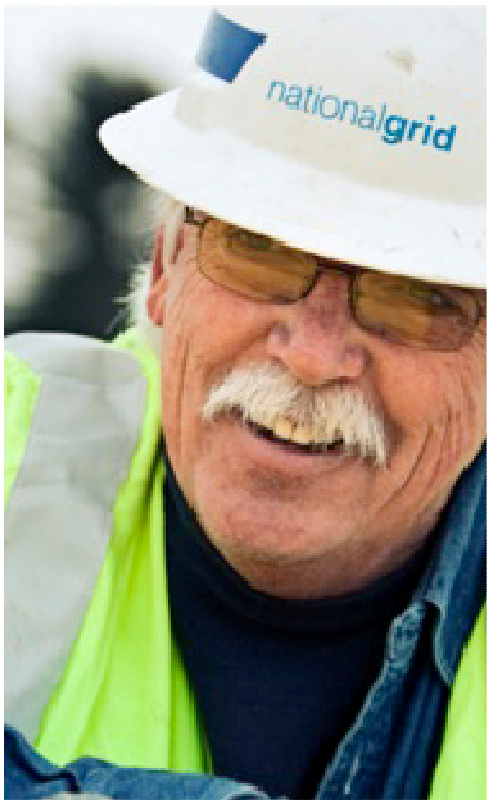
GB ECM-21 Changing tariffs mid-year to implement the Offshore Transmission regime

William Kirk-Wilson, CISG, January 2010

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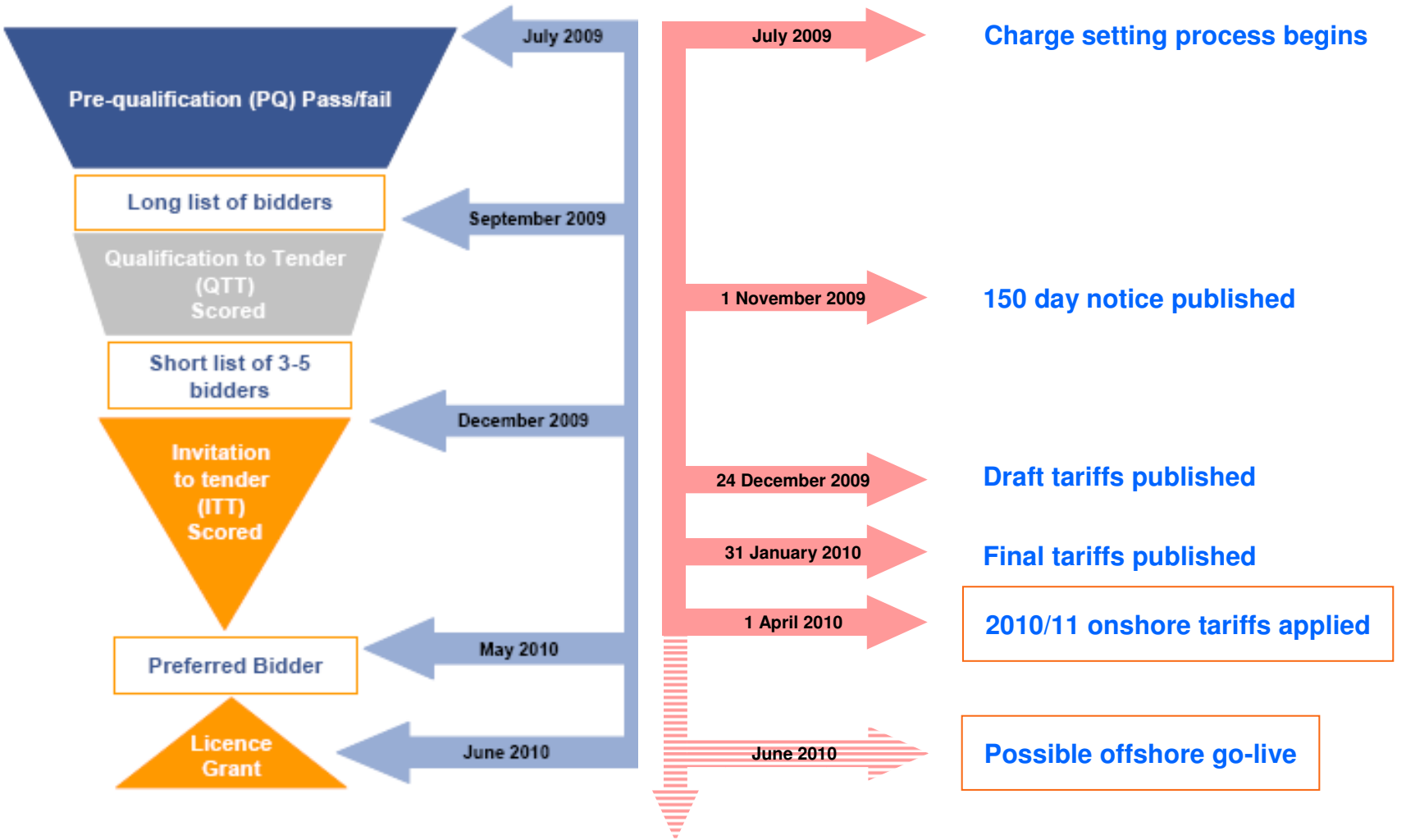
Introduction

- The issue
- Options examined
- Preferred option
- Examples
- Forecast affect on tariffs

The issue:- Offshore timeline (1)

- TNUoS tariffs are published end of January 2010,
- Offshore regime anticipated goes live is June 2010,
- TNUoS tariffs collect the offshore revenue, therefore how should TNUoS take account of the offshore tender process?
- Likely to repeat each year until the offshore regime has fully transitioned.
- 2010/11 OFTO forecast is £76m +/-£16m.

The issue:- Offshore timeline (2)



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National Grid examined 3 options

Option 1- No mid year tariff change (status quo),

Option 2- Limit mid-year tariff changes to offshore tariffs only,

Option 3- Review all tariffs mid year.

Option 3 is the option proposed because:

- It is the most cost reflective
- Avoids cross subsidies between onshore/offshore and generation/demand
- It takes best account of the offshore tender process and mirrors similar arrangements for onshore transmission owners.
- It is only modifying the process and not seeking to modify the underpinning principles.

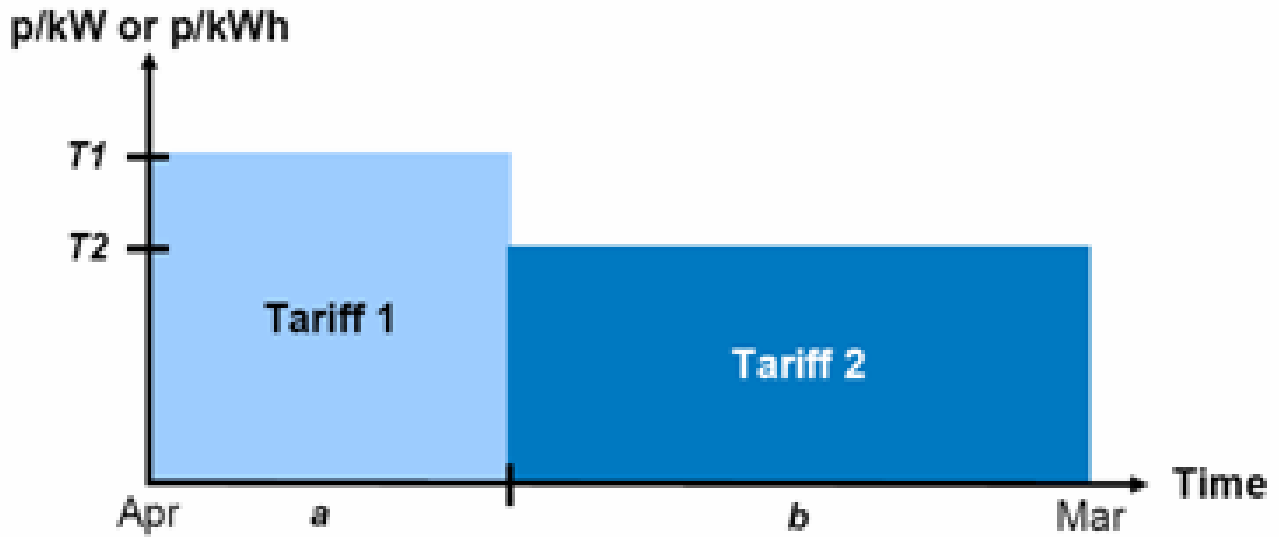
Option 3 – Review all tariffs mid-year

- National Grid to publish tariffs as per normal in January.
- Tariffs will be prorated by months.
- National Grid will revise tariffs as soon as possible following go live for all users (in July i.e. a month after go live?).
- Tariffs will NOT be backdated, will come into affect from the start of a calendar month and will be fixed for the rest of the year.
- Monthly charges will be calculated as per normal.
- Users would not incur an interest charge at reconciliation if a users chargeable capacity did not change (as normal).

Option 3 – Prorating the tariffs

$$Annual\ Liability = Chargeable\ Capacity \times \left(\frac{a \times Tariff\ 1}{12} + \frac{b \times Tariff\ 2}{12} \right)$$

where:



Example – Demand TNUoS (Winin Year)

- HH and NHH based on **forecast** chargeable capacit… demand or 4…nption (both use the same…)

$$2000 \times \left(\frac{12 \times 6}{12} \right)$$

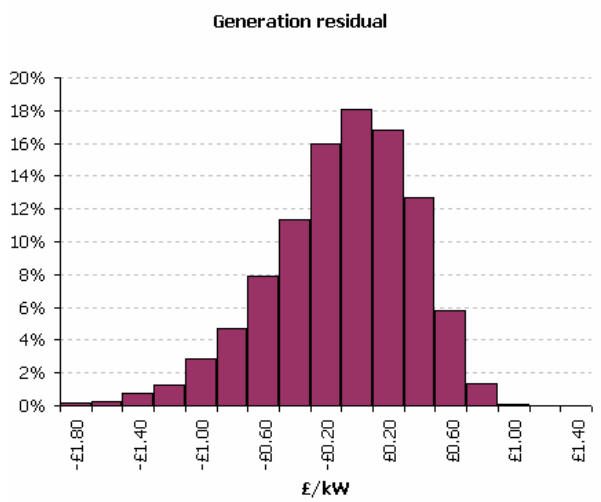
$$2000 \times \left(\frac{3 \times 6}{12} + \frac{9 \times 9}{12} \right)$$

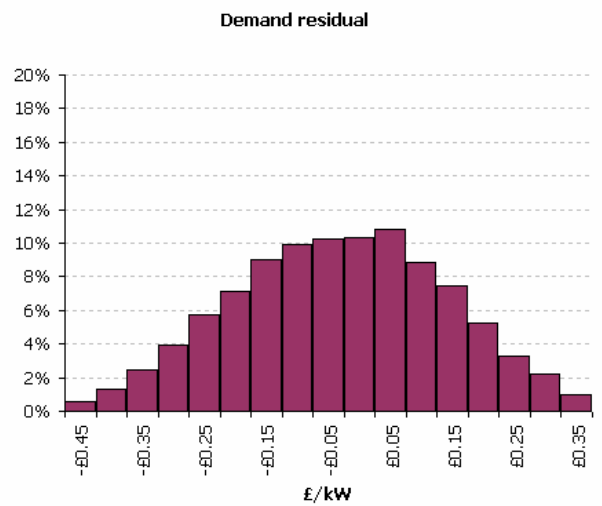
Month	Wider Zonal Tariff £/MW	Triad (kW)	Initial A…ual Liability (£k)	Revsied Annual Liability (…	Monthly Liability £k
Apr	6	2000	12000	-	1000
May	6	2000	12000	-	1000
Jun	6	2000	12000	-	1000
Jul	9	2000	-	16500	1500
Aug	9	2000	-	16500	1500
Sep	9	2000	-	16500	1500
Oct	9	2000	-	16500	1500
Nov	9	2000	-	16500	1500
Dec	9	2000	-	16500	1500
Jan	9	2000	-	16500	1500
Feb	9	2000	-	16500	1500
Mar	9	2000	-	16500	1500
					16500

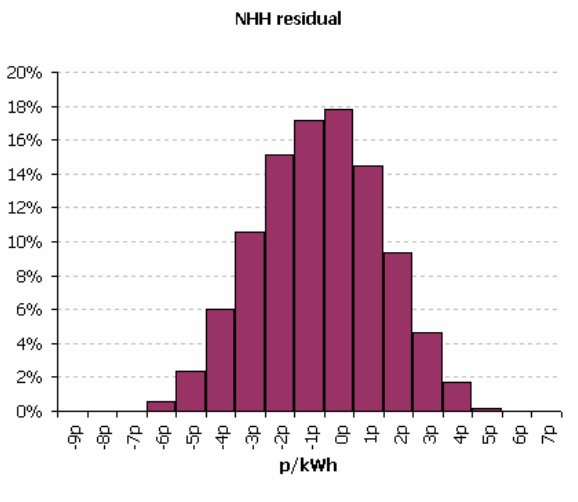
$$\frac{16500 - 3000}{9}$$

Increase aligns with obligation to commence payments to the OFTO and ‘expansion’ of the system

Effect on tariffs







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Next steps

- Consultation closes 8th Jan (Friday)
- Conclusions report to the authority as soon as possible after this.

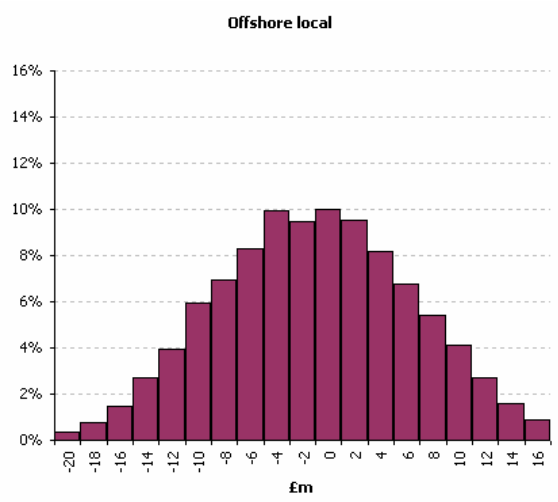
Any questions?

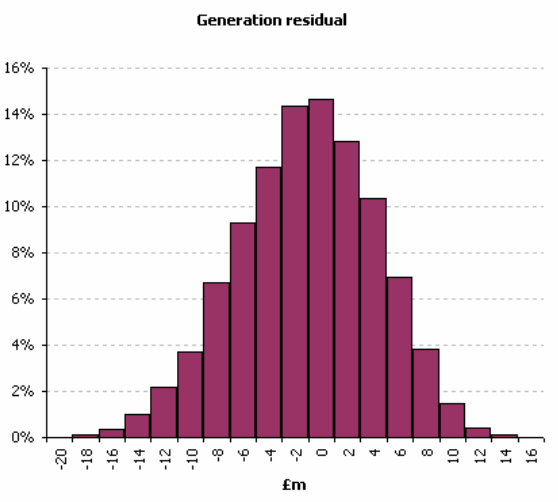
Modelling assumptions

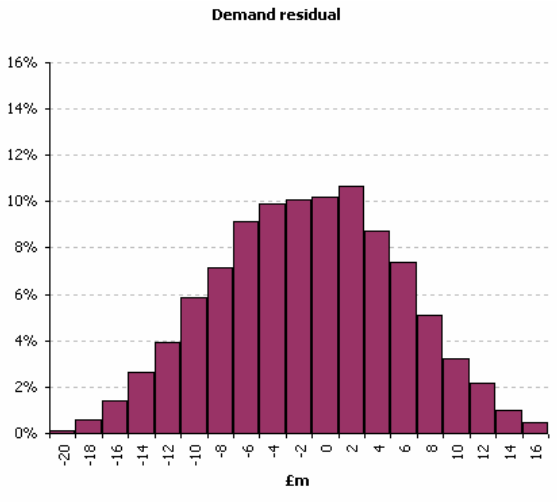
Variable	High limit	Central	Low limit	Distribution type
OFTO Revenue				
Cost of Capital (% of ETV)	12%	9%	4.5%	Triangular
Operating costs (% of ETV)	8%	5%	3%	Triangular
Unit offshore capital costs (£/MW)	0.67	0.51	0.29	Normal
Go-Live date movement (months)	1	0	0	Triangular
Socialisation				
Socialisation level (%)	40%	33%	10%	Triangular

Table 1 Key modelling assumptions used in Monte Carlo simulations

OFTO Revenue impact by residual type







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Example – Demand TNUoS (Reconciliation)

- HH and NHH are reconciled using **actual** chargeable capacity

Month	Wider Zonal Tariff £/MW	Forecast Triad (kW)	Actual Triad (kW)	Initial Monthly Liability (£k)	Reconcilled Monthly Liability (£k)	Reoncilliation (before interest) (£k)
Apr	6	2000	2100	1000	1050	50
May	6	2000	2100	1000	1050	50
Jun	6	2000	2100	1000	1050	50
Jul	9	2000	2100	1500	1575	75
Aug	9	2000	2100	1500	1575	75
Sep	9	2000	2100	1500	1575	75
Oct	9	2000	2100	1500	1575	75
Nov	9	2000	2100	1500	1575	75
Dec	9	2000	2100	1500	1575	75
Jan	9	2000	2100	1500	1575	75
Feb	9	2000	2100	1500	1575	75
Mar	9	2000	2100	1500	1575	75
				16500	**17325**	**825**

Example – Generation TNUoS (1)

- No TEC change throughout the charging year

$$120 \times \left(\frac{12 \times 10}{12} \right)$$

$$120 \times \left(\frac{4 \times 10}{12} + \frac{8 \times 5}{12} \right)$$

Month	Wider Zonal Tariff £/MW	TEC	Initial Annual Liabilit (£k)	Revsied Annual Liability (£	Monthly Liability £k
Apr	10	120	1200	-	100
May	10	120	1200	-	100
Jun	10	120	1200	-	100
Jul	10	120	1200	-	100
Aug	5	120	-	800	50
Sep	5	120	-	800	50
Oct	5	120	-	800	50
Nov	5	120	-	800	50
Dec	5	120	-	800	50
Jan	5	120	-	800	50
Feb	5	120	-	800	50
Mar	5	120	-	800	50
					800

$$\frac{800 - 400}{8}$$

Example – Generation TNUoS (2)

- New station commissioning mid-year or TEC change

Month	Wider Zonal Tariff £/MW	TEC	Initial Annual Liability (£k)	Revsied Annual Liability (£	Monthly Liability £k
Apr	10	0	-	-	0
May	10	0	-	-	0
Jun	10	0	-	-	0
Jul	10	0	-	-	0
Aug	5	0	-	-	0
Sep	5	0	-	-	0
Oct	5	0	-	-	0
Nov	5	120	-	800	160
Dec	5	120	-	800	160
Jan	5	120	-	800	160
Feb	5	120	-	800	160
Mar	5	120	-	800	160
					800

$$120 \times \left(\frac{4 \times 10}{12} + \frac{8 \times 5}{12} \right)$$

$$\frac{800 - 0}{12}$$