Project Initialization and Planning Phase

Date	30 JULY 2025
Team ID	xxxxxx
Project Title	Interactive Analysis of Global Energy Trends (1990-2020)
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	Develop an interactive Power BI dashboard that reveals critical insights about global energy consumption patterns, renewable adoption trends, and regional benchmarks to inform sustainable policy decisions
Scope	Analysis of 45+ countries across 7 continents, covering: • 30 years of consumption data (1990-2020) • 8 energy generation types (renewable/non-renewable) • Regional comparisons (BRICS vs OECD, continental trends)
Problem Statement	
Description	Decision-makers lack accessible tools to: 1. Track renewable transition progress 2. Benchmark national performance 3. Visualize carbon impact of energy choices
Impact	Poor visibility into energy trends leads to: • Inefficient resource allocation • Delayed climate action • Inability to meet SDG 7 (Affordable & Clean Energy)
Proposed Solution	
Approach	1. **Data Integration**: Merge all datasets into unified star schema 2. **Time Intelligence**: Implement DAX measures for YoY analysis 3. **Visual Storytelling**: Develop interactive dashboard and report pages

Key Features	• Animated consumption timelines • Country bench-marking matrix • Emission calculator (TWh→CO2) • Renewable adoption scorecards • Mobile-responsive design

Resource Requirements

Resource Type	**Description**	**Specification/Allocation**
Hardware		
Computing Resources	For data processing	Asus F17
Memory	Handling large datasets	16 GB RAM
Storage	Disk space for data, models, and logs	500 GB SSD
Software		
Frameworks	Analytic /Visualization	Power BI Desktop
Libraries	Data transformation	Power Query, DAX
Development Environment	Collaboration	Smart internz workspace , You tube,Git Hub
Data		
Data	Global Energy Trends , Kaggle	CSV files of country, continent consumption(TWH),Power sources….