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**THE ROYAL TOWN PLANNING INSTITUTE
YORKSHIRE CONFERENCE SERIES 2016**

CLIMATE CHANGE, RENEWABLES & THE HUMBER ENERGY ESTUARY

**The Guildhall, Hull HU1 2AA
Thursday 22 September 2016**

The purpose of this conference was to explore the economic and planning opportunities and pressing challenges faced with both climate change and renewable energy generation.

The Conference Chair, **Phil Crabtree**, Chair of RTPI Yorkshire, introduced the day and the speakers.

Alex Codd, City Planning Manager, Hull City Council, then welcomed delegates to Hull. He gave an overview of changes in the City, and some of its problems. The Council is spending £25 million on the public realm prior to becoming City of Culture in 2017. Since the announcement of the City of Culture some £1 billion of investment has been pledged. Climate change is important for Hull. 95% of the City is in Flood Zone 3, yet they need to build 760 houses a year. There was surface water flooding in 2007, and tidal flooding in 2013. Following the latter, temporary defences were installed, now made permanent. To combat the former, a flood risk map has enabled safe floor levels to be specified. The Council has invested in photovoltaic cells on its buildings, and installed biomass boilers in schools. Planning rules specify three trees planted for every house built. Port development includes importing biomass for Drax power station and the development of Alexandra Dock for Siemens offshore wind (explained later in the conference).

Lord Prescott, former Deputy Prime Minister, then gave the keynote address on Climate Change and Renewables. He referred to the Humber, including the changes brought about by the Humber Bridge, the declines in fishing, shipyards and coal exports, and the decisions resulting in long-distance container traffic going to other ports. He then went on to look at the consequences of climate change. He was proud of the Kyoto agreement between 47 countries in 1997, now followed up by the Paris treaty involving 190 countries. There is a statutory framework to cut carbon usage in the UK. This can begin to determine industrial strategy, and the new Government department connects these. The Kyoto requirements have not cost the economy as some, including the Americans, feared. As a result of the Climate Change Levy industry has found it profitable to invest in energy efficiency. Other issues have arisen since, such as the particulates from increased use of diesel power. Policies for carbon reduction by 2050 are required. Returning to the Humber, he emphasised the need for regional and strategic planning right across the North since the work on the Northern Way in 1994, including the Liverpool-Humber link from the

container port in Liverpool, and not just involving the core cities. Questions referred to the proposed Great North Plan. Lord Prescott emphasised the need to transfer resources and to have strategic policies.

David Hardy, Planning Partner, Squire Patton Bloggs LLP, then spoke on a Changing Government Agenda. Mentions of renewables and renewable energy have gradually disappeared. Since the Cameron pledge in 2015, the Conservative Party manifesto in April 2015 was silent on solar power, opposed land-based wind farms while supporting them offshore, supported Hinkley Point nuclear power and the Swansea tidal lagoon, and pressed for a strong deal in Paris. In June 2015 onshore wind subsidies were ended (from 2016), and in July guarantees for biomass conversion and co-firing were ended. In November 2015 there was a consultation on carbon capture, but in December the support for solar schemes was cut by 65%. In February 2016 an independent review of the Swansea tidal lagoon was proposed. In the last two months the Government Department has changed, subsidy for business combined heat and power has been reduced, but consents for two large offshore wind schemes and Hinkley Point have been given. Language has changed: in 2003 renewable energy was defined, but later we had renewable and low carbon, then low carbon, then just lower carbon. On preferences, in 2010 it was wind energy, carbon capture and storage, and nuclear; by 2015 it was gas, nuclear and offshore wind. The political attack on land-based wind resulted in most appeals being recovered to Ministers, and most being dismissed. A ministerial statement on 18 June 2015 has been particularly problematic, as it requires schemes not only to be identified in a Local or Neighbourhood Plan, but also for all planning impacts identified by local communities to be fully addressed. This is an extension of the usual use of ministerial statements. The UK has now slipped from first to thirteenth in attraction for renewables investment.

The next speaker, **Professor Jack Hardisty**, Professor of Environmental Physics, School of Environmental Science, The University of Hull, dealt with Resource, Innovation and Commercial Potential in the Humber Region. Potentials include geothermal energy, involving pumping cold water down to hot rocks 1,000 metres below to be heated. The tidal stream can produce significant power in wave-free conditions, with a potential of 20GW between Spurn Point and Lincolnshire. Bio fuels and bio-energy include not only imports to the port, but also bio-ethanol from local wheat. 130 MW of onshore wind is now installed; offshore wind has a potential of 50GW. The Humber was defined as the best deep-water anchorage between London and the Scottish border as long ago as 1293, and is a de-facto national and international centre for these technologies. The Dong Energy operation and maintenance base will be on the Humber. Technical innovations include turbulence modelling, which can increase power by 3%, and storage of electrical power. This relates to the change from large-scale generation and national distribution to local generation and usage with smart monitoring. Batteries are getting cheaper. Hull University now has an MSc in Renewable Energy and runs CPD courses.

The morning panel discussion included a question about why the use of the ministerial statement had not been challenged. Basically, as subsidies have been cut there is no money in it to justify the cost of a challenge. Planning challenges were raised, such as the demolitions at Grimsby docks to make room for the new facilities. In Hull local plan policies cover most eventualities, including policies for listed buildings which cover dock and other buildings and ensure buildings are brought back into use, a local development order giving outline planning permission for renewables at the main docks, and specific policies for onshore wind on employment land and large green spaces.

After lunch **Shaun Cray**, General Manager, Real Estate & Construction, Siemens UK, spoke about Siemens and Greenport Hull; Concept to Construction. He showed a video of the process. In 2009 a memorandum of understanding to develop a manufacturing facility was signed. Round 3 proposed 30 GW of offshore turbines by 2030 in shallow seas such as in the North Sea. The UK has about half of European offshore potential, and 55% of consents. Costs are falling. Ship hire costs are high, so having production and transport alongside each other reduces costs. Siemens scheme at Alexandra Dock involves £160M, and 1,000 jobs. There are two buildings, a blade factory of 38,000 m² and a service centre, plus land for storage. 54 hectares were reclaimed from the dock and offshore, giving 600 metres of tidal quay, providing 3 berths for loading, as well as a roll-on, roll-off berth inside the dock. The factory and RO-RO berth are in operation, the first loading berth is being fitted out, the service building will be completed October 2016 and final reclamation is expected in January 2017. Siemens' ambitions were supported by the fact that Associated British Ports were ready to develop and had finance, and the City Council recognised the opportunity. There was support for Councillors, MP's and the public. Manufacturing operations changed as they were adapted to the site. A strict timeline giving 2 years of pressure (after 4 years of waiting) was necessary to demonstrate readiness to customers.

John Saunders, Investment Director and Head of the Heat Networks Delivery Unit, Department for Business, Energy and Industrial Strategy, then spoke on Decentralised energy and the UK's Energy System. Decarbonisation of heat has been sought since 2008. Providing heat uses 44% of all energy, for industrial processes as well as 26 million homes. Heat networks include combined heat and power, and district heating, as well as thermal storage, energy from waste and geothermal energy. District heating could do up to 18% by 2050. There is local authority interest in decarbonising, economic regeneration and public cost reduction. Government support of 10% is available. There are over 200 projects in 131 local authorities, with £14 million in grants so far. There is support from the NPPF, from the Building Regulations Part L, Regulation 25A, and in Local Plans and other planning documents. There can be some resistance from developers, and it is harder to deliver where land values are low. However there is grant funding for heat networks of £300M over five years.

A brief discussion followed, including Chinese speed, where some Committees here are slow.

Finally, **Lord Haskins**, Chair Humber LEP, spoke on The Humber Energy Estuary and the LEP. He contrasted the lack of economic growth or increases in life expectancy from AD1 to 1820 with the improvements since 1820. In spite of population growth poverty has been reduced, while life expectancy has doubled in the last 100 years. He attributed this to ideas and scientific innovation. Serious consequences such as deforestation and pollution followed, but are now reducing. Global warming is the most serious current problem. The Humber is a microcosm of problems – the second-most vulnerable estuary to flooding after London, with 25% of UK oil refineries, which may be a problem at some future stage. He summarised the different strands of energy and renewables, and emphasised the need to think strategically, globally and long-term. Better regulation and environmental protection is still needed. Global collaboration has resulted in growth, more respect for the environment, 70 years of peace in Europe, and tackling fatal diseases.

Overall the conference provided a stimulating blend of strategic issues at the international, national and regional levels, research activity, and practical actions being taken to tackle current issues in climate change and renewables. The parts being played by the Humber, and Hull in particular, were clearly addressed. Lord Prescott's analysis of regional matters

and of the results of Kyoto were especially interesting, while Lord Haskins' plea for continued international collaboration was clearly heart-felt.

Stan Driver
RTPI Yorkshire Hon. Secretary



Lord (John) Prescott delivering the keynote address to delegates at the Guildhall in Hull.



From l-r:

Jack Hardisty, Professor of Environmental Physics, School of Environmental Sciences, The University of Hull;

Alex Codd, City Planning Manager, Hull City Council;

Phil Crabtree, RTPI Yorkshire Chair;

David Hardy, Planning Partner, Squire Patton Boggs LLP