BluWave-ai

Artificial Intelligence for Clean Energy

Artificial Intelligence Readiness and Model Building Services for Microgrid and Smart Grid Operators

Early Discussion
Connect with **Bluwave-ai** to discuss smart grid or microgrid project

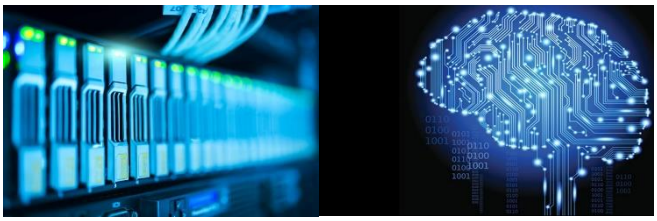
AI Readiness Assessment
Work with **BluWave-ai** to ensure you are AI-ready via AI readiness assessment

AI Model Building Service
BluWave-ai trains AI models software with site-specific data

Edge & Center Integration
Integrate AI predictions & recommend-ations in operational management & grid control

License, Support & Maintenance
Ongoing machine learning & AI model optimization improvements realized

Artificial Intelligence (AI) can be applied to smart grids and microgrids to optimize in-real time power generation and operation, accurately predict demand, and apply machine learning to adapt to changing electricity consumption and generation patterns. AI responds to rapid electricity generation and demand fluctuations by supplying more reliable and economical energy, increasing customers' use of renewable energy, reduction in fossil fuel use. To enable smart grid and microgrid operators to prepare for and deploy AI, BluWave-ai offers AI Readiness Assessment and AI Model Building services in addition to integration and licensing of BluWave-ai's Edge and Center distributed AI products



Challenges Addressed by AI Readiness Assessment

- Collection, storage, and management of smart grid data
- Analysis and mining of grid data
- Using big data analysis to support better decision making
- Obtaining insights and value from the data
- Mitigate risks and protect privacy while using data

Data used for AI Assisted Operation

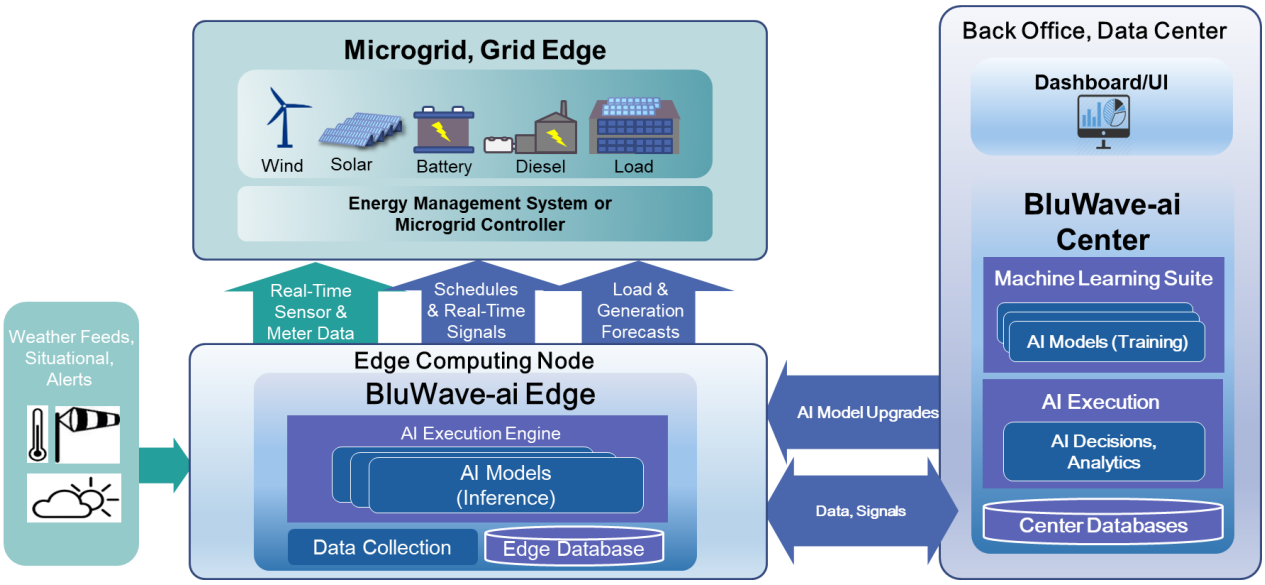
Historical and live data used for AI-assisted grid operation includes:

- Load data from smart meters
- Data from inverters, generation sources
- Weather station data and local weather feeds
- Historical load and generation data
- Grid energy price
- Schedules and alerts from grid equipment and consumers

AI Readiness Assessment

1. Develop clear description of the grid and all associated elements
2. Define critical use cases for AI implementation
3. Inventory the key aspects of datasets
4. Conduct Gap analysis and Recommendations
5. Develop final report for AI readiness

BluWave-ai: Distributed AI for Optimizing Smart Grid and Microgrid Operation



BluWave-ai AI Model Building Service

- Identify practical use cases with readily available historical and current data
- Setup BluWave-ai in data center or cloud and at edge to acquire, condition data and train models
- Test accuracy of trained models comparing outputs with system measurements
- Demonstrate impact of the AI solution on system performance
- Quantify the improved performance metrics

To assist customers by quantifying the benefits of using AI assisted operation of their grid, BluWave-ai offers an AI Model Building Service. This service includes conditioning historical data for AI model and building and training AI models. BluWave-ai will build models that work with the customers' data to provide improved predictions of load and generation. Using a simulation of the grid, suitable optimization strategies are tested to validate model based on available historical data.

BluWave-ai will connect an instance of Edge either on-site or in the cloud to smart grid sensor and data sources. An instance of BluWave-ai Center will also be set up and connected to BluWave-ai Edge for model training and testing by BluWave-ai using live data. This provides further training using live data. Live data is used by the AI models in a simulation environment to provide predictions and recommendations to estimate the improvements that would be achieved by deploying BluWave-ai for smart grid control. BluWave-ai can also provide recommendations (for example via email) that customer's may use to periodically test their outcome on-site.

Based on these results, BluWave-ai will provide a report to help customers quantifying the expected benefits before fully deploying BluWave-ai.

BluWave Inc. Artificial Intelligence
430 Hazeldean Rd, Suite 213
Ottawa ON Canada K2L 1T9
www.BluWave-ai.com
info@BluWave-ai.com

BluWave-ai

Artificial Intelligence for Clean Energy