

UK Perspectives on Local Action to Achieve Low Carbon Transition

Professor Erik Bichard

NEUF 2015: Session on Social Aspects of
Energy Transition

The Milesecure 2050 Contention

Low carbon energy transition in Europe can not be achieved solely through top down policy enforcement

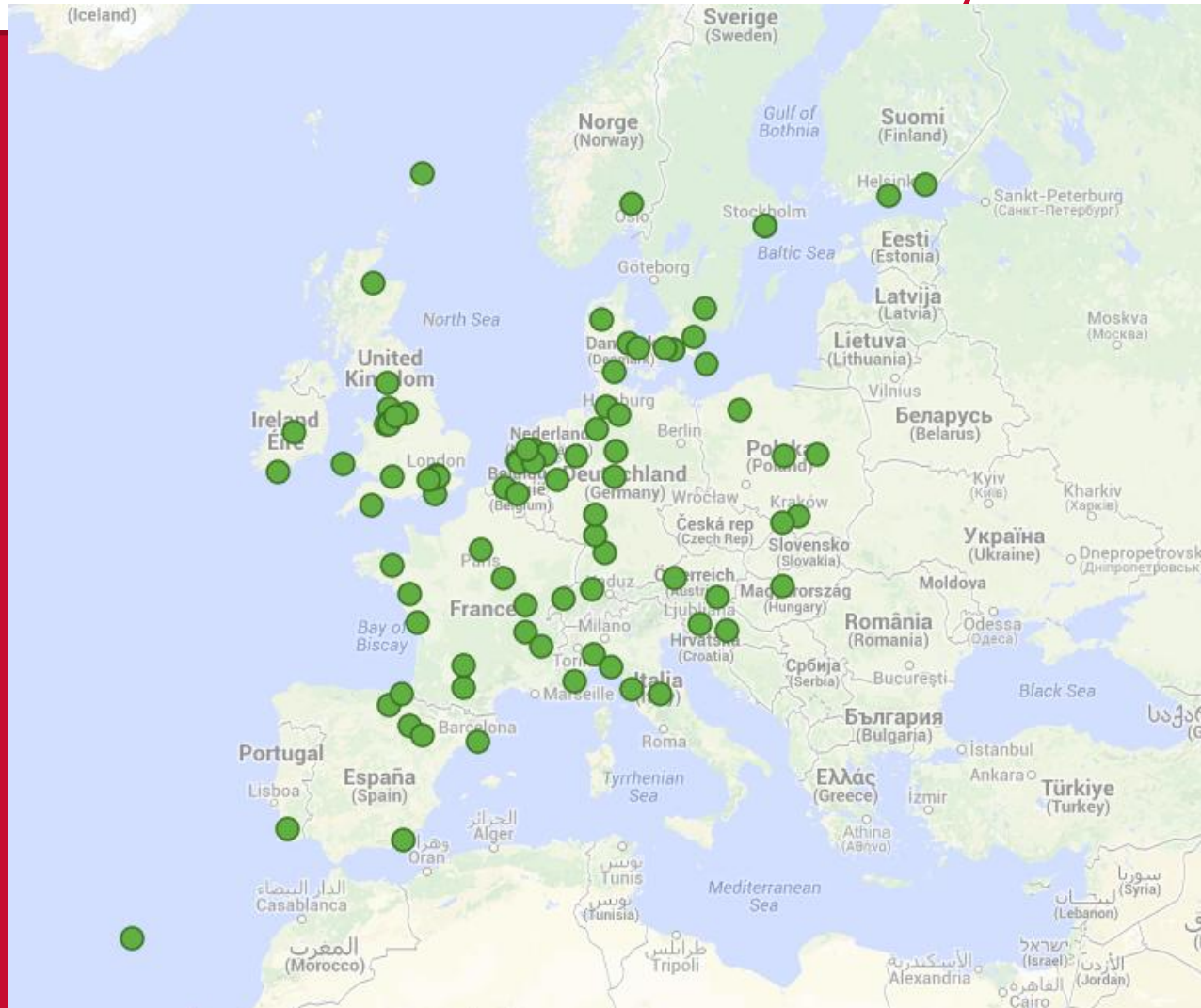
A European mass movement is emerging where local communities take action for themselves, without waiting for authority

Local communities can only succeed in their task on a wider scale if there is a Europe-wide investment in the capacity to manage technical issues and to govern the sale and production of energy

Why Anticipatory Experiences

- The anticipation of change may give us **some indications of the key social dynamics** that could characterize future energy transition processes
- This could assist policy-makers to direct funding in effective ways

The research team analyzed over 1,500 potential candidates and selected 90 projects in 19 countries for more detailed study



Transport...



Superblock, Vitoria/Gasteiz

Energy Efficient Housing



Eva Lanxmeere, Culemborg (NL)

Generation of property-level or community-owned renewable energy



Biogas from Waste, Peccioli (IT)

Holistic sustainable approach



Bedzed Ecodistrict, London (UK)

From small town...



Bioenergy Village, Juhnde (DE)

... to large cities



City of cyclist, Copenhagen (DK)

Incredible Edible



Three successful UK community energy projects

- Ashton Hayes: Carbon Neutral Village
- Saddleworth Community Hydro
- Brixton Energy

Ashton Hayes



History

- Started in 2006
- 1,000 people in 350 houses in rural Cheshire
- Governed by a Parish Council
- Use of local University to undertake regular energy use surveys
- Beneficiary of a £400,000 government grant for first solar electric panels and a sustainable community centre

- Purpose is to ***‘encourage everyone to think about how their way of life affects their impact on climate change and to help people to understand how simple actions can make a big impact on CO₂ emissions to the atmosphere’.***

Ashton Hayes Summary

- Cut carbon emissions by almost 25% since 2006
- Used the power of the media and matching mentors to convince others to adopt low carbon measures
- Engaged with local school, pub, farmers, community groups (recreation association) on different levels
- Now setting up community energy company to link all renewable generation

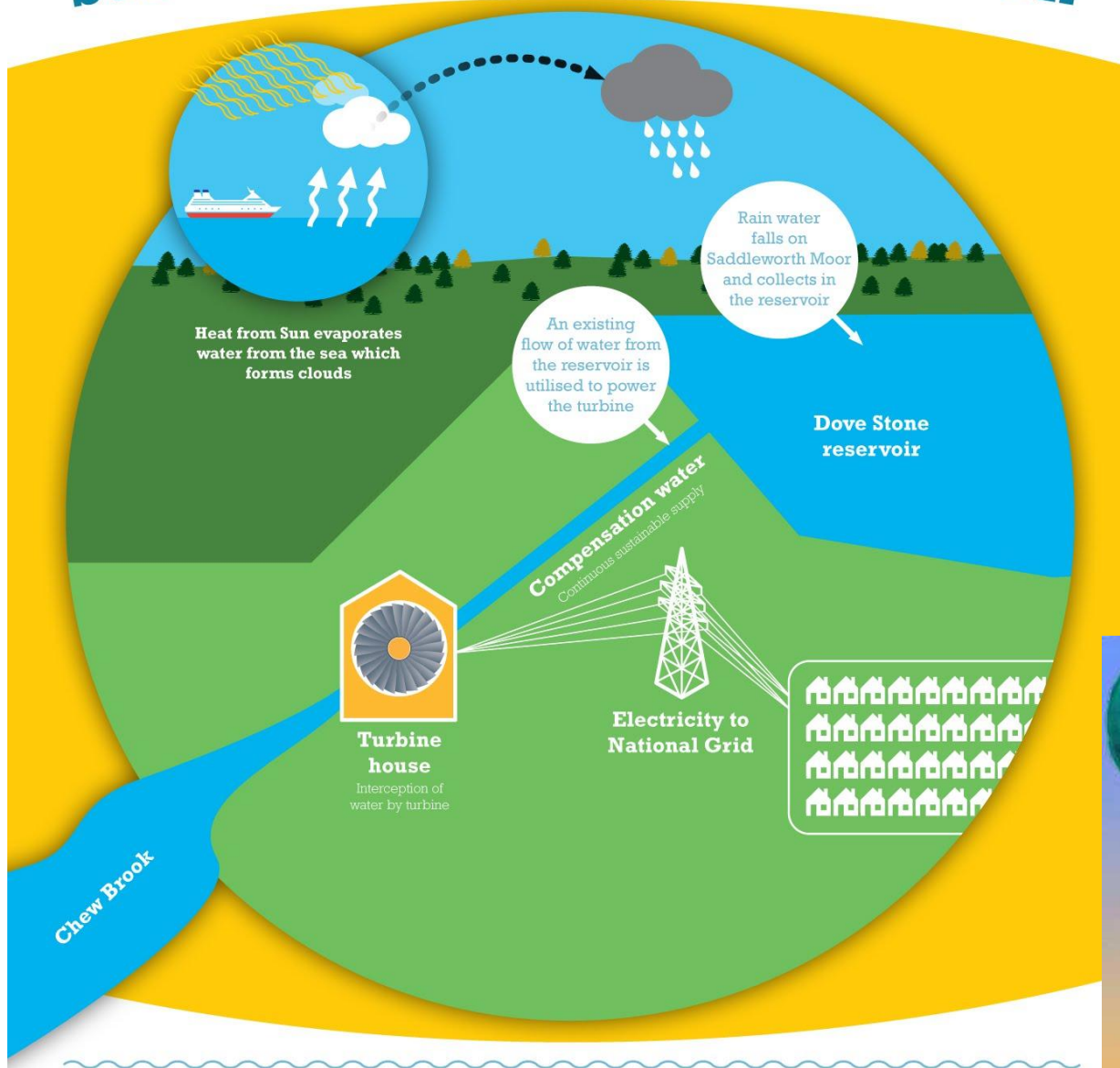


Saddleworth Community Hydro Background

- Local response in opposition to proposed wind turbines in 2008
- Constituted as an Industrial and Provident Society*
- Grant funding from DEFRA Rural Carbon Challenge Fund and European Agricultural Fund for Rural Development
- Share offer for £229,000 defined as a social (rather than commercial) investment
- Turbines turned on in summer 2014

*The constitution of an Industrial and Provident Society states that no shareholder may hold more than £20,000 in shares, and that all shareholders have an equal vote.

Sustainable energy from the sun



Saddleworth Community Hydro Operation

- Makes use of high head water flow from a reservoir in the hills above Manchester to generate up to 51 kW for the next forty years
- Continuous operation (except in extreme drought – unlikely in Manchester!)
- Generates enough power for 75 homes
- Annual saving of 170 tonnes of CO₂
- Local volunteers trained to carry out day-to-day management
- Institute of Civil Engineers NW Community Award Winner 2015

Saddleworth Community Hydro Summary

- “It demonstrates that a group of local people can actually do something to slow down climate change! We are NOT powerless or helpless!
- We now know how to set up such a project and are happy to share what we have learned and so enable others to replicate our success.
- We will be generating reliable zero carbon electricity in a quiet, non-intrusive way for many years.”

<https://sites.google.com/site/saddleworthcommunityhydro/home>

Brixton Energy: Background

- Central London organisation co-ordinating funds, installation and management of community owned solar panels
- Three separate installations registered as community co-operatives
- Social enterprises which seek to achieve real social and environmental outcomes
- Investment implies joining a collective, democratic, community-based effort to bring about real change

Brixton Energy: Operation – Three Installations to Date

Solar 1- UK's first inner-city, co-operatively owned renewable energy project on a social housing estate

- 37.24kW solar power station
- Annual saving of 14 tonnes of CO₂
- Capital cost funded by community share offer, 103 local investors

Solar 2

- 45kW array on the roofs of 5 housing blocks
- Annual saving of 16 tonnes of CO₂

Solar 3

- 52.5 kW array over 4 buildings
- Annual saving of 22 tonnes of CO₂ a year
- 20% social return for a Community Energy Efficiency Fund to improve estate's homes & alleviate fuel poverty

Solar 4 – planning phase



Brixton Energy: Summary

- Generating energy in Brixton
- Increasing Brixton's energy resilience and security
- Raising awareness about energy efficiency and tackling fuel poverty
- Providing training and employment for local people

<https://brixtonenergy.co.uk/>

Denial



Confusion



Triple Track Strategy

- Intervene with the right information at the optimum point in the decision-making process
- Use incentives that support the proposition
- Surround doubters with evidence that others accept the change and would approve of those who join them.

Findings from the Timperley Green Homes Trial – Bichard and Thuraiajah (2013 and 2014)

Elinor Ostrom's Community Cooperation Formula

- **Scope the cause** - Establish clear physical and governance boundaries
- **Possess congruence** – Be in harmony with the surroundings
- **Be aware of change** through regular monitoring
- **Define clear group rules** for efficient decisions – keep trusts, be autonomous, have open dialogue, invest in leadership and establish broader social value.

After Ostrom, 1990

The Anti-Frackers

**Fracking Poisons
Air and Water**
FIGHT BACK NOW! 
marcellusprotest.org



The New Green Community

- Think Global - Act Local now has real resonance
- Rejection of authority and a vision and drive based on an apocalyptic environmental future
- Amorphous but clear organisation
- Recruitment by positive example

ROUTLEDGE EXPLORATIONS IN ENVIRONMENTAL STUDIES

The Coming of Age of the Green Community

My neighbourhood, my planet

Erik Bichard

ROUTLEDGE


Can Local Community Action Shift European Energy Consumption Patterns?

- Yes if...
 - **EU reverses the direction of policy influencing**
 - **New social coalitions are created**
 - **Anticipatory communities are helped to influence others beyond their own boundaries**
 - **Benefits are identified and scaled up to regional and national levels**
 - **There is investment in the ability of communities to generate and use energy themselves**