

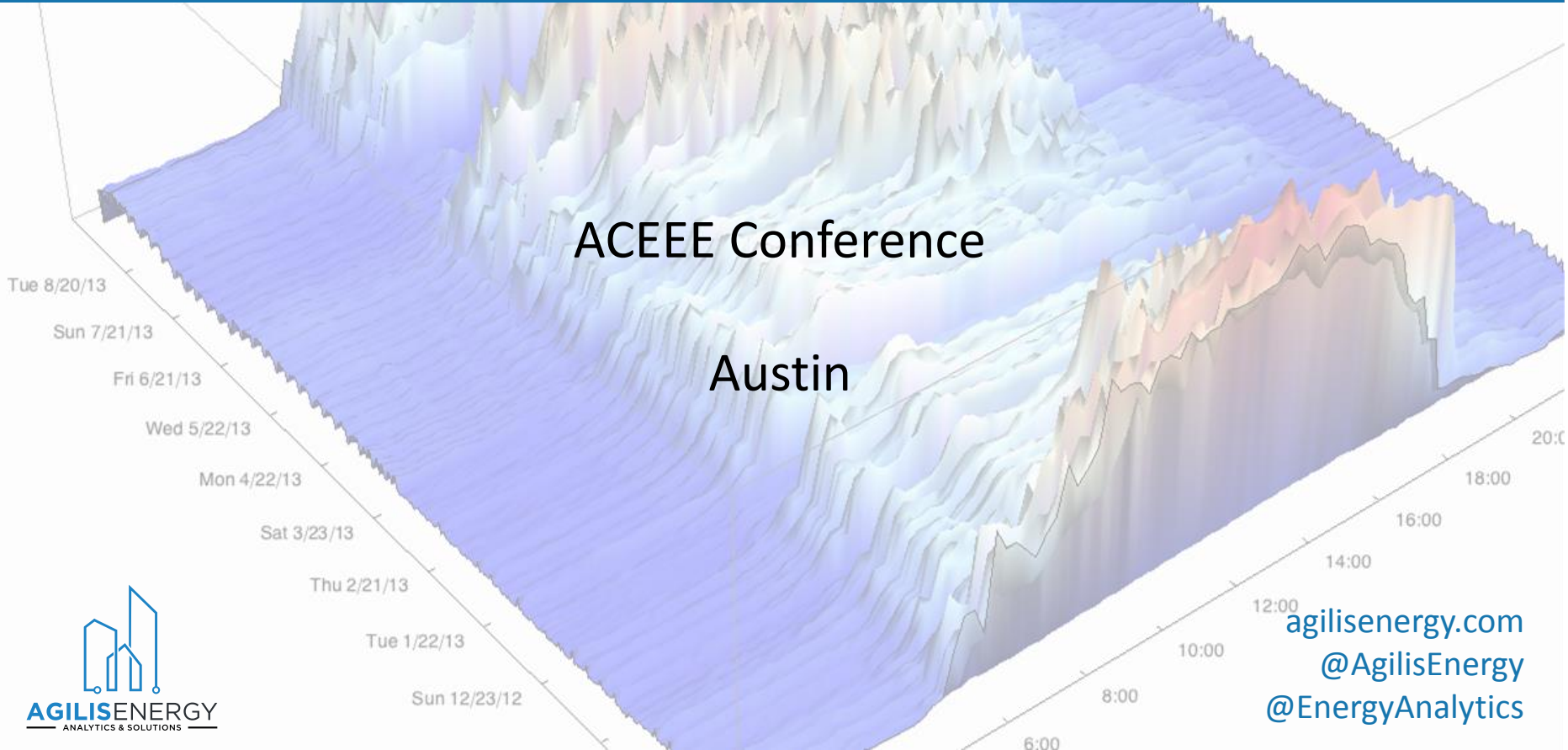
AGILISENERGY

December 2016

Smart Meter Driven Energy Analytics

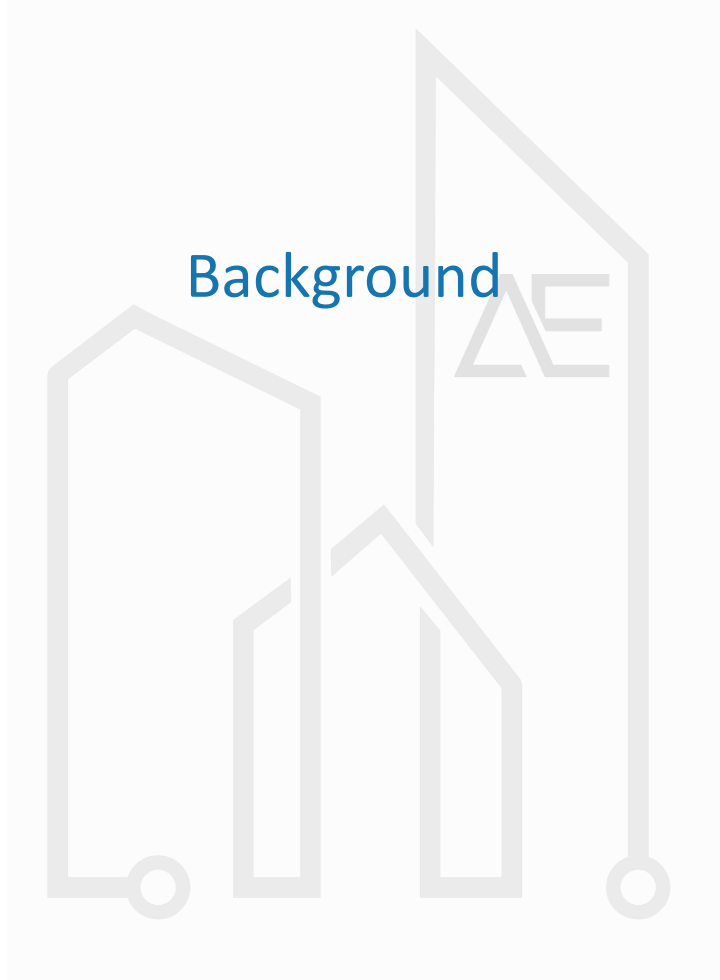
ACEEE Conference

Austin



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Background



Energy “MRI” for Your Building

Allows for the quick and non-invasive visualization, diagnosis and treatment of energy use issues.

**Nothing to set up or install.
Instant insight.
10–25% annual savings.**

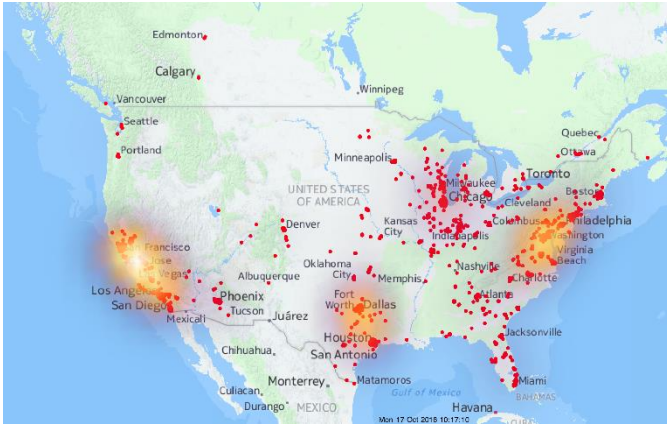
Patented energy decision support system software application uses available smart meter data.

Unique and proven technology.

1000s of buildings evaluated across ~50 different industries.

**Large strategic partners.
Extensive distribution channels.
Complementary direct business.**

Agilis Energy Portfolio



Portfolio Size:

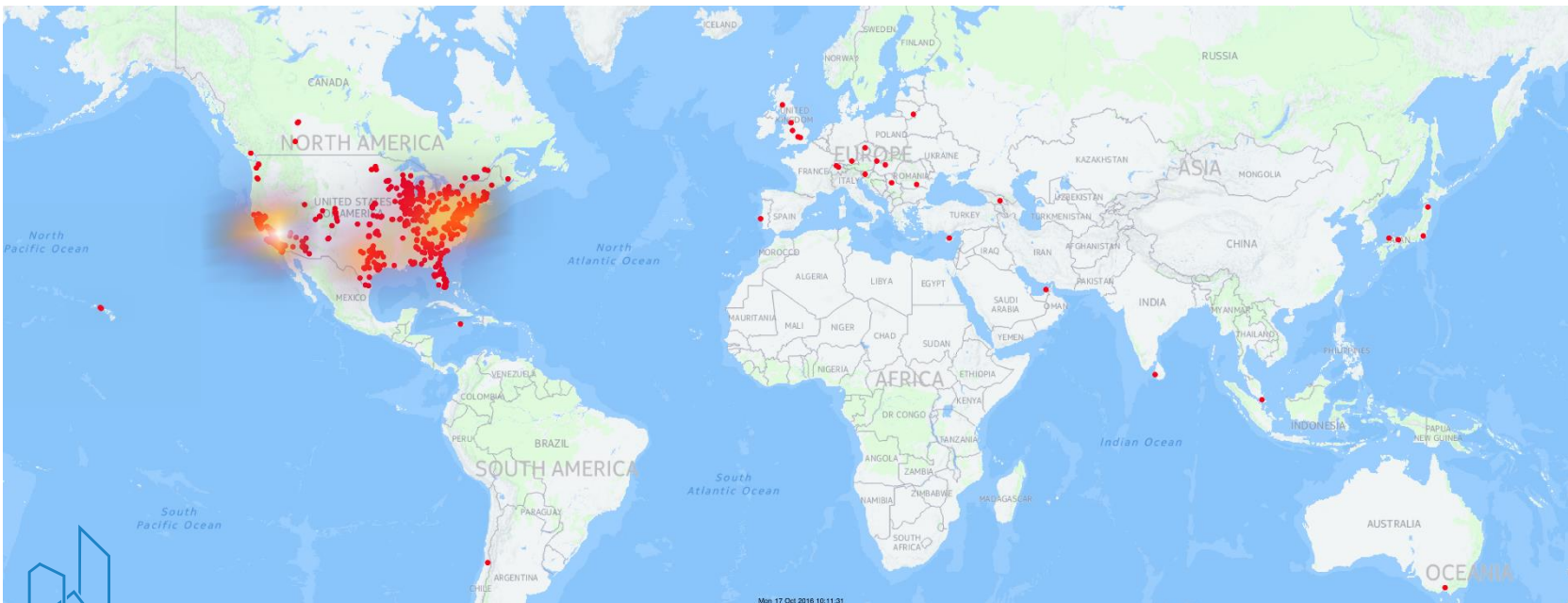
- 1000s of buildings
- 800 clients
- Millions of square feet

Expansion:

- Europe
- Middle East
- Asia
- Africa

Industry Sectors (>50):

- Office
- Retail
- Lower/Higher Ed
- Healthcare
- Municipal
- Hospitality
- Entertainment
- Industrials
- Food
- Religious



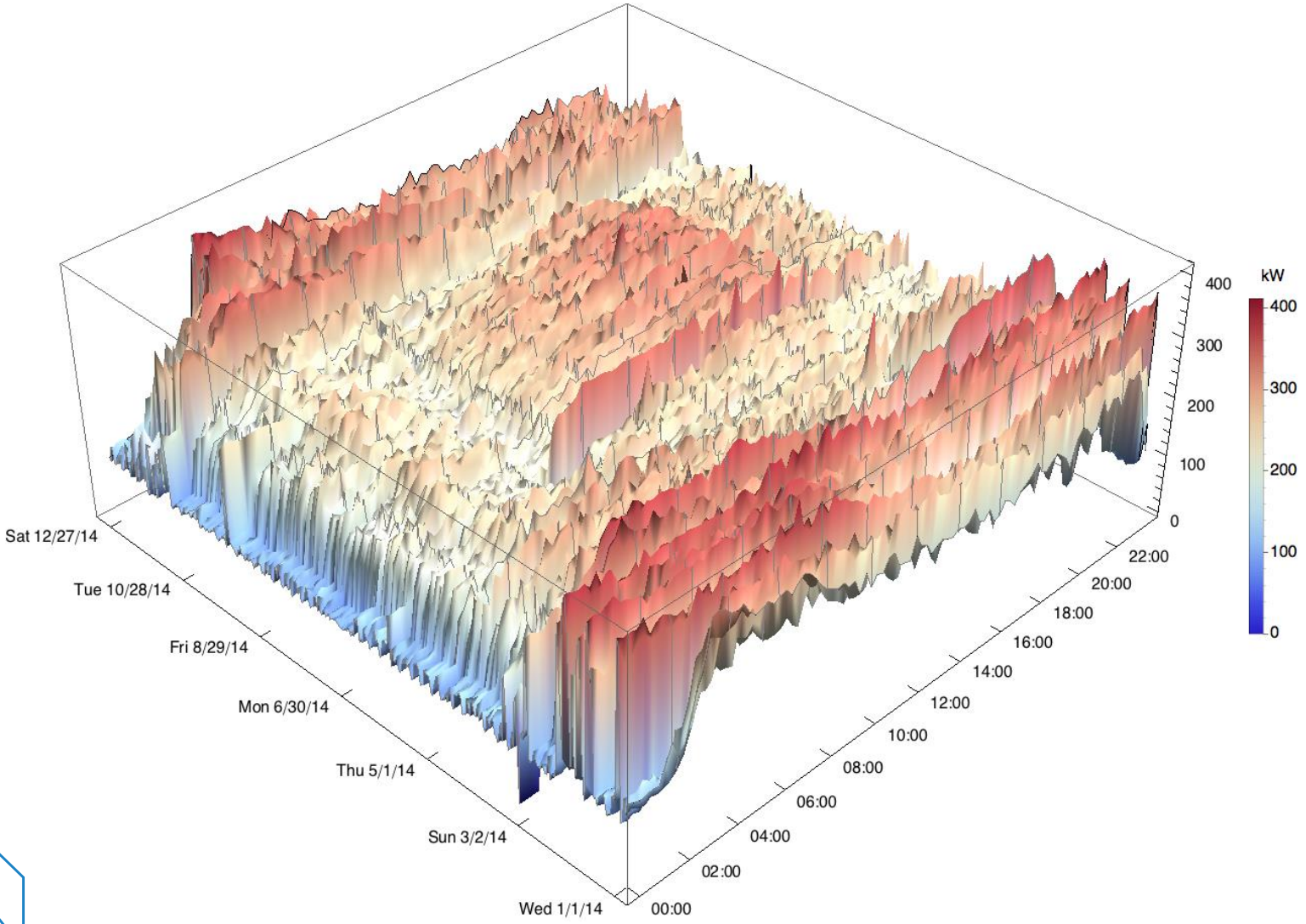
Issue/Opportunity Identification



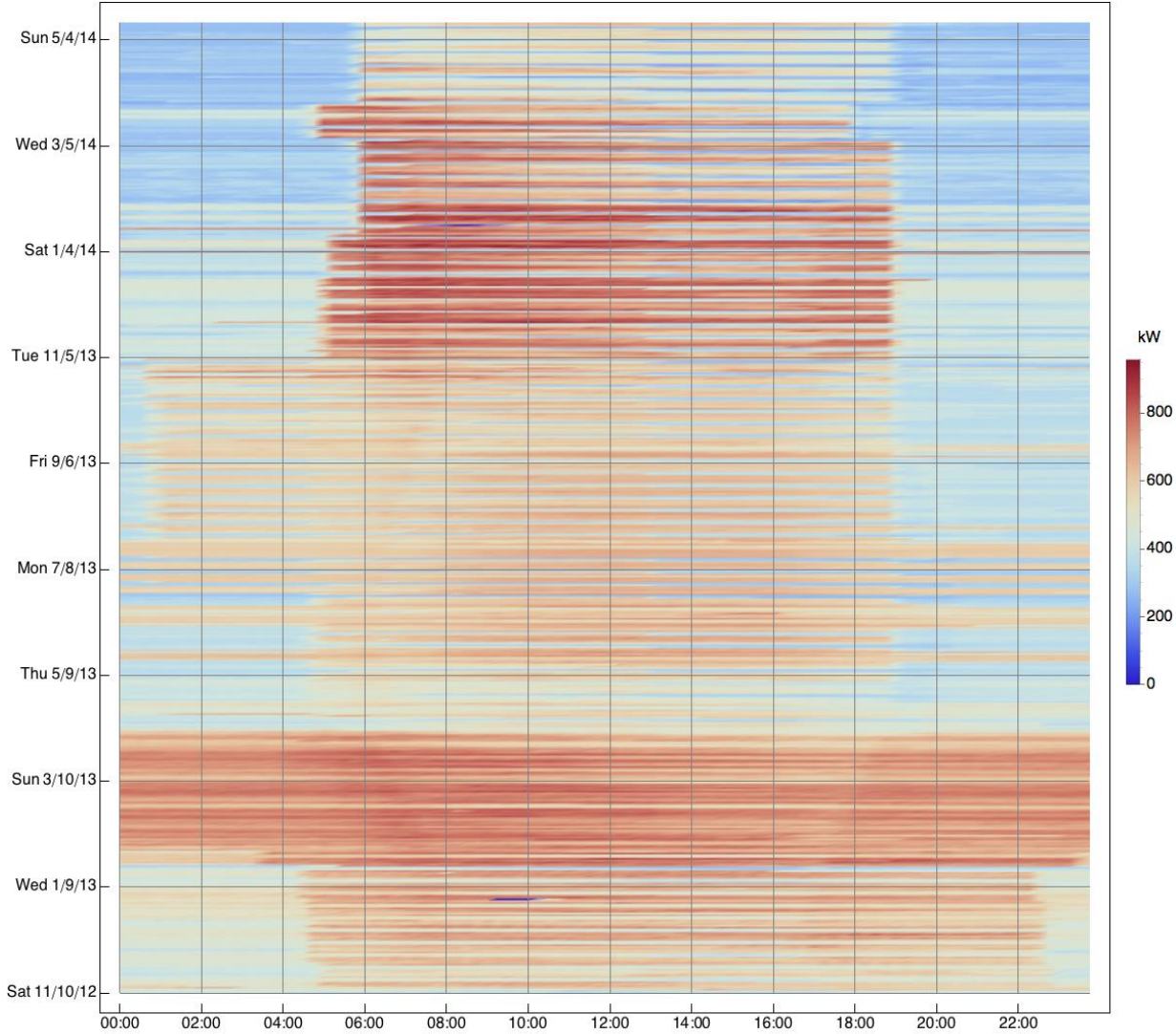
What Can Be Detected? (Short List)

- Scheduling Issues
- Over-conditioning
- Sub-optimal setbacks
- Equipment cycling
- Poor equipment staging
- Economizer performance
- Lighting schedules
- Sensor/control system issues
- Optimal start performance
- Base, cooling and heating loads
- Heating & cooling correlations
- Simultaneous heating & cooling
- Effects of humidity, cloud cover and wind speed
- Inconsistent performance
- Equipment not connected into BMS
- Load shifting opportunities
- Effectiveness of heating cooling transitions
- Effects of buildings changes (“What if”)
- Extensive building benchmarking

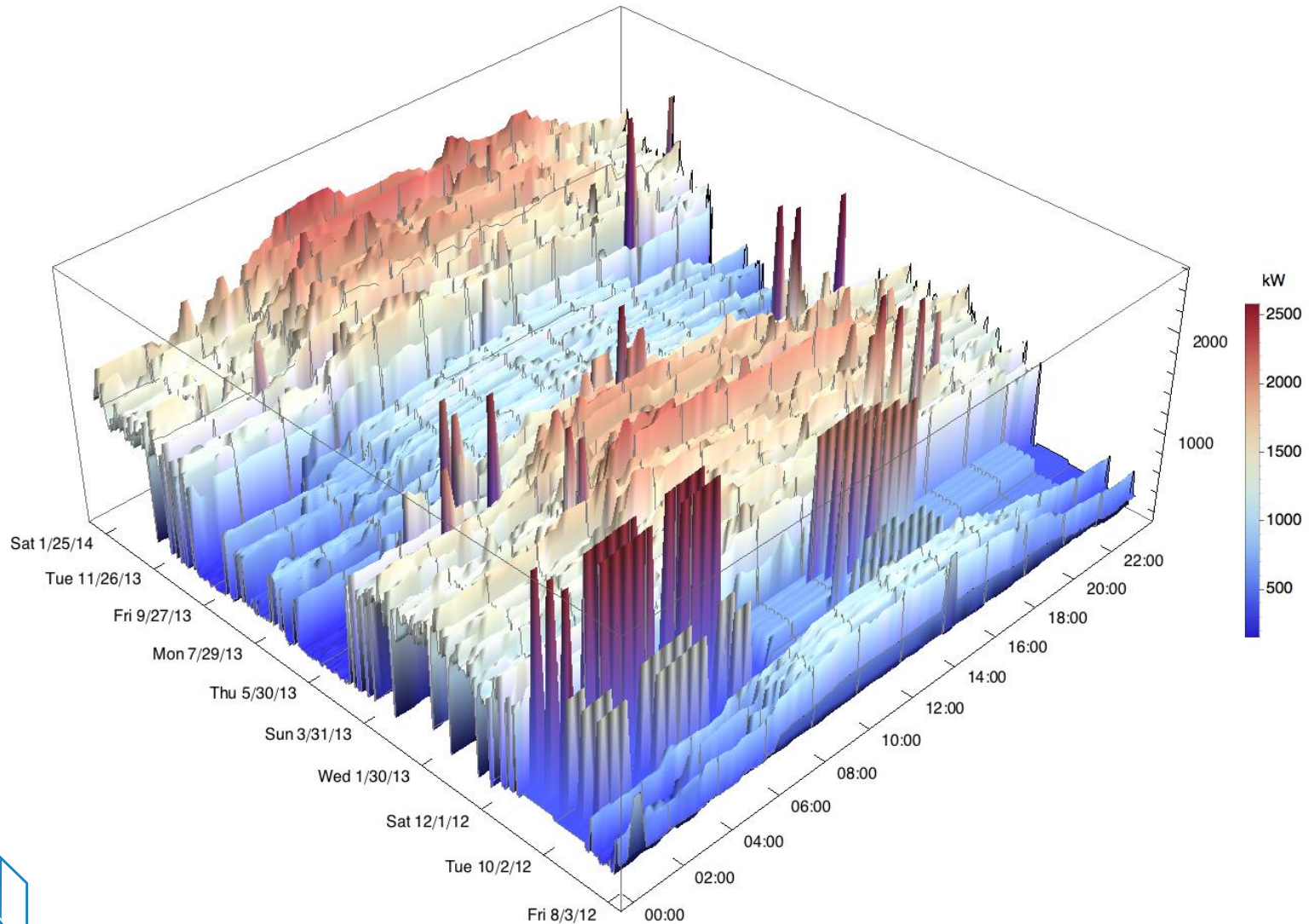
Improper Scheduling



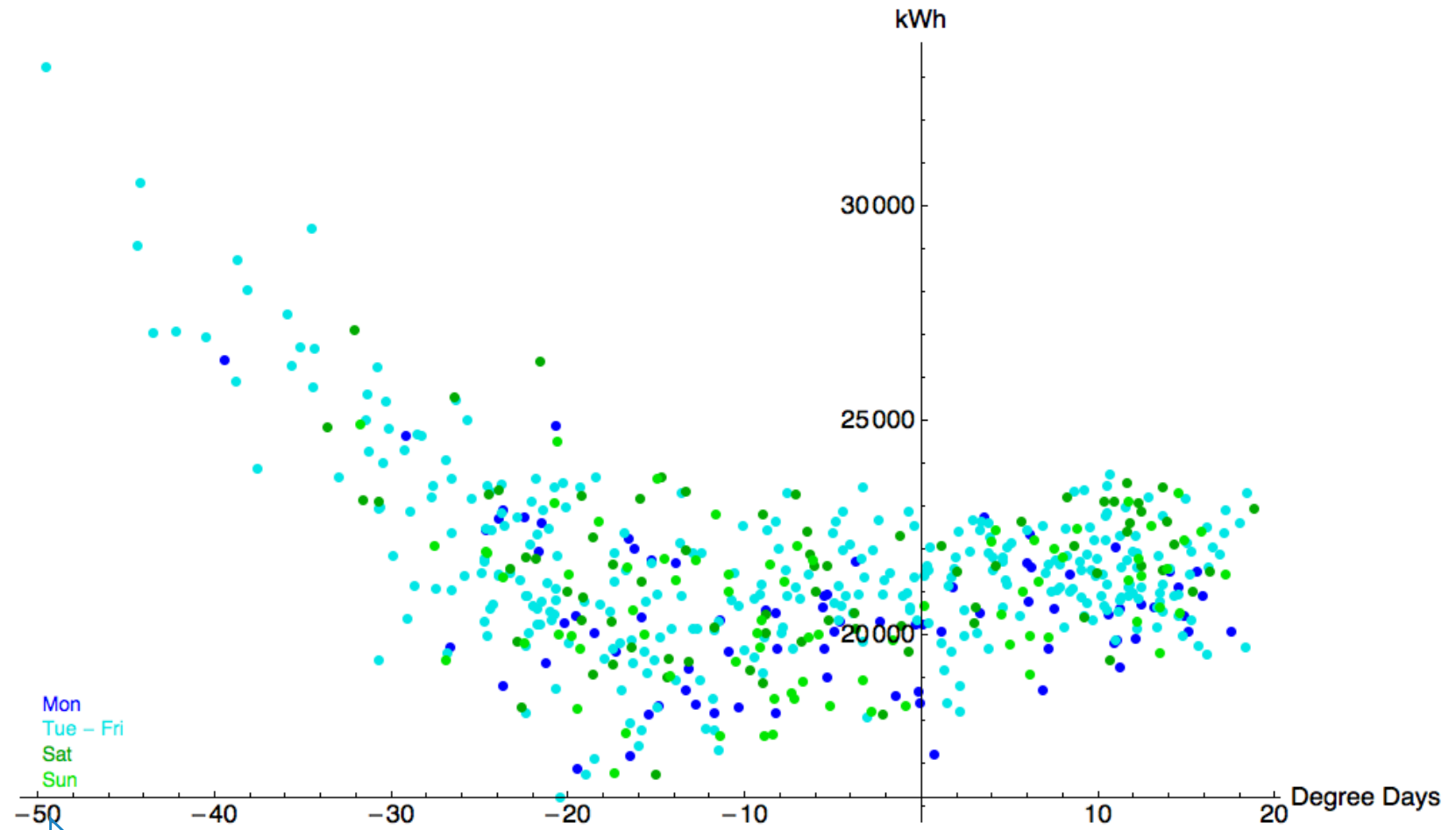
No Re-Commissioning After Retrofit (Office Building)



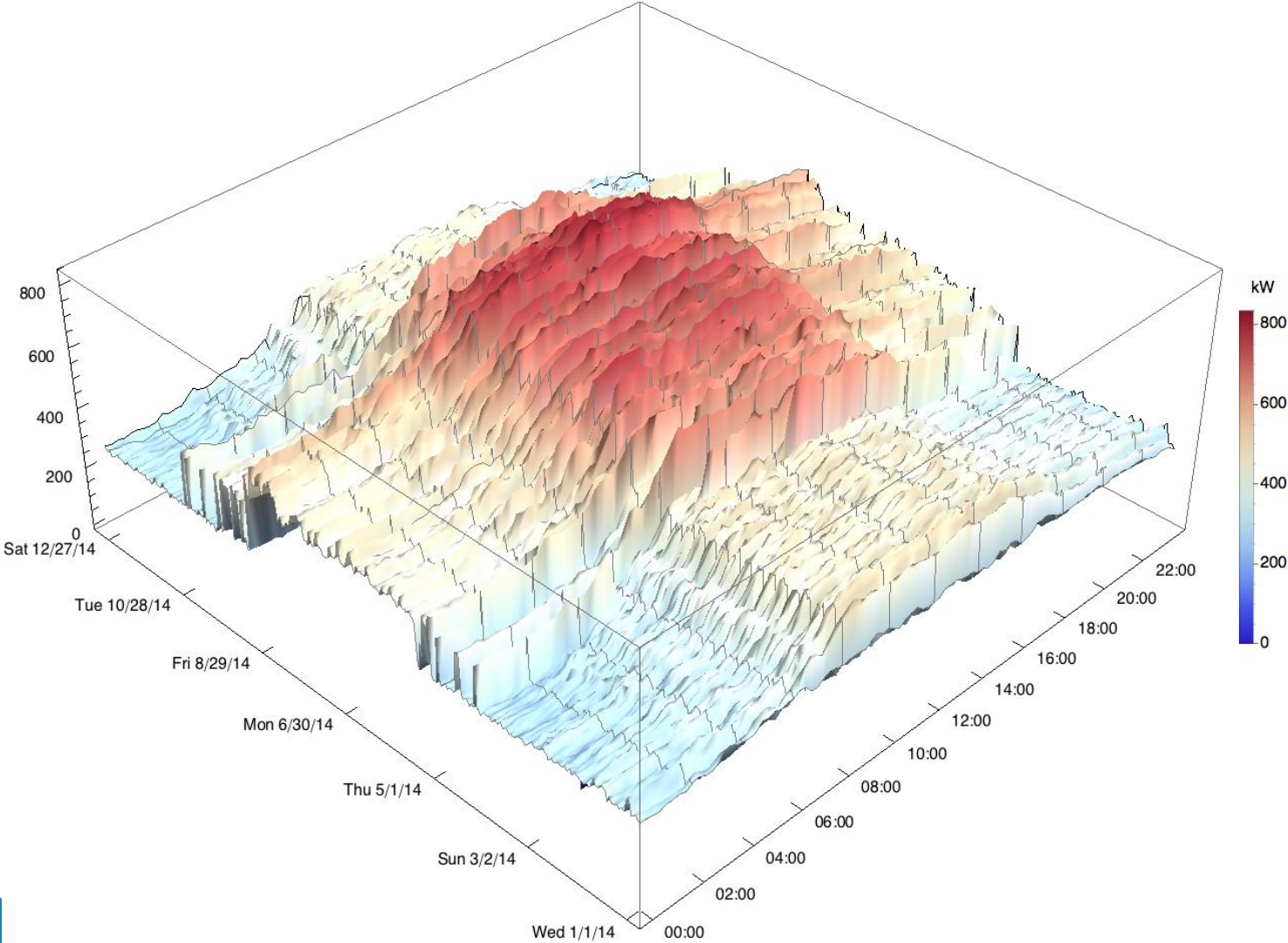
Major Heating and Cooling Control Issues



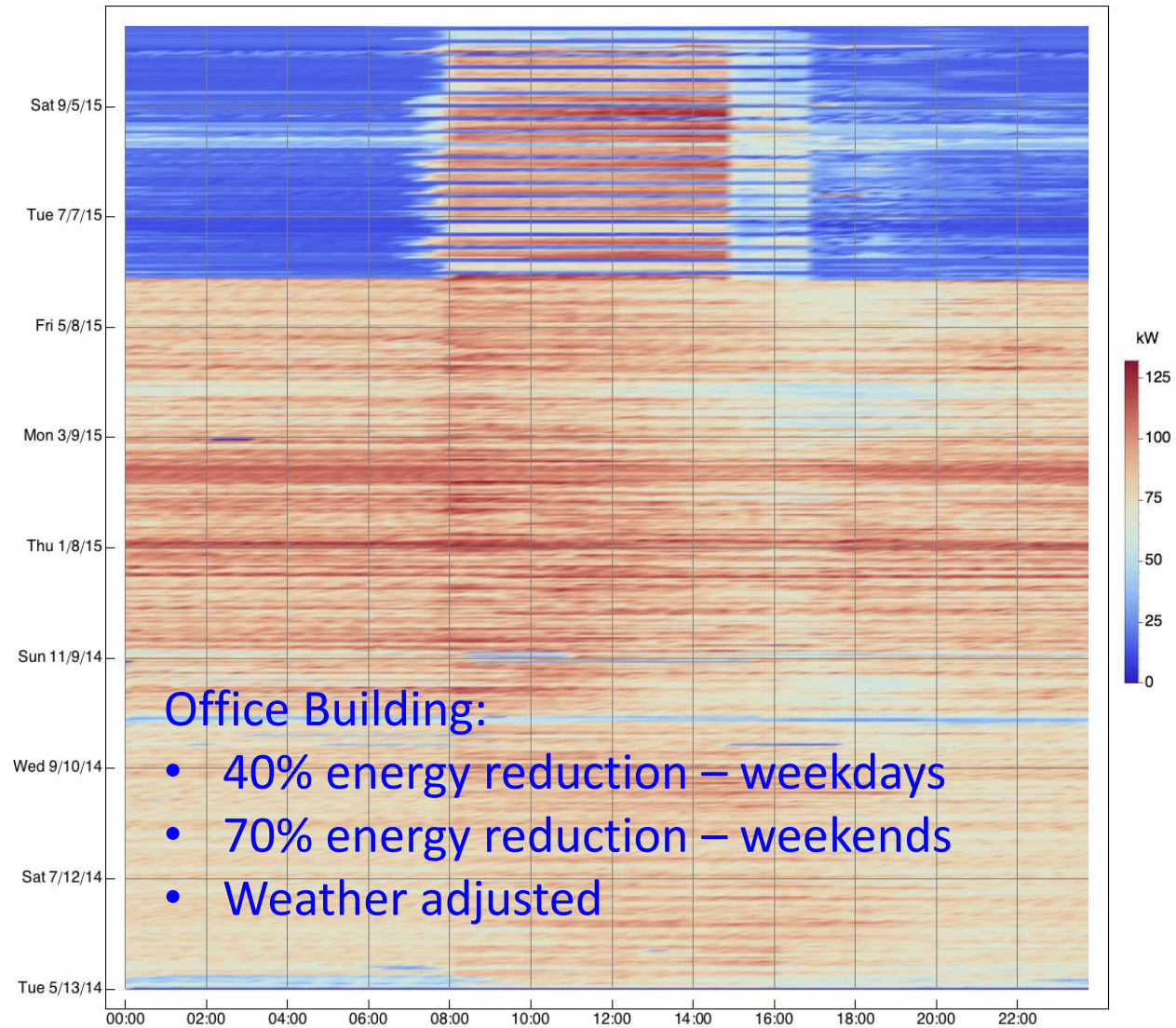
Cooling System Running at Constant Level



Sub-Optimal Setback Strategy



The Value of a Building Control System



What Energy Analytics Can Do?

- Detect operational and behavioral issues
- Detect controls problems
- Optimize building performance
- Effectively leverage the facility team's physical knowledge with Analytics
- Direct third party (e.g. controls) vendors to the issues
- Effectively re-commission
- Perform "What If" analysis on lighting, controls and equipment upgrades
- Conduct transparent M&V
- More effectively deploy building capital after FIRST tuning and optimizing the building's performance
- Prioritize portfolio of buildings by opportunity

- Achieve 10-25% annual savings with little or no capital spend

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AGILISENERGY
ANALYTICS & SOLUTIONS

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