



INDIA

Although in 2009 India was 10th in private investments within the G-20 members, it is on track to climb to third position after China and the United States in the next decade. Under the enhanced policies scenario, investments in India increase by a staggering 763 percent during the decade. Even under current policies, private asset financing in India increases by 369 percent from 2010 to 2020. In the enhanced policy scenario, the cumulative investment potential in India over the decade is projected to be \$169 billion, which would leverage installation of 91 GW of renewable energy generating capacity.

India's strategy is to encourage the development of renewable sources with incentives offered at the federal and state levels. Generous feed-in tariffs have made India a leading nation for wind power. Indeed, 39 percent of the additional investments under the enhanced clean energy policies come from wind financing. There is significant potential in India for power generation from renewable energy sources besides wind, in particular small-hydro, biomass and solar energy which are incentivized through feed-in tariffs.

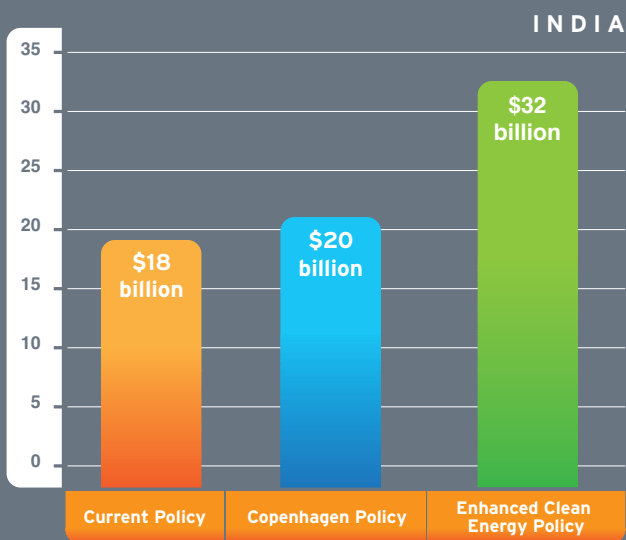
Already, India is one of the leading G-20 members in installed wind with more than 12 GW and recently showed it is not playing favorites, committing to a whopping 20 GW of solar by 2022. The country has feed-in tariff programs for both wind and solar and beneficial accounting procedures and tax incentives for all renewables, which have led to substantial biomass and small-hydro development. Its support

for renewables has also helped it establish a strong renewable energy equipment manufacturing base.

The country has completed rules for credit trading under its renewable electricity standard and designated a central exchange where credits can be bought and sold. Trading is now likely to begin in 2011. India has also expanded its 2012 clean energy targets, increasing the planned installed capacity across all sectors after it met the original targets two years early. These new targets should provide some market certainty for investors until the RES is in place. After Copenhagen, India pledged to reduce its emissions intensity – CO₂ emitted per unit of GDP – at least 20 percent below 2005 levels by 2020 but stressed in its letter to the United Nations that its commitment was not legally binding.

India's slow legislative pace has hindered its market growth. The government should work to improve its procedures for implementing the many clean energy policies and programs. India should also invest heavily in transmission and smart grid technology to improve grid connection for renewable energy projects, which has been a bottleneck for development. The government should also consider extending its wind incentive programs to offshore development and making investments in offshore wind technology development programs to foster a venture capital market and take advantage of its wind resources. Finally, India should invest and incentivize carbon capture and storage technology work and demonstration projects.

FIGURE 33. INVESTMENT IN RENEWABLE ENERGY ASSETS, 2020 (BILLIONS OF \$)



NATIONAL CLEAN ENERGY POLICIES	
Carbon Cap	
Carbon Market	
Renewable Energy Standard	
Clean Energy Tax Incentives	✓
Auto Efficiency Standards	✓
Feed-in Tariffs	
Government Procurement	✓
Green Bonds	✓

1 Includes investments in venture capital and public markets, and asset finance for all clean energy technologies including biofuels and energy efficiency.

2 Incentives primarily through provincial investments

FINANCE AND INVESTMENT (2009) ¹	
Total Investment	\$2.3 billion
G-20 Investment Rank	10
Percentage of G-20 Total	2%
5-Year Growth Rate	72.0%

INSTALLED CLEAN ENERGY (2009)	
Total Renewable Energy Capacity	16.5 GW
Total Power Capacity	9.0%
Percentage of G-20 Total	6.6%
5-Year Growth Rate	31.0%
Key Renewable Energy Sectors	
Wind	10,891 MW
Small-Hydro	2,520 MW
Biomass	2,057 MW

KEY CLEAN ENERGY TARGETS (2012)	
Wind	17,582 MW
Small-Hydro	3,358 MW
Biomass	2,840 MW

KEY INVESTMENT INCENTIVES ²	
Wind, Solar	Feed-in tariffs
Small-Hydro, Biomass	Accelerated depreciation of 80% in year one
Renewable Energy Projects	Preferential tax rate of 15% instead of the standard 30%