



APSE Scottish Energy Summit **‘Getting the Community Involved’**

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<http://www.communityenergyscotland.org.uk>

Scottish Charity Number: SC039673

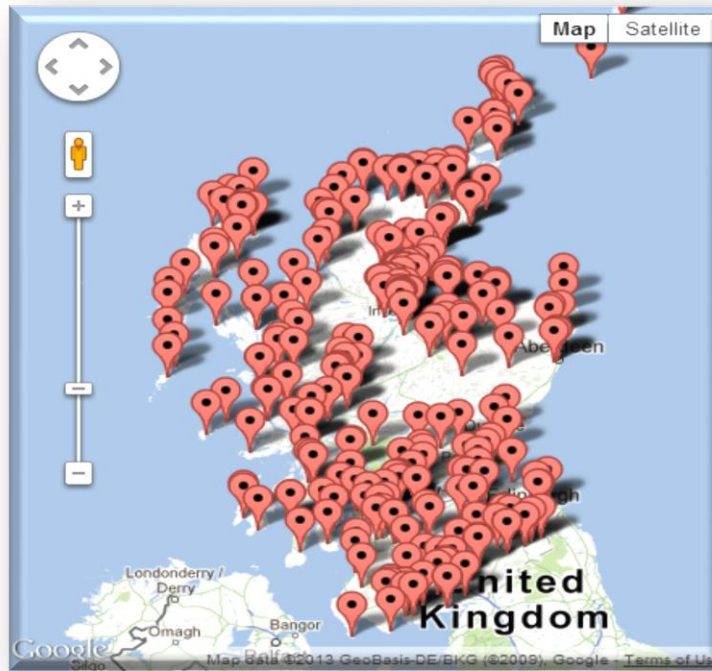


1. Our Mission
2. State of the sector
3. What's the future for community energy?
4. Working Together



Mission: To strengthen and empower local communities by helping them to own, control and benefit from their local renewable energy resources, control and reduce their energy costs, regenerate their communities and play their part in the low carbon transition.

- Scottish Charity, voluntary board, community group membership (about 400)





Community Energy....

- Empowers normal people to consider and act on their energy choices
- Differs from and adds to 'local energy' concept: it's about strengthening communities, improving lives, promoting more sustainable behaviour
- Creates a 'Community Empowerment Dividend'



2. State of the Sector

- Active player in developing small scale low carbon generation and reinvestment of benefits over last decade: unique in ability to support local development
- Countless hours volunteer time
- Millions of pounds of investment



State of the Sector [contd]

“Community projects installed offer between 12-13 times as much community value re-invested back into local areas as would be achieved through 100% commercial models. The estimate is based purely on an assessment of economic value, when full social and wider environmental returns are factored in the benefits will be substantially higher.”

Community Renewable Electricity Generation Potential Sector Growth to 2020, Report to DECC, 2014



State of the Sector [contd]

- In Scotland, community energy installed capacity stood at 81MW by 2017. 'Community and Local renewable Energy in Scotland at June 2017, Energy Saving Trust, 2017'
- In the Outer Hebrides alone, community energy projects have levered in over £30million of external investment for project development and are transforming communities through local investment of profits of around £2m each year.
- Strong group focus on fuel poverty alleviation
- In England & Wales, in 2017 alone, community energy groups leveraged in over £14 million of investment with just £299,000 of early stage funding.
- 100s of groups across the UK and 1000s of members



State of the Sector [contd]

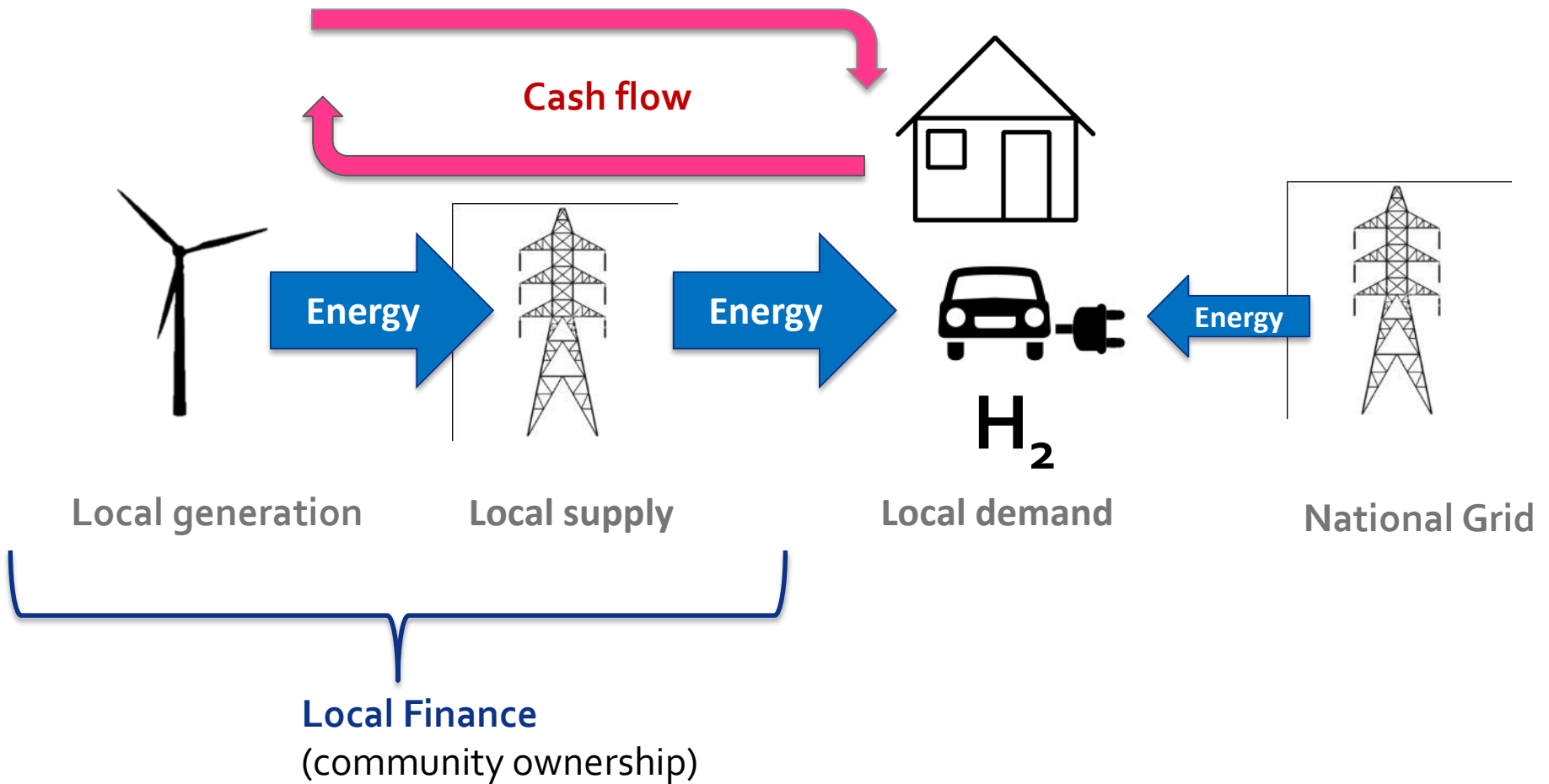
- Dramatic slowdown in new projects since 2015
- Rapid changes and deep reductions to Feed in Tariff (FITs)
- Closure of the Renewables Obligation and the complex and irregular nature of its replacement policy, Contracts for Difference (CfD), which are too challenging for community groups to apply to
- The introduction of planning restrictions on the development of new onshore wind projects in England
- The abandonment of the Government's 2014 Community Energy Strategy, and outputs from the Strategy's working groups
- Closure of both BEIS's Community Energy Team and the advisory Community Energy Contact Group (CECG)
- Reduction in funds to the Energy Company Obligation (ECO), which supported community group energy efficiency activities
- Failure of the Green Deal
- Removal of tax relief measures for investors

3. What's the future for community energy?



Energy Smart?

Local Energy Economy Concept





National Grid:

*“We are entering a new world of energy. The expected growth of low carbon and decentralised generation means the electricity system will need to change...**Up to 65 per cent of generation could be local by 2050.**”*

Distributed energy systems have already grown from around 6 per cent of total UK electricity generation output in 2000 to over **25 per cent** of generation today.

UK: Future Support for Low Carbon Generation

*“This call for evidence reaffirms our ambition set out in the Clean Growth Strategy to consider our approach to small-scale low-carbon generation beyond 2019, and **to explore the clear cross-overs between a smart energy system and small-scale low-carbon generation.**” [Rt. Hon Claire Perry MP]*



UK and Scottish Policy



“People see energy as something that’s done to them... We want to change that...”

We want to build a consensus around a longer term vision for energy. One that puts consumers, not producers at its heart” (BEIS)





Scottish Energy Strategy 2018 – 2050:

2 of the 6 priorities:

- consumer engagement and protection
- empower our communities ...the development of innovative and integrated local energy systems



‘DSO Transition – Open Networks’

DNOs state that community energy can support their transition to acting as a Distribution Systems Operator (DSO) role by:

- Facilitating customers’ transition to a low carbon future at lowest cost
- Enabling new local markets for peer-to-peer local trading
- Providing more value for customers by contracting for local grid balancing flexibility services
- Providing the physical trading platform for other parties in the energy market
- Keeping the network stable and power supplies reliable.

Main drivers for a smart system

Carbon Targets

Grid reinforcement
costs

Technical
innovations – digital
and comms

Growth in
distributed,
intermittent
renewables

Energy politics

Energy security & power
plant decommissioning

Grid constraints

'Prosumer' growth

Gas and electricity
supply margins

Electric vehicle growth

Govt. Policy / ENA



The ACCESS Project

Community
Hydro – Isle
of Mull



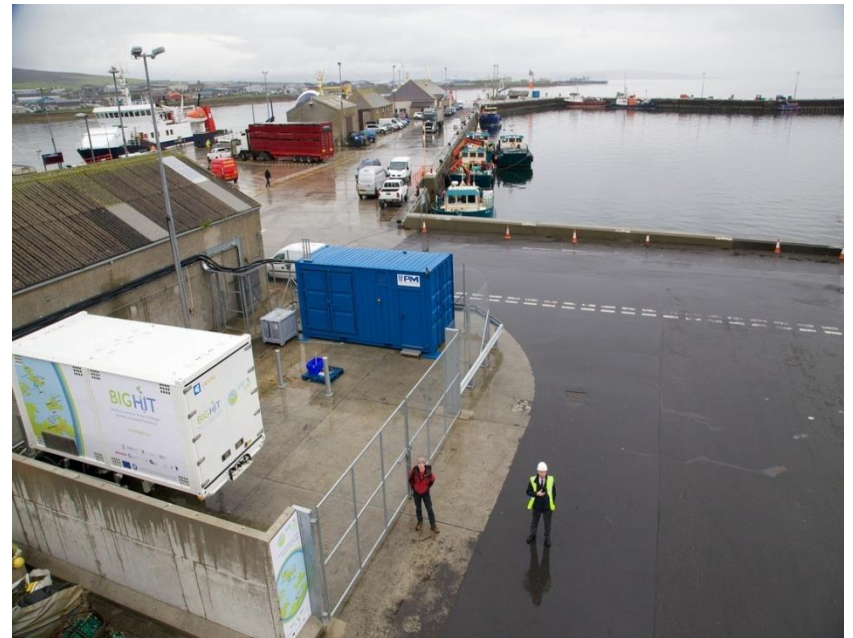


Trucky

SURF 'N' TURF



ERE turbine
and switchgear



Store and Fuel Cell

©Colin Keldie, courtesy EMEC



Testing feasibility of demand aggregation behind the meter



CnES Waste Management
Outer Hebrides Local Energy Hub
'Circular Economy'





Main implications of a smart system

Local energy markets

New focus on network charges

New opportunities to directly link local generation and local demand

Half-hourly metering widely available

High importance of real time demand response services

Growth in energy storage technologies [eg batteries]

Demand for help and information

Increasing use of 'smart' appliances

Increasing opportunities for effective 'aggregators'

More local energy planning

Network operators keen to link in 'flexibility' services that enable grid balancing

Need for community engagement and capacity Building



4. Working Together

- Joint local energy planning
- Community capacity-building on smart energy
- Linkage between local loads and (community) generation opportunities
- Recognition of shared benefits / investment
- Case study: Orkney



Orkney – A case study in cooperation



Heat Smart Orkney Ltd

- High energy costs / fuel poverty
- Committed community organisations
- Long-term community agency support (CES and others)
- Local Government
- Scottish Government
- Private sector
- Academic partners
- European partners
- Funds and investment

Hyseas Hydrogen Ferry!



Empowering Communities, Improving Lives

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Scotland's Independent Community Energy Development Charity

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Scottish Charity Number: SC039673