

BSUoS Fixed Tariff Model Webinar

Q&A Summary – 27.06.22

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Purpose To summarise the questions asked as part of the BSUoS Fixed Tariff model webinar (27.06.22) and the answers provided by the presenters
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Introduction

A webinar was held on Monday 27th June to outline the ESO's BSUoS Fixed tariff model and supporting information on the BSUoS Fund (subject to Ofgem decision) and proposed reporting arrangements.

Reference documents:

- BSUoS Consultation document, published on ESO website [here](#)
- Webinar presentation, [here](#)
- Webinar recording, [here](#).

The following questions were asked, and answers provided during the webinar Q+A slot:

#	Theme	Question	Answer
1	Inputs	Is accuracy of demand forecast also a factor?	Yes, but it is being modelled implicitly through the time series model element, rather than explicitly
2	Inputs	Is location of renewable (e.g offshore wind vs onshore dx wind) important, as well as proportion?	Yes, the location of the generation impacts the constraint costs. However, this is not explicitly modelled. Our model forecasts on a monthly resolution and at this time scale we found the total renewable proportion of demand provided sufficient explanatory power.
3	Inputs	With increased interconnection with Europe, to what extent do prices, demand /renewable generation in the mainland drive GB BSUoS / need to be modelled?	We agree. As interconnection increases it is important that we model this. We are currently developing a more detailed near-European model to inform costs due to interconnector flows. This is an example of the model being a work-in-progress that needs to adapt to changing circumstances.
4	Inputs	The FES team are usually clear that they are possible scenarios, not forecasts and shouldn't be used as such. Is this a change from that position?	We are not using the FES scenarios as forecasts. But they represent credible costed scenarios which give us an indication of the potential impact of different policy decisions. It is hard to see how else we could estimate the uncertainty associated with policy

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			decisions which have not yet been decided on.
5	Methodology	Persistence model holds prior months residual flat - graphs show this would mean +£200m p/m in Nov FC & -£100m p/m recently – does this mean that the long run average is better?	When developing the model we considered a range of averaging periods for the persistence model. In the testing period we found the 1-month residual gave us the best performance. We have applied a cap to the residual to deal with the months where we have a particularly large residual (e.g. Nov 21).
6	Methodology	Is there a "confidence region %" associated with the central figure?	We produce a confidence range for all our balancing cost forecasts. This is displayed on our example forecast.
7	Methodology	Have you tested these models based on historical data? How well did they perform?	Yes, we have run hindcasts back to August 2020 and evaluated the model performance since its release in January 2022. The new model significantly out-performed the previous method. The outturn has been outside the p10-p90 of the month-ahead forecast on three occasions in the 20-month assessment period.
8	Methodology	Have you run analysis of forward curve v. prompt outturn to support your theory and inputs?	We have not analysed this yet explicitly and will consider after the consultation how this could be used in the model. We do assume that there will be changes between forward prices and outturn, which is why we have taken a probabilistic approach. Unfortunately, the only information available at the time of forecast would be from the forward markets. The forward prices act as our best central view because any bias would be corrected quickly by traders acting based on new information.
9	Methodology	What levels of uncertainty do these models give?	We think the spread of uncertainty is realistic. It is high at the moment because of the very high volatility in wholesale prices. Our experience of using the model so far suggests that our range of uncertainty is realistic.
10	Methodology	Does the ensemble of ARIMAX and Persistence work better than just each one by themselves?	Yes, the persistence model is valuable to capture recent trends in balancing costs but only added value to the ARIMAX in the very short term which is why the blend reduces its weighting quite fast with time horizon.
11	Methodology	Volumes under CMP308 - your recent forecasts are 229TWh - very low (c. 20%). Suggest using CfD volume data, or your own TNUoS final demand FC (+ losses)	We will review the volumes in the recent forecast.
12	Methodology	Will all the models 'work' for 3 months fixed, 12 months notice period?	Yes, the model can produce a 24-month forecast, which would work for any of these options. It's just that with more notice, more of the first part of the forecast will not be used in tariff setting.

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13	Methodology	Could you please explain a bit more around how you have modelled future renewable generation/ capacity and what inputs you have used?	We have taken the renewable capacity directly from the energy forecasting team at NGENSO to make sure we are consistent with their long-term forecasts. This capacity is based on the current capacity and our understanding of the expected commissioning dates of the new units. For the scenario sampling modelling we use the values provided by the Future Energy Scenarios.
14	Methodology	Do you review the model weightings each month?	During the development of the model, the blend has been reviewed approximately once every 6 months, however the weights did not change significantly and therefore we plan to review the blend annually.
15	BSUoS Fund / Risk	Will under/over recovery of BSUoS be forecast as a separate component, or just included within 'other costs'?	This will manifest as k and we will show this in the forecast for future years as a separate component.
16	BSUoS Fund / Risk	CMP 361 proposes using P99/P90 to set the tariffs, are we going to have to set the reserve payments super high?	To date no decision has been made by Ofgem regards which Workgroup Alternative CUSC (Connection and Use of System Code) Modification (WACM) will be implemented, it is therefore too early to say what the BSUoS fund requirements will be at this time. It is correct to say that P99 coverage would require a larger BSUoS fund than other options where the risk of resetting tariffs would potentially be greater due to less coverage of this by the BSUoS fund.
17	BSUoS Fund / Risk	Where would you say your Upper case BSUoS forecast sits currently in the probabilistic matrix (e.g.: P95 or P90)?	The upper-case balancing cost is P90 and the lower-case is P10.
18	BSUoS Fund / Risk	If you assumed there won't be a BSUoS fund, have you looked at how your fixed tariff BSUoS forecast might change?	No BSUoS fund would mean that there was acceptance of a greater risk of tariffs having to be reset during a fixed period due to no coverage of this being provided by a BSUoS fund. We would not shift the tariff to compensate for this, to do so would go against the principals of what we would have been instructed to implement.
19	BSUoS Fund / Risk	Forecast for 22/23 has ranged £2.9bn to £4.8bn recently – are these 'teething issues' or a genuine representation of variability of new FC approach?	We have been looking very carefully at the forecasts and the outturns over the last few months. Whenever we have seen the outturns deviate significantly from the central forecast the effect can nearly always be attributed to changes in the wholesale price. There has been several large jumps in the forward price curve during the first half of 2022.
20	BSUoS Fund / Risk	Previous two years of demand will include impacts of Covid and cost of living crisis, is this realistic for a	We understand from our work analysing risk arising from Covid in 2020 how the effects of lockdowns influenced the balancing spend, and this is then accounted for within the

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		forward-looking view? Or is the forecast adjusted?	methodology. For the cost of living crisis, this is currently being accounted for as its main effect on our spend is through the wholesale price. If this begins to affect how we manage the system, initially the time series models should pick this up, and we can then determine how to build it in if the time series approach needs to be adapted.
21	Implementation	What is the latest CMP361/362 approval possible to allow 2023/24 implementation? Ofgem decision recently delayed until late August and may slip again	We have not given a hard stop date whereby we must have a decision; we are planning for implementation in April 23/24 at present and continue to work towards that whilst awaiting a decision.