

A decorative background pattern of light green circuit lines and nodes on a dark green gradient background. The lines are vertical and horizontal, with small circles at the nodes, resembling a printed circuit board.

TRON POWER

TRON POWER : ENCOURAGING THE TRADING OF RENEWABLE ENERGY USING BLOCKCHAIN TECHNOLOGY

- BY
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- SUBMITTED TO TRONDAO

OUTLINE

- INTRODUCTION
- PROBLEM STATEMENT
- AIMS AND OBJECTIVE
- METHODOLOGY
- CONCLUSION

INTRODUCTION

- Our vision is to encourage the use of Blockchain technology, smart meter, and smart grids (SG) for trading electricity.
- Smart meters are devices that measure and monitor energy consumption in homes and businesses. They are **Important** for reducing energy consumption and carbon emission.
- Tron Power is here to utilize blockchain technology to create a secure, transparent, decentralized system for monitoring energy consumption and transactions.

PROBLEMS STATEMENT

- **Limited Automation:** The energy industry relies heavily on manual processes, which can be time-consuming, costly, and error-prone. This can lead to delays in transactions and increased costs.
- **Limited Innovation:** The energy industry has been slow to adopt new technologies and innovations, which can be limiting its ability to adapt to changing market conditions and customer needs.
- **Lack of Transparency:** Lack of transparency can lead to disputes, fraud, and other inefficiencies.
- **Centralization:** The energy industry is heavily centralized, with few large players dominating the market. This can lead to market inefficiencies, lack of transparency, and limited competition.
- **Limitations**

WHY BLOCKCHAIN TECH?

- **Decentralization:** Blockchain technology enables the creation of a decentralized system where energy can be traded directly between producers and consumers without the need for intermediaries. This can increase competition, reduce costs, and increase transparency.
- **Elimination of intermediaries:** Blockchain technology can eliminate intermediaries such as brokers, utilities, and grid operators by allowing energy producers and consumers to transact directly. This can reduce costs and increase transparency.
- **Transparency:** Blockchain technology provides a transparent and immutable record of transactions, which can help to reduce disputes, fraud, and other inefficiencies.
- **Automation:** Blockchain technology can automate many of the manual processes involved in energy trading, reducing the time and cost associated with traditional trading methods. This can also help to reduce the risk of errors and delays.
- **Innovation:** Blockchain technology provides a platform for innovation, allowing for the development of new business models and the creation of new opportunities for energy trading.

AIM AND OBJECTIVES

AIM

- Create a web platform that allows users to sell/buy electricity using cryptocurrencies and also allows users to track their purchase history.

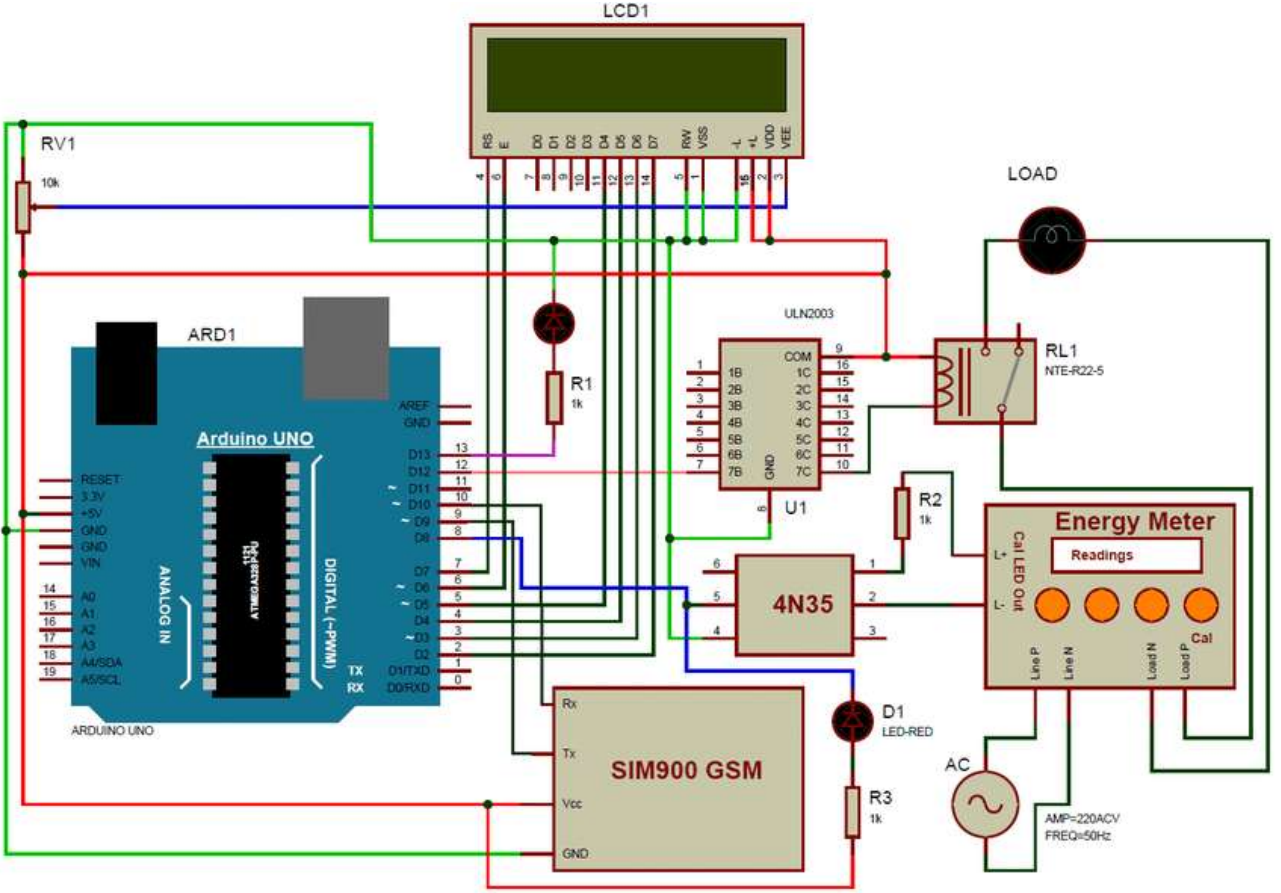
Tools to be used

- 1) Arduino
- 2) Circuit breaker
- 3) Current sensor
- 4) Node MUC
- 5) PIR sensor
- 6) Display

PROPOSED METHODOLOGY

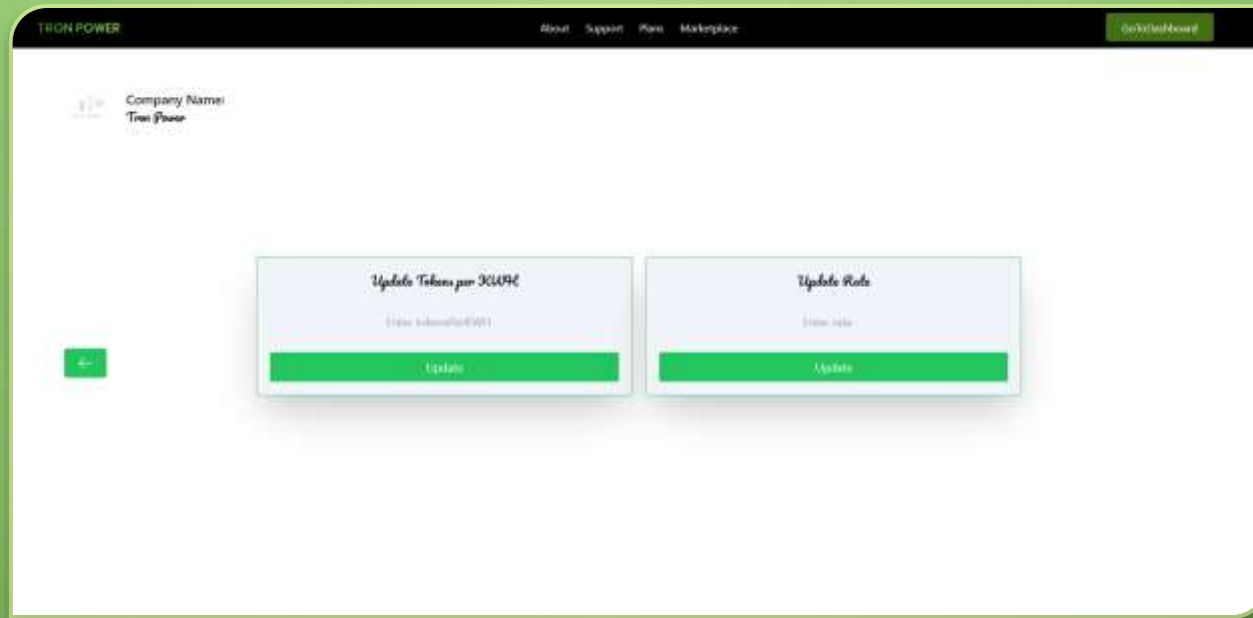
- Writing smart contracts using solidity
- Deployment to a TRON(Decentralized BLOCKCHAIN)
- Database management with firebase
- Creation of a website with REACTJS and Tailwind for CSS styling
- Onboarding of new users to the platform
- Security test
- Contract Hacking
- Creation of Smart meter

PROPOSED METER CIRCUIT DIAGRAM



ESTIMATED COST

- Tron power smart single phase meter is estimated not to cost a lot with an average of 20\$-30\$
- More details will be dropped soon.
- Implementation of Tron power will help promote renewable energy and reduce intermediaries







PLATFORM PROGRESS SO FAR

SETTINGS

TRON POWER MARKETPLACE

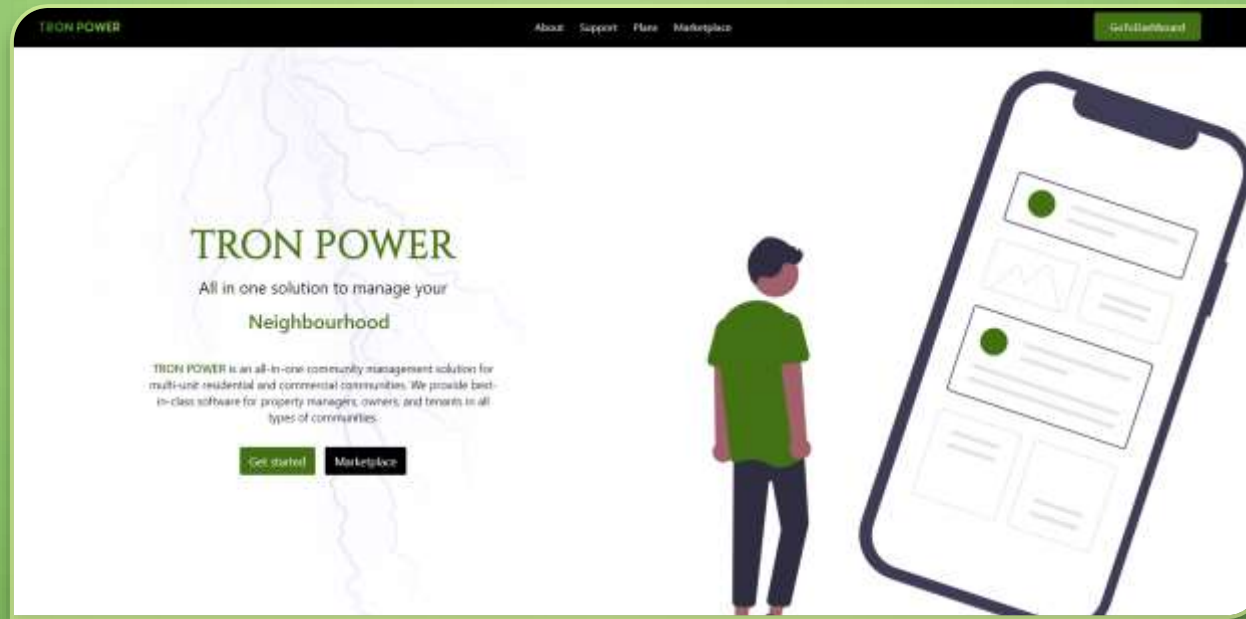
Energy companies (5)

search for companies

 <p>Name: Tron Power Address: 412P433821942441... TokenPrice: 1TRX PricePerKwh: 1TRX</p>	 <p>Name: Green Energy Address: 411111e267879ac84... TokenPrice: 1TRX PricePerKwh: 1TRX</p>	 <p>Name: HarryPower Address: 41a215d3f2ad717f8... TokenPrice: 1TRX PricePerKwh: 1TRX</p>	 <p>Name: Lenny's Company Address: 411a534654458fac8... TokenPrice: 1TRX PricePerKwh: 1TRX</p>	 <p>Name: Tron Power Inc Address: 412b210b0e55e37e... TokenPrice: 1TRX PricePerKwh: 1TRX</p>
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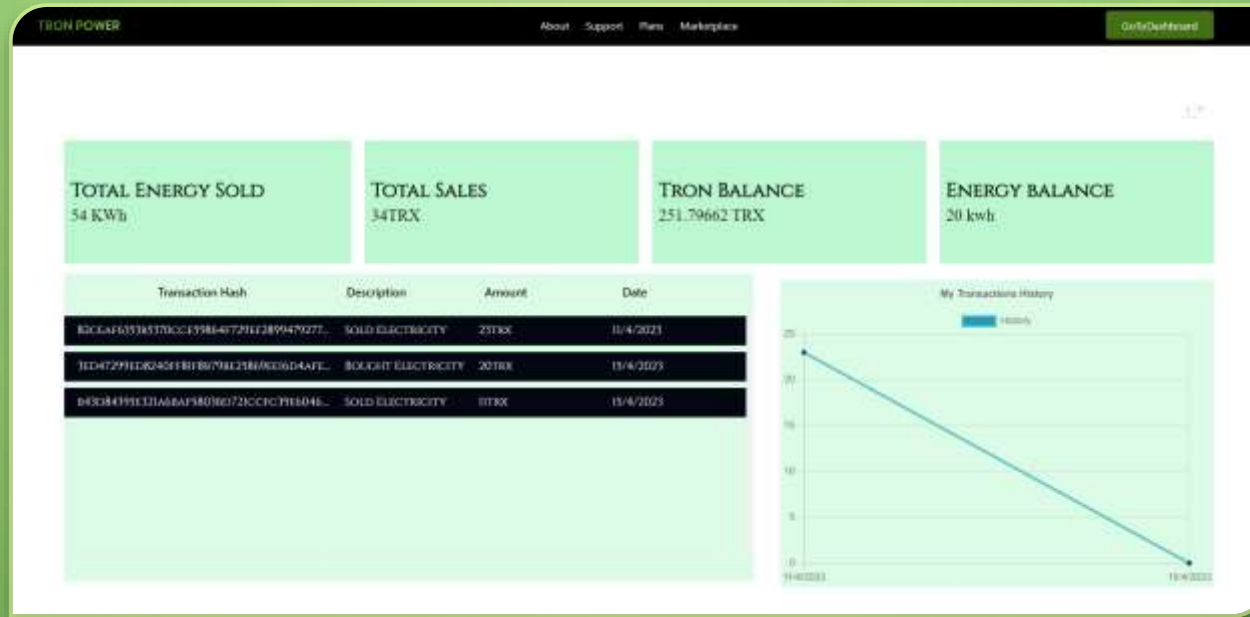
PLATFORM PROGRESS SO FAR

MARKETPLACE



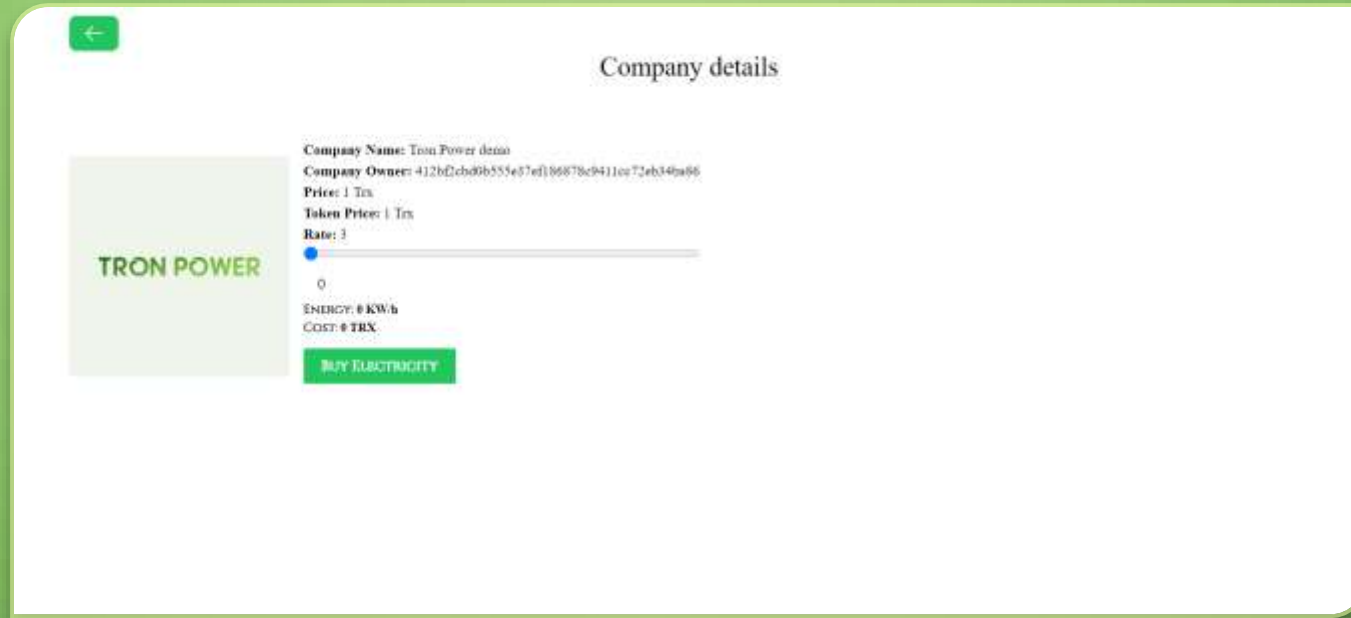
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PLATFORM PROGRESS SO FAR

SALES



PLATFORM PROGRESS SO FAR

SALES



TEAM NAME

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CONCLUSION

BLOCKCHAIN TECHNOLOGY CAN BE USED TO FOR SELLING AND BUYING ELECTRICITY IN A DECENTRALIZED WAY AND TRANSPARENT WAY, CREATING A PEER TO PEER (P2P) ENERGY MARKET THAT ALLOWS CONSUMERS AND PRODUCERS TO DIRECTLY BUY AND SELL ENERGY WITHOUT THE NEED FOR INTERMEDIARIES.



THANK YOU FOR
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