

# TNUoS TCR and RIIO-2 Update

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# Content

- 
- 1 TCR - £0 TGR

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  - 2 Gen Cap

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  - 3 Generation Rezoning

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  - 4 RIIO-2 and Next 5 Year View

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# Purpose of Presentation

- Following customer feedback, we are providing early visibility of the implications on TNUoS tariffs of a number of changes that are expected to be applicable from April 2021.
- This includes changes from the TCR and the resulting mods, and RIIO 2 parameter changes.
- All values in this presentation are highly indicative to illustrate how charges may be impacted.

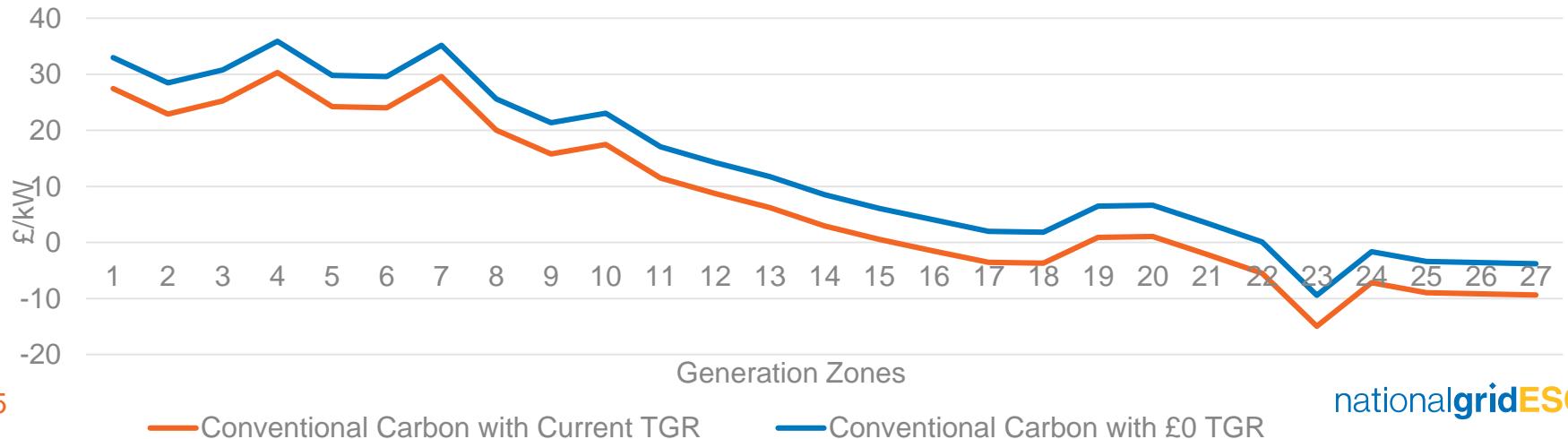
# Process and Assumptions for Analysis

- The following analysis is not a forecast. All figures are highly indicative and are subject to methodology and parameter changes.
- We have carried out analysis using the March 2019 5 Year View 2021/22 model.
- All data inputs have been kept the same since the March 2019 5YV and all changes shown to tariffs are compared to the 2021/22 Tariffs from the March 2019 5YV.
- We have not modelled the impact of the TCR demand residual changes as there is not currently enough information about the methodology to be able to carry out meaningful analysis.
- We have not modelled RIIO-2 financial parameters

# TCR - £0 Transmission Generation Residual

- If the TGR goes to £0 with no other changes then Generation revenue would increase from £405.7m to £812.2m.
- Maximum revenue that can be collected from generation and still be within the €2.50/MWh cap is £483m with current forecast of generation output. £0 TGR would put tariffs above this limit with the current methodology and excluding CMP317 modification.
- All generation tariffs could increase by £5.56/kW. The average generation tariff would increase from £5.55/kW to £11.11/kW.

Impact of £0 TGR on Conventional Carbon Wider Tariffs



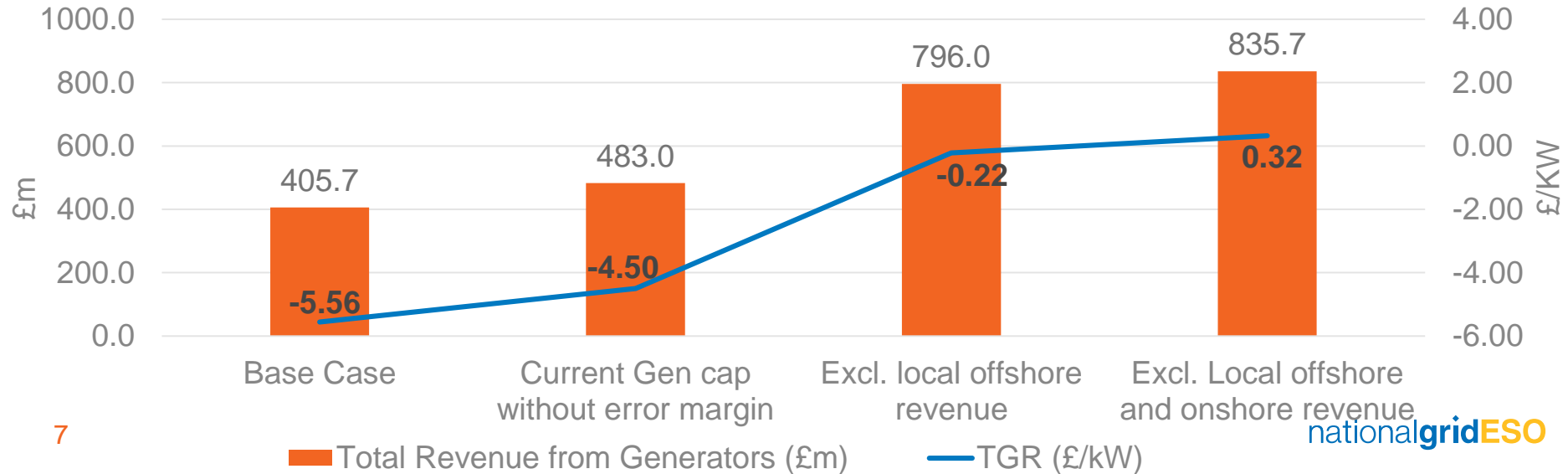
# TCR - £0 TGR Impact on Demand Tariffs

- Increasing the amount of revenue collected through generation would decrease the amount collected through demand by £406m.
- This would decrease the average Half Hourly tariff and average Non Half hourly tariffs.
- The Embedded Export Tariff is not effected.

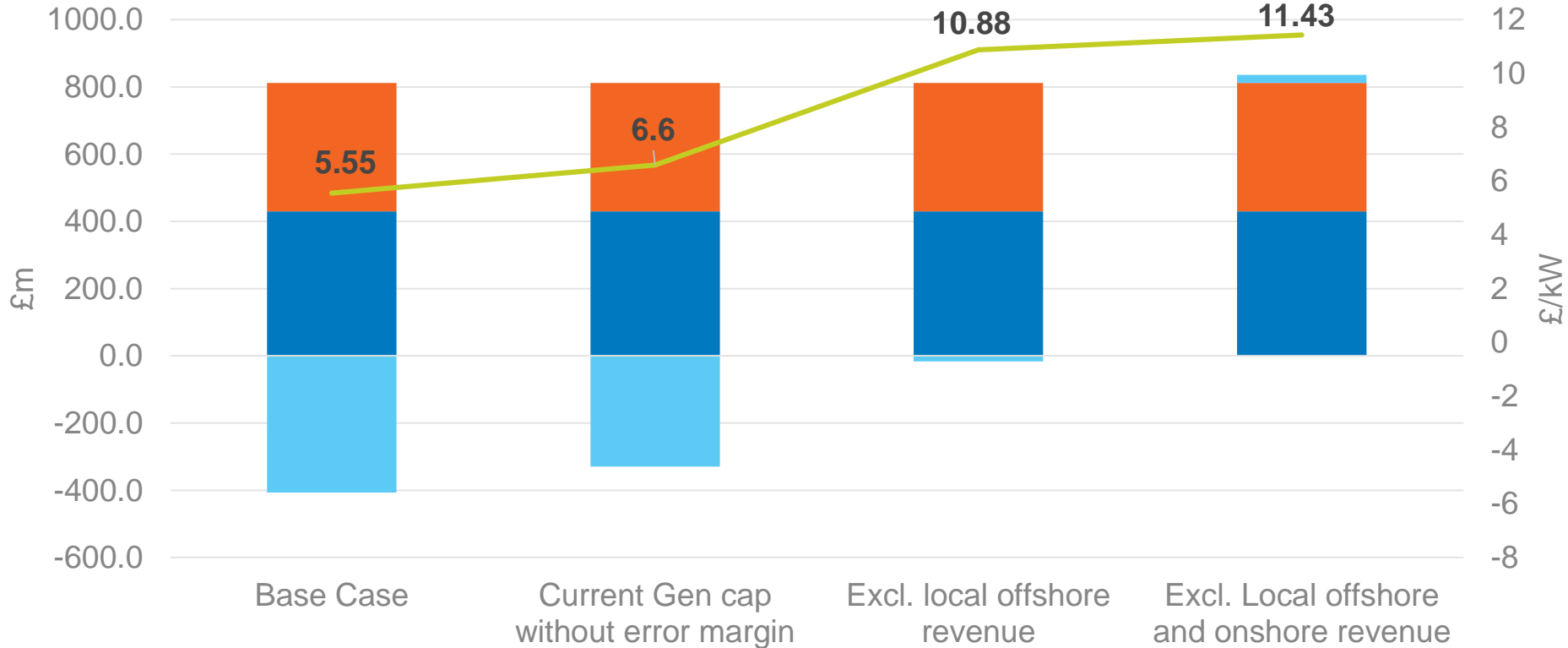
	Demand Revenue (£m)	Average HH Tariff (£/kW)	Average NHH tariff (p/kW)	Average EET (£/kW)
Base Case	2677.52	54.13	6.93	2.32
£0 TGR	2271.01	46.01	5.88	2.32

# Generation Cap Options

- The below graph shows the impact of changing what is included in the gen cap without the £0 TGR.
- If the TGR is £0 then in all options the total revenue from generation would be £812m.
- The below highlights that excluding both offshore and onshore revenue is a possible option of the 4 below to ensure the €2.50/MWh cap is met



# Gen Cap Options - Impact on Generation Tariffs





# Gen Cap Options - Impact on Demand Tariffs

	Demand Revenue (£m)	Average HH Tariff (£/kW)	Average NHH tariff (p/KWh)	Average EET (£/kW)
Base Case	2677.52	54.13	6.93	2.32
Current Gen cap without error margin	2600.24	52.59	6.74	2.32
Excl. local offshore revenue	2287.23	46.33	5.93	2.32
Excl. Local offshore and onshore revenue	2247.53	45.54	5.82	2.32

# Generation Rezoning and RIIO2

Jo Zhou

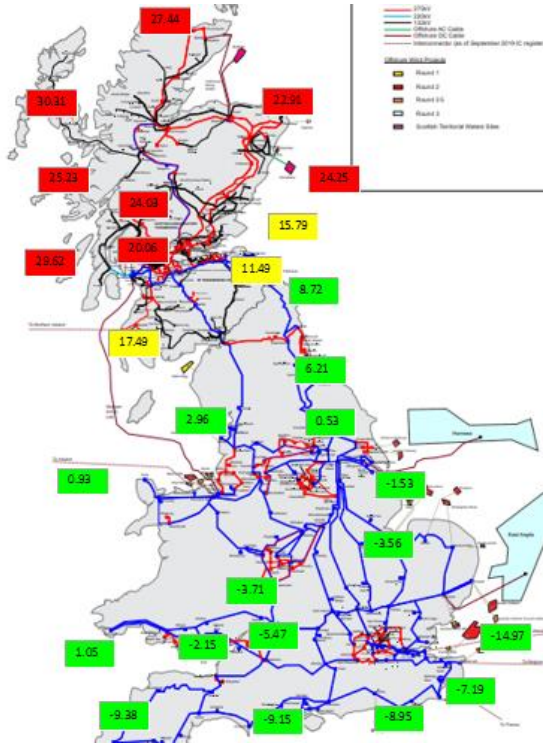


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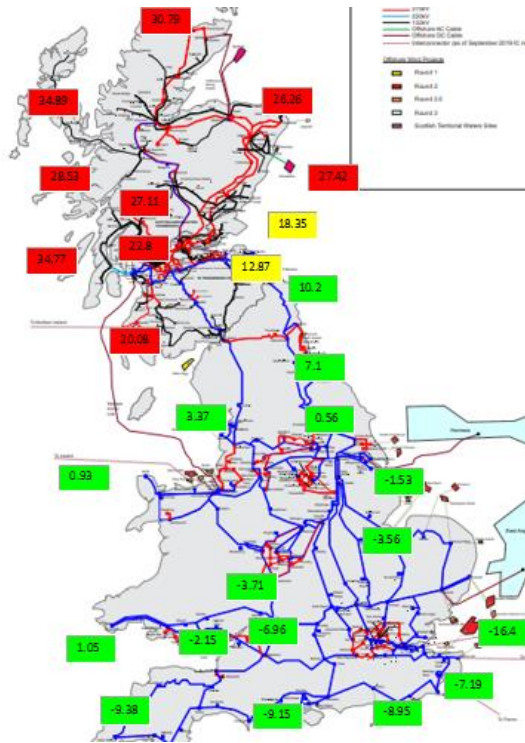
# Generation Rezoning

- These are illustrative zones, and may be revised following updates to the underpinning RII0-2 parameters
- In addition, CMP324/325 workgroup are reviewing the zoning criteria
- Re-zoning is not affected by the TCR (however may be affected by the access and forward-looking charging SCR)
- The indicative tariffs are based on 2021/22 model, and have included negative TGR of - £5.56/kW. To assess the potential tariffs after TGR, please increase each of the tariff figures by £5.56/kW.

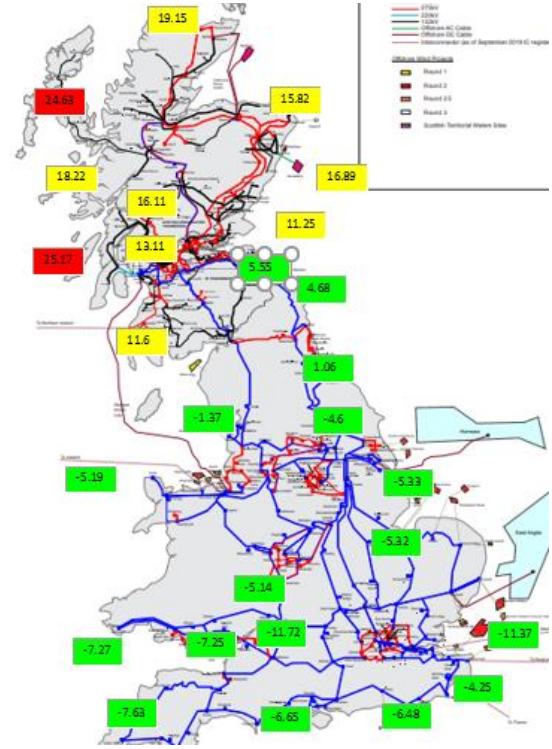
# The Wider Zones and Indicative Tariffs (existing 27 zones)



80% Conventional Carbon

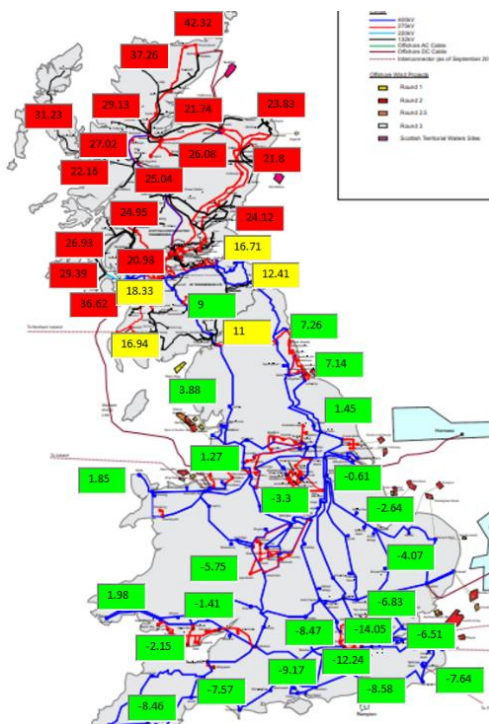


80% Conventional Low Carbon

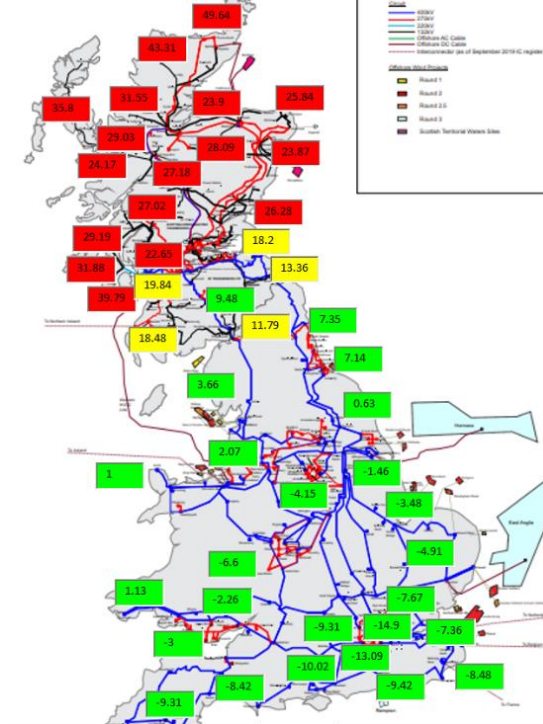


40% Intermittent

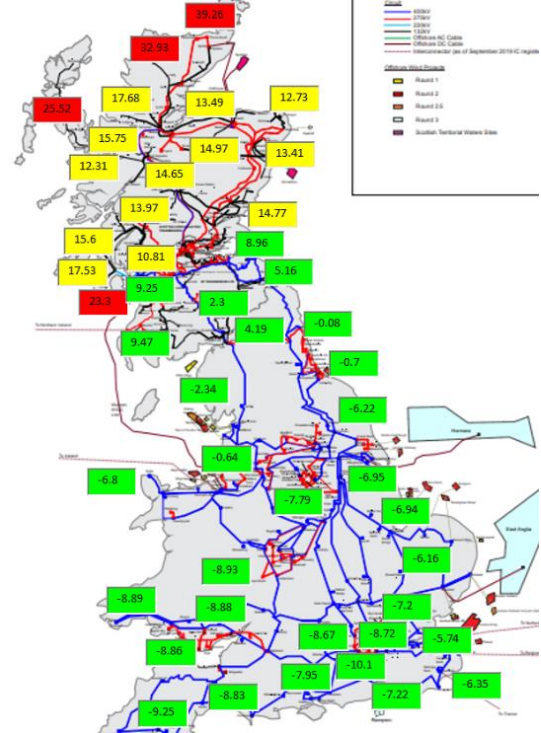
# Generation Rezoning (illustrative 47 zones)



80% Conventional Carbon

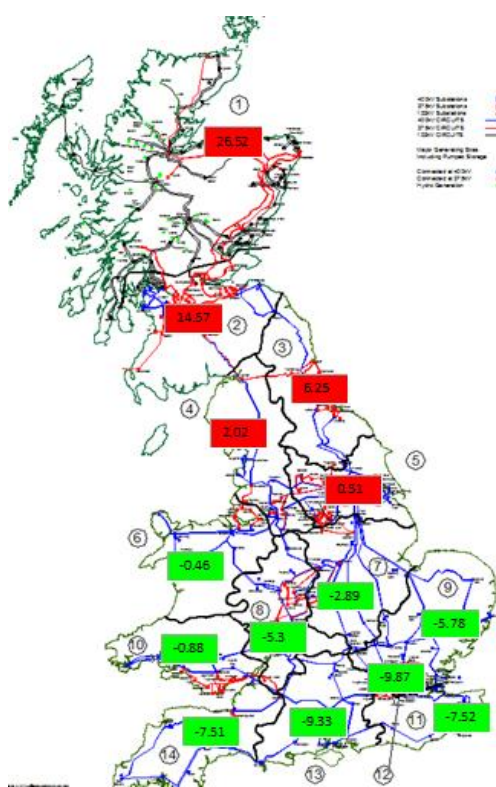


80% Conventional Low Carbon

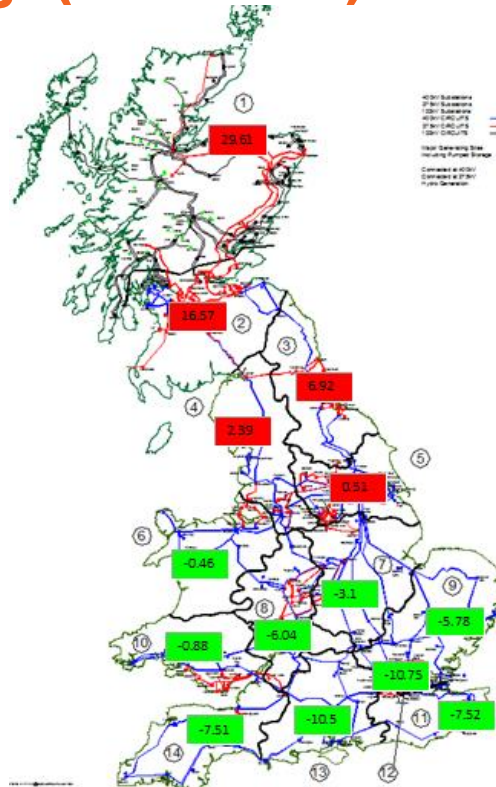


40% Intermittent

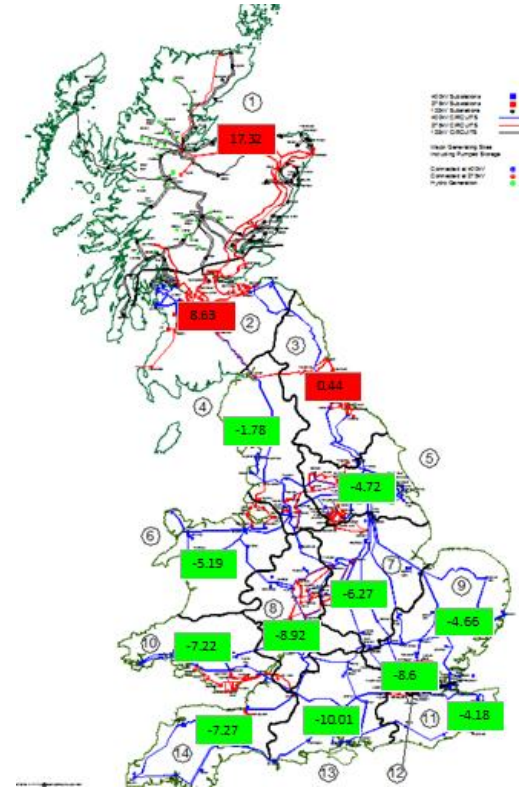
# Generation Rezoning (14 zones)



80% Conventional Carbon



80% Conventional Low Carbon



40% Intermittent

# RIIO-2 TNUoS Parameter Updates

Some key parameters that are used to calculate TNUoS Tariffs will also be reset in preparation for RIIO-2, to apply from 1 April 2021. Input data is required from a number of sources and will become available at different stages over the next year.

Parameter	Description & Dependencies
Generation Zones & Connectivity	The methodology for “rezoning” is currently being reviewed in CUSC Mods CMP324 & CMP325.
Expansion Factor and Constants	<p>The expansion constant represents the cost of moving 1MW, 1km using 400kV OHL line. The expansion factors represent how many times more expensive moving 1MW, 1km is using different voltages and types of circuit.</p> <p>Key inputs:</p> <ul style="list-style-type: none"><li>- WACC, GAV &amp; Operating Costs which will be determined as part of Ofgem’s RIIO-2 determinations (Draft in Jun 20, Final in Nov 20).</li><li>- STCP14-1 3.5 Submissions from TOs (indicative values received from 2 TO’s, final data to be confirmed in Oct 20)</li></ul>

# RIIO-2 TNUoS Parameter Updates

Parameter	Description & Dependencies
Local Onshore Security Factor	<p>The locational onshore security factor is derived using the same market background as used for Zoning in the DCLF ICRP transport model.</p> <p>Key Inputs: network models and generation/demand information for the RIIO-2 period</p>
Offshore Local Tariffs	<p>Offshore Local Tariffs are set at the point of asset transfer, they must be recalculated to ensure that any changes in OFTO revenues are reflected within the relevant offshore generator's tariffs.</p> <p>Key Inputs: OFTO Allowed Revenues &amp; Updated Offshore Substation Discount</p>
Avoided GSP Infrastructure Credit (AGIC)	<p>The AGIC is a component of the Embedded Export Tariff, paid to 'exporting demand' at the time of Triad.</p> <p>Key Inputs: GSP Infrastructure costs (to be requested from TO's)</p>



# Forecasting for 2021 onwards

- Each year, we publish a view of how TNUoS tariffs may evolve over the next five years. The best view tariffs are highly indicative.
- Our next five-year view is expected to be in March 2020, however with many elements of the methodology currently subject to change (through TCR or RIIO-2 parameter updates) there is much uncertainty.
- Our intention is to consult with the industry in January to discuss and agree what would be possible and useful to publish in March and beyond.
- TNUoS tariffs forecasting timetable will be published on our website by the end of January 2020.
- We also run regular training sessions on how to use the DCLF-ICRP model, and dates will be confirmed after the tariff forecasting timetable is finalised.



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