Flexitricity

NHS
Case Study

Royal United Hospital Bath: revenue with on-load testing of critical generators

Partner Profile	
Location	Bath
Assets	Standby diesel generators
Services	STOR and triad management
Revenue	£40,000/MW
Capacity	1.2MW

Occupying a 52-acre site, the Royal United Hospital Bath (RUH Bath) provides acute treatment and care for an estimated catchment population of 500,000 people.

RUH Bath and Flexitricity

In 2012, RUH Bath NHS Foundation Trust engaged Flexitricity to utilise two 800kW standby diesel generators to create revenue through the provision of demand-side response. The standby generation capacity was integrated into our 24-hour operational system, and now provides Short-Term Operating Reserve (STOR) and triad management.

"...it was imperative that we had the services installed that worked within site constraints but were fully automated with the flexibility to evolve as our upgrade progressed."

Brian Gubb, Head of Estates, RUH Bath

Revenue from existing assets

Through Flexitricity, RUH Bath generates revenue from its on-site diesel backup generators by providing occasional reserve energy for National Grid. RUH Bath also saves money by reducing consumption 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.

Flexitricity delivers reserve energy to National Grid using a fully-automated control and monitoring system. The generators at RUH Bath are operated remotely in response to national or regional needs, while ensuring that the hospital's core requirement for standby power is always met. This fully-managed service optimises revenue using a tailored control approach and intelligent arbitraging between services.

Flexitricity pays RUH Bath for making its capacity available during agreed periods. Further payments are made for power delivery during demand-response events.

Triad management at RUH Bath 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.

Operational reliability

Flexitricity's demand-response interface was tailored to the site, proving both flexible and scalable as upgrade and interfacing works progressed. The system was defensively engineered to ensure that RUH Bath's supply security requirements are always met.

Key Facts

On site standby generators provide 1.2MW of excess generating capacity to National Grid

£40,000 earned for every MW provided

Generator testing now handled by Flexitricity

Flexitricity also manages the generator testing regime, leaving key personnel free to focus on site priorities. This reduces the burden on technical staff, and integrates the testing regime with reserve service provision. Flexitricity's system ensures that the generators are tested on load, which is vital to the maintenance of a reliable power supply.

The future

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

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To request more information about Flexitricity's demand response services:

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