

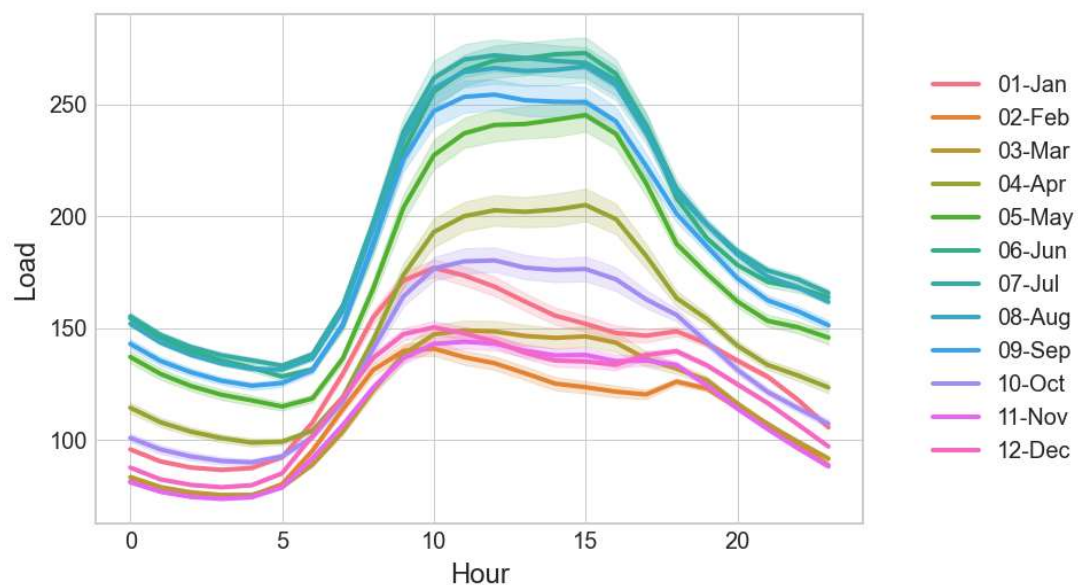


Solar-Wind-BESS Hybrid RE Power for NDMC

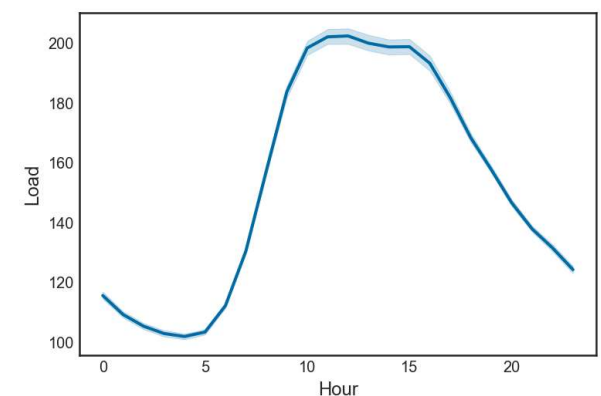
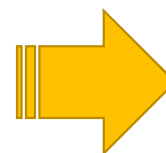
- Solar Energy Corporation of India Ltd

03 Feb 2025

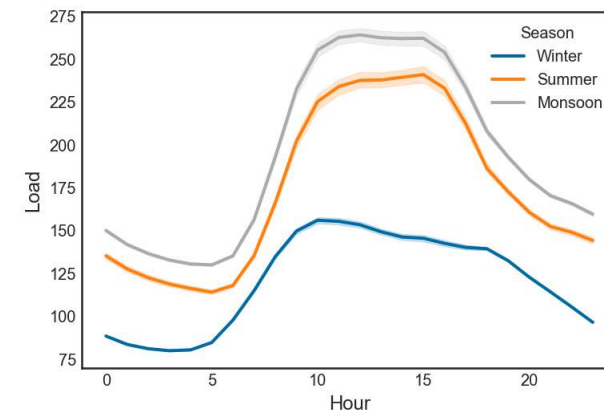
NDMC Power Scenario



Monthly Demand Curves (Average Data for Yr 2022 & 2023)



Annual Average Demand

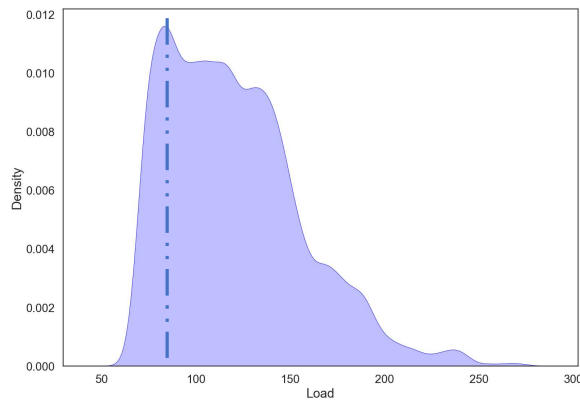


Seasonal Demand Variation

Load Pattern Features - Seasonal Variation in Demand Levels , Change in Peak Demand Times

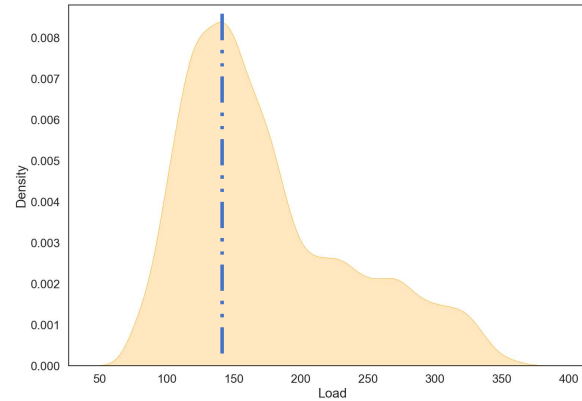
Load Pattern–Distribution: Demand Levels, When?

Winter



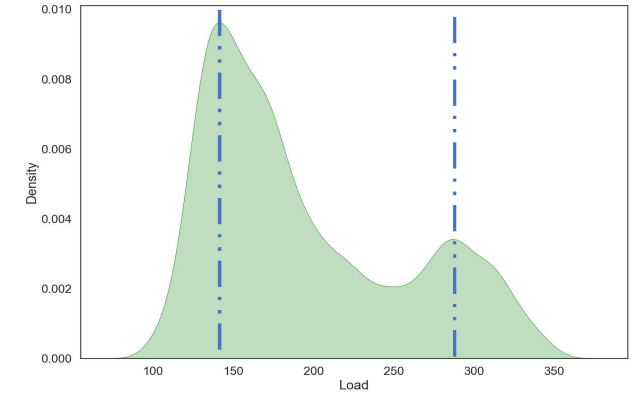
Modal Demand ~ 80 MW

Summer



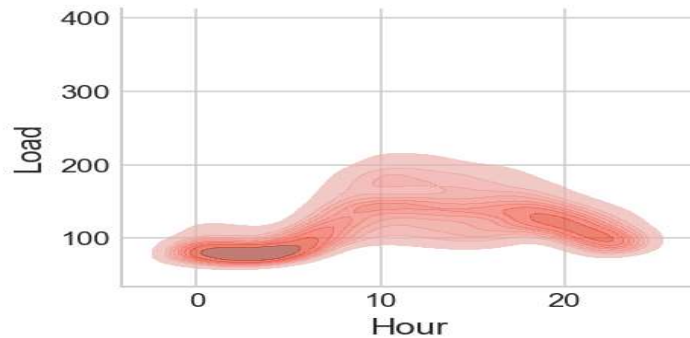
Modal Demand ~ 150 MW

Monsoon

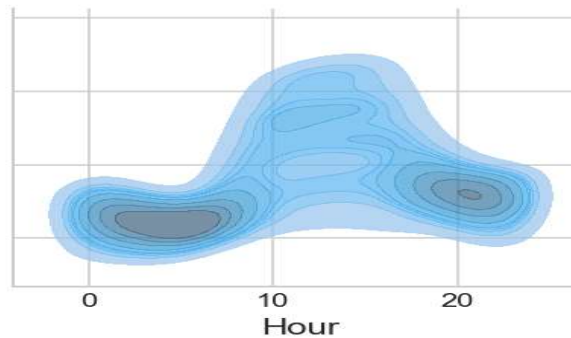


Modal Demand ~ 150 MW
Modal Peak Demand ~ 300 MW

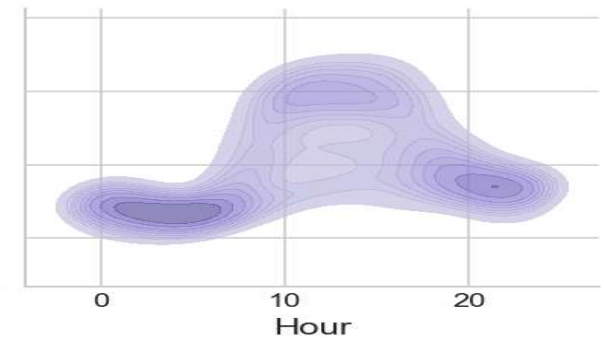
Season = Winter



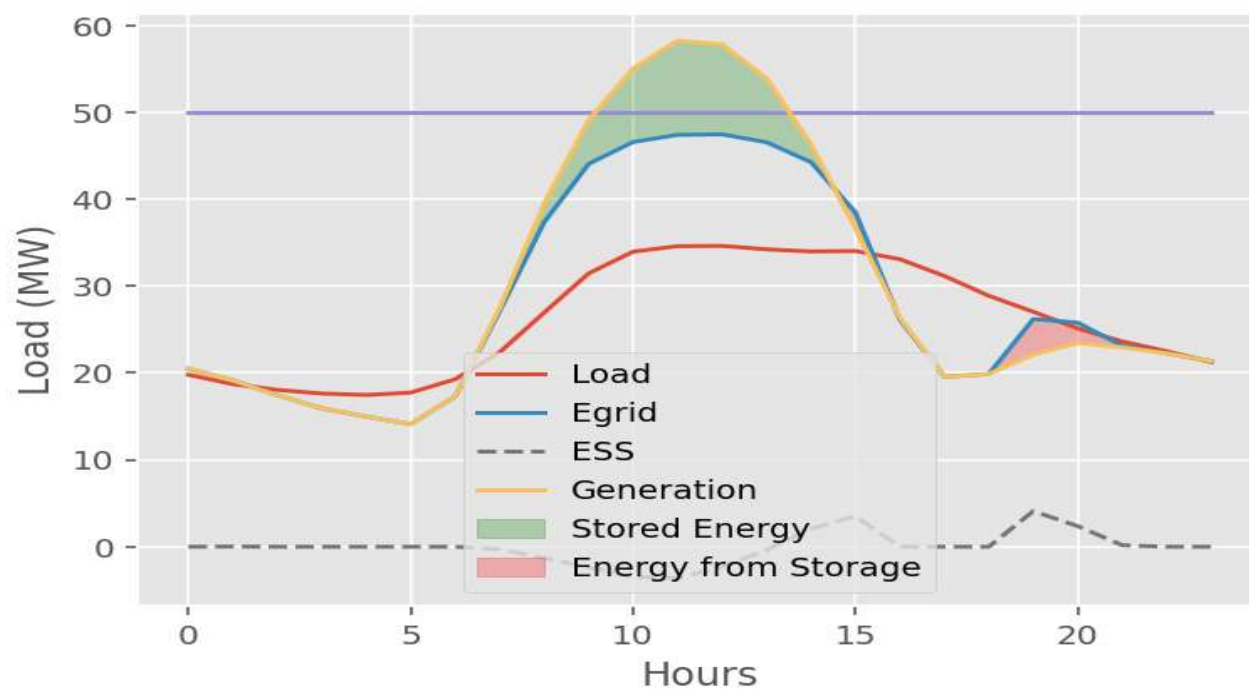
Season = Summer



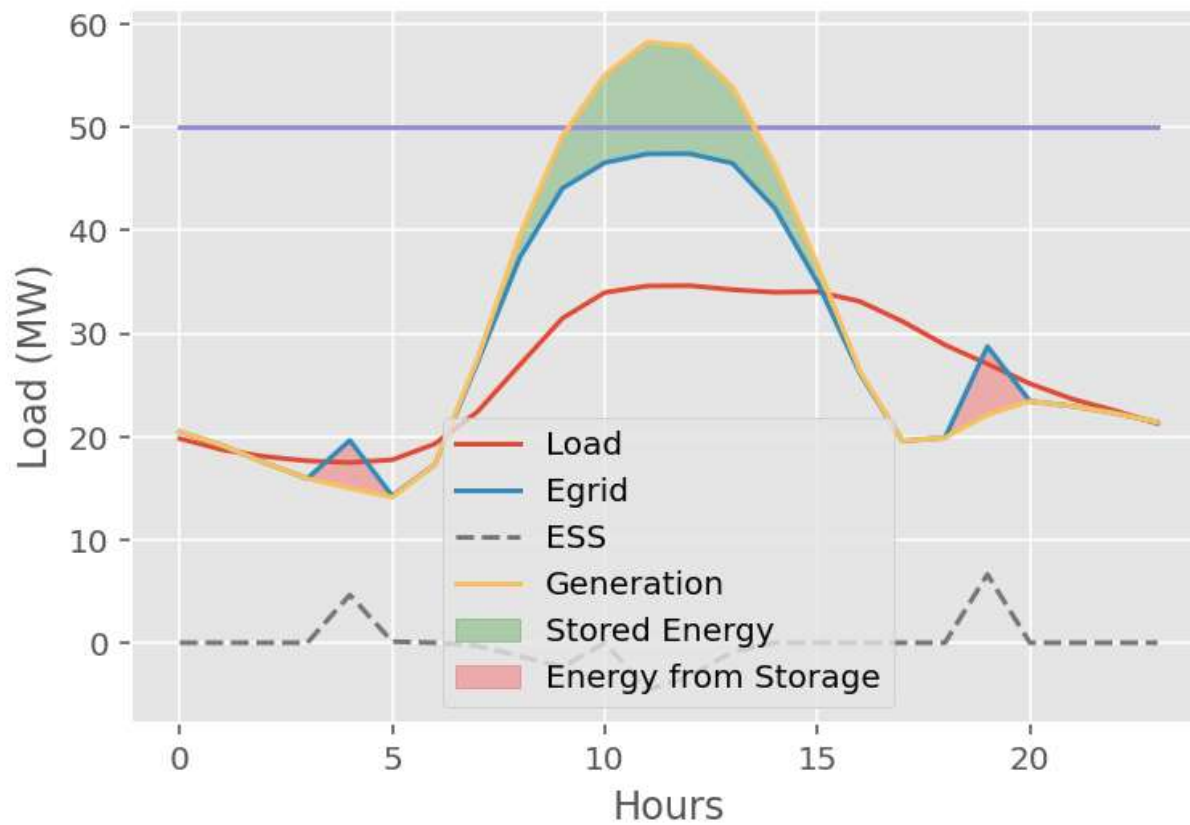
Season = Monsoon



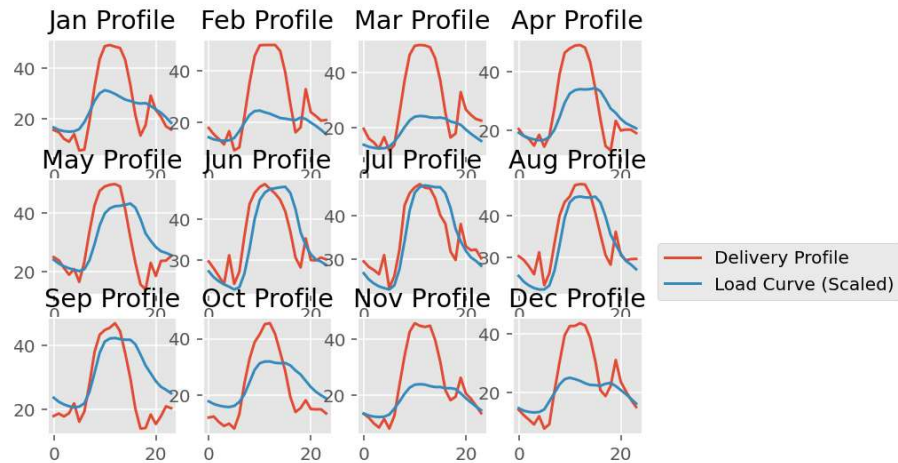
Average Annual Delivery Profile (Against Annual Average Demand)



Variable BESS Discharge – to meet Morning and Evening Peak Hours



Generation Distribution



Delivery Profile from SECI 50 MW Hybrid against the NDMC Demand Profile

Project Components:

1. Solar – 60 MW
2. Wind – 50* MW
3. BESS – 10 MW/20 MWh

Observations:

- Energy Profile from SECI's proposed Hybrid Project closely matches NDMC's demand profile. (**Note:** *NDMC's total demand scaled for comparison purposes*)
- NDMC's winter demand levels are significantly reduced (half of that of Summer/ Monsoon)
- **With offtake of all power, CUF ~ 56% (50 MW Contract Capacity)**

THANK YOU

