

CUSC Environmental Standing Group

Meeting Name	CUSC Environmental Standing Group
Meeting No.	1
Date of Meeting	11 th July 2008
Time	10:00am – 2:00pm
Venue	Elaxon Offices, 350 Euston Road, London

This note outlines the key points from the first meeting of the Environmental Standing Group

Members Present:

Duncan Burt	DB	Chairman
Richard Dunn	RD	Secretary
Patrick Hynes	PH	National Grid
Graham Mitchell	GM	RWE npower
Bill Gunshon	BG	RWE npower
Paul Jones	PJ	E.on
Paul Mott	PM	EdF Energy
Barbara Vest	BV	Association of Electricity Suppliers
Dave Wilkerson	DW	Centrica
Garth Graham	GG	Scottish and Southern
Tim Davies	TD	Joint Office
Keith Hodson	KH	Central Networks
Dipen Gadhia	DG	Ofgem
David Jones	DJ	ELEXON

Apologies:

Emma Carr	EC	National Grid
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By Invitation:

Mathew Harnack	MH	Ofgem
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1. Introductions/Apologies for Absence

1. Apologies for absence were received from EC.
2. After introductions, DB explained that the Group was a ~~c~~Cross-codes Group convened under the CUSC governance arrangements as a Standing Group. Under these governance arrangements the Group would not identify a specific Modification to implement the Ofgem Guidance but should undertake work to provide guidance on how future Modifications to the CUSC should factor in the carbon cost as part of the normal process of assessing a Modification against the Applicable CUSC Objectives. A report from the Group setting out this advice would be provided to the CUSC Panel in due course. There was currently a pressing need within the CUSC to have this guidance available in order to assess the carbon cost associated with the various Transmission Access modifications (CAP161-166) currently at Working Group phase. However, mindful of the keen interest in this issue within the industry, the CUSC Panel had decided to invite representatives from other Codes to join the Group so that those Codes could also consider the output from the work of the Group and the work could be shared with all other Panels who could then consider implementing the guidance ~~as appropriate within the appropriate governance arrangements for these other Codes~~. Ofgem would like this guidance in place so that Code Panels could apply the guidance in considering modifications from September 2008.

2. Overview of Ofgem's Guidance on Environmental Issues and the Code Objectives (Ofgem Letters of 15/4/08 & 30/6/08)

3. DB explained that Ofgem had issued a letter to all Codes Panels on 15th April providing guidance on the treatment of carbon costs within the existing Code

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governance framework and especially on the Code objective relating to the economic and efficient network operation. Ofgem had also invited comments on its proposed approach explained in the letter. There was some support for the proposed guidance but also some concerns and caveats raised. The nature of and extent of these concerns and caveats were described in Ofgem's second letter on the issue dated 30th June and included the following:

- Ofgem's guidance constituted a significant change in the way that Code Panels conduct their business;
 - the proposed guidance would impose increased costs for analysis – Code Panels and the industry did not necessarily have the expertise or processes in place to give effect to it in short timescales;
 - to what extent was the guidance legally binding?
 - the treatment of the environment and the Code Objectives should be considered as part of the governance review;
 - environmental issues should be considered on a broader basis than simply under the Code objective governing efficient and economic network operation;
 - lack of understanding as to why the guidance had been limited to consideration of the financial impact of Greenhouse Gas Emissions (GHG) only;
 - providing more than one choice for calculating the cost of GHG (EU ETS cost or Shadow Price of Carbon (SPC)) could create ambiguity – Ofgem should recommend one mechanism only (respondents tended to favour the SPC) ;
 - any analysis should only assess incremental costs/benefits;
 - double counting in the context of existing incentives such as CCL and the RO would need to be avoided;
 - requests for clarification such as use of discount rates and conversion of GHGs into carbon dioxide equivalent.
4. Ofgem had ~~sought to~~ addressed these comments in its letter of 30th June and had issued final clarification and guidance on the treatment of carbon costs under the current industry code objectives with the letter dated 30th June. Ofgem had asked for a counsel opinion on the final guidance and clarification and guidance before it had issued the letter dated 30th June and were satisfied that both the use of 'guidance' and the content of the guidance note ~~the guidance approach was a valid one~~ were legally robust.
5. During discussion the following points were raised:
- on the legal basis for the guidance, GG believed it was important to be clear that Panels were undertaking actions that were legally permissible. DB noted that Ofgem had sought counsel opinion on the final guidance and clarification and suggested that this could be tested practically on examples that the Group should consider in due course;
 - once the physical measure of the GHG implications of a modification was calculated, the relevant Panel could decide whether to use the EU ETS or SPC measure. It might be difficult to establish a standard and it might be appropriate to use different measures in different circumstances e.g. where offsetting might apply;
 - the guidance made references to Schedule 9 of the Electricity Act 1989. The Group should be clear on the requirements of Schedule 9 and agreed to consider the Schedule at the next meeting (*post meeting note: Schedule 9 requires the preservation of natural beauty, conservation of flora and fauna, buildings of architectural interest etc by any licensee under the 1989 Act in formulating proposals for approval of works under section 36 & 37 of the Act (e.g. new power stations and new transmission lines). Published statements of how the licensee will perform these duties and consultation with relevant*

statutory bodies (e.g. Countryside Commission) are also required under Schedule 9). A link to the National Grid Statement is attached
http://infonyuk/user_content/landd/online/Schedule%20%20-%20November%202006.pdf

Action: RD

- A single party should not be able to require an assessment of the carbon cost of a modification but there should be no difficulty with a party raising a modification with a request that the relevant Panel consider carbon costing as part of the assessment of a modification subject to the particular governance arrangements of a particular Code. A single party should also not be precluded from undertaking this work itself;
- Just as with the ordinary costs and benefits of certain modifications a key difficulty will be where the environmental costs and benefits of a modification fall disproportionately on Code Parties (externality);
- Although clearly all modifications should be assessed against the current baseline, GG noted that there was the potential for double counting of carbon benefits vis a vis current modifications (e.g. CAP131 & CAP148). If double counting was prevalent it would lead to a loss of credibility for any guidelines. PJ noted that the Guidelines were just that and should not be followed slavishly if they produced inconsistent results;
- The Ofgem letter of 30/6/08 referred to Guidelines being in place by the end of August 2008. Members queried if this was practicable given that all Panels would need to ratify the Guidelines for their own Codes and there could be legal implications of accepting advice written for another Code. PJ indicated he would like a clear steer about the status of the Guidance given his responsibilities as a CUSC Panel Member. DG indicated that the Ofgem Guidance was simply that – Guidance – but Ofgem believed the end August date would be helpful as a target. DG indicated that the important issue was that the carbon impact of a modification could be measured ~~now~~ and there was ~~now~~ guidance from Ofgem about the circumstances in which the carbon impact should be taken into account when assessing a modification. DJ indicated that the BSC Panel had taken legal advice about ~~accepting~~ the status of the guidance as a means of clarifying the interpretation of the Applicable BSC objectives. ~~advice from a body formally constituted under the CUSC Panel~~ Since this advice had been received the subsequent Ofgem guidance letter had been produced and the BSC Panel has agreed that ~~and the advice was that they BSC Panel could accept~~ work with this guidance as it gave the discretion back to the Panels to consider whether the consideration of the costs of carbon were relevant to a particular Modification. ~~developed outside of direct BSC governance.~~ A note summarising what had been agreed at the BSC Panel meeting. ~~That advice would be circulated to BSC Panel Members, in due course and the~~ The Group agreed that it would be helpful if the ~~advice~~ note could be provided to this Group as well.

Action: DJ

3. Group Terms of Reference (TORs)

6. GG noted that the most difficult areas for the Group to consider provision of guidelines were probably:
 - the issue of double/multiple counting
 - Modifications that affected more than one Code
 - Interactive Modifications
7. Following discussion it was agreed that the Group should aim to produce a draft

report ready by the end of August 2008 and that there should be a wider consultation on the report. Any decision to adopt guidelines that this Group developed would be for the individual Code Panels to decide but the expert representative at this Group could act as a sponsor for the work of the Group with their host Panel. The issue was raised as to whether the guidance could be adopted by Methodology Forums (e.g. TCMF) and DG agreed to provide an Ofgem view on this issue at the next meeting.

Action: DG

8. The Working Group noted the Terms of Reference.

4. Background Information on ROCs - Presentation by Matthew Harnack (Ofgem)

9. DB welcomed MH to the meeting and thanked him for agreeing to give the Group a presentation about the various support schemes for Renewable Energy and CHP currently administered by Ofgem. There were four broad support schemes:

- Renewables Obligation (RO)
- Non Fossil Fuel Obligation (NFFO)
- Climate Change Levy (CCL) Exemption Certificates
- Renewable Energy Guarantees of Origin (REGOs)

10. MH explained that the RO required licensed electricity suppliers to purchase a certain amount of renewable electricity each year. This was currently 9.1% and would increase to 15.4% in 2015/16. £1 billion of certificates had been issued to 5000MW of renewable generators each year (set to double by 2015). The role of Ofgem was to:

- accredit eligible renewable generators
- issue Renewable Obligation Certificates (ROCs) - 1 ROC = 1MW of generation
- maintain a certificate register
- check suppliers comply with their obligations

11. Given that the obligation was increasing each year, there was a relative shortage of ROCs at present hence ROCs were being traded at about £50/ROC rather than the original administered price of £34/ROC. Suppliers must present ROCs as proof of purchase of renewable electricity and Ofgem carried out audits of metered data to confirm the validity of the ROC as well which now also included smaller generators. BERR was currently consulting on a proposal to adopt a "banding" approach to allocate different values for ROCs for different technologies. Thus 1MW from marine or biomass sources might be equivalent to 2ROCs. The aim was effectively to reduce the subsidy for existing developed renewable technologies (e.g. wind) compared to the newer emerging technologies (e.g. marine).

12. The NFFO was a precursor to the RO. This required generators to enter into fixed price contracts with the Non Fossil Purchasing Agency (NFPA) acting on behalf of suppliers. There were currently still 700 contracts covering 3000MW of generation under the NFFO. Ofgem ensured that suppliers complied with their ongoing obligations by a variety of measures.

13. The CCL was a tax aimed at reducing greenhouse gas emissions in the non-domestic sector and was payable on non-domestic supplies of energy. The value of the CCL was currently £4.56/MWh. HMRC set the legislation and collected the levy. Supply from eligible renewable and CHP sources was exempt and Levy Exemption Certificates (LECs) were required to prove this. The CHPQA accredited CHP generators whilst Ofgem:

- accredited renewable generators
- issued LECs and maintained a certificate register

- allocated LECs to supply

Ofgem issued £200m/year of LECs on 45,000GWh of generation.

14. REGOs were electronic certificates proving that electricity generated was from a renewable source. Such a scheme was a requirement under EU legislation. Suppliers were required to disclose the fuel mix of their electricity to customers each year. They therefore required REGOs to prove the renewable portion. REGOs had no market value. Ofgem's role was to:

- accredit generators
- issue certificates
- maintain a certificate register
- provide information for FMD compliance purposes (on request); and
- recognise EU Guarantees of Origin

15. The Group noted that although REGOs formally had no market value a market was expected to develop in due course.

5. Practical Examples Highlighting How the Guidance Could be implemented

CUSC Transmission Access – Carbon Costing for CAP164

16. PJ reprised the presentation that he had developed for the CUSC Transmission Access Working Group 1 for CAP164 (Connect and Manage). CAP164 was one of six transmission access modifications currently being considered by CUSC Working Groups to address the issue of the current queue of generation projects awaiting transmission infrastructure reinforcements. Under CAP164 a generator would not have to wait for wider works and the SO would manage the constraint implications. The purpose of the CBA was therefore to assess any carbon saving benefits from implementation of CAP164 against any constraint cost increases.

17. A number of principles had already been identified:

- be as realistic as possible but try to keep the approach simple
- forecast nature of key variables means that this is not a prediction
- an assessment of probable outcomes against given scenarios
- Focuses on CAP164 but could be adopted for other amendments
- Focuses on carbon, not constraints but need to be mindful of constraint analysis

18. There were four broad stages to the process:

- establish the baseline
- how would the profile be altered by CAP164
- impacts on CO2 emissions
- price the CO2 savings and costs

19. In establishing the baseline the key considerations are:

- what would connect if CAP164 were not implemented?
- the contracted background forms the basis but who will commission?
- Need to estimate who will drop out (e.g. due to failure to gain planning consent)
- The proposal then is to estimate the drop out by zone taking into account local planning issues
- There is need to make an assumption for the effect of CAP150 (Capacity Reduction)
- What existing plant will close (so we can estimate fuel mix of

- conventional plant displaced)
- It is proposed to use a number of scenarios rather than one baseline (e.g. to reflect possible transmission delays)

20. Stage 2 then examines how the profile might change:

- what projects in the background are awaiting wider transmission reinforcement and could benefit from CAP164
- how many of these could advance local works
- what proportion could bring forward their generation projects (e.g. status of planning/turbine availability)

and how the profile would be altered:

- proposal is to carry out analysis of who can come forward on a zonal basis (same as with setting the baseline)
- allows assumption of local planning rates
- allows assessment of role of wider transmission investment (i.e. CAP164 only benefits those who are being held up by wider reinforcements)

21. Stage 3 then looked at impacts on CO2 emissions;

- what amount brought forward is renewable or lower CO2 conventional?
- what load factor will the plant operate at? For wind this can be calculated for a zone – what to assume for new conventional?
- Displacement of marginal plant. What will this be? Looking at a range between CCGT and Coal
- Is this NBP or by zone? If carbon costs or benefits affected by constrained running of renewable or conventional plant, maybe by zone
- Proposal is to ascertain whether constraints would restrict displacement of marginal plant at NBP
- Any increased emissions from part loaded plant?
- Need to use different CO2 values for part loading to reflect efficiency differences

22. Treatment of losses:

- National Grid can calculate losses if they know the assumptions of size and location of output
- Assume losses require more output from marginal plant

23. Transmission Infrastructure;

Assumption for CAP164:

- local works will be brought forward (SPC changes by year)
- wider works unaffected as needs SQSS change
- proposal is not to assess transmission infrastructure for CAP164

24. Stage 4 then involved multiplying the identified CO2 effects by the price of carbon – the recommendation was to use SPC on the basis that this was most likely to be the value that Ofgem uses.

25. Other issues included:

- what time period to carry the analysis over?
- Should we consider other emissions?

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In the context of what time period to carry the analysis over there were two main scenarios:

- scenario 1 - the profile is brought forward until the additional constraint and carbon effects cease
- scenario 2 - there is an ongoing effect with a backstop of 2020

In the context of considering other emissions the amount of SF6 from transmission and Methane and Nitrous Oxide from generation were tiny in the context of total emissions so the thinking was to ignore the impact of these emissions.

26. In summary the approach was:

- use scenarios rather than one baseline
- carry out analysis at zone level (can consider local planning, wind conditions, transmission reinforcements and the effect on constraints and losses)
- use a range of marginal plant between CCGT and coal for CO₂/MWh (subject to effects within zones)
- ignore transmission investment
- count losses as increased marginal output
- use SPC
- only consider CO₂
- backstop date of 2020

27. Next steps were to:

- start work on the baseline
- then once amendment is finalised stage 2 can commence
- National Grid to lead this element with active support from the subgroup

28. Points made during discussion of PJ's presentation included:

- the SYS contracted background only went to 2016. DB suggested this could be extrapolated to 2020
- Adopting the baseline could actually discourage people from connecting so are you actually saving CO₂?
- The use of more expensive generation could in itself encourage reductions in consumption
- It would be best to stick to the big ticket items as with any economic model
- ETS cashflows themselves could impact behaviour and thus the amount of CO₂ saved
- Would the replacement of older generation have happened anyway without CAP164 (e.g. through the operation of LCPD)?
- Using a single price of carbon meant that other policy effects could be disregarded
- The Group would need to work through an example that involved network investment
- The carbon cost impact of part loading of electricity generation arising from a modification would need to be taken into account
- The carbon cost impact of a modification affecting retail markets should also be considered (e.g. P218 – Microgeneration)
- The carbon cost impact of a transport modification should be considered (e.g. losses) as should a metering modification (e.g. smart metering)
- Issues associated with cross-code modifications might be better addressed as part of Ofgem's governance review
- Individual Panels could decide to seek expert external advice to supplement the guidelines that would emerge from this Group

Summary of Actions and Next Steps

29. It was agreed that Members as detailed below would undertake some assessment of the carbon cost impact of the following modifications:

- ~~-Balancing and Settlement Code Modification – National Grid~~
- Losses – DW
- Smart Metering/Energy Efficiency - PJ/DB to discuss
- Grid Code – National Grid
- Distribution/Microgeneration – BG
- Gas Transmission (e.g. shrinkage) – National Grid
- CAP164 – PJ etc. to continue work already in train

Action: Relevant Members

30. DB indicated that his aim was to draft the Standing Group Report in parallel with the Group's consideration of the issues and fill in the gaps as the debate reached conclusions so that a draft report could be considered as the final act of the Group. The Report should be simple and to the point.

6. AOB

31. None.

7. Date of Next Meeting

32. The next meeting of the Group will be held on Friday 15th August 2008 at Elexon's Offices commencing at 10am.