PROJECT SPECS

PROJECT TYPE: CAD design drawing automation Software

TECHNOLOGIES: C#, Razor, AutoCAD, Autodesk Forge, pgAdmin 4, AWS, JSON, Docker

SERVICES PROVIDED: Design services, Permit drawing Automation, Proposal drawing, Software Development, Quality Assurance, Project Management

TEAM:

- Project Manager
- Backend Developers
- CAD designer
- QA Engineers

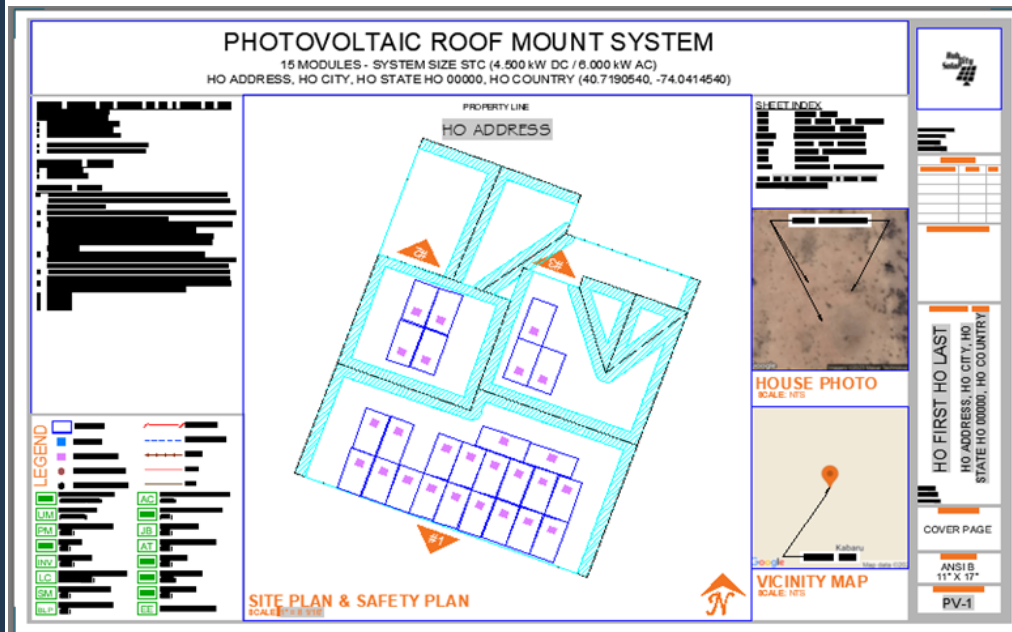**SCOPE:** Development, Enhancement, Maintenance, IT infrastructure, and Support

ENGAGEMENT MODEL: Managed service

DURATION: 1.5+ years

SOLAR INSTALLATION PERMIT AUTOMATION

Client: Enphase Energy
Industry: Renewable energy, Solar power generation & storage
Website: https://enphase.com/

OVERVIEW

Enphase is a company that specializes in creating and producing software- driven solutions for home energy. Their expertise extends to various aspects, including solar power generation, home energy storage, and web- based monitoring and control systems.

BUSINESS CHALLENGE

The need for a streamlined and efficient process of generating permit drawings for solar panel mounting systems. The existing methods might be time-consuming, prone to errors, or lacking standardization.

Therefore, the challenge is to develop an application that automates the creation of permit drawings, ensuring accuracy and consistency while providing essential information about site plans, circuit details, attachment details, placards, equipment details, and more. This will address the business need for a more efficient and reliable solution for generating permits drawings in the context of solar panel installations

OBJECTIVE

To create an application that facilitates the generation of permit drawings for solar panel mounting systems. This application will provide comprehensive information including site plans, circuit details, attachment specifications, placards, equipment details and more

SOLUTION

Riverstone offers assistance in the development of this application that utilizes CAD API (Application Programming Interface) and APS (Autodesk Platform Services) to create permit drawings. This solution seamlessly integrates with essential operations such as site planning, image embedding, roof mounting, and wire property calculations.

DISTINCTIVE FEATURES

- Enables design of site plans in both 2D and 3D, providing solar panel attachment information.
- Automates the creation of placards.
- Automatically generates SLD (Single Line Diagram) and TLD (Three Line Diagram) circuits while calculating wire properties.
- Streamlines attachment details with Rails, Rail splices, and Clamps through automation.
- Embeds satellite images, vicinity maps, and company logos.
- Enhances production quality and ensures error-free drawings by leveraging permit drawings.
- Intelligently generates roof indicators based on geometry.

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