# Off-Grid Container House Gaia

**Design:** Joshua Woodsman - Pin-Up Houses <https://www.pinuphouses.com/>

**External Container Dimensions without roof**: 6m x 2,44 mm / 20ft x 8ft

**Construction time:** 3 months

**Price of material + work:** 21 000 USD

**Material:** 20’ HC shipping container, construction timber, spray foam insulation, corrugated metal sheets, IBC container

**Location:** Czech Republic

**Team:** Joshua Woodsman (Vojtěch Valda)- main architect and worker,Václav Valda- carpenter

**Keywords:** container house, off-grid, sustainable, experimental house, solar energy, wind energy, green energy,

**VIDEO**

<https://www.youtube.com/watch?v=wyaAgVmrCGA>

**CONCEPT**

Our planet is increasingly facing many new and difficult challenges. Therefore, it‘s necessary to look for alternative forms of housing that will have a less negative impact on the environment, as well as complement traditional approaches to housing. That is why we at **Pin-Up Houses** have decided to repurpose a discarded shipping container and fit it out with the most available building materials and latest technology to design a unique independent housing unit.

The shipping-container house, **Gaia**, is an experimental self-sufficient housing project, a so-called **Off-the-Grid House**. With Gaia, there is no need to rely on external sources of energy or water since this house harnesses solar energy and wind energy. The house is equipped with solar panels, as well as a wind turbine, ensuring your batteries can be charged at all times of the day and all seasons. The battery level, consumption, charging, and other factors can all be monitored remotely by using a mobile app. The house is also equipped to retain rainwater, which is filtered and distributed to the bathroom and kitchen. It is equipped with a refrigerator, water heater, and other 12 V and 24 V appliances according to your needs. Additionally, a higher voltage of 110 V to 230 V can be generated using an inverter. Smart storage space, a convertible sofa-bed, compact stools, and tables are always a feature of Pin-Up Houses. For added privacy and security, the outdoor terrace can easily be folded to close the container using the winch.

This container house is made up of a **marine HC 20‘ / 6 m container**, wooden studs, and spruce plywood creating the entire interior. The inner walls are sprayed with thermal insulation, ensuring a cozy home. To protect this experimental house from the elements, the container roof is covered with a galvanized corrugated metal sheet, which cleverly extends out beyond the structure to increase the rainwater catchment area that is ultimately collected in a 1,000-IBC tank.

Sustainable living has never been so easy, nor has it been as necessary as it is now with environmental problems such as global warming and a drastic increase in waste materials. The Pin-Up House Gaia is here to allow you to live in harmony with nature using green energy with style and comfort.

**PIN-UP HOUSES RESEARCH**

**Off-Grid Container House Gaia is** the prototype that is part of our ongoing research into the feasibility of recycled environmentally friendly small houses. This concept is based on our long-term experience with tiny house construction, creating easy to follow plans and books for DIY constructors.

**Photographer:** Jakub Zdechovan