

The background features a large, stylized white 'X' shape. Behind the 'X', there is a blurred image of a modern glass skyscraper on the left and a close-up of a mechanical turbine or engine component on the right.

Technical Working Group

Meeting 6
9th September 2011

Agenda

- Recap and feedback on last meeting

- Transition issues

Break

- Repoint modelling

Lunch

- Working Group report

Break

- Next steps

Progress on Themes for Status quo

■ Theme 1 – Reflecting User Characteristics

COMPLETE

■ Theme 2 – Differentiation of Costs

COMPLETE

■ Theme 3 – Treatment of Security

- ✓ Not relevant for wider tariffs
- ✓ Maintain specific treatment across local boundary

COMPLETE but

CHOICE: Divide the specific expansion factor for the sub sea section by 1.8, so that when the MITS security factor is applied the tariff reflects the single cable. Apply wider factor to non-single cable island links. OR apply 1.8 to all MITS connected island links regardless of cable redundancy.

■ Theme 4 – New Transmission Technology

- ✓ Impedance on basis of relative circuit capacities
- ✓ Treatment of cost

COMPLETE

CHOICE: Exclude converters from EF calc for parallel MITS links & include converter station costs for offshore spur (local) or include all costs within the locational calculation for all links.

■ Theme 5 – Unit Cost of Network Capacity

- ✓ Maintain status quo if maintaining local / wider boundary

COMPLETE

■ Theme 6 – G/D Split of Revenue

COMPLETE

1st April 2015:G=15% D=85%; 2015 to 2030: 15%:85%

Progress on Themes for Improved ICRP

■ Theme 1 – Reflecting User Characteristics

- ✓ Dual background approach to transport model
- ✓ Two part tariff
- ✓ All generators contribute to both tariff elements

COMPLETE but.....

CHOICE: Historic or forecast, generic or specific, ex-ante or ex-post load factor scaling; or just TEC.

■ Theme 2 – Differentiation of Costs

- ✓ Maintain existing wider locational zoning criteria
- ✓ Maintain existing local/wider boundary

COMPLETE – status quo if maintaining local/wider boundary

■ Theme 3 – Treatment of Security

- ✓ Maintain global for wider
- ✓ Maintain specific for local

COMPLETE

CHOICE: no change to status quo or apply alternative option.

■ Theme 4 – New Transmission Technology

- ✓ Focus on HVDC
- ✓ Impedance on basis of relative circuit capacities (**Option 4b**)

COMPLETE but.....

CHOICE: no change to status quo or apply alternative option.

■ Theme 5 – Unit Cost of Network Capacity

- ✓ Maintain status quo (reviewed at PCR)

COMPLETE – no change to status quo

■ Theme 6 – G/D Split of Revenue

- ✓ EU tariffication guidelines ~ 2015

COMPLETE

1st April 2015:G=15% D=85%; 2015 to 2030: 15%:85%

Progress on Themes for Postage Stamp

■ Theme 1 – Reflecting User Characteristics

Choices:

- (i) MW or MWh charges elements
- (ii) retain or remove local infrastructure distinction
- (iii) D charges would retain ICRP methodology or apply uniform tariff

■ Theme 2 – Differentiation of Costs

Choice: Maintain or remove existing local / wider boundary (MW charge applied to local if maintaining local/wider boundary?)

■ Theme 3 – Treatment of Security

- ✓ Not relevant for wider tariffs
- ✓ Maintain specific if maintaining local / wider boundary

COMPLETE

■ Theme 4 – New Transmission Technology

- ✓ Not relevant for wider tariffs

COMPLETE

■ Theme 5 – Unit Cost of Network Capacity

- ✓ Maintain status quo if maintaining local / wider boundary

COMPLETE

■ Theme 6 – G/D Split of Revenue

COMPLETE

1st April 2015:G=15% D=85%; 2015 to 2030: 15%:85%

Issues: Generators	Issues: Suppliers	Mitigants
<ul style="list-style-type: none"> Treatment of TNUoS costs in fixed price contracts or other arrangements that extend beyond April 2012: <ul style="list-style-type: none"> Fixed: difficult (but not impossible?) to pass through variations and may be forced to absorb additional costs/profits resulting from a change Pass though or reopeners – no lengthy transition Independent generators no more likely to be fixed relative to large generators (reduces competitive issue?) Materiality of TNUoS costs increases is likely to be greater for IG's Empirical evidence that 2010/11 mid year change had an adverse effect on IGs (relative to portfolio?) Uncertainty of investment – discourage new entrants? 	<ul style="list-style-type: none"> I&C Fix term deals, usually between 2 and 3 years duration. Fixed or pass through? <ul style="list-style-type: none"> Fixed: suppliers absorb additional cost/profit Pass though or reopeners – no lengthy transition Domestic market – 30 days notice and greater flexibility Materiality of TNUoS costs increases is likely to be greater for Independent suppliers. Lower ability to net off increases or decreases in different zones across their customer base End consumers may bear the cost of the introduction of a risk premium by generators and suppliers (if they suspect additional cost) 	<ul style="list-style-type: none"> Contract duration Scope for pass through of transmission costs Portfolio of different plant types Geographic diversity – generation and retail Vertical integration

Possible solutions

Implementation strategies

- April 2013 implementation at earliest
- April 2014 implementation
- Different implementation dates for existing (April 2012) and new (April 2014) generation
- October 2012 (notice period from April 2012?)

Outside the TNUoS SCR process

- User commitment – “TEC amnesty” for those that want to avoid penal revenue implications of changes in tariffs.
- Use of a separate Kt factor for G and D to keep them separate during transition.

Other tools

- Earlier reduction in G proportion ($G=0$)
- “Soft landing” / phased approach

Questions

Contractual / Commercial materiality

- How do we assess materiality?
- Can we get information on the mitigants?
- Is there logic to split implementation for existing and new generation?
- How might transitional relief work?
- Impact on wholesale price (under a MW or MWh TNUoS approach)?
- Is there empirical evidence available from the previous mid year tariff change?

GTUoS tariff materiality

- Suggested that ICRP may result in zone 1 reductions in tariff of £25/kW and increases in zone 20 of £13/kW
- Similarly suggested that socialised approach (SSE model) could decrease zone 3 tariff by £18/kW and increase zone 20 by £11/kW
- Comments? What about Demand?

General

- How does the, as yet unknown, shift in tariffs impact on the ability to transition?
- What is the main concern, is it access to information/period of notice or magnitude of tariff change?

Responding to your feedback

- We have received a considerable amount of feedback on:
 - Challenges of the timetable for the SCR
 - The extent of model testing and validation possible within that timetable
 - The scope of the modelling work (i.e. just one model for each charging option)
 - The extent to which the WG and wider stakeholders can engage with the modelling outputs prior to our consultation
- We are listening and have been deciding how best to respond

Responding to your feedback

- We are adding some additional steps to our process:
 - Additional model testing and validation work
 - Assessing the impact of different fuel price and carbon support assumptions
 - Modelling a limited number of key policy options
 - Additional stakeholder engagement in November to discuss model results before consulting on options for change
- We will extend the Technical Working Group TOR:
 - Sense checking initial model runs in the first week of October and a WG meeting on 10th October to feedback to Redpoint
 - Review and comment on base and sensitivity results and further WG meeting in early November

Implications

- More testing, more analysis, more stakeholder input, more robust conclusions
- More time:
 - We will now consult in December 2011, and for longer
 - Final recommendations in spring 2012
- April 2012 implementation no longer possible – seek appropriate changes as quickly as practicable
- Letter being issued today

Revised plan

Technical Work

- Complete the work of the Technical Working Group – **9th Sep**
- Issue Draft Technical WG report – **mid Sep**
- Initial model runs and model hand over to Ofgem and WG – **early Oct**
- WG meeting to provide feedback – **10th Oct**
- Redpoint to incorporate feedback and re-run model – **second week of Oct**
- Sensitivity testing – **mid-late Oct**
- Further WG meeting – **early Nov**
- Issue Final Technical WG Report – **mid Nov**

Recommendations

- Stakeholder event to discuss modelling – **mid Nov**
- Ofgem consultation: options for change and their impacts – **Dec 2011**
- Consider consultation responses
- Publish recommendations – **spring 2012**
- Where there is a case for reform a direction will be issued to NGET to raise a modification(s) – **spring 2012**

Implementation

- Implementation for any change, if appropriate, will be after **April 2012**.
- We continue to urge industry to implement any appropriate changes as quickly as practicable after we issue our final recommendations.
- Ultimately, industry will decide the manner and timing of implementation

Status Quo

Wider investment	Local asset charges	G:D split	Capacity or energy (wider tariff, local tariff & residual tariff)	HVDC : choice of cost components in Expansion Factor	HVDC lines: treatment in load flow modelling	Local security factors	Wider security factor
Locational	<p><u>Asset specific</u></p> <p>Onshore: generic expansion factors and generic substation tariffs.</p> <p>Offshore specific expansion factors and specific substation tariffs</p> <p>Island specific expansion factors for each individual link (based on project costs) and generic local substation tariffs.</p>	<p>Present – 31 March 2015: 27%:73%</p> <p>1 April 2015-2030: 15%:85%</p>	Capacity (MW)	Include the all the costs of HVDC links, including converter station costs (at each end of the circuit),	Apportioning flows in proportion to relative to circuit ratings, and managing multiple boundaries through the ratings.	<p>(i) Onshore: Generator specific, 1.0 or wider factor</p> <p>(ii) Island link connected to the onshore local network: As above.</p> <p>(iii) Offshore: Generator specific (anywhere between 1.0 and the wider factor</p> <p>(iv) Island links connected directly to the MITS: Wider security factor applied in its zonal tariff calculation. This approach will apply to island links with either a single or multiple subsea cables linking the MITS substation located on the island group to the next MITS substation on the mainland.</p>	Currently 1.8

Improved ICRP

Wider investment	Local asset charges	G:D split	Capacity or energy (wider tariff, local tariff & residual tariff)	HVDC : Expansion Factor	HVDC lines:	Local security factors	Wider security factor
Locational (no change to status quo)	Asset specific (no change to status quo)	Present – 31 March 2015: 27%:73% 1 April 2015-2030: 15%:85%	<ol style="list-style-type: none"> 1. Apply dual criteria with technology-based scaling to study two flow scenarios. 2. Use maximum flow to identify investment trigger and determine two part tariff: “peak” & “year round” tariff. 3. Generator’s ex-ante £/kW tariff based on dual tariffs and a charge derived from generator’s capacity (TEC) x 5 yr historic average Annual Load Factor. 	No change to status quo	No change to status quo	<p>No change to status quo except:</p> <p>Modified treatment for island links directly connected to a MITS substation where export is dependent on a single sub sea cable linking the MITS substation located on the island group to the next MITS substation on the mainland. The methodology will reflect the (lack of) redundancy associated with a single cable link in the zonal tariff calculation by modifying the specific expansion factor applicable to the subsea section of island connection by dividing the expansion factor value for the subsea link by the average level of security across the system as a whole.</p>	No change to the methodology

Socialised

Wider investment	Local asset charges	G:D split	Capacity or energy (wider tariff, local tariff & residual tariff)	HVDC : Expansion Factor	HVDC lines	Local security factors	Wider security factor
Socialised	<p><u>Uniform</u></p> <p>No locational differentiation on generator and demand charges for use of the entire GB network (onshore, offshore and islands).</p> <p>Uniform tariff (£/MWh) with residual element to ensure cost recovery.</p>	<p>Present – 31 March 2015: 27%:73%</p> <p>1 April 2015- 2030: 15%:85%</p>	<p>Energy based (MWh)</p> <p>Divide all allowable transmission revenue by the total MWh expected for the charging year (ex ante) to obtain the £/MWh figure.</p> <p>Demand users also pay a flat, non-locational charge with payment based on the same methodology as it is today (a mixture of MW and MWh/kWh charges) to maintain the Triad signal.</p>	Not relevant	Not relevant	Not relevant	No change to the methodology

Sensitivities

Input Assumptions

- Alternative fuel prices – aligning more closely with DECC assumptions
- Alternative carbon prices
- To be run against 3 charging models
- Modelled either for perfect or non-perfect foresight – TBD

Policy Options

- Socialised: including local asset charges on a capacity basis (wider charges remain MWh)
- Improved ICRP: removing converter station costs from all HVDC links (and recovering from residual element of TNUoS)
- Modelled either for perfect or non-perfect foresight – TBD