



# xDrive

ABS - Automatic Bidding Software

 **Sterlite Power**

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# About Us



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**MS in Engineering  
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**MS in Business  
Analytics; UofR**



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**MS in Business  
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**MS in Marketing  
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# The Problem

# Our Challenge



 **Sterlite Power**

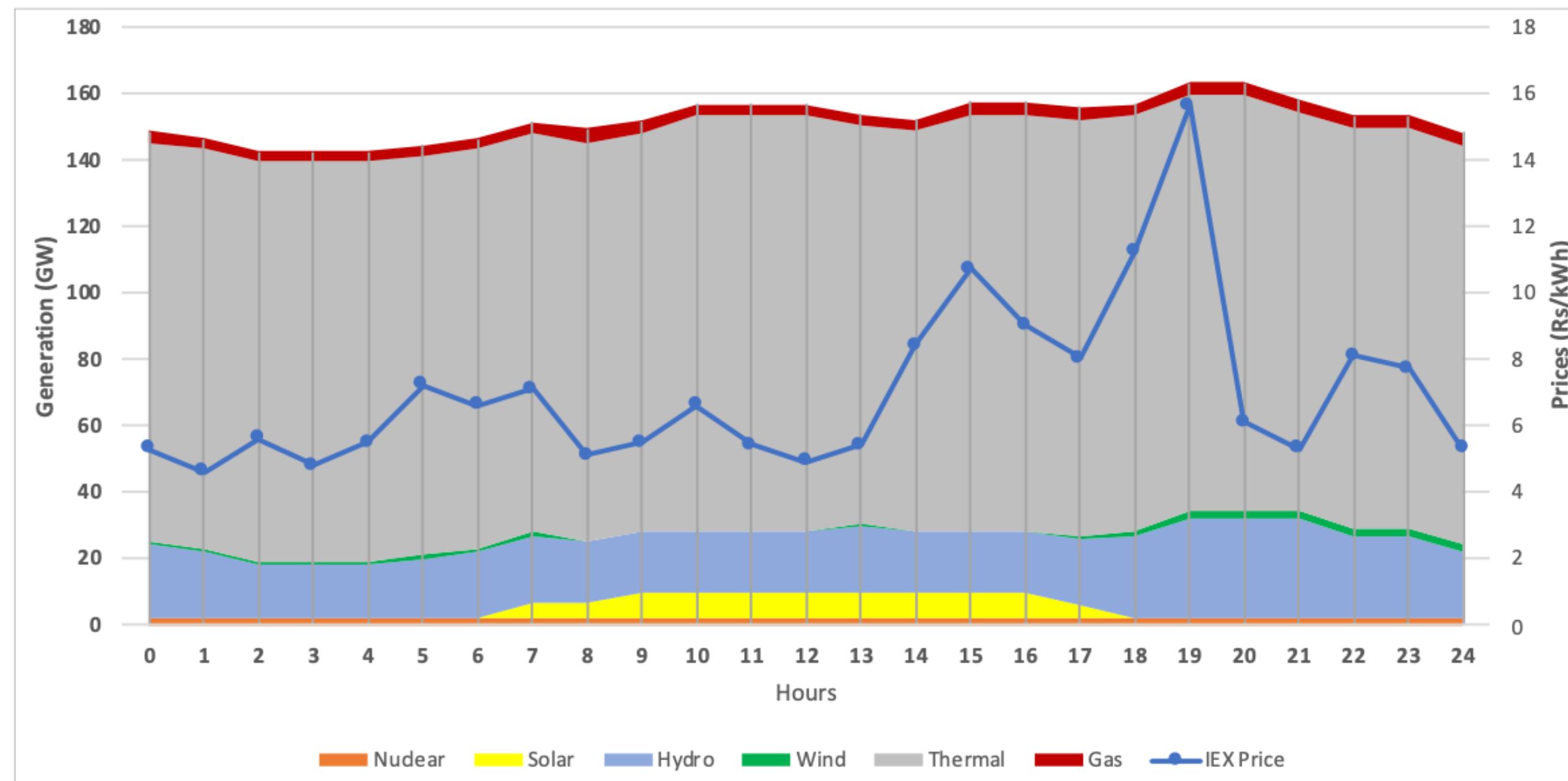
Customers of Sterlite Power aim to increase the ratio of renewable energy in their energy demand portfolio in response to the ongoing decarbonization policy. The goal is to achieve 70% of supply from renewable energy (RE) and 30% from conventional energy (CE).



- The uncertainty in RE supply
- Accurate predictive modeling
- Automatically buy and sell power to IEX

# RE Supply Uncertainty

**Figure 4: All India Fuel Wise Generation Pattern and Prices at IEX on 3 October 2018**

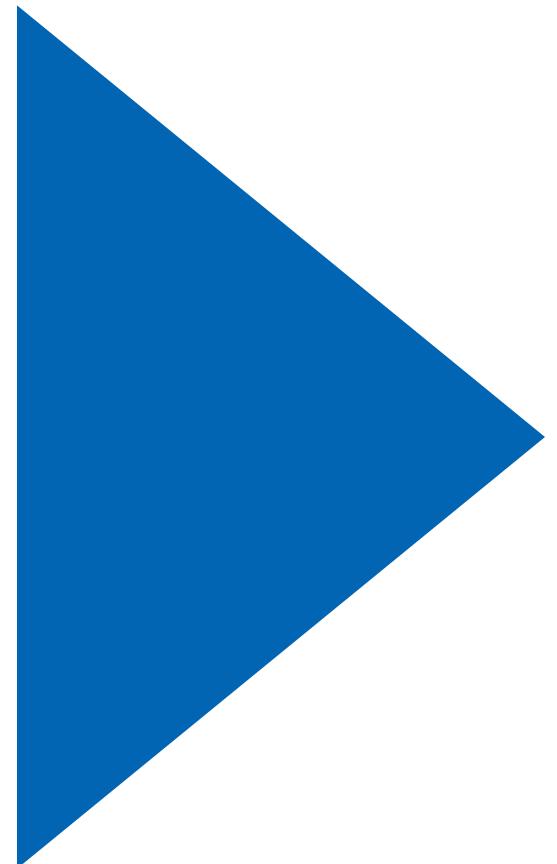


# Solution Summary

 **Sterlite Power**

**Clients**

**Input the Power Demand  
of the Facility  
for the Next Day**

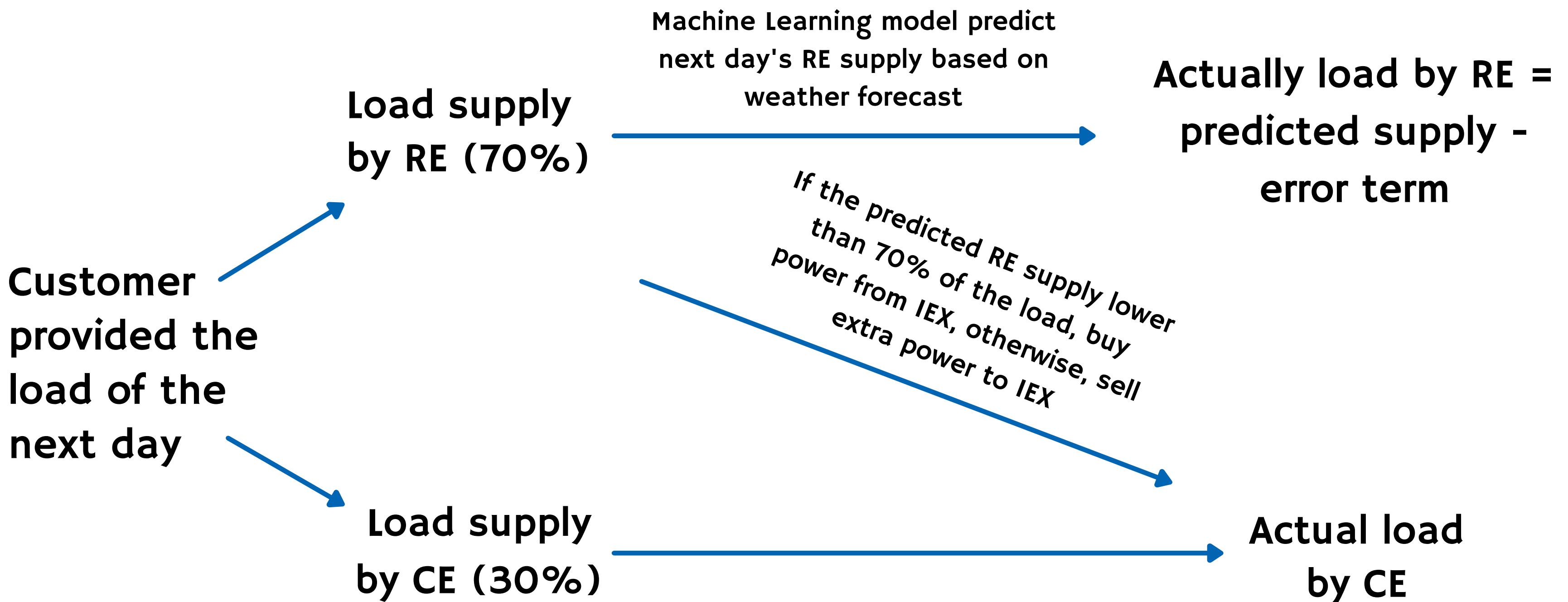


**xDrive Output**

**Bidding Summary  
for the IEX**

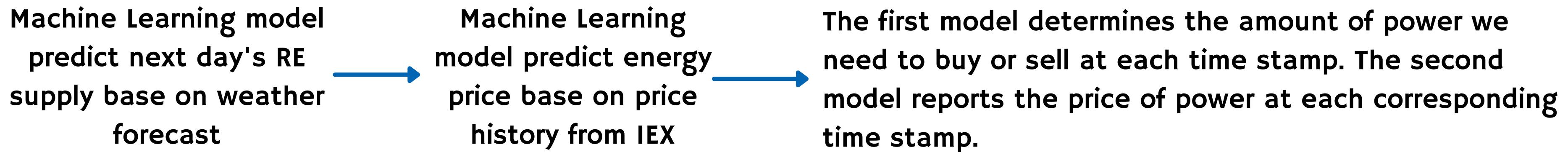
# Our Solution

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# Our Model

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Bidding Summary submitted to IEX

# Sample Data Collection

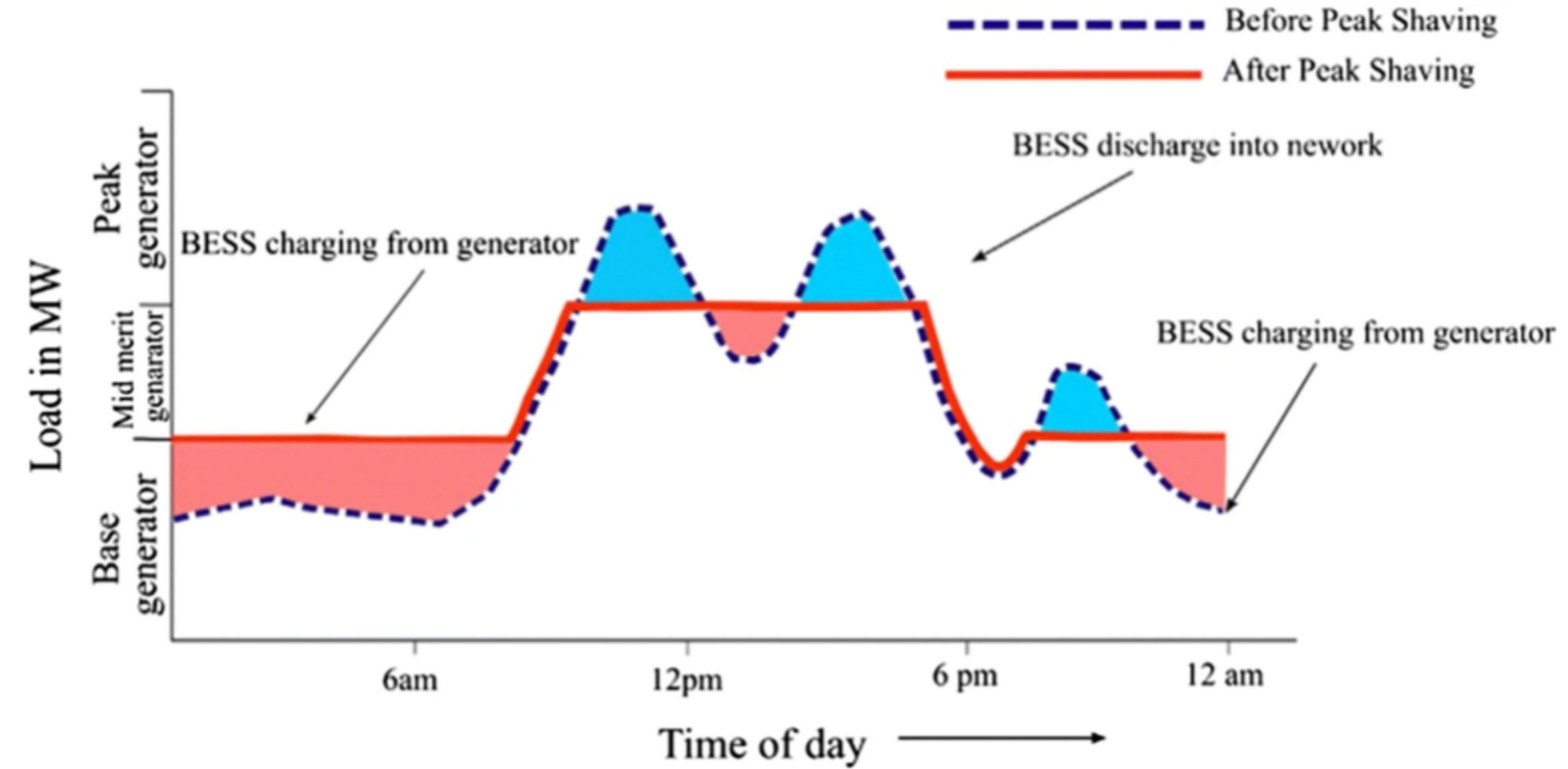
 Sterlite Power

DATE TIME	PRECIPITATION AMOUNT	PRECIPITATION TYPE	HUMIDITY	TEMP	WIND SPEED	WIND DIRECTION	AIR PRESSURE	SOLAR	WIND
1/1/2020 21:00	0 mm	N/A	40 %	20 °C	5m/s	NW	739 mmHg	300 kW	100 kW
1/1/2020 21:15	0 mm	N/A	45 %	20 °C	5m/s	NW	739 mmHg	300 kW	100 kW
1/1/2020 21:30	0 mm	N/A	50 %	20 °C	5m/s	NW	739 mmHg	300 kW	100 kW
1/1/2020 21:45	25 mm	Rain	60 %	19 °C	5m/s	NW	700 mmHg	150 kW	100 kW
1/1/2020 22:00	40 mm	Rain	65 %	19 °C	9m/s	NW	700 mmHg	100 kW	120 kW

# Future Prospects



**BESS ensures homes and businesses can be powered by green energy even when the sun isn't shining, or the wind has stopped blowing.**



**Buy and charge at the Low Price,  
Sell and discharge at High Price,  
Reliable & High Efficiency**

# Q & A



# Thank You

