



SP Transmission & Distribution

Mr Mark Cox
Distribution Policy
Office of Gas and Electricity Markets
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London
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Your ref

Our ref

Date

19th January 2007

Contact/Extension

Scott Mathieson

Tel: 01698 413475

Dear Mark,

Impact Assessment and Consultation on Western Power Distribution's Modification Proposal to change their Electricity Distribution Use of System Charging Model – Ref: WPD/WALES/WEST/UOS002A

We welcome the opportunity to express our views on WPD's proposals for a revised use of system charging methodology. I would emphasise that we remain seriously concerned by these proposals, primarily because we do not believe that they meet the requirements of the licence.

The proposals as laid out produce a number of errors and anomalies when applied in different scenarios. Further, as the model has been developed we have seen large swings in the results it produces. For example, we are concerned about how the proposal would affect charges in respect of 132kV connections in the Aberystwyth area to SP Manweb's distribution system. WPD's initial proposals indicated that this cost could increase by approximately 400%, however, we note that they are now proposing a 20% reduction. Whilst this reduction is to be welcomed, the scale of the movement in the charges between consultations is alarming.

In your consultation you request views on the following questions:-

- WPD state that their proposal better meets the relevant objectives with regard to transparency and cost reflectivity. Does the modification proposal better achieve the relevant objectives?
- Have Ofgem captured the main issues in Annex 1?
- Have Ofgem correctly identified the impacts in Annex 2? In particular we would welcome quantified assessment of the impacts.

We will address each question in turn.

Members of the ScottishPower group

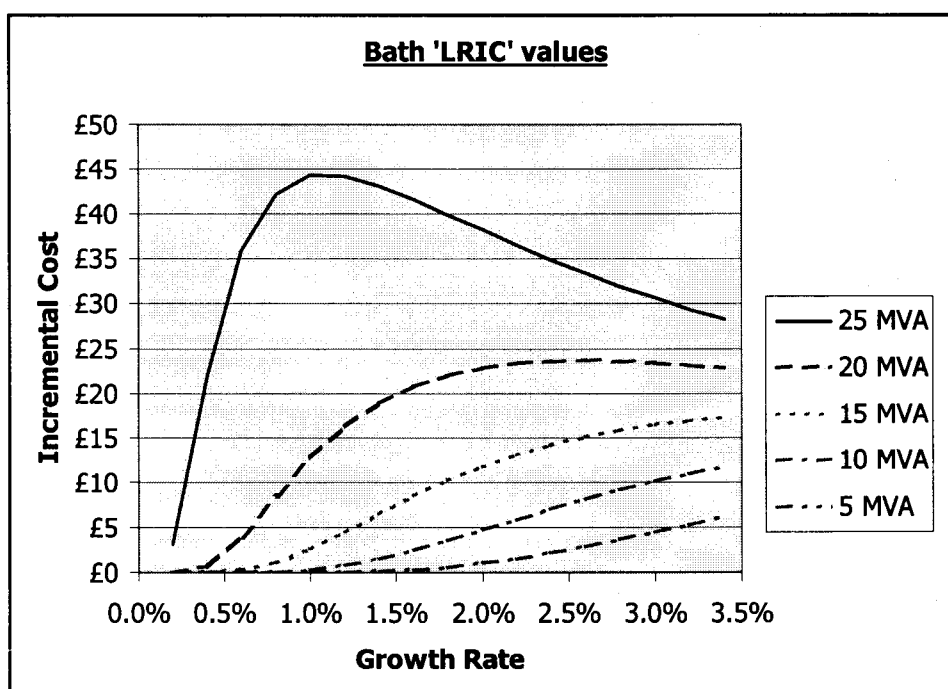
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WPD state that their proposal better meets the relevant objectives with regard to transparency and cost reflectivity. Does the modification proposal better achieve the relevant objectives?

A key requirement for WPD to satisfy is to demonstrate that their proposals better achieve objective 3(c) of SLC4, that charges reflect the costs incurred by the licensee in its distribution business.

WPD's proposals for EHV connections consist of two components, a Long Run Incremental Cost (LRIC) method to determine the incremental cost of investment, and a Revenue Reconciliation method to ensure that the full Allowed Revenue is recovered. From information provided by WPD, the latter could make up 70% of the total charge.

The LRIC method being used by WPD does not, in our opinion, reflect costs. Similar concerns have been raised by a number of parties in the various DNO consultations on the long-term review of structure of charges. As part of Ofgem's consultation on the work undertaken by Bath University, which you refer to in your consultation, we highlighted the key characteristics of the LRIC approach for an asset with a capacity of 30MVA. This is repeated below.



The underlying characteristics of the LRIC approach will result in lower marginal costs where higher growth is forecast: this is counter intuitive and incorrect. In addition if the actual load growth is zero or negative, which is possible if not probable given the recent increases in retail electricity charges and the continued government focus on reducing energy consumption, then there would be no reinforcement requirement.

WPD assume a growth rate of 1% across both WPD licensed areas. The reason for this is that the WPD method only gives reasonable answers using this growth rate assumption: it does not work with low or zero growth and produces reduced marginal costs for higher growth rates, which is incorrect. Our analysis indicates that current growth rates in the WPD areas are actually negative, furthermore the Energy Review says that a fall in energy use relative to GDP at the national level in excess of 1.8% per year is required in order to achieve the Government's energy efficiency goals. We cannot see how the Authority can approve a methodology, which does not cope with a scenario of reducing demand against a context of increasing political and environmental pressure to reduce energy consumption.

For determining generator costs WPD use basically the same approach as for demand, i.e. using an underlying growth rate and then injecting an additional increment of generation. We do not believe, given the nature of distributed generation, that 1% generation growth and 100kVA increments of generation represent a suitable method for modelling future generation costs. Our current projections indicate generation growth rates in the region of 5% to 10% and a typical generation connection at EHV of 20MW to 30MW. WPD need to justify how their approach produces the long run incremental cost of connecting generation. Do they have evidence to justify a 1% growth rate assumption for generation?. Generation costs are driven, primarily, by smaller numbers of large generators. The methodology also fails to take account of the other cost drivers which influence charges, namely the impact of fault levels. Our analysis indicates that this is a major limiting factor with significant investment required to accommodate new generation by reducing fault levels or changing switchgear. For generators, as with demand, the WPD approach clearly does not satisfy the cost reflectivity requirements of objective 3(c).

The second part of the WPD methodology is the scaling of the LRIC outputs to recover the required amount of revenue. We are aware that under WPD's proposals this approach accounts for scaling factors up to 70% in order to achieve the required revenue. This clearly indicates that the LRIC model is not cost reflective and we are disappointed that WPD have made no attempt to understand what costs are driving the difference between the LRIC cost and the total revenue. To a large extent the difference is driven by the cost of operating, maintaining and replacing the 132kV and 33kV network. In terms of the method of scaling, the approach used by WPD is to apply a fixed £/kVA value which is then added to the LRIC cost. Whilst the approach to revenue reconciliation is acceptable in principle, the way WPD have applied it is not: a simple revenue reconciliation approach which applies the same £/kVA to all EHV customers is clearly less cost reflective as 132kV connected EHV customers will be subsidising 33kV EHV customers. Obviously, EHV customers connected at 132kV do not cause costs on the 33kV network and should not pay for these costs. This is a key characteristic of the DRM approach which WPD are trying to replace. We are concerned for SPM customers cross-subsidising WPD's 33kV customers, due to the Aberystwyth 132kV connection mentioned at the start of this document. For the two reasons identified: the size of the scaling and the methodology applied to scaling factors, the proposal does not better achieve the licence objective 3(c) of cost reflectivity.

Have Ofgem captured the main issues in Annex 1?

The issues identified by Ofgem in Annex 1 are the main ones associated with the WPD proposal.

EHV Charges

The WPD methodology should reflect costs and large increases should be passed through to users if their current charges are too low. However, it is clear that the WPD proposals are not cost reflective and should not be implemented in their present form.

Scaling to revenue

The initial apportionment of revenue between EHV users and others using MEA values appears justified. The fixed £/kVA approach which is then used to scale the LRIC output to match the allocated revenue does not reflect costs as detailed above.

Generation Tariffs

We agree with WPD's approach to generation tariffs.

New Connections

We agree with WPD's approach of using the forecast network.

Sole use assets/ contributions

We agree that any assets for the sole use of a customer should be excluded from the marginal cost reinforcement calculations.

Capping negative demand charges to zero

We agree with WPD's proposals that negative demand charges should be set to zero to avoid perverse incentives.

Reactive power charges

If an approach of adding small increments of load or generation is to be used to determine charges then it seems appropriate that MVA increments at typical power factors ought to be used.

Growth rate

WPD's assumptions on growth rates are driven solely by the limitations of the LRIC method which only works with a 1% growth rate assumption. Assuming uniform growth rates across the whole DNO area does not reflect reality. We would reinforce the point that we cannot see how the Authority can approve a methodology, which does not consider scenarios of reducing demand against a context of increasing political and environmental pressure to reduce energy consumption.

Thermal model

Ignoring fault levels is a fundamental flaw in WPD's approach to determining generation costs. As we explained above, our analysis indicates that this is a major limiting factor with significant investment required to accommodate new generation by reducing fault levels or changing switchgear.

Chargeable capacity

As WPD have ignored the sole use assets from its methodology, then the reinforcement decisions on the networks are driven by the real interaction between users. It would therefore seem appropriate that the recorded demand, rather than contracted capacity is used for demand and generation.

Have Ofgem correctly identified the impacts in Annex 2? In particular we would welcome quantified assessment of the impacts.

Ofgem appear to have captured the main high level impacts in Annex 2. With regard to the distributional effects, there may be a cross-subsidy issue between 132kV and 33kV connected EHV customers which WPD will need to justify.

We are also concerned and do not fully understand the reasons behind the projected price movements.

The data published by WPD in respect of NHH customers is as follows:

		2007/08 DRM Scaled Price p/kWh	2007/08 LRIC_DRM Approach p/kWh	% disturbance LRIC_DRM vs DRM
South West				
Profile 1	Domestic Unrestricted	2.16	2.10	-3%
Profile 3	Non-Domestic Unrestricted	1.72	1.74	1%
Profile 5 to 8	LV supplies with substation	1.48	1.52	3%
Profile 5 to 8	LV supplies	1.84	1.99	8%
South Wales				
Profile 1	Domestic Unrestricted	2.28	2.17	-5%
Profile 3	Non-Domestic Unrestricted	1.76	1.82	3%
Profile 5 to 8	LV supplies	1.73	2.04	18%

We would expect price disturbances year on year with whatever approach is used as revised costing and network data is used in charging models. For LV customers we would expect these disturbances to be due to the DRM model. Our understanding is that WPD use the LRIC approach to determine the higher voltage costs and then average values are fed into the DRM

model to determine charges for lower voltage customers. Our understanding of the above table is that column 3 represents the LV charges using the existing DRM approach and column 4 the LV charges using the hybrid approach (with LRIC costs replacing DRM costs for the EHV networks). This change to determining EHV costs has very different impacts for different users of the LV network with business customers paying more and domestic less. We cannot understand why the change in cost modelling for the EHV network should have such varied effects on the charges to different types of LV user. We would expect the disturbances to LV users to be similar.

In terms of cost benefits, whilst we remain supportive of Ofgem in developing more economic approaches to charging, we are extremely concerned that Ofgem continue to refer to the work undertaken by Bath University which was simplistic and flawed in its assumptions.

Whilst we appreciate the considerable amount of work that WPD have put into this process, we do not believe that their proposals are cost reflective and satisfy the licence requirements. We therefore believe that the Authority, having been fully appraised on the facts, should veto this approach.

We would welcome the opportunity to discuss any of the issues raised in this letter at more length with you at your convenience. Please do not hesitate to contact either myself or Tony McEntee in this regard.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'S Mathieson', with a stylized flourish at the end.

Scott Mathieson
Regulation Director