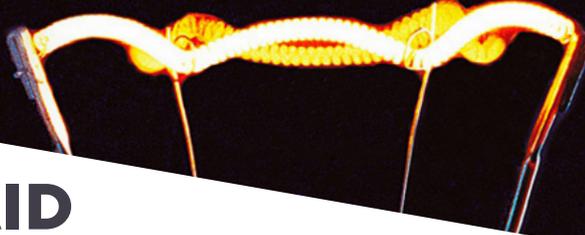


PARKWOOD LEISURE TRIAD CHALLENGE CASE STUDY



WHAT WE SAID

The second year of our AWARD WINNING Triad Challenge was held between Nov 18 and Mar 19 to avoid peak electricity consumption, Triad's. Triad's occur during 3 half hour periods throughout the winter when the UK's national electricity demand is at its highest.

We do not know when these peaks will occur until they've happened and winter is over, but we do receive alerts from Eon of potential Triad (high cost) periods where you must take action to reduce electricity consumption for some big wins. A kWh on a normal hour costs about 13p but during a Triad half hour a kWh costs a whopping £100. On a wider scale the purpose of taking action during these periods doesn't just help save us some money, it also supports National Grid to balance the UK's electricity supply to keep the lights on when demand is high.

"Delivered training to all members of staff, reduced pool pump speeds to 30Hz using the VSD which has no impact upon pool quality for the 2 hour warning period, turn off wet change for 20 min intervals at a time. Ensure gym air con and any unnecessary lighting is off"

Ian Sales, Brough Park

"Turn off AHU in all areas (enable pool AHU at regular intervals throughout Triad warning period), reduce VSDs to 25 Hz on pool pumps, only light sports hall directly over activities"

Jake & Nicky, Biddulph

WHAT YOU DID

Eon sent us 16 Triad warnings over the winter period and successfully predicted all 3 actual Triads which occurred on; 22 November 18 at 17:00, 10th Dec at 17:00 and 23 January at 17:30. Most sites developed and then implemented their Triad action plans every time a Triad warning email was received. Actions taken by you at sites, without compromising customer experience or health and safety, included:

- Turning down pool pump and air handling fan speeds using the VSD
- Turning off air handling units where can get away without them for a few hours
- Staff training and communicating all Triad alerts to all staff
- Ensure air con is off
- Turning off unnecessary lighting / delayed turning on outdoor lighting
- Turning off door heaters
- Turning off all electrical equipment (printers, computers, chargers, etc).

"Reduce down to 1 circulation pump and turn off spa pump (the flow rate is still sufficient), AHUs for low use areas turned off (including the offices), air con is switched off around the building, lighting is off, compensated heating pumps for the radiators and sports hall fans are turned off, flume cannon and wave pumps banned during Triad hours, all plugs or electrical equipment turned off at the plug."

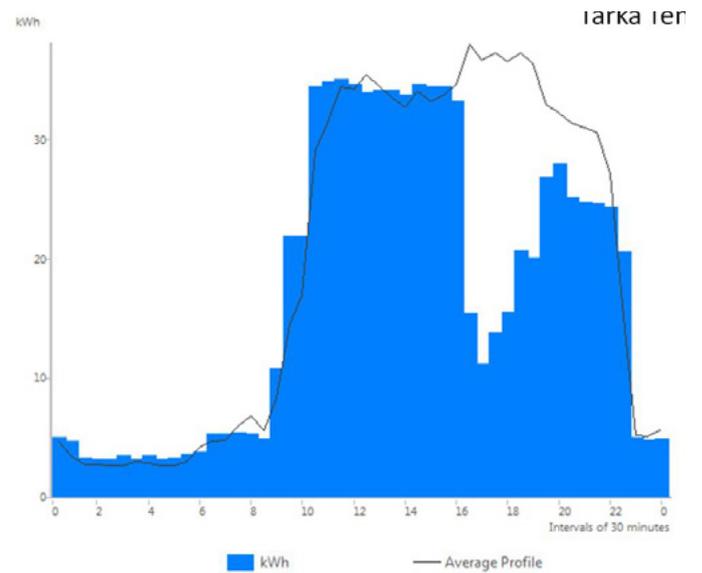
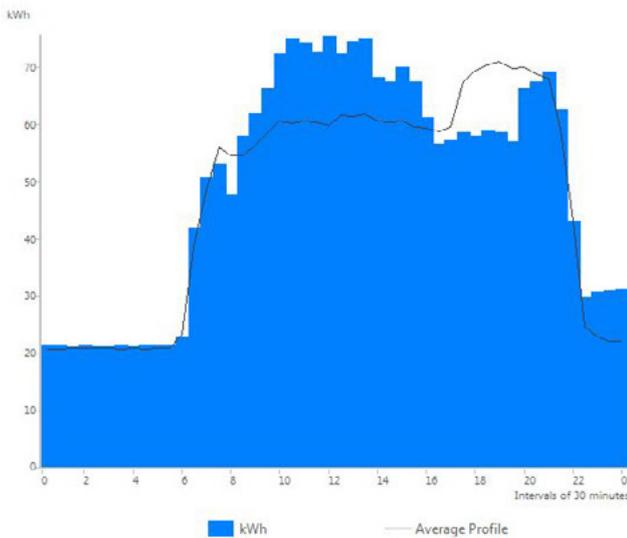
Sam Jordan, Towcester

WHAT YOU DID

- **1.5MW reduction** in electricity demand during an average peak hour. Equivalent to the output of 1 large wind turbine running during all Triad periods.
- **25% reduction** in peak electricity use since we started the Triad avoidance scheme
- **£42k saving** on last year

- **15 tonnes of CO2 saved** from electricity generation as well as alleviating pressure on the National Grid during peak periods reducing risk of brown outs.
- Mitigated the cost risk of 2 of our largest on-site generation assets (CHP) being unavailable throughout the winter period.

Perfect Triad avoidance profiles achieved by proactively turning VSD speeds down, and turning unnecessary lighting, pumps and air con off.



Torbay Leisure Centre

Tarka Centre

Centres with largest £ savings	Triad saving
Cardiff	£10,448
Breckland	£4,971
Northcroft	£4,402
Towcester	£3,618
Penzance	£3,137
Bicester	£2,641
Spiceball	£2,446
Mulberry	£2,376
North Devon	£1,863
Torbay	£1,737

WINNER OF THE TRIAD CHALLENGE IS TORBAY LEISURE CENTRE

Torbay managed to reduce their Triad consumption by 18% against their Triad target (last year's consumption). Torbay have won a £250 contribution towards their Christmas party.



ANY FEEDBACK?

Please share your thoughts or ideas on how we can improve our triad performance next year by emailing energy.manager@parkwood-leisure.co.uk