



# Minutes

## **Community Energy** **Presentations by Matt Hastings, Centrica** **Keith Jones, National Trust Wales**

**Wednesday 19 July 2017 at 12.00pm**  
**Pierhead Main Hall, Cardiff Bay**

## Attendees

### Assembly Members

Huw Irranca-Davies, AM  
Jack Sellers, attending on behalf of  
David Melding AM

Mark Isherwood AM  
Siân Gwenllïan AM

### Industry Members

Alessandro Costa, Falck Renewables  
Alex Meredith, Innogy Renewables UK  
Limited  
Amanda Biss, Egnida  
Andy Regan, Citizen Advice  
Bethan Lawson, ARUP  
Carole Morgan-Jones, National  
Energy Action (NEA) Cymru  
Carolyn Pugsley, Freshwater  
Catherine Marting, Falck Renewables  
Chloe Corbyn, National Assembly for  
Wales  
Daria Bradfield, National Assembly  
David Brown, ARUP  
David Clubb, Renewable UK Cymru  
Ed Evans, CECA Wales  
Erin Gill, ARUP  
Fionnguala Sherry-Bruane, University  
of Exeter  
Gareth Tucker, Seren Energy  
Matt Hastings, Centrica

Gareth Williams, CITB Bircham  
Newton  
Guto Owen, Ynni Glan  
Ian MacKinlay  
Jennifer Peltier, Invicta PA  
Jennifer Pride, Department for Natural  
Resources, WG  
Jo Livingstone, ARUP  
Joe Allen, Invicta Public Affairs  
Jonathan Townend, One Wales  
Energy  
Judith Cook, One Wales Energy  
Kalpana Balakrishnam, Natural  
Resources Wales  
Kate O'Sullivan, Cardiff University  
Keith Jones, National Trust Wales  
Lia Murphy, Ofgem  
Mark Durdin, Estates & Campus  
Facilities - Cardiff University



Matthew John, Tai Calon Community Housing  
Mathew Williams, FSB Cymru  
Melanie Johnson, Sustainable Wales  
Neil Tapper, Cenin Renewables Ltd  
Nia Lloyd, RenewableUK Cymru  
Nick Speed, Centrica  
Paul Davies, University of South Wales  
Rebecca Windemer, Cardiff University  
Richard Dibley, Cardiff University  
Robert Proctor, Community Energy Wales

Ryan McCale, National Assembly  
Sean Evans, National Assembly for Wales  
Shea Jones, Institute of Welsh Affairs  
Sian Caiach, Llanelli Rural Council  
Silas Jones, Cadwyn Clwyd  
Sioned Williams, Bangor University  
Stephen Nottingham, Journalist  
Steve Knowles, Cardiff Council  
Stuart Bechares, Acuity Legal Limited  
Vicky Davies, Welsh Government

### Welcome: Llyr Gruffydd

- The first meeting of the CPGSE in September looked at which energy generating methods in Wales we should be prioritising with John Fedderson.
- The second meeting in March was with Henrietta Ridgeon about the possible development pathways for the Tidal Lagoon following the Hendry Review.
- Minutes of both of these are found on the National Assembly website under the cross party group section.
- Today's session is about growing our community energy ambitions in Wales. The intention of the session is to look at the opportunities that exist and the pathways there are to develop more community energy projects in Wales.

### Presentation: Matt Hastings, Programme Director for Centrica's Local Energy Market project in Cornwall

- Been into renewables since 2005. Used to work at the Eden Project in Cornwall and believes in a zero carbon future. Joined Centrica in 2014 with the aim of making the largest energy company in the UK think about local energy. Been a tough three year journey – but the result is that we have a £19 million local energy market demonstrator – one of the first of its kind in the world.
- Cornwall faces a similar challenge to Wales. There are a significant number of renewable projects, but the costs of connecting are in their millions.
- Centrica doesn't have all the answers. It's all about collaboration with a number of partners, including academics and National Grid, which is enabling us to create a Local Energy System, within which there is a Local Energy Market or Nodal Market.
- The benefits of a Nodal Market include:
  - Make and save consumers money
  - Enable more grid capacity
  - Future proof the grid
  - Make the world a better place



- The Cornwall Local Energy Market is a £19m, 3 year Smart Grid programme, funded by Centrica and the European Regional Development Fund (ERDF)
- In essence, the Local Energy Market is an 'ebay style' platform that facilitates the selling and buying of flexibility on the distribution network
- Number of different objectives:
  - Centrica – building a future energy system, learning about it in practice not just theory
  - WPD – reducing distribution network constraints
  - Funders (part ERDF) – all about enabling renewables and saving carbon
  - Generators and consumers – simplifying the complex jungle of energy markets and making it easy
- Five key projects:
  - Local Energy Market Platform – a piece of software which is an eBay-style platform for flexibility
  - Technical Installations - £3.2 million fund where we're going into businesses and sorting out a range of different technologies
  - Energy Storage – not interested in one big battery but multiple storage in Cornwall
  - Residential – including 100 homes and electric vehicles. It's a micro aggregation pilot which basically means using 100 batteries instead of one
  - Research – insights that inform future policy
- The Cornwall LEM involves multiple sectors (eg residential and SME), technologies and revenues. A primary aim is to relieve distribution grid constraints using a local flexibility market.
- Technologies cover both hardware and software. There are lot of different layers of software that need to talk to each other. These include:
  - Virtual Power Plants
  - Home Energy Management Systems
  - Building Management Systems
  - Micro-aggregated storage
  - Mid scale storage
  - Flexible generation and flexible demand.
- Centrica has a single objective for the Local Energy Market and that is to build a future energy system by:
  - getting more renewables on the grid, thriving without subsidies.
  - creating economic development (jobs and growth)
  - sharing knowledge and information as much as possible. Centrica doesn't have all the answers.
- The LEM has a broad range of experienced partners and key stakeholders to ensure it delivers. These include:
  - Distribution Network (Wester Power Distribution)
  - System Operator (National Grid)
  - Academic (University of Exeter)
- There's a real desire in central government to see this working at scale. The thing that is missing is data – data is needed by the government to help inform policy.



- The LEM platform is a 'one stop shop' that helps multiple sellers access multiple buyers. It is an open marketplace accessible by all parties.
- One of things we're looking to pilot is a nodal market
- Vision here is quite extreme – we want to get down to household level – locational price by each house in neighbourhood. Price dictated by physical condition of the market by any one time. The middle ground option is a nodal market with medium voltages.
- We are three months into a programme that we have three years to deliver with a team of 24 people.

#### Presentation: Keith Jones of National Trust Wales

- Work with the National Trust – but involved in a number of community energy projects. Why is National Trust interested in community energy?
  - We use £6.5 million of energy which is money that doesn't go into conservation but elsewhere.
  - We are at risk in a fluctuating market
- We're backing a local project from the beginning which involves numerous stakeholders in a bottom up approach. The community is deciding how it retains benefit but it doesn't mean that electricity prices will come down for the community.
- The market is changing at a pace. The new market is flexible, innovative and reactive – which the current system isn't.
- Decided upon Bethseda as area for initial work on account of its history and its development, together with the fact that there are a lot of partnerships already there. The biggest challenge hasn't been a technical one – but one of communication and getting people to trust and engage.
- We've received a lot of support from Ofgem who want to see benefit to the consumer.
- It's nodal and we're hoping that it will grow. It's a pilot, so there's bound to be some issues, but we hope others will follow where we have gone and learn from the issues that we're facing. It's something that can be multiplied across Wales and even the UK. The amount of interest in the project is phenomenal.
- There are a range of stakeholders in the Bethseda project. Social housing, in particular, have been very supportive in putting resource into the project, going out and talking to people and explaining how electricity works and how they can control and manage it.
- We've formed what used to be called a Community Energy Service Organisation – but which we've now called an Energy Club. We agree a price that the consumer pays for electricity. It's virtual aggregation, using data from advanced meters, that's matched against generation. And when it's raining – it's good news. It's still importance to have a licensed supplier who does the billing and the balancing.
- Energy Local's aim is to help thousands of communities to get more value from renewable generation by using it locally. By sharing local generation we can:
  - reduce the cost of electricity,
  - tackle fuel poverty,



- give local renewables a fair price for their power.
- keep the financial benefit local to build stronger, fairer, more resilient communities.
- Informed consumers are now managing their electricity use ie using it when it's at its cheapest; they are making informed decisions based on a graph. We've got an app that you can download so that you can see what's happening. Local electricity benefitting local people and being used by locals.
- Starting a system in November called 'In Day Trading'. Currently, we don't have to take electricity from anyone in a day – but there's a guaranteed price if do take it. We've got an unstable wholesale market at the moment, that when it is peaking – it's very high, and when it's low it's very low. We need to ask the question – how can I benefit from when it's high?

#### Silas Jones, Cadwyn Clwyd

- Launched a smarter energy project across rural Wales with EU and WG funding.
- Supports renewable energy projects that have benefits to the community
- It aims to explore smarter solutions. The market is moving quickly – aims to gather information and help projects that are not yet off the ground.
- Wants to develop 10 business case studies of renewable energy projects.
- Take community groups on learner journeys to see what's happening across the UK
- It doesn't need to be 100% community owned.

#### Questions and Answers

- **Question:** *Robert Proctor from Community Energy Wales:* One of the things we're keen to try and achieve is more locally owned assets. There's some particular challenges at moment in terms of business rates that are affecting some projects in Wales. I was wondering if you had any thoughts on how to overcome problems, such as business rates, and how else could Wales encourage future energy projects in Wales?

**Response (KJ):** Yes, business rates have been catastrophic. For Bethesda, the net loss because business rates is up by 288%. Scotland sorted it. England capping the increase. Wales, I'm waiting. At the moment, projects have stopped. Why build a business when 22% of profits go to business rates. In terms of the future, it should be looking a lot more like integration, but I'm not sure what the future shape looks like.

Engineers hate the word flexibility. We know that large developers are getting on board our partnerships. We know that a lot of good track record of delivery has happened across Wales, so it'll be interesting to see where we go. One thing community energy has got is trust from their communities. That's something that Centrica couldn't buy, or many of the bigger companies





couldn't buy if you wanted customers, or if you wanted people to engage with the community energy sector.

- **Question:** *Carole Morgan-Jones National Energy Action (NEA) Cymru:* I'm interested in low incomes and vulnerable people. It's difficult to get people signed up to pilot schemes and there's lots of challenges. But it's important the people are informed and get involved. How do we encourage households to take up the offer?

**Response (KJ):** People trust pre-paid meters as they can budget and know what's happening – but I think we are getting to a solution smart metering and the pre-paid element. We're trusting the social housing groups at the moment because of their energy wardens and the relationships that they have. People are getting savings, and I think its reputation will grow, because we are trying to sell a concept, especially once the 'pub talk' starts. We were starting with words like 'probably', and 'may' save, but, we now have proof that the benefit is drilling down.

- **Question:** *Guto Owen from Ynni Glan:* Are you looking to include hydrogen?
- **Response (MH):** We are open to different options and are not closing anything down. The ones we are currently choosing are on a case-by-case basis – using the right technology for the right situation.
- **Question:** *Ian MacKinlay:* We have just been hearing about the problems of mainly hydro type systems being hammered by biz rates. There was six months of opportunity to discuss this point. Can you discuss it with those AMs and what are they going to do about it?
- **Response (LG):** The party I belong to has made representations to the government, Simon Thomas, and we are still awaiting a response. It demonstrates that something needs to be done.

## Close

LG thanked the presenters and invited suggestions for future topics for meetings from attendees.