

# Review WPD Cost Assessment model

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- This presentation consolidates responses on WPD's proposed cost assessment model from UKPN, ENW, SSE, NPG and SPEN.
- The presentation is a summary of the correspondence received and SP have assumed DNOs full responses will also be sent to Ofgem.
- In the interests of focusing on salient points in the main only collaborated comments have been included.
- WPD have invested significant time in developing this useful analysis.

**Should be considered alongside other techniques to inform a balanced and well rounded conclusion on what drives DNOs costs.**

# Review of WPD cost assessment model

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# 1. Overview of WPD model

- Model is not TOTEX benchmarking.
- Consensus view bottom up disaggregated benchmarking .
- More disaggregation than in DPC5
- Model measuring basic unit cost efficiency
- Single year model

Risk this model's simplicity may result in superficial starting point for allowance setting or discussion of results . (Assumes that efficiency is only determinant of cost & DNOs are essentially identical)

## 2.1 Application of the model

- Three tiers of models suggested (Top tier, intermediate and bottom tier).
- This model fits in the bottom tier category? Essential to slow track process.
- RIIO handbook refers to opex/unit cost model. Recognises unit costs are a valuable tool used by DNOs to manage their businesses.
- This model can be tailored to fulfil this required.
- Model has role in supporting discussions at very disaggregated level.
- Applying a unit cost to all categories is very problematic. View model should not extend beyond capex, direct opex, indirects and non-op capex.

**Qualitative verification of disaggregated analysis will require detailed cost explanations. Maintaining clarity of allowances will be a challenge.**

## 2.2 Application of model

- The model currently only considers one year in isolation and therefore cannot model potential multi year affects.
- Averaging of unit costs over several years would be an enhancement
- Standard statistical test (standard deviation, OLS regression analysis, R-squared, and reducing the residuals) are important to determine the most appropriate / test the integrity of cost drivers
- Model should also be run with on-going pension costs included as they form part of the total costs and have been a fundamental factor in outsourcing decisions.
- It is as important as the selection of cost drivers and identification of fixed costs that the aggregation approach in any model is immune to differences in organisational structure (eg insource/outsource of direct activities, lease or purchase decisions for fleet or property, technological versus people intensive solutions, etc)

Aggregating each element at upper quartile would be extreme cherry picking as different companies form UQ for different activities.

## 3. Unit Cost

Concern over the 'quality' of the unit costs being calculated ;

- There are 505 individual activities – only 12% of these activities the model is able to calculate a unit cost for every DNO. For over half of the activities (57%) the calculated unit cost is based on 5 or less DNO's.
  - 5 is too smaller sample to determine an effective cost
- Range of unit costs which emerges in many cases is a very significant difference
  - Not unusual to find one company with a unit cost 10 times that of another
- Many examples of costs being reported without volumes or vice versa
- There are areas of Direct Capex, Direct Opex (higher voltages) and Non-Op Capex which are rather lumpy

### Summary

- The costs from the model may be legitimate, or may be the result of poor data quality – either way they don't assist in the calculation of meaningful unit cost.
- A one year snapshot of the data can provide a misleading impression.
- Model needs to have a mechanism to deal with unit costs which are 'outliers' as well as those activities where only a small number of companies are reporting costs.

# 4. Appropriate/inappropriate Cost Drivers

- Certain costs may be better explained by more than one driver or combinations of drivers. The model currently doesn't have the flexibility to test for this.
- Other logical drivers should be tested to determine relationships in order to understand how results vary when using a range of credible cost drivers.
- Selected cost drivers should be truly external to the DNO; Example comments:
  - Use of actual spend as a cost driver for some indirect (disadvantage efficient companies)
  - The use of FTE's as a cost driver – other approach would fail to recognise volume and solution efficiency
  - Wayleaves and Easements/Servitudes Admin costs do have a relationship with Wayleave payments, use of this as a cost driver would penalise DNOs who invest in Wayleave admin to reduce overall Wayleave payments.
- Cost drivers that are objected to; Example comments:
  - Connections costs do not have any logical relationship MEAV – connection spend depends on connection volume. Acknowledge, however WPD does not have at its disposal a level of disaggregated Connections data to complete the exercise using more appropriate drivers.
  - High voltage diversions need to be assessed individually as material area that commonly have own unique factors
  - Control Centre network costs do not have any clear relationship with overall network length
  - Inappropriate to model some Finance & Regulation sub groups and CEO categories against number of DNOs as this may double count the fixed cost adjustment – use a scale driver such as MEAV as cost driver for the residual costs
  - Inappropriate to use customer numbers as a cost driver for Subscriptions to trade associations
- There should also be a note of caution when determining costs and their drivers in isolation. It may well be that there could be second order affects, including interactions and trade-offs, that need to be considered.

Need for consensus on calculation of MEAV. Appropriateness as a cost driver for some areas needs reviewed.

## 5. Outliers/anomalous data

### Further work required to identify valid outliers and exclude these from regressions to avoid skewing data/distorting results

- Model does not test whether the volumes for work undertaken are efficient
  - Ensure that when normalising for data anomalies we do not distort the overall results by making targets unduly hard or unduly easy.

#### Differentiate between errors and legitimate outliers

- Obvious errors must be corrected by companies
- Some outliers may be the effect of temporal differences (spend in one year, volumes counted in next) – expanding the model to examine multi-year data
- Inherited factors (legacies in terms of asset base, serve very different geographical areas, different customer bases, have different mixes of work etc..)
- Specific aspects of company's organisation structure

#### If anomalies remain

- Consider what data should be adjusted
- Analysis undertaken to check data is indeed a statistical outlier (with and without adjusted data to understand the affect of any adjustments on the results)

Many factors can quite legitimately impact on expenditure across a significant proportion of companies' cost bases



## 6. Fixed Costs

- The model incorporates the concept of a ‘fixed cost’ for certain activities. It is quantified using a ‘WPD Value’
- Not an area with a consensus in comments. (intercept may provide similar result)
- Fixed costs can be calculated in many different ways. Currently exclude pensions.
- For example suggestions a fixed cost should also be assumed for:
  - Operational IT & Telecoms
  - Non Operational IT
  - Non-operational property IT costs
  - Major Incidents & Emergency Planning

### Further Work

- There will need to be a concerted piece of work to establish which activities Fixed Costs should be applicable to; and
- Decide what appropriate value or proportion of the cost base that should be deemed to be fixed.

## 7. Indirects gross / net

- The model currently only assesses gross indirect costs.
- Not a consensus of views:
  - it will be necessary to look at indirects, both at a gross and net distribution level and where results are very different to understand what is driving the difference.
  - Model should limit itself to capex, direct opex, indirects and non opex capex.
  - Sole Use Connections, Distributed Generation and Non Price Control Activities should remain outside cost assessment.

# 8. Recommendations and improvements

WPD's model is a good start at developing a disaggregated unit cost model. It will be possible to build on the model to refine it to be more effective

These refinements include:

- A more intuitive layout
- Add in a mechanism to test the efficiency of volumes and solutions as well as unit costs
- Producing some summary results
- Incorporation of standard statistical tests and outlier tests
- Model can be expanded to incorporate more than one year's data (subject to appropriate price base adjustments, etc). This should include both averaging of unit costs over multiple years, as well as calculating averages for each DNO over multiple years.
- Rationalisation of the number of cost drivers so that only drivers relevant to particular costs are listed
- Expand model to allow multiple variables to be selected for each activity
- Analyse the standard deviation of cost to estimate and define an acceptable level