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ADB Energy Sector Portfolio

DEEP DIVE LATERAL LEARNING PROGRAM ON INCLUSIVE ENERGY SOLUTIONS

29 Aug – 2 Sept 2016

The University of Melbourne

Priyantha D C Wijayatunga, PhD
Principal Energy Specialist
Asian Development Bank



Presentation Outline

- ADB Strategy 2020
 - Mid Term Review
- Energy Policy 2009
- Energy Sector Investments
- Specific Examples
- Final Remarks



ADB Strategy 2020

Mid Term Review

- Strategic Priorities
 - Poverty reduction and inclusive economic growth
 - Environment and climate change.
 - Regional cooperation and integration.
 - Infrastructure development.
 - Middle-income countries -Adjusting to the requirements
 - Private sector development and operations
 - Knowledge solutions



Energy Policy

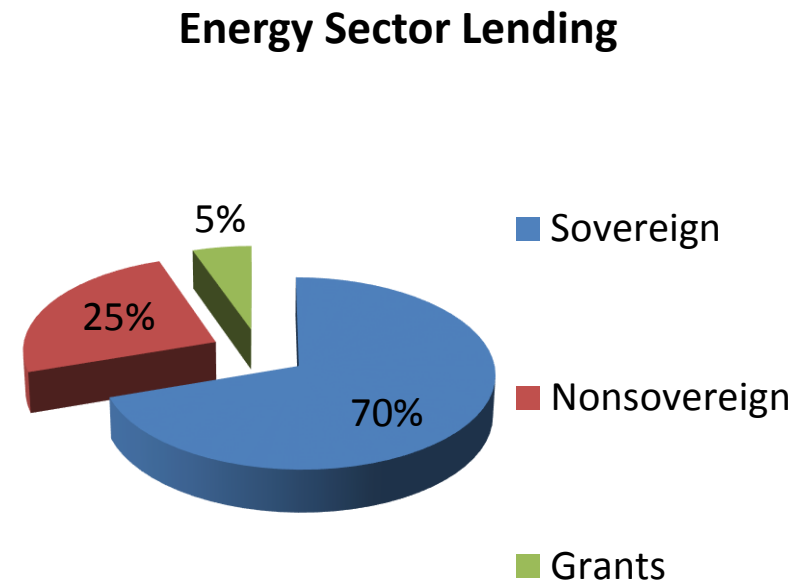


- Promoting energy efficiency and renewable energy
- Maximizing access to energy
- promoting energy sector reform, capacity building and good governance



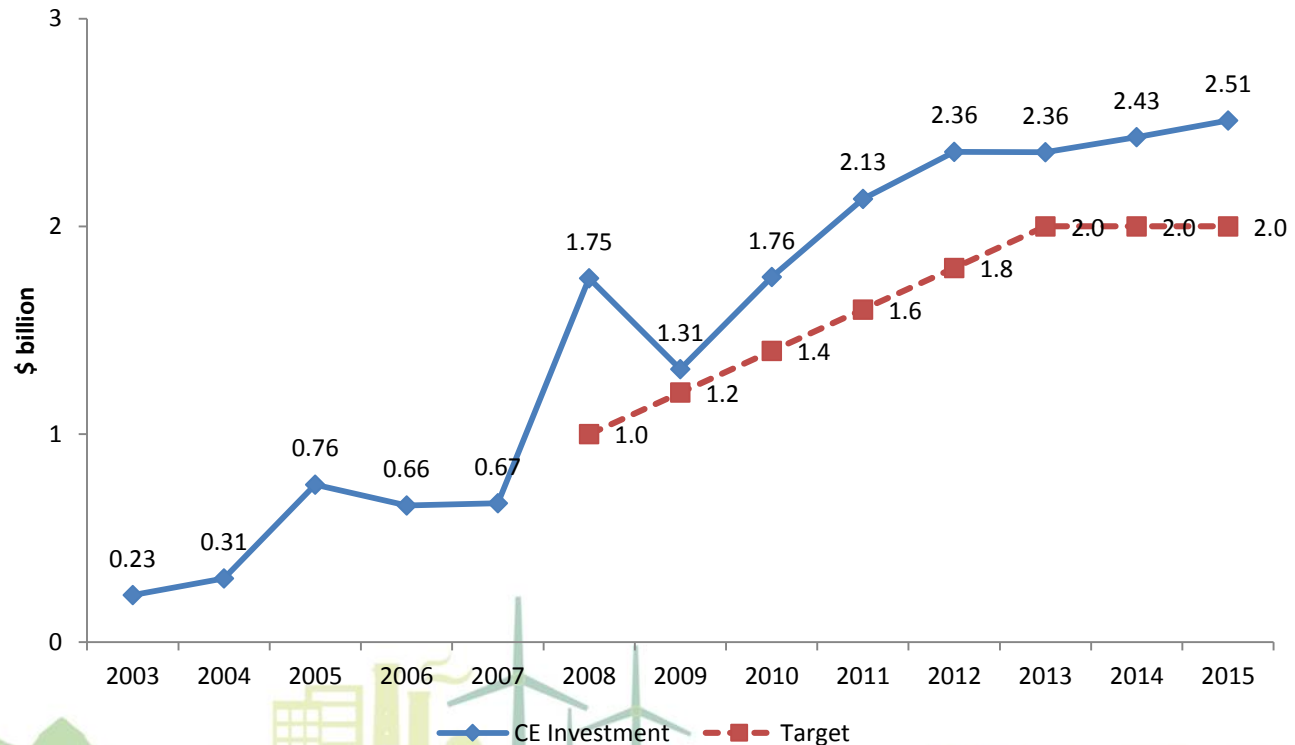
Energy Sector Lending - 2015

- Total Lending \$5.64 billion (41 Loans and Grants)
- Sovereign: \$ 3.94 billion (19 Loans)
- Non-sovereign: \$ 1.4 billion (11 Loans)
- Grants: \$ 304 million (11 Grants)



Growth in Clean Energy Investments

Clean Energy Investment Growth



Clean Energy Investments ...

- In 2015 - \$ 2.5 billion

Clean Energy Investment-Public vs Private Sector, 2015 (\$million)



Public (66.1%)

\$1,833.2

Private (26%)

\$644.5

Source: ADB Database 2015.

Clean Energy Investments ...

Clean Energy Investment by Project Type, 2015 (\$ million)



Energy Efficiency (55.3%)

\$1,370.0

Clean Fuel (5.9%)

\$146.0

Renewable
Energy (33.8%)

\$961.7

Source: ADB Database 2015.



Clean Energy Investments ...

Clean Energy Investment by Sector, 2015 (\$ million)



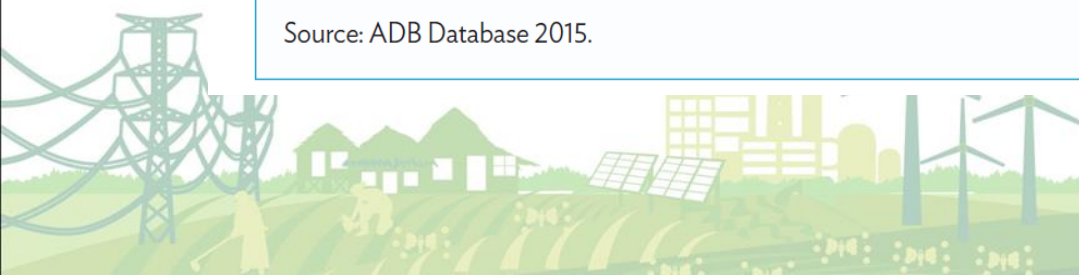
Non-energy (33.9%)

\$839.8

Energy (66.1%)

\$1,637.9

Source: ADB Database 2015.



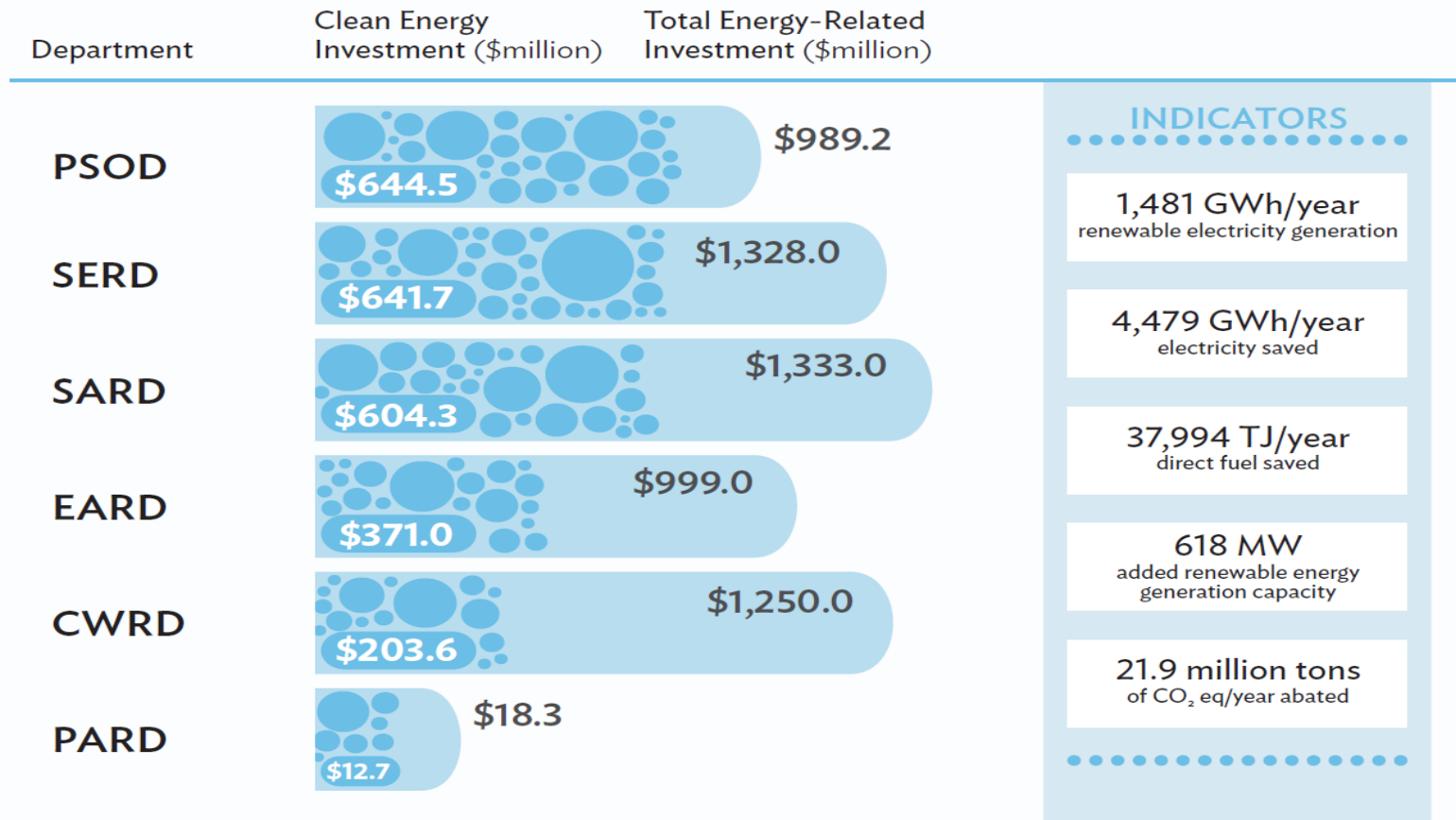
Clean Energy Investments ...

- 2015 investments
 - 1.48 TWh generation per year from RE
 - 4.45 TWh savings per year from energy efficiency
 - 37,994 TJ savings per year of direct fuel savings (about 6.48 million barrels of oil)
 - 22 million tones of CO₂e savings annually



Clean Energy Investments ...

Indicators for Clean Energy Investments, 2015 (\$million)



ADB CE Projects



- Solar and Wind projects
- Hydropower projects
- Concentrated solar thermal power project
- Solar Rooftop program
- Solar-wind-diesel hybrid project
- Off-grid prepaid solar PV



ADB CE projects....

- Generation efficiency improvements
 - Replacing aging hydroelectric equipment and controls
 - Replacing old gas turbine plants with combined cycle plants
 - Adding steam turbines to existing gas turbine plants



ADB CE projects



- Transmission and distribution improvement
 - New lines, substations to reduce overloading
 - High temperature low sag conductors to almost double capacity (Nepal)
 - Segregation of consumers (India)
 - HV distribution



ADB CE projects

- Demand side EE
 - Efficient lighting – Households, small businesses and street lighting
 - Smart metering for prudent use
- Mass transport systems
- Efficient water supply systems
- Improving policy and regulatory environment for CE development



Innovative Projects

- PAK: Power Distribution Enhancement Investment Program II
- UZB: Advanced Electricity Metering Project Phase 2
 - Smart metering
- PRC: Chemical Industry Energy Efficiency and Emission Reduction Project
 - Energy and process efficiency
- PRC: Qingdao Smart Low Carbon District Energy Project
 - RE for district heating and cooling coupled with smart EMS
- COO: Renewable Energy Sector Project
- MLD: Additional Financing for POISED – JFJCM
 - RE integration in mini-grids with smart EMS



Innovative Projects

- IND: Simpa Energy India Private Ltd - Off-Grid Prepaid Solar Leasing Project
 - Innovative financing
- IND: Green Energy Corridor and Grid Strengthening Project
 - RE Evacuation across states
- BAN: Second SASEC Bangladesh-India Electrical Grid Interconnection Project
 - Regional cooperation
- Results–Based Loan for INO: Electricity Grid Strengthening — Sumatra
 - First energy sector RBL
- INO: Sustainable and Inclusive Energy Program
 - Sector reforms



Final remarks



- ADB Energy Policy Continue to be relevant
- Continues its efforts in clean energy development
 - Hand-in-hand with energy access improvement
- Provide soft support to create an enabling environment
 - Introduce new and high level technologies
 - Lessons from other countries and regions
 - Encourage new policies/regulations
 - South-South cooperation





Thank you

Priyantha D C Wijayatunga
E-mail: pwijayatunga@adb.org

