IRENA
International Renewable Energy Agency

HOW WIND ENERGY WORKED:

GLOBAL WIND ENERGY POLICY ANALYSIS

- **Wind energy has become a mainstream electricity generation technology.** It is expected to reach over 280 GW in installed capacity by the end of 2012, and 490 GW by 2016.

- **This was no accident: governments and policy makers aided this growth, with a range of support mechanisms including tax incentives, tariff and quota regimes.** They did so for several reasons – to reduce reliance on fossil fuels, improve energy security, encourage new industry, and protect the environment – and in different ways.

- IRENA's landmark ***30 Years of Policies for Wind Energy: An Overview*** charts 30 years of wind-friendly policies, answering questions about which set of policy and regulatory schemes worked, and also why they failed. Focusing on 12 leading markets – Brazil, China, Denmark, Germany, Greece, India, Ireland, Italy, Portugal, Spain, the UK and the US – it is the most comprehensive analysis of wind energy policy yet produced. The report was written in collaboration with the Global Wind Energy Council.

- **Highlights of the analysis and findings include:**

  - Wind power is now competitive with other conventional power generation technologies in many parts of the world.
  - Stable, ambitious and clear national targets assist the development of wind energy.
  - Policy and regulatory frameworks only work when governments are committed to making them work.
  - Success takes time. Policies cannot create results overnight: they need to stay the course, and evolve according to changing market conditions.
  - In federal systems, federal and state legislation require coordination.
  - Tariff schemes alone do not accelerate wind energy deployment. Successful approaches include many supplementary elements, in particular grid planning and access.
  - The primary motive to develop wind energy is often strategic and economic, in addition to environmental concerns.
  - A dedicated ministry or agency can help overcome obstacles to developing wind energy.
  - For widespread uptake of wind power development, local communities must be involved in planning and development.

	COUNTRY	BRAZIL	CHINA	DENMARK	GERMANY	GREECE	INDIA	IRELAND	ITALY	PORTUGAL	SPAIN	UNITED KINGDOM	UNITED ST
	INDICATIVE SUMMARY OF THE RANGE OF SUPPORT MECHANISMS USED HISTORICALLY												
Remuneration/Support Schemes	Feed-in tariff	✓	✓	✓	✓	✓	✓	✓			✓	✓	
	Premium or Adder system			✓	✓						✓		
	Auction or tendering system	✓	✓					✓			✓	✓	
	Tax based (electricity) production incentives												✓
	Spot market trading			✓	✓			✓	✓	✓	✓	✓	
	Investment subsidy or tax credit			✓		✓	✓						✓
	Tradable Green Certificate [e.g. REC / ROC]						✓		✓			✓	✓
	Concessionary finance through government supported agencies	✓	✓		✓		✓				✓		✓
	Concession on import duty	✓	✓				✓						
Targets	Renewable energy Portfolio Standard or Purchase Obligation						✓					✓	✓
	Federal or statewise targets (binding or indicative)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Other supplementary regulation	Project siting guidelines	✓		✓	✓	✓					✓	✓	✓
	Project permitting process		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
	Priority access regulations	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
	Grid code			✓	✓	✓	✓				✓		

Source: IRENA

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