

# Data Powered Energy Efficiency, Engagement and Demand Response

February 19, 2019

# Agenda

- Overview of Tendril
- The Power of a Platform
- Customer Journey
- Demand Response and EE

# The Tendril Team



Manny Ramos

Business  
Development



Emilie Stone

Product  
Management



Adam Greenwade

Solutions Marketing



# Tendril Snapshot

## COMPANY

Customer Experience  
& DSM Analytics  
Platform

## MISSION

We are building a smarter market for energy  
products & services.

## ENERGY PROVIDERS



Own The  
Customer



Optimize  
Assets



Grow  
Revenue

## CAPABILITIES



Computer  
Science



Behavioral  
Science



Energy  
Science



Data  
Science

## CUSTOMERS



Regulated  
Utilities



Competitive  
Retailers



# Our Clients

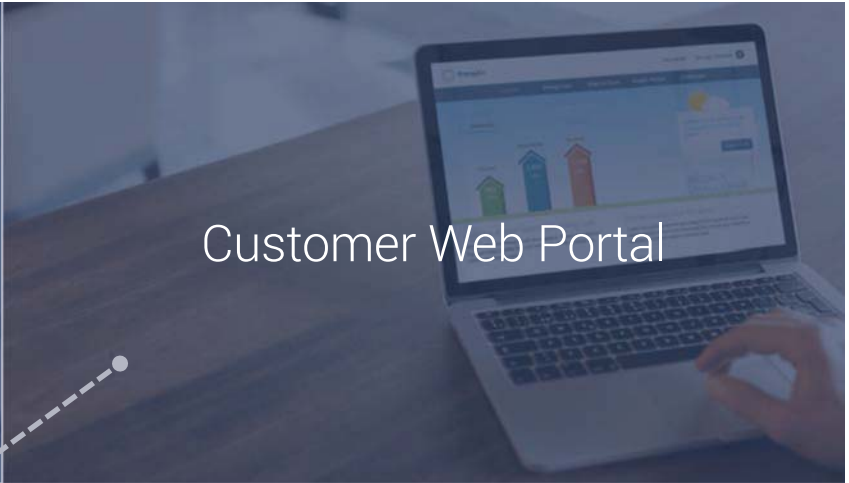
			
			
			
			
			



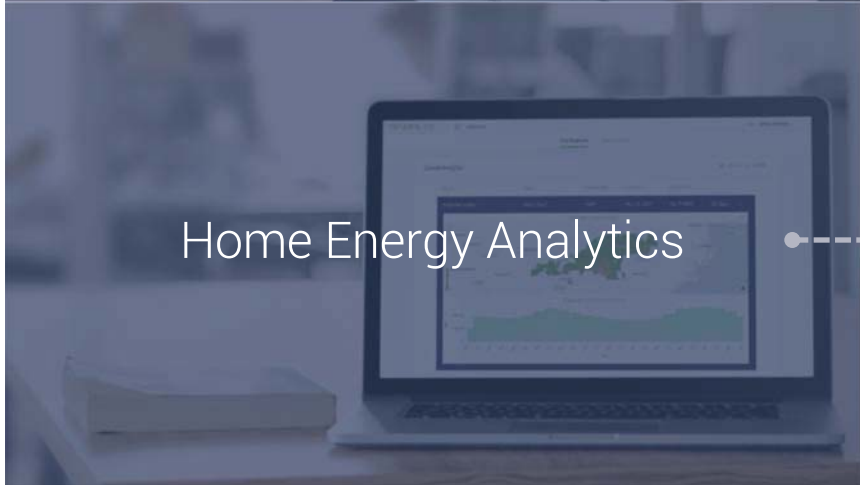
Home Energy Reports



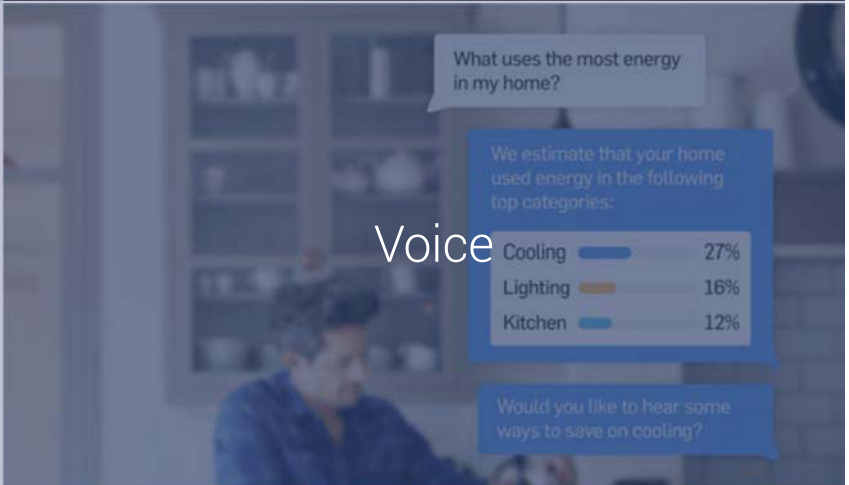
Orchestrated Energy



Customer Web Portal



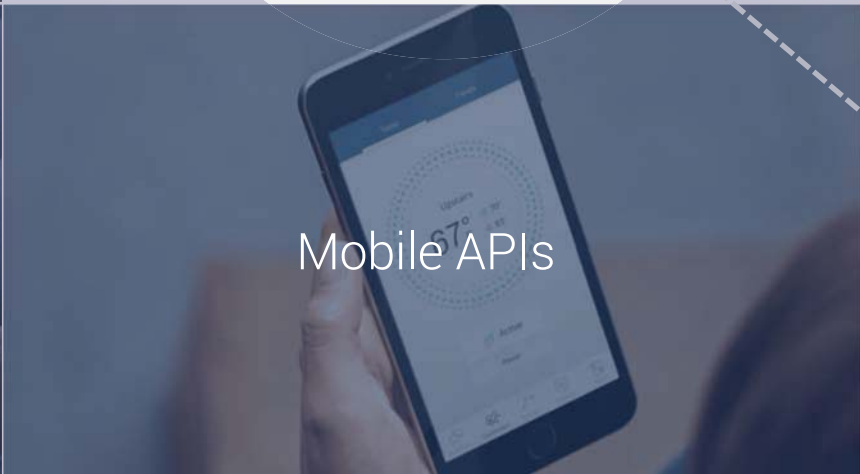
Home Energy Analytics



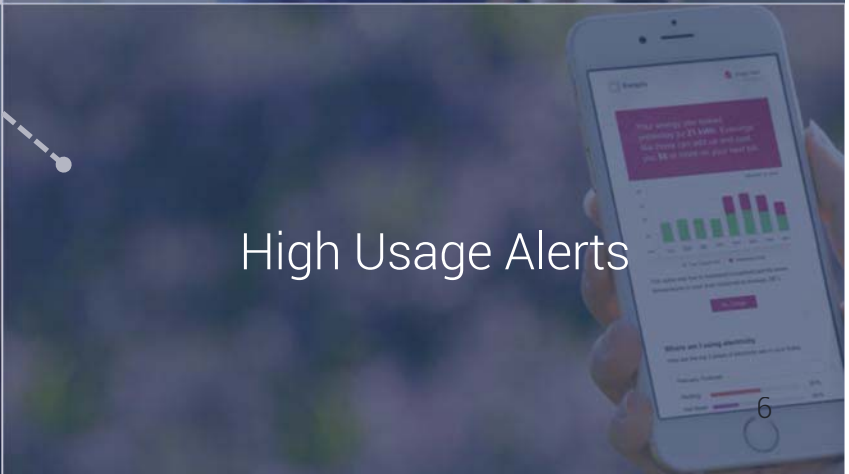
Voice



Online Energy Audits



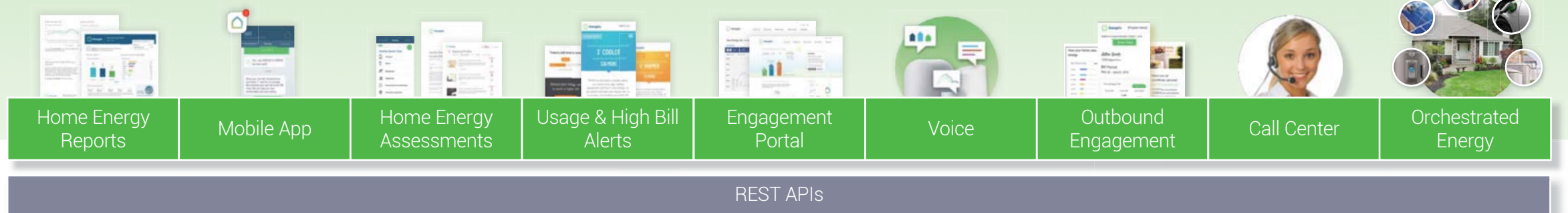
Mobile APIs



High Usage Alerts

# Tendril Platform – *Open, State-of-the-Art, Scalable Cloud Platform*

Touch Points *A Personalized, Engaging, & Connected Customer Experience*



Energy Intelligence *Proprietary Algorithms that Develop Deep Insights*

Behavioral & Building Science <i>Target &amp; Personalize Each Interaction</i>		Device Control <i>Control In-Home Devices Like: Thermostats, Water Heaters &amp; Batteries</i>	
Propensity Modeling	Personalization	Device Orchestration	Device Health Detection
Micro-Targeting	Consumption Normalization	Device Modeling	Comfort IQ
Usage Prediction	AMI & AMR Usage Analytics	Thermal Modeling	
True Home Physics Models			

Data Hub *300+ Data Attributes on Each Home & Primary Occupants for 140 Million Homes*

Premise	Weather	Demographic	Behavioral	Conversion	Consumption	Device Usage
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# Capabilities are Growing

More info here



Income Qualified Households

AMI Daily Load Profiles

Household-Level EE Savings

EV Detection

Heat Type Detection

Water Heating Type Detection

Disaggregated End Use Detail

Household TOU Rate Impact Model

Renter vs. Owner Insights

Appliance Health and Maintenance



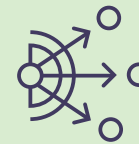


What does this all mean? Energy savings while improving customer experience and satisfaction, reducing operational costs, uplifting other programs...

## ENERGY PROVIDERS



Own The Customer

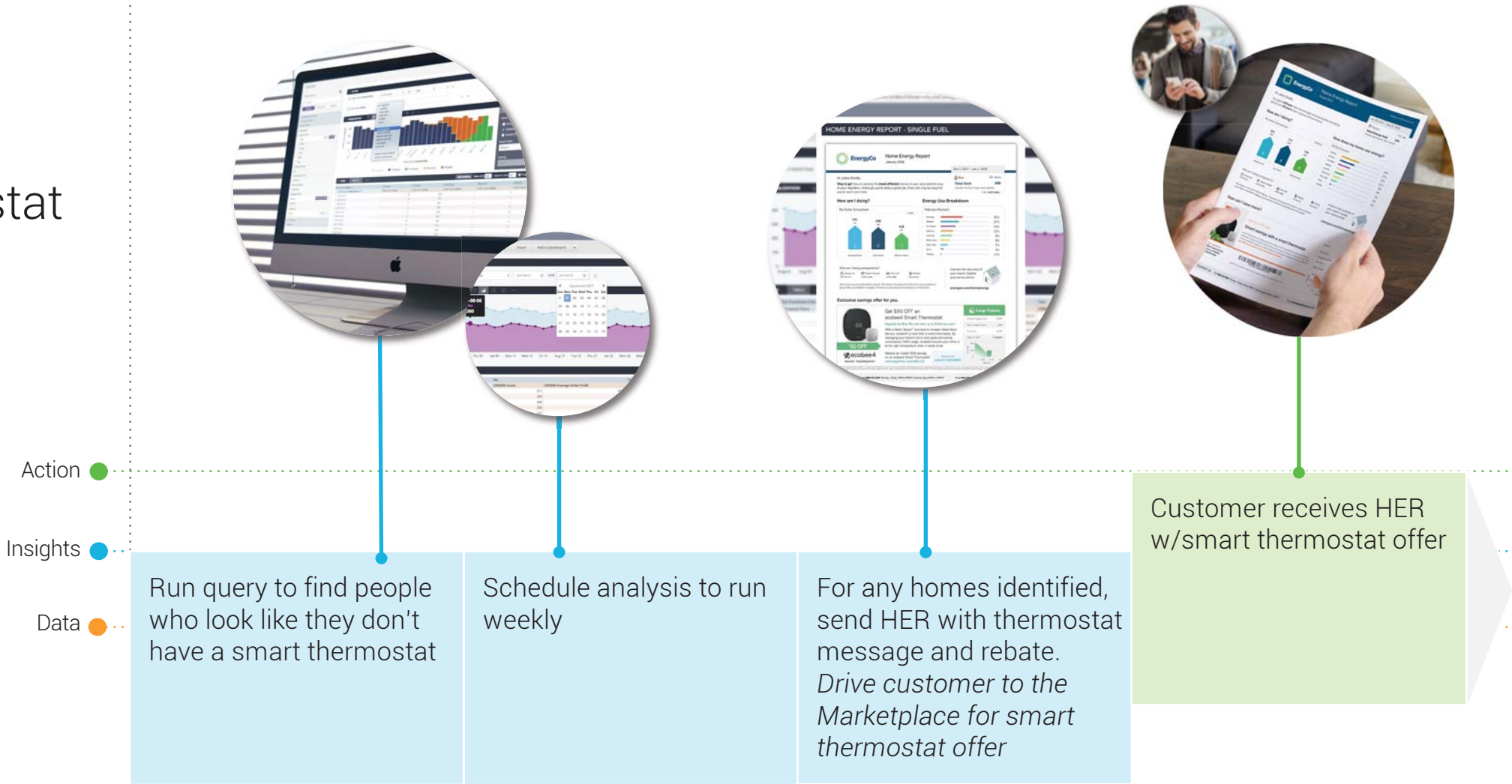


Optimize Assets



Grow Revenue

# Example Smart Thermostat Promotion





Customer follows offer to the Marketplace and transacts

Smart thermostat purchase transaction data used to update customer's Home Profile

System identifies customer is now good candidate for OE and sends eHER with OE Offer

Customer enrolls in Orchestrated Energy

# Orchestrated Energy



INTRODUCTION

Orchestrated  
Energy  
Performance  
Principles

Comfort & User Experience

We put the customer experience first.



Optimization

We always get the right answer.



Dispatchable

Day-ahead schedule and real-time dispatch.



Aggregate

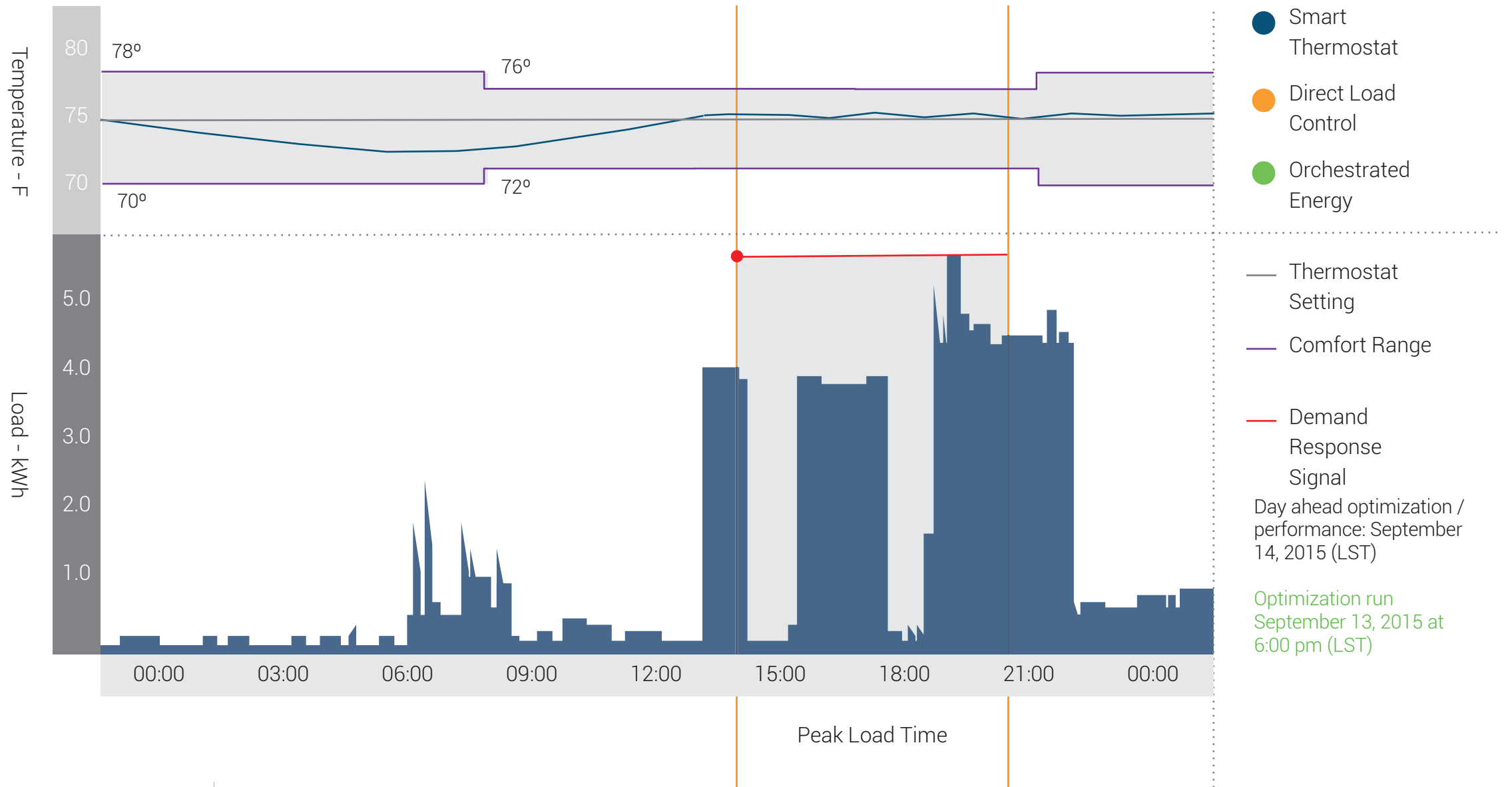
Whole home, whole grid optimization.



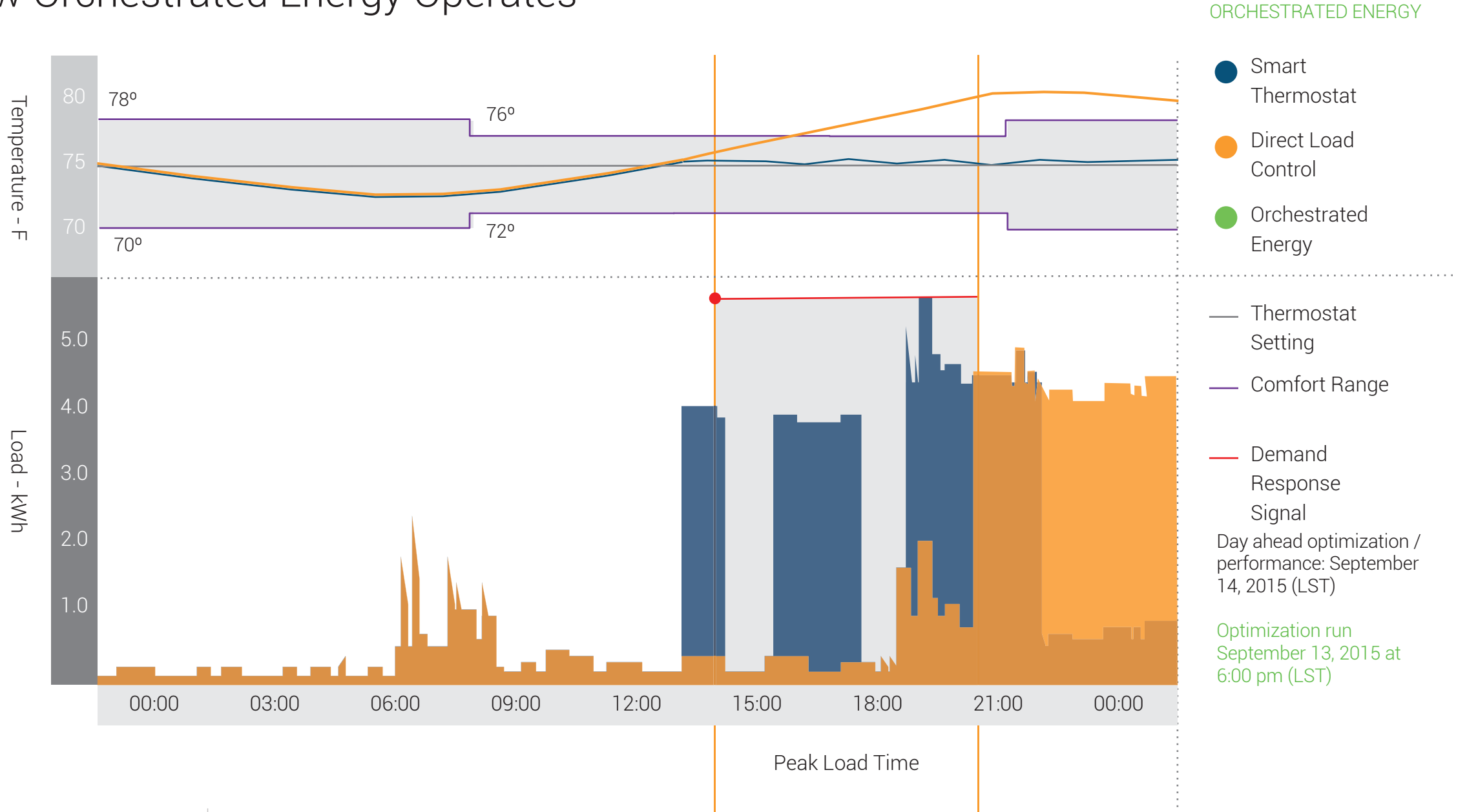
# How Orchestrated Energy Operates



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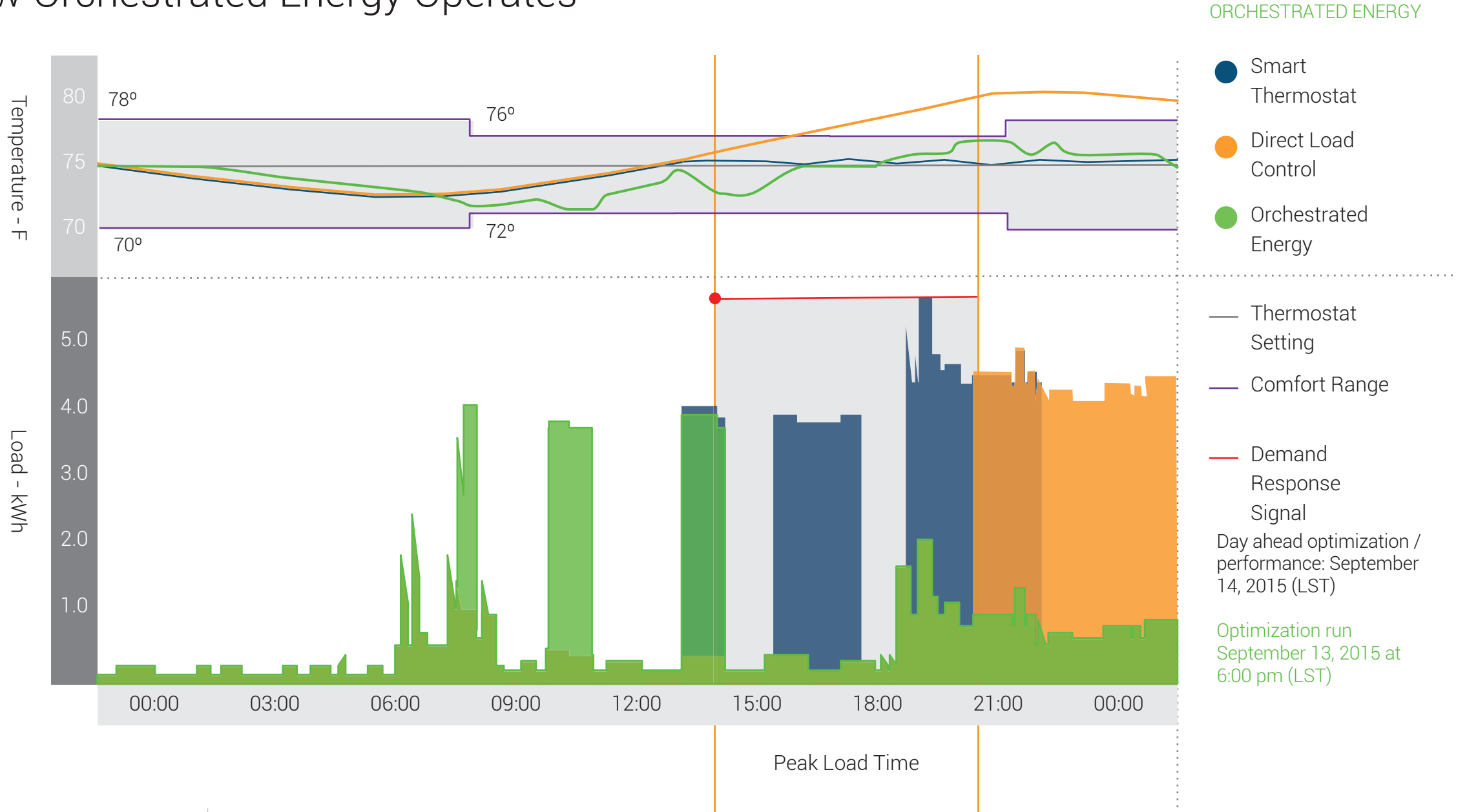


# How Orchestrated Energy Operates





# How Orchestrated Energy Operates



## Data & Control

### OEM & Aggregator Programs



- User can opt-in to programs from device or thermostat app
- OEM moves customer into participation group and handles messaging in month-end report
- Utility receives aggregate load shift or load reduction
  - No tie to customer account

### Orchestrated Energy



- User must authorize thermostat from third party site (requires credentials)
- OEM provides Tendril access token
  - Data: setpoints, schedules, sensors, runtime
  - Control: change setpoints,
- Tendril can attribute individual performance to utility account and provide to utilities

# What Oauth + Orchestrated Energy Does

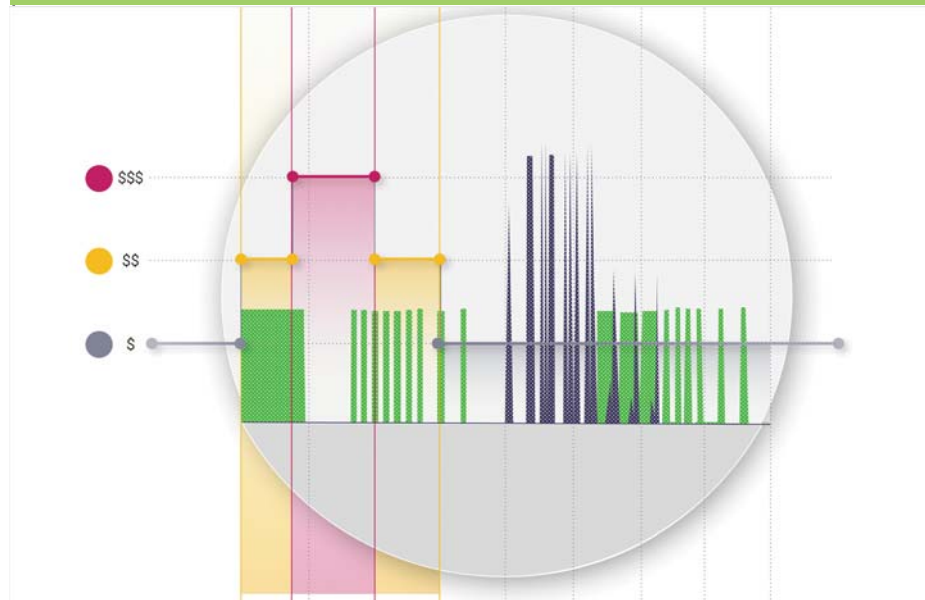
Energy Efficiency



Demand Response



TOU + Optional Demand



Co-optimization

