

Project Transmit

Further consultation on industry proposals (CMP213) to change the electricity charging methodology

ofgem

Improvements to the methodology seek to:

- reflect the modern realities of Britain's generation mix
- promote effective competition
- enable more efficient decisions to be made
- secure overall benefits to consumers in the longer term from a more efficient system, and
- facilitate timely move to low carbon economy

- We received number of responses to the consultation - some presented significant new evidence.
- We needed to carry out further work on this – including further modelling.
- Some of the analysis that informed our minded to position has changed since August.
- We are therefore seeking industry views on this before we come to our final decision - we commenced a four week consultation period on 25 April.
- This has also had an impact on our minded to implementation date if we were to accept

We are minded to accept WACM 2 for implementation in April 2016

- The consultation is supplementary to our August 2013 consultation
- Seeking views on the new evidence in relation to:
 - Cost reflectivity where the marginal investment is an HVDC link
 - Evidence of consumer benefit
- Our views on issues raised in responses to the August 2013 consultation are summarised in an appendix
- Responses to this consultation will inform our final decision

Objectives for today

- Summarise the key points from our further consultation
- Present the changes to the impact assessment modelling
- Answer your questions
- Summarise next steps

14.00 – 14.10 – Introduction & Welcome (Ofgem)

14.10 – 14.35 – Summary of further consultation (Ofgem)

14.35 – 15.15 - Summary of updated modelling (Baringa)

15.15 – 15.30 – Break

15.30 – 16.20 - Questions

16.20 – 16.30 - Wrap up and next steps

Our further consultation

In our view, WACM 2:

- Better aligns to the updated SQSS by recognising the different drivers of investment – not just peak security.
- Better proxy for the costs different generators impose on the transmission system through their impact on constraint costs.
- Recognises that the mix of generation in an area effects constraint costs.
- Incorporates solutions for HVDC and island links.

WACM 2 is an improvement over existing methodology that assumes that all plant drive the same level of network investment

Our view is that WACM 2 is more cost reflective than status quo

Evidence presented that WACM 2 may be less close to long run marginal cost (LRMC) for intermittent generators where marginal investment is HVDC line

- NERA/ICL (on behalf of RWE nPower) presented new evidence on cost reflectivity that we had not previously considered. We have examined this.
- The basis of the evidence is that TNUoS charges provide an effective locational signal if they are “set equal to the LRMC of transmission required to accommodate users of different types at each node on the network”.
- It developed an estimate of LRMC to which to compare status quo and WACM 2 tariffs on a quantitative basis.
- The results are inconclusive - neither tariff a good match in all periods and for all plant.
- However, it suggests that WACM 2 may be less close to LRMC than status quo for intermittent generators where marginal investment is HVDC.
- The evidence all showed that in all other cases WACM 2 is as good as or closer to the estimate of LRMC than status quo.

Under ICRP methodology - tariffs are an approximation

- The issue raised by NERA/ICL arises out of the ICRP methodology for GB transmission charging. This applies to both status quo and WACM 2.
- ICRP bring benefits in terms of transparency and stability of tariffs compared to other methods.
- But, there is a trade off between these features and accuracy of the locational signal under both status quo and WACM 2.
- The incremental costs used in the tariff are derived from the cost to build the existing network at current prices.
- The long term fit between tariffs and impact of a generator on transmission system is best if the incremental cost of investment is close to the cost of the existing network.
- As cost of an HVDC line is higher than the cost of the existing network, tariffs may not be a best fit in this case.
- Use of annual load factor in year round tariff means WACM 2 tariffs may be less of a fit than status quo for intermittent generators in the case of HVDC links 10

HVDC may not be marginal investment

- NERA/ICL model assumes that HVDC is always the marginal investment in Scotland. This drives the on going difference in model between WACM 2 tariffs and LRMC.
- We consider that this is unlikely to be the case and that NERA/ICL present a worst case position.
- Our view is that there is more likely to be a range of investment– the long term average cost will be closer to that of existing network than assumed by NERA/ICL

Approach drives the results

- Calculating LRMC is based on subjective assumptions about future generation, demand and investment - this drives NERA/ICL results.
- For this reason we have not carried out our own estimation of LRMC.

Our view is potential benefits of greater cost reflectivity for GB as whole outweigh risks that WACM 2 is less cost reflective in certain circumstances

Consumer benefit – impact assessment modelling

The impact assessment modelling has been updated. This has changed the results we presented in August to illustrate the impact of WACM 2 on consumers.

- We said in August 2013 that we were aware that modelling assumptions about capacity market and CfDs influenced the results. Respondents to the consultation raised the same issues.
- One respondent also provided its own impact assessment modelling that showed a £6.6 billion consumer dis-benefit from implementing WACM 2.
- We therefore commissioned Baringa to update the modelling to model the Government's most up to date position on EMR.
- Given the uncertainty in assumptions, we have examined a range of results rather than a single case.
- Lane Clark Peacock have carried a quality assurance exercise on the model.

**Baringa will give a more detailed summary of the changes
and how they drive the results**

Modelling does not tell the whole story about the impact on consumers:

- Modelling in full the complexity of the energy market is not possible – need to make assumptions to simplify the interactions for modelling purposes and about future policy.
- Modelling does not capture dynamic effects. Importantly, the future responses of generators and policy makers to WACM 2 and the capacity market.
- The results are very sensitive to small changes in assumptions – illustrated by range of results from different models.
- The consumer bill impacts we are seeing are small in the context of the overall market – they are within the margin of error in models of this type.

Alternative modelling results

- £6.6 billion consumer impact in alternative modelling presented in responses to consultation being driven by differences between location of onshore and offshore wind in status quo and WACM2
- The results are counter intuitive and are not fully explained
- We consider our update modelling to be more reliable

Updated results Power sector costs

<i>Expressed as difference to status quo in NPV terms (£mn)</i>	Original Case		Alternative Case	
	2011-20	2021-30	2011-20	2021-30
Generation costs	-18	-607	-19	-103
Transmission costs	38	169	0	86
Constraint costs	99	339	55	-69
Carbon costs	4	85	-5	-14
Impact on power sector costs	115	-184	31	-99
Total over modelling period	-69		-68	

We expect a more cost reflective charging methodology to lead to a more efficient system – this is reflected in small decreases in power sector costs overall under WACM2

Updated results Consumer bill impact

*Expressed as difference to status quo in NPV terms
(£mn)*

	Original Case		Alternative Case	
	2011-20	2021-30	2011-20	2021-30
Wholesale costs	51	308	212	65
Capacity payments	114	630	13	213
BSUoS	50	169	27	-34
Transmission losses	38	131	41	31
Demand TNUoS charges	0	28	-30	40
Low carbon support	-106	-382	-97	-417
Impact on consumer bills	147	884	167	-102
Total over modelling period	1,032		65	
Average impact on consumer bills per year	£0.75		£0.05	

Benefit of lower power sector costs under WACM 2 is not being transferred to consumers in the model due to interaction with capacity market

There are effects not captured in the modelling that influence results

- Dynamic effects likely to reduce the modelled difference between status quo and WACM 2. For example, higher profits likely to drive new entrants to market and more competitive bids into capacity mechanism.
- Need to procure less capacity through the capacity auction would also reduce the impact of WACM 2 – for example, level of DSR may not be fully captured in the modelling.
- WACM 2 is more efficient basis for decision making about future policy – leading to long term benefits.

There are other benefits that can not be monetised

- WACM 2 increases likelihood of meeting renewables targets for a given level of subsidy and supports energy security through contributing to diversity of energy mix.
- Cumulative effect of these impacts is likely to result in long term benefits to consumers.

We consider that WACM 2 likely to lead to long term benefits to consumer, not all of which are captured in the impact assessment modelling

Our minded to decision

- Considering both the evidence we set out in August 2013 as well as the new evidence discussed in this consultation, we consider that:
 - WACM 2 better facilitates CUSC objectives than status quo
 - WACM 2 better facilitates our statutory objects than status quo

We are therefore minded to approve WACM 2

Implementation date

- Implementing earlier than April 2016 means that generators can not adjust their TEC in response without incurring penalties
- This could increase uncertainty about ability to respond to future changes – resulting in a cost to consumers
- Suppliers may also factor in higher risk premiums into fixed tariff offers.

If we approve, we are minded to implement in April 2016

Consultation closes on Tuesday 27 May
please email your responses to project.transmit@gov.uk



We seek your views on our assessment of the further evidence, our minded-to position in light of this and the minded to implementation date