

Charging for Large Unit Loss Response

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Frequency Response

- ◆ Required to maintain stable system
 - ◆ Tolerance of $\pm 0.5\text{Hz}$ around 50Hz system frequency
- ◆ Daily amount calculated to cover the largest credible loss of generation / demand
- ◆ Plant selected to provide Response dependant on market price
- ◆ Costs of obtaining Response are socialised

Background to Review

- ◆ New large generating units are under development
- ◆ SQSS Review GSR007 concluded that:
 - ◆ Normal Infeed Loss Risk should increase to 1320MW
 - ◆ Infrequent Infeed Loss Risk should increase to 1800MW
- ◆ These changes will facilitate the connection of generating units posing a loss of power infeed risk of up to 1800MW
- ◆ Reduce the number of circuit breakers required in substation design and support the use of larger cable sizes in the design of offshore transmission systems
- ◆ Facilitate the connection of larger External Interconnections

Review of Charging for Response

- ◆ New Loss Risks require additional primary and secondary Frequency Response holding
- ◆ The cost of Response could increase to cover the larger risks: GSR007 estimated costs to double to ~£300M/yr
 - ◆ Current Response requirement ~800MW over a year with an average cost of £159M
 - ◆ Extra ~700MW of Response required for six 1800MW units, cost estimated at £140M

Discussion Points

- ◆ Is a fundamental rewriting of the Response charging methodology required?
- ◆ Is socialisation of all Response costs still appropriate?
- ◆ Are there specific costs of connecting different bands of generation?
- ◆ Should transmission spurs or interconnectors be treated differently?

Discussion Points – Targeting Costs

- ◆ What is trigger level for targeting and how is it identified?
- ◆ Is targeting large new units discriminatory?
- ◆ How useful is a targeted cost as a signal to industry?
- ◆ How should a targeted charge be calculated?
- ◆ How could targeted costs be apportioned to avoid creating a barrier for the first large unit?

Next Steps

- ◆ Pre-consultation to be issued in November
- ◆ Responses due by Xmas
- ◆ Consultation on final proposals in January