



White Paper

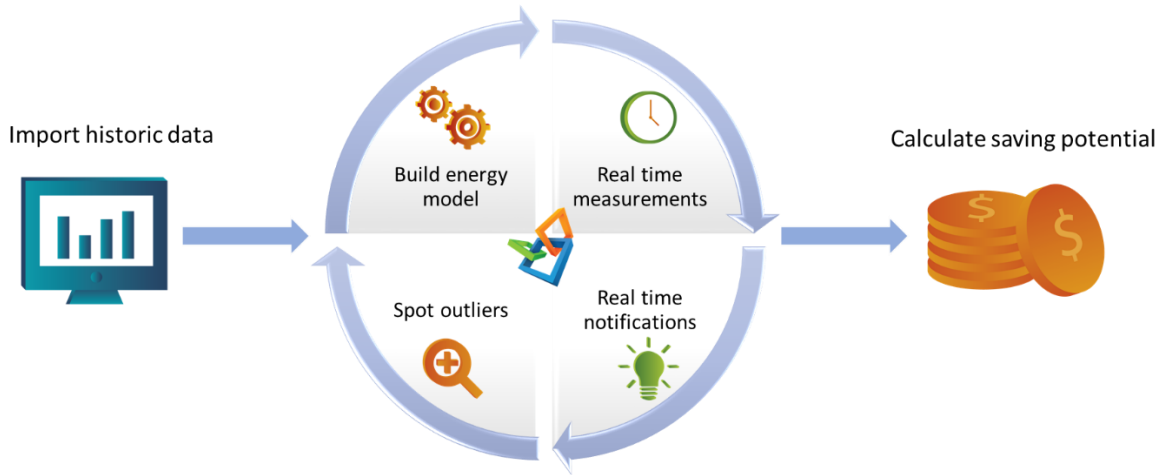
Meazon Energy Analytics

(extracting value from data)

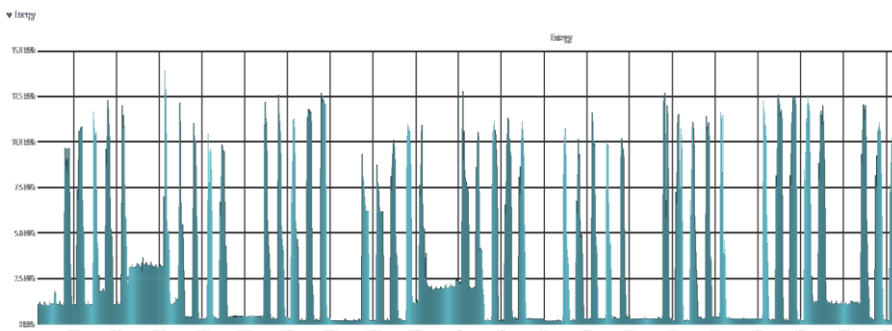
February 2018

Overview

Use machine learning for analyzing the consumption habits of different types of users. With this approach custom models can be built per user. Using ML, the energy outliers can be spotted and alarms can be generated for out of the ordinary conditions.

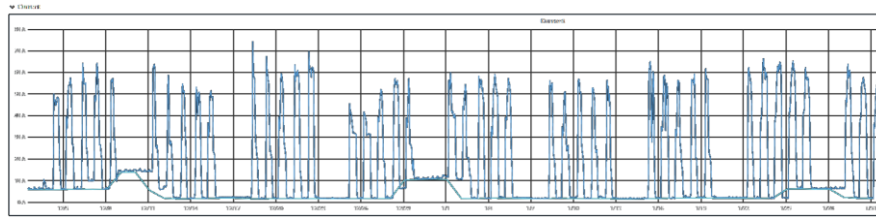


Real time energy analytics



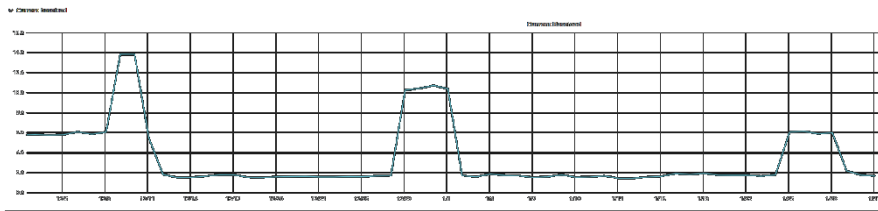
Real time energy data acquisition

Meazon Bizy solution can collect real time energy data in high resolution. Both real time and high resolution are crucial factors when analyzing energy data.



Analytics & alerts

Real time analytics can identify and create alerts for abnormal behaviors.

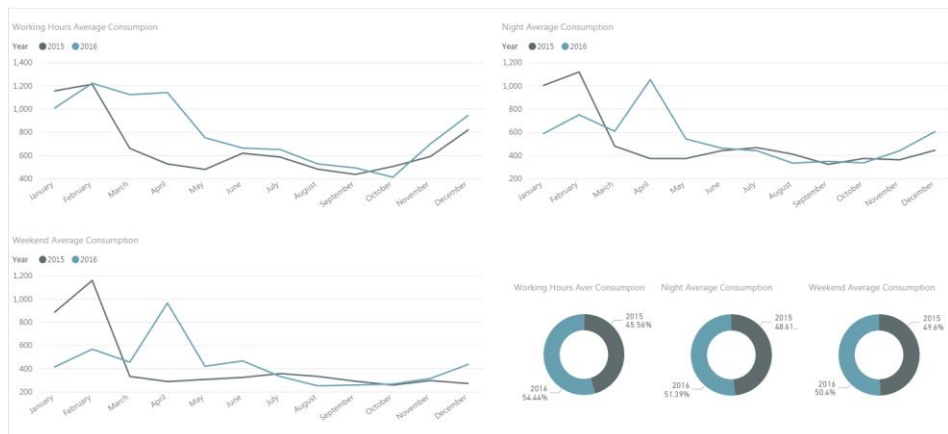
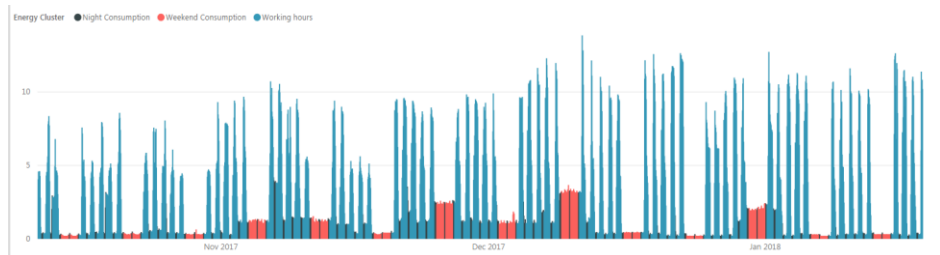


Baseline extraction in real time is a key factor to identifying abnormal behaviors.

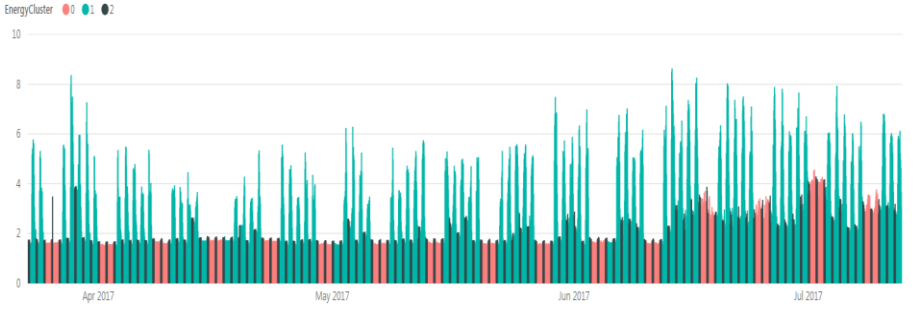
Off-line energy analytics

Build energy model

Historical data are used to build a customer profile model based on energy consumption habits.



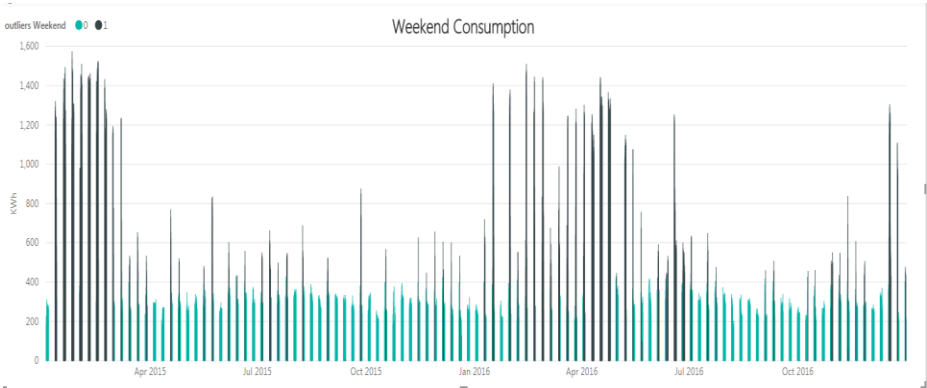
Consumption Breakdown



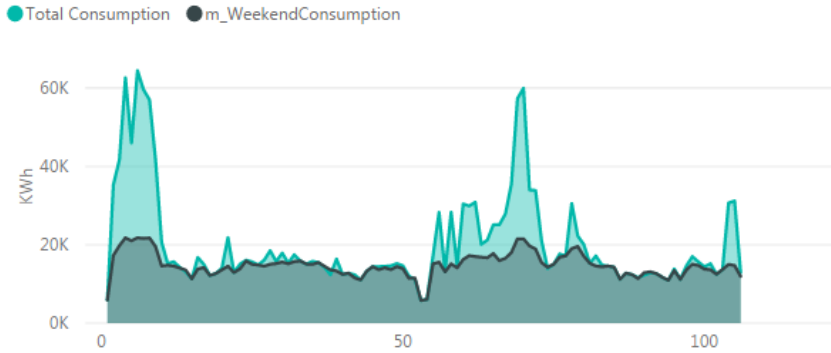
Next step is to use Machine Learning & AI techniques to split total energy consumption into patterns, based on building characteristics & other variables.

Spot Energy Outliers

On each pattern, using Machine Learning & AI energy outliers can be spotted.



Saving potential



Saving potential can be calculated for each pattern with high accuracy.

Energy and Cost-Savings Calculator

Estimate energy and cost savings for each energy pattern using interactive calculators.

Saving Percent
2.00 %

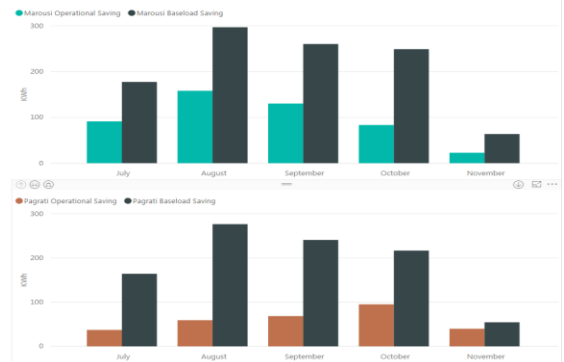
Current Months Saving

Saving KWh Marousi	485.60	Saving KWh Pagrati	299.92
Marousi Operational Saving	1,047.25	Pagrati Operational Saving	952.34
Marousi Baseload Saving		Pagrati Baseload Saving	

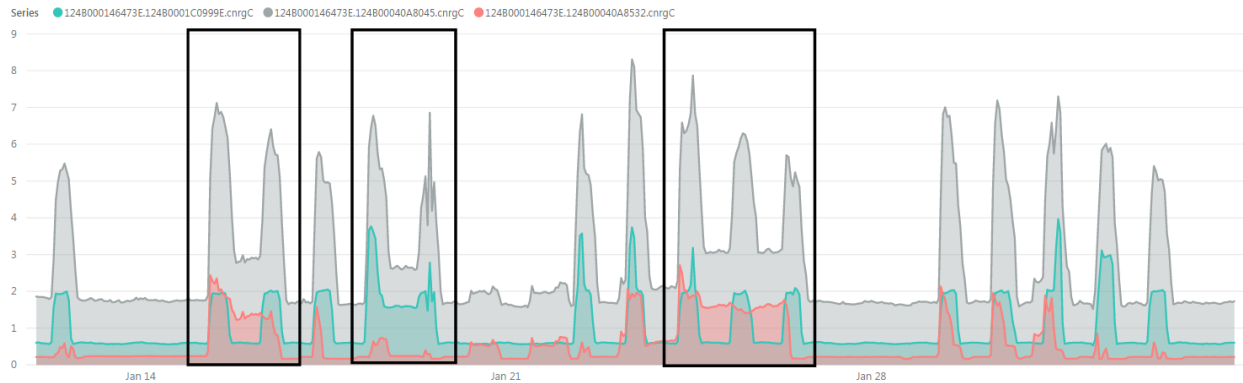
Projected Annual Saving

Oper Average Saving KWh / Hour	0.17	Oper Average Saving KWh / Hour	0.10
Marousi Operational Average Saving	731.45	Pagrati Operational Average Saving	451.77
Marousi Operational Year Saving		Pagrati Operational Year Saving	
Base Average Saving KWh / Hour	0.37	Base Average Saving KWh / Hour	0.33
Marousi Baseload Average Saving	3,198.73	Pagrati Baseload Average Saving	2,908.83
Marousi Baseload Year Saving		Pagrati Baseload Year Saving	

Saving Percentage Calculator



Submetering - identify the cause



To achieve additional energy savings goals, it's advisable to use a submetering solution. Breaking down the total consumption in sub loads, enables identification of the energy waste cause.

- Identification of unnecessary equipment running at night/weekends
- Real time feedback
- Deep understanding of buildings' energy profiles

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