



# Minutes

## **Onshore Wind Back in Wales** **Presentations by Piers Guy, Vattenfall** **Emma Pinchbeck, RenewableUK**

**Tuesday 26 September 2017 at 12.00pm**  
**Pierhead Main Hall, Cardiff Bay**

# Attendees

### **Assembly Members**

David Melding, AM  
Huw Irranca-Davies, AM  
Llyr Gruffydd AM

Lee Waters, AM  
Mike Hedges, AM

### **Industry Members**

Allan Pitt, ARUP  
Aled Rowlands, National Grid  
Alex Blake, Savills  
Andrew Regan, Citizens Advice Cymru  
Angharad Davies, Cadno  
Communications  
Ben Lewis, Barton Wilmore  
Carla De Laurentis  
Carole Morgan-Jones, National  
Energy Action (NEA)  
Carolyn Pugsley, Freshwater  
Ceri Davies, Indycube  
Charlotte Gibson, Welsh Government  
Chris Jackson, RES  
Colber Adamian–Thomas, Adamian  
Group  
Corbin Saunders, Liberty Renewables  
Craig Harrison, Liberty Renewables  
Daniel Cullinane  
Daniel Patterson, ERM  
David Brown, ARUP  
David Clubb, RenewableUK

David Fitzpatrick  
Donagh Kenny, Allied Irish Bank (GB)  
Emma Pinchbeck, RenewableUK  
Erin Gill, ARUP  
Gareth Tucker, Seren Energy  
Gareth Williams, CITB Bircham  
Newton  
Gwenllian Elias, Innogy Renewables  
UK Limited  
Hazel Williams, Regen SW  
Hilde Berg, RenewableUK  
Ian MacKinlay  
Ioan Bellin, National Assembly for  
Wales  
Ioan Llyr Smallwood, Tegni Ltd  
Jennifer Pride, Welsh Government  
Jonathon Bryant, National Assembly  
for Wales  
Judith Marquand, Cardiff University  
Kalpana Balakrishnam, Natural  
Resources Wales  
Kate O'Sullivan, Cardiff University



Lia Murphy, Ofgem  
Mari Arthur, Cynnal Cymru  
Martyn Popham, Cenin Renewables Ltd  
Mary Thorogood, Vattenfall UK  
Matthew John, Tai Calon Community Housing  
Mehdi Razi  
Moya Macdonald, National Assembly for Wales  
Neil Tapper, Cenin Renewables Ltd  
Paul Davies, University of South Wales  
Piers Guy, Vattenfall  
Rebecca Windemer, Cardiff University  
Richard Evans, RES/Local Partnerships  
Robert Proctor, Renew Wales/Adfywio Cymru  
Rosemary Grogan, RES  
Sean Evans, National Assembly for Wales

Shea Buckland-Jones, Institute of Welsh Affairs  
Sian Caiach, Llanelli Rural Council  
Simon Morgan, REG Power Management  
Tony Cooke, Cardiff Community Energy  
Will Morgan, Renewable Group  
Yasmin Akbari, Freshwater

### **Welcome: Llyr Gruffydd**

- It's a well-attended cross party group, which is hugely positive
- Like to welcome Assembly Members David Melding, Huw Irranca-Davies, Mike Hodges and Lee Waters and thanks staff members attending on behalf of other AMs who could not attend
- As usual, the meeting is being broadcast on Periscope so please be mindful when making any comments
- The theme is timely as we are awaiting a statement from the Cabinet Secretary for Environment and Rural Affairs today about energy.

### **AGM**

- Llyr Gruffydd proposed and seconded as Chair for another term.
- Freshwater proposed and seconded as Secretary for another term.



## Presentation: Piers Guy, UK Country Manager at Vattenfall

### Background to Vattenfall

- Vattenfall is a Swedish state-owned utility, one of the largest utilities in Europe. One of the largest producers and retailers of heat and electricity
- Vattenfall has been in the UK and Wales since 2008 and our purpose is 'Power Climate Smarter Living' for our customers
- Wants to be at the forefront of transition to a low carbon, smarter energy future.
- Aim to be carbon- and fossil-free within a generation, meaning a child currently growing up will be able to make a completely fossil free choice by the time they buy their first house/car.
- Vattenfall will invest £5 billion by 2020. But it's not just about wind. It's also about solar, batteries, grid infrastructure and all the constituents that make up the smart energy of the future.

### Vattenfall in Wales

- In terms of our involvement in Wales, we started in 2008 and are perhaps best known for Pen y Cymoedd – but we've got a portfolio that expands across the country.
- The 228MW Pen Y Cymoedd project represents a £400 million+ investment. We created a close partnership with National Resources Wales that involved signing an MOU in 2014 to develop the Renewable Energy Park Concept. Now constructing 22MW battery at Pen y Cymoedd.
- We have over 500MW onshore wind development portfolio which we've invested in and are ambitious to realise.
- We are also moving into heat networks and infrastructure
- The message is that we're in Wales to invest and grow.

### Pen Y Cymoedd

- It's useful to illustrate what can be done – and we're very proud of what we've accomplished with the project.
- The project itself originally came as part of an initiative of the Forestry Commission before it was amalgamated with National Resources Wales in 2005/2006. Pen Y Cymoedd was the largest area in Wales to be tendered at the time – and we were lucky enough to win it.
- Decided we wanted a project that was more than just a wind farm from the start. The site was unique in that it was so large. It had more than 70,000 homes within 3-4km of the site boundary, whereas most wind farms are usually in a more rural location.
- We were aware from the beginning that we needed to be accepted in the community and had to work together to prove that the wind farm could deliver socio-economic benefits



- Part of the offering was the community benefit fund totaling £1.8bn a year, which is index linked for the lifetime of the project. Real desire to create a long-term legacy.
- Also put in place a £3 million habitat management plan. The Welsh peatland resources have been under threat and diminishing for a while. We had the opportunity at Pen Y Cymoedd to restore the peatland habitat that had been on the site from the 1950s.
- Turned out to be real win-win. We put in place a plan that saw the gradual removal of forestry over a period of time, which meant the peat resource could be restored and the original ecosystem could be supported, which was better for bird life and general habitat, as well as a good revenue generator for us.
- We are currently in process of constructing a 22 megawatt battery system that should be online by 2018
- This was the first example of renewable energy parks co-existing but more to come

### **Why did Vattenfall invest in Pen Y Cymoedd and Wales?**

- Fundamentals are good including
  - Excellent wind resource and limited aviation
  - Available grid
  - Strong partnership with land owner – NRW – who has been supportive throughout the process
  - Positive planning regime that supported large-scale projects
  - Good political commitment with cross party support
  - Opportunity to leverage community fund and try and create the blue print or at least example of what onshore wind could achieve in the UK in terms of community benefits

### **What has the £400 million investment delivered?**

- More to be announced later this week but what we can say is that it has supported 1,000 jobs and 14 apprentices trained. After the event, Vattenfall announced 52% of the 400m investment has gone to Welsh businesses.
- Use of Welsh steel in the foundations
- Cables manufactured in Wrexhan
- Major contract for Jones Bros Balfour Beatty
- New mountain bike trail supporting increased tourism – important as the community in the valleys were looking forward to a new economy, after the decline of heavy industry and tourism is a big concern.

### **Wales should be a leader**

- Wind resource as good or even better than Scotland with fewer aviation constraints
- Strong legislative framework in place. My observation is that Wales has always been good at policy since devolution, but is lacking in follow through in comparison with Scotland.



- Political rule to de-carbonise
- Brexit – some parts of Wales are reliant on rural economies and there is a lot of uncertainty about what will happen moving forward. Need for investment post-Brexit to address concerns and come up with alternatives to fill the gap.
- Onshore wind is an opportunity that Wales must capitalise on.

### **What can Wales do to attract low carbon investment?**

- We understand what Scotland wants – but what does Wales want? It needs to be more like Scotland. The difference between Scotland and Wales is Scotland has the follow up that Wales needs. There's strong and vocal political ambition, continual follow up, a more demonstrative support of renewables and onshore. The Scottish government is still moving forward and you know that Scotland still means business.
- Wales needs the same. The policies are there – but it needs to be followed through. A long term vision that is backed up by action. Otherwise parts of Wales will miss out hugely if nothing is done.
- Take action on grid upgrades.
- Support the Welsh supply chain to compete in Wales and internationally.
- Community engagement is essential and need to support and encourage developers to engage with host communities.
- Brexit adds a whole new dimension. People living in certain parts of Wales are going to be interested in what's on offer in terms of jobs and infrastructure.

### **What's the size of the prize?**

- Over 1GW of onshore wind operational with c.900MW in planning or consented, worth £1.5bn of economic benefit to Wales over the project lifetime
- Remaining potential in Mid Wales alone c.750-1000MW which is potentially worth up to £3m a year in community investment
- Grid upgrades to support decarbonisation of transport and heat as well as economic development
- Opportunity for Welsh supply chain
- You'd be forgiven for thinking that onshore wind wasn't popular but in fact the picture is changing and a lot of people support it - and a lot more would support it more if they understood the benefits properly. Politicians should remember that it doesn't take much engagement for people to bring people around to what is on offer.

**Presentation: Emma Pinchbeck, Executive Director at Renewable UK**

### **The current situation**

- Renewable energy has become the cheapest form of energy. I find that I sit next to politicians now and have a very different discussion to the one I was



having a year ago. For a long time, renewable energy has been about de-carbonisation and climate change. Now I can sit alongside peers in nuclear and gas industries and I provide the cheapest form of energy in the room, and that's completely changed the conversation for us.

- Will also help towards public opinion that was spoken about earlier. 75% of UK public are pro onshore wind as people understand it's not just about low carbon infrastructure and climate change – but also the huge economic and industrial opportunities that it represents.
- Cheapest source of generation - £57.50 per megawatt hour – compared to nuclear which is somewhere in the 90s and gas will be somewhere in the 70s by around 2020.
- Haven't been able to build onshore wind for a couple of years. But last week's onshore wind development that was announced will be well below 50 pounds per hour – good news on prices
- Provided about quarter of UK's energy on Christmas day last year. Wind is not a niche technology: we provide a big chunk of UK electricity at all times. This transformation has been completely remarkable, and we've not seen anything like it in the energy sector before.
- 2016 was the first year that renewables generated more than coal across the whole year. April 17 – first day that no electricity was generated by coal since the Victorian era - in the middle of energy revolution. Especially in Wales/north of England – this is the equivalent of what the coal industry used to be. Need to ask where are we going to get our next set of jobs, skills and engineering expertise and energy infrastructure from? There's an opportunity for Wales to do as well with renewables as they did with coal.
- Scotland has been better at making a case for onshore wind
- It's all to do with innovation – the industry worked hard to get the costs down. It's still quite young at only 30-40 years old, but it has made huge strides in the technology and how we use it – turbines installing today are somewhere in the region of 20x more powerful than previous wind turbines.
- Building nine megawatt turbines off the coast – they were three megawatts in the first project. This size increase makes the energy we get back more efficient in its own right. We're getting better at building them, partly because we have the UK supply chain in place now. We are also able to use renewables more effectively with storage and other innovative technologies coming online.
- We expect to see costs getting cheaper and the UK supply chain continue to grow.
- The commercial model is changing. Liberty is a huge steel manufacturer, which is building 170 turbines on its own land to power the manufacturer of steel and make components for wind turbines.
- Expect more commercial arrangements like that to come forward as the price of renewables lower – but we still need government support.
- Renewable sector in Wales is worth £500 million a year, supporting 2000 employees directly, and indirectly benefiting over one million.
- 32% of energy demand comes from renewables.



## The Political Environment

- We have excellent wind speeds, good planning framework and a history of industrialisation. So we have got the market – but what does the government want to see?
- We have had a good framework in the UK for decarbonisation policy since the 2008 Climate Change Act.
- We set a long term goal and broke it down in five year chunks, achieving the easier parts first eg power sector, then transport, agriculture and industry so really smart legislation
- On account of it being long-term, it gave investors the opportunity to contribute private money because they could see the structure and could believe that the government was serious about renewables
- The framework has been meddled with since 2015
- As well climate change act we had EMR – Electricity Market Reform - when we decided we would have a pot of money that was then about financing the low carbon generation and a pot of money that was about future energy. The pot of money for renewable was split into two auctions:
  1. Less established renewables, offshore wind and others
  2. More established renewables like onshore wind, solar
 Since 2015 election we haven't been able to hold auction for onshore wind or solar
- There has been political pressure from largely English constituencies who are hearing from communities in their area that they didn't want development. In the 2015 elections, the Conservatives were worried that there would be a hung parliament and there was a lot of managing of back bench MPs and concerns over fragile majorities.
- There is obviously nothing wrong with responding to local concerns, but what has got lost in the mix were that 75% of the public that were in favour of onshore wind. In the case of Wales and Scotland, it cut the legs out from underneath the devolved regions being able to do what they wanted on energy policy, because at the moment we don't have enough of the financing devolved.
- We're in a tricky situation – however low the prices have gone on onshore wind – we need at least one auction so we can see the prices in the market. This should be a political ask of Wales
- The reason that politics has shifted is because of cost – it's all about energy and infrastructure, and nobody likes energy infrastructure in their back yard.
- The thing that has changed is that people are asking what are the benefits to the community? Now it's understood as a sensible economic investment, it's shifting the conversation we can have.
- Looking forward to what the government is going to publish. We understand it's been written, and I understand that it should say what the government plans to do on delivering their fourth and fifth carbon budgets. It would be really good to see onshore and offshore wind as part of this, especially onshore wind. We mustn't forget that carbon budgets aren't about de-carbonisation, they're about the smallest cost of carbonisation and we should probably run an auction on the least costly energy we've got.
- We are also expecting the industrial strategy to come out some time before Christmas and, in the Autumn statement, the government is hoping to



announce what they are going to do with next funding rounds of offshore winds, so lots and lots happening in Westminster.

- We have a clear energy policy until 2025. Hopefully, after what I've talked about in terms of Westminster, we'll get some visibility of what's next. Even if we don't, the huge market shift on renewables, the fact we're going to have more electric cars, storage coming online means that it's moving at such a speed, that they need to do energy policy on a systems point of view
- It's not a political conspiracy, Westminster is simply very busy. Officials are just maxxed out because of Brexit. So it's really important to do anything you can to make politicians lives easier.

## Brexit

- Wales and UK, what's important with Brexit? There are conversations about export markets, economics growth and regional investment.
- From a regional investment point of view, we've put about £17.5bn between 2016-2020 into larger ports, coastal regions and communities in the north east of the UK although that kind of large-scale offshore development is coming down in number.
- Renewables market globally is worth about 300bn US dollars, now we are a world leader in offshore wind and renewable energy globally –so there's a huge export opportunity as global market grows.
- Best advocate is Mike the fisherman who works in Ramsgate, who now works on Vattenfall's offshore project. Talking about what investment has done for his job and town, he was finding it hard to make it as a fisherman. But now he's a devotee of renewables, and talks about what big international projects have done to local communities
- Where does that leave us? Scotland has been an example of how you can take advantage of some of the Brexit chaos in some departments, because there's less centralisation so you're able to work with the department or parliament and get your voice heard.
- What's the Welsh equivalent? Aside from asking for clarity on funding framework – there's opportunities for you to push for it, just in terms of good policy design like the Future Generations Act, but putting political pressure on Westminster
- We will work with Wales to make sure you have the energy system in place to take full advantage of natural resources going forward.

## Questions and answers

- **Question:** *David Fitzpatrick.* Tidal power is a big thing for Wales. Wondered what you, as the UK body, think about UK policy on this.

**Response (EP):** We have 50% of Europe's tidal resource plus about 5% of its solar energy, and we are very blessed with natural resources. It will be good to see the results of the Hendry review – and are pushing for that. In terms of what we can do, the conversation is currently less about renewable energy generation today because the cost of that kind of technology at the





moment is too much per each megawatt hour and almost impossible. There are opportunities in convincing the UK government that they have industrial potential for the future, particularly when it comes to regional investment. We're helping to build the case in development and investment as well as export potential across parts of Wales. The UK is blessed with a relatively flat and shallow sea bed and really good wind speed so at least, before 2040, we're looking at mostly wind, some solar and the rest of the mix to be confirmed.

In comparison, the rest of world is not as lucky with the sea bed. Where they have good tidal potential, they are looking to do more in ways of tidal technology. South Korea, Taiwan, the US, Australia and Japan are all places that are keen to progress, and we are currently world leaders in that technology.

Twenty years ago we were the first country in the world to manufacture and make wind turbines in the UK. The government looked at the emerging technology and said it was really expensive, but now complains that we import our components from elsewhere. That was a political decision that was taken because they couldn't see the potential of the technology, so we're very keen to keep driving the issue.

- **Question:** *Ian Mackinley:* There's a lot of gas to come but prices are going up because it's running out - I don't agree with that. What's your view?
- **Question:** *Shea Buckland-Jones, Institute of Welsh Affairs:* There's been some movement recently in terms of trying to maximise local benefits as much as possible in Wales, is it on Vattenfall's radar, something you've thought/spoken about?

**Response (PG):** Yes – it is – we're working quite closely with Scottish government on developing a model that we think is appropriate and doesn't add to the cost of the project. There's quite a few difficulties, and it's not as simple as it sounds, but we're certainly working on it and there's opportunities for Wales.

**Response (EP):** Everyone is looking at that – there is a requirement for community benefits, and it's a good thing to negate perception of onshore wind not being popular –as consumers benefit from cheaper energy bills, regional investment, infrastructure and jobs.

- **Question:** *Erin Gill, ARUP:* Is there anything more you can say about the Green Growth Plan, the industrial strategy and response to the Hendry review – will we only hear about tidal in the Hendry review or will it be touched on in green growth plan?

**Response (EP):** No-one knows. One of the reasons it has been delayed is that it overlaps with policies that have been held up. The Green Growth Plan should have a road map with an energy mix of how to get electricity in 2020s – same with gas and nuclear. They will keep documents at quite a high level – and we're expecting it any day now. We expect decisions that are budget



related for renewables relating to on and offshore winds, wave and tidal to happen in November budgets. It's all happening in this chunk of parliament before Christmas, I understand they have taken these decisions they're just worried about timing.

- **Question:** *Unknown commenter:* Just a follow up on community benefit – £1.8bn sounds like a lot of money for the community – is that an industry average? It's difficult to understand if that money comes directly into the community and what are the wider community benefits for people who have wind farms in their communities eg how they can directly benefit from cheaper bills by having that renewable energy in their community?

**Response (PG):** It is a lot of money, probably one of the most generous funds in the UK for wind, and there's been a lot of discussion and guidance on what appropriate level should be for community. We want to work towards a more holistic approach to benefit which is better for everybody. The advantage of a straight community benefit fund like the PYC one is that it's indexed linked for 25 years, so you can plan head and have a long term commitment to projects. Things such as business loans are considered as part of this and it helps the money to go further. Community benefits is a bit out of date to discuss, it's much more interesting to look at ownership, supporting supply chains, jobs and apprentices. This isn't to say that community benefit wouldn't continue – but discussions about community benefit need to be multifaceted.

**Response (EP):** The supply chain that's been built up – going back to Mike the fisherman for example – makes a difference. Up to 70% UK content for offshore. People working on the projects are coming more and more from small UK companies, many of whom have the opportunity to do large engineering projects. It's important to talk about community benefits – but also to talk about, as we did with nuclear, gas and tidal, the wider benefits to citizens of Wales to reduce people's energy bills. It needs to be big government energy decision making, not project by project.

## Close

LG thanked the presenters and invited suggestions for future topics for meetings from attendees. He reminded attendants that the Cabinet Secretary is giving a keynote speech on 4 October at Smart Energy Eales event and can register at [smartenergy.wales@supply](mailto:smartenergy.wales@supply).