

## Track #1: EnergyVista Chronicles: Empowering a Green Tomorrow with AI

Lead the charge in the energy evolution. Utilize the power of open-source AI to design an innovative system that simplifies renewables, enlightening consumers through tailored content using open-source APIs and cutting-edge AI technology.

Key Themes: Sustainability, Leadership, Energy Solutions, EV Charging, Renewables, Solar Energy Solutions, Rooftop Solar.

**Objective:** Extract actionable insights from datasets encompassing renewable energy, sustainability, and user behavior.

**Deliverables:** Interactive dashboard for energy insights, content strategies, and collaboration opportunities.

**MarCom Potential:** Data-driven campaigns promoting sustainability, collaboration opportunities with influencers in the energy space.

\*Use your own dummy dataset or the one which is included in this file

### Guidelines & Core Technical Resources:

1. Objective Insight:
  - Goal: Create insightful content that breaks down the intricacies of renewables, catering to diverse demographics and regions, inspiring trust and facilitating informed decisions.
2. Data Streams:
  - Primary Sources: Tap into open-source APIs like REST Countries, Wikipedia, and OpenWeatherMap for a global perspective.

### 3. Tech Foundations:

- ML Frameworks: Delve into TensorFlow and PyTorch.
- Natural Language Processing: Unleash the capabilities of HuggingFace's Transformers.
- Data Handling: Master the finesse of Pandas and NumPy.
- Data Housing: Explore SQLite for streamlined storage.
- Web Interface: Build with Flask and Django for an interactive experience.

### 4. Content Synthesis:

- Optimal Data Handling: Process data for maximum clarity using Pandas and NumPy.
- Audience Calibration: Identify and craft targeted content with models such as BERT.
- Content Sculpting: Engage GPT-2 to translate complex concepts into accessible insights.

### 5. Refinement & Adaptability:

- Model Efficacy: Navigate models like DistilBERT and TinyGPT for razor-sharp precision.
- Model Augmentation: Incorporate HuggingFace's Transformers for enhanced adaptability.
- Real-time Learning: Ensure content remains current with active learning strategies.

6. Launch & Outreach:

- Digital Portals: Craft an intuitive user journey with Flask or Django.
- Seamless Packaging: Ensure uninterrupted delivery with Docker.
- Elevated Access: Use platforms like AWS, Google Cloud, or Azure to reach every corner.

7. Engagement Dynamics:

- Audience Connect: Integrate feedback tools to stay attuned to consumer needs.
- Evolution Strategy: Prioritize continuous enhancement and adaptability.

8. Ethical Guardrails:

- Bias Oversight: Uphold integrity with unbiased content representation.
- Clear Narratives: Prioritize transparency and genuineness in every communication.

Ignite a wave of informed and proactive decision-making in the energy sector. Through the power of AI, demystify renewables, inspire confidence, and accelerate the global transition to sustainable energy.

Champion this green revolution and be the beacon of the future!



Judging Criteria	Weightage (%)	Description
Relevance &	20%	- Alignment with objectives and energy sector

Understanding		<ul style="list-style-type: none"> <li>challenges.</li> <li>- Understanding of making consumers smarter.</li> </ul>
Technical Robustness	20%	<ul style="list-style-type: none"> <li>- Code efficiency and correctness.</li> <li>- Appropriateness of tech stack.</li> <li>- Use of open-source resources.</li> </ul>
Content Quality	15%	<ul style="list-style-type: none"> <li>- Accuracy and relevance of AI-generated content.</li> <li>- Demystification of renewables for consumers.</li> </ul>
Scalability & Performance	15%	<ul style="list-style-type: none"> <li>- Solution scalability for a large user base.</li> <li>- Platform responsiveness.</li> </ul>
User Experience & Engagement	10%	<ul style="list-style-type: none"> <li>- Intuitiveness and ease of use.</li> <li>- Effectiveness of feedback mechanisms.</li> </ul>
Innovation & Creativity	10%	<ul style="list-style-type: none"> <li>- Novelty in approach and technology use.</li> <li>- Creative content delivery and engagement solutions.</li> </ul>
Ethical Considerations	5%	<ul style="list-style-type: none"> <li>- Efforts toward bias mitigation and transparency.</li> <li>- Awareness of ethical concerns.</li> </ul>
Presentation & Communication	5%	<ul style="list-style-type: none"> <li>- Clarity in presenting to stakeholders.</li> <li>- Articulation of technical details, benefits, and challenges.</li> </ul>