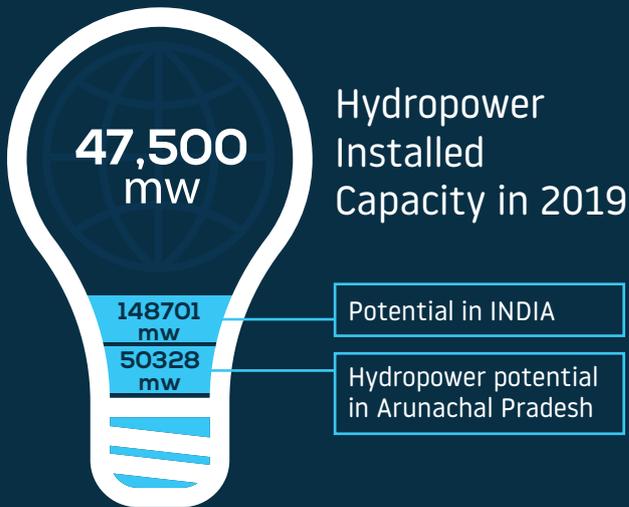




# CLEAN SAFE RENEWABLE

Enriching the environment and local communities

Hydropower is the world's largest source of renewable electricity generation.



## HYDROPOWER BENEFITS

Clean, affordable and reliable energy



Enabling solar, wind and other renewable



Responsibly managed freshwater



Boost to economic growth and jobs



Avoiding pollutants and emissions



Improved infrastructure



Community investments in rural areas



## AVOIDING POLLUTION



Using Hydropower instead of coal each year avoids:

**148** million tonnes of particulates  
**62** million tonnes of sulfur dioxide  
**8** million tonnes of nitrogen oxide

## ABOUT US

Virtuaal Infrapower Private Limited (VIPL) is a part of Virtuaal Group, an organization which manages diverse businesses. VIPL was incorporated in the year 2012 and works on Renewable Energy Generation projects under the small hydroelectric power development sector in India.

## SUSTAINABILITY

Hydropower, a renewable source of energy plays a significant role in meeting the energy needs of the nation. It is the cheapest source of renewable energy and has long term environmentally beneficial and sustainable growth. Hydropower development by VIPL is backed by rigorous research and mitigating environmental protection factors. It ensures meeting the needs of present generation without compromising on the resources for the future generations.

With a population of well over 1.3 billion people and a fast growing economy, India's electricity demand is expected to double over the next decade.



The year 2017 marked a turning point in new clean power installation with an addition of 2GW of hydropower, well exceeding new thermal capacity additions.



India's transmission capacity has grown by 40 per cent since 2014 and has been operating as a single national grid since 2012-13 when the five independent regional grids were integrated. With new high voltage transmission corridors such as the North East Agra Line, India's cross-country power flows are improving and greatly reducing power shortages.



Significant reforms made in recent years include the 2008 Hydro Power Policy encouraging private sector participation and the 2016 National Tariff Policy on frequency response-markets and extended certainty of power purchase agreements. The new electricity act is under discussion and likely to come in force in 2020.



Policy proposals mooted by observers include new ancillary service markets, along with separate purchase obligation benefits, and more integrated planning. Draft policies under preparation are expected to support hydropower projects and private sector uptake and could include measures to make hydropower tariffs more competitive.



Hydropower has the potential of meeting more than 30% of India's energy demand.

India 47,500 mw installed capacity

148701mw is the potential capacity

The maximum potential is identified in Arunachal Pradesh = 50328 mw



# THE PARENG PROJECT

Virtuaal Group is developing 14.50 MW (3 x 4.85 MW) Pareng Hydro-Electric Project under the SPV-Virtuaal Pareng Hydro Private Limited.

## PROJECT OVERVIEW

Company	Virtuaal Infrapower Private Limited
Country	India
Region	State of Arunachal Pradesh
Sector	Renewable Energy (hydro)
Size	14.5 MW
Co-Development Partner	InfraCo Asia Development Pte. Ltd (IAD) Singapore based
Status	<ul style="list-style-type: none"> <li>— Permits obtained</li> <li>— Under active development</li> <li>— Infrastructure construction started</li> <li>— Loan sanctions received from IREDA and InfraCo Asia Investments (IAI), a sister company of IAD</li> <li>— Scheduled to start generation from December 2022</li> </ul>
Capex	*INR 1982.5mn/USD 28.32mn Debt:Equity = 70:30
Development Impact	<ul style="list-style-type: none"> <li>— 140,000 people with improved access to power</li> <li>— Short term jobs during construction and long term jobs for operation and maintenance</li> <li>— 1% free power for local area development</li> </ul>

\*1 USD = 70 INR



# THE KEYI PROJECT

Virtuaal Group is developing 23 MW (2 x 11.5 MW) Hydro-Electric Project under the SPV- DD Hydro Power & Developers Private Limited.

## PROJECT OVERVIEW

Company	Virtuaal Infrapower Private Limited
Country	India
Region	State of Arunachal Pradesh
Sector	Renewable Energy (hydro)
Size	23 MW
Co-Development Partner	InfraCo Asia Development Pte. Ltd (IAD) Singapore based
Status	<ul style="list-style-type: none"> <li>— Permits obtained</li> <li>— Under active development</li> <li>— Infrastructure construction started</li> <li>— Loan sanction from Indian financial institutions and other international institutions at advanced stage</li> <li>— Scheduled to start generation from March 2023</li> </ul>
Capex	*INR 2750mn/USD 39.28mn Debt:Equity = 70:30
Development Impact	<ul style="list-style-type: none"> <li>— 125,000 people with improved access to power</li> <li>— Short term jobs during construction and long term jobs for operation and maintenance</li> <li>— 1% free power for local area development</li> </ul>

\*1 USD = 70 INR



## UPCOMING PROJECTS

VIPL is actively scouting for new hydro projects to achieve its renewable energy targets.

VIPL is keen to acquire existing licenses and has also applied for fresh licenses.

## OUR PHILOSOPHY



### BANKABILITY

VIPL strives to achieve well planned and bankable hydropower projects. VIPL manages the essential support and investment required for project development helping the project emerge from an idea to a reality seamlessly.



### SIMPLICITY

Simplicity in design and operations is the most important factor along with efficiency and reliability. VIPL builds smartly designed hydropower projects which result in less cumbersome execution for stakeholders.



### INVESTOR

Virtuaal has attracted USD 6.15MN in pre-financial close equity from InfraCo Asia Development Pte Ltd (IAD). IAD is a company of the Private Infrastructure Development Group (PIDG). ([www.infracoasia.com](http://www.infracoasia.com))



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