

# Energy Research Partnership Notes of April 4th 2008 meeting



**MEETING DATE:** 4<sup>th</sup> April 2008

**LOCATION:** BERR Conference Centre, London

**CHAIR:** Willy Rickett, BERR

**ATTENDEES:**

|   |                      |                              |
|---|----------------------|------------------------------|
| <b>Members:</b>                             | Paul Golby           | E.ON & Co Chair              |
|   | David Clarke         | ETI                          |
|   | Prof Brian Collins   | DfT                          |
|   | Tom Delay            | Carbon Trust                 |
|   | Mike Farley          | Doosan Babcock               |
|   | Iain Gray            | TSB                          |
|   | Alice Hume           | CBI                          |
|   | Sue Ion              | Royal Academy of Engineering |
|   | John Loughhead       | UKERC                        |
|   | Martin Nesbitt       | Defra                        |
|   | Turlogh O'Brien      | Arup                         |
|   | Graeme Sweeney       | Shell                        |
|   | Alison Wall          | EPSRC                        |
|   | Nick Winser          | National Grid                |
| <b>Secretariat<br/>/ Analysis<br/>Team:</b> | Mike Colechin,       | E.ON UK                      |
|   | Jonathan Dinmore     | GO-Science                   |
|   | Nick Grout           | GO-Science                   |
|   | Kathryn Newell,      | BERR                         |
|   | Jonathan Radcliffe   | ERP                          |
| <b>Non -<br/>Members:</b>                   | Jeanie Cruickshank   | BERR                         |
|   | Paul Dyer            | BERR                         |
|   | Gareth Evans         | Ofgem                        |
|   | Bruce Girvan         | CERES Power                  |
|   | Alun James           | WAG                          |
|   | Daniel Johns         | Defra                        |
|   | Lucy Powell          | SSE                          |
|   | Carolyn Reeve        | DIUS                         |
|   | Bob Sorrell          | BP                           |
|   | Graham Tubb          | SEEDA                        |
|   | David Wagstaff       | OCC                          |
|   | Robert Watson        | Defra                        |
| <b>Apologies/<br/>Not present:</b>          | Pam Alexander        | SEEDA                        |
|   | Peter Bance          | Ceres Power                  |
|   | Prof John Beddington | GCSA                         |

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| Alistair Buchanan  | Ofgem                    |
| Jonathan Brearley  | OCC                      |
| Joe Greenwell      | Premier Automotive Group |
| Prof Michael Kelly | DCLG                     |
| Rebecca Lawrence   | HMT                      |
| Paul Lewis         | Scottish Enterprise      |
| Ron Loveland       | WAG                      |
| Ian Marchant       | SSE                      |
| Tony Meggs         | BP                       |
| Geoff Norris       | No.10 Policy Unit        |
| Sir Keith O'Nions  | DIUS                     |
| Nick Otter         | Alstom                   |
| Siobhan Peters     | HMT                      |
| Simon Virley       | BERR                     |

## **Chair's introduction**

Willy Rickett noted apologies from a number of members and welcomed those people able to stand in on their behalf. Thanks were also noted for the contributions of Joe Greenwell, Michael Roberts and Peter Waller who have now stepped down from ERP membership. Minutes of 10<sup>th</sup> January Meeting were agreed.

## **ERP Analysis Team**

Willy introduced John Loughhead to provide an update on recruitment for the ERP Analysis Team and to provide an outline of the team's work plan going forward for agreement by members.

John announced the two new members of the Analysis Team, Jonathan Radcliffe and Eleanor Jubb (Eleanor was unable to attend the meeting). John gave notice that the interview for the Director post was timetabled for the 14<sup>th</sup> April and relayed to Members the unfortunate news that 2 applicants had recently withdrawn their applications. Chris Brondson will continue to manage the recruitment process and to finalise the consortium agreement (for which an addendum to the agreement is outstanding). John will act as Director on an interim basis until a permanent Director is recruited.

John ran through the proposed work programme and flagged the priority activities of the new team, subject to ERP agreement, as: items 4,5&6 relating to International innovation and the potential for international cooperation; item 2 concerning ERP's input into the RES 2020 targets and the Climate Change Committee's work on the technology path to 2050; and item 7, with a proposal to publish the earlier Workstream 2 analysis, on the ERP's website.

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Members were requested to volunteer as sponsors for each of the work areas – innovation landscape, emissions targets, international activities and other general tasks to be undertaken by the Analysis Team which includes a review of previous ERP workstreams. Volunteers should contact John directly or approach the Secretariat team.

Initial comments on the work plan proposals included:

- Emphasis on item 2 (“Scenarios for Emissions Targets”) seen as appropriate and that engineering options should be considered/analysed as part of this work - it was agreed that discussions in relation to this would be taken forward offline.
- Consideration should be given to ensuring that whole life cycle analyses are carried out for any new technology innovations in order to avoid potential misunderstandings of actual carbon benefits.
- A clear statement of the Analysis Team’s role, particularly in the context of others working in this space, and it was suggested that a general principle for their work might be to discover and highlight potential barriers to innovation and present these to ERP members on a regular basis for discussion.
- The Carbon Trust have previously undertaken analysis on behalf of the World Bank with respect to international low carbon innovation activities. This was offered as additional input to the team’s work.

In closing this item, Willy Rickett invited all members to contribute to shaping the Analysis Team’s work plan. He noted that there had been no dissent to the proposal to publish WS2’s work, and that it should therefore be put on the website in due course.

### **ACTIONS:**

- **John Loughhead** to work with the analysis team to develop a detailed work plan, in light of the ERP plenary meeting discussion, any further input from ERP members, and in consultation with others, such as the OCC,.
- **Analysis Team** to work with Workstream 2 members to agree relevant material arising from their work to be published on ERP website.
- **Members** to approach John Loughhead/Secretariat to volunteer to be sponsors for the work areas described.
- **Sue Ion** to hold offline discussion with Analysis Team around engineering options for item 2 on Work Plan.

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- **Tom Delay** to provide analysis of international low carbon innovation frameworks to John Loughhead and the Analysis Team.

### **Renewables Review**

Paul Dyer (BERR) gave a presentation on the innovation chapter of BERR's consultation on the renewable energy strategy for 2020. Members were notified that ERP's input to the development of the consultation document would take the form of a paper to be pulled together (to a tight deadline) by a sub-group of members led by Graeme Sweeney. Following the presentation, Graeme set out an introduction to the discussion, highlights of which included:

- Identification of two key drivers for the UK's renewables targets - the need to improve energy security and the need to meet our wider international GHG reduction targets. Alongside this there was a recognition that renewables need to be part of a "portfolio solution" to these issues requiring a step change in the deployment of all lower carbon technologies.
- The effectiveness of Renewable Portfolio Standards (such as the UK's Renewables Obligation). It was suggested that there is a need for a common international approach to provide a universal currency for early commercial deployment of new renewable technologies.
- Further work required to establish processes for international collaboration and whole life cycle analyses should be used to identify those low carbon technologies and innovations in process which deliver real carbon benefits, and should form the primary basis for considerations of support.
- There was general agreement among members that any renewable energy strategy must look beyond 2020 towards long term and sustained low carbon energy systems. There were concerns that 2020 is being seen as an "end-point" rather than just a "milestone". Longer term strategies carry the advantage of reducing the potential for lock-in to particular technologies, which while suitable for helping to meet our short term reduction targets (up to 2020) may be less suitable in the medium to long term (post 2020 and leading towards our 2050 goals).
- Other general advantages to longer terms strategies were offered including that a clearly communicated longer term strategy would promote private investment in low carbon energy innovation, would allow for time for international collaboration and would create a larger market for emerging technologies. There was general consensus that a spectrum of timescales and targets are useful to provide a framework for innovation.

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- Can the 2020 target be met with proven and existing low carbon technologies or is there a role for other technologies that are less advanced along the innovation chain. There was general agreement that there is still a lot of potential to be unlocked through use of existing technologies and systems, for example, the national grid might be engineered to transmit energy much more efficiently. This should include internationally available technologies that aren't yet deployed in the UK, but it was also important to address key barriers to deployment such as issues linked to grid access and the need for investment in UK manufacturing capability to address supply chain issues.
- There is a risk that the consultation only seeks to address "invention" rather than "innovation" in the way that technologies are applied, and the consultation questions should be designed to bring these points out too.
- It was felt that there is a real appetite for the investment community to support low carbon technologies but the rate of investment is hampered by a lack of understanding of potential barriers. It was suggested that closer engagement with investors would help to increase their confidence. Investors require a predictable investment framework – they need to know what the risks and benefits to investing are and how these vary between different technologies, and we need to be open where we don't have all the answers. It was also suggested that public procurement can also play a big part in increasing demand and stimulating further investment and innovation.
- Importance was placed on the objective of the strategy to provide international leadership for renewables. The UK has a clear role in demonstrating to other countries that step changes towards low carbon energy systems are possible.
- Public support for technology was also seen as important, and potentially fragile. The role for distributed generation from renewable sources needs specific consideration in this context, particularly given the recent "mis-selling" of micro-wind.
- It was suggested that there is scope for the renewables strategy paper to draw on some of the demand side hooks which were identified in DIUS' *Innovation Nation* paper. It was also noted that the focus on renewables should not detract from current investments in other forms of low carbon technologies including energy efficiency and fuel cells. The renewables paper might also benefit from forming closer links between targets for supply from renewables and the overarching targets for CO2 reduction.

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In closing this item, Willy Rickett thanked members for their contributions to the discussion and requested that any further comments should be submitted quickly to Graeme Sweeney or Mike Colechin.

### **ACTIONS:**

- **Graeme Sweeney** to provide a written submission to BERR's Renewable Energy Strategy Team incorporating ERP members' views. Deadline for submission is the 11<sup>th</sup> April.

### **Environmental Transformation Fund**

Kathryn Newell (BERR) presented members with an update of the ETF strategy. This included the positioning of the ETF as a programme focussed on demonstration and on the acceleration of technologies to deployment.

ERP members felt that more needed to be done to bring the activities of BERR and DEFRA together and identifying how the ETF will interface with the rest of the energy innovation landscape. The ETF project board is the means for doing this, but needs to be better demonstrated, perhaps by presenting the portfolio by technologies rather than by individual Departmental programmes.

There were also concerns by members that there did not appear to be a process for assessing the impact and/or success of the ETF itself, or for reviewing the success of individual ETF projects. Each project should have clear success criteria agreed at the outset. It was understood that not all projects – however well they may be conceived, planned and executed – are destined for success and a mechanism for review and possible termination should be a condition for funding. Kathryn confirmed that this had been considered and measuring success as well as reviewing operational aspects was an important consideration for HMT when considering future funding rounds.

It was suggested that the money appears to be spread too thinly and there was general concern that the number of projects funded by ETF should be smaller than the current portfolio of existing BERR and DEFRA funded projects, and that each of the projects themselves should be larger in size and cover whole systems rather than individual technologies within systems. It was noted that if projects are decreased in number and increased in size then prioritisation will become a big issue.

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## **Carbon Trust, TSB and ETI**

Willy invited Tom Delay, Iain Gray and David Clarke to explain their various roles in energy innovation and how they plan to work collaboratively together.

A definitive joint working strategy is currently in its infancy but it was clear that one of the first priorities of the groups is to communicate their distinct roles to the outside world and members' views were invited on how best to do this.

It was noted that the ETF should also take account of CT/ETI/TSB's strategy, who in turn need to maintain current good links with EPSRC. These links will be needed to ensure an effective flow of innovation from the research base into demonstration and on to commercial deployment.

Other member comments included:

- Any analysis of the energy innovation scene needs to look wider across our national border and some consideration of how the organisations will link up to international partners would be welcomed.
- The three organisations should be working together to deliver defined strategies for each technology area, similar to the one that has been developed by BERR for Carbon Abatement Technologies.
- Various work has been undertaken to address behavioural change issues in this "space" and the three organisations should also bring this into their considerations.
- Skills development/recruitment and industrial engagement will also be key to the success of the strategies that are developed.
- ERP should celebrate the success it has had in instigating this debate and ensure that the outcome of it is publicised.

In closing this item, Willy Rickett welcomed the steps that CT/ETI/TSB had taken in developing a partnership for working and reminded members of the overarching aim of ERP which is to enhance the coherence of energy research and innovation activities by bringing together key funders of energy RDD&D to work together towards this shared goal.

## **ACTIONS:**

**CT/ETI/TSB** to provide an update on joint working strategy at the next meeting in July with later updates as it is developed further.



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## **Innovation Funding**

Members welcomed the estimates and projections provided on intended public sector spending for low carbon energy innovation over the coming CSR period. Some further analysis (by the new analysis team) would be required to paint a clearer picture of income and expenditure streams associated with low carbon energy technology.

### **ACTION:**

- **Analysis Team** to include study of innovation funding as component of work plan.

## **AOB/Closing Remarks**

Nick Winser was invited to provide members with a short presentation concerning the implications for the national grid of a shift towards renewable technologies but on account of time constraints, this item was deferred to a later meeting. Members were invited to provide comments to Nick Winser.

All Members were asked to note the EPSRC call for outline proposals for Doctoral Training Centres, which highlight energy as a priority theme. Details are on the EPSRC web ([www.epsrc.ac.uk](http://www.epsrc.ac.uk)).

**ERP Secretariat  
April 2008**