The Renewable Energy Community of Vega de Valcarce

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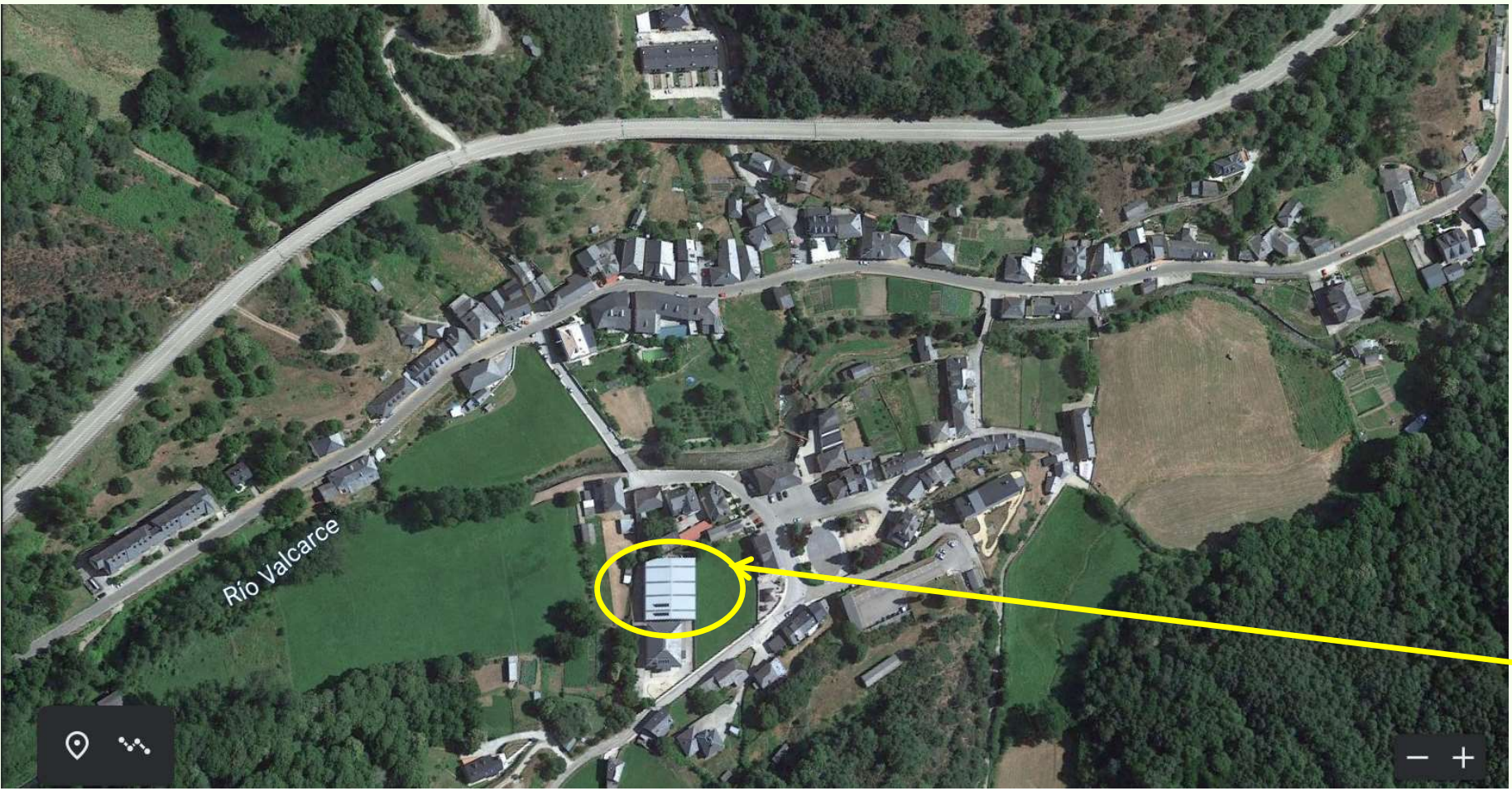
Agenda

- Project introduction
- Installation
- Usage
- Investment
- Regulatory framework
- Consumer involvement
- Project aims


Portugal
Madrid
Spain

Roof mounted Solar PV Project 30 -100 kW



The School rooftop is less than 500m away from all of these buildings

Installation

Installation parameters	Units	From
Capacity of the installation	kW	30
Generation per year	kWh/year	39.000

- Potential to include heat pumps to maximise energy self consumption and electric vehicle charging
- Most buildings in Spain are equipped with Smart meters and the municipal buildings have 13 smart meters which provide hourly readings
- No community or residential scale RE systems exist to date in the village

Usage

- Energy to be sold via peer-to-peer trading to community members and any excess to the grid

- For a 30kW scale solar PV system the target usage would be:

	Units	Municipality	Household	Business	Total
Participants from Vega de Valcarce Pueblo		Municipal building and school	15 households	3 small businesses	
Average peak (variable energy) tariff paid by participants (inc. tax)	€/kWh	0,17	0,21	0,17	
Daytime electricity consumption	kWh/year				80.100
The average production of the system that could match that load	kWh/year				35,000

Consumer involvement

Consumers	Municipal building and school	15 households	3 small businesses

- Partnering with the local municipality and others
- Engagement through
  - Consultation through workshops
  - Feedback from questionnaires, surveys
  - Use problem structuring, engagement and evaluation methodologies

Our partners

VRIJE UNIVERSITEIT BRUSSEL

Open University of Spain (UNED)

Chair of the Sustainable Tourism and Local Development

A member of the National Research Team of COMETS, a Horizon 2020 initiative

Smart rural areas in the 21st century

Vega de Valcarce is one of the Come Along Villages within the Smart Rural Areas 21, an initiative supported by the European Commission

Technical University of Munich

Municipality of Vega de Valcarce

Replicator Project Renaissance, a Horizon 2020 Initiative

Supporting Consumer Ownership in Renewable Energies, a Horizon 2020 initiative

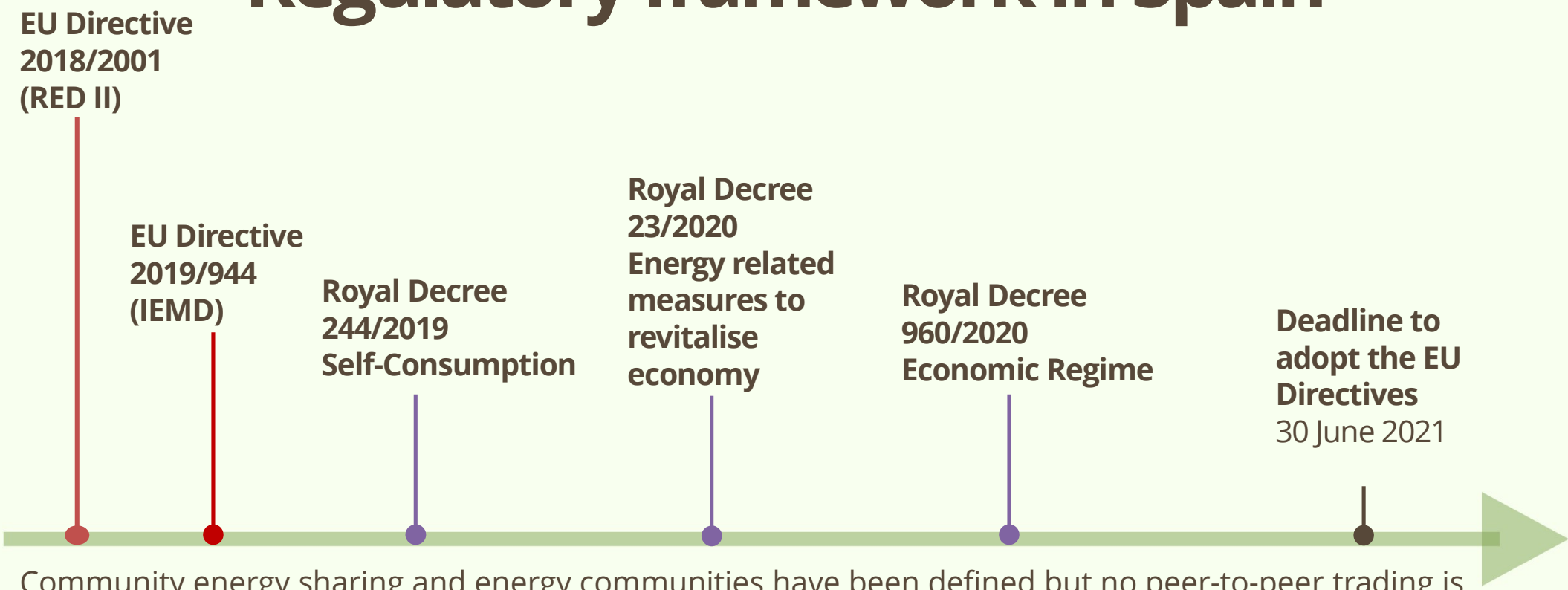
Investment

- The procurement and installation cost of a 30kW rooftop PV system is ~ € 30.000
- Project is at an early stage so we cannot state with high certainty shareholder makeup

	Municipality	Household	Business	Other
Potential shareholders	Municipal building and school	15 households	3 small businesses	Local large businesses
Can they contribute as investors (own funds)	No, but will lend school roof for the installation	Potentially	Potentially	Potentially

- No subsidies available as yet

Regulatory framework in Spain



Community energy sharing and energy communities have been defined but no peer-to-peer trading is allowed yet

The laws have established regulatory sandboxes for the development of pilot projects aimed at promoting research and innovation within the electricity sector

Project aims

Foster community cohesion through the sharing of locally generated energy

Save energy costs by providing affordable energy

Provide a return to local shareholders and community through social enterprises that own the energy assets and

Impro**ve environmental sustainability** by providing clean energy that is locally produced and reduces transmission loses

Foster capacity building, research and innovation through the setting up of social enterprises and developing energy sharing platforms to transact local energy

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