Humber Energy Infrastructure

Report to the Investment and Regulation Board
Meeting to be held on 07/09/18

Report from Kishor Tailor Chief Executive and Andrew Hewitt, Partnership Infrastructure Manager Humber LEP

1. Summary

1.1. The Energy Sector is a key strength of the Humber nationally. Indeed it is one of the sector strengths identified in the Northern Powerhouse Independent Economic Review for the North of England

1.2. The Humber Blueprint for an Industrial strategy acknowledges that the Humber is now one of the world's leading hubs for offshore wind and that the area has the potential to go further. It notes we have strengths in other parts of the energy mix, including in energy storage.

1.3. In order to realise these opportunities for the economy or the area, it is vital importance that the correct energy infrastructure will is in place within the Humber.

1.4. This paper seeks to outline the activity currently underway to ensure the strategic priorities for the Humber are clearly defined and that a pipeline of Energy infrastructure projects are defined and delivered.

2. Recommendation

2.1. It is recommended that this report be noted

3. Humber Energy Roundtable with BEIS

3.1. The Humber LEP in taking steps to develop its energy economy in the region are holding an Energy Roundtable with BEIS and senior industry representatives on the 3rd September.

3.2. This event will allow open discussion on the potential for the Humber and the North in areas of offshore wind, clean energy generation, storage and distribution, industrial decarbonisation, hydrogen and carbon capture.

3.3. The event will start to investigate what the area needs to do to capitalise on these opportunities, and what collaboration and support from government may be required.

4. Local Energy Strategy

4.1. Following a competition in March 2017, BEIS funded 13 Local Enterprise Partnerships to develop energy strategies. On August 22nd an announcement was made that additional funding had been made available by BEIS in financial year 2017/18 to support energy strategy development for the remaining 25 LEPs in England. The Humber LEP has received £40k in this second tranche of funding.

4.2. Due to strategic importance of the energy sector to the economy of the area, the Humber LEP, with partners, has undertaken a large amount of work to understand the energy sector in the UK and the Humber's role within it. The funding allocated by BEIS can help to build upon this work however the emphasis in this funding allocation is upon developing a strategy for local energy systems rather than the more strategic energy sector.

4.3. Despite the impressive direction of travel for low carbon development in the Humber, work is still required to develop a compelling economic case for development of low carbon energy systems at the Humber scale. Work is also required to understand the complex interplay between the Humber's energy assets and the area's industrial and domestic demand including how development of new energy systems could provide clear economic and social utility, including how the Humber can decarbonise heat and transport.

4.4. A Local Energy Strategy is required to aid the development of the Humber Industrial Strategy and as such should reflect the government's energy aspirations in the National Industrial and Clean Growth strategies, whilst developing a range of options for action which are Humber Specific. This study should provide an assessment of what the carbon emissions in the Humber need to be in the future (probably qualified in ten year targets up to 2080) to meet national and international targets, what is required to ensure any local targets could be met, how this could be monitored and what the impact of decarbonisation will have on existing businesses in the Humber.

4.5. As such this piece of work, funded by the BEIS Home and Local Energy Directorate, will produce a comprehensive map of the Humber's energy assets, their capacity and usage, a strategic options appraisal to identify low carbon energy measures which could be potentially applied to the region, with assessment of costs, benefits and deliverability of each measure over their lifetime and an understanding of when energy infrastructure needs to be in place to meet decarbonisation targets for the region.

4.6. This work should test the evolving low carbon energy objectives of the Humber:

- Minimise energy costs to key sectors in the Humber, in order to enhance businesses competitiveness and productivity within a low carbon transition environment;

- Work with partners to further establish a regional low carbon energy infrastructure which puts the Humber at the leading edge of low carbon energy systems in the UK;

- Build upon past success with the Green Port programme to ensure the Humber is a key location for the commercialisation of new low carbon energy technology;

- Provide linkages between industrial and social low carbon energy systems in order to reduce carbon emissions and provide local benefit for the Humber's growing energy infrastructure.

- Understand the impacts of low carbon transition on the high carbon industries and processes in the region and their future

- Enable low carbon transport transition in transport by road, rail and sea and the consequent low carbon infrastructure requirments

4.7. Having tested these objectives, the iterative results will then be utilised to assess the emerging strategic options for the Humber to provide direction as to which energy

options and associated supply/value chains could deliver the greatest economic growth, whilst significantly reducing carbon emissions.

4.8. The local energy themes which the Humber LEP would like this work to consider include:

- Smart Energy Grids – managing grid constraints, resilience and energy storage, including implementation of future technologies
- Decentralised Energy and Private Wire Systems – heat power and cooling grids
- Transport Energy – low and zero emission vehicles (Including maritime), transport energy technology and infrastructure.
- Circular Economy – enabling product design and manufacture to minimise the use of resources and maximise remanufacture potential and reduce waste to a minimum. Low Carbon Supply Chain – directing investment into current local green supply chains including microgeneration and transioning to a total low carbon supply chain across the Humber
- Clustering Activity – Targeting investment at infrastructure pinch points
- Social Energy Systems – public buildings, housing, and public realm including links to transport systems.
- Future Technologies and Innovation- Which areas can the Humber lead on or provide commercialisation or testing opportunities?
- Actions to improve air quality and mitigate environmental impact – how local energy can contribute to wider sustainability agenda.
- Climate Resilient Energy Infrastructure - How current and future energy systems and networks need to adapt to the known impacts of climate change.

4.9. The finding from this study will directly feed into the Humber Industrial Strategy.

4.10. A procurement exercise is currently being undertaken to find the most appropriate economic operator to undertake this work.

4.11. Investment and Regulation Board will be kept informed of progress throughout the process of developing the strategy and will be given opportunity to provide further input when pertinent. The Investment & Regulation board will receive the strategy for approval prior to completion.

4.12. It is expected that the majority of the work will be completed by December 2018.

5. Energy Hub

5.1. The Humber LEP has joined with other LEPs in Yorkshire and the North East to form an Energy Hub which will identify and develop local energy projects (including development of Local Energy Infrastructure).

5.2. Included in this is the resource to develop a new role which will lead the Humber's input into the Energy Hub, working with local partners to devise, identify, develop and seek funding to progress a range of local energy projects that will build on the Humber's position as the UK's Energy Estuary and provide wider economic and social benefit.

5.3. The role will also lead the development and implementation of the LEP's Energy Strategy, contributing to the Humber Strategic Economic Plan and future Humber Industrial Strategy. It will seek to identify a pipeline of local energy projects and support partners to develop them into investable propositions, as part of the joint Local Energy Hub with other LEPs.

5.4. The role is currently out to advert and the closing date for applications is 20th of September and we envisage this extra resource being within the LEP by the end of 2018.