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User Commitment for Non-Generation Users

CMP222 – Workgroup Meeting 1

Agenda

- Introduction and Safety Moment
- Agree Terms of Reference
- Summary of the proposal
- Discussion on Specifics
  - Interconnectors
  - Direct Connections
  - DNO GSPs
  - Pumped Storage
- Next Steps

Safety Moment – Travel Safety

- Whether travelling to work or external visits national or internationally, extra care is often needed to ensure our safety
- Familiar journeys also present hazards – from our everyday commute to frequent business appointments

- Consider:
  - What to do and prepare before you go
  - What to do in an emergency and (24 hour) contact telephone numbers
  - Once arrived, how best to familiarise yourself with the site and any potential hazards

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Terms of Reference

- Consider the issues raised by the proposal
- In addition:
  - a) Consider the risk profile of post-commissioning Interconnectors
  - b) Consider the interaction with GSPs and potential overlap with CMP223
  - c) Review illustrative legal text

Summary of CMP222

- Generation user commitment for pre- and post-commissioning sites was introduced into the CUSC in April 2012 for April 2013 go-live
- Need to introduce enduring user commitment arrangements for interconnector and demand users by April 2015
- After this date, original Final Sums would apply
  - User would secure wider works as well as local

What are Final Sums?

- Final Sums are the costs of abortive transmission investments undertaken on behalf of a user
  - Local and Wider
- Where more than one user is contributing to the needs case, a percentage split is applied
- Upon termination, National Grid reconciles against actual TO spend

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What is CUSC Section 15?

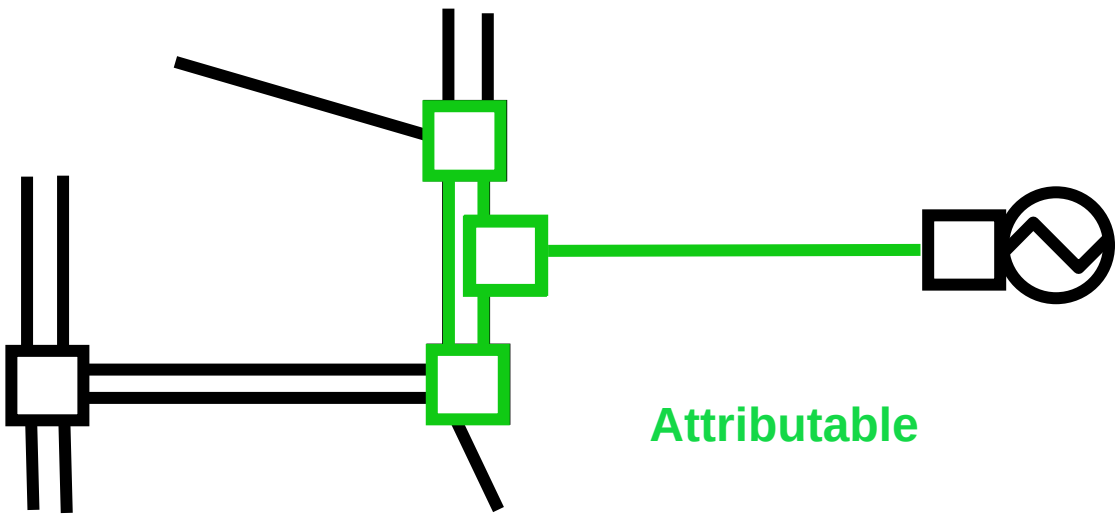
- Section 15 uses two components of liability: Attributable and Wider

- Attributable:
  - Specific projects for each generator
  - Based on actual project costs

- Wider:
  - Generic £/MW for all generators in a zone
  - Based on total annual TO asset spend

What is Attributable?

- Works for the generator up to the nearest suitable MITS substation:
  - More than 4 transmission circuits
  - More than 1 transmission circuit, plus GSP



- All other investments are Wider

Pre-Commissioning Attributable works

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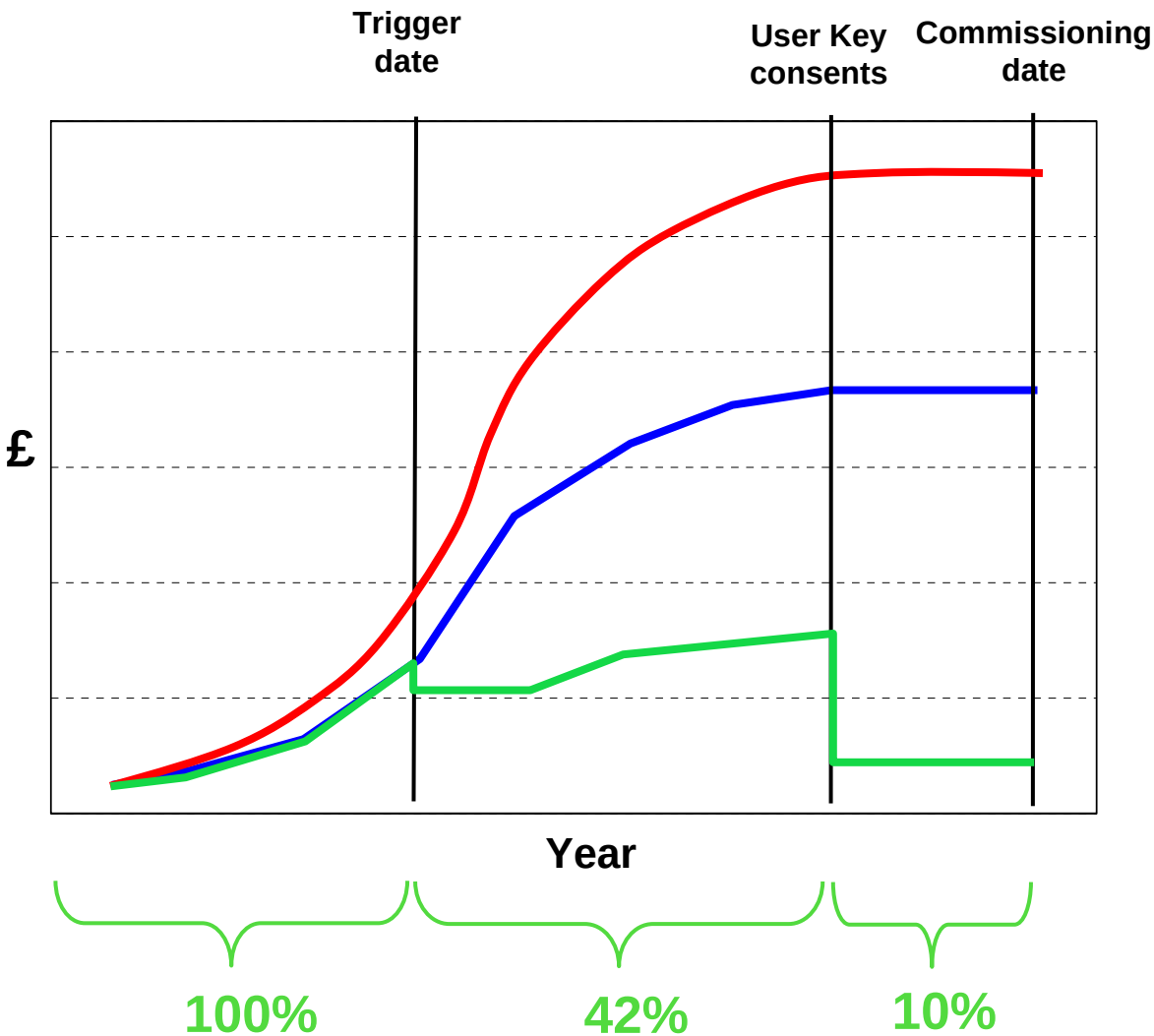
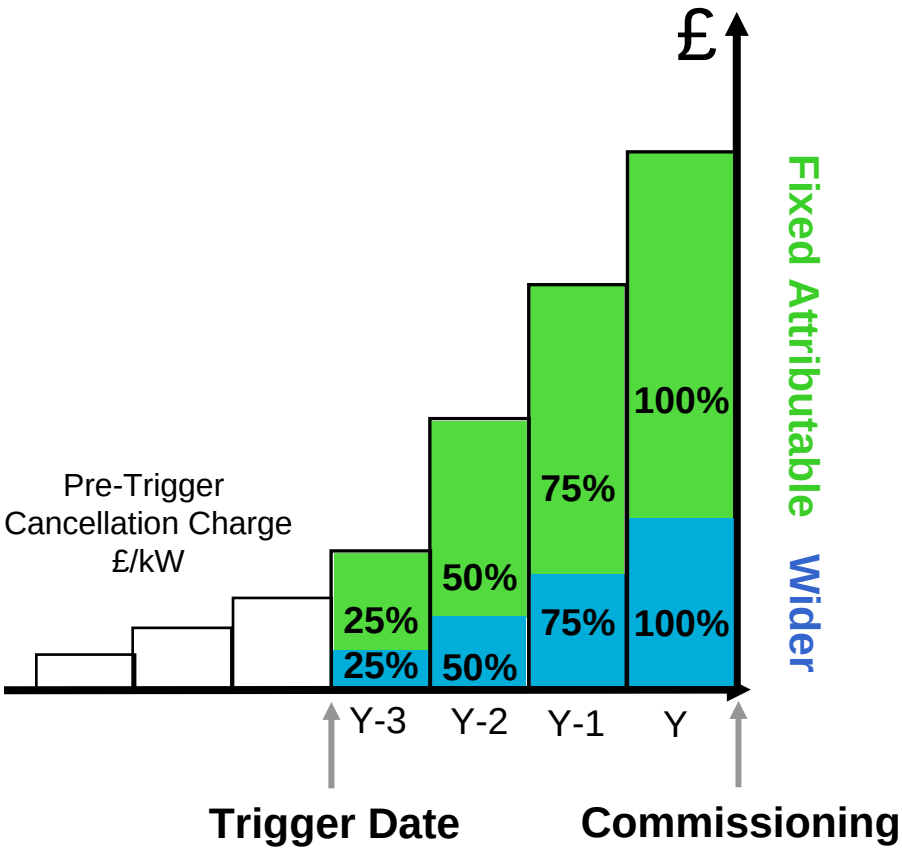


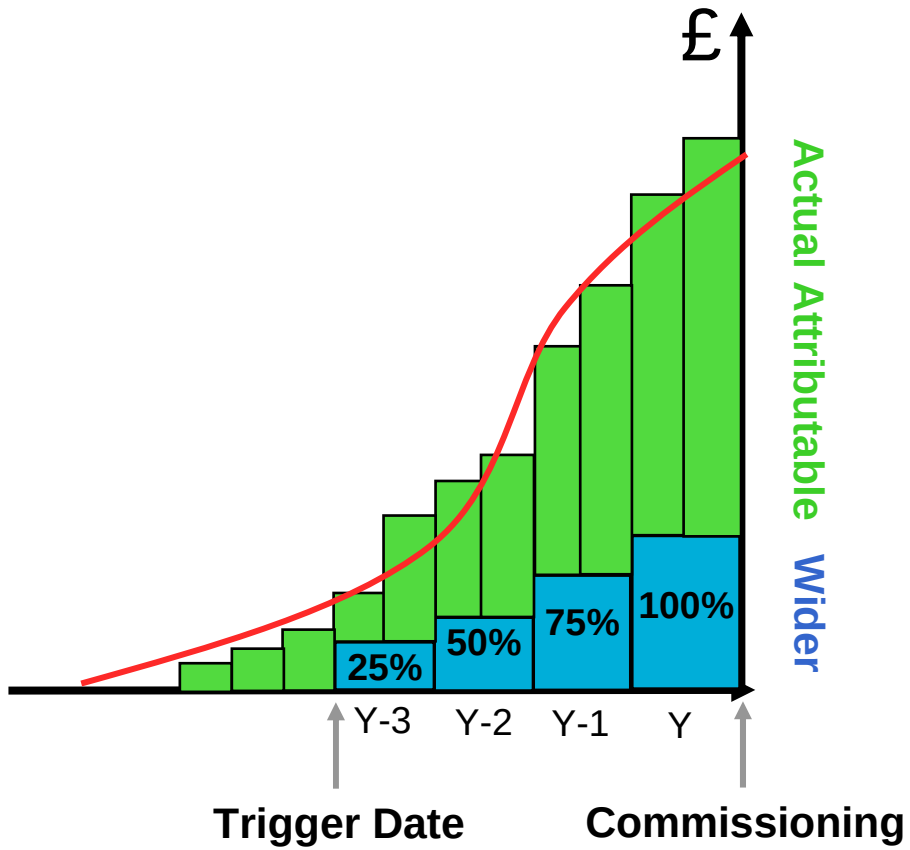
- Project specific
- Liability reduced by factors
- Fixed or variable
- Security reduced by likelihood of connection

Options for Pre-Commissioning

Fixed



Actual

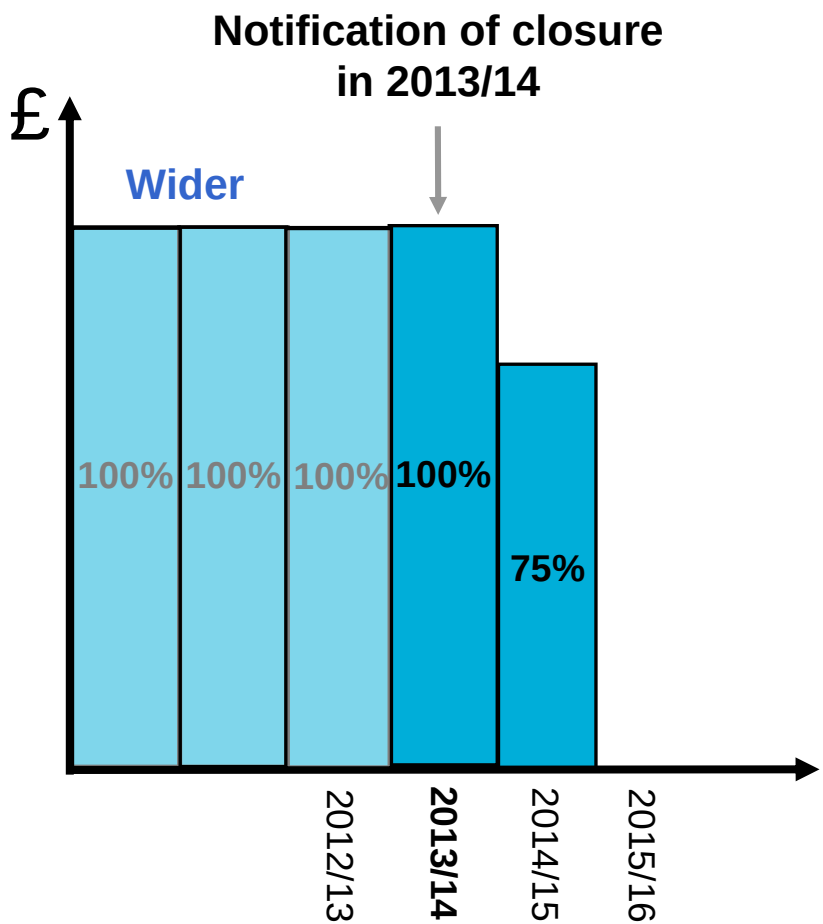


Post-Commissioning

- Closure date is not known
- Users carry annual Wider £/MW liability depending on their E-TYS zone
- On notification of closure or TEC reduction, the 2 year Notice Period Profile is applied
- Liability depends on the amount of notice given
- Security not required

Notice Given	% Wider Liability
1 to 2 years	75
5 days to 1 year	100

Application to Post Commissioning



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Summary of CMP222

	Pre-Commissioning	Post-Commissioning
Interconnectors	CUSC Section 15 (using higher of import/export capacity)	None
Direct Connections	Final Sums (Local)	None
DNO GSPs	Final Sums (Local)	None
Pumped Storage	CUSC Section 15	CUSC Section 15

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Interconnectors

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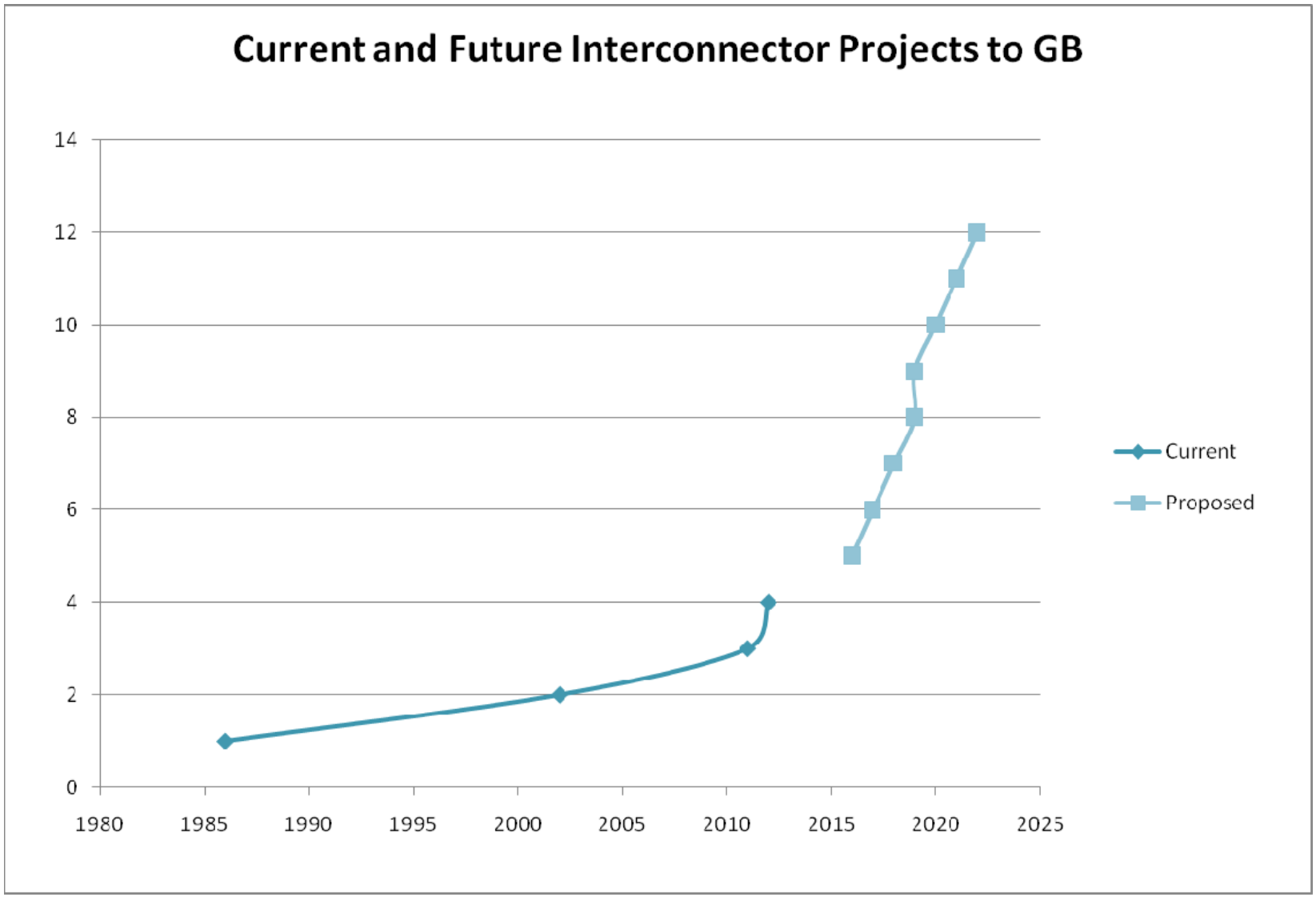
Interconnectors: Pre-commissioning

- Likelihood of unexpected termination similar to generators
- Number of new interconnector agreements since privatisation (i.e. excluding IFA):
  - 3 commissioned
  - 1 terminated
  - 6 offers lapsed before signing
- National Grid is currently aware of 8 potential interconnector projects to GB
- Unlikely that all of these will prove economic to build

Interconnector Projects



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Interconnectors: Pre-commissioning

- Impact on transmission system works similar to generator
- Capacity range: 1000MW – 1400MW
- Of the 8 potential interconnectors we are aware of:
  - 5 have wider transmission works linked to them
  - 1 has no wider transmission works
  - 2 have no information
- Risk likelihood and impact similar to generators, therefore similar treatment should apply

Impact of Integrated Transmission Planning & Regulation (ITPR)

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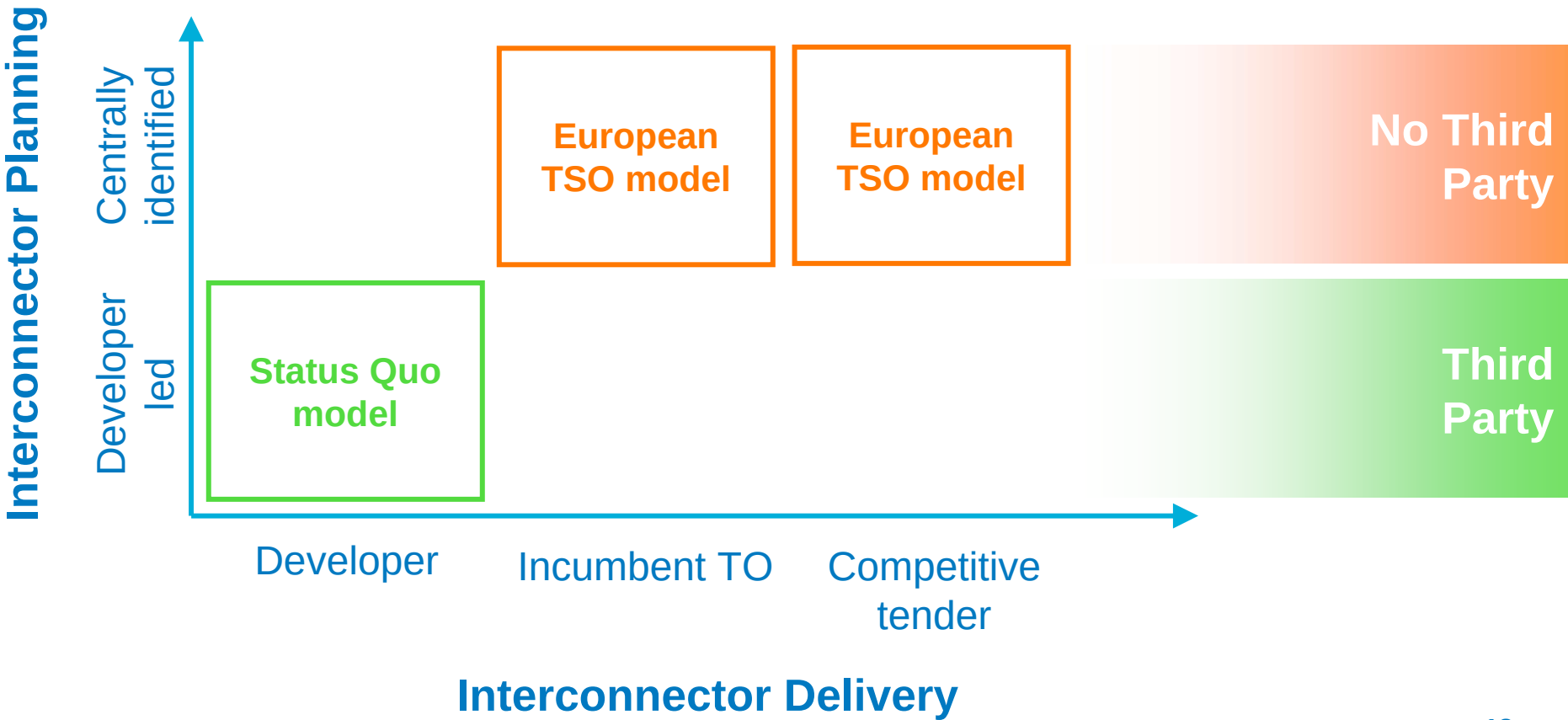
- UC for consequential TO works may change depending on which way ITPR goes



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Impact of ITPR

- User commitment for ICs will depend on what ITPR recommends
- No direction in current ITPR consultation
  - "…we are considering all options with respect to the planning and delivery of interconnection."
- CUSC proposal must differentiate between:
  - Third-party initiated interconnectors
  - Centrally-identified interconnectors

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Interconnectors: Pre-commissioning

- All CUSC Section 15 arrangements would apply to interconnectors:
  - Liable for Attributable and Wider works
  - May apply for Fixed Attributable liability
  - Local Asset Reuse Factors and Strategic Investment Factors would apply
  - Reduced security requirements would apply
  - Credit requirements would apply
- No TEC, therefore proposed to use higher of import / export capacity as set out in relevant BCA
- Clarify that these arrangements only apply to interconnectors under development by third parties (i.e. not centrally identified)

Impact on Interconnectors

- For interconnectors, estimated impact for first period, based on Gone Green (Apr 2015 – Sep 2015)

		Pre-commissioning (£M)
Current	**Liability**	**57**
	Security	**57**
New (Attributable + Wider)	**Liability**	**49**
	Security	**30***

***Assumes the same % reduction as for generation users, i.e. 100%, 42%, 10%**

Impact on Other Users

- Including interconnectors in CUSC 15 will have an impact on calculation of zonal wider liability figures
- 2012/13 Wider liability used
- Analysis includes ICs expected in next 4 years
  - 2GW in Z15
  - 1GW in Z16

SYS Zone	Exc. ICs	Inc. ICs
Z1	£16,994	£16,994
Z2	£12,785	£12,785
Z3	£12,976	£12,976
Z4	£9,836	£9,836
Z5	£6,349	£6,349
Z6	£5,766	£5,766
Z7	£4,470	£4,470
Z8	£2,902	£2,902
Z9	£1,694	£1,694
Z10	£1,365	£1,365
Z11	£1,903	£1,903
Z12	£818	£818
Z13	£845	£798
Z14	£818	£818
Z15	**£462**	**£393**
Z16	**£2,575**	**£2,251**
Z17	£9,487	£9,164

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Interconnectors: Post-commissioning

- Limited dataset of post-commissioning interconnectors
  - 4 commissioned (3 since privatisation)
  - 1 decommissioned (the first IFA: 1961 to 1984)
- Historically, GB interconnectors have been merchant projects
  - Investors exposed to full up- and downside
- Under the Third Package, interconnectors are treated as extensions of the transmission system

Interconnectors: Post-commissioning

- Future interconnectors likely to be regulated using “cap and floor” regime
  - Ofgem consulting on arrangements for NEMO and making this the enduring regime*, decision expected end of 2013
- An unexpected closure is therefore considered low risk, therefore no user commitment proposed

* https://www.ofgem.gov.uk/publications-and-updates/cap-and-floor-regime-regulated-electricity-interconnector-investment-application-project-nemo

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Direct Demand Connections

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Direct Demand: Pre-Commissioning

- New connection requests are all for rail electrification projects
  - Regulated monopoly industry, i.e. stable investment plans
  - Small, low voltage sites with no wider investment linked to them
  - Few in number: 5 new connections since 2007
- Only currently securing connection assets, no local
- Risk to transmission investment of unexpected terminations considered to be low
  - Likelihood of risk is low
  - Impact of risk is low

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Direct Demand: Pre-Commissioning

- Why not use CUSC Section 15?
- Calculation of sharing factors requires a capacity figure such as TEC, which is not available prior to commissioning
  - Connection Site Demand Capability (User-forecast)
  - Chargeable Demand Capacity (Triad)

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Direct Demand: Post-Commissioning

- Risk to transmission investment of unexpected terminations considered to be low
  - Likelihood of risk is moderate
  - Impact of risk is low
- 7 closed in the last 2 years
  - No material impact on transmission investments identified
- 30 remaining direct connections (excluding station load)
  - 16 Network Rail
  - No remaining sites >100MW peak demand
- No user commitment proposed

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Distribution Network Grid Supply Points

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DNO GSP: Pre-Commissioning

- Risk to transmission investment of unexpected terminations considered to be low
  - Likelihood of risk is low
  - Impact of risk is low
- Regulated monopoly industry, i.e. stable investment plans
  - New GSPs tend to reduce load on neighbouring GSPs, no wider investment linked to them
  - Few in number: 1 new connection since 2007
  - Forecast 3 new GSPs over the next 7 years, no wider works linked to them

DNO GSP: Pre-Commissioning

- Why not use CUSC Section 15?
- Same reasons as for directly connected demand
  - Calculation of sharing factors requires a capacity figure such as TEC, which is not available prior to commissioning

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DNO GSP: Pre-Commissioning

- What is the interaction with Distributed Generation (DG)?
- DNO will have provided data setting out the capacities of DG connecting on application
- Consag and CUSC Exhibits MM1/2/3 issued to DNO (and DG with BEGA) based on this information
- Liabilities associated with DG will be separated from Final Sums for the DNO

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DNO GSP: Post-Commissioning

- Risk to transmission investment of unexpected terminations considered to be low
  - Likelihood of risk is low
  - Impact of risk is low
- Regulated monopoly industry
  - Stable investment plans
  - Obligations to coordinate in Licence
  - Annual provision of 7 year GSP demand forecasts
- No user commitment proposed

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Pumped Storage

Pumped Storage

- Pumped storage sites are a subset of generation, and therefore are covered by CUSC 15 user commitment
  - 1 new pumped storage with a BCA currently securing through CUSC 15
- However they do offtake electricity from the Tx system
- Are there any changes that should be considered for this type of user?

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Next Steps

Next Steps

- Review proposed legal text
- Draft Workgroup consultation for comment
- Next Meeting: 7 November 2013