

Transmission Charging Methodologies Forum



Tuesday 13th March 2014

Introduction & Welcome



Patrick Hynes

Agenda

10:00 Introduction – Patrick Hynes

10:15 Code modifications update – David Corby

10:30 Five Year TNUoS Forecasts – Stuart Boyle

11:00 Coffee

11:15 Outcome of Embedded Generator Charging
Review and Next Steps – David Corby

12:00 Offshore User Commitment – Adam Sims

12:30 Future Topics – David Corby

12:45 AOB

13:00 Lunch

Safety moment



David Corby

Safety Moment - Gardening

1. Lawnmowers (6,500 accidents in the UK each year)
2. Flowerpots (5,300)
3. Secateurs and pruners (4,400)
4. Spades (3,600)
5. Electric hedgetrimmers (3,100)



6. Plant tubs and troughs (2,800)
7. Shears (2,100)
8. Garden forks (2,000)
9. Hoses and sprinklers (1,900)
10. Garden canes and sticks (1,800).



Ongoing modification proposals



David Corby

Ongoing modifications proposals 1 of 4

- **CMP201: Removal of BSUoS charges from Generation**
 - Ofgem believe the mod better meets CUSC objectives, but not their wider statutory duties. Ofgem minded to position: reject

- **CMP213: Project Transmit TNUoS Developments**
 - Ofgem minded to position:
 - Diversity 1, 100% HVDC / Islands (WACM2)
 - Minded to implement April 2016
 - Ofgem consultation now open, closes 27th May

Ongoing modifications proposals 2 of 4

■ **CMP222: User Commitment for Non-Generation Users**

- Code Administrator Consultation closed 2nd May
- CUSC Panel vote at the meeting on 30th May
- Anticipate send to Ofgem early June
- Ofgem have indicated that a decision may take up to 6 months
- If later than 1st December 2014 then we will miss the 1st April 2015 securities period

■ **CMP223: Arrangements for Relevant Distributed Generators Under the Enduring Generation User Commitment**

- The Code Administrator Consultation is open until 3rd June
- The Consultation is on the original proposal and four alternatives
- The main variation concerns the risk being backed-off through the DNO or NG licence, or via a direct contract between the Distributed Generator and NG
- CUSC Panel will consider this modification on 27th June
- Timescale minimum of six months; it is unlikely we will have a decision by the end of September, and therefore implementation would be by 1st October 2015

Ongoing modifications proposals 3 of 4

- **CMP224: Cap on the total TNUoS target revenue to be recovered from generation users**
 - CUSC Panel voted to pass this to Ofgem on 25th April
 - Anticipate implementation, if approved, on 1st April 2015

- **CMP227 - Reduce the G:D split of TNUoS charges, for example to 15:85**
 - The first Workgroup meeting was 3rd April 2014
 - The second workgroup meeting was 8th May 2014
 - Final workgroup report conclusion to be presented to CUSC Panel in July
 - It is likely that a one month extension will be sought
 - Implementation / transition to be discussed by the workgroup
 - Workgroup Consultation planned in June 2014

Ongoing modifications proposals 4 of 4

- **CMP228 – Definition of Qualified Bank**
 - Self Governance Mod Consultation closed 9th May. CUSC Panel to consider at the end of May

- **CMFTP229 – Abolition of National Consumer Council**
 - The CUSC Panel approved this fast track mod on 25th April
 - Objections to be received by 20th May

- **CMFTP230 – Minor Housekeeping Changes and Corrections**
 - The CUSC Panel approved this fast track mod on 25th April
 - Objections to be received by 20th May

Five Year TNUoS Tariff Forecast



Stuart Boyle

Five Year TNUOS Tariff Forecast

- 2014/15 tariffs are the same as in the current charging statement
- The main document is based on the 27:73 G/D split with a capped generation proportion (CMP224 original) scenario contained as an annex

Drivers

- Transmission revenues
- Inflation
- Investment to facilitate transition to a low carbon economy
- Changes in the Generation and Demand background
- Western HVDC Link (Hunterston to Deeside)
- Additional scenarios:
 - CMP213 - Project Transmit
 - CMP224 – G/D Split
 - Small Generation Discount

Revenues

£m Nominal	2014/15	2015/16	2016/17	2017/18	2018/19
National Grid	1,763.2	1,851.6	2,146.3	2,217.9	2,440.1
Scottish Power	312.2	331.8	333.6	349.6	366.0
Scottish Hydro Electricity	214.0	215.2	242.1	235.9	242.7
Offshore	218.4	276.4	291.6	335.6	515.3
Network Innovation Competition	17.8	16.6	17.3	18.2	18.4
Total	2,525.5	2,691.6	3,031.1	3,157.3	3,582.5
Pre-vesting connections	43.3	47.0	47.0	47.0	47.0
TNUoS	2,482.2	2,644.7	2,984.1	3,110.4	3,535.6
Total	2,525.5	2,691.6	3,031.1	3,157.3	3,582.5

National Grid

Nominal £m unless otherwise stated	Term	2014/15	2015/16	2016/17	2017/18	2018/19
Base Allowance (PU) (2009/10 Prices)	PU	1,443.8	1,475.6	1,571.4	1,554.9	1,587.6
Historical inflation adjustment (2009/10 Prices)	TRU	- 0.5	0.0	- 0.0	0.1	- 0.0
Base allowance adjustment (2009/10 Prices)	MOD	- 5.5	-	102.6	132.1	199.4
Inflation Index	RPIF	1.2051	1.2326	1.2819	1.3144	1.3652
Base Revenue	BR	1,732.7	1,818.8	2,145.9	2,217.5	2,439.6
Gross Pass Through	PT	745.1	823.9	867.9	921.6	1,124.5
Less Scottish Power	TSP	312.2	331.8	333.6	349.6	366.0
Less SHE Transmission	TSH	214.0	215.2	242.1	235.9	242.7
Less Offshore	OFTO	218.4	276.4	291.6	335.6	515.3
Net Pass Through	PT-	0.6	0.4	0.5	0.5	0.5
Incentives	OIP	-	3.0	-	-	-
Network Innovation Allowance	NIA	10.9	11.5	-	-	-
Transmission Investment for Renewable Generation	TIRG	16.0	15.8	-	-	-
Scottish Connection Reconciliation	DIS	3.3	-	-	-	-
	TS	- 0.3	-	-	-	-
Prior year Under/(Over) Recovery	K	-	2.1	-	-	-
NGET Total		1,763.2	1,851.6	2,146.3	2,217.9	2,440.1
Connections Income		47.0	47.0	47.0	47.0	47.0

Scottish Power Transmission

Nominal £m unless otherwise stated	Term	2014/15	2015/16	2016/17	2017/18	2018/19
Base Allowance (PU) (2009/10 Prices)	PU	237.0	258.6	244.7	249.4	253.1
Historical inflation adjustment (2009/10 Prices)	TRU	- 0.1	-	-	-	-
Base allowance adjustment (2009/10 Prices)	MOD	5.0	-	-	-	-
Inflation Index	RPIF	1.2051	1.2326	1.2819	1.3144	1.3652
Base Revenue	BR	291.5	318.8	313.6	327.9	345.5
Pass Through	PT-	-	- 18.5	- 4.3	- 4.9	- 5.9
Incentives	OIP	-	2.5	2.6	2.7	2.8
Network Innovation Allowance	NIA	0.8	0.8	0.9	0.9	0.9
Transmission Investment for Renewable Generation	TIRG	29.3	33.8	30.6	33.4	33.5
Excluded Services		8.4	7.4	8.8	10.0	10.5
Prior year Under/(Over) Recovery	K	-	4.2	-	-	-
SPT Total		330.0	349.0	352.3	370.0	387.3

Connection Income		17.7	17.2	18.7	20.4	21.4
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To recover from TNUoS		312.3	331.8	333.6	349.6	366.0
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SHE Transmission

Nominal £m unless otherwise stated	Term	2014/15	2015/16	2016/17	2017/18	2018/19
Base Allowance (PU) (2009/10 Prices)	PU	111.5	124.1	123.6	119.6	120.0
Historical inflation adjustment (2009/10 Prices)	TRU					
Base allowance adjustment (2009/10 Prices)	MOD	8.7				
Inflation Index	RPIF	1.2051	1.2326	1.2819	1.3144	1.3652
Base Revenue	BR	144.8	149.7	160.8	155.5	162.4
Pass Through	PT-	-	-	-	-	-
Incentives	OIP					
Network Innovation Allowance	NIA	1.8	1.9	1.9	2.0	2.1
Transmission Investment for Renewable Generation	TIRG	70.8	79.4	83.1	82.2	82.2
Excluded Services						
Prior year Under/(Over) Recovery	K	-	- 12.2	-	-	-
SPT Total		217.4	218.7	245.8	239.7	246.6

Connection Income		3.5	3.5	3.7	3.8	3.9
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To recover from TNUoS		214.0	215.2	242.1	235.9	242.7
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Offshore

		2014/15	2015/16	2016/17	2017/18	2018/19
Inflation Index	RPIF	1.2051	1.2326	1.2819	1.3144	1.3652
Existing		139.5	143.4	149.11	152.89	158.80
2014/15		78.9	100.4	104.43	107.08	111.22
2015/16			32.6	38.4	39.3	40.9
2016/17				-	-	-
2017/18					36.5	89.9
2018/19						114.8
Total		218.4	276.4	291.9	335.8	515.6

Generation and Demand Background

■ Generation

- Tariffs are based upon National Grid's best view
- Annexes and models contain Contracted TEC

■ Demand

- Flat based upon 2014/15 tariff setting
- 55.3GW Peak
- 15.9GW HH
- 28.6TWh NHH

Western HVDC Link

- The current charging methodology does not prescribe how the HVDC link between Hunterston and Deeside, due to commission in 2016/17, should be modelled
- The CMP213 methodology for HVDC links has been used in all scenarios
- Increases generation tariffs in Scotland and demand tariffs in England & Wales
- Reduces generation tariffs in England and Wales and demand tariffs in Scotland
- Sensitivity on HVDC link not being commissioned in 2016/17

CMP213 Transmit

- Ofgem is re-consulting but if it were to be implemented it would be minded to implement from 2016/17
- We have provided tariffs using WACM2 Diversity 1 methodology for 2015/16 to 2018/19 in addition to the current methodology
- Reduces the locational differentials for generation tariffs

CMP224 G/D Split

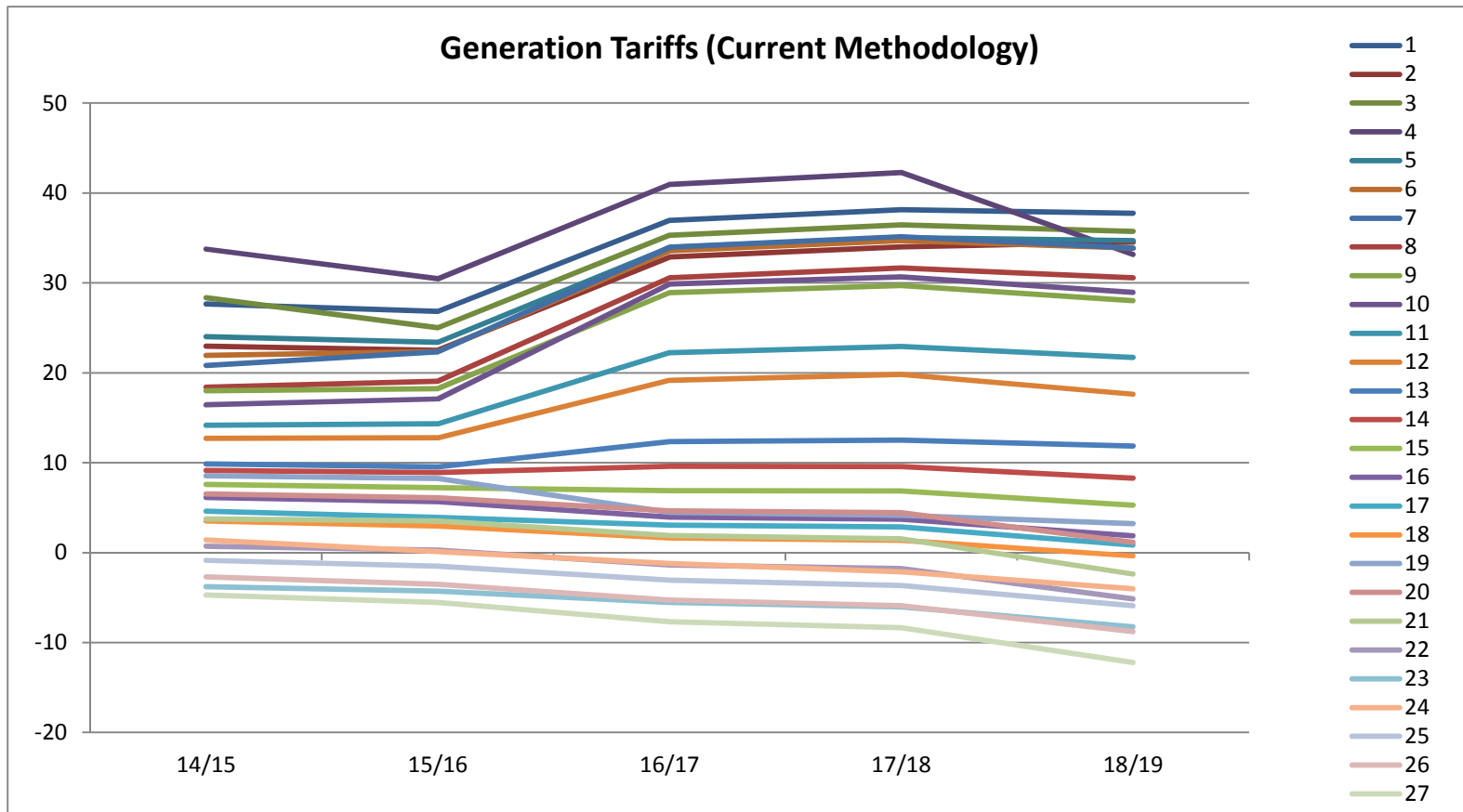
- EU Regulation currently restricts generation use of system charges to €2.5/MWh
- CUSC Mod would implement a variable G/D split to comply with this from 2015/16
- ACER published an Opinion on 25 April that would relieve this limit
- We have produced tariffs on the existing split (re-publishing 2015/16) with a scenario based on a changing split

Small Generation Discount

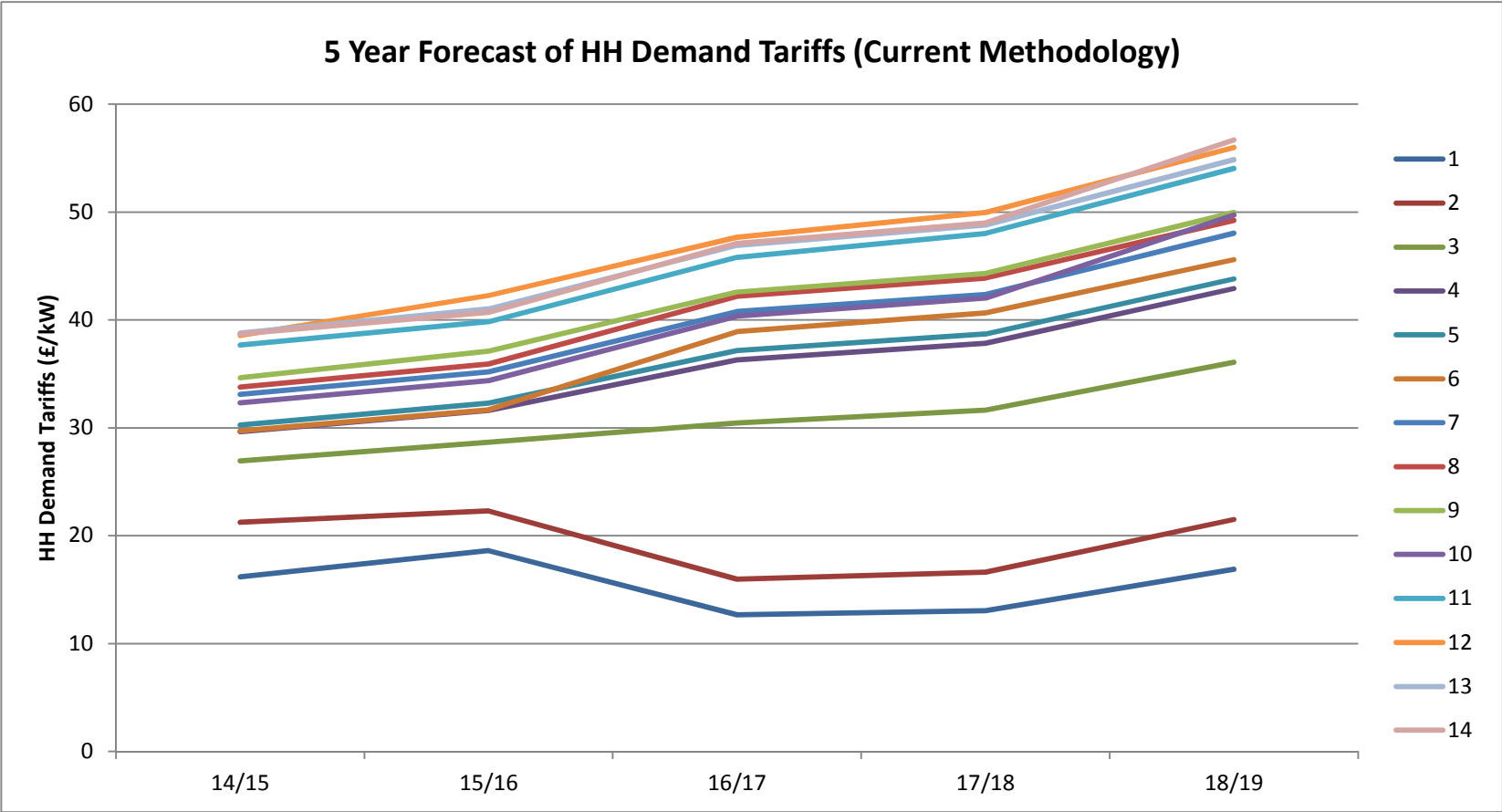
- Current licence obligation is due to lapse in 2016/17
- Tariffs have been published with the generation discount and additional demand residual for all years

Revenue Impact (£m)	14/15	15/16	16/17	17/18	18/19
Current Methodology	14.5	14.2	13.6	14.0	15.2
Diversity 1		14.5	16.3	16.8	18.2

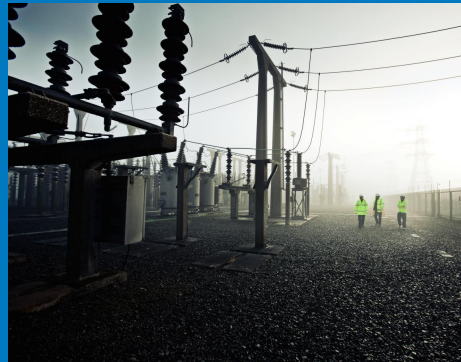
Generation TNUoS Tariffs – Current Methodology, 27/73 Split



Demand TNUoS Tariffs – Current Methodology, 27/73 Split



Update on informal review of transmission charging arrangements for embedded generation



David Corby

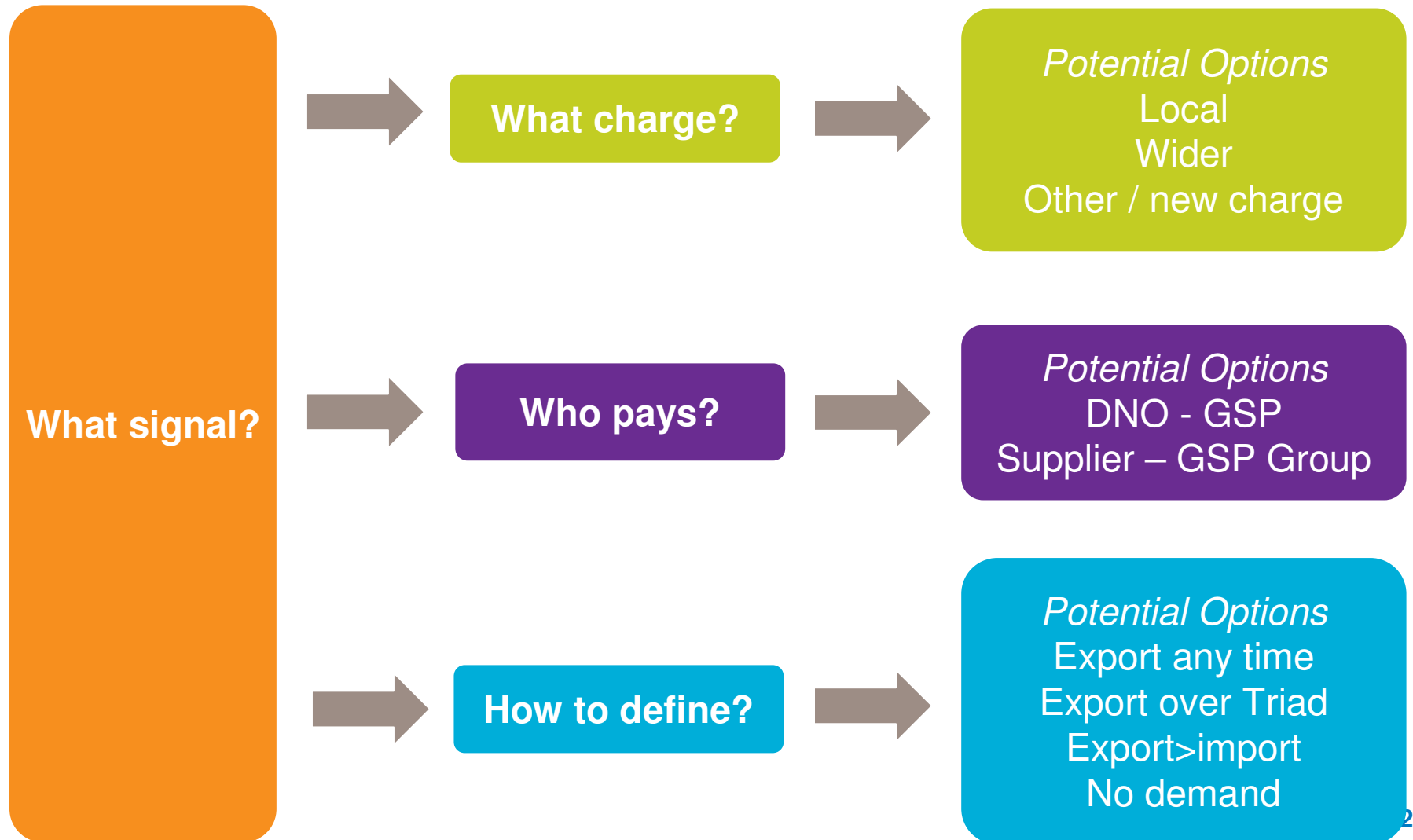
Informal review conclusions

Impact



Stakeholders updated via open letter on NG website

Exporting GSPs



Next Steps

We're interested in your views



Special TCMF
June?



Other groups
e.g. trade
associations



Bilateral
Discussions?



Anything
Else?

Update next TCMF in July

Potential CUSC modification proposal – Autumn 2014

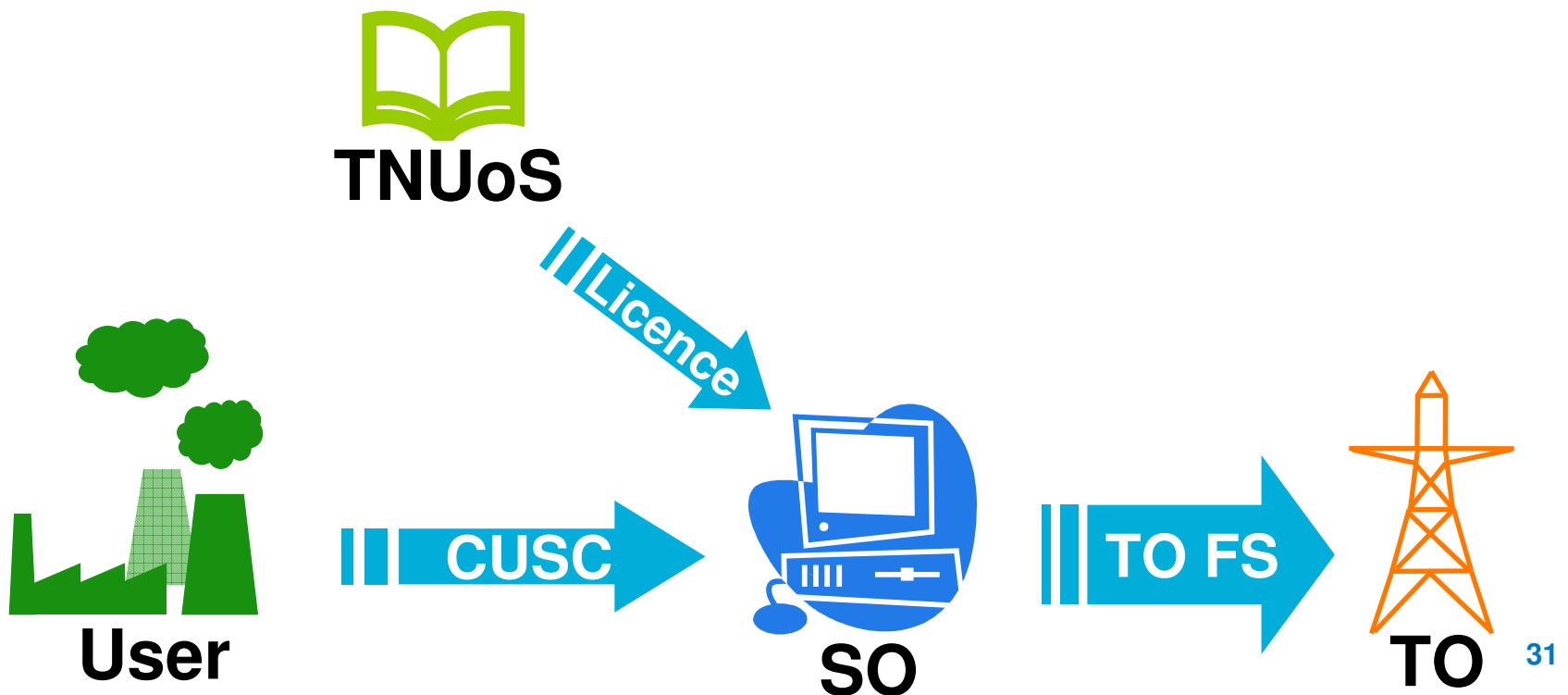
User Commitment for Offshore Generators



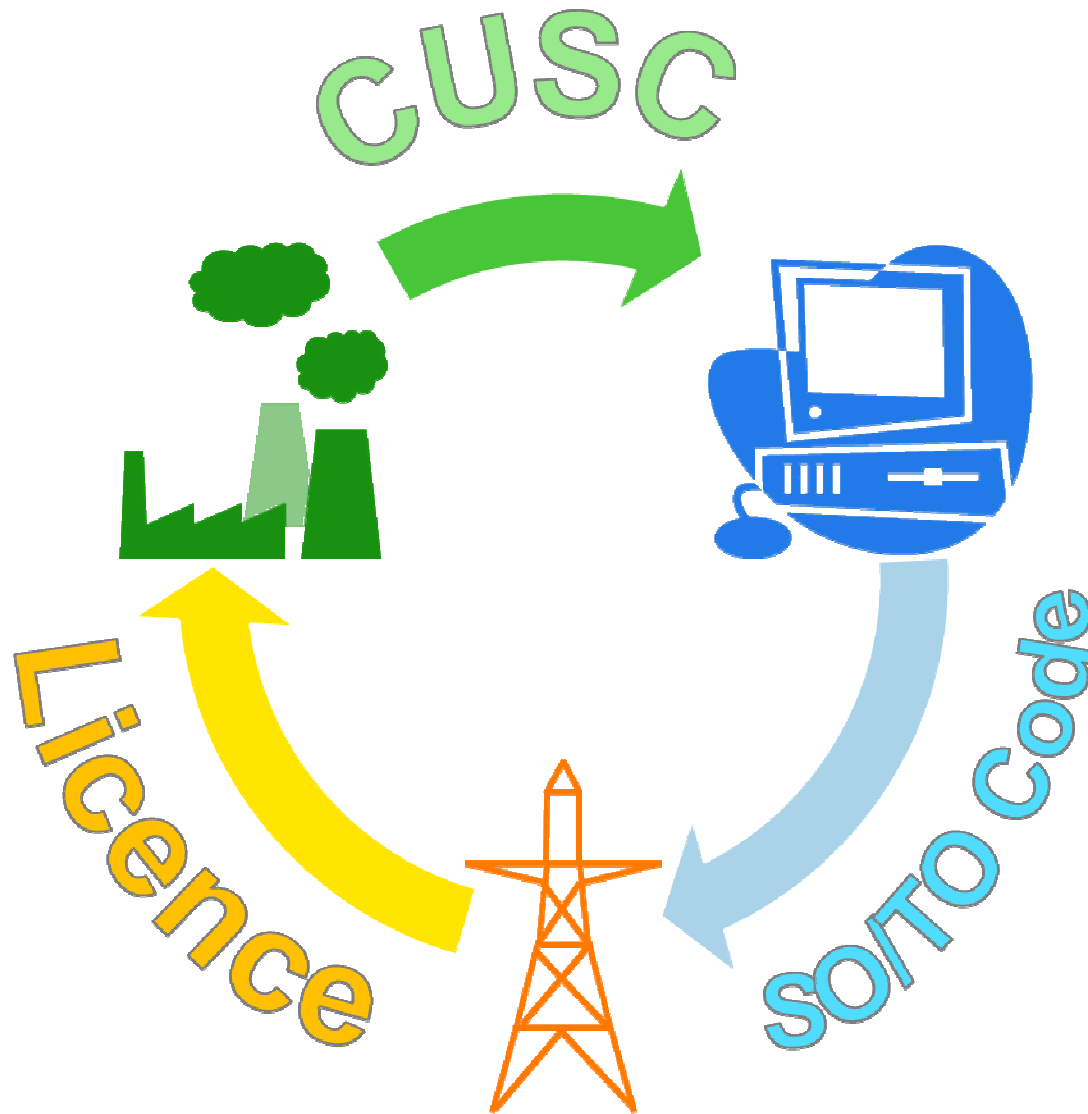
Adam Sims

Generation User Commitment (CUSC 15)

- An incentive on Users to provide timely information to the TO to minimise abortive works
- Cover majority of abortive transmission costs from users



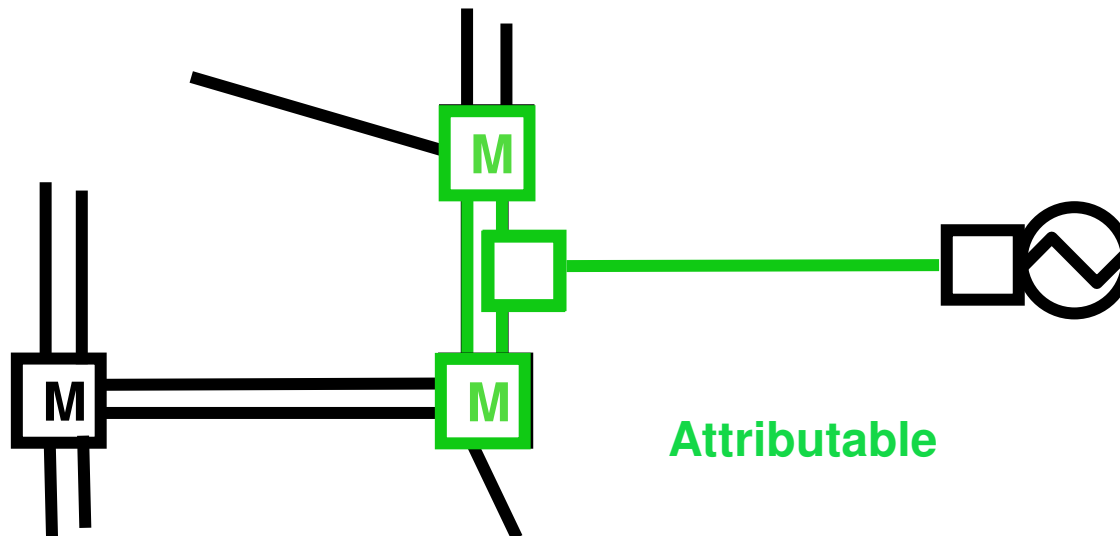
Obligations for a New Connection



- SO has obligation to pay TO Final Sums
- TO has obligation to connect developer
- Developer has obligation to provide user commitment to SO

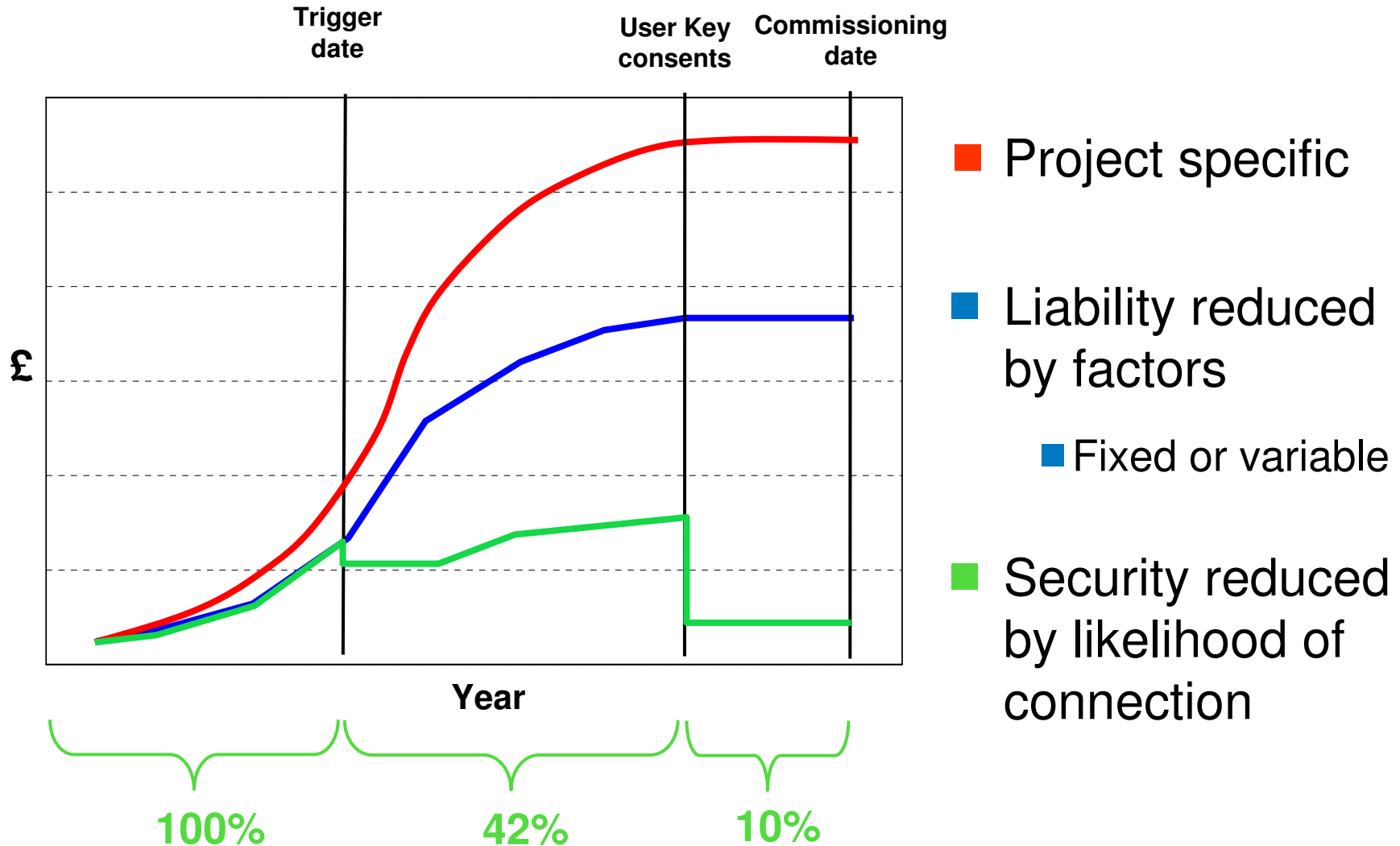
What is Attributable and Wider?

- Attributable works for the generator are up to and including the nearest suitable MITS substation:
 - More than 4 transmission circuits
 - More than 1 transmission circuit, plus GSP



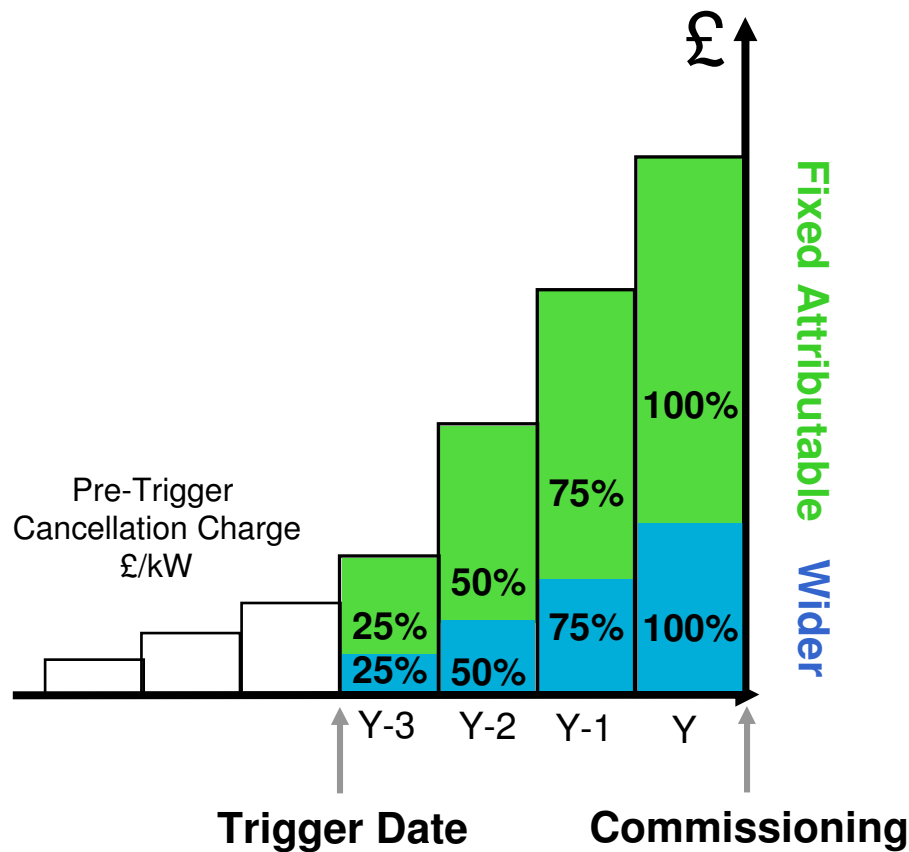
- All other investments are Wider

Pre-Commissioning Attributable works

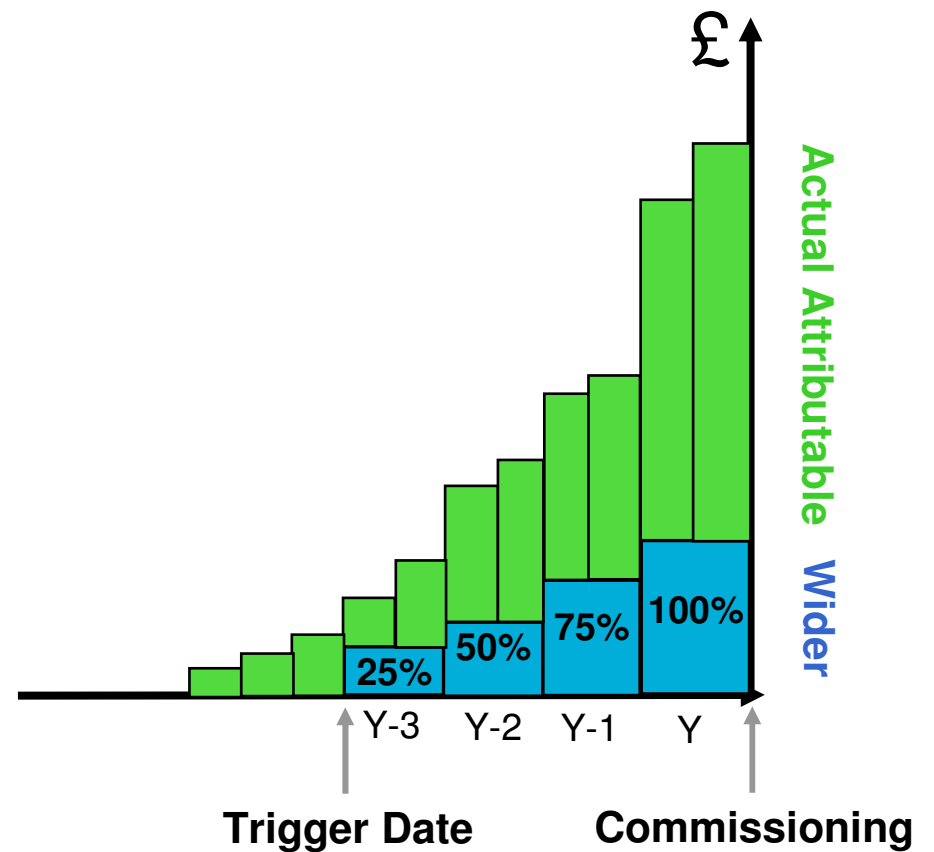


Options for Pre-Commissioning

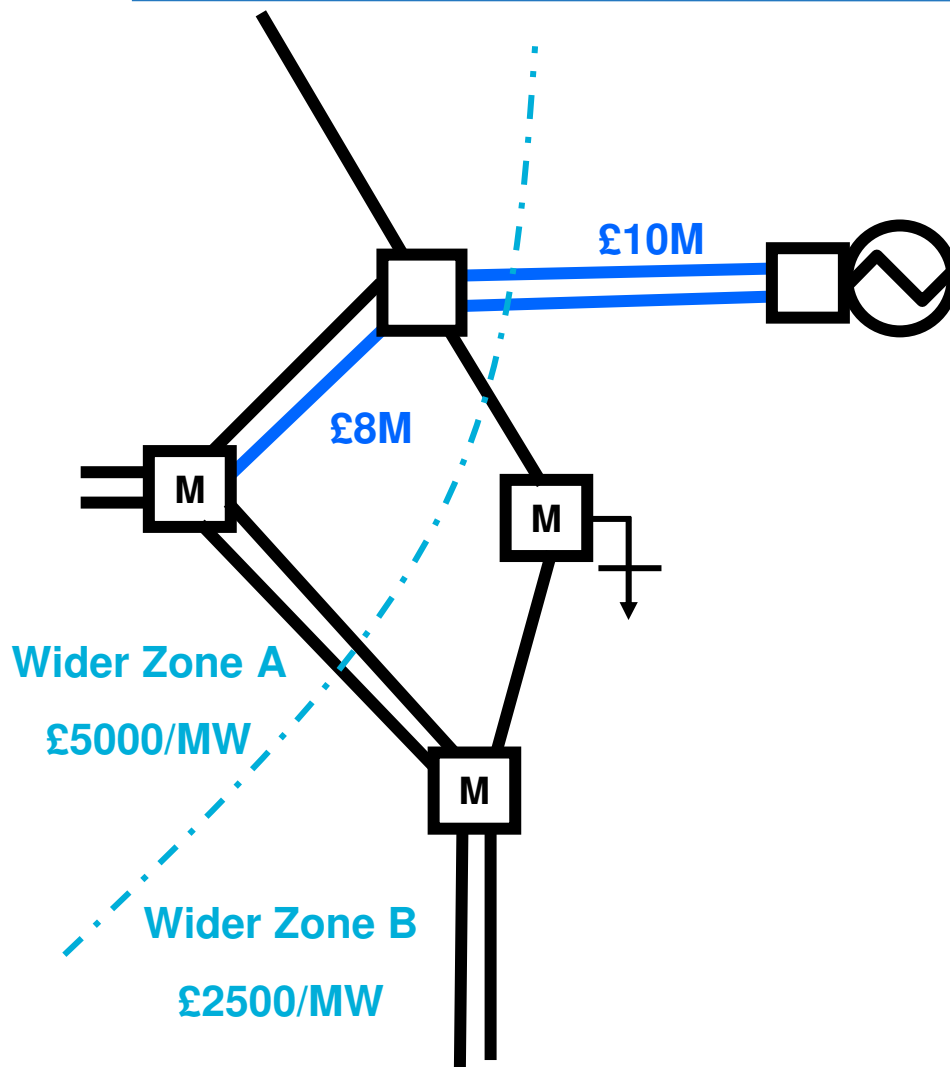
Fixed



Actual



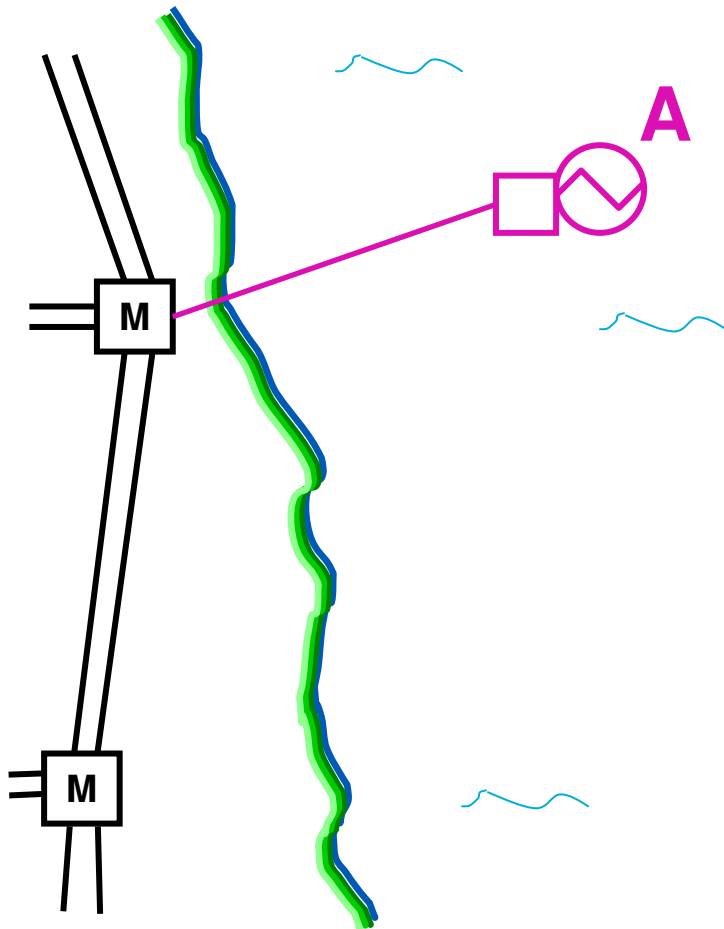
Pre-Commissioning Example



- A 100MW generator connecting to a non-MITS substation
- Attributable works = **£18M**
- Wider liability
(£5k/MW*100/MW) = **£0.5M**
- Total liability = **£18.5M**

- Security depends on % reduction, e.g.
 - 42% * £18.5M = **£7.8M**

Offshore Developers

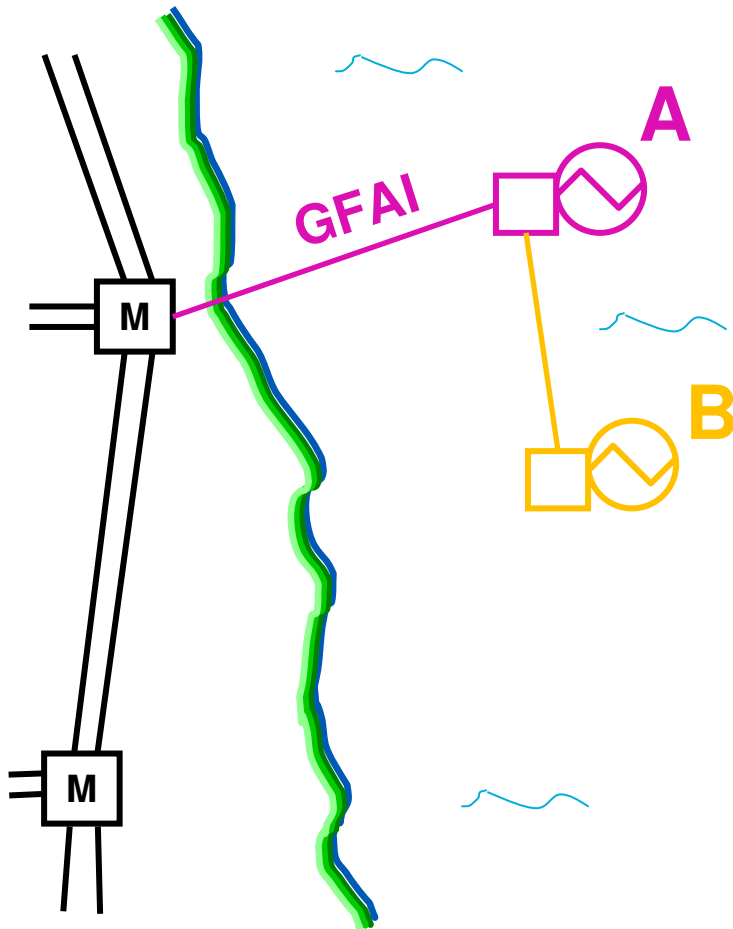


- Offshore developers have a liability for any onshore TO works
- Also have a liability for offshore works under OFTO-build
 - Developer-build projects internalise risk

Multiple Offshore Developers

- Three types of investment beyond the minimum
- GFAI (Generator Focused Anticipatory Investment)
- WNBI (Wider Network Benefit Investment)
 - Developer led
 - Non-developer led
- Ofgem consider GFAI should have “user commitment type arrangements” to protect consumers
- WBNI has gateway assessment, with cost assessment process to protect consumers

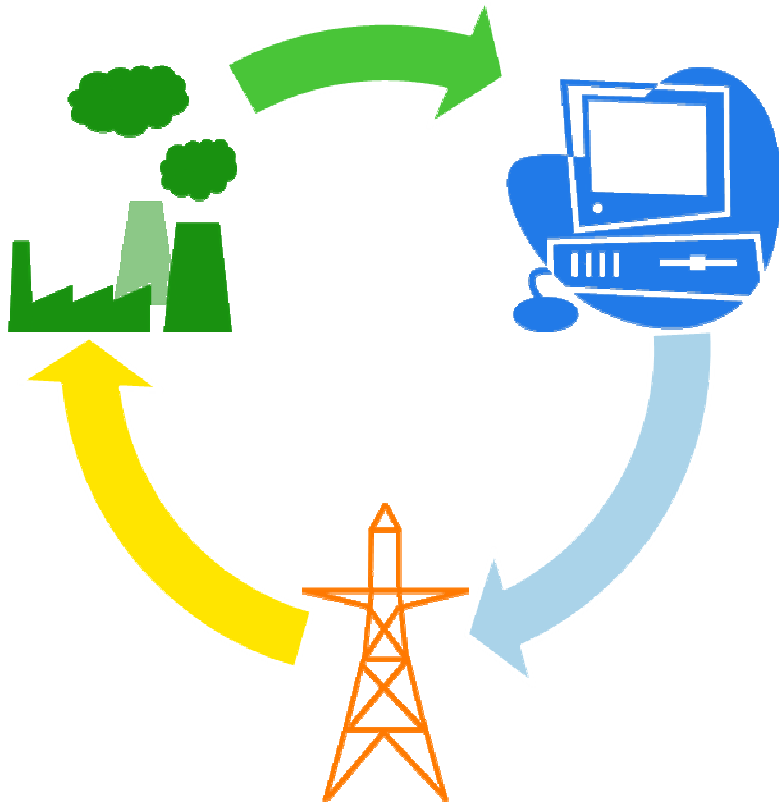
Multiple Offshore Developers - GFAI



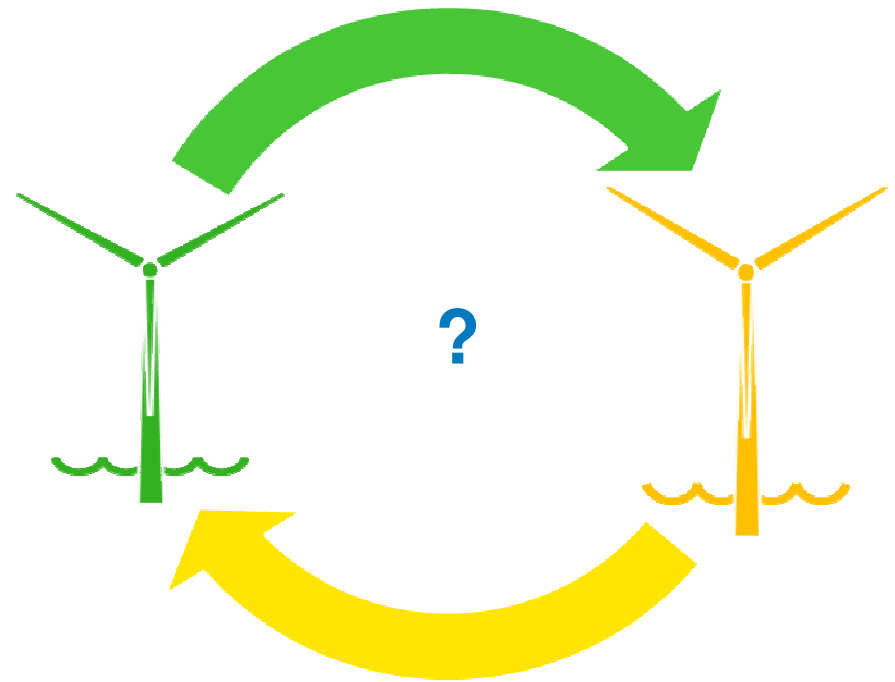
- Developer A upsizes investment as a GFAI
- Both developers would have a liability for onshore works through their ConsAg
- At present, no standard arrangements for GFAI user commitment

Multiple Offshore Developers - GFAI

■ Onshore



■ Offshore GFAI



Multiple Offshore Developers - GFAI

- How should user commitment for GFAI be facilitated?
 - What should be the principles of GFAI user commitment?
-
- Initiating developer no worse off
 - Consumers protected
 - Risk sits with the parties who are best able to manage it
 - Information flows in an effective manner
 - Parties share exposure fairly

Multiple Offshore Developers - GFAI

- Strawman 1 – Bilateral contract for extra cost of GFAI
 - Contract template included as CUSC schedule/exhibit
 - Obligations of each party set out in contract
 - Developer liabilities based on actual cost spend or cost of lost opportunity
 - Securities held directly by developers
 - SO involvement limited to admin and dispute arbitration

Multiple Offshore Developers - GFAI

- Strawman 2 – SO-coordinated user commitment
 - Rights and obligations of each party set out in CUSC 15
 - SO manages liabilities and securities from both parties
 - Developer A & B liabilities based on share of cost spend
 - Consumer picks up risk of cost under-recovery
 - Licence change to pay termination receipts to developers

Next Steps

- Gather industry views through Open Letter end of May
- Consider raising CUSC proposal or informal working group over summer
- Appropriate timing:
 - ITOP – East Coast conclusions due July

Potential Future Topics



David Corby

Revised Priority Potential Topic list

Topic	Ranking
BSUoS stability	1
Flexible TNUoS products	2
8 year Price control	3
TNUoS fixed tariffs	4
G/D split	5
Triad	6
Integrated offshore	7
User Commitment (Section 15) Flexibility Developments	8
Exporting GSPs / Gross charging	9
BSUoS Forecasting transparency	10
Methodology Housekeeping	11

Any Other Business



Next TCMF

July

17

Thursday

Venue: National Grid House, Warwick

2014 TCMF dates

September

17

Wednesday

November

12

Wednesday

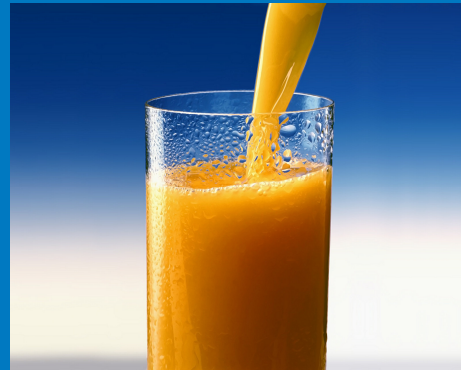
We value your feedback and comments

If you have any ***questions*** or would like to give us ***feedback*** or share ***ideas***, please email us at:

Cusc.team@nationalgrid.com

Also, from time to time, we may ask you to participate in surveys to help us to improve our forum – *please look out for these requests*

Lunch



Close

