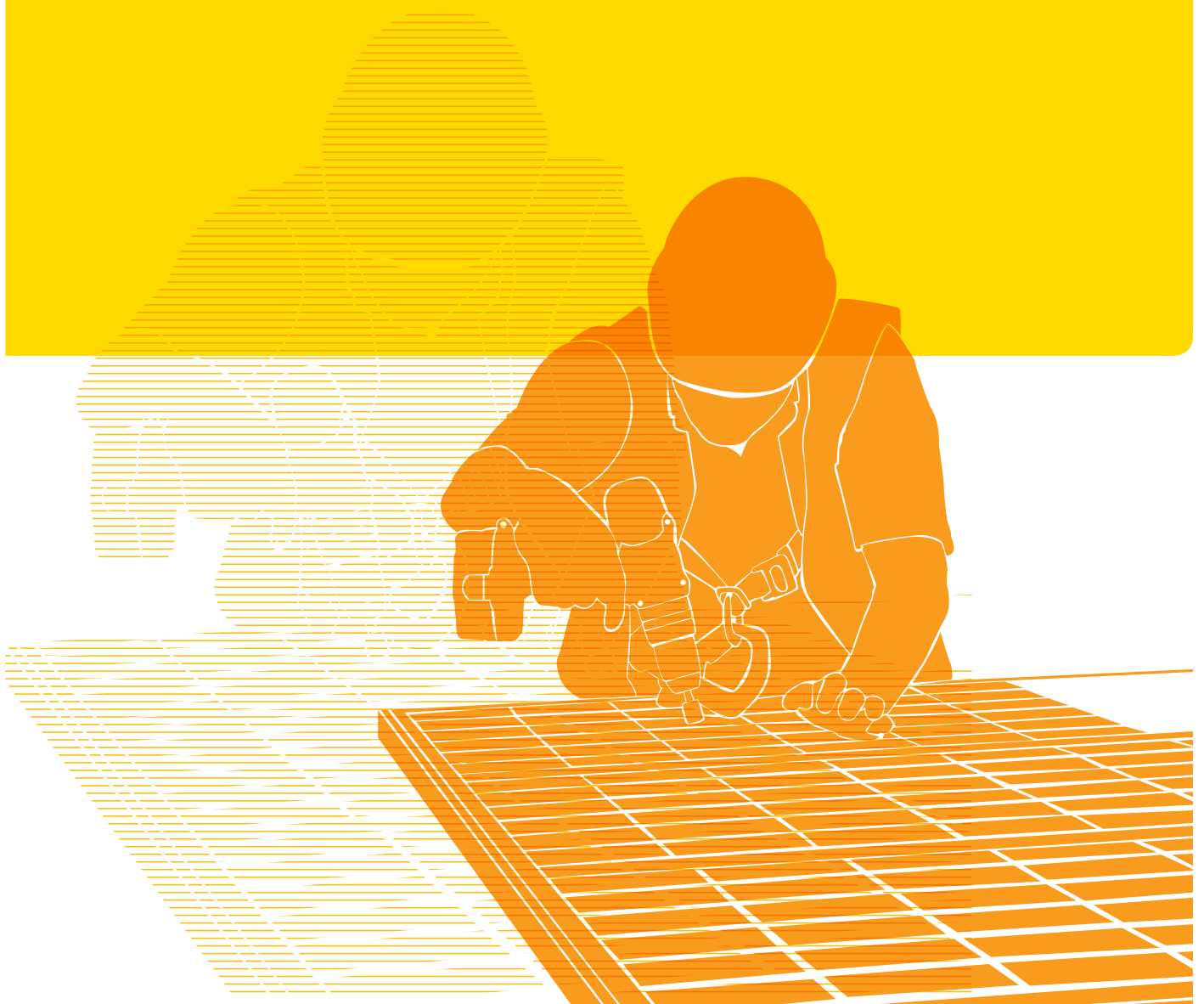


# National Solar Centre



# National Solar Centre

Summary of Industry Briefing and Informal Consultation – 22nd June 2012, BRE, Watford

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## 1. Introduction

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This industry briefing and informal consultation event was arranged following the Minister for Energy and Climate Change Greg Barker announcement that BRE and Cornwall Council have proposed a National Solar Centre (NSC)<sup>1</sup> – a centre of excellence to assist the solar PV industry to mature and thrive.

The aim of the event was to communicate the aims and objectives of the NSC and crucially to gain feedback and comments from those who were able to attend. As such the event comprised of three short presentations about the NSC and then a workshop with the event delegates. The presentations were made by Nick Tune, Director BRE Wales and South West; Adrian Lea, Cornwall Council; and Ray Noble, SolarBIPV.

Invitations were extended to a wide range of organisations in the solar PV and solar thermal sectors. Attendees included energy service companies, local government, national government, manufacturing supply chain companies, installers, consultants and distributors. A list of attendees is included in Appendix A.

As this event was arranged at relatively short notice a number of invited companies were not able to attend and apologies were received. A number of follow up meetings have been arranged with interested companies and organisations. Additionally the event information and workshop questions will be circulated to gather more views from industry.

The event was hosted and organised by BRE. BRE are currently leading a European funding bid to support a National Solar Centre to be located in Cornwall. Cornwall is recognised as a leading local authority in promoting and enabling the deployment of renewable technologies in the UK, and has seen a considerable amount of activity in relation to solar PV over the last 2 years. BRE's position of independence and credibility is viewed as being an asset to the development of a National Solar Centre.

In addition, BRE is very well-connected and respected for its technical capabilities within both the construction and solar industries.

<sup>1</sup> DECC Press Notice 24th May 2012

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## 2. National Solar Centre overview

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At the time of the workshop it was envisaged that the NSC would fulfil five key functions:

1. Be a respected Centre of Excellence that provides an observatory role to allow the solar industry to mature and thrive in the UK.
2. Analyse data sources of solar PV system performance and use the results to the benefit of the industry, through publications and an evidence database.
3. Provide due diligence services for new large installations, including testing
4. Provide fault finding, verification and performance optimisation for existing installations
5. Provide design level training for installers on systems >4kW

Other proposals and ideas include the following:

- Create best quality assurance, design advice, product knowledge and technical standards
- Provide a solar code of practice for construction and solar industries
- Support Building Integrated PV market development
- Provide product database and advice
- Monitoring and maintenance services
- BIPV product and market development
- Advise on installation optimisation, quality and cost reduction
- R&D of products and systems
- Better integration for grid connection and grid demand

The idea of the workshop was to discuss and develop these ideas so as to secure industry support for the proposals, and to develop the business plan being developed by BRE. Please see the attached presentations from Nick Tune and Ray Noble for a further overview of the proposed National Solar Centre

As mentioned above BRE are currently leading a European funding bid for convergence funding in Cornwall. At present the initial outline bid has been submitted and feedback has been received. BRE are now working towards a deadline of the end of July for the final bid and associated business plan. For more information please contact Jonny Williams 01792 630107 or [nsc@bre.co.uk](mailto:nsc@bre.co.uk)

The funding bid should not be considered a done deal. Although it may be possible to start a National Solar Centre without the convergence funding, it is considered that the impact and benefit to industry will be much greater and quicker to deliver if the funding is secured. In other words, the funding will allow the NSC to “hit the ground running” and deliver maximum impact as soon as possible.

### 3. Feedback collected from the workshop

#### Workshop questions:

1. What are the key elements that the National Solar Centre should provide? (consider currently proposed and your suggestions)
2. What is your view of the data analysis aspect of the NSC?
3. What do you think of the other proposed functions of the NSC? (due diligence, fault finding, design training)
4. How can the NSC help the industry to mature and thrive in the future?
5. Would you favour membership options, founding members or some other option?

Event delegates were split into four groups which were facilitated by Anthony Heywood, Steve Pester, Jonny Williams (all BRE) and Richard Rushin (Trina Solar). Some responses have been edited to avoid duplication and to ensure clarity.

Feedback from the workshop has been written up below. Please feel free to add more comments in the space provided and return to [nsc@bre.co.uk](mailto:nsc@bre.co.uk)

#### Q1 – What are the key elements the NSC should provide? (Consider currently proposed and your suggestions)

- It is essential that the NSC demonstrates industry cohesion, credibility, and is recognised and respected by industry, academia and government. To do this it needs a clear remit, scope and scale.
- ‘The NSC has to have a ‘defined role’ – distinct from trade bodies, with a clear mission and become the place in the UK to contact for information regardless of where you sit in the supply chain’. There is a need to clearly define the NSC products and services and to define the customer offer.
- Impartiality – it has to stand for best practice and cannot be influenced, (or be seen to be influenced) by any 3rd party
- NSC must be a genuine centre of excellence – appropriately experience staff required. Should be strongly branded as a centre of excellence.
- Independence and technical rigour are essential if the centre is to become a trusted knowledge hub.
- The NSC has to be for the whole of the industry – public, installers, industry, public sector, utilities and investors. (However, comments below suggest that it should not be public facing, and should provide a conduit of information for other public facing bodies).
- The NSC has to redefine standards and quality for practice and products and communicate these in a simple way. For the integration of construction and solar industries, there is a clear need for standards and information, especially where there is conflict between building standards and PV standards.
- A key question is where does MCS finish and where does NSC begin? There is a risk of duplication or over-complication. The risk must be quantified in the business plan. Perhaps there is need for guidance from government.
- In terms of standards and best practice there are only a few particular areas that need to be addressed. Could NSC support MCS by contributing to continued development of standards or assisting with enforcement of standards? In this way MCS could be strengthened.
- To provide independent, verified data to public and industry alike. Pool current streams of data together to provide insightful reports that can in turn generate income for the NSC.
- To define key market ‘gaps’ and provide services to ‘fill’. For instance Utilities would be very interested in future grid demands from PV parks etc.
- Training demands are regional, so Cornwall location needs consideration. A focus could be on standardising training.
- Solar thermal should be covered as well as PV because there are a number of hybrid products emerging, and there will be a need for training and standards.
- How can the NSC promote the benefits to consumers and promote positive messages about the industry. Other organisations are already doing this.

- The NSC brand could be used to good effect, e.g. data “figures generated from NSC data” or similar but applied to training and accreditation to lend credibility.
- There is an opportunity for training on surveying for PV.
- What scale of PV will the NSC examine? E.g. >4kW or >50kW? Or develop new codes of practice for system >50kW only? (i.e. where there is no requirement for MCS at present).
- One comment was: ‘Training, training, training’. However, after some discussion, it was agreed that NSC should be aiming to raise standards nationally, not be seen as ‘just another training centre’, but should ‘train the trainers’. This implies a trainer or course accreditation scheme. It should define routes to the various levels of qualification for people of varying backgrounds. Since this is what Summitskills has been aiming at with their National Occupational Standards, it should key in or complement the NOS’s.
- Thus, trainers, or training centres would become NSC accredited, with an appropriate logo to use on stationery, etc.
- Perhaps web training could be offered, either as part of becoming accredited, or for installers
- NSC could write training standards
- The centre should not initially be public-facing, but should rather be a source of reliable information and a conduit out to other public-facing bodies (EST, CT, planners, Building Control etc). There should, however, be a publicly accessible website explaining the role of the centre and with access portals for professional organisations. Some work should be done to define exactly who the clients for the NSC are.
- One aspect of the NSC’s role would be sifting, interpreting and channelling information emerging from academia (e.g. the Supersolar Hub at Loughborough)
- The centre could be used to re-engage with some of the international organisations UK used to contribute to. (E.g. Steve Pester used to be a Technical Expert on the IEA PVPS programme before the government cut funding). EPIA would also be a good organisation to engage with.
- Eden Project partnership? How will this project integrate with initiatives like the Eden Project’s How2 proposal (as seen in the Independent newspaper)?
- The centre must be careful not to compete with existing trade bodies, or to be seen as a trade body. It should therefore steer clear of direct policy support work.

Do you agree with the above? Please add any further comments as necessary:

**Q2- What is your view of the data analysis aspect of the NSC?**

- Lots of people are currently doing data analysis, so there is an opportunity to consolidate data at the NSC. Can be very time consuming. A mapping exercise would be useful to examine current activity (e.g. SMA, Faunhofer, St Gobain and many others collect data at present)
- Data gathering must cover the whole of the UK and not just Cornwall.
- When considering analysis of PV performance from FITs related data, limitations in relation to site analysis must be taken into consideration, e.g. orientation, shading, split systems etc.
- Independence is the key requirement for any information that is provided in relation to data.
- Many current investment cases have been made on arbitrary and conservative figures for solar energy yield
- Data should be a key service of the NSC, particularly given planned location. Defined, chargeable, credible reports will build the brand. As a business model, release report headlines for free, but charge for the real story behind the numbers.
- Field testing is somewhat challenging because results would represent SW only.
- Collection and analysis of data at the domestic end of the market would be useful to convince sceptics and feed into other methods & standards e.g. SAP, MCS.
- More comprehensive data must be gathered than is currently being acquired. E.g. a relatively small change on the Ofgem FITs form would allow collection of orientation & tilt data [note: this should already be available from the FIT registration forms, so just needs matching against utility energy data, SP]
- A request should be made to DECC that utilities should be mandated to provide data in an anonymous format.
- Credible data should be used to inform training on fault-finding and system design
- Regional data is required, i.e. the data should not relate only to Cornwall.
- Work with DECC to arrange driving consultants, Government depts etc to the NSC door for chargeable advice- self fund

Do you agree with the above? Please add any further comments as necessary:

**Q3- What do you think of the other proposed functions of the NSC? (due diligence, fault finding, design training)**

- There are several training providers in the UK, so the NSC should focus on Quality Assurance and standards but overlap with Summit Skills; NHBC etc - a mapping exercise is required, therefore not at forefront
- Need for wind loading calculations and awareness of fixing designs, approaches and specifications to be further developed.
- Due diligence to be carried out for larger installations only.
- Fault finding idea is ok, for all sizes and design/installation/selling
- Design training should focus on larger systems > 4kW
- NSC should either administer MCS (contract is at ITT now), or be a major contributor [note: SP currently sits on MCS PV Working Group]
- The NSC should not be a rival to current training providers. Rather, be the parent body advising the providers on best practice drawn from UK and International experience. This is effectively providing 'Train the Trainers' to standardize the approach to design, planning etc. How big is the opportunity to deliver "train the trainers" type courses?
- Use links with European bodies etc- bring in guest speakers/trainers
- To pave the way to a more or better regulated future UK industry
- Has potential to raise income from product testing but this should be outside of what is already provided by BRE,BBA etc. New tests for a new approach.
- What about Innovation? – i.e testing cutting edge PV technologies. This could provide useful links with manufacturers and universities.
- Opportunity to develop existing research at BRE on PV and fire. This is potentially a big issue for the industry, as in the UK we have recently had a fire caused by a PV system. There is a risk of increased insurance premiums if problems persist (some US fire departments won't tackle fires where PV is present).
- Mortgages and re-mortgaging should be addressed.
- The Observatory role should include international best practice, e.g. Australia has developed a wealth of useful and valuable information that could be used in the UK.
- DNO grid connection support should be included in the NSC. There is funding available through the Energy Networks Association for activities such as supply-demand matching, smart grids and storage. The NSC should work initially with Western Power (the local DNO) to improve the integration of PV system with the network.

Do you agree with the above? Please add any further comments as necessary:

**Q4 - How can the NSC help the industry to mature and thrive in the future?**

- The NSC could bring together currently disparate elements in the solar industry, focus must be on organisation rather than reinventing.
- The NSC must be self-financing.
- Potential for 'founder members' to contribute to an exemplar PV project on site or nearby, Industry backing it's centre of excellence. 200 Founder Members putting in 5k GBP gives 1 million GBP investment. Could this be an interactive PV display tying in with the EDEN project? Such an initiative may be able to count as "match funding" towards the European funding bid.
- Data integrity is essential, as is data security.
- Open access must be available to the information
- The NSC must provide an open platform for complimentary initiatives and organisations
- Support manufacturing, as well as installers
- Drive product innovation
- Do outdoor side-by-side energy yield testing of products
- Educate and engage the public, particularly children
- Media strategy must be identified to promote PV in a positive light. This should include mainstream/public, industry and Government / energy policy.
- Similar comments as above on credibility and independence are critical to future success.

Do you agree with the above? Please add any further comments as necessary:

**Q5 - Would you favour membership options, founding members or some other option?**

- A standard annual membership option will not work as membership and independence are not compatible.
- Founding organisations from industry might work, but the benefits need to be defined
- Would NSC be 'not-for-profit'? This would enhance its reputation for independence
- Use of current BRE facilities while the NSC develops might offer a practical solution to start up.
- What will be the dynamic between the NSC and the membership/trade organisations
- After the initial start up phase the NSC should be self funding, i.e. financially viable as a business in its own right.
- If NSC ran MCS, it would have an income stream from that with which to do good things for the industry [MCS charges installers a per installation fee, SP]
- Whatever the funding arrangements, NSC must be set up with longevity in mind. A centre which is set up today and abolished in a few years would be a huge waste
- Whatever the funding arrangements, it must give good value and help the industry to mature
- There could be a group of founding partners who each contribute at a flat rate (e.g. £5k p.a.), but who have no direct control or influence on how the money is used. This is to maintain the independent status of NSC.
- NSC could invest directly (e.g. have its own solar farm)
- Any funding from industry must give something back to the industry. In particular it was strongly argued that any membership or founding partner contribution should go towards a legacy fund for training for young people in PV.
- Membership funding inevitably leads to a reduced level of independence and a certain level of politics. If a membership model is followed, it is essential that a wide backing is secured to reduce any risk of bias.

Do you agree with the above? Please add any further comments as necessary:

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## 4. Next steps

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This document has been sent out to all who attended the event. Further comments should be directed towards Jonny Williams, [nsc@bre.co.uk](mailto:nsc@bre.co.uk).

Please distribute this document to any companies that you think should be involved.

- A version of this document will also be sent out to companies which were not able to attend. The intention is to collect opinions on the 5 questions and assorted answers as discussed above.
- BRE is now working towards submission of the ERDF full application at the end of July.
- By separate communications we will contact companies in relation to providing financial support as a one off payment towards a solar farm – a means of investing for the benefit of the future solar PV industry, allowing PV to mature and thrive.
- It has been noted that if PV is to grow to become a 22GW market by 2020 in the UK that a wider audience will also need to be consulted. To this end the NSC team will be carrying a wider formal consultation to insurance/fire/local authority/investment/airport audiences, as well as PV companies not represented at this event.

## List of Attendees

| <b>Name</b>         | <b>Organisation</b>       | <b>Position</b>                         |
|---------------------|---------------------------|-----------------------------------------|
| Ray Noble           | BIPV                      | Director                                |
| Reza Shaybani       | BPVA                      | Chairman                                |
| Olivia Hall         | BPVA                      |                                         |
| Nick Tune           | BRE                       | Director Wales and SW; CEO BRE Canada   |
| Steve Pester        | BRE                       | Principle Consultant                    |
| Jonny Williams      | BRE                       | Consultant                              |
| Anthony Heywood     | BRE                       | Associate Director                      |
| Rob Sneddon         | British Gas               |                                         |
| Alistair Booth      | Carillion Energy Services | Contract Project Manager                |
| Adrian Lea          | Cornwall Council          | Manager, Natural Resource Planning      |
| Emma Peterson       | DECC                      |                                         |
| Ian Draisey         | Dulas MHN                 | Managing Director                       |
| David Evans         | Enecsys                   | Customer Sales manager                  |
| Ian Brothwick       | IET Standards             | Portfolio Development Manager           |
| Fausto Furlotti     | IMO Precision Controls    | CEO                                     |
| Barry Marsh         | LDK                       | UK Country Manager                      |
| Christophe Williams | Naked Energy              | Managing Director                       |
| Nicholas Simmons    | Naked Energy              | Director                                |
| Jonathan Bates      | Photon Energy             | Director                                |
| Jerry Hamilton      | Rexel UK & Ireland        | Director of Energy Solutions & Services |
| Kevin Webster       | Romag                     | Technical Director                      |
| David Gardner       | Sibert Solar              | Managing Director                       |
| Andy O'Leary        | Sibert Solar              | Business Development Manager            |
| James Martin        | SMA                       |                                         |
| Henry Dziuba        | SMA                       |                                         |
| Peter Wong          | Solar Century             | Design Engineer                         |
| Angus Macdonald     | SPGL                      |                                         |
| Adrian Ryding       | St Gobain                 | Technical manager                       |
| Paul Barwell        | STA                       | CEO                                     |
| Richard Rushin      | Trina Solar               | UK Sales Manager                        |
| Stephen Cirell      | Independent consultant    |                                         |