



Implementing the Global 2030 Ambitions

Integration and Planning

A case of Pakistan

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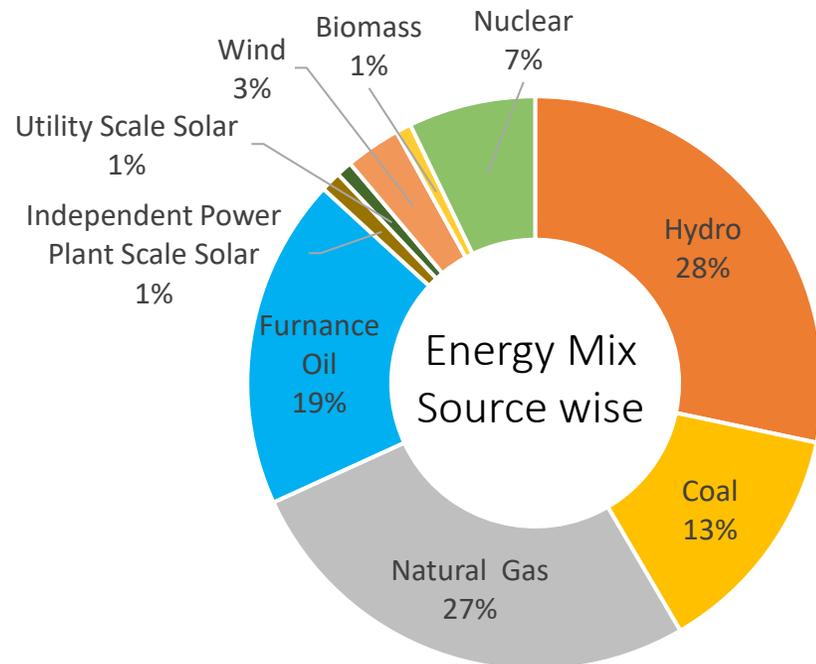


Power Sector of Pakistan- An Overview

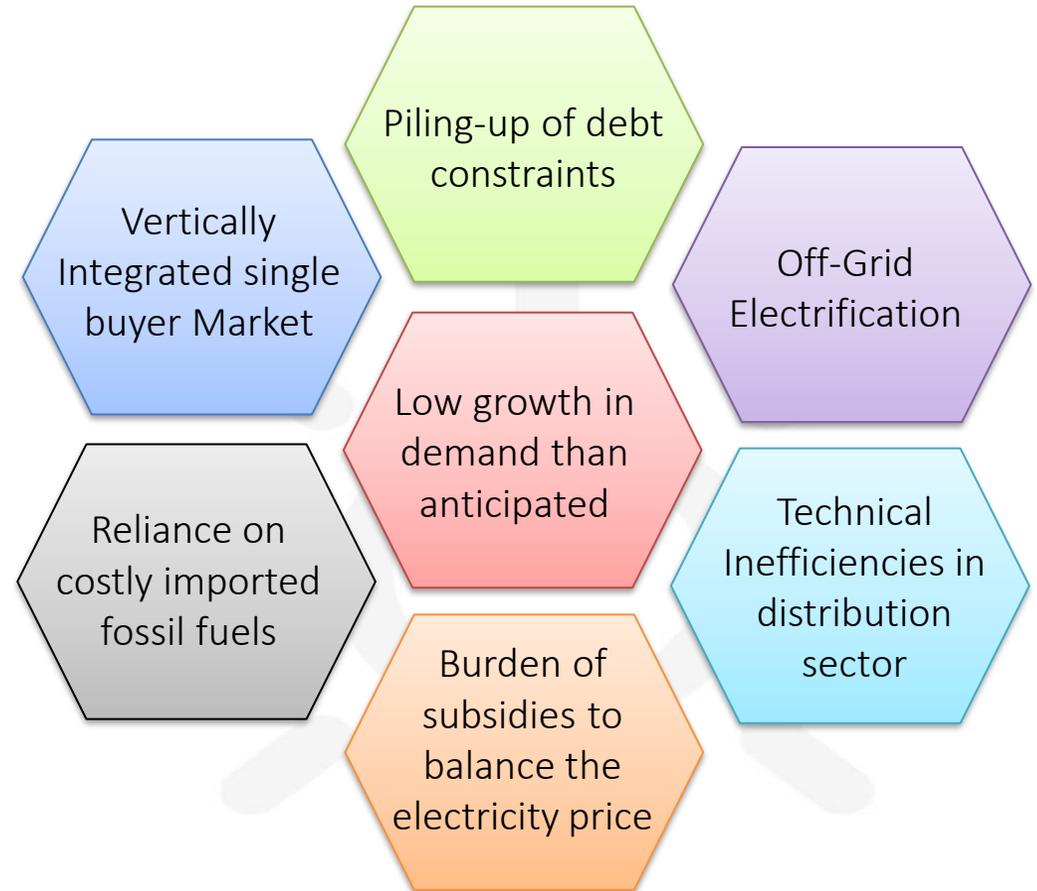
Total Installed Power
Generation Capacity 39 GW

Total Peak Demand 25 GW

Power Transmission and
Distribution Limits 22 GW



Challenges for the power sector



Renewable Energy Transition in Pakistan- A Cogent Case

The upraise of renewable energy integration to 30% is mandated to be achieved by year 2030

To achieve the targets, the regulatory bodies and facilitating organizations are working ambitiously

Milestones Achieved

Adoption of Alternative and Renewable Energy Policy, 2020

Roof-top solar adoption has reached to the level of 310 MW attached with the utility grid

15 GW of renewable energy based power projects are committed to be integrated by year 2030

Drivers and Enablers



High vulnerability from climate change impacts



Independence from high cost conventional energy sources



Cost Effectiveness of the renewable energy sources



Environmental Concerns



Active participation from the business entities

Barriers surrounding Renewable Energy Transition

Inconsistent
Tariff
Settlements

Lack of
intermittency
control of VREs

Grid
Infrastructure
Bottlenecks

Reliance on
Foreign
Markets

Lack of Advanced
Technical
Expertise

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Market Transformations towards multiple buyer model

The market transformation towards Competitive Trading Bilateral Contract Markets (CTBCM) is going to be evidently realized in year 2022

Promising Features of CTBCM



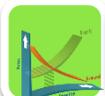
Fair Allocation of risk and benefits



Removal of guarantees provided by government



Transparency in cash flows



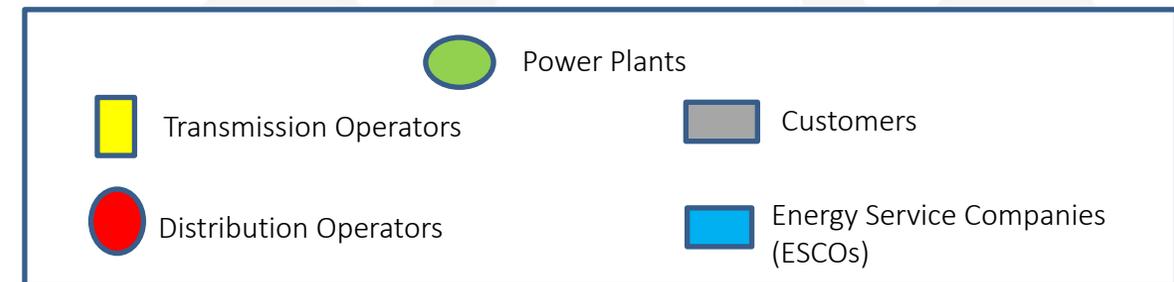
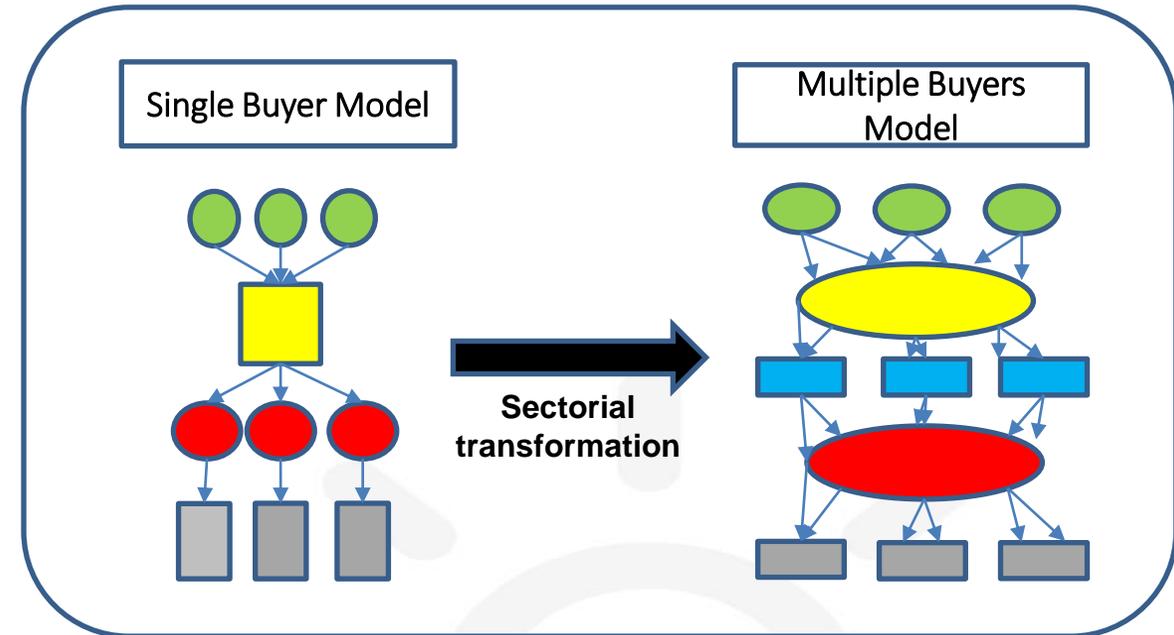
Robust supply and demand forecast



Power Security



Attraction and Indulgence of emerging technologies

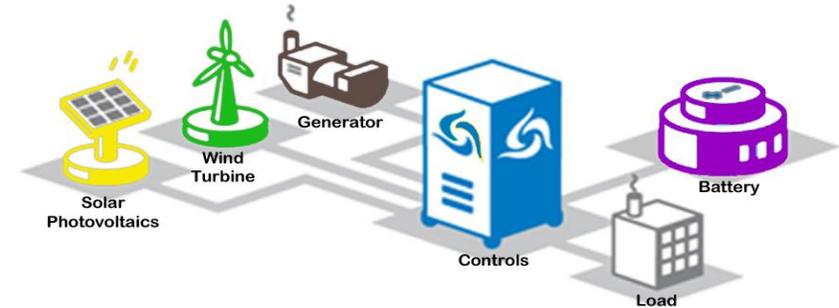


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Transformational Changes and Incitation of new techniques

A massive portion (about 62%) of the population resides in rural areas

In the whole, about 35% of the residents lack electricity provision, or resides in weak grid areas

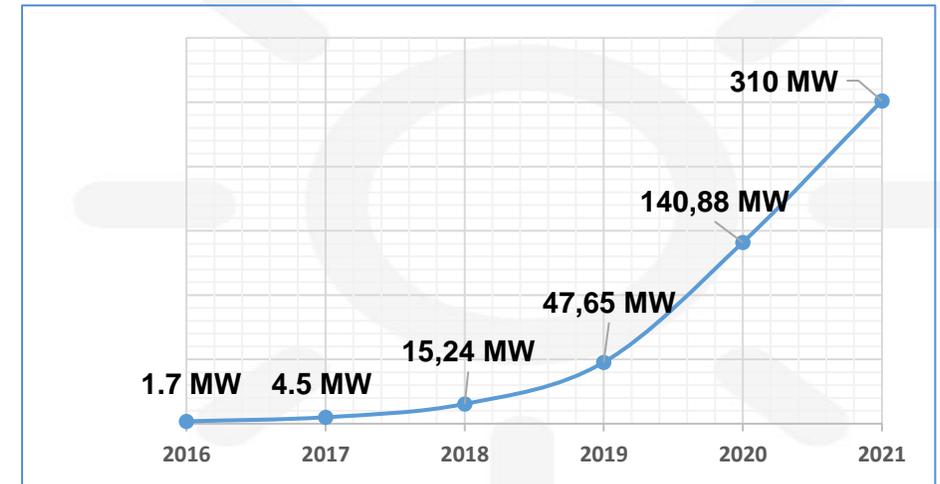


The Micro-grids and Mini-grids are to be incorporated for the electrification of far-flung areas where grid connectivity is lacked

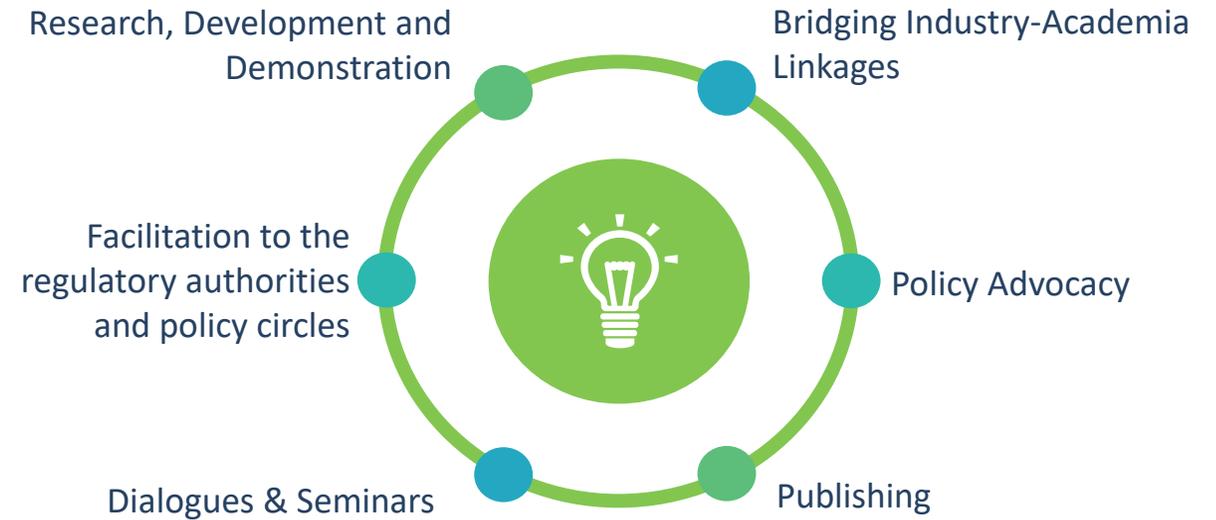
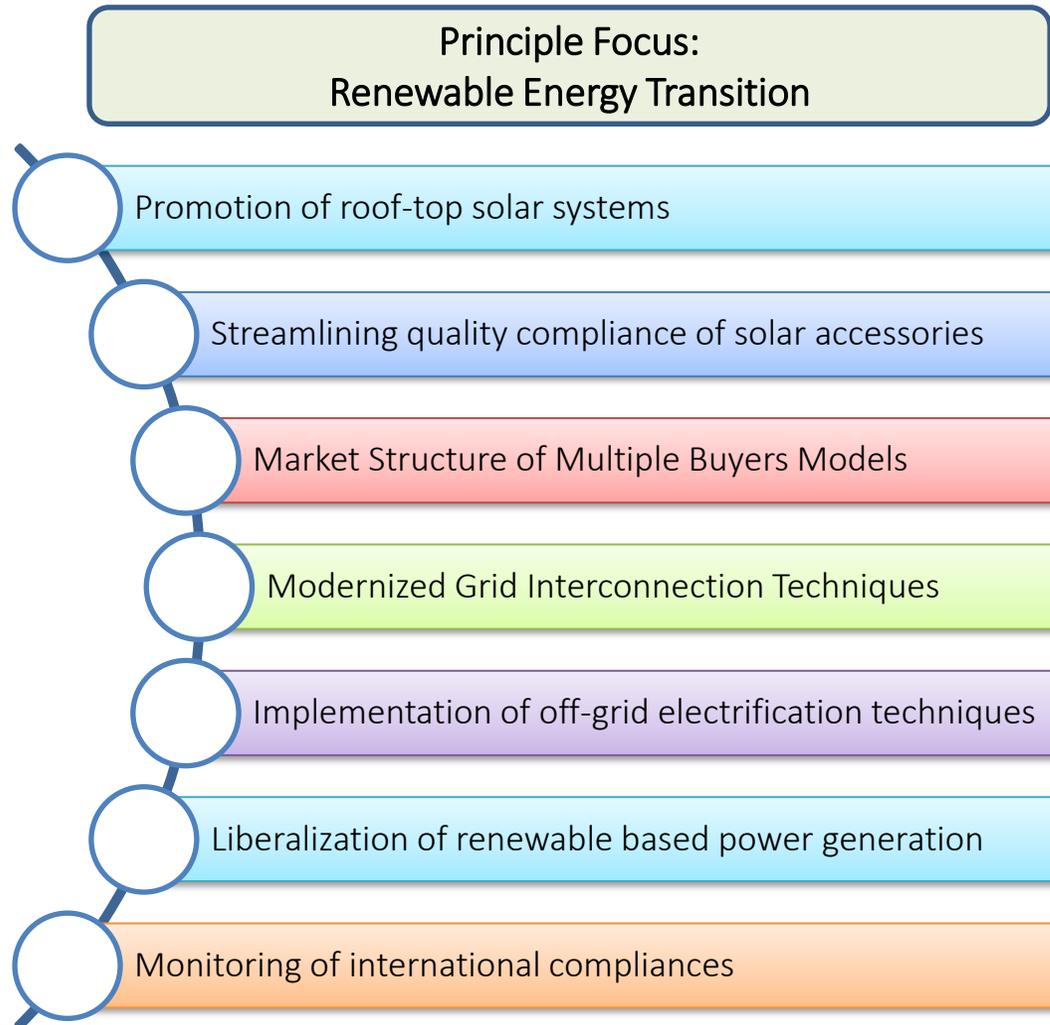
Solar Photovoltaics based Distributed Generation- A prospective electricity policy

Roof-top solar systems are on mushroom growth, in adoption by residential, commercial and industrial consumers of the utility grid

A rise of more than 170% in a year !!!



How Institute of Policy Studies (IPS) moves the needle forward





Let's make our effort for cleaner, green and sustainable co-existence