

## EFFICIENCY ASSESSMENT REPORT

### ECO TOUCH

A technological solution that automates the heating and energy saving of homes and analyzes the energy needs of buildings.

**Solution ID:** 13438  
**Company:** OGGA

**Country:** France  
**Export Date:** 21.07.2021

### ASSESSMENT RESULTS



**APPROVED**

#### FEASIBILITY

- Credibility of concept	YES
- Scalability	YES

#### ENVIRONMENT

- Environmental benefits	YES
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#### PROFITABILITY

- Client's economic incentive	YES
- Seller's profitability	YES

### GENERAL COMMENTS FROM THE SOLAR IMPULSE FOUNDATION

The Solution is awarded the Solar Impulse Efficient Solution as:

- **It is fully satisfying the Eligibility Criteria** in terms of: (1) Nature of the Solution namely, physical/financial product, technology, industrial process, or service; (2) Ownership by a Member of the World Alliance for Efficient Solutions; (3) Contribution to at least one of the Sustainable Development Goals (SDGs), namely SDG 6, SDG 7, SDG 9, SDG 11, SDG 12; (4) Minimum maturity level, namely "prototype testing 1:1 in lab" (TRL 6 -7);
- **It is operating in accordance with the Solar Impulse Foundation's ethical position** as expressed by the Membership Agreement;
- **It is compliant with the conditions expressed in the "Liability Waiver Declaration"** signed by the Member in the framework of the labeling process and external reputational check;
- **It has been reviewed and pre-validated** by the Solar Impulse Foundation's team during the pre-screening stage, to ensure minimum standard of quality, in terms of relevance and completeness of the information provided in the application form;
- **It has been assigned and evaluated** according to the official "Label Standards" by three independent Experts with at least five years of Experience in one of the sectors of application of the Solution;
- **It has been assessed and formally validated (accepted)** by three External independent Experts based on the five criteria (credibility of concept, scalability, environmental benefits, client's economic incentive, seller's profitability). In particular, the three independent Experts performed valid assessments, thus provided complete and coherent answers in accordance to the official "Label Standards" and "Assessment Guidelines".
- **It received a minimum of two "YES" answers** from two different Experts on all five criteria, meaning that all the five criteria were satisfied and obtained a majority of "YES". As a result, the Solution does meet the requirements for being awarded the Solar Impulse Efficient Solution Label.

It is important to notice that, the outcome is attributed to the Solution itself and NOT to the entity submitting the Solution (the company).

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## FEASIBILITY

The Feasibility section is aimed at determining the technical viability of the idea behind the Solution, such as ensuring a Solution is feasible in the real world. This section is composed of two criteria and it considers: the technical requirements of the proposed Solution and captures its ability to be credible based on a resilient technology or concept (**Criterion 1**) and its potential to be technically scaled up and deployed in the real world (vs. in a laboratory environment) without additional constraints (**Criterion 2**).

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## EXPERTS REVIEWS

### CRITERION 1 - CREDIBILITY OF CONCEPT

Can the technology behind the Solution be constructed and operated as designed?

YES

**First Expert justification** - The concept involves optimal control of electrical circuits and heating, taking advantage of advanced algorithms and simple user input when they leave and enter the building. This is similar to existing solutions and has been widely deployed, the concept is credible.

YES

**Second Expert justification** - The innovator could showcase in their application that the solution is feasible, can be constructed and operated as designed. It seems to be a simple and robust solution with a high lifetime (+10 years) that is suitable for industrial and wide use. I don't see any drawbacks so far.

YES

**Third Expert justification** - The Solution is a mix of existing hardware and proprietary software already sold in the niche market of social housing in France, offering control on a certain level of comfort to the clients. It is a standard technology in a very competitive "smart energy" market dominated by large international and European players.

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### CRITERION 2 - SCALABILITY

Is the manufacturing (if a product) or distribution (if a service) of the Solution at scale technically feasible?

YES

**First Expert justification** - Scaling the solution involves additions to the electrical switchboard. The hardware has been designed so it is easy to deploy typically taking less than an hour. The hardware is manufactured in France and looks to involve off-the-shelf electronics ensuring scalability.

YES

**Second Expert justification** - Due to its simple and robust design - based also on industrial norms, the solution can easily be scaled. The innovators has already sold +5k units and thus have the feedback of experience to drive scalability of their innovation. So far - I don't see any point that would be a problem.

NO

**Third Expert justification** - Given the competition level and the large array of competitive solutions already sold in the European market, it is difficult to see how the Solution would be able to scale up outside of its existing niche market of social housing in France with a limited growth potential over time.

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Additional feedback / advice for the member

**First Expert** - I really like the fact you have made your solution open source and able to operate without subscription to a cloud service. Customers often resent being locked in to a particular provider. Your approach is refreshing.

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## ENVIRONMENTAL IMPACT

The **Environmental Impact section** is aimed at determining the impact of the Solution at the different phases of its lifetime: production, transportation and distribution, as well as use and disposal phase.

This section is composed of one criterion and it considers: the potential to enable a direct positive impact (**Criterion 3**) on the environment compared to the mainstream alternative identified – referring to the scope of the following elements: Energy use, CO2 emissions, Water use/materials use, Air quality, Ecosystem preservation.

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## EXPERTS REVIEWS

### CRITERION 3 - ENVIRONMENTAL BENEFITS

**Can the Solution deliver an incremental environmental benefit versus a mainstream alternative, considering the lifecycle (production, use and disposal stages) of its value chain?**

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#### YES

**First Expert justification** - The environmental benefits stem from more efficient use of electricity. The solution reduces waste by lowering heating temperatures and switching off appliances when the building is unoccupied. Algorithms tune the thermostat behavior to ensure comfort is tuned to the user needs whilst still saving energy.

#### YES

**Second Expert justification** - The innovators provided a LCA that shows a reduction of CO2 emissions (basically a reduction of gas consumption linked to a reduction of the mean temperature - without any loss of comfort). Thus this solution has a positive environmental impact even if the solution has a high footprint than the mainstream alternative.

#### NO

**Third Expert justification** - The Solution is only compared to "inaction" or 1-2 carefully low profile competitors as a mainstream alternative, which is not reflecting the actual market reality: there are already dozens of existing competitive solutions, from large corporates to innovative startups, that have a better, more complete and environmentally friendly solution.

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### Additional feedback / advice for the member

**First Expert** - I like the fact your product opens new options for future time-of-day tariffs. In the UK Octopus Energy and other companies are offering several innovative electricity tariffs including half-hourly based on day-ahead markets. This may be a good opportunity for growth in future.

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## PROFITABILITY

The **Profitability section** is aimed at determining the capacity of a Solution to deliver an economic incentive for the client, as well as to generate profits for the seller in a short term. This section is composed of two criteria and it considers: The capacity of a Solution to deliver an economic incentive (direct, indirect, or hidden economic savings) for the client (**Criterion 4**) compared to the mainstream alternative and the capacity of the Solution to generate profits for the seller (**Criterion 5**) in the short term, regardless of the marketing strategy and the novelty of the product.

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## EXPERTS REVIEWS

### CRITERION 4 - CLIENT'S ECONOMIC INCENTIVE

Is the total cost of ownership of the Solution lower (or same) compared to the mainstream alternative? Please evaluate this considering potential hidden benefits for society, and foreseeable regulatory changes within 5 years.

#### YES

**First Expert justification** - Competitor products may be of a similar price however the solution does not lock users into a cloud subscription. This is important when building ownership changes, the product continues to operate with or without access to internet based data servers. Financial payback for the solution is estimated at 3-5 yrs based on 2000+ installations.

#### YES

**Second Expert justification** - The innovator could present a clear economic incentive for the client / buyer. They could clearly showcase the economic benefit from day 1 and over the lifetime (10year) of their solution. I am fully convinced by their arguments and numbers. I think they are under-pricing.

#### NO

**Third Expert justification** - The innovator is struggling to calculate a decent saving for the client with the Solution, which in turn make it more difficult to sell. The niche market of social housing in France has specific non financial decision triggers (control. comfort, etc.) which will not apply in the competitive residential and commercial real estate market.

### CRITERION 5 - SELLER'S PROFITABILITY

Could the Solution itself be profitable for the seller within 5 years, with a sale's price at which clients would buy it? Please evaluate this regardless of the marketing strategy and the novelty of the product.

#### YES

**First Expert justification** - The product has already reached profitability in 2020 with over 2000 solutions sold. The ease of installation and flexible operation has ensured a growing demand. Staff numbers have steady increased and 4 key customers have decided to expand installations to their entire apartment stock of 80,000 units.

#### YES

**Second Expert justification** - The innovator has stated that their company has reached break-even so that the sellers profitability is already given. Their business plan shows a clear sustainable growth path. They could also think of international expansion especially due to the relative low base costs in France.

#### YES

**Third Expert justification** - The software part of the Solution is more scalable and will offer decent enough margins to the Innovator in the niche market of social housing in France with the next few years. However, it will probably be difficult to sustain any growth outside of the existing niche market.



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