

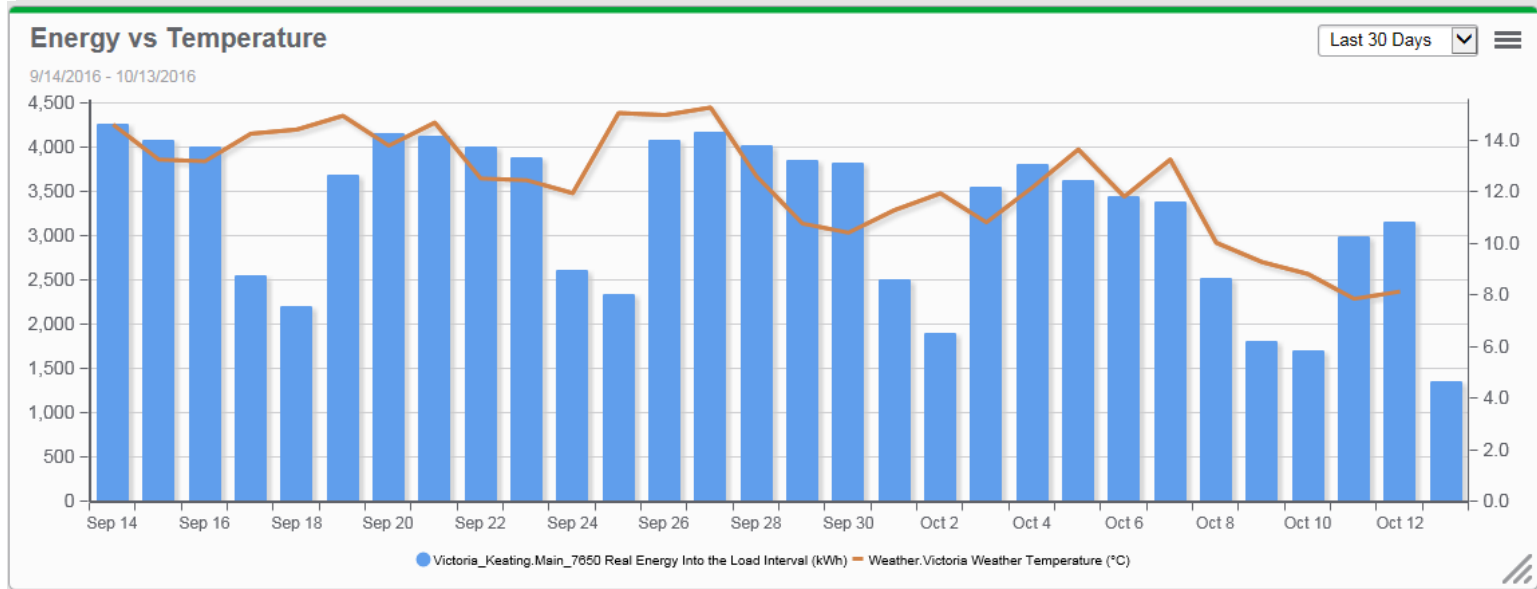


PME 8.1

# Energy Modeling – General Information

David Lanckman

# Why do we need them?



- Analyzing raw data can be tricky
  - There is no way to know for sure if the value we read is rightful or not
- Exceptions gets 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?



# To : lets create an energy model

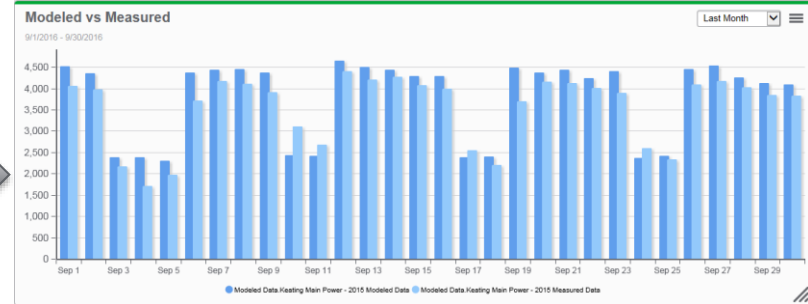
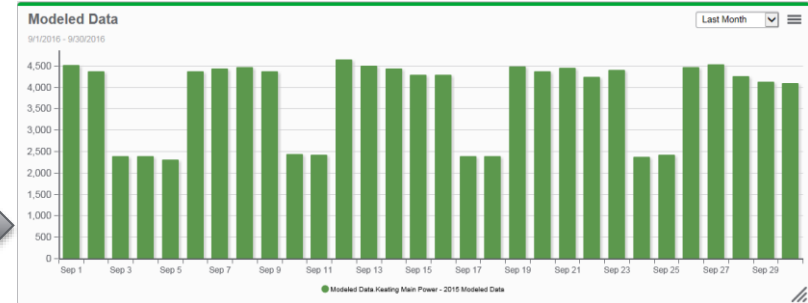


Influencing factors



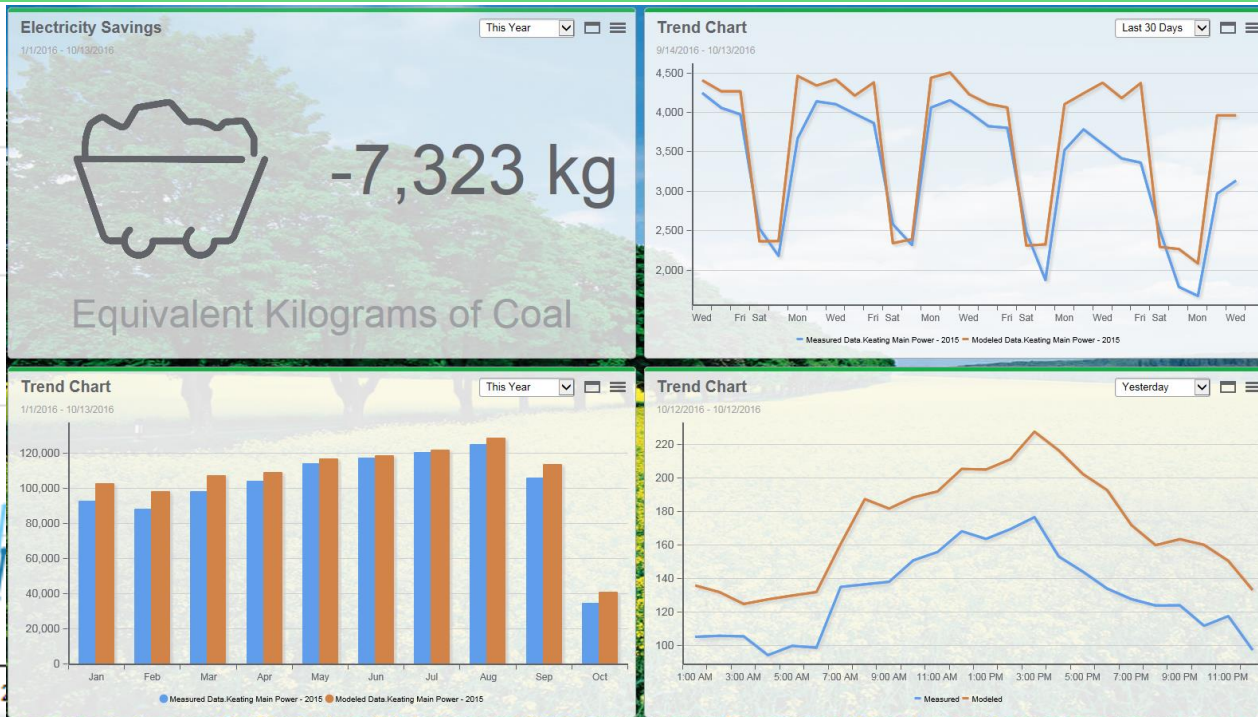
Scheduling

Base Loads



# Example : BMS retrofit

Real Energy Into the Load



Alarms

**View: All Active Alarms**

Alarms Displayed: 2

Unacknowledged Alarms: 2 (Not displayed: 1) Acknowledge

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

# 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 smiling man with glasses on his head, wearing a light purple shirt, is sitting at a desk in an office. He is looking towards the right of the frame. In front of him is a laptop. To his right is a blue filing cabinet with a white paper holder. The background is a blurred office environment with a window and some charts on the wall.

THANK YOU.

Life Is On

**Schneider**  
Electric