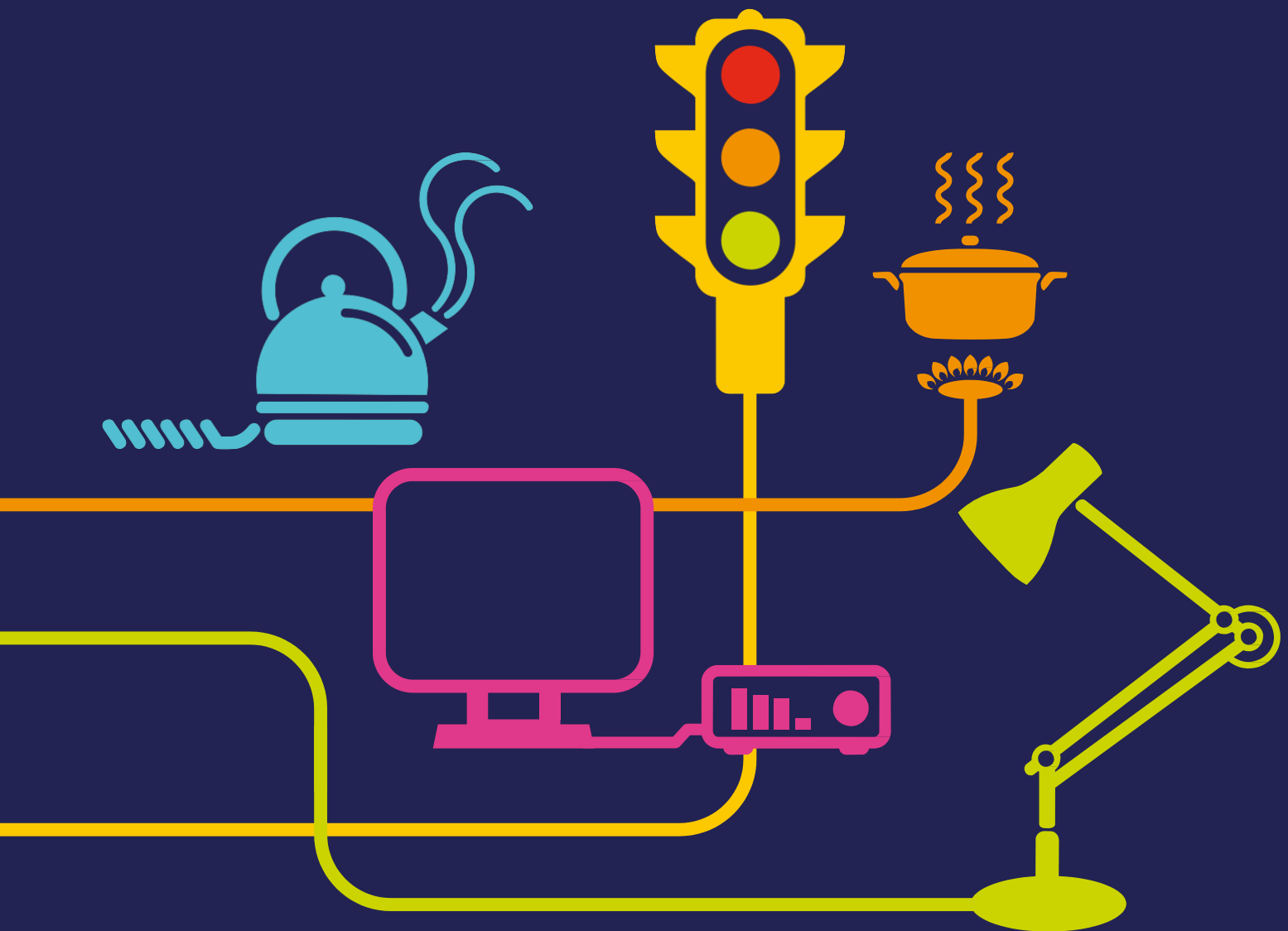


Enhanced Reactive Power



A guide to the services procured by National Grid to manage voltages on the transmission system

“National Grid is an international electricity and gas company responsible for operating the electricity and gas transmission systems across Great Britain”

How does this differ from the Obligatory service?

The Enhanced Reactive Power Service (ERPS) differs from the Obligatory service due to a couple of features:

- It is not a mandatory requirement.
- It is open to all providers with any plant or apparatus that is able to generate or absorb Reactive Power.
- It is a commercial service and complements rather than replaces the Obligatory Reactive Power Service (ORPS)



What is the service?

ERPS is the provision of voltage support which exceeds the minimum technical requirement of the Obligatory Reactive Power Service (ORPS).

Who can provide the service?

The service can be provided by any site that has the plant/apparatus that can absorb or inject reactive power. This could be from synchronised plant that provides ORPS and would like to provide a level of voltage support that is above the minimum requirements. It could also be provided by any other site that has the ability to generate or absorb reactive power, including demand-side providers.

What are the technical requirements for Reactive Power?

The minimum technical requirements state that the reactive power provider must:

- Be capable of supplying their rated power output (MW) at any point between the limits 0.85 power factor lagging and 0.95 power factor leading at the BMU terminals.
- Have the short circuit ratio of the BMU less than 0.5.
- Keep the reactive power output under steady state conditions fully available with the voltage range of $\pm 5\%$.
- Have a continuously acting automatic excitation control system to provide constant terminal voltage control of the BMU without instability over the entire operating range of the BMU.

How is the service procured?

The ERPS is procured through tenders which are held every six months.

The provider has a choice of term, from a minimum period of 12 months and thereafter in 6 month increments (12, 18, 24, 30, 36 months, etc.).

If the Generator is successful following tender assessment in accordance with the evaluation criteria specified in the CUSC, then a market agreement is entered into.

If a tender is not successful and Generator is required to provide ORPS then they will continue to be paid on Default Arrangements for the Obligatory requirements.

What is the payment structure?

Participation in the Market Tender allows the Generator to request:

- An Available Capability Price (£/MVar/hr) *and/or*
- A Synchronised Capability Price (£/MVar/hr) *and/or*
- A Utilisation Price (£/MVar/hr)



Contact:

Commercial.operation@nationalgrid.com

Information:

For more information on Balancing Services please visit

<http://www2.nationalgrid.com/UK/Services/Balancing-services/Reactive-power-services/Enhanced-Reactive-Power-Service/>