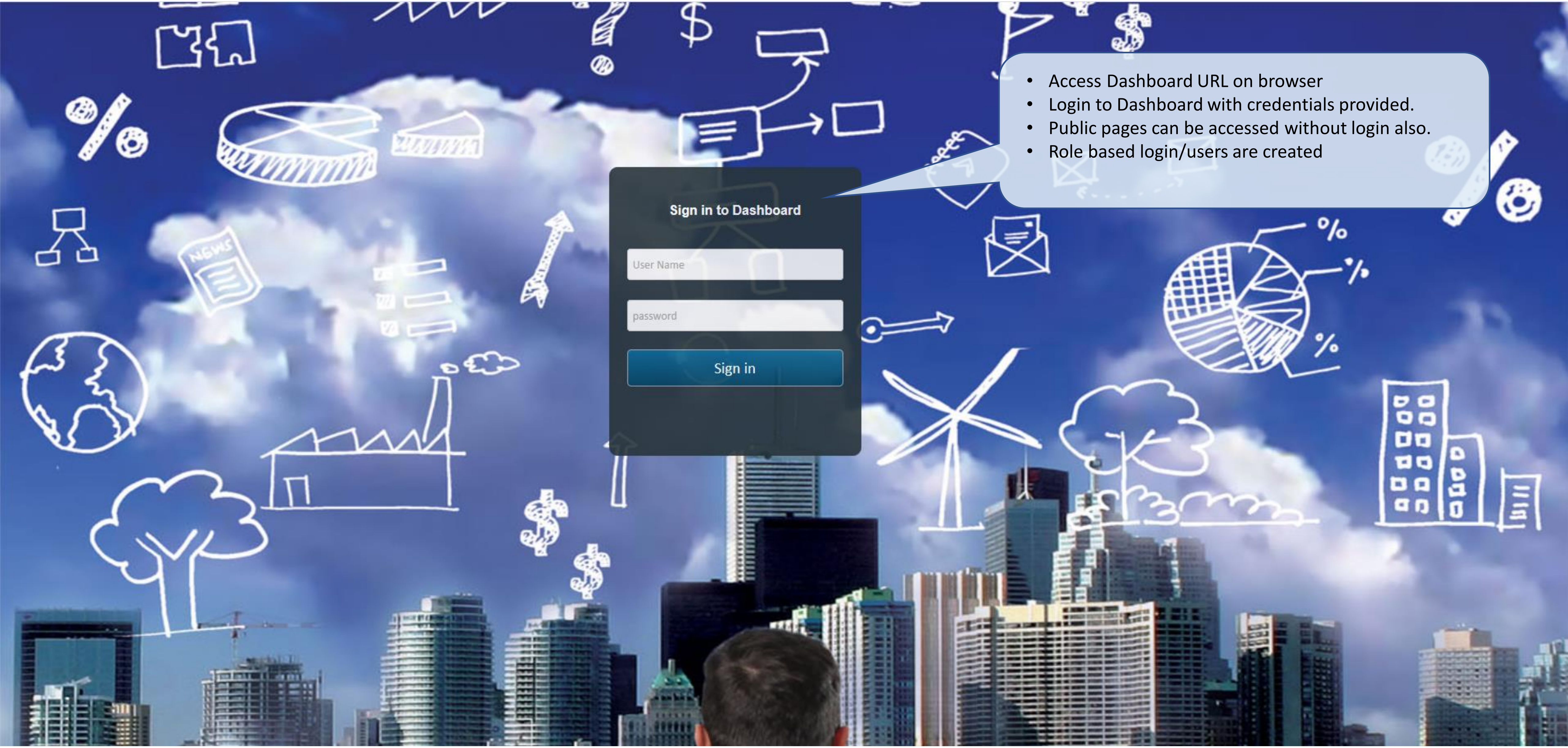
HONEYWELL ENERGY DASHBOARD

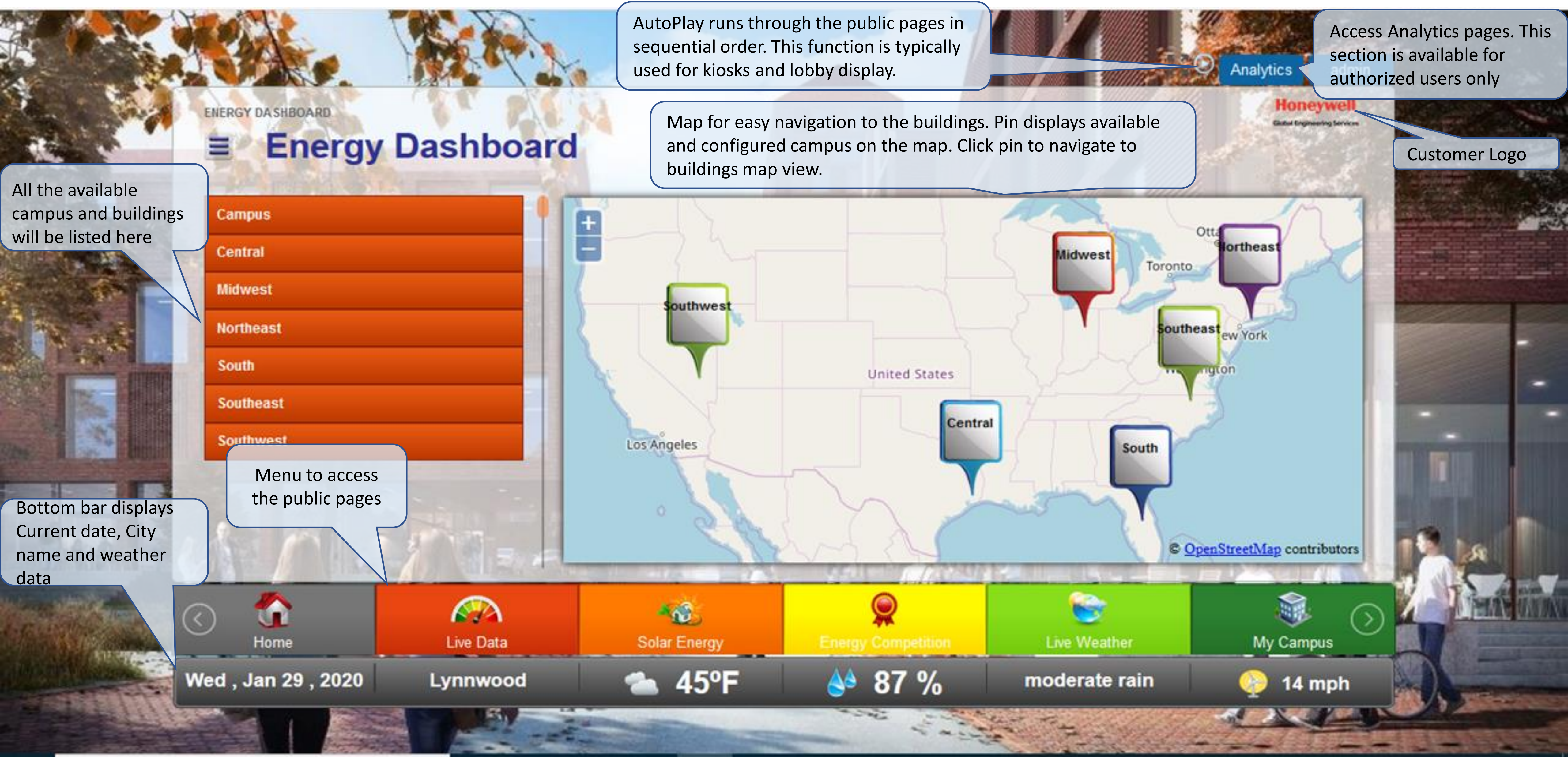
By Honeywell Global Engineering Services

LOGIN PAGE


Sign in to Dashboard
User Name
password
Sign in

- Access Dashboard URL on browser
- Login to Dashboard with credentials provided.
- Public pages can be accessed without login also.
- Role based login/users are created

DASHBOARD OVERVIEW – GOOGLE MAP VIEW


Analytics
admin
Honeywell
Global Engineering Services
ENERGY DASHBOARD
Energy Dashboard
Campus
Central
Midwest
Northeast
South
Southeast
Southwest
Southwest
Midwest
Northeast
Toronto
Ottawa
Southeast
New York
Washington
United States
Los Angeles
Central
South
© OpenStreetMap contributors
Home
Live Data
Solar Energy
Energy Competition
Live Weather
My Campus
Wed , Jan 29 , 2020
Lynnwood
45ºF
87 %
moderate rain
14 mph

AutoPlay runs through the public pages in sequential order. This function is typically used for kiosks and lobby display.

Access Analytics pages. This section is available for authorized users only

Map for easy navigation to the buildings. Pin displays available and configured campus on the map. Click pin to navigate to buildings map view.

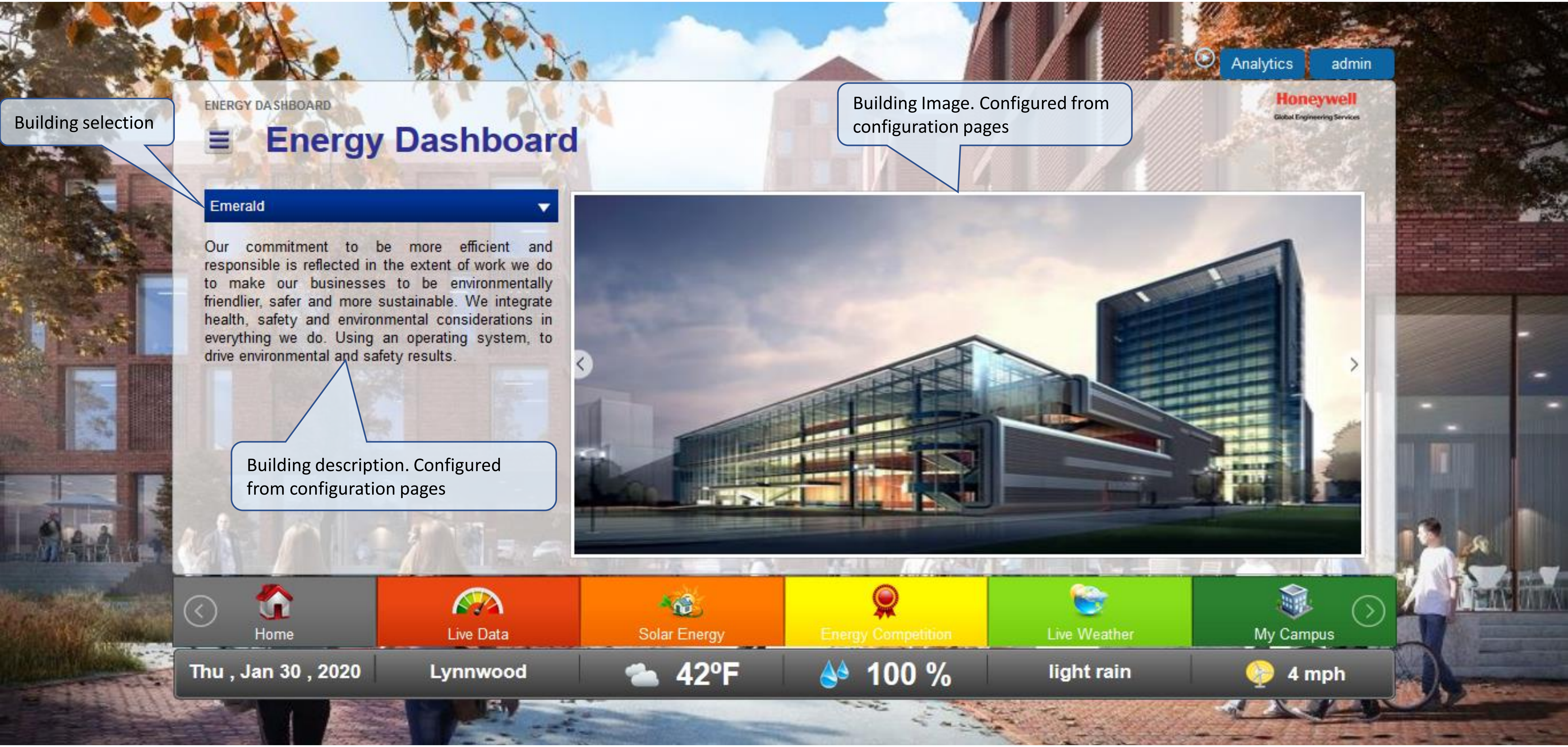
Customer Logo

All the available campus and buildings will be listed here

Menu to access the public pages

Bottom bar displays Current date, City name and weather data

DASHBOARD OVERVIEW – BUILDING VIEW



Building selection

Building Image. Configured from configuration pages

Building description. Configured from configuration pages

ENERGY DASHBOARD

Energy Dashboard

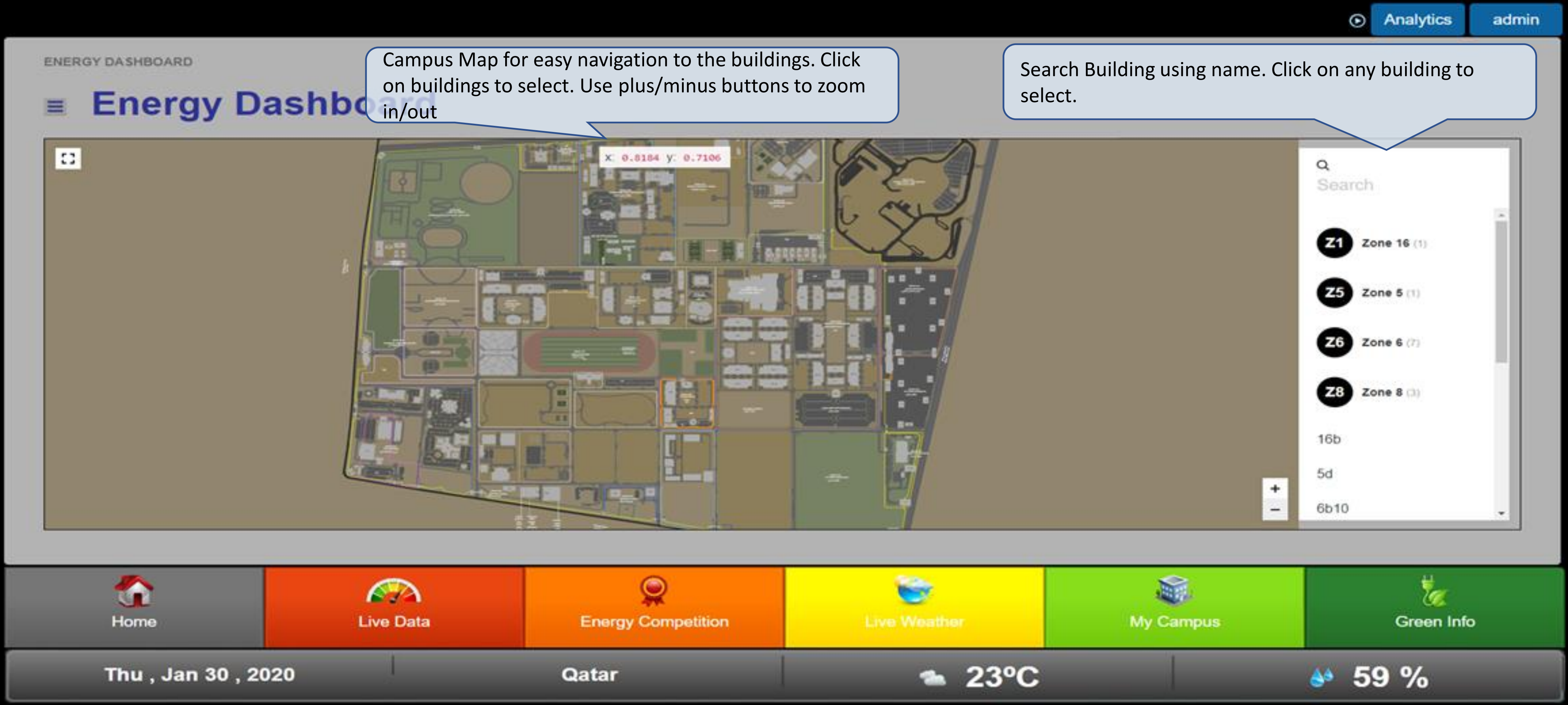
Emerald

Our commitment to be more efficient and responsible is reflected in the extent of work we do to make our businesses to be environmentally friendlier, safer and more sustainable. We integrate health, safety and environmental considerations in everything we do. Using an operating system, to drive environmental and safety results.

Thu , Jan 30 , 2020 | Lynnwood | 42°F | 100 % | light rain | 4 mph

Analytics
admin
Honeywell
Global Engineering Services
Home
Live Data
Solar Energy
Energy Competition
Live Weather
My Campus

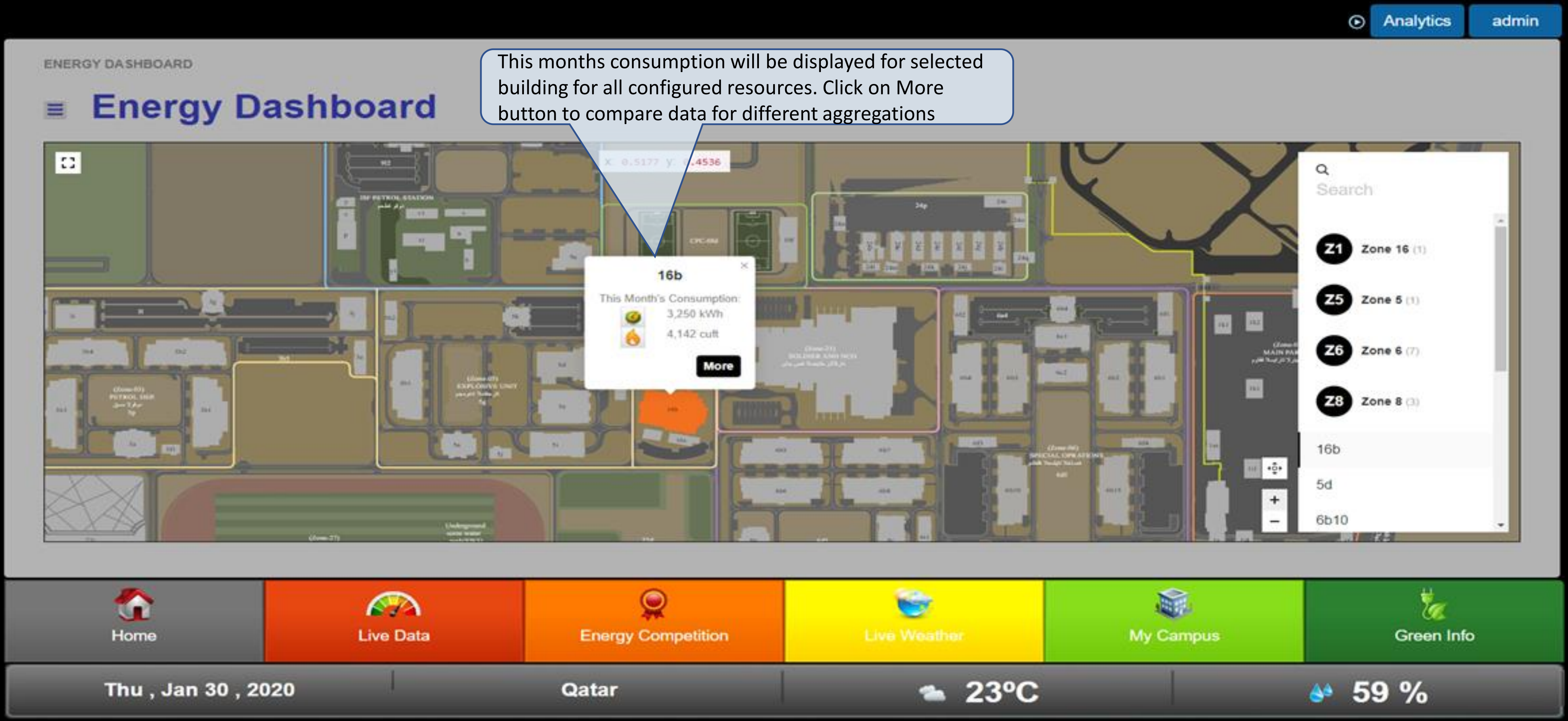
DASHBOARD OVERVIEW – CAMPUS MAP VIEW


Analytics
admin
ENERGY DASHBOARD
Energy Dashboard
x: 0.8184 y: 0.7106
Search
Z1 Zone 16 (1)
Z5 Zone 5 (1)
Z6 Zone 6 (7)
Z8 Zone 8 (3)
16b
5d
6b10
+
−
Home
Live Data
Energy Competition
Live Weather
My Campus
Green Info
Thu , Jan 30 , 2020
Qatar
23°C
59 %

Campus Map for easy navigation to the buildings. Click on buildings to select. Use plus/minus buttons to zoom in/out

Search Building using name. Click on any building to select.

Building Selection & Map Zoom view



This months consumption will be displayed for selected building for all configured resources. Click on More button to compare data for different aggregations

ENERGY DASHBOARD

Energy Dashboard

16b

This Month's Consumption:

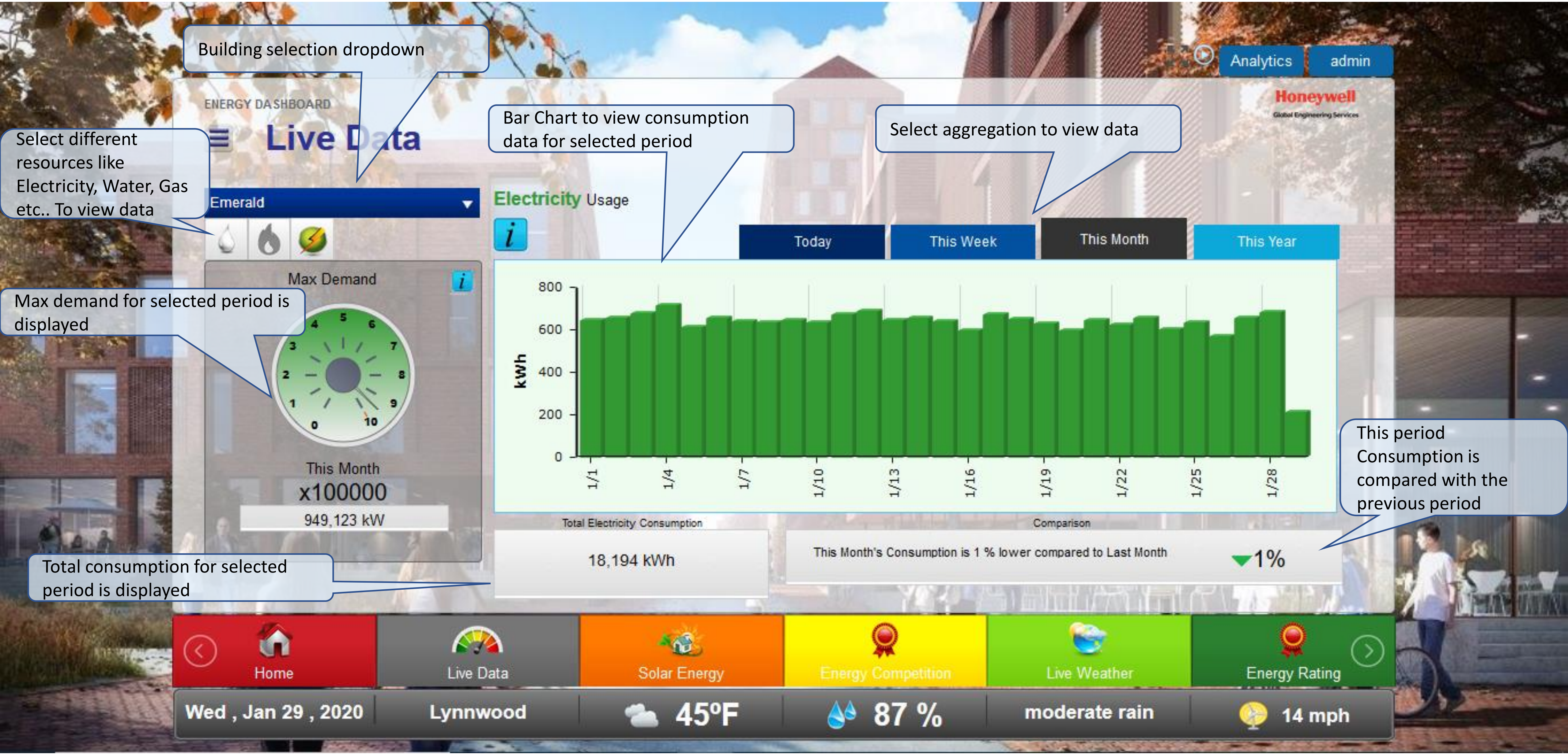
3,250 kWh

4,142 cuft

More

Analytics
admin
Search
Z1 Zone 16 (1)
Z5 Zone 5 (1)
Z6 Zone 6 (7)
Z8 Zone 8 (3)
16b
5d
6b10
Home
Live Data
Energy Competition
Live Weather
My Campus
Green Info
Thu , Jan 30 , 2020
Qatar
23°C
59 %

Live Data – Electricity



Building selection dropdown

Select different resources like Electricity, Water, Gas etc.. To view data

Bar Chart to view consumption data for selected period

Select aggregation to view data

Max demand for selected period is displayed

This period Consumption is compared with the previous period

Total consumption for selected period is displayed

Building: Emerald

Max Demand

This Month

x100000

949,123 kW

Total Electricity Consumption

18,194 kWh

Comparison

This Month's Consumption is 1 % lower compared to Last Month ▼1%

Wed , Jan 29 , 2020

Lynnwood

45°F

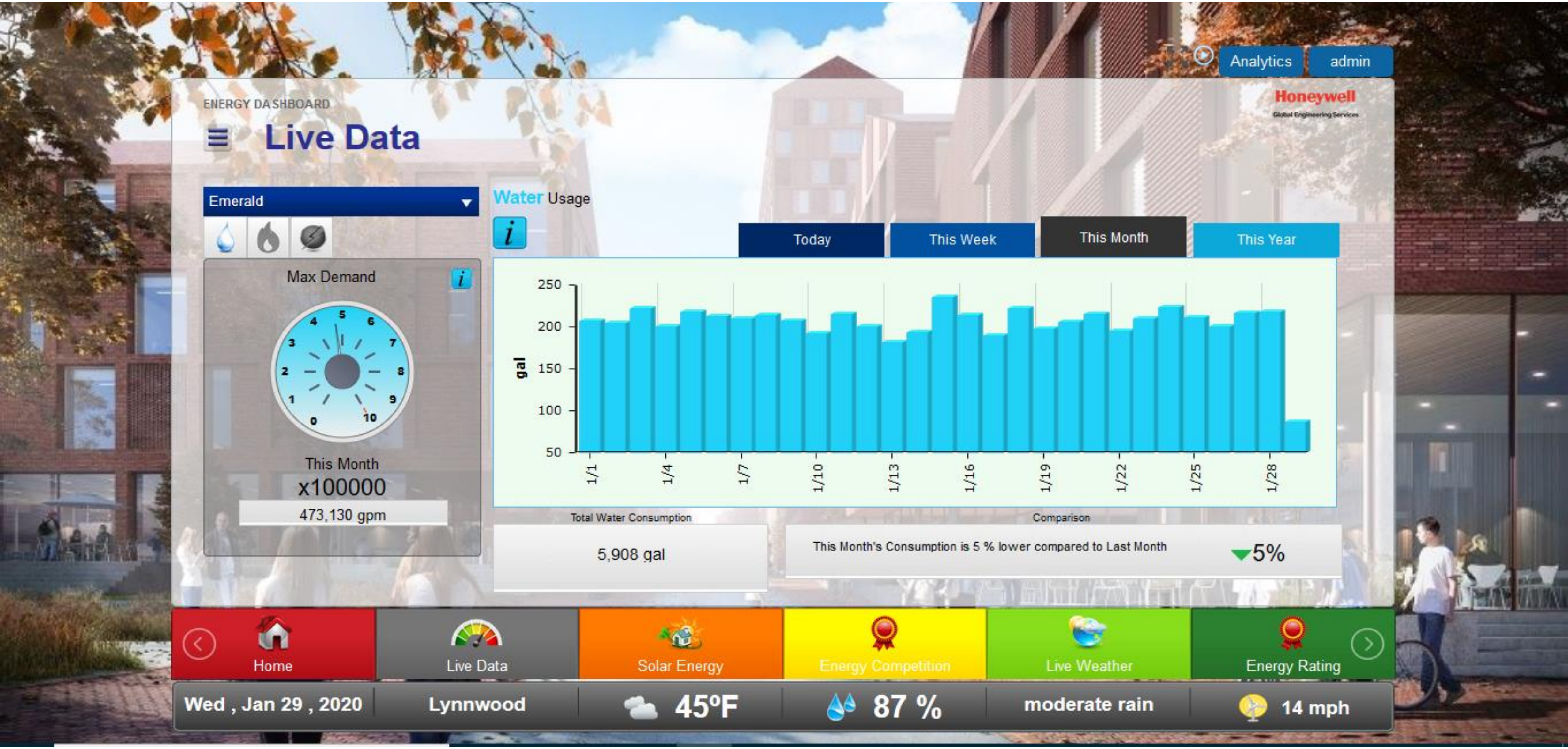
87 %

moderate rain

14 mph

Analytics
admin
ENERGY DASHBOARD
Live Data
Honeywell
Global Engineering Services
Electricity Usage
Today
This Week
This Month
This Year
kWh
800
600
400
200
0
1/1
1/4
1/7
1/10
1/13
1/16
1/19
1/22
1/25
1/28
0
1
2
3
4
5
6
7
8
9
10
Home
Live Data
Solar Energy
Energy Competition
Live Weather
Energy Rating

Live Data – Water


Analytics
admin
ENERGY DASHBOARD
Honeywell
Global Engineering Services
Live Data
Emerald
Max Demand
i
Water Usage
i
Today
This Week
This Month
This Year
gal
250
200
150
100
50
1/1
1/4
1/7
1/10
1/13
1/16
1/19
1/22
1/25
1/28
Home
Live Data
Solar Energy
Energy Competition
Live Weather
Energy Rating

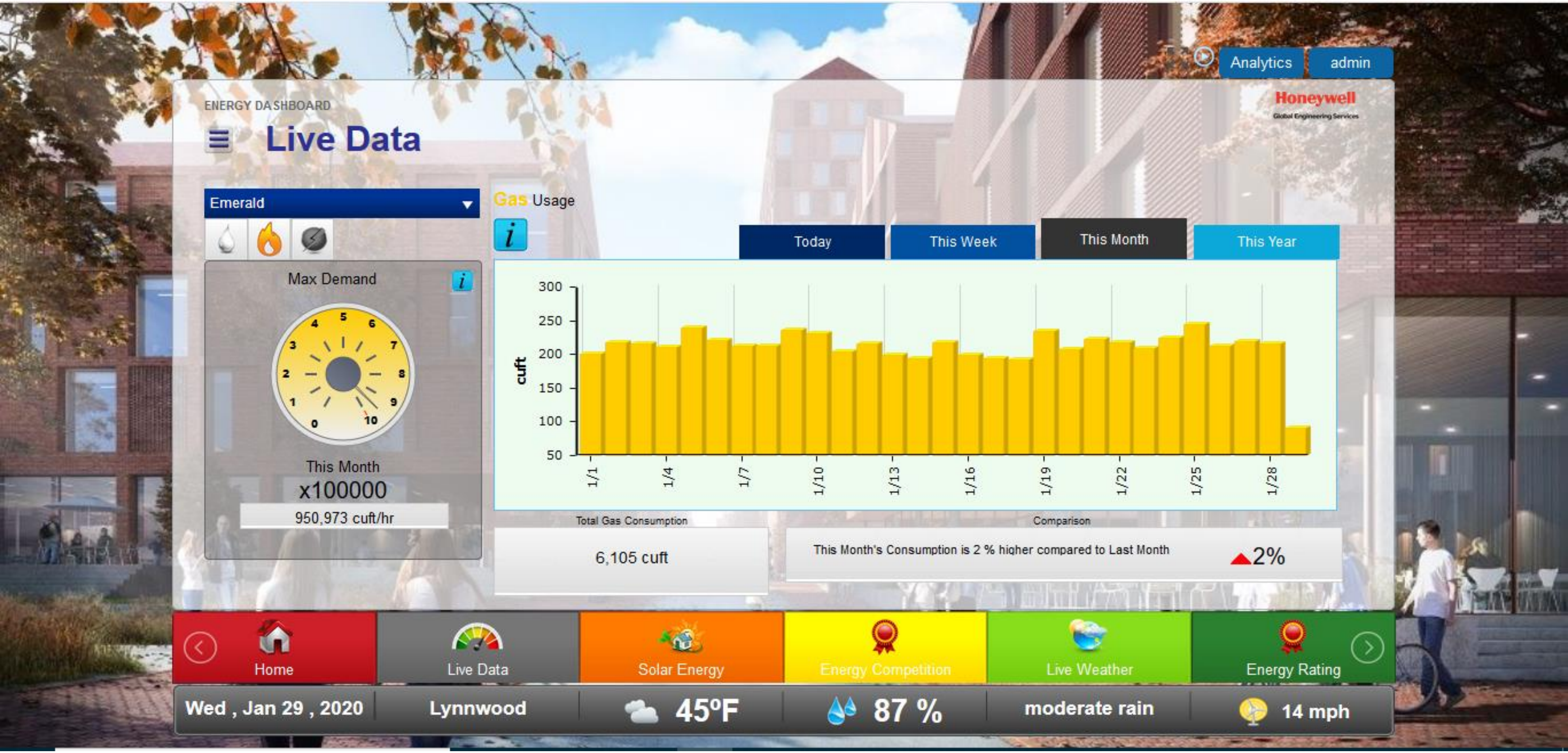
This Month
x100000
473,130 gpm

Total Water Consumption
5,908 gal

Comparison
This Month's Consumption is 5 % lower compared to Last Month ▼5%

Wed , Jan 29 , 2020 | Lynnwood | 45ºF | 87 % | moderate rain | 14 mph

Live Data – Gas


Analytics
admin
Honeywell
Global Engineering Services
Today
This Week
This Month
This Year
300
250
200
150
100
50
cuft
1/1
1/4
1/7
1/10
1/13
1/16
1/19
1/22
1/25
1/28
0
1
2
3
4
5
6
7
8
9
10
Home
Live Data
Solar Energy
Energy Competition
Live Weather
Energy Rating

ENERGY DASHBOARD

Live Data

Emerald

Max Demand

This Month

x100000

950,973 cuft/hr

Gas Usage

Total Gas Consumption

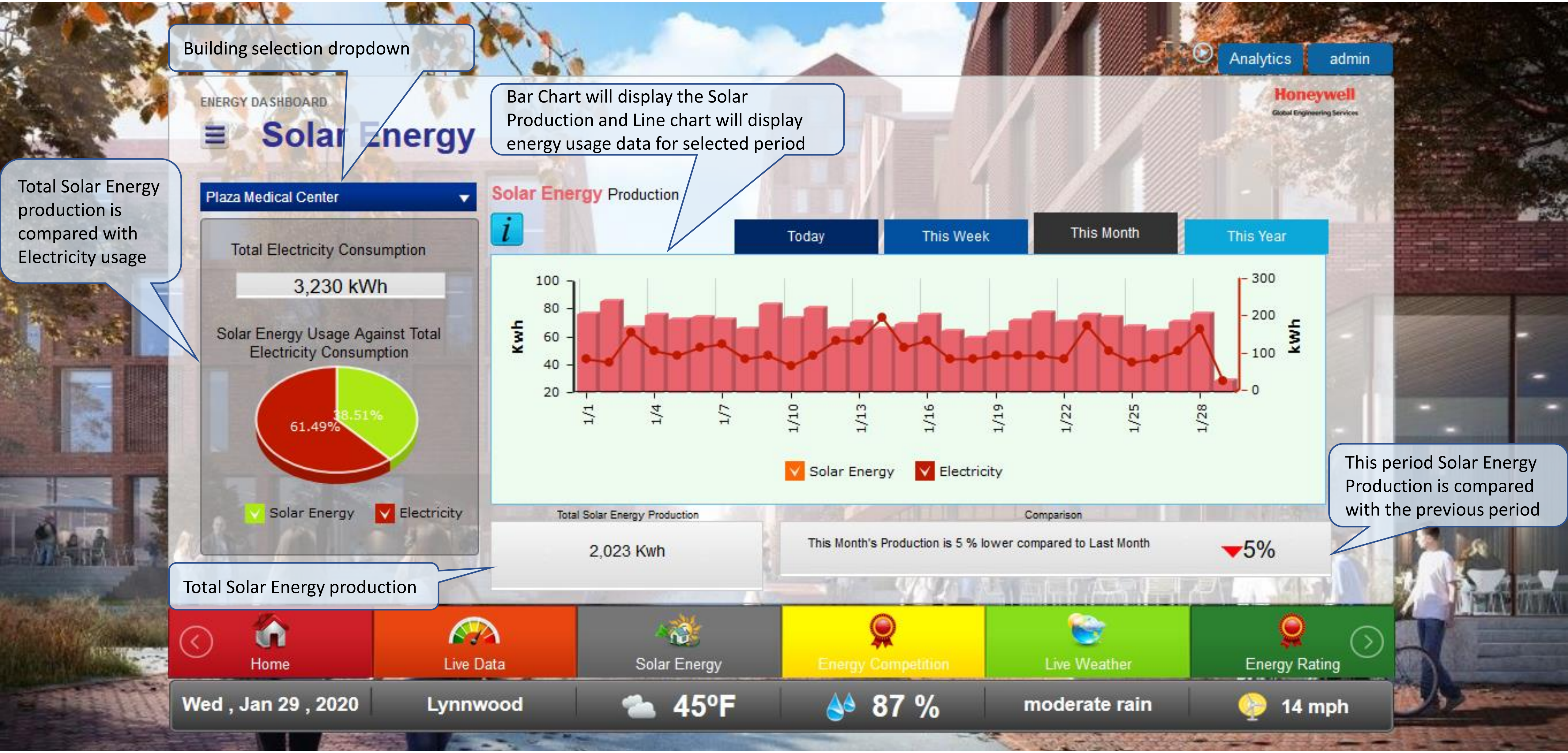
6,105 cuft

Comparison

This Month's Consumption is 2 % higher compared to Last Month ▲2%

Wed , Jan 29 , 2020 | Lynnwood | 45°F | 87 % | moderate rain | 14 mph

Solar Energy – Production and Consumption Comparison


Analytics
admin
ENERGY DASHBOARD
Solar Energy
Honeywell
Global Engineering Services
Solar Energy Production
i
Today
This Week
This Month
This Year
100
80
60
40
20
Kwh
300
200
100
0
kWh
1/1
1/4
1/7
1/10
1/13
1/16
1/19
1/22
1/25
1/28
Solar Energy
Electricity
61.49%
38.51%
Solar Energy
Electricity
Home
Live Data
Solar Energy
Energy Competition
Live Weather
Energy Rating

Building selection dropdown

Bar Chart will display the Solar Production and Line chart will display energy usage data for selected period

Total Solar Energy production is compared with Electricity usage

This period Solar Energy Production is compared with the previous period

Total Solar Energy production

Plaza Medical Center ▼

Total Electricity Consumption: 3,230 kWh

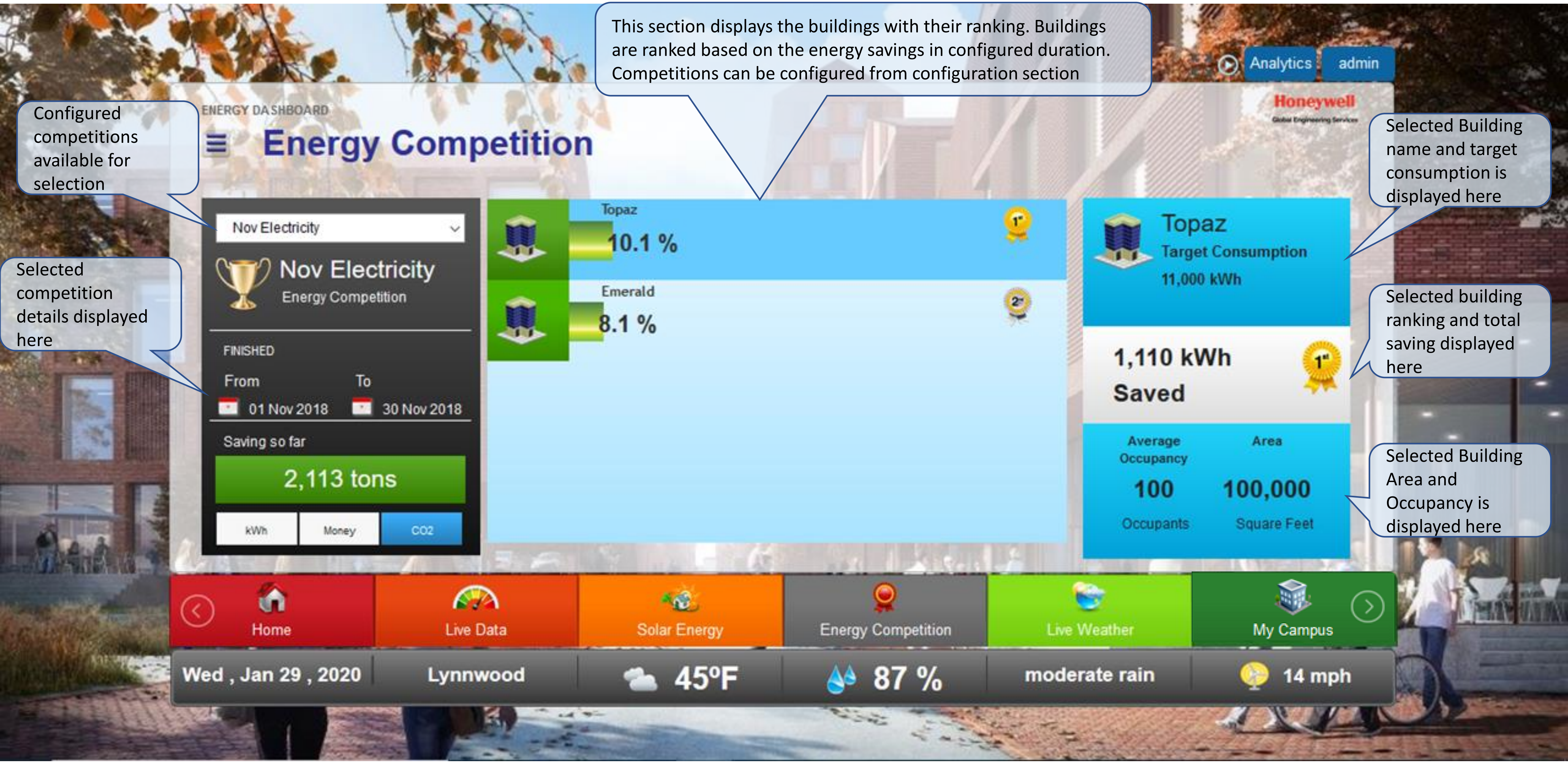
Solar Energy Usage Against Total Electricity Consumption

Total Solar Energy Production: 2,023 Kwh

Comparison: This Month's Production is 5 % lower compared to Last Month ▼5%

Wed , Jan 29 , 2020 | Lynnwood | 45ºF | 87 % | moderate rain | 14 mph

Energy Competition- Rank Buildings Based on Savings


Analytics
admin
Honeywell
Global Engineering Services
ENERGY DASHBOARD
Energy Competition
Home
Live Data
Solar Energy
Energy Competition
Live Weather
My Campus

Nov Electricity

Nov Electricity
Energy Competition

FINISHED

From	To
01 Nov 2018	30 Nov 2018

Saving so far

2,113 tons

kWh | Money | CO2

Topaz	10.1 %	1st
Emerald	8.1 %	2nd

Topaz
Target Consumption
11,000 kWh

1,110 kWh Saved 1st

Average Occupancy	Area
100	100,000
Occupants	Square Feet

Wed , Jan 29 , 2020 | Lynnwood | 45ºF | 87 % | moderate rain | 14 mph

This section displays the buildings with their ranking. Buildings are ranked based on the energy savings in configured duration. Competitions can be configured from configuration section

Configured competitions available for selection

Selected competition details displayed here

Selected Building name and target consumption is displayed here

Selected building ranking and total saving displayed here

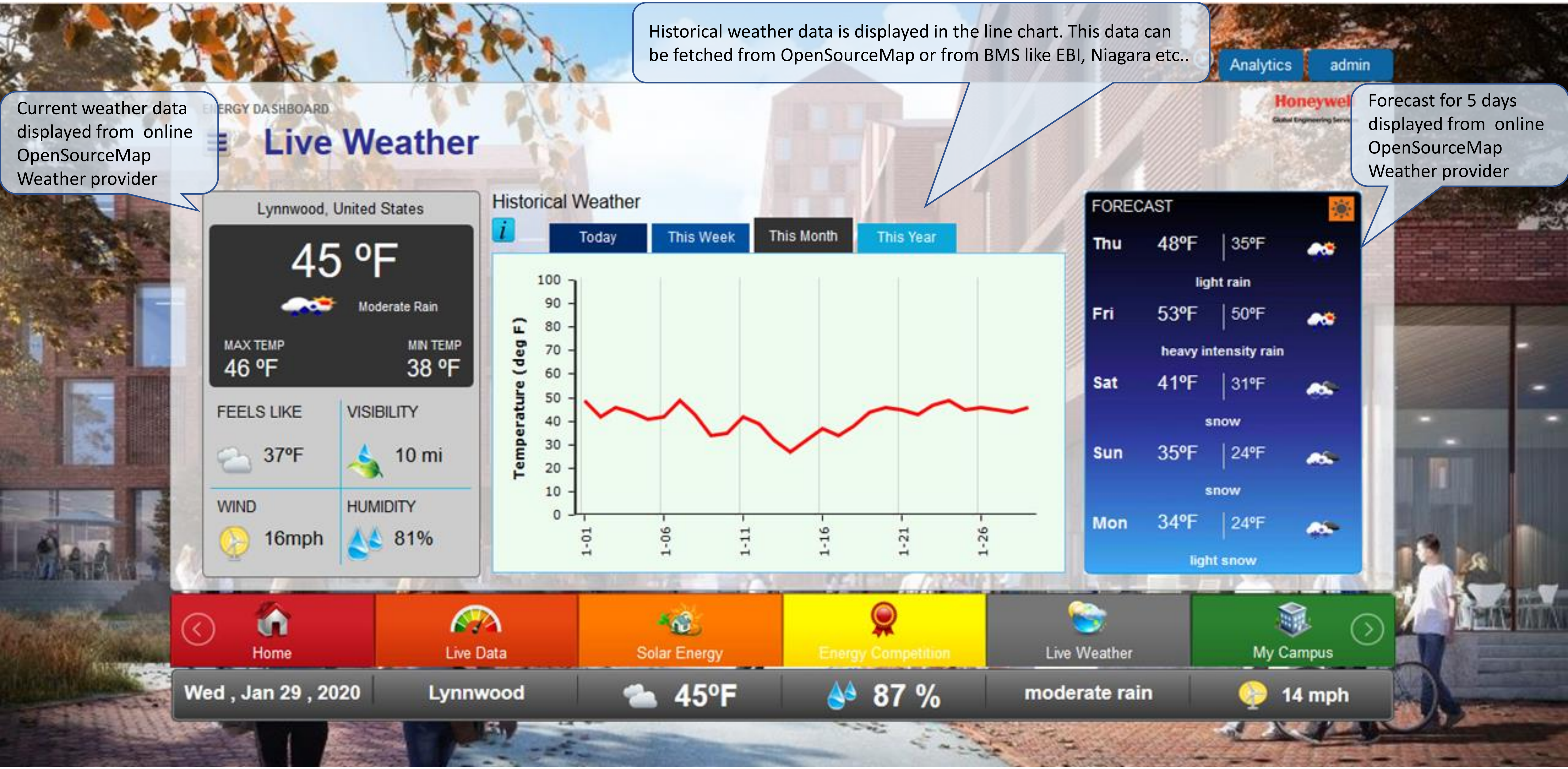
Selected Building Area and Occupancy is displayed here

Live Weather

Historical weather data is displayed in the line chart. This data can be fetched from OpenSourceMap or from BMS like EBI, Niagara etc..

Current weather data displayed from online OpenSourceMap Weather provider

Forecast for 5 days displayed from online OpenSourceMap Weather provider



Analytics
admin
Honeywell
ENERGY DASHBOARD
Live Weather

Lynnwood, United States

45 °F

Moderate Rain

MAX TEMP 46 °F

MIN TEMP 38 °F

FEELS LIKE 37°F

VISIBILITY 10 mi

WIND 16mph

HUMIDITY 81%

Historical Weather
Today
This Week
This Month
This Year
Temperature (deg F)
100
90
80
70
60
50
40
30
20
10
0
1-01
1-06
1-11
1-16
1-21
1-26

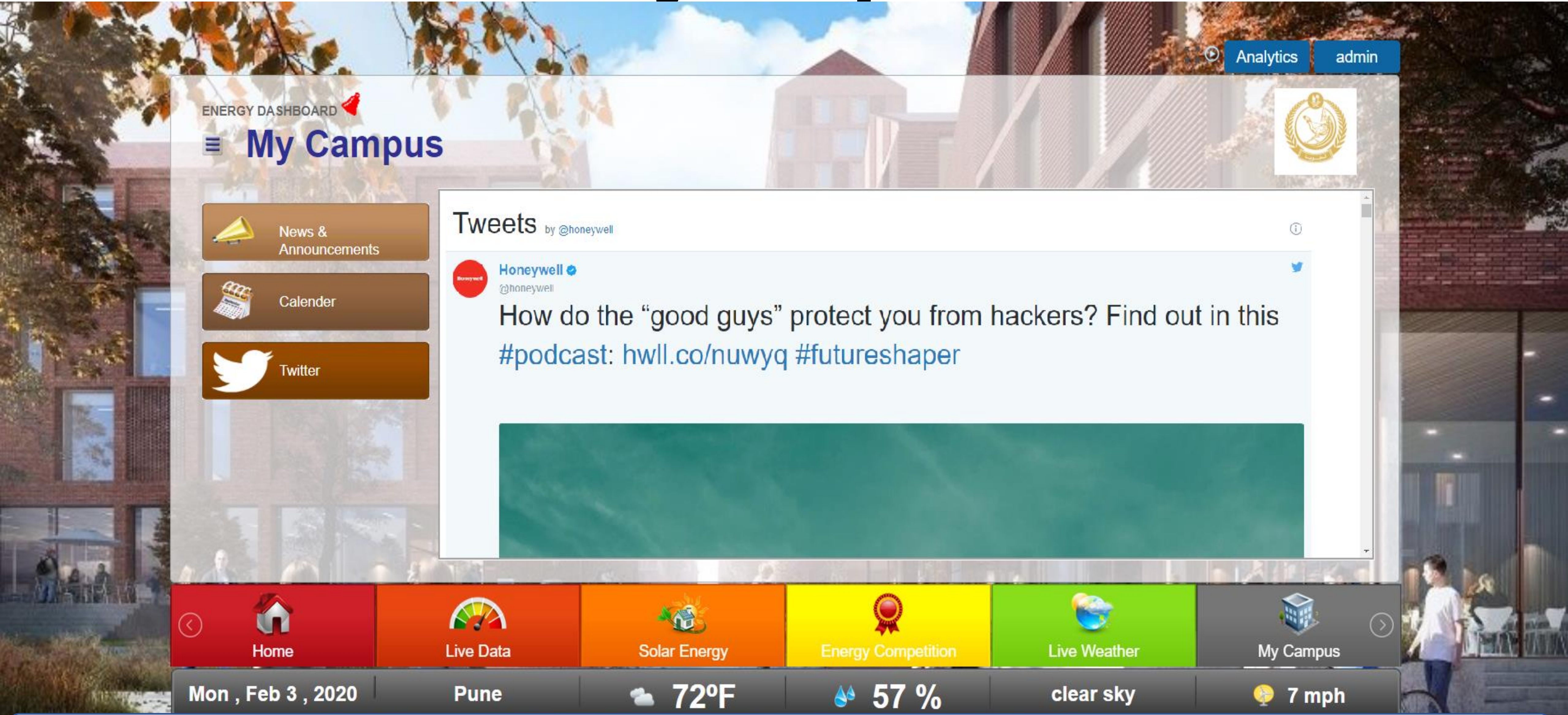
FORECAST

Thu	48°F	35°F	light rain
Fri	53°F	50°F	heavy intensity rain
Sat	41°F	31°F	snow
Sun	35°F	24°F	snow
Mon	34°F	24°F	light snow

Home
Live Data
Solar Energy
Energy Competition
Live Weather
My Campus

Wed , Jan 29 , 2020 | Lynnwood | 45°F | 87 % | moderate rain | 14 mph

My Campus



Analytics

admin

ENERGY DASHBOARD

My Campus

News & Announcements

Calender

Twitter

Tweets by @honeywell

Honeywell

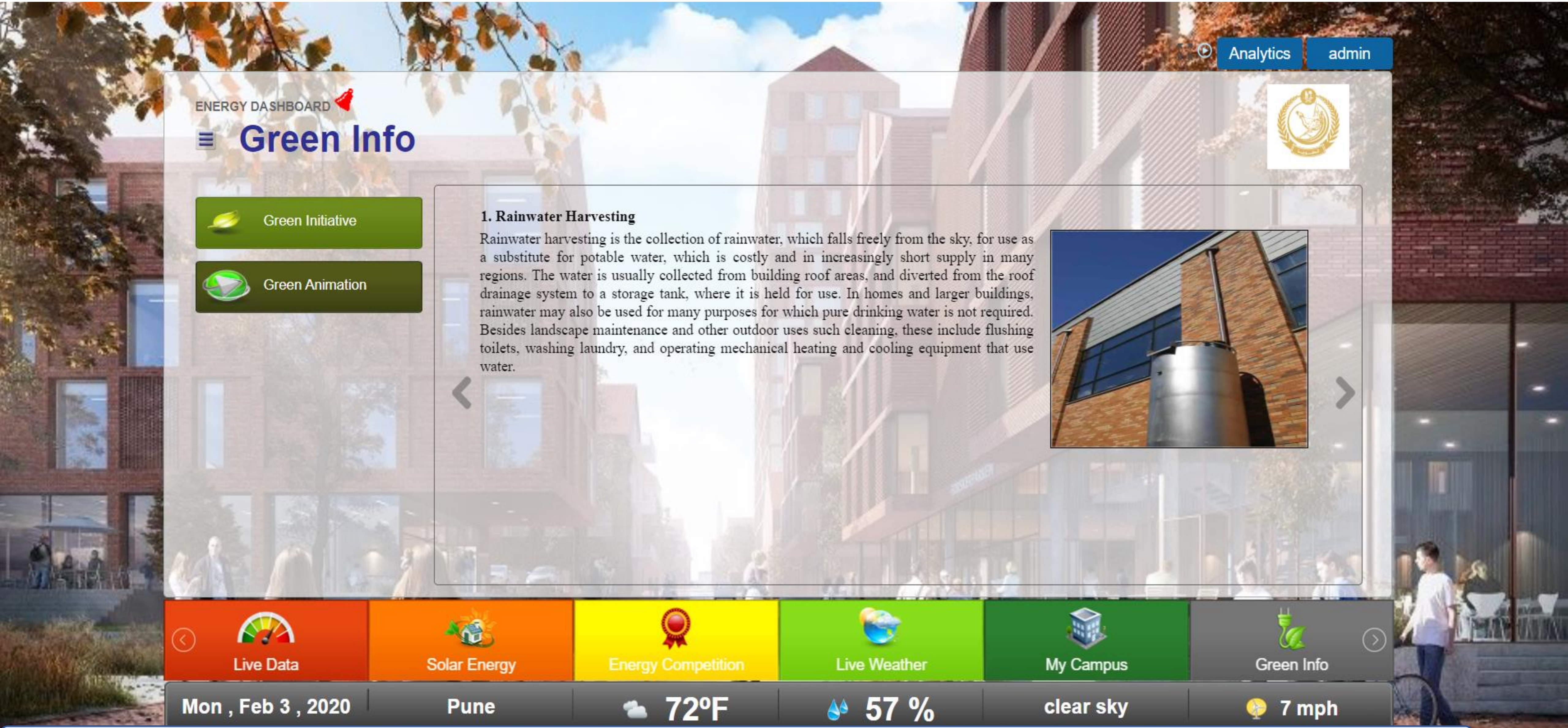
@honeywell

How do the “good guys” protect you from hackers? Find out in this #podcast: hwll.co/nuwyq #futureshaper

Home
Live Data
Solar Energy
Energy Competition
Live Weather
My Campus
Mon , Feb 3 , 2020
Pune
72ºF
57 %
clear sky
7 mph

My Campus page will display campus related information like News & Announcement or any event in campus. This page can show the tweets from configured Twitter handle

Green Info



Analytics
admin
ENERGY DASHBOARD
Green Info
Green Initiative
Green Animation
Live Data
Solar Energy
Energy Competition
Live Weather
My Campus
Green Info

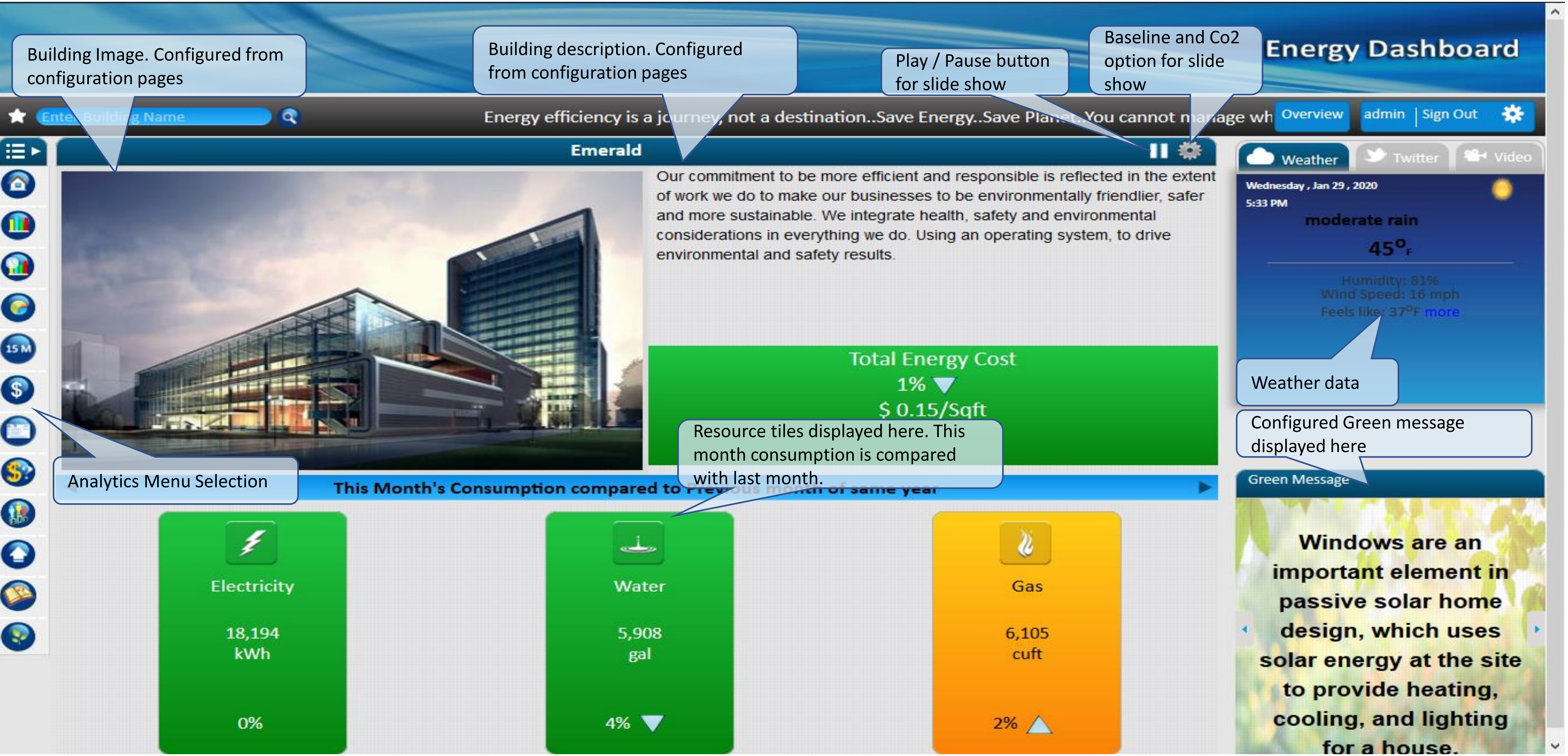
1. Rainwater Harvesting

Rainwater harvesting is the collection of rainwater, which falls freely from the sky, for use as a substitute for potable water, which is costly and in increasingly short supply in many regions. The water is usually collected from building roof areas, and diverted from the roof drainage system to a storage tank, where it is held for use. In homes and larger buildings, rainwater may also be used for many purposes for which pure drinking water is not required. Besides landscape maintenance and other outdoor uses such cleaning, these include flushing toilets, washing laundry, and operating mechanical heating and cooling equipment that use water.

Mon , Feb 3 , 2020 | Pune | 72ºF | 57 % | clear sky | 7 mph

Green features implemented in the campus can be displayed as image and description or can display in animated view

Analytics Home Page



Building Image. Configured from configuration pages

Building description. Configured from configuration pages

Play / Pause button for slide show

Baseline and Co2 option for slide show

Weather data

Configured Green message displayed here

Analytics Menu Selection

Resource tiles displayed here. This month consumption is compared with last month.

Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage wh

Our commitment to be more efficient and responsible is reflected in the extent of work we do to make our businesses to be environmentally friendlier, safer and more sustainable. We integrate health, safety and environmental considerations in everything we do. Using an operating system, to drive environmental and safety results.

Wednesday , Jan 29 , 2020
5:33 PM
moderate rain
45°F
Humidity: 81%
Wind Speed: 16 mph
Feels like: 37°F more

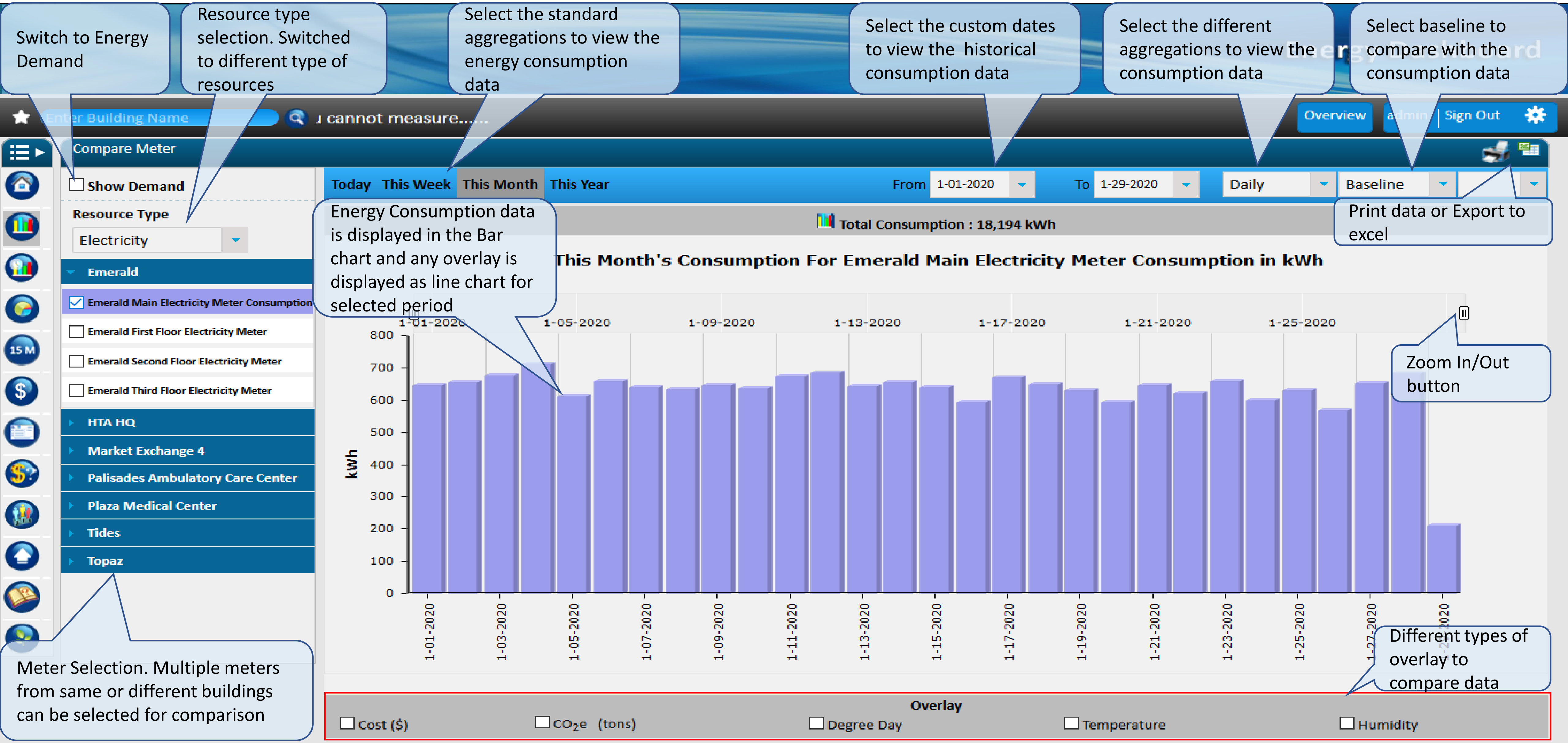
Total Energy Cost
1% ▽
$ 0.15/Sqft

This Month's Consumption compared to Previous month of same year

Electricity	Water	Gas
18,194 kWh	5,908 gal	6,105 cuft
0%	4% ▽	2% △

Windows are an important element in passive solar home design, which uses solar energy at the site to provide heating, cooling, and lighting for a house.

Compare Meter



Switch to Energy Demand

Resource type selection. Switched to different type of resources

Select the standard aggregations to view the energy consumption data

Select the custom dates to view the historical consumption data

Select the different aggregations to view the consumption data

Select baseline to compare with the consumption data

Print data or Export to excel

Energy Consumption data is displayed in the Bar chart and any overlay is displayed as line chart for selected period

Zoom In/Out button

Meter Selection. Multiple meters from same or different buildings can be selected for comparison

Different types of overlay to compare data

Compare Meter

☐ Show Demand

Resource Type: Electricity

☑ Emerald Main Electricity Meter Consumption

From 1-01-2020 To 1-29-2020

Daily

Baseline

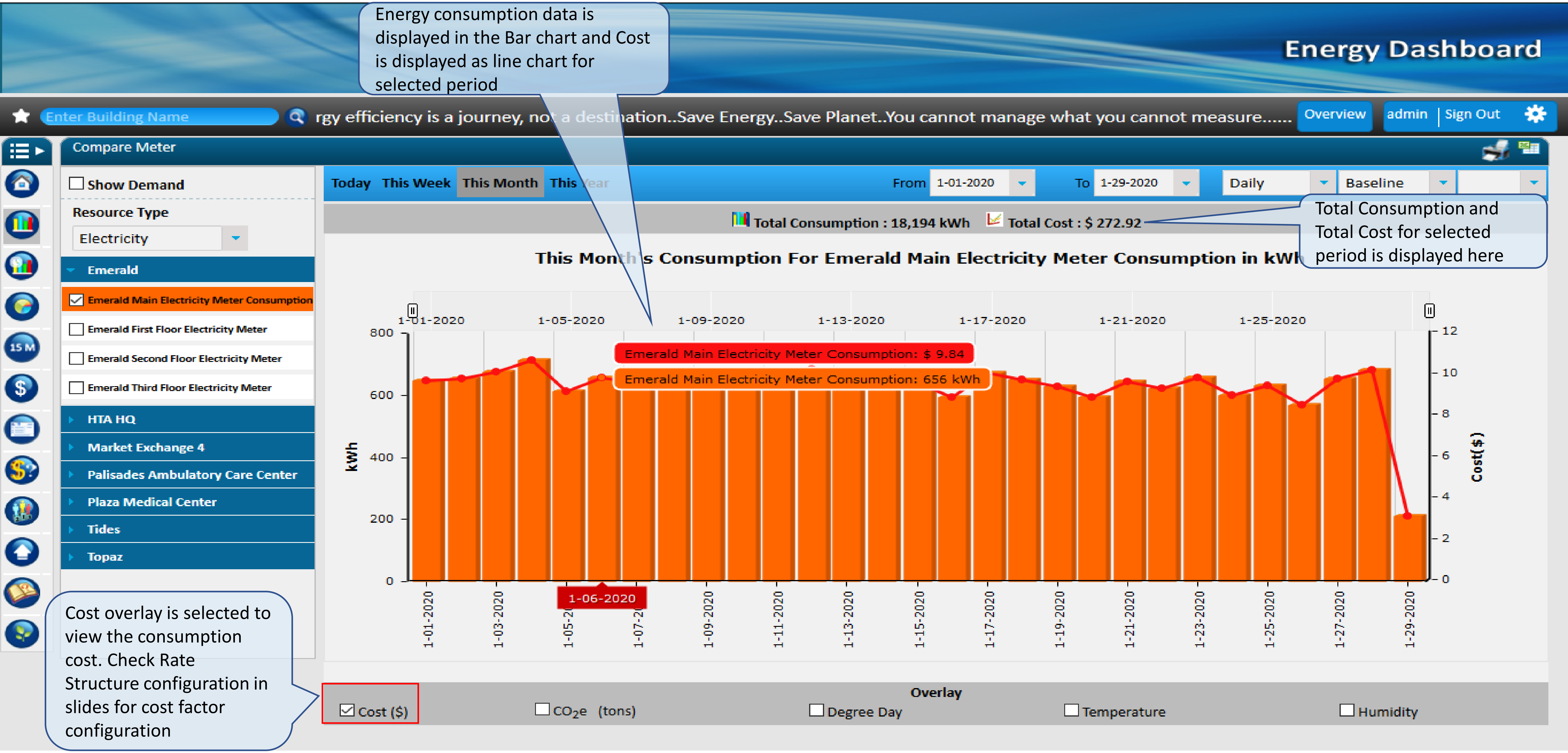
Total Consumption : 18,194 kWh

This Month's Consumption For Emerald Main Electricity Meter Consumption in kWh

Overlay

Enter Building Name
cannot measure......
Overview
admin
Sign Out
15 M
Today
This Week
This Month
This Year
Emerald
Emerald First Floor Electricity Meter
Emerald Second Floor Electricity Meter
Emerald Third Floor Electricity Meter
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
1-01-2020
1-05-2020
1-09-2020
1-13-2020
1-17-2020
1-21-2020
1-25-2020
kWh
800
700
600
500
400
300
200
100
0
1-01-2020
1-03-2020
1-05-2020
1-07-2020
1-09-2020
1-11-2020
1-13-2020
1-15-2020
1-17-2020
1-19-2020
1-21-2020
1-23-2020
1-25-2020
1-27-2020
☐ Cost ($)
☐ CO$_2$e (tons)
☐ Degree Day
☐ Temperature
☐ Humidity

Compare Meter – Energy Cost



Energy consumption data is displayed in the Bar chart and Cost is displayed as line chart for selected period

Total Consumption and Total Cost for selected period is displayed here

Cost overlay is selected to view the consumption cost. Check Rate Structure configuration in slides for cost factor configuration

Compare Meter

☐ Show Demand

Resource Type: Electricity

☑ Emerald Main Electricity Meter Consumption
☐ Emerald First Floor Electricity Meter
☐ Emerald Second Floor Electricity Meter
☐ Emerald Third Floor Electricity Meter

From 1-01-2020 To 1-29-2020 Daily Baseline

Total Consumption : 18,194 kWh Total Cost : $ 272.92

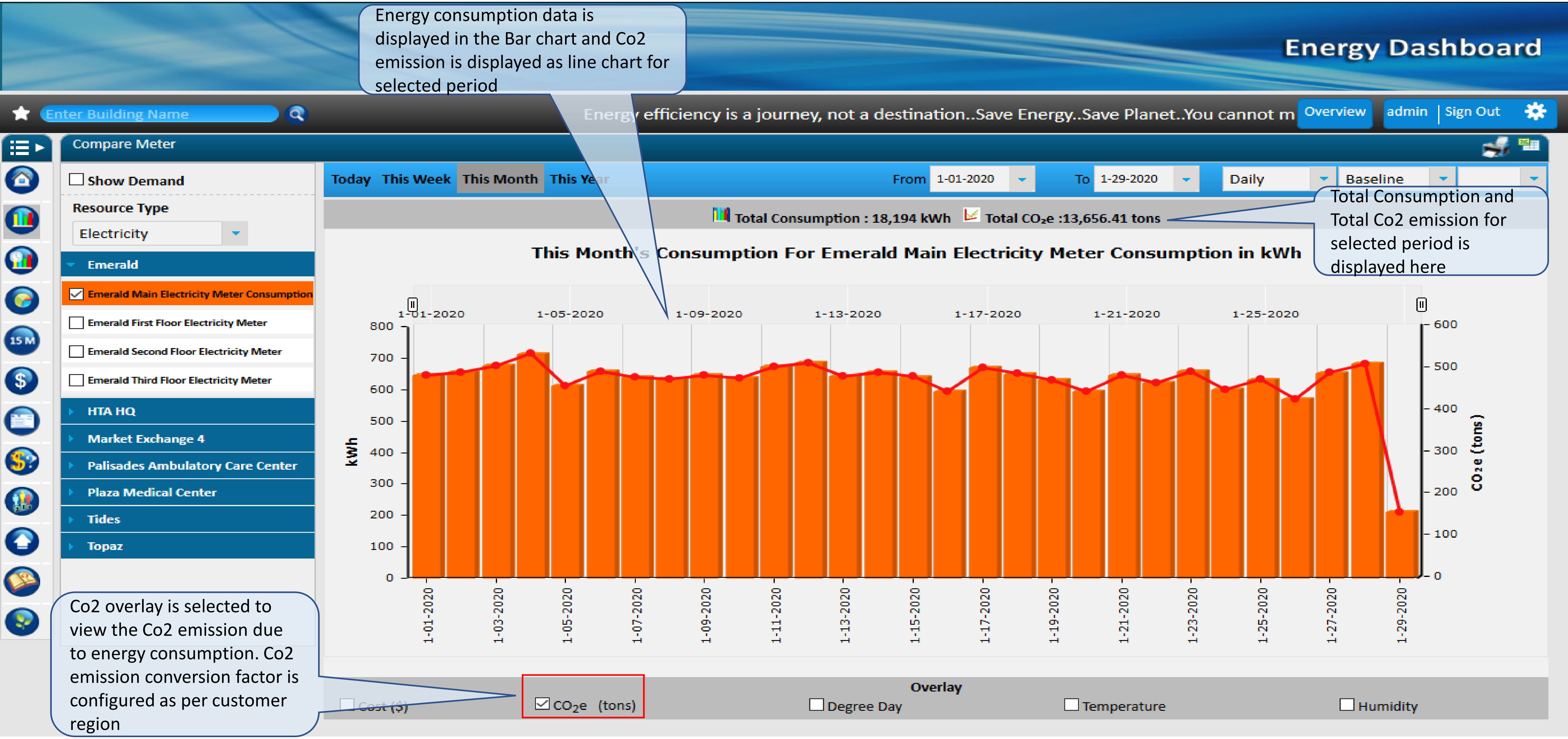
This Month's Consumption For Emerald Main Electricity Meter Consumption in kWh

Emerald Main Electricity Meter Consumption: $ 9.84
Emerald Main Electricity Meter Consumption: 656 kWh

Overlay: ☑ Cost ($) ☐ CO_2e (tons) ☐ Degree Day ☐ Temperature ☐ Humidity

Energy Dashboard
Enter Building Name
rgy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measure......
Overview
admin | Sign Out
Emerald
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
Today
This Week
This Month
This Year
1-01-2020
1-05-2020
1-09-2020
1-13-2020
1-17-2020
1-21-2020
1-25-2020
kWh
800
600
400
200
0
Cost($)
12
10
8
6
4
2
0
1-06-2020
1-01-2020
1-03-2020
1-05-2020
1-07-2020
1-09-2020
1-11-2020
1-13-2020
1-15-2020
1-17-2020
1-19-2020
1-21-2020
1-23-2020
1-25-2020
1-27-2020
1-29-2020
15 M

Compare Meter – Co2 Emissions



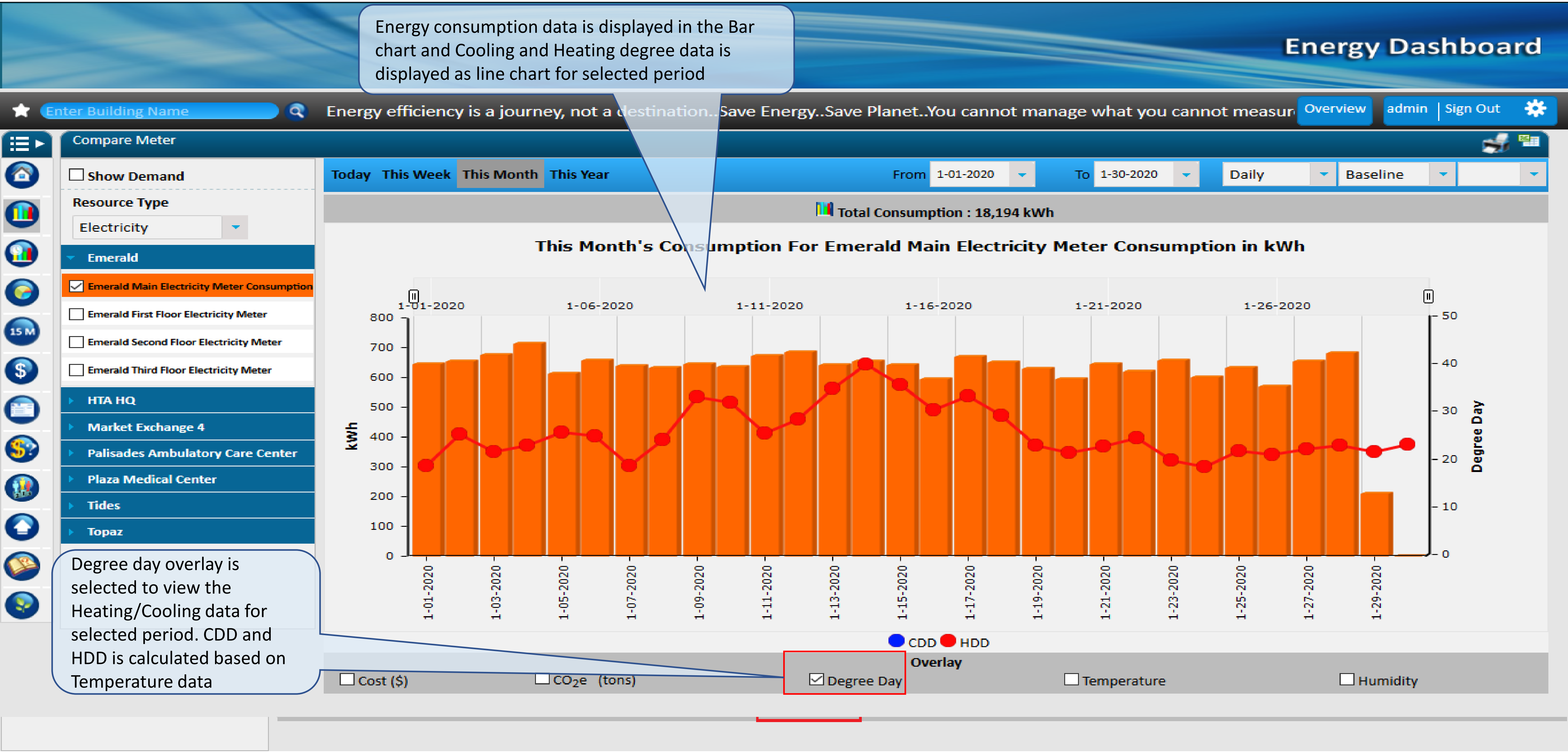
Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot m
Overview
admin
Sign Out
15 M
Compare Meter
☐ Show Demand
Resource Type
Electricity
Emerald
☑ Emerald Main Electricity Meter Consumption
☐ Emerald First Floor Electricity Meter
☐ Emerald Second Floor Electricity Meter
☐ Emerald Third Floor Electricity Meter
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
Today
This Week
This Month
This Year
From 1-01-2020
To 1-29-2020
Daily
Baseline
Total Consumption : 18,194 kWh
Total CO₂e :13,656.41 tons
This Month's Consumption For Emerald Main Electricity Meter Consumption in kWh
1-01-2020
1-05-2020
1-09-2020
1-13-2020
1-17-2020
1-21-2020
1-25-2020
kWh
800
700
600
500
400
300
200
100
0
CO₂e (tons)
600
500
400
300
200
100
0
1-01-2020
1-03-2020
1-05-2020
1-07-2020
1-09-2020
1-11-2020
1-13-2020
1-15-2020
1-17-2020
1-19-2020
1-21-2020
1-23-2020
1-25-2020
1-27-2020
1-29-2020
Overlay
☐ Cost ($)
☑ CO₂e (tons)
☐ Degree Day
☐ Temperature
☐ Humidity

Energy consumption data is displayed in the Bar chart and Co2 emission is displayed as line chart for selected period

Total Consumption and Total Co2 emission for selected period is displayed here

Co2 overlay is selected to view the Co2 emission due to energy consumption. Co2 emission conversion factor is configured as per customer region

Compare Meter – Degree Day



Energy consumption data is displayed in the Bar chart and Cooling and Heating degree data is displayed as line chart for selected period

Degree day overlay is selected to view the Heating/Cooling data for selected period. CDD and HDD is calculated based on Temperature data

Energy Dashboard

Enter Building Name

Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measur

Overview | admin | Sign Out

Compare Meter

☐ Show Demand

Resource Type: Electricity

Emerald
- ☑ Emerald Main Electricity Meter Consumption
- ☐ Emerald First Floor Electricity Meter
- ☐ Emerald Second Floor Electricity Meter
- ☐ Emerald Third Floor Electricity Meter

HTA HQ

Market Exchange 4

Palisades Ambulatory Care Center

Plaza Medical Center

Tides

Topaz

Today | This Week | **This Month** | This Year

From 1-01-2020 To 1-30-2020 Daily Baseline

Total Consumption : 18,194 kWh

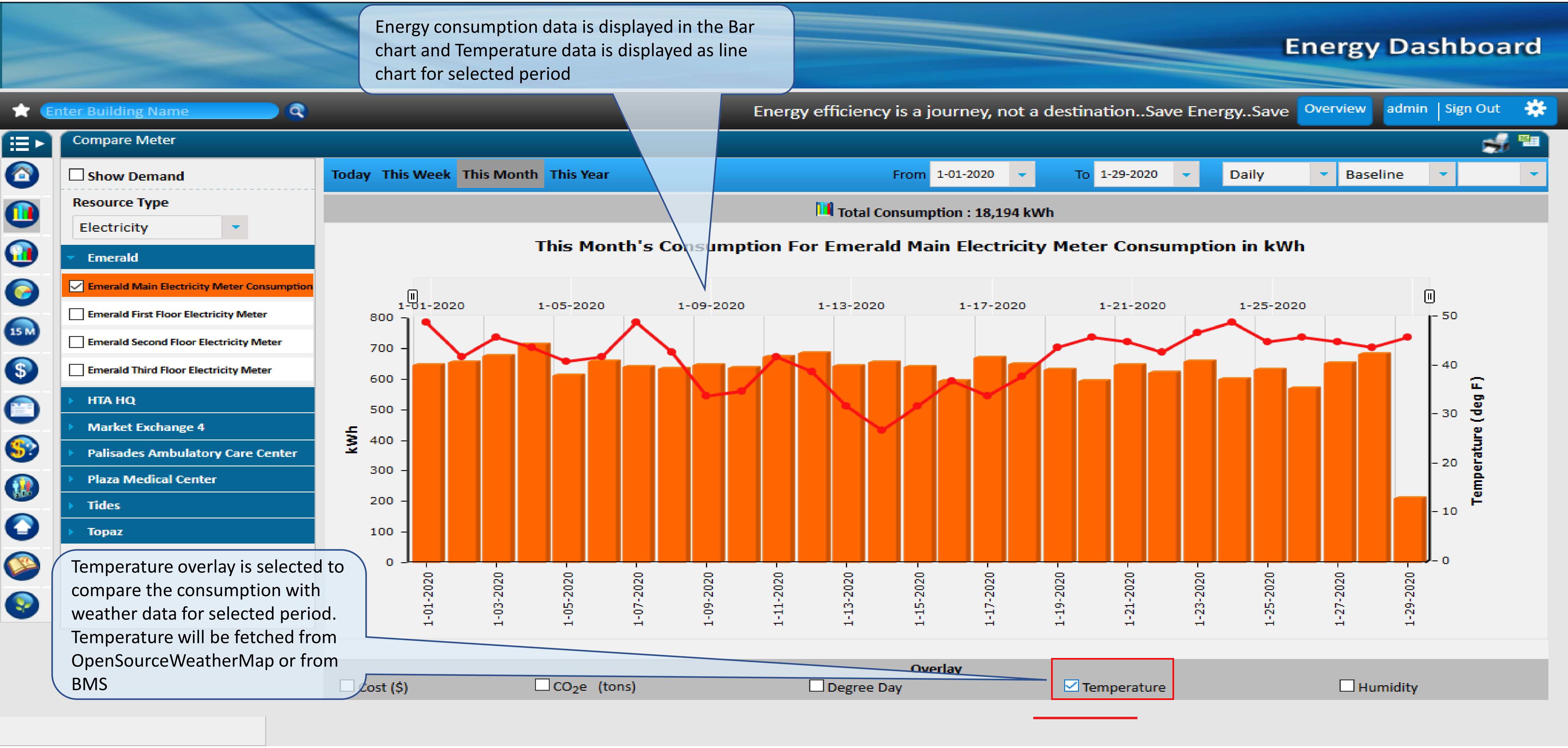
This Month's Consumption For Emerald Main Electricity Meter Consumption in kWh

1-01-2020
1-06-2020
1-11-2020
1-16-2020
1-21-2020
1-26-2020
kWh
0
100
200
300
400
500
600
700
800
Degree Day
0
10
20
30
40
50
1-01-2020
1-03-2020
1-05-2020
1-07-2020
1-09-2020
1-11-2020
1-13-2020
1-15-2020
1-17-2020
1-19-2020
1-21-2020
1-23-2020
1-25-2020
1-27-2020
1-29-2020
● CDD ● HDD

Overlay

☐ Cost ($) ☐ CO_2e (tons) ☑ Degree Day ☐ Temperature ☐ Humidity

Compare Meter – Temperature



Energy consumption data is displayed in the Bar chart and Temperature data is displayed as line chart for selected period

Temperature overlay is selected to compare the consumption with weather data for selected period. Temperature will be fetched from OpenSourceWeatherMap or from BMS

Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save
Overview
admin
Sign Out
15 M
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
Today
This Week
This Month
This Year
1-01-2020
1-05-2020
1-09-2020
1-13-2020
1-17-2020
1-21-2020
1-25-2020
kWh
0
100
200
300
400
500
600
700
800
Temperature (deg F)
0
10
20
30
40
50
1-01-2020
1-03-2020
1-05-2020
1-07-2020
1-09-2020
1-11-2020
1-13-2020
1-15-2020
1-17-2020
1-19-2020
1-21-2020
1-23-2020
1-25-2020
1-27-2020
1-29-2020

Compare Meter

☐ Show Demand

Resource Type: Electricity

Emerald

☑ Emerald Main Electricity Meter Consumption

☐ Emerald First Floor Electricity Meter

☐ Emerald Second Floor Electricity Meter

☐ Emerald Third Floor Electricity Meter

This Month

From 1-01-2020 To 1-29-2020 Daily Baseline

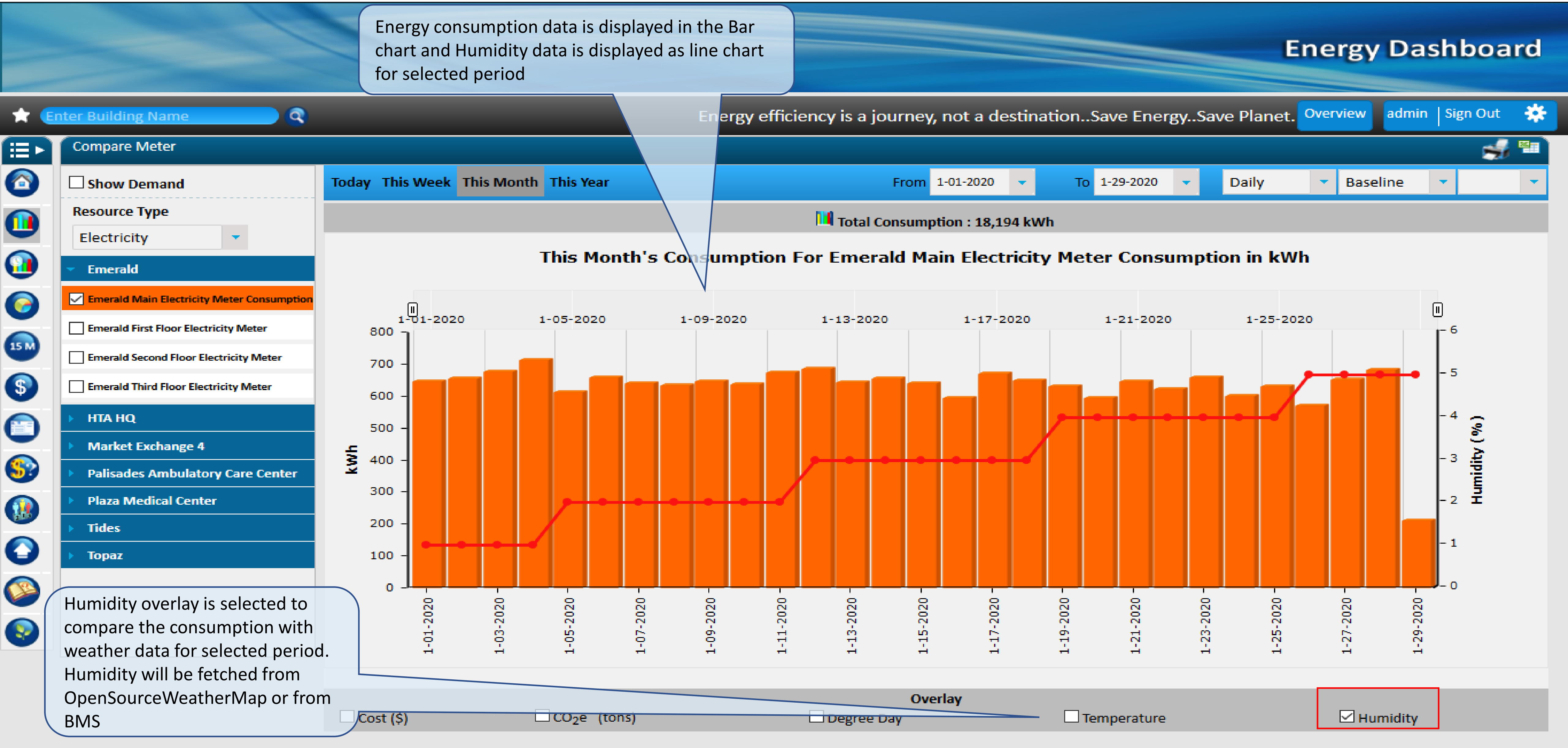
Total Consumption : 18,194 kWh

This Month's Consumption For Emerald Main Electricity Meter Consumption in kWh

Overlay

☐ Cost ($) ☐ CO$_2$e (tons) ☐ Degree Day ☑ Temperature ☐ Humidity

Compare Meter – Humidity



Energy consumption data is displayed in the Bar chart and Humidity data is displayed as line chart for selected period

Humidity overlay is selected to compare the consumption with weather data for selected period. Humidity will be fetched from OpenSourceWeatherMap or from BMS

Show Demand ☐

Resource Type: Electricity

From 1-01-2020 To 1-29-2020 Daily Baseline

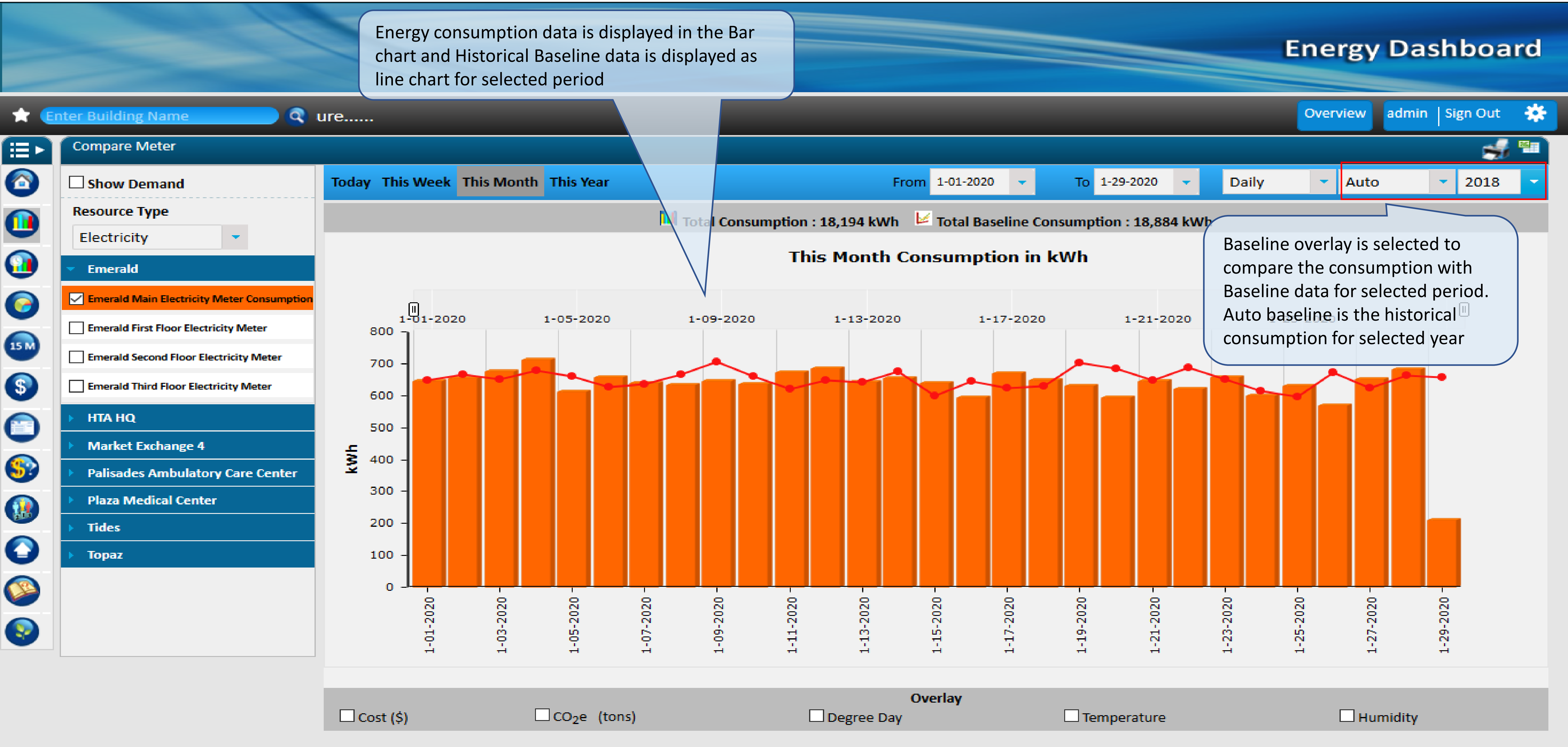
Total Consumption : 18,194 kWh

This Month's Consumption For Emerald Main Electricity Meter Consumption in kWh

Overlay: ☐ Cost ($) ☐ CO$_2$e (tons) ☐ Degree Day ☐ Temperature ☑ Humidity

Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save Planet.
Overview
admin | Sign Out
Compare Meter
15 M
Emerald
☑ Emerald Main Electricity Meter Consumption
☐ Emerald First Floor Electricity Meter
☐ Emerald Second Floor Electricity Meter
☐ Emerald Third Floor Electricity Meter
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
Today
This Week
This Month
This Year
1-01-2020
1-05-2020
1-09-2020
1-13-2020
1-17-2020
1-21-2020
1-25-2020
kWh
800
700
600
500
400
300
200
100
0
Humidity (%)
6
5
4
3
2
1
0
1-01-2020
1-03-2020
1-05-2020
1-07-2020
1-09-2020
1-11-2020
1-13-2020
1-15-2020
1-17-2020
1-19-2020
1-21-2020
1-23-2020
1-25-2020
1-27-2020
1-29-2020

Baseline - Auto



Energy consumption data is displayed in the Bar chart and Historical Baseline data is displayed as line chart for selected period

Baseline overlay is selected to compare the consumption with Baseline data for selected period. Auto baseline is the historical consumption for selected year

Energy Dashboard
Enter Building Name
ure......
Overview
admin | Sign Out
Compare Meter
15 M

☐ Show Demand

Resource Type: Electricity

- Emerald
  - ☑ Emerald Main Electricity Meter Consumption
  - ☐ Emerald First Floor Electricity Meter
  - ☐ Emerald Second Floor Electricity Meter
  - ☐ Emerald Third Floor Electricity Meter
- HTA HQ
- Market Exchange 4
- Palisades Ambulatory Care Center
- Plaza Medical Center
- Tides
- Topaz

Today | This Week | This Month | This Year

From 1-01-2020 To 1-29-2020 | Daily | Auto | 2018

Total Consumption : 18,194 kWh   Total Baseline Consumption : 18,884 kWh

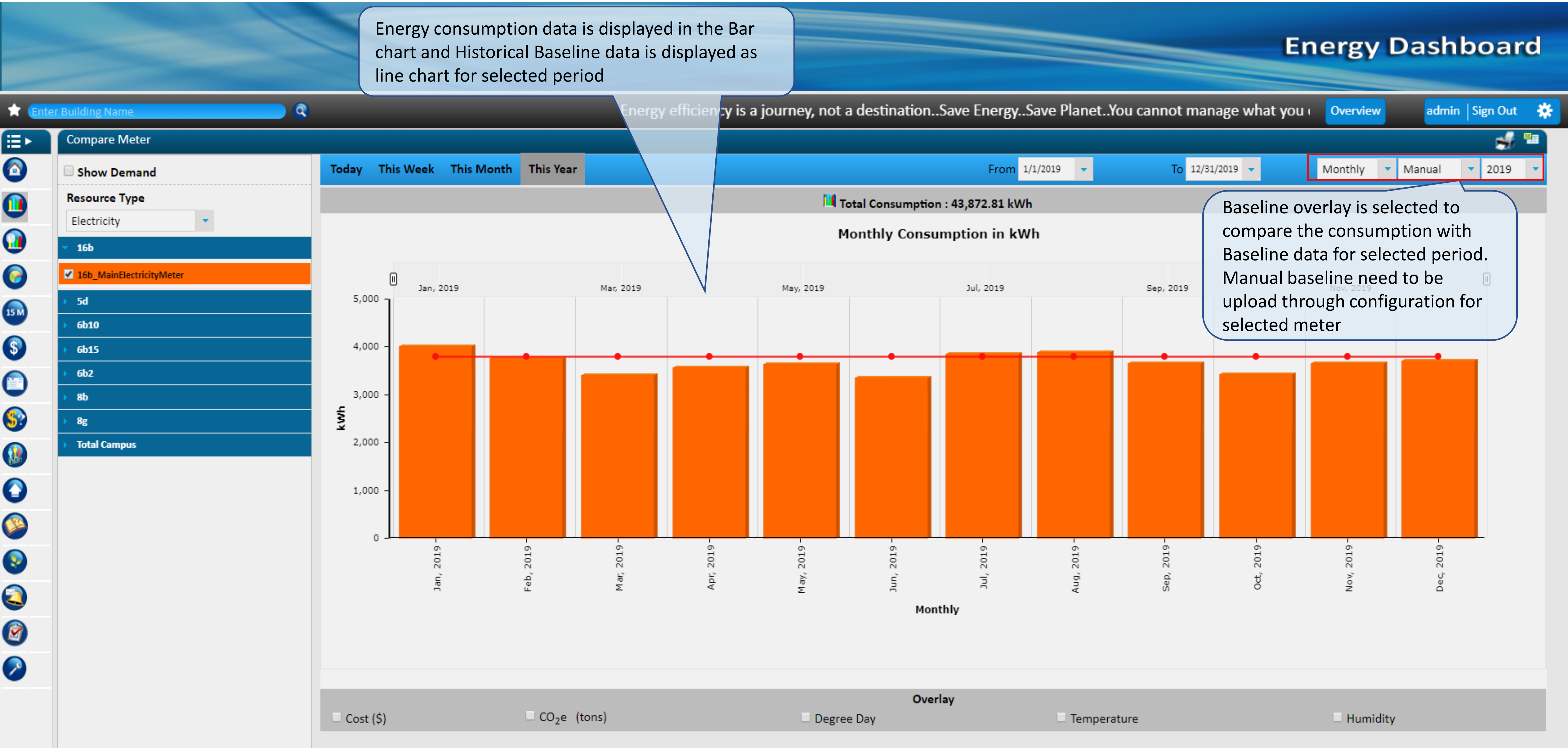
This Month Consumption in kWh

1-01-2020
1-05-2020
1-09-2020
1-13-2020
1-17-2020
1-21-2020
kWh
800
700
600
500
400
300
200
100
0
1-01-2020
1-03-2020
1-05-2020
1-07-2020
1-09-2020
1-11-2020
1-13-2020
1-15-2020
1-17-2020
1-19-2020
1-21-2020
1-23-2020
1-25-2020
1-27-2020
1-29-2020

Overlay

☐ Cost ($)   ☐ CO_2e (tons)   ☐ Degree Day   ☐ Temperature   ☐ Humidity

Baseline - Manual


Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you
Overview
admin
Sign Out
Compare Meter
☐ Show Demand
Resource Type
Electricity
16b
☑ 16b_MainElectricityMeter
5d
6b10
6b15
6b2
8b
8g
Total Campus
Today
This Week
This Month
This Year
Monthly Consumption in kWh
kWh
5,000
4,000
3,000
2,000
1,000
0
Jan, 2019
Feb, 2019
Mar, 2019
Apr, 2019
May, 2019
Jun, 2019
Jul, 2019
Aug, 2019
Sep, 2019
Oct, 2019
Nov, 2019
Dec, 2019
Monthly
Overlay
☐ Cost ($)
☐ CO_2e (tons)
☐ Degree Day
☐ Temperature
☐ Humidity

From 1/1/2019 To 12/31/2019

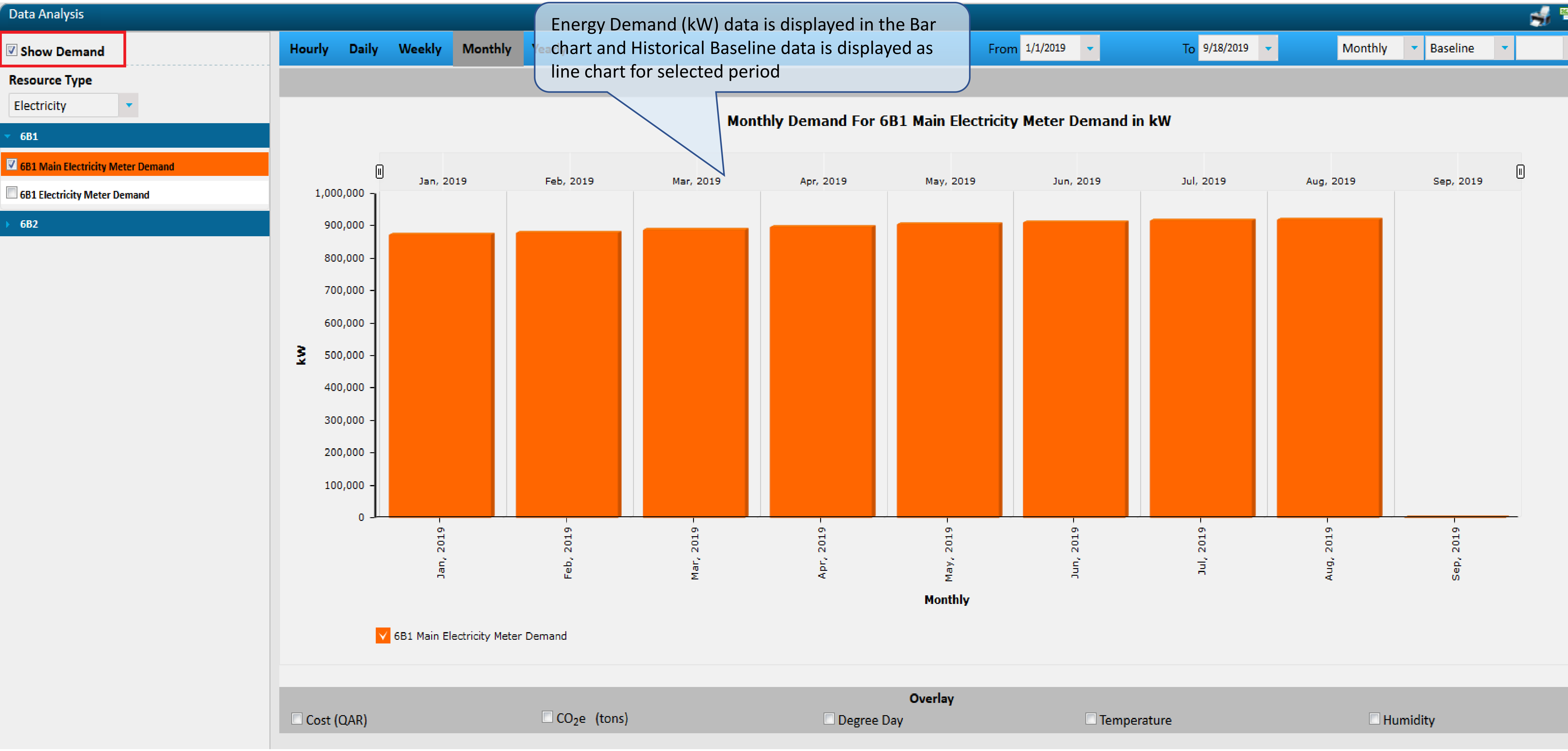
Monthly | Manual | 2019

Total Consumption : 43,872.81 kWh

Energy consumption data is displayed in the Bar chart and Historical Baseline data is displayed as line chart for selected period

Baseline overlay is selected to compare the consumption with Baseline data for selected period. Manual baseline need to be upload through configuration for selected meter

Energy Demand



Energy Demand (kW) data is displayed in the Bar chart and Historical Baseline data is displayed as line chart for selected period

Data Analysis

☑ **Show Demand**

Resource Type: Electricity

☑ 6B1 Main Electricity Meter Demand

☐ 6B1 Electricity Meter Demand

From 1/1/2019 To 9/18/2019 Monthly Baseline

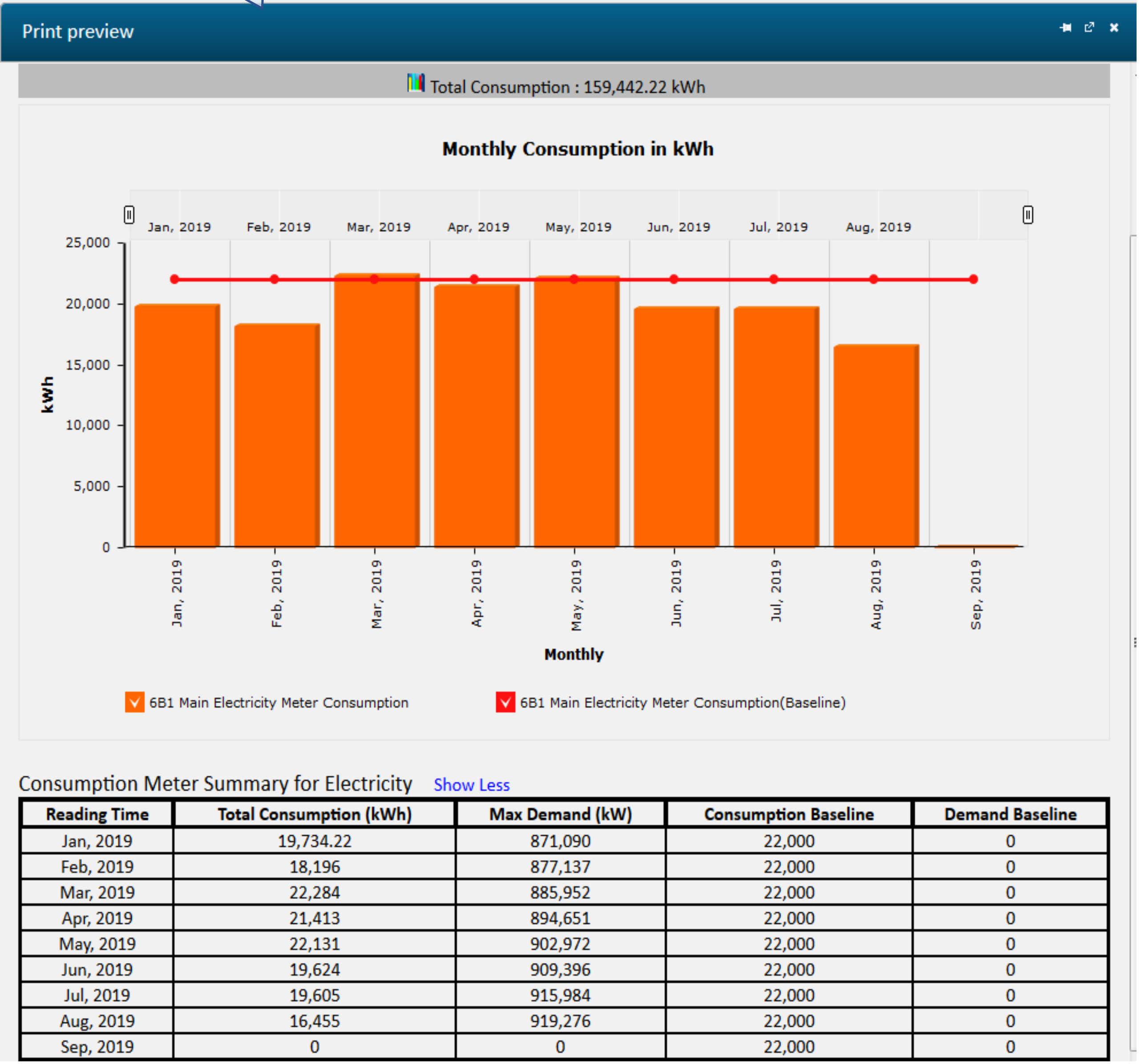
Monthly Demand For 6B1 Main Electricity Meter Demand in kW

6B1
6B2
Hourly
Daily
Weekly
Monthly
Yearly
Jan, 2019
Feb, 2019
Mar, 2019
Apr, 2019
May, 2019
Jun, 2019
Jul, 2019
Aug, 2019
Sep, 2019
kW
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
Monthly
✓ 6B1 Main Electricity Meter Demand
Overlay
☐ Cost (QAR)
☐ CO₂e (tons)
☐ Degree Day
☐ Temperature
☐ Humidity

Print & Export

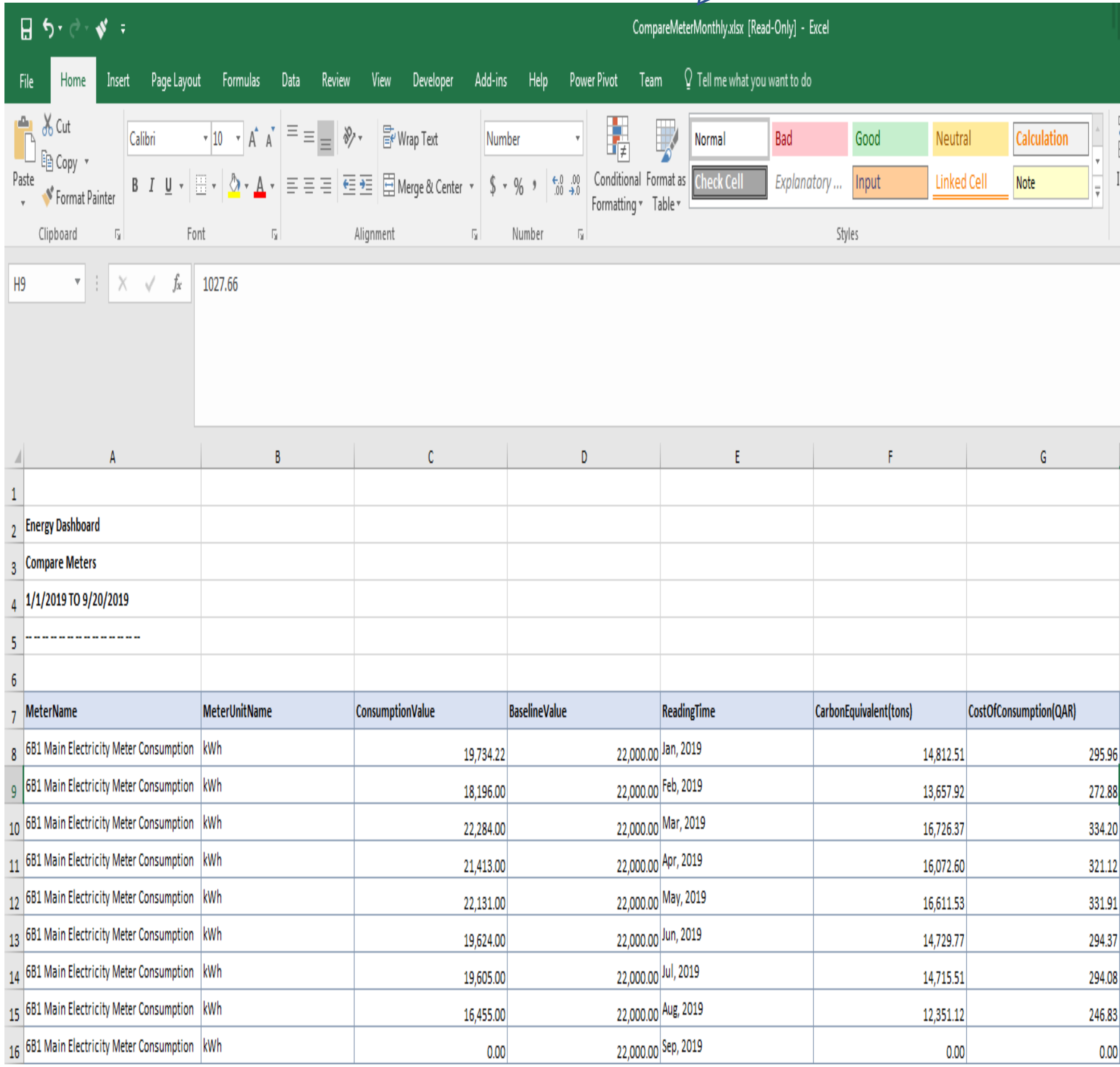
Print consumption with chart and tabular data

Export consumption data to excel


Print preview
Total Consumption : 159,442.22 kWh
Monthly Consumption in kWh
Jan, 2019
Feb, 2019
Mar, 2019
Apr, 2019
May, 2019
Jun, 2019
Jul, 2019
Aug, 2019
Sep, 2019
25,000
20,000
15,000
10,000
5,000
0
kWh
Monthly
6B1 Main Electricity Meter Consumption
6B1 Main Electricity Meter Consumption(Baseline)
Show Less

Consumption Meter Summary for Electricity

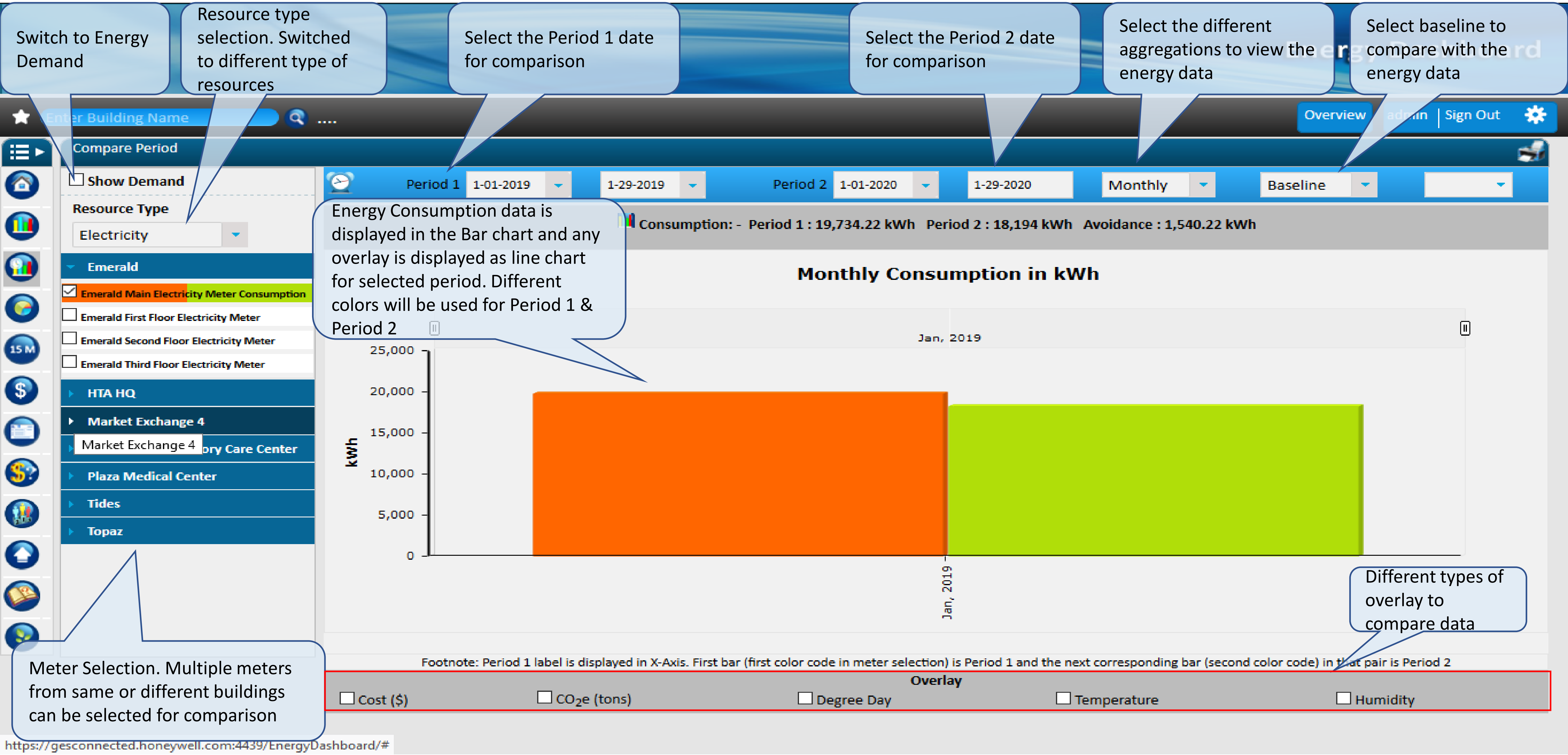
Reading Time	Total Consumption (kWh)	Max Demand (kW)	Consumption Baseline	Demand Baseline
Jan, 2019	19,734.22	871,090	22,000	0
Feb, 2019	18,196	877,137	22,000	0
Mar, 2019	22,284	885,952	22,000	0
Apr, 2019	21,413	894,651	22,000	0
May, 2019	22,131	902,972	22,000	0
Jun, 2019	19,624	909,396	22,000	0
Jul, 2019	19,605	915,984	22,000	0
Aug, 2019	16,455	919,276	22,000	0
Sep, 2019	0	0	22,000	0


CompareMeterMonthly.xlsx [Read-Only] - Excel
File
Home
Insert
Page Layout
Formulas
Data
Review
View
Developer
Add-ins
Help
Power Pivot
Team
Tell me what you want to do
Cut
Copy
Format Painter
Paste
Clipboard
Calibri
10
Font
Wrap Text
Merge & Center
Alignment
Number
Number
Conditional Formatting
Format as Table
Normal
Bad
Good
Neutral
Calculation
Check Cell
Explanatory ...
Input
Linked Cell
Note
Styles
H9
A
B
C
D
E
F
G

H9: 1027.66

	A	B	C	D	E	F	G
1							
2	Energy Dashboard						
3	Compare Meters						
4	1/1/2019 TO 9/20/2019						
5	----------------						
6							
7	MeterName	MeterUnitName	ConsumptionValue	BaselineValue	ReadingTime	CarbonEquivalent(tons)	CostOfConsumption(QAR)
8	6B1 Main Electricity Meter Consumption	kWh	19,734.22	22,000.00	Jan, 2019	14,812.51	295.96
9	6B1 Main Electricity Meter Consumption	kWh	18,196.00	22,000.00	Feb, 2019	13,657.92	272.88
10	6B1 Main Electricity Meter Consumption	kWh	22,284.00	22,000.00	Mar, 2019	16,726.37	334.20
11	6B1 Main Electricity Meter Consumption	kWh	21,413.00	22,000.00	Apr, 2019	16,072.60	321.12
12	6B1 Main Electricity Meter Consumption	kWh	22,131.00	22,000.00	May, 2019	16,611.53	331.91
13	6B1 Main Electricity Meter Consumption	kWh	19,624.00	22,000.00	Jun, 2019	14,729.77	294.37
14	6B1 Main Electricity Meter Consumption	kWh	19,605.00	22,000.00	Jul, 2019	14,715.51	294.08
15	6B1 Main Electricity Meter Consumption	kWh	16,455.00	22,000.00	Aug, 2019	12,351.12	246.83
16	6B1 Main Electricity Meter Consumption	kWh	0.00	22,000.00	Sep, 2019	0.00	0.00

Compare Period – Period Over Period Comparison



Switch to Energy Demand

Resource type selection. Switched to different type of resources

Select the Period 1 date for comparison

Select the Period 2 date for comparison

Select the different aggregations to view the energy data

Select baseline to compare with the energy data

Energy Consumption data is displayed in the Bar chart and any overlay is displayed as line chart for selected period. Different colors will be used for Period 1 & Period 2

Different types of overlay to compare data

Meter Selection. Multiple meters from same or different buildings can be selected for comparison

Compare Period

☐ Show Demand

Resource Type: Electricity

Emerald
- ☑ Emerald Main Electricity Meter Consumption
- ☐ Emerald First Floor Electricity Meter
- ☐ Emerald Second Floor Electricity Meter
- ☐ Emerald Third Floor Electricity Meter

HTA HQ

Market Exchange 4

Market Exchange 4 ...ory Care Center

Plaza Medical Center

Tides

Topaz

Period 1: 1-01-2019 – 1-29-2019 Period 2: 1-01-2020 – 1-29-2020 Monthly Baseline

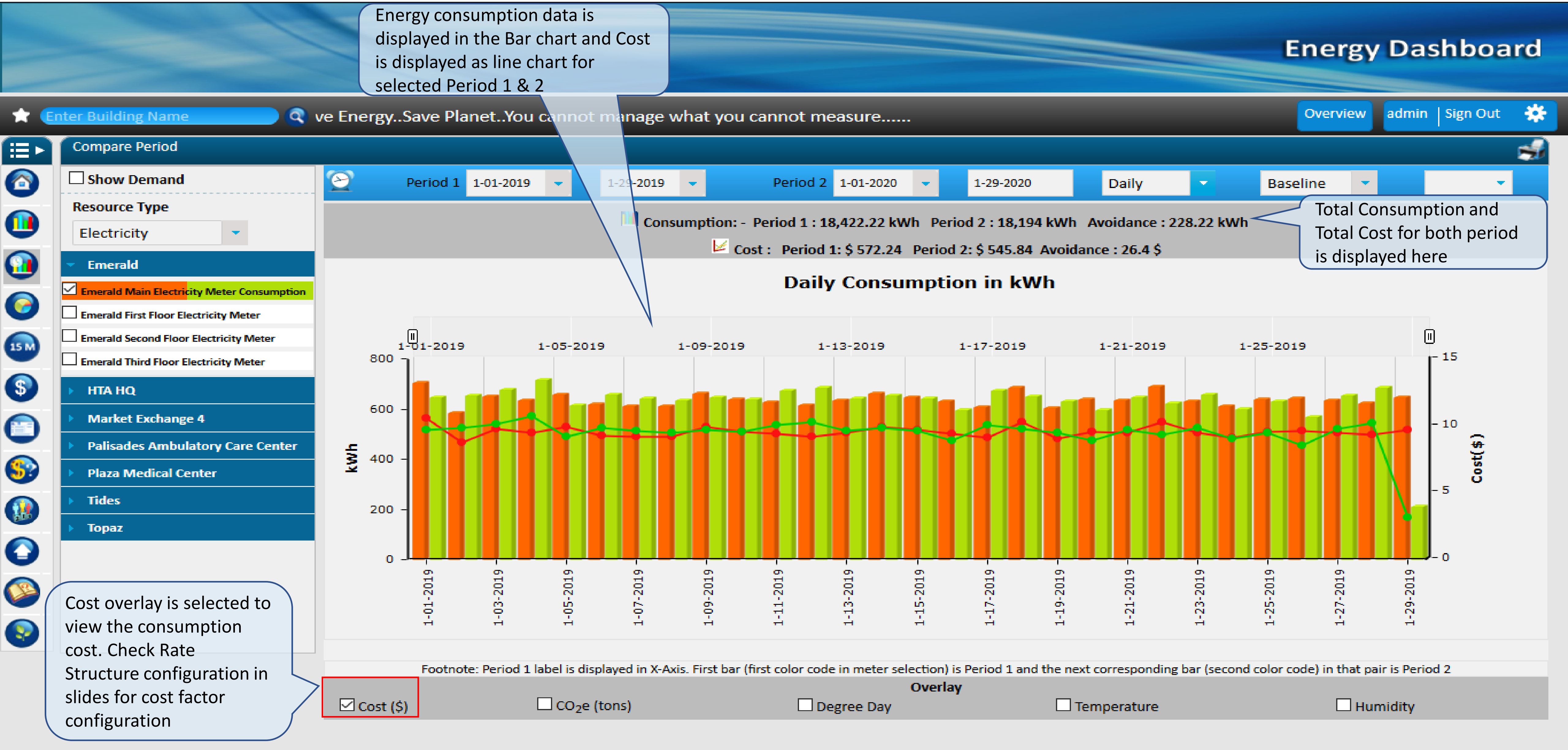
Consumption: - Period 1 : 19,734.22 kWh Period 2 : 18,194 kWh Avoidance : 1,540.22 kWh

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

Overlay: ☐ Cost ($) ☐ CO₂e (tons) ☐ Degree Day ☐ Temperature ☐ Humidity

https://gesconnected.honeywell.com:4439/EnergyDashboard/#

Compare Period – Energy Cost


Energy Dashboard
Enter Building Name
ve Energy..Save Planet..You cannot manage what you cannot measure......
Overview
admin
Sign Out
Compare Period
15 M
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
Daily Consumption in kWh
kWh
Cost($)
800
600
400
200
0
15
10
5
0
1-01-2019
1-05-2019
1-09-2019
1-13-2019
1-17-2019
1-21-2019
1-25-2019
1-01-2019
1-03-2019
1-05-2019
1-07-2019
1-09-2019
1-11-2019
1-13-2019
1-15-2019
1-17-2019
1-19-2019
1-21-2019
1-23-2019
1-25-2019
1-27-2019
1-29-2019
Overlay

☐ Show Demand

Resource Type: Electricity

Emerald

☑ Emerald Main Electricity Meter Consumption

☐ Emerald First Floor Electricity Meter

☐ Emerald Second Floor Electricity Meter

☐ Emerald Third Floor Electricity Meter

Period 1 1-01-2019 1-29-2019 Period 2 1-01-2020 1-29-2020 Daily Baseline

Consumption: - Period 1 : 18,422.22 kWh Period 2 : 18,194 kWh Avoidance : 228.22 kWh

Cost : Period 1: $ 572.24 Period 2: $ 545.84 Avoidance : 26.4 $

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

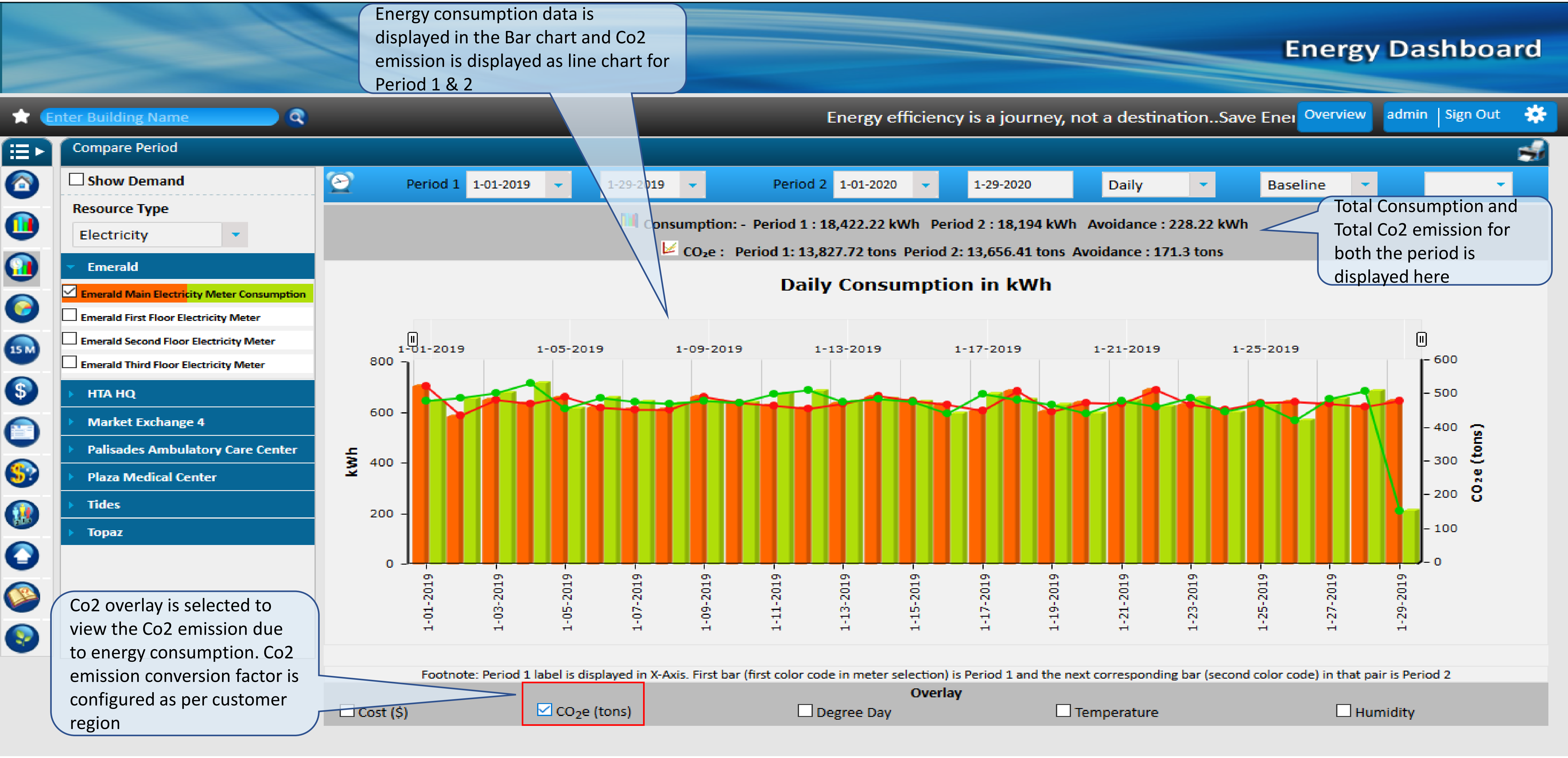
☑ Cost ($) ☐ CO_2e (tons) ☐ Degree Day ☐ Temperature ☐ Humidity

Energy consumption data is displayed in the Bar chart and Cost is displayed as line chart for selected Period 1 & 2

Total Consumption and Total Cost for both period is displayed here

Cost overlay is selected to view the consumption cost. Check Rate Structure configuration in slides for cost factor configuration

Compare Period – Co2 Emissions


Energy Dashboard
Enter Building Name
Overview
admin
Sign Out
Daily Consumption in kWh
kWh
800
600
400
200
0
600
500
400
300
200
100
0
CO_2e (tons)
1-01-2019
1-05-2019
1-09-2019
1-13-2019
1-17-2019
1-21-2019
1-25-2019
1-03-2019
1-07-2019
1-11-2019
1-15-2019
1-19-2019
1-23-2019
1-27-2019
1-29-2019

Energy efficiency is a journey, not a destination..Save Ener

Compare Period

☐ Show Demand

Resource Type: Electricity

Emerald

- ☑ Emerald Main Electricity Meter Consumption
- ☐ Emerald First Floor Electricity Meter
- ☐ Emerald Second Floor Electricity Meter
- ☐ Emerald Third Floor Electricity Meter

HTA HQ

Market Exchange 4

Palisades Ambulatory Care Center

Plaza Medical Center

Tides

Topaz

Period 1 1-01-2019 1-29-2019 Period 2 1-01-2020 1-29-2020 Daily Baseline

Consumption: - Period 1 : 18,422.22 kWh Period 2 : 18,194 kWh Avoidance : 228.22 kWh

CO_2e : Period 1: 13,827.72 tons Period 2: 13,656.41 tons Avoidance : 171.3 tons

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

Overlay

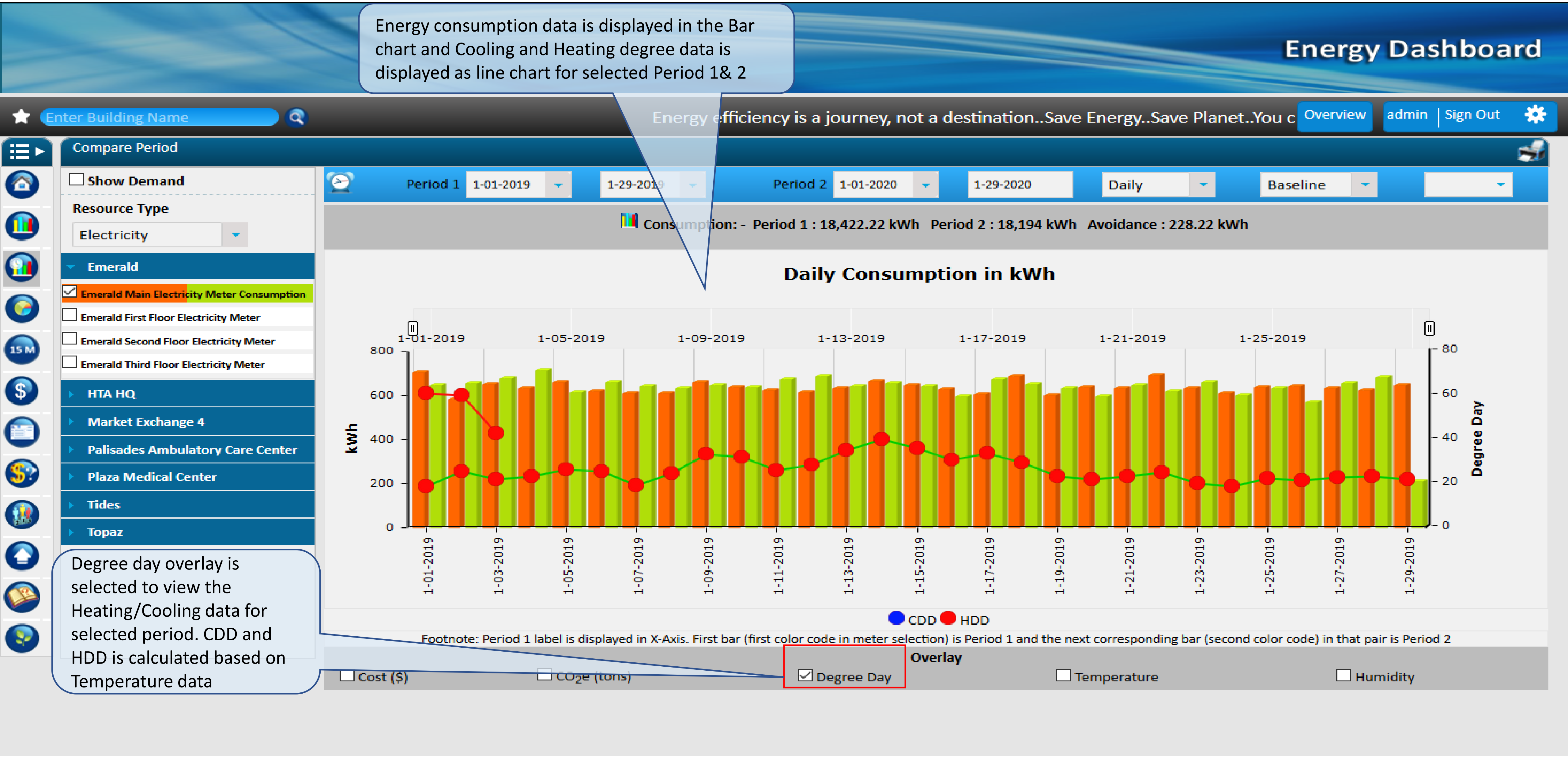
☐ Cost ($) ☑ CO_2e (tons) ☐ Degree Day ☐ Temperature ☐ Humidity

Energy consumption data is displayed in the Bar chart and Co2 emission is displayed as line chart for Period 1 & 2

Total Consumption and Total Co2 emission for both the period is displayed here

Co2 overlay is selected to view the Co2 emission due to energy consumption. Co2 emission conversion factor is configured as per customer region

Compare Period – Degree Day



Energy consumption data is displayed in the Bar chart and Cooling and Heating degree data is displayed as line chart for selected Period 1& 2

Degree day overlay is selected to view the Heating/Cooling data for selected period. CDD and HDD is calculated based on Temperature data

Compare Period

☐ Show Demand

Resource Type: Electricity

☑ Emerald Main Electricity Meter Consumption

Period 1 1-01-2019 1-29-2019 Period 2 1-01-2020 1-29-2020 Daily Baseline

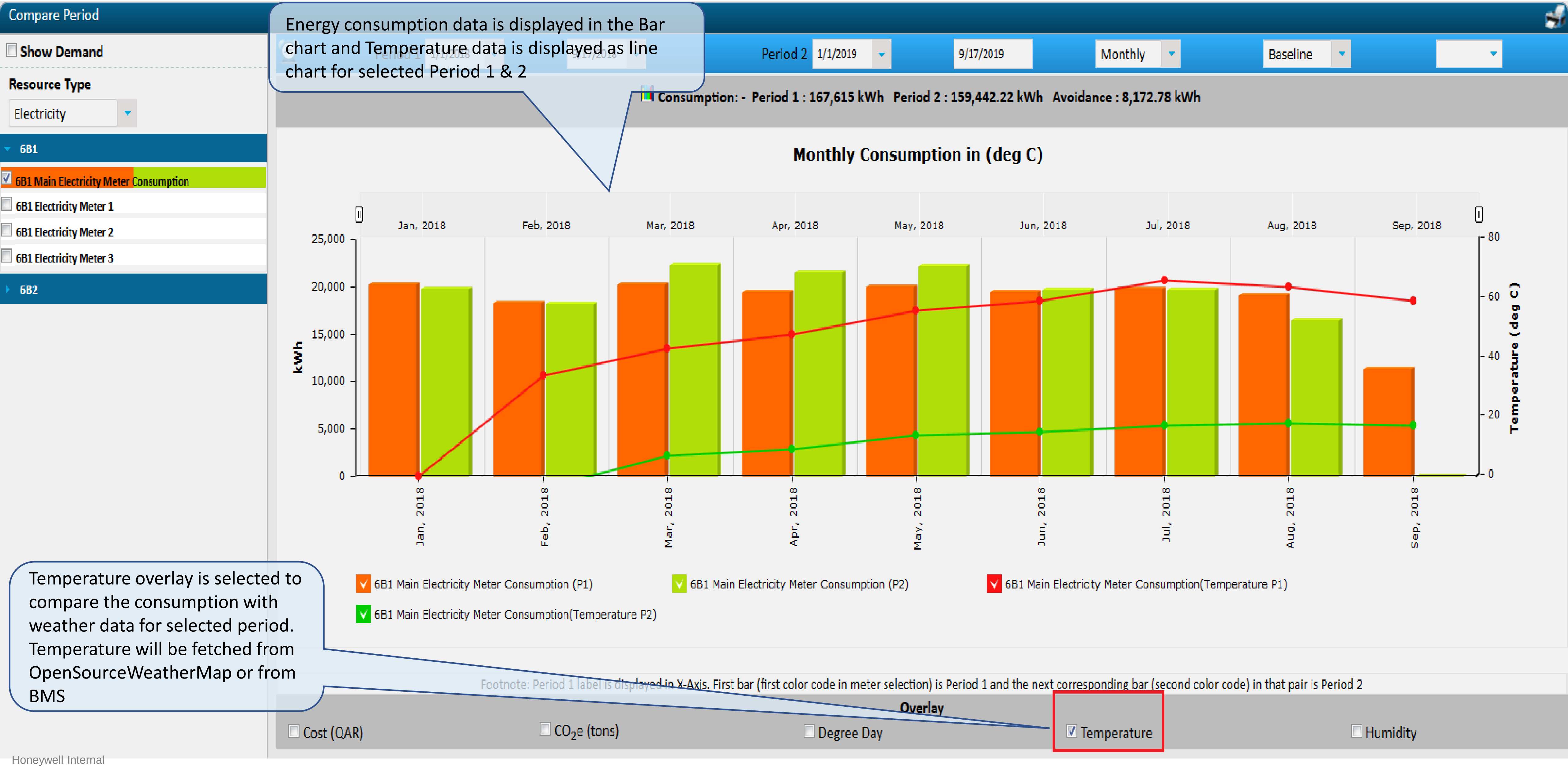
Consumption: - Period 1 : 18,422.22 kWh Period 2 : 18,194 kWh Avoidance : 228.22 kWh

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

Overlay: ☐ Cost ($) ☐ CO2e (tons) ☑ Degree Day ☐ Temperature ☐ Humidity

Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You c
Overview
admin
Sign Out
Emerald
☐ Emerald First Floor Electricity Meter
☐ Emerald Second Floor Electricity Meter
☐ Emerald Third Floor Electricity Meter
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
15 M
Daily Consumption in kWh
kWh
Degree Day
800
600
400
200
0
80
60
40
20
0
1-01-2019
1-05-2019
1-09-2019
1-13-2019
1-17-2019
1-21-2019
1-25-2019
1-03-2019
1-07-2019
1-11-2019
1-15-2019
1-19-2019
1-23-2019
1-27-2019
1-29-2019
● CDD ● HDD

Compare Period – Temperature


Compare Period
Period 1 1/1/2018 9/17/2018
Monthly Consumption in (deg C)
kWh
25,000
20,000
15,000
10,000
5,000
0
Temperature (deg C)
80
60
40
20
0
Jan, 2018
Feb, 2018
Mar, 2018
Apr, 2018
May, 2018
Jun, 2018
Jul, 2018
Aug, 2018
Sep, 2018
6B1
6B2

☐ **Show Demand**

Resource Type: Electricity

☑ 6B1 Main Electricity Meter Consumption
☐ 6B1 Electricity Meter 1
☐ 6B1 Electricity Meter 2
☐ 6B1 Electricity Meter 3

Period 2 1/1/2019 9/17/2019 Monthly Baseline

Consumption: - Period 1 : 167,615 kWh Period 2 : 159,442.22 kWh Avoidance : 8,172.78 kWh

✓ 6B1 Main Electricity Meter Consumption (P1)
✓ 6B1 Main Electricity Meter Consumption (P2)
✓ 6B1 Main Electricity Meter Consumption(Temperature P1)
✓ 6B1 Main Electricity Meter Consumption(Temperature P2)

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

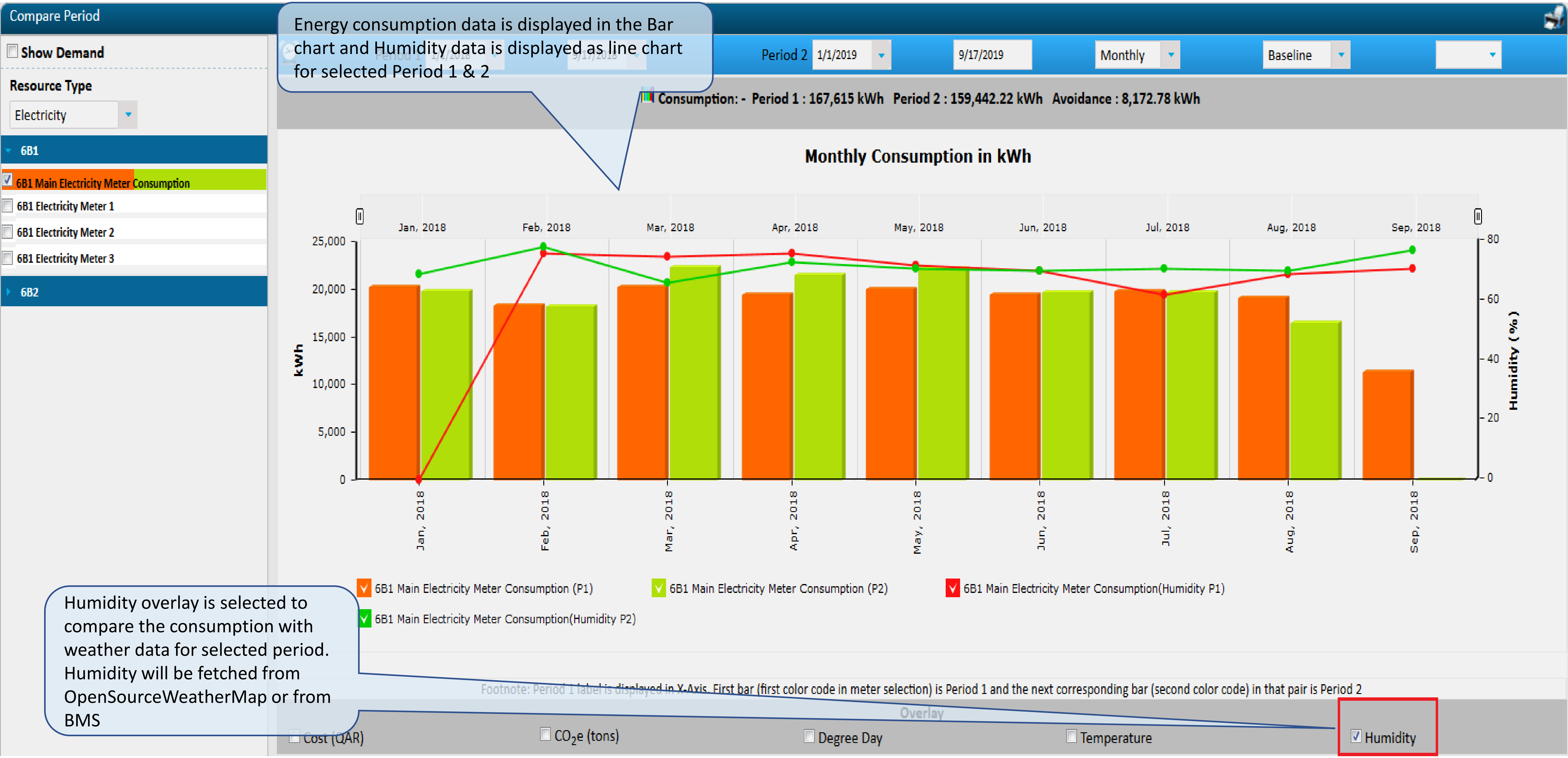
Overlay

☐ Cost (QAR) ☐ CO_2e (tons) ☐ Degree Day ☑ Temperature ☐ Humidity

Energy consumption data is displayed in the Bar chart and Temperature data is displayed as line chart for selected Period 1 & 2

Temperature overlay is selected to compare the consumption with weather data for selected period. Temperature will be fetched from OpenSourceWeatherMap or from BMS

Compare Period – Humidity



Energy consumption data is displayed in the Bar chart and Humidity data is displayed as line chart for selected Period 1 & 2

Humidity overlay is selected to compare the consumption with weather data for selected period. Humidity will be fetched from OpenSourceWeatherMap or from BMS

Compare Period

☐ Show Demand

Resource Type: Electricity

Period 1: 1/1/2018 – 9/17/2018

Period 2: 1/1/2019 – 9/17/2019

Monthly

Baseline

Consumption: - Period 1 : 167,615 kWh Period 2 : 159,442.22 kWh Avoidance : 8,172.78 kWh

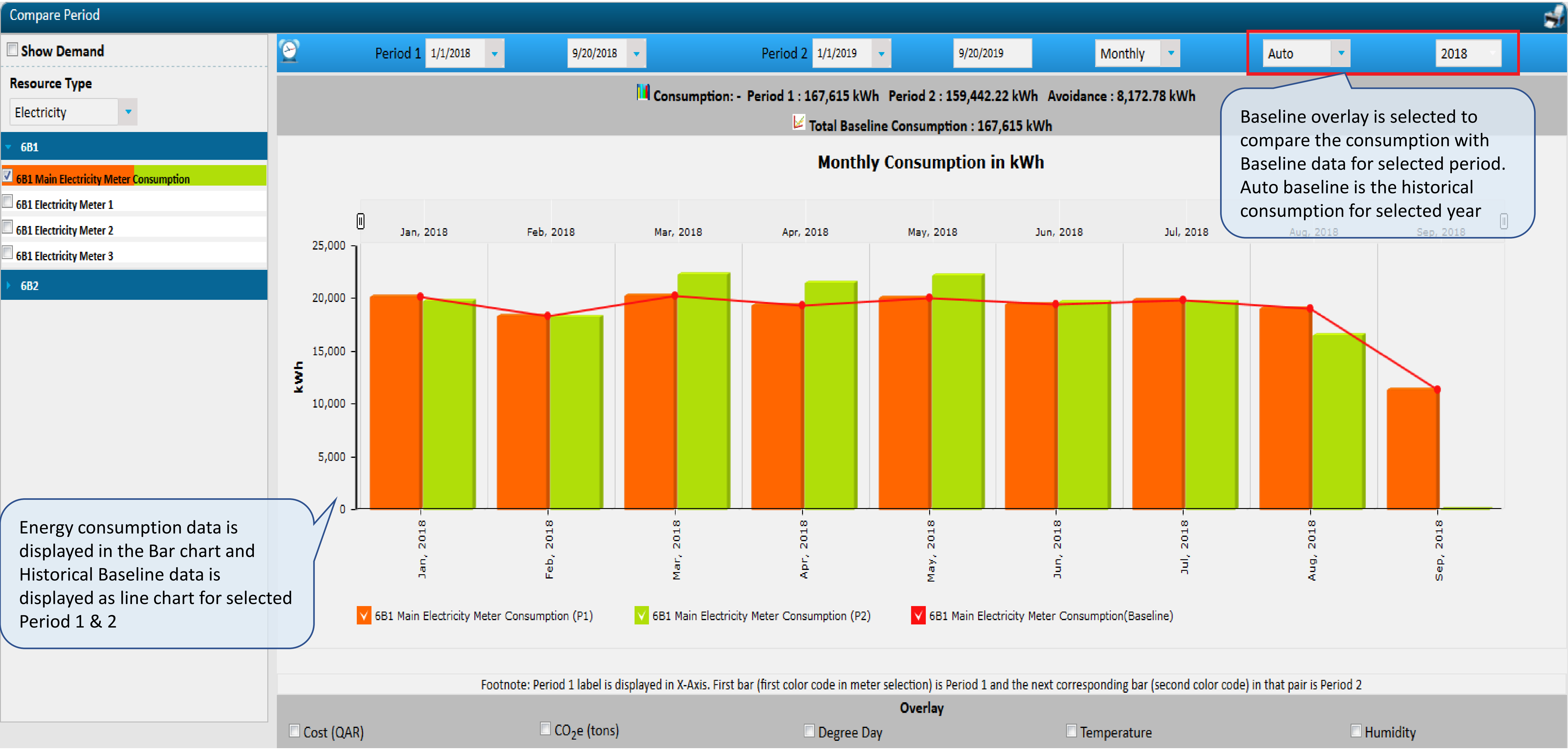
Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

Overlay

☐ Cost (QAR)
☐ CO_2e (tons)
☐ Degree Day
☐ Temperature
☑ Humidity

6B1
☑ 6B1 Main Electricity Meter Consumption
☐ 6B1 Electricity Meter 1
☐ 6B1 Electricity Meter 2
☐ 6B1 Electricity Meter 3
6B2
Monthly Consumption in kWh
kWh
Humidity (%)
0
5,000
10,000
15,000
20,000
25,000
0
20
40
60
80
Jan, 2018
Feb, 2018
Mar, 2018
Apr, 2018
May, 2018
Jun, 2018
Jul, 2018
Aug, 2018
Sep, 2018
6B1 Main Electricity Meter Consumption (P1)
6B1 Main Electricity Meter Consumption (P2)
6B1 Main Electricity Meter Consumption(Humidity P1)
6B1 Main Electricity Meter Consumption(Humidity P2)

Compare Period – Auto Baseline



Compare Period

☐ **Show Demand**

Resource Type

Electricity

6B1

☑ 6B1 Main Electricity Meter Consumption

☐ 6B1 Electricity Meter 1

☐ 6B1 Electricity Meter 2

☐ 6B1 Electricity Meter 3

6B2

Period 1 1/1/2018 9/20/2018 Period 2 1/1/2019 9/20/2019 Monthly Auto 2018

Consumption: - Period 1 : 167,615 kWh Period 2 : 159,442.22 kWh Avoidance : 8,172.78 kWh

Total Baseline Consumption : 167,615 kWh

Monthly Consumption in kWh

Jan, 2018
Feb, 2018
Mar, 2018
Apr, 2018
May, 2018
Jun, 2018
Jul, 2018
Aug, 2018
Sep, 2018
kWh
25,000
20,000
15,000
10,000
5,000
0
Jan, 2018
Feb, 2018
Mar, 2018
Apr, 2018
May, 2018
Jun, 2018
Jul, 2018
Aug, 2018
Sep, 2018

✓ 6B1 Main Electricity Meter Consumption (P1)

✓ 6B1 Main Electricity Meter Consumption (P2)

✓ 6B1 Main Electricity Meter Consumption(Baseline)

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

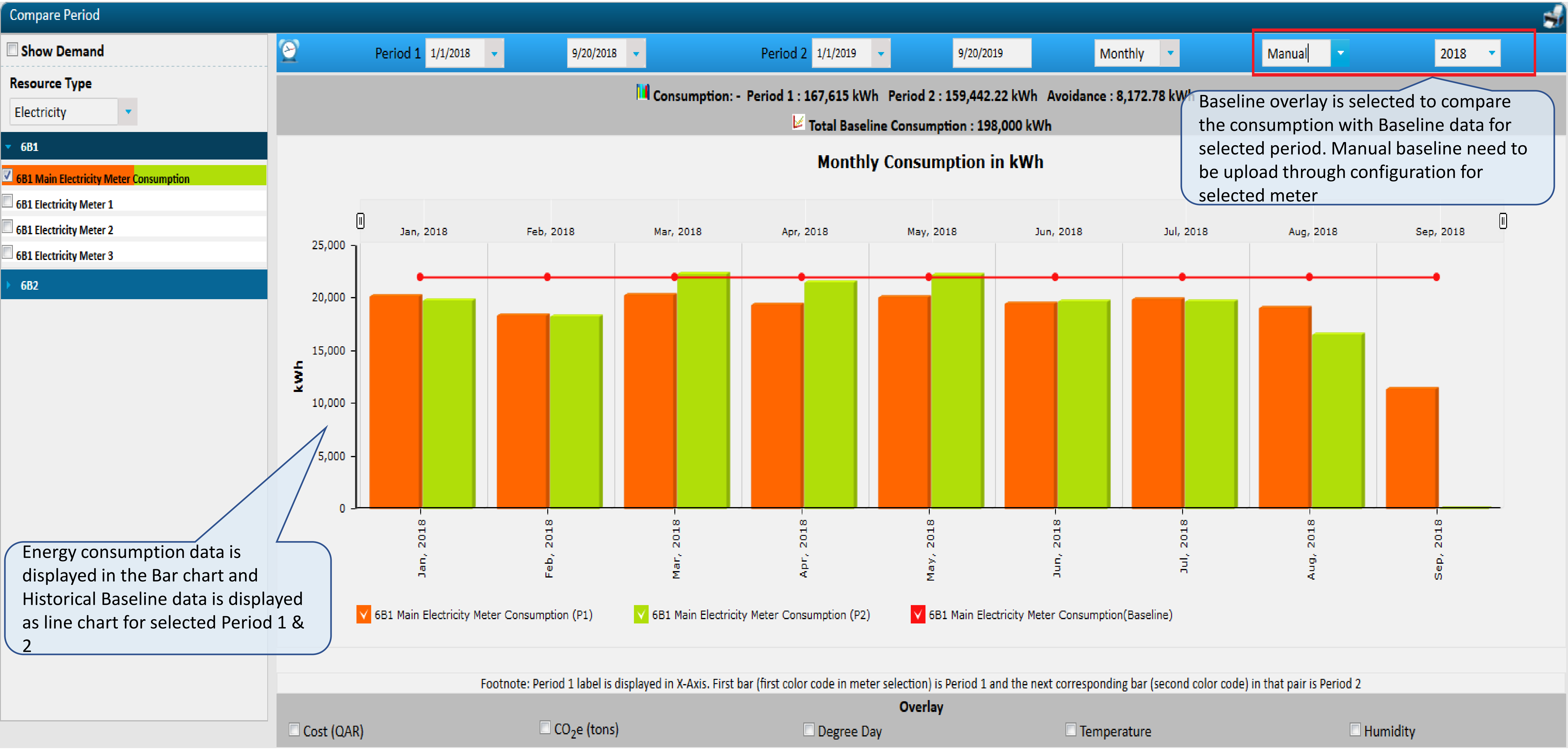
Overlay

☐ Cost (QAR) ☐ CO_2e (tons) ☐ Degree Day ☐ Temperature ☐ Humidity

Baseline overlay is selected to compare the consumption with Baseline data for selected period. Auto baseline is the historical consumption for selected year

Energy consumption data is displayed in the Bar chart and Historical Baseline data is displayed as line chart for selected Period 1 & 2

Compare Period – Manual Baseline



Compare Period

☐ **Show Demand**

Resource Type

Electricity

6B1

☑ 6B1 Main Electricity Meter Consumption

☐ 6B1 Electricity Meter 1

☐ 6B1 Electricity Meter 2

☐ 6B1 Electricity Meter 3

6B2

Period 1 1/1/2018 9/20/2018 Period 2 1/1/2019 9/20/2019 Monthly Manual 2018

Consumption: - Period 1 : 167,615 kWh Period 2 : 159,442.22 kWh Avoidance : 8,172.78 kWh

Total Baseline Consumption : 198,000 kWh

Monthly Consumption in kWh

🟧 6B1 Main Electricity Meter Consumption (P1)

🟩 6B1 Main Electricity Meter Consumption (P2)

🟥 6B1 Main Electricity Meter Consumption(Baseline)

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

Overlay

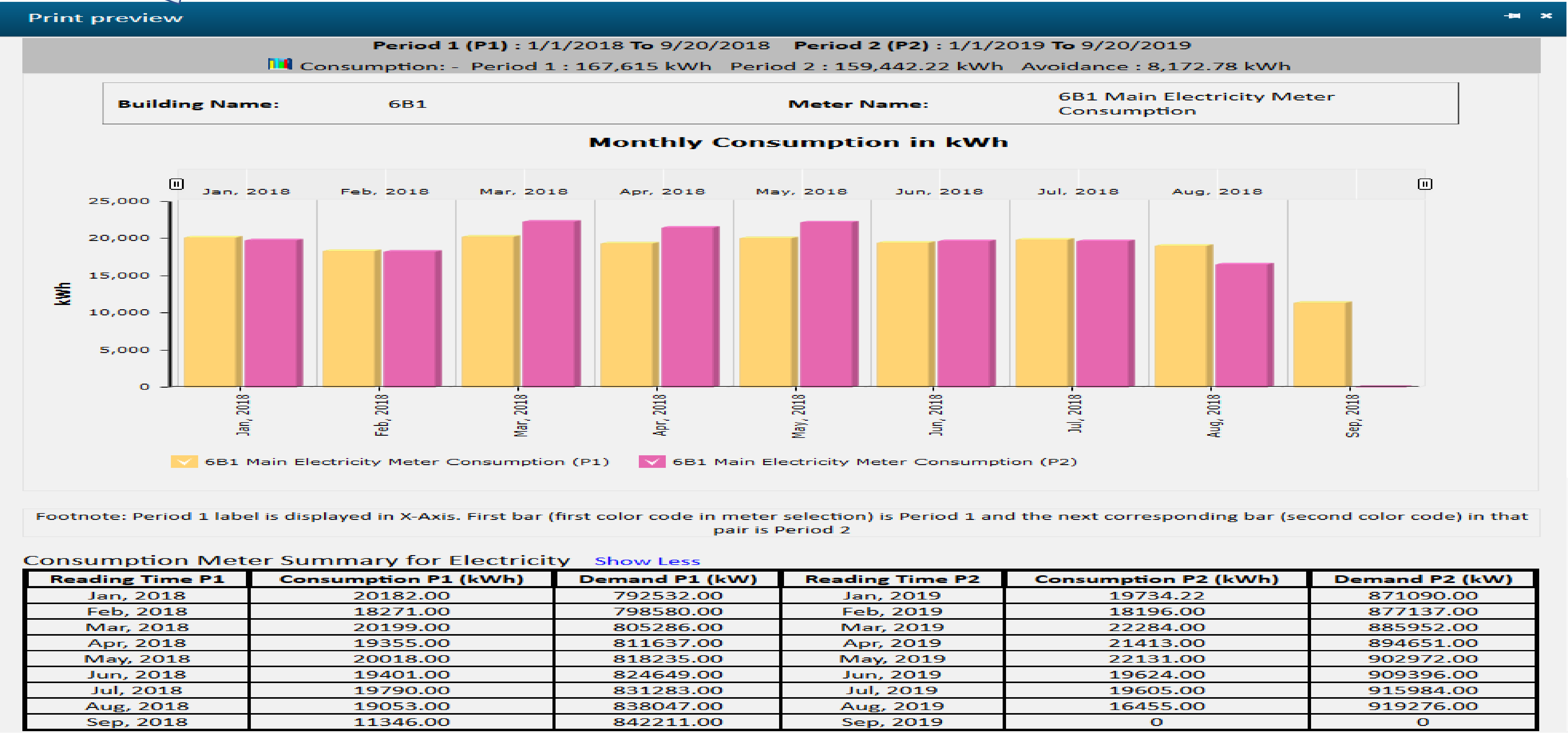
☐ Cost (QAR) ☐ CO_2e (tons) ☐ Degree Day ☐ Temperature ☐ Humidity

Baseline overlay is selected to compare the consumption with Baseline data for selected period. Manual baseline need to be upload through configuration for selected meter

Energy consumption data is displayed in the Bar chart and Historical Baseline data is displayed as line chart for selected Period 1 & 2

Compare Period – Print

Print consumption with chart and tabular data


Print preview
Monthly Consumption in kWh
Jan, 2018
Feb, 2018
Mar, 2018
Apr, 2018
May, 2018
Jun, 2018
Jul, 2018
Aug, 2018
25,000
20,000
15,000
10,000
5,000
0
kWh
Jan, 2018
Feb, 2018
Mar, 2018
Apr, 2018
May, 2018
Jun, 2018
Jul, 2018
Aug, 2018
Sep, 2018
6B1 Main Electricity Meter Consumption (P1)
6B1 Main Electricity Meter Consumption (P2)

Period 1 (P1) : 1/1/2018 To 9/20/2018 **Period 2 (P2) : 1/1/2019 To 9/20/2019**

Consumption: - Period 1 : 167,615 kWh Period 2 : 159,442.22 kWh Avoidance : 8,172.78 kWh

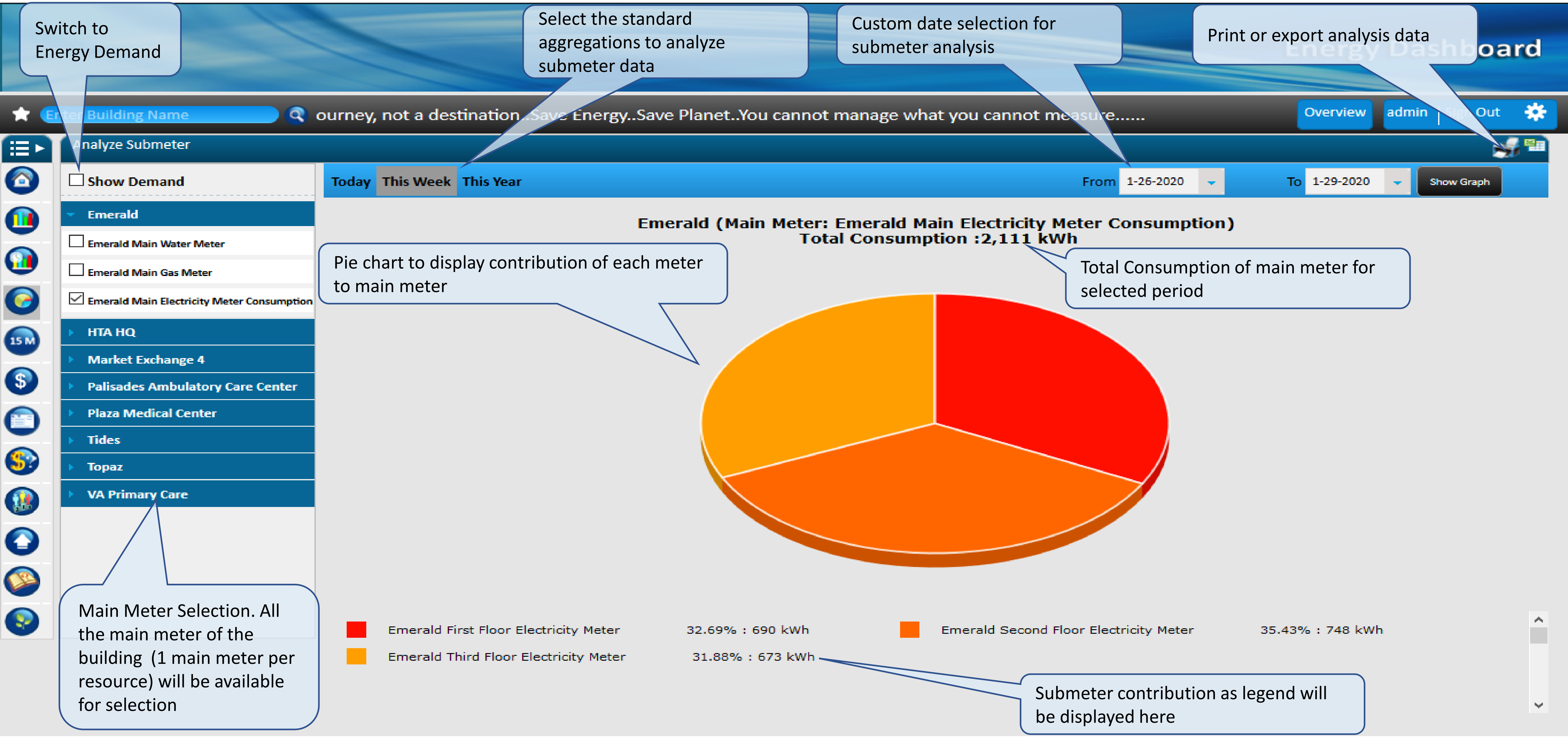
Building Name: 6B1 **Meter Name:** 6B1 Main Electricity Meter Consumption

Footnote: Period 1 label is displayed in X-Axis. First bar (first color code in meter selection) is Period 1 and the next corresponding bar (second color code) in that pair is Period 2

Consumption Meter Summary for Electricity Show Less

Reading Time P1	Consumption P1 (kWh)	Demand P1 (kW)	Reading Time P2	Consumption P2 (kWh)	Demand P2 (kW)
Jan, 2018	20182.00	792532.00	Jan, 2019	19734.22	871090.00
Feb, 2018	18271.00	798580.00	Feb, 2019	18196.00	877137.00
Mar, 2018	20199.00	805286.00	Mar, 2019	22284.00	885952.00
Apr, 2018	19355.00	811637.00	Apr, 2019	21413.00	894651.00
May, 2018	20018.00	818235.00	May, 2019	22131.00	902972.00
Jun, 2018	19401.00	824649.00	Jun, 2019	19624.00	909396.00
Jul, 2018	19790.00	831283.00	Jul, 2019	19605.00	915984.00
Aug, 2018	19053.00	838047.00	Aug, 2019	16455.00	919276.00
Sep, 2018	11346.00	842211.00	Sep, 2019	0	0

Analyze Submeter


Energy Dashboard
Enter Building Name
ourney, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measure......
Overview
admin
Sign Out
Analyze Submeter
☐ Show Demand
Emerald
HTA HQ
Market Exchange 4
Palisades Ambulatory Care Center
Plaza Medical Center
Tides
Topaz
VA Primary Care
Today
This Week
This Year
Show Graph
15 M

☐ Emerald Main Water Meter
☐ Emerald Main Gas Meter
☑ Emerald Main Electricity Meter Consumption

From 1-26-2020 To 1-29-2020

Emerald (Main Meter: Emerald Main Electricity Meter Consumption)
Total Consumption :2,111 kWh

🟥 Emerald First Floor Electricity Meter 32.69% : 690 kWh
🟧 Emerald Second Floor Electricity Meter 35.43% : 748 kWh
🟨 Emerald Third Floor Electricity Meter 31.88% : 673 kWh

Switch to Energy Demand

Select the standard aggregations to analyze submeter data

Custom date selection for submeter analysis

Print or export analysis data

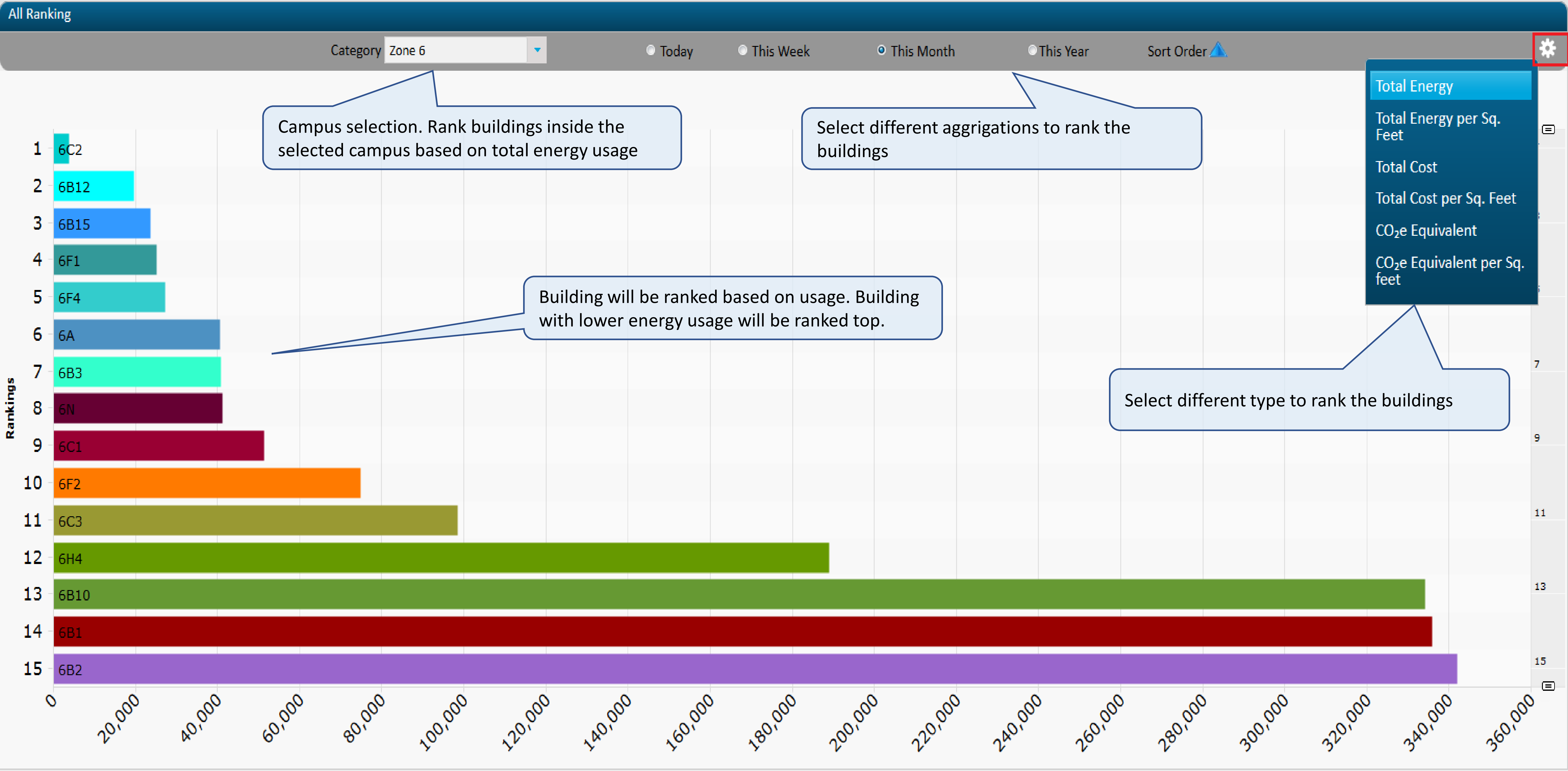
Pie chart to display contribution of each meter to main meter

Total Consumption of main meter for selected period

Main Meter Selection. All the main meter of the building (1 main meter per resource) will be available for selection

Submeter contribution as legend will be displayed here

All Ranking- Building Ranking based on Energy Usage



All Ranking

Category: Zone 6

○ Today ○ This Week ● This Month ○ This Year

Sort Order

Total Energy
Total Energy per Sq. Feet
Total Cost
Total Cost per Sq. Feet
CO₂e Equivalent
CO₂e Equivalent per Sq. feet
Rankings
1 6C2
2 6B12
3 6B15
4 6F1
5 6F4
6 6A
7 6B3
8 6N
9 6C1
10 6F2
11 6C3
12 6H4
13 6B10
14 6B1
15 6B2
0
20,000
40,000
60,000
80,000
100,000
120,000
140,000
160,000
180,000
200,000
220,000
240,000
260,000
280,000
300,000
320,000
340,000
360,000

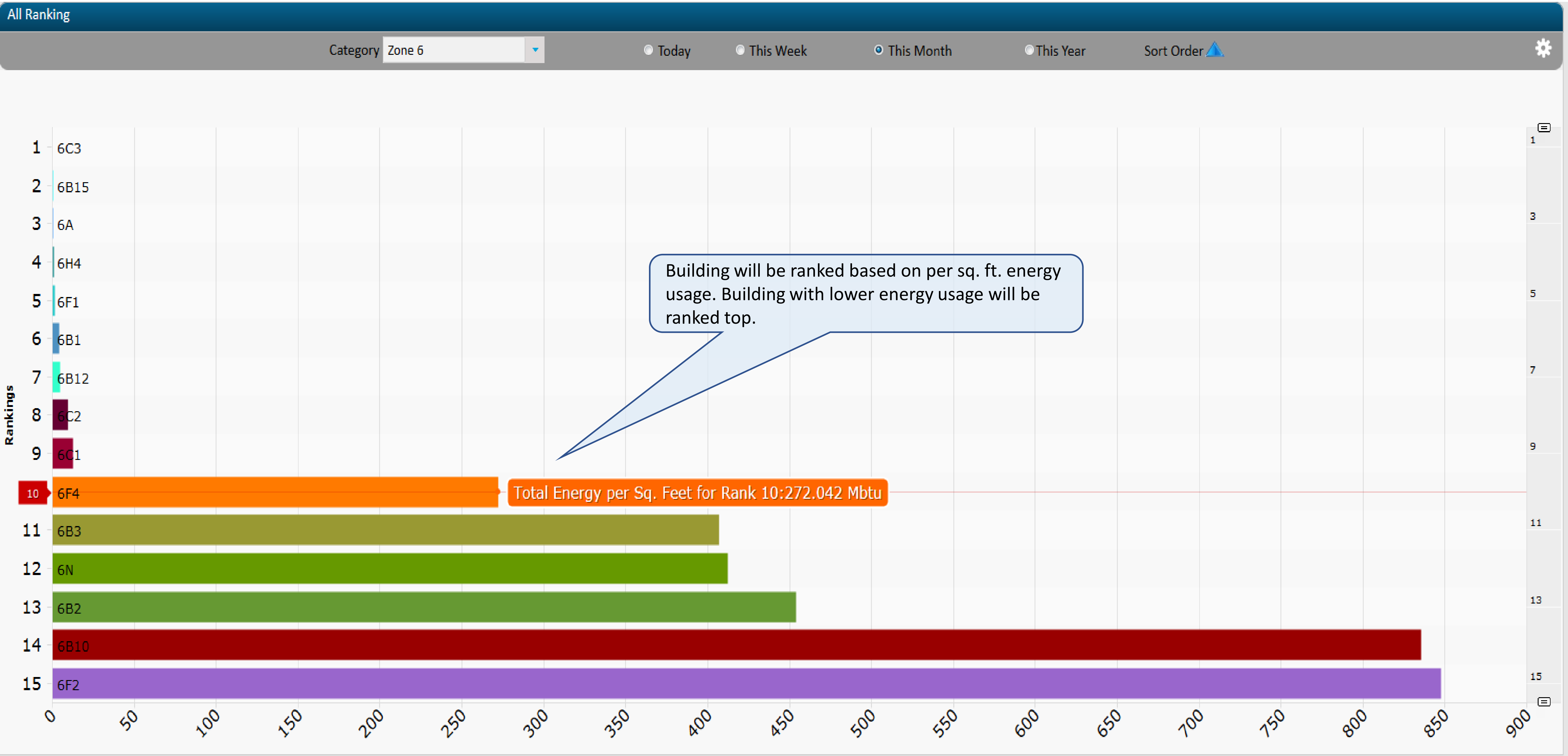
Campus selection. Rank buildings inside the selected campus based on total energy usage

Select different aggrigations to rank the buildings

Building will be ranked based on usage. Building with lower energy usage will be ranked top.

Select different type to rank the buildings

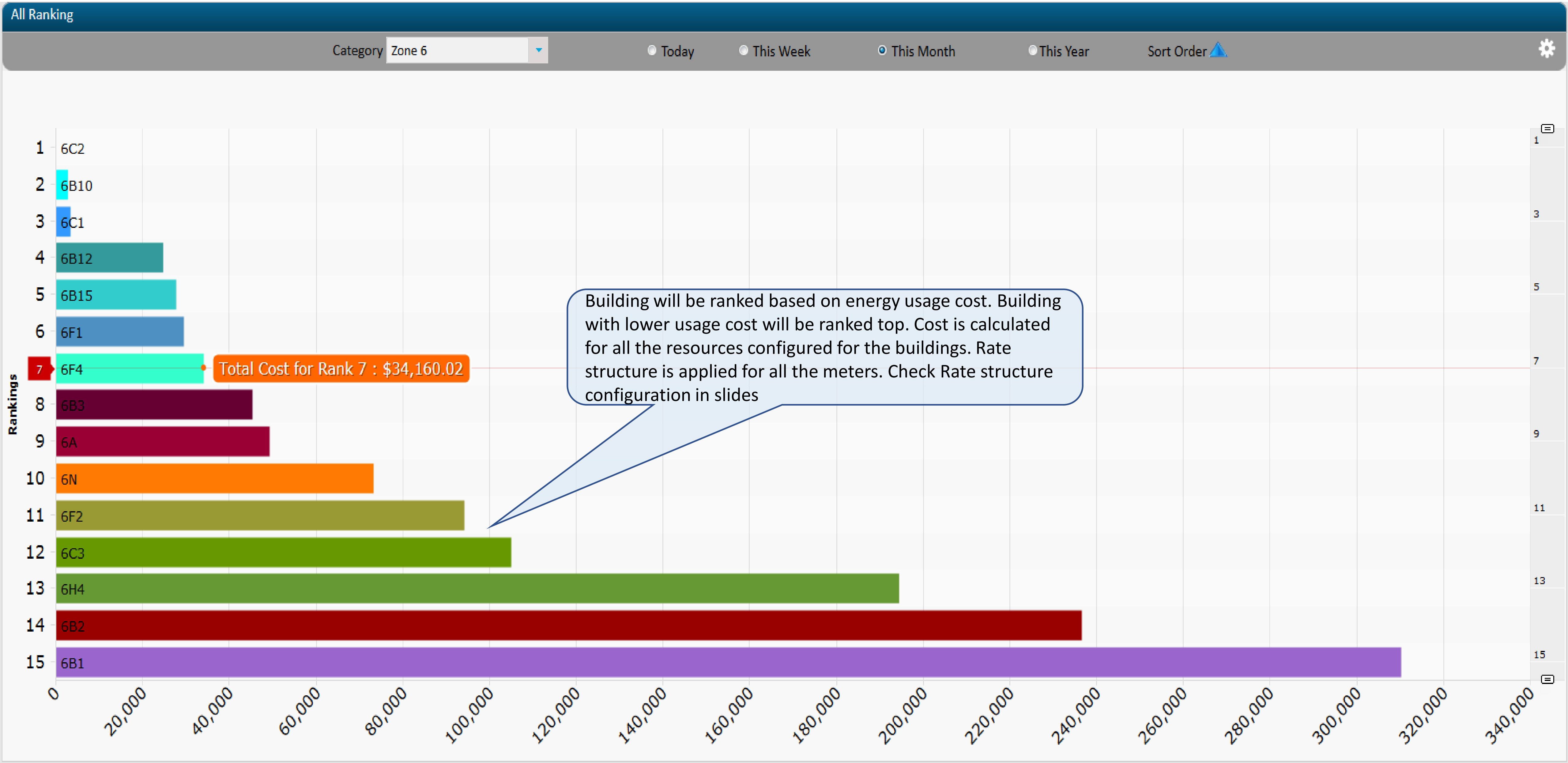
All Ranking – Ranking based on Total Energy per Sq. Feet


All Ranking
Category
Zone 6
○ Today
○ This Week
● This Month
○ This Year
Sort Order
Rankings
1 6C3
2 6B15
3 6A
4 6H4
5 6F1
6 6B1
7 6B12
8 6C2
9 6C1
10 6F4
11 6B3
12 6N
13 6B2
14 6B10
15 6F2
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
1
3
5
7
9
11
13
15

Total Energy per Sq. Feet for Rank 10:272.042 Mbtu

Building will be ranked based on per sq. ft. energy usage. Building with lower energy usage will be ranked top.

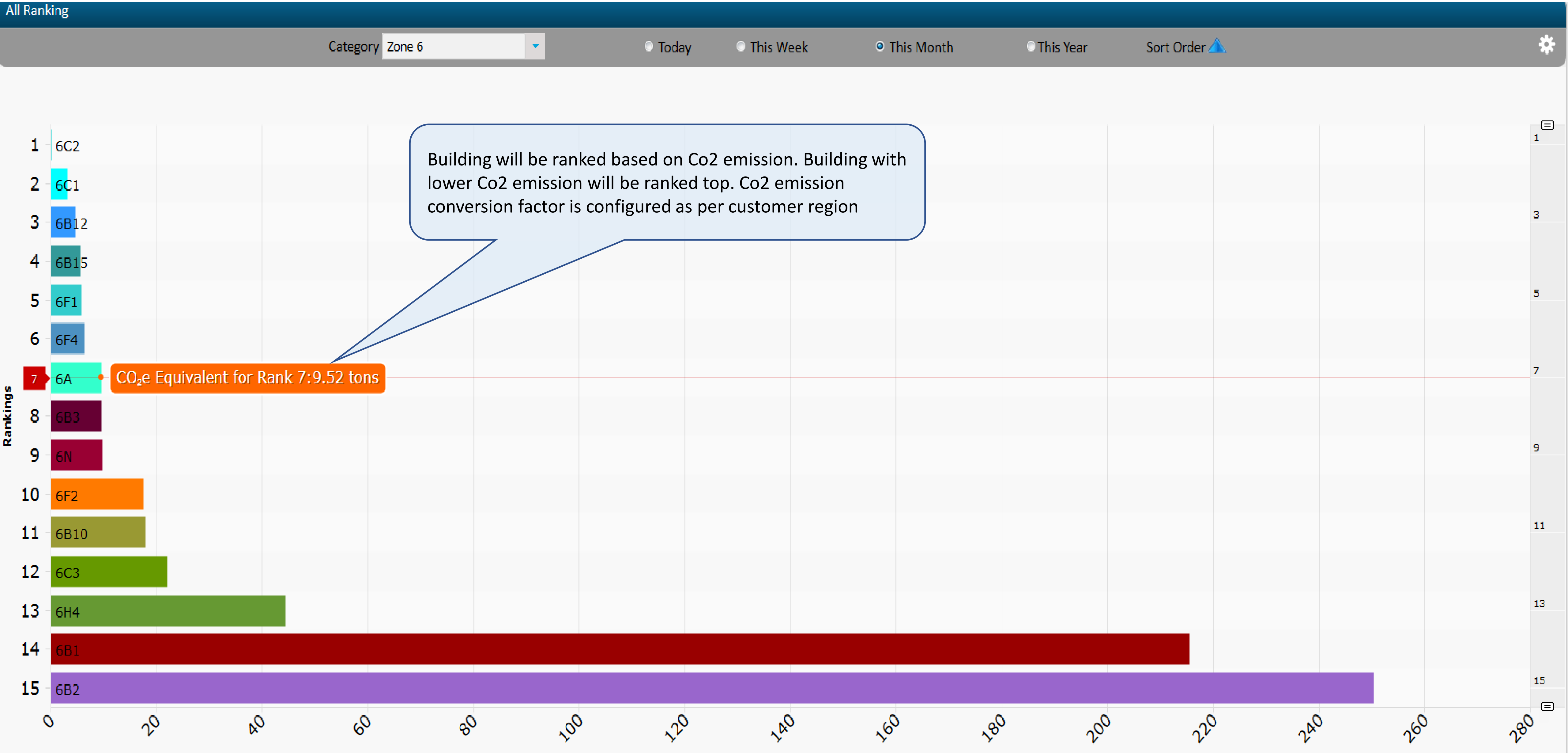
All Ranking – Ranking based on Consumption Total Cost


All Ranking
Category
Zone 6
○ Today
○ This Week
● This Month
○ This Year
Sort Order
Rankings
1 6C2
2 6B10
3 6C1
4 6B12
5 6B15
6 6F1
7 6F4
8 6B3
9 6A
10 6N
11 6F2
12 6C3
13 6H4
14 6B2
15 6B1
0
20,000
40,000
60,000
80,000
100,000
120,000
140,000
160,000
180,000
200,000
220,000
240,000
260,000
280,000
300,000
320,000
340,000
1
3
5
7
9
11
13
15

Total Cost for Rank 7 : $34,160.02

Building will be ranked based on energy usage cost. Building with lower usage cost will be ranked top. Cost is calculated for all the resources configured for the buildings. Rate structure is applied for all the meters. Check Rate structure configuration in slides

All Ranking – Ranking based on CO2 Emission



All Ranking

Category Zone 6

○ Today ○ This Week ● This Month ○ This Year

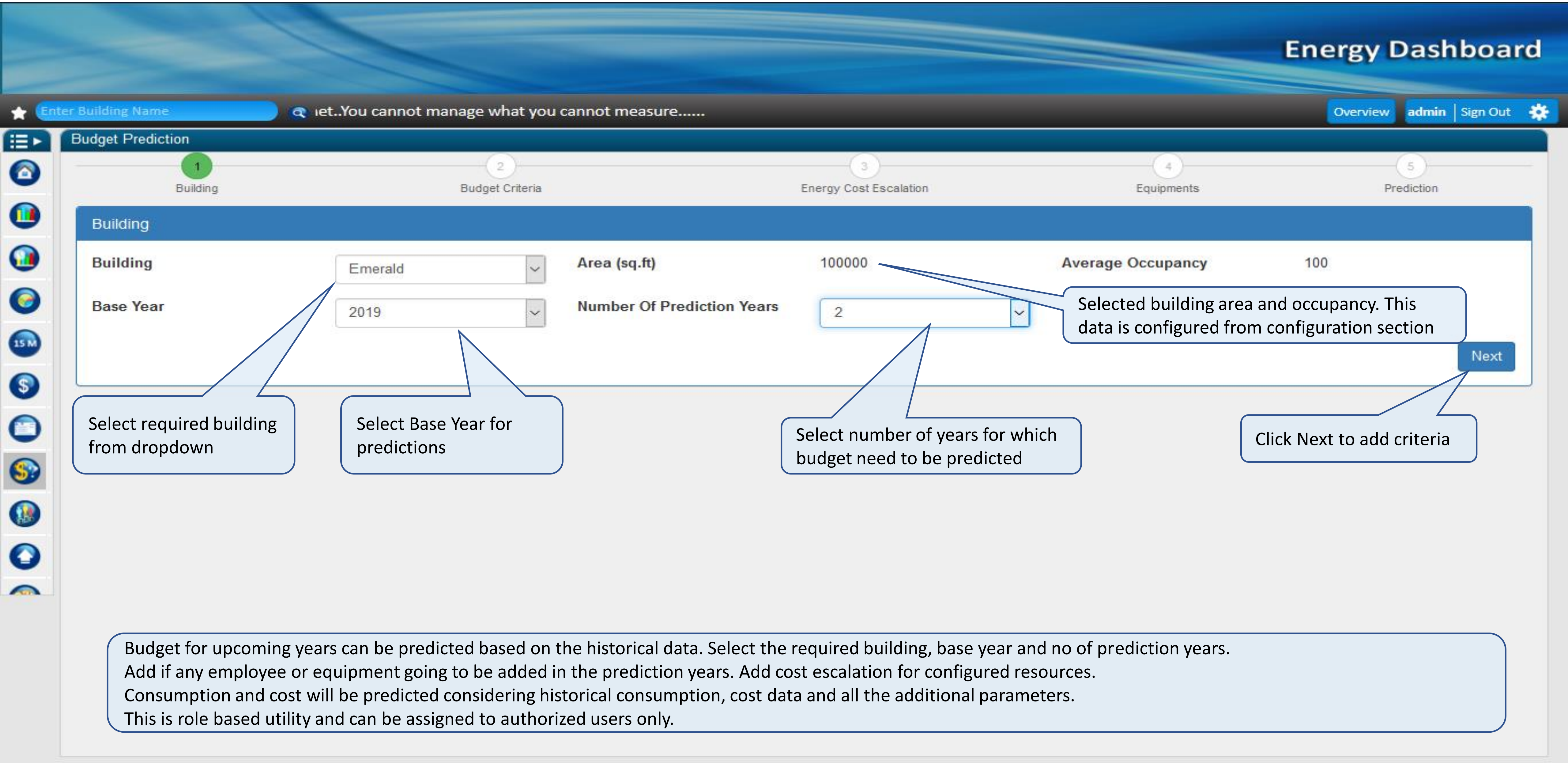
Sort Order

CO₂e Equivalent for Rank 7:9.52 tons

Rankings
1 6C2
2 6C1
3 6B12
4 6B15
5 6F1
6 6F4
7 6A
8 6B3
9 6N
10 6F2
11 6B10
12 6C3
13 6H4
14 6B1
15 6B2
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
1
3
5
7
9
11
13
15

Building will be ranked based on Co2 emission. Building with lower Co2 emission will be ranked top. Co2 emission conversion factor is configured as per customer region

Budget Prediction – Predict Future Consumption & Cost


Energy Dashboard
Enter Building Name
ıet..You cannot manage what you cannot measure......
Overview
admin
Sign Out
Budget Prediction
1
Building
2
Budget Criteria
3
Energy Cost Escalation
4
Equipments
5
Prediction
Building
Next

Building: Emerald

Area (sq.ft): 100000

Average Occupancy: 100

Base Year: 2019

Number Of Prediction Years: 2

Select required building from dropdown

Select Base Year for predictions

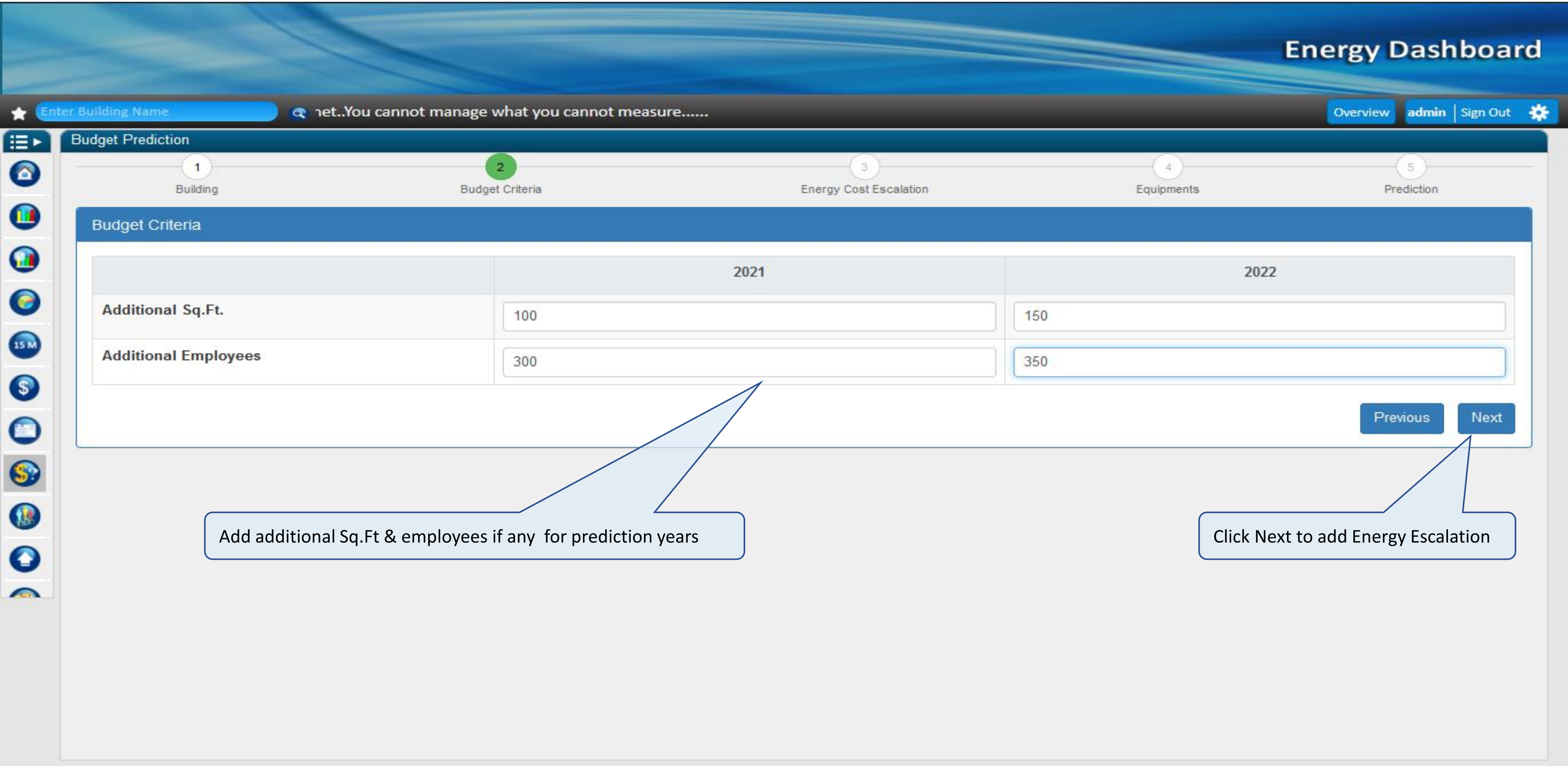
Select number of years for which budget need to be predicted

Selected building area and occupancy. This data is configured from configuration section

Click Next to add criteria

Budget for upcoming years can be predicted based on the historical data. Select the required building, base year and no of prediction years.
Add if any employee or equipment going to be added in the prediction years. Add cost escalation for configured resources.
Consumption and cost will be predicted considering historical consumption, cost data and all the additional parameters.
This is role based utility and can be assigned to authorized users only.

Budget Prediction – Additional Sq.Ft & Employees

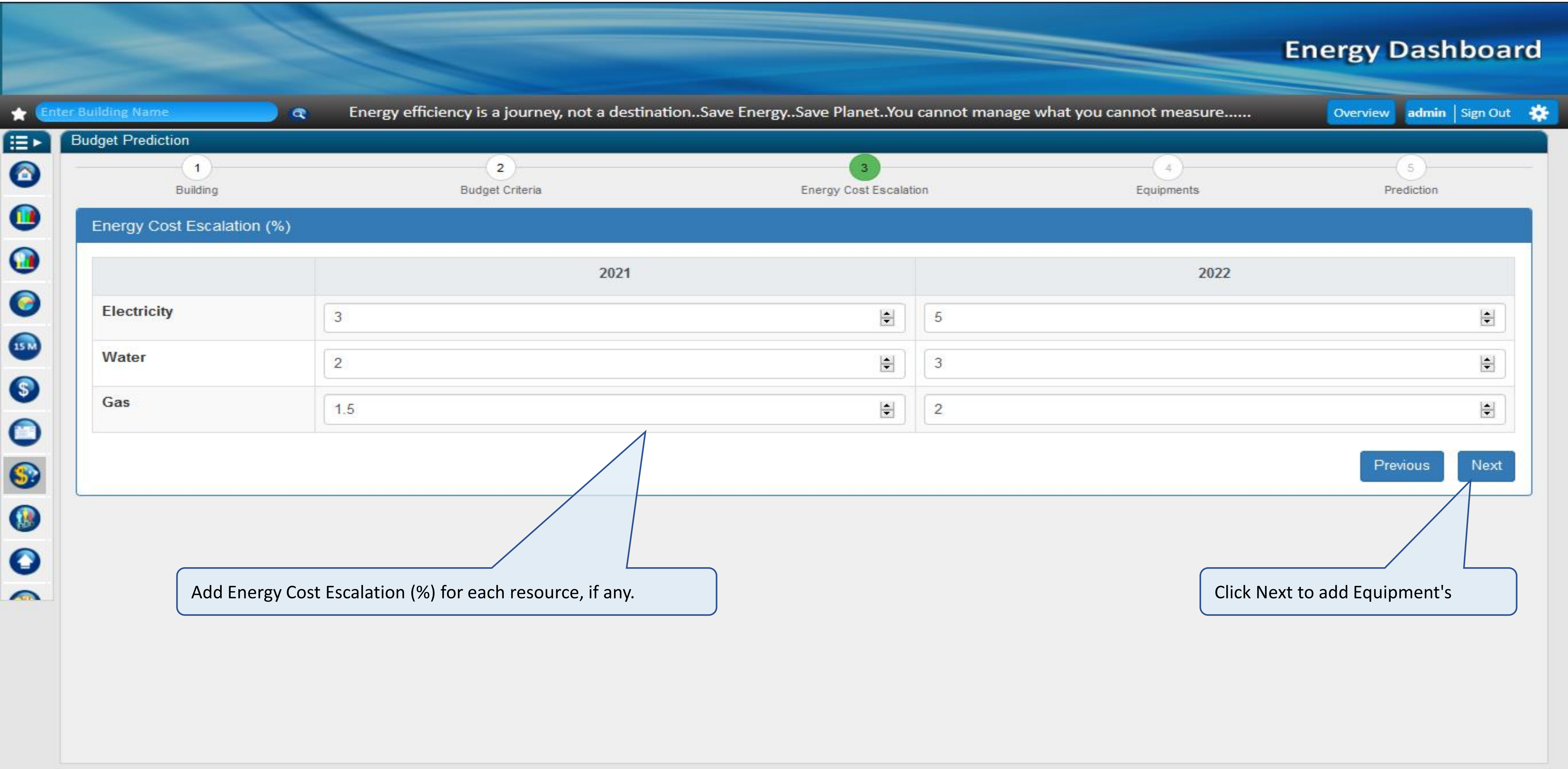

Energy Dashboard
Enter Building Name
net..You cannot manage what you cannot measure......
Overview
admin
Sign Out
Budget Prediction
1
Building
2
Budget Criteria
3
Energy Cost Escalation
4
Equipments
5
Prediction
Budget Criteria
Previous
Next

	2021	2022
Additional Sq.Ft.	100	150
Additional Employees	300	350

Add additional Sq.Ft & employees if any for prediction years

Click Next to add Energy Escalation

Budget Prediction – Energy Cost Escalation



Energy Dashboard
Enter Building Name
Overview
admin
Sign Out
Budget Prediction
1
Building
2
Budget Criteria
3
Energy Cost Escalation
4
Equipments
5
Prediction
Previous
Next

Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measure......

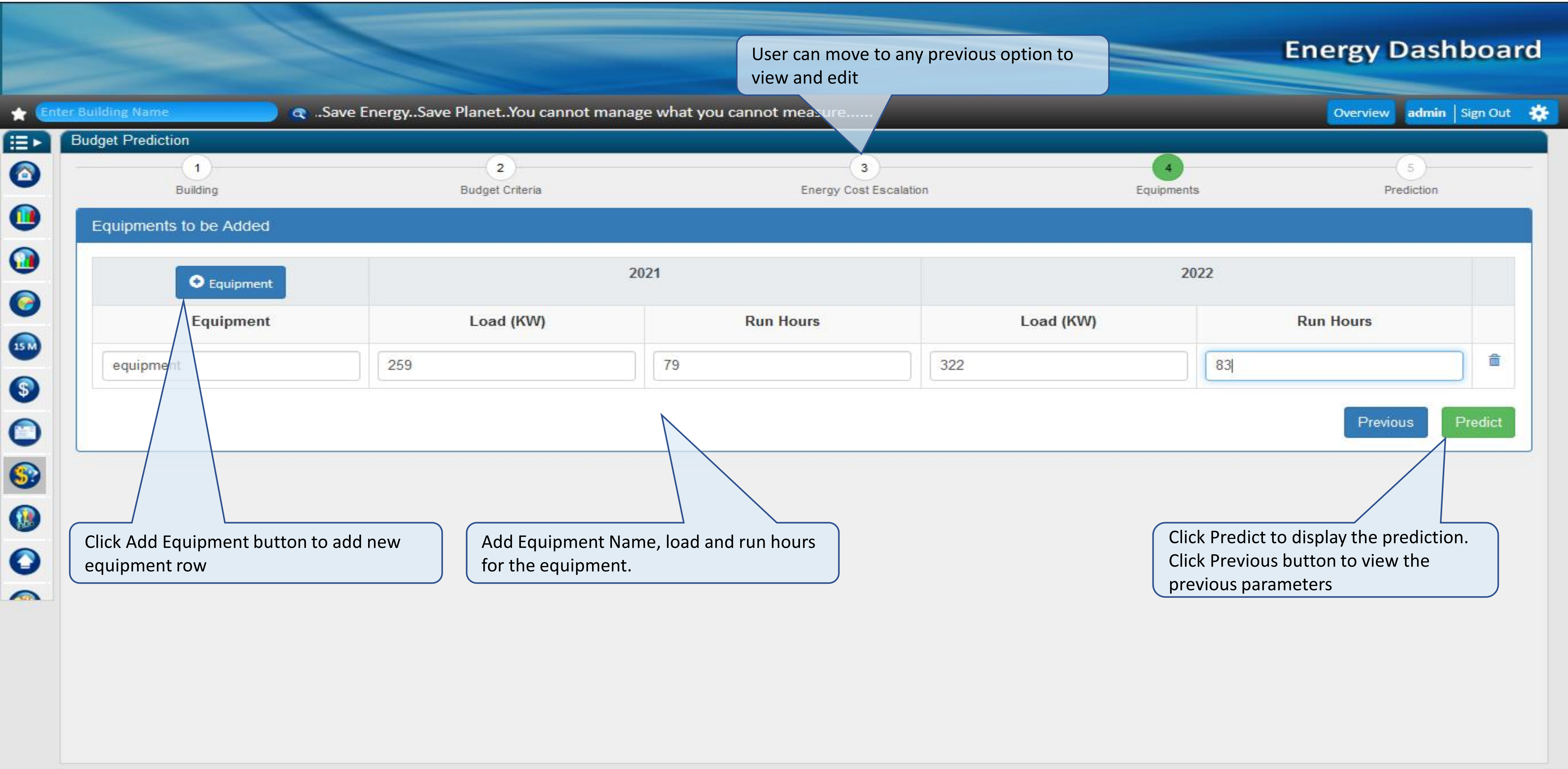
Energy Cost Escalation (%)

	2021	2022
Electricity	3	5
Water	2	3
Gas	1.5	2

Add Energy Cost Escalation (%) for each resource, if any.

Click Next to add Equipment's

Budget Prediction – Equipment


Energy Dashboard
Enter Building Name
..Save Energy..Save Planet..You cannot manage what you cannot measure......
Overview
admin
Sign Out
Budget Prediction
1
Building
2
Budget Criteria
3
Energy Cost Escalation
4
Equipments
5
Prediction
Equipments to be Added
Equipment
Previous
Predict

Equipment	2021		2022	
	Load (KW)	Run Hours	Load (KW)	Run Hours
equipment	259	79	322	83

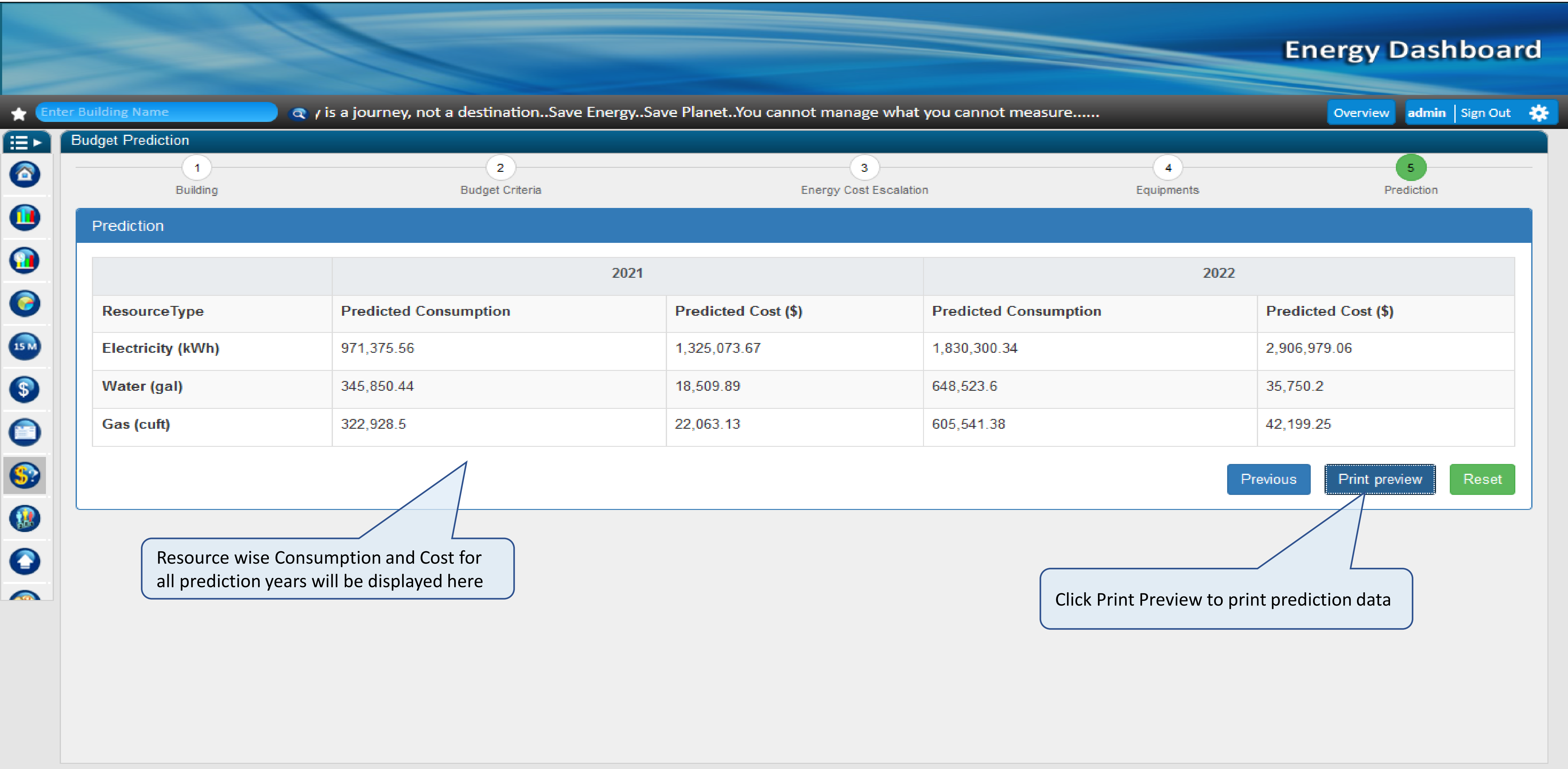
User can move to any previous option to view and edit

Click Add Equipment button to add new equipment row

Add Equipment Name, load and run hours for the equipment.

Click Predict to display the prediction. Click Previous button to view the previous parameters

Budget Prediction – Prediction View

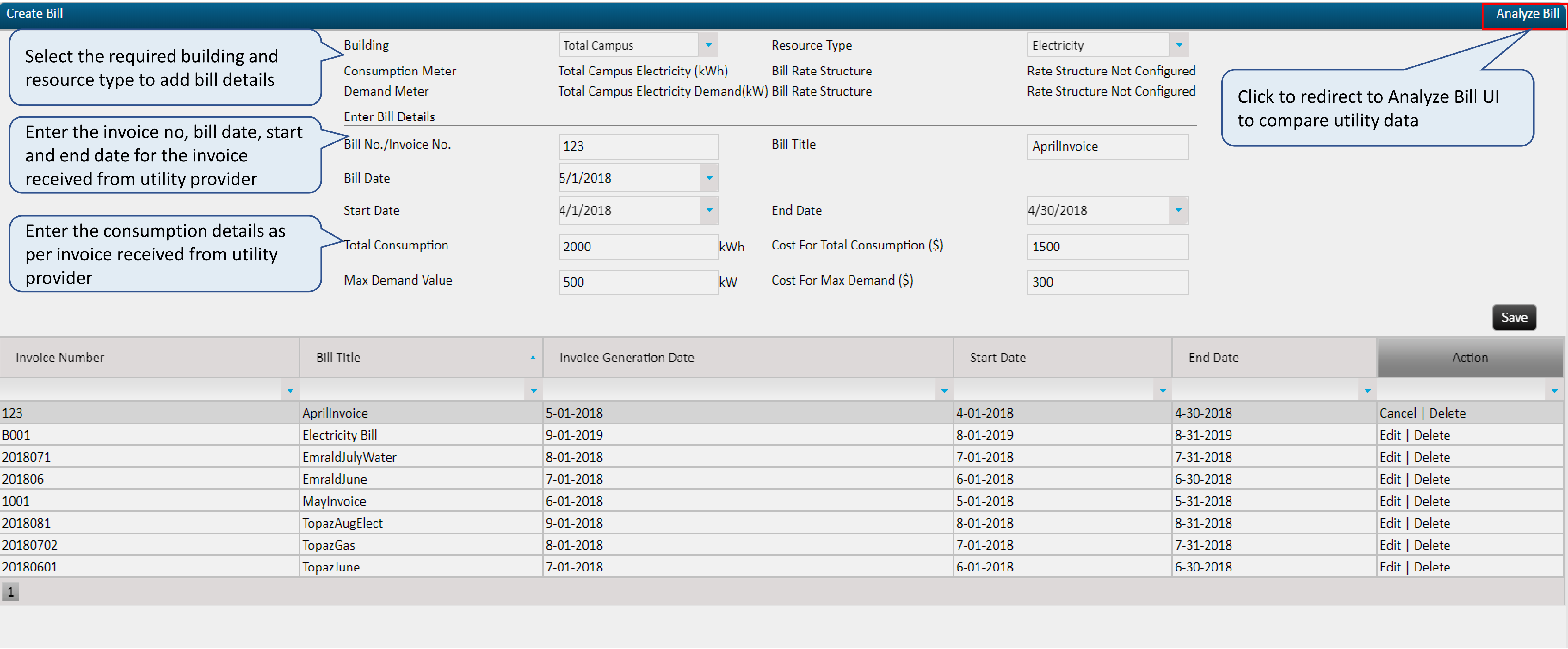

Energy Dashboard
Enter Building Name
y is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measure......
Overview
admin
Sign Out
15 M
$
Budget Prediction
1
Building
2
Budget Criteria
3
Energy Cost Escalation
4
Equipments
5
Prediction
Prediction
Previous
Print preview
Reset

	2021		2022	
ResourceType	Predicted Consumption	Predicted Cost ($)	Predicted Consumption	Predicted Cost ($)
Electricity (kWh)	971,375.56	1,325,073.67	1,830,300.34	2,906,979.06
Water (gal)	345,850.44	18,509.89	648,523.6	35,750.2
Gas (cuft)	322,928.5	22,063.13	605,541.38	42,199.25

Resource wise Consumption and Cost for all prediction years will be displayed here

Click Print Preview to print prediction data

Bill Analysis – Create Bill



Select the required building and resource type to add bill details

Enter the invoice no, bill date, start and end date for the invoice received from utility provider

Enter the consumption details as per invoice received from utility provider

Click to redirect to Analyze Bill UI to compare utility data

Building	Total Campus	Resource Type	Electricity
Consumption Meter	Total Campus Electricity (kWh)	Bill Rate Structure	Rate Structure Not Configured
Demand Meter	Total Campus Electricity Demand(kW)	Bill Rate Structure	Rate Structure Not Configured

Enter Bill Details

Bill No./Invoice No.	123	Bill Title	AprilInvoice
Bill Date	5/1/2018		
Start Date	4/1/2018	End Date	4/30/2018
Total Consumption	2000 kWh	Cost For Total Consumption ($)	1500
Max Demand Value	500 kW	Cost For Max Demand ($)	300

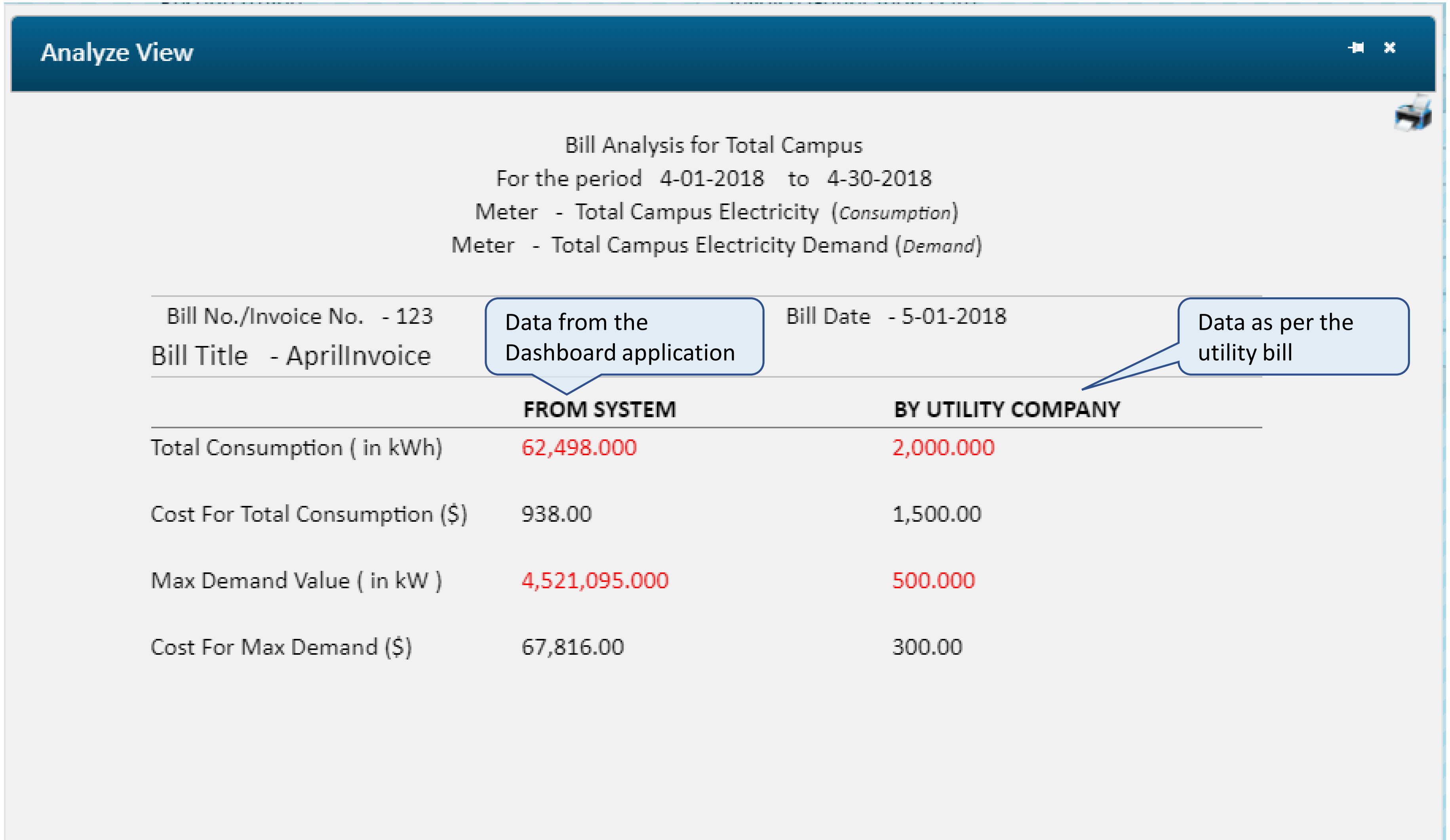
Invoice Number	Bill Title	Invoice Generation Date	Start Date	End Date	Action
123	AprilInvoice	5-01-2018	4-01-2018	4-30-2018	Cancel | Delete
B001	Electricity Bill	9-01-2019	8-01-2019	8-31-2019	Edit | Delete
2018071	EmraldJulyWater	8-01-2018	7-01-2018	7-31-2018	Edit | Delete
201806	EmraldJune	7-01-2018	6-01-2018	6-30-2018	Edit | Delete
1001	MayInvoice	6-01-2018	5-01-2018	5-31-2018	Edit | Delete
2018081	TopazAugElect	9-01-2018	8-01-2018	8-31-2018	Edit | Delete
20180702	TopazGas	8-01-2018	7-01-2018	7-31-2018	Edit | Delete
20180601	TopazJune	7-01-2018	6-01-2018	6-30-2018	Edit | Delete

1

Dashboard will provide a tool for utility bill comparison which will have the provision to enter the utility bill by authorized operator. The bill will have billing date, billing period and rate structure.

User need to add the utility bill details in Dashboard application with Create Bill UI. Then use Analyze Bill UI to compare the data and identify the difference if any

Bill Analysis – Analyze Bill



Bill Analysis for Total Campus
For the period 4-01-2018 to 4-30-2018
Meter - Total Campus Electricity (*Consumption*)
Meter - Total Campus Electricity Demand (*Demand*)

Bill No./Invoice No. - 123

Bill Date - 5-01-2018

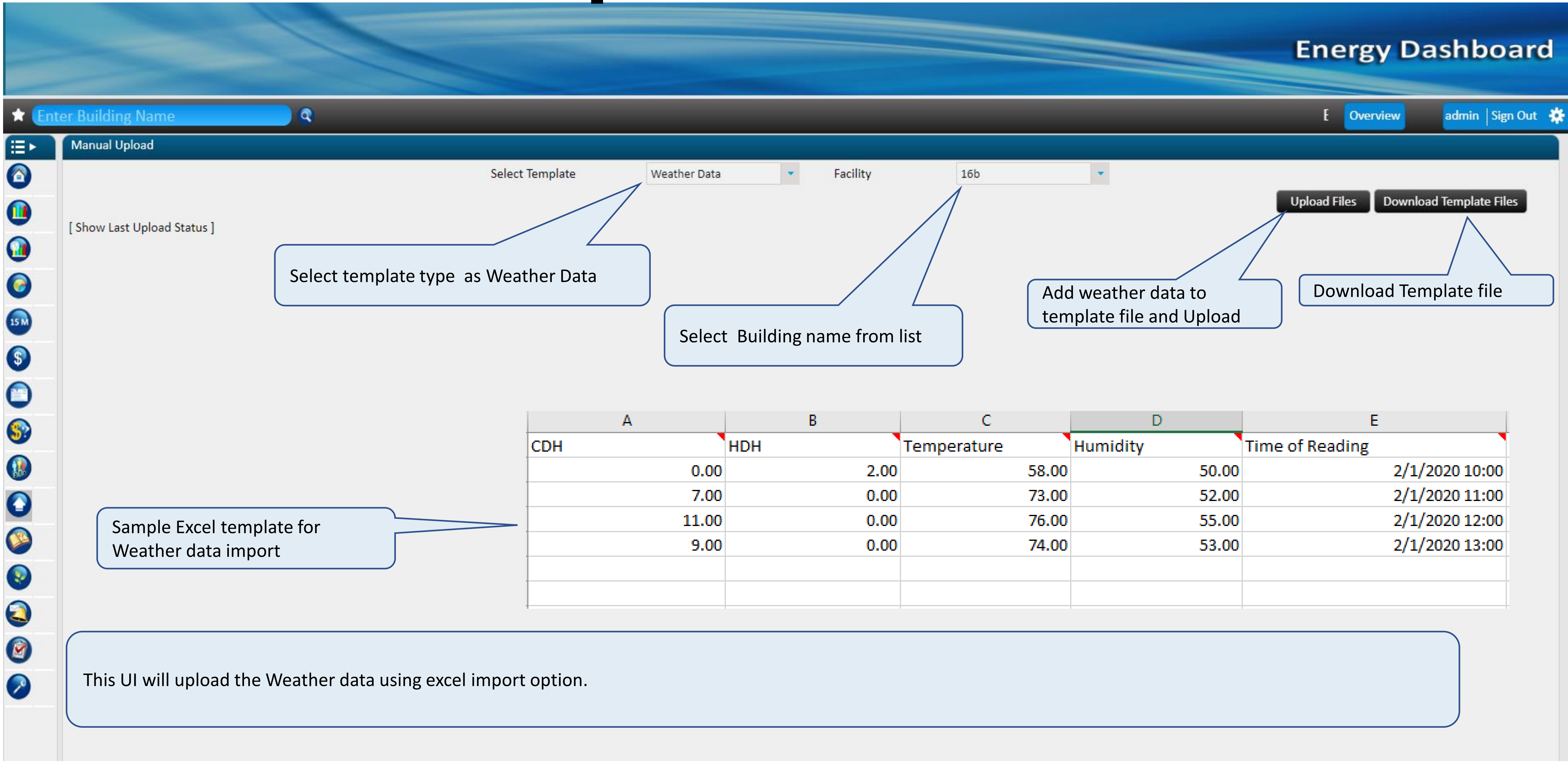
Bill Title - AprilInvoice

	FROM SYSTEM	**BY UTILITY COMPANY**
Total Consumption (in kWh)	62,498.000	2,000.000
Cost For Total Consumption ($)	938.00	1,500.00
Max Demand Value (in kW)	4,521,095.000	500.000
Cost For Max Demand ($)	67,816.00	300.00

Data from the Dashboard application

Data as per the utility bill

Manual Upload – Weather Data



Energy Dashboard
Enter Building Name
E
Overview
admin | Sign Out
Manual Upload
Upload Files
Download Template Files
[Show Last Upload Status]

Select Template: Weather Data

Facility: 16b

Select template type as Weather Data

Select Building name from list

Add weather data to template file and Upload

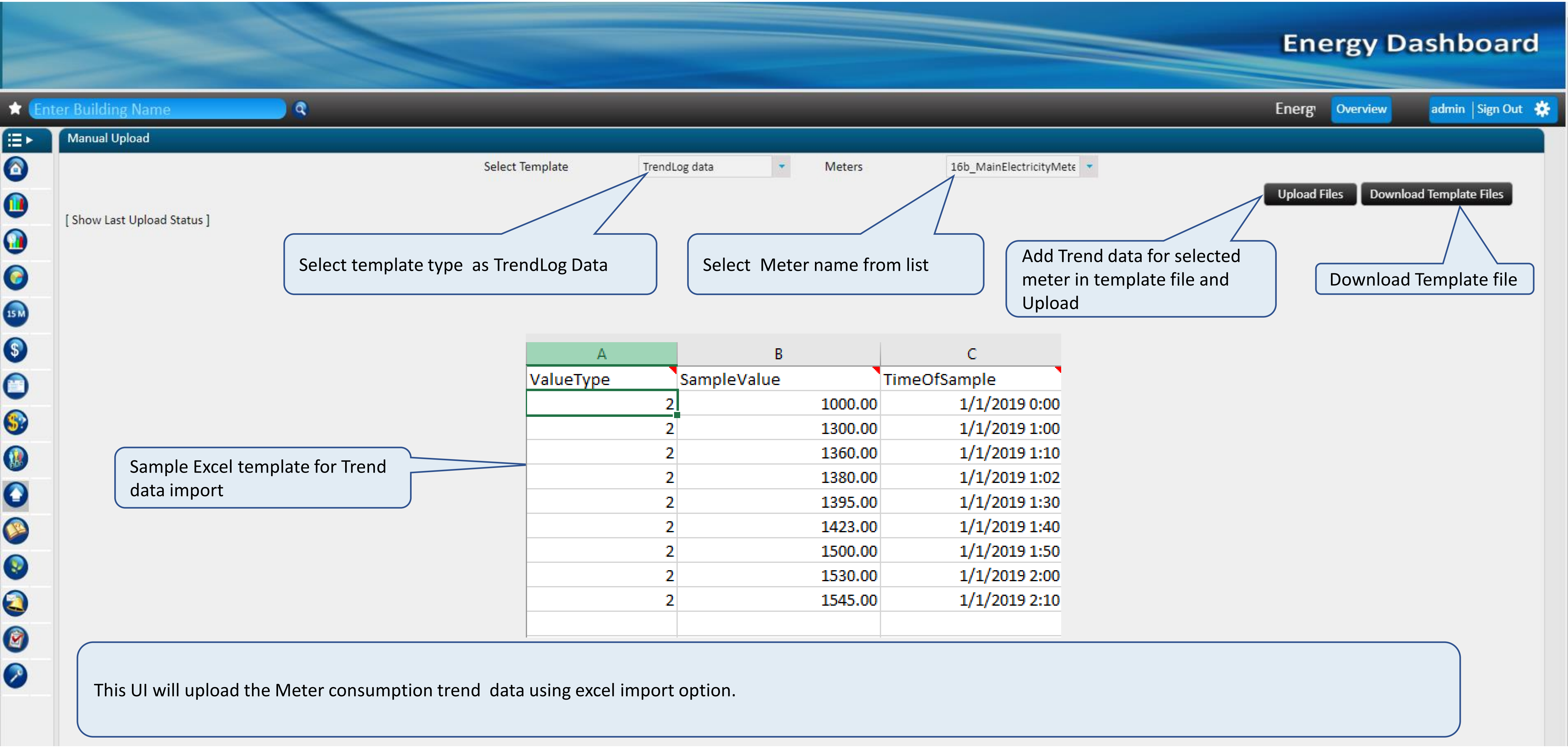
Download Template file

Sample Excel template for Weather data import

A	B	C	D	E
CDH	HDH	Temperature	Humidity	Time of Reading
0.00	2.00	58.00	50.00	2/1/2020 10:00
7.00	0.00	73.00	52.00	2/1/2020 11:00
11.00	0.00	76.00	55.00	2/1/2020 12:00
9.00	0.00	74.00	53.00	2/1/2020 13:00

This UI will upload the Weather data using excel import option.

Manual Upload –Trend Log Data


Energy Dashboard
Enter Building Name
Energ
Overview
admin
Sign Out
Manual Upload
[Show Last Upload Status]
Upload Files
Download Template Files

Select Template: TrendLog data

Meters: 16b_MainElectricityMete

Select template type as TrendLog Data

Select Meter name from list

Add Trend data for selected meter in template file and Upload

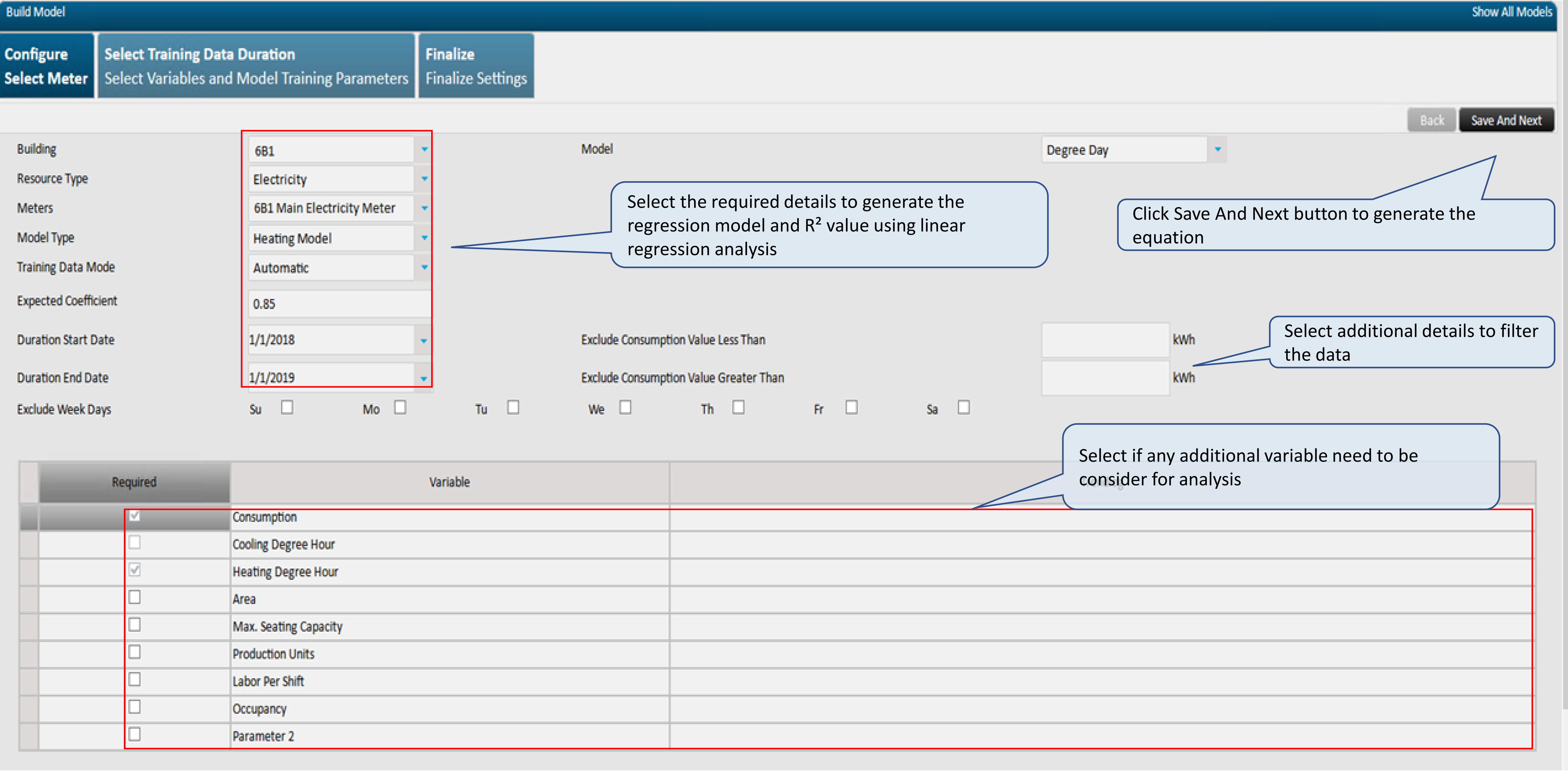
Download Template file

Sample Excel template for Trend data import

A	B	C
ValueType	SampleValue	TimeOfSample
2	1000.00	1/1/2019 0:00
2	1300.00	1/1/2019 1:00
2	1360.00	1/1/2019 1:10
2	1380.00	1/1/2019 1:02
2	1395.00	1/1/2019 1:30
2	1423.00	1/1/2019 1:40
2	1500.00	1/1/2019 1:50
2	1530.00	1/1/2019 2:00
2	1545.00	1/1/2019 2:10

This UI will upload the Meter consumption trend data using excel import option.

Regression- Data Analysis using Regression


Build Model
Show All Models
Configure
Select Meter
Select Training Data Duration
Select Variables and Model Training Parameters
Finalize
Finalize Settings
Back
Save And Next

Building: 6B1

Resource Type: Electricity

Meters: 6B1 Main Electricity Meter

Model Type: Heating Model

Training Data Mode: Automatic

Expected Coefficient: 0.85

Duration Start Date: 1/1/2018

Duration End Date: 1/1/2019

Model: Degree Day

Exclude Consumption Value Less Than: kWh

Exclude Consumption Value Greater Than: kWh

Exclude Week Days: Su ☐ Mo ☐ Tu ☐ We ☐ Th ☐ Fr ☐ Sa ☐

Required	Variable
☑	Consumption
☐	Cooling Degree Hour
☑	Heating Degree Hour
☐	Area
☐	Max. Seating Capacity
☐	Production Units
☐	Labor Per Shift
☐	Occupancy
☐	Parameter 2

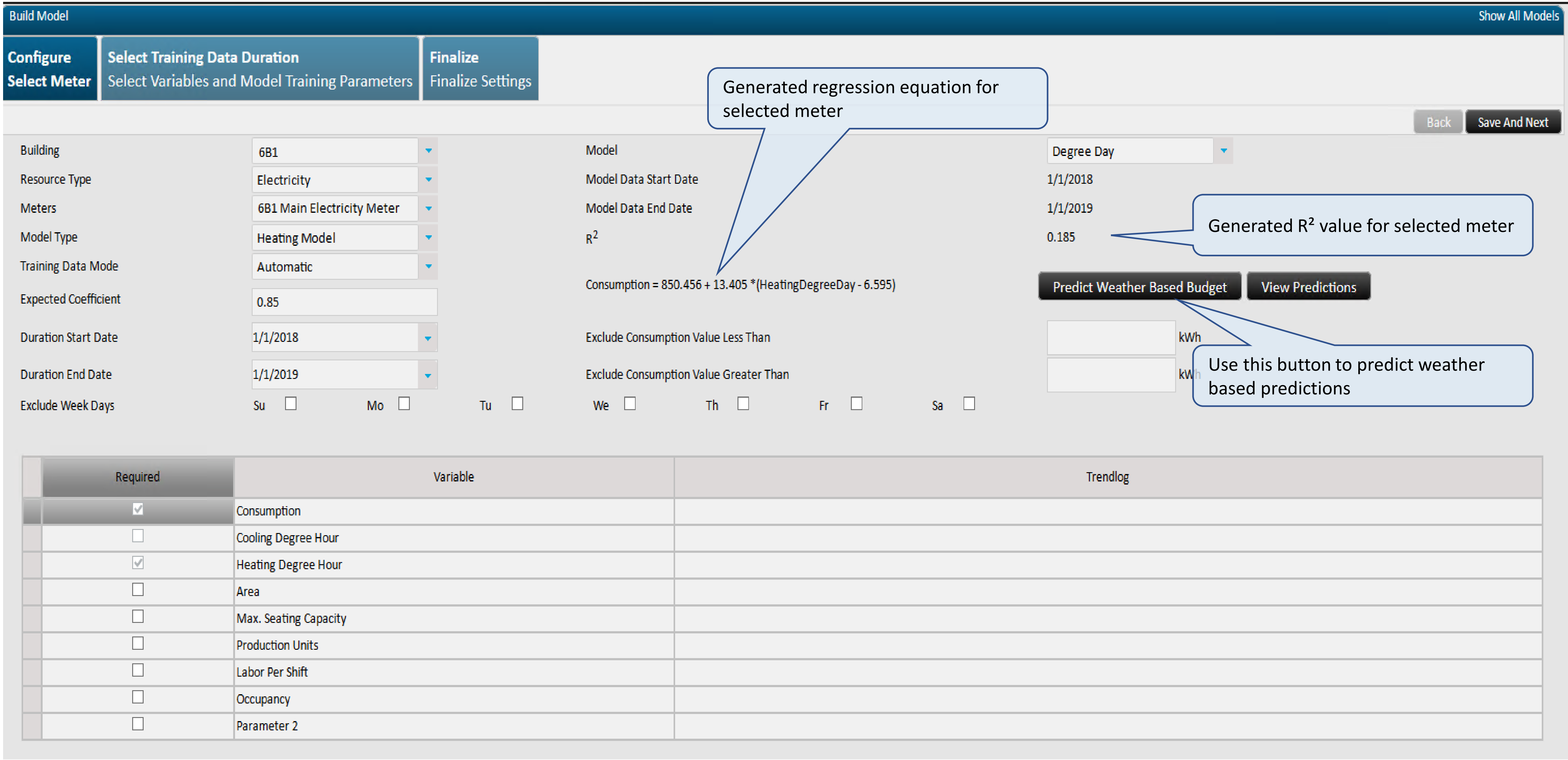
Select the required details to generate the regression model and R² value using linear regression analysis

Click Save And Next button to generate the equation

Select additional details to filter the data

Select if any additional variable need to be consider for analysis

Regression- Data Analysis using Regression



Build Model
Show All Models
Configure
Select Meter
Select Training Data Duration
Select Variables and Model Training Parameters
Finalize
Finalize Settings
Back
Save And Next
Predict Weather Based Budget
View Predictions

Building: 6B1

Resource Type: Electricity

Meters: 6B1 Main Electricity Meter

Model Type: Heating Model

Training Data Mode: Automatic

Expected Coefficient: 0.85

Duration Start Date: 1/1/2018

Duration End Date: 1/1/2019

Exclude Week Days: Su ☐ Mo ☐ Tu ☐ We ☐ Th ☐ Fr ☐ Sa ☐

Model: Degree Day

Model Data Start Date: 1/1/2018

Model Data End Date: 1/1/2019

R^2: 0.185

Consumption = 850.456 + 13.405 *(HeatingDegreeDay - 6.595)

Exclude Consumption Value Less Than: kWh

Exclude Consumption Value Greater Than: kWh

Required	Variable	Trendlog
☑	Consumption	
☐	Cooling Degree Hour	
☑	Heating Degree Hour	
☐	Area	
☐	Max. Seating Capacity	
☐	Production Units	
☐	Labor Per Shift	
☐	Occupancy	
☐	Parameter 2	

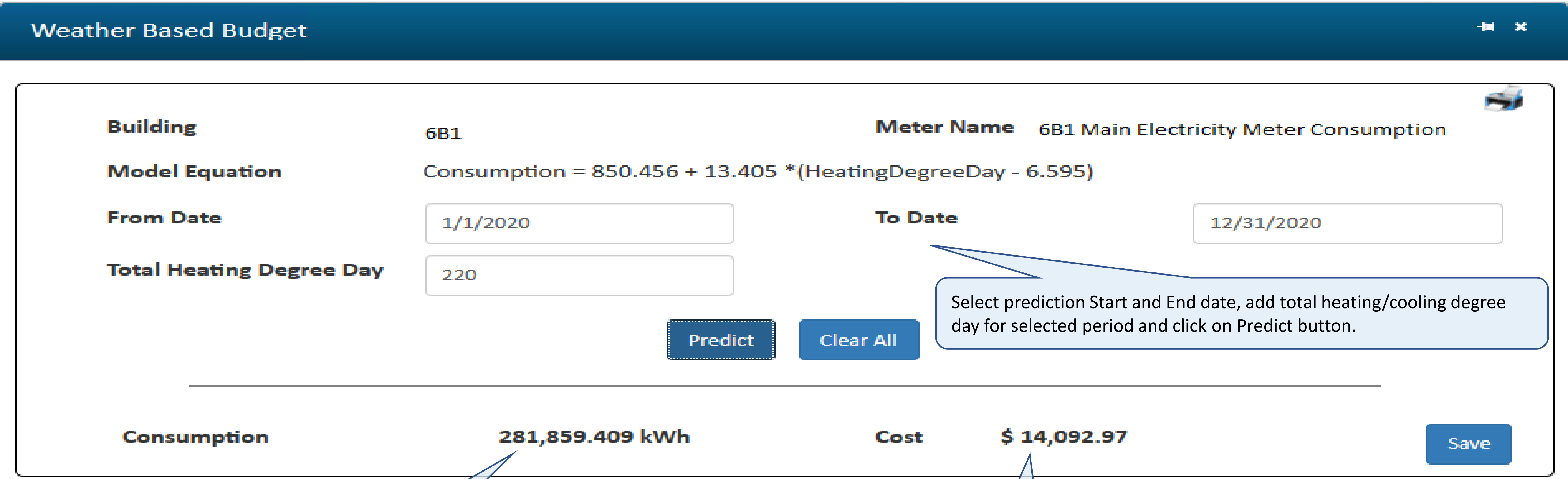
Generated regression equation for selected meter

Generated R^2 value for selected meter

Use this button to predict weather based predictions

Regression – Weather Based

Budget can be predicted based on the Weather data and regression analysis



Weather Based Budget

Building 6B1

Meter Name 6B1 Main Electricity Meter Consumption

Model Equation Consumption = 850.456 + 13.405 *(HeatingDegreeDay - 6.595)

From Date 1/1/2020

To Date 12/31/2020

Total Heating Degree Day 220

Consumption 281,859.409 kWh

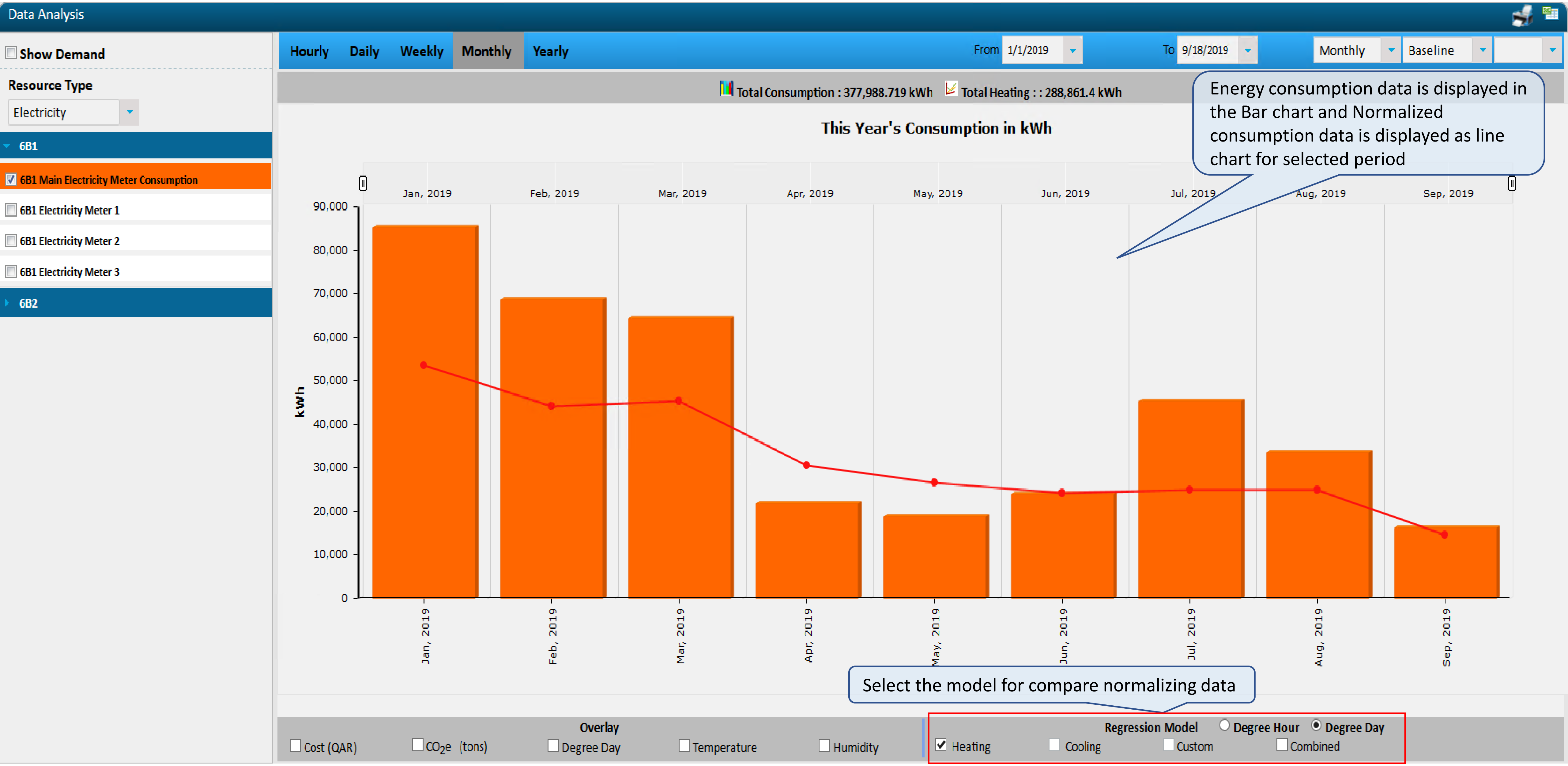
Cost $ 14,092.97

Select prediction Start and End date, add total heating/cooling degree day for selected period and click on Predict button.

Predicted Consumption

Predicted Cost

Regression- Normalization



Data Analysis

☐ **Show Demand**

Resource Type

Electricity

6B1

☑ 6B1 Main Electricity Meter Consumption

☐ 6B1 Electricity Meter 1

☐ 6B1 Electricity Meter 2

☐ 6B1 Electricity Meter 3

6B2

Hourly Daily Weekly **Monthly** Yearly

From 1/1/2019 To 9/18/2019 Monthly Baseline

Total Consumption : 377,988.719 kWh Total Heating : : 288,861.4 kWh

This Year's Consumption in kWh

kWh
0
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
90,000
Jan, 2019
Feb, 2019
Mar, 2019
Apr, 2019
May, 2019
Jun, 2019
Jul, 2019
Aug, 2019
Sep, 2019

Overlay

☐ Cost (QAR) ☐ CO_2e (tons) ☐ Degree Day ☐ Temperature ☐ Humidity

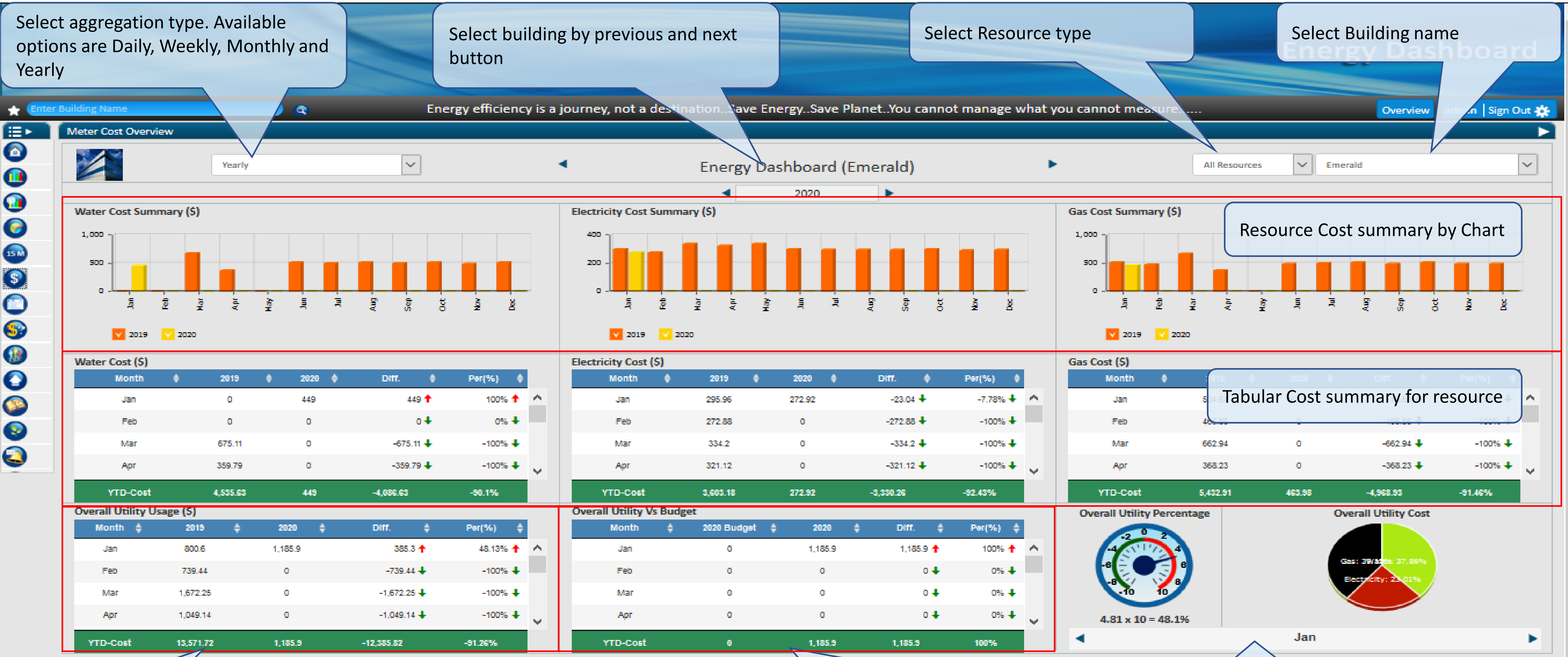
Regression Model ○ Degree Hour ● Degree Day

☑ Heating ☐ Cooling ☐ Custom ☐ Combined

Energy consumption data is displayed in the Bar chart and Normalized consumption data is displayed as line chart for selected period

Select the model for compare normalizing data

Meter Cost Overview



Select aggregation type. Available options are Daily, Weekly, Monthly and Yearly

Select building by previous and next button

Select Resource type

Select Building name

Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measure.....
Overview
admin
Sign Out
Meter Cost Overview
Yearly
Energy Dashboard (Emerald)
All Resources
Emerald
2020

Water Cost Summary ($)

1,000
500
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2019
2020

Electricity Cost Summary ($)

400
200
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2019
2020

Gas Cost Summary ($)

1,000
500
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2019
2020

Resource Cost summary by Chart

Water Cost ($)

Month	2019	2020	Diff.	Per(%)
Jan	0	449	449 ↑	100% ↑
Feb	0	0	0 ↓	0% ↓
Mar	675.11	0	-675.11 ↓	-100% ↓
Apr	359.79	0	-359.79 ↓	-100% ↓
YTD-Cost	4,535.63	449	-4,086.63	-90.1%

Electricity Cost ($)

Month	2019	2020	Diff.	Per(%)
Jan	295.96	272.92	-23.04 ↓	-7.78% ↓
Feb	272.88	0	-272.88 ↓	-100% ↓
Mar	334.2	0	-334.2 ↓	-100% ↓
Apr	321.12	0	-321.12 ↓	-100% ↓
YTD-Cost	3,603.18	272.92	-3,330.26	-92.43%

Gas Cost ($)

Month	2019	2020	Diff.	Per(%)
Jan	[illegible]	[illegible]	[illegible]	[illegible]
Feb	[illegible]	[illegible]	[illegible]	[illegible]
Mar	662.94	0	-662.94 ↓	-100% ↓
Apr	368.23	0	-368.23 ↓	-100% ↓
YTD-Cost	5,432.91	463.98	-4,968.93	-91.46%

Tabular Cost summary for resource

Overall Utility Usage ($)

Month	2019	2020	Diff.	Per(%)
Jan	800.6	1,185.9	385.3 ↑	48.13% ↑
Feb	739.44	0	-739.44 ↓	-100% ↓
Mar	1,672.25	0	-1,672.25 ↓	-100% ↓
Apr	1,049.14	0	-1,049.14 ↓	-100% ↓
YTD-Cost	13,571.72	1,185.9	-12,385.82	-91.26%

Overall Utility Vs Budget

Month	2020 Budget	2020	Diff.	Per(%)
Jan	0	1,185.9	1,185.9 ↑	100% ↑
Feb	0	0	0 ↓	0% ↓
Mar	0	0	0 ↓	0% ↓
Apr	0	0	0 ↓	0% ↓
YTD-Cost	0	1,185.9	1,185.9	100%

Overall Utility Percentage

0
2
4
6
8
10
-2
-4
-6
-8
-10

4.81 x 10 = 48.1%

Overall Utility Cost

Gas: 39
Water: 37.86%
Electricity: 23.01%
Jan

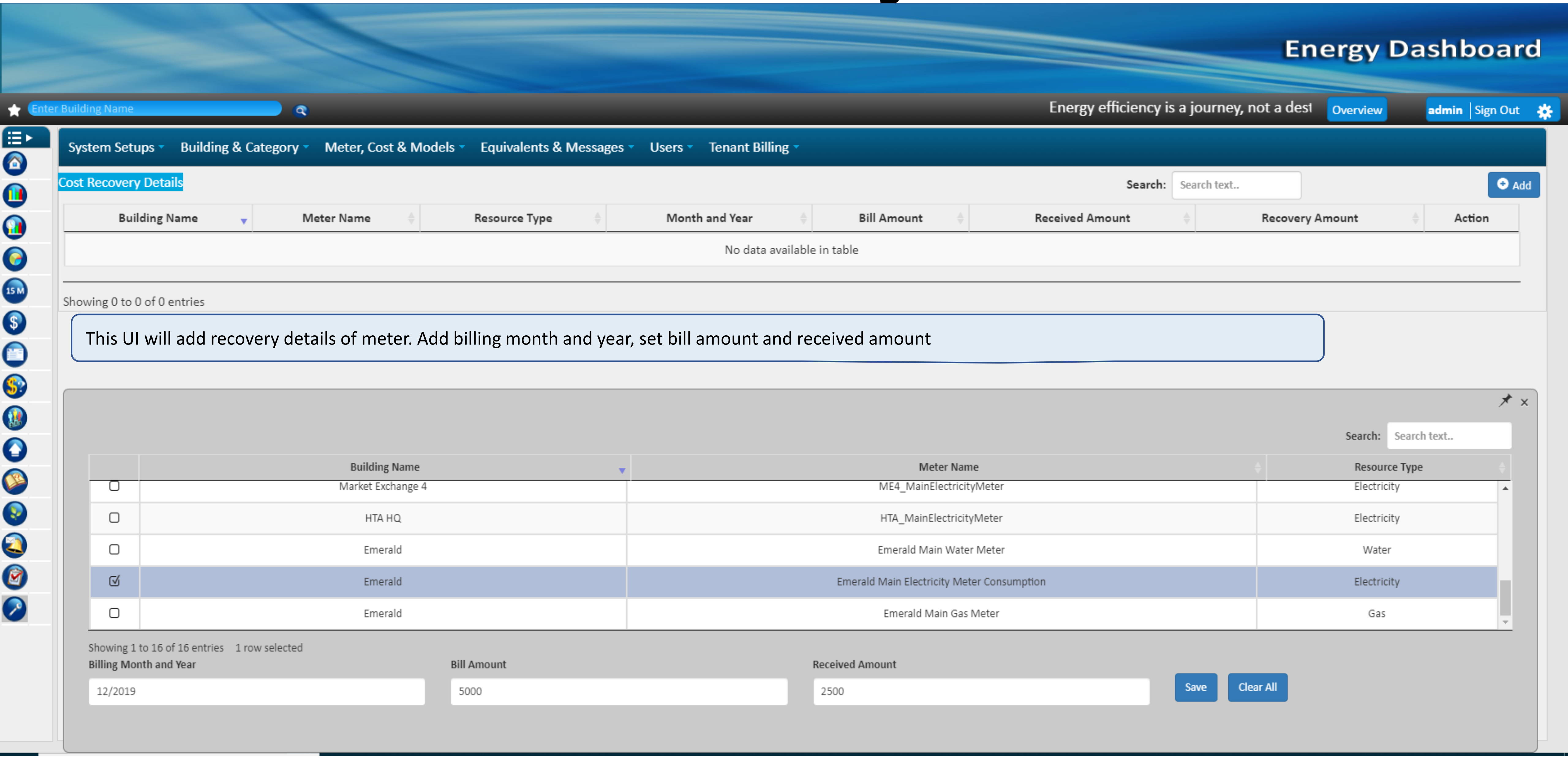
Utility usage

Utility usage and budget comparison

Pie chart for Utility data

Meter Cost Overview UI will display cost summary for all selected resource for selected period. This also displays utility data and comparison with budget data.

Meter Recovery Details


Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a dest
Overview
admin
Sign Out
System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Users
Tenant Billing
Search:
Search text..
Add
Search:
Search text..
Save
Clear All

Cost Recovery Details

Building Name	Meter Name	Resource Type	Month and Year	Bill Amount	Received Amount	Recovery Amount	Action
No data available in table							

Showing 0 to 0 of 0 entries

This UI will add recovery details of meter. Add billing month and year, set bill amount and received amount

	Building Name	Meter Name	Resource Type
☐	Market Exchange 4	ME4_MainElectricityMeter	Electricity
☐	HTA HQ	HTA_MainElectricityMeter	Electricity
☐	Emerald	Emerald Main Water Meter	Water
☑	Emerald	Emerald Main Electricity Meter Consumption	Electricity
☐	Emerald	Emerald Main Gas Meter	Gas

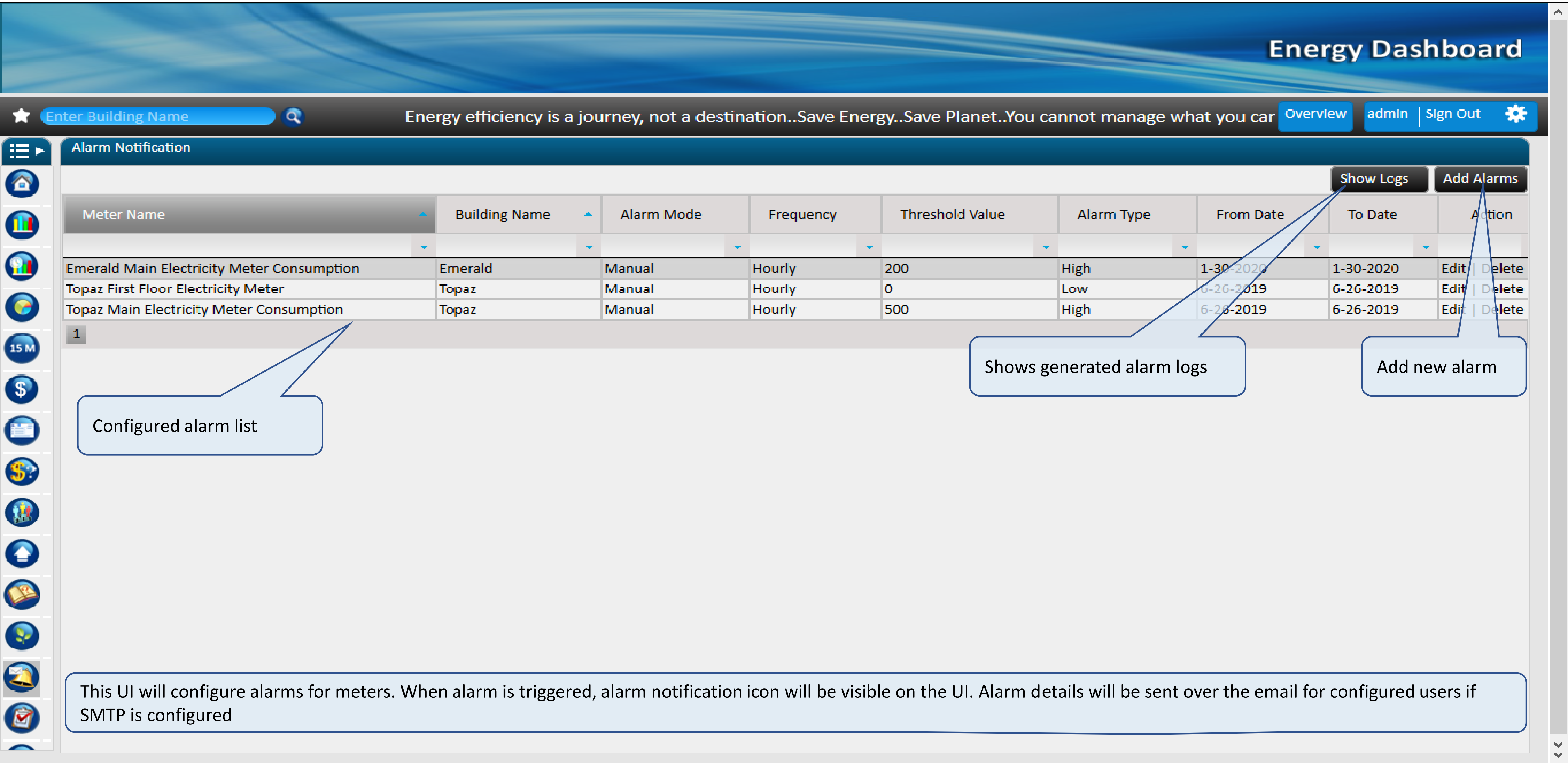
Showing 1 to 16 of 16 entries 1 row selected

Billing Month and Year: 12/2019

Bill Amount: 5000

Received Amount: 2500

Alarm Notification



Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you car
Overview
admin
Sign Out
Alarm Notification
Show Logs
Add Alarms
1

Meter Name	Building Name	Alarm Mode	Frequency	Threshold Value	Alarm Type	From Date	To Date	Action
Emerald Main Electricity Meter Consumption	Emerald	Manual	Hourly	200	High	1-30-2020	1-30-2020	Edit | Delete
Topaz First Floor Electricity Meter	Topaz	Manual	Hourly	0	Low	6-26-2019	6-26-2019	Edit | Delete
Topaz Main Electricity Meter Consumption	Topaz	Manual	Hourly	500	High	6-26-2019	6-26-2019	Edit | Delete

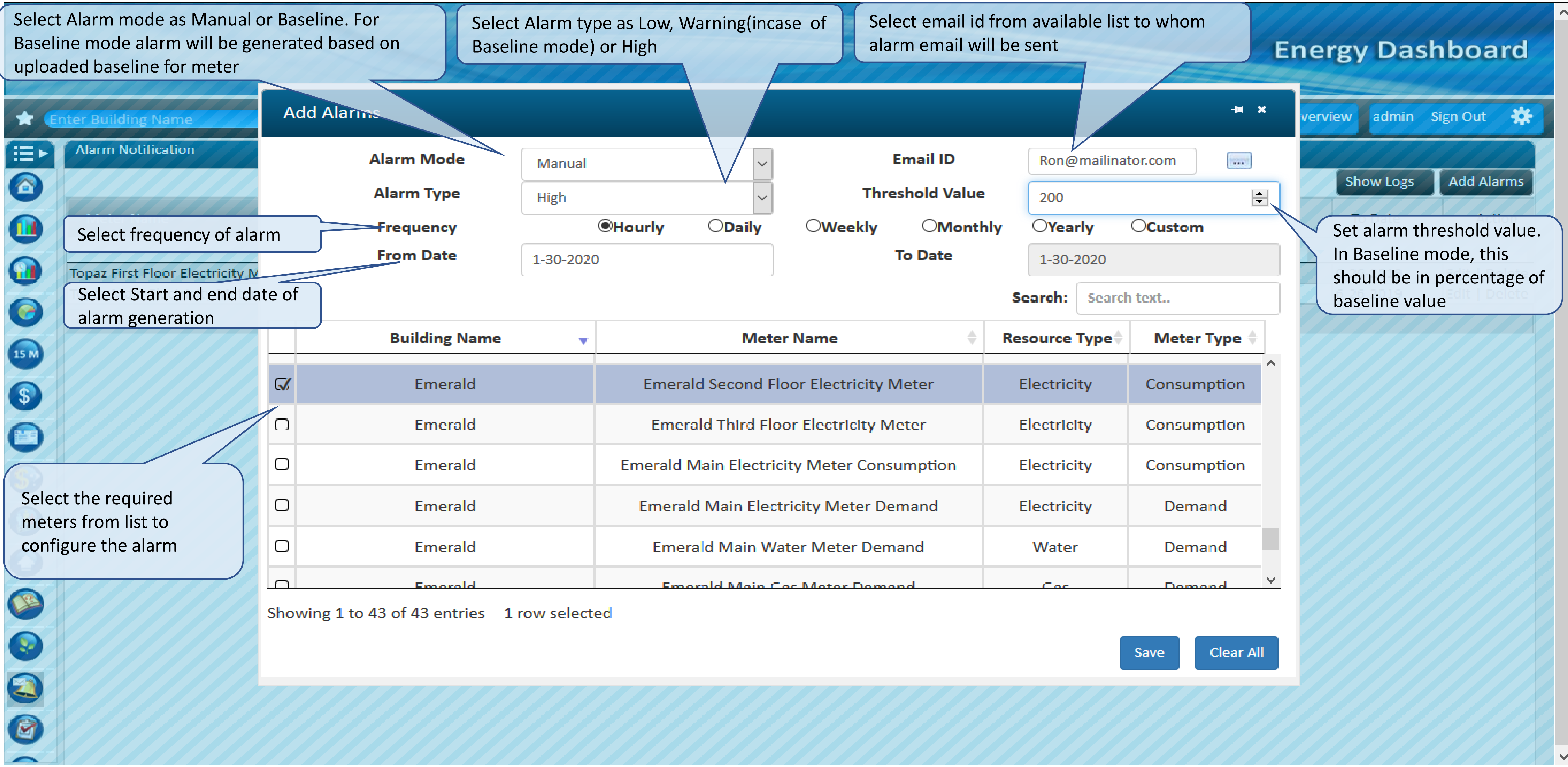
Configured alarm list

Shows generated alarm logs

Add new alarm

This UI will configure alarms for meters. When alarm is triggered, alarm notification icon will be visible on the UI. Alarm details will be sent over the email for configured users if SMTP is configured

Alarm Notification – Add Alarm



Energy Dashboard
Enter Building Name
Alarm Notification
Topaz First Floor Electricity M
verview
admin
Sign Out
Show Logs
Add Alarms
Add Alarms

Select Alarm mode as Manual or Baseline. For Baseline mode alarm will be generated based on uploaded baseline for meter

Select Alarm type as Low, Warning(incase of Baseline mode) or High

Select email id from available list to whom alarm email will be sent

Select frequency of alarm

Select Start and end date of alarm generation

Set alarm threshold value. In Baseline mode, this should be in percentage of baseline value

Select the required meters from list to configure the alarm

Alarm Mode Manual

Alarm Type High

Email ID Ron@mailinator.com

Threshold Value 200

Frequency ● **Hourly** ○ **Daily** ○ **Weekly** ○ **Monthly** ○ **Yearly** ○ **Custom**

From Date 1-30-2020

To Date 1-30-2020

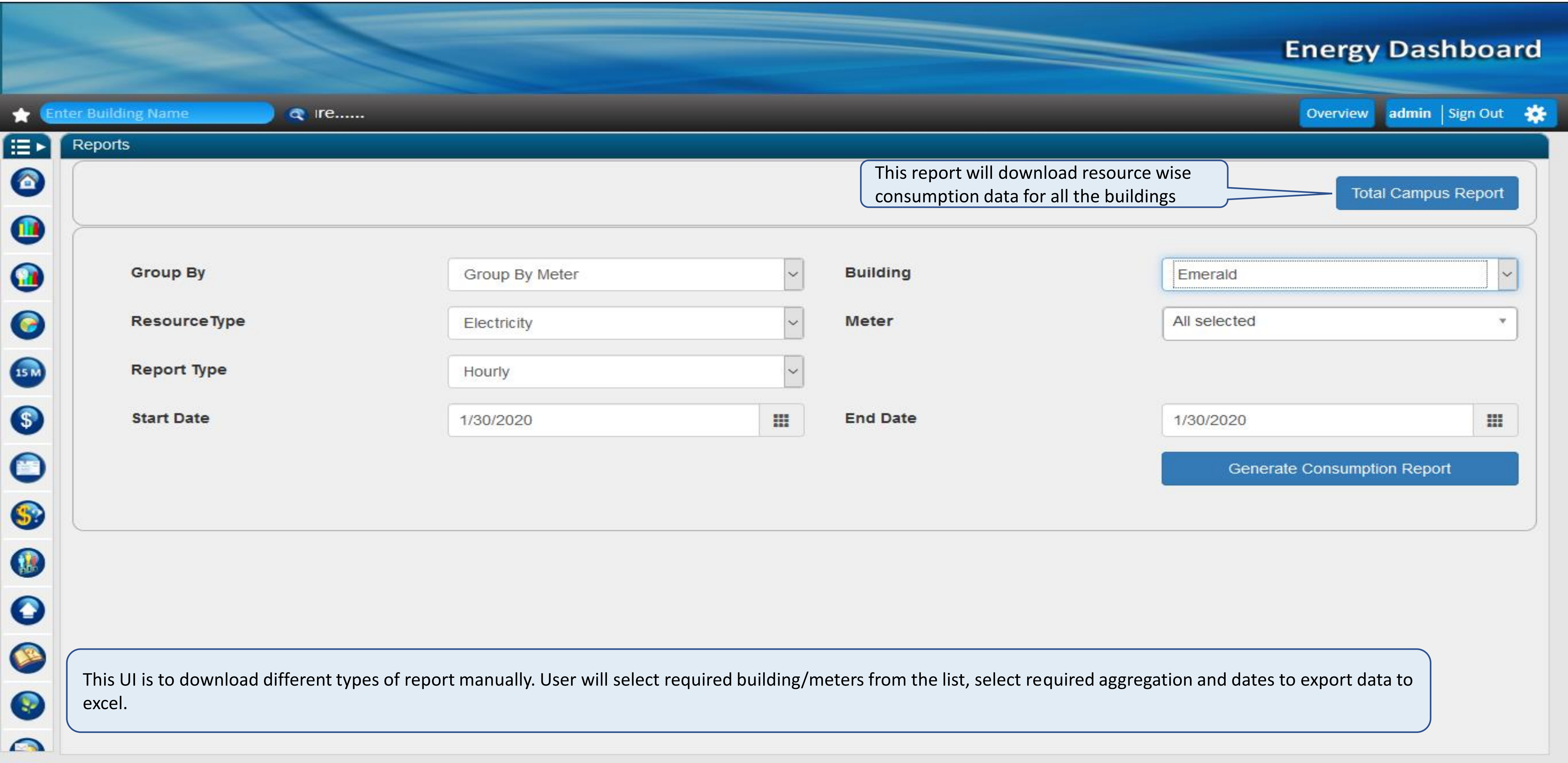
Search: Search text..

	Building Name	Meter Name	Resource Type	Meter Type
☑	Emerald	Emerald Second Floor Electricity Meter	Electricity	Consumption
☐	Emerald	Emerald Third Floor Electricity Meter	Electricity	Consumption
☐	Emerald	Emerald Main Electricity Meter Consumption	Electricity	Consumption
☐	Emerald	Emerald Main Electricity Meter Demand	Electricity	Demand
☐	Emerald	Emerald Main Water Meter Demand	Water	Demand
☐	Emerald	Emerald Main Gas Meter Demand	Gas	Demand

Showing 1 to 43 of 43 entries 1 row selected

Save
Clear All

Reports



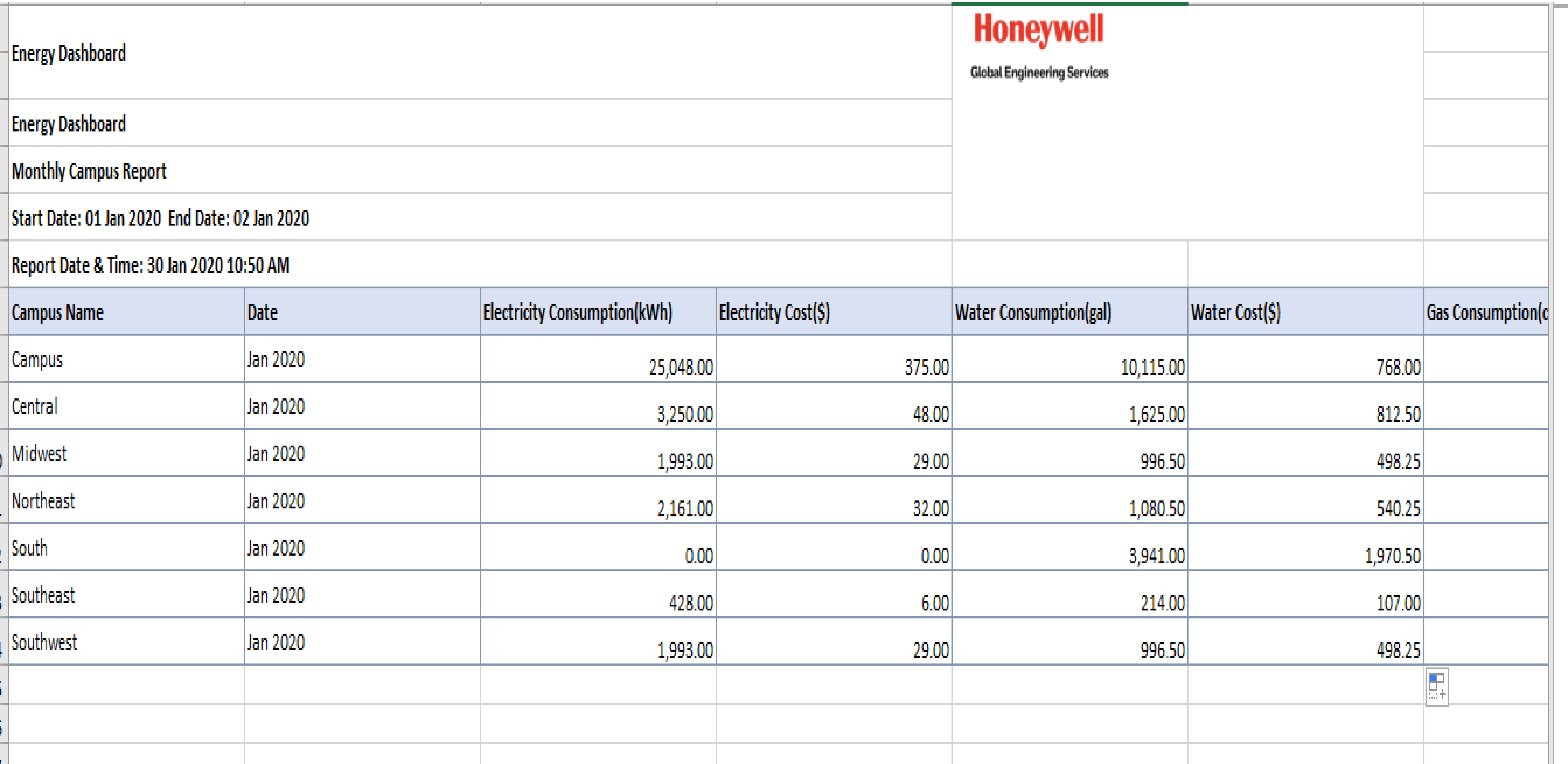
Energy Dashboard
Enter Building Name
ıre......
Overview
admin
Sign Out
Reports
Total Campus Report
Generate Consumption Report

This report will download resource wise consumption data for all the buildings

Group By	Group By Meter	**Building**	Emerald
ResourceType	Electricity	**Meter**	All selected
Report Type	Hourly		
Start Date	1/30/2020	**End Date**	1/30/2020

This UI is to download different types of report manually. User will select required building/meters from the list, select required aggregation and dates to export data to excel.

Reports – Campus Report



Energy Dashboard

Honeywell

Global Engineering Services

Energy Dashboard

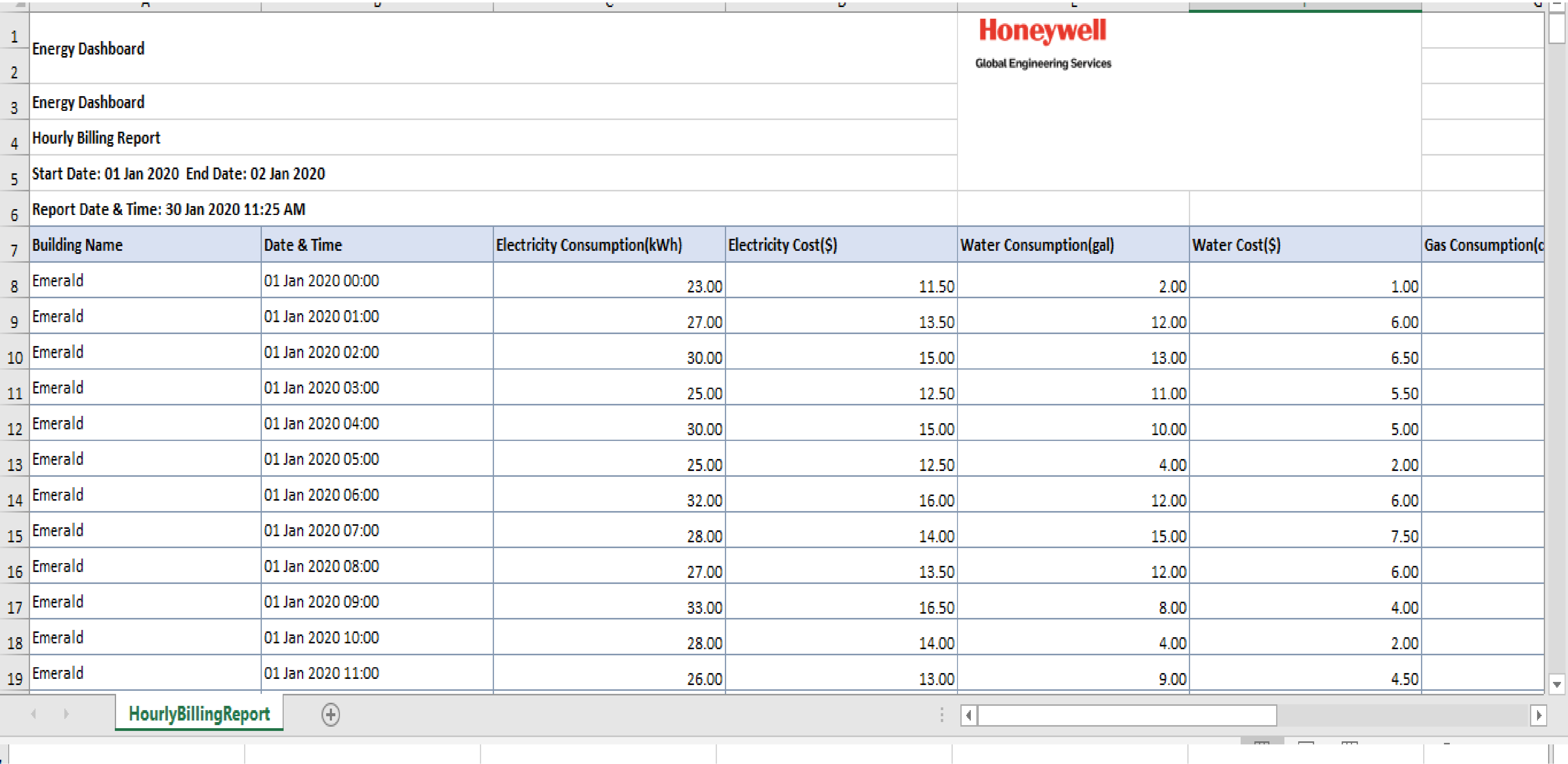
Monthly Campus Report

Start Date: 01 Jan 2020 End Date: 02 Jan 2020

Report Date & Time: 30 Jan 2020 10:50 AM

Campus Name	Date	Electricity Consumption(kWh)	Electricity Cost($)	Water Consumption(gal)	Water Cost($)	Gas Consumption(c
Campus	Jan 2020	25,048.00	375.00	10,115.00	768.00	
Central	Jan 2020	3,250.00	48.00	1,625.00	812.50	
Midwest	Jan 2020	1,993.00	29.00	996.50	498.25	
Northeast	Jan 2020	2,161.00	32.00	1,080.50	540.25	
South	Jan 2020	0.00	0.00	3,941.00	1,970.50	
Southeast	Jan 2020	428.00	6.00	214.00	107.00	
Southwest	Jan 2020	1,993.00	29.00	996.50	498.25	

Reports – Billing Report



Energy Dashboard

Honeywell

Global Engineering Services

Energy Dashboard

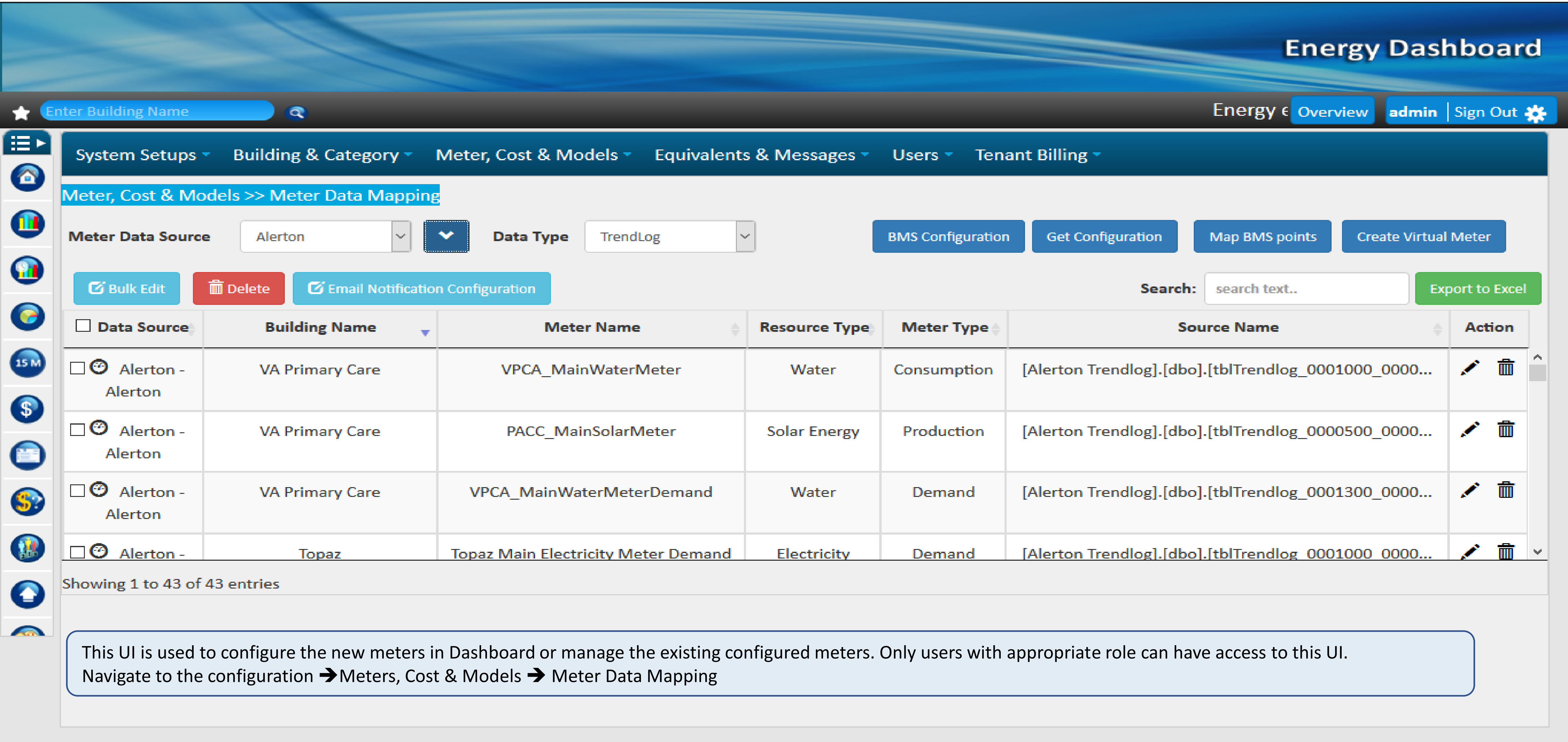
Hourly Billing Report

Start Date: 01 Jan 2020 End Date: 02 Jan 2020

Report Date & Time: 30 Jan 2020 11:25 AM

Building Name	Date & Time	Electricity Consumption(kWh)	Electricity Cost($)	Water Consumption(gal)	Water Cost($)	Gas Consumption(c
Emerald	01 Jan 2020 00:00	23.00	11.50	2.00	1.00	
Emerald	01 Jan 2020 01:00	27.00	13.50	12.00	6.00	
Emerald	01 Jan 2020 02:00	30.00	15.00	13.00	6.50	
Emerald	01 Jan 2020 03:00	25.00	12.50	11.00	5.50	
Emerald	01 Jan 2020 04:00	30.00	15.00	10.00	5.00	
Emerald	01 Jan 2020 05:00	25.00	12.50	4.00	2.00	
Emerald	01 Jan 2020 06:00	32.00	16.00	12.00	6.00	
Emerald	01 Jan 2020 07:00	28.00	14.00	15.00	7.50	
Emerald	01 Jan 2020 08:00	27.00	13.50	12.00	6.00	
Emerald	01 Jan 2020 09:00	33.00	16.50	8.00	4.00	
Emerald	01 Jan 2020 10:00	28.00	14.00	4.00	2.00	
Emerald	01 Jan 2020 11:00	26.00	13.00	9.00	4.50	

Meter Configuration


Energy Dashboard
Enter Building Name
Energy e
Overview
admin
Sign Out
System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Users
Tenant Billing
BMS Configuration
Get Configuration
Map BMS points
Create Virtual Meter
Bulk Edit
Delete
Email Notification Configuration
Export to Excel
15 M

Meter, Cost & Models >> Meter Data Mapping

Meter Data Source Alerton **Data Type** TrendLog

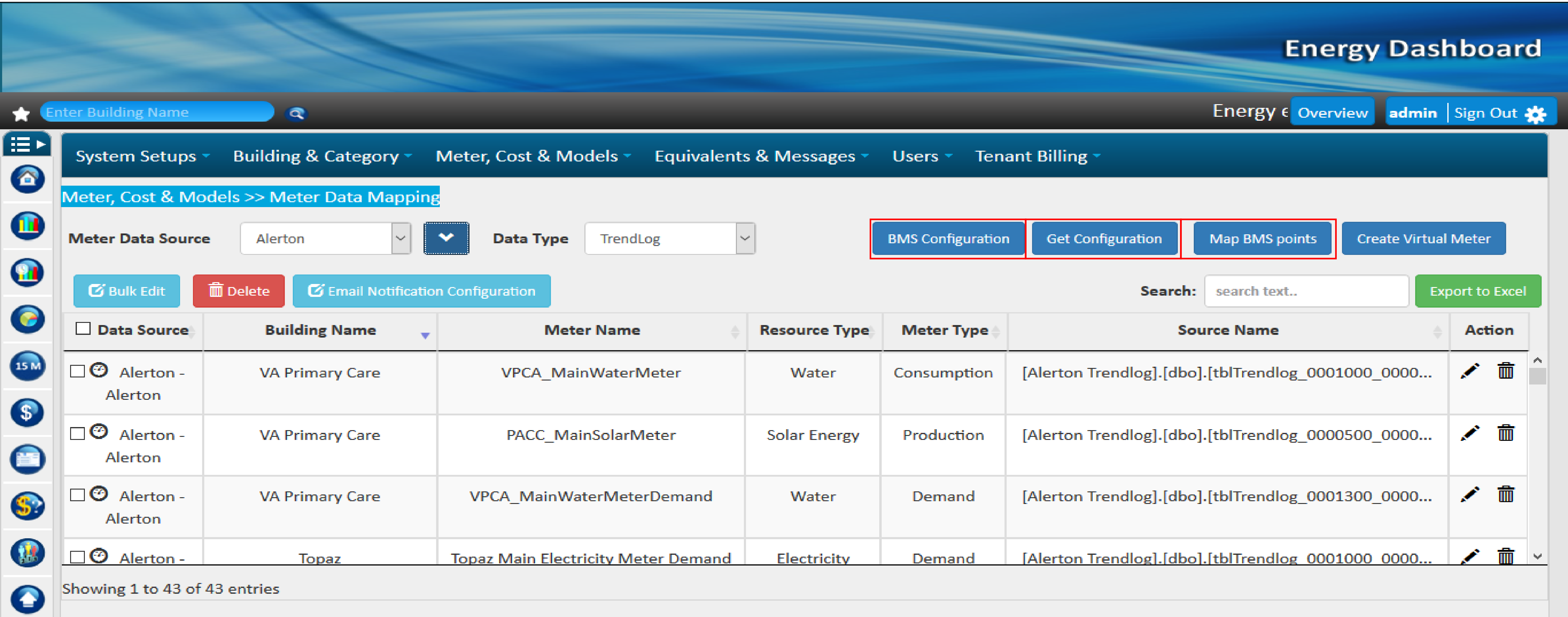
Search: search text..

☐ Data Source	Building Name	Meter Name	Resource Type	Meter Type	Source Name	Action
☐ Alerton - Alerton	VA Primary Care	VPCA_MainWaterMeter	Water	Consumption	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000...	
☐ Alerton - Alerton	VA Primary Care	PACC_MainSolarMeter	Solar Energy	Production	[Alerton Trendlog].[dbo].[tblTrendlog_0000500_0000...	
☐ Alerton - Alerton	VA Primary Care	VPCA_MainWaterMeterDemand	Water	Demand	[Alerton Trendlog].[dbo].[tblTrendlog_0001300_0000...	
☐ Alerton -	Topaz	Topaz Main Electricity Meter Demand	Electricity	Demand	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000...	

Showing 1 to 43 of 43 entries

This UI is used to configure the new meters in Dashboard or manage the existing configured meters. Only users with appropriate role can have access to this UI.
Navigate to the configuration ➔Meters, Cost & Models ➔ Meter Data Mapping

Meter Configuration


Energy Dashboard
Enter Building Name
Energy e
Overview
admin
Sign Out
System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Users
Tenant Billing
BMS Configuration
Get Configuration
Map BMS points
Create Virtual Meter
Bulk Edit
Delete
Email Notification Configuration
Search:
search text..
Export to Excel
15 M

Meter, Cost & Models >> Meter Data Mapping

Meter Data Source: Alerton

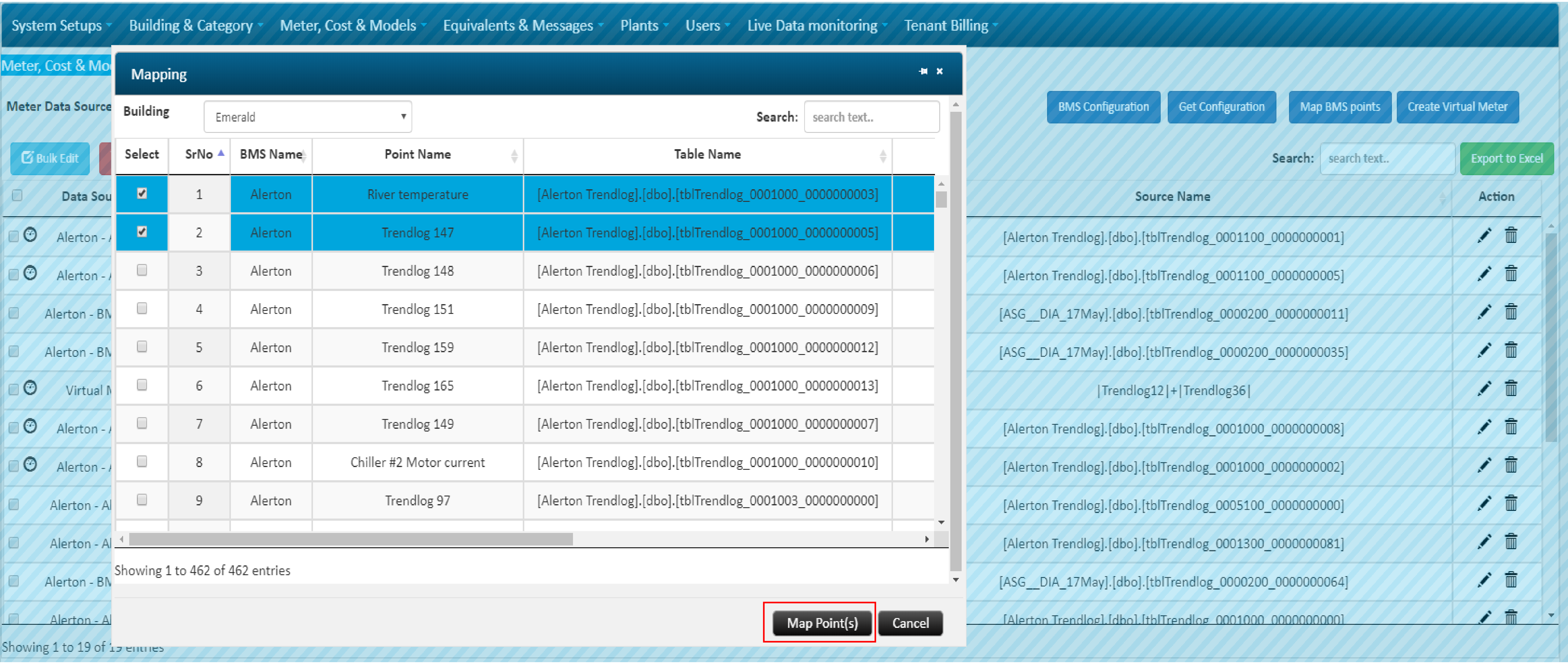
Data Type: TrendLog

☐ Data Source	Building Name	Meter Name	Resource Type	Meter Type	Source Name	Action
☐ Alerton - Alerton	VA Primary Care	VPCA_MainWaterMeter	Water	Consumption	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000...	
☐ Alerton - Alerton	VA Primary Care	PACC_MainSolarMeter	Solar Energy	Production	[Alerton Trendlog].[dbo].[tblTrendlog_0000500_0000...	
☐ Alerton - Alerton	VA Primary Care	VPCA_MainWaterMeterDemand	Water	Demand	[Alerton Trendlog].[dbo].[tblTrendlog_0001300_0000...	
☐ Alerton -	Topaz	Topaz Main Electricity Meter Demand	Electricity	Demand	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000...	

Showing 1 to 43 of 43 entries

1. Click on BMS Configuration to configure the BMS
2. Enter BMS connection details and save. Close the popup
3. Click on Get configuration button to fetch all the available points in BMS. All the points will standard history enabled will be fetched on Dashboard
4. Click on Map BMS Points button to configure new meter

Meter Configuration


System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Plants
Users
Live Data monitoring
Tenant Billing
Meter, Cost & Mo
Meter Data Source
Bulk Edit
BMS Configuration
Get Configuration
Map BMS points
Create Virtual Meter
Search:
search text..
Export to Excel
Mapping
Building
Emerald
Search:
search text..
Map Point(s)
Cancel

Select	SrNo	BMS Name	Point Name	Table Name
☑	1	Alerton	River temperature	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000003]
☑	2	Alerton	Trendlog 147	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000005]
☐	3	Alerton	Trendlog 148	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000006]
☐	4	Alerton	Trendlog 151	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000009]
☐	5	Alerton	Trendlog 159	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000012]
☐	6	Alerton	Trendlog 165	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000013]
☐	7	Alerton	Trendlog 149	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000007]
☐	8	Alerton	Chiller #2 Motor current	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000010]
☐	9	Alerton	Trendlog 97	[Alerton Trendlog].[dbo].[tblTrendlog_0001003_0000000000]

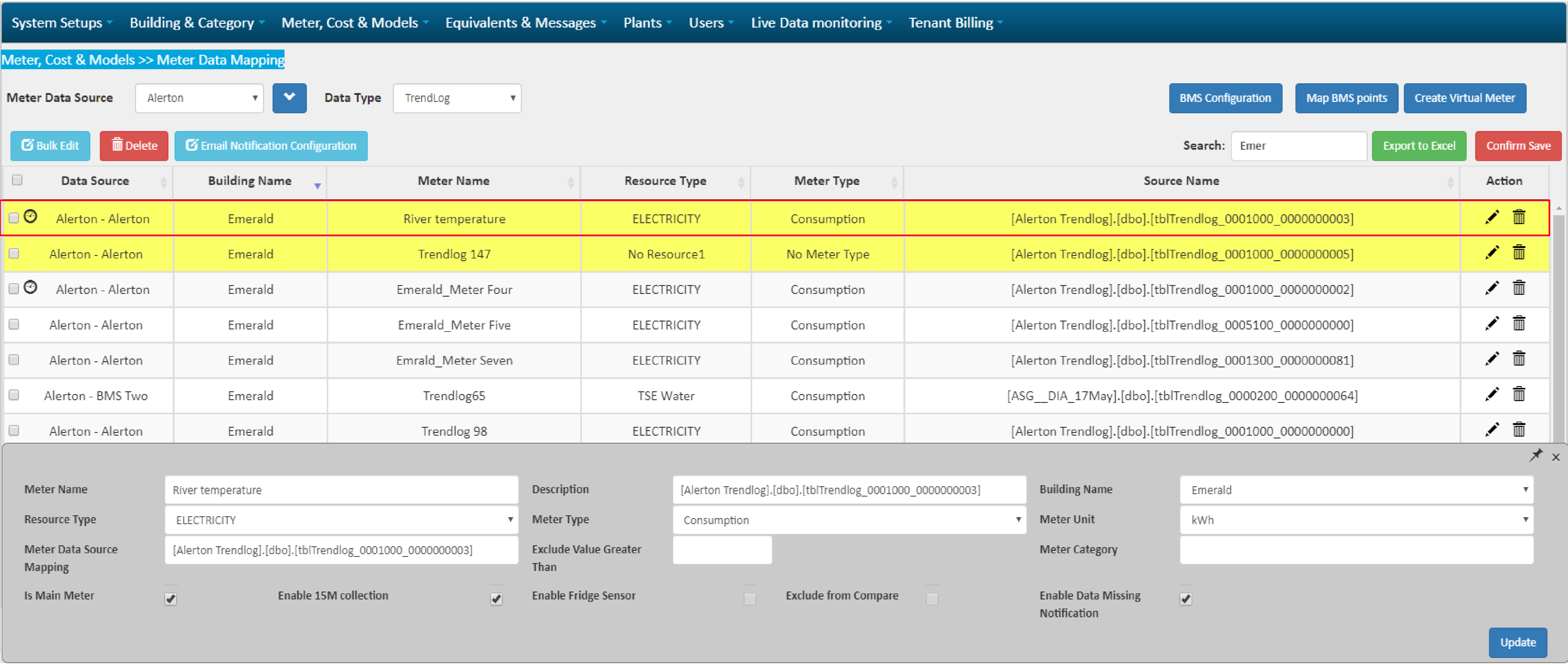
Showing 1 to 462 of 462 entries

☐	Data Sou	Source Name	Action
☐	Alerton - /	[Alerton Trendlog].[dbo].[tblTrendlog_0001100_0000000001]	✎ 🗑
☐	Alerton - /	[Alerton Trendlog].[dbo].[tblTrendlog_0001100_0000000005]	✎ 🗑
☐	Alerton - BM	[ASG__DIA_17May].[dbo].[tblTrendlog_0000200_0000000011]	✎ 🗑
☐	Alerton - BM	[ASG__DIA_17May].[dbo].[tblTrendlog_0000200_0000000035]	✎ 🗑
☐	Virtual M	|Trendlog12|+|Trendlog36|	✎ 🗑
☐	Alerton - /	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000008]	✎ 🗑
☐	Alerton - /	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000002]	✎ 🗑
☐	Alerton - Al	[Alerton Trendlog].[dbo].[tblTrendlog_0005100_0000000000]	✎ 🗑
☐	Alerton - Al	[Alerton Trendlog].[dbo].[tblTrendlog_0001300_0000000081]	✎ 🗑
☐	Alerton - BM	[ASG__DIA_17May].[dbo].[tblTrendlog_0000200_0000000064]	✎ 🗑
☐	Alerton - Al	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000000]	✎ 🗑

Showing 1 to 19 of 19 entries

1. Click on Map BMS Points button to configure new meter
2. Select the Building name from dropdown and required meters from available meter list
3. Click on Map Point(s) button
4. New meter will be added in Dashboard

Meter Configuration


System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Plants
Users
Live Data monitoring
Tenant Billing
BMS Configuration
Map BMS points
Create Virtual Meter
Bulk Edit
Delete
Email Notification Configuration
Export to Excel
Confirm Save
Update

Meter, Cost & Models >> Meter Data Mapping

Meter Data Source Alerton **Data Type** TrendLog

Search: Emer

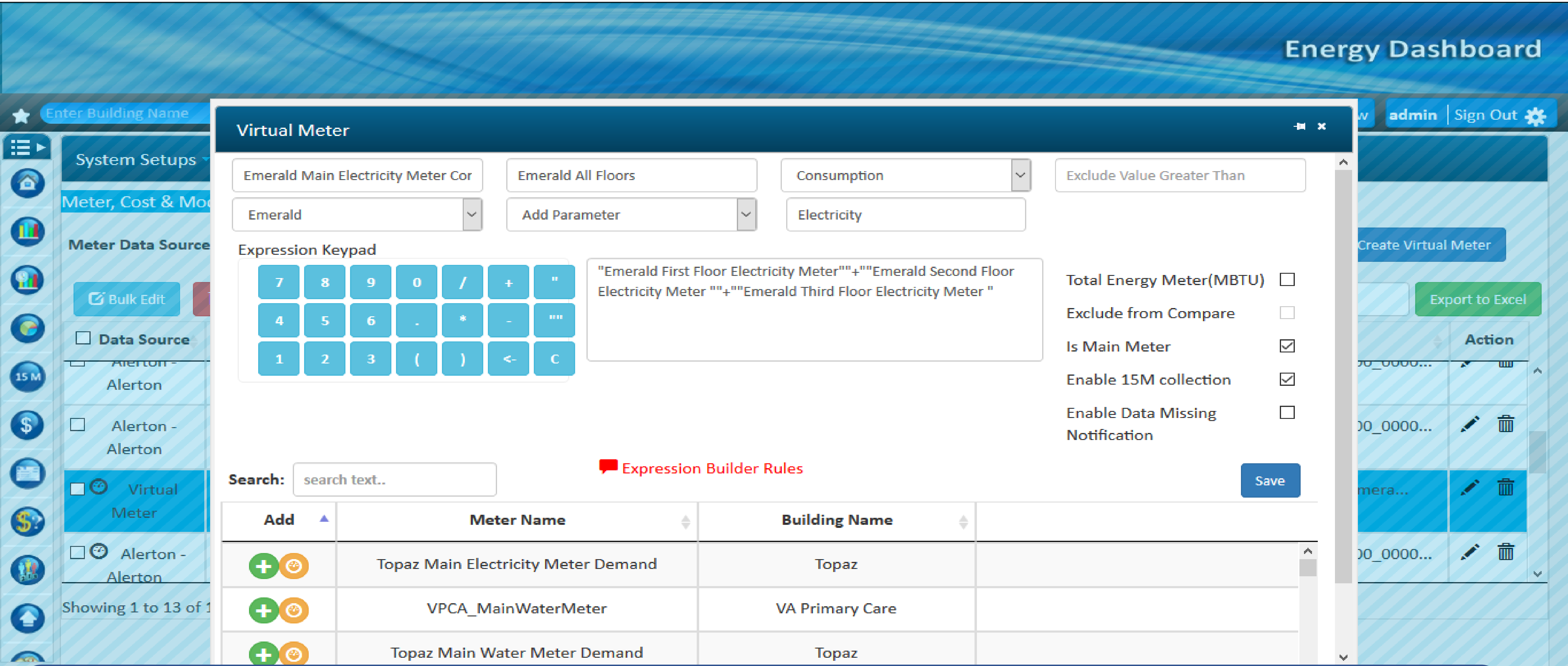
☐	Data Source	Building Name	Meter Name	Resource Type	Meter Type	Source Name	Action
☐	Alerton - Alerton	Emerald	River temperature	ELECTRICITY	Consumption	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000003]	
☐	Alerton - Alerton	Emerald	Trendlog 147	No Resource1	No Meter Type	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000005]	
☐	Alerton - Alerton	Emerald	Emerald_Meter Four	ELECTRICITY	Consumption	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000002]	
☐	Alerton - Alerton	Emerald	Emerald_Meter Five	ELECTRICITY	Consumption	[Alerton Trendlog].[dbo].[tblTrendlog_0005100_0000000000]	
☐	Alerton - Alerton	Emerald	Emrald_Meter Seven	ELECTRICITY	Consumption	[Alerton Trendlog].[dbo].[tblTrendlog_0001300_0000000081]	
☐	Alerton - BMS Two	Emerald	Trendlog65	TSE Water	Consumption	[ASG__DIA_17May].[dbo].[tblTrendlog_0000200_0000000064]	
☐	Alerton - Alerton	Emerald	Trendlog 98	ELECTRICITY	Consumption	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000000]	

Meter Name	River temperature	**Description**	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000003]	**Building Name**	Emerald
Resource Type	ELECTRICITY	**Meter Type**	Consumption	**Meter Unit**	kWh
Meter Data Source Mapping	[Alerton Trendlog].[dbo].[tblTrendlog_0001000_0000000003]	**Exclude Value Greater Than**		**Meter Category**	

Is Main Meter ☑ **Enable 15M collection** ☑ **Enable Fridge Sensor** ☐ **Exclude from Compare** ☐ **Enable Data Missing Notification** ☑

1. Edit the required meter to modify the details
2. Meter those are not in use can be deleted from here
3. Meters can be assigned from this UI

Virtual Meter


Energy Dashboard
Enter Building Name
admin
Sign Out
System Setups
Meter, Cost & Mo
Meter Data Source
Bulk Edit
Data Source
Create Virtual Meter
Export to Excel
Action
Alerton - Alerton
Virtual Meter
Showing 1 to 13 of 1
Virtual Meter
Expression Keypad
7 8 9 0 / + "
4 5 6 . * - ""
1 2 3 ( ) <- C
Expression Builder Rules
Save
Search:
search text..

Emerald Main Electricity Meter Cor

Emerald All Floors

Consumption

Exclude Value Greater Than

Emerald

Add Parameter

Electricity

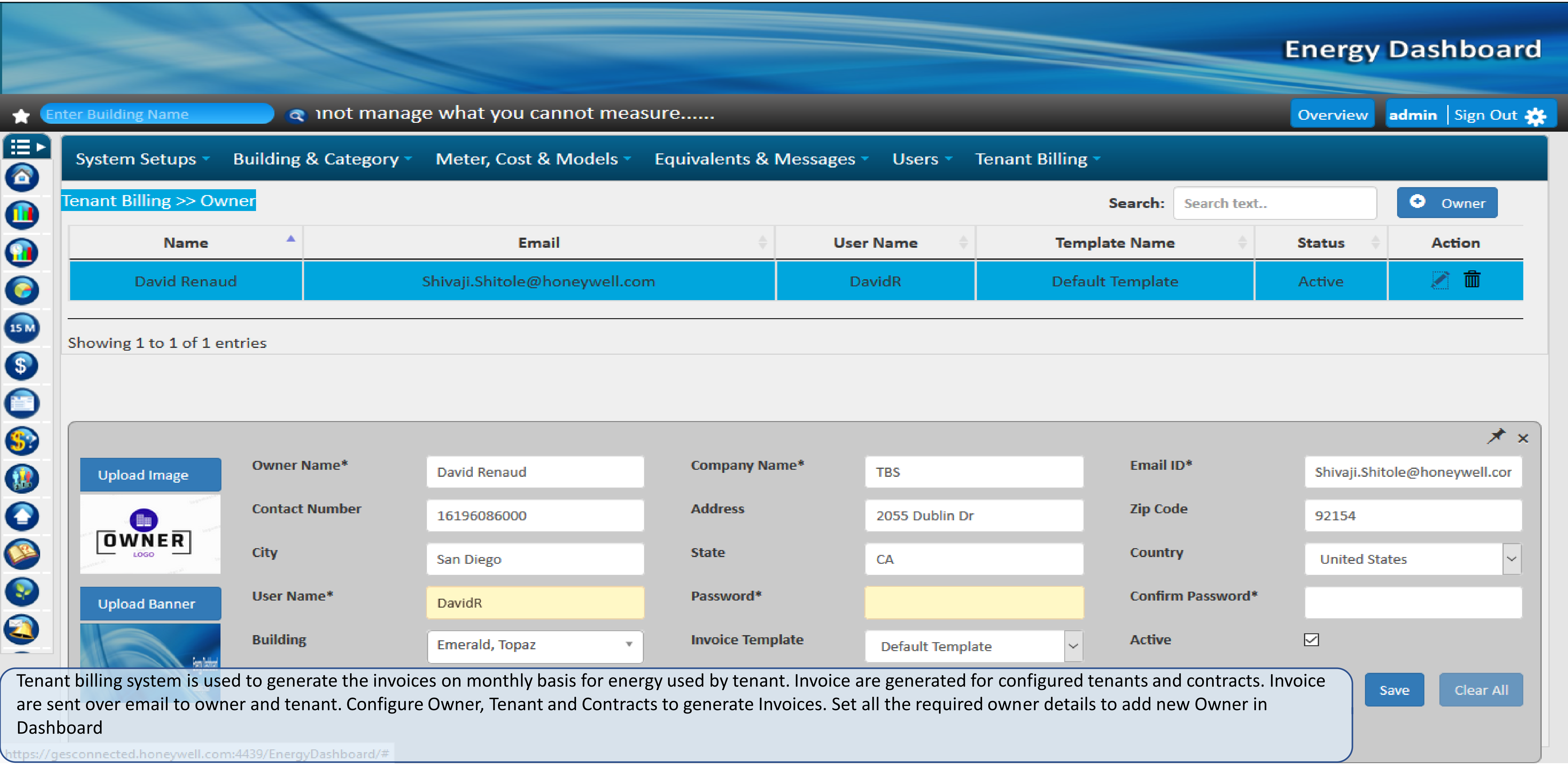
"Emerald First Floor Electricity Meter""+""Emerald Second Floor Electricity Meter ""+""Emerald Third Floor Electricity Meter "

Total Energy Meter(MBTU) ☐
Exclude from Compare ☐
Is Main Meter ☑
Enable 15M collection ☑
Enable Data Missing Notification ☐

Add	Meter Name	Building Name
	Topaz Main Electricity Meter Demand	Topaz
	VPCA_MainWaterMeter	VA Primary Care
	Topaz Main Water Meter Demand	Topaz

1. Virtual meters can be created in different situations like if building shares physical meters or need to categories the meters
2. Click on Create Virtual meter button to add new virtual meter
3. Set the required details
4. Add proper equation
5. Save this meter

Tenant Billing System – Owner Configuration


Energy Dashboard
Enter Building Name
ınot manage what you cannot measure......
Overview
admin
Sign Out
System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Users
Tenant Billing
15 M
Search:
Search text..
Owner
Upload Image
OWNER
LOGO
Upload Banner
Save
Clear All
https://gesconnected.honeywell.com:4439/EnergyDashboard/#

Tenant Billing >> Owner

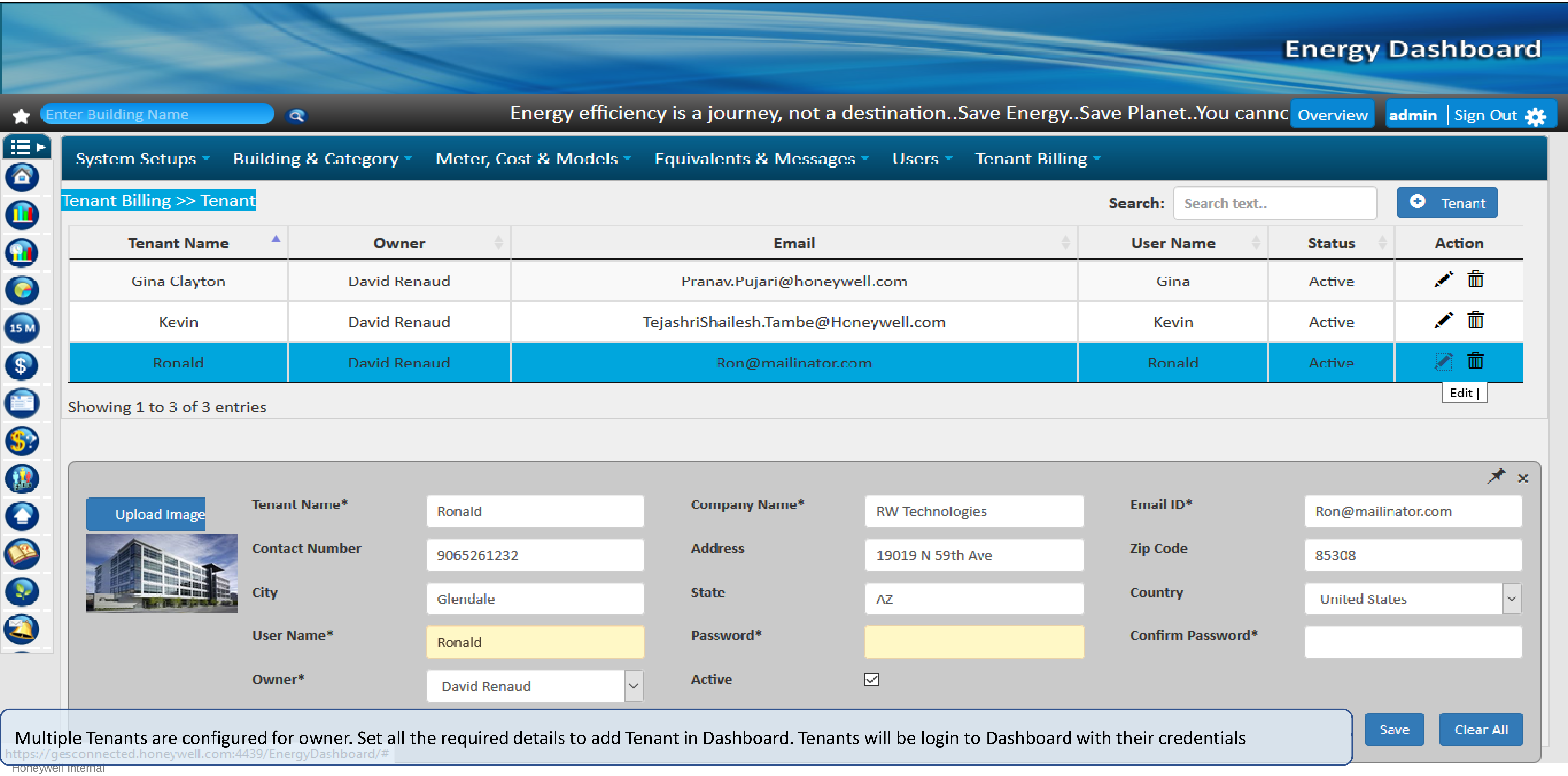
Name	Email	User Name	Template Name	Status	Action
David Renaud	Shivaji.Shitole@honeywell.com	DavidR	Default Template	Active	

Showing 1 to 1 of 1 entries

Owner Name*	David Renaud	Company Name*	TBS	Email ID*	Shivaji.Shitole@honeywell.cor
Contact Number	16196086000	Address	2055 Dublin Dr	Zip Code	92154
City	San Diego	State	CA	Country	United States
User Name*	DavidR	Password*		Confirm Password*	
Building	Emerald, Topaz	Invoice Template	Default Template	Active	☑

Tenant billing system is used to generate the invoices on monthly basis for energy used by tenant. Invoice are generated for configured tenants and contracts. Invoice are sent over email to owner and tenant. Configure Owner, Tenant and Contracts to generate Invoices. Set all the required owner details to add new Owner in Dashboard

Tenant Billing System – Tenant Configuration


Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannc
Overview
admin
Sign Out
15 M
System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Users
Tenant Billing
Tenant Billing >> Tenant
Search:
Search text..
Tenant
Edit |
Upload Image
Save
Clear All
https://gesconnected.honeywell.com:4439/EnergyDashboard/#

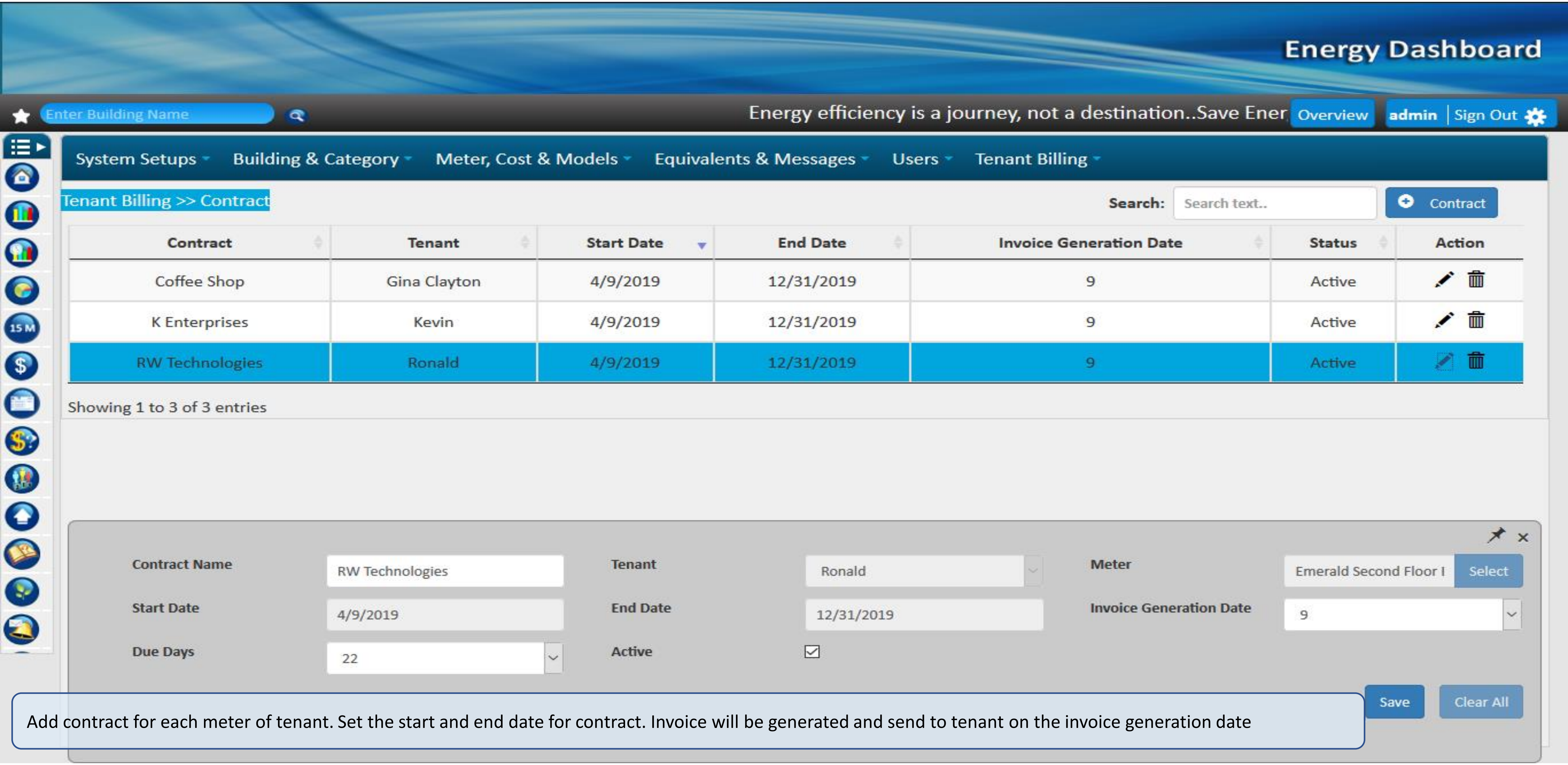
Tenant Name	Owner	Email	User Name	Status	Action
Gina Clayton	David Renaud	Pranav.Pujari@honeywell.com	Gina	Active	
Kevin	David Renaud	TejashriShailesh.Tambe@Honeywell.com	Kevin	Active	
Ronald	David Renaud	Ron@mailinator.com	Ronald	Active	

Showing 1 to 3 of 3 entries

Tenant Name*: Ronald
Company Name*: RW Technologies
Email ID*: Ron@mailinator.com
Contact Number: 9065261232
Address: 19019 N 59th Ave
Zip Code: 85308
City: Glendale
State: AZ
Country: United States
User Name*: Ronald
Password*:
Confirm Password*:
Owner*: David Renaud
Active: ☑

Multiple Tenants are configured for owner. Set all the required details to add Tenant in Dashboard. Tenants will be login to Dashboard with their credentials

Tenant Billing System – Contract Configuration


Energy Dashboard
Enter Building Name
Energy efficiency is a journey, not a destination..Save Ener
Overview
admin | Sign Out
System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Users
Tenant Billing
Search:
Search text..
Contract
Select
Save
Clear All

Tenant Billing >> Contract

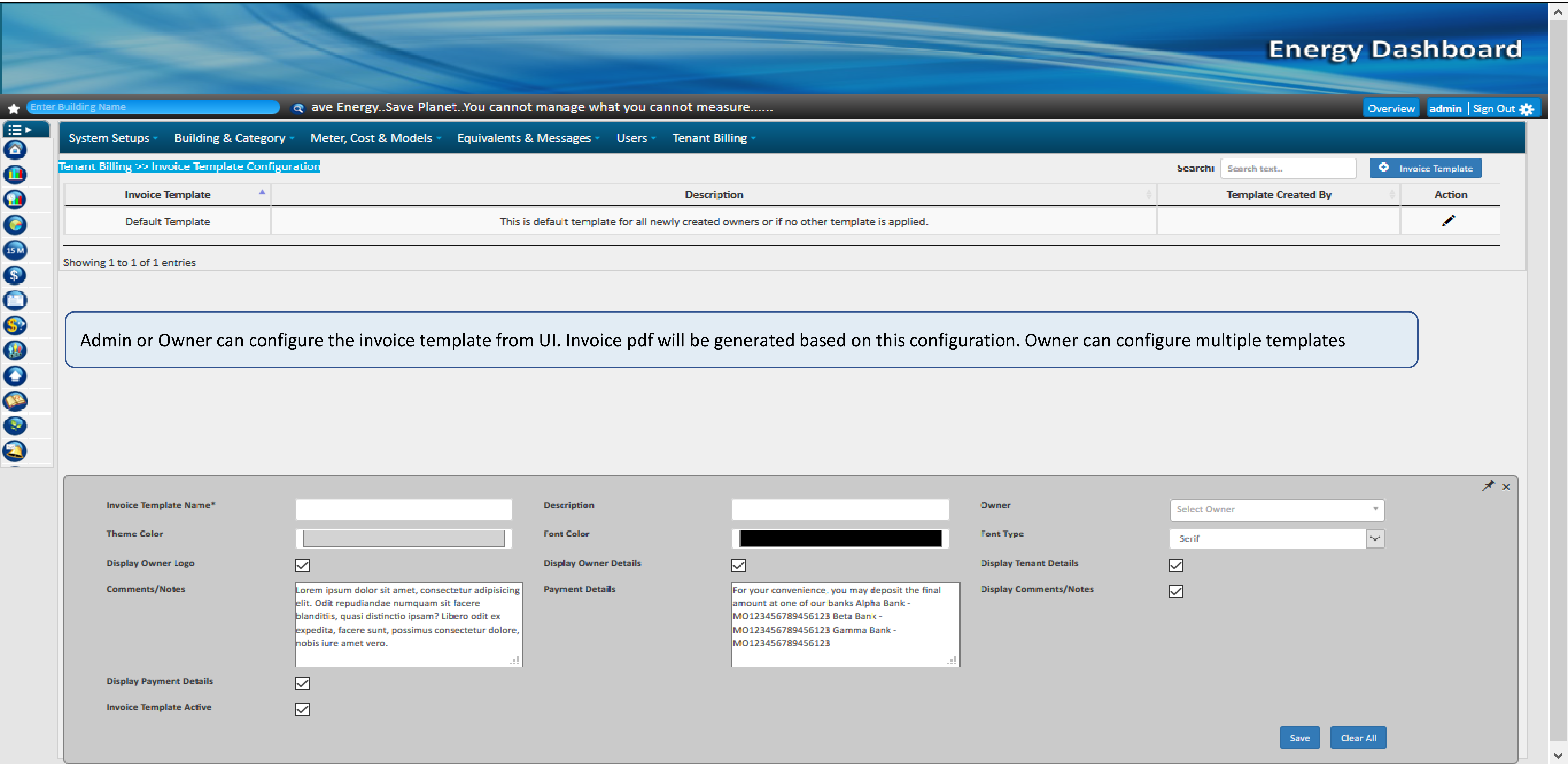
Contract	Tenant	Start Date	End Date	Invoice Generation Date	Status	Action
Coffee Shop	Gina Clayton	4/9/2019	12/31/2019	9	Active	✎ 🗑
K Enterprises	Kevin	4/9/2019	12/31/2019	9	Active	✎ 🗑
RW Technologies	Ronald	4/9/2019	12/31/2019	9	Active	✎ 🗑

Showing 1 to 3 of 3 entries

Contract Name	RW Technologies	**Tenant**	Ronald	**Meter**	Emerald Second Floor I
Start Date	4/9/2019	**End Date**	12/31/2019	**Invoice Generation Date**	9
Due Days	22	**Active**	☑		

Add contract for each meter of tenant. Set the start and end date for contract. Invoice will be generated and send to tenant on the invoice generation date

Tenant Billing System – Invoice Template Configuration


Energy Dashboard
Enter Building Name
ave Energy..Save Planet..You cannot manage what you cannot measure......
Overview
admin | Sign Out
System Setups
Building & Category
Meter, Cost & Models
Equivalents & Messages
Users
Tenant Billing
Search:
Search text..
Invoice Template
Save
Clear All

Tenant Billing >> Invoice Template Configuration

Invoice Template	Description	Template Created By	Action
Default Template	This is default template for all newly created owners or if no other template is applied.		✎

Showing 1 to 1 of 1 entries

Admin or Owner can configure the invoice template from UI. Invoice pdf will be generated based on this configuration. Owner can configure multiple templates

Invoice Template Name*

Description

Owner Select Owner

Theme Color

Font Color

Font Type Serif

Display Owner Logo ☑

Display Owner Details ☑

Display Tenant Details ☑

Comments/Notes Lorem ipsum dolor sit amet, consectetur adipisicing elit. Odit repudiandae numquam sit facere blanditiis, quasi distinctio ipsam? Libero odit ex expedita, facere sunt, possimus consectetur dolore, nobis iure amet vero.

Payment Details For your convenience, you may deposit the final amount at one of our banks Alpha Bank - MO123456789456123 Beta Bank - MO123456789456123 Gamma Bank - MO123456789456123

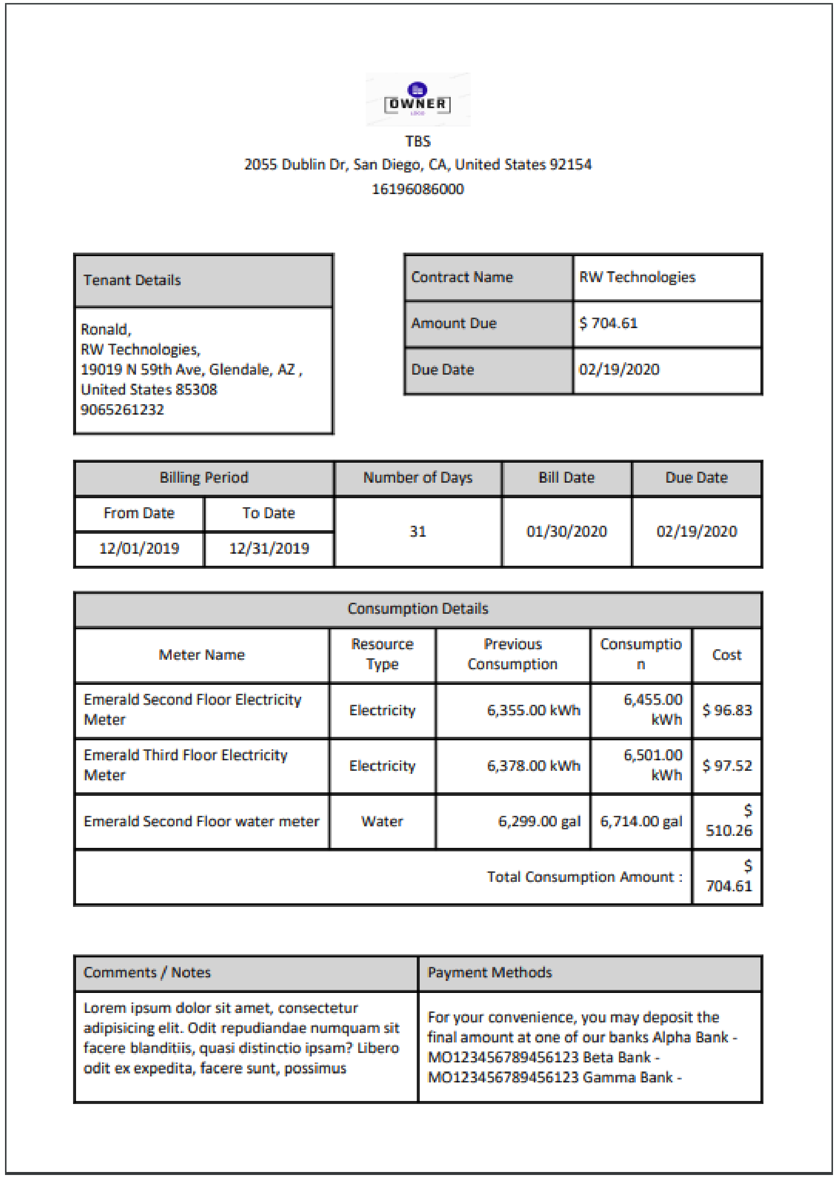
Display Comments/Notes ☑

Display Payment Details ☑

Invoice Template Active ☑

Tenant Billing System – Invoice

Sample Invoice pdf



TBS
2055 Dublin Dr, San Diego, CA, United States 92154
16196086000

Tenant Details
Ronald, RW Technologies, 19019 N 59th Ave, Glendale, AZ , United States 85308 9065261232

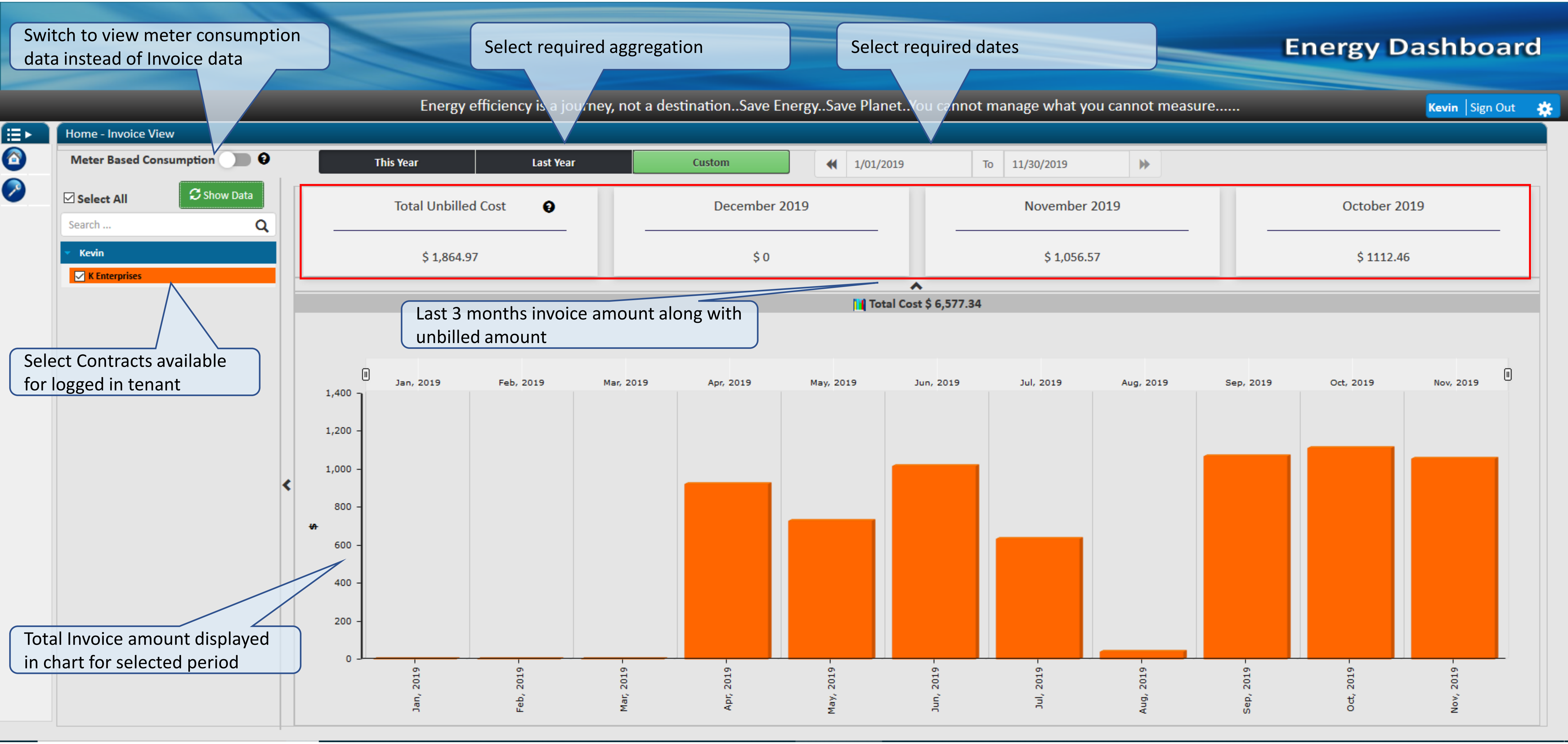
Contract Name	RW Technologies
Amount Due	$ 704.61
Due Date	02/19/2020

Billing Period		Number of Days	Bill Date	Due Date
From Date	To Date	31	01/30/2020	02/19/2020
12/01/2019	12/31/2019			

Consumption Details				
Meter Name	Resource Type	Previous Consumption	Consumption	Cost
Emerald Second Floor Electricity Meter	Electricity	6,355.00 kWh	6,455.00 kWh	$ 96.83
Emerald Third Floor Electricity Meter	Electricity	6,378.00 kWh	6,501.00 kWh	$ 97.52
Emerald Second Floor water meter	Water	6,299.00 gal	6,714.00 gal	$ 510.26
			Total Consumption Amount :	$ 704.61

Comments / Notes	Payment Methods
Lorem ipsum dolor sit amet, consectetur adipisicing elit. Odit repudiandae numquam sit facere blanditiis, quasi distinctio ipsam? Libero odit ex expedita, facere sunt, possimus	For your convenience, you may deposit the final amount at one of our banks Alpha Bank - MO123456789456123 Beta Bank - MO123456789456123 Gamma Bank -

Tenant Billing System – Tenant Login View



Switch to view meter consumption data instead of Invoice data

Select required aggregation

Select required dates

Last 3 months invoice amount along with unbilled amount

Select Contracts available for logged in tenant

Total Invoice amount displayed in chart for selected period

Energy Dashboard
Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measure......
Kevin
Sign Out
Home - Invoice View
Meter Based Consumption
This Year
Last Year
Custom
To
☑ Select All
Show Data
Search ...
Kevin
☑ K Enterprises

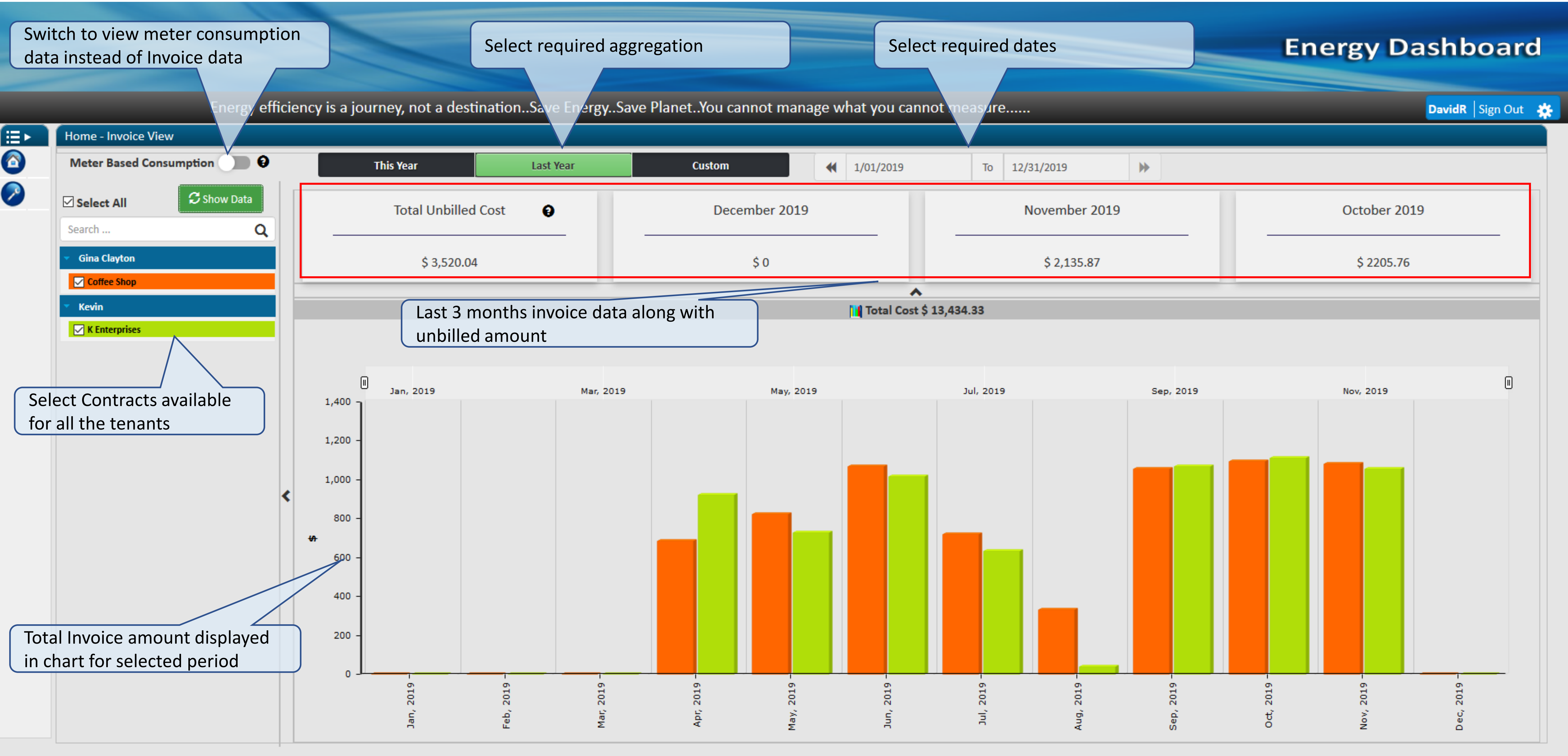
1/01/2019 To 11/30/2019

Total Unbilled Cost	December 2019	November 2019	October 2019
$ 1,864.97	$ 0	$ 1,056.57	$ 1112.46

Total Cost $ 6,577.34

$
0
200
400
600
800
1,000
1,200
1,400
Jan, 2019
Feb, 2019
Mar, 2019
Apr, 2019
May, 2019
Jun, 2019
Jul, 2019
Aug, 2019
Sep, 2019
Oct, 2019
Nov, 2019

Tenant Billing System – Owner Login View



Switch to view meter consumption data instead of Invoice data

Select required aggregation

Select required dates

Last 3 months invoice data along with unbilled amount

Select Contracts available for all the tenants

Total Invoice amount displayed in chart for selected period

Energy efficiency is a journey, not a destination..Save Energy..Save Planet..You cannot manage what you cannot measure......

Home - Invoice View

Meter Based Consumption ○

1/01/2019 To 12/31/2019

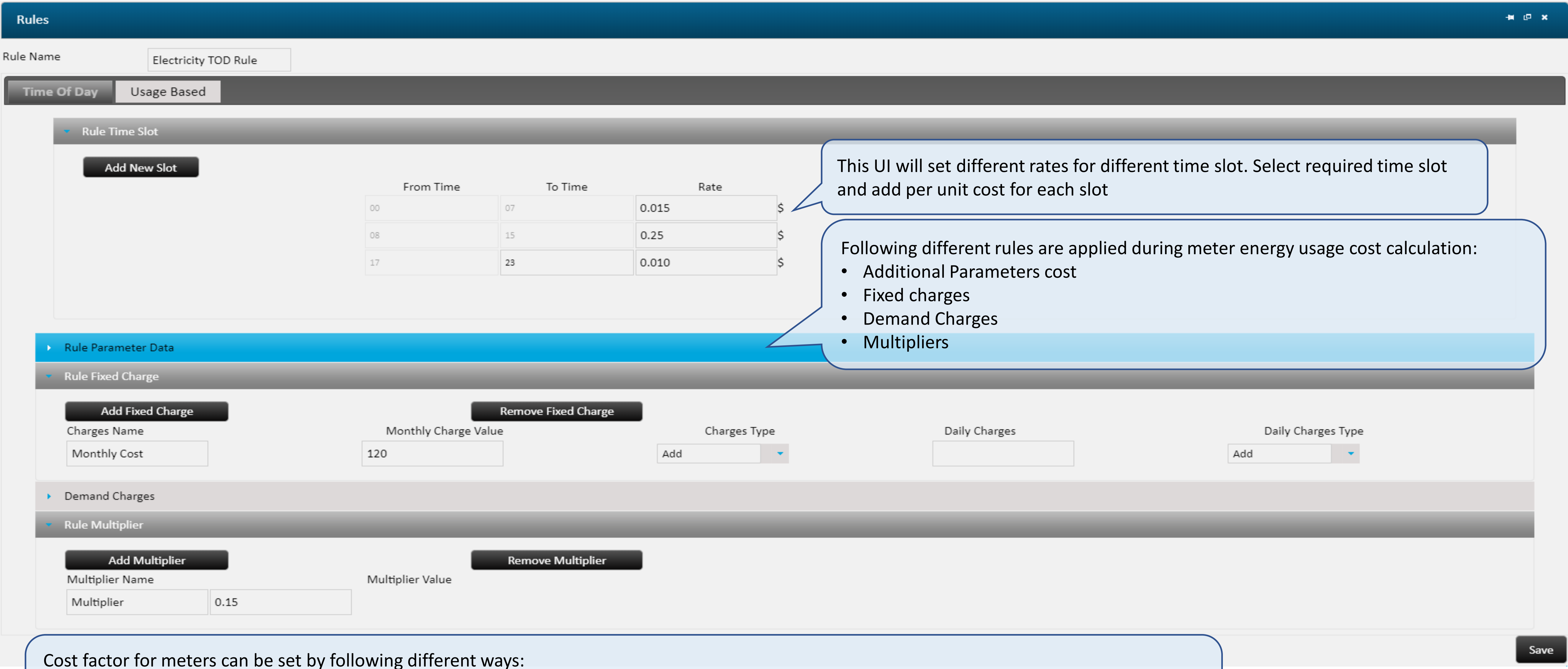
Total Unbilled Cost	December 2019	November 2019	October 2019
$ 3,520.04	$ 0	$ 2,135.87	$ 2205.76

Total Cost $ 13,434.33

- ☑ Select All
- Gina Clayton
  - ☑ Coffee Shop
- Kevin
  - ☑ K Enterprises

Energy Dashboard
DavidR
Sign Out
This Year
Last Year
Custom
Show Data
Search ...
Jan, 2019
Mar, 2019
May, 2019
Jul, 2019
Sep, 2019
Nov, 2019
1,400
1,200
1,000
800
600
400
200
0
$
Jan, 2019
Feb, 2019
Mar, 2019
Apr, 2019
May, 2019
Jun, 2019
Jul, 2019
Aug, 2019
Sep, 2019
Oct, 2019
Nov, 2019
Dec, 2019

Rate Structure- Rule Based on Time Of Day


Rules
Time Of Day
Usage Based
Rule Time Slot
Add New Slot
Rule Parameter Data
Rule Fixed Charge
Add Fixed Charge
Remove Fixed Charge
Demand Charges
Rule Multiplier
Add Multiplier
Remove Multiplier
Save

Rule Name: Electricity TOD Rule

From Time	To Time	Rate
00	07	0.015 $
08	15	0.25 $
17	23	0.010 $

Charges Name	Monthly Charge Value	Charges Type	Daily Charges	Daily Charges Type
Monthly Cost	120	Add		Add

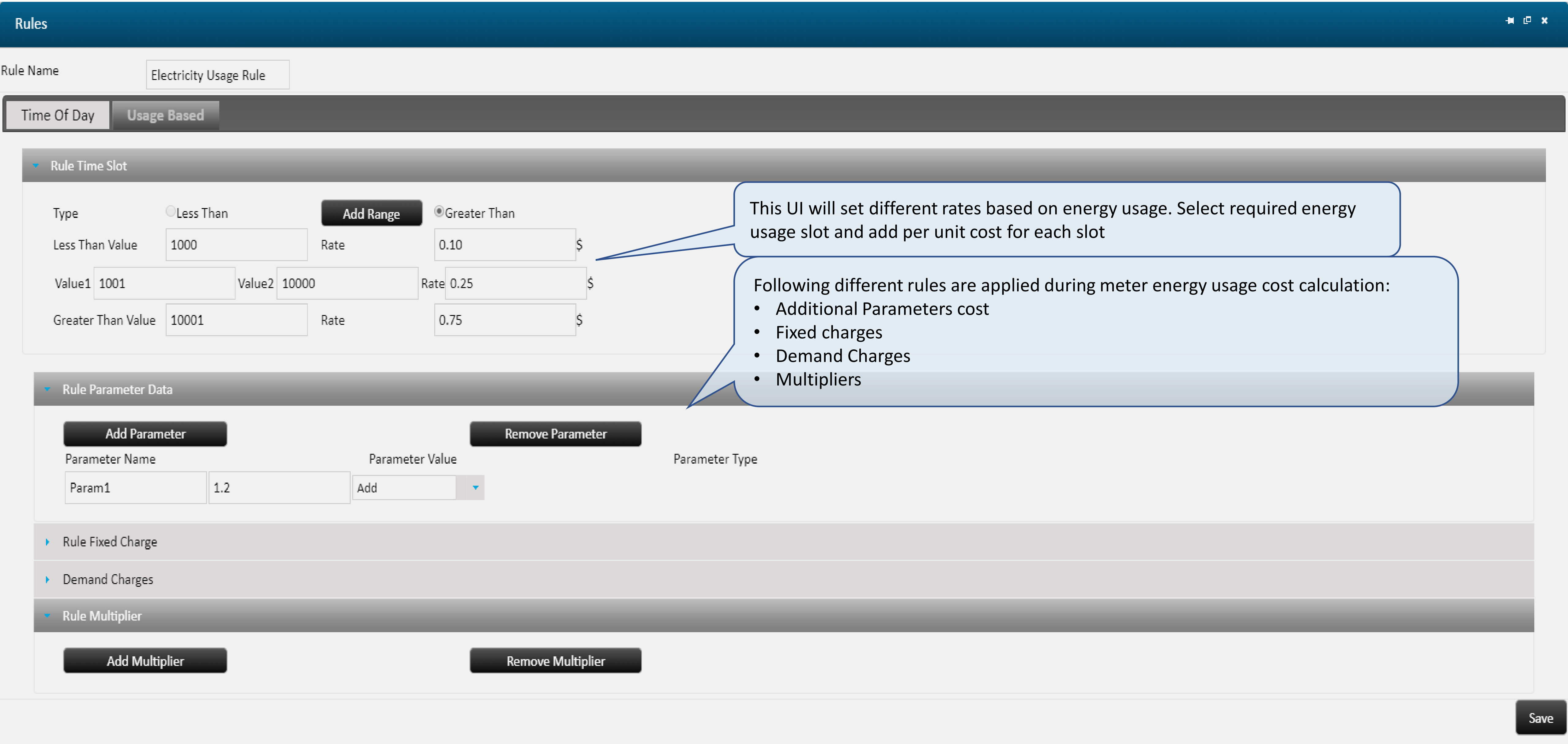
Multiplier Name	Multiplier Value
Multiplier	0.15

This UI will set different rates for different time slot. Select required time slot and add per unit cost for each slot

Following different rules are applied during meter energy usage cost calculation:
- Additional Parameters cost
- Fixed charges
- Demand Charges
- Multipliers

Cost factor for meters can be set by following different ways:
1. Fixed rate: Fixed cost per unit will be set to meter
2. Time of Day: Per unit cost for meter will be vary for different hours in the day
3. Usage Based: Per unit cost for meter will be vary based on energy usage

Rate Structure- Rule Based on Usage


Rules
Time Of Day
Usage Based
Rule Time Slot
Add Range
Rule Parameter Data
Add Parameter
Remove Parameter
Rule Fixed Charge
Demand Charges
Rule Multiplier
Add Multiplier
Remove Multiplier
Save

Rule Name: Electricity Usage Rule

Type: ○ Less Than ● Greater Than

Less Than Value: 1000 Rate: 0.10 $

Value1: 1001 Value2: 10000 Rate: 0.25 $

Greater Than Value: 10001 Rate: 0.75 $

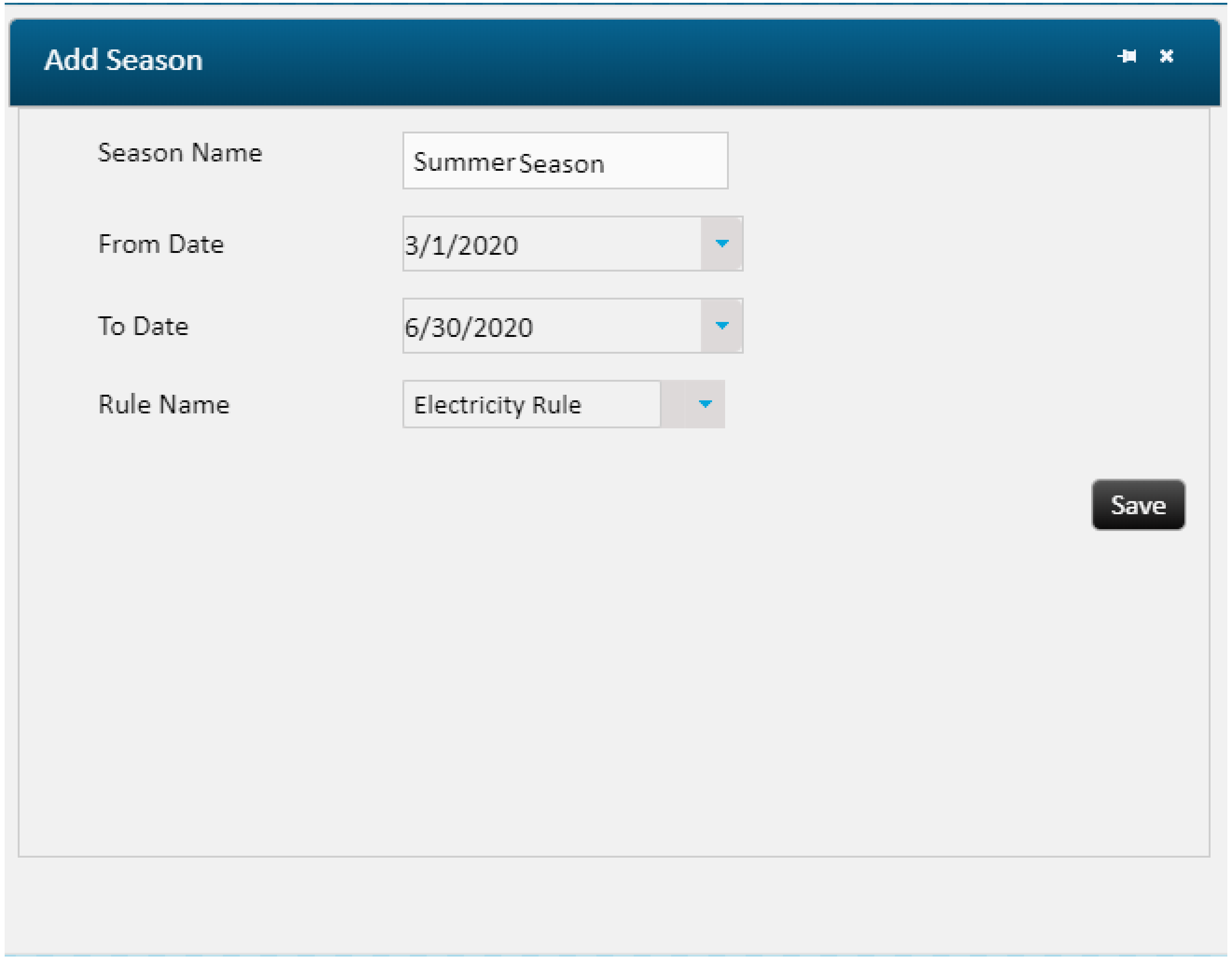
Parameter Name	Parameter Value	Parameter Type
Param1	1.2	Add

This UI will set different rates based on energy usage. Select required energy usage slot and add per unit cost for each slot

Following different rules are applied during meter energy usage cost calculation:

- Additional Parameters cost
- Fixed charges
- Demand Charges
- Multipliers

Rate Structure- Season Configuration



Season Name: SummerSeason
From Date: 3/1/2020
To Date: 6/30/2020
Rule Name: Electricity Rule

Seasonal rate structure can be create for the meters. E.g. there will be different rates for the meter in Winter and Summer

THANK YOU

If you have any questions, please click here.