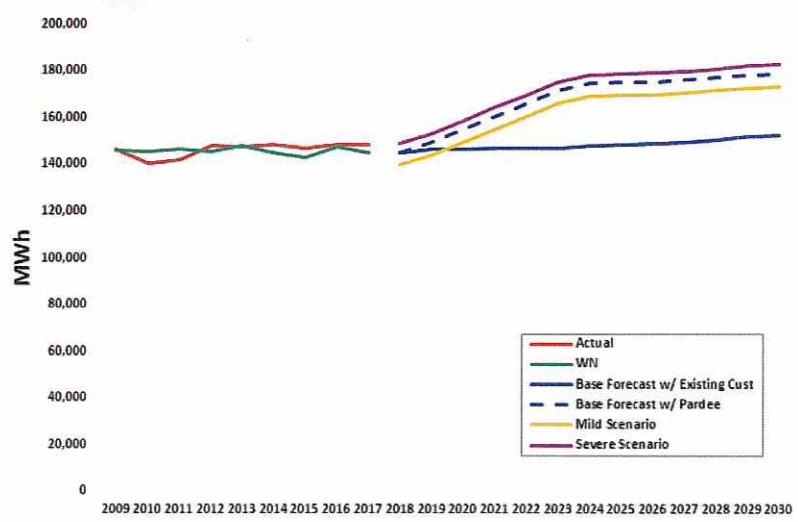
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Exhibit “B”

to the January 22, 2019 Regular Meeting Minutes

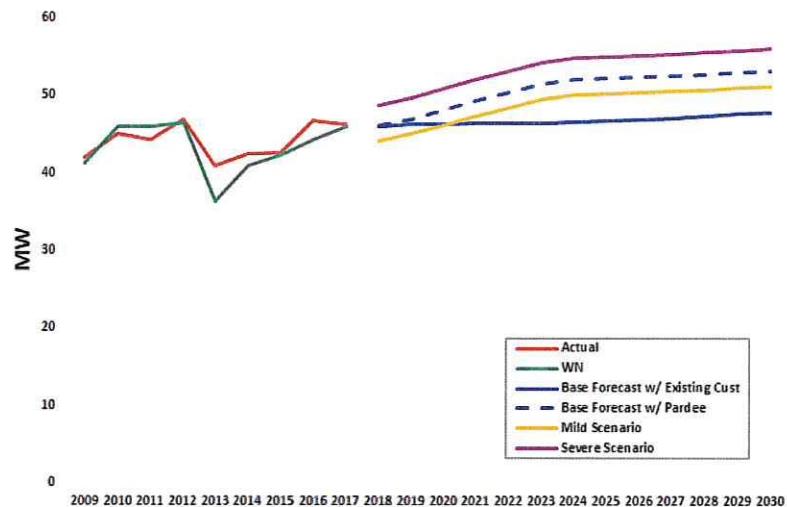
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System Energy Forecasts



System Peak Forecasts



Driving Factors of Energy Use

Calendar

January	February	March
April	May	June
July	August	September
October	November	December

Economics



Structural Changes



Weather



Prices



Short Term
(e.g, Day-ahead)

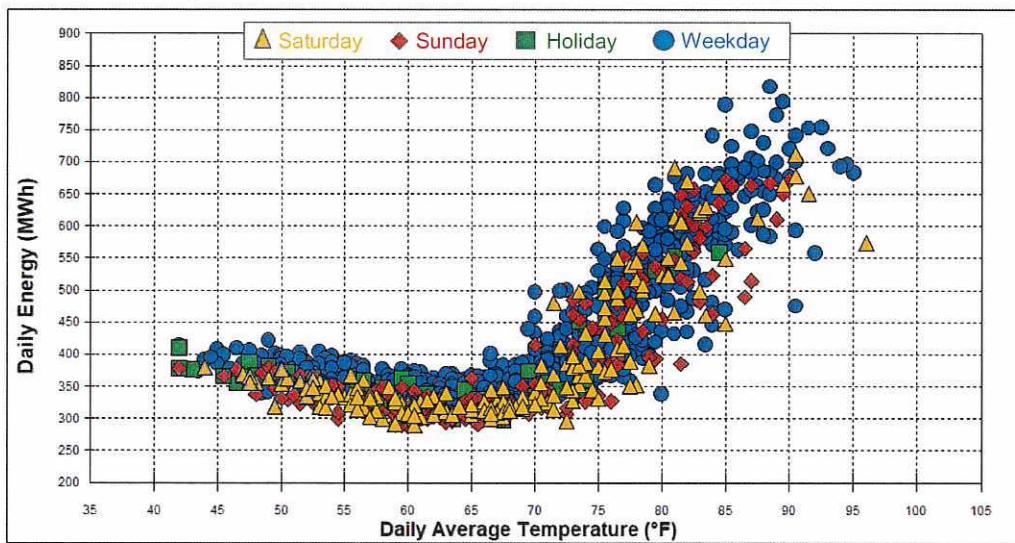
Medium Term
(e.g, Budget Forecast)

Long Term
(e.g, 5-20 years)

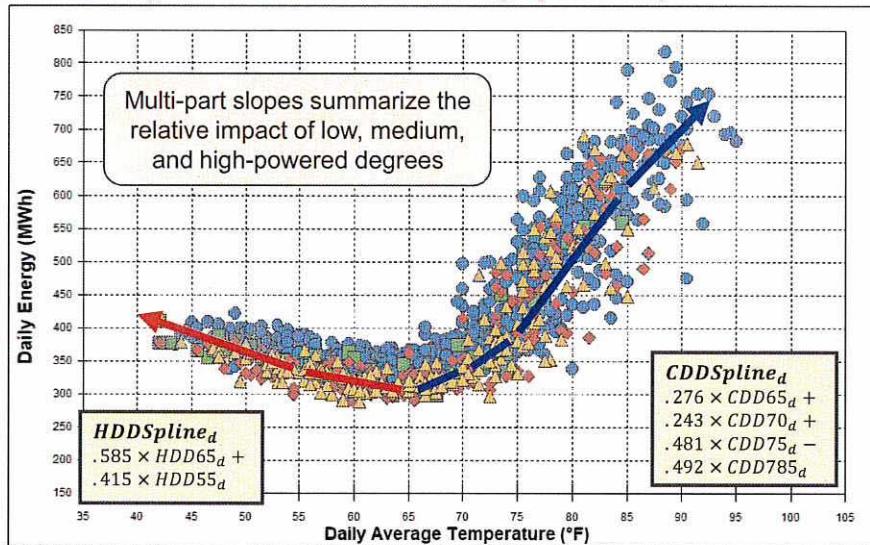


Defining the Weather Response

Relationship Between Loads & Weather (2015 – 2018)

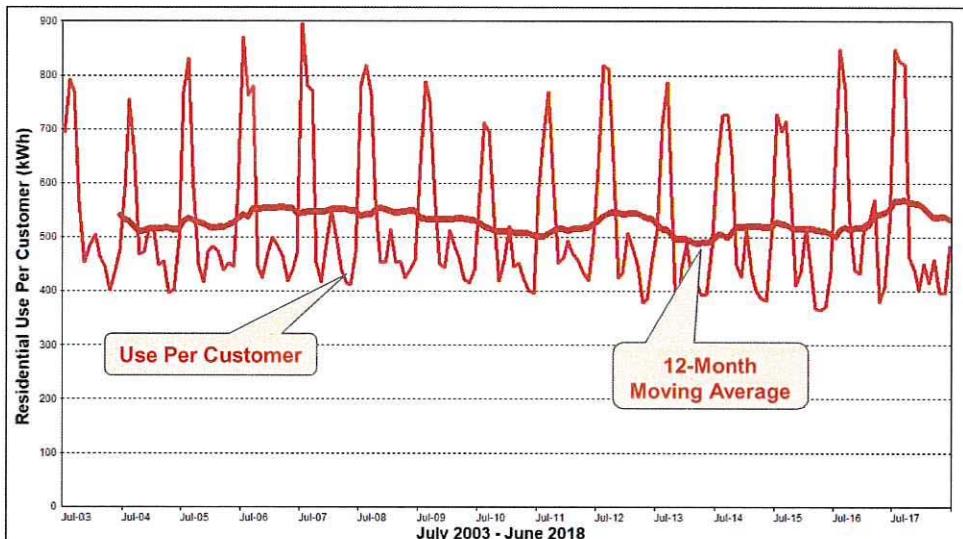


Weather Response Functions (Splines)

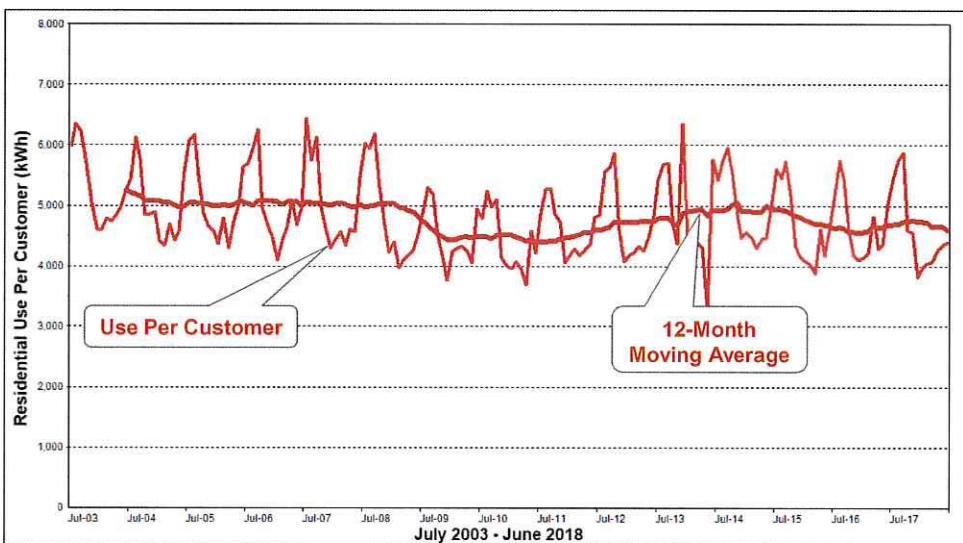


Residential & Non-Residential Use Per Customer (UPC) Models

Residential Use Per Customer



Non-Residential Use Per Customer

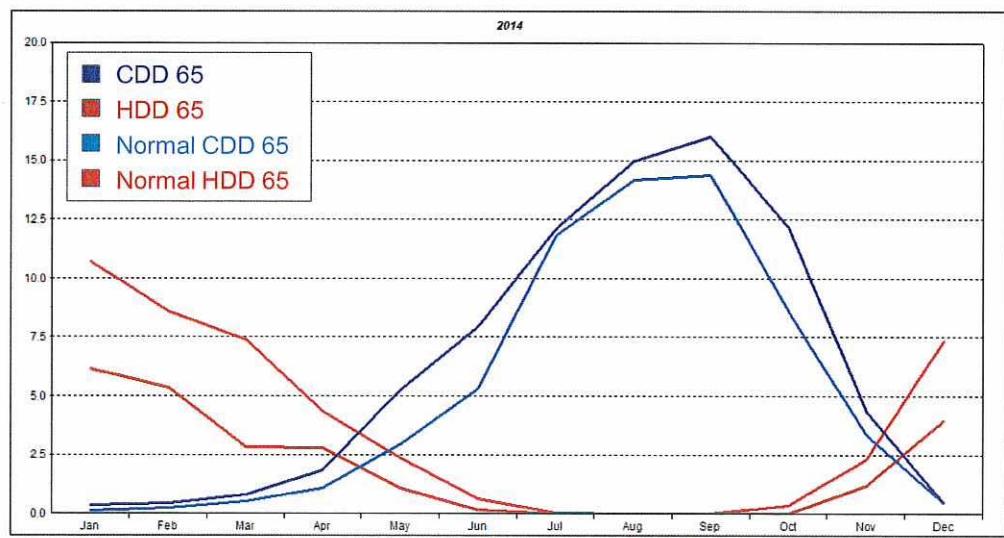


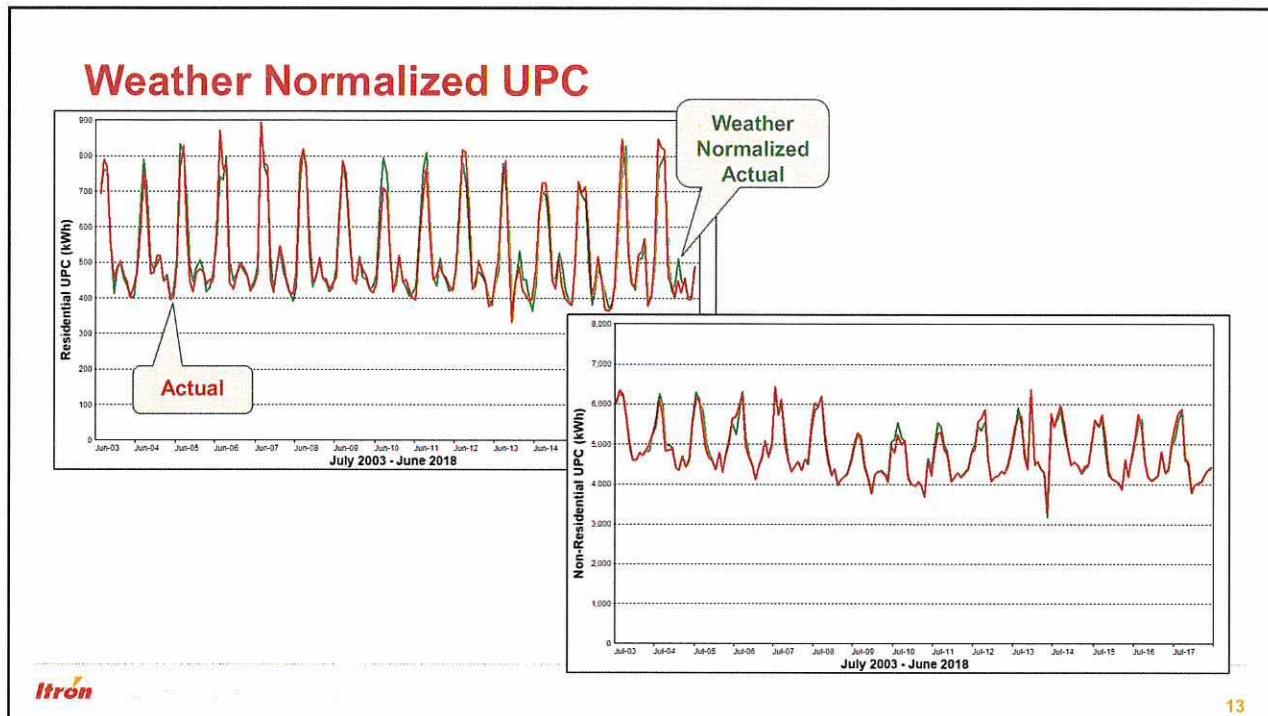
Normal Cycle Month Weather

$$NormValue_m = \frac{\sum_m Value_m}{\# Months}$$

- The normal monthly value is expressed as the **average** value of those cycle months over most recent 15 years (2003 – 2017)
 - For example, the normal January value is calculated as the average across all January values

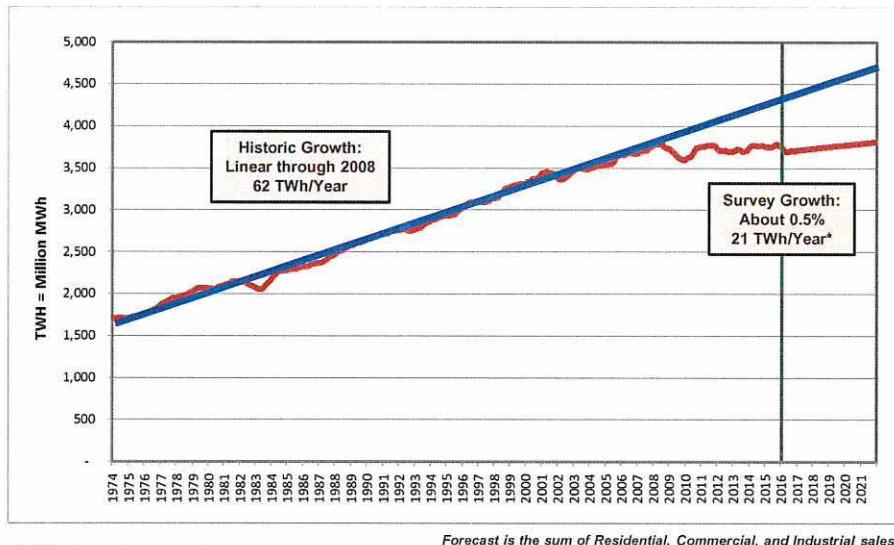
Normal Cycle Month Weather





Statistically Adjusted End-Use (SAE) Framework

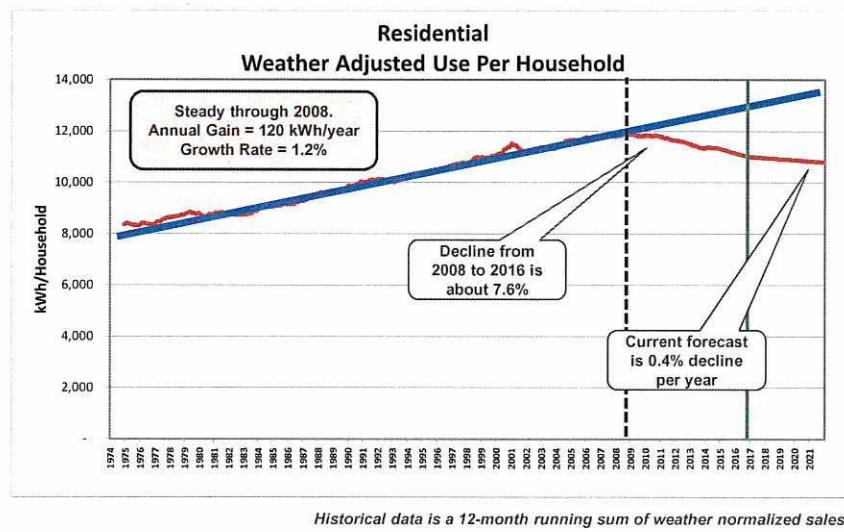
U.S. Electric Sales – Living in a 1% World



Itron

15

U.S. Residential Sales / Household



Itron

16

Driving Factors of Energy Use

Calendar



Economics



Structural Changes



Weather



Prices



Short Term
(e.g., Day-ahead)

Medium Term
(e.g., Budget Forecast)

Long Term
(e.g., 5-20 years)



What is SAE?

- » A modeling framework that creates *structured* explanatory variables, integrating components from pure econometric and end-use models:
 - Monthly weather (HDD, CDD variables)
 - Economic drivers:
 - Prices
 - Household size, Personal income
 - Square footage, Economic activity
 - Aggregate end-use inputs
 - Equipment Saturation
 - Equipment Efficiency
 - Thermal Efficiency
 - Home size
 - A statistical step that syncs model coefficients to historical consumption.

Econometric Component

End Use Component

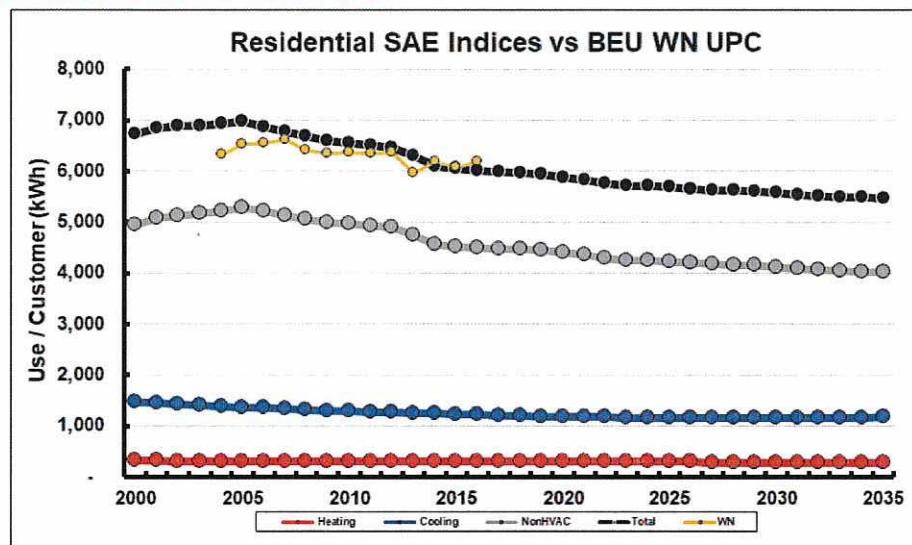
End-Use Data

- Provided by the EIA underlying its 2018 Annual Energy Outlook (AEO) Forecast for the Pacific Region
- Data help to combine the national energy efficiency trends with regional saturation data for variety of end-uses, e.g.,
 - Heating
 - Cooling
 - Water Heating
 - Refrigeration
 - Lighting
- End-Use indices are calibrated to Weather Normalized Use-Per-Customer

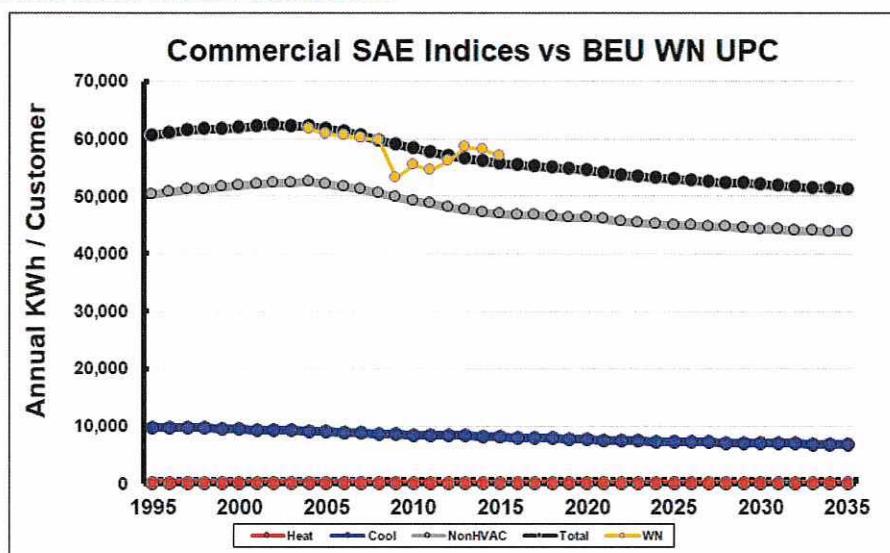
Residential End-Uses Included in EIA Analysis

Residential End Uses	
Furnace	● Cooking
Heat Pump	● Refrigerator
GS Heat Pump	● Second Refrigerator
Secondary Heat	● Freezer
Furnace Fan	● Dish Washer
Central Air	● Clothes Washer
Heat Pump Cooling	● Dryer
GS Heat Pump Cooling	● Television
Room Air	● Lighting
Water Heat	● Miscellaneous

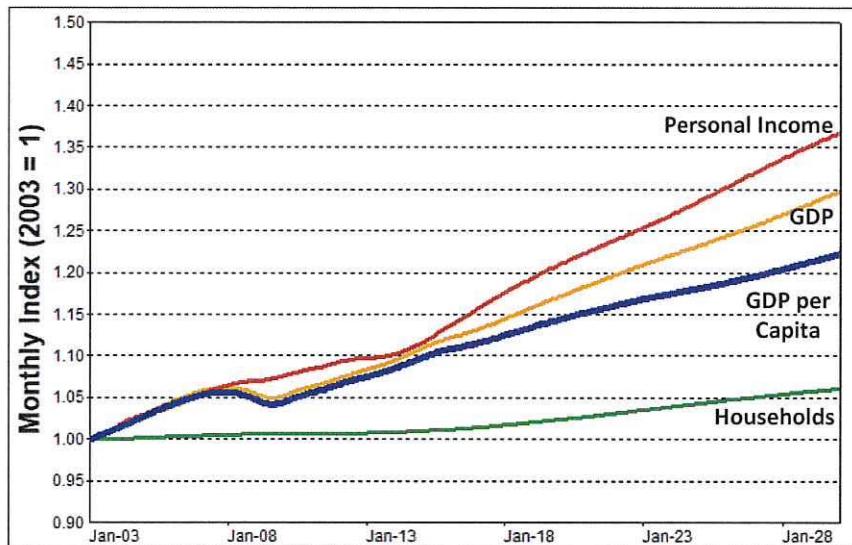
Residential SAE Indices



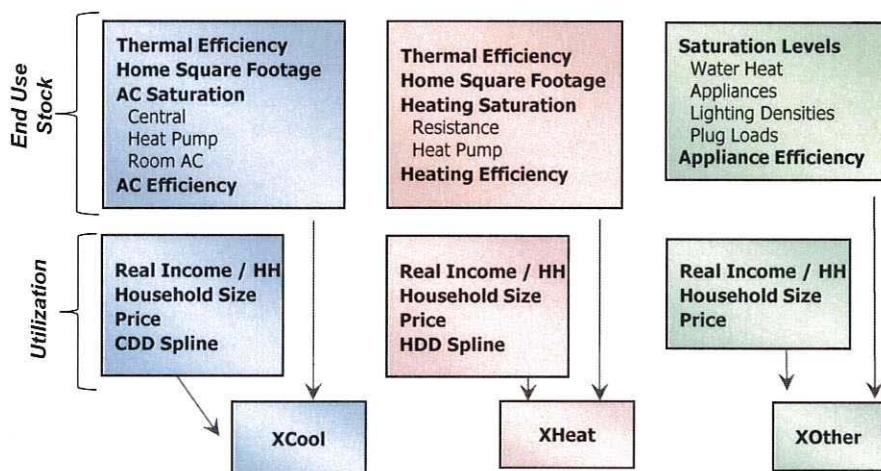
Commercial SAE Indices



Economic Drivers

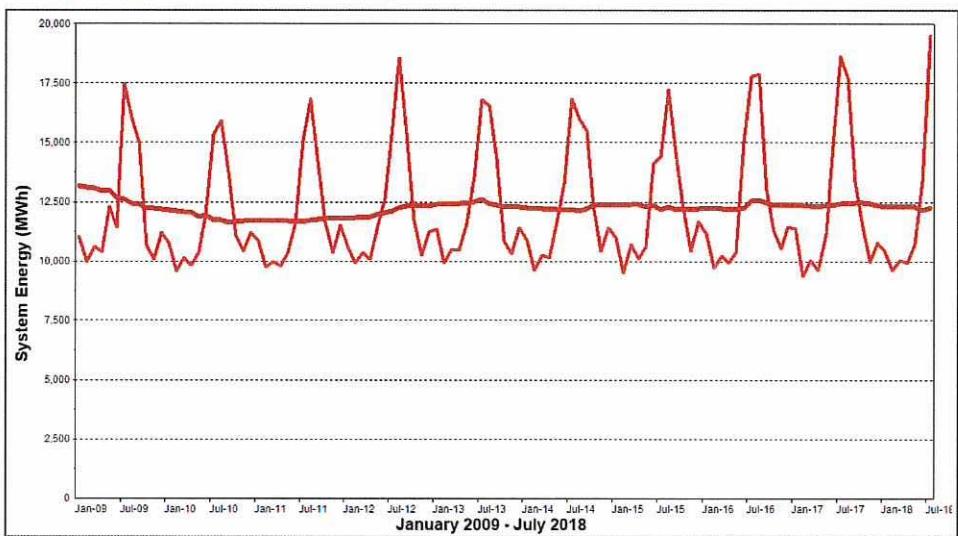


Statistically Adjusted End-Use (SAE) Model

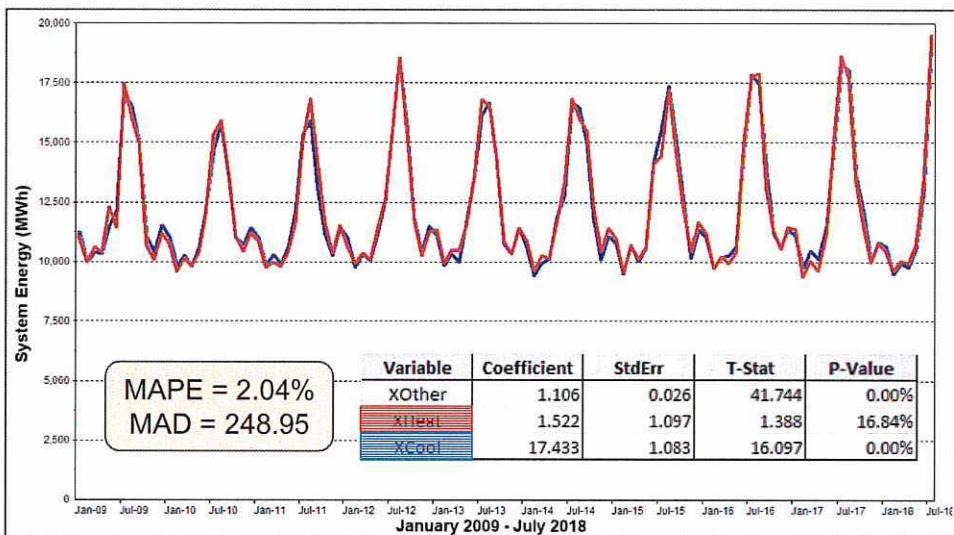


System Energy Model

Monthly System Energy Data

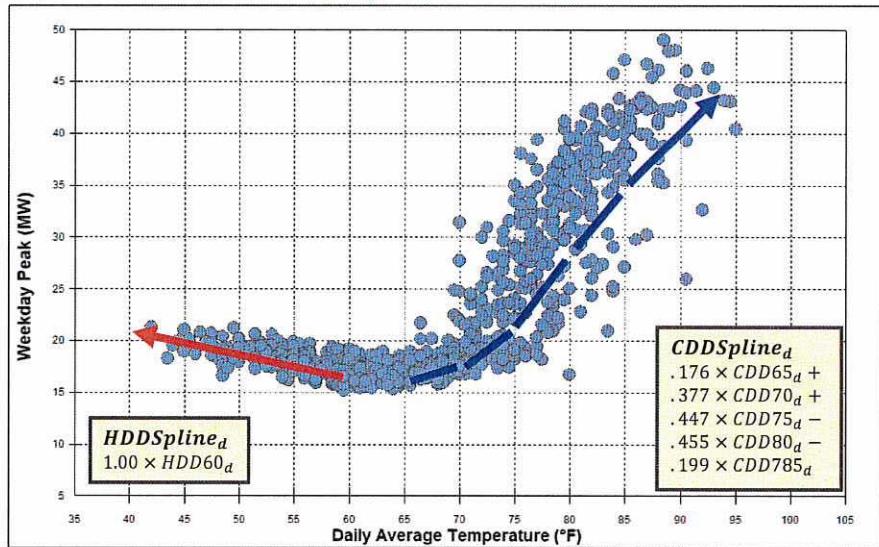


System Energy Model

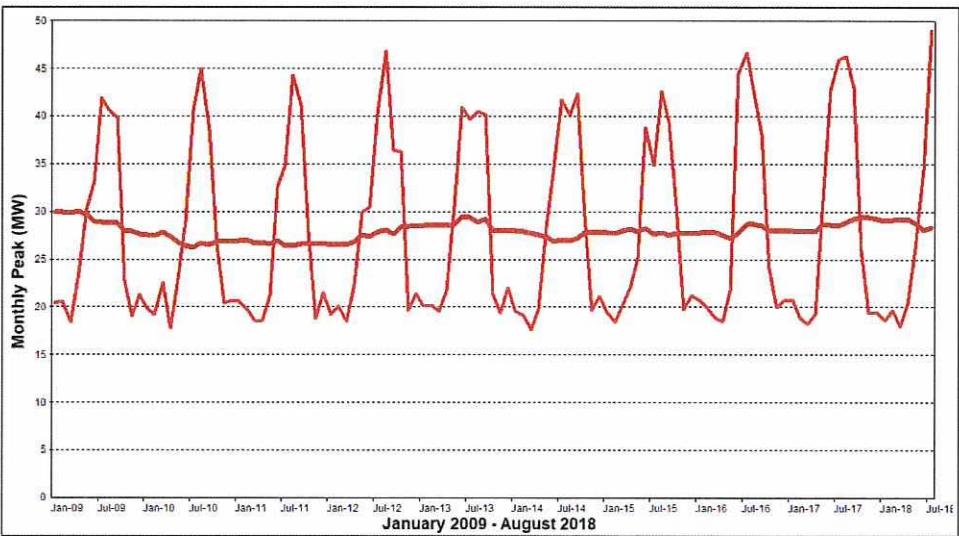


System Peak Model

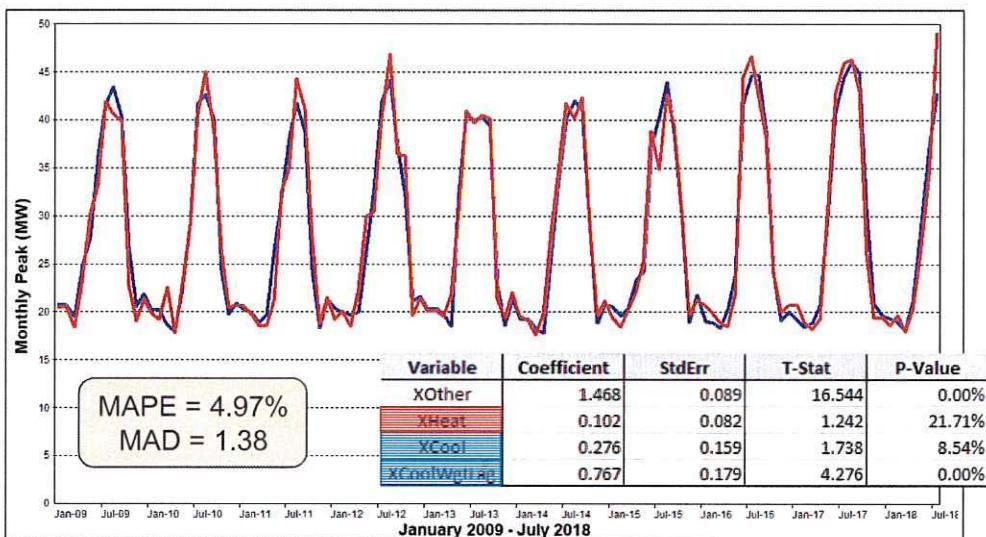
Daily Peak Weather Response Functions



Monthly System Peak Data



System Peak Model (2009 – 2018)



Integration of Pardee Homes Development

Pardee Development

- 4,862 new residential dwelling units expected

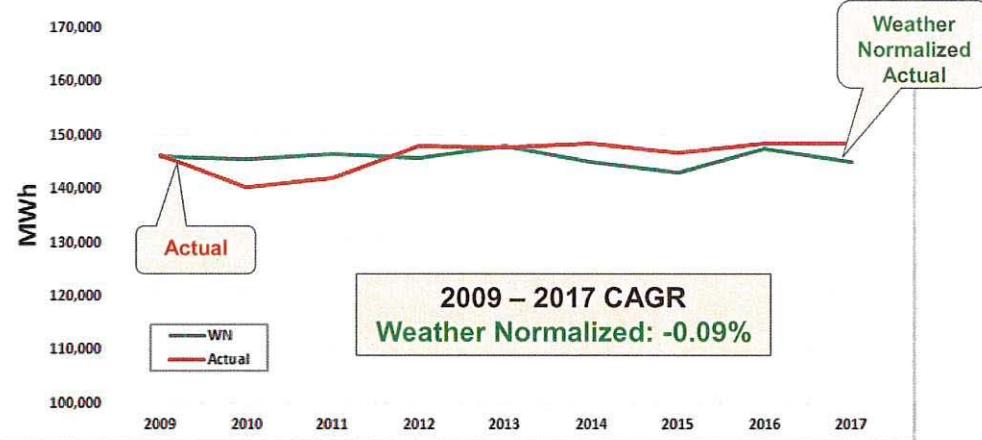
Assumptions:

- 5-year path to completion starting in 2019
- New units are 10% more efficient than existing
- 8% Loss Factor
- Res & Non-Res use is 2x annual average use at time of peak
- 2.3 kW average solar capacity
- 18.5% Capacity Factor
- Coincident Peak Factor of 10%
- No new non-residential units to be developed
- Not accounting for indoor cannabis farming

BUTTERFIELD SPECIFIC PLAN						Section I: Introduction	
Land Use	1993 Approved Deutsch Specific Plan		2012 Approved Butterfield Specific Plan		2017 Butterfield Specific Plan		Section I: Introduction
	Gross Acres (% of Total)	Dwelling (% of Total)	Gross Acres (% of Total)	Dwelling (% of Total)	Gross Acres (% of Total)	Dwelling (% of Total)	
Residential							
Low Density 0-5 DU/AC (LDU)	656.0 (42.3%)	1,948 (35.0%)	530.2 (35.0%)	2,222 (35.8%)	487.9 (31.0%)	2,024 (34.3%)	
Medium Density 6-10 DU/AC (MDU)	390.0 (23.1%)	1,850 (32.4%)	324.4 (21.7%)	1,960 (30.0%)	335.8 (21.7%)	2,135 (34.5%)	
High Density 11-18 DU/AC+ (HDU)	18.0 (1.0%)	1,184 (4.8%)	72.8 (4.8%)	1,205 (0%)	18.0 (1.0%)	26 (0%)	
Very High Density 18 DU/AC+ (VHDU)	16.0 (0.7%)	920 (0%)	60 (0%)	60 (0%)	60 (0%)	60 (0%)	
Residential Subtotals	1,114.0 (74.2%)	6,400 (60.8%)	612.4 (60.8%)	5,187 (60.8%)	862.1 (55.8%)	3,862 (55.8%)	
Open Space							

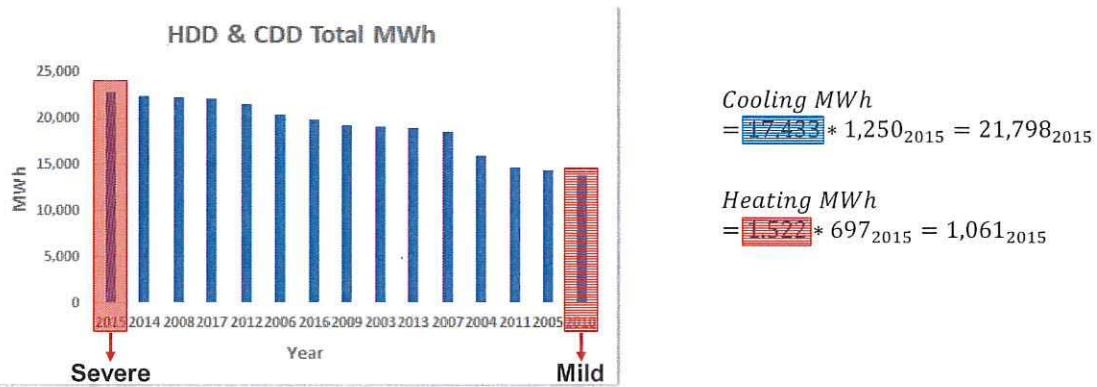
System Energy Forecast

System Energy

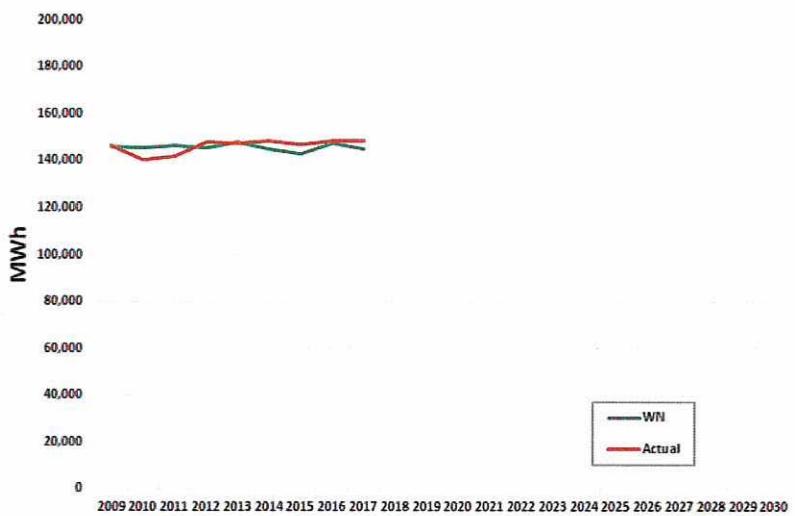


Weather Scenario Development

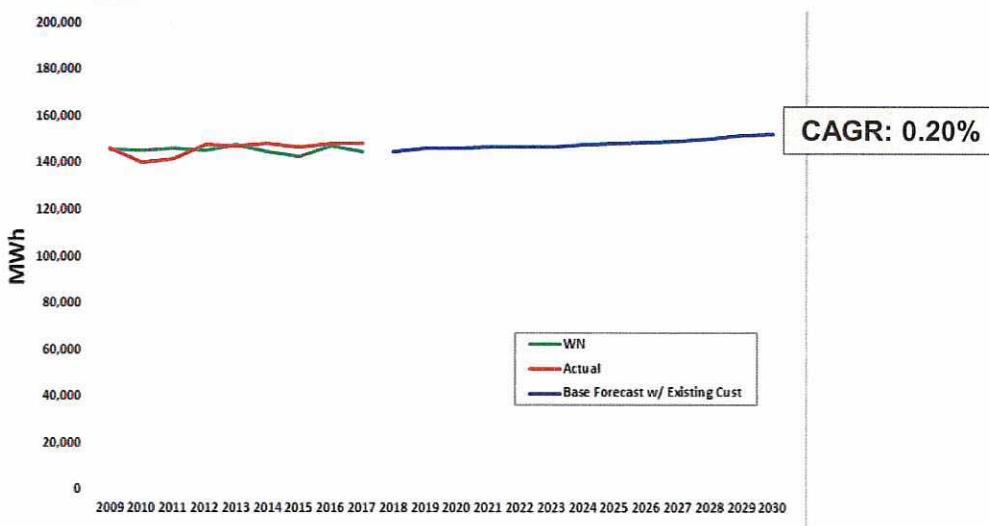
- Base scenario → Average of HDDs and CDDs across all months of the year from 2003 to 2017



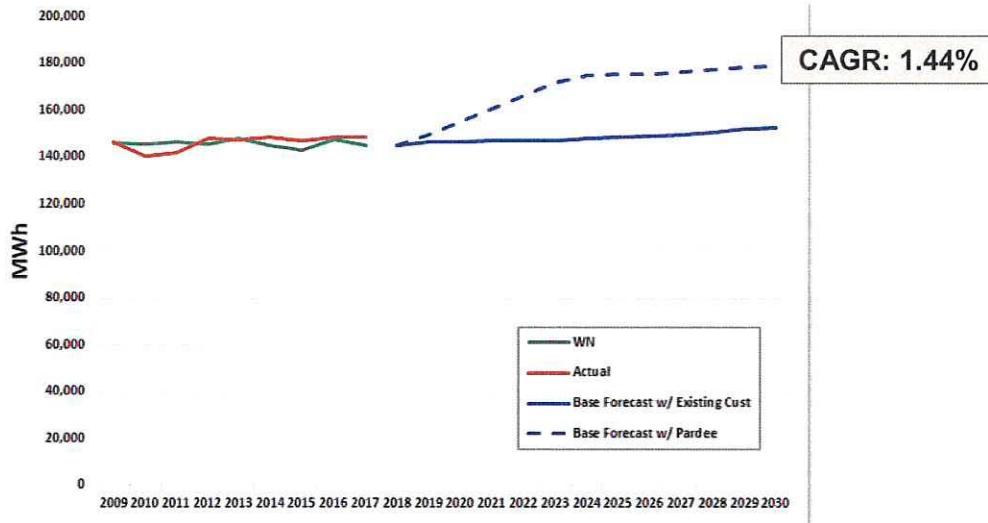
System Energy Forecasts



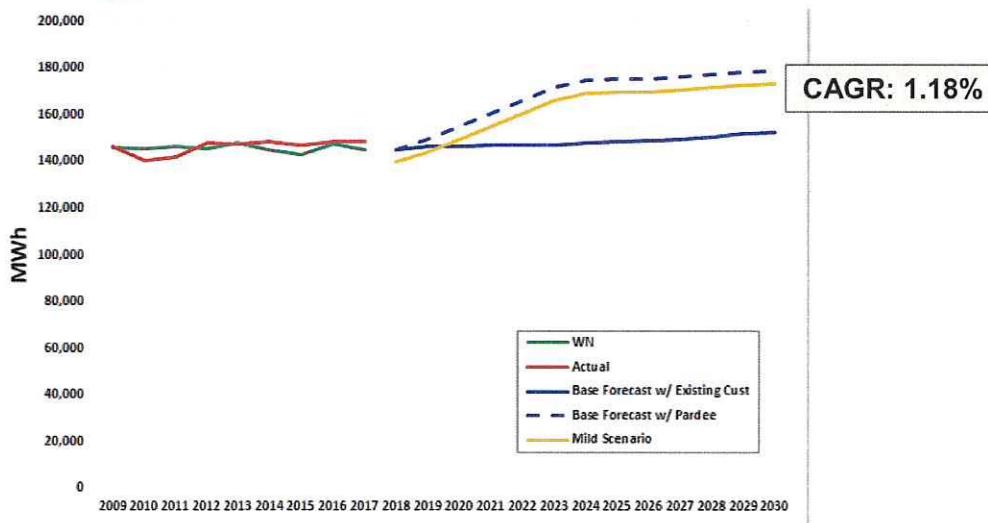
System Energy Forecasts



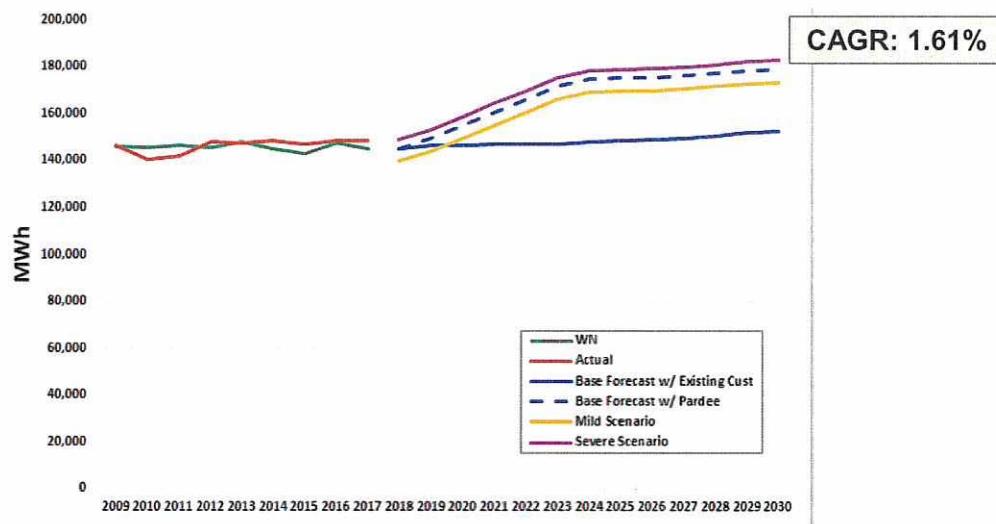
System Energy Forecasts



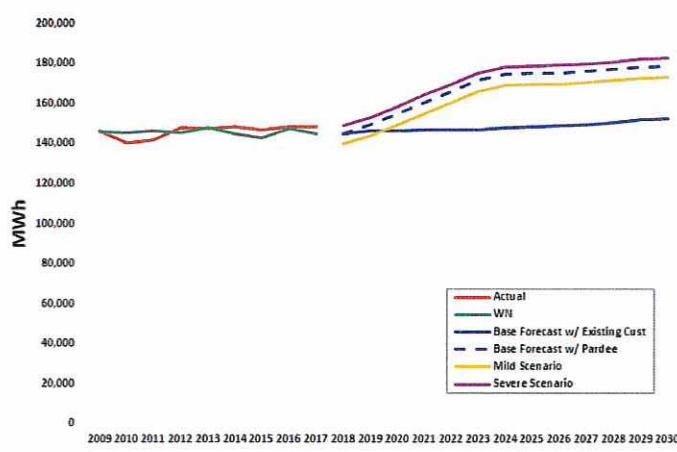
System Energy Forecasts



System Energy Forecasts



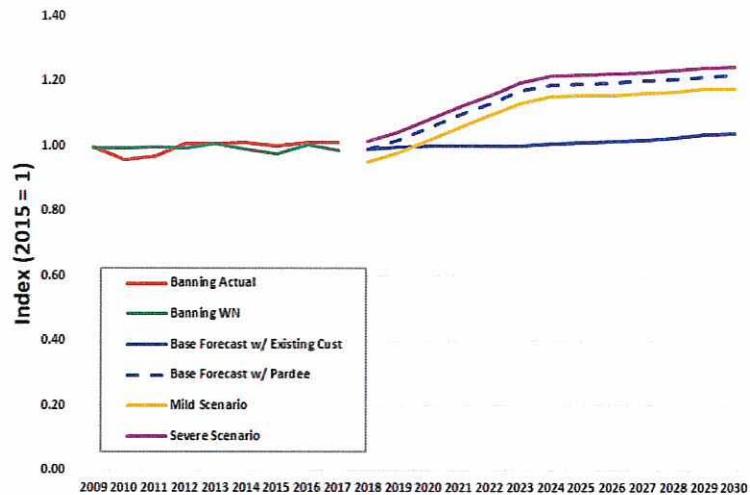
System Energy Forecasts



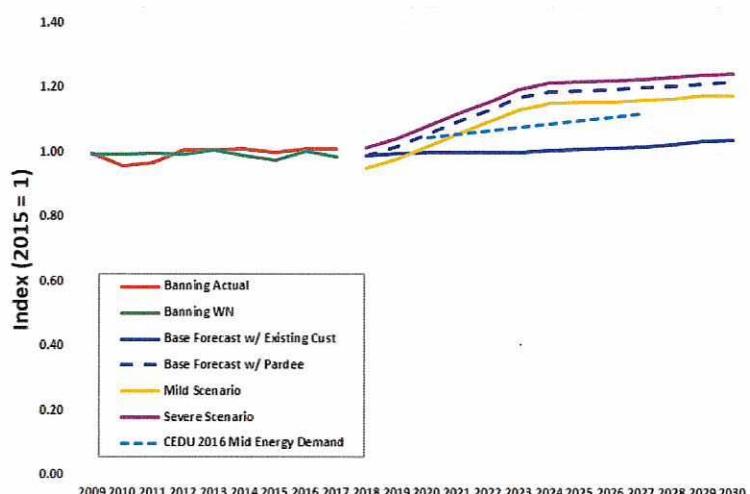
Year	Base (Existing Customers)	Base + Pardee	Mild + Pardee	Severe + Pardee
2018	145,130	145,130	139,715	148,866
2019	146,401	149,446	144,016	153,194
2020	146,636	155,110	149,660	158,872
2021	146,867	160,706	155,241	164,479
2022	146,976	166,164	160,682	169,950
2023	147,101	171,607	166,107	175,406
2024	147,824	174,620	169,100	178,432
2025	148,390	175,106	169,563	178,935
2026	149,884	175,520	169,949	179,369
2027	149,681	176,238	170,632	180,111
2028	150,695	177,172	171,530	181,069
2029	151,907	178,305	172,618	182,233
2030	152,515	178,834	173,106	182,789

CAGR | 0.20% | 1.44% | 1.18% | 1.61%

System Energy Forecasts & CEC SCE Forecast

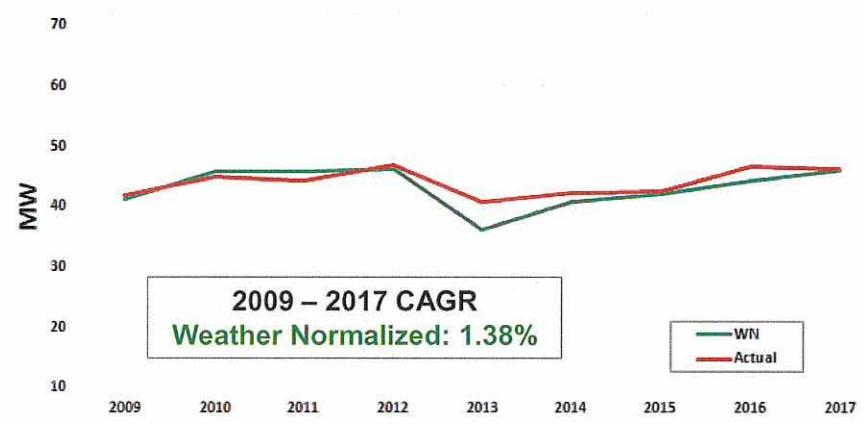


System Energy Forecasts & CEC SCE Forecast



System Peak Forecast

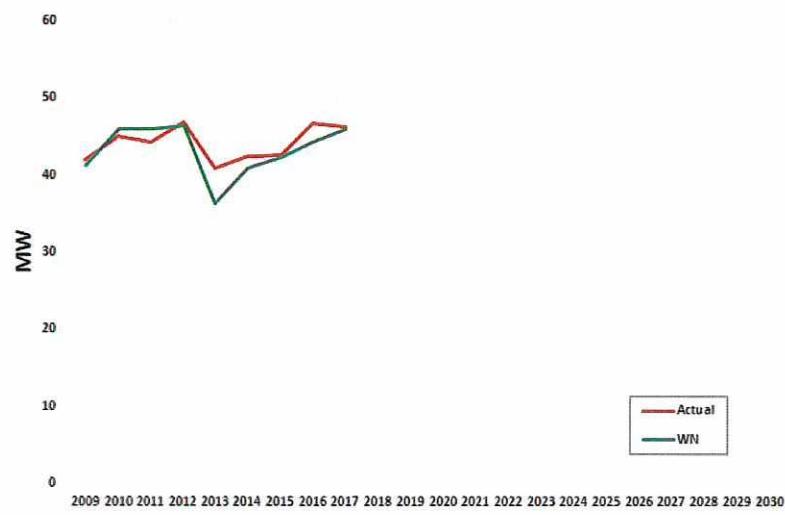
System Peak



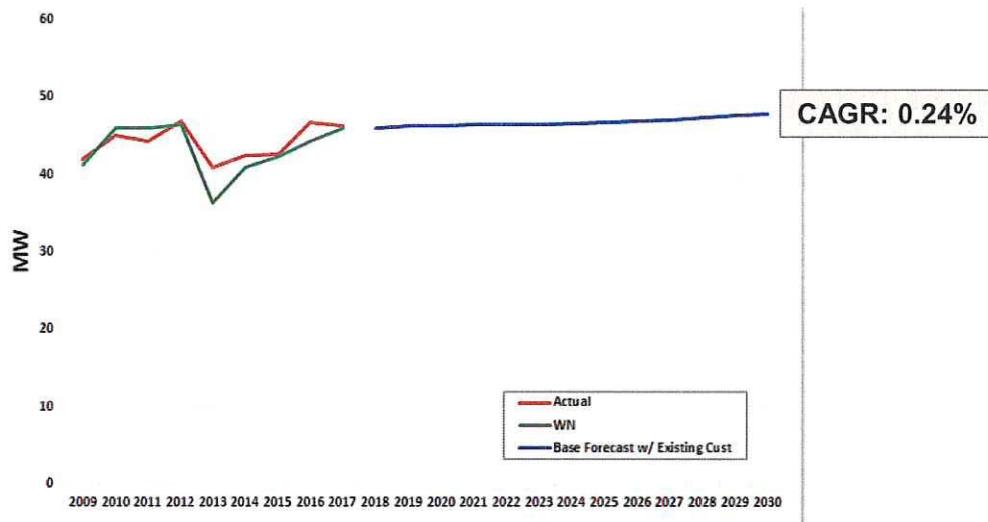
Weather Scenario Development

- Base scenario → Extract weather on peak day and two prior days from 2007 to 2017, average
- Mild scenario → Least amount of HDDs and CDDs for peak months
- Severe scenario → Most amount of HDDs and CDDs for peak months

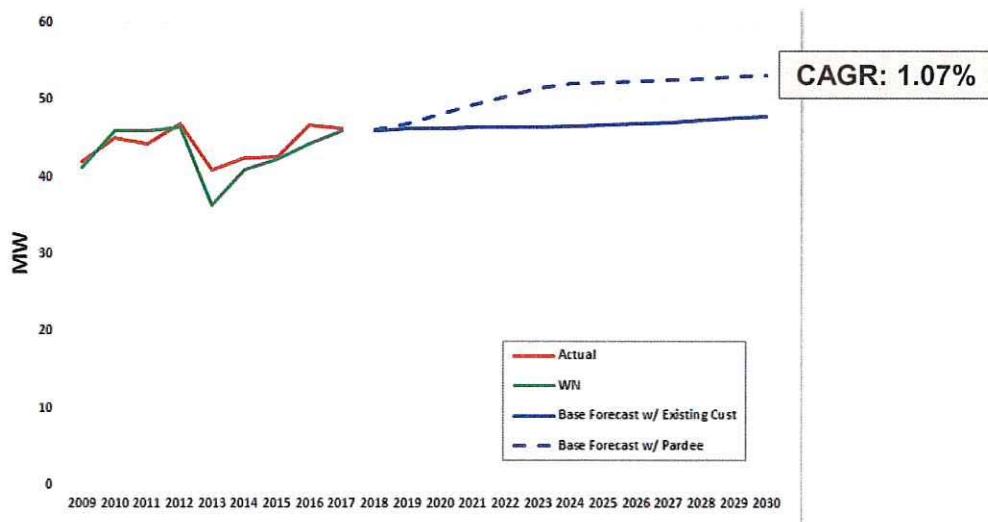
System Peak Forecasts



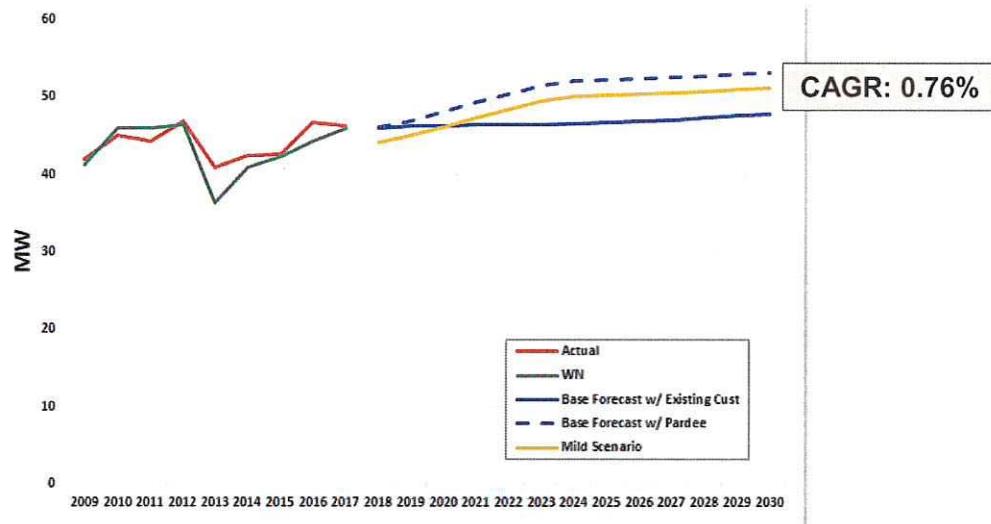
System Peak Forecasts



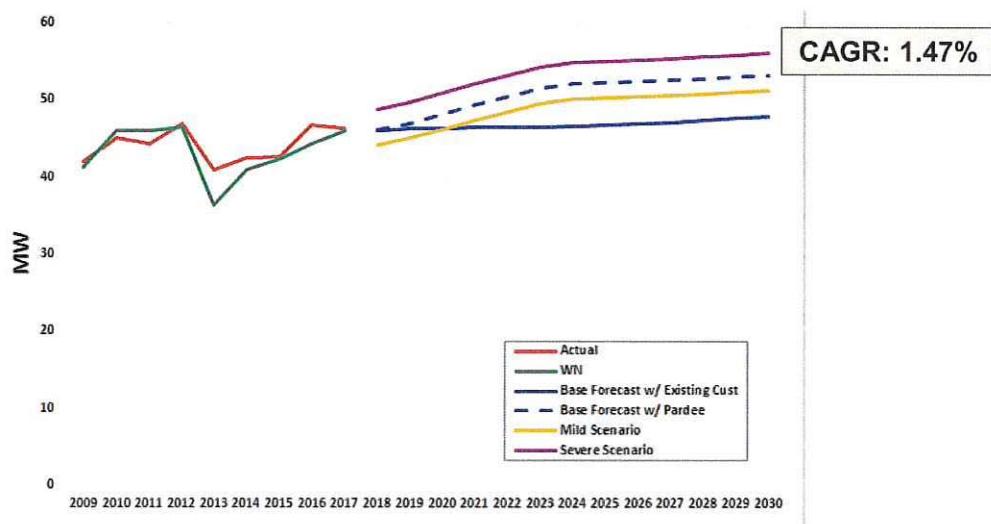
System Peak Forecasts



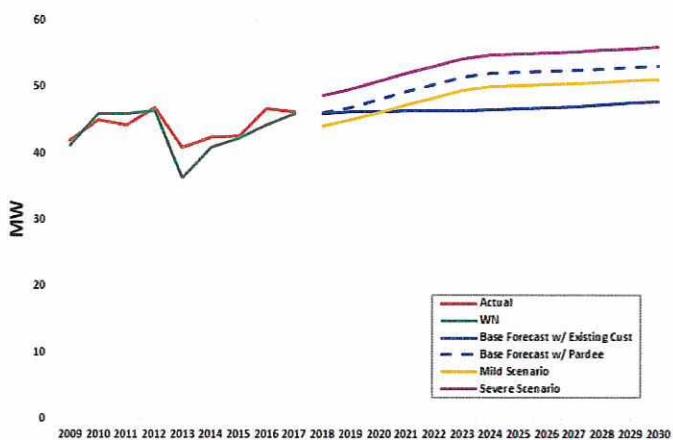
System Peak Forecasts



System Peak Forecasts



System Peak Forecasts

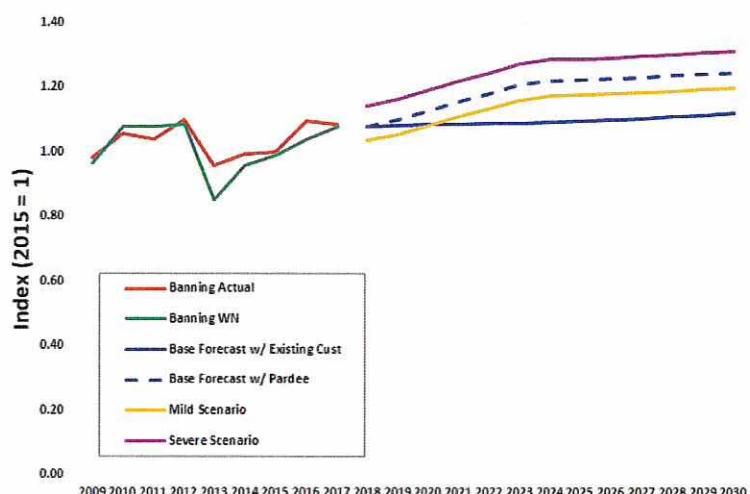


Year	Base (Existing Customers)	Base + Pardee	Mild + Pardee	Severe + Pardee
2018	46.0	46.1	44.1	48.8
2019	46.2	46.9	45.0	49.6
2020	46.3	48.1	46.2	50.8
2021	46.4	49.3	47.3	52.0
2022	46.4	50.4	48.5	53.2
2023	46.5	51.5	49.6	54.3
2024	46.6	52.1	50.1	54.9
2025	46.7	52.2	50.3	55.0
2026	46.9	52.4	50.4	55.1
2027	47.1	52.5	50.5	55.3
2028	47.3	52.7	50.7	55.5
2029	47.6	53.0	51.0	55.8
2030	47.8	53.2	51.1	56.0

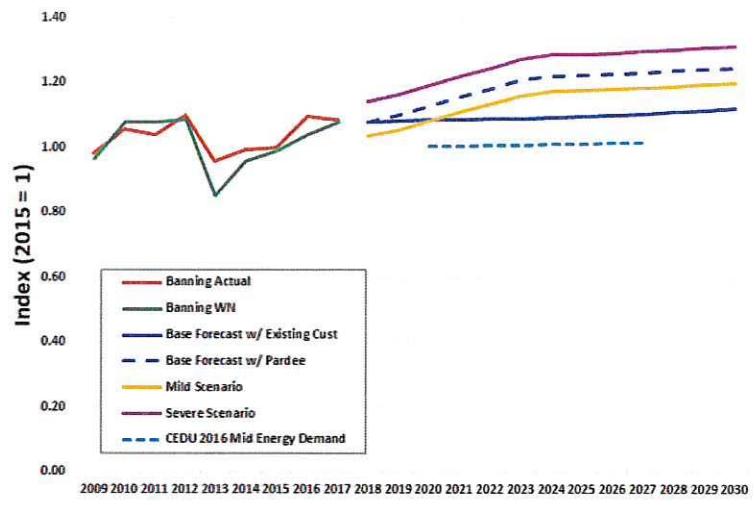
CAGR

0.24% 1.07% 0.76% 1.47%

System Peak Forecasts & CEC Forecast

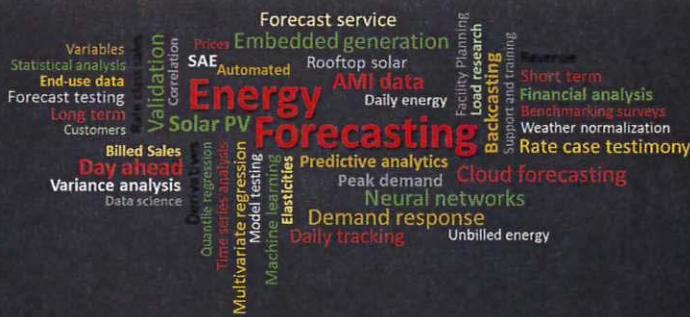


System Peak Forecasts & CEC Forecast



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55



THANK YOU

forecasting@itron.com

Itron

SAN DIEGO

David J. Simons

✉ david.simons@itron.com

☎ 858.724.2685

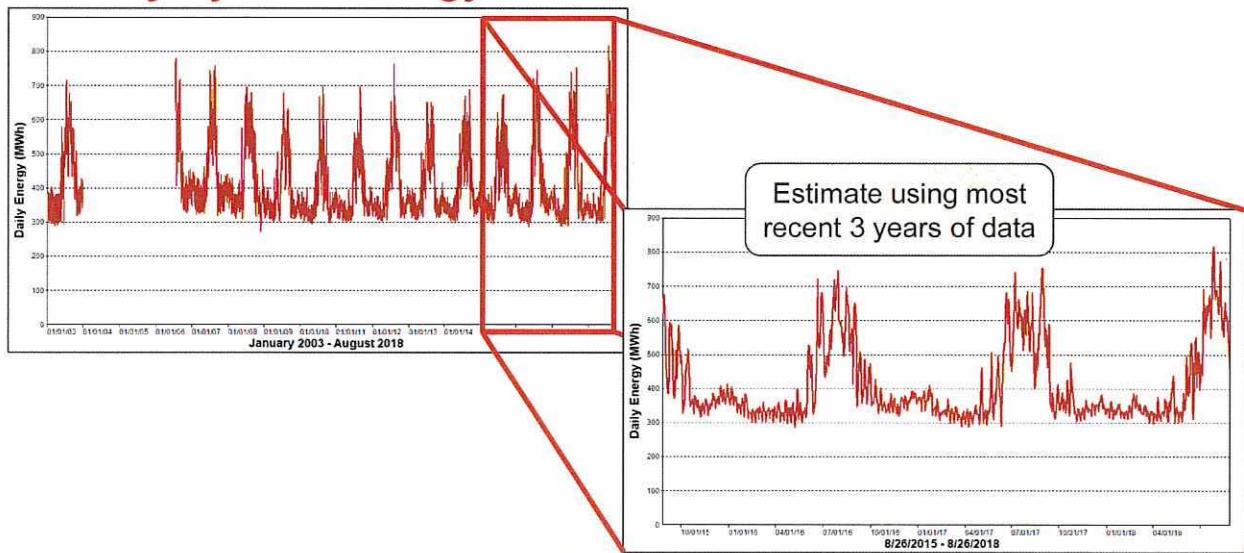
LinkedIn: <https://www.linkedin.com/in/davidsimons1/>

Blog: <http://blogs.itron.com/forecasting/>

www.itron.com

Appendix

Daily System Energy Data



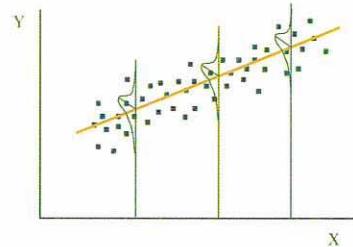
Daily Energy Model

$DailyEnergy_d =$

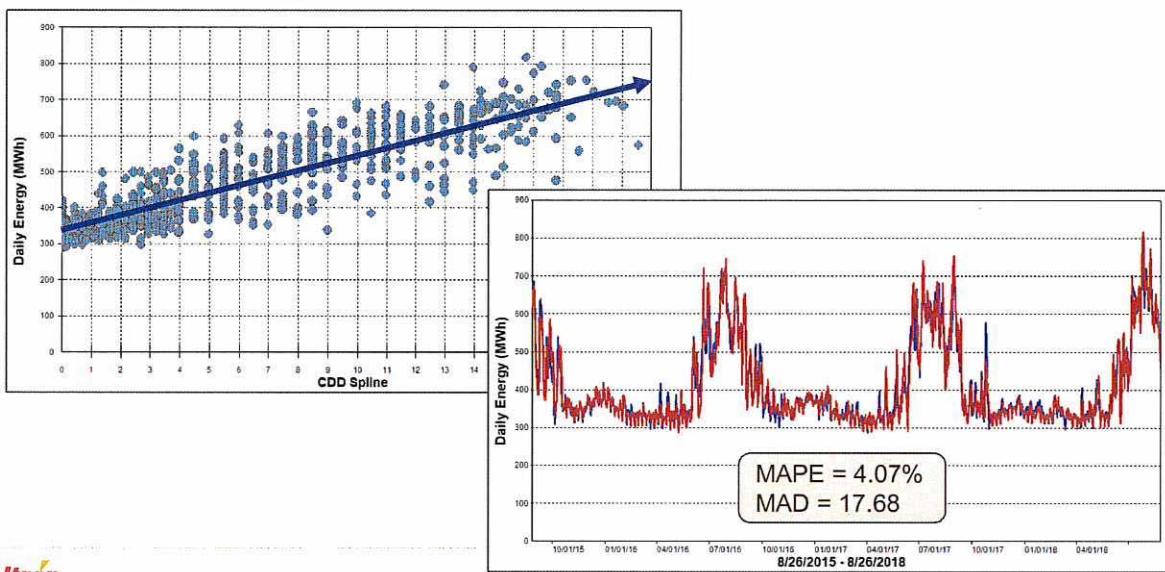
$$\beta_0 + \beta_1 DOW'_d + \beta_2 Month'_d + \beta_3 Shift'_d + \beta_4 MonthTrends'_d + \beta_5 HDD'_d + \beta_6 CDD'_d + \varepsilon_d$$

Where,

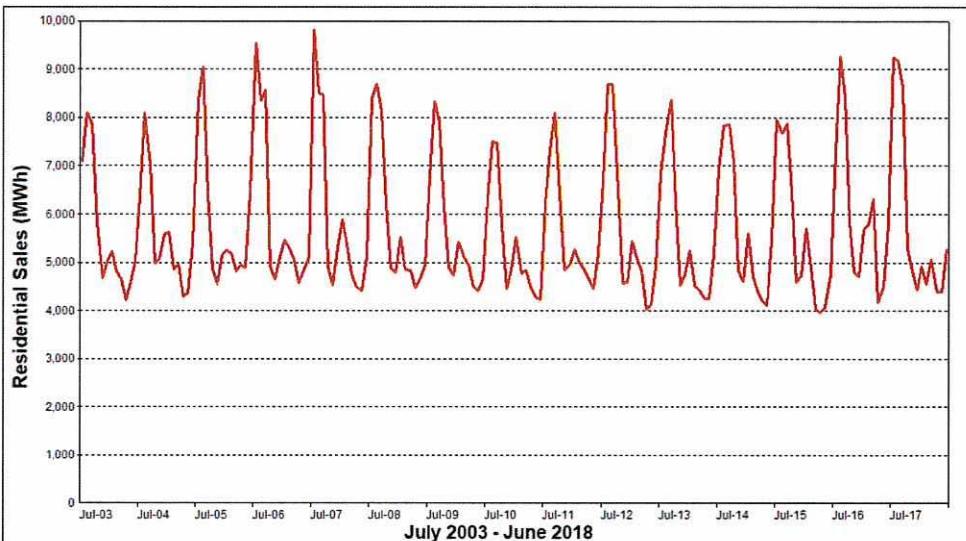
- DOW'_d is a matrix of day of the week binary variables
- $Month'_d$ is a matrix of month binary variables
- $Shift'_d$ is a matrix of annual shift variables
- $MonthTrends'_d$ is a matrix of monthly time-trend variables
- HDD'_d is a matrix of heating degree-day variables (HDD65, HDD60, HDD55, etc.)
- CDD'_d is a matrix of cooling degree-day variables (CDD65, CDD70, CDD75, etc.)



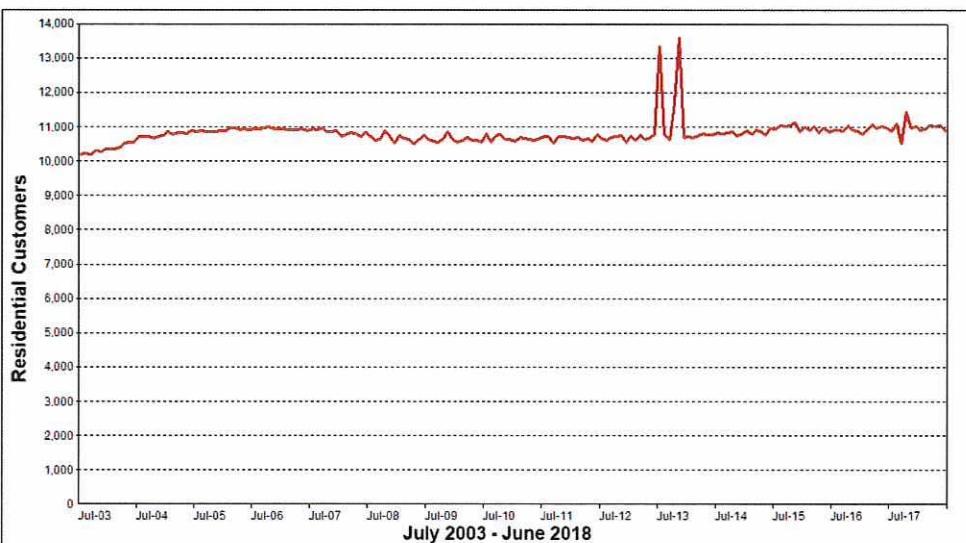
Daily Energy Model



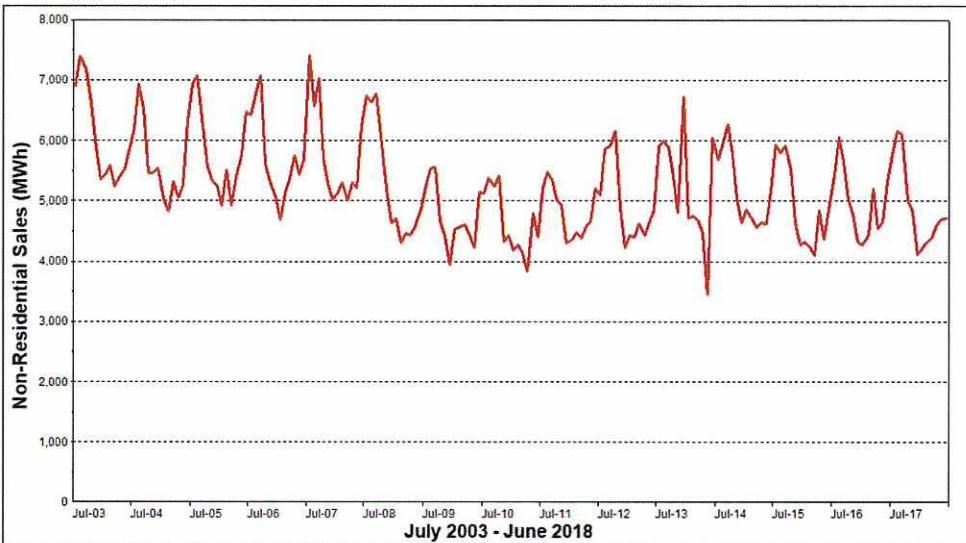
Residential Sales



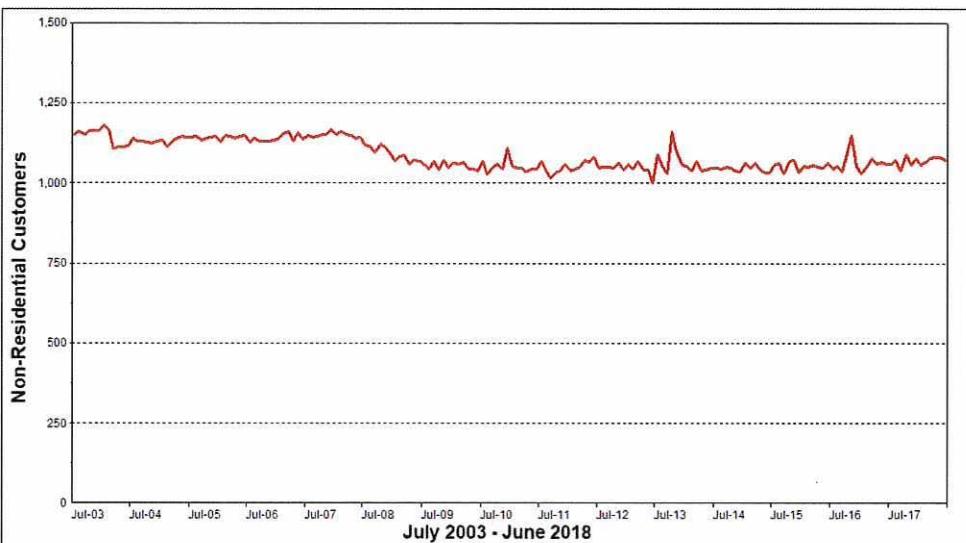
Residential Customers



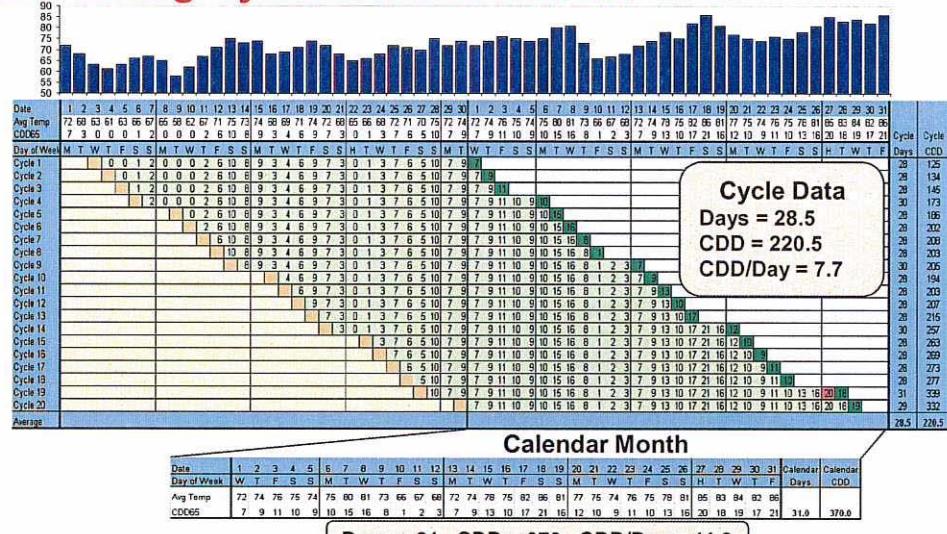
Non-Residential Sales



Non-Residential Customers



Constructing Cycle Month Weather Data



Customer Models

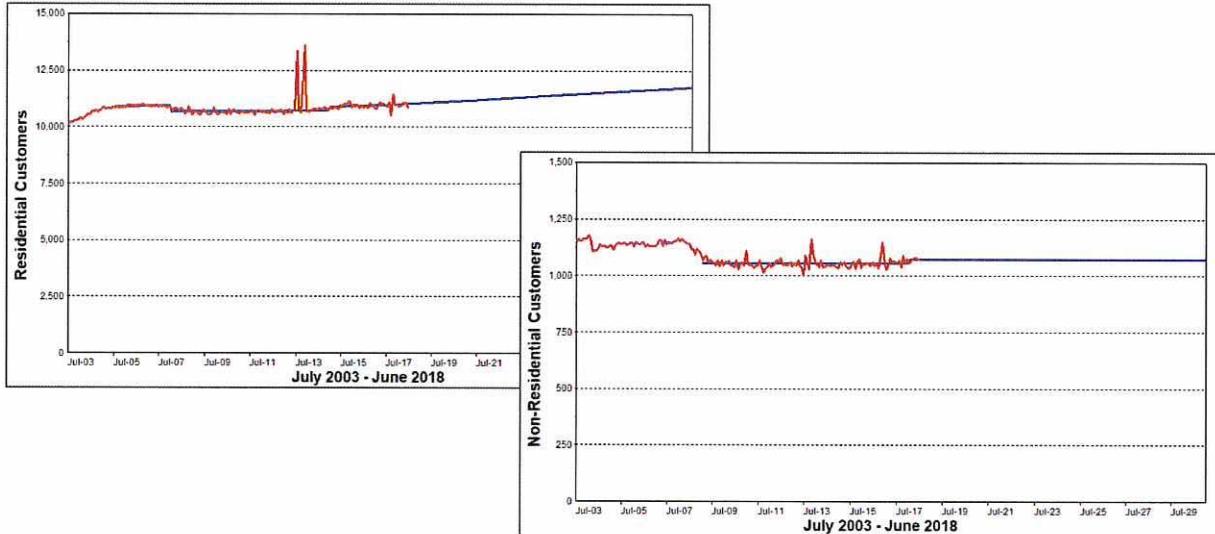
$$ResCustomers_m = \beta_0 + \beta_1 Households_m + Shift2008_m + Shift2015_m + \varepsilon_m$$

$$NonResCustomers_m = \beta_0 + \beta_1 Shift2018_m + \varepsilon_m$$

Where,

- $Households_m$ is a 12-month centered moving average of number of households
- $Shift2008_m$ is a shift variable for 2008 forward
- $Shift2015_m$ is a shift variable for 2015 forward
- $Shift2018_m$ is a shift variable for 2018 forward

Customer Models



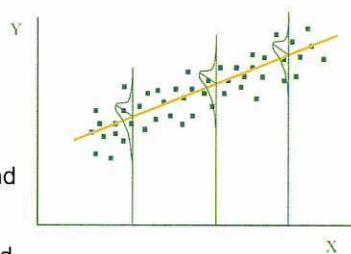
Res & Non-Res UPC Models

$$\begin{aligned} ResUPC_m = \\ \beta_1 Month'_m + \beta_2 HDDSpline_m + \beta_3 HDDTrend_m + \beta_4 CDDSplinem + \beta_5 CDDTrend_m \\ + \beta_6 TimeTrend_m + \varepsilon_m \end{aligned}$$

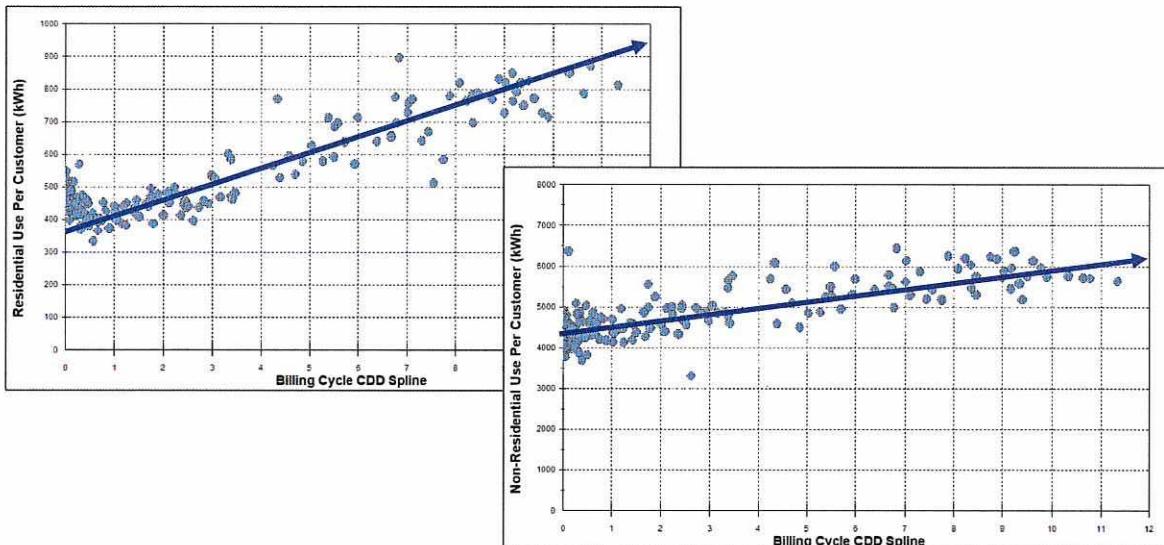
$$\begin{aligned} NonResUPC_m = \\ \beta_0 + \beta_1 Month'_m + \beta_2 HDDSpline_m + \beta_3 CDDSplinem + \beta_4 BeforeRecession_m \\ + \beta_5 AfterRecession_m + \beta_6 TimeTrend_m + \varepsilon_m \end{aligned}$$

Where,

- $Month'_m$ is a matrix of month binary variables
- $HDDSpline_m$ is the cycle-month HDD spline
- $HDDTrend_m$ is the cycle-month HDD spline interacted with a time-trend
- $CDDSplinem$ is the cycle-month CDD spline
- $CDDTrend_m$ is the cycle-month CDD spline interacted with a time-trend
- $BeforeRecession_m$ is a binary variable (1.0 before Great Recession, 0.0 otherwise)
- $AfterRecession_m$ is a binary variable (1.0 after Great Recession, 0.0 otherwise)



Res & Non-Res UPC vs CDD Spline



Utilization Indices

- Encapsulate changes in end-use efficiencies, economic changes, and weather conditions

To derive:

1. SAE indices are interacted with customer data:

$$Equipment Stock_y = SAE Index_y \times Customers_y$$

→ Heating, Cooling, Other equipment stock

2. Equipment stock is interacted with economic index:

$$Utilization Index_y = Equipment Stock_y \times Economic Index_y$$

→ XHeat, XCool, XOther utilization indices

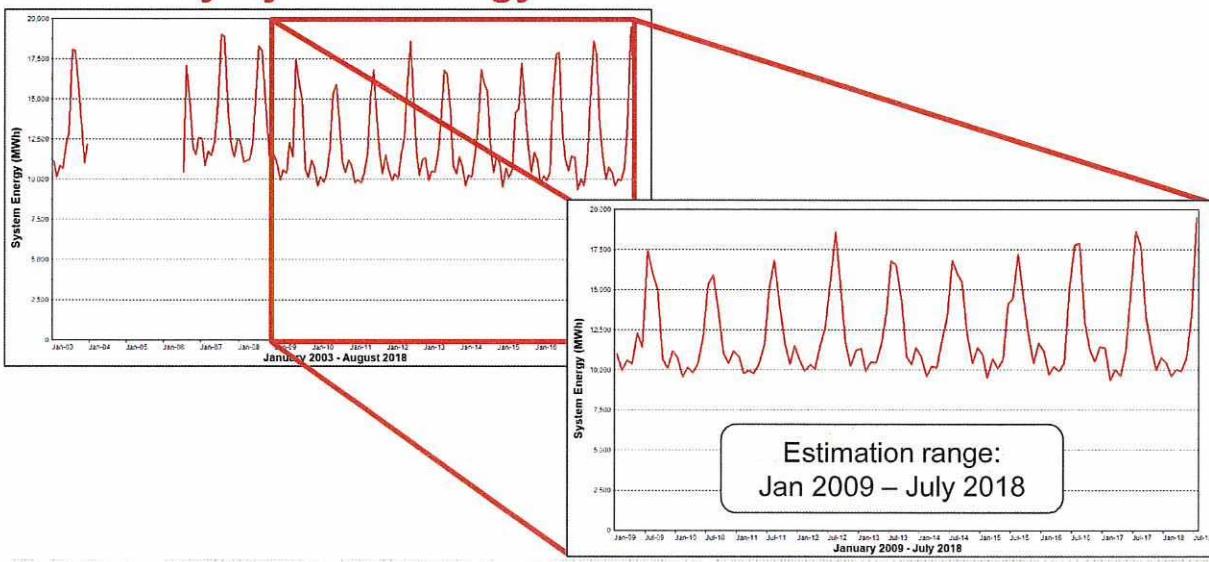
Utilization Indices

- Utilization Indices are interacted with calendar month HDDs and CDDs to arrive at final drivers for System Energy and System Peak models:

$$\text{CalendarMonth } XHeat_m = XHeat \text{ Index}_m \times \text{HDD Spline}_m$$

$$\text{CalendarMonth } XCool_m = XCool \text{ Index}_m \times \text{CDD Spline}_m$$

Monthly System Energy Data



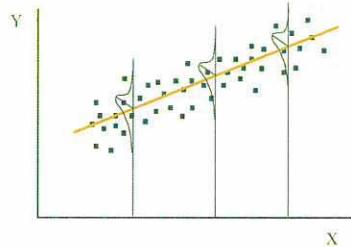
System Energy Model

SystemEnergy_m =

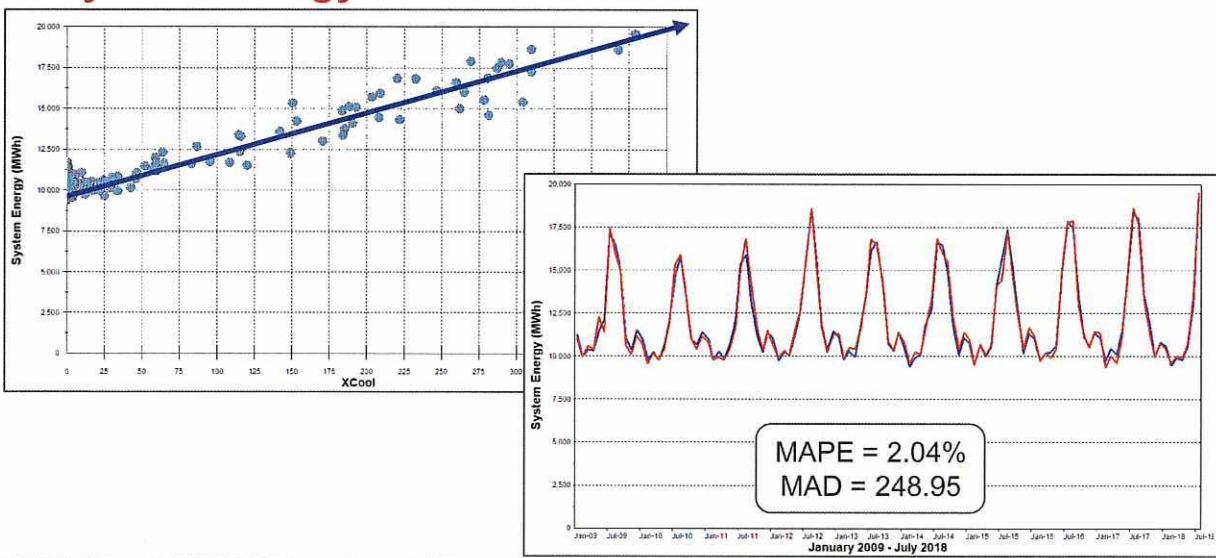
$$\beta_1 Month'_m + \beta_2 XOther_m + \beta_3 XHeat_m + \beta_4 XCool_m + \beta_5 CDD2016Plus_m \\ + \beta_6 Shift2014_m + \beta_7 ShiftAug2017_m + \varepsilon_m$$

Where,

- $Month'_m$ is a matrix of month binary variables
- $XOther_m$ is the other equipment utilization index
- $XHeat_m$ is the heating utilization index
- $XCool_m$ is the cooling utilization index
- $CDD2016Plus_m$ is the CDD Spline interacted with a 2016 shift variable
- $Shift2014_m$ is a shift variable for 2014 forward
- $ShiftAug2017_m$ is a shift variable for August 2017 forward



System Energy Model



Weather Scenario Development

- Base scenario
 - Calculated by averaging the number of HDDs and CDDs across all months of the year from 2003 to 2017
- Mild & Severe scenarios
 1. Sum HDDs and CDDs for each year
 2. Multiply β_{XHeat} and β_{XCool} by total annual HDDs and CDDs
 - Year with **lowest** total MWh attributed to heating and cooling = **Mild**
 - Year with **highest** total MWh attributed to heating and cooling = **Severe**

$$\beta_{XCool} * TotalCDD_y = CoolingMWh_y$$

$$\beta_{XHeat} * TotalHDD_y = HeatingMWh_y$$

$$CoolingMWh_y + HeatingMWh_y = TotalMWh_y$$

Daily Peak Model

- Purpose:
 - Define accurate weather response functions for system peaks
- Constructed in a similar fashion to Daily Energy model
- Derive weighting scheme for splines
- Leverage splines for System Peak model

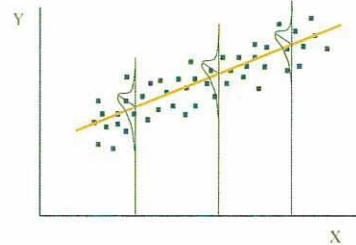
$$DailyPeak_d = \beta_0 + \beta_1 DOW'_d + \beta_2 Month'_d + \beta_3 Shift'_d + \beta_4 MonthTrends'_d + \beta_5 HDD'_d + \beta_6 CDD'_d + \varepsilon_d$$

System Peak Model

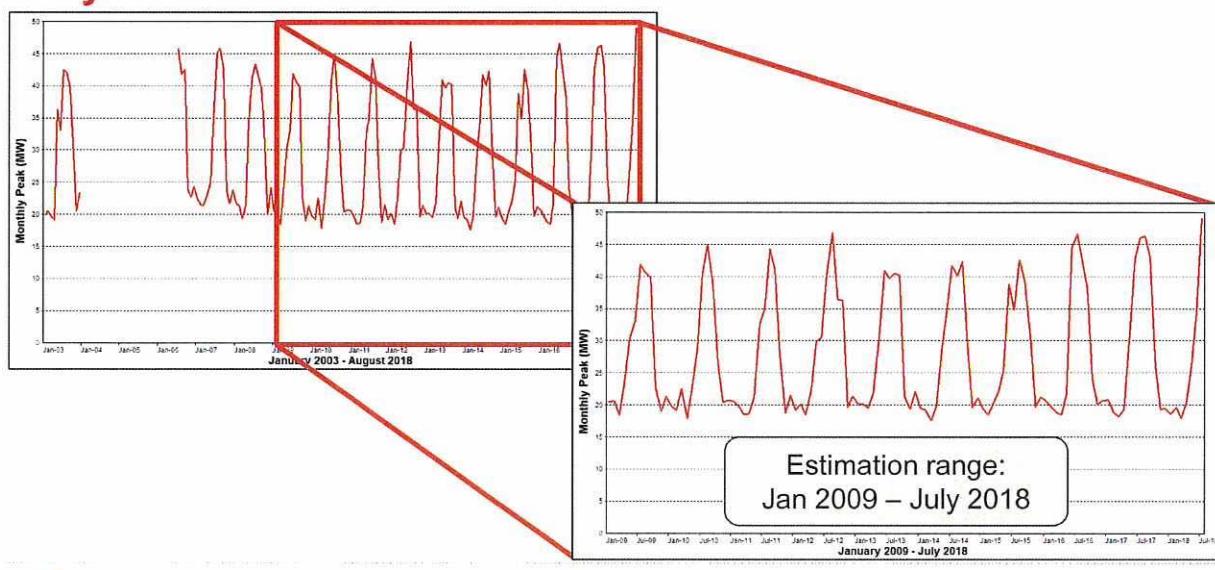
$$\begin{aligned} SystemPeak_m = \\ \beta_1 Month'_m + \beta_2 XOther_m + \beta_3 XHeat_m + \beta_4 XCool_m + \beta_5 XCoolWgtLag_m + \beta_6 CDD2016Plus_m \\ + \beta_7 Shift2016_m + \varepsilon_m \end{aligned}$$

Where,

- $Month'_m$ is a matrix of month binary variables
- $XOther_m$ is the other equipment utilization index
- $XHeat_m$ is the heating utilization index
- $XCool_m$ is the cooling utilization index
- $XCoolWgtLag_m$ is the $XCool$ index interacted with a weighted average of cooling degree-days from the prior two days
- $CDD2016Plus_m$ is the CDD Spline interacted with a 2016 shift variable
- $Shift2016_m$ is a shift variable for 2016 forward



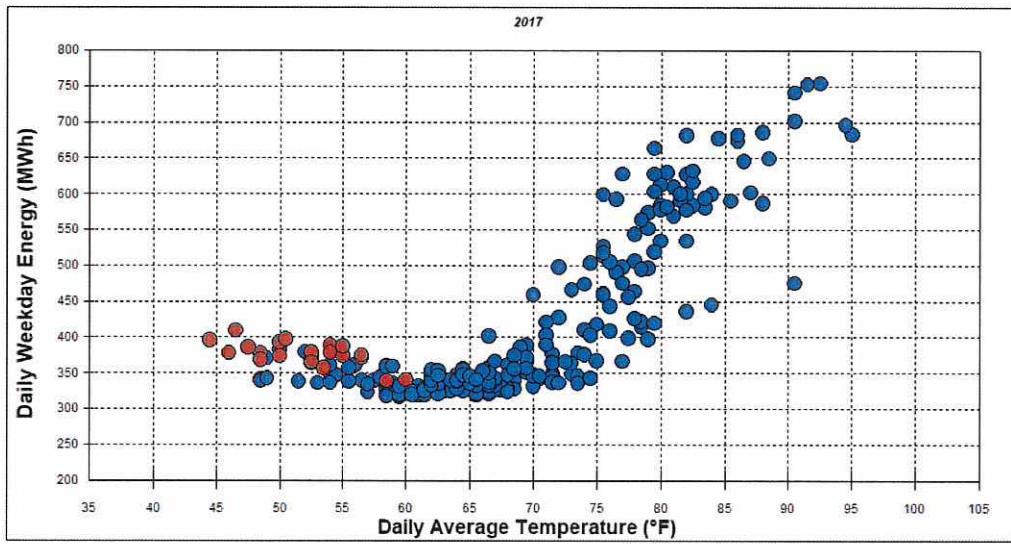
System Peak Data



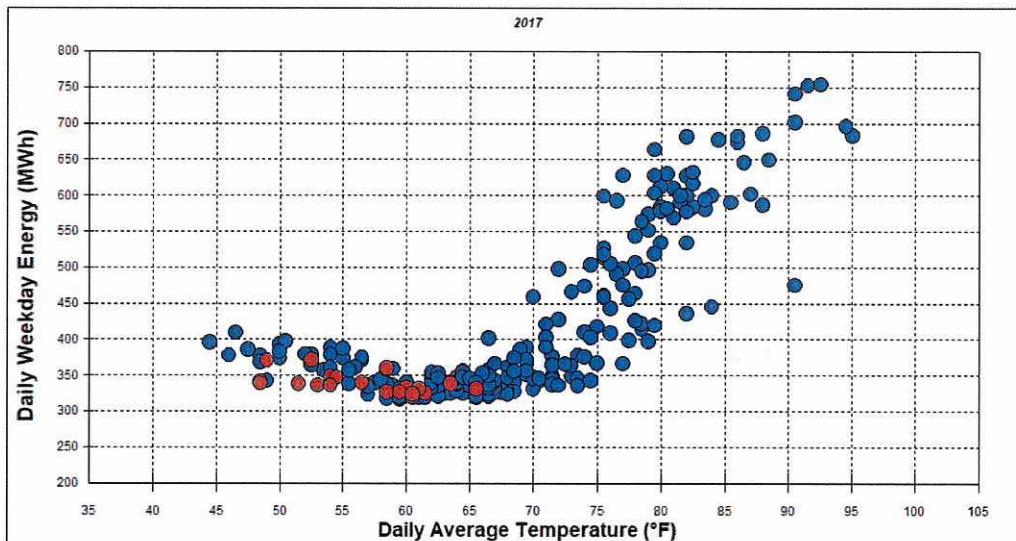
Weather Scenario Development

	Actual Peak Producing Average Temperature											Normal Month
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Jan	49.0	53.0	45.5	49.0	47.0	48.0	49.0	54.5	44.0	47.5	46.5	48.5
Feb	53.0	53.0	44.0	47.0	49.0	50.0	45.5	53.0	52.5	47.0	52.5	49.7
Mar	73.0	55.0	53.5	63.5	56.0	52.5	48.5	59.5	71.0	49.0	71.5	54.7
Apr	63.5	79.0	83.0	51.0	75.0	74.0	71.0	72.5	78.5	76.0	78.0	75.6
May	72.5	83.0	77.0	62.0	76.0	77.0	86.0	77.0	74.0	72.5	78.0	77.3
Jun	77.0	89.0	79.0	70.0	76.5	77.5	89.5	78.0	83.0	93.0	86.0	81.9
Jul	80.5	78.5	86.0	88.5	81.5	84.0	85.0	87.0	84.0	87.0	90.5	84.8
Aug	85.5	85.5	88.5	89.0	88.5	89.0	89.0	93.5	90.0	89.0	92.5	87.7
Sep	86.0	84.0	87.0	91.5	89.5	84.0	88.0	92.5	90.5	79.5	94.5	87.9
Oct	76.0	87.5	80.0	77.5	78.5	87.0	73.5	80.0	81.5	75.0	90.5	80.6
Nov	56.5	71.5	70.0	46.0	59.5	72.5	58.0	72.0	52.0	74.5	74.0	72.4
Dec	51.5	45.5	42.5	52.5	47.0	45.5	47.5	49.0	42.0	47.5	52.0	47.5
Cooling Peak	86.5	89.0	88.5	91.5	89.5	89.0	89.5	92.5	90.5	93.0	94.5	90.4
Heating Peak	49.0	45.5	42.5	46.0	47.0	45.5	45.5	49.0	42.0	47.0	46.5	46.0

January 2017



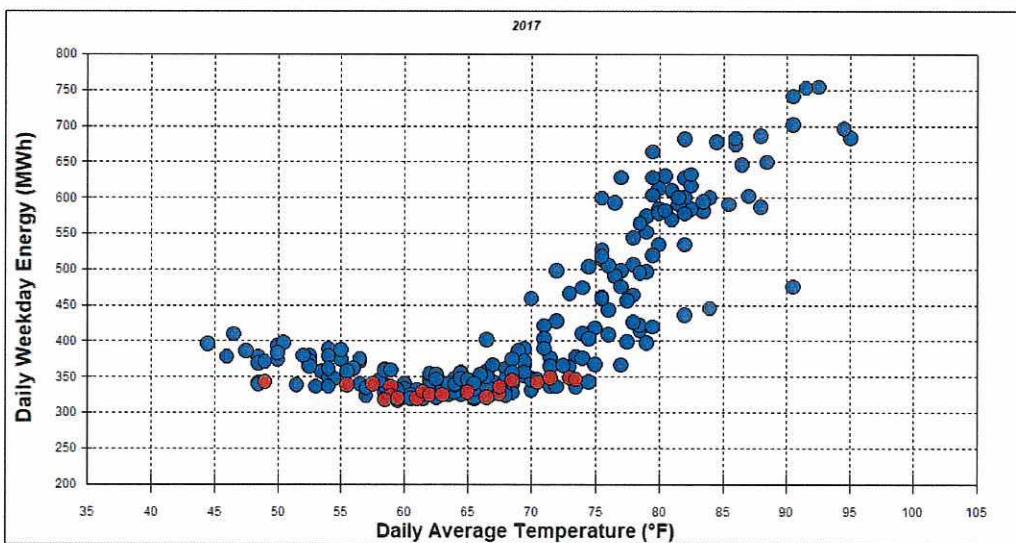
February 2017



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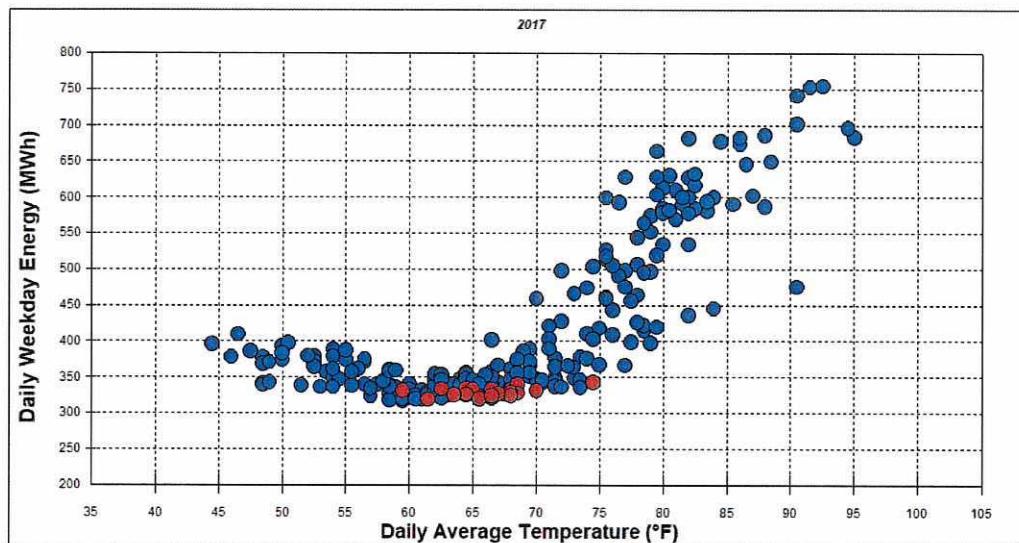
March 2017



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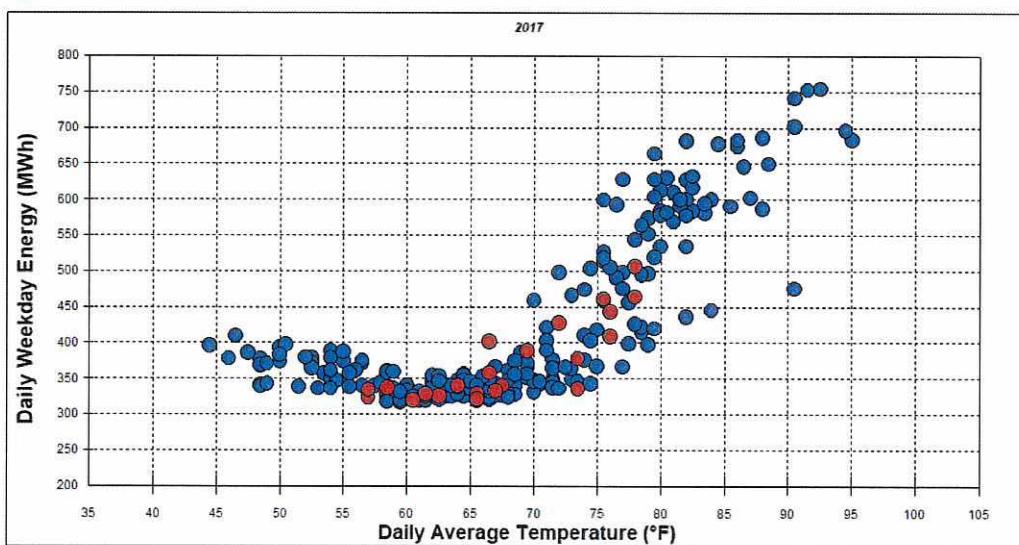
April 2017



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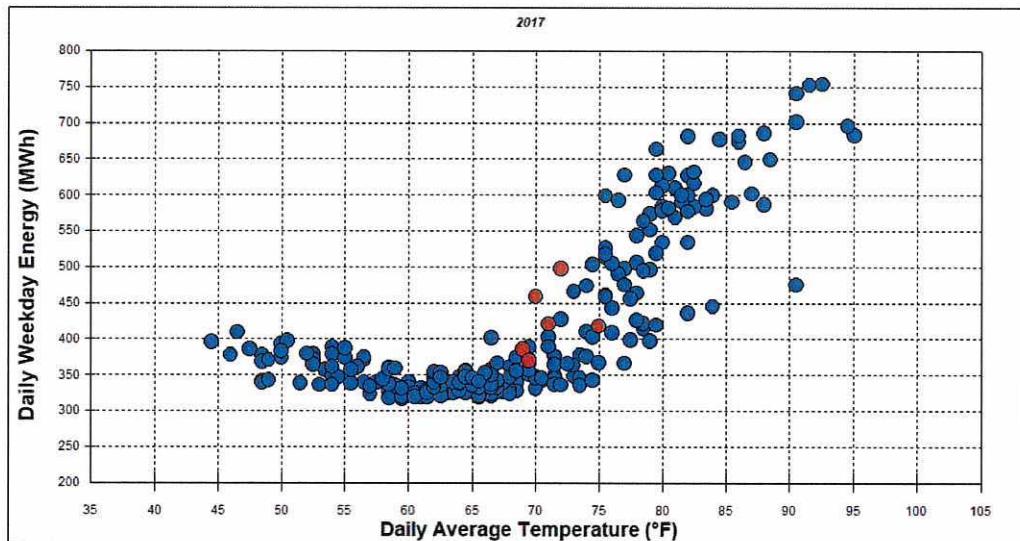
May 2017



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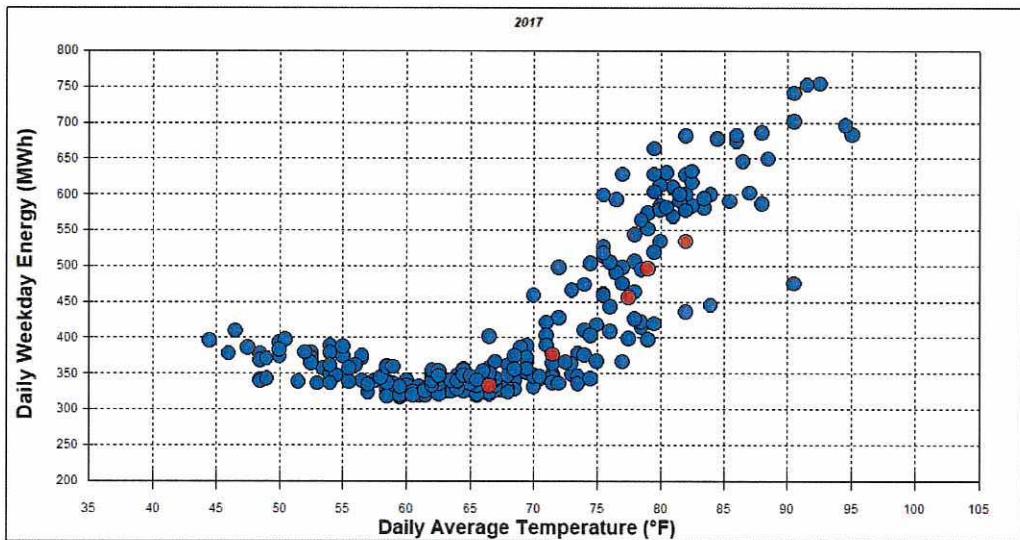
June 1 – 10, 2017



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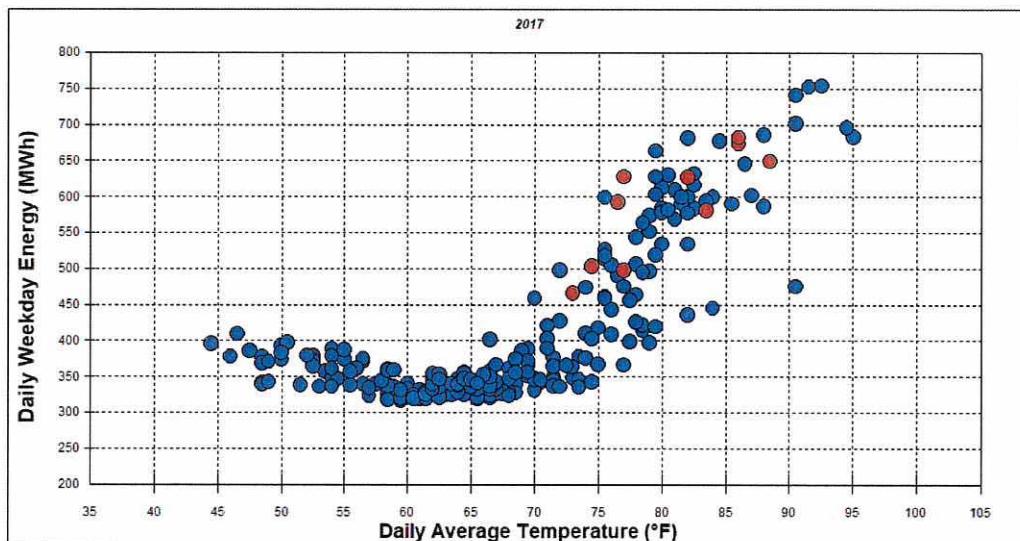
June 11 – 18, 2017



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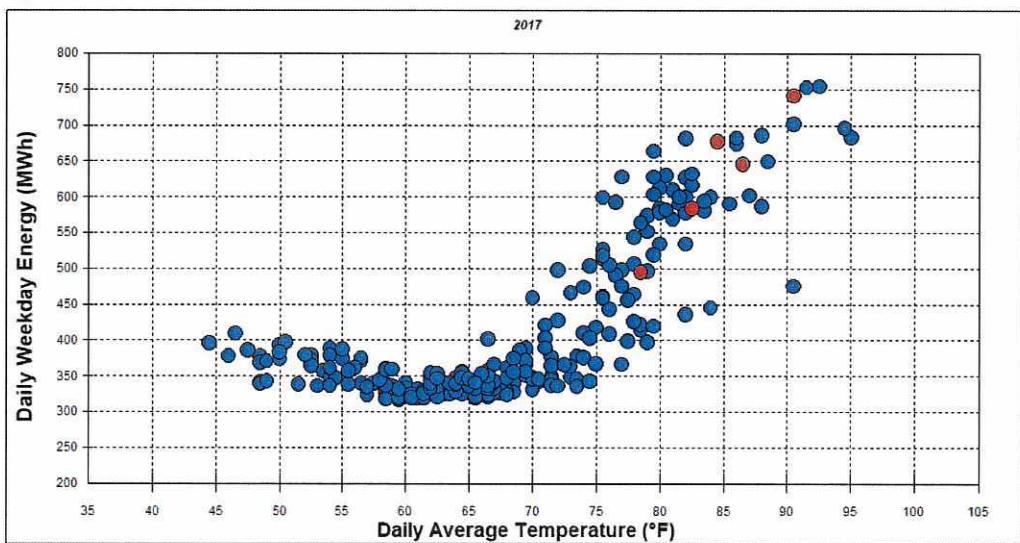
June 19 – 30, 2017



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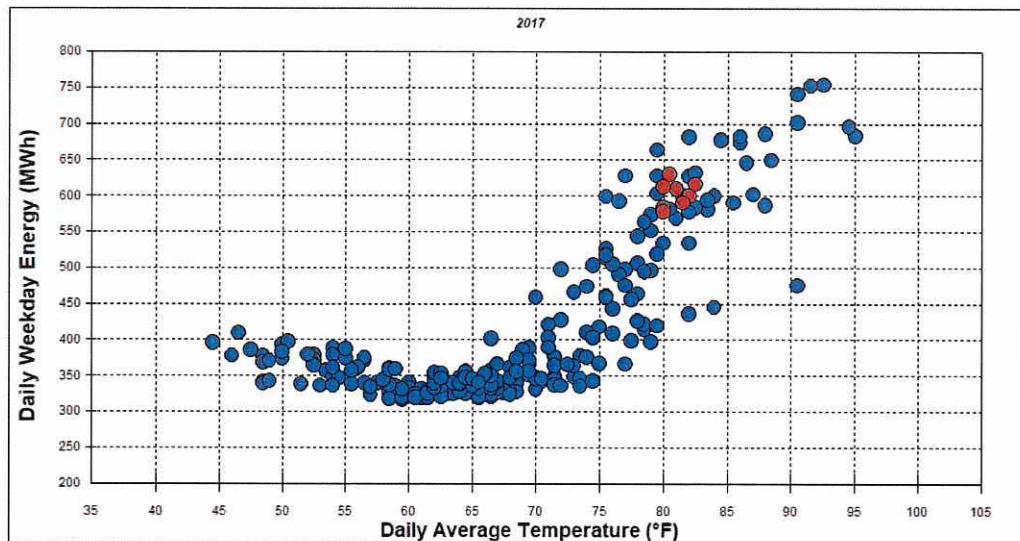
July 1 – 10, 2017



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88

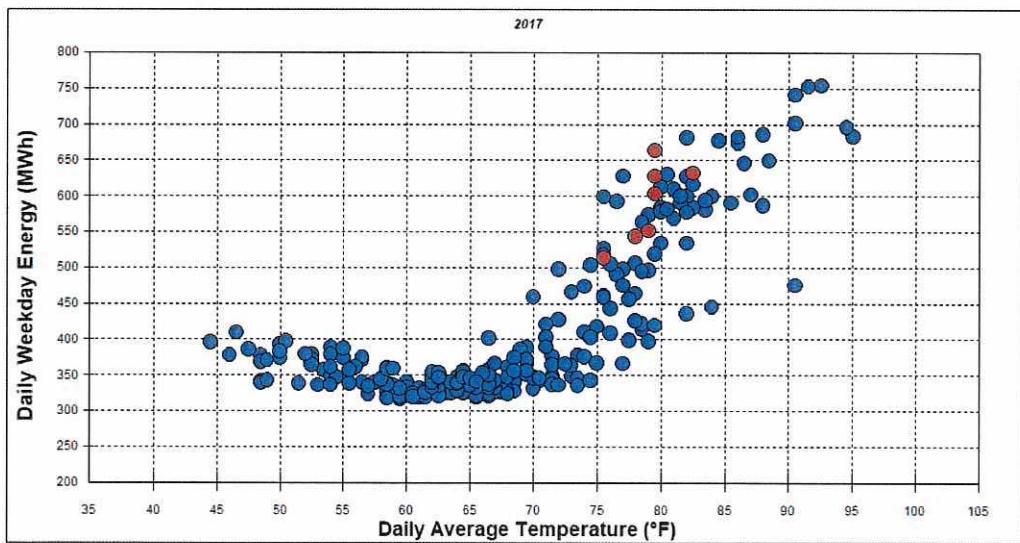
July 11 – 20, 2017



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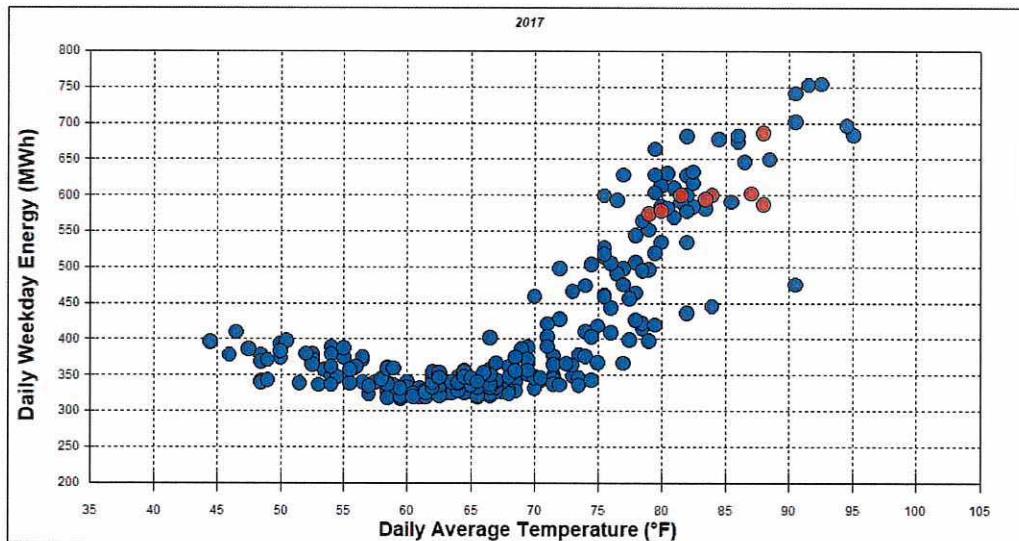
July 21 – 31, 2017



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90

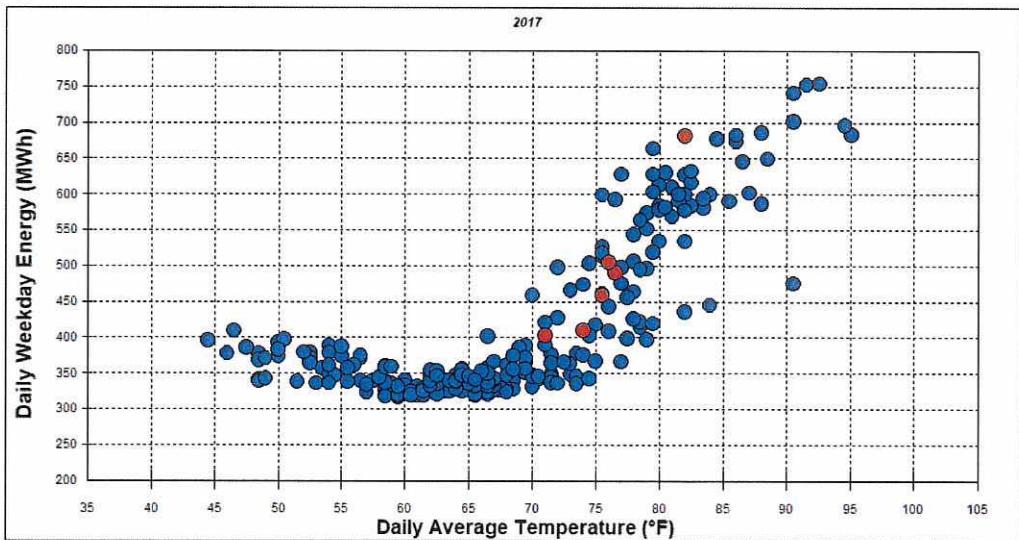
August 1 – 10, 2017



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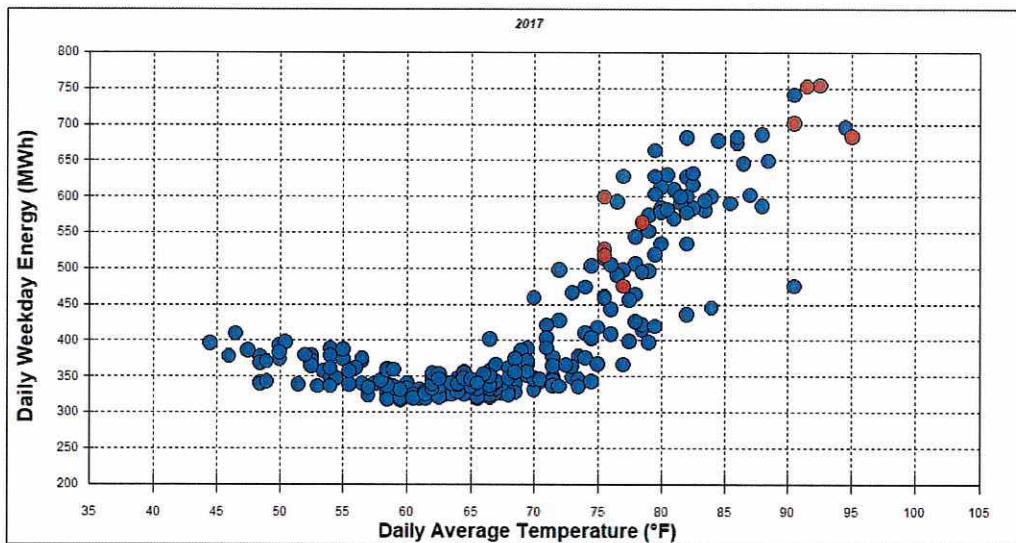
August 11 – 20, 2017



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92

August 21 – 31, 2017

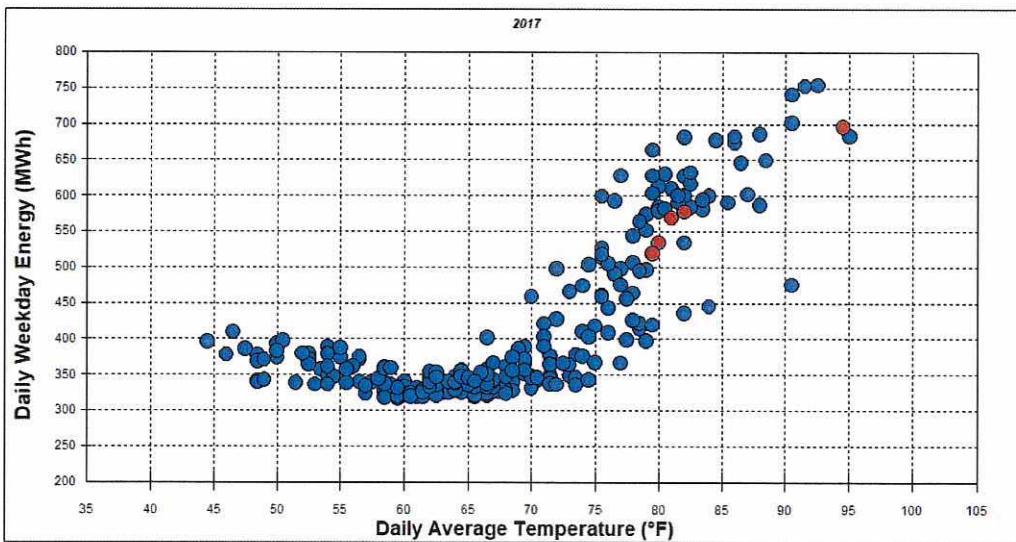


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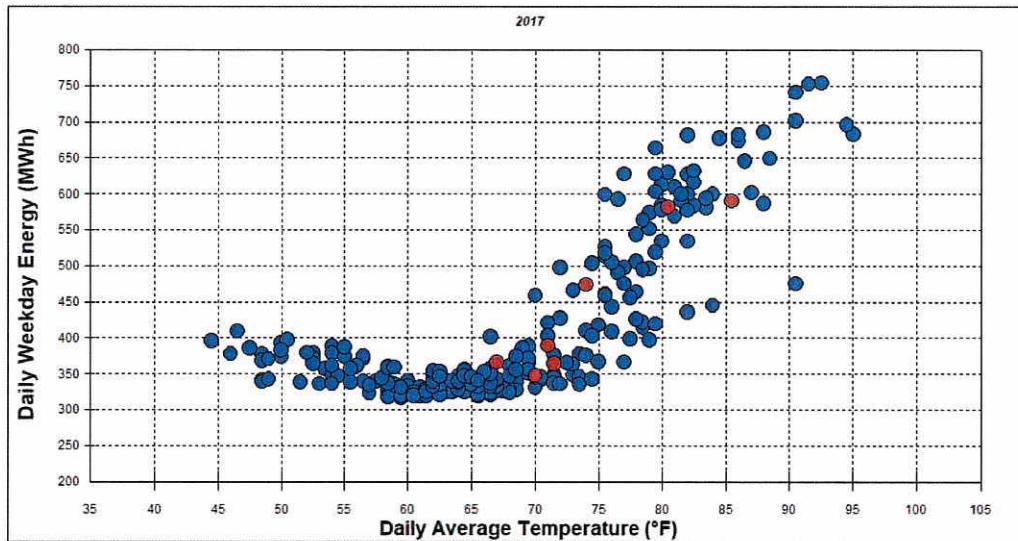
93

September 1 – 10, 2017

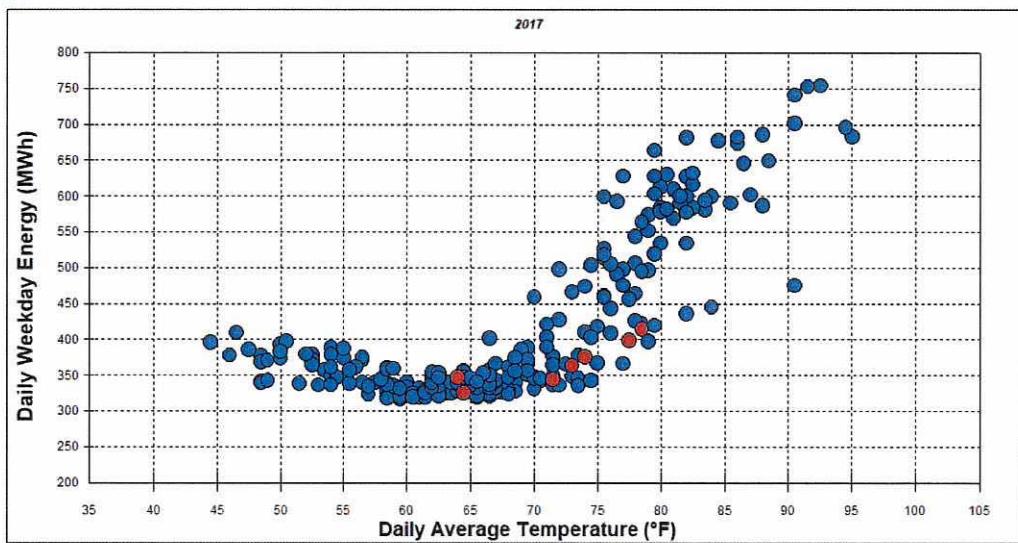


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94

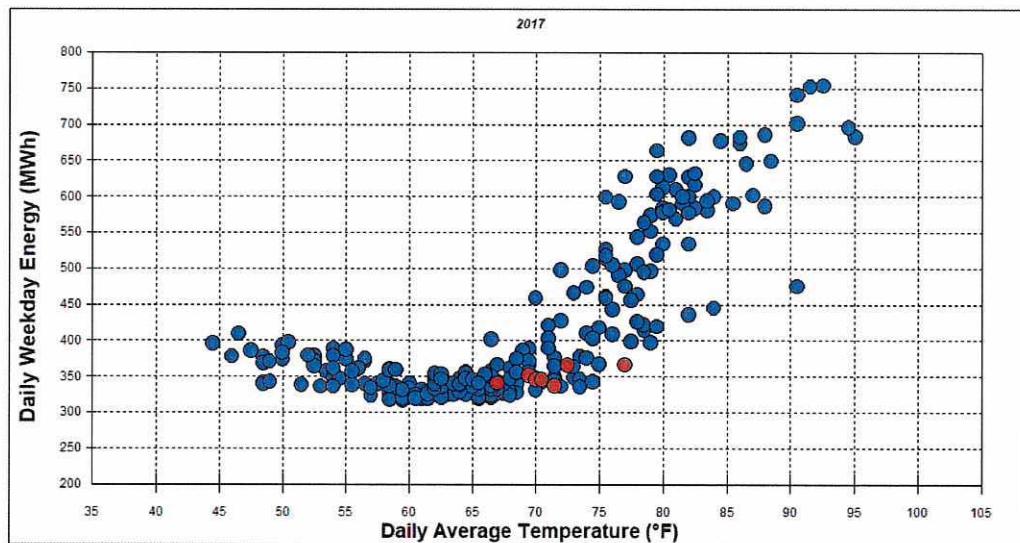
September 11 – 20, 2017**Itron**

95

September 21 – 30, 2017**Itron**

96

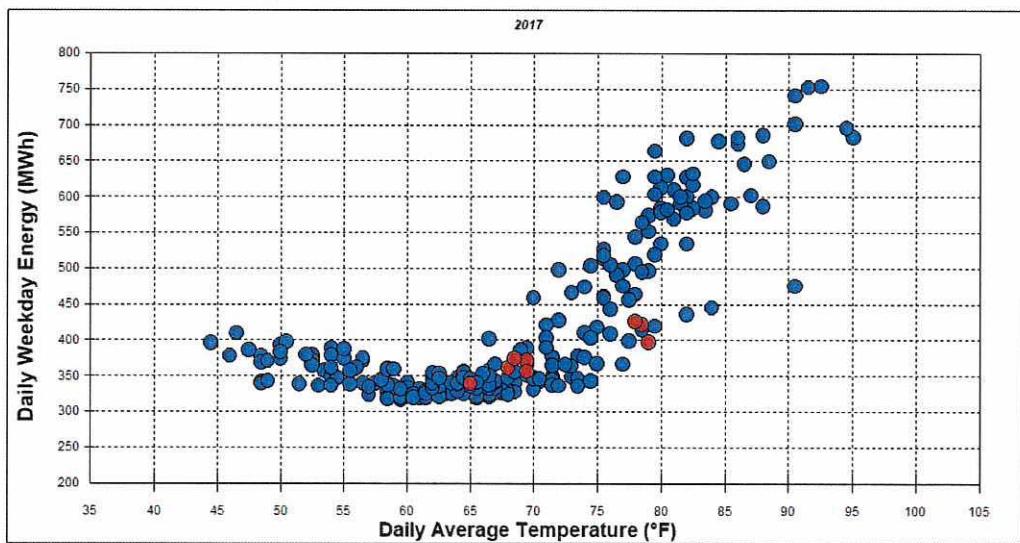
October 1 – 10, 2017



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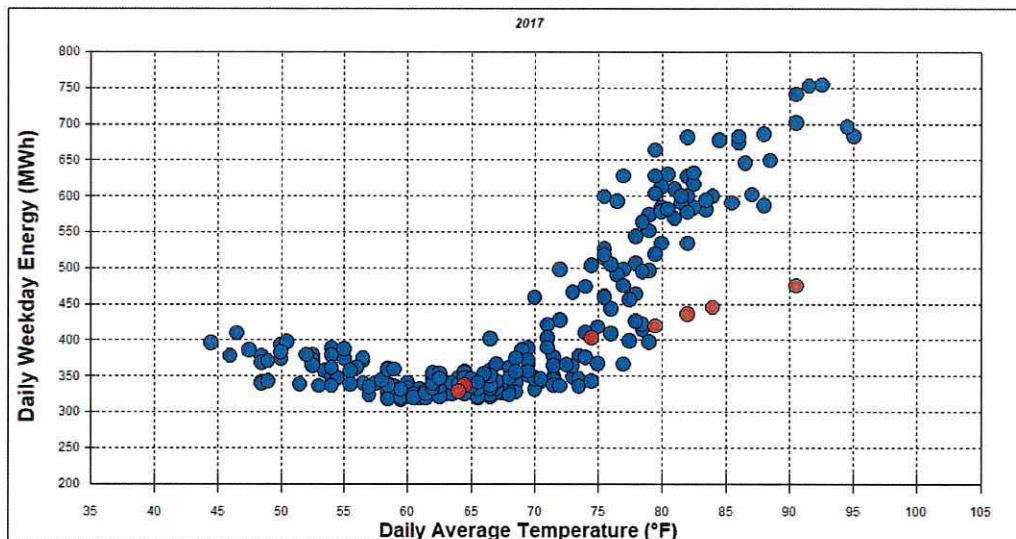
October 11 – 20, 2017



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October 21 – 31, 2017

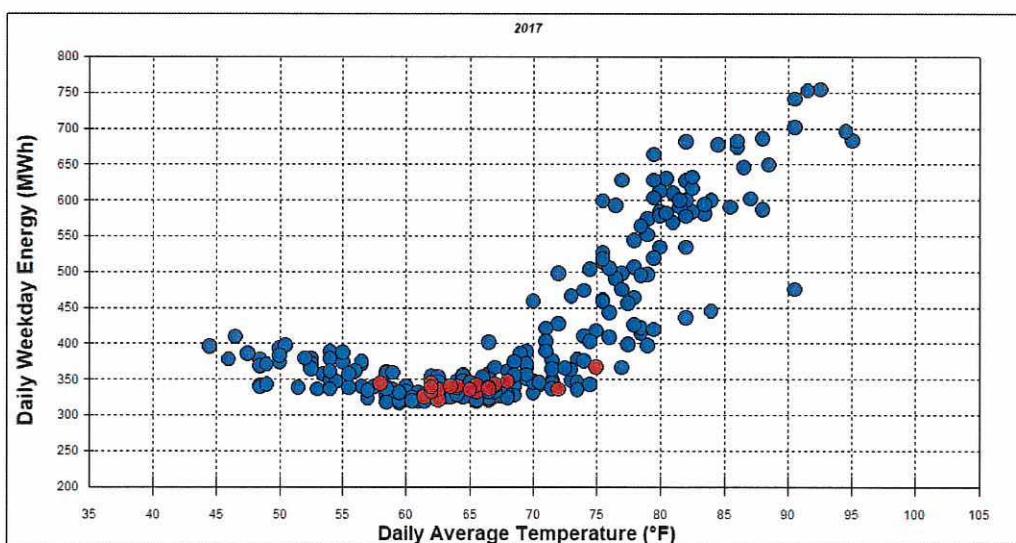


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Energy & Water Data

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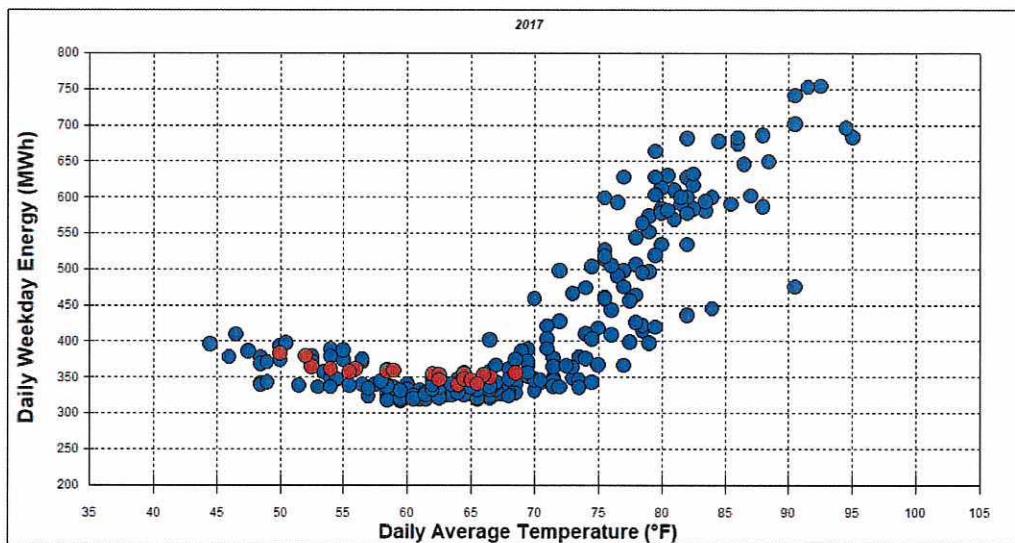
November 2017



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December 2017



MINUTES
CITY COUNCIL
BANNING, CALIFORNIA

02/05/2019
SPECIAL MEETING

A special meeting of the Banning City Council was called to order by Mayor Welch on February 5, 2019 at 9:00 a.m. at the Banning Civic Council Chambers, 99 E. Ramsey Street, Banning, California.

COUNCIL/BOARD MEMBERS PRESENT: Council Member Happe
Council Member Peterson
Council Member Wallace
Mayor Pro Tem Andrade
Mayor Welch

COUNCIL MEMBERS ABSENT: None

OTHERS PRESENT: Heidi Meraz, Community Services Director
Daryl Betancur, Deputy City Clerk

COMMISSIONER INTERVIEWS:

1. Arthur J. Cabral
2. Frank Diaz
3. Laura Leindecker
4. Leroy Miller
5. Vickie Sellers
6. Shelby Waldron
7. Robert Ybarra

Following the interviews, the City Council engaged in a brief discussion relative to the credentials, and suitability of each candidate to serve on the Parks & Recreation Commission.

PUBLIC COMMENT

None

ADJOURNMENT

By consensus, the meeting adjourned at 11:22 a.m.

Minutes Prepared by:



Daryl Betancur, Deputy City Clerk

Attachments:

Exhibit A: Parks & Recreation Commissioner Applications

Exhibit B: Interview Questions

These Action Minutes reflect actions taken by the City Council. The entire discussion of this meeting can be found by visiting the following website: <https://banninglive.viebit.com/player.php?hash=HWru93tYuMRK> or by requesting a CD or DVD at Banning City Hall located at 99 E. Ramsey Street.