

## MEMO

**TO:** SP Energy Networks  
**DATE:** 8 August 2014  
**FROM:** NERA (Richard Druce, Peter Spittal and Soren Christian)  
**SUBJECT:** Manweb Special Factor

### 1. Overview

This memo sets out our analysis of the way Ofgem has applied its “Special Factor” allowances for SPMW. In its Draft Determination, Ofgem allowed SPMW a special factor of £108.9m, in recognition of the greater complexity of SPMW’s network, which makes it more expensive to construct and maintain than the standard network design. The £108.9m reflects only 85% of SPMW’s submission for the adjustment, and Ofgem has not provided justification for the 15% reduction it has applied. We believe that SPMW’s full submission reflects a conservative estimate of the additional costs of operating SPMW’s network.

Ofgem has applied the full £108.9m as a cost adjustment to both the bottom-up and top-down totex models, but has only applied £35.4m applies to the disaggregated model. The remaining £73.5m, which does not relate to any specific disaggregated cost area, is passed through Ofgem’s model, and so not applied as an adjustment in the disaggregated categories.

Ofgem subtracts the special factor from SPMW’s submitted costs before its efficiency assessment, and then adds it back after modelling. However, Ofgem does not add the special factor in at the “last stage” of its calculation of allowances, but before it applies further adjustments. These additional adjustments act to reduce the special factor and, as such, SPMW’s allowed costs do not reflect the full £108.9m allowed by Ofgem.

In addition to this problem with the way Ofgem has applied the special factor, we have also identified a number of inconsistencies with the way the special factor is applied in the disaggregated model, which suggest that the special factor may not have been applied appropriately.

Based on our work to date, as currently applied, the special factor increases SPMW’s allowance by only £88.2m, or 81% of the £108.9m Ofgem has allowed.

At this stage, however, we are still working on these checks, and it is difficult to comprehensively review all calculations in the Ofgem model. Hence, the best way forward, in our view, would be to raise this concern with Ofgem and invite their comment on how the SPMW special factor feeds through the model. More generally, and notwithstanding the modelling issues, it would be helpful to better understand why Ofgem has only allowed 85% of the requested allowance.

## 2. Description of Checks

We have conducted a series of checks to assess whether Ofgem has applied the SPMW special factor appropriately. In particular, we have (1) examined how SPMW's allowances change when we set the special factor equal to zero, in order to examine the amount by which SPMW's allowances are increased by the special factor, and (2) examined Ofgem's modelling files in detail to understand the way in which the special factor is applied through the model.

Approach (1) is most appropriate for the aggregate totex models, for which all of the special factor is applied as a post-regression adjustment. But for the disaggregated model, £73.5m of the special factor allowance is "embedded" in SPMW's costs (i.e. it does not apply to any particular disaggregated cost category) and reflected in higher reporter submitted costs, meaning that only £35.4m is applied as a post-regression adjustment. We would therefore expect SPMW's allowances to fall by £72m when we set the special factor to zero (i.e. 50% of the £108.2m applied in the aggregate totex models, plus 50% of the £35.4m applied as a post-modelling adjustment in the disaggregated models), but it actually falls by only £56.1m.<sup>1</sup>

## 3. Detailed Findings

### 3.1. Aggregate Totex Models

In its bottom-up and top-down totex models, Ofgem applies the special factor in the following way:

1. it first excludes the entire £108.9m adjustment from SPMW's submitted gross costs before it models SPMW's allowed costs; and then
2. adds £108.9m to its modelled costs, before applying a number of further adjustments to arrive at final allowances. These further adjustments act to reduce the SPMW special factor.

Specifically, Ofgem defines two "types" of totex, which it takes from DNOs' business plans: "gross costs", which are simply the total costs submitted by DNOs, and "net costs", which exclude a number of cost items (such as contributions, recoveries and allocations). Ofgem uses gross costs in its modelling, but gives its final allowances based on net costs. Ofgem converts its modelled gross costs to net costs by multiplying by a "net-to-gross ratio", which is typically around 0.9,<sup>2</sup> calculated as the ratio of submitted net costs to gross costs in each year.

Ofgem applies this net-to-gross ratio after adding in the SPMW special factor and, therefore, the £108.9m is scaled down as well. As a result, the £108.9m special factor adjustment is reduced to

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<sup>1</sup> In addition, and as discussed in more detail below, Ofgem's analysis only passes through £68.2m of the £73.5m that does not apply directly to any disaggregated category. As such, the total allowed special factor is actually £21m lower than Ofgem has stated that it has allowed.

<sup>2</sup> For totex, this factor is 0.927 on average, and varies between 0.915 and 0.944 between years.

£101.0m. In order to ensure that SPMW is awarded the full amount of its special factor, we believe that it should be reintroduced following these post-modelling adjustments (i.e., it should be added to SPMW's final cost allowances).

### **3.2. Disaggregated Models**

In its disaggregated totex model, SPMW's submitted costs (after Ofgem has subtracted the part of the special factor that can be attributed to a disaggregated category) is greater than in the aggregate totex models by £73.5m (which is the portion of the special factor "embedded" in the model – i.e. that is not attributable to any particular disaggregated category). However, as with the aggregate totex models, Ofgem applies another "net to gross ratio" (which is unique to each category and year) prior to modelling, which reduces this £73.5m to £68.2m. Ofgem excludes the remaining £35.4m (£108.9 - £73.5m) as a special factor adjustment.

Ofgem's modelled cost in the disaggregated model is based on each disaggregated category's input costs, with some adjustments applied to reflect Ofgem's view of efficient costs. However, in a number of cases, the special factor feeds into this modelling adjustment, meaning that it affects Ofgem's view of efficient costs in these cases. We do not think that the special factor should be applied in this way, but should instead be applied purely as a post-modelling adjustment.

For example, in the "Connections" category, Ofgem allows SPMW £3.1m as a special factor, but because the special factor is deducted from submitted costs before efficiency assessment, Ofgem's view of efficient costs are exactly<sup>3</sup> £3.1m lower. Therefore, in this case, the special factor has no net impact: it is deducted from Ofgem's view of efficient costs, and then added back in as a post-modelling adjustment. The special factor has a similar effect in a number of other disaggregated cost categories.

When all adjustments are factored in, the special factor allowances reduce the allowed cost by £21.5m before their reintroduction. At the conclusion of Ofgem's disaggregated modelling, SPMW is awarded an additional £13.4m in cost allowances than it would without the special factor allowances,<sup>4</sup> which is significantly less than the £35.4 increase in cost allowance Ofgem has awarded it.

### **3.3. Combining the Models and Applying the Upper-Quartile Adjustment**

When the bottom-up, top-down and disaggregated models are combined with the 25:25:50 weighting, we calculate that SPMW receives £90.2m in special factor adjustments. However, Ofgem then applies its "upper quartile adjustment" (of 0.98) which scales the special factor allowances down further. As a result, SPMW's special factor is further reduced to £88.2m.

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<sup>3</sup> Prior to the upper-quartile adjustment.

<sup>4</sup> The special factor adjustments also have minor effects on other figures, which cause these numbers to not add up exactly (i.e. £21.5m + £13.4m ≠ £35.4).

In conclusion, we believe that SPMW's special factor adjustments should be applied after Ofgem's net to gross and upper-quartile adjustments. Doing so would allow SPMW the full £108.9m that Ofgem has allowed (rather than 81% of it).