Project Design Phase

Problem – Solution Fit Template

Date: 15 February 2025
Team ID: PNT2025TMID00584
Project Name: Global Energy Trends: A Comprehensive Analysis of Key Regions and Generation Modes using Power BI
Maximum Marks: 2 Marks

Parameter	Description
Customer Problem	Energy policy analysts struggle with scattered data sources, making it difficult to analyze renewable energy policies' impact on CO2 emissions. Power grid operators face challenges in forecasting energy demand due to the variability of renewable energy sources.
Existing Solutions & Gaps	Current energy dashboards lack real-time integration and predictive analytics, leading to inefficient decision-making. No centralized platform exists that integrates policy impacts with energy trends and real-time grid management.
Our Solution	An interactive Power BI dashboard consolidating global energy data, offering insights into energy consumption, production trends, CO2 emissions, and the impact of government policies. Includes predictive analytics for forecasting energy demand and optimizing grid stability.
How It Solves the Problem	Provides a centralized, real-time platform with integrated visual analytics for better decision-making. Enhances forecasting accuracy by leveraging historical and live data analytics. Supports policymakers and grid operators with actionable insights to improve energy management.
Key Benefits	- Improved policy decision-making with real-time data analysis. - Enhanced grid reliability with better forecasting models. - Supports global sustainability goals by tracking CO2 emissions and renewable energy growth. - Increased efficiency in energy resource allocation.

Market Potential & Adoption	Targeting government agencies, energy corporations, and research institutions interested in optimizing energy trends analysis and policy-making. Potential for expansion into IoT-based energy monitoring and AI-driven forecasting solutions.