

Levenmouth Community Energy Project

APSE Scotland

Fleet, Waste & Grounds Seminar

26-29th May 2015

The aim of Levenmouth project

Demonstrate green hydrogen can tackle three of Scotland's biggest energy challenges - low carbon transport low carbon heat and energy storage



Fife means business.

Where it began.....

.....Local Energy Challenge Fund bid

Scheme Objectives:

- Linking local energy demand with local renewable generation
- Overcoming barriers relating to grid capacity issues
- Applying energy storage and active network management
- Delivering renewable heat and electricity to local consumers

Projects need to demonstrate:

- Partnership working
- Innovation
- Added Value
- Open to community organisations, businesses, universities, Local Authorities and Housing Associations

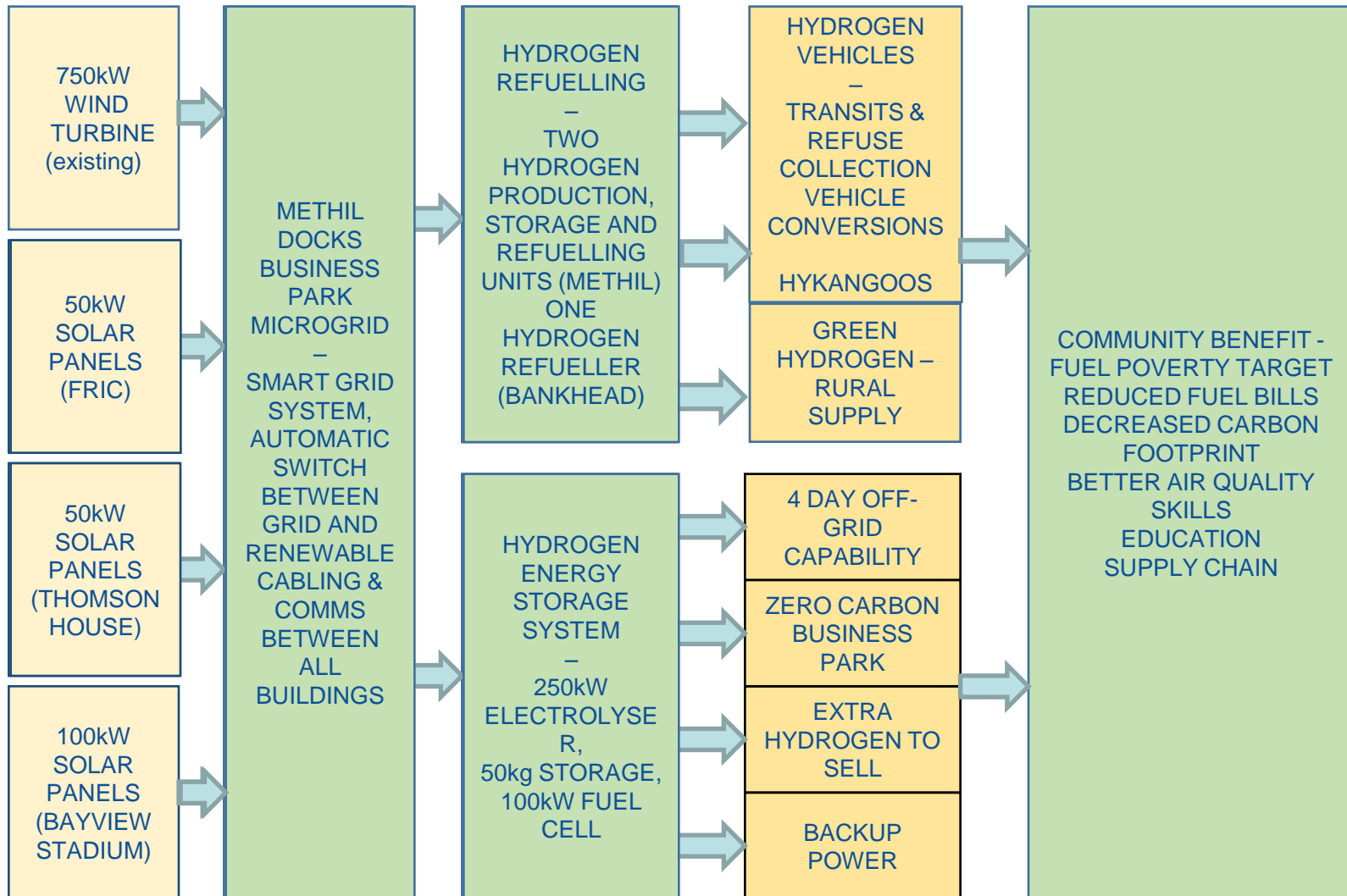
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How we performed

- Fife Council led Phase 1 application partnering with Bright Green Hydrogen
- Total 114 applications submitted
- Levenmouth one of 17 projects approved for Phase 1 Development & Feasibility support
- Blue chip partner Toshiba during Phase 1 – brought £1.2m match funding
- Phase 2 project lead - Bright Green Hydrogen
- Levenmouth one of 6 projects successful in Phase 2 round
- Total project Levenmouth investment: £5.5 million

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Levenmouth project proposal



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Bright Green Hydrogen benefits

- Innovative low-cost modular equipment - generate, store & dispense green hydrogen
- Further generation equipment to store green hydrogen for smart grid
- Private wire network for business park – model for other business parks to follow
- Cutting-edge Toshiba smart grid control system
- Solar PV (200kW) installed at 3 buildings on Business Park
- 10 Electric Renault Kangoo Vans with Hydrogen fuel cell range extender for leasing
- Builds on educational role of Hydrogen Office



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Fife Council benefits

- Innovative low-cost modular green hydrogen dispensing equipment
- Ten Ford Transits conversions - diesel & hydrogen
- 2 Dual Fuel 26 Tonne Refuse Collection vehicle conversions
- Solar PV installed at Fife Renewables Innovation Centre & Children's Nursery



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Fife Council Glenrothes Depot Refueller



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Wider Community Benefits

- Community income for sustainable energy projects - sale of electricity, hydrogen & vehicle leasing
- Schools education programme – possible fuel-cell powered trailer
- Fife College to address skills programmes for new hydrogen vehicle technology
- Link with Scottish Enterprise for industry supply chain opportunities



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Lessons from our experience to date...

- The competition is competitive ...
- Be innovative, bold
- Consult Local Energy Scotland for advice at all stages
- Do not underestimate the complexity of State Aids
- Concentrate on the local benefits, and local ownership of assets
- Link to Government objectives
- The rewards are significant - £5.5 million

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