

Project TransmiT Update



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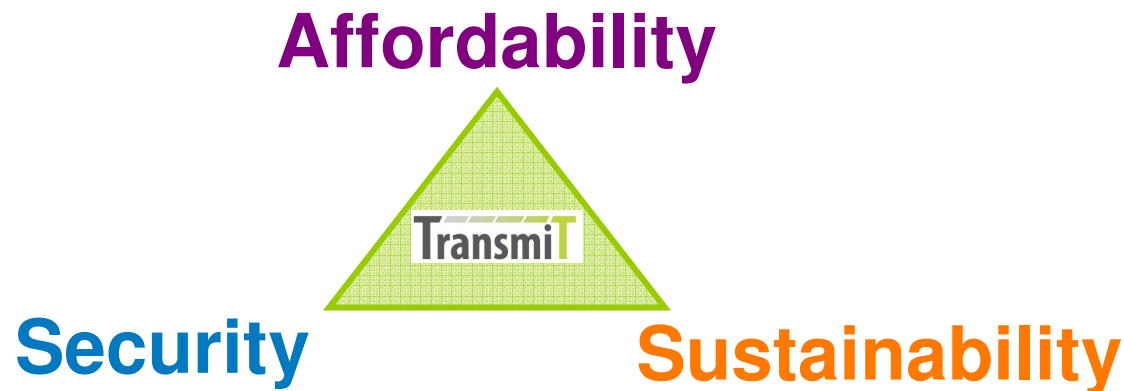
Overview

- Project TransmiT
- Electricity Connections
 - CUSC Modification Proposal 192
- Electricity Charging
 - TNUoS Significant Code Review

Project TransmiT – The What and Why

What? *Ofgem’s independent and open review of transmission charging and associated connection arrangements.*

Why? Arrangements must facilitate a “timely move to a **low carbon** energy sector whilst continuing to provide **safe, secure, high quality** network services at **value for money** for existing and future consumers.”



What's happened so far?

- Call for Evidence September 2010
 - Focus on electricity – Connections & Charging

Connections

- Timely connections consultation
- CMP192 – Enduring User Commitment arrangements

Charging

- Academic Reports
- Focus on TNUoS – launch of Significant Code Review
- Industry Technical Working Group
- Redpoint Economic Analysis

Connections – Principles of CMP192

- Closure, cancellation and TEC reduction all have the same effect on required capacity
- Focus on optimising future transmission investment, not indemnifying sunk costs of historical assets
- Local / Wider split between pre- and post-commissioning generators, and between Generation and Demand:

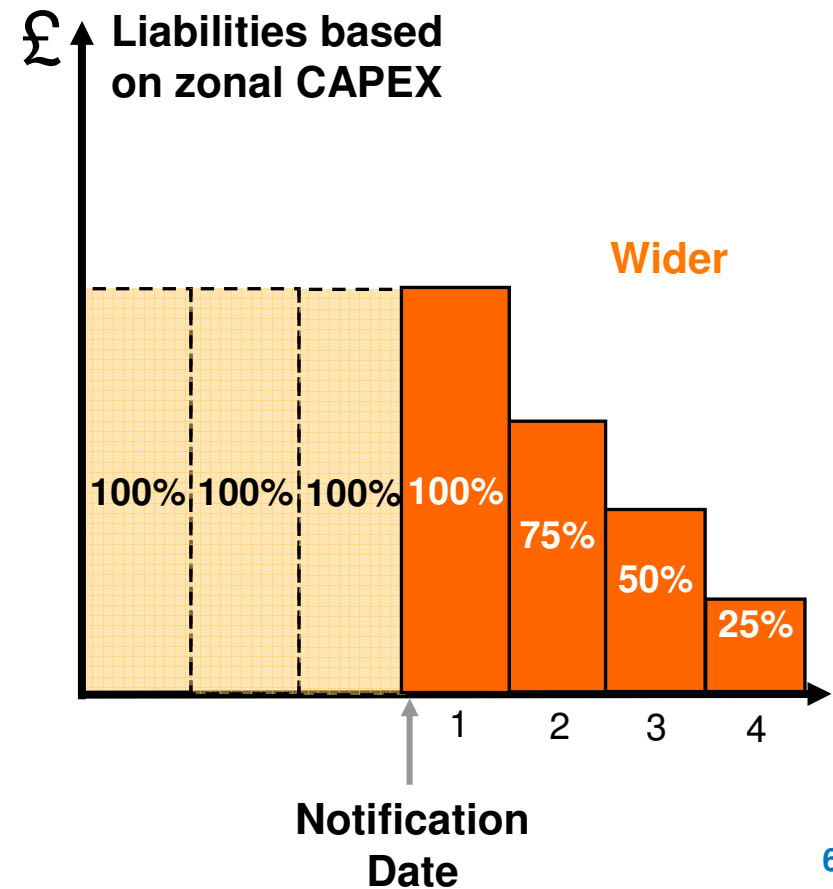
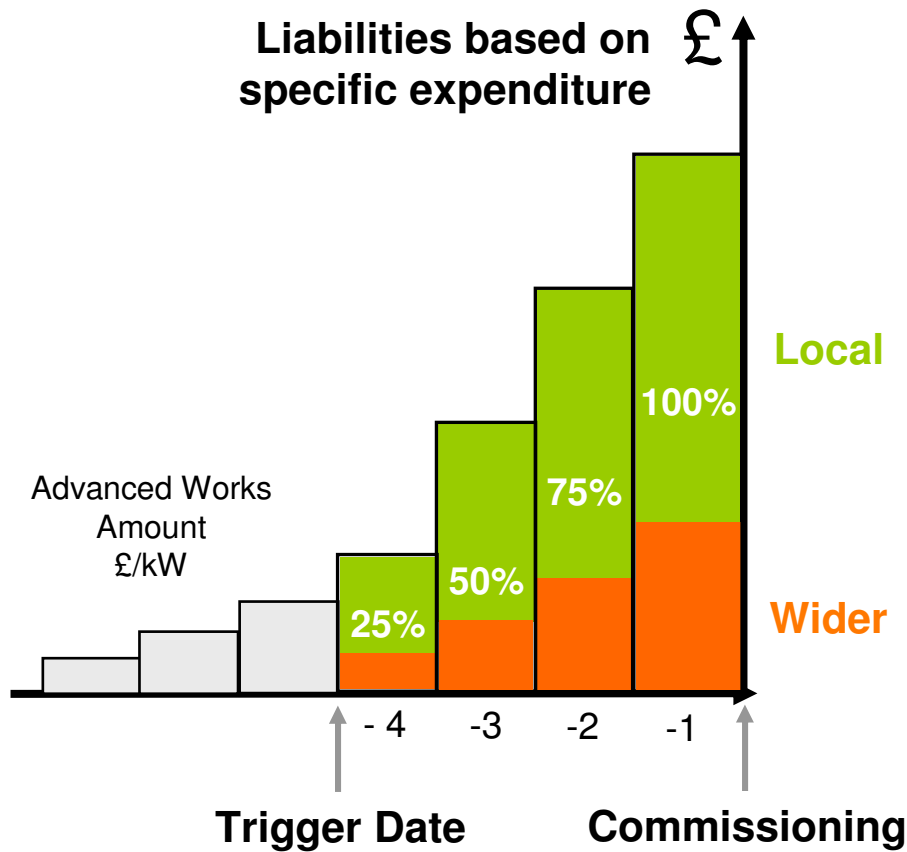
	Pre	Post
Local	✓	✗
Wider	✓	✓

	Generation	Demand
Local	100%	0%
Wider	50%	50%

Connections – CMP192 Original

Pre-Commissioning

Post-Commissioning



Connections – CMP192 Alternatives

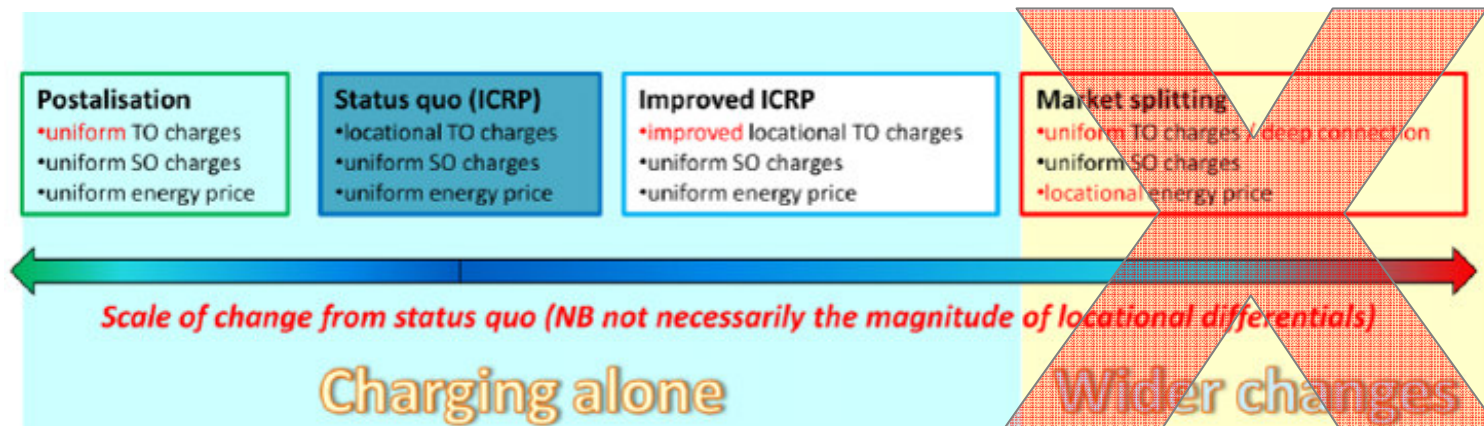
CMP192 Work Group Alternatives												
Notice Period	Pre : Post 4 : 4				Pre : Post 4 : 2				Pre : Post Wider 2 : 2 / local 4 unless FSL			
Profile	25,50,75,100 : 100, 75, 50, 25				25,50,75,100 : 100, 75				75,100 : 100, 75			
Additional features:												
FSL (no 1,2,3 £/kW) option	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1,2,3 £/kW capped @ YR-4 (i.e. 25% or FSL)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Grandfathering option for pre-commissioning	✗	✗	✓	✓	✗	✗	✓	✓	✗	✗	✓	✓
50% sharing for all local reinforcements where demand is existing or planned at the site	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Work Group Alternative Number	1	2	3	4	5	6	7	8	9	10	11	12

Connections – CMP192 Timetable

- Workgroup Report to CUSC Panel 30 Sep
- Company Consultation 3 Oct - 24 Oct
- Extraordinary CUSC Panel 11 Nov
- Final Report to Ofgem 22 Nov
 - Ofgem Impact Assessment Dec
- Anticipated implementation Apr 2012
 - Transition period
- Anticipated Go-Live Apr 2013

Charging – Significant Code Review

- SCR launch July 2011 as part of TransmiT
- Charging – Focus on TNUoS
- More fundamental changes out of scope



- Initially Ofgem targeted April 2012 implementation

Charging – The SCR in a Nutshell

- 
- **Development of 2 options for economic assessment around 6 themes**
 - **July – September 2011**
 - **Impact assessment of options + status quo**
 - **July – November 2011**
 - **Consultation and direction**
 - **December 2011 – Spring 2012**

CUSC process to follow throughout Summer 2012

Charging – Technical Working Group

Options for Change

Socialised

+

Improved
ICRP

Themes

1. Reflecting Characteristics of Users
2. Geographical Differentiation of Costs
3. Treatment of Security Provision
4. Reflecting New Transmission Technology
5. Unit Cost of Transmission Capacity
6. G:D Split

Report

TransmiT

Technical Working Group Report
Significant Code Review

Project TransmiT:
Electricity Transmission
Charging Significant Code
Review

Initial Report of the Technical
Working Group
September 2011

This document contains the discussion of the Electricity Transmission Charging SCR Technical Working Group which formed in July 2011 and constitutes the key deliverable of the Working Group, as set out in the group's terms of reference. It will form an input into the Ofgem December 2011 Significant Code Review Consultation.

Provided to Ofgem on: 23 September 2011

Charging – Progress of the Group

**Original
Terms of
Reference**

19th July

ToR, Meeting Plan

1st August

Theme 1&2; Redpoint

9th August

Theme 3&4; Socialised

18th August

Theme 5&6

30th August

Report/Themes to Models

9th September

Report/Transition

23rd September

Initial Report

**Extended
Terms of
Reference**

10th October

Input Assumptions

9th November

Modelling Assumptions

30th November

Final Report

Charging – Model Recommendations

Status Quo (ICRP to 2030)	
Theme	Recommendation
1	✓ No change
2	✓ No change
3	✓ No change ✓ Noted some islands classed as wider would have a security factor of 1.8
4	✓ Model HVDC links that parallel the onshore network as an equivalent AC circuit by: ✓ Impedance from power flow as average ratio of total network boundary rating vs. link rating ✗ Converter costs included or excluded from costs
5	✓ No change
6	✓ Change split from 27/73 to 15/85 in 2015 (<u>all models</u>)

 **Ofgem Decision**

Charging – Model Recommendations

Improved ICRP – (i)

 **Ofgem Decision**

Theme

Recommendation

1

- ✓ Dual backgrounds (Year Round, Peak Security)
- ✓ Background scaling consistent with GSR009 (SQSS)
- ✗ Plant type contribution for tariff
 - Intermittent Year Round element only
 - All plant contribute to both elements
- ✗ Tariff calculation for Year Round element
 - TEC only
 - TEC x load factor (specific/generic; ex-ante/ex-post)
 - TEC x ex-post MWh

2

✓ No change

Charging – Model Recommendations

Improved ICRP – (ii)

 **Ofgem Decision**

Theme

Recommendation

3	<ul style="list-style-type: none"> ✓ No change ✓ Islands classed as wider with long sections of single circuit have to a security factor of 1 for that section
4	<ul style="list-style-type: none"> ✓ Focus on HVDC link technology only ✓ Model HVDC links that parallel the onshore network as an equivalent AC circuit by: <ul style="list-style-type: none"> ✓ Impedance from power flow as average ratio of total network boundary rating vs. link rating ✗ Converter costs included or excluded from costs
5	<ul style="list-style-type: none"> ✓ No change
6	<ul style="list-style-type: none"> ✓ Change split from 27/73 to 15/85 in 2015

Charging – Model Recommendations

Socialised	
Recommendation	
Theme	
1	✗ Allocation of charges based on MW or MWh
2	✗ Differentiation of Costs: <ul style="list-style-type: none"> • Maintain or remove the local/wider boundary • ICRP based or socialised demand tariffs
3	✓ No change (only relevant if maintaining local/wider boundary)
4	✓ Not relevant
5	✓ No change (only relevant if maintaining local/wider boundary)
6	✓ Change split from 27/73 to 15/85 in 2015

 **Ofgem Decision**

Charging – Transition

- Early decision important for investment certainty
- Sufficient time to minimise windfall gains/losses
- Preferred implementation date of April 2014
- Earliest feasible date of April 2013
- Fully transition at implementation date
- Mid-year tariff change is undesirable

Charging – Extended Responsibilities

Fixed support, vary charging

STAGE 1

- Level of CfD FiT (model of low-carbon support)
- Importance in separating charging from support impacts
- Generation build constraints (MW per zone)
- Nuclear assumptions in postage stamp

Vary support, vary charging

STAGE 2

- Required in order to assess overall impact
- CfD levels should be published along with results
- Both demand and generation tariffs are important
- Focus on ‘imperfect foresight’, with ‘perfect foresight’ a sense check

For more information...

- Charging

<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/contracts/>

- TransmiT

<http://www.ofgem.gov.uk/Networks/Trans/PT/Pages/ProjectTransmiT.aspx>

- User Commitment

<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/>

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End

