

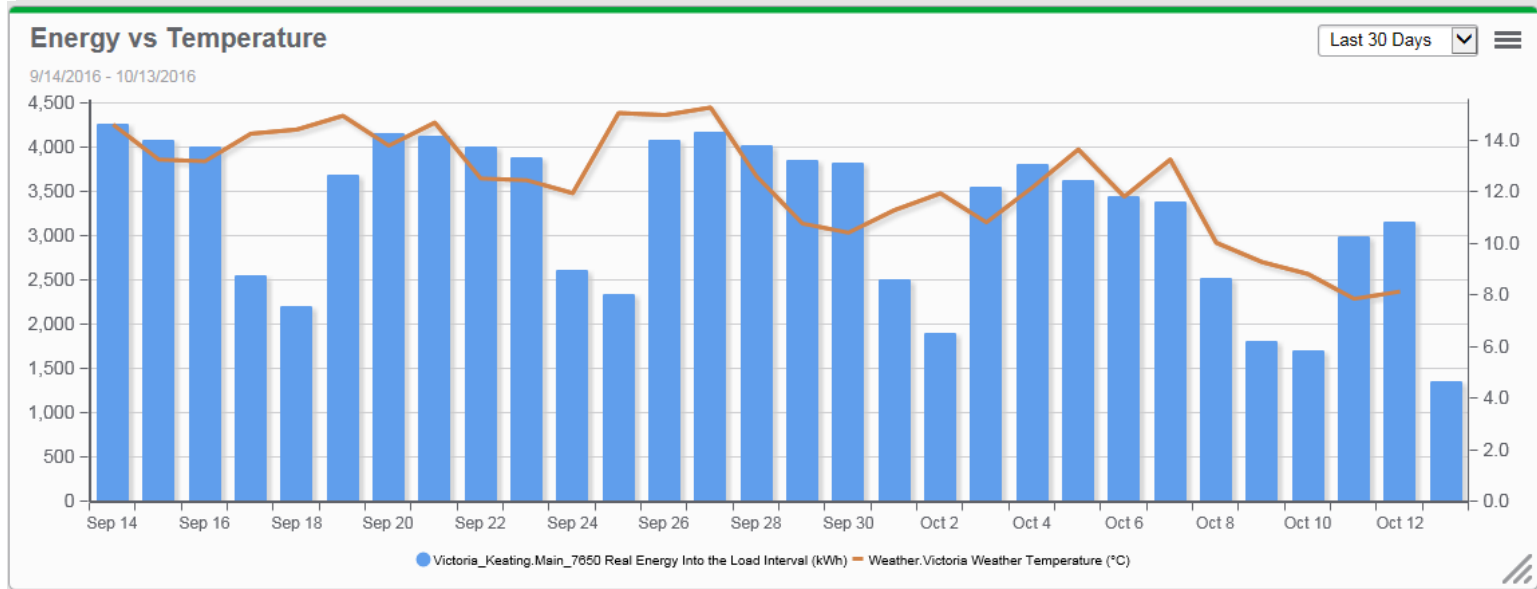


PME 8.2

Energy Modeling in PME

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Why do we need an energy model?



- Analyzing raw data can be tricky
 - There is no way to know for sure if the value we read is meaningful or not
- Exceptions get forgotten and will not make sense a few months after the fact (Thanksgiving Monday)
 - Visually interlacing influencing factors is hard and inconclusive

From: what influences my energy?



Days of the Week	
Sunday	Sun.
Monday	Mon.
Tuesday	Tues.
Wednesday	Wed.
Thursday	Thurs.
Friday	Fri.
Saturday	Sat.



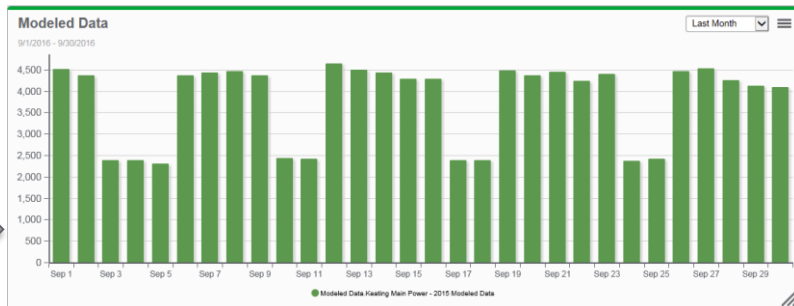
To: lets create an energy model



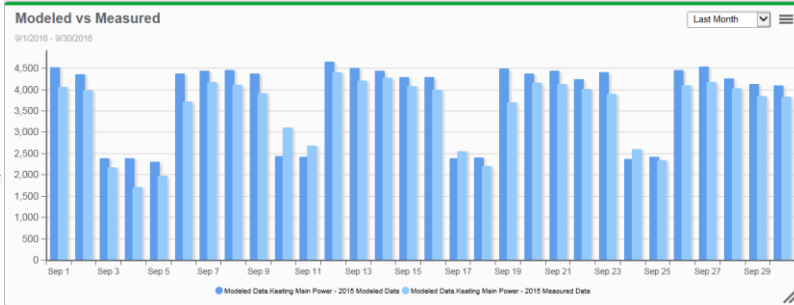
Influencing factors



Scheduling

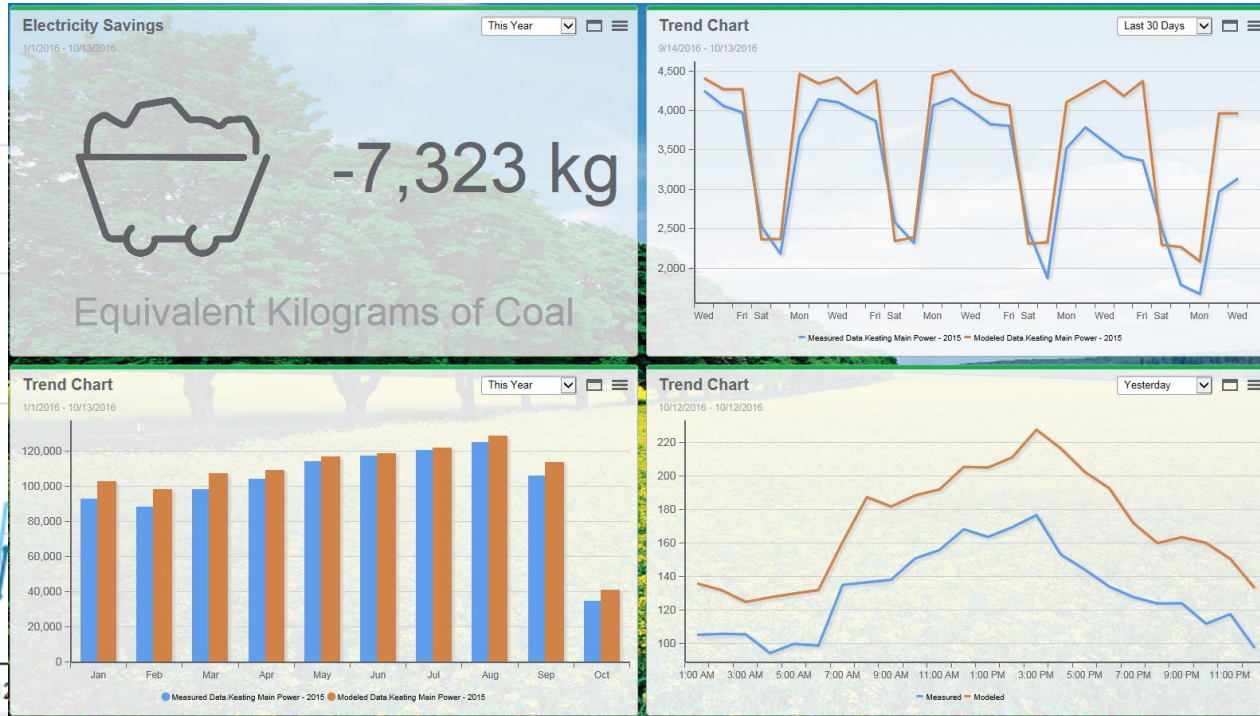


Base Loads



Example: Building retrofit

Real Energy Into the Load



Alarms
View: All Active Alarms

Alarms Displayed: 2

Unacknowledged Alarms: 2 (Not displayed: 1) Acknowledge

Drag a column here to group by that column

Active	Start Time	Device	Priority	Type	Condition	Measurement	Value	Acknowledgement
P	5/27/2016 2:54:06.000 PM	VIP.WVCA41817PME	↓	Keating_Main_Elec	Too High vs Model	KeatingMainElec_ResidualPercent	0.53	Acknowledge
P	5/27/2016 5:52:44.000 AM	Victoria_Keating_PNL_E	↓	Over I unbal	ON	Current Unbalance	44.308	Acknowledge

Feature list

- Multi-Variable Linear Regression Engine
- Supports Sub-Models to use different models for different TOU or uses a Database driven approach
- Allows different regression and reporting aggregation interval
- Exception Period Table to “Discard” Period(s) or assign specific data to different a Sub-Model
- Fully customizable Sub-Model and Exception Periods Control files (XML)
- Measured VS Modeled Graphics as well as Residual and Cumulative Sum graphics
- May insert result back to Database for further use in Dashboard, Reports, Trends, VIP
- Hierarchy Support for the dependent variable
- Ability to insert “Saving Coefficients” when using the Model to verify savings or set objectives

Benefits for you

- Understand better what influences your energy usage
- Quickly identify deviation from the optimum scenario
- Get automatically notified / alarmed if deviation is above a certain limit
- Quantify savings or losses brought up by any system/behavior change
- Integrate saving objectives into the models to drive for changes
- Meet the ISO 50001 standard thanks to the automated data collection and processing of models
- Keep in mind that the models are as good as your data. Keep it clean and tidy !



A man with glasses on his head, wearing a pink shirt, is smiling and looking to his left. He is sitting at a desk with a laptop in front of him. In the background, there is a blue filing cabinet and some office supplies. The text "THANK YOU." is overlaid in white on the image.

THANK YOU.

Life Is On

Schneider
Electric