

A Brighter Future for the South West - What would a Green Energy look like for Bristol and the South West?

A review of the speaker event organised at the Trinity Centre by the Green Capital Partnership, Love the Future and the Bristol Energy Network on 3rd December.

This well attended afternoon event at the Trinity Centre brought together three local speakers with national and international reputations. Andrew Clarke of the Resilience Centre, author of the report, "The power to transform the South West"¹, Dr Dan Quiggin, Author of the Greenpeace report on our low carbon 2030 future and Molly Scott Cato, Green Party MEP for the South-West.

Each year, according to the city council's latest report, £600 million disappears out of our local economy to fund energy costs from elsewhere: for example oil from the Middle East or gas from Russia. At the same time we are sitting on a wealth of renewable energy resources in our region. This represents a huge missed opportunity. Andrew Clarke highlighted the virtuous cycle of renewable energy generation: there are investment opportunities with solid financial returns that will enable the development of both small and large-scale energy projects (whether they be state, private or community owned). These projects would create seven times the number of skilled jobs locally compared to fossil fuel or nuclear: potentially this would mean 19,000 jobs for the Bristol area and 120,000 for the Southwest if the Resilience Centre plans are followed. While some forms of local renewable energy such as tidal lagoons have predictable and relatively stable energy generation characteristics, the variability of solar and wind means the Resilience Centre is planning and budgeting for battery based storage systems.

The Greenpeace modelling presented by Dr Dan Quiggin leads on the importance of a national program of energy efficiency and demand reduction. High-level national and European energy efficiency policies and engagement campaigns delivered locally with community leadership are essential to deliver a 60% reduction in energy usage requirements. This will make the ability of our energy system to cope with seasonal and daily spikes in energy use much easier to manage. This approach also has the very significant benefits of a reduction in fuel poverty. Dr Quiggin's prediction of 12 million electric cars by 2030 also highlights the revolution in our every day living habits which is both required and perfectly possible.

Molly Scott Cato, with reference to George Osborne's well publicised Northern Powerhouse, titled her presentation: "Building the Western Powerhouse", requesting the appropriate national recognition and prioritisation of our region's full energy potential.

Molly highlighted the different subsidies received by different forms of energy generation. This can help counter the myth that renewable energy is unfairly preferred. The IMF calculates that fossil fuel subsidies in the UK cost each person £400 per year. With regards to nuclear costs and subsidies, the Department of Energy and Climate Change has a core budget of £5.7 billion per year – of this 60% goes on the cost of nuclear decommissioning and clean up. Molly also highlighted the progress made to date in renewables in the Southwest with 12,000 jobs generated and £3 billion of investment. She flagged that Europe could have an increasingly important role in the management and delivery of energy, whether it be collective purchasing of energy or the development of high voltage grid systems across Europe that will allow renewable energy to be much more effectively distributed – whether

that be solar power from the Sahara, hydro-electric power from Norway or wind from Britain and Northern Germany.

Valuable comments from people attending included the challenge that in our energy policy, at whatever level, we should be looking at the overall investment cost per tonne of carbon saved. This would give the right level of prioritisation to some of the cheapest and most cost-effective measures for reducing and generating energy. David Saunders, of Bristol Power Co-op, highlighted research which indicates that the average capital cost of investment to get to 100% renewables is about four years of an individual's annual energy bill. While this is a large sum of money, at a householder level this could be both affordable and transforming in our shift to a low carbon future.

In addition to the range of smaller energy projects already funded by Bristol Green Capital Andrew Clarke proposed two particular projects for Bristol to progress as part of its Green Capital energy legacy.

- 1) Look at tapping into the Hotwells area geothermal energy for our district heating network. Expert calculations suggest that the capital cost of using the old gasworks site opposite the SS Great Britain for this would create 85 jobs, cost £60 million and it would save 53,000 tonnes of CO₂ per year.
- 2) Establish a small community windfarm in the Severn Estuary with 300 MW of power, 40 to 50 turbines at a cost of £90 million. These could power the equivalent of 200,000 homes.

People left this meeting with a better understanding of the wealth of green energy opportunities that are available in Bristol and the South West. And many were inspired by the informed rigorous thinking, that can allow Bristol to lead in the creation of a local energy future that is prosperous, sustainable and self-sufficient.

Following on from this meeting in the coming months Bristol Energy Network will be working with city stakeholders including the Bristol Green Capital Partnership, Bristol City Council and members of the Energy Action Group to help shape future actions and priorities for the city.. Save the date for a BGCP Quarterly Partnership Gathering on 23rd February 2016 that will share some of this work, showcase current and future energy initiatives and gather input into the [Climate and Energy Security Framework](#).

Jerome Thomas
Chair
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References

<http://mollymep.org.uk/2015/04/17/power-to-transform/>

<http://energydesk.greenpeace.org/2015/09/21/4-ways-the-uk-can-get-almost-all-its-power-from-renewables/>