PROBLEM STATEMENT:
Many UofSC students unintentionally waste energy by leaving lights, laptops, and lab equipment running when not in use. Without an easy way to track energy usage or receive reminders, sustainability often becomes an afterthought, leading to unnecessary energy consumption and higher campus costs.

Cluster 1: Tech & App Features

Energy Usage Tracker: Displays estimated power usage for each dorm or lab.

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Smart Reminders: Sends notifications to students when devices or lights are left on.

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Weekly Reports: Summarizes energy usage trends and gives feedback on improvement.

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Leaderboard Dashboard: Shows which dorms or buildings save the most energy.

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Cluster 2: Student Motivation

Reward Points System: Students earn "Green Points" for energy-saving actions.

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Dorm Competitions: Buildings compete for monthly sustainability awards.

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Social Media Challenges: Hashtags like #SaveAtUofSC to promote participation.

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Campus-Wide Events: Sustainability Week with app-based goals and prizes.

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Cluster 3: Implementation & Challenges

Limited Access to Data: Hard to get real-time energy data from dorm systems.

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Low Student Engagement: Students may ignore the app if it's not fun or rewarding.

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Funding Requirements: Costs for software, sensors, or rewards.

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Privacy Concerns: Protecting user data and avoiding unnecessary tracking.

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Cluster 4: Sustainability & Long-Term Impact

Reduced Campus Energy Use: Cuts down unnecessary electricity consumption.

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Lower Utility Costs: Saves the university money over time.

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Promotes Green Awareness: Builds eco-friendly habits among students.

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Supports UofSC's Sustainability Goals: Aligns with the university's green initiatives.

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Cluster 5: Business & Growth Opportunities

Campus Partnership Program: Collaborate with Facilities or Sustainability Office.

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Scalable Model: Expand the app to other universities facing similar challenges.

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Smart Plug Integration: Create physical devices that connect with the app.

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Startup Opportunity: Develop a student-led business focused on campus energy tech.

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