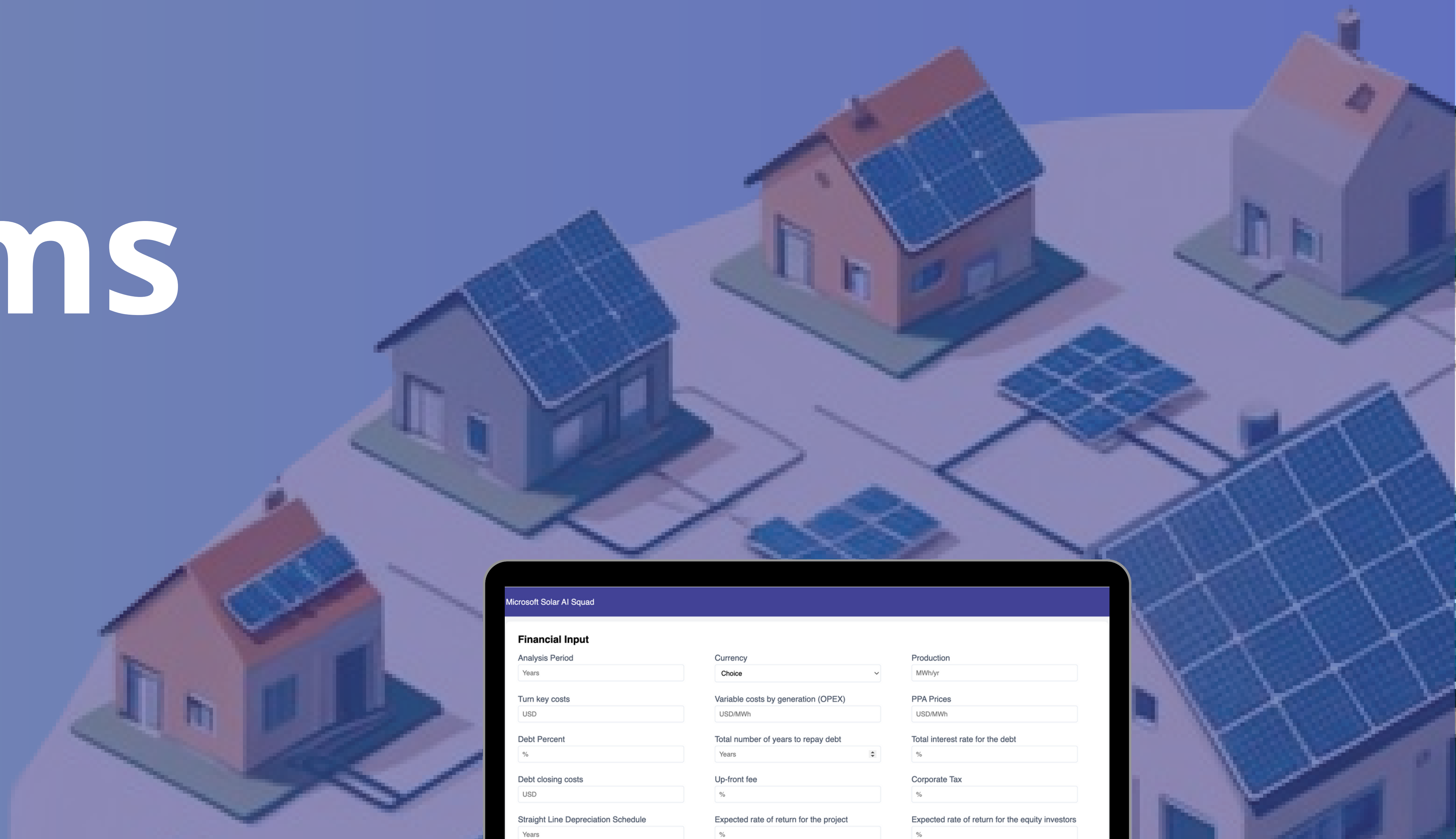


# Solar Farms

## Investing in Sustainability: Solar Farms for Sustainable Communities



### PROBLEM

Investing in community microgrids requires significant initial capital and careful financial planning, which can be challenging for prospective managers and stakeholders. Access to detailed financial analyses and projections is essential for making informed investment decisions. However, balancing economic viability with sustainability and environmental impact goals can create additional uncertainties that must be addressed.

### SOLUTION

Our solution is a powerful financial forecasting and analysis tool tailored to the needs of community microgrid managers.

Our website employs sophisticated financial models that take into account various factors such as initial investment, operational costs, local energy prices, and government incentives. This enables community microgrid managers to make informed investment decisions based on actionable insights.

### PROCESS

#### Secondary Research

- Explored research questions and existing solutions to better define our problem area
- Conducted detailed stakeholder analysis

#### Primary Research & Financial Modeling

- Conducted expert interviews to scope our project focus
- Gathered comprehensive data on finance, tax and incentives to create financial model

#### Prototyping

- Created a list of features required based on feedback from expert interviews
- Iterated prototypes based on user feedback from energy management experts

#### Development

- Front-End development - React, Javascript, and CSS
- Backend development - Python, Flask
- Improved the accuracy of the financial model

#### Evaluation & Functional Testing

- Evaluated our prototype by conducting usability tests with experts in solar field
- Performed functional testing for the components of the website

#### Input Component

Users enter numbers here (Analysis years, etc)

#### Financial Model - Results



Enter financial values

