Mod Proposal: Calculation of the Annual PARCA Security Rate

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Mod 452 Workgroup

Rational for Raising the Modification

This modification is the same as 452 except for the calculation of the annual PARCA security rate.

- SSE believe Security should:
- Not be too low, such that uncovered costs are socialised. Risk of mod 452 with 0.0001 p/kWh/Day charges which results in security of only £18 k/yr.
- Not too high, such that it is a deterrent to new investment. Risk of mod 452 and cost of £ 5m /year from 0.0278 p/kWh/Day charges.
- The Power market has agreed a flat unit rate of £1kW, £2 kW & £3 kW for years 1, 2 & 3 respectively. i.e. £1 m/yr for 1000 MW CCGT in year 1.

Rational for Raising the Modification

The non-locational PARCA security rates as calculated by NG are detailed below:

- The Weighted Average based on Bookings is preferred because it reflects actual use of the system.
- But accept that any of the numbers below could have been chosen.
- A methodology to calculate the annual weighted average PARCA security rates to be included in the UNC in Section Y.
- The value to be updated annually in the Statement of Gas Transmission Transportation Charges.

Description	p/kWh/d	
	Exit	Entry
Straight Average of Prices	0.0090	0.0062
Weighted Average using Baselines x Price (exit) and Obligated level x price (entry)	0.0092	0.0110
Weighted Average based on Bookings	0.0079	0.0098

Methodology to calculate the weighted average PARCA security value

1. Methodology to go in the UNC, part of section Y.
2. Value updated annually in the Statement of Gas Transmission Transportation Charges
3. Once reservation agreed with PARCA user, value will remain fixed for that user for the duration of the reservation term.
4. Another PARCA user applying at a later time could have a different value, but variation is expected to be low.
5. Seek to keep calculation simple and eliminate systems work, use capacity bookings for the prevailing year and use prevailing charges. “The Registered NTS Exit (Flat) Capacity, as at the time of publication of actual charges for gas year y, for each NTS exit point j in Gas Year y in which the prevailing Statement of Gas Transmission Transportation Charges is effective.”
6. On the timing and use of charge, the value would be finalised for the forthcoming gas year two months ahead when the actual charges (generally on 1 August), are published but are effective from 1 October. If the date of deeming a PARCA competent, was in this August, it would use the current value, not that issued in August to be effective from the forthcoming October. In terms of volumes, it would use the most up to date bookings for the forthcoming gas year at the time of publication and use the prices in that publication.
7. Current value of PARCAExWAvgB = 0.0079 p/kWh/d.
8. Current value of PARCAEnWAvgB = 0.0098 p/kWh/d.

Comparison of Security Amounts

Locational Rates	Capacity (GWh)	Capacity Price (p/ kWh)	One year's Capacity charge	Year 1	Year 2	Year 3	Year 4
				25%	50%	75%	100%
Entry	30	0.0001	£10,950	£2,738	£5,475	£8,213	£10,950
	30	0.0347	£3,799,650	£949,913	£1,899,825	£2,849,738	£3,799,650
Exit	50	0.0001	£18,250	£4,563	£9,125	£13,688	£18,250
	50	0.0278	£5,073,500	£1,268,375	£2,536,750	£3,805,125	£5,073,500

Option 2	Capacity (GWh)	Capacity Price (p/kWh)	One year's Capacity charge	Year 1	Year 2	Year 3	Year 4
				25%	50%	75%	100%
Entry	30	0.0110	£1,204,500	£301,125	£602,250	£903,375	£1,204,500
	30	0.0098	£1,073,100	£268,275	£536,550	£804,825	£1,073,100
Exit	50	0.0092	£1,679,000	£419,750	£839,500	£1,259,250	£1,679,000
	50	0.0079	£1,441,750	£360,438	£720,875	£1,081,313	£1,441,750