

TIEC3.0 Poster Title

Name: Switchr

Affiliation : University of Lagos

Proposed Solution

Switchr is a digital platform designed to simplify Nigeria's transition to clean mobility by making it easy for vehicle owners to switch to CNG or electric power. The platform allows users to book verified vehicle conversion services and access real-time maps of nearby CNG refueling or EV charging stations. By centralizing access to trusted services, Switchr removes the confusion and uncertainty currently slowing down adoption.

Technical Design

The platform will be a mobile-first web application built with modern technologies such as React Native for the frontend and Node.js for the backend. It will integrate GPS and mapping APIs to locate stations, along with a booking system for users to connect with verified conversion centers. A savings calculator will also be embedded to help users understand the economic and environmental benefits of switching.

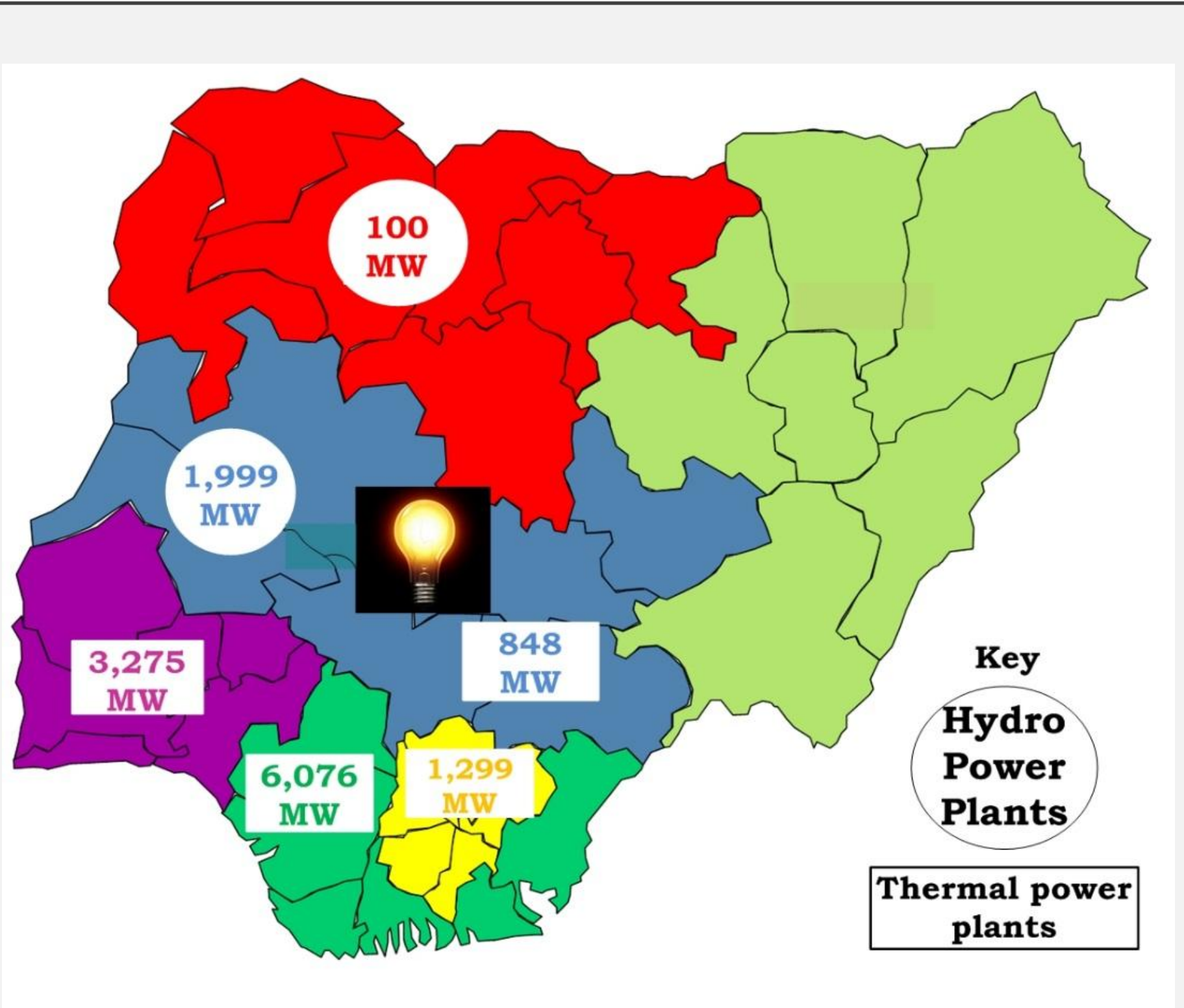


Fig. 1: Regional distribution of hydro and thermal power station in Nigeria in 2017

Economic feasibility/Proposed Business Model

Switchr will operate on a commission-based model, earning revenue from bookings made through the platform. Additional income will come from premium listings and featured placement for conversion centers and energy stations. As adoption of CNG and EVs grows in Nigeria, the platform will scale with more users and partners, making it a sustainable business opportunity.

Timeline for developing prototype/trial

Development will take place over one month. The first week will focus on user research and interface design. In the second and third weeks, the core features — including the booking system and real-time station map — will be built. The final week will be dedicated to testing, refining, and launching a functional demo version of the platform.

Budget & Target User/Market/Scale

The total projected budget for developing the prototype is two million naira, covering design, development, APIs, and testing. The target users are Nigerian private and commercial vehicle owners in urban centers who are looking for cost-effective alternatives to petrol. With over 12 million registered vehicles and increasing fuel prices, the market for clean mobility solutions like Switchr is rapidly expanding.

References

The project is informed by the team lead's experience during the Abuja City Journal's national energy essay competition, which included direct interaction with the Director of the Presidential CNG Initiative. Additional insights are drawn from public data on the National Gas Expansion Programme, BYD's market entry, and national vehicle registration records

Acknowledgements

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