

**Transmitting Power Transforming Lives** 

# **Investor Presentation** FY 2020-21

June 18, 2021

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- Annual Accounts for FY2020-21 are still to be approved by the shareholders.

## **Presentation Outline**



# **Major Highlights**

# **POWERGRID Today**

Performance at a glance

**Business Outlook** 

**Awards & Accolades** 



# **Major Highlights**

## **POWERGRID Infrastructure Investment Trust (PGInvIT)**



 1st InvIT sponsored by a CPSE and largest public offer by any InvIT/ REIT

• IPO Size: ₹ 7,734.99 cr Subscription: 4.83 times

• Issue Price : ₹ 100.00

**Listed on BSE & NSE** 

Listing date: May 14, 2021

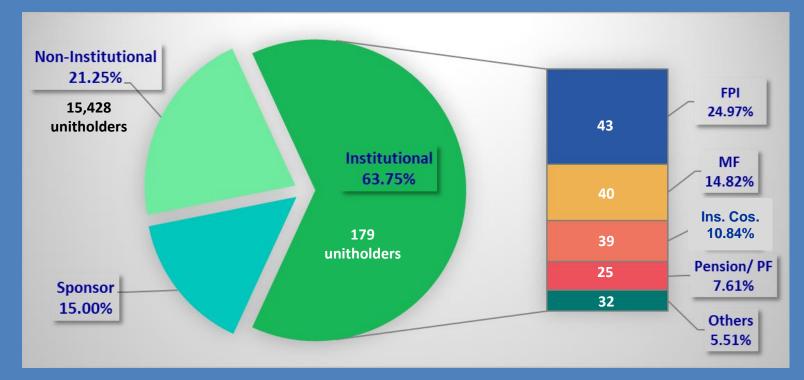
**Listing Price: ₹ 104.00** 

Current Price : ₹ 113.91\*

\*BSE closing price on 16.06.21

# Investor's Pattern

(Unitholding Pattern on Allotment (May 11, 2021)



Figures in white in bar chart – Unitholders (Nos.)



## **ISTS Projects acquired under TBCB**



Aggregate Annual Levelized tariff ₹ 515.84 crore

Fatehgarh Bhadla Transco Limited (FBTL) **Sikar-II Aligarh Transmission Limited (SATL) Ramgarh New Transmission Limited (RNTL) Sikar New Transmission Limited (SNTL)** Bikaner-II Bhiwadi Transco Limited (BBTL)



# Separation of CTU functions

### Incorporation of Central Transmission Utility of India Ltd

- Central Transmission Utility of India Limited (CTUIL) notified as 'Central Transmission Utility' w.e.f 01.04.2021
- CTUIL initially 100% subsidiary of POWERGRID
- Will be made a separate Government owned entity
- POWERGRID to continue as a deemed Transmission Licensee

# Acquisition of 74% stake in Jaypee Powergrid Limited POWERGRID





- Jaypee Powergrid Limited, a Joint Venture between POWERGRID and Jaiprakash Power Ventures Limited holding 26% and 74% equity, respectively.
- Incorporated to evacuate power generated by 1000 MW Karcham Wangtoo Hydro Electric Power Project in Himachal Pradesh.
- Project under commercial operation since April, 2012.
- POWERGRID acquired 74% shareholding of JV Partner Jaiprakash Power Ventures Limited.
- All cash consideration: ₹ 351.64 cr
- Asset: Transmission Lines 449 ckm
  - 400 kV D/C Karcham-Wangtoo- Abdullapur TL
  - LILO of 400 kV Baspa-Nathpa Jhakri TL at Wangtoo

# Acquisition of Srinagar Leh Transmission System (SLTS)







- Srinagar-Leh Transmission System (SLTS) project executed by POWERGRID on consultancy basis under Prime Minister Reconstruction Plan (PMRP) scheme.
- Provides connectivity with National Grid for uninterrupted power supply to Ladakh
- Commissioned on 31.01.2019 and dedicated to Nation by Hon'ble PM on 03.02.2019
- Re-designation of SLTS as ISTS upon reorganisation of erstwhile state of Jammu & Kashmir into UT of J&K and UT of Ladakh
- Assets:
  - Transmission Lines 375 ckm
     220 kV S/C Alusteng Drass Kargil Khalsti Leh TL
  - New Sub-stations 300 MVA
     220 kV/66kV Drass (50MVA)
     220 kV/66kV Kargil (100MVA)
     220 kV/66kV Khalsti (50MVA)
     220 kV/66kV Leh (100MVA)
- Acquisition with consideration of ₹ 89.42 cr and strengthening proposal with investment of ₹ 55 cr under consideration

## **POWERGRID Today**



A "Maharatna" CPSE

Govt. of India shareholding of 51.34%

India's 3rd Largest CPSE in terms of Gross Block1

Listed Company with M-Cap ₹ 1,26,657 crore<sup>2</sup>

All time high Share price ₹ 251.503

## **POWERGRID Group**

22 Subsidiaries 9 Joint Ventures\*

#### **Transmission Lines**

- 1,68,256 ckm
  - 1304 nos

#### **Sub-stations**

- 4,38,108 MVA
  - 259 nos

#### IR Capacity

- 90,090 MW
- 85% of India's Capacity

As on May 31, 2021

#### **Credit Ratings**

Domestic: 'AAA' (CRISIL, ICRA, CARE)

International: Baa3 (Moodys); BBB- (S&P and Fitch)- at par with sovereign



# **■** Performance Highlights FY21

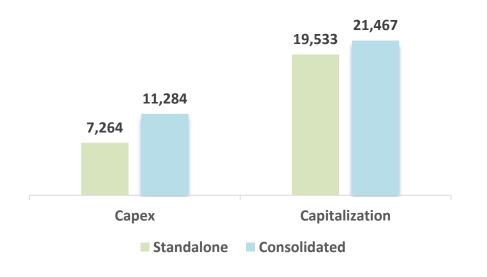
- Project Execution
- Operations
- Financial Performance
- Commercial
- Other Activities

# **Project Execution**



FY21 Capex Target achieved





**Addition in FY21** 

- ~ 6,500 ckm Transmission lines
- 09 nos sub-stations
- ~ 27,300 MVA
- 3,000 MW Inter-Regional capacity

Capitalization figures. exclusive of FERV

Q4 FY21 Performance

	Standalone	Consolidated
Capex	2,403	3,782
Capitalization	6,983	8,976

(₹ in crore)

# ±800 kV Raigarh-Pugalur HVDC Project





Project Cost<sup>#</sup> : ~ ₹ 16,600 crore

**Power Transfer: 6000 MW** 

Between Raigarh, Chattishgarh in WR and SR

#### **Assets commissioned:**

- Bipole-I , Pole-1 & 2 (3000 MW)
- ±800 kV Raigarh Pugalur HVDC TL 3530 ckm
- 400kV D/c Pugalur (HVDC) Arasur TL & 400kV
   D/C Pugalur (HVDC) Pugalur TL

Balance Portion Bipole-II, Pole-3 & 4 (3000 MW) – Testing under progress

Associated AC Transmission Lines – 3 nos

# ±320 kV VSC based HVDC Pugalur- Thrissur



- First time in India, Voltage Source Convertor (VSC) Technology
- Use of HVDC XLPE UG cable



**Project Cost:** ~₹ 5000 crore

**Power Transfer: 2000 MW** 

Part of the Raigarh-Pugalur-Thrissur 6000 MW HVDC system and enables transfer of power from Pugalur (Tamil Nadu) to Thrissur (Kerala)

#### **Assets commissioned:**

- Monopole 1\* and Monopole 2: ±320kV
   VSC based HVDC terminals
- Associated ± 320 kV HVDC Pugalur North Thrissur TL
- Functionality of Black Start by which isolated networks can be energized in case of situations like Grid failures
- Reduced space requirement

\* Commissioned in June'21

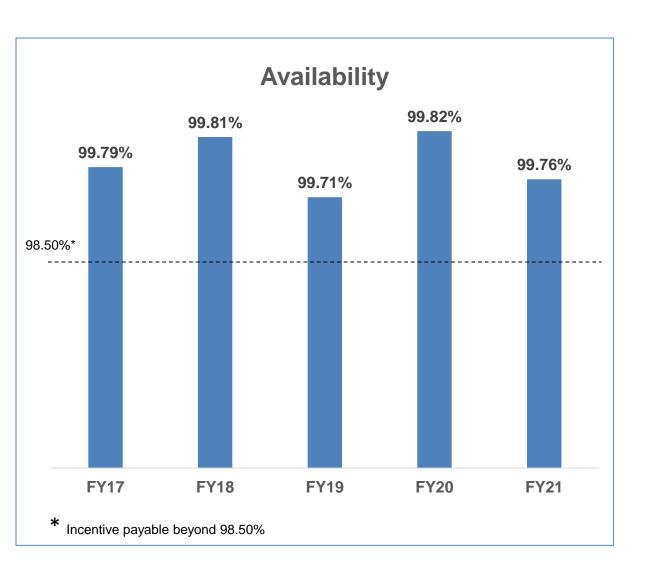
Project aligned to Prime Minister's vision of "Aatmanirbhar Bharat"

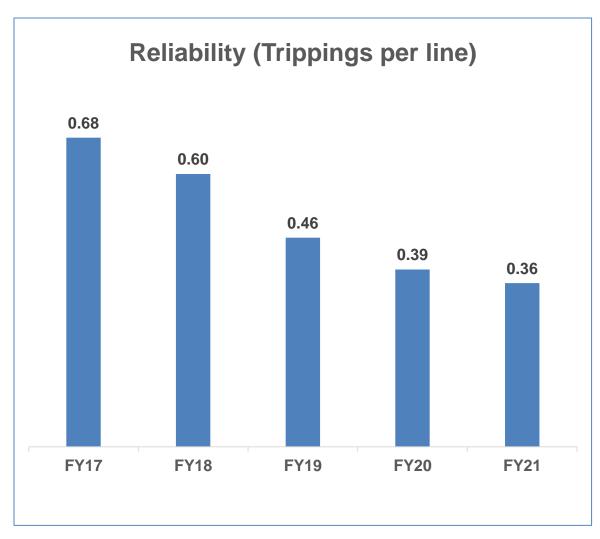


# **Operations**

# **Operational Efficiency**

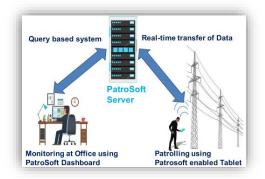






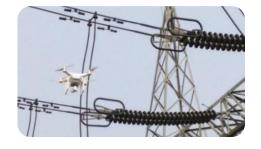
# **Adoption of Latest Technologies**





Application Based Patrolling

Ground patrolling and live updation through Android based patrolling application.



Use of Unmanned Aerial Vehicles (Drones) for patrolling of transmission lines



- Remote Operations from NTAMC/RTAMC's
  - > 90% (242 nos.) sub-stations integrated with NTAMC.



#### PALMS Portal

In house tool for condition monitoring of transformers and reactors. Copyright received, application filed for patent.

## **Commitment to Operational Excellence**





"Departmental" replacement of defective PRD in 400kV XIAN make "GIS" Bus reactor Isolator chamber at Tuticorin GIS with support from OEM through VC



Restoration of 400KV Allahabad-Fatehpur#3 in night hours for broken Earth Wire.

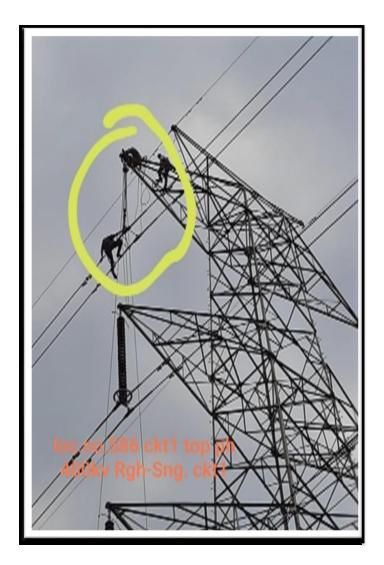






## **Commitment to Operational Excellence**





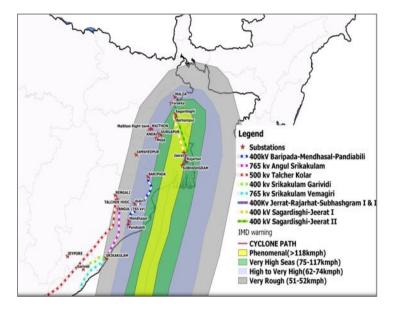
Failed Porcelain insulator in 400KV Raigarh-Sundergarh being replaced with Polymer insulator

Hot Line maintenance at Chandrapur MSETCL to avoid unwarranted outages



# **Resilient Transmission System**





Tentative path of upcoming cyclone and POWERGRID's TL in Guirat Coastal area

400 kV lines

POWERGRID S/S

Other Utility S/S

Note:
1) 400 kV line spares are at Bhuj & Dehgam stores
2) 765 kV line spares are at Bhuj, Banaskantha.

MUNDRA

MUNDRA

MUNDRA

BANASKANTHA

BANASKANTHA

BANASKANTHA

BANASKANTHA

12 nos, ERS

available

400 km, -5hr

DEHGAM

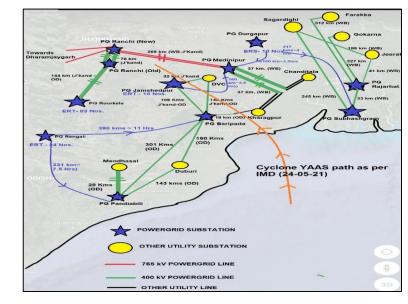
MUNDRA

Cyclone "Eye" path

DESAR

320 km, -5hrs

Shrip Single Single



May'20: "AMPHAN" Cyclone

May'21: "TAUKTAE" Cyclone

May'21: "YAAS" Cyclone

- Robust Infrastructure
- Advance Preparedness like monitoring of cyclone movement, special patrolling of lines, availability of key resources etc

No material damage to POWERGRID assets

# Performance fighting Pandemic



### **Impact of Covid-19**

- ~ 25% POWERGRID employees affected due to Covid-19.
- Restrictions on movement of labour due to COVID19 restrictions.
- Major supplies of Transformers, Reactors, GIS, Tower parts, Hardware etc. delayed due to COVID19 restrictions.

#### **COVID** Isolation centres

- COVID Isolation facility created at 148 locations.
- 24x7 Control rooms and Task force to assist Employees and dependent Families.

#### Mission Vaccination

- Vaccination camps organised for Ministry of Power, Power PSUs & POWERGRID employees, medical dependents and contract labour at various locations
- ~ 79% employees and ~ 59% of contractual workers vaccinated.

#### **Contribution to Society**

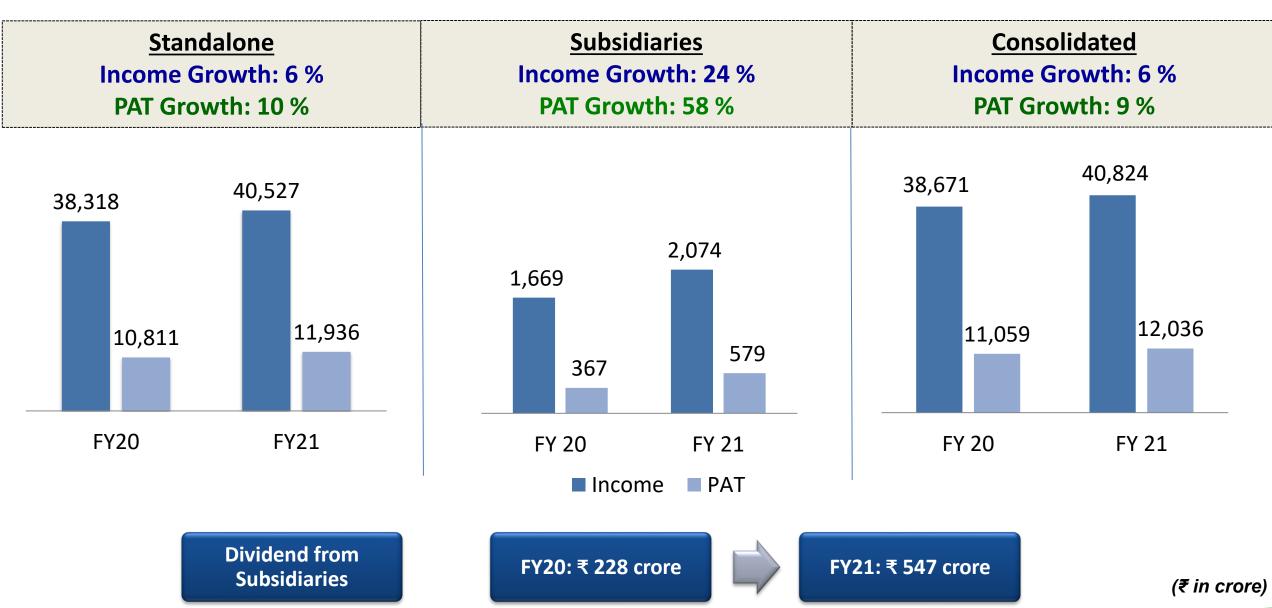
- 300+ cold chain equipment's supplied to Ladakh, Mizoram, Punjab and Sikkim
- Nitrogen cylinders converted to oxygen cylinders and given to nearby hospitals.
- Established Oxygen Plant at District Hospital, Jaisalmer



# **Financial Performance**

## **Financial Performance – FY21**





# **Financial Performance – FY21**



Description		dalone ended)	Growth		lidated ended)	Growth
	31.03.21	31.03.20	(%)	31.03.21	31.03.20	(%)
Income						
- Transmission Charges	36,457	34,877	5%	38,499	36,532	5%
- Consultancy – Services	501	611	-18%	434	514	-16%
- Telecom	708	698	1%	707	698	1%
- Other Income	2,861	2,132	34%	1,184	927	28%
Total Income	40,527	38,318	6%	40,824	38,671	6%
Operating Expenses (including movement in regulatory deferral balance other than DA for DTL)	4,615	4,591	1%	4,653	4,610	1%
Share of Net Profits of investments accounted for using Equity Method				215	155	
EBITDA-Gross Margin	35,912	33,727	6%	36,386	34,216	6%
Depreciation	11,712	11,073	6%	12,039	11,607	4%
Interest	8,581	9,265	-7%	8,215	8,960	-8%
Exceptional Item	1,079	0		1,079	0	
Tax (Net of DA for DTL)	2,604	2,578		3,017	2,590	
Profit After Tax	11,936	10,811	10%	12,036	11,059	9%

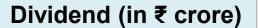
## **Financial Performance – FY21**



Description	Standa	alone	Consolidated		
	As on 31.03.21	As on 31.03.20	As on 31.03.21	As on 31.03.20	
Gross Fixed Assets	2,34,284	2,15,191	2,41,498	2,27,543	
Capital Work-in-Progress	18,316	30,972	25,216	35,933	
Debt	1,41,251	1,44,980	1,41,410	1,45,270	
Net Worth	69,579	64,440	69,936	64,695	
Earning Per Share (₹)	22.81	20.67	23.01	21.14	
Book Value per Share (₹)	133.00	123.17	133.68	123.66	
Key Financial Ratios					
EBITDA-Gross Margin	35,912	33,727	36,386	34,216	
Debt : Equity	67:33	69:31	67:33	69:31	
Return on Net Worth	17.15%	16.78%	17.21%	17.09%	

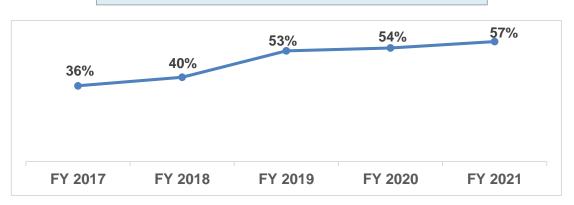
## **Return to Shareholders**







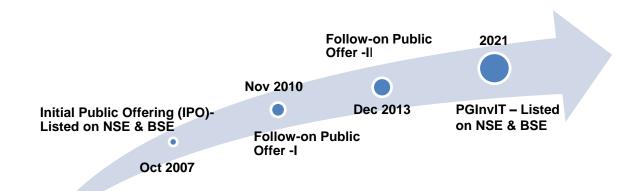
## **Dividend payout as % of PAT**



\* Dividend for the year, includes dividend tax
Final dividend for FY 2021 & issuance of bonus shares subject to approval of shareholders

#### **Bonus Shares**

First time since inception, Bonus share recommended in the ratio 1:3



#### Paid up capital

Pre bonus : ₹ 5231.59 crore Post bonus : ₹ 6975.45 crore

# Other Key Financial Information – FY21



	FY21	FY20
Surcharge Income (Consol.)	744	309
Incentive (Consol.)	481	429
Int. from Subsidiaries & JVs*	1,067	934
Dividend from JVs*	107	69
Dividend from Subsidiaries*	547	228
CSR Expenses(Consol.)	247	349
	FY21	FY20
Trade Receivable (Consol.)	3,676	5,041
FERV (Gross Block) (Consol.)	-439	2,095
Equity in TBCB	4,016	2,736
Short Term Loan (Consol.)	1,800	3,000

Debt Raised	FY21
Bonds	6,010
ECB	1,589

Avg. Cost of Borrowing\*
6.04 %
(v/s 6.66 % in FY20)

Debt raised via Issue of Bonds in FY21 : ₹ 3300 crore \*

Interest Rates\* 6.28% - 6.85%

<sup>(₹</sup> in crore)

<sup>\*</sup> on standalone basis



# Commercial

## **Commercial Performance**



Billing in FY21 ₹ 34,603 crore

### Realization

(incl. arrears) ₹ 35,910 crore

%age realization 103.78%

### As on 31.03.2021

Total Outstanding Dues	Total Outstanding > 45 days
~ ₹ 3,583 cr	~ ₹ 1,836 cr
(37.8 days billing)	(19.4 days billing)

- Realizations improved with support of Atmanirbhar Bharat Package of Gol
- Amount settled under Atmanirbhar Scheme in FY21: ₹ 2,623 crore
- Major Dues: Jammu and Kashmir
- Consolidated one time rebate of ₹ 1,078.64 crore to DISCOMS on account on Covid-19 pandemic

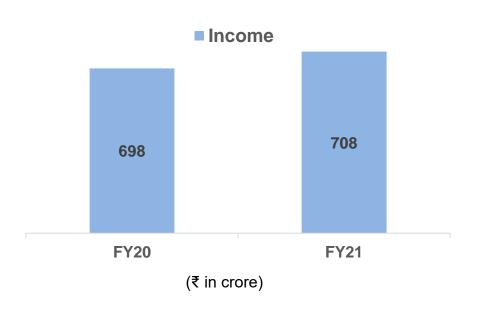
as on 31.03.2021



# **Other Activities**

## **Telecom Performance**





- ~ 100% backbone availability
- > 71,000 kms Fiber optical Network
- 458 PoP and 780 Pol locations
- 98 new customers added
- Successfully connected Leh on POWERGRID Network
- Successful implementation of SD-WAN

PoP: Point of Presence; PoI: Point of Interface

## **New Opportunities**

Data Centre Business

International Long
Distance (ILD)
Bandwidth Business

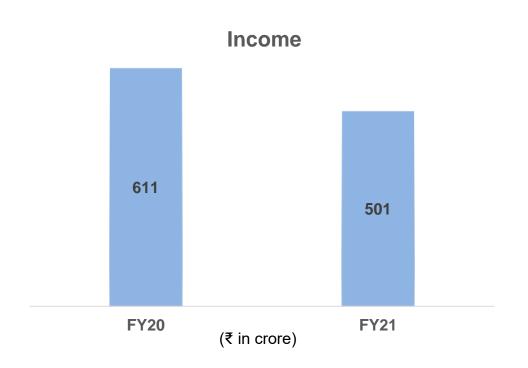
**BharatNet (NOFN) Phase-1** 

~ 99% Gram
Panchayat (GP)
connected

~ 97% GPs and Block Head quarter ready for service

# **Consultancy Performance**





### Domestic

- 10 new orders in FY21
- 71 ongoing assignments

## International

- 07 new orders in FY21
- 16 Ongoing assignments
- 08 EOI submitted
- Ongoing works in Nepal, Bangladesh, Fiji, Uganda

## Other related business



#### eV charging

- Total 16 EV charging stations in 7 cities
- 55 EV Charging station under implementation through FAME India Scheme Phase II
- 13 EV charging station under implementation in metro cities
- Agreement for EV Charging Station development signed with HPCL, CESC Mysuru, Meghalaya Transport Corporation etc
- Collaborating with e-mobility solution provider to increase userbase

### **Energy Management**

 MoU signed with CSIR-NEERI for long term association in the area of Energy Efficiency and Sustainable Energy. The MoU would facilitate setting up of Waste to Energy plants, Solid Waste Management etc. in various establishments.

#### **Rooftop Solar Systems**

- Established Capacity 6 MWp at 74 locations; ~ 8MU of energy generated annually
- Under Implementation 5 MWp at 66 locations
- Energy generated is used for captive consumption.



# **Business Outlook**

## **Business Outlook**



### **Works in Hand**



<b>Ongoing Projects</b>	~ ₹ 17,000 crore
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New Projects ~ ₹ 6,000 crore

TBCB Projects ~ ₹ 18,000 crore

Total ~ ₹ 41,000 crore

## ~ ₹ 10,300 crore Immediate Upcoming Opportunities

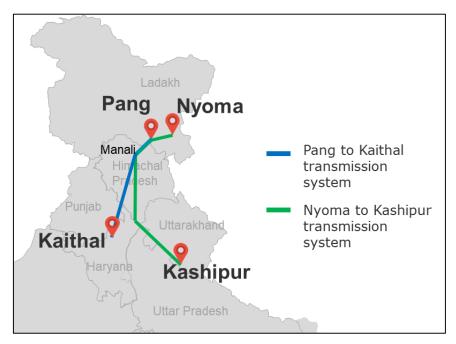
Inter-State Transmission works in RE ~ ₹ 9,300 crore

Intra-State Transmission works in TBCB ~ ₹ 1,000 crore

## Transmission system for evacuation of 10 GW Renewable Power from Leh



- Detailed Project Report prepared and submitted to Ministry of Power
- Proposed scheme –
- 10 GW renewable power to be evacuated through 4 nos. of ±350 kV VSC HVDC terminals
- Two separate transmission systems i.e. Pang to Kaithal and Nyoma to Kashipur are proposed, each system shall evacuate 5 GW power
- 1,170 km of DC overhead line passing through Ladakh, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh and Uttarakhand with 29 km HVDC cable
- 670 km of total AC overhead line (route length)
- 7 Nos. of Transition Stations in Leh region
- AC substation bays at Kaithal, Kashipur, Aligarh, Bareilly and Narela



Note: Image not to scale

## **Focussing forward**







Renewable Power (Solar) Generations on surplus land

Intra-state transmission and sub-transmission networks

Centre of Excellence for Cyber Security in Power Sector in association with IISc, Bangalore

Incubation Centre – To promote Smart Grid technology

## **Sectoral Growth Outlook**





### NIP Vision 2025

- 24x7 clean and affordable power to be available to all
- Total Capacity to grow to 583 GW (present 382 GW) with RE share ~ 39%
- Per capita consumption of electricity to increase to 1,616 kWh
- RE share in consumption to increase to 20%
- Promotion of Grid Energy Storage and Wind Energy
- Reforms in Distribution sector

POWERGRID capex under NIP ~ ₹ 65,500 cr

Gol's target for establishing 175 GW RE capacity by 2022 and 450 GW by 2030

Gol aim for 40% of the total installed capacity by 2030 from non-fossil fuel sources

By 2030, Peak Demand and Energy Requirement envisaged to be 340GW and 2,325BU respectively

CEA, report on 'Optimal Generation Capacity Mix: envisages a Battery Energy Storage capacity of 27,000 MW by 2030

₹ 3 Trillion for five years announced in Union Budget 2021-22 for reforms-linked new power distribution sector scheme



# **Awards & Accolades**

## **Awards and Accolades**



### Platts Top250 Global Energy Company Rankings<sup>®</sup>, 2020

- 'Fastest Growing Electric Utility in Asia Pacific' for 7th successive year
- Only Company to feature in Top 50 of global list, each year since 2014
- Globally, positioned as the 4<sup>th</sup> Fastest Growing Electric Utility

#### 2021 ATD BEST Award

Only Indian PSU featured in ATD BEST Award 2021 winner list among 7 Indian organizations

### FORBES World's Best Employers 2020 list

- Ranks 2<sup>nd</sup> among Indian PSUs in Forbes 'World's Best Employer 2020'
- Globally positioned as the 305<sup>th</sup> World's Best Employer 2020 Utility

#### **SKOCH Award**

 SKOCH Silver Award for transformational performance in response to the COVID-19 pandemic and Skill development and employment generation program for sustainable growth of 200 underprivileged Women in Damoh district of MP

# **CII National HR Excellence Award 2020-21**

Conferred with 'Significant Achievement in HR Excellence'



# **THANK YOU**