The financing aspects and structural reforms to foster low-carbon growth

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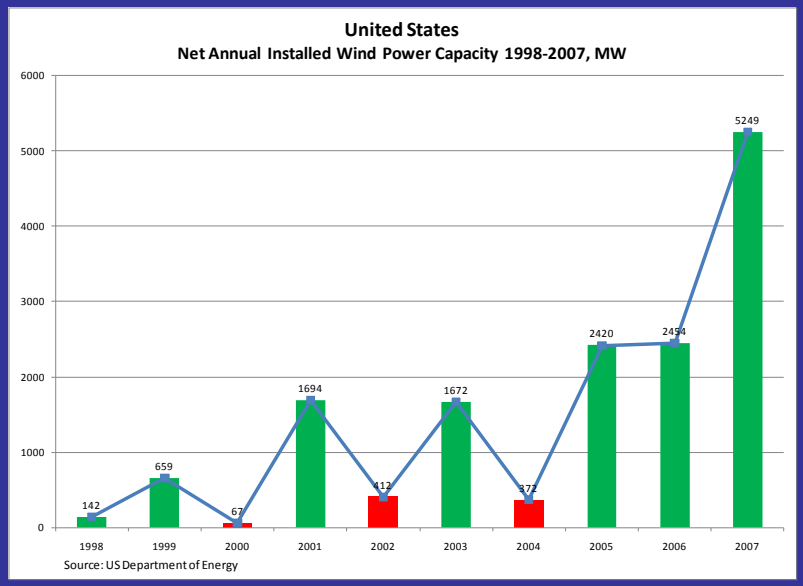
Global Vision for a Sustainable Earth
Practical Solutions for People

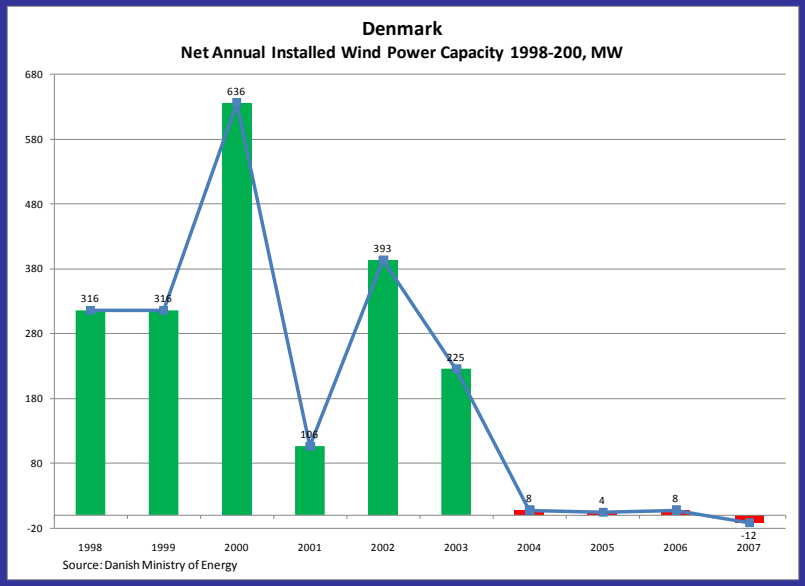
Core elements

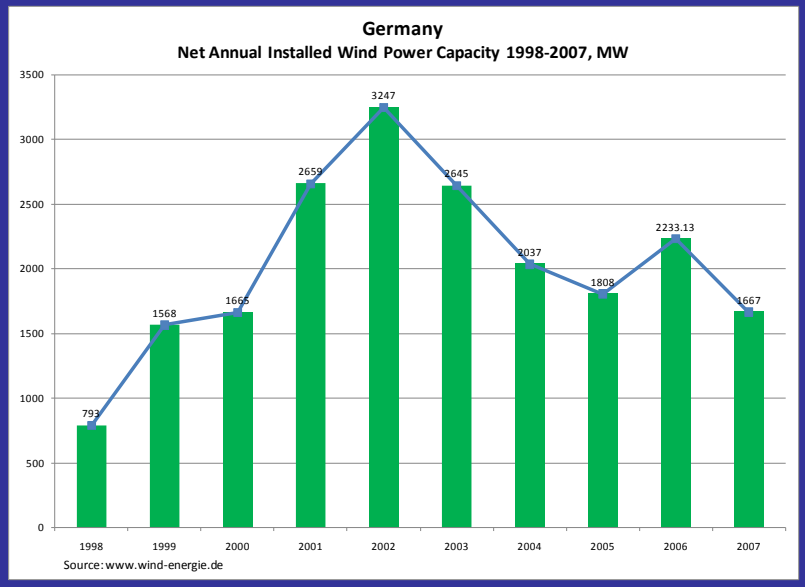
- Policies and regulations matter greatly
- Institutional Capacity and Governance should not be an “add-on” but rather a core part of any program
- Finance – a new innovative idea for scaling up renewables worldwide?

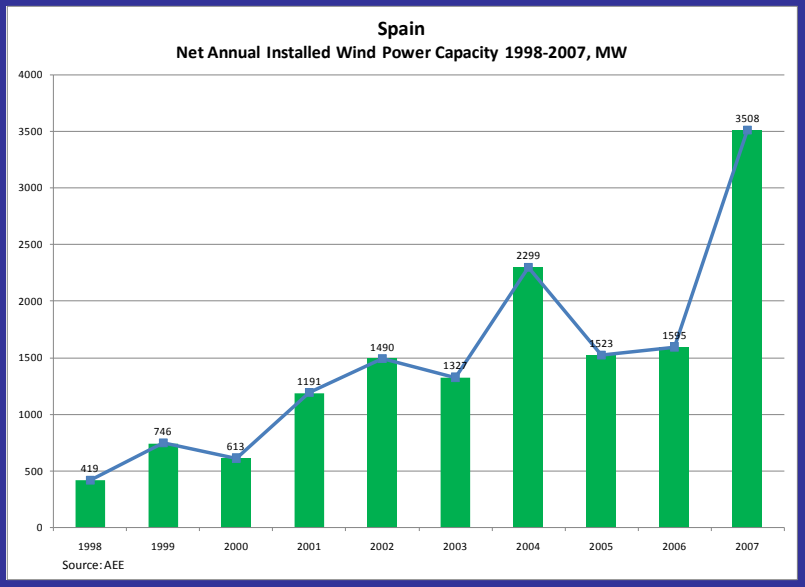
Policy and Regulation Matters

Government support as main driver of wind market





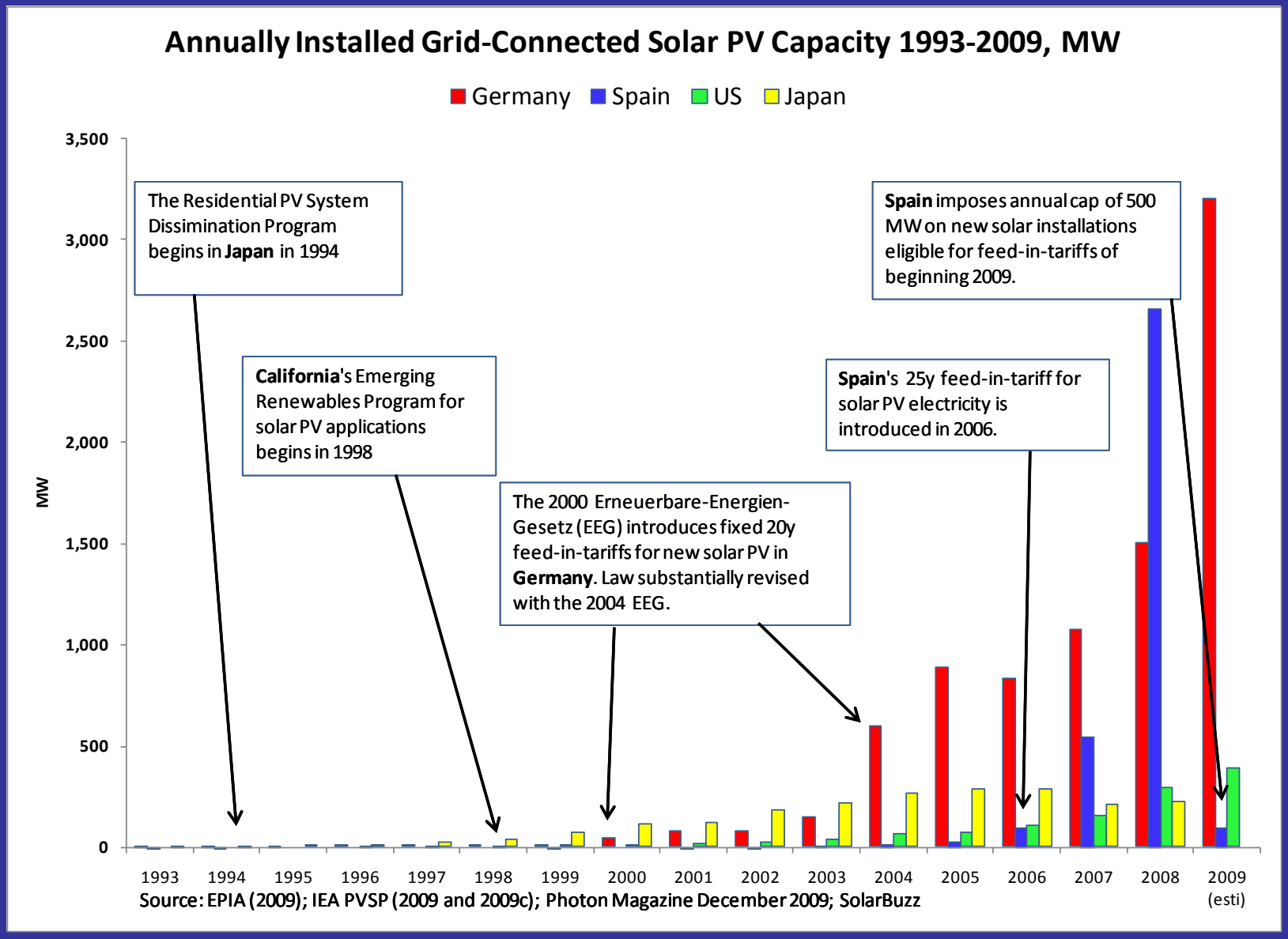




= Years with production tax credit (US) or feed-in tariff (DK,DE, ES) for new wind turbines

= Years with no production tax credit (US) or feed-in tariff (DK,DE, ES) for new wind turbines

Government support as main driver of solar PV market



Support policies for renewables

Policy	Technology	Successes	Problems
Price on Carbon	**Technology-neutral**	**EU ETS** **RGGI** (parts of US, Canada)	- Price levels not sufficient to spur large-scale deployment of renewables
Interconnection and net metering standards	Distributed renewables: **Solar, Wind, Biomass, Geothermal**	**US (state-level)**	- Patchwork of state policies - Not a sufficient incentive, only a building block
Feed-In-Tariff	All renewables ready for deployment: **Wind, Solar, Geothermal, Small Hydro, Biomass**	**Germany, Spain, Denmark and another 60 jurisdictions world-wide.**	- Setting the right level of the tariff is challenging - Difficult to adapt tariff levels to market developments without creating boom-and-bust cycles.
Renewable Energy Standard	Cheapest among the eligible technologies: **Wind, Biomass, Hydro**.	**Unites States (in 27 states)**	- No efficient support for technologies that are not as far along the innovation chain - Definition of eligible technologies can limit effectiveness - Prices for certificates fluctuate, making for a less clear price signal.
Production or Investment Tax Credit	All renewables ready for deployment: **Wind, Solar, Geothermal, Small Hydro, Biomass, Landfill Gas.**	**United States**	- Needs to be renewed regularly – signal for investors is less predictable - Needs investors with large tax liabilities and elaborate financing models

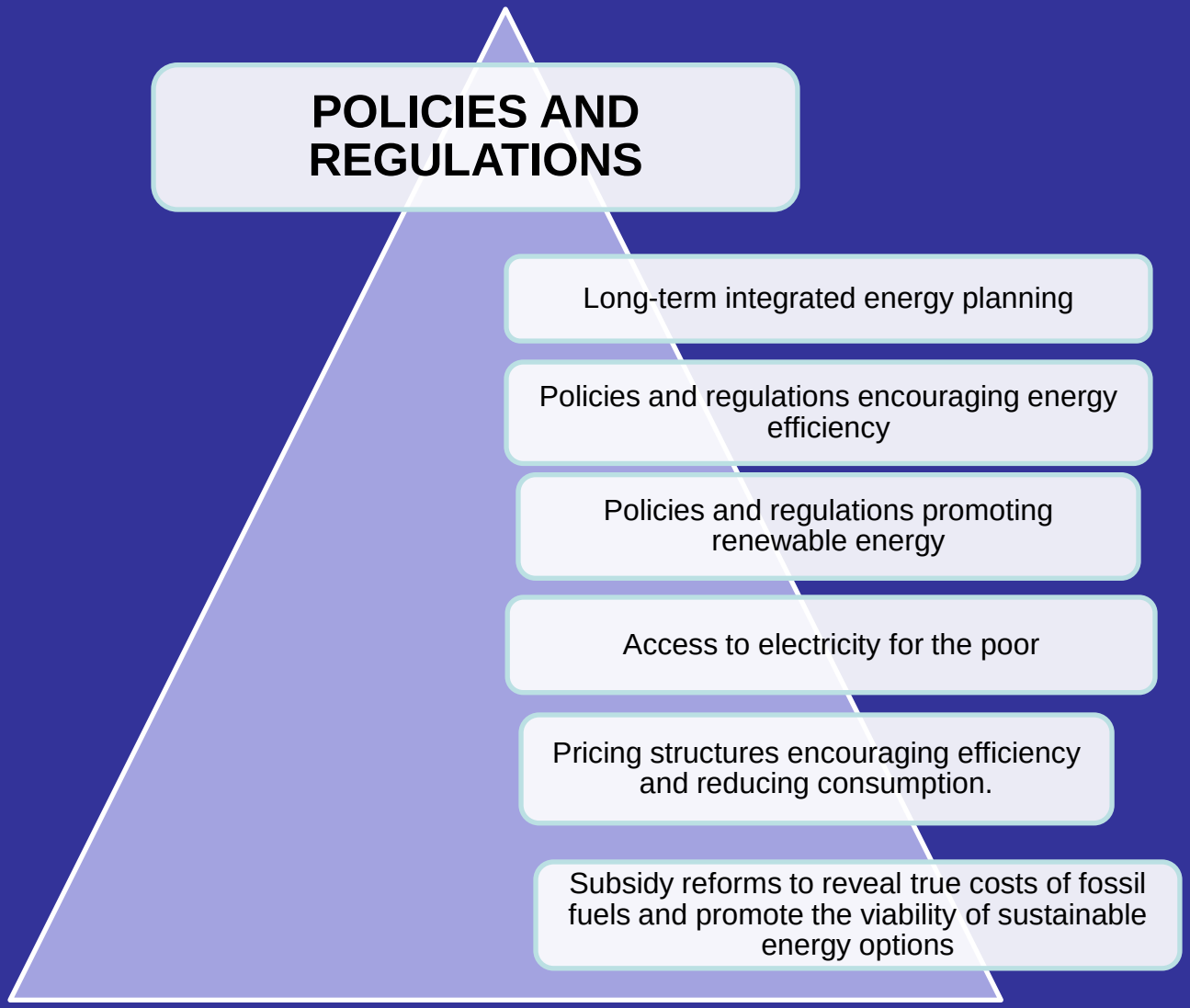
Support policies for renewables

Policy	Technology	Successes	Problems
Production or Investment Grant/Subsidy	All renewables ready for deployment: **Wind, Solar, Geothermal, Small Hydro, Biomass.**	**Unites States (federal and state level)**	- Needs to be renewed regularly – signal for investors less predictable
Government tenders for large-scale projects	Utility-scale renewable projects: **Wind, Solar.**	**China** – wind and solar projects **United Kingdom**, **Denmark**– offshore wind projects	- Unattractive bidding conditions - Lack of predictability/one-off incentive - Lack of transparency - Focus too much on installation price and less on reliable production.
Government Procurement	All renewables, usually favoring cheaper ones: **Wind, Hydro, Biomass**	**United States (federal and state)** **Germany (federal and state)**	- Focus on lowest price, less effective to drive investment in innovative sources.
Tax credits or subsidies for manufacturing	**Large set of technologies,** depending on choices by policy makers.	**United Sates** **Germany** **China**	- Could be seen as trade-distorting and protectionist. - Doesn't necessarily lead to deployment in the subsidizing country.
R&D Support	Technologies at earlier stages on the innovation chain: **Second and Third Generation Solar PV, Concentrating Solar Power, Advanced Biomass, Tidal Power, Technologies for grid integration, storage, batteries**	**Unites States** – DoE National Laboratories and ARPA-E **Germany –** regional solar research clusters **China** - 863 program, 973 program and National Key S&T program	- Risk of failure

WRI Eleven Point Framework for a sustainable Approach to the electricity sector applied to multi-lateral development banks

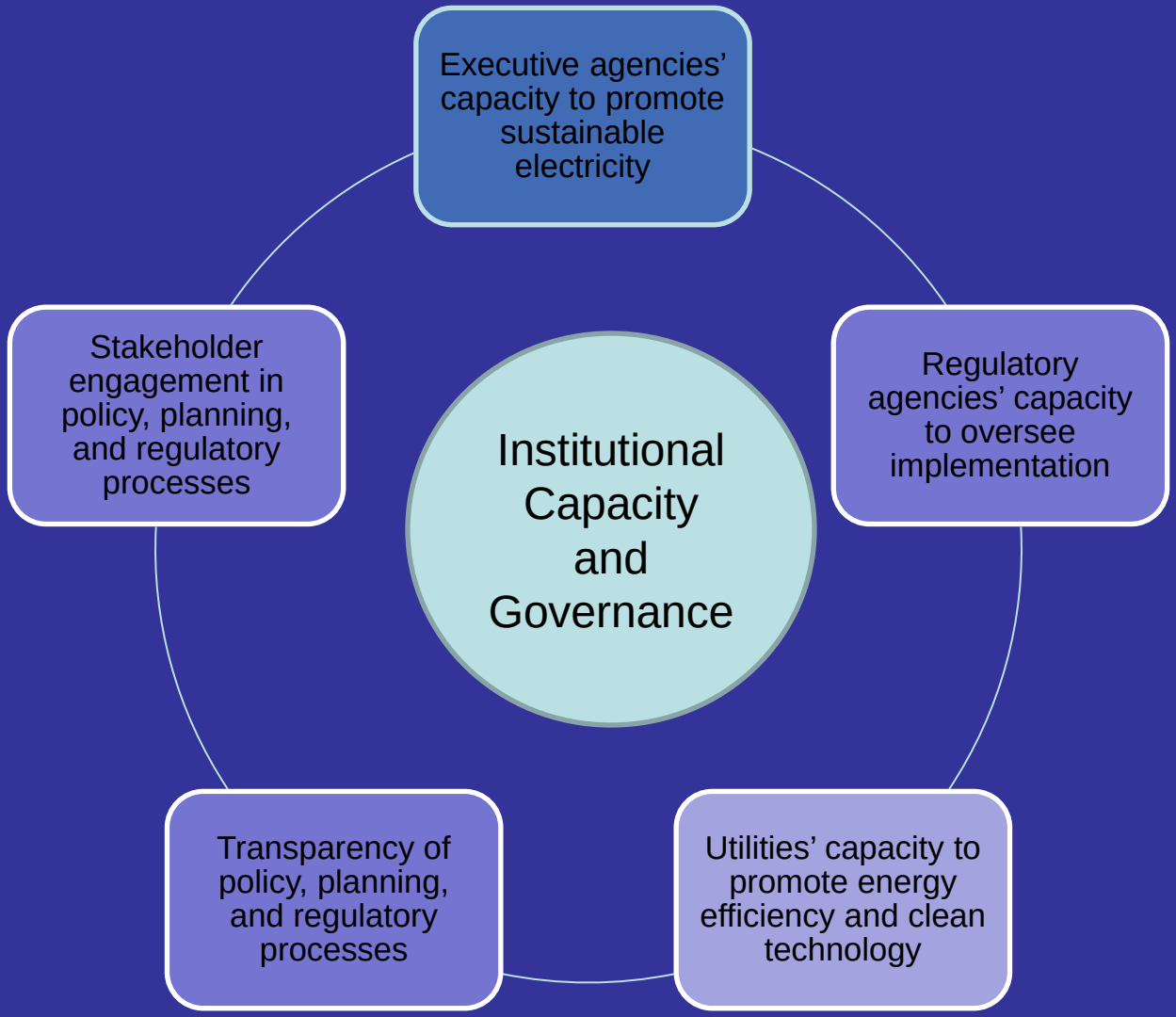
- Approximately 90% of future growth in energy demand by 2030 will come from developing countries
- The World Bank alone has set aside US$55 billion over three years for infrastructure in vulnerable developing countries
- Reviews electricity policy loans to developing countries provided by the World Bank, Asian Development Bank, and Inter-American Development Bank against 11 elements
- WRI: “Investing in Sustainable Energy Futures: Multilateral Development Banks’ Investments in Energy Policy”

Enabling solutions

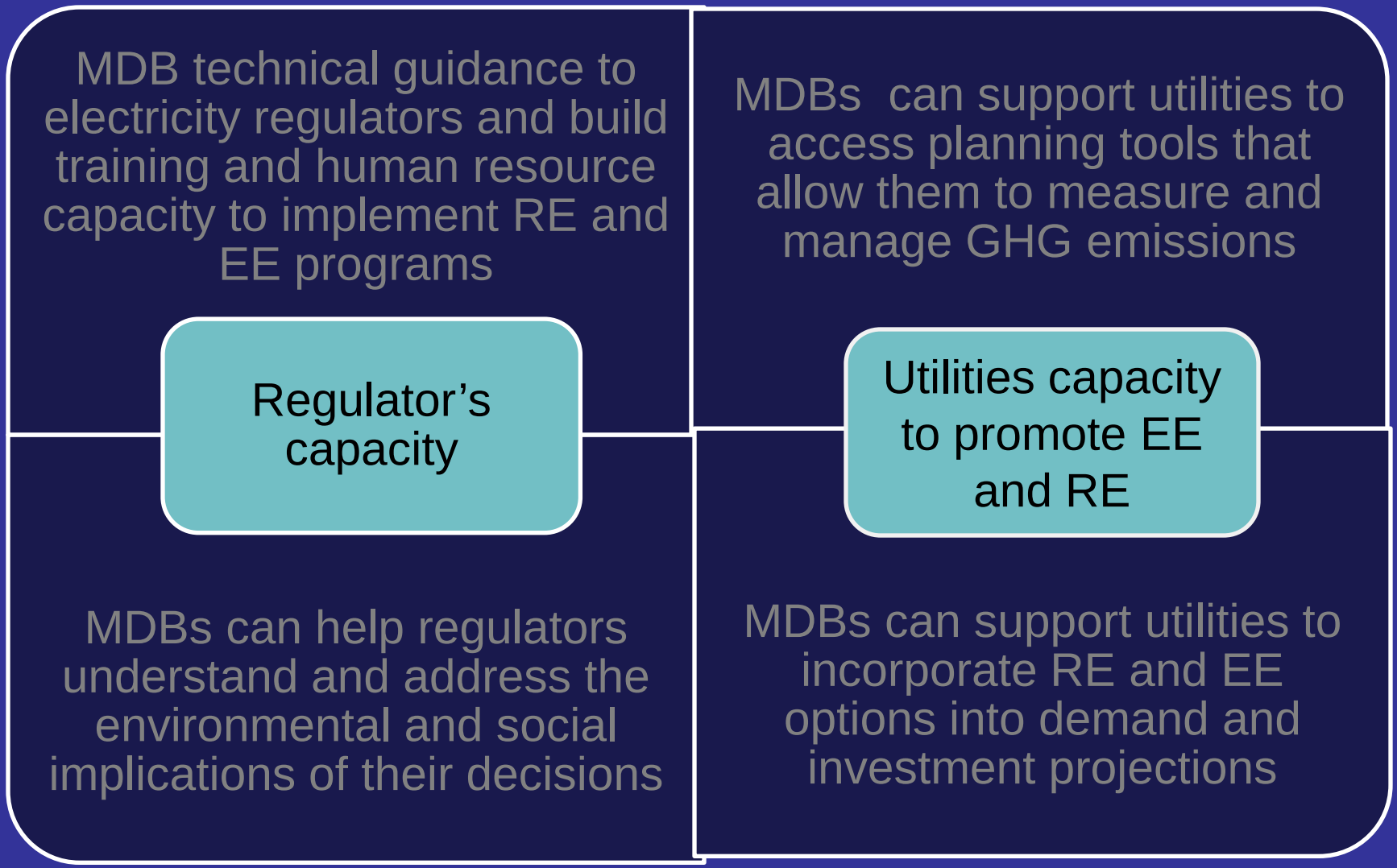


Institutional Capacity and Governance should not be an “add-on” but rather a core part of any program

Enabling solutions



Institutional Capacity and Governance



Institutional Capacity and Governance

Transparency=both the quality of information that underpin decisions in the electricity sector, and the process by which that information is made available for public scrutiny

Transparency of policy, planning, and regulatory processes

MDBs can help developing countries put in place both the systems (eg databases, stakeholder meetings) and the policies (guidance on norms, rules and good practices in disclosing technical information) to make electricity policy and regulation transparent

RE energy requires particular expertise, understanding and skills that are different from those required for conventional, fossil-fueled electricity systems

Executive agencies' capacity to promote sustainable electricity

.MDBs can support training, human resource expansion, and other programs to build the capacity of planning and executive agencies to design effective policies promoting sustainable electricity

Finance – a new innovative idea for financing renewables worldwide?

Innovative Finance Mechanisms Needed

- Global Energy Transfer Feed-in Tariffs (GET FiT) Program to Create a new international Public-private Partnerships.

- GET FiT would efficiently combine a fund of public money directed for renewable energy incentives with risk mitigation strategies and coordinated technical assistance to address project development and financing barriers.

- This combined approach would catalyze the supply of, and the demand for, private sector financing of renewable energy projects in both middle- and low-income countries, while also insuring maximum incentive capture at least cost to the funding partners.

- Importantly, it would provide what we see as crucial for private investors: Transparency, Longevity and Certainty –TLC. GET FiT would serve as a bridge to grid parity for renewable energy both by allowing developing countries to gain experience with renewable resources prior to break-even scenarios, and by adjusting incentive rates to reflect lower prices over time. (GET FiT Program Global Energy Transfer Feed-in Tariffs for Developing Countries, April 2010, Deutsche Bank Group)

- The GET FiT concept could be flexibly adapted to specific national contexts, and could be launched on a bilateral, regional, or global basis.

Conclusions

- Policy and regulation matters
- Institutional Capacity and Governance can make all the difference
- New innovative financing mechanisms needed – GET FIT is one promising proposal