

All Energy Industry Council

25/06/2020
Microsoft Teams

In attendance:

Andrew Harston – Associated British Ports
 Andy Holyland – ORE Catapult
 Andy Paine – Vattenfall
 Chris Starkie – New Anglia LEP
 Esmee Thornton – East of England Energy Group
 Ian Pease – Suffolk County Council/ OrbisEnergy
 Johnathan Reynolds – Opergy/ New Anglia LEP
 Julia Pyke – EDF Energy
 Julian Munson – New Anglia LEP
 Katie Snell – New Anglia LEP
 Mark Goodall (Chair) – Aker Solutions
 Maxine Narburgh – Greater South East Energy Hub
 Nigel Cornwall – Cornwall Insight
 Paul Warmington – Suffolk County Council
 Rich McLean – West Suffolk College
 Richard Goffin – Peel Ports
 Rob Bush – East of England Energy Group
 Sara Rushworth – Great Yarmouth Borough Council
 Sherlyn Deguzman – Shell
 Stuart Rimmer – East Coast College
 Stuart Smith – People with Energy
 Tom McGarry – EDF Energy
 Victoria Sinclair – ScottishPower Renewables
 David Glason – Great Yarmouth Borough Council
 Colette Matthewman - UEA

Apologies:

Bill Cattanach – Oil and Gas Authority
 Graham Hacon – Worley
 Konstantinos Chalvatzis – UEA
 Madeleine Coupe - New Anglia LEP
 Martin Dronfield - James Fisher Marine Services
 Nikos Savvas - West Suffolk College
 Paul Wood - East Suffolk Council
 Shan Lloyd - BEIS
 Sheila Oxtoby - Great Yarmouth Borough Council

1.	Welcome from the Chair	Actions
	<p>The Chair welcomed all to the meeting and apologies were noted.</p> <p>The minutes from the previous meeting were reviewed with Subgroup updates in relation to actions to be further discussed within the meeting.</p> <p>Outstanding Action – AH to send FIT4OR Programme information to the Chair.</p>	

2.	<p>The regional recovery plan, what has been put in place to date, what are the next steps, timelines?</p>	
<p>The Norfolk and Suffolk Economic Recovery Restart Plan slides were presented. It was confirmed that the LEP have been mobilised to support businesses with existing programmes adapted to suit a new environment. The LEP has been working with the Norfolk and Suffolk Resilience Forum during the crisis. Focus has been on immediate support for businesses. The Growth hub has been reaching and responding to enquiries, mostly around finance.</p> <p>The LEP have launched a recovery and resilience fund including £3.5 million in grants for smaller businesses to help reevaluate and improve efficiency. A small number of energy companies have accessed these grants.</p> <p>The LEP are feeding intelligence to the Government and are supplying a briefing document each week highlighting key issues and trends. Early stages of the pandemic have enabled policies and measures to be changed, e.g. the furlough scheme and self-employed etc.</p> <p>In the long-term recovery will not be quick, the focus has been to get the economy moving and learn how to cope with the new normal. The Economic Recovery Restart plan is due to be published 2nd July, subject to sign off by local authority leaders.</p> <p>The plan is structured as follows: shows what the impacts of COVID-19 have been and the key interventions planned. There are separate sections for local Government industrial strategy and foundations of productivity, which look at business environment, the issues, opportunities and what the authorities will do in each of the sections, for example skills, ideas, innovation and infrastructure. Each local authority has their own plan which sit within the recovery plan.</p> <p>A page of each of the sectors has been provided and there is a broader range of sectors due to the impacts where support is required for all.</p> <p>The longer term plans still remain locked into the Local Industrial Strategy and the three opportunity areas - Clean energy, Argi tech and ICT – which bring together clean growth.</p> <p>The LEP, local authorities and other partners can produce their own and more detailed plans to sit beneath the appropriate sectors, including energy which will be in more detail.</p> <p>The key stages are: Respond, Restart and Renew.</p> <p>We are in the Restart stage and which runs from March 2020 until autumn this year. The Restart stage runs from June 2020 to autumn this year. The Restart document was produced within a month with a swift consultation for development. It will be updated through the summer and the LEP welcomes dialogue in relation to this document.</p> <p>The Renew document will be an update and upgrade document of the Local Industrial Strategy and this will show what has happened and where to go next. The Renew document will be developed from autumn this year and will be published at the end of the year to the start off the year of 2021. The Renew document will be shared once published.</p>		

3. Sector responses to recovery plan	
<p>Oil and Gas</p> <p>An update was provided by the Chair in the absence of Bill Cattanach.</p> <p>Oil prices have recovered somewhat however, gas prices are still very low. Many employees remain furloughed with minimum manning offshore assets and many projects are being cancelled across the board.</p> <p>The Council asked if there were any updates on the governments Oil and Gas Sector Deal and suggested the AEIC keep an eye on the deal to see how it can be implemented or put ideas into the deal to make sure the supply chain is factored into the planning.</p> <p>An update was provided, the sector deal is to work towards the net zero decarbonisation and BEIS rejected previous drafts. Oil and Gas UK, BEIS and the Oil and Gas Authority have now agreed on a framework.</p> <p>Offshore Wind/ OWIC</p> <p>Andy Paine (AP) update. Strategy remains in place, projects and pipelines continue and investment decisions are being made. There has been a tightening of costs and resources in the current climate. There have been no big strategic shifts. Clean growth will help but this puts pressure on having adequate pipelines in place. There have been delays on consenting on Norfolk Vanguard and Norfolk Boreas projects, looking to hear more on the Norfolk Vanguard on 1st July. Awaiting to hear more from the government on clean growth.</p> <p>The sector deal work continues, the momentum is not as strong and we need to think about how we can reinject this. The current chair is coming to an end of his term, the focus is to keep driving and focus on progression.</p> <p>Andy Paine commented on the Restart Plan. We would like to know how other LEPs are doing in other parts of the country, and we also welcome the place of clean growth within energy. We must make use of vehicles we already have such as the AEIC and other areas so that we do not reinvent some of the ideas and move onto some of the initiatives already in place.</p> <p>National Grid has started consultation for integration of offshore wind. A project team and manger are in place. A webinar took place recently which focused on progress and how to engage stakeholders going forward. The website will be shared with this group so that all can join the next webinar.</p> <p>Victoria Sinclair sits on the Offshore Wind Growth Partnership Reference Group and the Offshore Wind Supply chain group. The partnership have proposals for new funding calls which will be published soon, they have been overcoming delays due to coronavirus using virtual events such as the webinars.</p> <p>Supply Chain Group Update there have been delays on developing the UK content while they wait for guidance to come out from BEIS in response to the recent consultant around the supply chain guidance. Once this has been received from BEIS there will be more progress.</p> <p>Round four and Scotwind process are still running to short timeline processes and are progressing well.</p> <p>Simon Gray added the maritime recovery plan and sector deal link: https://www.maritimeuk.org/programmes/maritime-sector-recovery-plan/</p> <p>An update was provided from Simon Gray based on the meeting with RenewableUK. The meeting discussed different trade organisations and the meetings which had taken place with Kwasi regarding the BEIS proposal. Subject topics focused on maximizing UK content and the supply chain, jobs, sskills and apprenticeships systems, getting homes net zero ready and deploying new technology.</p>	<p>(AP) to share link with group.</p> <p>(SG) to send subject topics round to group.</p>

It was confirmed that UK content targets have been discussed and prices are of paramount importance and may exclude some UK content issues. Government are keen to see more action on jobs, skills and apprenticeships with post Covid -19 bounce back being led by the clean energy sector. Getting homes to net zero include the likes of hydrogen and passive houses. Deploying new technology via the ORE catapult and other stakeholders to support this is important?

Andy Paine (AP) – confirmed that there has been encouraging input from National Grid with regards to connection and integration and they must be engaged with on this. There is a good opportunity for engagement. The Chair offered to support on this. It was confirmed that there is a website to sign up to input ideas.

EEEGR and the Offshore Wind SIG have written to government with concerns about delays in granting permissions for offshore wind farms and issues to cabling and substations. It has been made clear that there is a need to act quickly not waiting on a ring main or East Coast Infrastructure enhancement. This has been shared with RenewableUK who are pushing this along with Kwasi. It was confirmed that the SNS2020 event will provide an overview in support of offshore wind farms and connection with another session focused on the East Coast and what is happening in our region.

Nuclear

Tom McGarry provided a Sizewell update. Application for development consent order to build and operate Sizewell C was accepted, and will now go through the DCO process and the 18 month period towards the final decision. All will be published soon. In the meantime, a presentation has been put together to show what has been applied for.

The Sizewell C site was identified by Government as a potentially suitable site over a decade ago. Many elements of the proposal have since changed with over four more stages of public consultation. Following consultation there will be a physical distinction to Hinkley Point C in that SZC will clad the turbine halls. Most importantly there is 3.2GW of electricity that will be generated. It will no longer be undergrounding the cabling, following several engineering analysis, the safest approach is to have four pylons built on the 33 hectare platform connecting into the new 400kv substation.

The existing distribution around Sizewell C is the most modern in the UK it has the capacity to take additional electricity therefore no need for additional pylons and cables across the surrounding countryside.

The power station has changed the way they transfer freight and people to the site and will be via a mixture of rail, sea and road. We have responded to the environment and technical assessment undertaken to inform what the infrastructure will look like. There will be several roads that will have changes made to them and will bypass certain communities along those roads to deliver the construction phase of Sizewell C. Estimated to run from ten to twelve years.

In relation to the DCO, a decision will be made by late 2021. We will work with partners to lean on government to push the energy white paper, to proceed with a final investment decision towards the end of 2021 with view of starting construction early 2022. There are already a number of suppliers involved in the early works such as ground works and local plant hire services and this includes local employment.

A press release has been issued today to note that an application has been submitted along with the launching of 11 pledges to the local community. At the end of construction period it will deliver a net gain of land for natural capital and wildlife and confident the impact on RSPB and other sites with minimal impact from coastal processes.

At peak construction will require 8,500 people working across the project. This will include the Sizewell C site as well as development sites such as accommodation, freight management facilities and park and ride facilities. Construction is aimed to start in 2022 with a likely peak around 2027 to 2028. The early work will reduce the impact on traffic on local rural roads. The beach landing facility will be the first to do. A spur of the Leiston/Saxmundham branch railline will go direct into the site, bypassing the Leiston railway line. It is estimated that through sea and rail this will be able to deliver 40% of

(AP) to send round website to sign up.

AP and the Chair to engage with National Grid.

the freight, which will reduce the number of HGV movements on the roads. The requirement for land for temporary construction area reaches 260 additional hectares which will be returned after construction to its original use. Construction aims to finish in 2034.

Information on the environmental statement, has a total amount of 56,000 pages within the application. Local environmental challenges are as important as contributing to net zero.

A beach landing facility will mean very large or heavy freight deliveries by sea can only withstand 1/10000 year storm.

We are building a temporary accommodation campus, and it is estimated that local employment will reach 2,500 – 3,000 who will use the park and ride sites. The four village bypasses on the A12 will be amplified. We will build a link road direct from the A12 to the Sizewell C site, and this is being delivered because of the environmental impact of the HGV's that will drive through villages. Freight management facilities on the A14 will be important to managing the logistics to site. Estimated on average 325 HGV deliveries at peak. The land will be returned for the management facilities and the park and ride sites for agricultural use at the end of construction.

Economic and community benefits are a priority. From 2,500-3,000 workers will come from the local area. They will enable 1,000 apprenticeships within the local supply chain. Sizewell consortium, the main tier 1 suppliers will be working on Sizewell C working in tandem with the Suffolk chamber of commerce to develop the local supply chain.

There are concerns that Sizewell C will cause a lift and shift from the South West, this is not the case and it has invested to develop the supply chain development team who are ready to pick this up with £1.5billion signed up in contracts with South West companies at HPC. £900million has been invested in contracts with East of England companies to date.

The main aim is to help local companies get ready for the jobs and opportunities and there are many initiatives being put into place. We are working very closely with the local authorities as well as further education colleges and training providers, which is included in the LEP recovery plan.

Investments will be made in local employment, skills and we aim to create a jobs services, skills fund. Socioeconomic strategy at HPC is looking at the wider economy and to make sure that any job losses as a result of a big project coming into the local area are backfilled. By having a skills strategy behind it local employers can find people who are qualified and skilled in order to take on the roles. A public services contingency fund will be provided along with a community fund as well.

A pre-examination stage will be running from July to September which you can register online and view the application documentation.

Stuart Rimmer (SR) added that he was keen to see the commitment in apprenticeships and asked if the apprenticeship will be secure.

It was confirmed that Sizewell has committed to the delivery of 1,000 apprenticeships and added that they are not all EDF Energy apprentices, but that they will join through several companies through various different tiers.

(TM) to send presentation to EEEGR

4. Clean energy hub project and 'Net zero Leiston'

Julia Pyke (JP) director of finance for Sizewell C.

In the UK, nuclear has only been used to supply electricity to the grid and everyone has forgotten it is a source of heat. In other countries the heat is used to make electricity and to provide district heating. There is an opportunity to use a design of heating which has been approved by the UK regulator, and EDF has started to seek UK approval for the design of its power station, a model already being built in Europe in 2008. Outline approval was received in 2012, which states you can build this in the UK if they were to comply with 771 engineering changes, including new additional safety systems. The details of the design was frozen this year. The UK has one of the toughest nuclear

regulators in the world, it takes a very long time to get a nuclear design to be approved. EDF haven't had to spend a lot of time and money redoing the design therefore they have had time think about how to use power stations more efficiently to maximise the output of the power station such as excess heat.

There has been a massive reduction in energy consumption during the lockdown period. Nuclear has been stable and has produced 20% of UK electricity for a long time.

EDF are pro renewables, wind, solar, gas, carbon capture and storage. Pro keeping 20% generation from nuclear, the other 20% needed will come from carbon capture storage in due course.

Energy Systems Catapult report on how nuclear contributes to net zero and are able to model the whole system. Provided we are able to reduce the costs of nuclear proceeding with more GW technology, this establishes nuclear as a low regret decision. EDF would look to reduce construction cost and save costs by not having to redo the design, this would also benefit as suppliers would not have to requalify their equipment.

Key messages from the Energy Systems Catapult on a whole systems basis confirms that in order to achieve net zero, nuclear needs to play it's part. Assuming the cost reductions it is a very low regret decision to proceed with, including more GW establishment.

Hinkley is putting £14 billion into the UK economy during the construction period. The audit of UK content is carried out in two ways, one way is audited by government, calculating where contracts are in the workforce. Cross checking by looking at if spend. They are spending 2/3 of their money in pounds by the end of Hinkley and they will have spent £14bn in the UK economy. An audited figure of £1.7bn has been invested into the supply chain in the south west of England, and there is hope to replicate this to the East of England. After Sizewell they will need two additional sites.

EDF would like to collaborate with the offshore wind and oil and gas industry looking at using heat, and green hydrogen through electrolysis. A focus will also consider heating and cooling for domestic use as well as looking at district heating for housing developments. We are seeking to collaborate with as many people as possible in approach to grid connections.

Nuclear takes a long time to build, and EDF are looking to explore a 2 MW demo electrolyser at Sizewell B. This would produce 800kg H₂/ day, and is the same size as a shipping container. Hydrogen buses, trains and homes will also be explored. Other countries use for processed heat, district heating, desalination.

As part of the energy hub and net zero Leiston project, EDF are talking within the main EDF group who spend £2m a day on R&D. They work with Pivot Power, POD Point and EDF Renewables.

Net Zero Leiston is engaging in the community working to engineer a solution for decarbonising a town. There is need to identify the right solution and the acceptable way of taking carbon out of everyday life. The right technology is available to reach net zero but this does not mean we should not develop these technologies because we don't have a social acceptance blueprint. Work is being carried out with Leiston and East Suffolk Council and other companies, to create a blueprint for Leiston. This will help to find the socially acceptable way to engineer Leiston to be net zero. This project will be launched soon.

In the process of creating a replicable route map for other towns to reach net zero. The project is community led and hopes to provide a greater social mobility. It will endeavour to train people and implement what the community has put forward. It has an open source approach and aims to be as collaborative as it can be for example, by looking at how local agriculture can benefit.

The Chair mentioned the benefits of working with offshore renewables and oil and gas sectors in this region. All three are a good starting point. Asked if the pilot being run is in confines of Sizewell B? It was confirmed that this does not have to be on site and is flexible.

Subject to planning it would look for the best place to put a facility, but it does not have to be right on the coast.

MN – Manages Great South East Energy hub, around local energy, and rural energy fund for south east. Can be joint ventures if the requirement is the community picks up the most, therefore could work together.

Hydrogen East

Johnathan Reynolds (JR) Slides attached

Hydrogen East has been worked on for a few months and is soon ready to launch in July. The aim of the project is to stimulate the hydrogen sector in the East of England with a prominent focus on Norfolk and Suffolk.

Hydrogen is a zero emission (if produced using renewable technologies) and can solve lots of challenges as it is very versatile. There has recently been lots of attention from major operators and developers. Hydrogen has a range of significant applications from electricity generation to heat, transport as well as storage for homes and marine shipping.

We talk about the East Anglia having all forms of generation, however we are falling behind the rest of the UK with hydrogen, lots of other regions are already developing large hydrogen projects. There are no plans in East Anglia yet, however we have the chance to leapfrog the rest of the UK if we are ambitious.

Hydrogen is highlighted in the Local Industrial Strategy with potential at both Bacton and Sizewell. Hydrogen East's vision is to be an independent vehicle to promote and support businesses and supply chain and will work in partnership with private and public bodies. It's about championing and developing. So far those who are included in discussions are; CPH2 Clean Power Hydrogen Group, New Anglia Energy, TCP Eco, ORE Catapult and Opergy.

The Region has the potential for a H2 SNS regional cluster. Hydrogen East are already talking to the OGA, looking at blue and green hydrogen and the potential for an integrated concept for the SNS. There is potential at Bacton with the group already working with Shell and Bacton. Bacton has the potential to be an onshore terminal for hydrogen and there are already discussions with the OGTC about this.

Great Yarmouth Power station is the single biggest source of carbon emissions in Norfolk and Suffolk and has a direct pipeline to Bacton. There is the potential for a partial conversion or upgrade to Hydrogen and this could be Britain's first Hydrogen Power Station. It could also supply local heat.

There is a need to look at how onshore renewables can work with hydrogen and how hydrogen can align with existing projects.

What's next? Creating a business lead network and raise awareness and research. Hydrogen East are working with partners who can develop and deliver. There is a need for a visible hydrogen route map for East Anglia.

An ask for the council is for their insights, ideas, guidance, endorsement, and views.

Hydrogen is something they perceive as a gap and timely to have a bespoke presence for this.

The Council commented that the drive for hydrogen is welcome and all figures for decarbonisation is based on hydrogen being part of the mix. There's no insight of East Anglian Local Authorities moving to H2 for transport however in Kent, Rise Hydrogen has successes with a pilot of hydrogen busses.

I The Council asked if Hydrogen East was a private company or connected to the LEP. Also, that Large infrastructure was noted in the plan. To what extent are Hydrogen East aware of the plans?

Hydrogen East confirmed that there is no link to the LEP. It will be a limited by guarantee, i.e. not for profit. Not a member association but an independent body who can develop in partnership with local businesses and authorities. Bacton are aware and the OGTC and OGA are working with Hydrogen East on the plans for this.

The Council added that they have only just started to leverage informal networks and want to engage with local stakeholders. Does not matter where it sits as long as someone is doing it. Open as to how to take this forward.

Hydrogen East were asked if there are geographical boundaries and commented that public sector and HGV's must be looked at. Happy to look into this and get companies to engage.

(AH) to engage with HGV companies

The Council commented that 27 million boilers in the UK can operate on H2 boilers but can H2 boilers operate on Gas? In the meantime, if Natural Gas could have a blending solution, what would the boiler situation be?

Hydrogen East confirmed that a 20% hydrogen blend is viable for modern (10yrs max) boilers. Older would be a problem 20% is the upper limit for blending with Natural Gas.

The EU do not consider green hydrogen (that produced by renewable sources) to include hydrogen produced through nuclear, however the UK do.

The Council commented that we should identify our unique opportunities as a region, such as potential for hydrogen powered boats on the Norfolk Broads. If something were to get established and make a difference, people will take notice.

5. Subgroup updates

BWCER

Andy Holyland (AH)

Building world class research group – Nigel Cornwall has been welcomed to the group. working on developing input and outputs and an exit strategy and what the long term outcomes will be. As of last meeting looking to further define the primary objective of the steering group, and make sure it is achievable long term and sustainable. UEA have been building a survey questionnaire testing it to understand the resources structure, expertise etc. Share among the universities, technologies, and stake holder group. Start to build and understand where the interests are who would like to work collaboratively.

Katie has been working on an engagement letter to outline what the scope of the group is to ensure that they have a clear message and a clear call for action. Being finalised now, just looking to include AEIC to ensure it has credibility around what the call for action is.

Collating where they are going to find the funding from and who the stakeholder groups are. What is the primary function of this group. Looking to deliver on projects or signpost to the relevant businesses that can successfully bid and deliver on these projects.

Call of action to AEIC group to have a look at the document against the original aim of activity to give a sense check on the direction of travel for the steering group to ensure it still meets the requirements.

All to confirm and make suggestions before nxt mtg

Next steps are to finalise the survey and letter and collate a list on who to engage with. Start to engage and develop and map infrastructure resources to understand what the capabilities and opportunities are and how to collate and share the information.

Now working to ensure that all is in line with the recovery plan and making sure they are focussed in the areas of need that are highlighted in the post Covid-19 pandemic.

Briefing papers have been shared.

Capability Matrix

and Victoria to share information on this. Andy to have an agenda slot to discuss provisionally.

SR: Funding Offshore Wind Skills Centre £250,000 project. Back training – rope access and GWO programmes restarted.

discuss slot in agenda

Date of next meeting 25th August 2020, Microsoft Teams.