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Prosumer Business Models for Community Solar Projects



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What do we mean by “Community Solar”?

Key characteristics of renewable energy communities:

Community ownership

- Owned collectively
- Democratic structure – 1 member one vote
- Local decision-making

Community benefit

- Locally held shares
- Social enterprise
- Community Funds

- Growing in scale and professionalism



REScoop principles

7 principles of the International Co-operative Alliance:

- Voluntary and Open Membership
- Democratic Member Control
- Economic Participation through Direct Ownership
- Autonomy and Independence
- Education, Training and Information
- Cooperation among Cooperatives
- Concern for Community

- www.rescoop.eu

Energy Communities in the RED

Renewable Energy Directive

Update agreed last Thursday

Self consumption and communities

- Right to produce, consume, store and sell own renewable energy, without being subject to punitive taxes or excessive red tape,
- Definition of RE communities

*Source:

EU HEROES project

Aims

- Enable increased deployment of community PV through new models enabling grid-integration

Activities

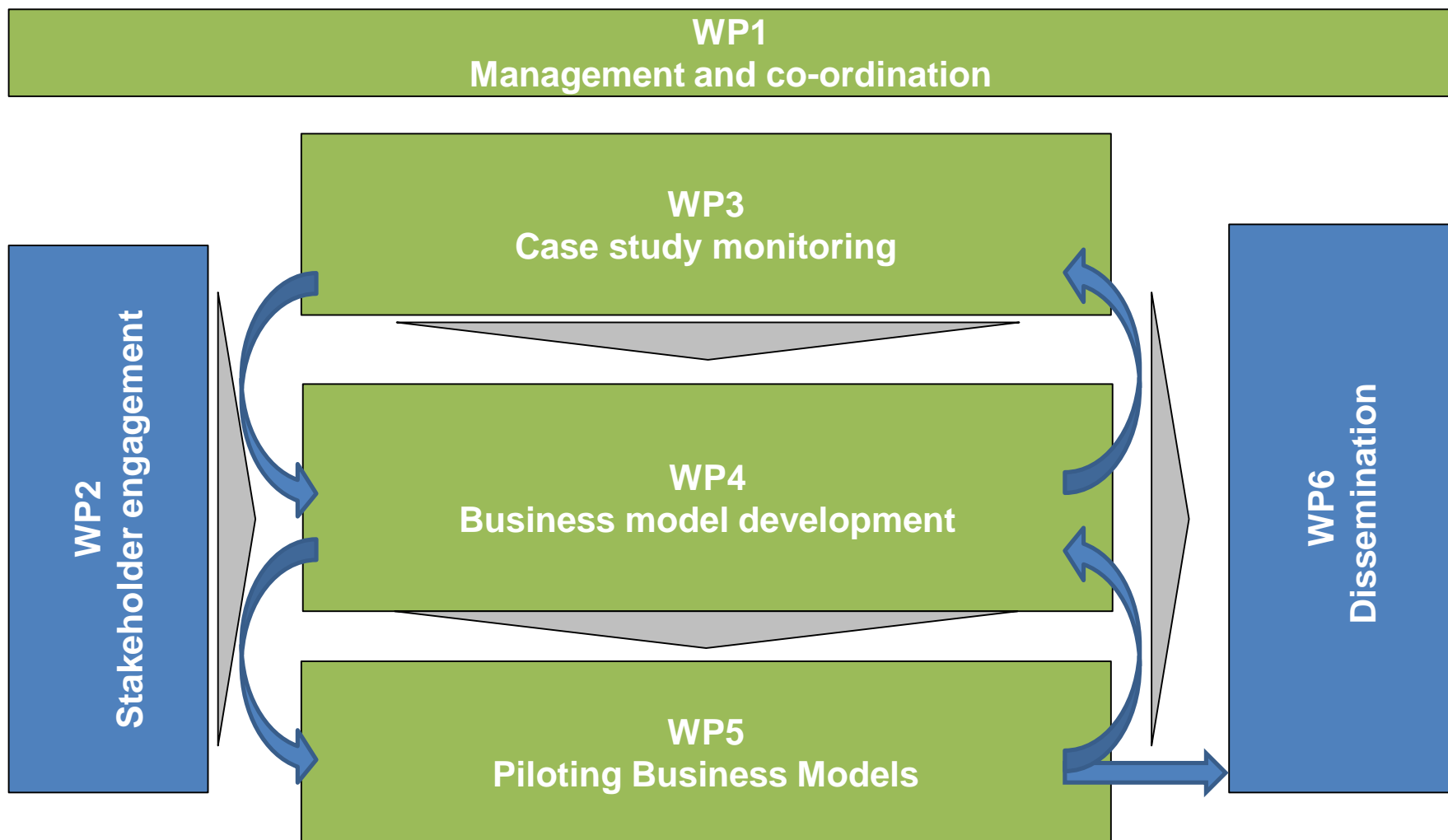
- Understand needs of communities and network operators
- Develop new business models
- Pilot those business models

Funding and partnership

- EU H2020 funding
 - 7 partners: Netherlands, Germany, Spain, Greece, UK, Lithuania, Poland



EU HEROES methodology



EU HEROES

Learning

- Use of monitored case study data
- Comparison of policy/regulation regimes
- Develop and compare different business models
- Cross-reference models and regimes
- Make recommendations

- www.euheroes.eu



Energy Communities = Prosumers?

Not necessarily...

Distinctions

- “Collective” ownership rather than individual consumers
- Not always self-consumption
- Scaling up on commercial RES

Synergies and opportunities

- Local engagement of prosumers
- Larger scale community prosumer models

*Source:



Community prosumer examples

What community prosumer models are there?

- Building integrated
- Domestic PV
- Integrated systems



*Source:

Building Integrated

Community self-supply

- Prosumer model for community buildings

Community 3rd Party supply

- Community-owned PV supplying local authority buildings
- Or Businesses
- Roof-lease and PPA
- Cost security
- CSR benefits



*Source: The Low Carbon Hub

Domestic PV

Multiple domestic

- Bulk purchase/aggregation models
 - City-wide schemes
- Shared facilities
 - e.g. PV on flats
- Virtual peer to peer trading and shared services
 - Online communities
 - Real world communities
- Social enterprise models



Integrated systems

Hybrid local energy systems

- Domestic PV
- Ground mount PV and other renewables
- Embedded storage
- Grid-connected storage
- Demand Side Management



*Source:

Integrated systems

Examples of hybrid local energy systems

Virtual private wire – Energy Local, UK

- Balancing local demand with community hydro
- Within single substation area
- <http://www.energylocal.co.uk/>
- Local energy systems – Grid Flex Heeten, Netherlands
 - 75x domestic PV
 - 2.2MW ground mount PV
 - 24x domestic batteries + 200kWh grid connected battery
 - Testing combined virtual connection and flexibility services
 - <https://gridflex.nl/>

*Source:

Conclusions

Energy community prosumer models

- Can add to prosumer models:
 - collective ownership
 - social return
 - scale

Opportunities

- Consumer engagement
- Local ownership and benefit
- Reinvesting in low-carbon

EU HEROES

- Energy communities and network innovation



Thank you

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