



AI

Custom Solutions

INDUSTRIAL AUTONOMY

WITH AI & ML



SMHcoders

Let's Digitalize Your Business..

**Renewable Energy
Solutions Portfolio**

Renewable Energy

Services

- 01 AI Chatbot Development
- 02 Natural Language Processing
- 03 Predictive Modelling
- 04 Computer Vision
- 05 AI Development Services
- 06 Web Development
- 07 Mobile App Development
- 08 Chat GPT Integrations

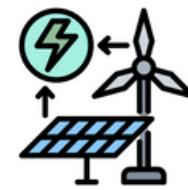
Solutions



**IoT-Enhanced
Renewable
Asset Predictive
Maintenance**



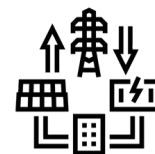
**Grid-Scale
Energy Storage
Optimization
System**



**Smart
Renewable
Energy
Forecasting
Platform**



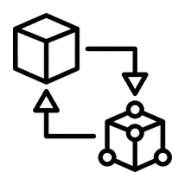
**AI-Driven
Renewable
Energy Siting
and Permitting
Tool**



**Autonomous
Microgrid Energy
Management
System**



**Smart Circular
Economy for
Component
Recycling**



**Digital Twin for
Integrated
Renewable Plant
Management**



**IoT-Based
Community
Engagement and
Impact
Monitoring**



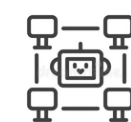
**AI-Guided Clean
Energy
Workforce
Management
Platform**



**Smart Grid
Integration and
Curtailment
Avoidance
System**

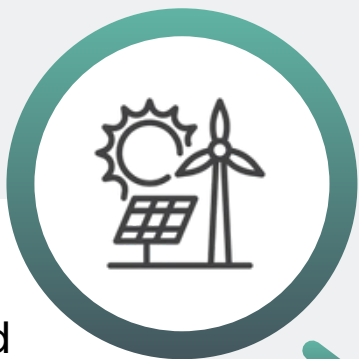


**Intelligent
Energy Trading
and Demand
Response
Platform**

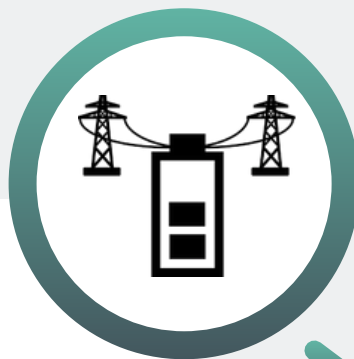


**IoT-Driven
Lifecycle GHG
and
Sustainability
Reporting
System**

Key Benefits



- Reduces downtime and repair costs
- Extends asset life cycles
- Increases availability of clean energy



- Balances intermittent generation
- Reduces curtailment and improves dispatchability
- Supports grid frequency and voltage stability



- Improves generation scheduling
- Reduces forecasting errors and penalties
- Enhances energy trading strategies



- Reduces project delays and permitting rejections
- Increases community acceptance
- Optimizes land use and development cost



- Enhances energy access and resilience
- Minimizes dependency on fossil backups
- Ideal for remote, disaster-prone, or rural areas



- Reduces waste and landfill use
- Captures value from recycled materials
- Supports ESG goals and circular economy models



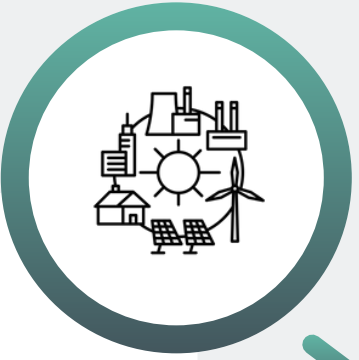
- Optimizes performance and investment decisions
- Enables predictive risk management
- Reduces CAPEX/OPEX through scenario-based planning



- Builds social license to operate
- Reduces legal disputes and project opposition
- Demonstrates corporate responsibility



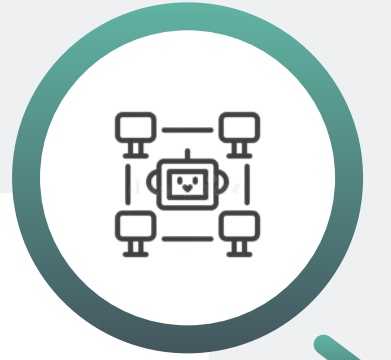
- Fills talent shortages
- Reduces training overheads
- Ensures consistent workforce quality



- Improves renewable grid integration
- Maximizes energy utilization
- Reduces revenue loss from overgeneration



- Boosts participation and savings
- Enhances grid flexibility
- Generates new revenue streams



- Simplifies ESG and carbon compliance
- Builds investor confidence
- Aligns operations with net-zero goals