

Energy Farm

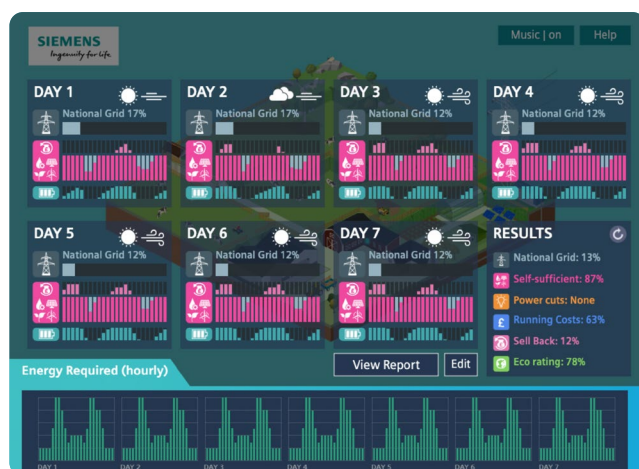


Before you begin, we encourage you to play the [Energy Farm Game](#) available within the Siemens Game Arcade. This game will give you hands-on experience in managing a renewable energy system. You'll be able to experiment with different equipment and strategies to see how well you can generate electricity while balancing costs and environmental impact.



This user has set up their farm with two sets of photovoltaic cells, two wind turbines, a biogas generator and two sets of storage batteries. They ran the system for seven days and received the following feedback.

1 Overall, how did they do?



2 Did they manage to maintain a constant supply of electricity?

3 What are their running costs like?

4 Have they managed to avoid damaging the environment?



5

Suggest how they could redesign their system to try and maintain the existing positive features whilst addressing the negative ones. They had spent the full budget of 20 tokens in setting that system up so if they need any other equipment, they will have to return one or more items they have in the existing design.



Why this technology is important:

The traditional power grid provides reliable power – most of the time. But when natural disasters or security breaches threaten the grid, the ensuing blackouts can be catastrophic and costly. That's why companies and utilities are working together to build resilient, flexible power systems called microgrids.

Microgrids can generate, distribute, and control power in a campus setting, a small community, in critical infrastructures, military institutions, commercial and industrial areas, remote locations, and on islands.

