









The Importance of Real time Energy to manage the Future Grid

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Agenda and Context

- About Village Energy
- Experience in India
- Experience in Australia
- Benefits of real time meter data
- Accessing real time meter data
- Use case











We are backed by....



Breakthrough Energy VENTURES























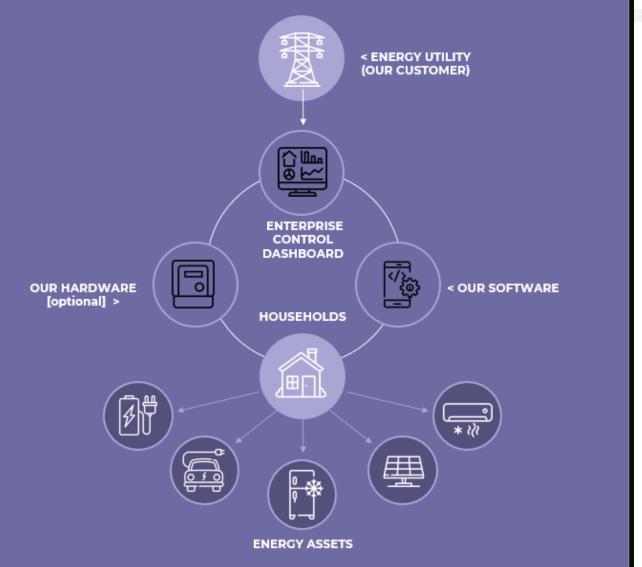






The Village Energy Solution

village Energy provides utilities with a solution that seamlessly manages this new grid complexity.
We provide this solution to the utilities, and they make it available to their customers (households).
Our platform helps stabilise and optimise the grid by managing the decentralised supply and demand of energy at the device level within each household.











In India we delivered transformational benefits

Village Energy deployed our VEDA IOT devices to 130 houses on a single transformer, including a device on the transformer. Customer prioritized their demand through a mobile app and a dynamic price signal was used to automate the supply and demand balance in the grid. A video of the case study can be found here.

Utility Costs /
kWh¹
30%

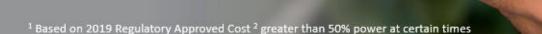
No. of Grid Outages **75%**

Peak Load Reduction 13% Rooftop Solar

50%²



↓ 1





















- From our experience in Australia and South East Asia, one of the challenges of managing the grid and introducing demand flexibility is access to real time meter data.
- Access to real time meter data can be costly, with the need for expensive additional hardware that needs to be installed by a technician. In some cases the cost can be as high as US\$2,000.
- Without access to real time meter data, it is not possible to efficiently manage customers' behind the meter assets and provide demand flexibility that provides value to the customer and the grid.
- We needed to find a low cost solution to get access to real time meter data.











Benefits from real-time metering data



Improved control over energy costs - savings of 5-15%



Reduced greenhouse gas emissions



Home automation and participation in Demand Response programs and VPPs



Low-cost net zero export capability



Better bill management for vulnerable customers



Reduced bill shock – real time billing



Notifications to alert customers about energy use



Customer mobile app









Village Energy have partnered with Secure Meters to deploy this technology in Australia and South East Asia

3













Zigbee-enabled gateway connects to smart meter and collects realtime, revenue grade smart meter data



Village Energy platform 4 receives 1 minute data from the Village Energy Gateway using customer Wi-Fi



Customer receives near real time (1 minute) energy data, energy spend and alerts on mobile app. Data also streamed to utility.

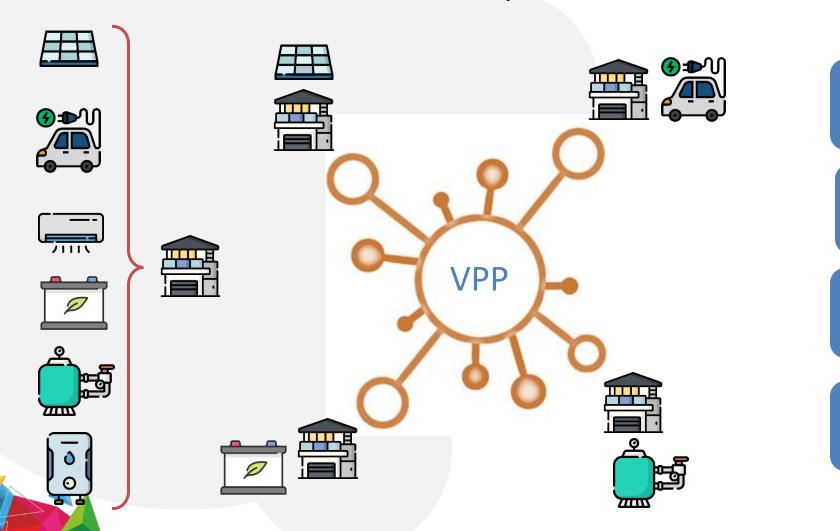








Real time data is vital to implement Virtual Power Plants



Improve gross margins

Peak shaving

Ancillary Services

Grid Support









Thank You

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