

Manikaran Analytics Limited
Wind / Solar Power Forecasting
22nd January'2018

Presented By: Amresh Khosla

Who are we?

Branching out towards a greener tomorrow, we are a group company of Manikaran Power Limited



Since inception in **2011**, we are India's fastest growing Renewable Power Forecasting and Scheduling Agency (wind & solar), with **experience in almost all wind rich states** of India in different terrain and handling a large installed capacity across the nation.....



To become
**THE RELIABLE & TRUSTWORTHY
ORGANIZATION** among **ENERGY
MODELLERS**

By delivering

**QUALITY FORECAST FOR
RENEWABLE ENERGY**

**LEVERAGING DATA ANALYTICS
CONSULTATION**

Vision



50 Hertz

Mission

Providing
ACCURATE FORECASTS and
OFFSETING UNCERTAINTIES

**IN RENEWABLE ENERGY, AND
THEREBY MAINTAINING A
HEALTHY GRID
INFRASTRUCTURE.**



**Weather Data from Meteorological Departments
is ingested on a central server**

Weather Data



Numerical Weather Data for Indian Region

Spatial Resolution :

Higher Resolution & Lower Resolution

Temporal Resolution:

1 hour

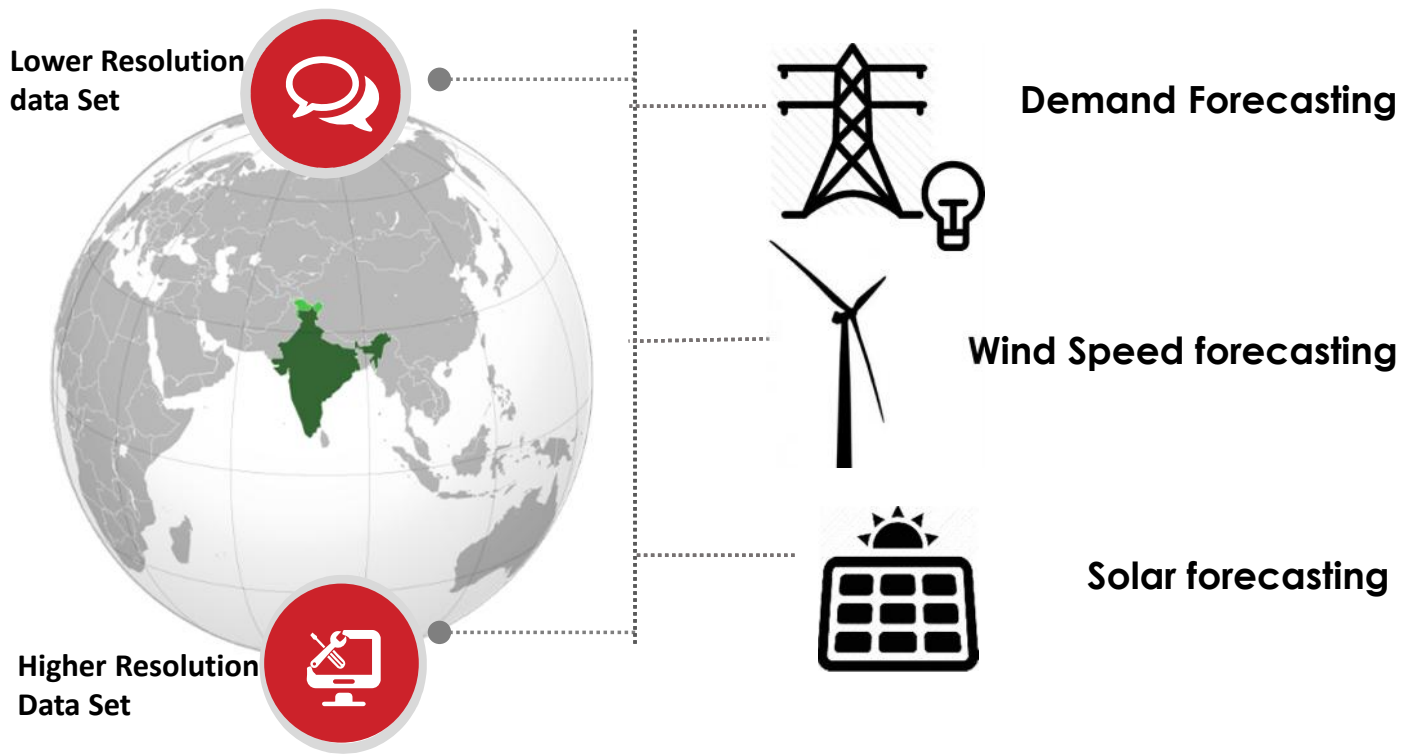
Files Revision:

00UTC & 12UTC (optional 06UTC / 18UTC)







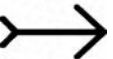
Vertical levels:

925 hPa, , 990 hPa, 10 mts.

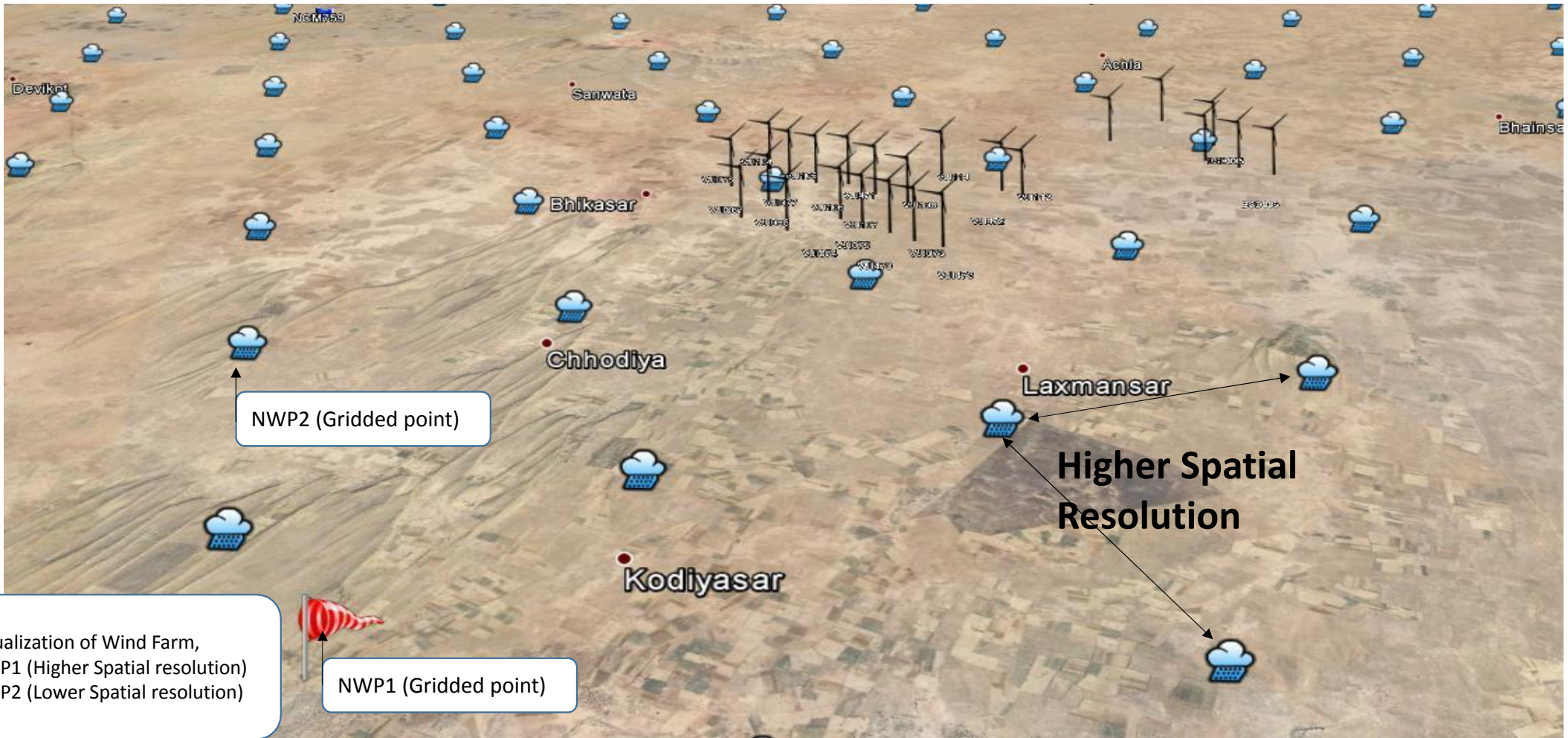
Meteorological Data & Parameters

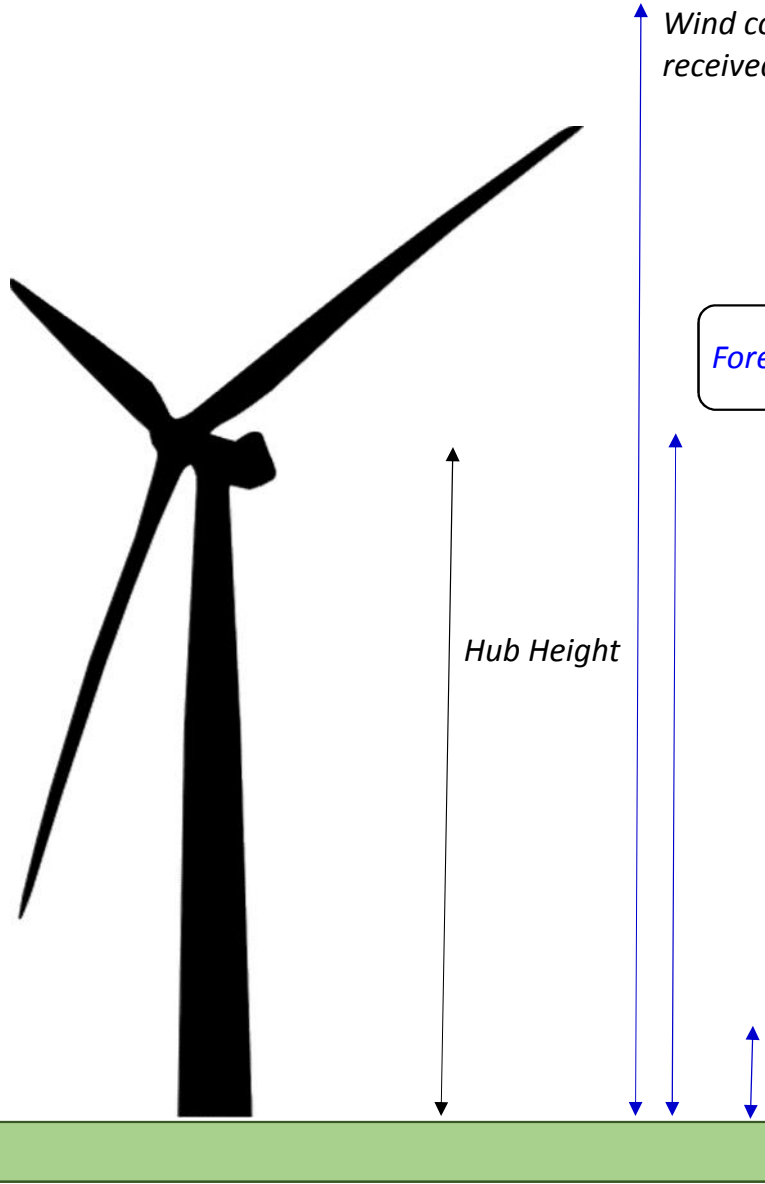


Weather Inputs for Forecasting

-  GHI
-  Precipitation
-  Temperature
-  Specific Humidity
-  Relative Humidity
-  Wind Speed
-  Wind Direction

Meteorological Data & Parameters (Spatial Resolution)

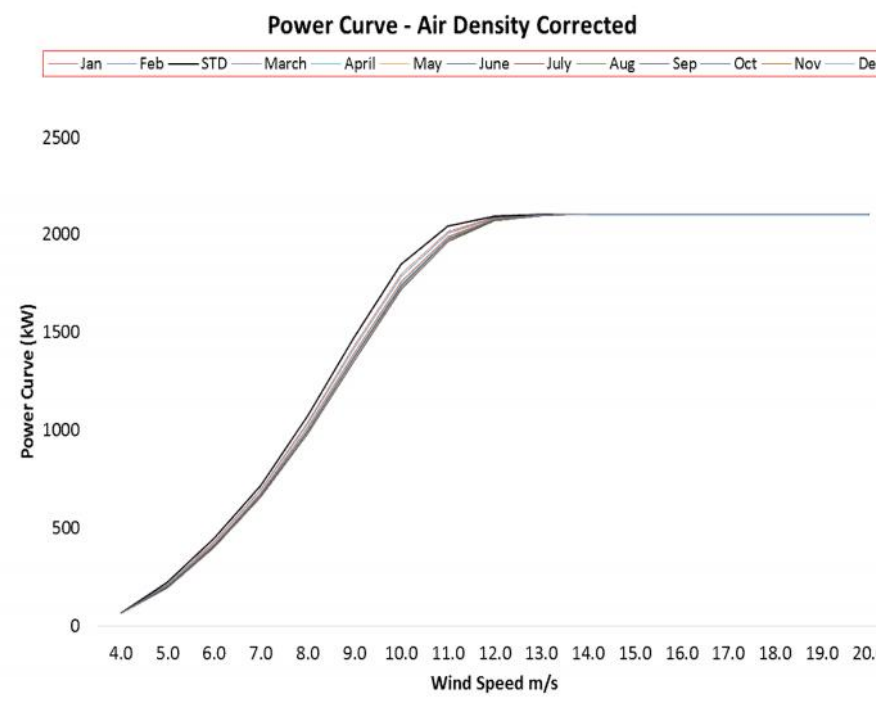


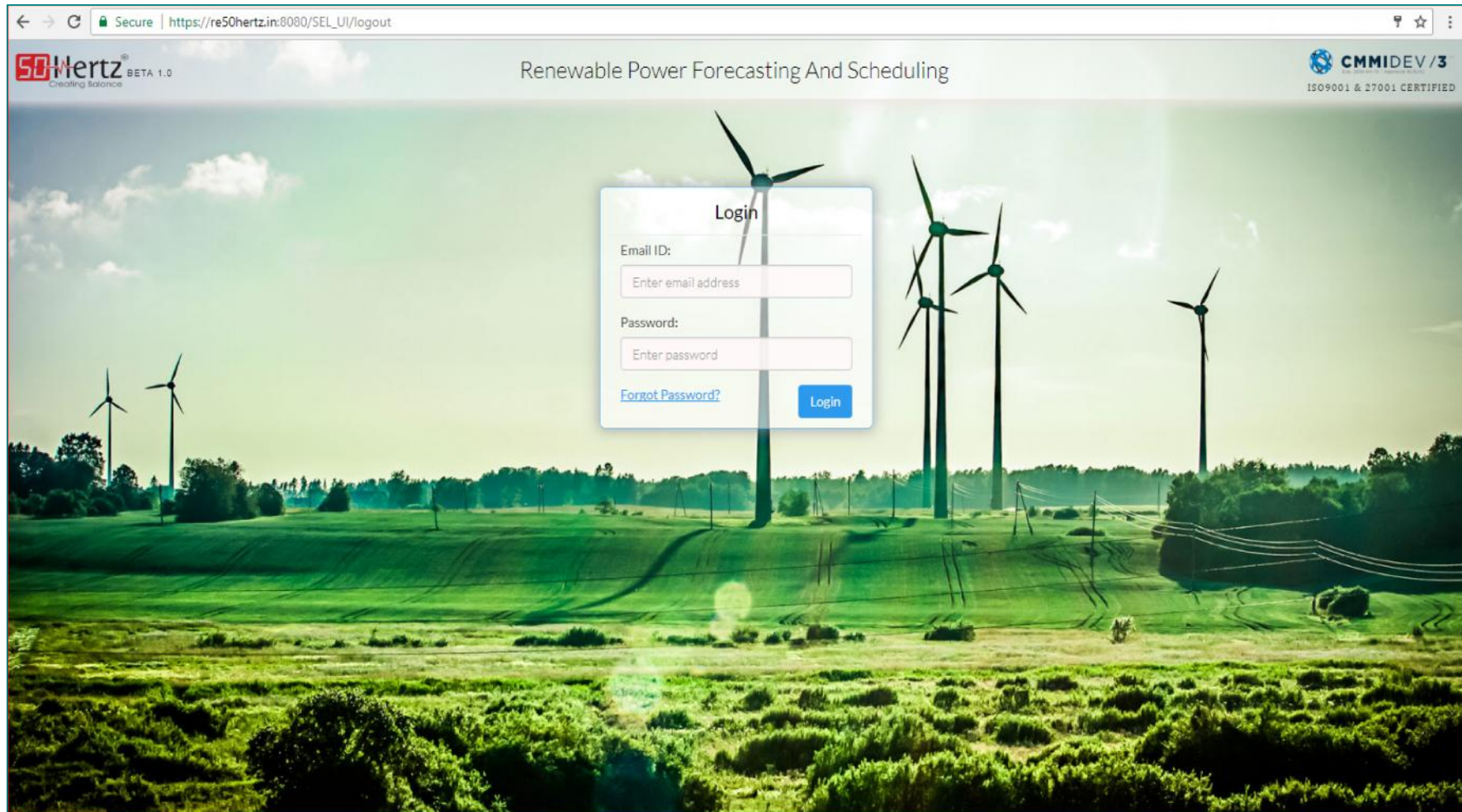


Wind components at 925 hPa
received in Weather data

Forecasted Wind Speed & Power at HH

Wind components at 10 m from surface
received in Weather data







Re50hertz.in



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