



Power to the People

Promoting Micro-Investment in Distributed Generation in the European Union

Final Presentation

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Outline



What?

Promotion of community-owned and small scale distributed generation

Why?

Importance of distributed generation for EU energy policy

How?

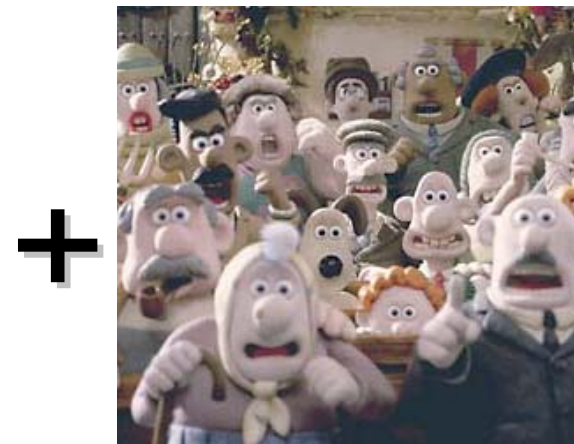
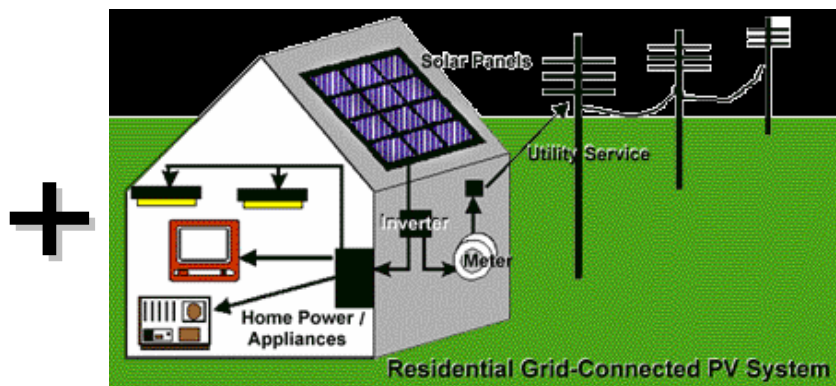
Policy recommendations



What is Distributed Generation?

Promoting electricity generation that is:

- Decentralized
- Small-scale
- Grid-connected
- Owned by communities or individuals



What is Distributed Generation?



Wind



Micro hydro

CHP-Biogas



Photovoltaic



Why Distributed Generation?

Context



The Current Situation

- ◇ Centralized electricity markets
- ◇ Large scale generation
- ◇ CO₂ intensive

The Future Energy Mix

- ◇ Decentralized electricity markets
- ◇ Small scale generation
- ◇ Cleaner technologies



Why Distributed Generation?

Drivers

EU Concern

Benefits of DG

Failure of traditional grid

Scalable, flexible & stable

Energy security

Renewable energies

Climate change

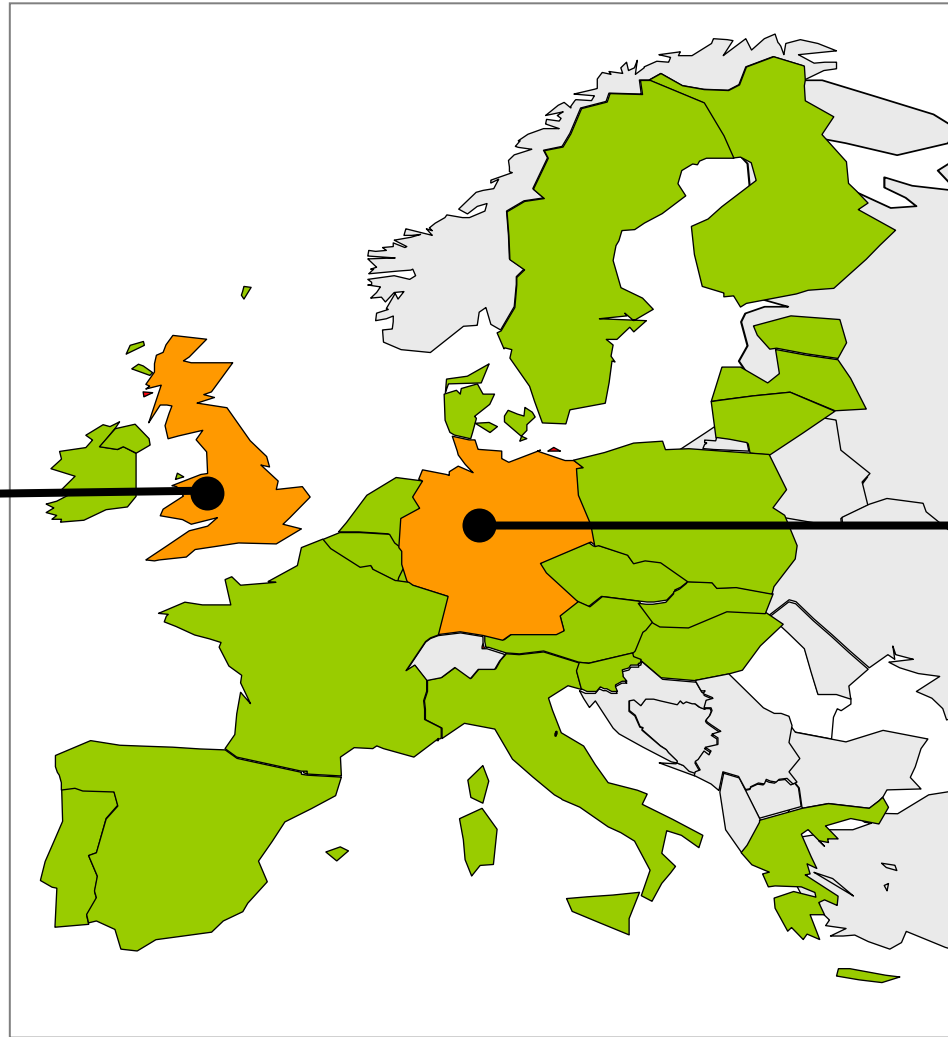
Cleaner technologies

EU energy policy harmonization

Examples of Distributed Generation in the EU



Wind



Biomass



1. Wind Turbine in the UK



Pantperthog
village
Wales, UK

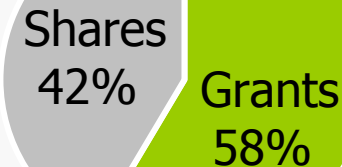


**Driving
Policy**

Grants

Bro-Dyfi Community Renewables Ltd

- **Launched:** April 2003
- **Development time:** 3.5 years
- **Capital cost:** € 118,000



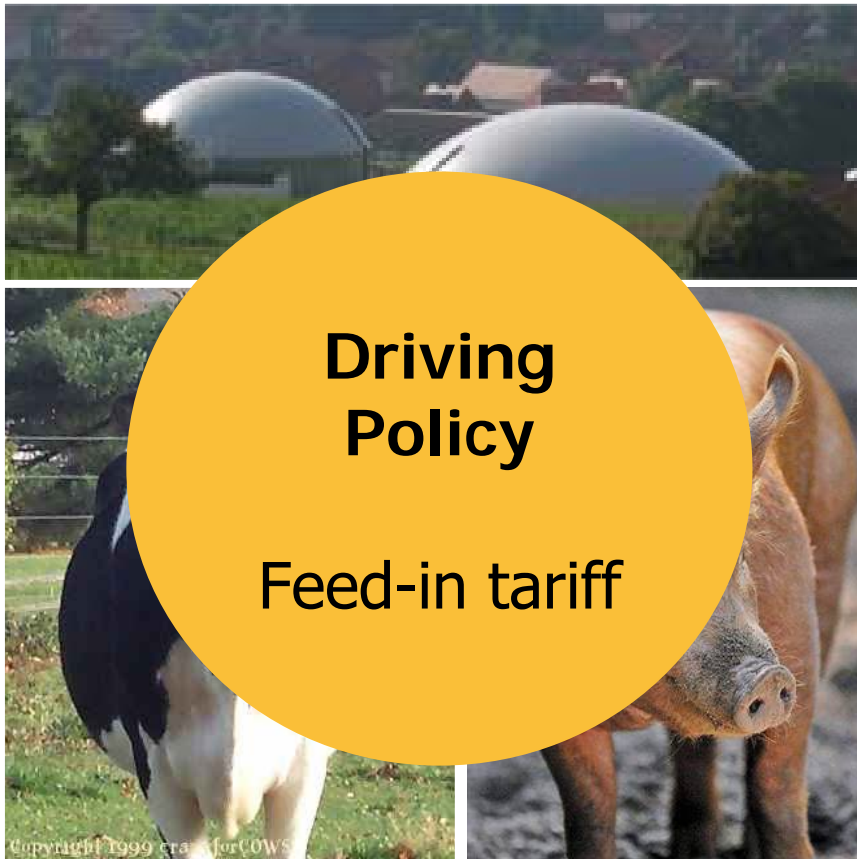
Benefits:

- CO₂ reduction
- New source of revenue
- Awareness and education

2. Biomass in Germany



Jühnde, Germany

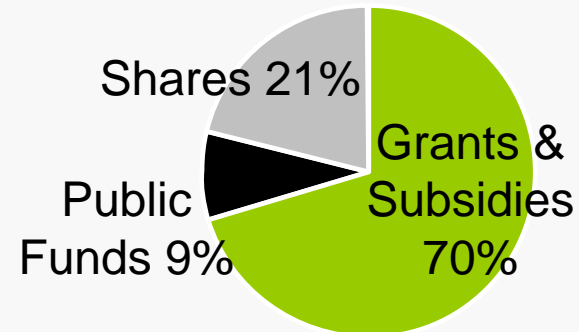


Driving Policy

Feed-in tariff

Jühnde Bioenergy Village

- **Launched:** April 2005
- **Development time:** 5 years
- **Capital cost:** € 5 million



Benefits:

- CO₂ reduction: - 60%
- New source of revenue
- Pollution control



Lessons Learned

Barriers

- ◇ Cost and access to funding
- ◇ Excessive red tape
- ◇ Inconsistent policies

Key Factors for Success

- ◇ Incentives necessary for economic feasibility
- ◇ Information and third-party help

'It shows how normal people can make a difference'

Mr. Fangmeier, Jühnde biogas plant manager

Essential Components for Distributed Generation



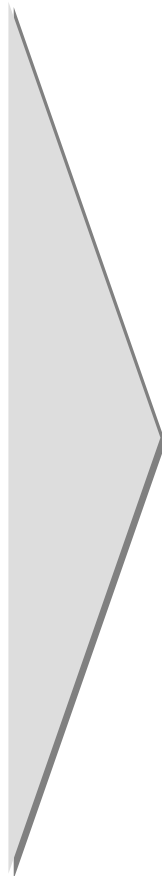
*Direct
Promotion*

Green building

Renewable
targets

Kyoto targets

Microgeneration
strategy



*Indirect
Promotion*

Education

Research and
Development

Information
sharing

Community
programs



EU Policies – Local Impacts

Incentives

Ensure economic feasibility

Promote micro-investments in DG

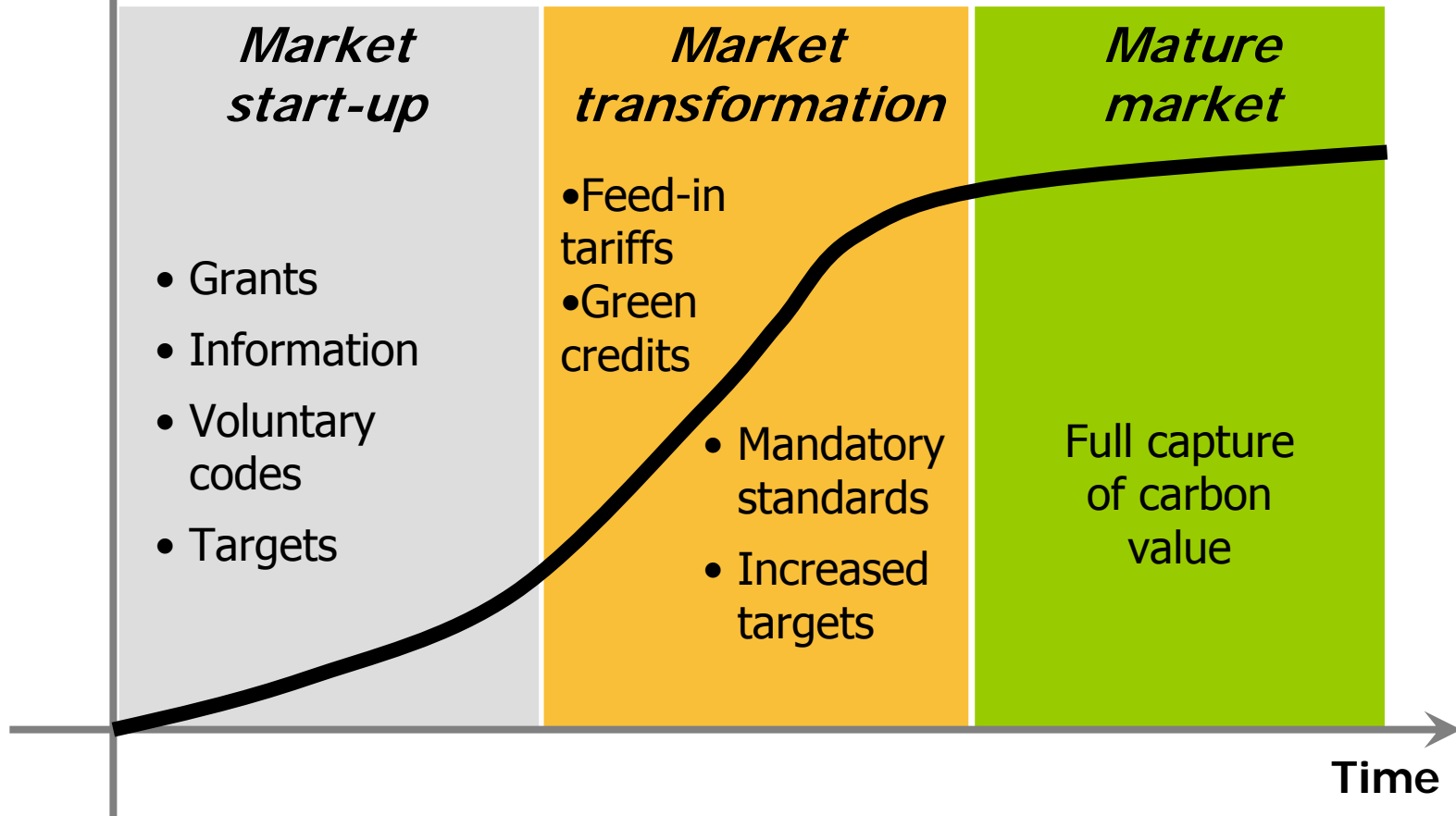
Commitment

Commit through long-term policies

Adapting Policies to National Contexts



Market penetration





Recommended Policy Samples

“Member States shall...

...adapt their existing support schemes to benefit small scale generators...”

...designate competent bodies to certify organizations...”

Summary



Electricity markets
are rapidly changing

DG must be part of
the electricity picture

EU policies are
essential to promote
DG



Thank you!



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