Draft TNUoS Tariffs for 2020/21 - Webinar

NGESO Revenue Team

Thursday 05 December 2019
10:30 – 11:30am

Click here to view the webinar recording

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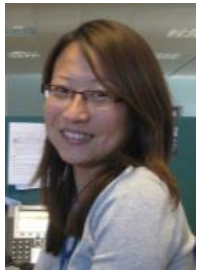
Agenda

1	Introduction
2	Tariff timetable
3	Forecast process & key messages
4	Revenue
5	Generation tariffs
6	Onshore and offshore local tariffs
7	Demand tariffs
8	Final tariffs for 2020/21
9	Q&A and feedback

Revenue team: TNUoS Tariff Forecasting & Setting



Rebecca Yang

Forecasting, setting and billing TNUoS to recover £2.8bn of TO revenue per year from generators, demand and suppliers

Sarah Chleboun

- Offshore
- Annual Load Factors (ALFs)

Jo Zhou

- Revenue
- Onshore Local Circuits

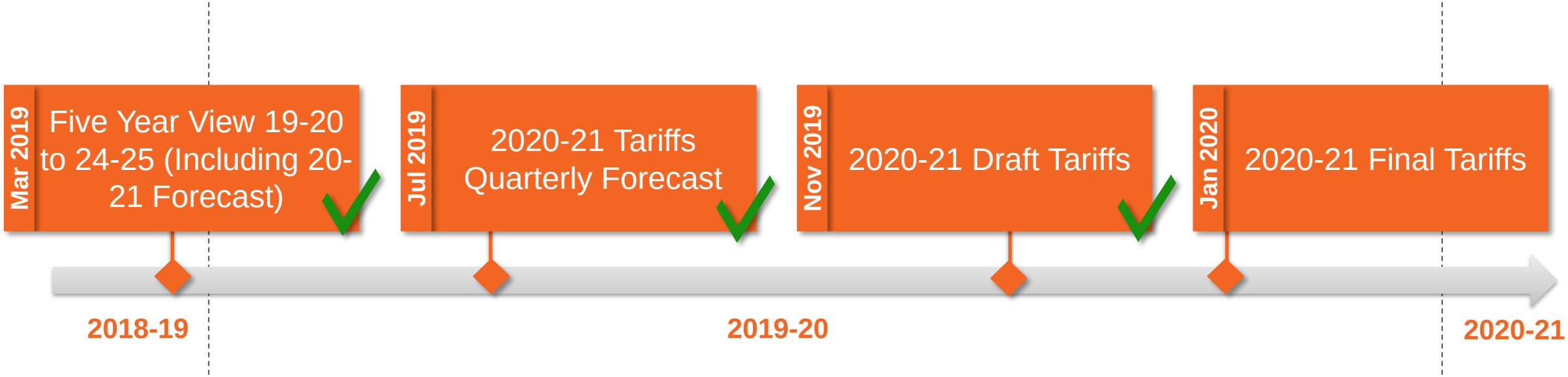
Alice Grayson

- Generation
- Local substation

Matt Wootton

- Demand
- EET

Tariff Timetable



- Ongoing CUSC modifications may change the methodology for 2020/21 tariffs calculation
- For the list of CUSC modifications, please follow the link here
- Ofgem recently published their decision for the Targeted Charging Review. This document can be found here
- Subsequently the Next 'Five Year View' timescales to be confirmed as well as the first 2021/22 forecast

Targeted Charging Review

- 21 November 2019, Ofgem published their final decision on the Targeted Charging Review (TCR)

- Two changes for TNUoS tariff setting and billing are:
  - The removal of the generation residual
  - Specific NHH and HH demand residual charges, levied only to final demand and on a ‘site’ basis

- We will provide guidance on TCR implementation and incorporate TCR changes into our tariff forecast publications in due course

Forecast Processes and Key Messages

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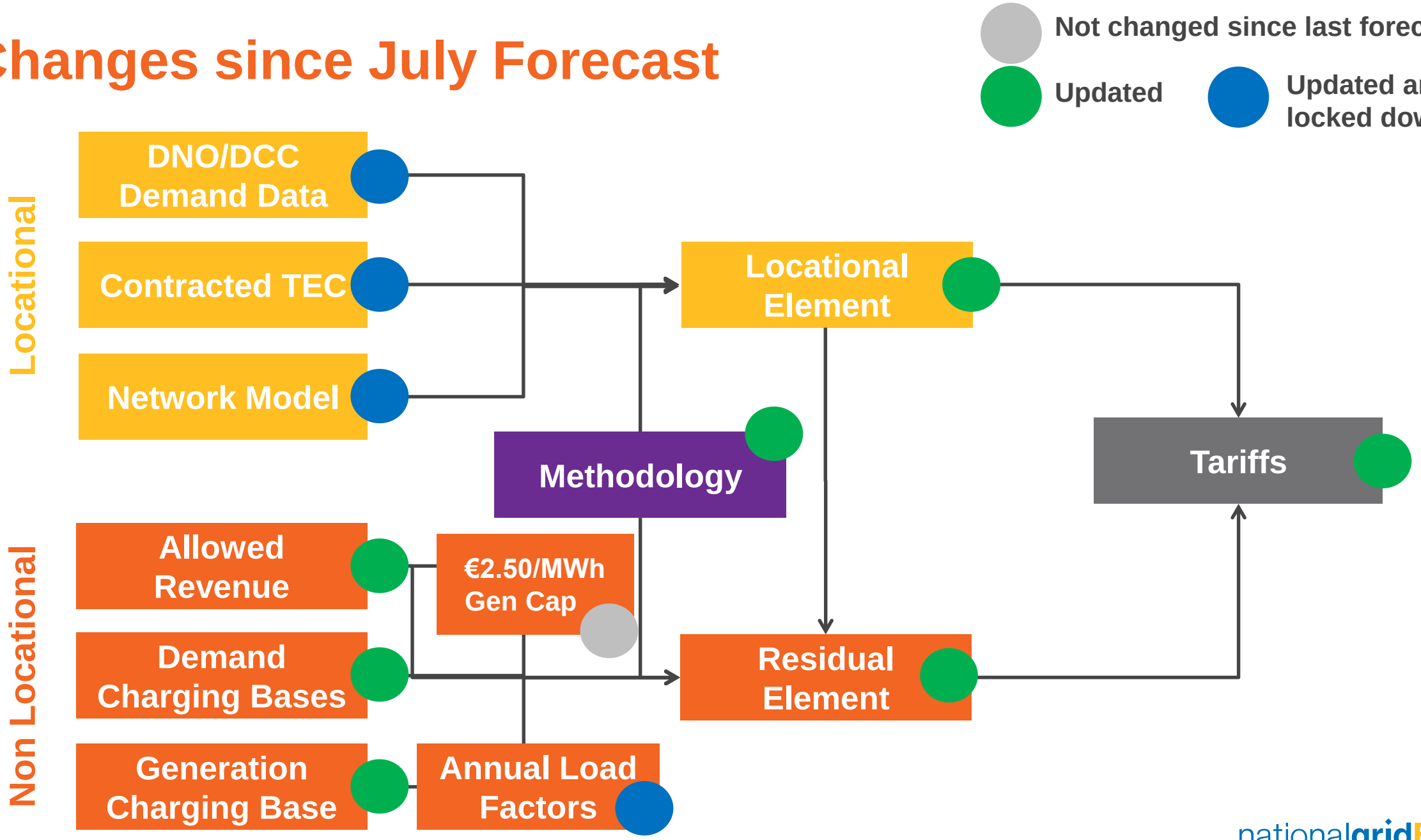
When do inputs change in quarterly forecasts?

Not changed since last forecast | Updated | Updated and locked down

	Methodology	Five-year forecast	March	July	DRAFT Nov	FINAL Jan
		Open to industry governance				
Locational	DNO/DCC demand data	Demand forecast provided by DNOs/DCCs in 2018			DNOs/DCCs update by week24	As per Draft forecast
Locational	Contracted TEC	Latest TEC	Latest TEC	Latest TEC	TEC Register frozen at 31 October	As per Draft forecast
Locational	Network model	As modelled in ETYS 2018 (except new local circuits)			based on latest version of ETYS	As per Draft forecast
Residual	Allowed revenue	Update financial parameters	Update financial parameters	Update financial parameters	Latest TO forecasts	From TOs
Residual	Demand charging bases	Revised forecast	Revised forecast	Revised forecast	Revised forecast	*Only by exception*
Residual	Generation charging base	NG best view	NG best view	NG best view	NG best view	NG final best view
Residual	Generation ALFs	As in 2018 ALF report			New ALFs published	As per Draft forecast
Residual	Generation revenue	Forecast	Forecast	Fixed gen rev £m	As per July	As per July

Changes since July Forecast



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Key Messages

- The total revenue in year 20/21 has now been updated at £2885.8m, following revenue forecast submission from TOs. This was a reduction from July forecast (£2939.3m).

- As a result, demand tariffs decreased by around £1/kW, mainly due to revenue reduction of £53.5m.

- Following DNOs' annual demand forecast update, zonal generator tariffs are showing greater north-south difference.

Revenue

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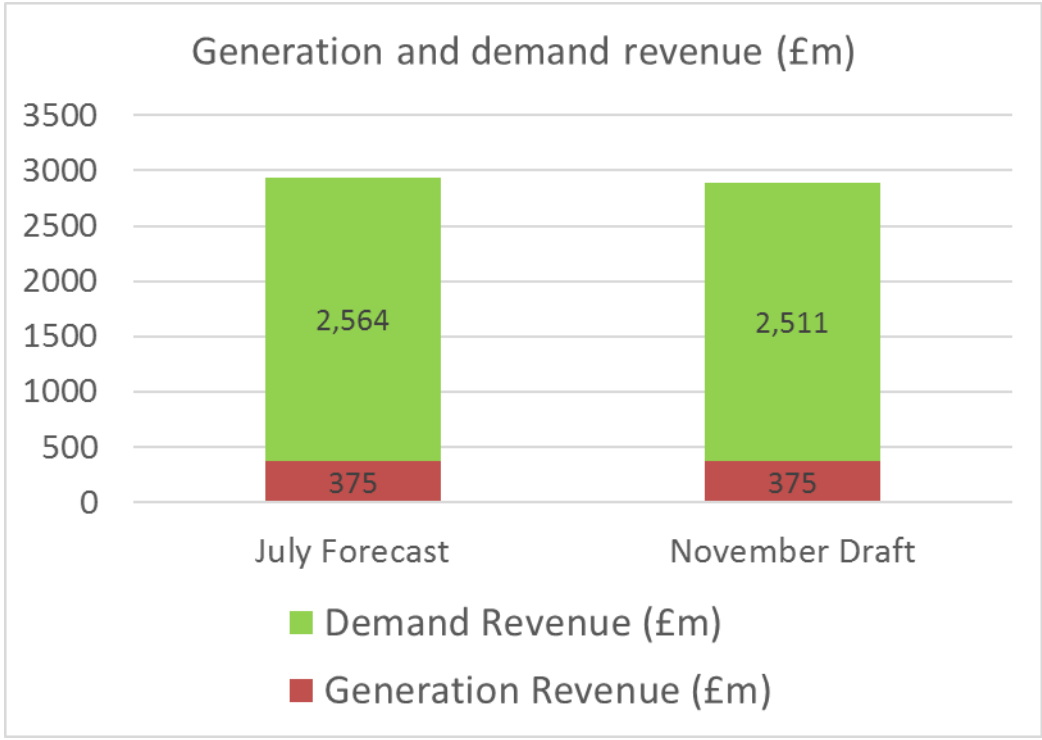
Revenue

£m Nominal	2020/21 TNUoS Revenue	
	July Forecast	Nov Draft
NGET Income from TNUoS	1,746.7	1,674.0
SPT Income from TNUoS	366.8	368.0
SHE Income from TNUoS	356.6	365.9
Other Pass-through from TNUoS	41.7	43.9
Offshore (offset by IFA contribution)	427.4	433.9
Total to Collect from TNUoS	**2,939.3**	**2,885.8**

- Total revenue is £2885.8m, £53.5m less than the July forecast, mainly due to reduced forecast by NGET.
- TNUoS income for each onshore TO has been updated with the latest forecast
- Offshore revenue has increased, however was offset by increased contribution from IFA
- Revenue forecast will be updated and finalised by January

Summary of revenue to be recovered

	2020/21 July	2020/21 November
Total Revenue (£m)	2,939.3	2,885.8
Generation revenue (£m)	374.9	374.9
Demand revenue (£m)	2564.3	2510.9
Generation Output (TWh)	199.8	199.8
% of revenue from generation	12.8%	13.0%
% of revenue from demand	87.2%	87.0%



- Generation revenue has been locked down since July
- Thus the reduction to total revenue (forecast) is passed on to demand users (by £53.5m)

Generation Tariffs

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Generation charging base changes since July Forecast

- TEC values has been updated in line with the 31 October 2019 TEC Register and is now fixed.
- Generation charging base was increased by 4.2GW due to additional projects planning on connecting
- The increase to the charging base, whilst the revenue for generation is fixed, has led to a decrease in average generation tariffs.

Generation (GW)	2019/20 Final Tariffs	2020/21 March	2020/21 July	2020/21 Draft
Contracted TEC	80.6	90.8	84.3	84.9
Modelled Best View TEC	80.6	82.6	80.7	84.9
Chargeable TEC	73.3	74.1	71.8	76.0

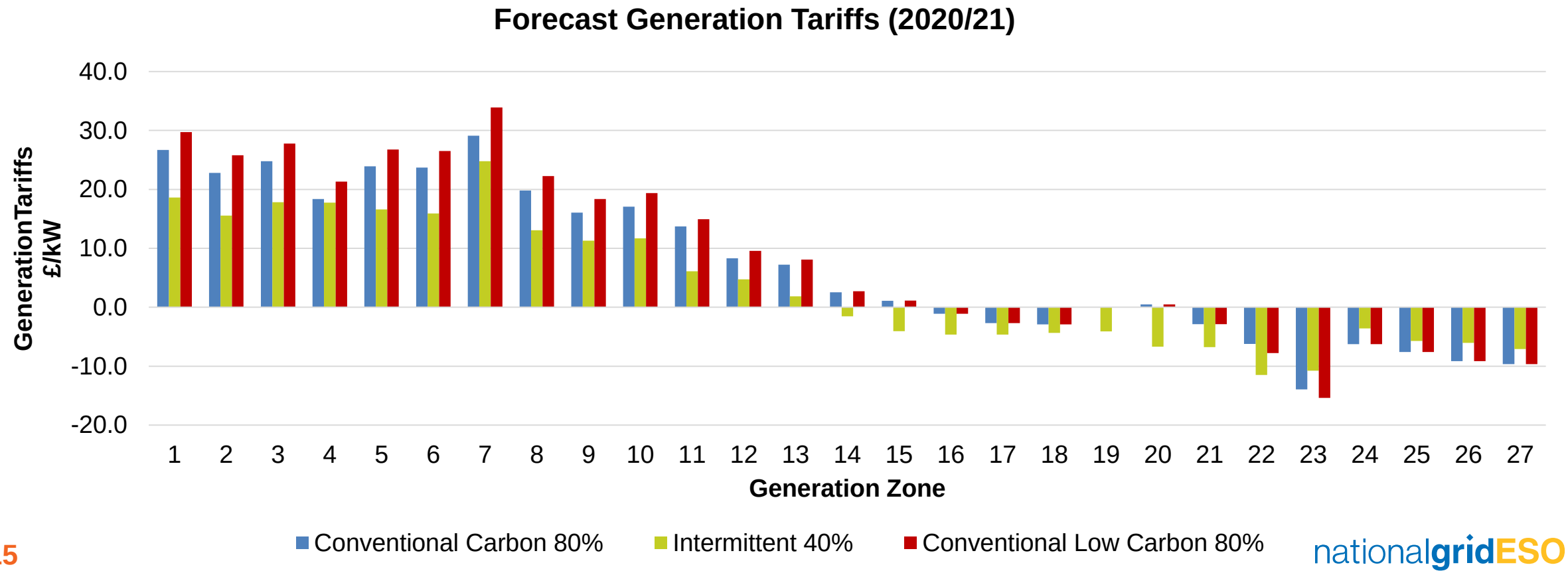
Contracted TEC – TEC as set out in the TEC register.

Modelled Best View TEC – best view that the NGESO has for the forecasted TEC.

Chargeable TEC – the TEC used for charging purposes form the TEC register, not including BEGAs for example.

Forecast Generation tariffs (for 2020/21)

- The below graph shows the different wider generation tariffs for each zone
- The tariffs are higher in the north and go negative in the south due to the locational signals given by the tariffs



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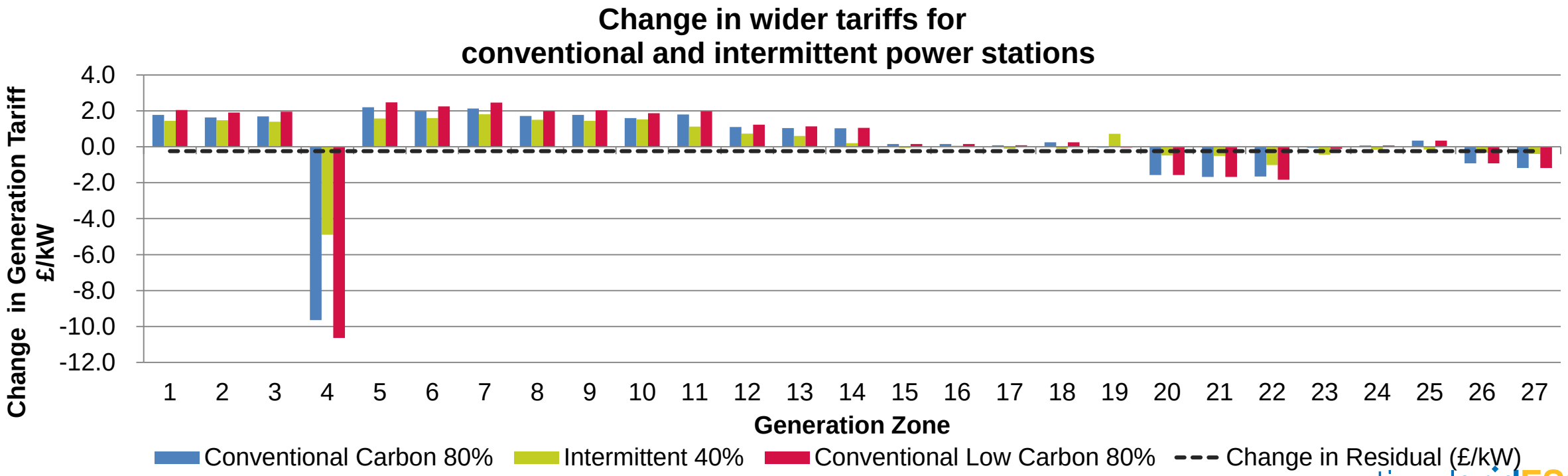
Generation tariff changes

- Residual has decreased by £0.24/kW
- The tariffs have become more polarised, mainly due to the circuit updates and nodal demand updates made in the network model
- A large decrease can be seen in zone 4. There are very few generators and very long radial circuits in this area, making this zone sensitive to any locational input changes



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Local Tariffs

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Onshore Local Circuits Tariffs

- In general, system flow changes are minimal on local circuits, so local circuit tariffs are relatively stable.
- Most local circuit tariffs have decreased slightly, in line with RPI. Circuit parameters have been updated according to the latest ETYS data, causing tariff changes to some generators.

Substation Name	(£/kW)	Substation Name	(£/kW)	Substation Name	(£/kW)
Aberarder	1.675570	Dunhill	1.450145	Mark Hill	0.886463
Aberdeen Bay	2.639786	Dunlaw Extension	1.526907	Middle Muir	2.006855
Achruach	4.347087	Edinbane	6.930671	Middleton	0.150344
Aigas	0.662166	Ewe Hill	2.464151	Millennium Wind	1.849065
An Suidhe	-0.969882	Fallago	0.438903	Moffat	0.189349
Arecleoch	2.102788	Farr	3.609781	Mossford	2.916851
Baglan Bay	0.770367	Fernoch	4.453448	Nant	-1.243879
Beinneun Wind Farm	1.520651	Ffestiniogg	0.256147	Necton	1.137456
Bhlaraidh Wind Farm	0.653686	Finlarig	0.324184	New Deer	0.762358
Black Hill	1.572318	Foyers	0.296562	Rhigos	0.102893
Black Law	1.769120	Galawhistle	3.542645	Rocksavage	0.017920
BlackCraig Wind Farm	6.373397	Glendoe	1.862309	Saltend	0.017566
BlackLaw Extension	3.751647	Glenglass	4.871410	South Humber Bank	0.418835
Clyde (North)	0.111032	Gordonbush	0.241630	Spalding	0.286943
Clyde (South)	0.128403	Griffin Wind	9.834415	Strathbrora	0.109632
Corriegarth	2.933096	Hadyard Hill	2.802340	Strathy Wind	1.899306
Corriemoillie	1.686171	Harestanes	2.555894	Stronelairg	1.089127
Coryton	0.049999	Hartlepool	0.207993	Wester Dod	0.481789
Cruachan	1.847528	Invergarry	0.370496	Whitelee	0.107450
Crystal Rig	0.137279	Kilgallioch	1.065546	Whitelee Extension	0.298711
Culligran	1.754755	Kilmorack	0.199951		
Deanie	2.882812	Kype Muir	1.501711		
Dersalloch	2.438788	Langage	0.665887		
Dinorwig	2.429140	Lochay	0.370496		
Dorenell	2.124754	Luichart	0.582358		
Dumnaglass	1.147510	Marchwood	0.386386		

Offshore Local Tariffs

- Tariffs are set at asset transfer.
- Tariffs are indexed in line with the revenue of the associated Offshore Transmission Owner.
- Most tariffs have decreased slightly, due to inflation updates. There is a slight variation for each tariff since the July forecast, where the tariffs were indexed by the average May to October RPI.
- Race Bank has asset transferred since the July forecast. Galloper and Walney Extension are expected to asset transfer during 2019/20 and therefore will have tariffs calculated this year.

Offshore Generator	Tariff Component (£/kW)		
	Substation	Circuit	ETUoS
Barrow	8.169274	42.741635	1.061333
Burbo Bank	10.580601	20.257999	0.000000
Dudgeon	15.326966	23.898895	0.000000
Greater Gabbard	15.338330	35.245971	0.000000
Gunfleet	17.680076	16.231694	3.033797
Gwynt Y Mor	18.654651	18.377138	0.000000
Humber Gateway	15.005644	33.857735	0.000000
Lincs	15.268405	59.779295	0.000000
London Array	10.412718	35.465138	0.000000
Ormonde	25.255009	47.047715	0.374931
Race Bank	9.624985	26.420532	0.000000
Robin Rigg	-0.467184	30.946915	9.591874
Robin Rigg West	-0.467184	30.946915	9.591874
Sheringham Shoal	24.430847	28.651661	0.622803
Thanet	18.591504	34.642618	0.833970
Walney 1	21.796270	43.407215	0.000000
Walney 2	21.637751	43.789634	0.000000
West of Duddon Sands	8.423723	41.565850	0.000000
Westermost Rough	17.737529	30.004308	0.000000

Demand Tariffs

Treatment of metering classes for demand charging from 2020/21 onwards

- All demand meters in GB are divided into classifications of capacity and HH/NHH functionality
- CMP318 has been approved, which will extend the treatment of measurement classes F and G as NHH
- This will be reviewed in line with the TCR timeline which will be implemented for 2021/22

Measurement class	Description	2020/21 onwards
A	Non-Half Hourly metered	NHH
B	Non-Half Hourly unmetered	NHH
C	Half Hourly metered in 100kW premises	HH
D	Half Hourly unmetered	HH
E	Half Hourly metering equipment below 100kW with current transformer	HH
F	Half Hourly metering equipment below 100kW with current transformer or whole current, at domestic premises	NHH
G	Half Hourly metering equipment below 100kW with current transformer or whole current, NOT at domestic premises	NHH

Demand volumes

- Demand volumes have changed marginally since July, due to CMP318
- An increase in NHH demand volumes has decreased NHH demand tariffs
- However the decrease in revenue has caused the demand tariffs to decrease overall

Charging Bases	2020/21 July	2020/21 Draft	Change
NHH Demand (4pm-7pm TWh)	24.31	25.13	0.82
Total Average Gross Triad (GW)	50.40	50.40	0.00
HH Demand Average Gross Triad (GW)	19.22	18.12	-1.10
Embedded Generation Export (GW)	7.23	7.23	0.00

Demand Tariffs

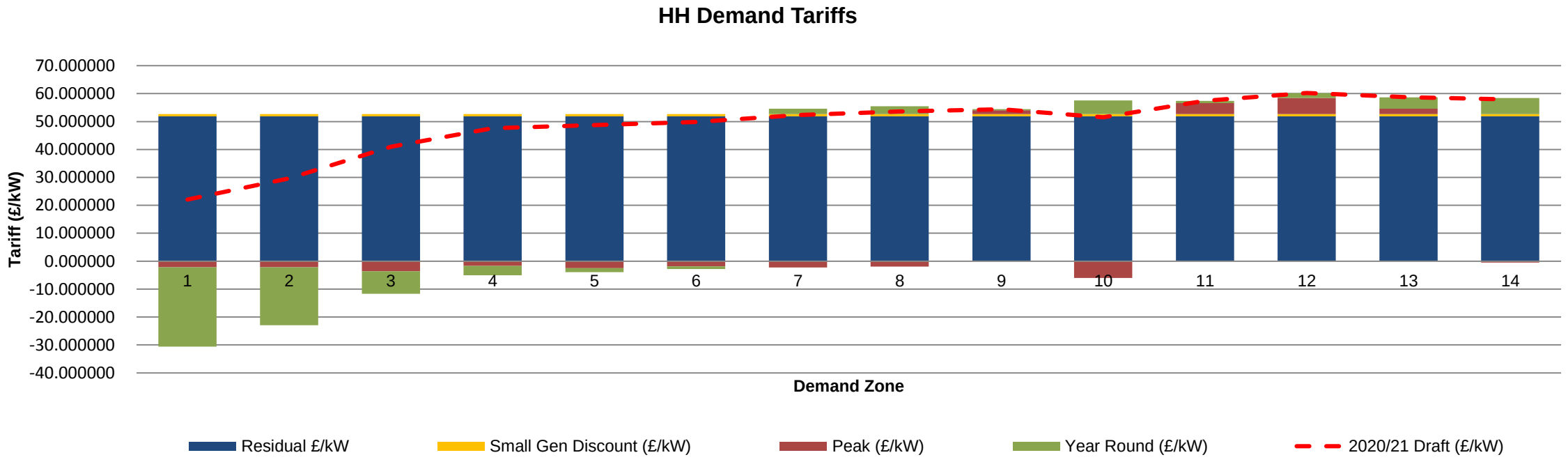
- There has been an decrease in the amount of revenue to be collected causing the demand tariffs to decrease
- Tariffs include the Small Generator Discount levy
- £17.2m payable to some embedded generators (7.2GW) through EET (embedded export tariffs)

Zone	Zone Name	HH Demand Tariff (£/kW)	NHH Demand Tariff (p/kWh)	Embedded Export Tariff (£/kW)
1	Northern Scotland	22.039463	2.958074	0.000000
2	Southern Scotland	29.676415	3.806319	0.000000
3	Northern	40.943296	5.149410	0.000000
4	North West	47.599027	6.117466	0.000000
5	Yorkshire	48.759563	6.080959	0.000000
6	N Wales & Mersey	49.830330	6.234944	0.587871
7	East Midlands	52.314445	6.711382	3.071986
8	Midlands	53.575540	6.959651	4.333081
9	Eastern	54.415931	7.389274	5.173472
10	South Wales	51.539954	6.065145	2.297495
11	South East	57.430714	7.895471	8.188255
12	London	60.197138	6.472525	10.954679
13	Southern	58.701866	7.598027	9.459407
14	South Western	57.949506	7.979705	8.707047

Residual charge for demand:	£ 51.881473	
Tariffs include small gen tariff of:	£ 0.777481	0.0998870

HH Demand Tariff

- The average tariff is £50.41/kW, a decrease of £0.70/kW since the July forecast due to the decrease in revenue to be recovered from demand tariffs.
- The average tariff does not include the Small Generator Discount
- The residual element of the tariffs has decreased by £0.65/kW



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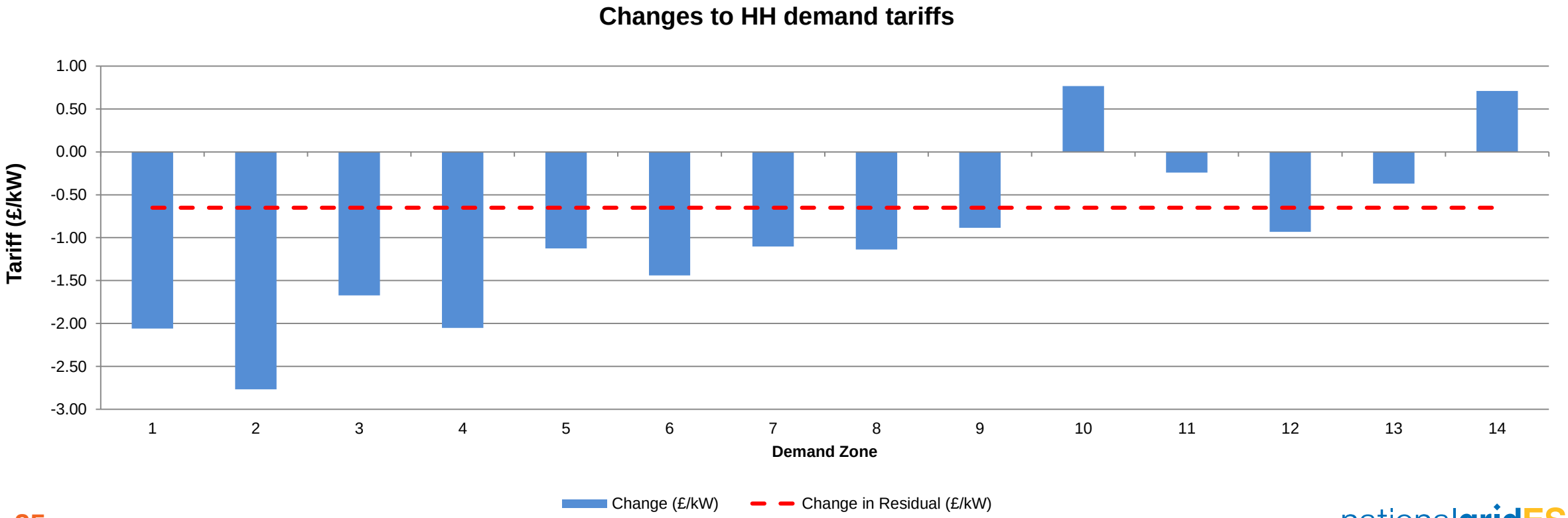
Changes to HH tariffs

- The tariff decreased in all zones except 10 and 14 due to the updated nodal demand data used to draft the tariffs
- Overall the HH demand tariffs have decreased due to the decrease in overall revenue to be collected



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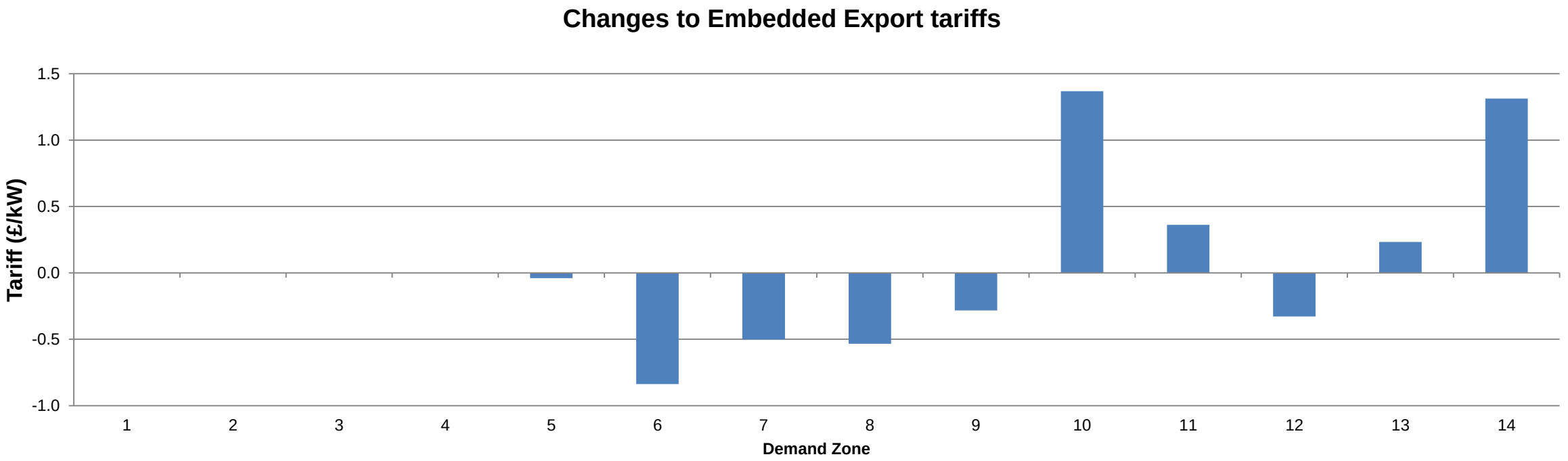
Embedded Export Tariff

- The embedded export tariff was introduced through code modifications CMP264/265.
- The average tariff is £2.37/kW. The tariffs have changed in line with the HH tariffs due to the impact of the locational elements. The total volume of embedded export is forecast to be 7.2GW
- Zones 1 to 5 have an EET of £0.00/kW due to the scheduled reduction in the phased residual



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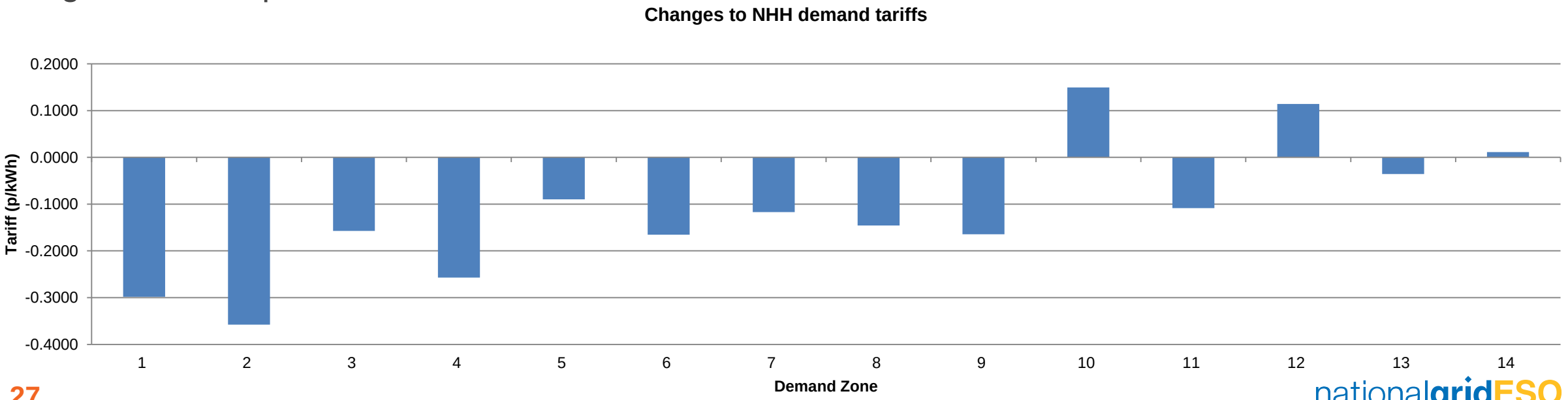
NHH Tariffs

- The average NHH tariff is 6.43p/kWh which has decreased by 0.10p/kWh since the July forecast
- This is due to the decrease in the overall revenue to be recovered and the increase in the NHH charging base as a result of CMP318 implementation
- Along with the changes to locational elements has caused the tariffs to drop in zones 1 to 9 and 11
- The increase in zones 10, 12 and 14 is due to the updates to nodal demand data and locational generation inputs



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Next Step - Final 2020/21 tariffs

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When do inputs change in quarterly forecasts?

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		Five-year forecast	March	July	DRAFT Nov	FINAL Jan
Methodology		**Open to industry governance**				
Locational	DNO/DCC demand data	Demand forecast provided by DNOs/DCCs in 2018			DNOs/DCCs update by week24	As per Draft forecast
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	Generation ALFs	As in 2018 ALF report			New ALFs published	As per Draft forecast
	Generation revenue	Forecast	Forecast	Fixed gen rev £m	As per July	As per July

Save the date

TNUoS Tariff Model Training, 11 December 2019, 10:00am – 3:00pm

- Aimed at users who have some understanding of the TNUoS tariffs, and have little or no previous experience at using the model
- Provide hands-on experience in changing the model inputs and generating own scenarios
- Please note we will cover the current DCLF-ICRP model only and not changes required following Ofgem's TCR decision

Interested? You can register your interest by contacting us at Tnuos.Queries@nationalgrideso.com

Charging Future Forum, 18 December 2019

- One place to learn, contribute and shape the reform of GB's electricity network access and charging arrangements

Interested? Further information can be found on the Charging Futures **Website**

If you're not already subscribed to our mailing list you can **subscribe here**

Q & A

Contact us:

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T: 01926 654633

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Q&A

Why is the “Five year view” under review?

The changes to TNUoS charge under the TCR are significant. At this moment, we have not had sufficient data to undertake demand residual analysis. As such, we are currently reviewing the timescale of Five Year View and TNUoS forecast publications for 2021/22 and would like to seek the industry view on this as well.

In addition, we are planning to present some sensitivity analysis regarding future generation TNUoS at the Charging Futures Forum on the 18th December.

Is the TCMF the 11th December meeting you are referring to?

No, we are referring to our T&T Model training session on the slides, although there is also a TCMF meeting happening on 11th Dec.

Where is the Model Training on 11th December held?

At Faraday House in Warwick. The next training session is to be confirmed (dependant on TCR impact) and details will be published on the NGESO website here.

Will the updated T&T Model be circulated soon?

Yes, the model was circulated to licence holders on 5th December.

Is EET still going to be Triad based for 21/22?

Yes, EET and the "locational" elements of demand tariffs will still be Triad based.

Your feedback

We are continuously looking at ways we can improve the experience of all our customers

We welcome your feedback on your experiences of the TNUoS tariff forecasting and setting process

Feedback survey:

Go to: www.slido.com
Event code: #DraftTariffs
Respond to 3 questions

TNUoS Queries

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Thank You

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