

Transmission Charging Methodologies Forum



Wednesday 12th November 2014

Introduction & Welcome



Patrick Hynes

Agenda

- 11:00 Introduction – Patrick Hynes
- 11:10 Safety Moment and Fire Procedure
- 11:15 Code modifications update – David Corby
- 11:30 User Commitment for Generator Focused Anticipatory Investment Update – Wayne Mullins
- 12:00 Statement of Works Trial – Mike Oxenham
- 12:10 Recovery Demand Side Balancing Reserve – Tariq Hakeem
- 12:30 Offshore Charging Issues – Wayne Mullins
- 13:10 Lunch
- 13:30 2015/16 TNUoS Tariff Forecast – Stuart Boyle
- 14:15 Exporting GSPs Update – David Corby
- 14:25 BSUoS Stability – Nick Pittarello
- 14:45 Future Topics Prioritisation – Nick Pittarello
- 14:50 AOB
- 15:00 Close

Ongoing modification proposals



David Corby

Ongoing modification proposals page 1 of 4

- **CMP201: Removal of BSUoS charges from Generation**
 - Ofgem rejected this proposal on 02/10/14.

- **CMP222: User Commitment for Non-Generation Users**
 - Ofgem approved WACM1 on 21/10/14.
 - Implementation date set at 01/04/15.

- **CMP223: Arrangements for Relevant Distributed Generators Under the Enduring Generation User Commitment**
 - Ofgem open letter indicating their minded-to not approve original concluded 03/10/14.
 - The Mod has been sent back to the panel, with the working group to reconvene.

Ongoing modification proposals page 2 of 4

- **CMP224: Cap on the total TNUoS target revenue to be recovered from generation users**
 - Ofgem approved the original proposal on 08/10/14.
 - This modification was implemented in 22/10/14.

- **CMP227 - Reduce the G:D split of TNUoS charges, for example to 15:85**
 - The workgroup consultation closed on 24/09/14.
 - Further analysis is required to allow parties to make a final decision.
 - The workgroup has been granted a time extension until Feb 2015 to satisfy the extra analysis.

Ongoing modification proposals page 3 of 4

- **CMP234 – Incorporation of Biddable Indexation of OFTO revenues in TNUoS**
 - This self-governance proposal was approved by the CUSC Panel on 31/10/14.
 - The appeals window closes on 21/11/14.
- **CMP235 / CMP236 – Introduction of a new Relevant Interruption Type / Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption**
 - New proposals raised 26/09/14 and determined to be amalgamated by the CUSC panel.
 - The CUSC Panel determined this should proceed to a workgroup. The first meeting took place on 30/10/14.
- **CMP237 – Response Energy Payment for Low Fuel Cost Generation**
 - New proposal raised 26/09/14.
 - The CUSC Panel determined that CMP237 should proceed to a workgroup. The first meeting took place on 07/11/14.

Ongoing modification proposals page 4 of 4

- **CMP238 – Application of Statement of Works Process when a modification application is made**
 - New proposal raised 31/10/14.
 - The CUSC Panel determined that CMP238 should proceed directly to the administrator consultation. The consultation will be published in November.

- **CMP239 – Grandfathering Arrangements for the Small Generator Discount**
 - New proposal raised 31/10/14.
 - The CUSC Panel determined that CMP238 should proceed through the standard route and be developed by a workgroup.
 - Nominations to the workgroup closed on 07/11/14.

User Commitment for Generator Focused Anticipatory Investment - Update

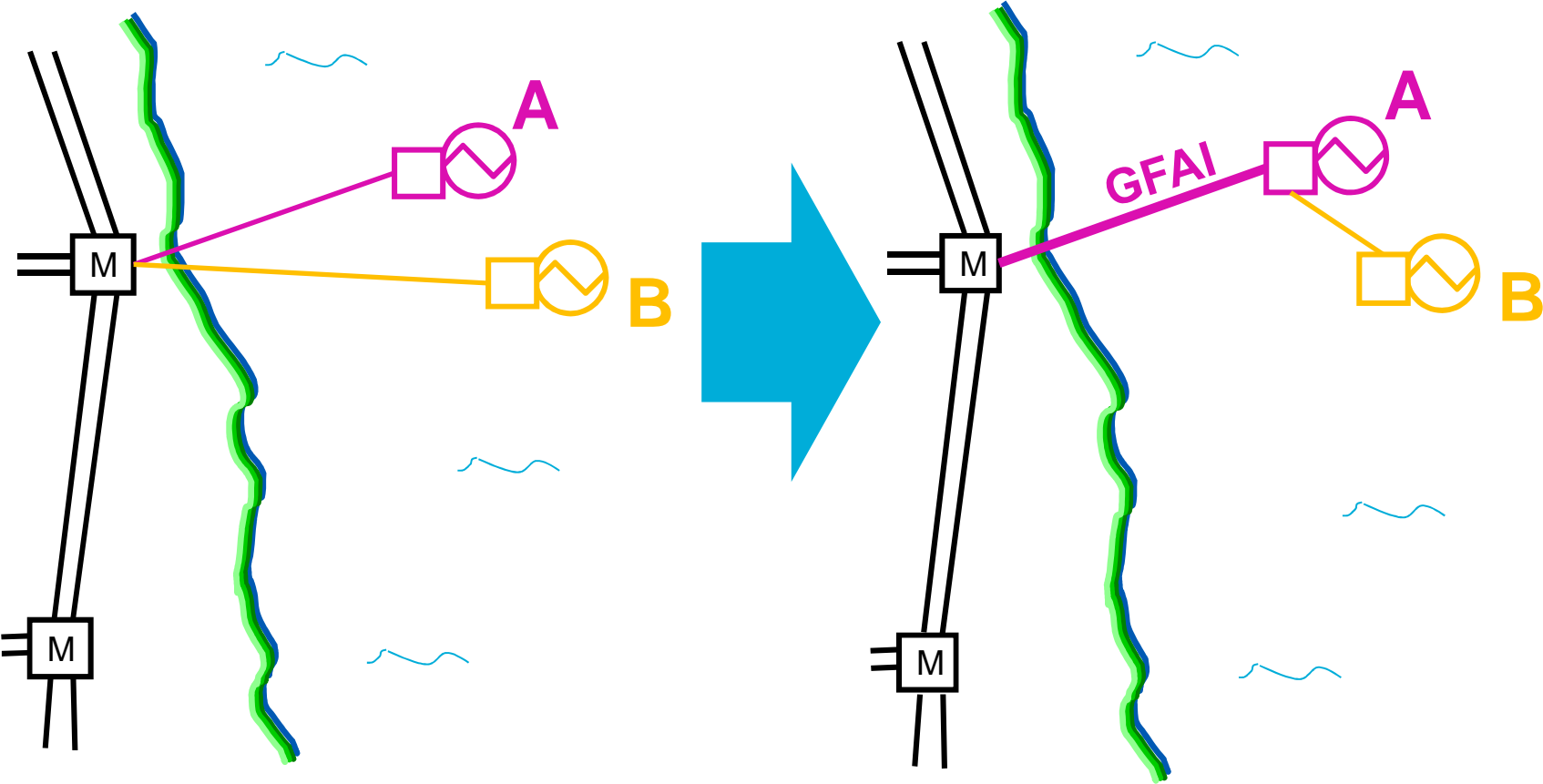


Wayne Mullins
TCMF – November 2014

Overview

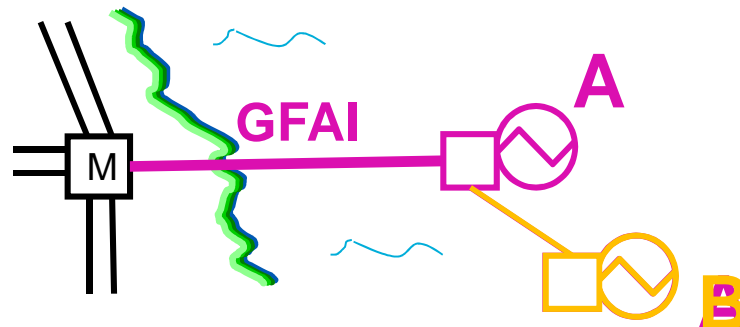
- Re-cap – what is Generator Focused Anticipatory Investment?
- GFAI scenarios and associated risks
- Current thinking
- Outstanding Issues
- Next steps

Recap – Generator Focussed Anticipatory Investment (GFAI)



GFAI Scenarios

GFAI Scenario	Funding of GFAI	Risk to Developer A	Risk to Developer B	Risk to Consumers
Single developer – Developer Build	Developer A	Internal	N/A	N/A
Single developer – OFTO Build	OFTO	Project Delivery*	N/A	Asset Stranding
Multi-developer – Developer Build	Developer A	Asset Stranding	Project Delivery	N/A
Multi-developer – OFTO Build	OFTO	Project Delivery*	Project Delivery*	Asset Stranding



Asset Stranding Risk

- Represents risk of building party being left with stranded transmission assets.
- Need for user commitment from developers whose project will use shared assets they are not building:
 - Multi-developer – Developer build; and
 - Both OFTO build scenarios.
- User commitment requirement should cover MW share of costs:
 - e.g. if developer A's project is 300MW and B's is 100MW, then A should pick up 75% of the asset cost and B 25%; and
 - Treated as attributable works.

Project Delivery Risk

- Represents risk to the delivery of a generation project through failure to provide assets on time/at all.

- Multi-developer – Developer build:
 - Developers not building shared assets will need assurance of delivery.
 - Security requirements on developers building shared assets may discourage coordination.

- Single / Multi-developer – OFTO build:
 - Removes reliance on other projects;
 - Risk of OFTO failure mitigated through tender and OFTO of last resort process.
 - Delay risk still possible – dependent upon OFTO build arrangements.

Current National Grid Thinking

- Risk internalised for single developer building GFAI for a staged project.
 - Potential issue in the event of a stage sale?
- Existing arrangements can be extended to cover OFTO build scenario.
- No perfect answer for Multi-developer – Developer build scenario:
 - Issues surrounding security requirements to cover delivery risk.
- Need for coordination could result in requirement for OFTO build.
 - OFTO build of shared assets consistent with onshore arrangements.
 - Ofgem work on the OFTO build process.

Outstanding issues

- Multi-developer – Developer build scenario:
 - Two options (secure/don't secure delivery risk).
 - Recognised issues with options – further development?

- Cancellation charge income:
 - Post-shared asset commissioning & pre-generation commissioning scenario.
 - Gradual vs one-off TNUoS adjustment.

- Timing of investment decisions and security requirement
 - Is it possible to coordinate timings?
 - How much notice of security requirement timings would be required?

Next Steps

- Further views welcome
- Further consideration of outstanding issues
- Development of OFTO build and post-commissioning user commitment arrangements.
 - Establish if there is a need for a CUSC modification.
- Publish open letter highlighting updated thinking on issue following responses to informal consultation.

Statement of Works Trial and CUSC Modification



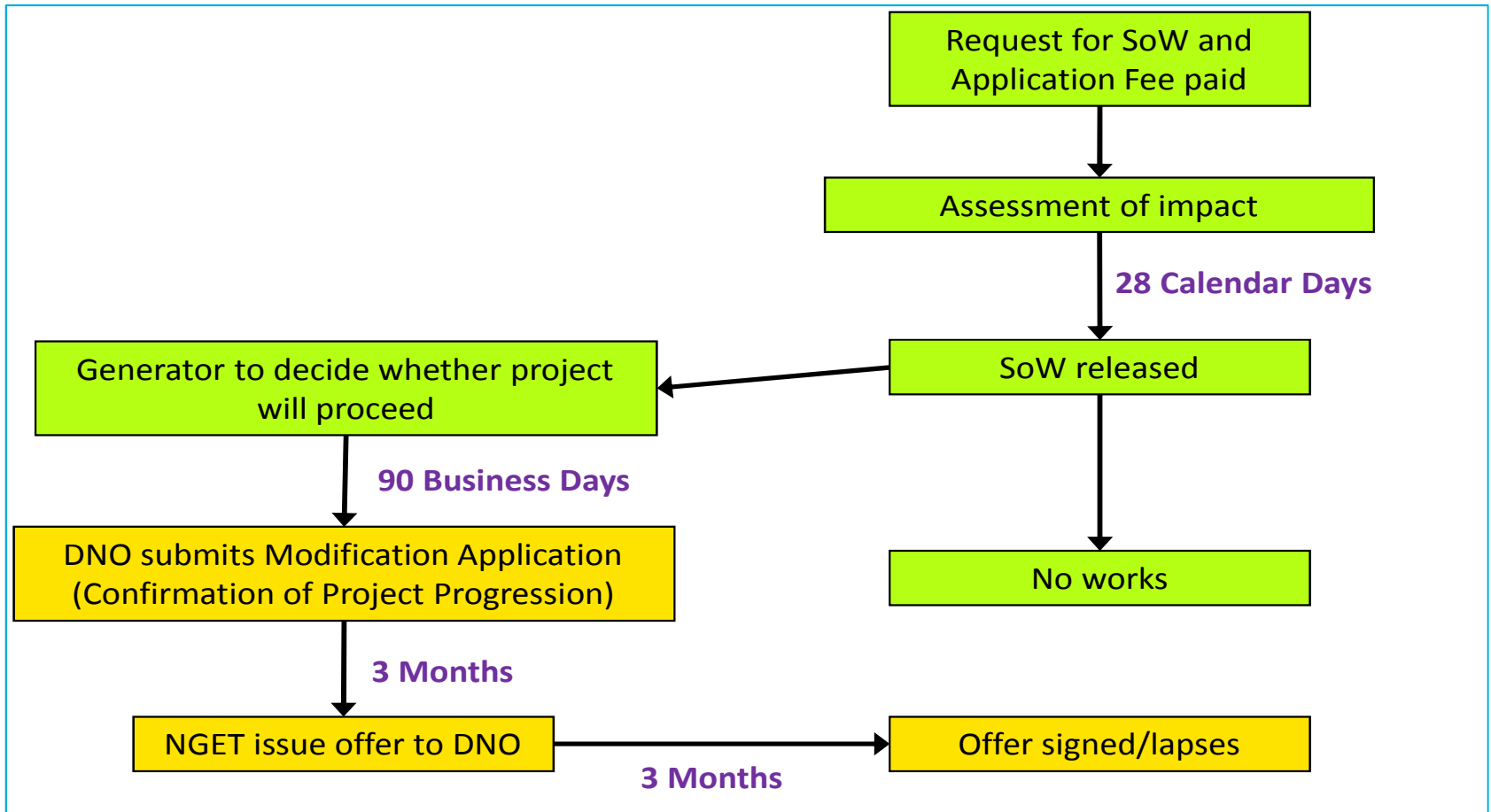
Mike Oxenham

Trial Overview

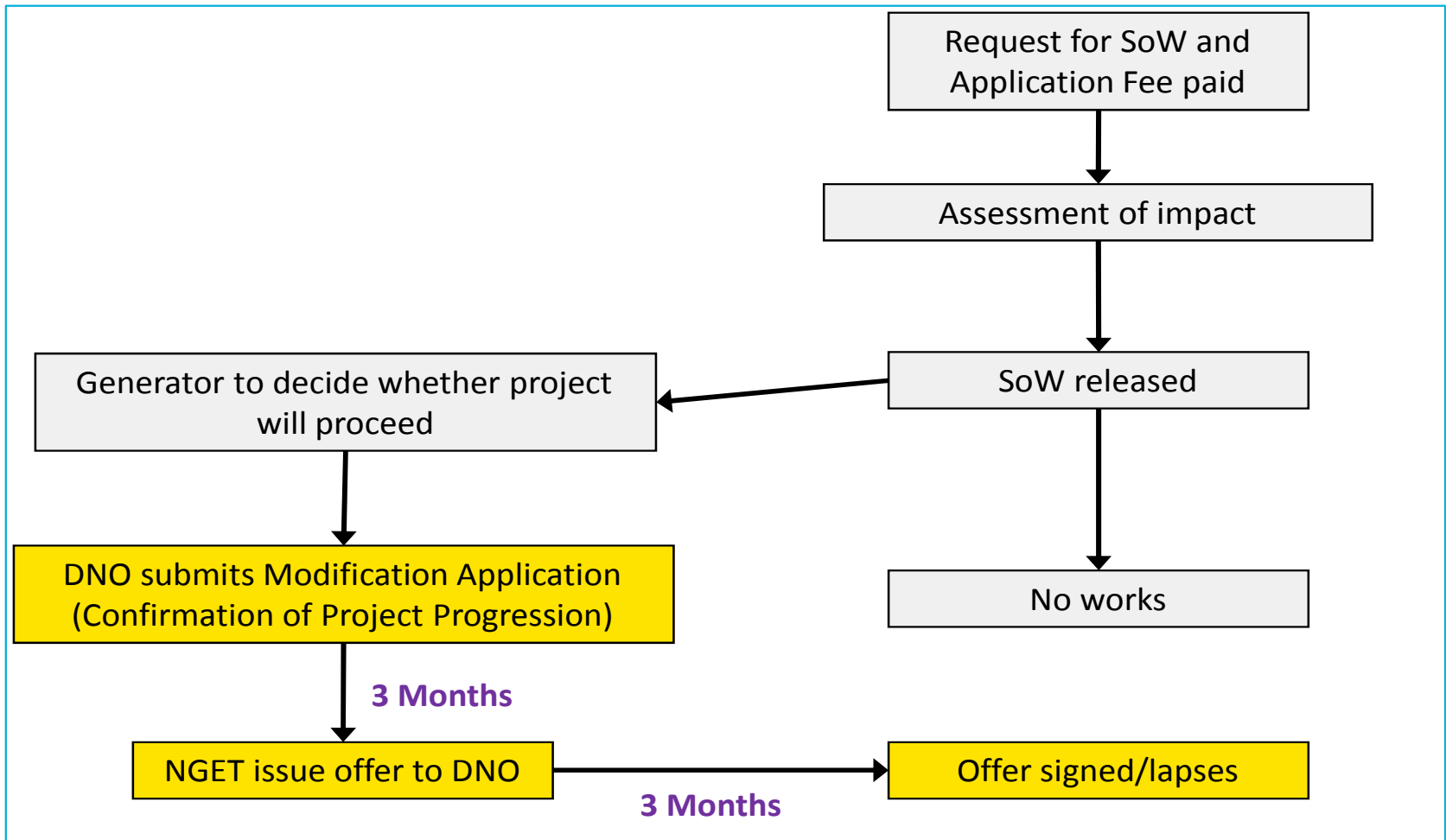
On 13th May 2014 Ofgem published a 'letter of comfort' to industry providing 'assurance that [Ofgem] will not enforce compliance with sections 6.5.5.1 and 6.5.5.3 of the Connection and Use of System Code (CUSC)' throughout the period of a planned trial.

This means that where the DNO knows a Confirmation of Project Progression would be required they are able to bypass Statement of Works for a time and cost saving.

Current Process



Trial Process



Interim Trial Data and CUSC Modification

- Through the trial period to date:
 - 42 Applications, of which 30 bypassed Statement of Works
 - Total Cost Saving = £73,500 (including VAT)
 - Total Time Saving = 840 Calendar Days
 - Customer Feedback = Positive (but message more work to do)

- On the basis of the above a Code Modification Proposal was raised at CUSC Panel on 31st October 2014.

- The expectation is that Statement of Works will become optional on an enduring basis for maximum flexibility.

DSBR and SBR Cost Recovery



TCMF 12 November 2014

What is DSBR and SBR?

- Additional balancing services to manage the system – applicable for 2014/15 and 2015/16
- Demand Side Balancing Reserve (DSBR)
 - Tender in June 2014 for winter 2014/15
 - Service for weekdays 16:00 – 20:00 (Nov 14 to Feb 15)
- Supplementary Balancing Reserve (SBR)
 - Reserves from mothballed/closing plant
 - Service for weekdays 06:00 – 20:00 (Nov 14 to Feb 15)
- Ongoing need will be reviewed early in 2016 via an industry consultation process.

More information on the tenders can be found at:

<http://www.nationalgrid.com/uk/electricity/additionalmeasures>

Service costs

- **DSBR(non-BM despatch)**
 - **Set-up costs (£1.1m)**
 - **Administration costs(£0.1m)**
 - **Testing payments (up to £1m)**
 - **Utilisation payments (~£1.5m per event), if called and 100% response delivered**
- **SBR (BM despatch)**
 - **Capability costs (£23.5m), net of non-delivery penalties**
 - **Testing payments (up to ~£6m)**
 - **Availability payments – warming and hot standby costs (if required, dependent on duration)**
 - **Utilisation payments – (if required, dependent on utilisation and volume)**

Authority Notice of costs

- ***SBR Availability, Utilisation costs and DSBR Utilisation costs***
 - Annual report detailing costs incurred to be submitted to Ofgem by 31 March 2015
 - Aggregated costs of £2.5m+ need to be reported to Ofgem when they are incurred (e.g. separately to the annual report)

- ***DSBR Set Up Payments, SBR Capability Payments, DSBR Administration Payments, SBR Testing Payments and DSBR Testing Payments***
 - Annual report detailing costs incurred to be submitted to Ofgem by 31 March 2015
 - Aggregate costs of £2.5m+ may be reported to Ofgem within period up to 31 March 2015

Authority Determination of cost recovery

- ***SBR Availability, Utilisation costs and DSBR Utilisation costs***
 - Authority determines, following notification of costs, if costs were incurred in accordance with relevant methodologies and directs if costs can be recovered.
- ***DSBR Set Up Payments, SBR Capability Payments, DSBR Administration Payments, SBR Testing Payments and DSBR Testing Payments***
 - Authority determines, following notification of costs, if costs were incurred in accordance with relevant methodologies. If Authority determines costs were not incurred in accordance with relevant methodologies then can direct that recovery of costs be adjusted accordingly

Cost Recovery

- DSBR and SBR Balancing Services, however unlike other balancing services are not part of BSIS (Balancing Services Incentive Scheme)
- DSBR and SBR costs are not fed into cash-out prices
- Recovery through BSUoS invoice

- ***Principle behind BSUoS Recovery***
 - Accommodate into existing system charging capabilities and avoid system changes with associated costs, especially given short term nature of services and short time scale to implement.
 - As DSBR and SBR outside BSIS scheme not possible to recover costs on specific settlement period basis without system change

Proposed Recovery (1)

- ***DSBR Set Up Payments, DSBR Administration Payments and DSBR Testing Payments***
 - *Costs recovered during period 1st Nov 2014 to Feb 28th 2015 via BSUoS SF Invoice, equal value recovered per day but weighted by Settlement Period metered volumes.*
 - *Any reconciliation of values carried out by BSUoS RF invoice*
- ***SBR Capability Payments***
 - *Costs recovered during period 1st Nov 2014 to Feb 28th 2015 via BSUoS SF Invoice, equal value recovered per day but weighted by Settlement Period metered volumes.*
 - *Any reconciliation of values carried out by BSUoS RF invoice*
- ***SBR Testing Payments***
 - *Costs initially recovered on the day incurred via BSUoS SF Invoice, later reconciled 1st Nov 2014 to 28th Feb 2015 by RF Invoice*

Proposed Recovery (2)

- ***SBR Availability, Utilisation costs and DSBR Utilisation costs***
 - ***Costs ultimately recovered on the day they were incurred via ad-hoc BSUoS SF invoice or RF invoice, value per day but weighted by Settlement Period metered volumes***
 - ***However initial recovery may be made over a different period of time depending upon when approval to recover costs is received.***

Any Questions?



Offshore Charging Issues



Wayne Mullins
TCMF – November 2014

Offshore Charging Issues

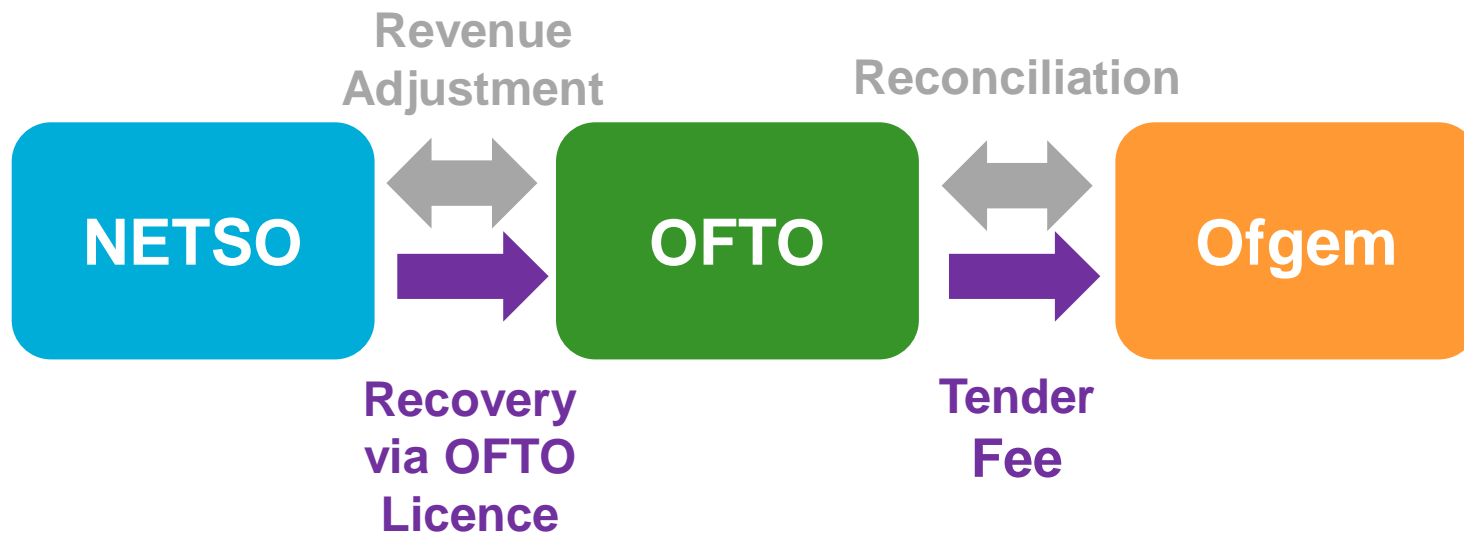
Tender Fee Reconciliations



Wayne Mullins
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Tender Fees

- Charged to OFTO to recover Ofgem's costs of running offshore tender process:
 - Recoverable through OFTO revenue;
 - Initial fixed amount based on project size; and
 - Reconciled upon completion of tender.



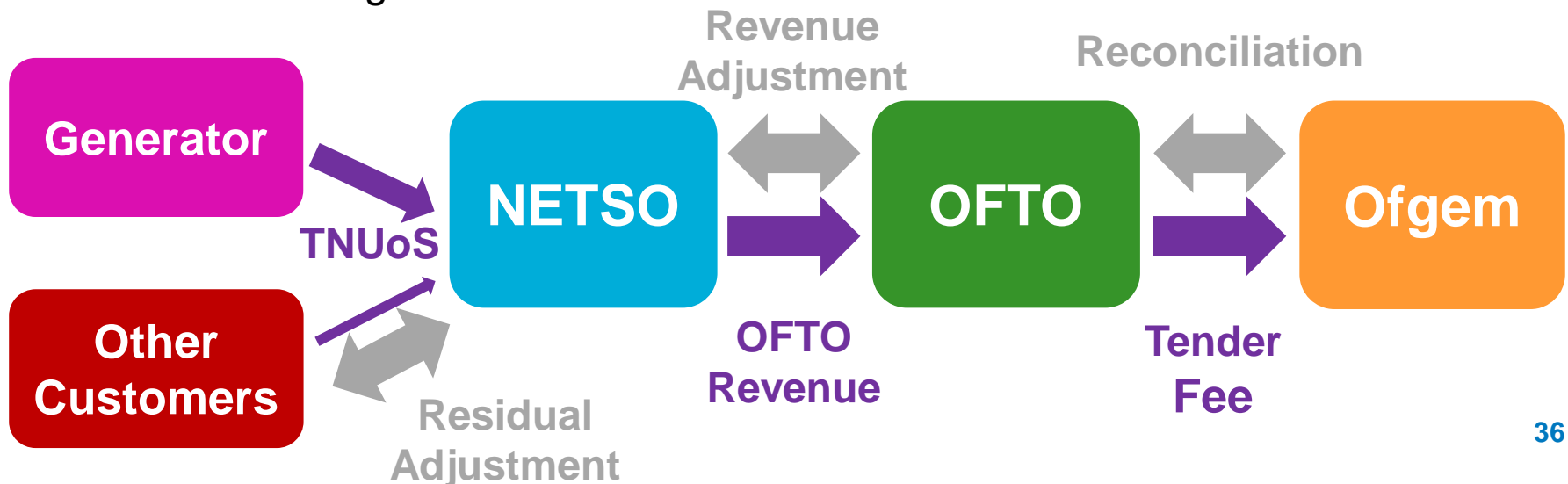
Tender Fee Recovery

- Calculation of offshore local tariffs is designed to recognise recovery of tender fees in first year of OFTO's licence:
 - expansion factors and Local substation tariffs initially set based on first year revenue;
 - re-calculated in second year based on average OFTO revenue during onshore price control period;
 - subject to indexation; and
 - Allows tender fees to be targeted, but provides stability afterwards.



Tender Fee Reconciliation

- Ofgem are currently calculating reconciliation amounts relating to tender round 1.
 - Reconciliation amounts may be positive or negative.
- Current fixing of offshore local tariffs for the remainder of the onshore price control, prevents these from reflecting the reconciliation.
- Under these arrangements the reconciliation amounts will be recovered via wider charges.



Tender Fee Reconciliation Recovery - options

- There are two options:
 - Allow recovery via the current methodology.
 - Not the cost-reflective solution
 - Provides stability in offshore local charges partially offset by a change in the generation residual.
 - Raise a CUSC modification to reflect tender fee reconciliations in offshore local charges.
 - Cost-reflective solution.
 - Introduces a small level of instability in offshore local charges in a single year.

- We'd welcome views on these options.

Offshore Charging Issues

Bespoke Elective Spares



Wayne Mullins
TCMF – November 2014

Charging arrangements for spares

- Onshore, the cost of asset spares is included within wider tariffs:
 - Spares can be used in multiple locations on the network;
 - Benefits wider community

- Under the existing charging arrangements:
 - Offshore local tariffs reflect the cost of spare assets on the offshore platform and associated with the cable(s):
 - Use limited to OFTO network
 - The cost of spares assets for the OFTO's onshore substation are included in the wider tariff.

- Offshore spares costs are included within the asset transfer value where considered efficient.

Bespoke Elective Spares

- Offshore developers could potentially opt to purchase spares over and above what is usually expected:
 - Bespoke design, limited to use in one location.
- Ofgem have indicated that such spares may be included within the asset transfer to the OFTO:
 - Limits impact of an asset failure on generator; and
 - OFTO may benefit through the availability incentive.
- Under the existing arrangements:
 - Majority of cost of spares relating to cable or offshore platform assets, will be reflected in the offshore local tariffs.
 - Cost of assets in the OFTO's onshore substation would feed into wider tariffs.

Bespoke Elective Spares – Charging options

- **Option 1:** Target the cost of spares to the generator by adjusting the calculation of local TNUoS charges:
 - Developer's decision effects demand charges through G:D split applying to OFTO revenue.
 - May result in developer's charge only partially reflecting the cost of the spare.

- **Option 2:** As the asset is over and above what would normally be considered efficient build, consider the cost being a form of “One-off works”:
 - Proportion of OFTO revenue associated with asset could be charged as a “Transmission Charge” (annuitised One-Off charge) over the life of the asset.
 - Will include element of O&M costs and OFTO return.
 - Charged outside of G:D split, so no effect on demand charges.

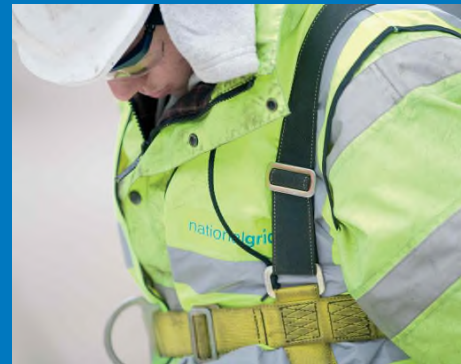
Next Steps

- Views welcome on options.
- Need for CUSC modification?
 - Potential clarification of One-Off treatment; or
 - Adjustment to TNUoS calculation.

Lunch



2015/16 TNUoS Tariff Forecast



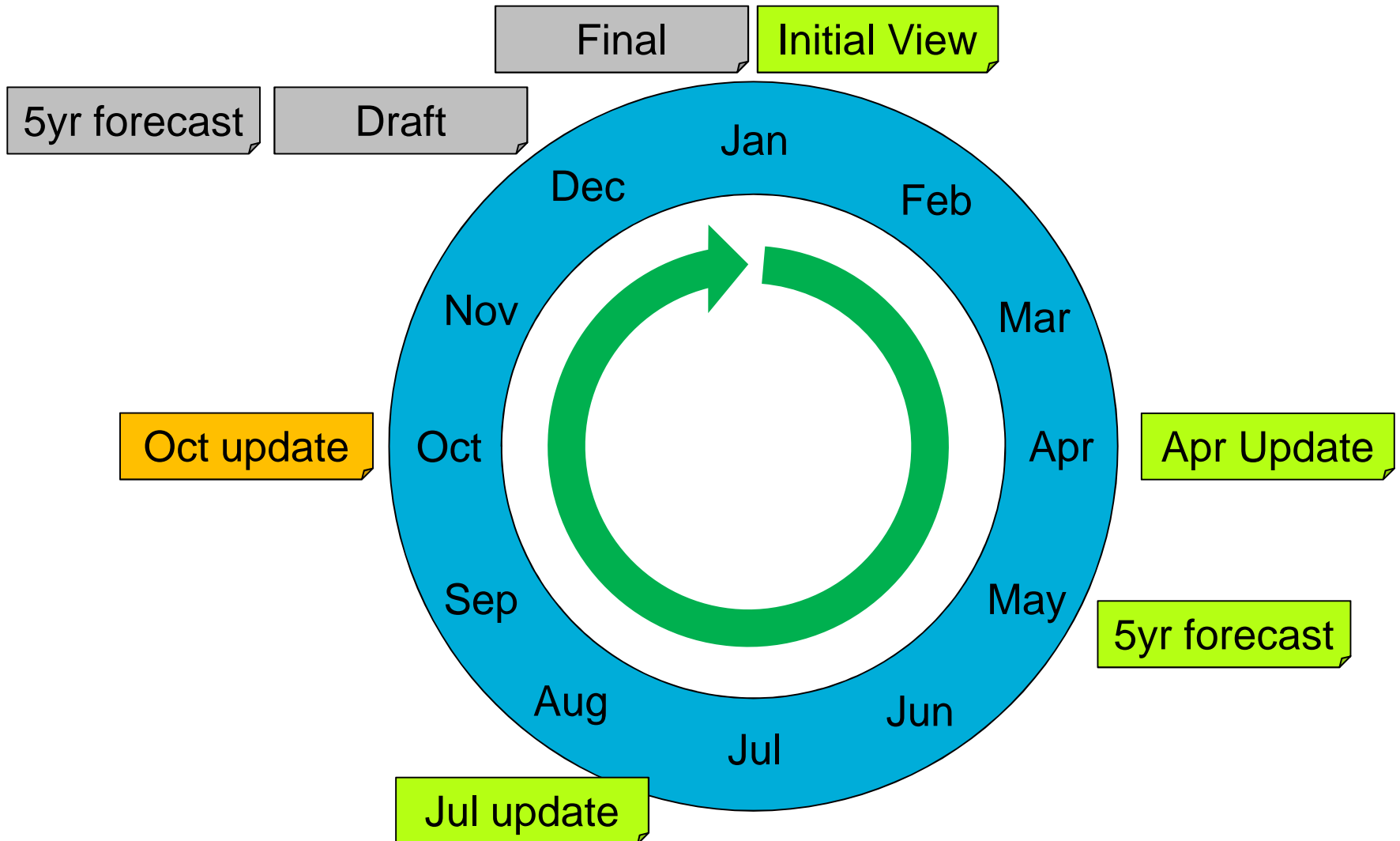
Stuart Boyle

Agenda

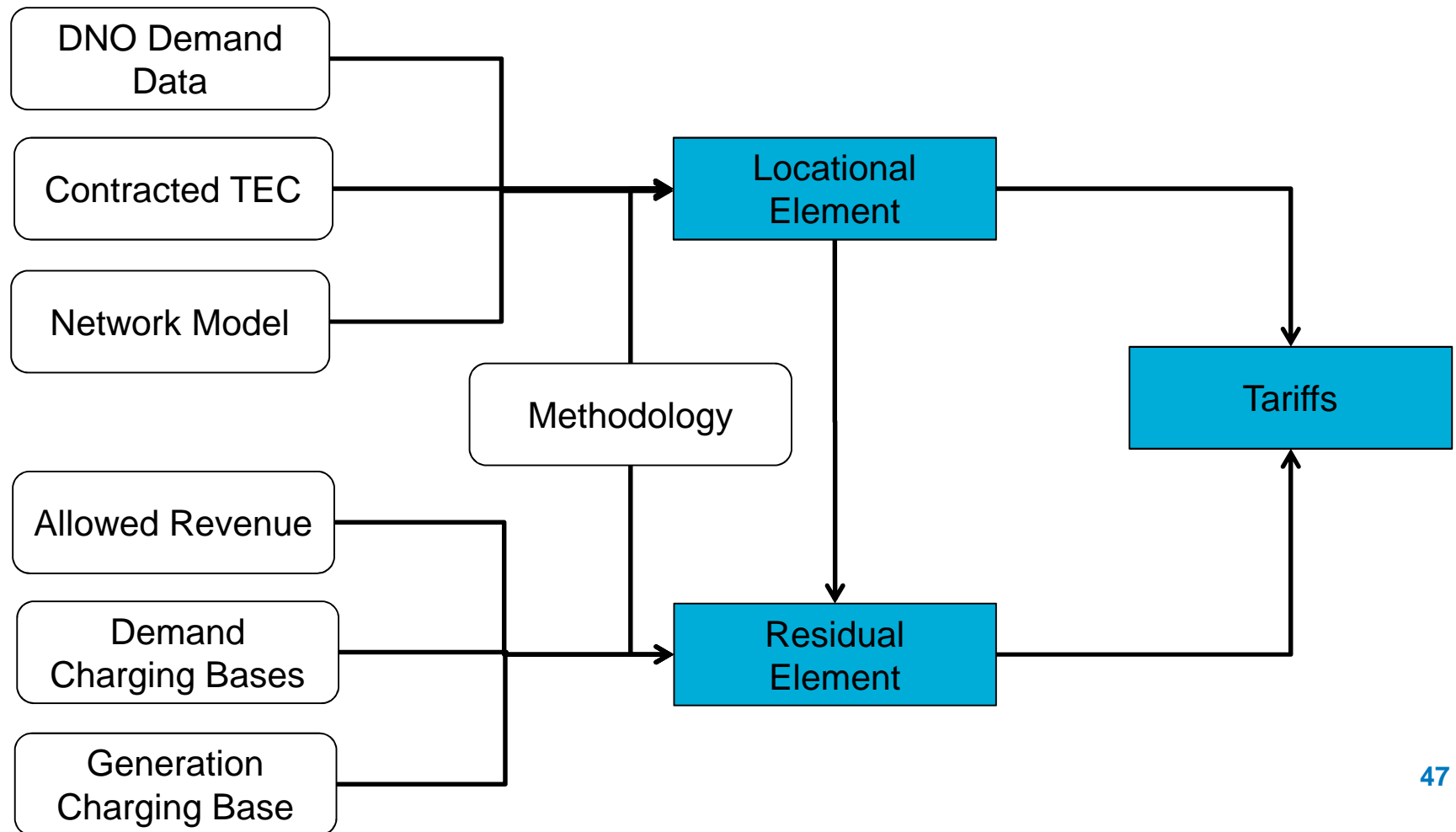
- Where we are in the forecasting cycle?
- What's changed in this forecast?
- What is still subject to change?
- Q&A

<http://www2.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission/Approval-conditions/Condition-5/>

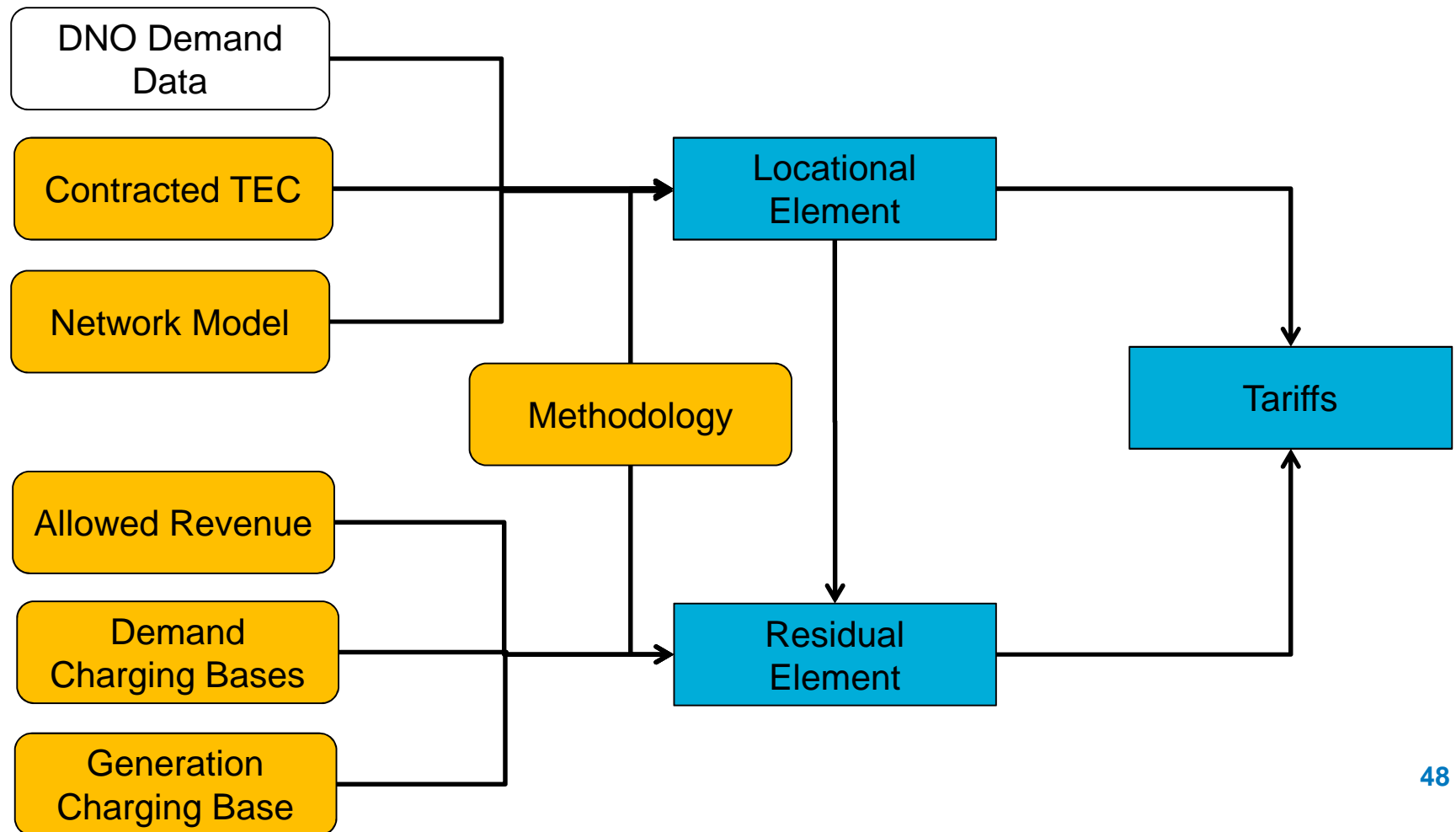
TNUoS Tariffs



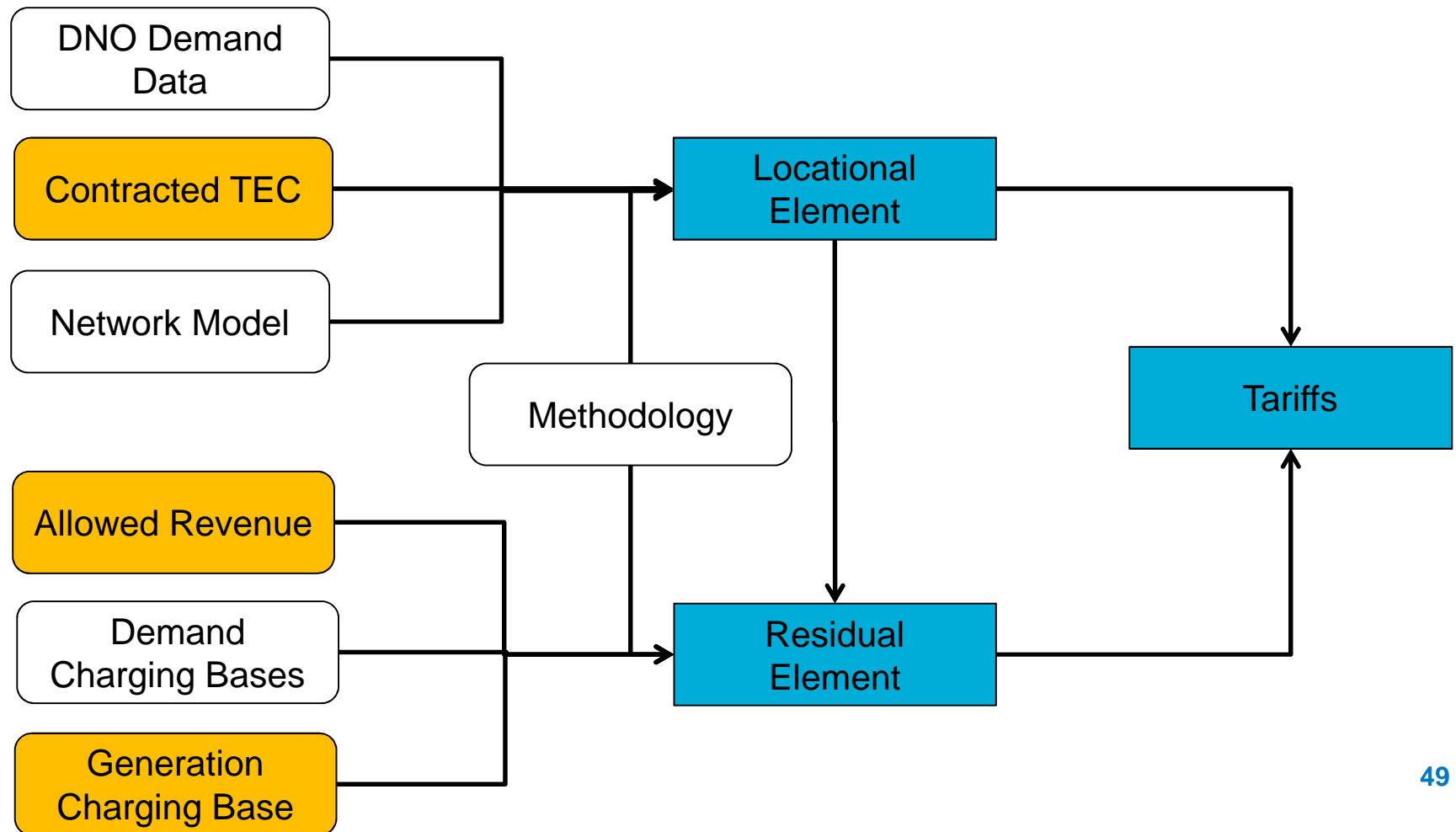
Components of the forecast



What's changed since July?



What could change before January?



Methodology Change

- EU Regulation 838/2010 has limited average annual generation charges to €2.5/MWh since 2011.
- CMP224 was approved 8 October 2014 to allow the proportion of revenue recovered from generation to be reduced to comply with the regulation.
- Drivers:
 - Increasing revenues/Inflation
 - Reduced generation output in response to falling demand
 - Strengthening of Sterling relative to the Euro

Generation & Demand Proportions

- The proportion recovered from generation is forecast to reduce from 27% to 23.3%.
 - Subject to changes in forecast revenue
 - Subject to changes in forecast generation output, i.e. demand.
 - Despite recent increases in Sterling the exchange rate is fixed at €1.22/£ using OBR Spring 2014.
- Decreases all generation tariffs by £1.15/kW
- Increases all HH demand tariffs by £1.97/kW

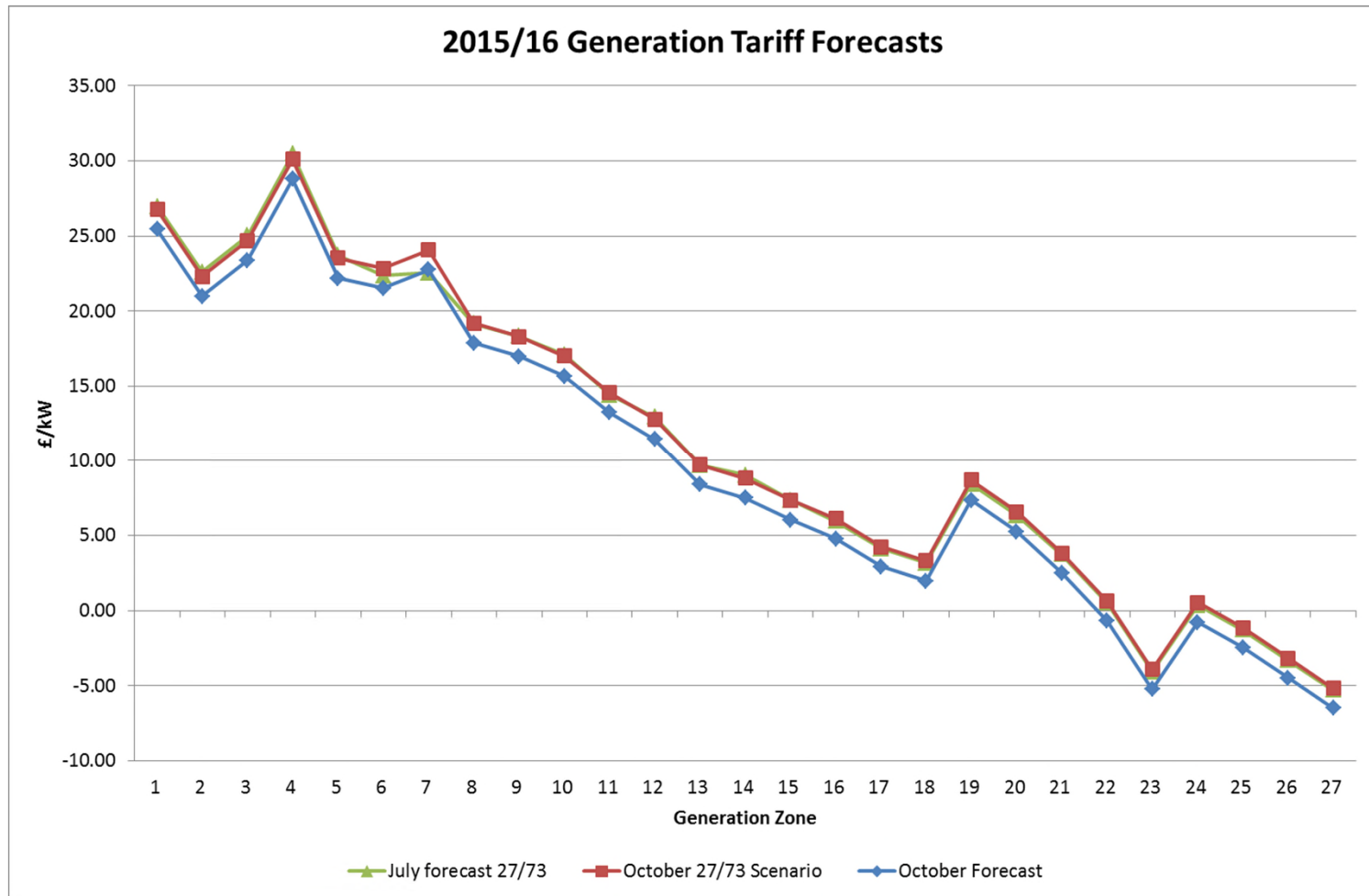
ACER Opinion

- The EU Regulation required the Agency for the Cooperation of European Regulators to give an opinion on the appropriate limit from January 2015.
- In April ACER published its opinion that capacity based infrastructure charges such as TNUoS should not be capped.
- However, the Regulation does not implement that opinion and we are not aware of any European Union proposal to change or replace the Regulation to do so.

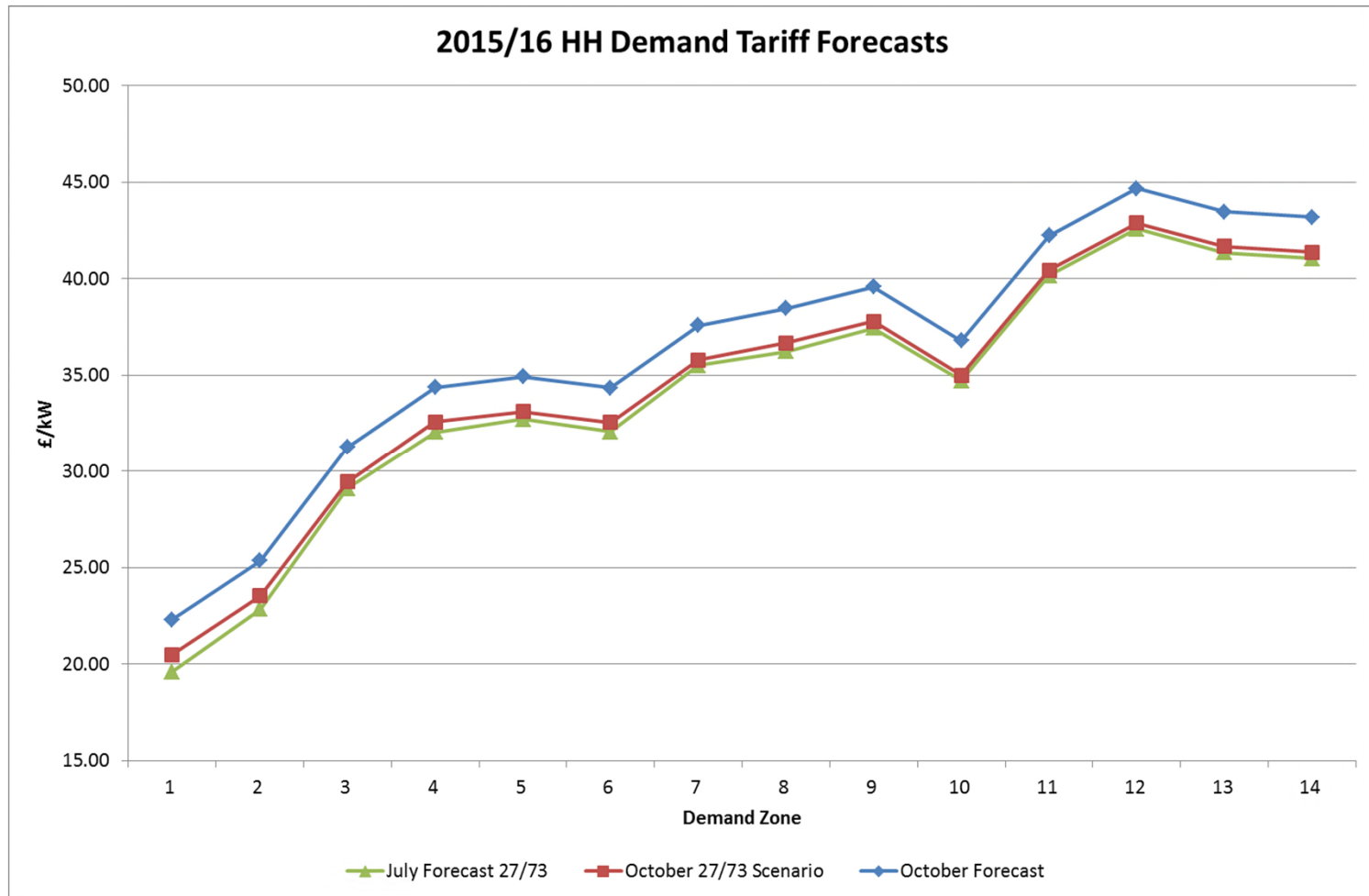
Implementing the Acer Opinion

- If the European Commission implement the ACER opinion, and remove the €2.5/MWh limit to generation tariffs, then the Generation proportion would revert to 27%.
- When and how this could happen?
 - Before tariff setting - 25 January 2015.
 - After tariff setting - A mid-year change in tariffs would require Ofgem approval and would be preceded by consultation.
 - Delayed implementation.
- Possibility of other changes to this area of the charging methodology, e.g. CMP227.

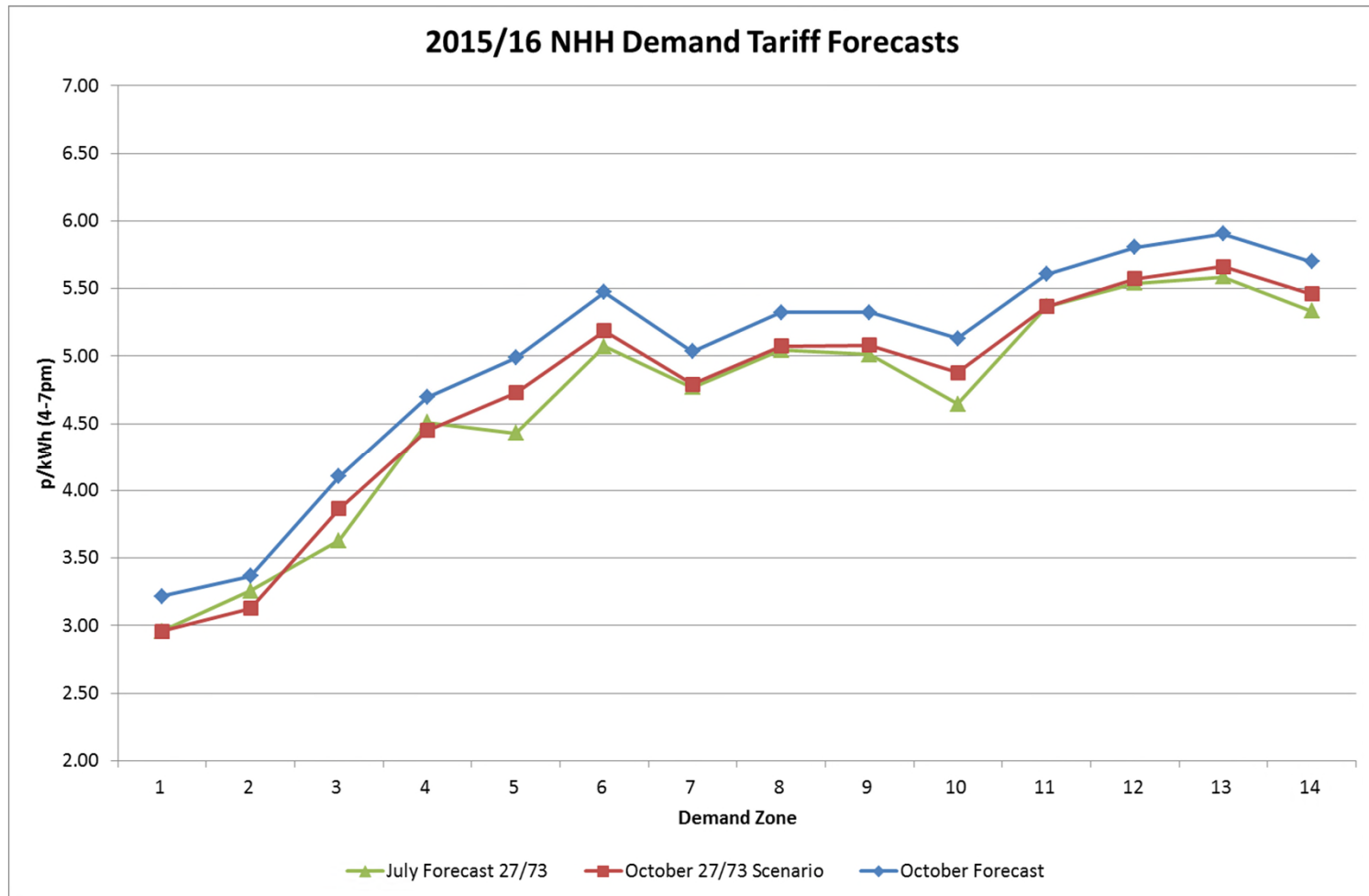
Generation Tariffs



HH Demand Tariffs



NHH Demand Tariffs



Contracted TEC and Generation Charging Base

(GW)	2014/15	2015/16 May forecast	2015/16 July forecast	2015/16 October forecast
Contracted TEC	77.2	80.3	78.8	78.7
Modelled TEC	77.2	79.5	77.9	78.4

- Small decrease in Contracted TEC since July
- National Grid best view (Modelled TEC) is converging on contracted TEC as assumptions unwind.
- Locational element of tariffs will be based on 31 October 2014
- Residual elements will be based on National Grid’s forecast in January 2015

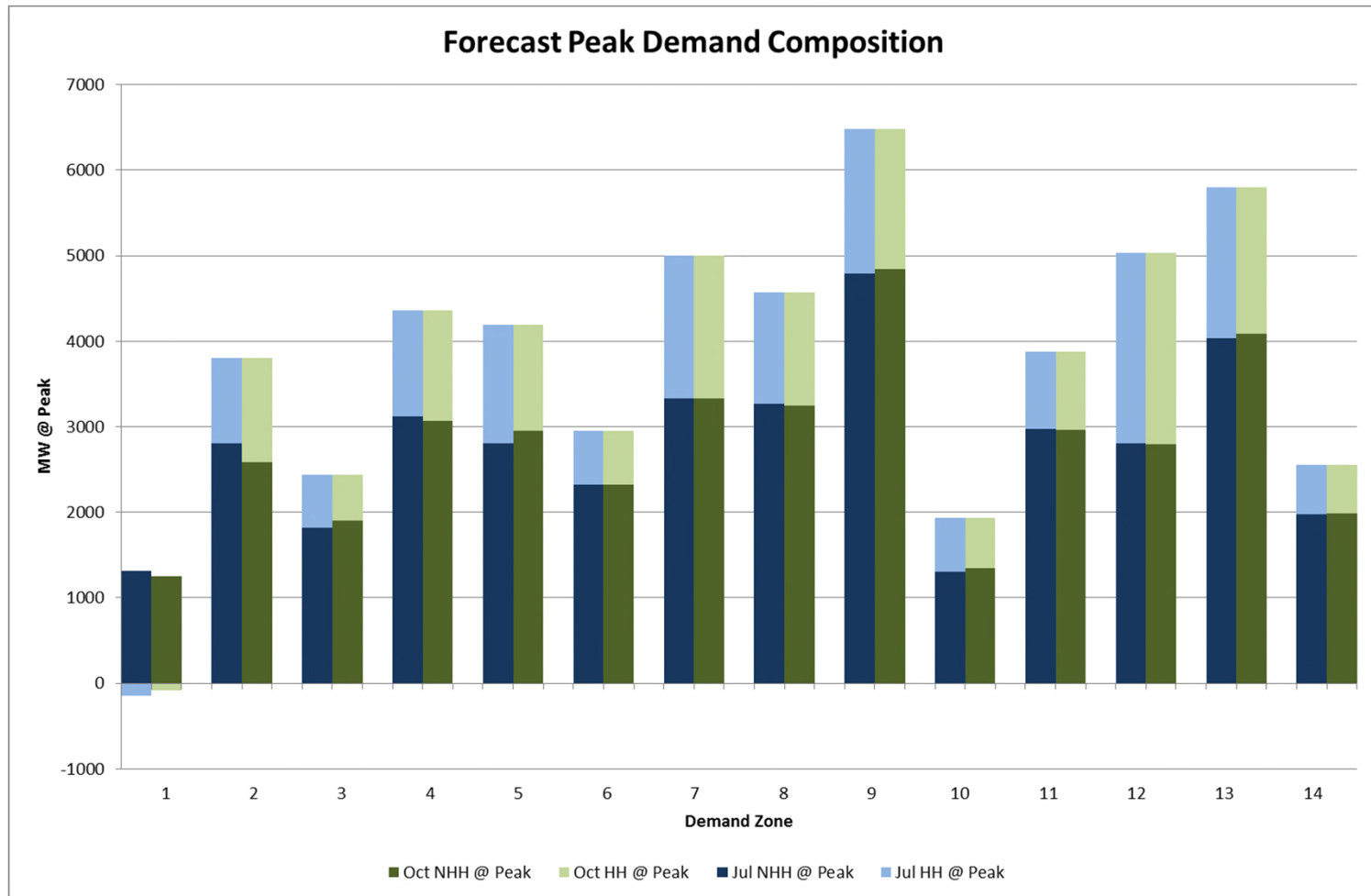
Circuit Model

- The circuit model is changed annually using data provided by each Transmission Owner over the summer.
- At our request the Transmission Owners have been verifying the data submissions because the impact on customers tariffs can be significant.
- Critical investments usually remove bottlenecks and increase power flows. However, this can increase flows in cable circuits which increases the locational cost signal.

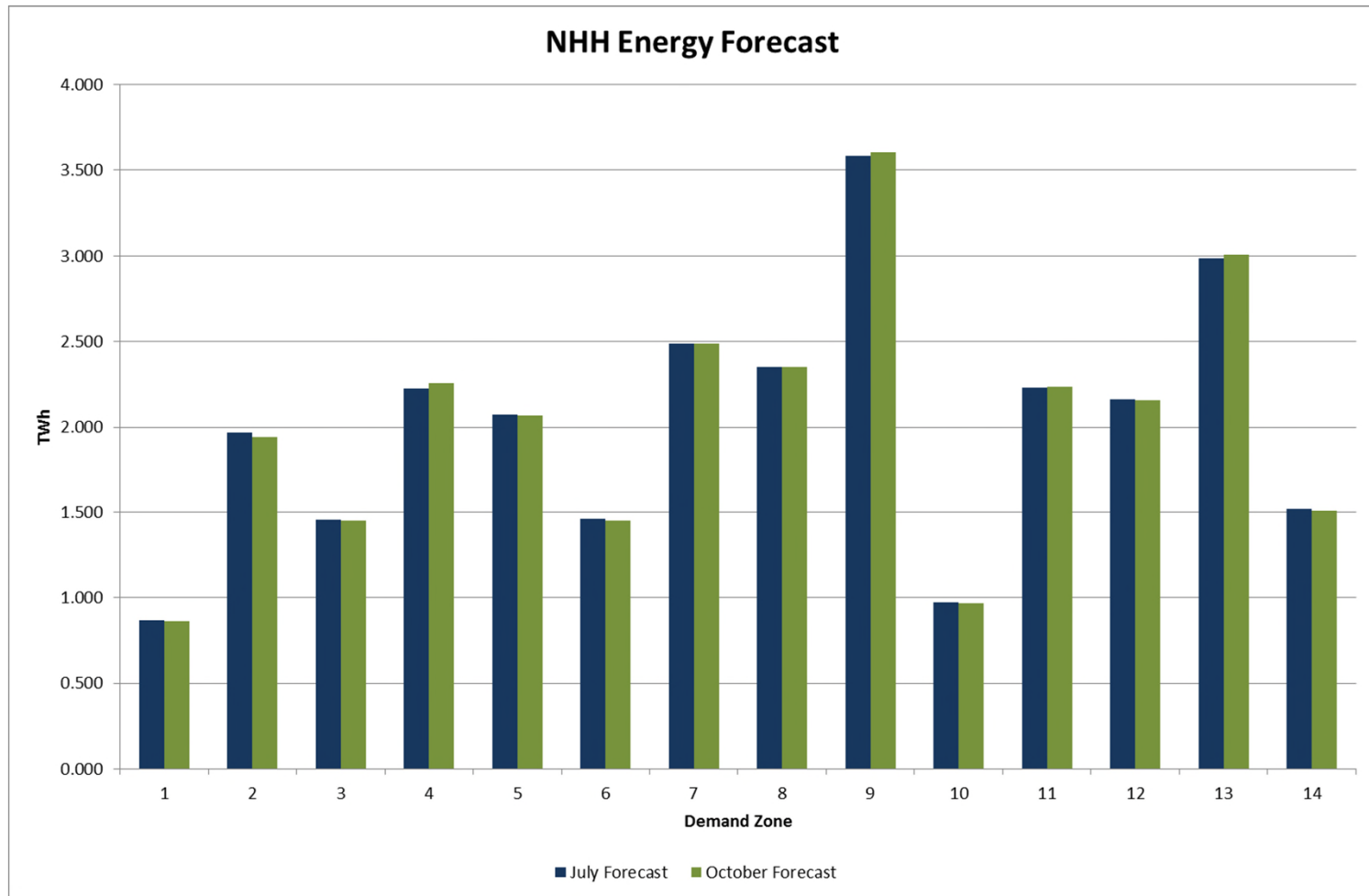
Demand Charging Base

- No change to peak demand or its geographical distribution.
- Demand at peak is comprised of Half-Hour Metered demand and Non-Half-Hour metered demand. These proportions have been reviewed with some changes although NHH continues to contribute 71% of peak demand.
- No change to NHH energy taken between 4pm and 7pm but the geographical distribution has been reviewed with some changes.

Peak Demand Composition



NHH Energy



Revenue Changes

- Minor increase in onshore revenues due to higher forecast inflation (based on August HM Treasury forecast)
- Minor decrease in offshore revenues due to lower actual inflation (based on 2014/15 c.f. 2013/14 RPI)
- Increase in SHE Transmission Revenue due to Strategic Wider Works on Beauly–Mossford and Kintyre-Hunterston
- Increase in SP Transmission revenue due to increased cost of Beauly–Denny TIRG reinforcement
- Increase in National Grid revenue due to additional TII works on Anglo-Scottish connection
- Strategic Wider Works on Caithness – Moray have not been included (See following slide)

Caithness – Moray Strategic Wider Works

- Not included in the October forecast
- Ofgem consultation on funding 27 Oct – 24 Nov
- Proposal to defer SHE Transmission MOD determination until Jan 2015

	Estimated impact on MOD (09/10 Prices)	Estimated impact on 2015/16 Revenue	Impact on charges (£/kW)
Ofgem Proposal	+£59m	+£73m	D +1.33 G* +0.01
SHE Transmission Proposal	+£69m	+£86m	D +1.62 G* -0.02

* NB Changes in generation tariffs are due to rounding the G:D split to 3 significant figures

2013/14 prices	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Costs proposed by SHE Transmission	£9.380	£151.972	£382.336	£397.063	£200.292	£75.917	£9.691	£9.575	£1,236.226
Total reductions	-£1.052	-£20.244	-£53.443	-£56.102	-£30.222	-£10.179	-£1.347	-£1.335	-£173.923
Efficient costs proposed by Ofgem	£8.328	£131.728	£328.893	£340.961	£170.070	£65.738	£8.344	£8.240	£1,062.303

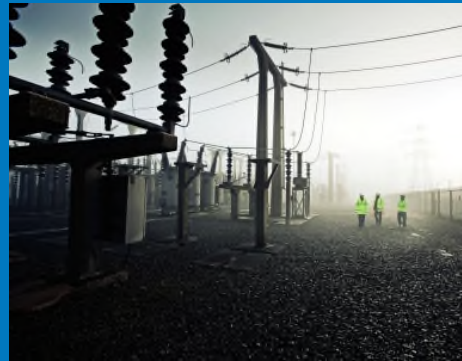
Revenue Uncertainties

- Annual Price Control Iteration
 - -£100m included for National Grid
 - -£22.1m included for Scottish Power Transmission
 - +£30m included for SHE Transmission
- Network Innovation Competition (£16.7m included)
- Stakeholder Engagement Awards
 - £3.1m included for National Grid
 - £0.3m included for Scottish Power Transmission
 - 0.14% of (Base Revenue + TIRG) for SHE Transmission
- Environmental Discretionary Awards (Not included)

Q & A

Team phone 01926 654633
Mary Owen 01926 653845
Stuart Boyle 01926 655588

Exporting GSPs Update



David Corby

Update

We're continuing to liaise with interested parties.

**Hoping to publish an open letter consultation
early next year.**

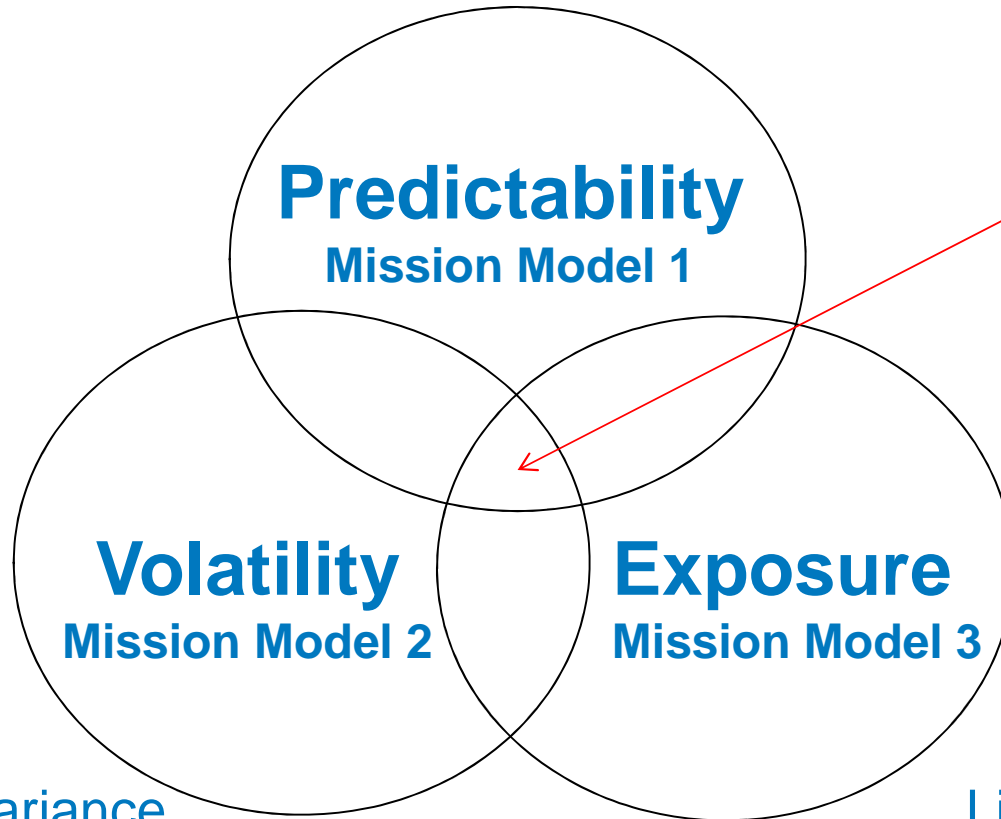
BSUoS “Stability” – Defining the problem



Nick Pittarello

BSUoS “Stability” – what is the root problem?

Improve forecasts and process transparency



Certainty
Mission Model 4
Ex ante pricing

Limit input variance
(BSUoS calculation change)

Limit financial pain
(risk transfer)

The Mission Model

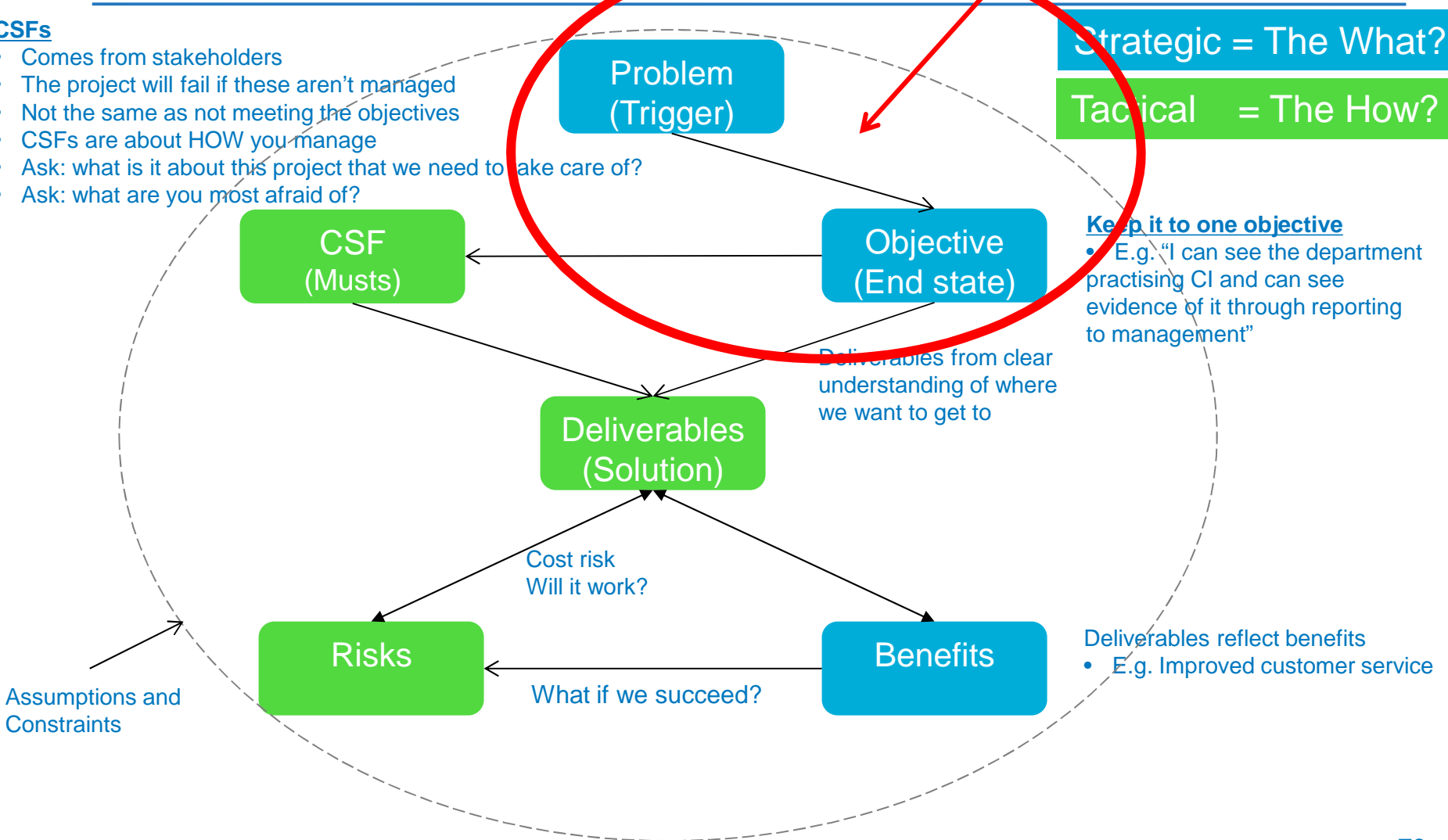
Focus here today

Strategic = The What?

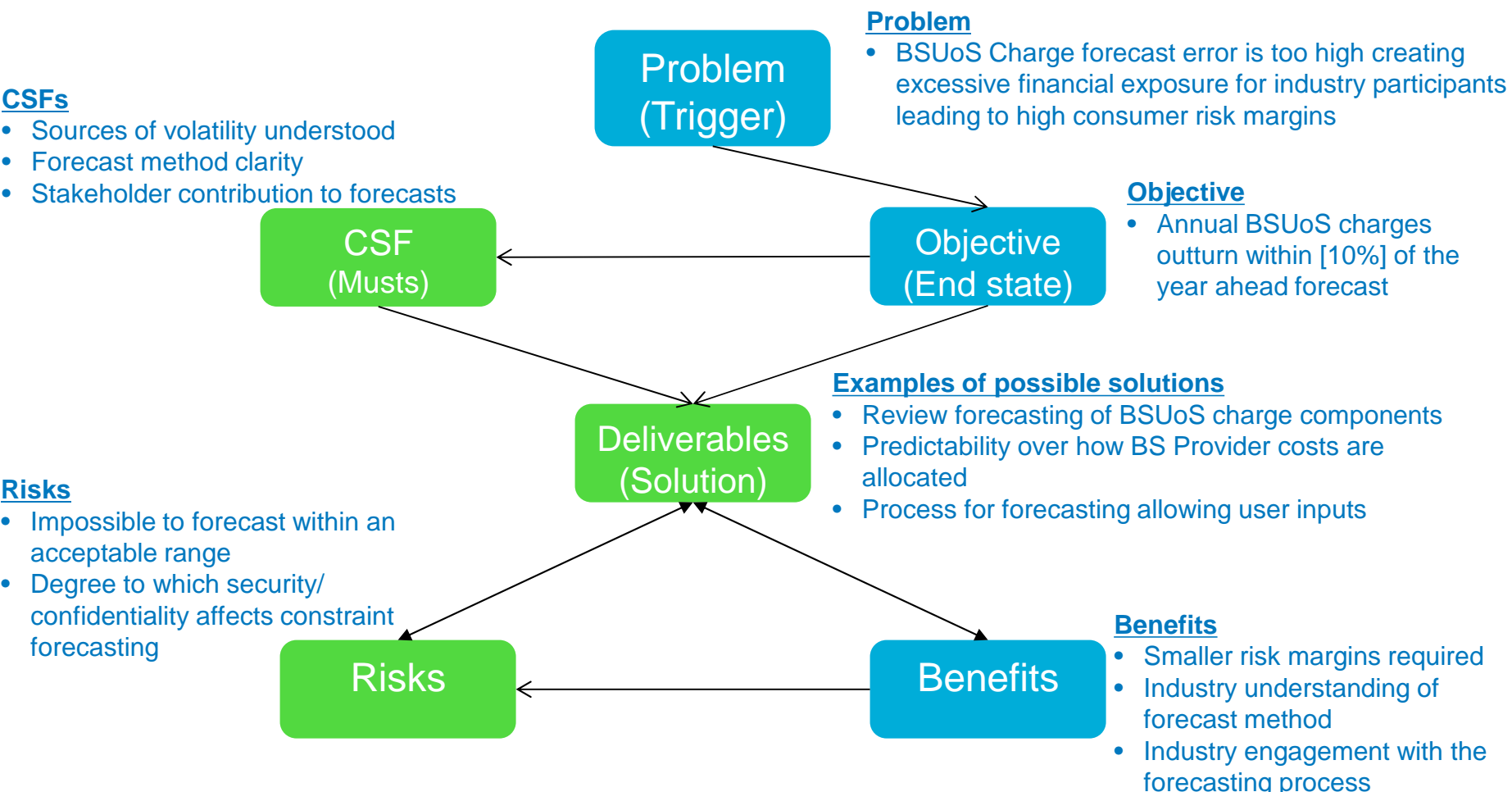
Tactical = The How?

CSFs

- Comes from stakeholders
- The project will fail if these aren't managed
- Not the same as not meeting the objectives
- CSFs are about HOW you manage
- Ask: what is it about this project that we need to take care of?
- Ask: what are you most afraid of?



Mission Model 1 – Targeting Predictability



Assumptions

- Forecasting can be improved

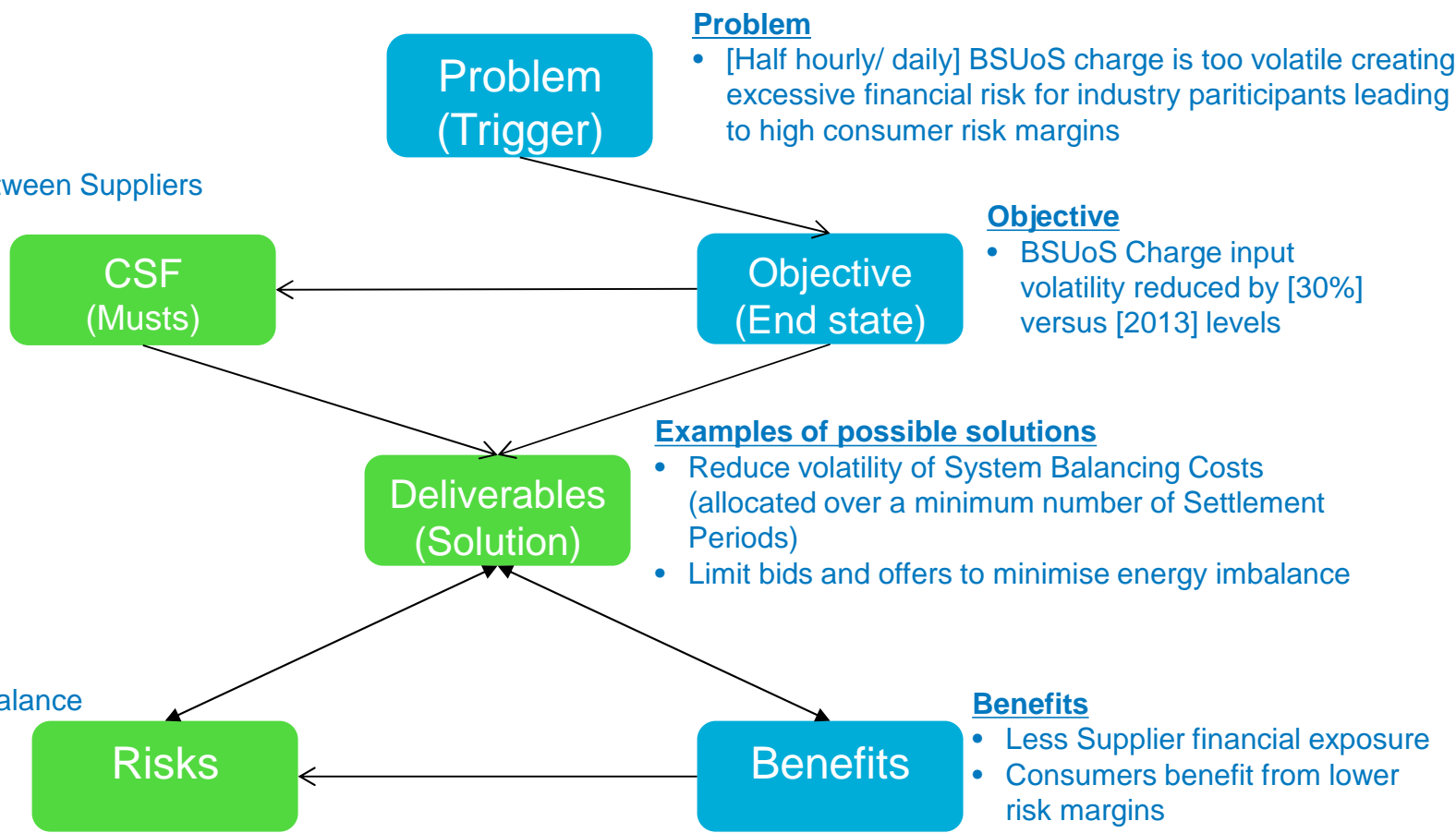
Constraints

- Commercial confidentiality

Mission Model 2 – Targeting Volatility

CSFs

- Consensus
- Simplicity
- No risk transfer between Suppliers



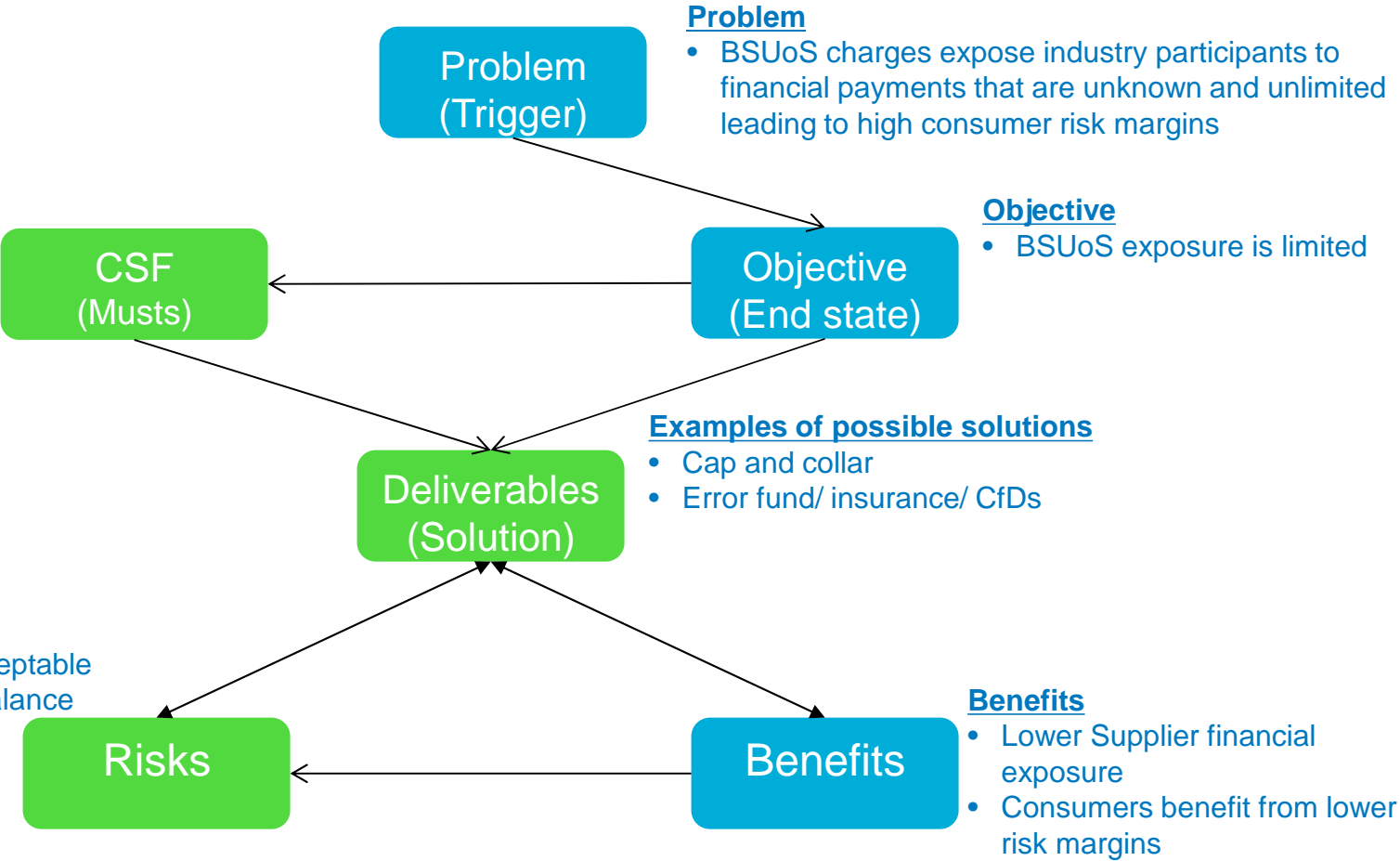
Assumptions

Constraints

Mission Model 3 – Targeting Financial Exposure

CSFs

- Consensus
- Simplicity



Assumptions

- Risk is transferred from one entity to another

Constraints

- Those taking the risk should be in a better position and incentivised to manage it

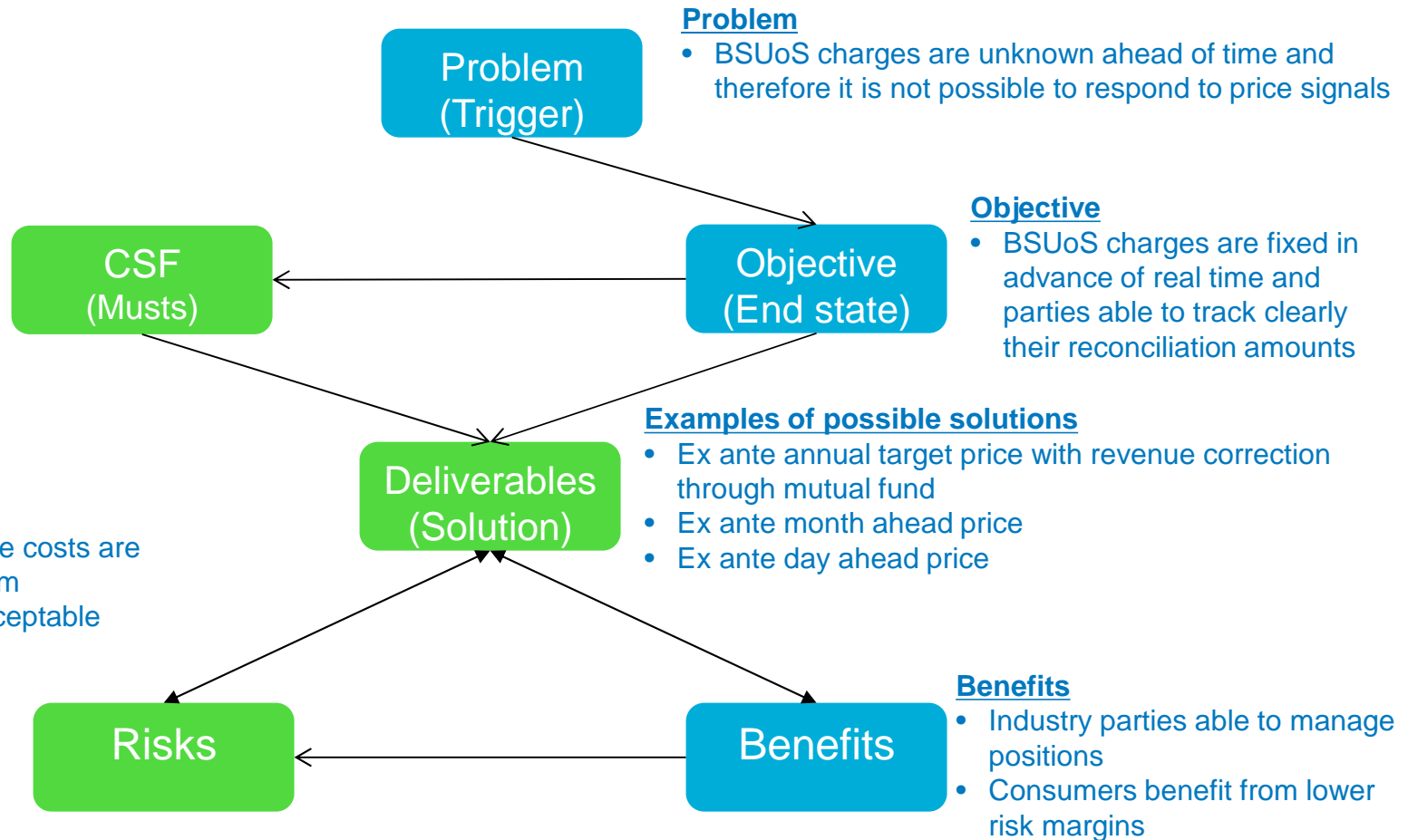
Mission Model 4 – Targeting Certainty

CSFs

- Consensus
- Simplicity

Risks

- Parties incurring the costs are not exposed to them
- Risk transfer unacceptable
- Credit risk for NG
- NG cashflow



Assumptions

- Risk is transferred to National Grid
- Similar approach to TNUoS

Constraints

- Licence condition changes

Questions

- Which of these problem statements best matches the “BSUoS Stability” issue?

- Is there consensus?

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
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Any Other Business



Next TCMF

January

14

Wednesday

Venue: National Grid House, Warwick

Future TCMF Dates

March

11 tbc

Wednesday

May

13

Wednesday

July

8

Wednesday

September

9

Wednesday

November

11

Wednesday

Venue: National Grid House, Warwick

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*

Close

