

Appropriate Charging for Wind

Hêdd Roberts, CISG 6th November 2009



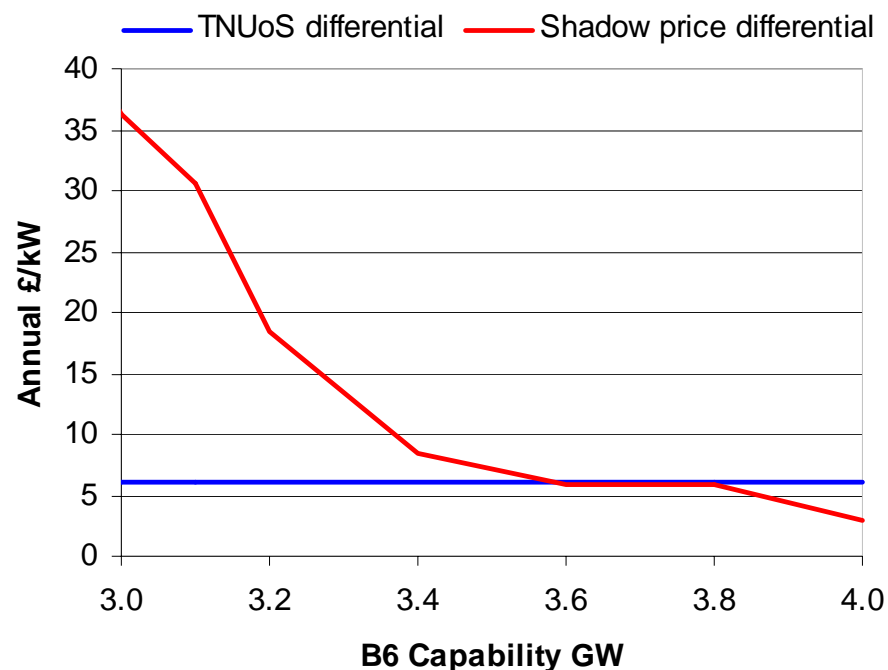
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Background

- ◆ TNUoS charges are based on Transmission Entry Capacity and a snapshot of the system at peak demand
- ◆ Operating characteristics of wind mean contribution to winter peak demand is much less certain
- ◆ When the impact of generation on the network is analysed over a whole year load factor has an effect on the cost
- ◆ Charges may be more cost reflective if we took the effect of load factor into account

Initial Analysis



- ◆ The level of capability where the annual price differential across the boundary is equal under TNUoS and the constraint model has been analysed
- ◆ The generators output in each half hour has been multiplied by the price differential in each half hour
- ◆ This has been calculated over a year's worth of running and divided by the capacity of the generator to give an annual £/kW charge

	Wind	Base Gas	Marginal Gas	Nuclear
Marginal (£/kW)	2.82	5.22	4.57	5.66
LF (%)	35	88	73	76

Further Analysis

- ◆ National Grid believe these initial results warrant further investigation.
- ◆ The next steps are:
 - ◆ Improve model to run faster and provide more accurate results
 - ◆ Look at the sensitivity of results to our assumptions
 - ◆ Consider multiple boundaries