



6-9  
months  
typical ROI

5-10%  
reduction in  
energy spend

Our **Demand Side Management (DSM)** solution addresses electricity supply charges such as TNUoS (Transmission Network Use of System) - also more commonly known as Triad charges and DUoS (Distribution Use of System), if managed effectively these can reduce your annual energy spend between 5-10% with minimal capital outlay.

The UK energy market is evolving as the energy mix diversifies, old power plants are being retired and new renewable technologies come online. Demand Side Management (the capability of energy users to reduce their demand at short notice for a short period of time) will be a key tool in the UK's evolving energy strategy.

## The Optimised DSM solution automates the control of your demand side loads to minimise your electricity supply charges

Optimised DSM is at the forefront of this market and through our advanced cost effective demand side management technology, we can open up opportunities for our customers. We enable our clients to not only take advantage of avoiding supply side charges, but also to be ready for revenue generating schemes that minimise usage at peak times. Energy suppliers, the National Grid, DNO's (Distribution Network Operators) and the UK government are all investing significantly to ensure that peak demands are minimised. This is being done through the increased use of technology, information and control of the existing ageing UK grid infrastructure to ultimately avoid blackouts.

Imagine if you could move a slider from 1 to 10 to tell your building how it should operate to maximise its efficiency at different times of day, where 9 would be operating normally and 1-2 would be an aggressive turndown of as many non-critical loads as possible. Through this automated process we link supply and demand to ensure your building minimises supply side charges at peak times.

## Key Benefits

-  Reduce annual energy spend by 5-10%
-  Minimal capital outlay
-  Non-intrusive solution
-  Managed service offering
-  No IT connectivity required
-  Opportunity to generate revenue through DSM in the future
-  Minimise TNUoS charges
-  Minimise DUoS charges
-  Solution based upon Schneider Electric SmartStruxure Lite™

## Triad Management

What are Triads? If you purchase your electricity on an 'Energy Only' basis, the annual cost of using the National Grid Transmission System is passed through at cost by your Energy Supplier. Triads are the three peak half hourly periods of national electricity demand each winter (Nov-Feb) and form the basis of Transmission Use of System (TUoS) charges to HH electricity customers. The charges are regionally based and during the Triad period, taking London as an example your normal £0.10 kWh will increase to £38.80 kWh for these 3 half hour windows.

Our solution combines Triad warning signals (forecasting when the Triads are likely to happen) with automated control that minimises your usage during these costly half hour periods. Typically we will issue between 10 and 20 warnings each winter. The peaks normally occur on weekdays between 5 and 6pm.

## Red Zone Management

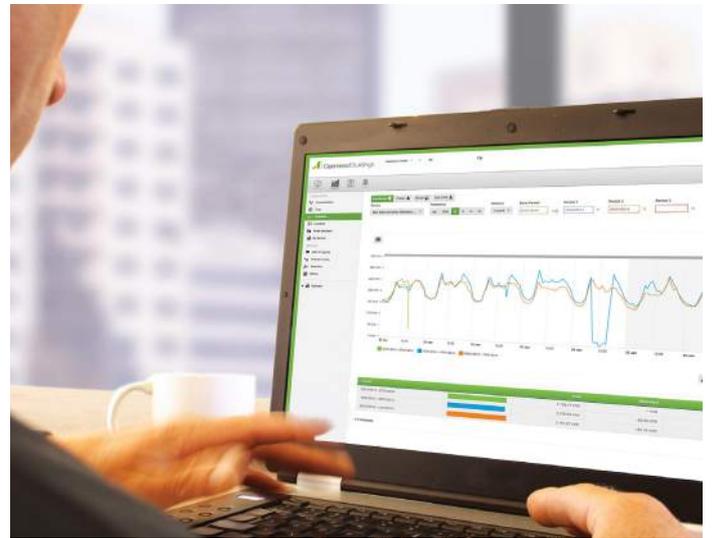
The 10 UK Electricity Distribution companies have standardised their charging structure for delivering electricity. The charges are now based on Red, Amber and Green time zones with Red zone being the weekday late afternoon period (typically 16:00 -19:30). The charges are intended to restrict peak time usage of half hourly Industrial and Commercial customers. The typical DUoS charging represents around 12% of a typical utility bill. To reduce your DUoS costs, you should consider how to reduce your consumption during the Red Zone period.

## Demand Side Management

Our cost effective solutions enable you to avoid or minimise these costs by proactively monitoring and managing demand side loads at times when charges are highest. Our solution has been developed on the Schneider Electric SmartStruxure Lite™ product providing a flexible platform with I/O, Wireless technologies and standard open protocols. We combine this with our managed service to ensure that your site is up and running and ready to shed

load when required. Our standard solution incorporates 3g/4g communications which is also monitored by our bureau service, enabling you to get on with your day job while we ensure your demand side management strategy delivers you the savings. Our experts will work with you to understand how your energy consumption can be reduced and in what time frame. We will install any metering technology that is needed to work with our software and give you access to our Internet based portal to monitor your electricity load reduction. Through our team of building and industrial controls / application engineers we are able to make recommendations as to how significant savings can be realised.

The Optimised DSM solution requires a small capital cost to implement the controller with an annual fee to manage the warnings, comms and ensure that your systems are healthy to curtail load when required.



Triad charges  
2014-2015 season  
(East Midlands)

**£31.85kWh**

Triad charges  
2014-2015 season  
(London)

**£38.80kWh**

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