Leveraging smart meter data to benefit stakeholders in the utility industry.
Creating a 'nudge to do more' for both consumers and utility companies

Insight-O-Meters achieved this using
• SAS® Viya® in Microsoft Azure • App Factory Cloud platform

SAS Hackathon 2023 • Technology Winner for App Factory Cloud • Industry Winner for Energy • Specialty Winner for Sustainability • Energy Track

Challenge
The world is moving to greater use of renewable sources of energy, and away from fossil fuels. However, renewable sources mean greater variability of supply, and this needs to be balanced against demand. When companies get this wrong, it can be extremely expensive.

- Utility companies need a better understanding of customer demand, and likely supply of electricity from renewables.
- They need to know about the availability and access to alternative sources when necessary.
- Consumers need to understand their energy use at an appliance level to change their behavior.

Innovation
The solution uses different technologies and tools within SAS® Viya® to create a model of energy generation under different conditions, and across months and seasons.

Insight-O-Meters:

- Created a model of generation of energy using data on consumption and power generation.
- Used this to show how different sources of energy can be cranked up to meet demand.
- Identified potential to influence consumer behavior through changing prices at different levels of demand.

Impact
Utility companies have a clearer picture of the likely demand and potential sources of energy to meet that demand.

- They can avoid blackouts, but pay less for doing so by better management of supply sources.
- Consumers can be encouraged to reduce their demands on the grid, or use energy at times of lower demand.
- The model could be applied across the utility industry to increase sustainability.

> "Managing additional variability is not easy, and it doesn't come cheap."
>
> Himanshu Shekhar • Team lead • Insight-O-Meters