



Renewable Energy – policies and challenges

-Developers perspective

-Raghunath Mahapatra

CSE - Annual South Asian Media Briefing on Climate Change, 2013

18 September 2013

WELSPUN GROUP

- One of the fastest emerging Indian conglomerates with revenues of over \$3.5 billion
- Diversified business interests with leadership position in each business
- Welspun Corp, the flagship company of the group is the world's largest steel pipe producer
- Key Markets
 - ✓ 80% export to US, Europe, Latin America, Middle East
- International Setup
 - ✓ Christy, UK
 - ✓ Sorema, Portugal
 - ✓ Textile facility in Mexico
 - ✓ Office in Manhattan-NY, Huston-US
 - ✓ Pipe facility in Arkansas, US
 - ✓ Pipe Facility in Saudi Arabia

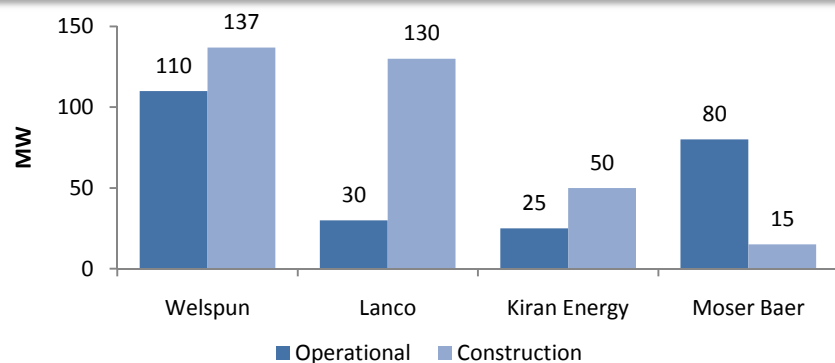


WELSPUN RENEWABLE ENERGY

- AMONG TOP RENEWABLE ENERGY IPPS IN INDIA

Only business group in India to win largest capacities in both JNNISM – I & II

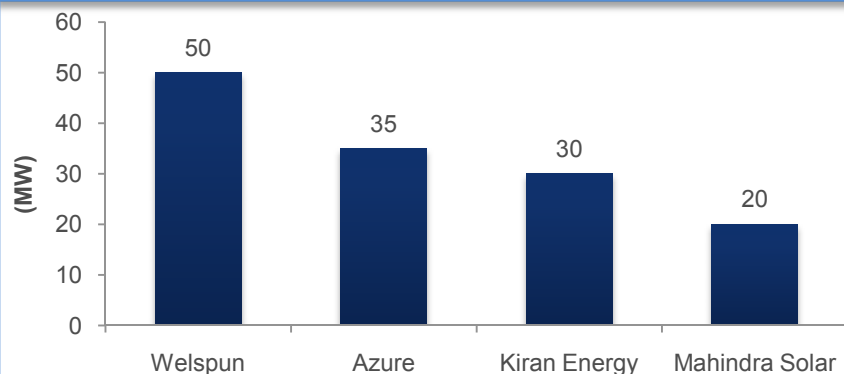
- Pioneer in Renewable energy space



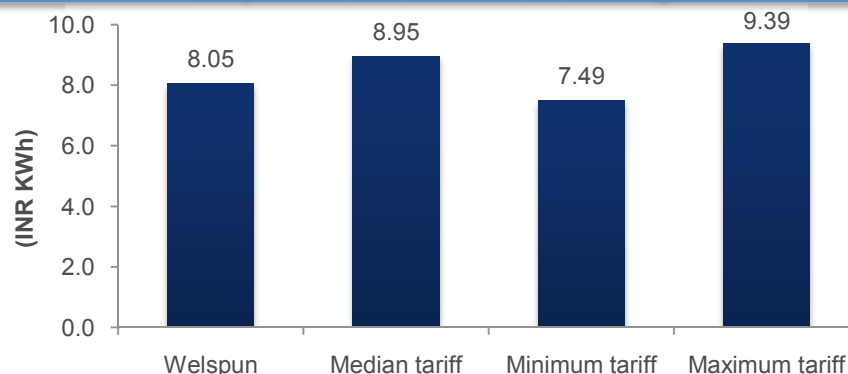
- Won “The most innovative power producers in Asia” award for the 15 MW solar power project at Anjar

- Welspun Energy Limited (WEL) has been recognized as one of the most innovative power producers in Asia for its 15 MW solar power project at Anjar (Gujarat)

- Has won maximum capacity allocation...



- ...at low tariff – demonstrates its ability to beat competition and continue to realize growth



OUR PROJECTS

Welspun Renewables : Solar

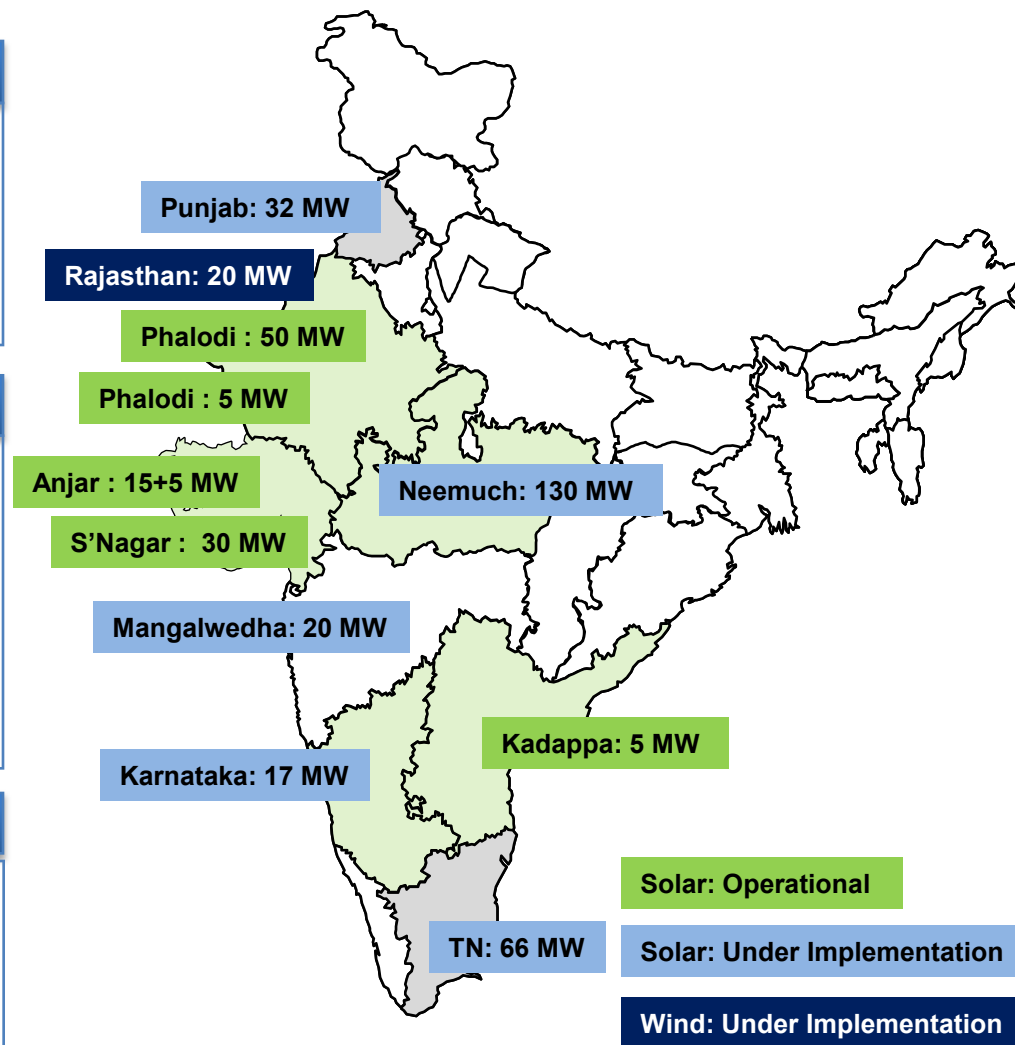
- Large Business Conglomerates with substantial Renewable Energy Plans
- Proven track record in timely project execution
- Focus on Solar and wind energy
- Strong in-house technical and engineering team

Operational Capacity (131 MW)

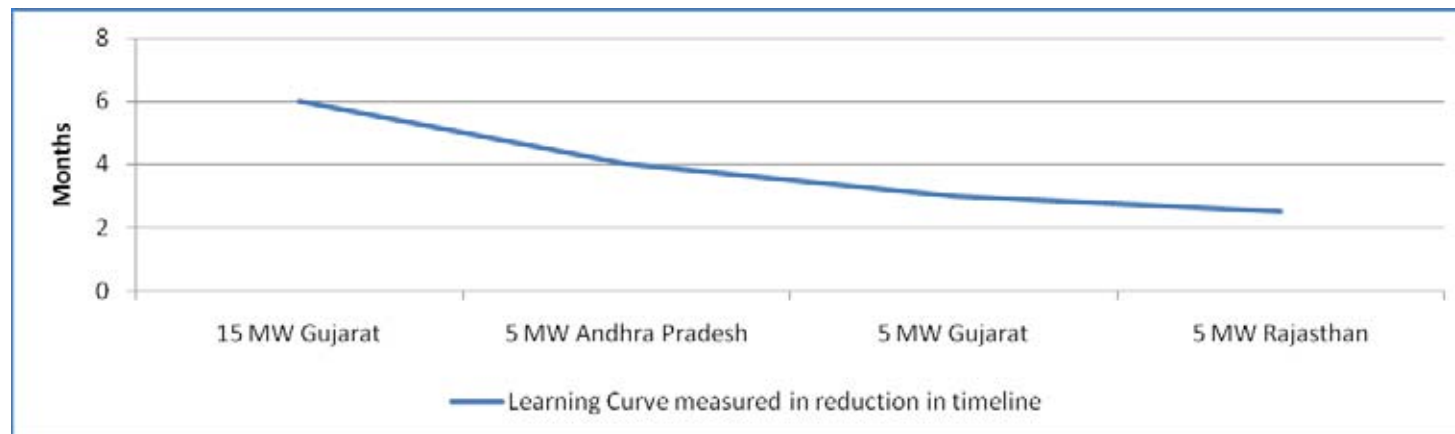
- Gujarat 15 MW
- Gujarat 5 MW
- Gujarat 30 MW
- Andhra Pradesh 5 MW
- Rajasthan 5 MW
- Rajasthan 50 MW
- Rajasthan 20 MW Wind

Capacity under construction (265 MW)

- 130 MW in MP
- Maharashtra 20 MW
- 17 MW in Karnataka
- 32 MW in Punjab
- 66 MW in Tamilnadu



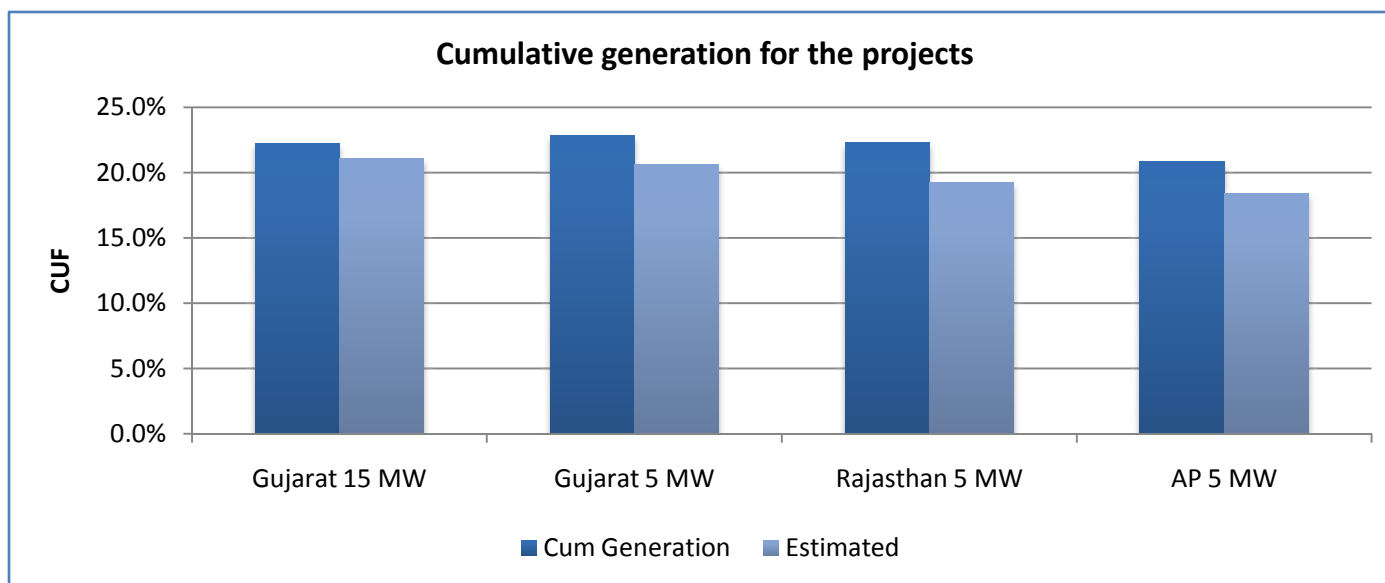
PROVEN RECORD – FASTER EXECUTION



Punctuality	<div>Faster project execution<ul style="list-style-type: none">• 15 MW Gujarat – 6 months• 5 MW Andhra Pradesh - 4 months• 5 MW Gujarat –3 months• 5 MW Rajasthan - 2.5 months</div>
No Cost Overruns	Project implemented within budgeted costs without any cost overrun
Team Experience	Excellent engineering, procurement and project management
Capacity Utilization	All existing plants are operating at CUF around 20%

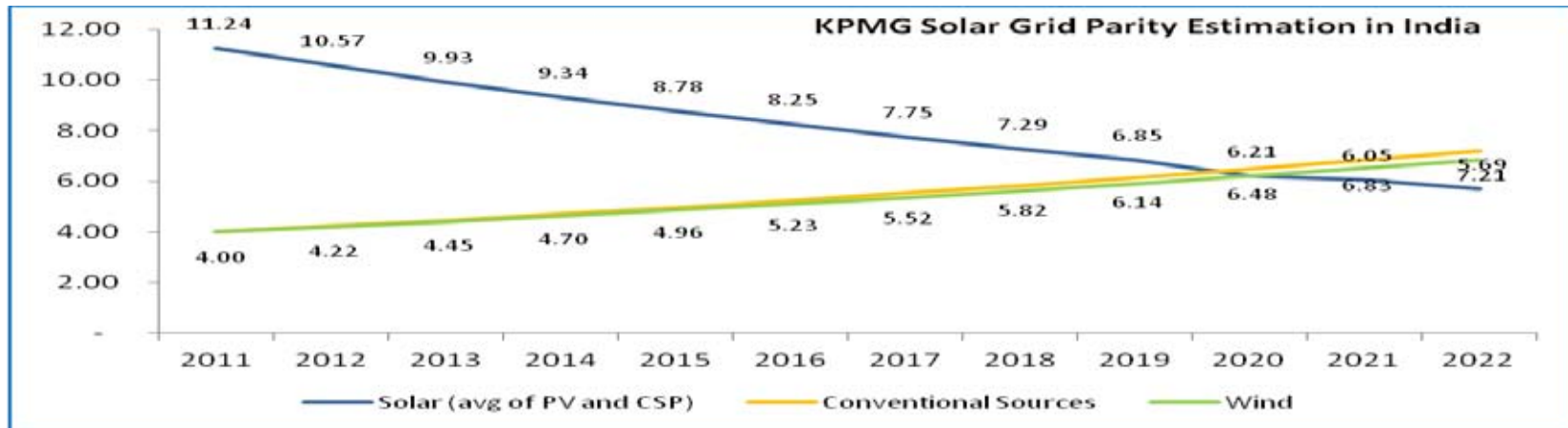
PROVEN RECORD – PERFORMANCE EXCELLENCE

- All operational projects performing better than estimated and designed generation

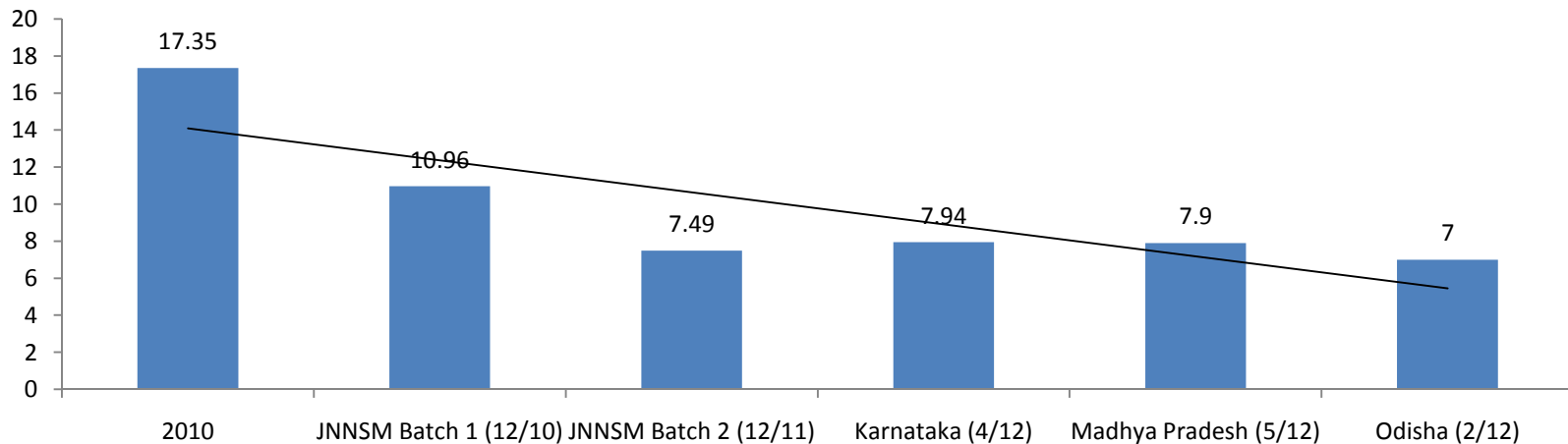


- Best daily generation for our operational projects
 - Gujarat 5 MW Project : 26.44%
 - Rajasthan 5 MW : 26.64%
 - Gujarat 30 MW : 24.72%
 - Rajasthan 50 MW : 22.60%

SOLAR TARIFF – TRENDS IN INDIA



TRENDS IN TARIFF



JNNSM taking Solar power toward Grid parity

POLICY ENABLERS

- ☐ **Robust policy – JNNSM, State policies**
 - ☐ **Financial incentives**
 - ☐ **Tariff policies etc.**
- ☐ **Structural framework**
 - ☐ **Dedicated ministries**
 - ☐ **Dedicated nodal bodies at center and state**
 - ☐ **Structured and integrated process**

POLICY CHALLENGES

☐ **Allow SEBs to claim RECs for the purchase of RE power beyond the RPO limit**

- RPO target – 15% from RE projects by 2022
- Solar RPO – 0.25% in 2012-13; to be increased by 3% per annum
 - ✓ Strict enforcement of RPO obligations by states
 - ✓ Promote REC bilateral trading
 - ✓ Resourceful states should be allowed to take REC beyond the RPO target

☐ **Restriction on Solar plant CUF**

- With evolving solar technology, CUF restriction in the PPAs is an obstacle
 - ✓ Restriction on upper CUF to be taken off

☐ Reverse bidding – location agnostic

☐ Local content requirement

☐ Accelerated depreciation

FINANCING RENEWABLE – INDUSTRY IMPERATIVES

- **Very short project duration** (PPA to COD)
- **Front loaded expenses**
- **Rapid growth needs**
 - Locking in equipment supplies
 - Higher fund velocity
 - Reduced FC duration (PPA to FC)
- **Sector nascence**
 - Experience
 - Expertise
 - Reality check yet to be done

FINANCING RENEWABLE – CHALLENGES FACED

Policy and regulatory

- Common sector definition i.e. thermal = renewables
 - Sector exposure limits

Lenders

- Risk perception and analysis
 - Developer, project, vendor and contract, asset, off-taker
 - Payment security
- Understanding of the sector (nascence)
- Experience of wind
- Tenure mismatch – takeout finance enabling
- Gearing (70:30 or ?)

A CASE STUDY – NEEMUCH, MP

- ☐ Capacity 130 MW AC, 150 MW DC
- ☐ State policy – aligned with JNNSM
- ☐ Land – free allocation by government
 - ☐ Collateral – leasing
- ☐ Financing
 - ☐ Risk appetite
 - ☐ Multiple lenders (Risk appetite, sectoral cap)
- ☐ Evacuation
 - ☐ Forest
 - ☐ ROW
 - ☐ Documentation

THANK YOU