


Retail Chain: Managing Multiple Outlets

A typical chain (e.g. as the one with outlets shown on the map) will have multiple outlets spread over a geography.

Managing electricity consumption (which in aggregate can grow to a very large amount) becomes an onerous task for the central facility team.

Often these retail chains use standard equipment (e.g. AC of the same type). When normalised with weather and outlet usage (sales/footfall), electricity consumption from such standard equipment can be used to ensure efficient operation and timely servicing.



 Zenatix helps you with real time consumption monitoring and analysis from across all the outlets thus ensuring that the costs are under control.

Monitoring and Control Solution for Each Outlet



1-4 Metering Points: Monitor main (and DG) incomer and other big, controllable loads (Air Conditioning, Exhaust, Oven, ...)

1-4 Temperature Sensors: Connected with wired/WiFi for monitoring temperature in representative locations (Main area, kitchen, UPS room ...)

DG monitoring: Level sensors for DG tank to avoid fuel theft


UPS monitoring: Analog input to monitor battery voltage and UPS sensors



1-4 control points: Primarily used for controlling loads that impact marketing (signage boards) and energy consumption (Air Conditioning, Geyser, Exhaust, ...)


- Default control of loads up to 30 Amps. Higher loads possible based on custom requirements
- Ability to configure start and stop times from web based dashboard
- On site buttons allow for extended usage beyond scheduled times


Ability to integrate other systems e.g. sales for better correlation with energy consumption

 Ideal for outlets with electricity bill from Rs 20,000 to Rs 2,00,000 per month, the system automatically provides you with deeper insights into how each of your outlet is performing

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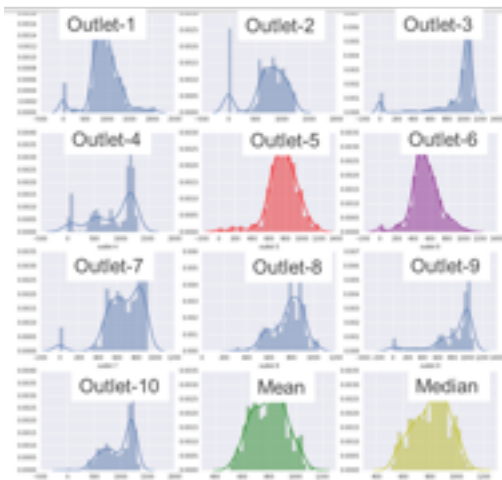
 1st Floor, Plot B-17, Sector - 32
Gurgaon, Haryana, India

 info@zenatix.com

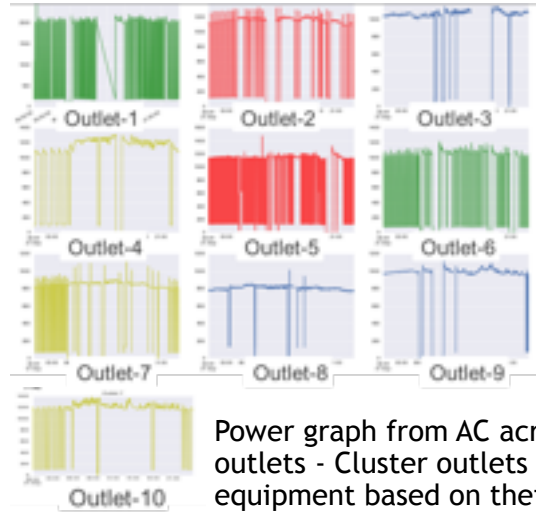
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Example Intervention – 1: Compare Identical Equipment Across Outlets



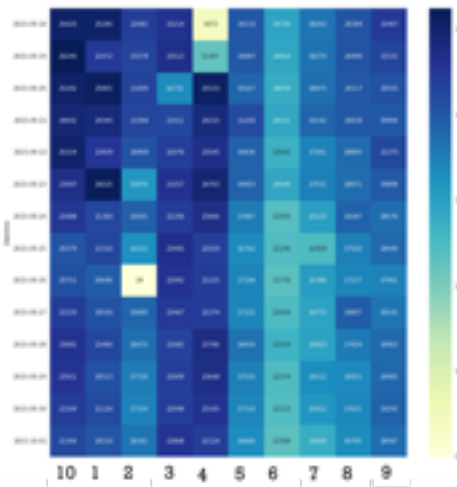
Distribution of energy consumption for the AC (same model and capacity) across the outlets - Outlet 6 is most efficient



Power graph from AC across the outlets - Cluster outlets and equipment based on their energy consumption to narrow down on which outlets and their appliances to focus on.

Deep insights from high resolution data allow you to narrow down focus on a subset of outlets and appliances from which you can achieve most energy reduction

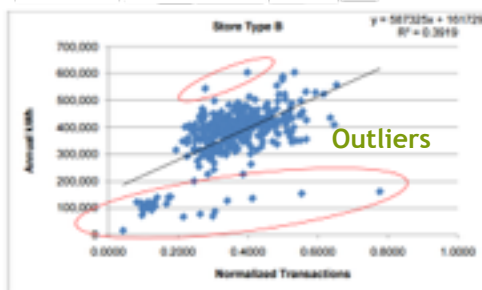
Example Intervention – 2: Normalise and Correlate Consumption



Get a snapshot of how different outlets are performing in real time.

Correlate energy consumption across outlets, normalising with

- Outlet area
- Outside weather - Using heating and cooling degree day concept
- Hours of operation
- Building type - standalone/mall etc.



Correlation with sales

Correlation with weather

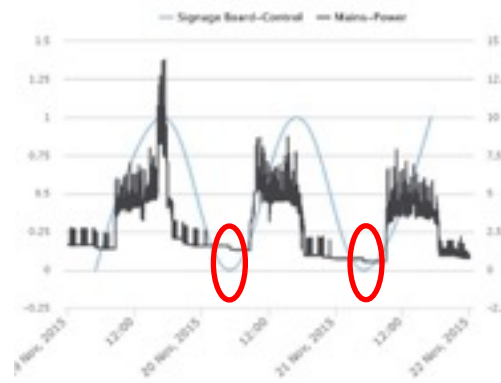
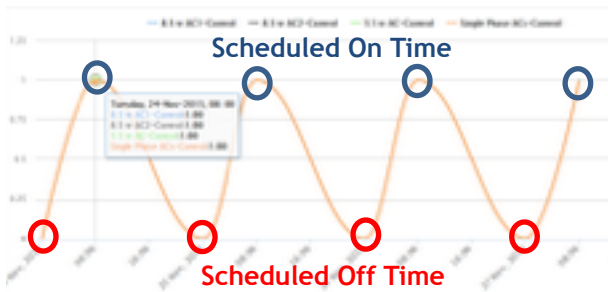


Use the normalisation and correlation to award outlets that have been energy efficient and adopt their practices as best practices for other outlets.

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Example Intervention – 3: Software Based Scheduled Control



Signage on time and corresponding dip in the energy consumption

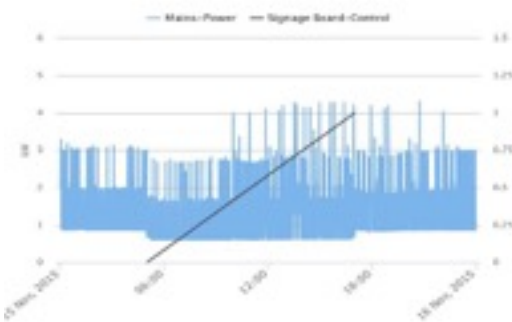
Ensure that the AC units are switched on/off at the right time for optimal energy consumption - Scheduling can be both time based and event (temperature) driven



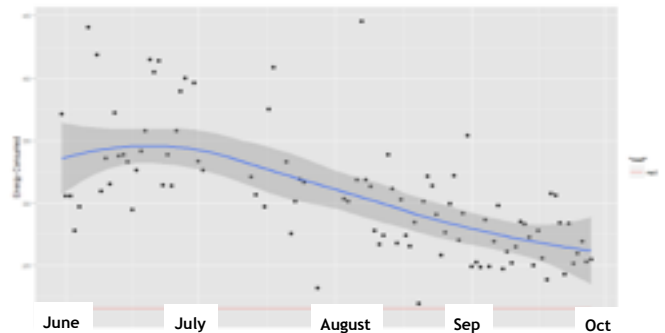
Fix up policies on when your major loads are to be switched on and leave it to the system to ensure the policies are being followed. Any deviation will then generate a real time alert keeping you informed all the time without personal monitoring.



Example Intervention – 4: Off Hours Consumption Benchmarking

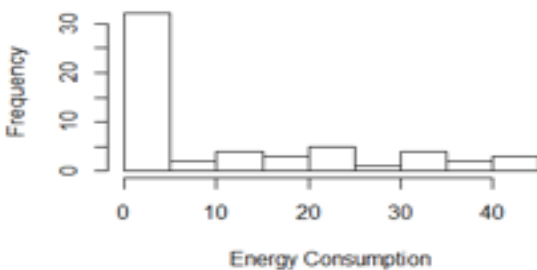


Signage board consuming less than 10% of off time (Sunday) power consumption - much of the remaining accounts for wastage



Over time night time consumption is reduced to close to what the optimal should have been

Histogram for Night Energy



While the night consumption for most of the days has been less than 5 units of electricity, some days experience abnormally high consumption of more than 40 units!

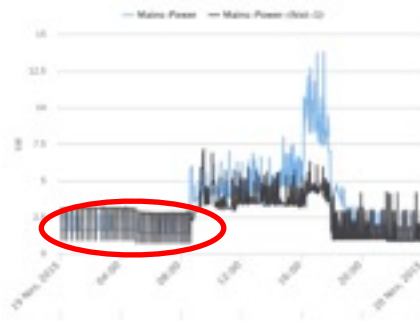
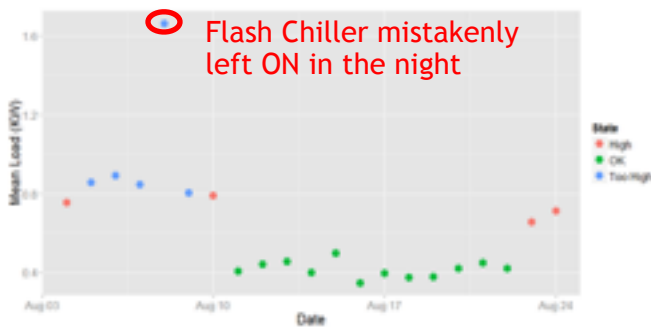


Use real time data and analytics to keep the non-working hour consumption under control.

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Example Intervention – 5: Identifying Anomalous Behaviour



AC left ON during the night time when it shouldn't be

The system acts like a CCTV for energy - its presence ensures and avoids many of the anomalous behaviours. If they do happen, then the system is capable of identifying them automatically using alerts and emails as shown below.

Add Alert

Name:

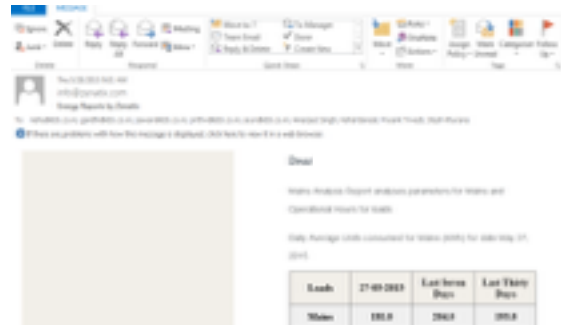
Description:

Condition: Meter: Power: Condition: Meter:

Unit: Unit: Unit: Unit:

Day: Day: Day: Day:

Email To:

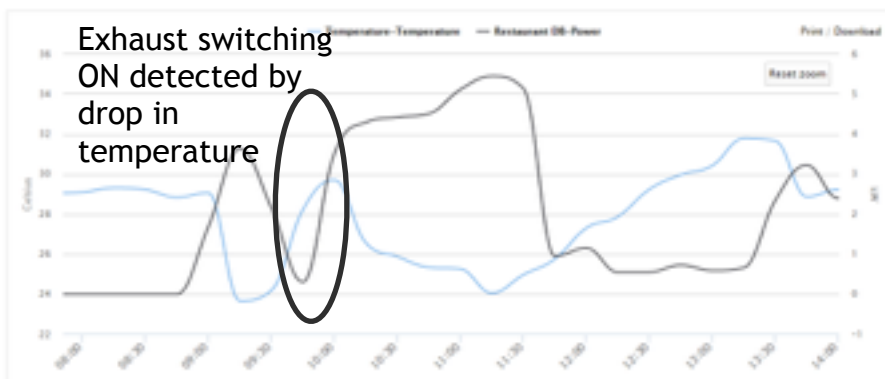


Automated alerts keeping a watch on your behalf

Automated, daily summary emails keep you updated on how all outlets are performing

Identify anomalous behaviour when they happen, powered by self-configured and automatic alerts and daily emails, rather than getting surprises in the electricity bills or unwanted calls from uncomfortable employees

Example Intervention – 6: Ensure QoS and Compliance



Let the system ensure compliance adherence on your behalf:

- Is Exhaust turned ON sufficiently to maintain kitchen temperature?
- Do we have comfortable temperature for our customers at all times?

The system ensures all compliance is being followed. Use data and derived insights to hold your staff responsible.

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