1. Requirements:

- a. Integration of all the dispersed energy data under a single verified platform
- b. Mobile and web applications for easy access and control
- c. Measures to ensure data privacy and protection
- d. Scalability for future expansion and growth
- e. Data analytics and insights for better decision-making
- f. Interoperability with already existing systems and devices

2. Tools, technologies, and systems to support these needs

- a. IoT devices and sensors for collecting the required data from the sources
- b. Cloud computing platforms for storing and processing the acquired data
- c. Mobile or web applications for the user interface and control
- d. Al and ML algorithms for data analytics and insights
- e. Cybersecurity software to prevent breach of sensitive data
- f. API integration for interoperability