



WRI INDIA

TRANSITION TO RENEWABLE ENERGY

AQA India Strategy Session 2021

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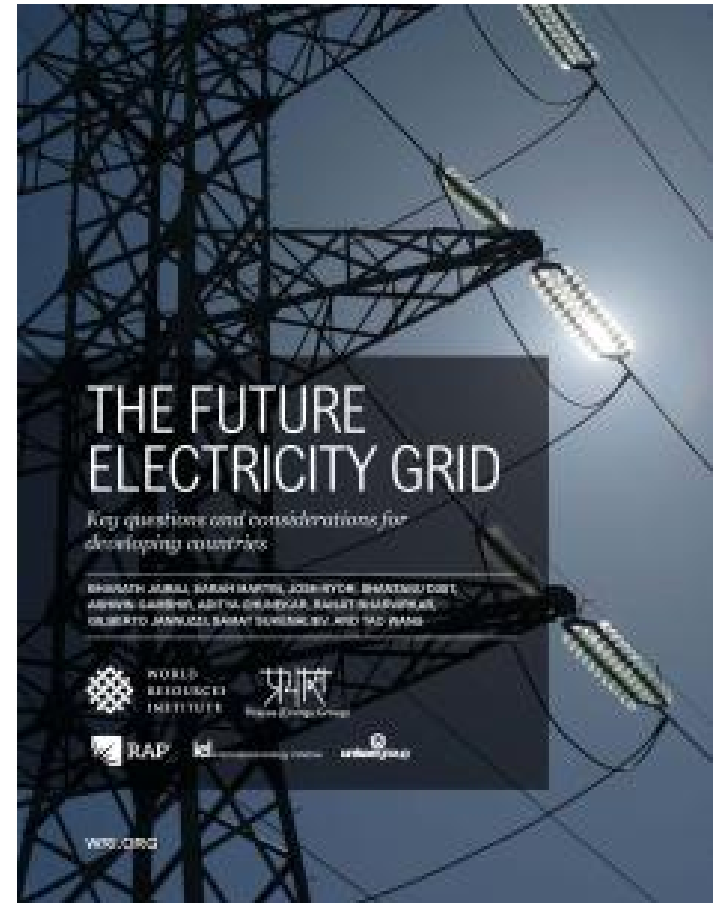
ENERGY SECTOR IS RAPIDLY CHANGING

Globally, we are seeing:

- Unprecedented growth and cost improvements in Renewable Energy (RE) sources
- Growing instability in fossil-fuel supply and prices
- Growing support from governments and investors for RE
- Electricity generation by new and different entities

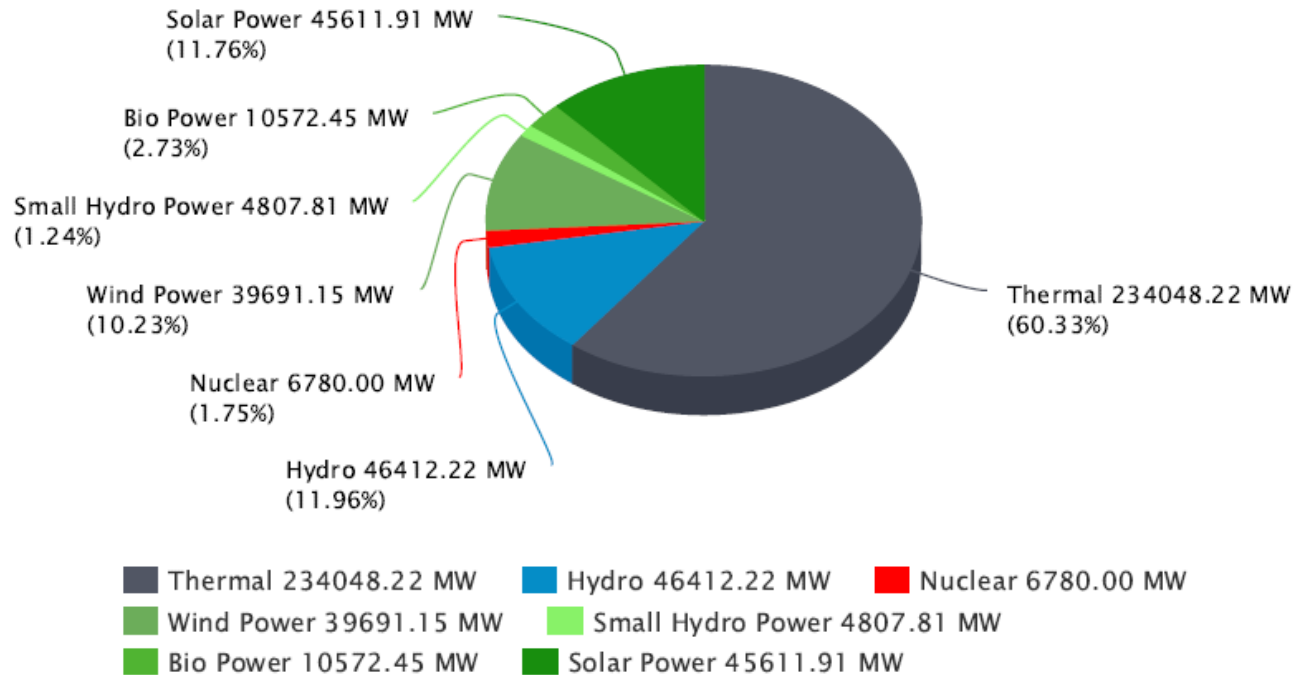
Report recommended:

- Overcome technical limitations on grid (compatibility and interconnection)
- Ensure system reliability and improve service quality
- Rethink institutional frameworks and strengthen sector governance



INDIA'S RE TRANSITION IS UNDERWAY

Total Capacity : 387923.75 MW



- Impressive and aggressive RE targets:
 - By 2030, 40% of total installed capacity from non-fossil fuel
 - 175GW of RE by 2022; 450GW of RE by 2030
- 100 GW of RE (non-hydro) as of Aug 2021 - 4th in the world

THE JOURNEY...



Alternative fuels - YES, but also finance, reliability and resilience

CHALLENGES



Changing demand pattern



Evolving technologies on the supply side which are intermittent in nature



Inter sectoral linkages are missing



Lack of convergence between different sectors



OPPORTUNITIES

- Aggressive renewable energy targets
- Storage is accessible: Need robust integration strategy
- Companies shifting to diversified renewable options
- More electrification of transport
- Industrial decarbonization: Looking for green options
- Role of DRE and benefit for end-users

THE UNEVEN PROBLEM:

Resource impacts

- Air, water, land, climate vulnerability, flora and fauna

Human impacts

- Health, land, labour, livelihoods, rights, maladaptation, displacement

Should not repeat mistakes – especially on environmental and social impacts, and lopsided economic arrangements for sharing benefits

TRANSITION TO RENEWABLE ENERGY...

- Still dependant on coal, though RE is growing rapidly
- Coal versus RE is inadequate. Need to explore holistic, integrated energy mix
- Transition must not be limited to technologies, but also reliability, resilience and finance
- Transition must not further the inequities of current systems