



**Transmission Charging
Methodologies Forum and
CUSC Issues Steering
Group**

Meeting 138 - 7 September 2023

Agenda

1	Introduction, meeting objectives and review of previous actions Claire Huxley - ESO	10:30 - 10:35
2	TCMF feedback Claire Huxley - ESO	10:35 - 10:55
3	Strategic Transmission Charging Reform letter Jack Pressley-Abbot - Ofgem	10:55 - 11:15
4	Code Administrator update Milly Lewis - Code Administrator ESO	11:15 - 11:20
5	TNUoS Task Force verbal update James Stone and Christian Parsons - ESO	11:20 - 11:30
6	Connections and 5 Point Plan update Alex Curtis - ESO	11:30 - 11:40
7	Comfort break	11:40 - 11:45
8	CISG Connection subgroup verbal update Alison Price and Joseph Henry - ESO	11:45 - 11:55
9	GB Connection Reforms verbal update Dovydas Dyson - ESO	11:55 - 12:05
10	CMP315: TNUoS Review of the expansion constant and the elements of the transmission system charged for and CMP375: Enduring Expansion Constant & Expansion Factor Review Nick Sillito - Peakgen	12:05 - 12:20
11	Potential new modifications: TNUoS Charging Transparency & BSUoS Codifying Over Recovery Rules inc. potential to use over recovery to increase BSUoS fund Damian Clough - SSE	12:20 - 12:40
12	CMP292: Introducing a Section 8 cut-off date for changes to the Charging Methodologies Joseph Henry - ESO	12:40 - 12:45
13	AOB and Meeting Close Claire Huxley - ESO	12:45 - 13:00

TCMF Objective and Expectations

Objective

Develop ideas, understand impacts to industry and modification content discussion, related to the Charging and Connection matters.

Anyone can bring an agenda item (not just the ESO!)

Expectations

Be respectful of each other's opinions and polite when providing feedback and asking questions

Contribute to the discussion

Language and Conduct to be consistent with the values of equality and diversity

Keep to agreed scope

Review of previous actions

ID	Month	Description	Owner	Notes	Target Date	Status
23-4	July 23	Process deep dive in relation to calculating TNUoS Expansion Constants data.	Nick Everitt		07/09/2023	Open
23-7	July 23	Update on CMP315/375 in relation to TNUoS Expansion Constants data	Claire Huxley		03/08/2023	Open
23-8	July 23	Detailed update on the TNUoS 10year projection	Nick Everitt	Agenda item August TCMF	03/08/2023	Closed

TCMF Feedback

Claire Huxley - ESO



Feedback

We want to make sure that TCMF is useful to as many of you as possible. With that in mind, we recently sent out a survey to understand what works well and where it could be improved.

7 responses

Average score of 8.0 on a scale of 1-10

What should TCMF continue doing?

Updates on proposed mods, current status of live mods, info about billing/tariff issues mid-year

Carry on as is! I think some of the members' expectations are wrong, as the 'real' action on CUSC mods or major reforms, eg connections reform, does and should take place in their respective fora. TCMF is and should be a light touch way of industry keeping up with and being able to find out a bit more about the massive breadth of regulatory flux that will always be taking place at any one time.

Summarising relevant activity in the transmission charging space and providing a forum for discussion and testing new reform proposals.

bringing key industry changes to people's attention; providing a space for 'blue sky' thinking

Provide early sighting of actual and potential significant industry developments, not necessarily whole charging based. (But most have charging implications anyway)

allowing attendees to provide questions / comments so that it is a 'two way' discussion

Meeting monthly, providing an overview of CUSC charging mods and wider reform, talking about transmission charging, encouraging discussion in the meeting

What should TCMF stop doing?

Underestimating how much discussion or debate there will be on certain topics and then having to curtail important discussions. Also not sharing slides, just having a one-slide placeholder/title for "verbal updates" which can't then be referenced later

I think it is maybe important to set out some terms of reference and then reminding participants of these when they stray into detailed and strong opinions about things and try to use TCMF to debate things which are being considered properly elsewhere, eg in CUSC mod working group

Nothing

curtailing useful discussion

its ok

Using acronyms without explaining them, perhaps not cover connections reform in any detail (could signpost the CISG), overpopulating the agenda so that there is no time to discuss

Feedback

What amendments should be made to TCMF?

Shorten the code admin update, get an ofgem update on the agenda, be more realistic about the timing

None

As new attendee pointing to where background and learning can be found. extend session length a little, introduce longer comfort break to allow this

Since the ESO has a central view on the industry, perhaps "canvass" the TCMF with suggestions for "TCMF+2 months" to gauge whether there is any interest. Always far easier to respond than initiate

What should TCMF start doing?

See previous responses

Teach in sessions on the why behind the what I of change initiatives. Help me get up to speed on key issues and processes.

Link Government policy back to implications for charging e.g. net zero = more low carbon=more offshore. Does the charging framework we have now best promote this? If not how might it be reformed? As a starter, the major reforms offshore will impact onshore charging - but many onshore users do not understand how - perhaps a high level overview?

Slow things down a bit, provide a micro-summary and maybe some context when referring to a CMP number, consider using more frequent real-time mini-polls (e.g. Menti) to get feedback from attendees on understanding of presentations and comments on content

Any other comments?

reinstate hybrid meetings - in-person chats are really valuable

I think people should be a bit more gracious about the fact that many of you make yourselves available to present and take questions!

Thanks for the time and effort to facilitate these sessions

It is a very useful, responsive and flexible forum. The use of "sub groups" which do not have the tight formality of work groups is a welcome development. However, care needs to be taken regarding the way in which "output" from these initiatives is captured by established processes and communicated to the whole user base.

TCMF is an extremely useful forum but still has opportunities for improvement

TCMF feedback

No	You said	Suggestion
1	Provide sufficient time for adequate discussion	<p>We try to pre-empt the time allocation appropriately and on occasion we do get this wrong. Where this has occurred, we provide further time in subsequent forums, take questions offline and present this back, or try to provide time in AOB.</p> <p>We will continue to do this, and welcome feedback when we haven't met your expectations.</p>
2	Meeting invite is till 1pm, the agenda does not normally run til this time so it creates confusion.	<p>Meeting invites are sent out for the year ahead. This far in advance it is not possible to ascertain the agenda items and timings needed.</p> <p>We will update the calendar invite to align with the agenda timing when the agenda gets finalised.</p>
3	The meeting has no breaks and it's rather long	<p>We have introduced a comfort break after an hour of content, to allow for a rest.</p>
4	Deepdives of topics would be useful	<p>We want to make sure the content is appropriate for all attendees, and that there is sufficient time for all agenda items. We welcome requests for deepdives, and would ask that this is raised in AOB so it can be captured. One request is for offshore vs. on-shore charging – the has been passed onto the team and will be included in a future TCMF.</p>
5	Hybrid meetings would be welcomed	<p>Quarterly hybrid meeting – suggest between Warwick, Wokingham, London & Glasgow (once locations have been confirmed).From 2024.</p>
6	Develop & refresh Terms of Reference	<p>Agreed – will add this to the action tracker and share round in October.</p>
7	Continue to use sub-groups as a way of deep-diving an issue	<p>We agree that sub-groups are a useful way to develop ideas around a particular issue. We also agree that there needs to be a clear link to governance.</p>
8	Simplify and explain context of updates	<p>We will ask presenters to avoid using acronyms, and the Chair will remind people at the beginning of this. For existing modifications/projects, presenters will provide a short overview to ensure the context is clear, and provide links to where existing information can be found.</p>
9	Consider more frequent, real-time feedback	<p>We can trial implementing a Microsoft form to gather feedback at the end of each TCMF, and welcome use of the chat function if there is not space to contribute verbally. As Chair, managing verbal conversations and contributions in the chat function is currently achievable.</p>

Strategic Transmission Charging Reform letter

Jack Pressley-Abbot - Ofgem

Code Administrator Update

Milly Lewis - Code Administrator ESO



Key Updates since last TCMF

New Modifications

- **CMP418 Proposal to Refine the allocation of Static Var Compensators (SVC) costs at OFTO transfer**
- **CMP419 Generation Zoning Methodology Review**

Decisions

- **CMP292 Introducing a Section 8 cut-off date for changes to the Charging Methodologies**

Implementations

- **None**

Authority Expected Decision Date

Decisions Pending

Modification	Final Modification Report Received	Expected Decision Date
CMP288 'Explicit charging arrangements for customer delays and backfeeds'	10/08/2022	19/09/2023
CMP298 'Updating the Statement of Works process to facilitate aggregated assessment of relevant and collectively relevant embedded generation'	06/04/2022	29/09/2023
CMP330&CMP374 'Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length and Extending contestability for Transmission Connections'	10/08/2023	08/03/2024
CMP331 'Option to replace generic Annual Load Factors (ALFs) with site specific ALFs'	12/07/2023	29/09/2023
CMP344 'Clarification of Transmission Licensee revenue recovery and the treatment of revenue adjustments in the Charging Methodology'	08/02/2023	06/10/2023
CMP376 'Inclusion of Queue Management process within the CUSC'	07/06/2023	15/09/2023
CMP379 Determining TNUoS demand zones for transmission - connected demand at sites with multiple Distribution Network Operators (DNOs)	07/09/2023	TBC
CMP398 'GC0156 Cost Recovery mechanism for CUSC Parties'	11/07/2023	06/10/2023
CMP412 'CMP398 Consequential Charging Modification'	11/07/2023	06/10/2023
CMP414 'CMP330/CMP374 Consequential Modification'	10/08/2023	08/03/2024

The Authority's publication on decisions can be found on their website below:

<https://www.ofgem.gov.uk/publications/code-modificationmodification-proposals-ofgem-decision-expected-publication-dates-timetable>

Key Updates ahead of the next TCMF

September Consultations

- **CMP408** (Allowing consideration of a different notice period for BSUoS tariff settings) and **CMP415** (Amending the Fixed Price Period from 6 to 12 months) Code Administrator Consultations end **5pm 13 September 2023**
- **CMP413** (Rolling 10-year wider TNUoS generation tariffs) Workgroup Consultation will run 11 September 2023 end **5pm 02 October 2023**

Other

- **CMP379** (Determining TNUoS demand zones for transmission - connected demand at sites with multiple Distribution Network Operators (DNOs)) Second Final Modification Report will be issued to the Authority on **07 September 2023**.
- **CMP392** (Transparency and legal certainty as to the calculation of TNUoS in conformance with the Limiting Regulation) Draft Final Modification Report will be issued to the September Panel.

Useful Links

Updates on all Modifications are available on the Modification Tracker [here](#)

Ofgem's expected decision dates/ date they intend to publish an impact assessment or consultation, for code modifications that are with them for decision are available [here](#)

The latest CUSC Panel Headline Report is available [here](#)

The latest prioritisation stack is available [here](#)

CUSC 2023 - Panel dates

CUSC	Panel Dates	Papers Day	Modification Submission Date	(TCMF) CUSC Development Forum
January	27 (Face to Face Meeting)	19	12	5
February	24	16	9	2
March	31	23	16	9
April	28 (Face to Face Meeting)	20	13	6
May	26	18	11	4
June	30	22	15	8
July	28	20	13	6
August	25	17	10	3
September	29	21	14	7
October	27 (Face to Face Meeting)	19	12	5
November	24	16	9	2
December	15	7	30/11	23/11

TNUoS Task Force verbal update

James Stone and Christian Parsons - ESO

Connections and 5 Point Plan update

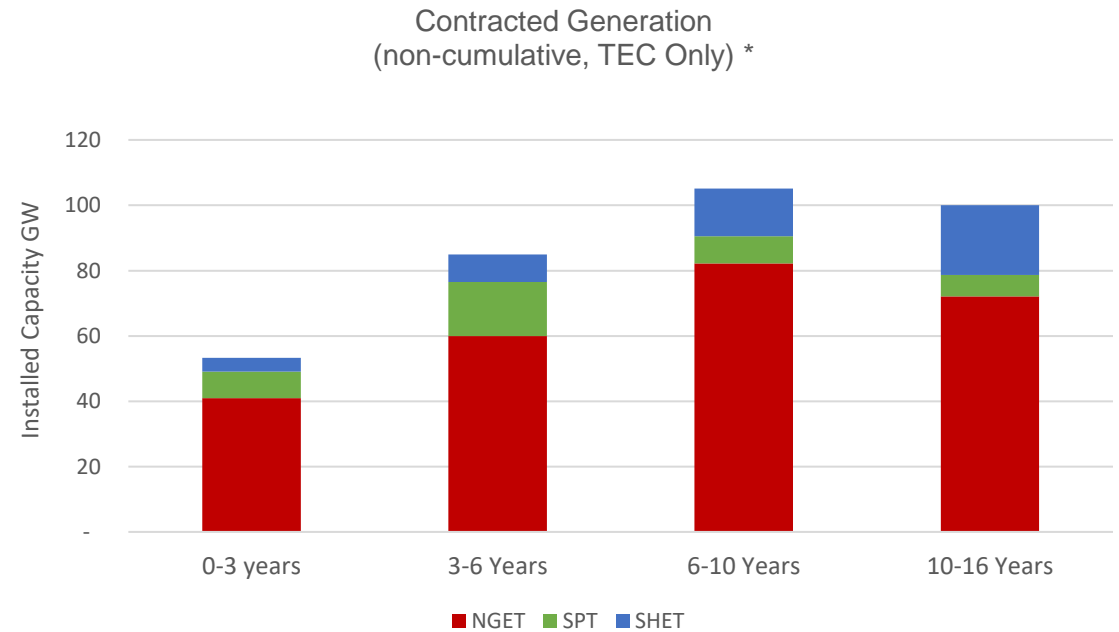
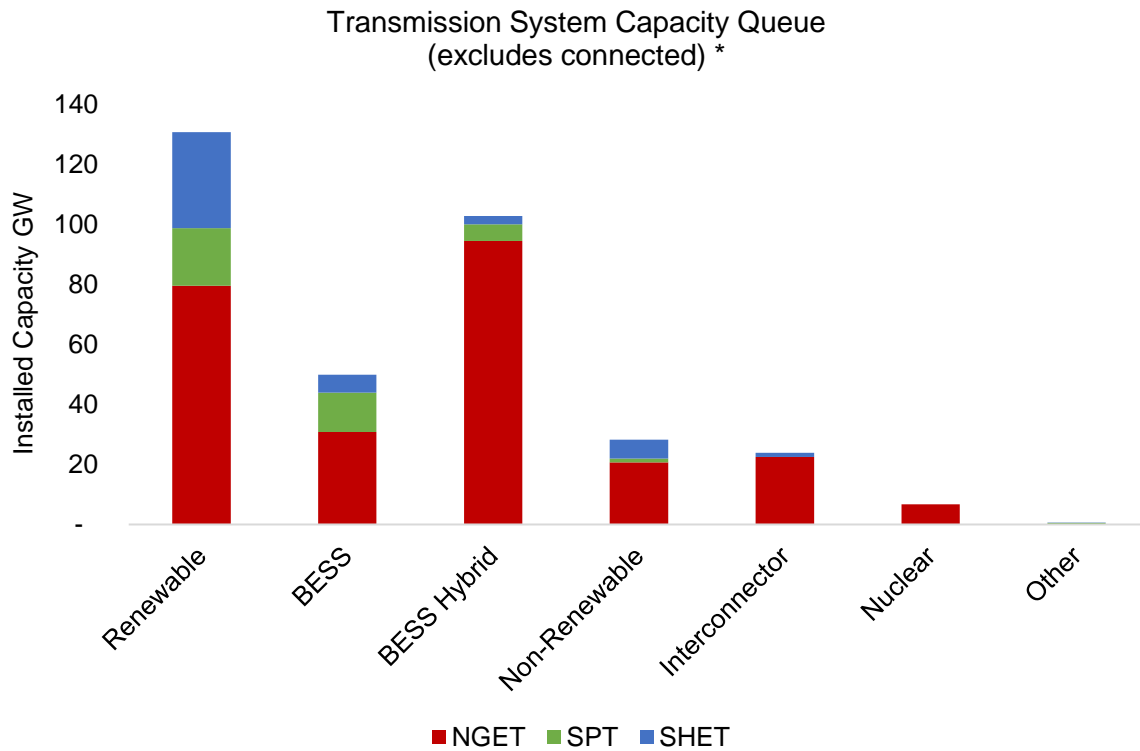
Alex Curtis - ESO



Connections Queue

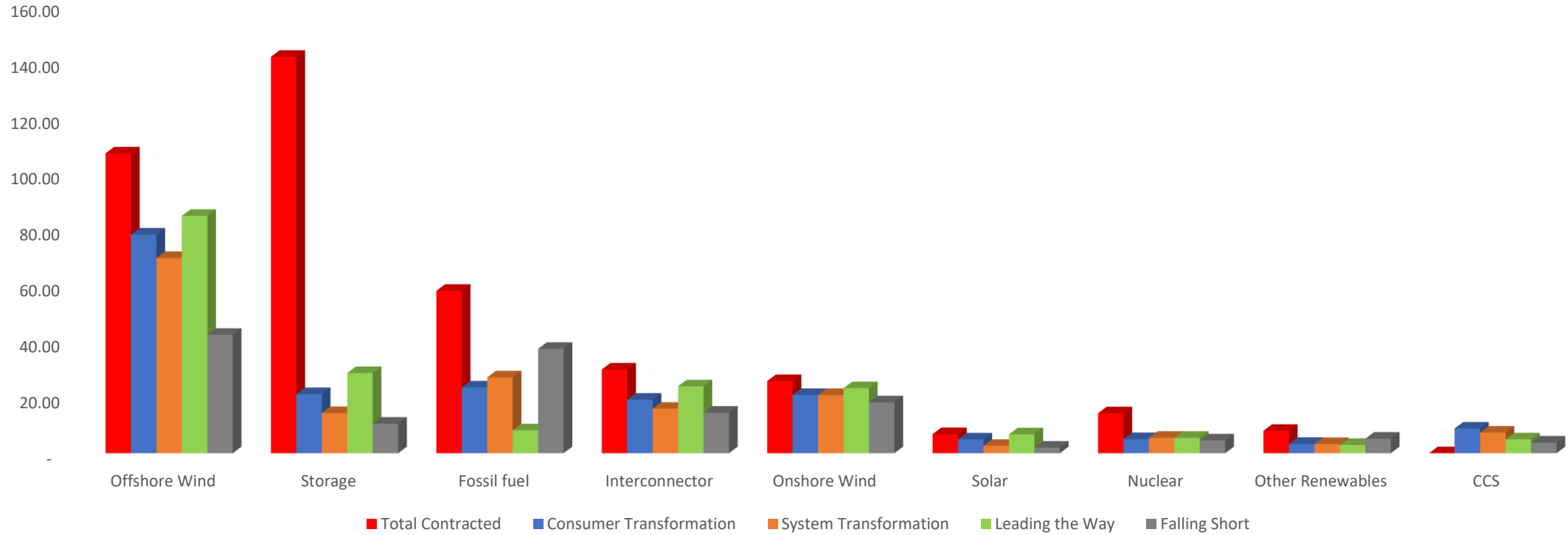
The contracted background is still growing, with more applications offsetting a falling acceptance rate to result in a process with more wasted effort.

Over **376GW** of generation projects are currently seeking to connect to the electricity transmission system, yet our data shows that up to **70%** of those projects may never be built.



*Data from TEC Register on 31/05/23

FES 2035 VS Contracted Generation



	Offshore Wind	Storage	Fossil fuel	Interconnector	Onshore Wind	Solar	Nuclear	Other Renewables	CCS
Consumer Transformation	78.27	21.15	23.54	19.15	20.83	4.93	5.04	3.33	8.82
System Transformation	69.84	14.35	27.12	15.90	20.83	2.61	5.51	3.27	7.37
Leading the Way	84.91	28.69	8.19	23.95	23.28	6.75	5.51	2.95	4.96
Falling Short	42.36	10.55	37.35	14.50	18.20	1.98	4.57	5.20	3.81
Total Contracted	107.21	141.69	58.10	29.95	25.81	6.82	14.28	8.00	-

*Data from TEC Register on 30/06/23

Our 5 Point Plan

Our 5-Point Plan is helping to manage some of these immediate challenges

1. TEC Amnesty

This was the first TEC Amnesty since 2013. We received a total of 8.1GW of applications and are currently working with Ofgem to allow the termination/reduction of TEC process from connection agreements. ESO and Ofgem published a letter on 15th August confirming next steps.

2. Construction Planning Assumptions Review

We are reducing the assumptions around how many projects in the queue will connect. We expect this will allow some connection dates to be brought forward and reduce works in existing agreements.

3. Treatment of Storage

We are revising the way storage connections are modelled using insight resulting of a better understating of its behaviour. These changes will allow storage to connect quicker and support unlocking more capacity to connect others.

4. Queue Management

There is currently no mechanism in the CUSC to terminate projects that are not progressing. If changes are approved, it would allow us to terminate projects that are not progressing against their contracted milestones and agreed timescales.

5. Non-firm Offer Development

The policy aims to accelerate the connection of energy storage projects by removing the need for non-critical enabling works to be complete before they connect. We continue to look at the opportunity to roll out this approach to other connections.





Comfort Break

CISG Connection subgroup verbal update

Alison Price and Joseph Henry - ESO

GB Connection Reforms verbal update

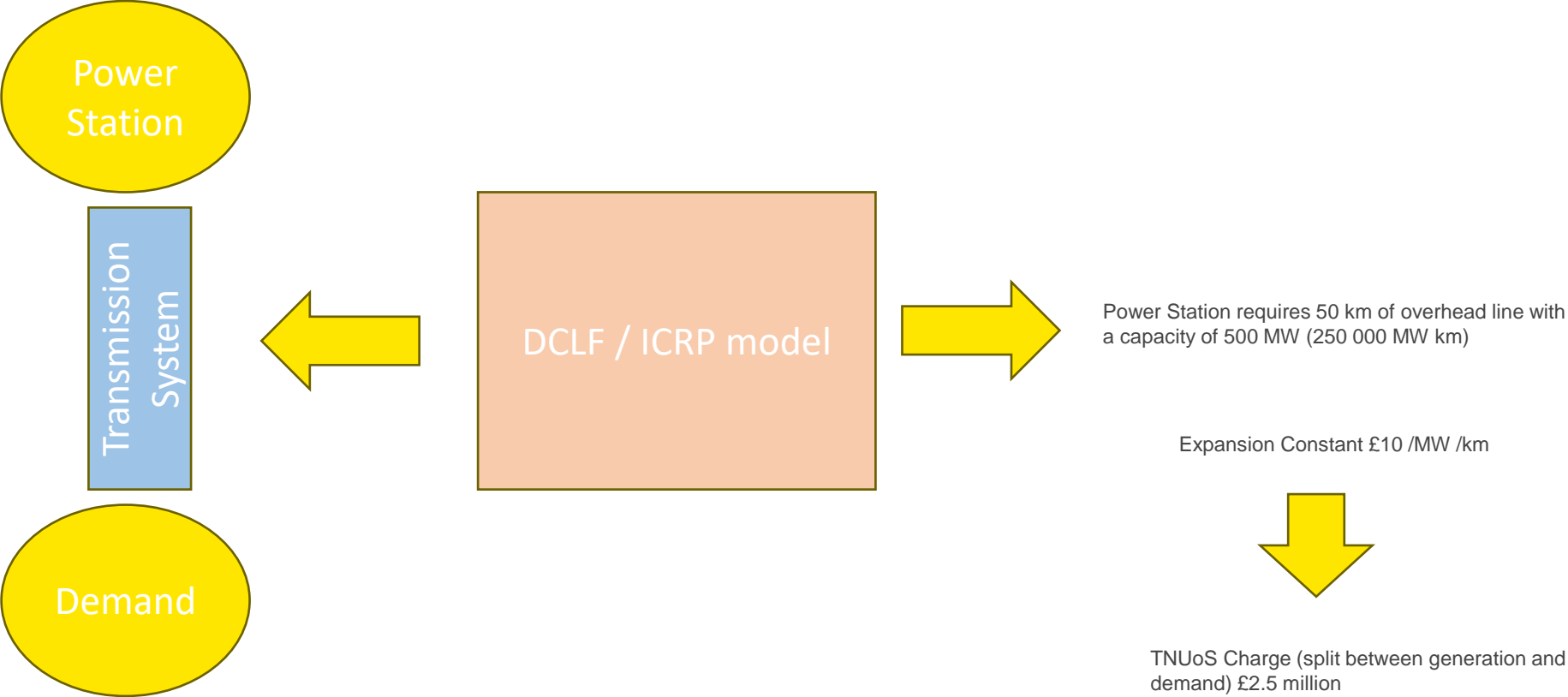
Dovydas Dyson - ESO



CMP315/375 – Expansion Constant Review

Nick Sillito - Peakgen

What is the Expansion Constant?



The History of the Expansion Constant

Historically

Updated every 5 years (at TO price review)

Based on 10 years of history

Use generic TO costs for “standard” construction (**new build only**)

Annually indexed

Currently

Annually Indexed

Proposed

Annually Indexed

Updated every year based on actual TO build costs (**new build, life extension and asset enhancement**)

Smoothed using an exponential moving average

What's an "exponential moving average"?

Smoothing Factor



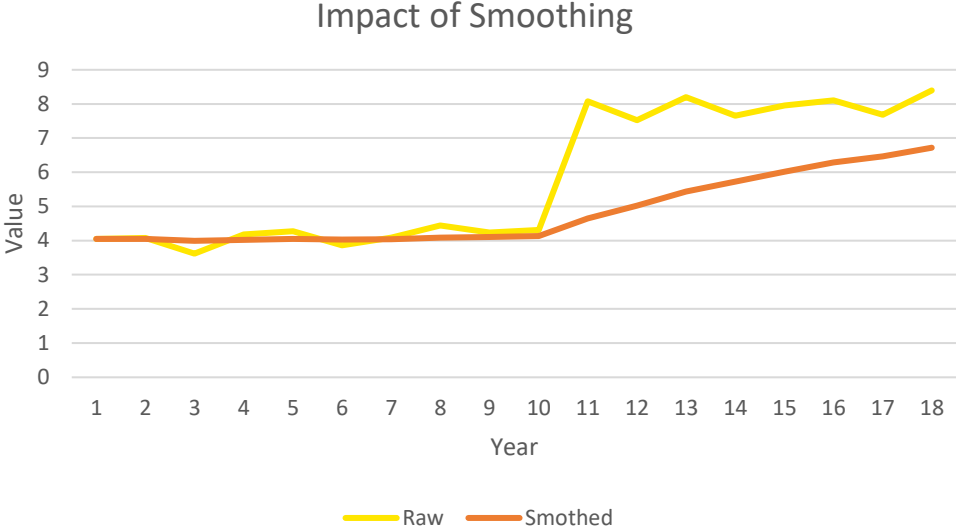
$$EC_y = (1 - \alpha)EC_{y-1} + \alpha TO_y$$



This year's expansion constant

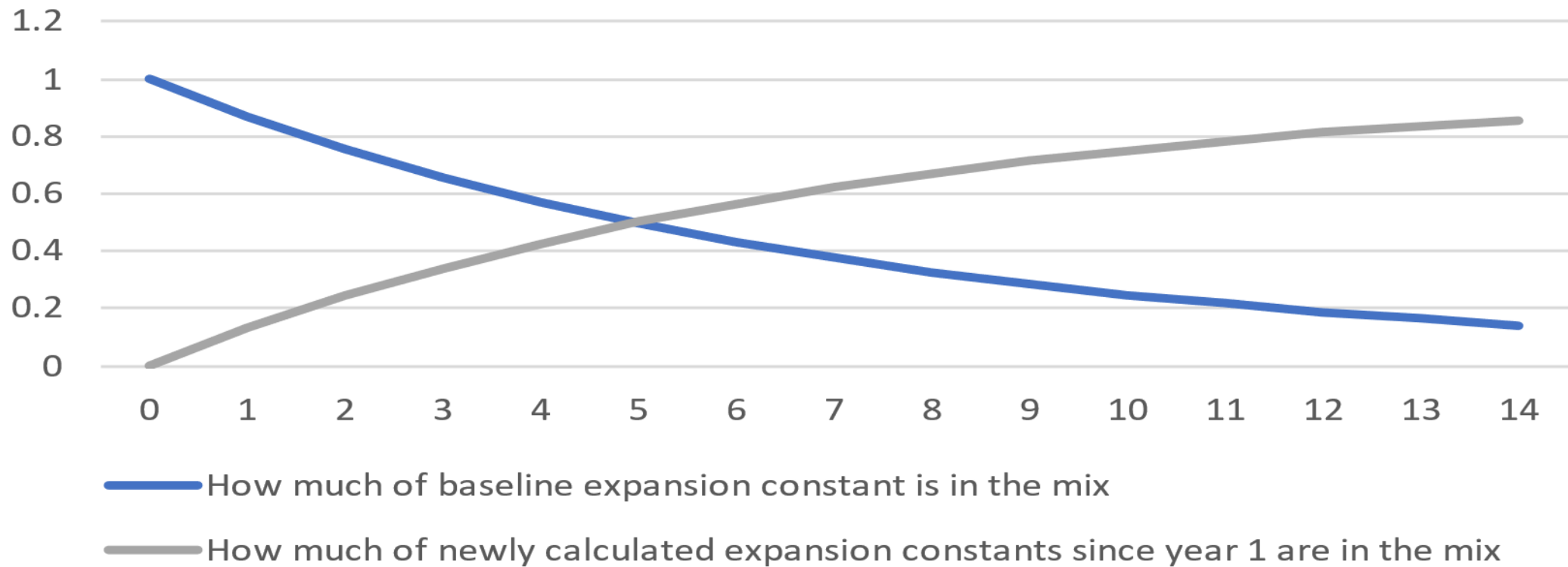
Last year's expansion constant

This year's TO build cost



Smoothing

Smoothing in illustrated
X axis is years, year 0 is prior

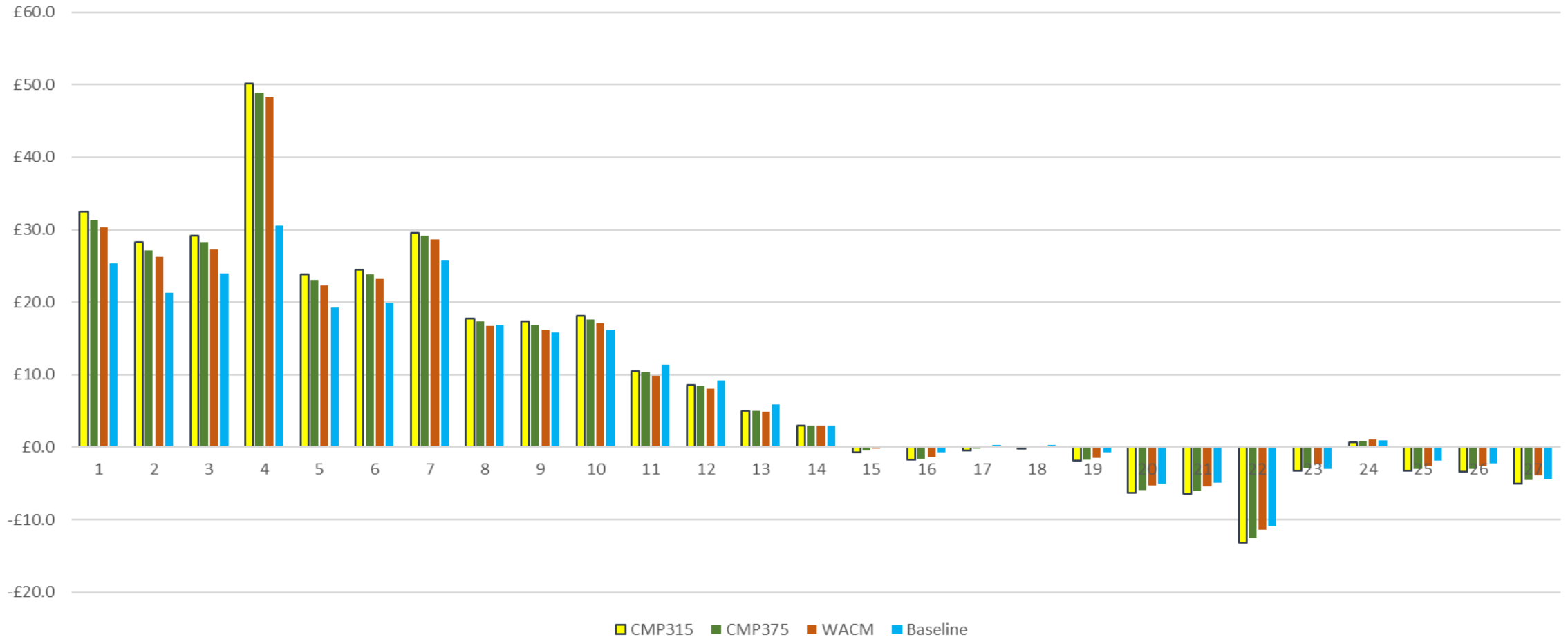


What are the differences?

	Cables / Overhead lines	Additional Circuit Elements	Weighting
CMP 315	✓	✓	TO Build
CMP 375	✓	✗	TO Build
WACM 2	✓	✗	Forecast future works

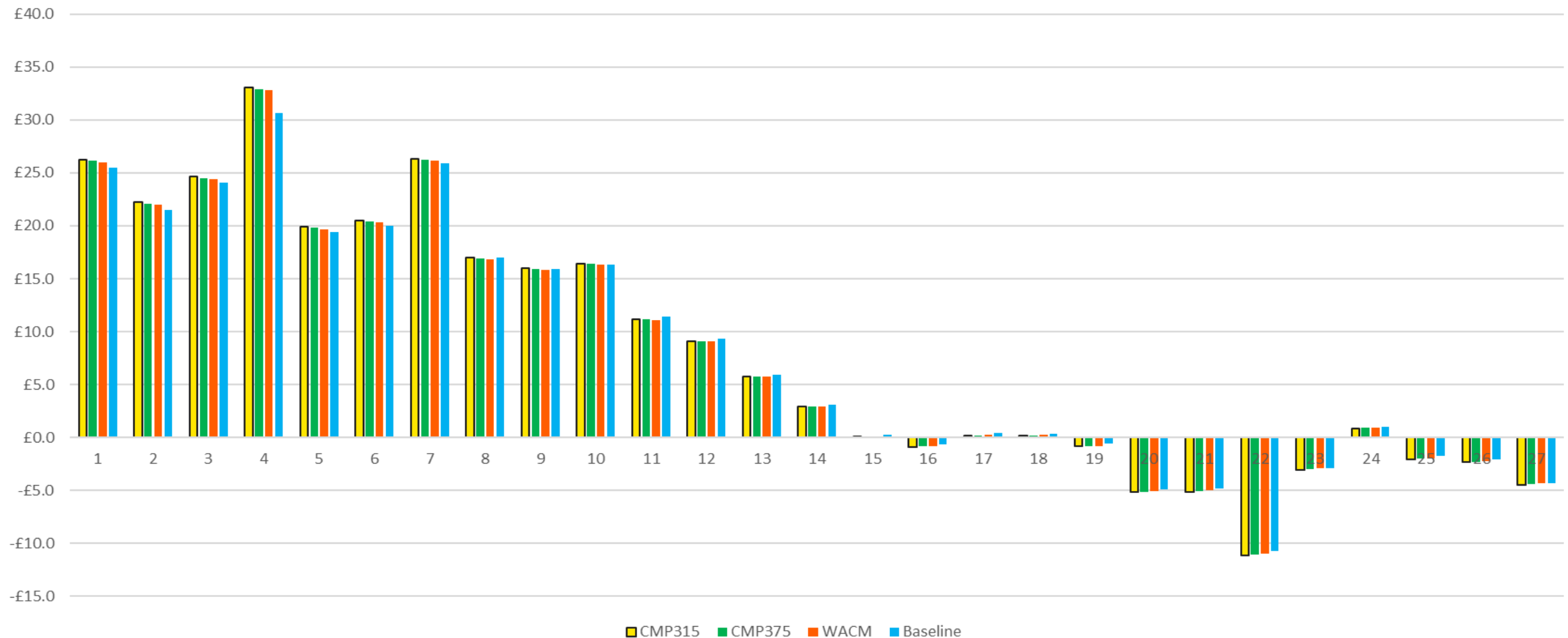
Impacts 1. Unsmoothed tariffs

45% intermittent gen 23/4 UNSMOOTHED



Impacts – smoothed graphs follow, 23/24 (impacts much less due to smoothing)

45% intermittent generation tariff, 23/24, smoothed



Potential new modifications:

- TNUoS Charging Transparency
- BSUoS Codifying Over Recovery Rules inc. potential to use over recovery to increase BSUoS fund

Damian Clough - SSE

**TCMF POTENTIAL
MOD**

**TNUOS CHARGE
SETTING
TRANSPARENCY**

SSE



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|| CURRENT DEFECT

- For the 2023/24, charge setting process, the change between Draft and Final Tariffs was significant and more importantly avoidable
- Between draft and final tariffs last year TO MAR increased by c. £500m which resulted in a c. 13% increase in the demand residual / fixed charge per site. Inflation increased MAR by c. £288m, and under-recovery by c. £180m
- Large changes in forecasts ultimately result in increased risk premia and therefore cost the end consumer more
- Currently those Parties submitting forecasts or processing charges are not impacted by inaccurate forecasts, or inaccurate charges

|| CURRENT DEFECT

- TO's revenue submissions are not forecasts they are approved revenues to date
- Any new scheme approval will increase the forecast. However it must be known by the TO's that there's a chance of approval for these projects thus feeding into the MAR, however the forecast is 0
- Anymore?

|| HISTORY

- Quarterly forecasts were introduced by CMP206
- Under or Over Recovery was collected via K but in year 2
- December Draft forecast has been dropped
- K now collected following year
 - This has created large risk of draft tariffs being incorrect
- ESO are not impacted by Over and Under Recovery
- There was a big drive in improving the Charge Setting process, but it appears that this has gone backwards and being reversed
- What can be done?

|| SOLUTION WAY AHEAD

- Is the TNUoS Taskforce looking at this?
- Will setting charges 15 month ahead help
- Does it require STC changes which many Industry parties cannot progress?
- We've gone backwards and taken our eye of the ball. All whilst TO MARs rise substantially

TCMF POTENTIAL MOD BSUOS OVER RECOVERY

SSE



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|| CURRENT DEFECT

- Previous BSUOS charges have overrecovered revenue compared to costs
- Currently there is limited direction in the CUSC to describe what is done with over recovered revenues?
 - Should it reduce future BSUoS charges
 - Should Interest be applied to the over recovery similar to K's
 - Currently the revenue is kept within National Grid group for free

|| POTENTIAL SOLUTION

- Codify Over recovery
- Add in potential for over recovery to increase the BSUoS fund
 - This reduces risk of reopening charges mid year which is a large risk
 - As BSUoS increases the ESO credit facilities covers less risk
- What will happen with the FSO
 - Will those credit facilities disappear, do we need to future proof?

CMP292: Introducing a Section 8 cut-off date for changes to the Charging Methodologies

Joseph Henry - ESO

CMP292

Background

- Raised in 2019, CMP292 introduces a new cut off date for Section 14 Methodology Changes from April 2024
- Under current arrangements, charging modifications must be approved by 31 January of any given charging year to be implemented for the next charging year (1 April).
- This date will change to 30 September. If the modification is approved by 30 September, it will go into the next charging year. If not, it will go into the methodology in $y+2$.

Worked Example

- Modification approved by 31 January 2024 – Implementation 1 April 2024.
- Modification approved by 30 September 2024 – Implementation 1 April 2025 ($y+1$).
- Modification approved post 30 September 2024 – Implementation 1 April 2026. ($y+2$)

How does this impact inflight mods?

- No currently authority approved in flight mods are impacted.
- Based on current timelines there are no impacts to modifications.
- Timelines to be discussed and reviewed at upcoming WG meetings.

AOB & Close