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ENHANCING NDCS: OPPORTUNITIES IN THE POWER SECTOR

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SUBRATA CHAKRABARTY

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POWER SECTOR MATTERS

Surging demand for electricity generation

- Electricity accounts for two-thirds of global emission growth
- Largest source of energy-related CO₂ emissions

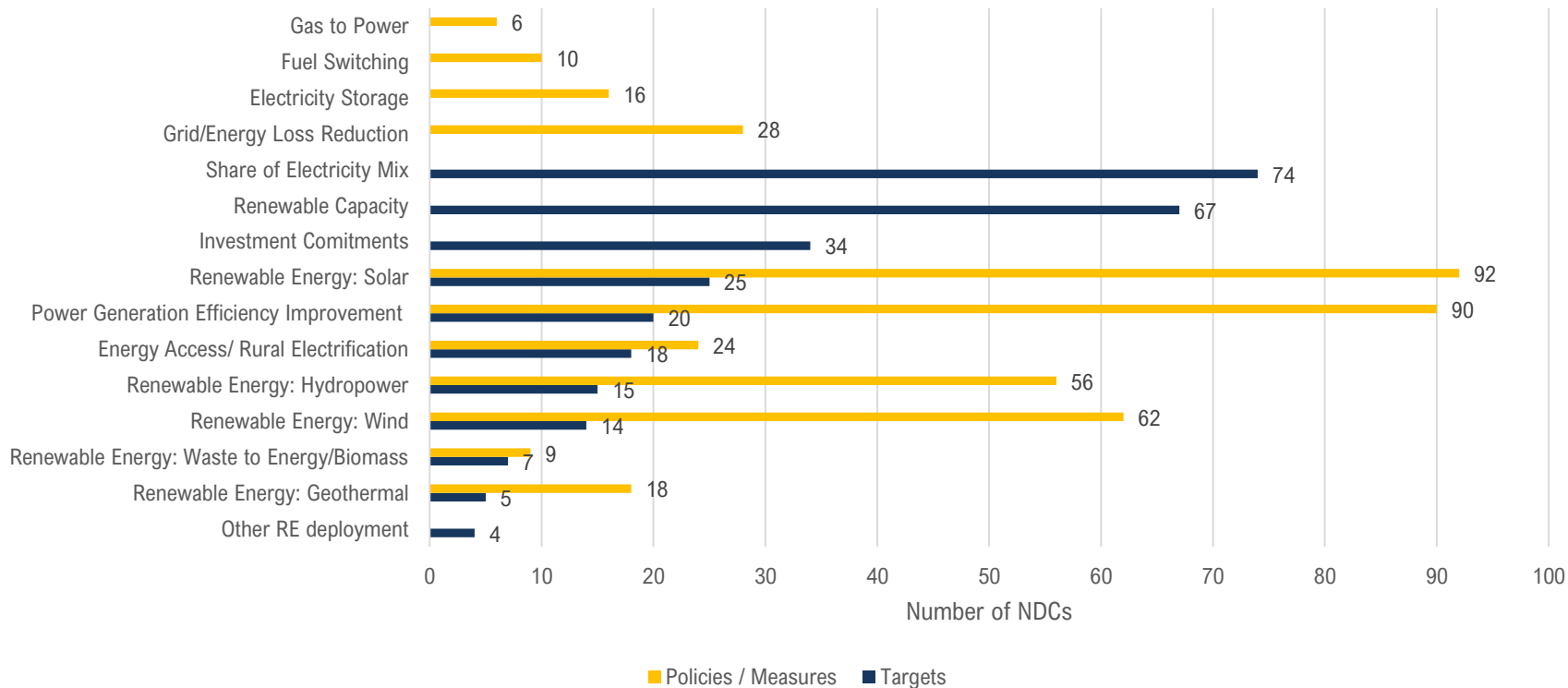
Crucial for sustainable development

- Reliable power is essential for raising and maintaining standards of living
- Synergies b/w decarbonizing power supply and the SDGs

Untapped potential for proliferation of renewables

- Coal remains largest source of electricity generation with 38%
- 1.5°C scenarios project that the share of RE in power will be 70%+ by 2050

POWER SECTOR IN CURRENT NDCs



KEY OPPORTUNITIES



Renewable energy costs have plummeted since the first round of NDCs



End-use electrification set to skyrocket



New business models emerging to promote RE deployment, efficiency, energy access, and local revenue generation



Storage technologies show huge deployment and cost reduction potential



Digital technology is a key amplifier of power system transformation

FOUNDATIONAL STRATEGIES

- Plan for enhanced grid flexibility
- Strategy to address existing coal assets
- Institutional changes
 - Market regulations
 - Carbon Pricing, Air Pollution Pricing
 - Distribution utility reforms
- Integrate sector coupling solutions
 - EE in end-use sectors
 - Electrification of end-use sectors

REFLECTING ENHANCED AMBITION IN THE POWER SECTOR NDC (NON EXHAUSTIVE)

- Enhanced grid flexibility in the NDCs:
 - quantified energy storage targets,
 - targets for smart-meter deployment
- Plans to address existing coal assets in the NDCS :
 - commitments to address existing fossil fuel assets (coal phase-out target),
 - commitments to no new added capacity after current project pipeline
 - air quality targets related to the power sector
- Institutional changes as policies and measures in the NDCs:
 - Carbon pricing/air pollution pricing
- Integration of sector coupling solutions in the NDCs:
 - Power consumption reduction targets in end-use sectors going beyond just shifting to renewable sources of power generation

THANK YOU!

Access these reports at:

<https://www.wri.org/stepping-2020-ndcs>