UNCTAD

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Recent developments and new challenges in commodity markets, and policy options for commodity-based inclusive growth and sustainable development

Room XXVI Palais des Nations Geneva, Switzerland

Linking Renewable Energy to Rural Development

by

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UNCTAD: Multi-year Expert Meeting on commodities and Development

Addressing challenges of sustainable commodity production: climate change and renewable energy development

Linking Renewable Energy to Rural Development

21 March, 2013

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16 regions across Europe and North America

OECD Green Growth Studies

Linking Renewable Energy to Rural Development





Puglia, Italy

Extremadura, Spain

Québec, Canada

Scotland, UK

Mid Sweden, Sweden

Zealand, Denmark

North Karelia, Finland

Troms County, Norway

Fryslân, the Netherlands

Prince Edward Island, Canada

Maine, US

Vermont, US

Iowa, US

Oregon, US

Tennessee, US

Abruzzo, Italy

Why this study?

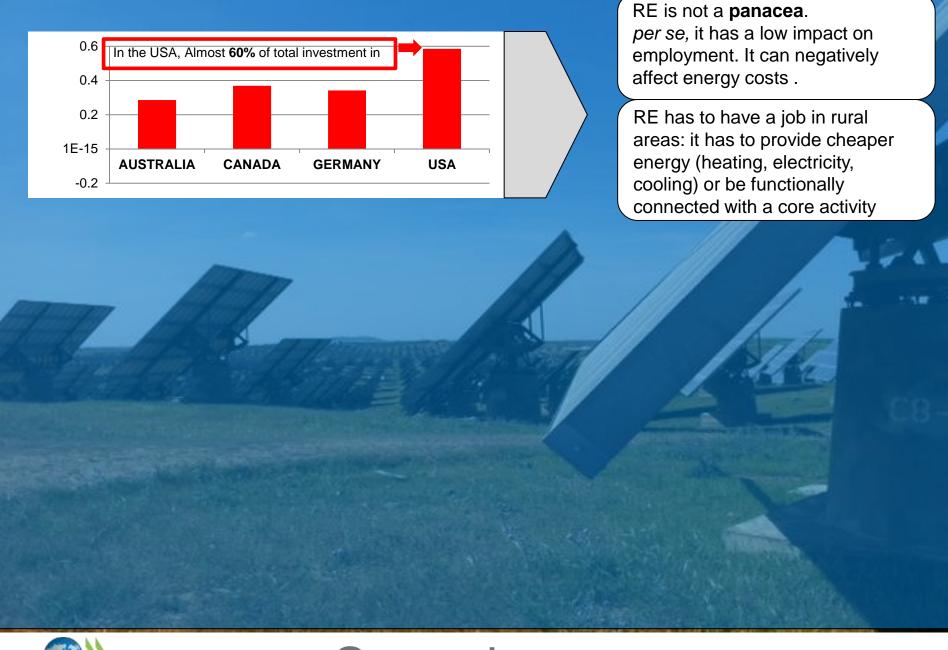
- In most countries, governments have invested large amounts of public money to support RE development and are requiring significant quantities of it to be sold by energy providers. But:
- Every country that has taken part in an OECD Rural Policy Review has identified "green power" as a major rural development opportunity. Examples include:
 - Spain solar and wind
 - England off-shore wind and wave
 - Finland forest based cellulosic ethanol and wood cogeneration
 - China all technologies
- How much of this is possible? Where is it possible? And will "green power" be a major driver of rural development? what are the economic impacts of these policies and investments

Core issue job creation in rural areas?

- At the macro level the issue is net new jobs to what extent will green power displace other jobs?
 - 1. How much will green energy jobs displace jobs in traditional power supply?
 - 2. If green power is more expensive, how many jobs will be lost due to lower GDP?
- At the local level the question is how many jobs are associated with a specific project?
 - 1. How many jobs in operation and maintenance?
 - 2. How many jobs in construction, and for how long?
 - 3. Will there be local manufacturing jobs?
 - » Green power technologies
 - » Tied to local power generation

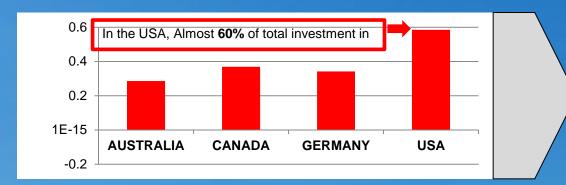


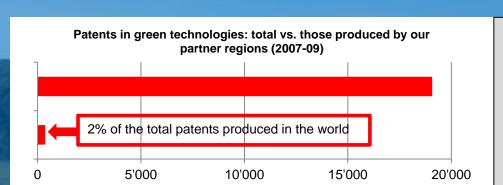
4. What are the associated multipliers?





Summing up





RE is not a **panacea**. *per se,* it has a low impact on employment. It can negatively affect energy costs.

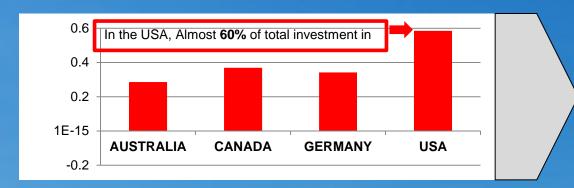
RE has to have a job in rural areas: it has to provide cheaper energy (heating, electricity, cooling) or be functionally connected with a core activity

Innovation capacity **exists** in all case studies. In some cases RE in embedded in regional innovation systems. Industries have new business opportunities

SMART Specialisation. Key in rural areas, which tend to have a narrow industrial mix. And a sticky endowment of skills.



Summing up

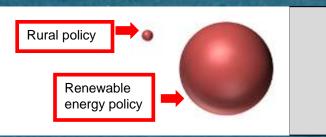


Patents in green technologies: total vs. those produced by our partner regions (2007-09)

2% of the total patents produced in the world

0 5'000 10'000 15'000 20'000

Coordination failure between RE and rural policy (all levels)



RE is not a **panacea**. per se, it has a low impact on employment. It can negatively affect energy costs.

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SMART Specialisation. Key in rural areas, which tend to have a narrow industrial mix. And a sticky endowment of skills.

RE policy has been looking for **short-cuts** to avoid dealing with transaction costs: **wrong**

Innovative role of the central level and intermediate institutions at the regional level



Summing up

How to do it right - issues for discussion

Carefully mix subsidies with investment to avoid distortions

Link RE sectors to rural businesses already in place

Interact with rural communities to empower them and to induce local ownership





Some conclusions

How to do it right - issues for discussion

Carefully mix subsidies with investment

Try to link RE sectors to rural businesses already in place

Interact with rural communities to empower them and to induce local ownership

	Old Paradigm	New Paradigm			
Objectives	Equalization. Focus on farm income	Competitiveness of rural areas			
Key target sector	Sector based	Holistic approach to include various sectors of rural economies			
Main tools	Subsidies	Investments			
Key actors	National governments, farmers	Multilevel-governance			



Benefits from RE deployment to rural areas

		Investment	Tax revenue	Employmen t	Entrepre- neurship	Supply	Remote		
Puglia, Italy		х			х	x			
Extremadura, Spain		x	X						
Québec, Canada		x		x			х		
Scotland, UK		x							
Mid Sweden , Sweden				X	X	x			
Zealand, Denmark				Х		y			
North Karelia, Finland POI Energy - Service									
Troms County, Norway		1.6 bil La	and-use a		le payba	deliver	y and		
Fryslân, the Netherlands GRP 685 n Working permits Tor exploit Supporting									
Prince Edward Island, Can		\	business	λ	iuliai ass	develo	pment /		
Maine, US		ar	property ta	ixes		X			
Vermont, US			X			x			
Iowa, US			x	x	x	x			
Oregon, US			x		x		X		
Tennessee, US			x	X	x				
Abruzzo Italy			V						

What does RE offer rural areas

New revenue sources: RE increases the tax base for improving service provision in rural communities. It can also generate extra income for land owners and land-based activities. For example, farmers and forest owners who have integrated renewable energy production into their activities have diversified, increased, and stabilised their income sources.

 there are opportunities to capture location rents that can support local economies, but only before the deal is signed.

New job and business opportunities: Although RE tends to have a limited impact on local labour markets, it can create some valuable job opportunities for people in regions where there are otherwise limited employment opportunities.

- *Direct jobs:* operating and maintaining equipment.
- Indirect jobs: most long-term jobs are indirect, arising along the renewable energy supply-chain (New revenue sources), and by adapting existing expertise to the needs of renewable energy.



What does RE offer rural areas

Innovation in products, practices and policies in rural areas:

- Rural areas are the places where new technologies are tested, challenges first appear, and new policy approaches emerge.
- The presence of a large number of actors in the RE industry enriches the "learning fabric" of the region.
- Small and medium-sized enterprises are active in finding business niches as well as clients and valuable suppliers.
- Even when the basic technology is imported from outside the region, local actors often adapt it to local needs and potentials.



What does RE offer rural areas

Capacity building and community empowerment: As actors become more specialised and accumulate skills in the new industry, their capacity to learn and innovate is enhanced. Several rural regions have developed specific institutions, organisms, and authorities to deal with RE deployment in reaction to large investment and top-down national policies.

Affordable energy: Being able to generate reliable and cheap energy can trigger economic development. RE provides remote rural regions with the opportunity to produce their own energy (electricity and heat in particular), rather than importing conventional energy from outside.

- cheaper power through hybrid system, but could lead higher power costs.
- Off-grid alternatives are possible (individuals or cooperatives).



Policy Approaches to improve RD

The New Rural Paradigm approach can help overcome the policy challenges

- **Strategic issues**: identification of the policy strategy; harmonisation of environmental, energy, and economic policy objectives (place-based approach); rural proofing RE
- Economic development issues: capitalise on functional linkages between RE activities and rural businesses. Involve multiple actors and sectors (RE should not be a "standing alone" sector within local economies help from the rural development policy).
- **Governance issues:** rural intermediate institutions can help link RE deployment with local communities and businesses, improve design of RE incentives; and foster social acceptance.

 Thank you!



