## Flexitricity

Tham@swey Case Study

# Thameswey provide 6MW of generating capacity to help support National Grid

Partner Profile	
Location Assets	Milton Keynes Combined heat and power
Services	STOR and triad management
Revenue Capacity	Over £100,000 pa 6MW

Thameswey Central Milton Keynes (TCMK) was set up in 2005 to build and operate a low carbon Combined heat and power (CHP) energy station. Thameswey supplies nearly 20,000 MWh of low carbon electricity per year to local homes and businesses.

### **Thameswey and Flexitricity**

Thameswey has been reliably providing reserve energy to National Grid through Flexitricity since 2011. Along with providing Short-Term Operating Reserve (STOR) and triad management, Thameswey has played a key role in supporting Western Power Distribution (WPD) with Project FALCON.



"The entire process has been flawless from start to finish, with no interference on our core business activities. It provides a valuable source of revenue, and has enabled Thameswey to play its part in contributing greener reserve power supplies to the Grid..."

Sean Rendall, Operations Manager, Thameswey Energy

#### STOR and triad management

Using two gas CHP engines which can be made available to Flexitricity when not required for local generation, Thameswey is able to provide 6MW of generating capacity to help support National Grid during times of system stress and to support the transmission system during winter peaks.

**STOR** is one of National Grid's most important tools for securing the national electricity system in real time. Fast-acting generators are held in readiness so that Flexitricity can start them when National Grid runs short of electricity. This can happen if a power station fails, or if demand is unexpectedly high.

Reserve energy is delivered to National Grid through a fully automated control and monitoring system. The two gas CHP units, each capable of providing 3MW of capacity, at Thameswey are remotely operated in response to a national or local requirement. The fully managed service optimises revenue through tight management controls and intelligent arbitraging between services.

**Triad management** at Thameswey is complementary to its STOR participation. During the November to February triad season, Flexitricity remotely starts generation during likely triad periods. This lowers site consumption and reduces the triad charges on the site's electricity bills.

### **Project FALCON**

Through Flexitricity, Thameswey has been able to participate in WPD's project FALCON (Flexible Approaches for Low Carbon Optimised Networks), an initiative to support the UK's move to a low carbon economy. The aim being to test innovative, low carbon solutions for the growing problem of network constraints. As an experienced DSR provider, Thameswey generated electricity when called upon



#### **Key Facts**

6MW of generating capacity can be automatically turned on for short periods

Reduces national carbon dioxide emissions

Over £100,000 earned every year

No disruption to core processes

by Western Power Distribution. By doing so, Western Power Distribution were able to defer network infrastructure upgrades and reduce costs while Thameswey earned revenue.

### The future

Thameswey are set to implement Flexitricity's new negative reserve service, Footroom. This service provision helps National Grid balance the system and make use of excess wind energy during times of low system demand.

Thameswey has also committed to participation within the Capacity Market, and will earn CM revenue from 2018 onwards.

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