Global Developments of Renewables

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Policy Framework for RE – Experiences for the Design of FIT Systems JREF Seminar – Tokyo, 6 March 2012



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2011

Renewables



- Analyses market and policy trends for electricity, heat and transport
- Investigates the strategic drivers for RE deployment
- Benchmarks the impact and cost-effectiveness of economic support policies
- Provides best practice policy principles
- Covers 56 countries and all world regions
- Book and 3 supporting information papers



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Strong Growth in RE Electricity ... and shift to Asia



	Wind	Bioenergy	Solar PV	Hydro	other
Generation 2010 [TWh]	338	296	31	3503	74
CAGR 2005- 2010 [%]	26.5%	8.8%	50.8%	3.1%	4.6%



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Costs are Reducing

- Hydro and some
 biomass and
 geothermal already
 cost-competitive
- Additional technologies
 getting competitive in a broader set of circumstances
- Opens up new deployment opportunities



Data from Breyer and Gerlach, 2010

Low-carbon power technologies come of age

WORLD ENERGY OUTLOOK

Global installed power generation capacity in the New Policies Scenario



Renewables & nuclear power account for more than half of all the new capacity added worldwide through to 2035



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Are Policies Successfully Encouraging Deployment? Example: Onshore Wind

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2. Are payments for Generators in a Reasonable Range? Ex: Onshore Wind 2009





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3. Impact vs Cost-Effectiveness

Example: Onshore Wind



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Emerging Policy Challenges - PV

Cumulative global PV capacity



- Concentrated booming PV growth raises policy cost concerns in several EU countries
- Policies are not adapting quickly enough
 - However, pressure will reduce as new markets emerge

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Adjust Tariffs – On time & Often



Key point: Gap between incentives and costs and large, one-off tariff decreases can trigger "sales rush"



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Policy Priorities: Changing Over Time

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Deployment

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Inception

Clear RE strategy and targets

 Attractive support

Set up regulatory framework Predictable and rapidly adaptive incentives

Take-off

 Focus on noneconomic barriers

Manage total support costs

Consolidation

System integration and transformation

 Market design and expose RE to competition

 Public acceptance





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Conclusions

- Policies have started delivering in terms of RE deployment and cost reduction
- RE getting competitive in a broader set of circumstances
- However major economic and non-economic barriers persist and sustained policy effort is still needed
- Deploying Renewables identifies best-practice policy principles
 - Cost-effective, dynamic, integrated approach
 - Aims to help sharing best practice internationally so that countries can learn from each other