

### 10th BUSINESS OPPORTUNITIES FAIR 2019

ADB

### Energy Sector Helping ADB MCs Decarbonize



DK Kim Sustainable Development and Climate Change Department, ADB 27 March 2019



### **Overview**



- Session Briefing
- Regional/Energy Sector Context
- Energy Sector Strategy
- Energy Sector in ADB
- Energy Sector Operations
- Energy Sector Opportunities







#### **SDCC Energy Sector Group**

Sector Context Sector Strategy Sector Opportunities

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**Regional Departments** 

Region/Country Strategy Lending/Non-Lending Pipelines Key Opportunities

# **Regional/Energy Sector Context**



International Energy Agency data show:

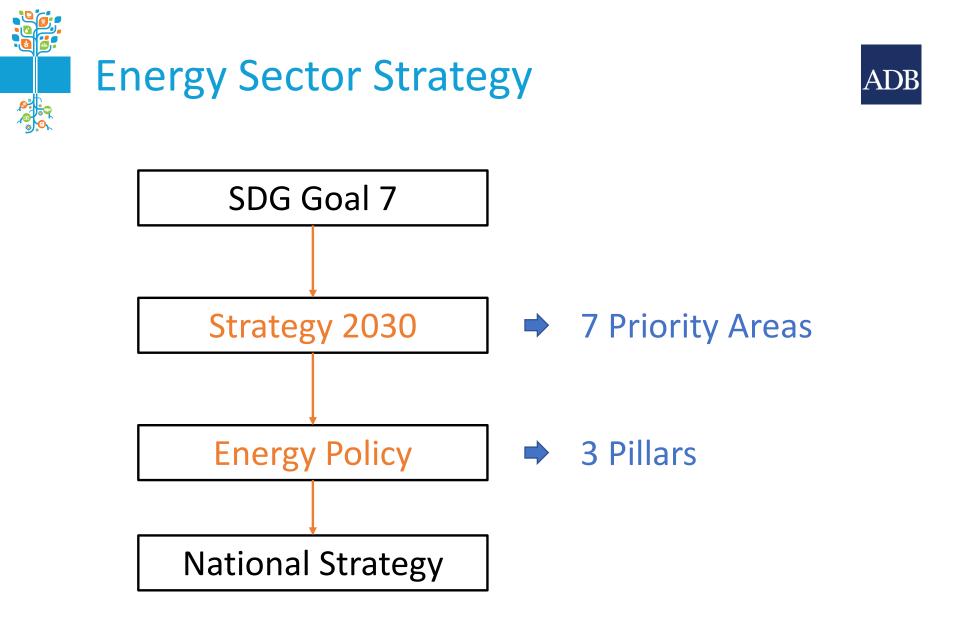
- CO<sub>2</sub> emissions reaching 17.4 GtCO<sub>2</sub> in 2016
- Coal accounted for 60% of emissions in 2016
- Electricity and heat generation accounted for about 25% of global emissions in 2016
- Around 351 million people in Asia do not have access to electricity in 2017
- About 1.5 billion people in Asia rely on biomass for cooking in 2017

# **Regional/Energy Sector Context**



Developing Asia is given the opportunity to:

- Transition to low-carbon growth by disengaging the linkages between energy demand and CO<sub>2</sub> emissions
- Diversify its energy mix by developing renewable energy for energy security
- Alleviate poverty by increasing energy access





# **Energy Sector Strategy**



#### Energy Sector Contributions to the Strategy 2030

<b>Operational Priorities</b>	Energy Sector Contributions
Addressing remaining poverty and reducing inequalities	Clean energy for meeting basic needs (lighting and cooking; skills development and job creation in renewable energy development; productive use of energy to generate income)
Accelerating progress in gender equality	Clean energy access allows women to shift the time and effort in collecting traditional fuel to more productive and income-generating activities
Tackling climate change, building disaster resilience	Integrating climate change mitigation (GHG reduction) and adaptation in project design



# **Energy Sector Strategy**



#### Energy Sector Contributions to the Strategy 2030

<b>Operational Priorities</b>	Energy Sector Contributions
Making cities more liveable	Supporting smart electricity supply in cities, energy efficient buildings, deployment of electric vehicles, rooftop solar PV in households and commercial buildings
Promoting rural development and food security	Supporting solar-powered pumps for smart irrigation to replace diesel or electricity- powered systems
Strengthening governance and institutional capacity	Promoting energy sector reforms and developing institutional capacity for renewable energy development
Fostering regional cooperation and integration	Promoting energy connectivity (power interconnections, gas pipelines) and sharing best practices and technologies in renewable energy development



# **Energy Sector Strategy**



#### 2009 Energy Policy:

Helping ADB developing member countries (DMC) provide reliable, adequate, and affordable energy for inclusive growth in a socially, economically, and environmentally sustainable manner.

#### Energy Policy pillars of implementation:

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

# **Energy Sector in ADB**



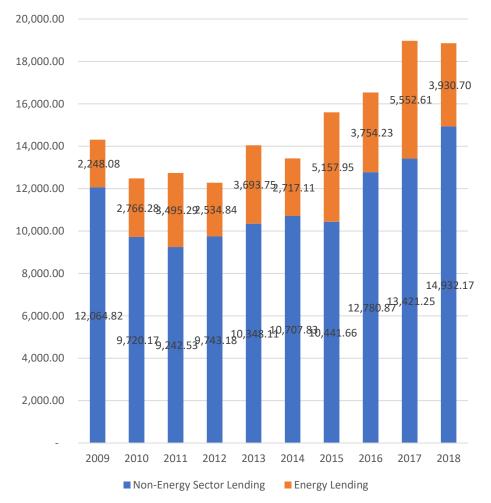
#### **Contributions:**

- Clean energy investments (renewable energy, energy efficiency, and fuel switching): \$2 billion annually
- Climate mitigation finance (share of the sector to ADB's climate finance target of \$6 billion by 2020): \$3 billion by 2020



### **Energy Sector in ADB**



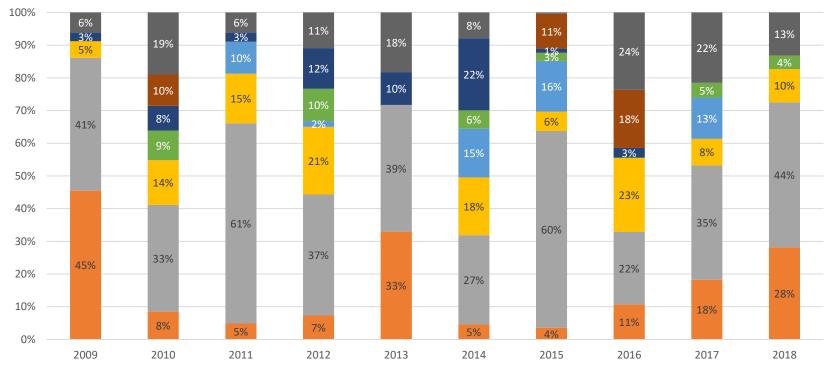


- Average Energy Sector portfolio: 24%
- The largest share in 2015: 33%
- The highest lending in 2017: \$5.5 billion



### Energy Sector Operations (Sovereign)





#### Energy Sector Portfolio by subsector, in %

Conventional Energy

Energy Efficiency and Conservation

Energy Utility Services

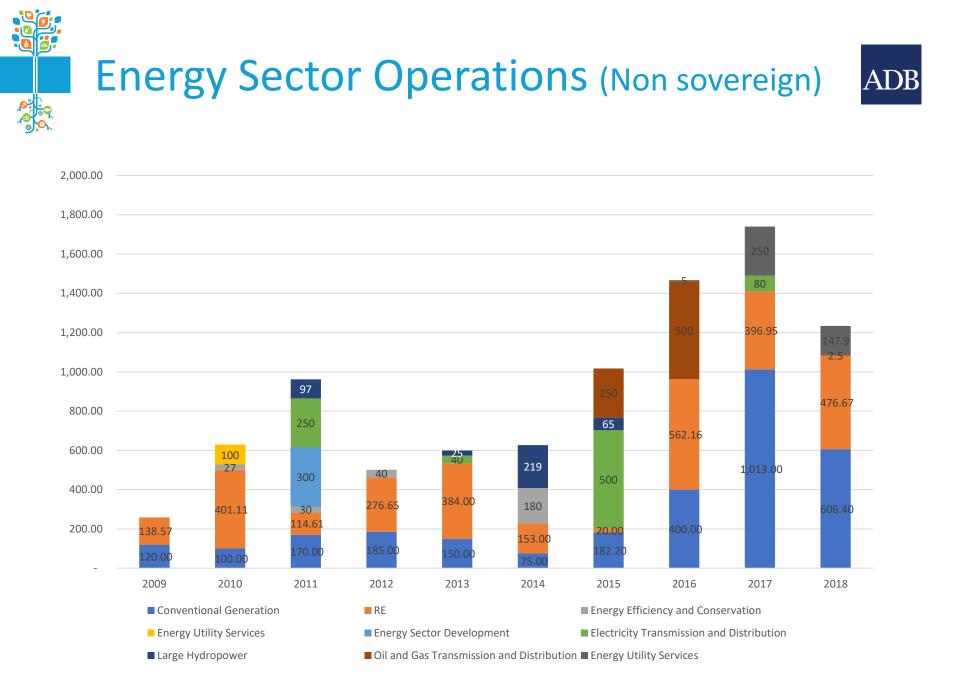
Oil and Gas Transmission and Distribution

Electricity Transmission and Distribution

Energy Sector Development and Institutional Reform

■ Large Hydropower Generation

Renewable Energy



# **Energy Sector Operations**



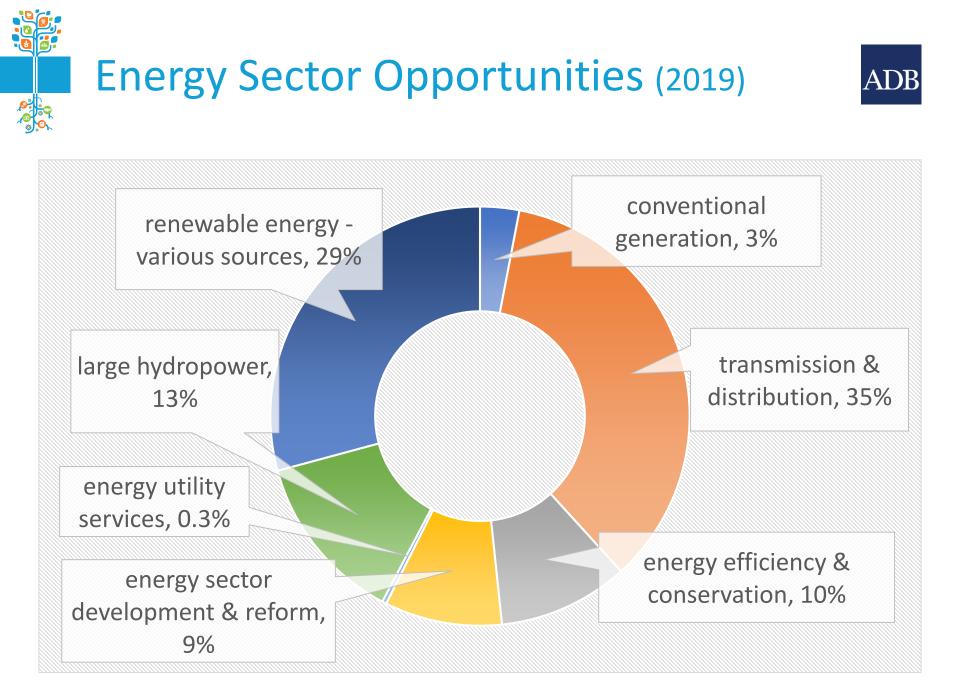
- An average of 40% in transmission and distribution
  - These projects consist of T&D expansion and improvement that comes within the purview of energy access and energy efficiency
- An average of 19% in renewable energy
  - These projects include large, small, minihydropower, solar PV, onshore wind, geothermal, biomass and waste conversion
- An average of 12% in energy efficiency and conservation
- An average of 5% in energy sector development



# **Energy Sector Opportunities**



- Overall direction: scale up clean energy and energy access projects
- Subsector focus: energy access, distributed generation, integration of variable renewable energy and energy efficiency in transmission and distribution
- Technologies: smart grid, battery energy storage system, other RE technologies (e.g. WtE), mini/micro-grids





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# Thank you!

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