July 2019 Forecast of TNUoS Tariffs (2020/21) Webinar

NG ESO Revenue Team

Thursday 08 August 2019
10:30 – 11:30am

Click here to view the webinar recording

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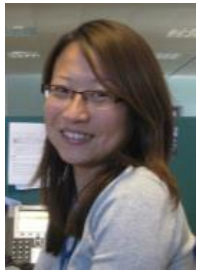
Agenda

1	Introduction
2	Tariff timetable
3	Forecast Process
4	Revenue
5	Generation Tariffs
6	Onshore and offshore local tariffs
7	Demand Tariffs
8	Draft Tariffs (November forecast 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

Jo Zhou

- Revenue
- Onshore Local Circuits

Alice Grayson

- Demand
- Generation
- EET

Tariff Timetable

2019/20 TNUoS

- ✓ **Final tariffs 31 January 2019**

2020/21 TNUoS

- ✓ **Quarterly Forecast by end of March 2019**
- ✓ **Five Year View by end of March 2019**
- ✓ **Quarterly Forecast by end of July 2019**
- • **Draft Tariffs by end of November 2019**
- • **Final Tariffs by 31 January 2020**

Ongoing CUSC modifications may change the methodology for 2020/21 tariffs calculation.

For the list of CUSC modifications, please follow the link here

https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc?mods

Forecast Process

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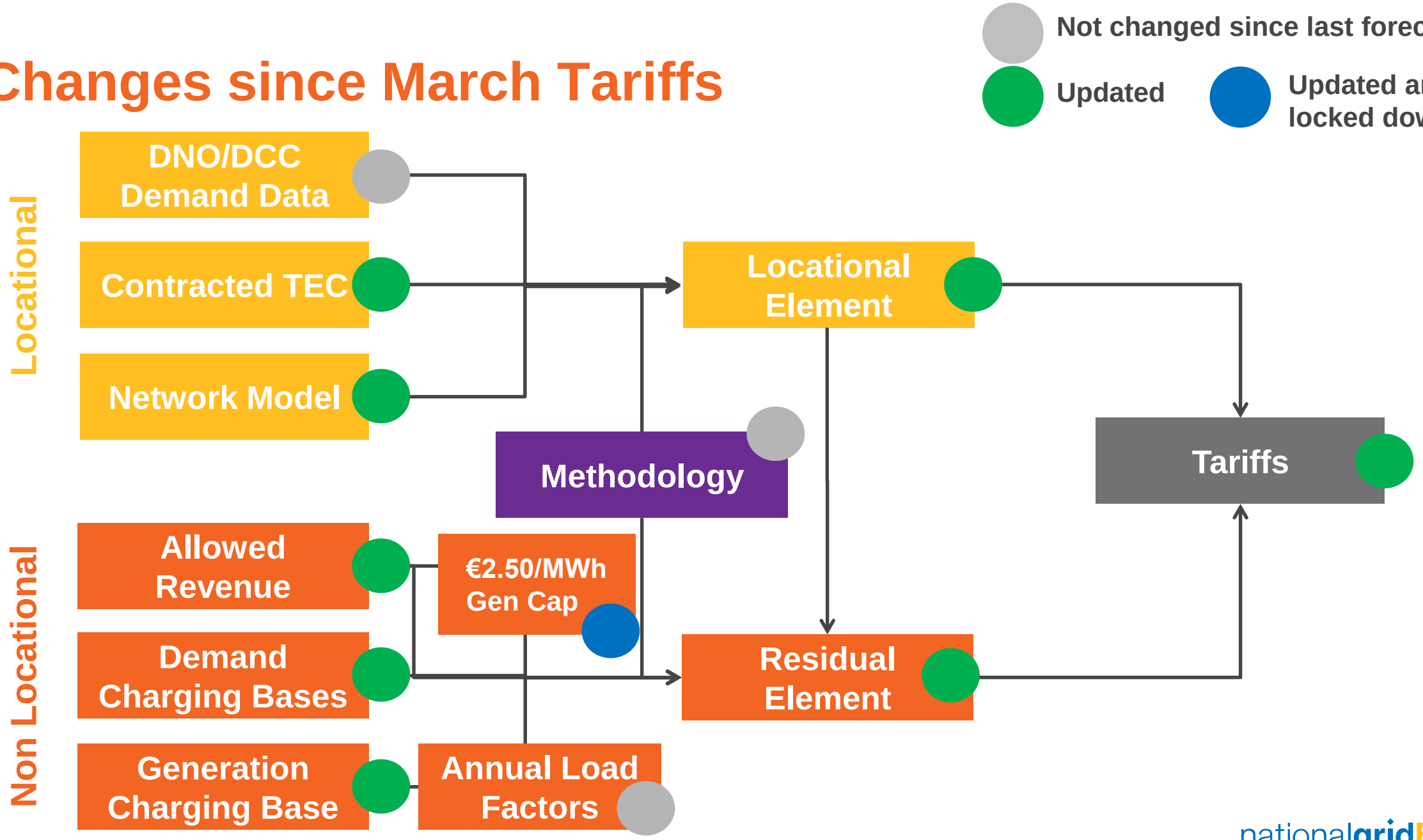
When do inputs change in quarterly forecasts?

		Five-year forecast	March	July	DRAFT Nov	FINAL Jan
Methodology		Open to industry governance				
Locational	DNO/DCC Demand Data	Previous year			Week 24 updated	
	Contracted TEC	Latest TEC	Latest TEC	Latest TEC	TEC Register Frozen at 31 October	
	Network Model	Previous year (except new local circuits)			Latest version based on ETYS	
Residual	Allowed Revenue	Update financial parameters	Update financial parameters	Update financial parameters	Latest TO Forecasts	From TOs
	Demand Charging Bases	Revised Forecast	Revised Forecast	Revised Forecast	*Only by exception*	*Only by exception*
	Generation Charging Base	NG Best View	NG Best View	NG Best View	NG Best View	NG Final Best View
	Generation ALFs	Previous Year			New ALFs published	
	Generation Revenue	Forecast	Forecast	Fixed Gen Rev £m		

Changes since March Tariffs



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Revenue

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Revenue

£m Nominal	2020/21 TNUoS Revenue	
	March Forecast	July Forecast
NGET Income from TNUoS	1,751.4	1,746.7
SPT Income from TNUoS	368.7	366.8
SHE Income from TNUoS	358.2	356.6
ESO Other Pass-through from TNUoS	41.4	41.7
Offshore (offset by IFA contribution)	431.0	427.4
Total to Collect from TNUoS	**2,950.8**	**2,939.3**

Total revenue is £2939.3m, £11.5m less than the March forecast.

TNUoS income for each onshore TO has reduced slightly

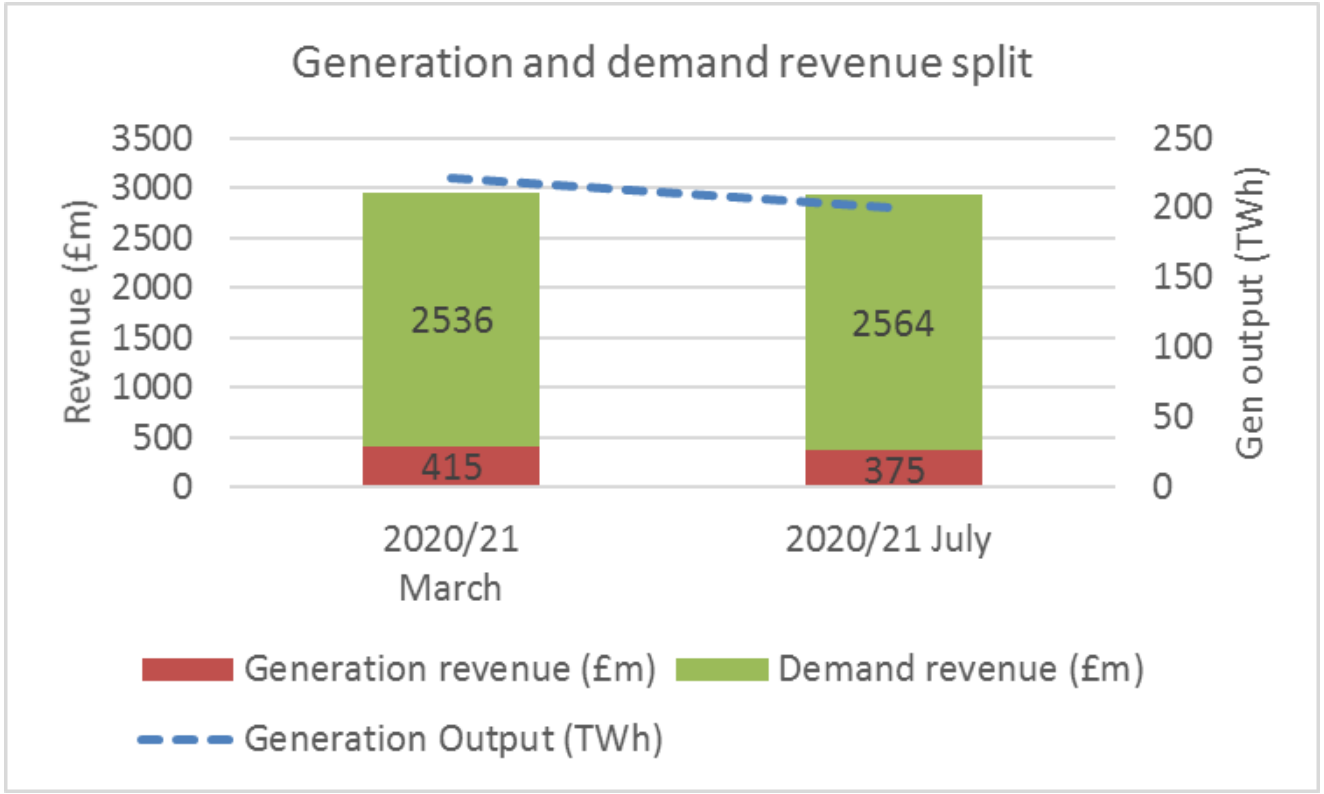
Offshore revenue has also reduced

Revenue forecast will be updated by November

Summary of revenue to be recovered

Generation revenue was updated since March, following FES annual update. The £m to be collected from generators for year 2020/21, has now been locked down

	2020/21 March	2020/21 July
Total Revenue (£m)	2951	2,939
Generation revenue (£m)	415	375
Demand revenue (£m)	2536	2564
Generation Output (TWh)	221.2	199.8
% of revenue from generation	14.1%	12.8%
% of revenue from demand	85.9%	87.2%



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Generation Tariffs

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Generation changes since March Tariffs

- TEC values has been updated in line with the June 2019 TEC Register.
- Generation charging base was reduced by 2.3GW due to some closures and delays in upcoming projects.
- The generation output forecast has decreased from 221TWh to 200TWh since the last forecast in March in line with the FES.
- This led to a decrease in generation tariffs.

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

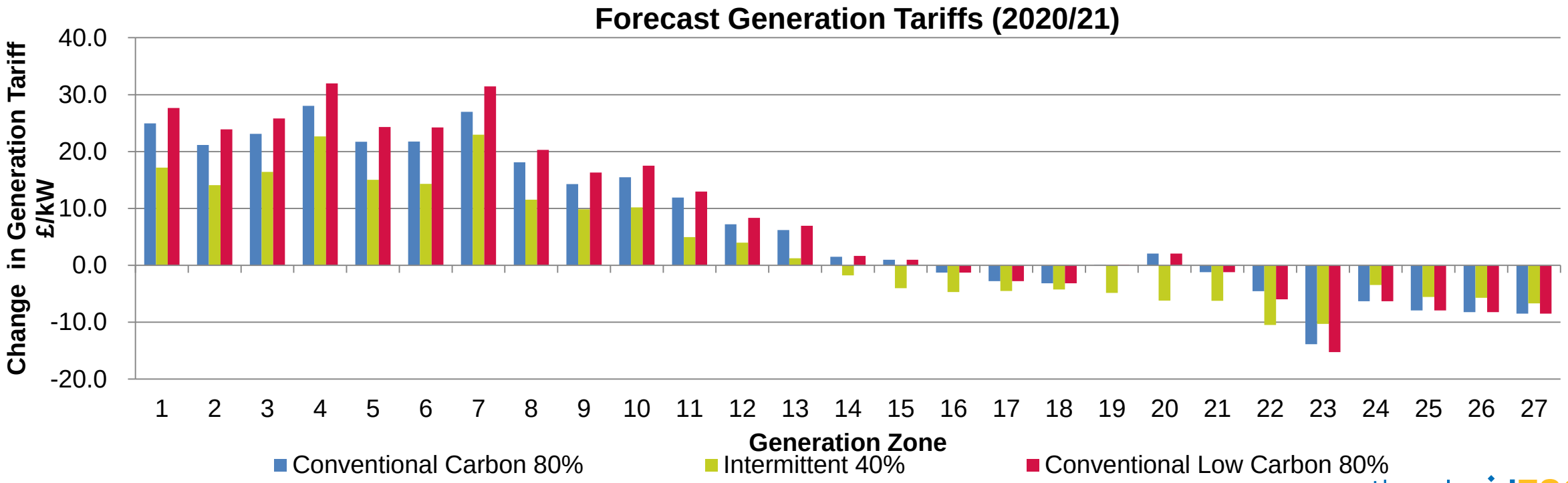
Contracted TEC – TEC as set out in the TEC register.

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.
- Since the March forecast, the generation tariffs have decrease due to the shift in the G:D split.
- This has been driven by a change in the generation charging base, forecasted output and decrease in revenue.



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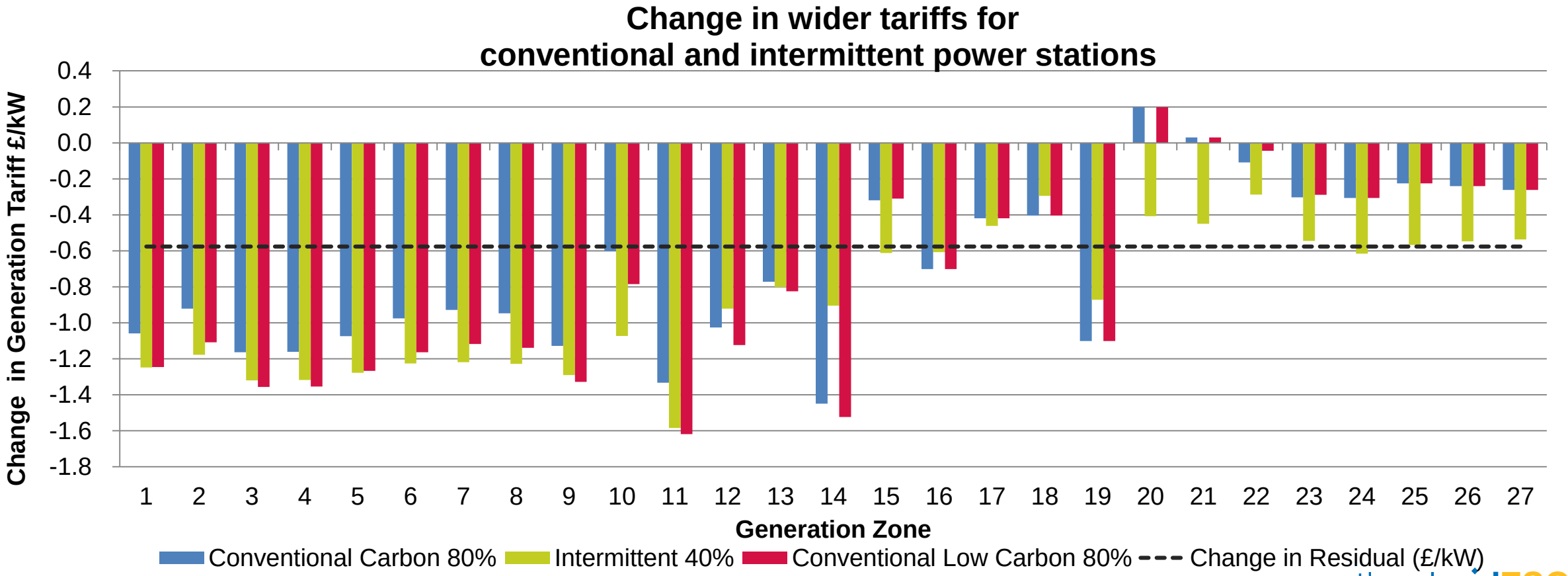
Generation tariff changes

Residual decreased by £0.58/kW

The tariffs have decreased in all zones except zones 20 and 21 due to the impact of locational 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 increased slightly, in line with RPI.

Substation Name	(£/kW)	Substation Name	(£/kW)	Substation Name	(£/kW)
Aberarder	1.122677	Dunhill	1.454640	Mark Hill	0.889211
Aberdeen Bay	2.647970	Dunlaw Extension	1.532468	Middle Muir	2.013076
Achruach	4.361059	Edinbane	6.952411	Middleton	0.148506
Aigas	0.664219	Ewe Hill	2.471790	Millennium Wind	1.854846
An Suidhe	3.091747	Fallago	0.444988	Moffat	0.193429
Arecleoch	2.109307	Farr	3.620972	Mossford	0.455179
Baglan Bay	0.772599	Fernoch	4.467227	Nant	-1.247656
Beinneun Wind Farm	1.525414	Ffestiniogg	0.256941	Necton	-0.373953
Bhlaraidh Wind Farm	0.655713	Finlarig	0.325189	New Deer	0.764721
Black Hill	1.577192	Foyers	0.297481	Rhigos	0.103359
Black Law	1.774604	Galawhistle	3.553628	Rocksavage	0.017980
BlackCraig Wind Farm	6.393155	Glendoe	1.868082	Saltend	0.017620
BlackLaw Extension	3.763278	Glenglass	4.886512	South Humber Bank	0.420047
Clyde (North)	0.111376	Gordonbush	0.234169	Spalding	0.286211
Clyde (South)	0.128801	Griffin Wind	9.864469	Strathbrora	0.102292
Corriegarth	2.942188	Hadyard Hill	2.811027	Strathy Wind	1.898998
Corriemoillie	1.689674	Harestanes	2.567310	Stronelairg	1.087000
Coryton	0.052005	Hartlepool	0.207224	Wester Dod	0.485802
Cruachan	1.853318	Invergarry	0.371645	Whitelee	0.107783
Crystal Rig	0.140224	Kilgallioch	1.068849	Whitelee Extension	0.299637
Culligran	1.760195	Kilmorack	0.200570		
Deanie	2.891749	Kype Muir	1.506367		
Dersalloch	2.446348	Langage	0.667991		
Dinorwig	2.436671	Lochay	0.371645		
Dorenell	2.131341	Luichart	0.582438		
Dumnaglass	1.625946	Marchwood	0.387579		

Offshore Local Tariffs

- Tariffs are increased each year by RPI.
- Tariffs are set at asset transfer.
- Race Bank, Galloper, Walney Extension and Rampion 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	8.216650	42.989502	1.067488
Burbo Bank	10.645770	20.382774	0.000000
Dudgeon	15.421369	24.046095	0.000000
Greater Gabbard	15.405252	35.399752	0.000000
Gunfleet	17.782606	16.325825	3.051391
Gwynt Y Mor	18.761131	18.482033	0.000000
Humber Gateway	14.929571	33.686089	0.000000
Lincs	15.355556	60.120511	0.000000
London Array	10.452930	35.602097	0.000000
Ormonde	25.401467	47.320554	0.377105
Robin Rigg	-0.469893	31.126382	9.647499
Robin Rigg West	-0.469893	31.126382	9.647499
Sheringham Shoal	24.542221	28.782275	0.625641
Thanet	18.689792	34.825763	0.838379
Walney 1	21.922671	43.658942	0.000000
Walney 2	21.763233	44.043579	0.000000
West of Duddon Sands	8.459360	41.741699	0.000000
Westermost Rough	17.812569	30.131245	0.000000

Demand Tariffs

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Demand volumes

- Demand volumes have increased marginally since March, in line with the FES
- An increase in demand volumes decreases demand tariffs
- However the decrease in the generation output and charging base will cause an increase in revenue to be collected through demand tariffs, causing the demand tariffs to increase overall.

Charging Bases	2020/21 March	2020/21 July	Change
NHH Demand (4pm-7pm TWh)	24.13	24.31	0.18
Total Average Gross Triad)GW)	50.25	50.4	0.15
HH Demand Average Gross Triad (GW)	19.16	19.22	0.06
Embedded Generation Export (GW)	7.09	7.23	0.14

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. Due to the rollout of smart meters which can record data on a HH basis, several of these classes are changing from being settled as NHH to being settled HH as per code modification CMP266. This will change the TNUoS demand tariff they are liable to pay.

Note a CUSC modification proposal (CMP318) has been raised, to extend the NHH TNUoS treatment for Class F and Class G customers to year 2020/21 and onwards.

Measurement class	Description	Settlement in 2019/20	2020/21 onwards
A	Non Half Hourly metered	NHH	NHH
B	Non Half Hourly unmetered	NHH	NHH
C	Half Hourly metered in 100kW premises	HH	HH
D	Half Hourly unmetered	HH	HH
E	Half Hourly metering equipment below 100kW with current transformer	HH	HH
F	Half Hourly metering equipment below 100kW with current transformer or whole current, at domestic premises	NHH	HH
G	Half Hourly metering equipment below 100kW with current transformer or whole current, NOT at domestic premises	NHH	HH

Demand Tariffs

- There has been an increase in the amount of revenue to be collected through demand causing the demand tariffs to increase
- Tariffs include the Small Generator Discount levy
- £17.2m payable to some embedded generators (7.23GW) through EET (embedded export tariffs)

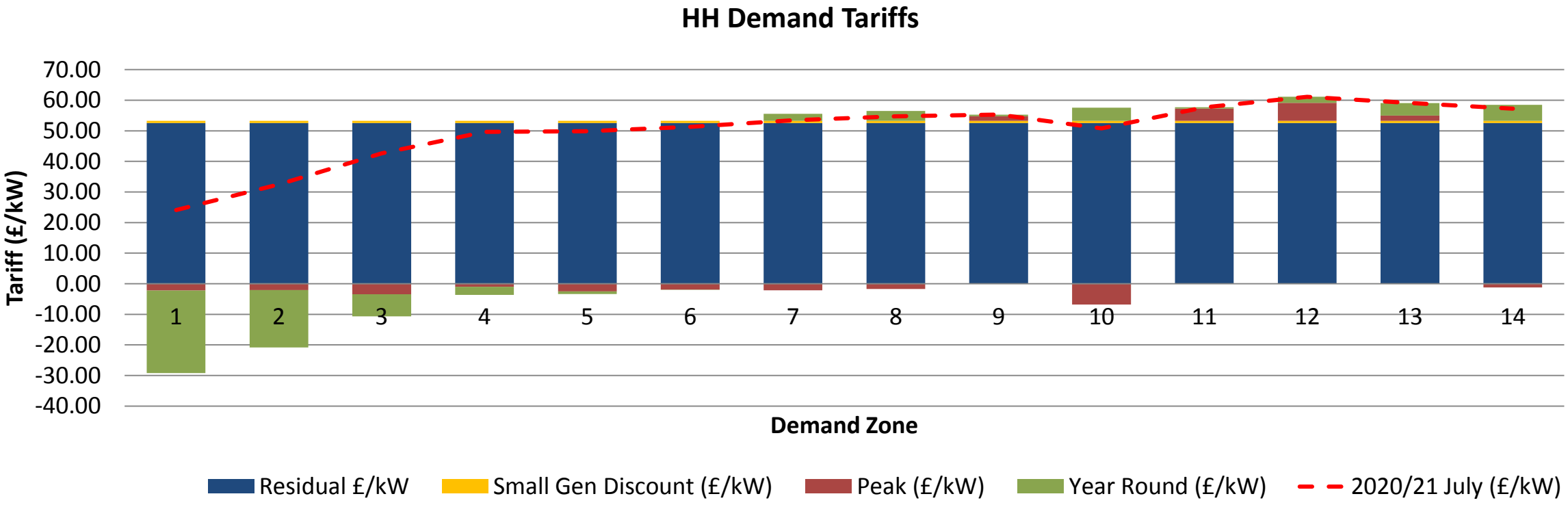
Zone	Zone Name	HH Demand Tariff (£/kW)	NHH Demand Tariff (p/kWh)	Embedded Export Tariff (£/kW)
1	Northern Scotland	24.098098	3.256229	0.000000
2	Southern Scotland	32.442288	4.163924	0.000000
3	Northern	42.615678	5.306694	0.000000
4	North West	49.649333	6.374698	0.000000
5	Yorkshire	49.885147	6.170694	0.039960
6	N Wales & Mersey	51.270718	6.400488	1.425532
7	East Midlands	53.418265	6.828395	3.573079
8	Midlands	54.712695	7.105347	4.867508
9	Eastern	55.300674	7.553600	5.455488
10	South Wales	50.773870	5.915328	0.928684
11	South East	57.672224	8.004151	7.827037
12	London	61.128120	6.358193	11.282933
13	Southern	59.071027	7.633628	9.225840
14	South Western	57.239363	7.968421	7.394177

Residual charge for demand:	£ 52.533607	
Tariffs include small gen tariff of:	£ 0.738666	0.0947450

HH Demand Tariff

The average tariff is £51.49/kW, an increase of £0.37/kW since the March forecast due to the increase 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 increased by £0.36/kW.



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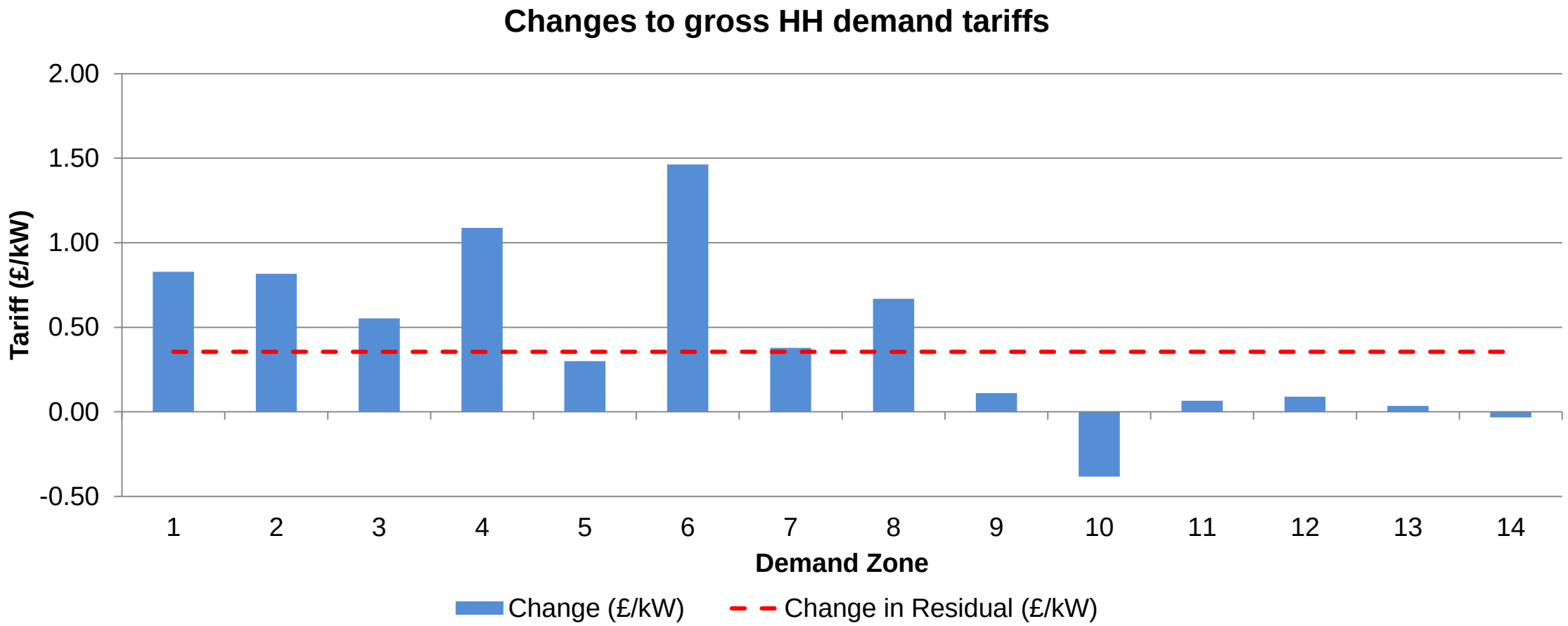
Changes to HH tariffs

The tariff increased in all zones except 10 and 14 due to the increase in revenue to be collected from demand tariffs, because of the decrease in the generation charging base.



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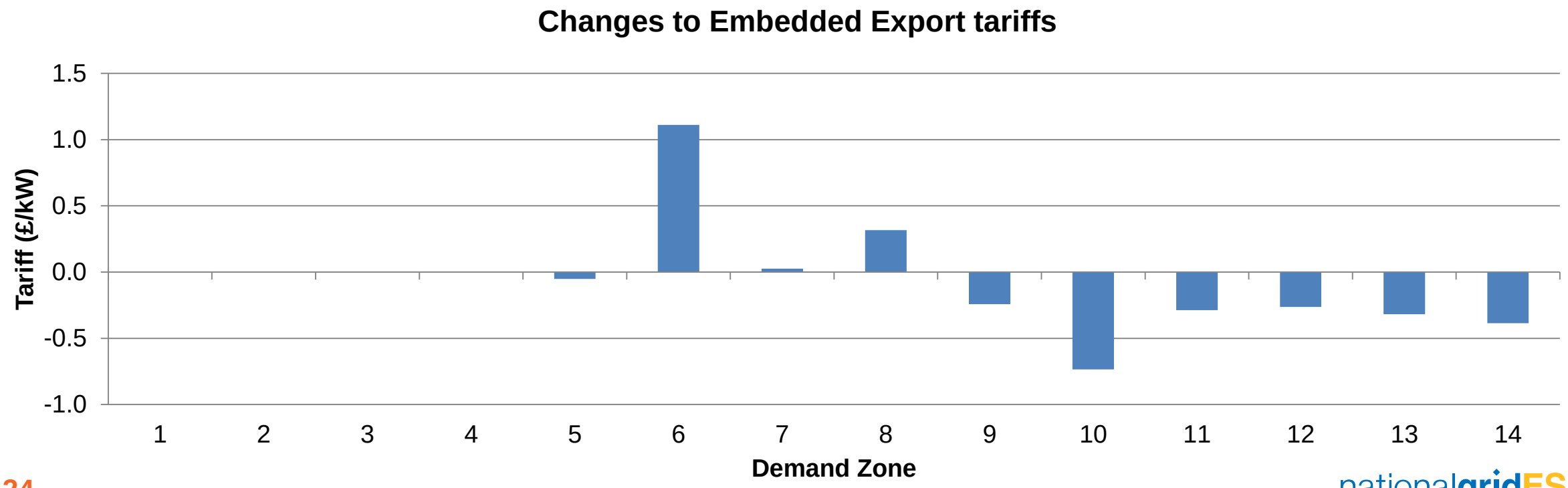
Embedded Export Tariff

The embedded export tariff was introduced through code modifications CMP264/265.

The average tariff is £2.38/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 7.23GW.

Zones 1 to 4 have an EET of £0.00/kW due to the scheduled reduction in the phased residual.



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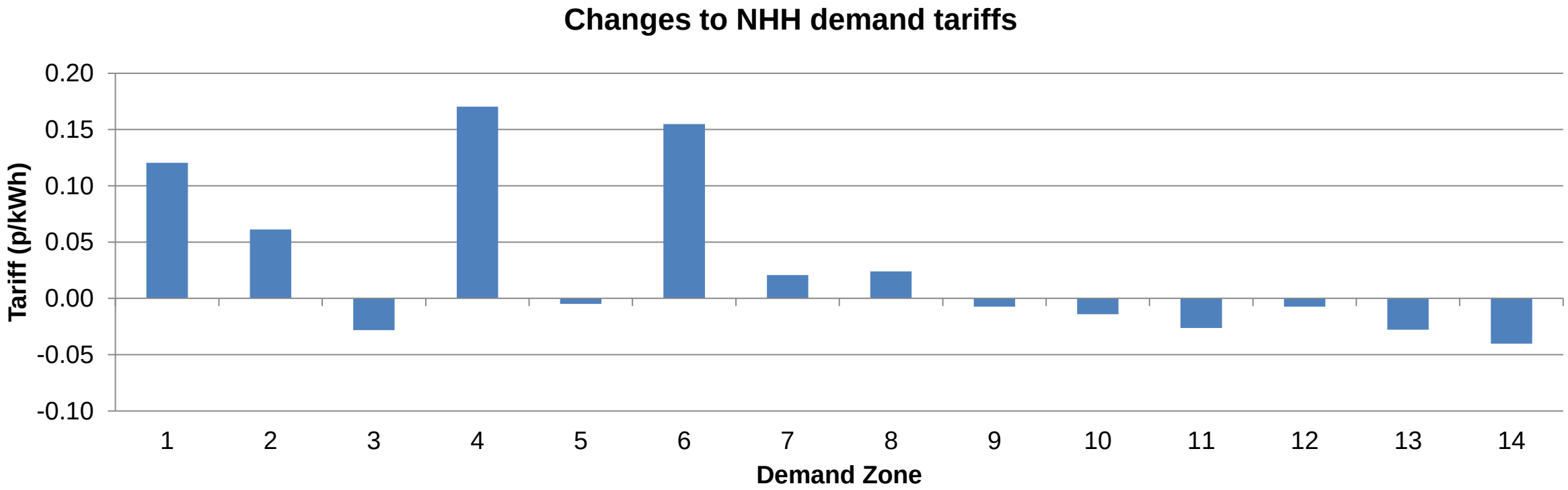
NHH Tariffs

The average NHH tariff is 6.55p/kWh which has increased by 0.02p/kWh since the March forecast. This does not include the additional levy for the Small Generator Discount scheme.

The NHH tariffs have increased in the northerly zones and decreased in the southerly zones due to the change in locational elements.



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Draft 2020/21 tariffs

When do inputs change in quarterly forecasts?

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	Generation Revenue	Forecast	Forecast	Fixed Gen Rev £m		

Q & A

Contact us:

TNUoS.Queries@nationalgrideso.com

T: 01926 654633

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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

TNUoS Queries

E: Tnuos.Queries@nationalgrideso.com
T: 01926 654633

Save the date for this year's Charging Forums

Charging Forums 16 & 17 October 2019

The aim of the events is for you to get a better understanding of our charges; how they're forecasted, calculated and billed.

16 October – aimed at Suppliers

17 October – aimed at Generators

More detail to follow in our communications. If you're not already subscribed to our mailing list you can subscribe here.

Interested? You can register your interest TNUoS.queries@nationalgrideso.com

Thank You

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E: Tnuos.queries@nationalgrideso.com
T: 01926 654633

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