



The ESA Business Incubation Centre in Darmstadt, Germany, was founded in 2007 and is managed by Centrum für Satellitennavigation Hessen (cesah). The centre offers business start-up support as well as technical expertise in different space related areas, and in particular in satellite navigation, data systems, software systems and navigation test environments.

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## Nomadic Power GmbH

**Nomad as an Energy Manager for your Home**



Website

**Founded in 2013 by**

- **Dr. Manfred Baumgärtner**

**Incubation period**

01-11-2013 to 31-12-2014



space solutions

Alumni

## About Nomadic Power GmbH

The key elements of Nomadic Power's technology are the Nomad battery (MES, Mobile Energy System ) and the intelligence of the control electronics and software system. The intelligent energy management system (NEM, Nomad Energy Manager) is self-learning, predicting user behavior and energy production capabilities of the photovoltaic system, based on weather forecasts, when connected to the user's home.

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## The challenge

All system components are connected to the Nomadic Power Secure Cloud Platform, a system of virtualized servers at distributed datacenters – interconnected by SSL-

Backbone-Encryption. The Nomad Network connects the Secure Cloud Platform to the peripheral components as the MES and NEM. The Nomad Network is operated as a Mobile Virtual Network Operator (MVNO) with a proprietary, secure APN. Nomadic Power Secure Cloud not only connects the smart energy managers in the home and the Nomad, but also allows 4G/LTE access from the user and/or Nomadic Power's service team for monitoring and control purposes.

## **The solution**

### **PV Power Storage for Home Owners**

The owner of a home can make perfectly efficient use of his/her Nomad:

While "parked" in the home owner's garage, the Nomad will serve the function of intelligent and safe back-up power for the home, with additional "smart home" functionality.

For the weekend, Nomad can be attached to the owner's Battery-powered Electric Vehicle (BEV) for a long weekend trip. An 85 kWh Nomad is capable of taking a small electric car up to 600 kilometers.

### **Recharging e-cars at the roadside**

Manufacturers of electric cars and roadside assistance operators can use Nomad for assisting stranded motorists whose electric power has gone to zero. Nomad batteries serve as mobile energy sources for all kind of off-grid energy demand.

