



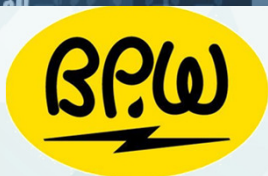
BizConnect

The BizConnect online portal for
Commercial & Industrial Energy & Water
customers

Introduction



- ▶ BizConnect online portal
- ▶ Serves utilities' Key Accounts
 - Commercial
 - Industrial
 - Institutional
 - Agricultural



HARRIS
UTILITIES

SMARTWORKS

Agenda

- ▶ Introduction
- ▶ Why BizConnect?
- ▶ Commonly Used Functions
- ▶ Frequently Asked Questions
- ▶ Q&A



HARRIS
UTILITIES

SMARTWORKS

BizConnect Introduction

- ▶ Enables deeper analysis
 - ▶ For more complex customers with more extensive data needs
- ▶ Inherent design for organizations with
 - ▶ Multiple locations with multiple personnel managing consumption
- ▶ User- Enhanced Content
 - ▶ Naming meters, Grouping meters, Virtual meters
 - ▶ User markers with notes, user-configured KPIs
- ▶ Mobile Ready



HARRIS
UTILITIES

SMARTWORKS

SmartWorks Introduction

- ▶ Tim Berson
 - ▶ Director of Products & Research
- ▶ Terence Newcombe
 - ▶ Sales Account Manager



HARRIS
UTILITIES

SMARTWORKS

Agenda

- ▶ Introduction
- ▶ Why BizConnect?
- ▶ Commonly Used Functions
- ▶ Frequently Asked Questions
- ▶ Q&A



HARRIS
UTILITIES

SMARTWORKS

Why BizConnect?

Make life easier for Key Accounts with various tools

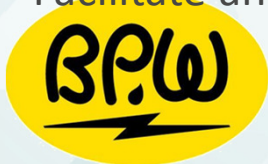
- Understand their usage patterns
- Manage their costs
- Benchmark their operations
- Access up-to-date data, on demand

Make life easier for Key Account Managers

- Seamless online experience with single sign-on and utility defined branding.
- Reduce the burden on your Key Account Managers
- Eliminate the need to create and distribute manual spreadsheets to end customers

Improve collaboration between the Utility and it's Key Accounts

- Increase customer satisfaction
- Improve demand management
- Facilitate and evaluate effectiveness of conservation initiatives



SMARTWORKS

Agenda

- ▶ Introduction
- ▶ Why BizConnect?
- ▶ **Commonly Used Functions**
- ▶ Frequently Asked Questions
- ▶ Q&A



HARRIS
UTILITIES

SMARTWORKS

Intuitive and configurable

Meters can be named to make them easily recognizable to users of the solution

Reports can be fully customized, saved, added to their dashboard.

End users can configure their dashboards to meet their specific requirements.

Drill-downs available from Dashboard to detail level reports

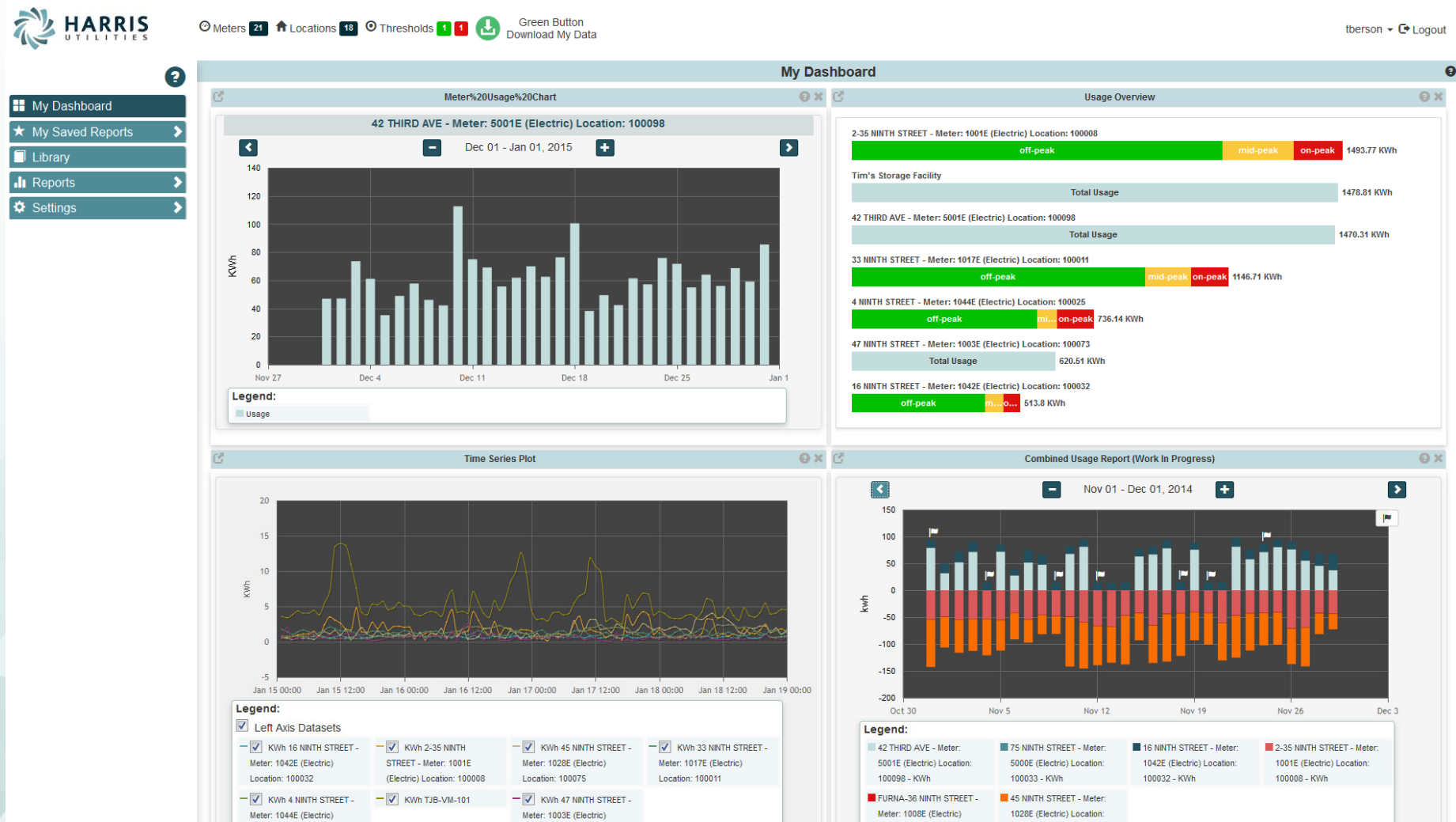
Configurable KPIs to quickly view relevant information



HARRIS
UTILITIES

SMARTWORKS

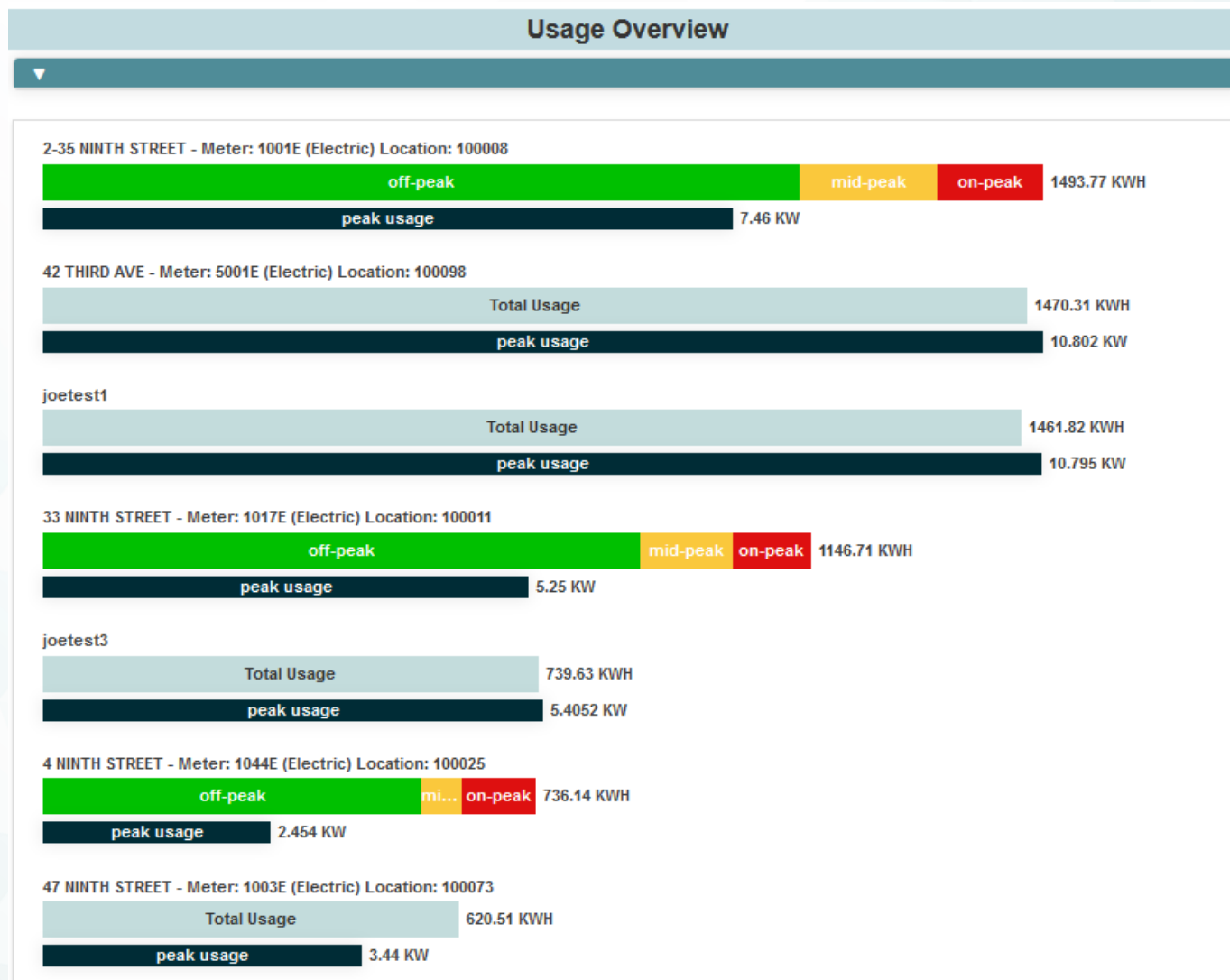
Home Page / Dashboard



HARRIS
UTILITIES

SMARTWORKS

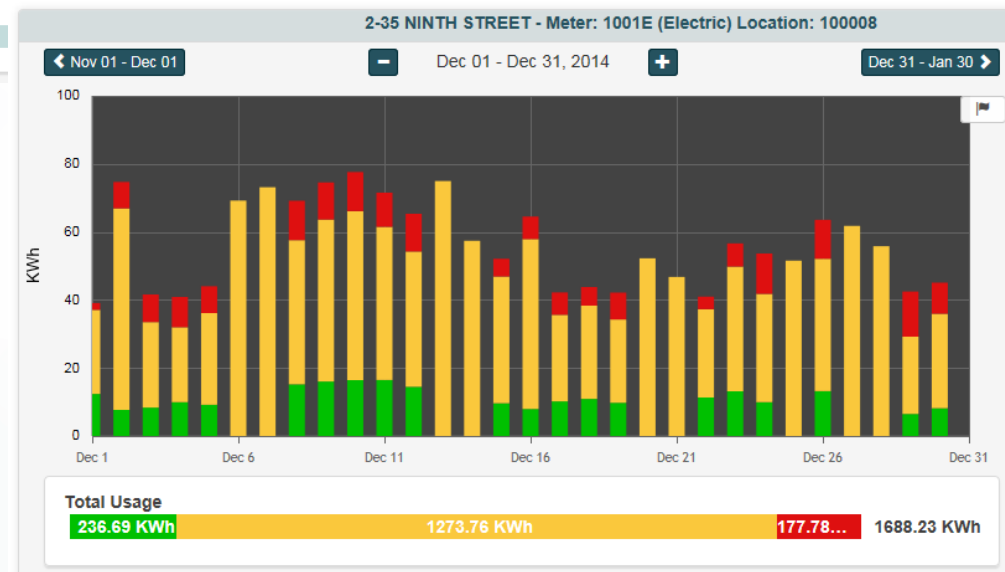
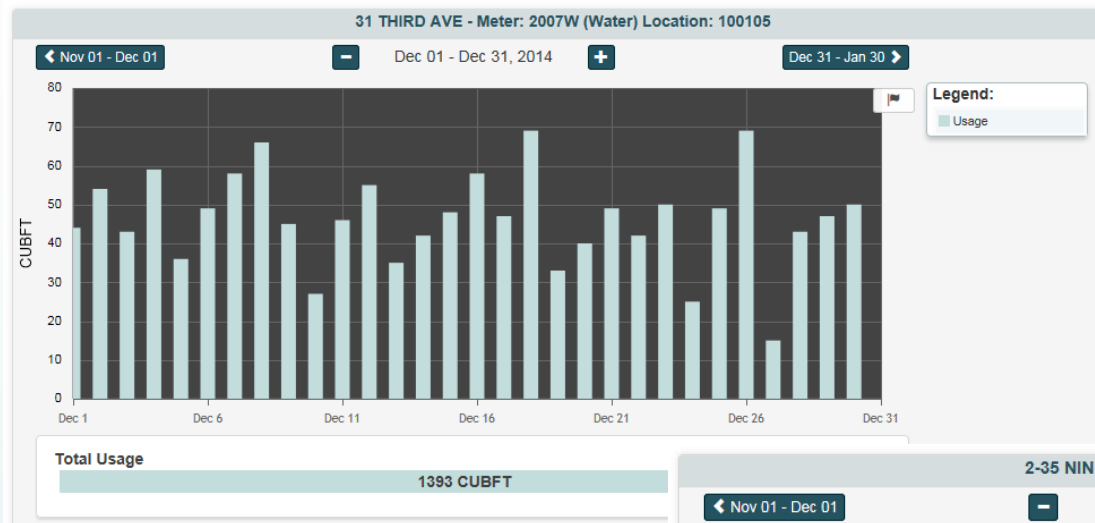
Usage Overview – compare multiple meters



HARRIS
UTILITIES

SMARTWORKS

Meter Usage – single meter over a date range



HARRIS
UTILITIES

SMARTWORKS

Useful and Configurable KPIs

This KPI presents the percentage of usage during specific times of the day for a meter.

* Meter Id

* Meter Channel

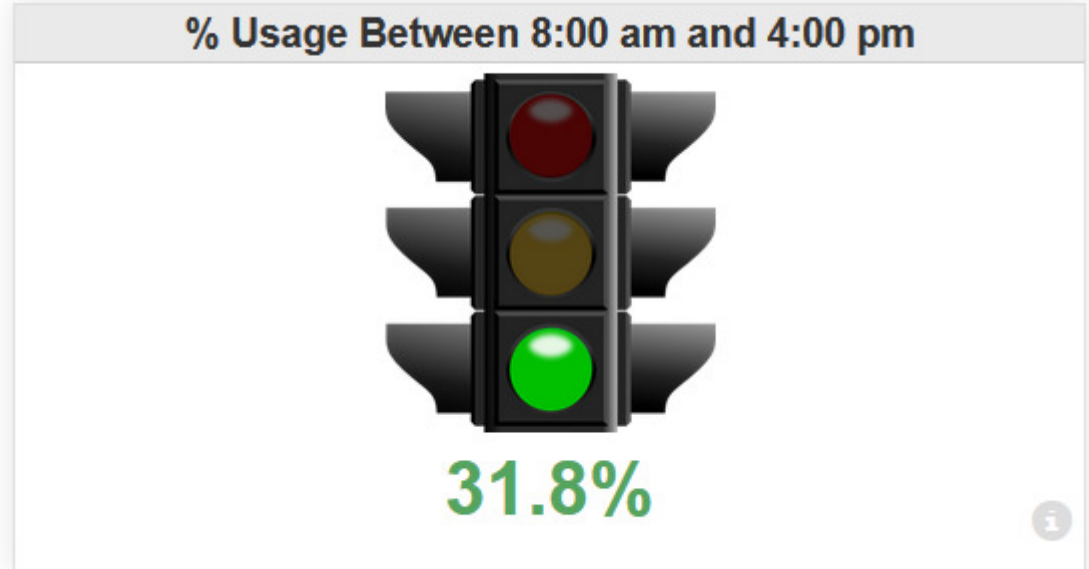
* Time Period

* Start Time

* End Time

☒ Days of the Week

Sunday
Monday
Tuesday
Wednesday
Thursday
Friday



HARRIS
UTILITIES

SMARTWORKS

Demand / Coincident Demand Management

Understand demand and identify opportunities to shift / reduce overall demand

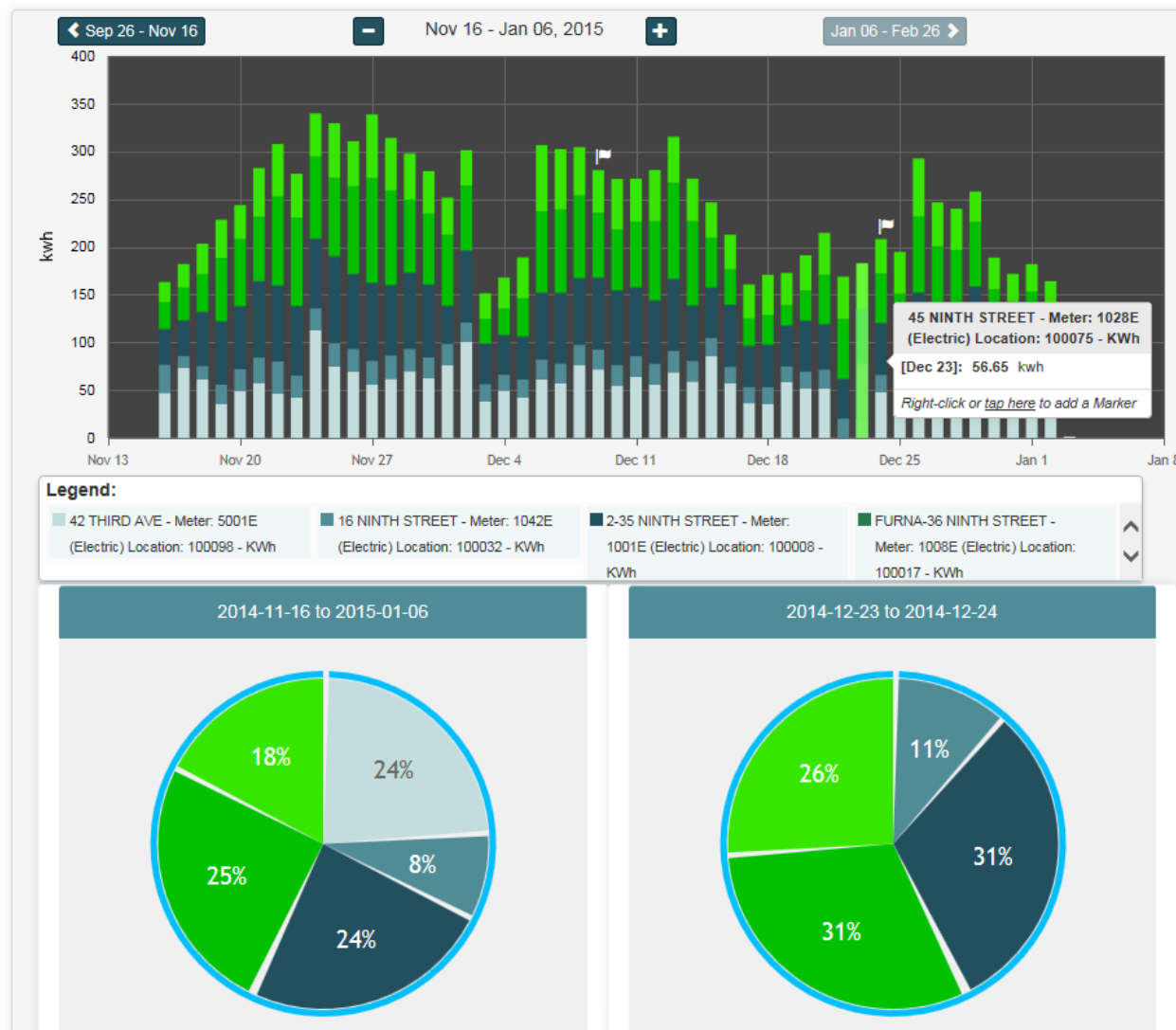
For coincident demand customers, understand the contributors to peak demand



HARRIS
UTILITIES

SMARTWORKS

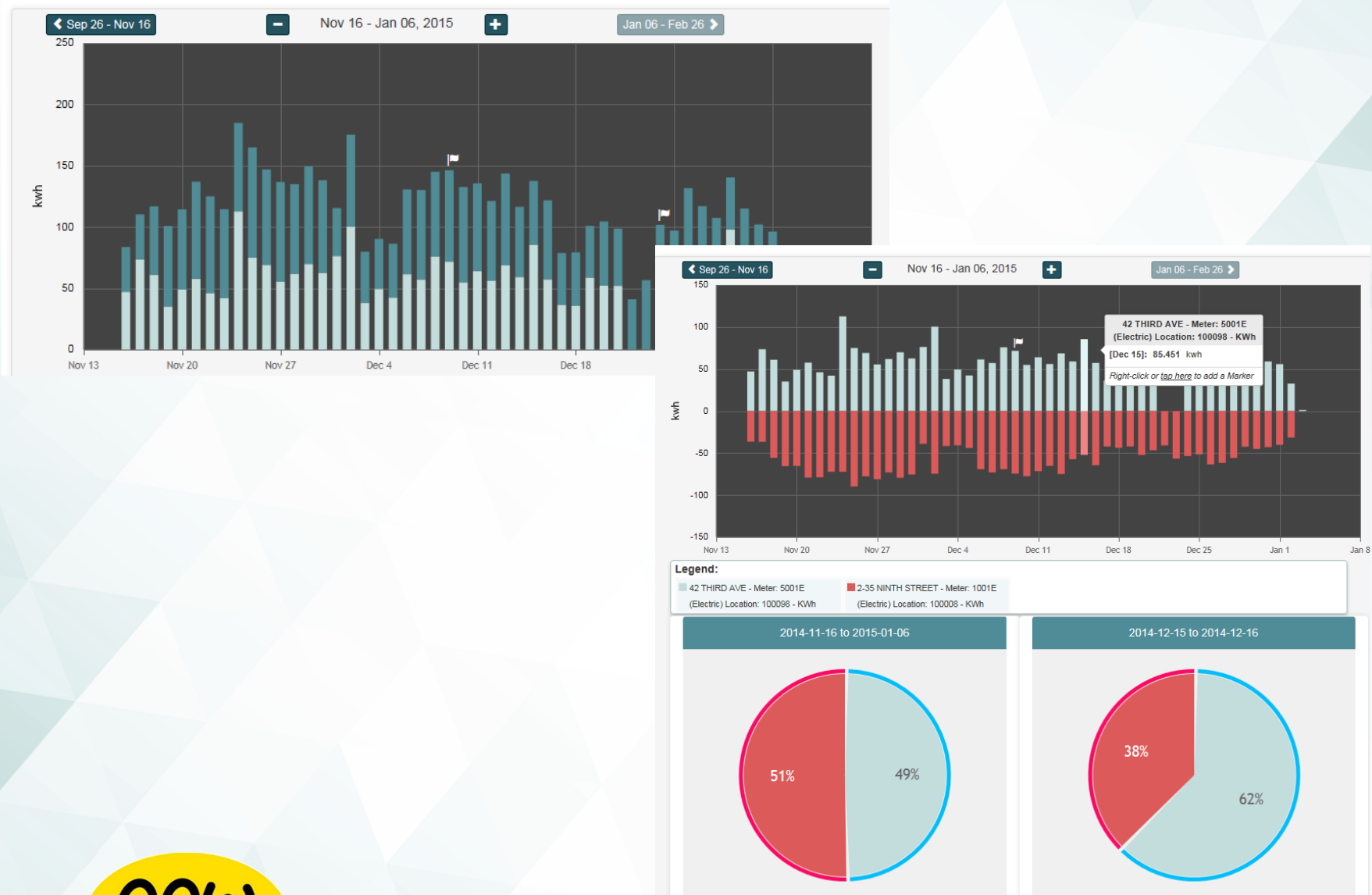
Consumption View – multiple meters over a date range



HARRIS
UTILITIES

SMARTWORKS

Consumption View – Net and Deduct Meters



HARRIS
UTILITIES

SMARTWORKS

Plot Load Profile and other data for Multiple Premises

- ▶ Overlay multiple data series
- ▶ Identify instances where there are highly correlated load profiles
- ▶ Are any of these loads shiftable? E.g. night shift, staged equipment commissioning, etc.
- ▶ Have total flexibility in terms of data that can be overlaid, correlated, and exported

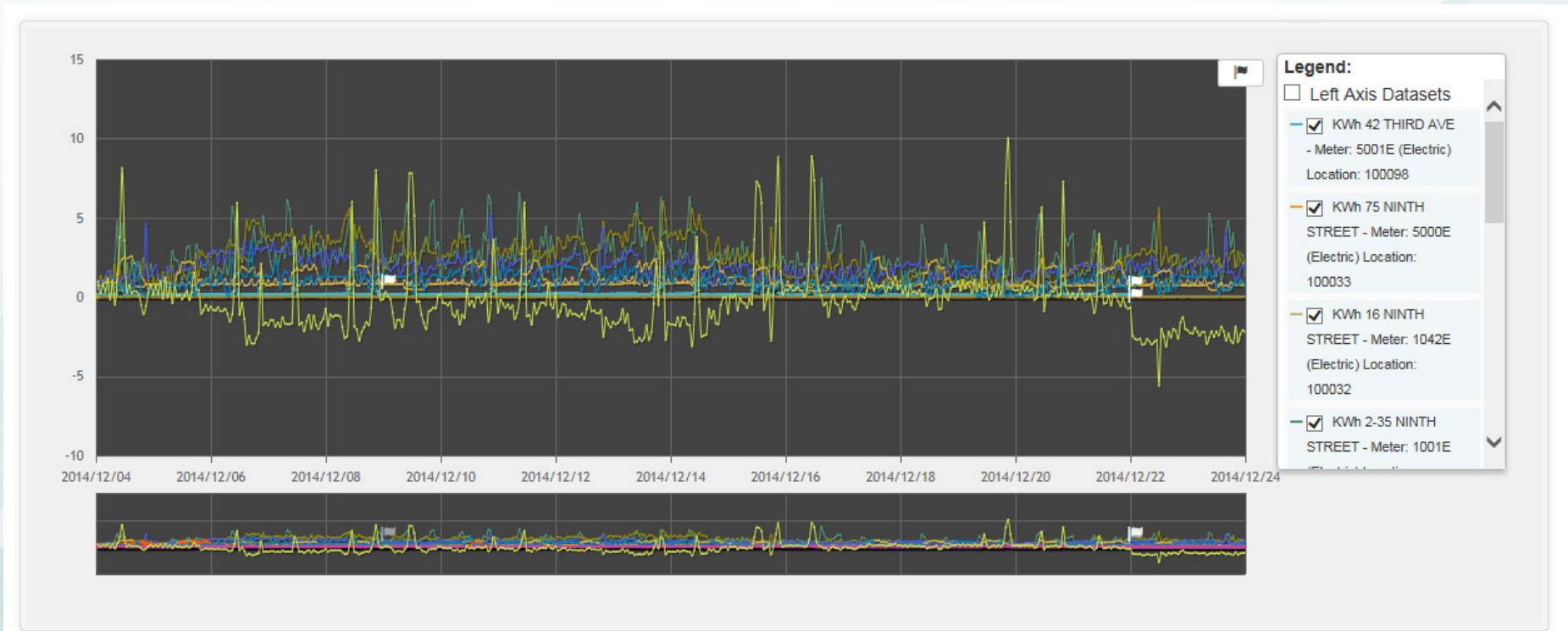


HARRIS
UTILITIES

SMARTWORKS

Profile View – Compare Meters

- ▶ Overlay the profiles for multiple meters



HARRIS
UTILITIES

SMARTWORKS

Facilities Management

Perform Comparisons of usage on like days to identify anomalies or inconsistencies

Evaluate consumption for time periods month of month or year over year (provided data is available)

Export this data as CSV or PDF

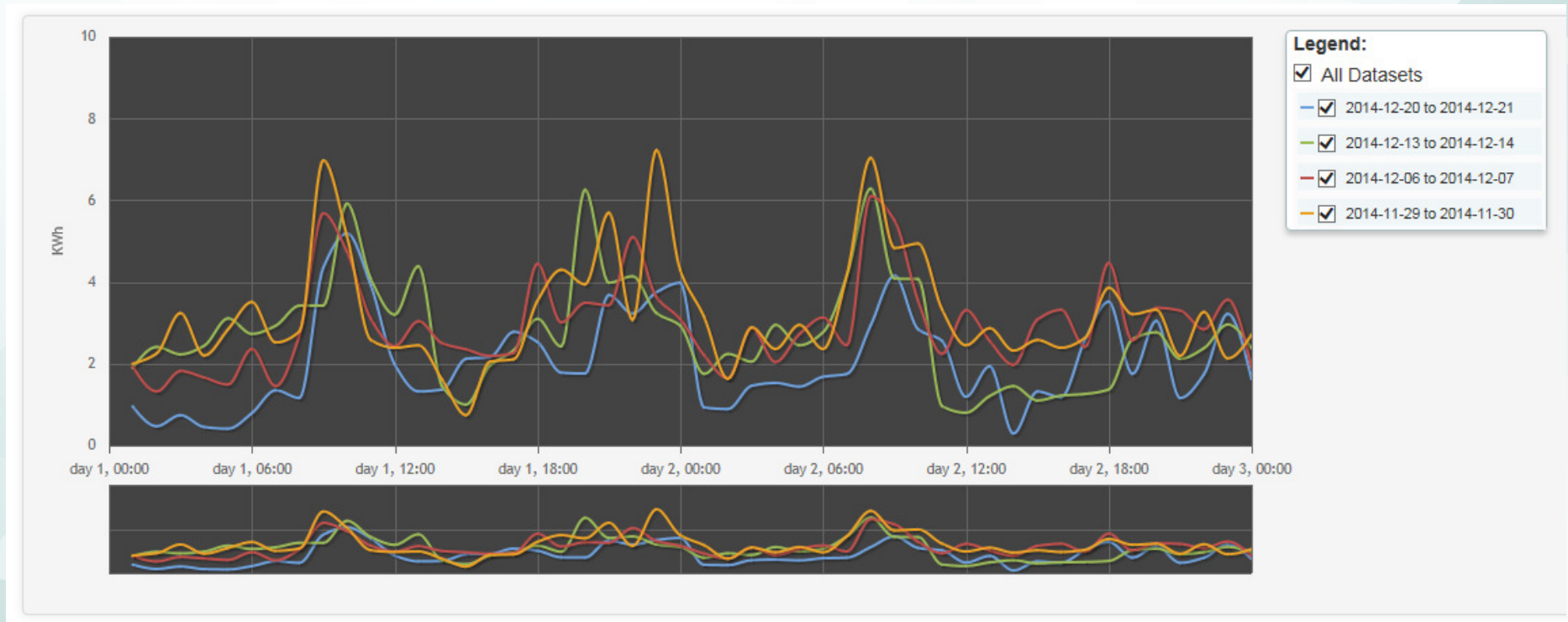


HARRIS
UTILITIES

SMARTWORKS

Profile View – Compare Dates

- ▶ Overlay multiple times for a single meter



SMARTWORKS

Threshold Notifications

Fully configurable usage thresholds to manage energy or water budgets

Manage thresholds for various time periods and criteria

Flexible notification options, including blackout periods and multiple recipients

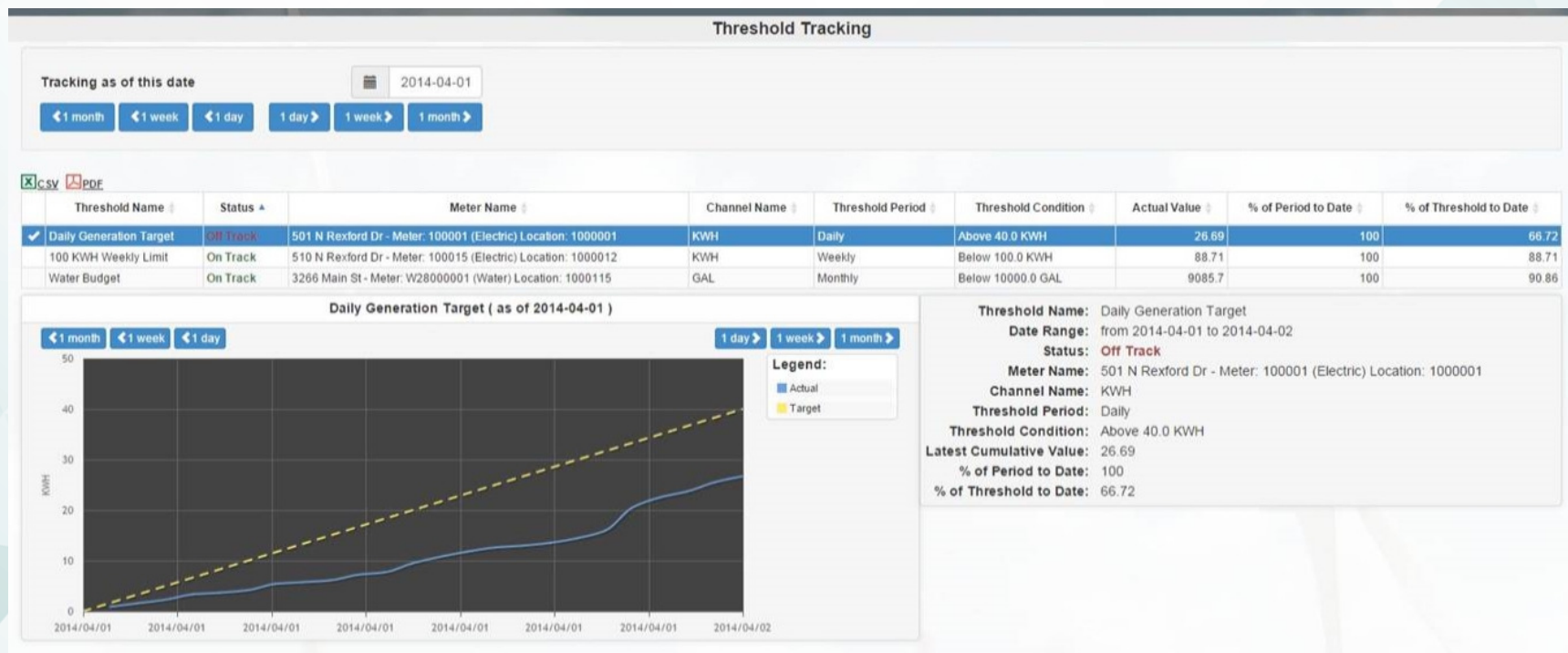


HARRIS
UTILITIES

SMARTWORKS

Threshold Monitoring

- ▶ Continually track progress above or below defined thresholds
- ▶ Check graph of progress for any given threshold

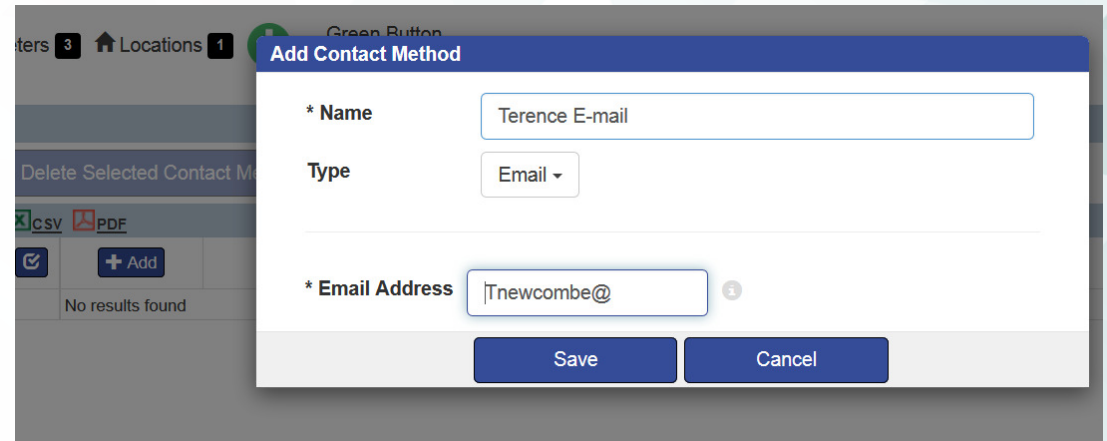


HARRIS
UTILITIES

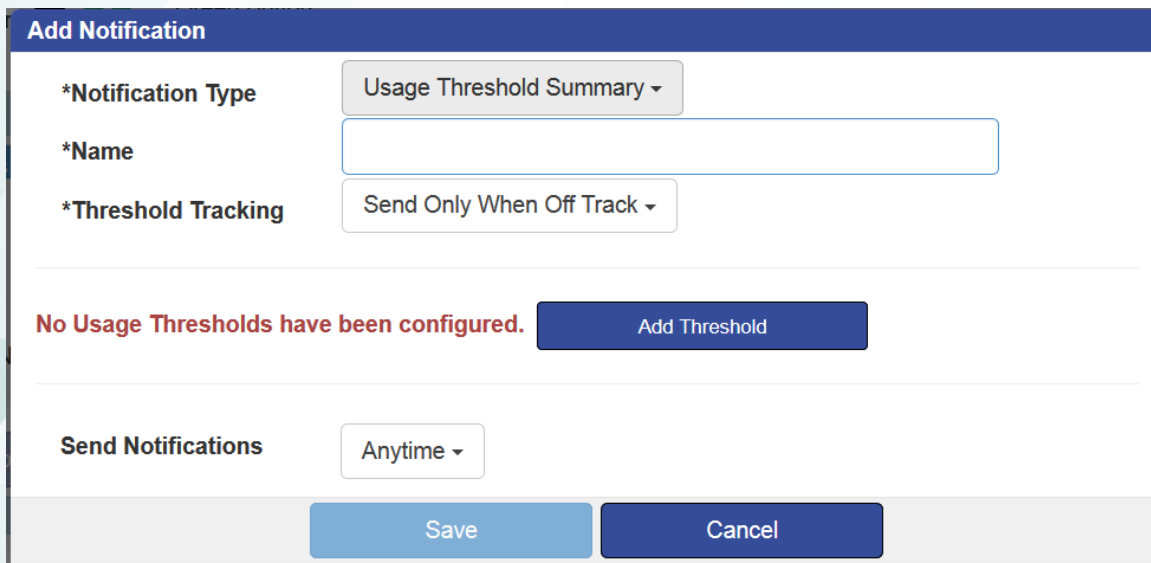
SMARTWORKS

Notification Setup - Email

- ▶ Configure email
- ▶ Add notification(s)



The screenshot shows a modal dialog titled "Add Contact Method". It has two main input fields: "* Name" with the value "Terence E-mail" and "Type" set to "Email". Below these is the "* Email Address" field with the value "Tnewcombe@". At the bottom are "Save" and "Cancel" buttons. The background shows a blurred view of the main application interface with tabs for "Locations" and "Green Button".



The screenshot shows a modal dialog titled "Add Notification". It contains the following fields: "*Notification Type" set to "Usage Threshold Summary", "*Name" (empty), and "*Threshold Tracking" set to "Send Only When Off Track". Below these fields is a red message: "No Usage Thresholds have been configured." with an "Add Threshold" button. At the bottom, there is a "Send Notifications" field set to "Anytime" and "Save" and "Cancel" buttons.



SMARTWORKS

Demand Notifications

- ▶ Set up through notification menu
- ▶ Need to consider interval length (15 minutes)
- ▶ Decide what the maximum (or minimum) value is

The screenshot shows the 'Add Notification' form in the Harris SmartWorks system. The form is titled 'Add Notification' and contains the following fields and options:

- *Notification Type:** Interval Threshold (dropdown)
- *Name:** Max Demand Notification - 800 kW (text input)
- *Threshold Details:**
 - *Meter:** 350029 (text input with a search icon and a dropdown arrow)
 - *Target:** Below (dropdown), 200 (text input), KWH (dropdown), per 15 min interval (text)
- *Contact Methods:** (dropdown with a plus icon)
- Send Notifications:** During Specific Times (dropdown)
- Only On These Days:** MON, TUE, WED, THU, FRI, SAT, SUN (checkboxes), All, M - F, S - S, None (radio buttons)
- Between These Times:** (two time input fields, each with a clock icon and a dropdown arrow)
- Buttons:** Save, Cancel



Cost Management

Cost Calculations

- Calculate estimated bill
- Examine and evaluate alternative rate structures
- Aggregate bills from multiple meters / locations / services
- Calculate prorated costs for partial billing periods



HARRIS
UTILITIES

SMARTWORKS

Cost Reporting

Cost Calculation

Start Date

End Date

Billing Periods
▼

Specify one or more combinations of Meters and Rate Plans

Meter

Rate Plan

Line Item Name	Channel Name	Quantity	Charge Amount	Tax Amount	Total Amount
Flat Charge	KWH	1	\$25.00	\$3.25	\$28.25
Tier 1 Consumption	KWH	1000	\$150.00	\$19.50	\$169.50
Tier 2 Consumption	KWH	494.3	\$123.57	\$16.06	\$139.63
Off-peak Consumption	KWH	26.12	\$0.52	\$0.01	\$0.53
Rolling 60/15 Demand	KWH	3.71	\$4.45	\$0.06	\$4.51
Spot Price	KWH	149.43	\$2.72	\$0.04	\$2.76
				\$38.92	\$345.18

Line Item Details


Meter Id: 100015
Rate Plan Id: TEST
Line Item Name: Tier 1 Consumption
Channel Name: KWH
Quantity: 1000 KWH
Charge Amount: \$150.00
Multiplier: 10
Tax Rate: 13%
Rate: \$0.15 / KWH
Tier Start: 0 KWH
Tier End: 1000 KWH
Tax Amount: \$19.50
Total Amount: \$169.50





HARRIS
UTILITIES

SMARTWORKS

Event Reporting



Meters **22**
Locations **19**
Thresholds **0** **1**

Green Button
Download My Data

mhenderson  Logout

+ Add to ...

My Dashboard
My Saved Reports
Library
Reports
Settings

Meter Events



Search
Filter
Filter by event type or details
Filter Results
Clear Filter

+ Add Markers

CSV PDF
28 results

	Meter Id	Event Type	Event Date and Time	Details
	1042E	INTERVAL_FLAG	2014-11-23 02:00:00	Power restoration Time Adjustment
	1042E	INTERVAL_FLAG	2014-11-23 03:00:00	Power restoration Time Adjustment
	1001E	INTERVAL_FLAG	2014-11-23 03:00:00	Power restoration Time Adjustment
	1008E	INTERVAL_FLAG	2014-11-23 01:00:00	Power restoration Clock out of sync
	1008E	INTERVAL_FLAG	2014-11-23 02:00:00	Clock out of sync
	1008E	INTERVAL_FLAG	2014-11-23 03:00:00	Power restoration Time Adjustment
	1028E	INTERVAL_FLAG	2014-11-23 04:00:00	Clock out of sync
	1028E	INTERVAL_FLAG	2014-11-23 05:00:00	Clock out of sync
	1028E	INTERVAL_FLAG	2014-11-23 06:00:00	Clock out of sync
		INTERVAL_FLAG	2014-11-23 07:00:00	Time Adjustment
		INTERVAL_FLAG	2014-11-23 01:00:00	Power restoration Clock out of sync
		INTERVAL_FLAG	2014-11-23 02:00:00	Clock out of sync
		INTERVAL_FLAG	2014-11-23 03:00:00	Power restoration Time Adjustment
		Leak Detected	2014-11-11 21:00:00	Leak Detected
		Leak Detected	2014-11-13 12:00:00	Leak Detected
		Leak Detected	2014-11-14 17:00:00	Leak Detected
		Leak Detected	2014-12-02 16:07:00	Leak Detected
		Leak Detected	2014-12-09 00:23:00	Leak Detected
		Leak Detected	2014-12-16 11:00:00	Leak Detected
		Leak Detected	2014-12-23 07:30:00	Leak Detected
	1044E	INTERVAL_FLAG	2014-11-23 05:00:00	Clock out of sync

Marker

Date/Time 2014-11-23 5:00 AM

Meter 4 NINTH STREET - Meter: 1044E (Electric) Location: 100025

Author mhenderson

Notes

Meter event of type 'INTERVAL_FLAG' occurred at this time.

Event Details: Clock out of sync



HARRIS
UTILITIES

SMARTWORKS

Agenda

- ▶ Introduction
- ▶ Why BizConnect?
- ▶ Commonly Used Functions
- ▶ Frequently Asked Questions
- ▶ Q&A



HARRIS
UTILITIES

SMARTWORKS

Frequently Asked Questions

- ▶ Notifications
 - ▶ How can I set up notifications for consumption?
 - ▶ What about demand?
 - ▶ What notification methods are available?
- ▶ Consumption and Demand over a specific time range
 - ▶ What report should I use?
 - ▶ How can I frame the usage?
 - ▶ What if I want cost estimation?
- ▶ Meter Indexes
 - ▶ How do I configure them?
 - ▶ Where within the solution are they available?



HARRIS
UTILITIES

SMARTWORKS

Frequently Asked Questions (continued)

- ▶ What kind of data is available in the solution?
 - ▶ Why do I sometimes see 15 minute, hourly, or daily data?
 - ▶ How can I export the detailed 15 minute data over a large date range?
 - ▶ Why is there a difference between demand as reported by BizConnect, and the demand charge on my bill?
 - ▶ Billing read is calculated as a demand register at the meter on a rolling 5/15 basis (and multiplied by CT/PT)
 - ▶ BizConnect Max Demand is inferred from 15 minute interval data (and multiplier by CT/PT)



HARRIS
UTILITIES

SMARTWORKS

Frequently Asked Questions (continued)

- ▶ The two factors / considerations when considering difference between the two values:
 - ▶ data precision on the interval data (4 digits after the decimal)
 - ▶ Meter demand register can capture max demand when it is split across an interval boundary
 - ▶ Lets look at an example of the difference between rolling 5/15 and block 15

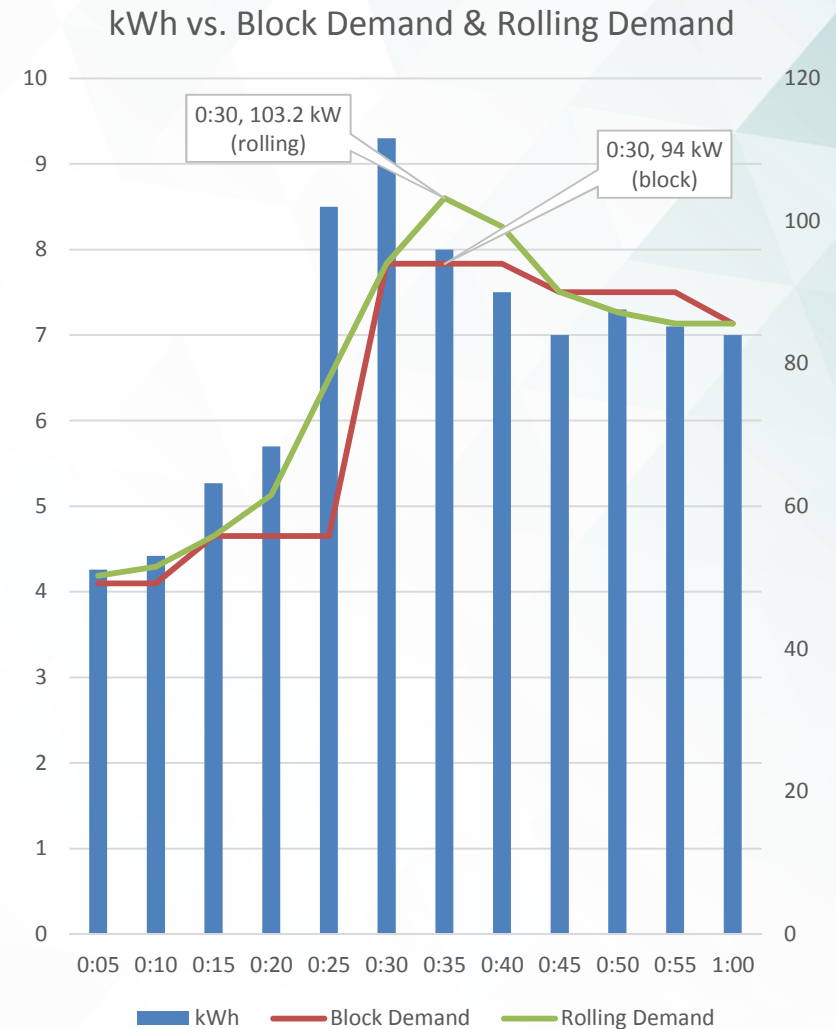


HARRIS
UTILITIES

SMARTWORKS

Comparing 15 minute block demand vs. rolling 5/15

interval ending	kWh	15 min block	rolling 5/15
23:50	4		
23:55	4.1		
0:00	4.2	49.2	49.2
0:05	4.26	49.2	50.24
0:10	4.42	49.2	51.52
0:15	5.27	55.8	55.8
0:20	5.7	55.8	61.56
0:25	8.5	55.8	77.88
0:30	9.3	94	94
0:35	8	94	103.2
0:40	7.5	94	99.2
0:45	7	90	90
0:50	7.3	90	87.2
0:55	7.1	90	85.6
1:00	7	85.6	85.6
total kwh consumed over the hour: 81.35kWh			
average demand over the hour: 81.35kW			
Maximum 15 minute block demand: 94kW			
Maximum rolling 5/15 demand: 103.2kW			



HARRIS
UTILITIES

SMARTWORKS

Agenda

- ▶ Introduction
- ▶ Why BizConnect?
- ▶ Commonly Used Functions
- ▶ Frequently Asked Questions
- ▶ Q&A



HARRIS
UTILITIES

SMARTWORKS

Audience Questions and Answers



HARRIS
UTILITIES

SMARTWORKS



HARRIS
UTILITIES

SMARTWORKS