Role of AI in Energy Analytics for accelerating clean energy adoption

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Energy-as-a-Service in Microgrids

> What will be the best options for a EaaS company to take up Microgrid Project?
  - best financial returns
  - ease of deployment

> How can we increase the value provided to the energy customer?

> How can we keep up with shifting customer priorities and goals - ESG or Climate Change, for example.
Understanding Shifting Energy Demands

1. EV Adoption trends, Heat Pump Adoption
2. Future Solar/Storage development potential in a given region
3. Local Policies and clean energy goals

Illustration: Imagine we are building a microgrid for a community here

A mix of structured and unstructured data, reliable and unreliable data, continuous and static data
Behind-the-Meter complexity

Microgrid operators (including those providing EaaS) will have limited visibility into the BTM system operation (i.e. they only see the difference between customer demand and storage operation) → This will hinder their ability to improve their services.

We believe a hybrid approach is the future.
Predictive Asset Health Management

A.I. for Predictive Maintenance will help EaaS companies tailor maintenance routines to each piece of equipment’s needs, rather than having them conform to a set schedule.

Market Gaps:
1. How to find pre-trained models for a wide-variety of grid assets?
2. How to factor this in to pricing decisions?
Siting and interconnection challenges

Finding sites based on ease of interconnection [i.e. availability on feeder line and/or substation/new substations being built].

Developers want to be able to select location based on future value of energy/future development on that feeder line which would erode energy value.

Piggy back off-of other projects as much as possible to keep costs low.
How to deal the dynamic shifts in the energy landscape?

Sandbox-as-a-Service ** (Plexflo is a pioneer in this technology with 3 patents)

Simplicity - less dependence on IT/tech talent.

Build your new AI tools in less time. Buy less tools.

Iterate faster.
Enabling faster iterations and A/B testing across customer needs

Data Analysis, BI Tools, ML model training

Proposed Microgrid Design (and Digital Twin) to operate on a EaaS business model
Customized ChatGPT for Power Grid Analytics:

- Quickly create simulation models using natural language
- Query data like you are asking a co-worker
- Understand regulations better. Let AI unwrap the complexity.

Demo Video

National Grid | Town of Scituate | Hingham Municipal Light Plant
ChatGPT for the Energy Analytics

Its FREE. Join the waitlist today →
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