

Project Design Phase

Problem – Solution Fit Template

Date	16 April 2025
Team ID	PNT2025TMID07432
Project Name	Global-Energy-Trends-A-Comprehensive-Analysis-of-Key-Regions-and-Generation-Modes-using-Power-BI
Maximum Marks	2 Marks

Problem – Solution Fit Template:

Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit into	<div><div>1. CUSTOMER SEGMENT(S)</div><div>Policy-makers, investors, researchers, and energy analysts seeking data-driven insights. Stakeholders in renewable energy, utilities, and sustainability sectors tracking global energy trends. I.e. working parents of 0-5 y.o. kids</div><div>CS</div></div>	<div><div>6. CUSTOMER</div><div>Data-driven professionals in energy, government, and sustainability sectors seeking actionable insights through interactive visualization tools like Power BI.</div><div>CC</div></div>	<div><div>5. AVAILABLE SOLUTIONS</div><div>Static reports (IEA, BP Statistical Review), spreadsheets, and basic dashboards with limited interactivity. Tools like Excel and Tableau offering partial insights but lacking global scope or integrated generation mode analysis.</div><div>AS</div></div>	Explore AS,
	<div><div>2. JOBS-TO-BE-DONE / PROBLEMS</div><div>Understand and compare global energy production trends by region and source to guide decisions.</div><div>J&P</div></div>	<div><div>9. PROBLEM ROOT CAUSE</div><div>The root cause of the problem may stem from data inconsistencies, gaps in regional reporting, or outdated information affecting the accuracy and comparability of energy generation trends. Additionally, modeling challenges and technical limitations in Power BI may impact the analysis.</div><div>RC</div></div>	<div><div>7. BEHAVIOUR</div><div>The behavior in this context refers to how the energy trends, data, and visualizations are performing or being affected by the underlying issues. This may include:<ul style="list-style-type: none">Data anomalies: Inconsistent or missing data leads to skewed visualizations and inaccurate insights.Performance issues: Slow loading or rendering of large datasets and complex Power BI models.Let me know if you'd like more detailed information on this!</div><div>BE</div></div>	
Identify strong & weak	<div><div>3. TRIGGERS</div><div>Rising demand for renewable energy insights and sustainability reporting requirements. Global events like climate summits, energy crises, or new government policies driving data needs.</div><div>TR</div></div>	<div><div>10. YOUR SOLUTION</div><div>To resolve the issue, start by cleansing and validating the data to ensure its accuracy and consistency across regions. Standardize energy generation classifications to make comparisons easier. Regularly update the data to include the most current trends and insights. Optimize Power BI models by simplifying complex calculations and reducing dataset sizes to improve performance. Finally, use advanced analytics features like DAX and machine learning for deeper insights into global energy trends.</div><div>SL</div></div>	<div><div>8. CHANNELS OF BEHAVIOUR</div><div><div>8.1 Offline Mode:</div><div>Issues arise when data is outdated or inconsistent due to manual reporting or slow data updates. Users may face challenges interpreting static reports with limited interactivity.</div><div>CH</div></div><div><div>8.2 Online Mode:</div><div>Real-time data inconsistencies and performance issues may occur with live data feeds or API integrations. Users can experience slow dashboard performance or inaccurate insights during dynamic interactions.</div></div></div>	Extract online & offline behaviour
	<div><div>4. EMOTIONS: BEFORE / AFTER</div><div>Before: Overwhelmed, frustrated by scattered and outdated energy data. After: Confident, empowered with clear, interactive insights for informed decision making.</div><div>EM</div></div>			