

Green Energy Consumption Tracker

Title

Green Energy Consumption Tracker Supporting Climate Action Track your energy.

Purpose

To help individuals and households become more aware of their energy usage, specifically how much comes from renewable vs non-renewable sources, and to encourage more sustainable habits.

Problem

Rising energy consumption is accelerating climate change. Most households and small businesses lack tools to monitor their energy habits or understand their carbon footprint.

Solution

A simple web app that tracks daily renewable and non-renewable energy usage. Built with Gradio and Python, it visualizes trends and encourages sustainable choices.

Features

- Log daily energy usage (renewable & non-renewable)
- Visualize trends with charts and tables.
- See renewable energy share instantly.
- Real-time updates with each entry.

How It Works

1. User enters date, renewable kWh, and non-renewable kWh
2. App stores the data and calculates totals.
3. Charts update to show usage trends and sustainability progress.
4. Recent entries are displayed in a table.

Tech Stack

- Python – Core logic and data processing
- Gradio – Web interface for user interaction
- Pandas – Data storage and manipulation
- Matplotlib – Visualization of energy trends

Alignment-Supports Climate Action

- Promotes awareness of energy habits
- Encourages transition to renewable sources
- Empowers individuals to reduce carbon impact

Future Expansion

- Carbon footprint calculator

- Export data to CSV or PDF
- User accounts and cloud storage
- Integration with smart meters or IoT devices