



Advanced machine learning to transform utilities & system operators.

Lower Costs, Higher Reliability—All in Real Time.

Mohak Mangal, Stanford GSB

Dhruv Suri, Stanford Doerr School of Sustainability



Meet the team



Mohak Mangal

MA , MBA



THE WORLD BANK



J-PAL
ABDUL LATIF JAMEEL POVERTY ACT



Experienced Economist and
Statistician



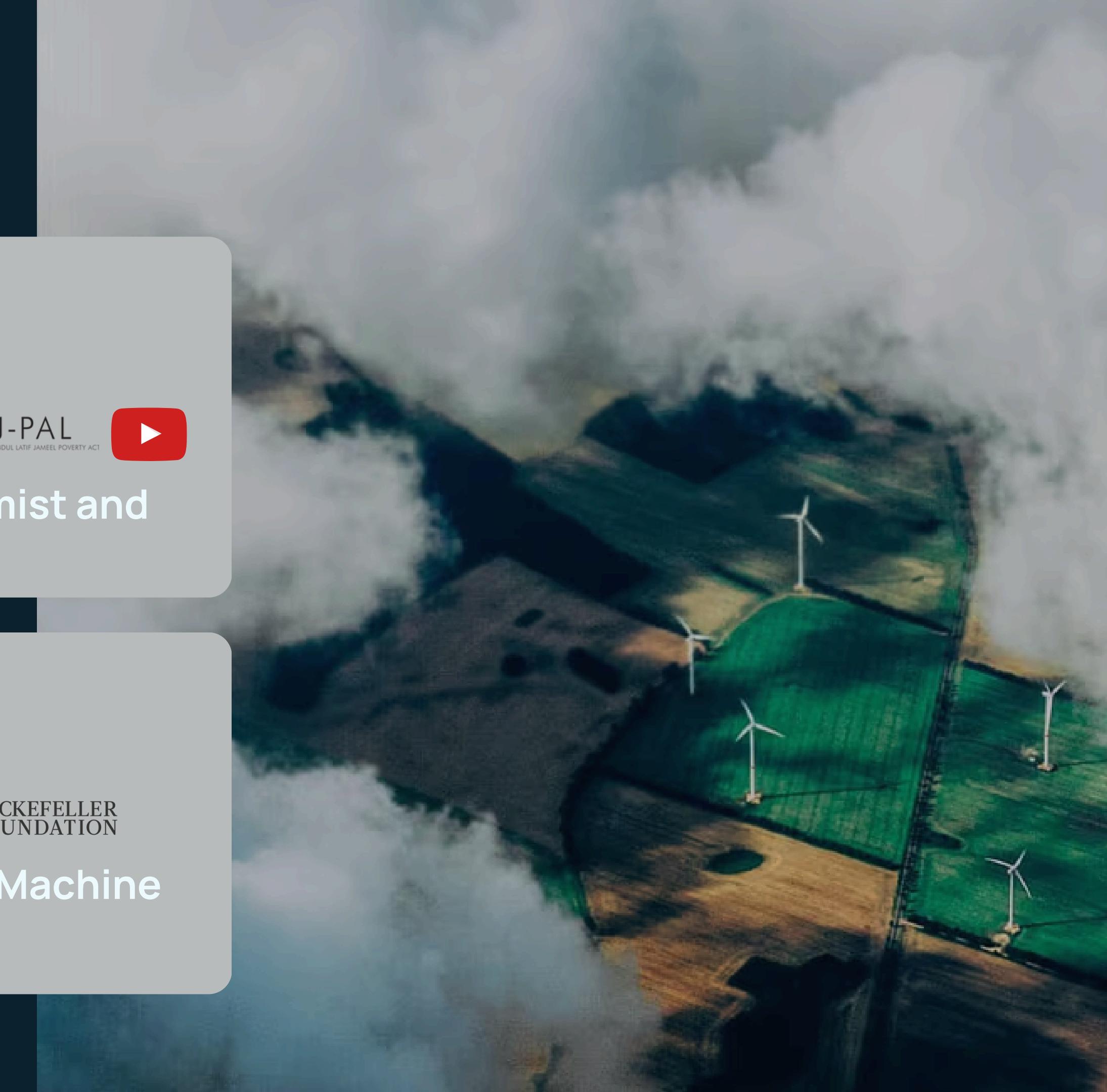
Dhruv Suri

PhD Candidate



The
ROCKEFELLER
FOUNDATION

Power Systems and Machine
Learning Engineer



Our Expert Advisors



Ines Azevedo



Professor, Stanford University

Leads a \$20 million DoE-funded consortium for energy reliability



Adam Brandt



Professor, Stanford University

Optimization pioneer, coupled-gas and electricity systems planning



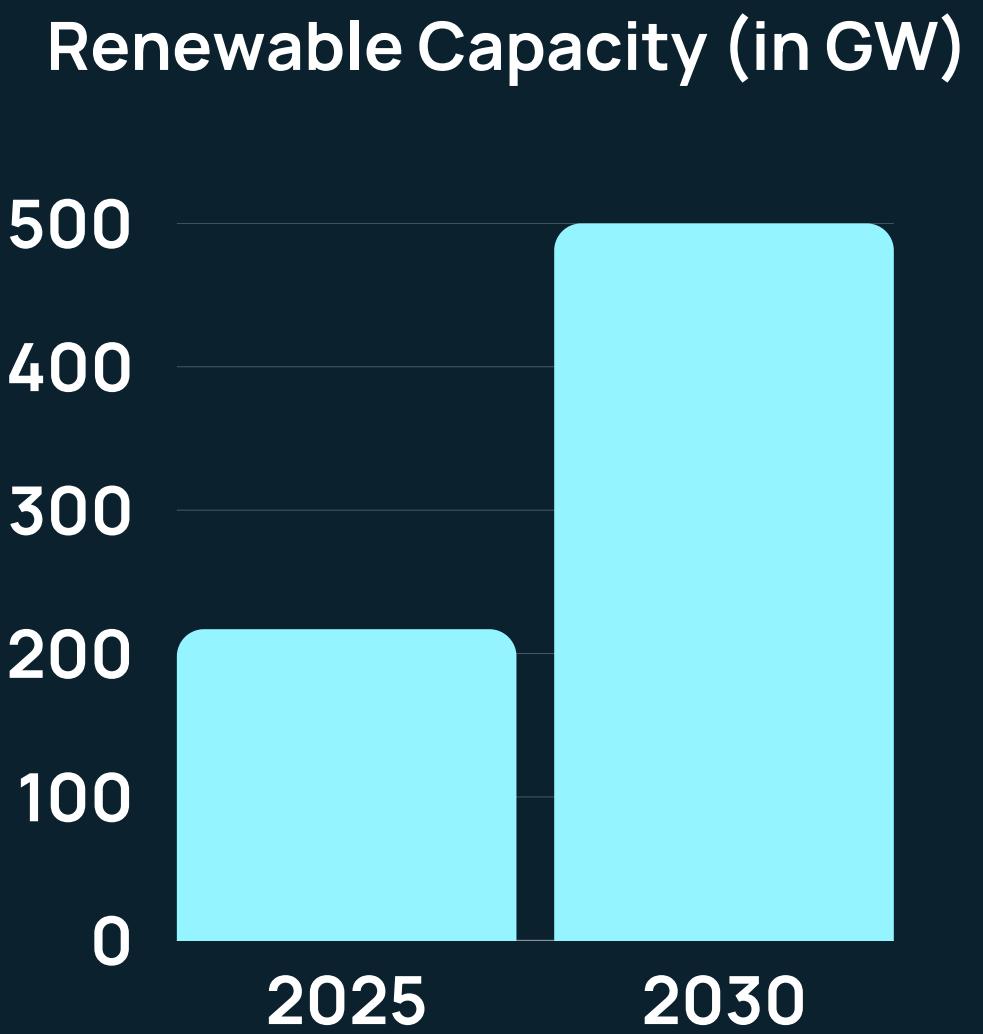
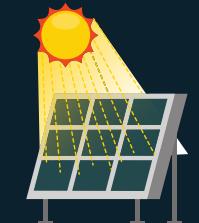
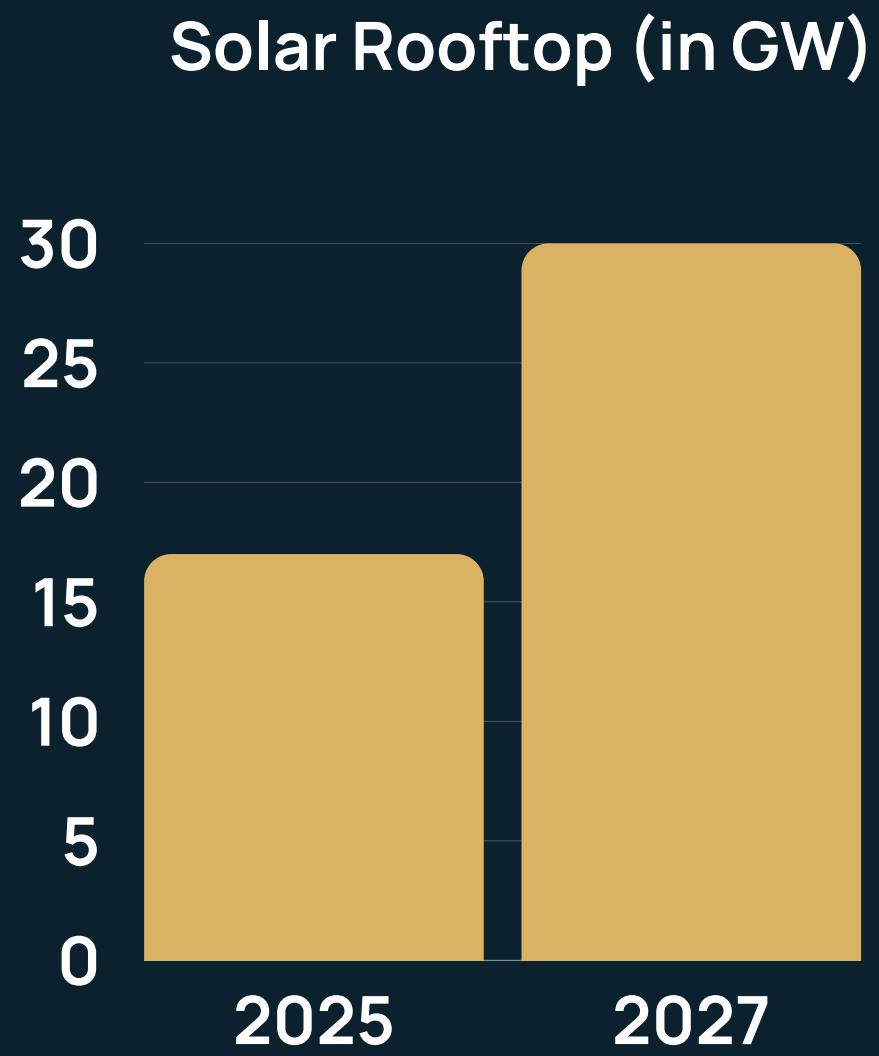
Lincoln Bleveans



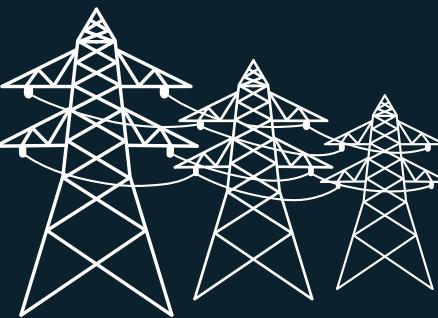
Sustainability Utilities & Infrastructure

Ex-utility executive; 30+ years experience in the energy sector

India has ambitious DERMs targets



Legacy grid management methods are overwhelmed without AI/ML



Legacy Grid Management

1. Over/under procurement due to poor forecasting.

2. Grid congestion and frequency regulation difficulties.

3. Data management and cyber security

Hence, Indian discoms are losing money in a rapidly changing energy landscape



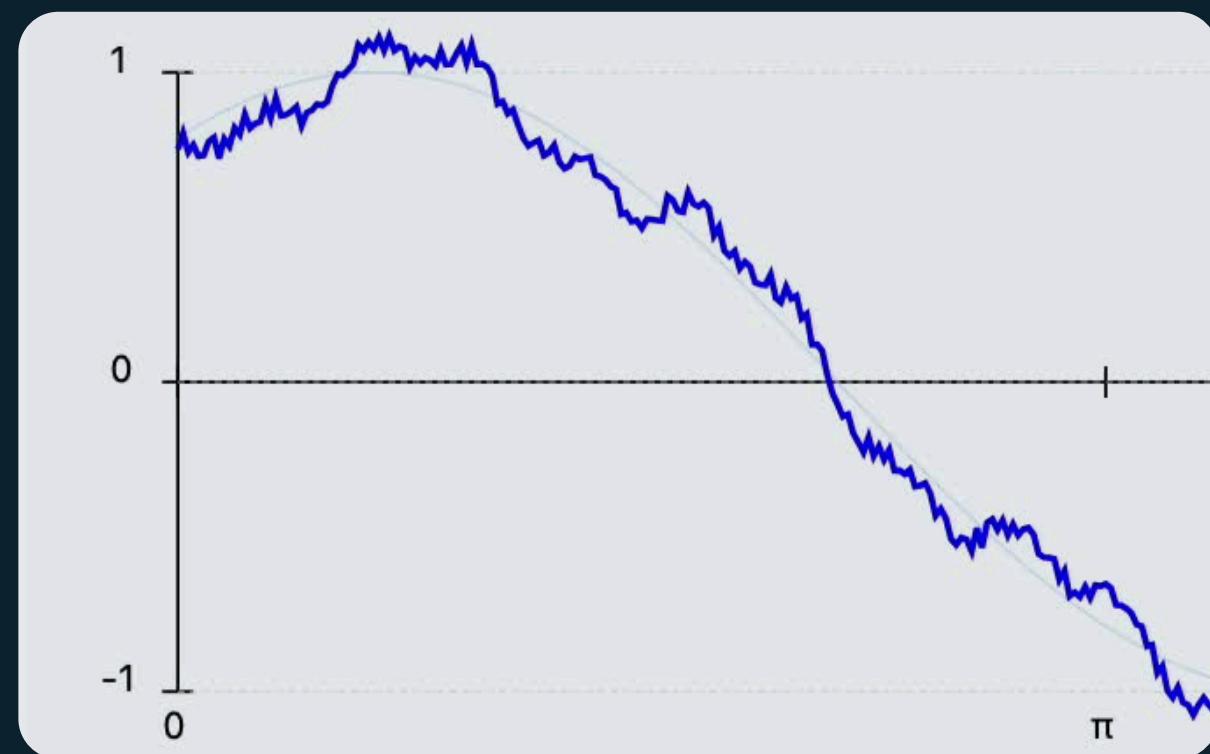
Source: PRS

We spoke to executives of 40+ utilities and system operators to understand their pain points

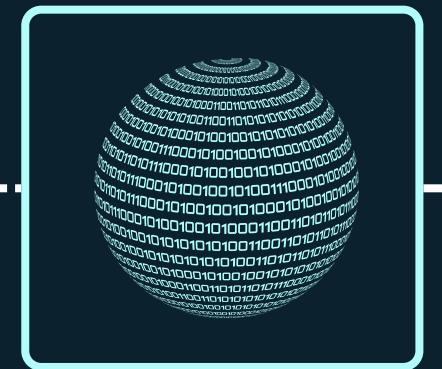


At Stanford, we are using machine learning to help discoms develop a predictable grid

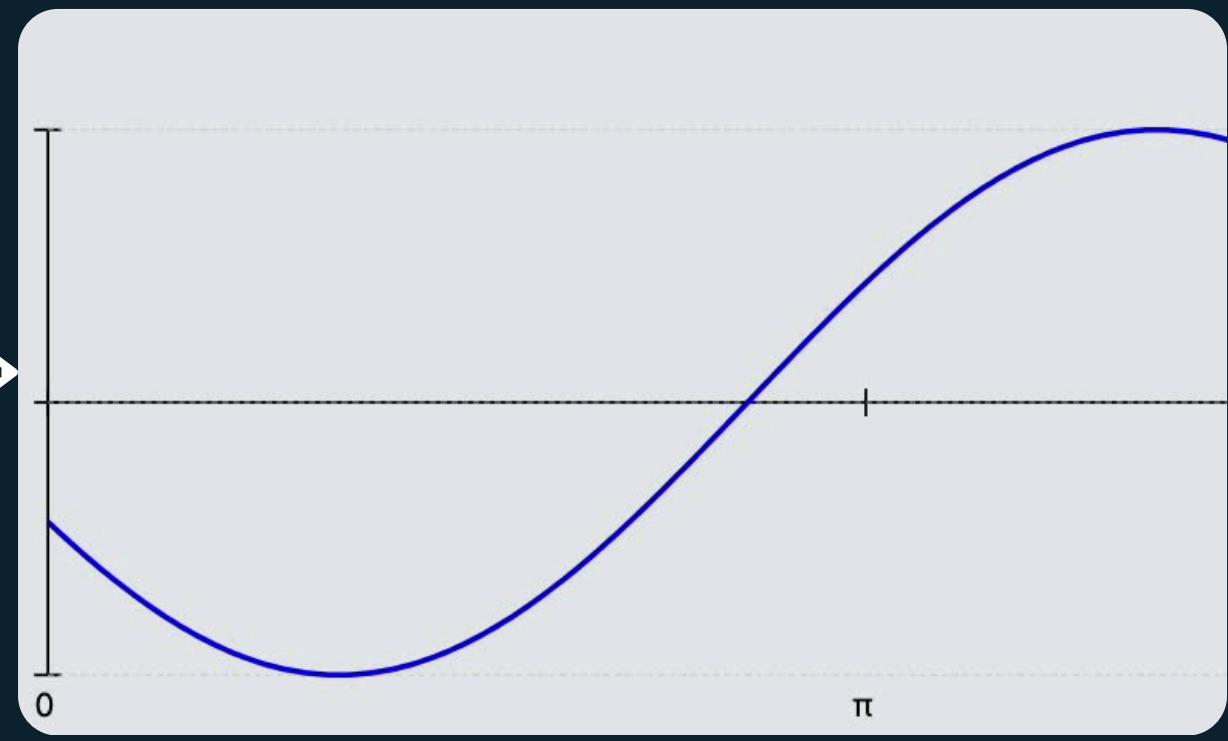
Unpredictable Grid



Machine Learning



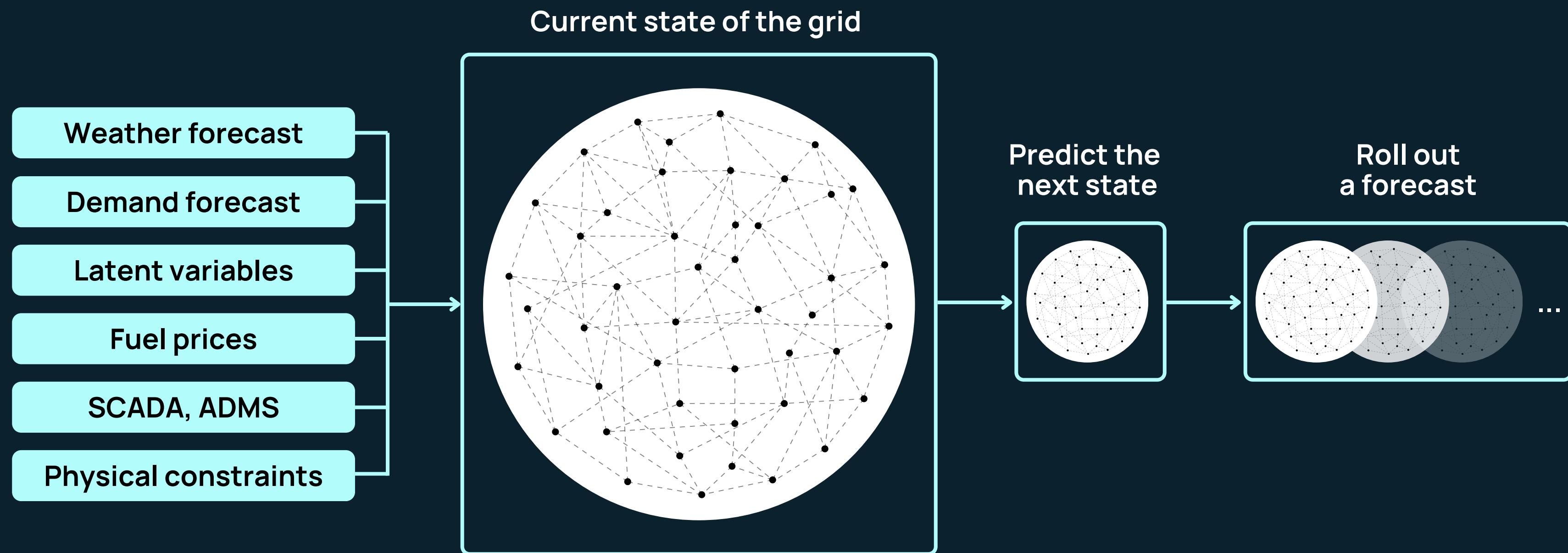
Predictable Grid



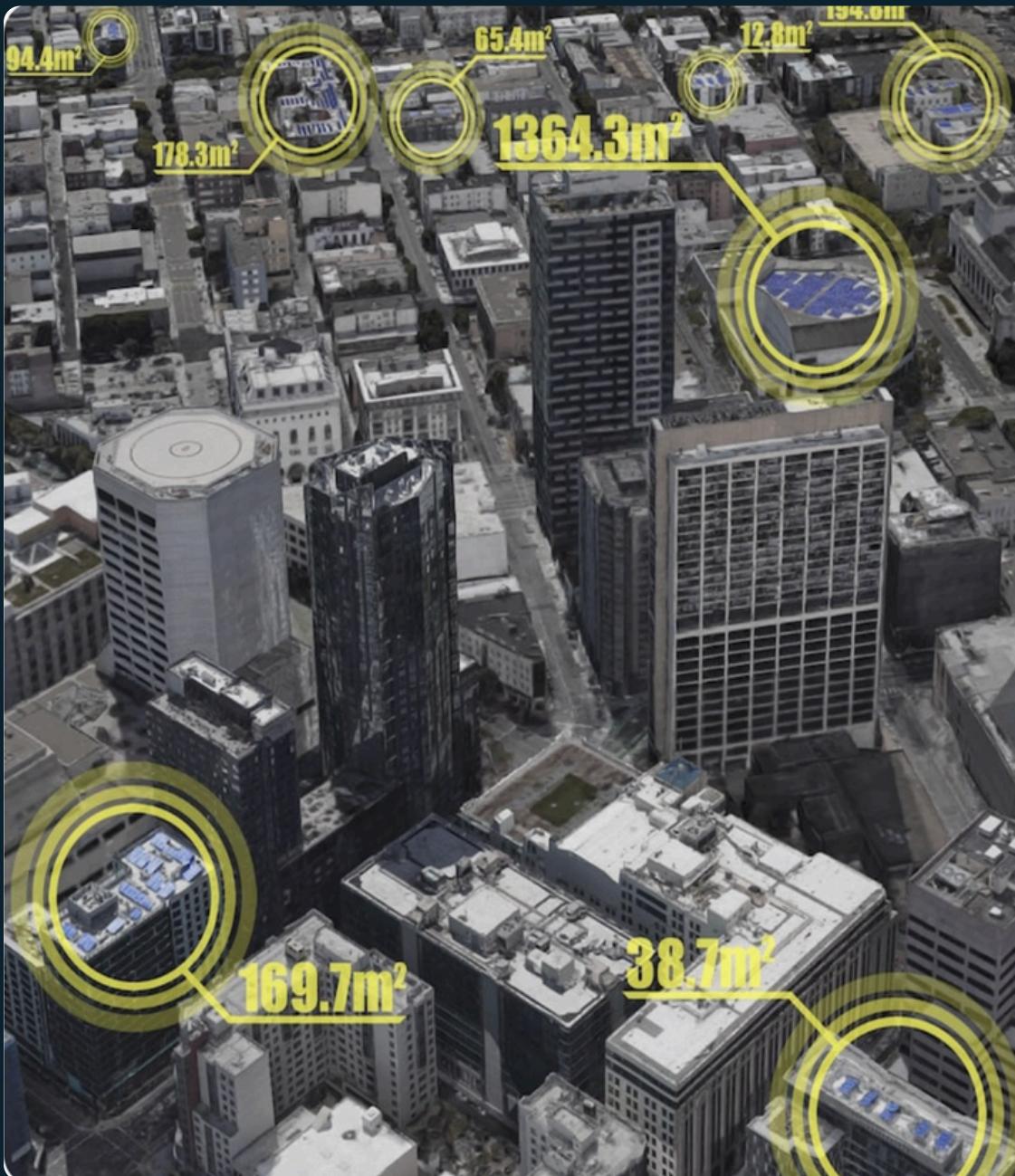
We are working with the best utilities and system operators



We combine deep learning with utility data to give you the most accurate forecasts

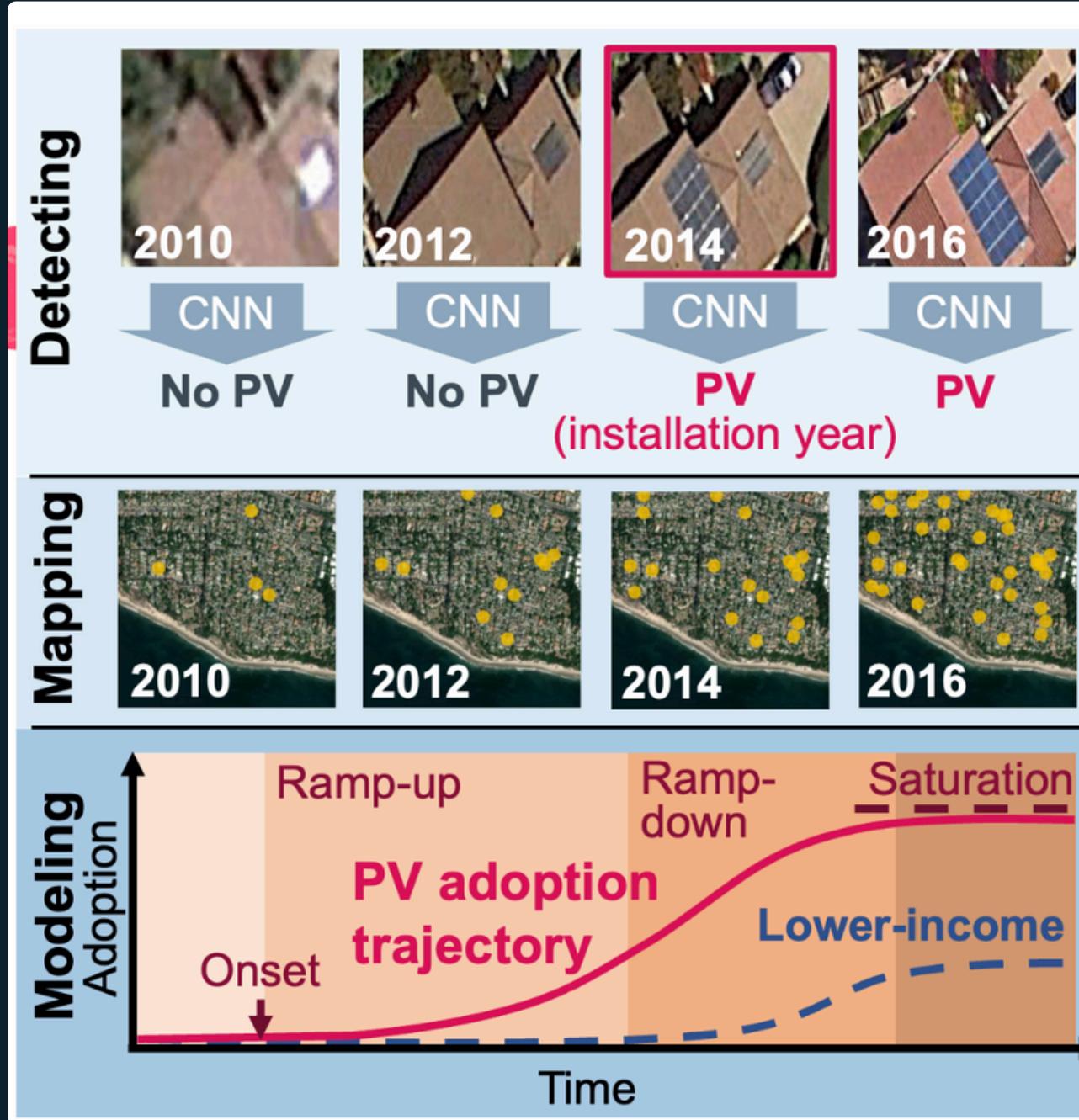


How AI/ML can give you full-visibility on rooftop solar



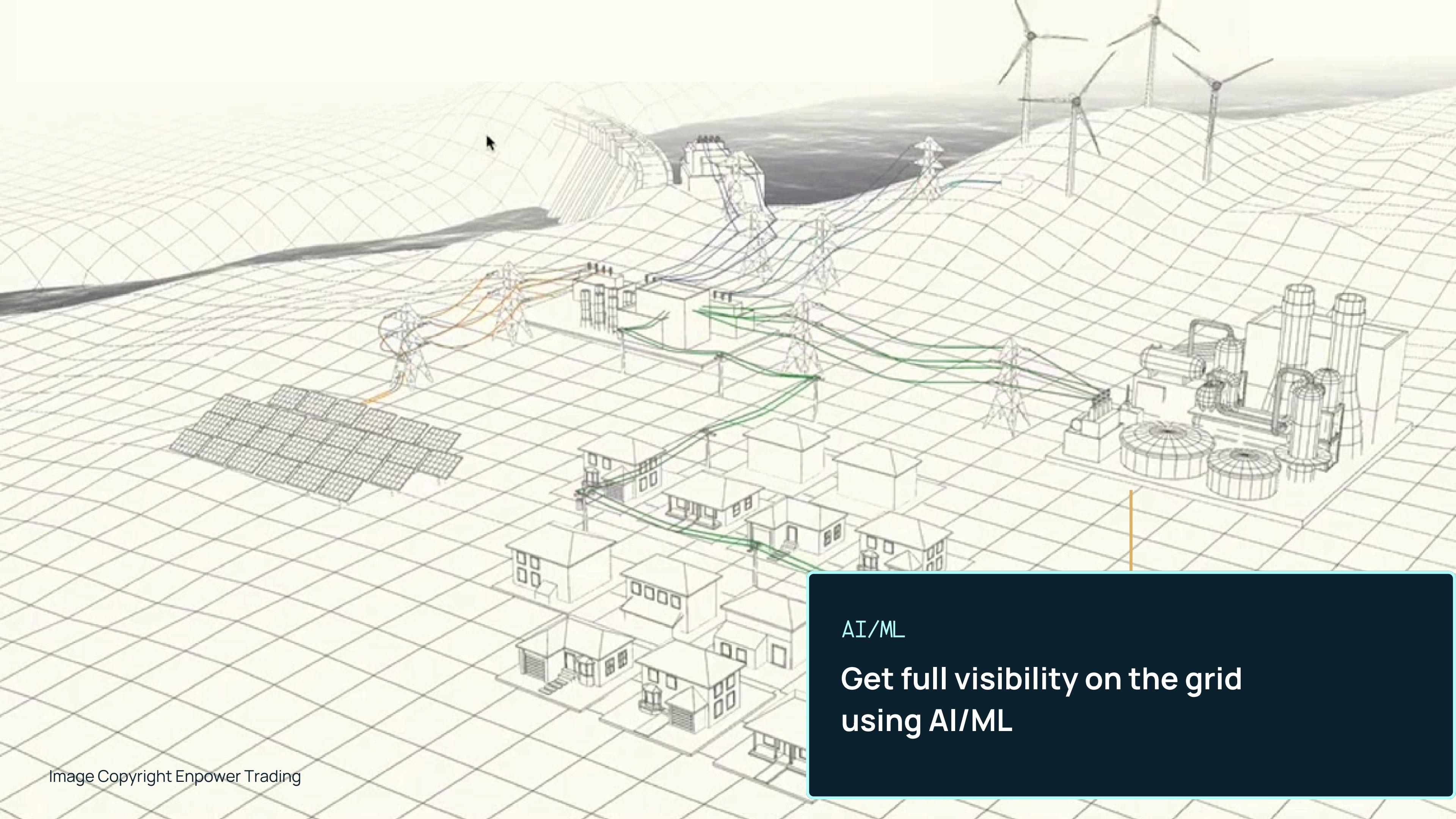
DeepSolar project is a global effort led by Stanford University to collect granular data on solar PV installations across the world.

How AI/ML can give you full-visibility on rooftop solar



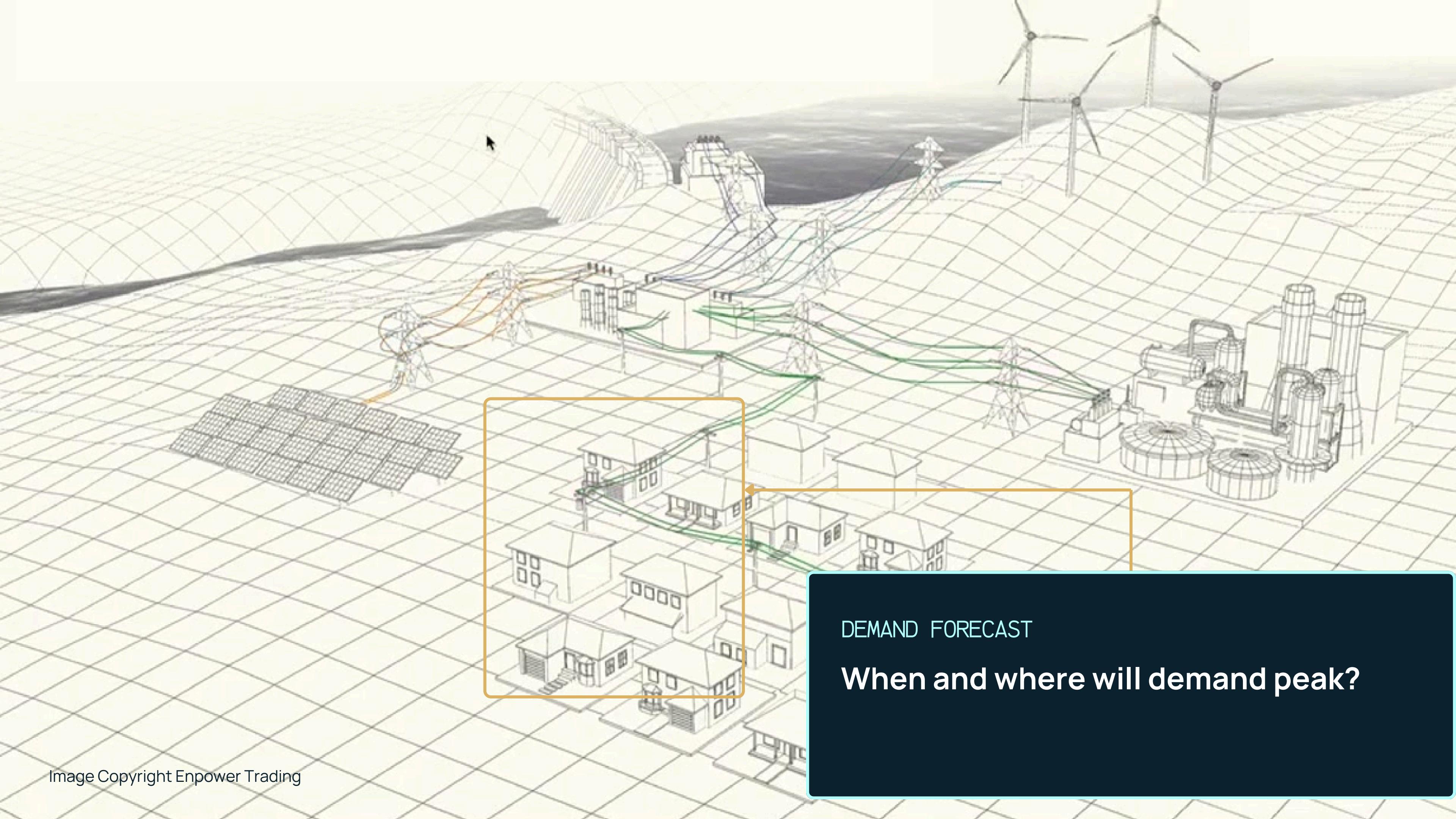
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Stanford developed a computer vision model that addresses the challenge of low image resolution to identify the installation year of PVs from historical aerial and satellite images.



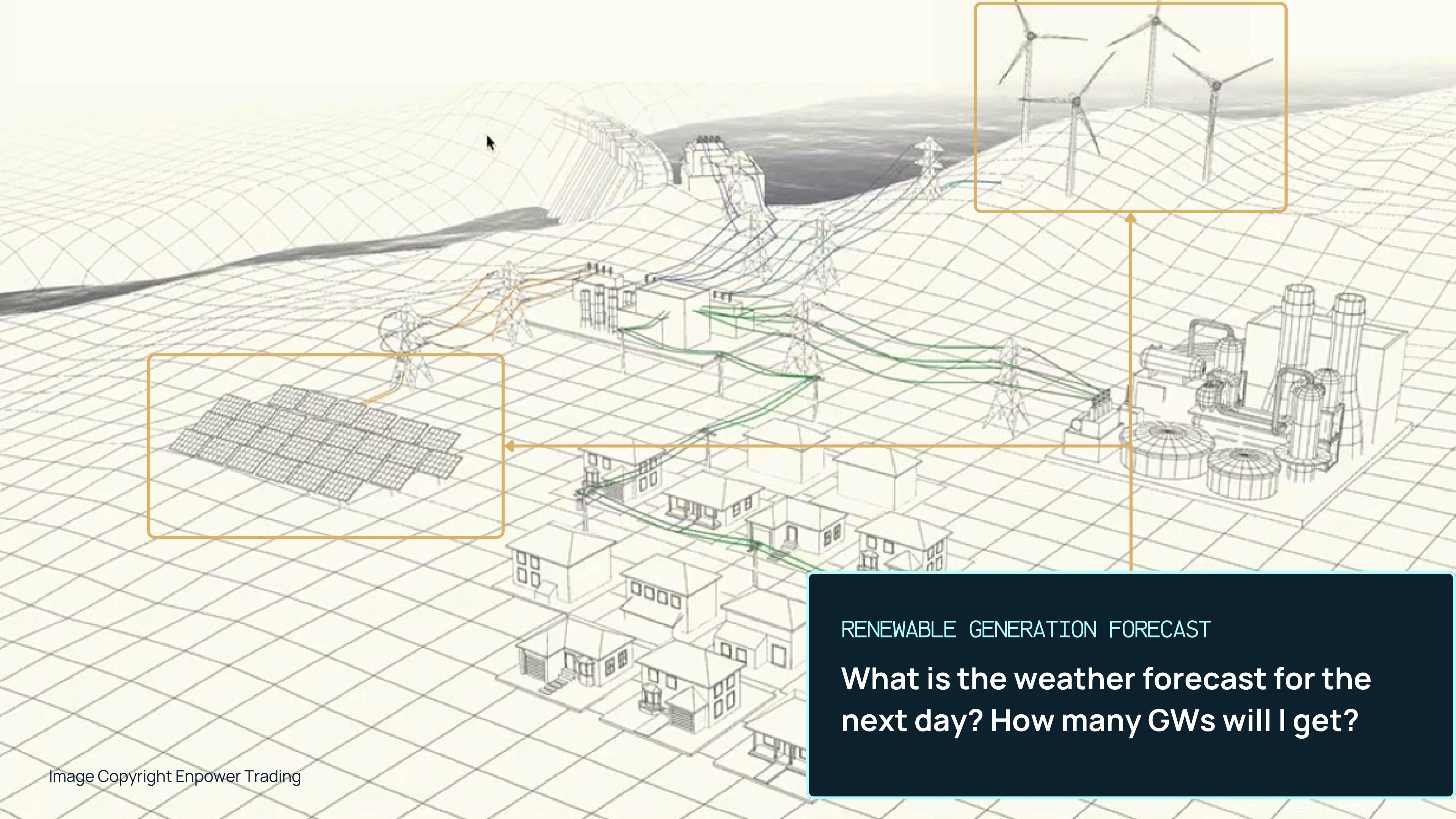
AI/ML

**Get full visibility on the grid
using AI/ML**



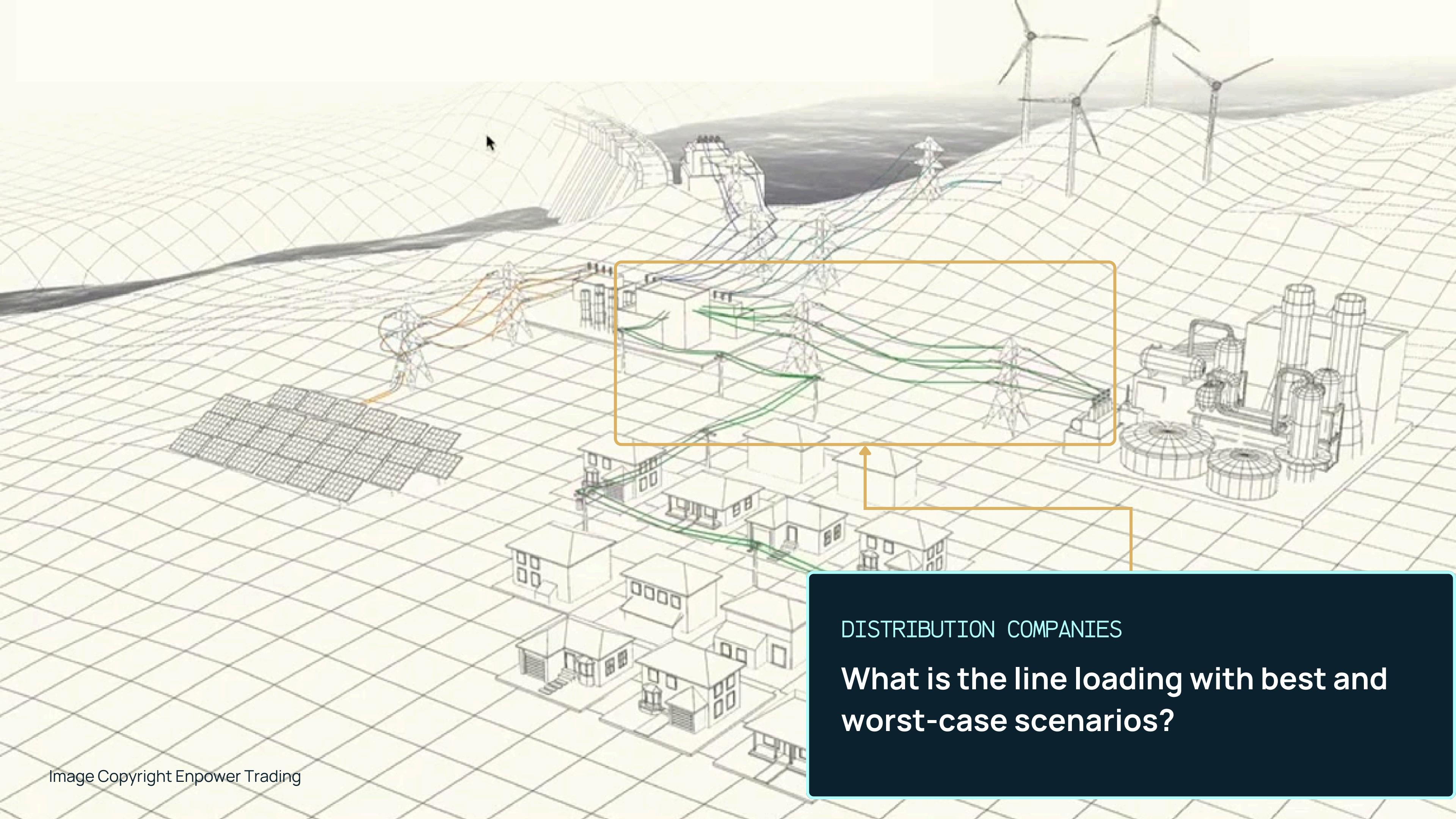
DEMAND FORECAST

When and where will demand peak?



RENEWABLE GENERATION FORECAST

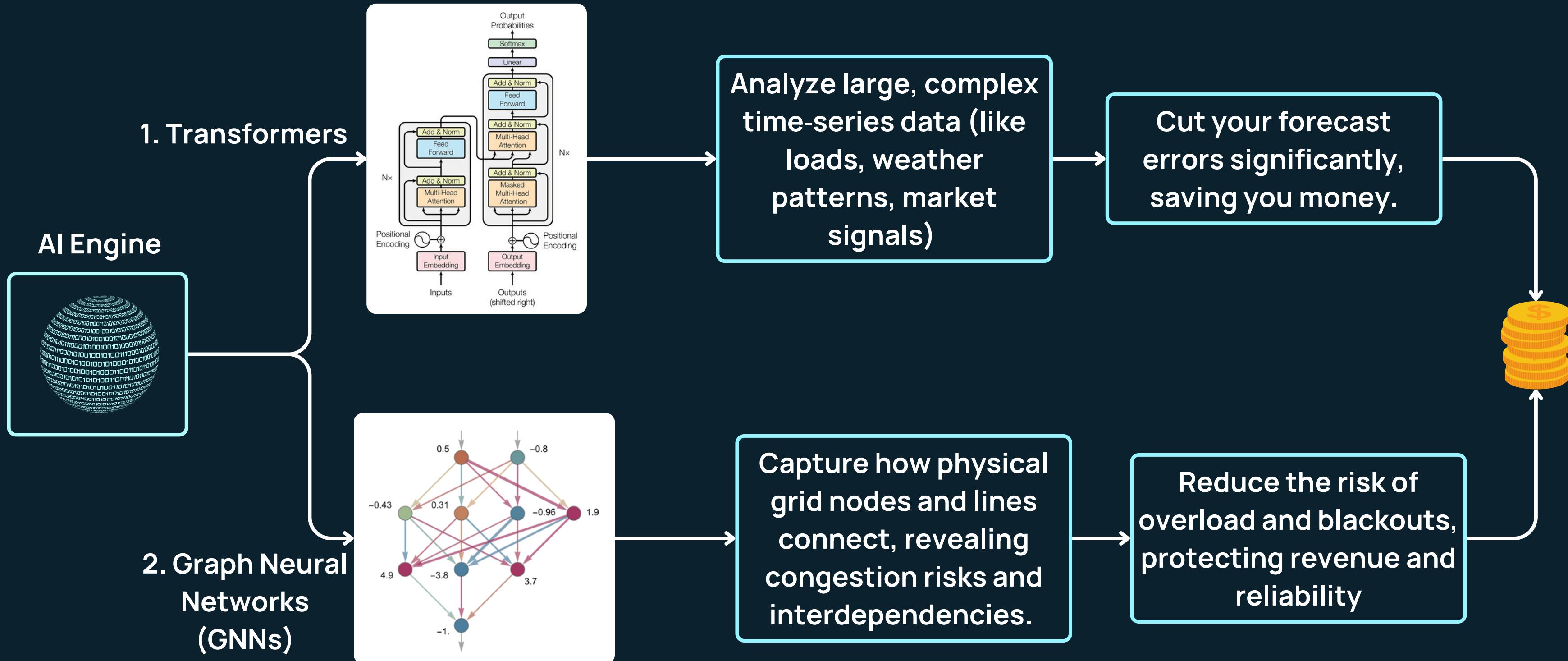
What is the weather forecast for the next day? How many GWs will I get?



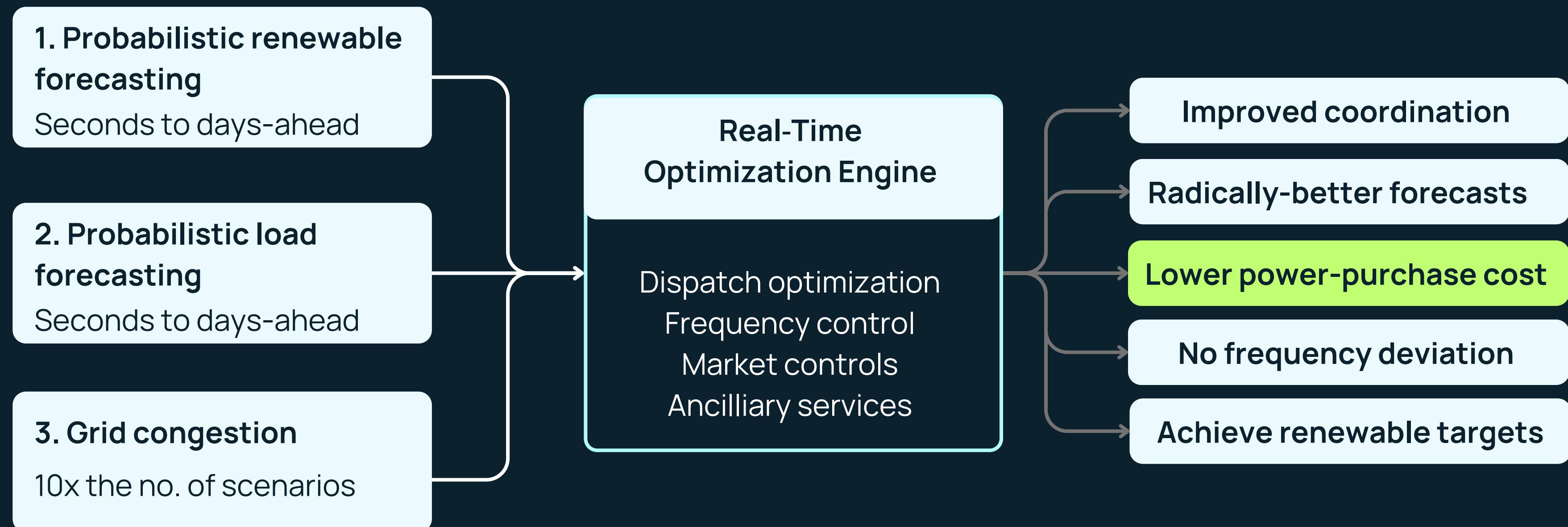
DISTRIBUTION COMPANIES

What is the line loading with best and worst-case scenarios?

Our AI engine uses two key approaches



Our real-time optimisation engine reduces your power procurement costs





Interested in a
collaboration?
Get in touch.

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Stanford
University