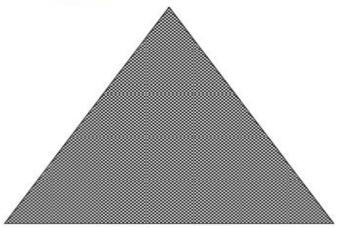
World Future Council

WORKSHOP ON SOCIAL ACCEPTANCE OF RENEWABLE ENERGY 7-9 October 2013, IRENA Headquarters, Abu Dhabi, UAE

Socio-political acceptance

- Of technologies and policies
- · By the public
- By key stakeholders
- By policy makers



Community acceptance

- Procedural justice
- Distributional justice
- Trust

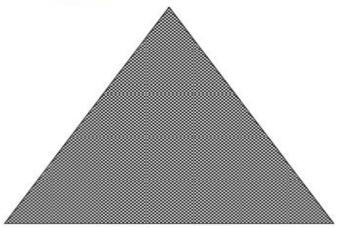
Market acceptance

- Consumers
- Investors
- Intra-firm

Source: Rolf Wüstenhagen, Maarten Wolsinkb, Mary Jean Bürer, 2007

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Subsidies for Lignite coat and coat mining in Germany

Subsidies for Coal mining 1950 to 2007

approx 160-180 bin euro

Phasing out of coal mining

(aid and adaptation allowance under the Coal Funding Law) 2008 to 2018: 21.6 bln euro

Mining damage, groundwater pumping,
Opencast mining remediation
annually: approx 0.5 bln euro

In addition: Relocation of around 300,000 people to date and destruction of approximately 100 km² landscape

Sources: BMWI, MWME NRW, BEE.











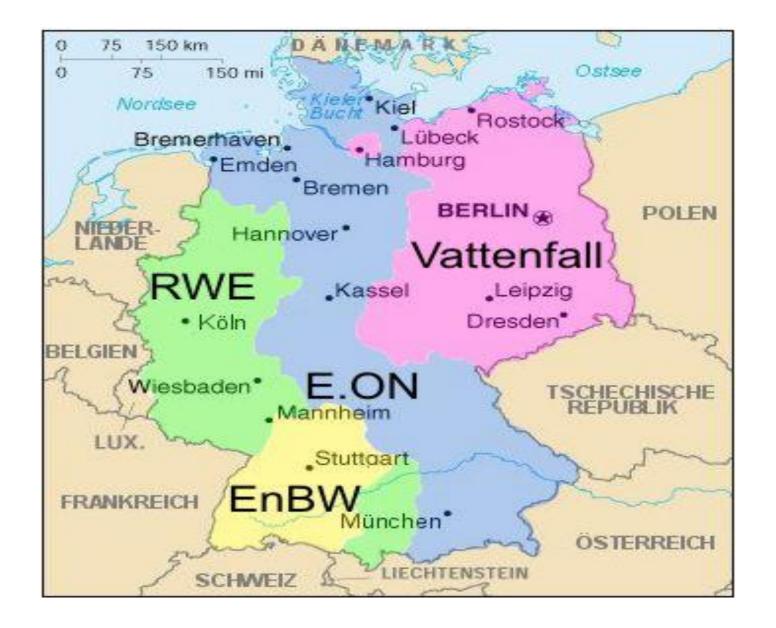
VOICE OF FUTURE GENERATIONS





VOICE OF FUTURE GENERATIONS







Growth of 860,000 PV Installations in Germany

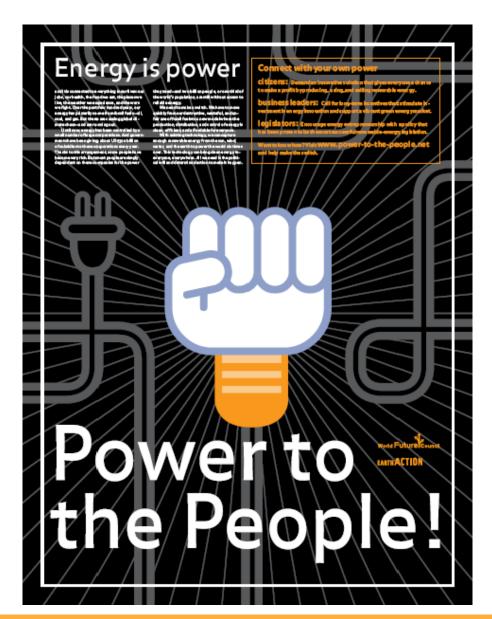
Jan 2009 - Jan 2013

Data from: bundesnetzagentur.de

Visualization by:

Chris Davis & Alfredas Chmieliauskas

enipedia.tudelft.nl





EEG (ERNEUERBARE ENERGIEN GESETZ)

RENEWABLE ENERGY SOURCES ACT

• Came into force on 1st April 2000

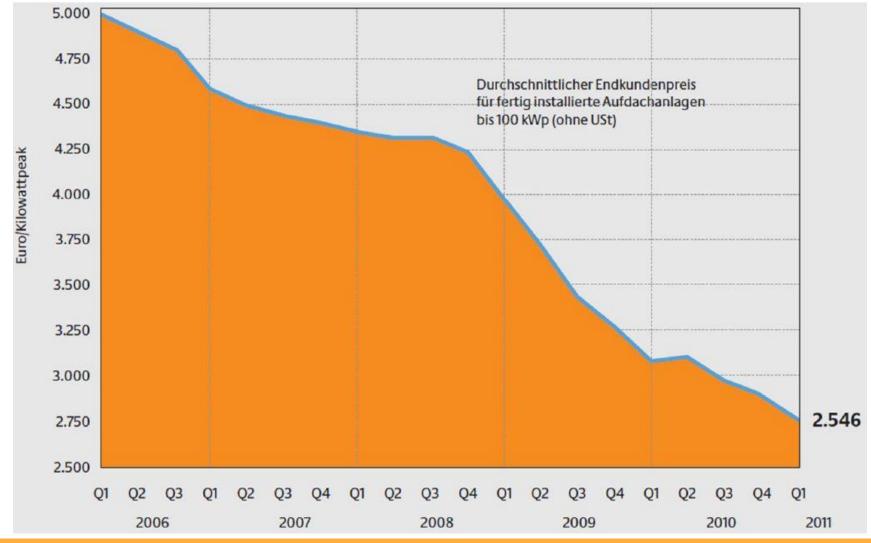
→ Key points:

- Promotion and market launch of futurecompliant technologies
- Guaranteed rates for renewable energy technologies (for 20 years)
- Grid operators are obliged to purchase the electricity and feed into their grids
- Costs incurred by feed-in tariffs are borne by the consumers through the electricity price



•

Cost reduction of Solar PV in Germany (roof mounted up to 100 KW)



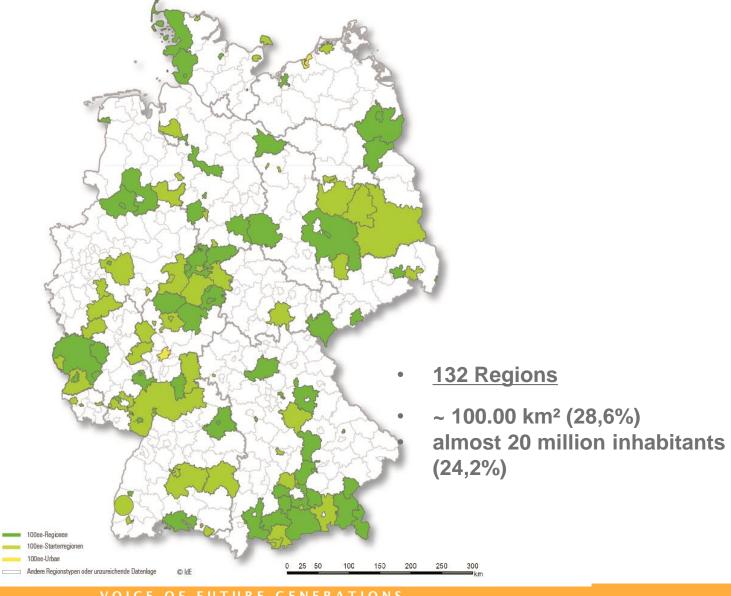
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Source: BSW



	RE share of gross final energy demand (%)				RE share of gross power consumption (%)				
	Energy concept	Baseline Scenario 2010 A (C)	Baseline Scenario 2010 B	Scenario B-100%- S/H2	Energy concept	Baseline Scenario 2010 A (C)	Baseline Scenario 2010 B	Scenario B-100%- S/H2	
2020	18	21.2	21.2	21.2	35	40.0	40.0	40.0	
2030	30	33.3	33.8	35.3	50	64.7	65.0	66.0	
2040	45	46.7	47.6	50.3	65	82.6	82.8	85.1	
2050	60	60.0	61.7	69.2	80	86.2	86.3	100	





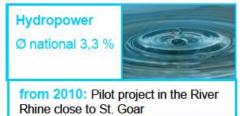


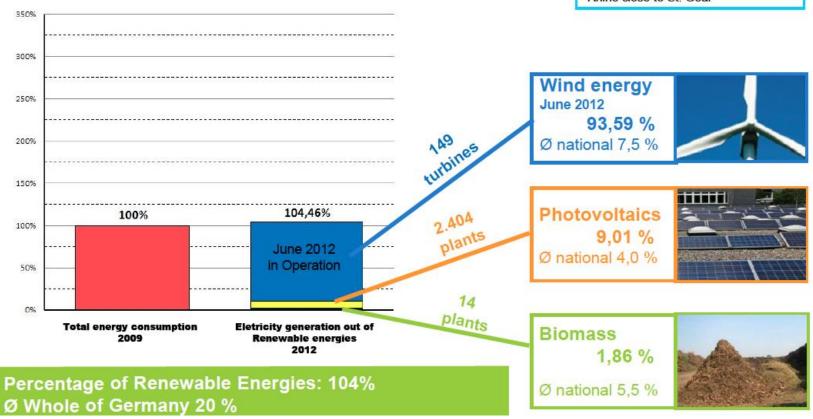


VOICE OF FUTURE GENERATIONS

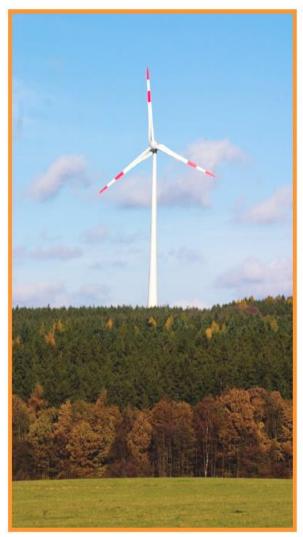


Total electricity demand 473 Million kWh in 2009





Source: Bertram Fleck/2012



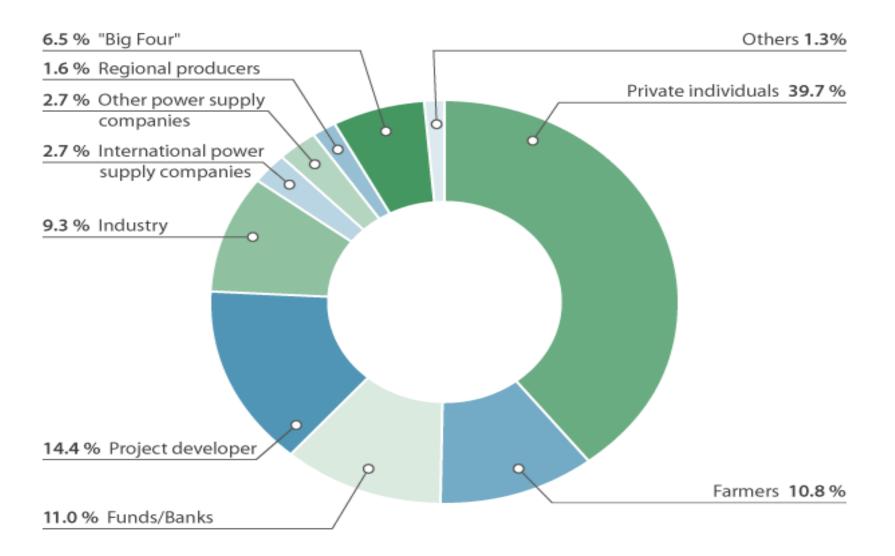




Acceptance through:

- early and comprehensive public information
- financial participation of the citizens
- communal solidarity pact
- cheaper electricity through direct marketing (citizen's electricity, communal electricity)

Source: Bertram Fleck/2012



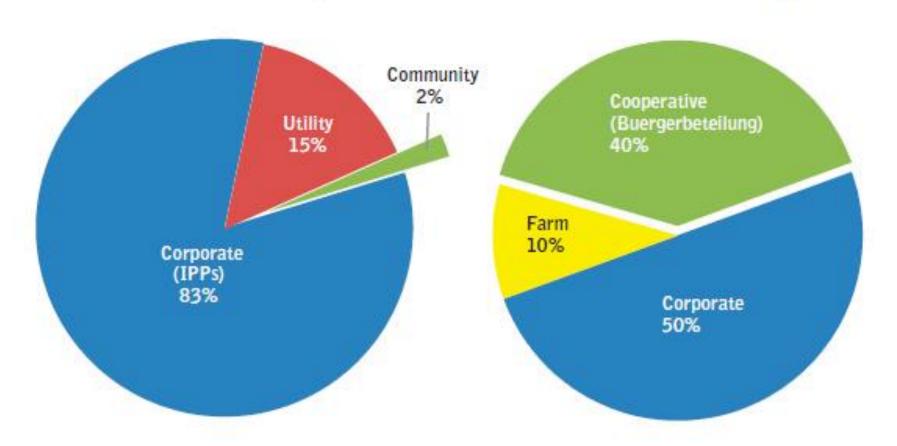
See trend research, Market participants - Renewable energy installations for electricity generation (in German), as of August 2011



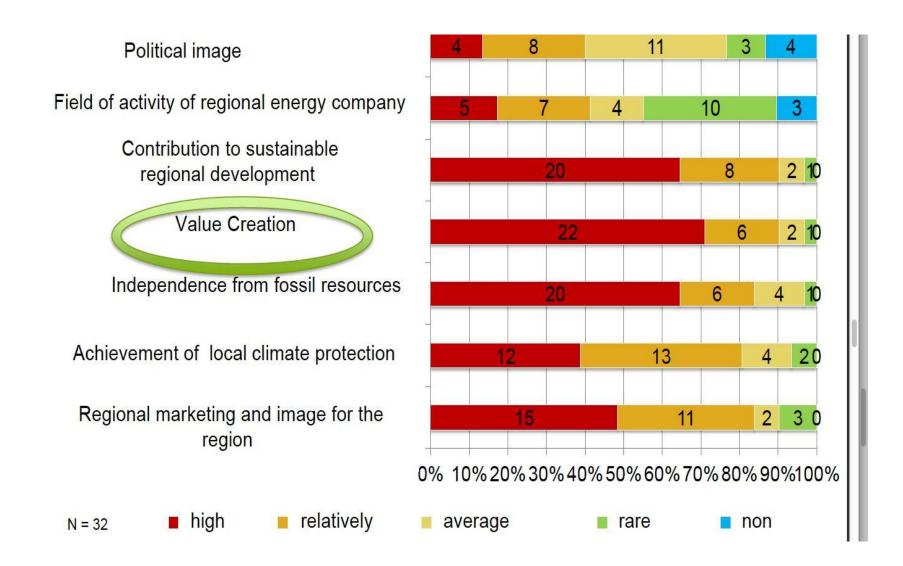


US Wind Ownership

German Wind Ownership







VOICE OF FUTURE GENERATIONS

Source: Peter Moser, Kassel

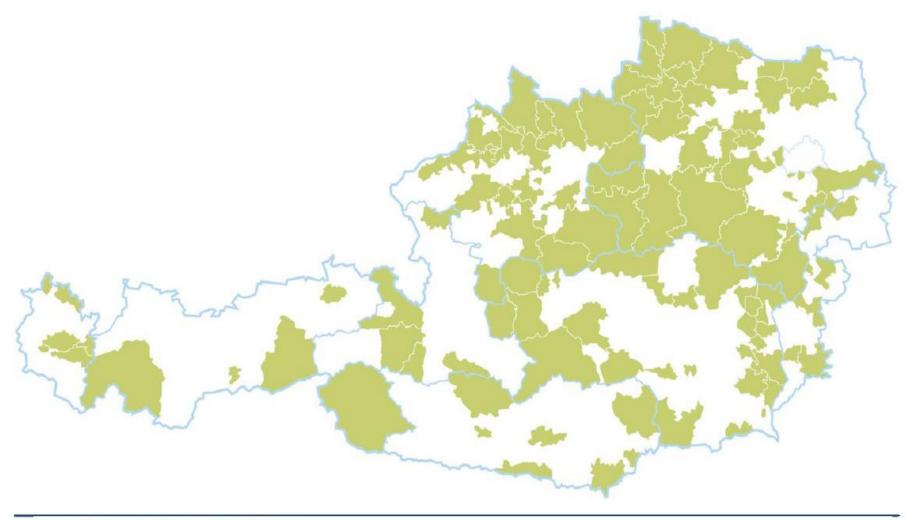


New recent opinion polls in Germany:

- •Some 84% of Germany's publication favours 100% renewable energy
- •83% say, that the costs and the profits should be equally distributed
- 55% say, politics should give the people priority over the interests of the big energy companies
- Almost every third would ,most likely like to invest him/herself

Participation triggers acceptence, acceptence triggers investments





geographical expansion Climate and Energy Model Regions



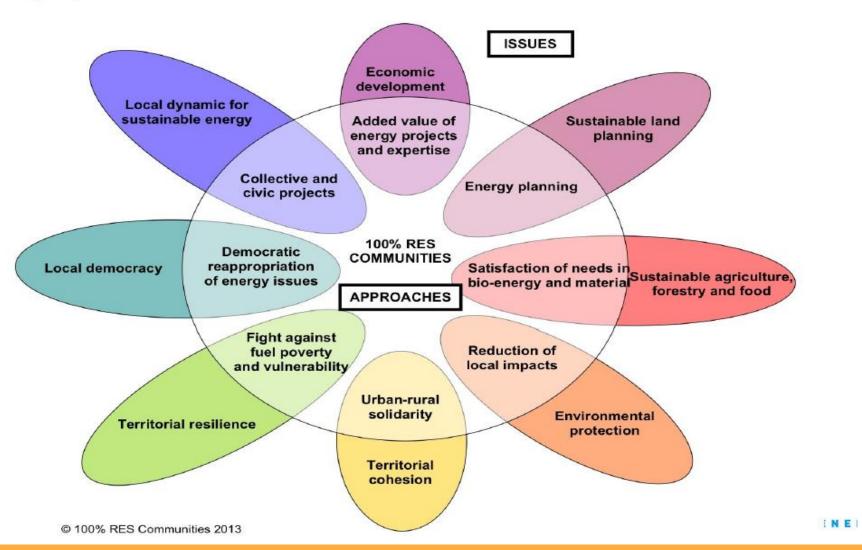


- Climate and Energy Model Regions are key instruments to reach the Austrian Government's target of becoming energy self-sufficient by 2050.
- Over the course of a year, the amount of renewable energy produced shall equal the annual energy consumption. A large network of wellestablished, interlinked and coordinated model regions is a suitable approach for this target.



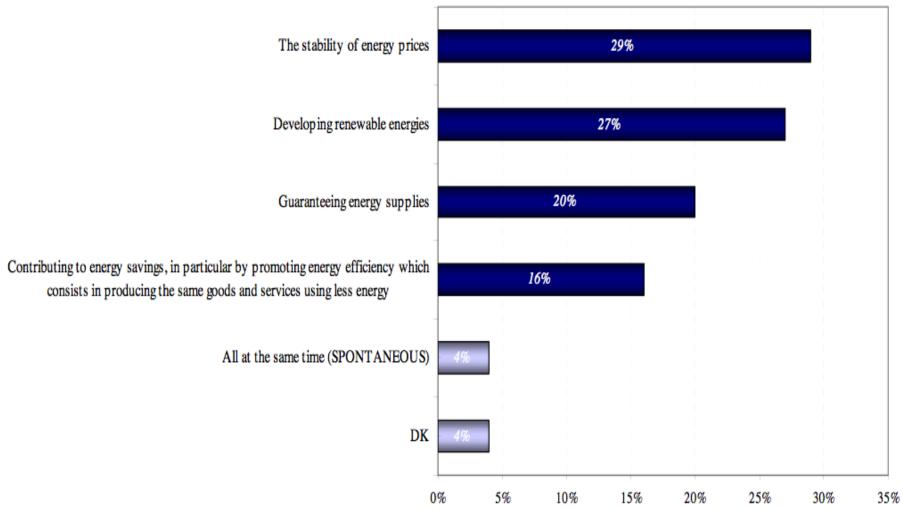


Issues and approaches





Q3 The European Parliament wants increased energy cooperation between the European Union Member States. With this in mind, do you think that the main priority should be given to...?



Source: Eurobarometer/2011





U.S. Should Place "More Emphasis" on Each Source of Domestic Energy Production, by Region

	All Americans %	East %	Midwest %	South %	West %
Solar power	76	79	75	74	78
Wind	71	74	75	65	72
Natural gas	65	62	58	68	68
Oil	46	38	43	53	46
Nuclear power	37	38	28	42	38
Coal	31	25	27	40	28

March 7-10, 2013





Social acceptance for renewable energy in developing countries



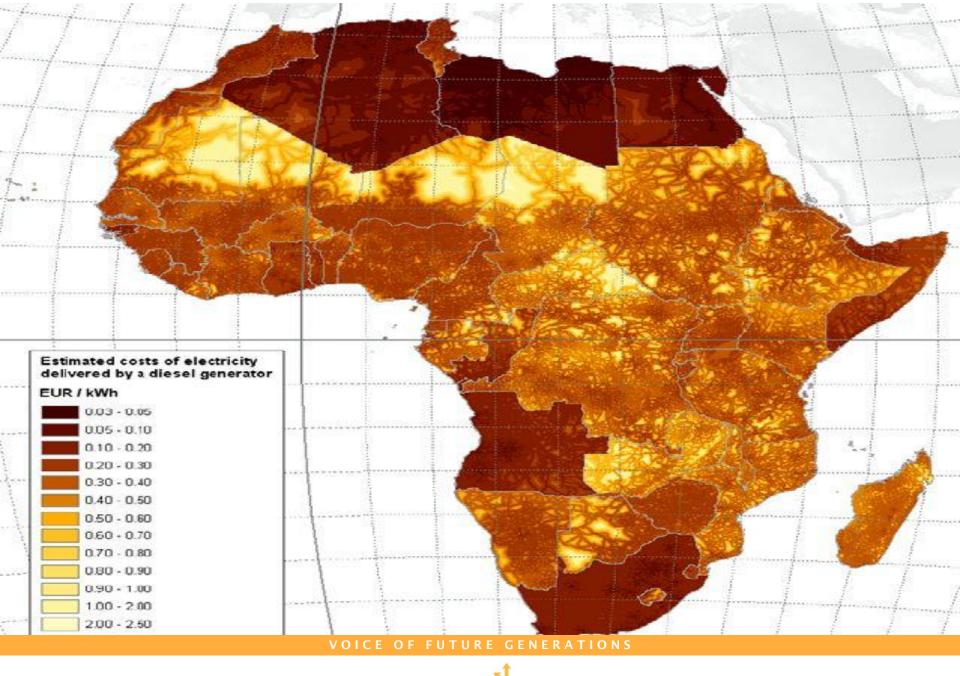


VOICE OF FUTURE GENERATION:

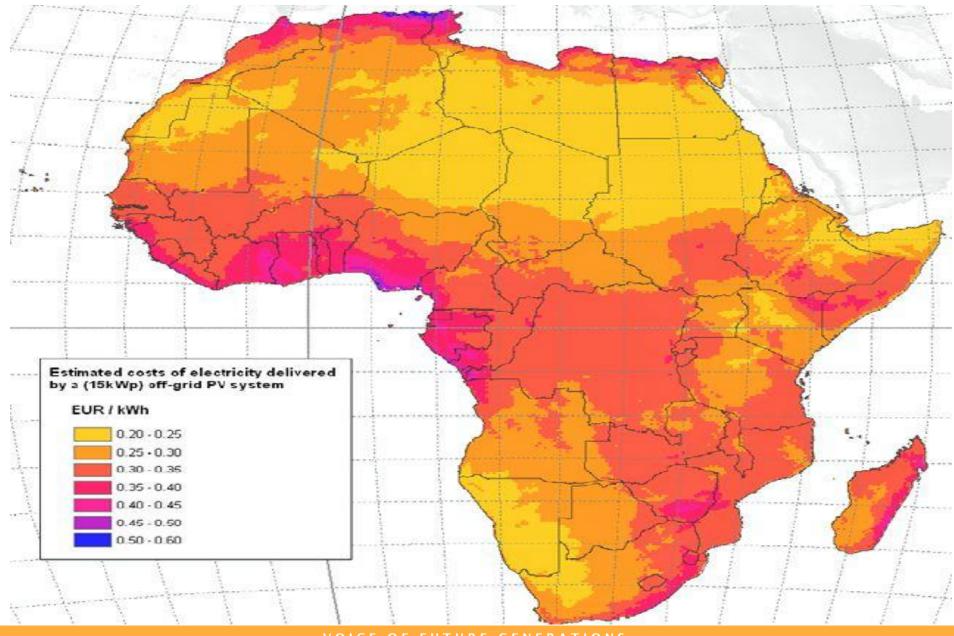


- Community acceptance in rural areas relates to safety-, health-, gender- and cultural aspects
- New electricity-market are -politically- easier to build up than a market transformation

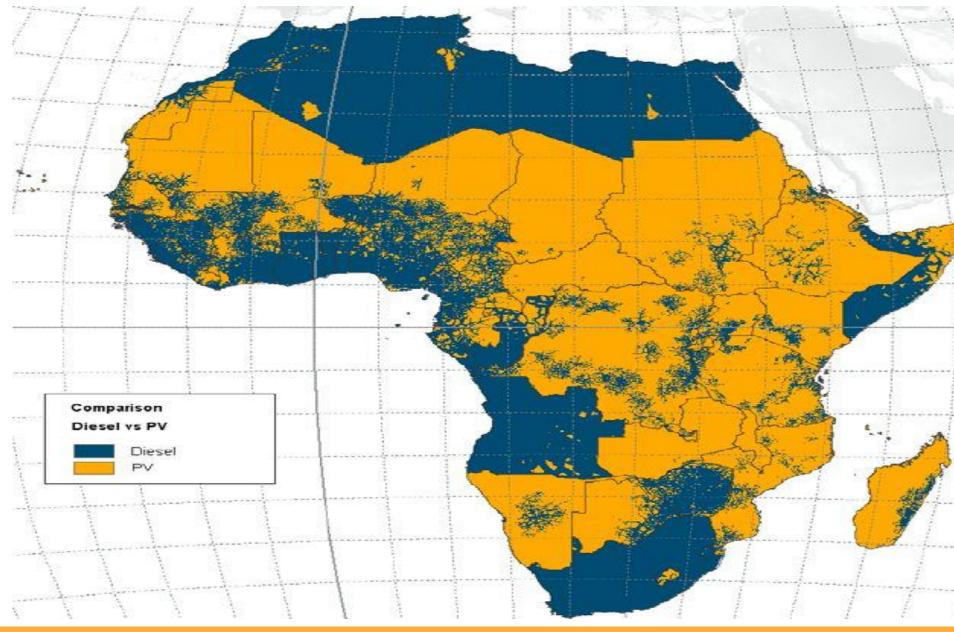




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Creating an enabling environment for RE in Africa:

- Simplify the administrative process
- Resolve land Issues
- Provide access to finance
- Raise awareness, build technical capacity
- Consider infrastructure, e.g. roads
- Prepare detailed information on RE resources,
 e.g. wind and solar atlases
- •Ensure human capacity at authorities sufficient knowledgeable staff



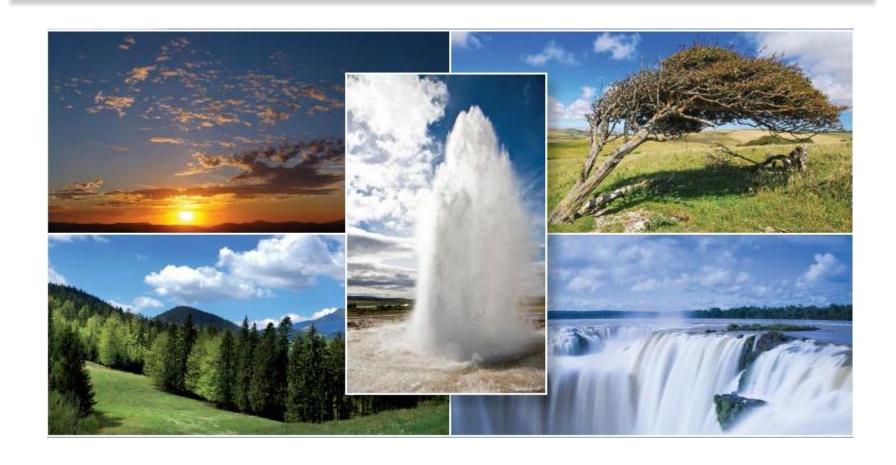
Message 1: When pursuing the question of social acceptance of renewable energy the current characteristics of the existing energy markets must not be ignored

Message 2: Social acceptance of renewable energy does not have to be artificially created. It's there and it can be converted into community acceptance through early involvement and participation.

Message 3: the key factor of increasing social acceptance eventually is the question of costs for the people

Message 4: community acceptance is also increasingly becoming a question of distributional justice

THE FUTURE IS 100% RENEWABLE ENERGY





World Future Council

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