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European Renewable Energies Federation



The future, how decentralized renewables can revive coal-mining regions

EESC

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Dr. Dörte Fouquet
- Director -

Prerequisites for an energy system transformation



1. Strong political will and courage as well as dedicated long-term commitment to 2050 EU goal and international commitments



2. New energy market design with renewables and energy efficiency as centerpiece



3. Clear political, legal, economic signals to start structured phase out plans for nuclear, coal and gas capacity in the various Member States as progressive task

- Use of dedicated structural fund regulations – a societal tasks similar to industry structural change e.g. in shipbuilding in the past
- Stop of subsidies for nuclear, gas and coal sectors



How to start a structured phase-out of coal



➤ Politically articulated will (no-regret option)

➤ Forums of participation and dialogue



➤ Creation of long-term political framework to guarantee planning and investment security

➤ Participatory regional economic planning: extensive consultation of relevant local actors to come to an agreement



➤ High-level framework agreements (e.g. 2007 framework agreement to end hard coal mining in Germany)



Support for structured phase-out of coal



- Social and welfare measures for affected workers
 - Support schemes for coal miners
- Example: political response to the collapse of the German East lignite industry
 - Decline of employment in the lignite sector
 - Severance package to enable workers to have a gradual exit from their jobs
 - Creation of training courses to enable workers to shift jobs more easily

Transformation towards a new economy



- Regional support schemes to promote economic diversification and reorientation



- Economic reorientation based on other kinds of industry and services



- Successful measures and concepts include a balance between reorientation and traditional tools of structural and regional policy

- Training and (re)education



- Manufacturing and installing energy efficiency and renewable energy equipment

New players to fill the gap



- Empowerment of consumers (households, tenants, cooperatives, SMEs)



- Produce, use (self-consumption) and sell surplus energy
- Minimum of bureaucracy and administrative burdens
- Exemption from auctions and tenders



- Energy from citizens, energy cooperatives and SMEs as

- Local jobs and wealth creation including spin-off services



- Business opportunities (energy storage, energy trading and export)

Benefits of the engagement of energy citizens and energy cooperatives



➤ Local jobs

➤ Local wealth creation as money for energy stays within community (instead of paying for energy imports)



➤ Reduced energy poverty

➤ Energy security as neither import nor transport is required



➤ Energy consciousness resulting in decreased energy consumption

➤ Increased social acceptance for renewables

➤ Democratic energy system

➤ Cleaner local environment increasing attractiveness of region



A trend in Europe (BE, DK, UK, SP, GE..... Coops



- Energy cooperatives invest 900 million euros in energy system transformation in Germany
- Over 100,000 Germans are actively participating in cooperative power plant projects / Participation possible starting with minimal capital
- RES COOP <https://rescoop.eu/>

Renewables in the EU: success despite obstacles



- 1.2 million renewable energy jobs in Europe
- €30bn were cut from Europe's energy import bill in 2014 – Renewables reduce Europe's energy import dependence
- €44bn were invested in European renewable energy plants in one year - Renewables attract double the investments of fossil fuels
- €35bn were exported by the renewable energy industry 2014 – Renewables can be a significant European export industry

Little Village today and tomorrow

Heute Strukturprobleme

400 Einwohner, 150 Häuser:

Heizkosten: 375.000 €

Stromkosten: 125.000 €

Verlust: ca. 500.000 €

- Keine regionale Wertschöpfung,
- Keine Entwicklungsperspektive,
- Keine Innovation,
- Kein Klimaschutz,
- Keine Ressourcensicherheit etc.



Morgen Chancenvielfalt

400 Einwohner, 150 Häuser:

- Photovoltaik, Solarthermie
- Windstrom und Windgas
- Biogas, Wärmepumpen
- Gebäudeeffizienz
-

Regionale Wertschöpfung

- Versorgungssicherheit,
- Mehrgenerationenhäuser,
- Nahversorgungsoptionen,
- Gemeindegewerke,
- Bürgerteilhabe etc.



Regionales Stoffstrommanagement



- Alle investiven Maßnahmen stellen sich wirtschaftlich dar (Amortisation im Rahmen der Nutzungsdauer)

Greenmine Westphalia



- Germany: city of Ahlen, Zeche Westfalen,
- a coal mine -decommissioned in 2000, crystallization point for innovative structural change.
- Zero Emissions Research and Initiatives (ZERI) approach to systemically networked, sustainable development.
- The SME association “Mittelstandsinitiative Ahlen GmbH” (MIA) and the ZERI Germany chapter of the ZERI network leading
- Mittelstandsinitiative ahlen gmbh Zeche Westfalen 159229 Ahlen
- www.zeri-germany.dewww.mia-itc.de

Weilerbach “Zero emission village”



- 100 % Res for 14,700 inhabitants solely with the region’s own renewable energy resources and energy-saving potential.
- Network of regional stakeholders (the association, utilities, farmers, private persons, etc.),
- a diverse range of projects - a clear planning
- Verbandsgemeinde- verwaltung Weilerbach Rummelstraße
1567685 Weilerbach
- www.weilerbach.de

Weilerbach is everywhere-----

- Five wind turbines (5 x 2 MW), Four district heating networks (for over 350 residential units) that draw their energy from biomass,
- Over 50 small combustion systems (burning wood in such forms as pellets, wood chips, and cord firewood) in private households,
- Over 100 photovoltaic systems, with a total output of some 650 kWp,
- A total of 250 solar-thermal systems, with a total collector area of over 2,200 m², and
- Energy-efficiency renovation of all primary schools, for average heat-energy savings of 50%.
- On its way:
 - biogas facility, additional district-heating net-works, expansion of photovoltaic use and successive introduction of electromobility
 - new “bioenergy farm” for providing energy from the agricultural and forest-ry sectors.

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Thank you for your attention!

Dr. Dörte Fouquet

doerte.fouquet@eref-europe.org

www.eref-europe.org