

Press Package January 2014

ATAWEY, a French innovative start-up, Energy autonomy solutions specialist for isolated sites, Based on hydrogen technologies

Green, continuous and reliable energy



Dispositif MYE 1 XL (Crédits photos : Atawey)



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Introduction

« It is not because things are difficult that we do not dare, it is because we do not dare that things are difficult »

Sénèque

By creating Atawey, our will is to offer innovative and clean autonomous energy solutions, offering new answers to isolated site needs, whilst preparing the energy transition of tomorrow.

We develop a high capacity long term renewable energy storage system. Working through wind, solar or hydraulic production, it mobilises the hydrogen technology's advantages.

We are therefore offering two different eco-innovative product designs. On the one hand, the MYE 1, adapted to isolated sites (« premium »), and on the other hand, the MYE 10 meeting the needs of industrial applications such as transmission relay for service broadcasting stations.

Often put forward as a technology for the future, hydrogen is a very much actual solution, a commercial reality, already studied and tested in a lot of countries such as the United States of America, Canada, Japan and Germany.

We anticipate a strong growth in the demand for those isolated sites adapted systems. At this moment, 13 000 installations in the signal transmission market are built daily in the world. Forecasts predict an annual growth of more than 84 000 outlets* in 2020.

An increase in demand for autonomous energy to which we are capable to answer thanks to our French advanced solutions. We anticipate three installations in 2014, more than fifteen in 2015, and finally more than a hundred within five years. In 2018, our initial team will rise up to 50 partners for a projected turnover of €10 million.

Jean-Michel Amaré, President Pierre-Jean Bonnefond, Managing Director

^{*} Sources : étude Pike Research - février 2013



Atawey, a promising start-up

Planner and manufacturer, Atawey, the French company located in Savoie, studies, conceives and realises a global and complete autonomous energy solution for isolated sites, based on renewable energy (solar, wind, water) storage through hydrogen.

Following lots of R&D and experimentation works in the field of hydrogen and energy, **Jean Michel Amaré** (President) and **Pierre Jean Bonnefond** (Managing Director) have **developed and patented** a **turnkey storage system** characterized by the association of renewable energies production and storage processes.

In September 2012, they found Atawey, in order to market this **innovative concept**, flexible and adapted to meet the needs of each location: **an economical and eco-friendly device!**

A massive growth forecasted for 2015

Located in the Bourget du Lac (Savoie Technolac), Atawey is composed of four persons. The company wants to integrate six new talents in 2014 and also planes the hiring of fifty employees from now until 2018. Atawey anticipates a turnover of about €10millions as soon as 2018.

An active member of the hydrogen-energy industry

Ataway is a part of a French economical and entrepreneurial network mainly composed of medium-sized companies offering innovative solutions. All these companies are today federating into the AFHYPAC.

Invited to the French Senate by OPECST rapporteurs on the $30^{\rm th}$ of October 2013, Jean-Michel Amaré gave a presentation to the audience of senators, deputies and members of the hydrogen-energy sector on the innovative energy autonomy solutions developed by the company. Atawey also presented its products on the $20^{\rm th}$ of January 2014 to the French Production Recovery Minister Mr Montebourg Arnaud during the National Hydrogen Technologies Meeting.

Moreover, Atawey is one the six start-ups who have been selected and supported by KIC InnoEnergy France (a company led by the main players within the energy industry in France such as Total, Areva and EDF, its goal is to promote innovation in the field of energy).

Atawey comes from Grain (Grenoble Alpes Incubation) and Savoie Technolac (Pôle d'excellence énergies et réseaux). It is also a member of the Rhône-Alpin Tenerrdis cluster.

Ecological innovation rewarded

Since its creation, Atawey has won **different awards rewarding the innovative nature of its energy solutions**:

• September 2012 : Laureate Réseau Entreprendre® Savoie 2012

November 2013 : Laureate INNOV'R Région Rhône-Alpes 2013 (category : energy)
 November 2013 : Laureate ARTINOV Savoie 2013 (category: production process)

• February 2014 : Laureate ARTINOV Région Rhône-Alpes 2013 (category: production process)



Atawey's device: a fuel-free generating set

Atawey's energy autonomy solutions rely on renewable energies production and storage process association. The device is adapted to the specific needs of the site. It then transforms the excess renewable energy into storable and solid hydrogen.

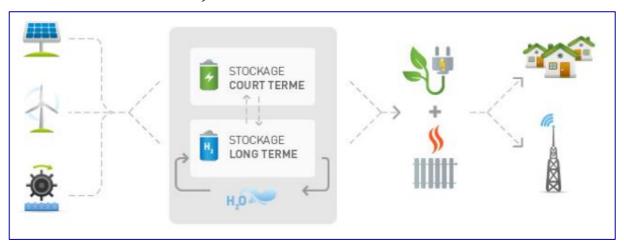
Two eco-innovative product designs

Atawey's energy autonomy system perfectly fits with isolated sites needs (transmission relay, housing and sustainable tourism, natural sensible sites, islands...), but is also intended for sites connected to a weak electric network or where cost of delivery are sky high.

They answer an energy demand of 1 to 30 MWh per year.

Atawey offers two different product designs; the first one (MYE 1) is designated for isolated sites « Premium », while the second one (MYE 10), covers the industrial telecommunication relay applications needs (telecommunications, *broadcasting*).

These devices combine batteries reactivity with hydrogen reliability. By stocking electricity over a few months, the combination of these two technologies allows Atawey to manage the alternation between day and night but also to cope with the variation between seasons (between summer and winter for instance).



Atawey's device: energy fitting the needs (Photo Credits: Atawey)

The process is realised at low pressure and in a secured and stage place. Moreover, the generator works without any input of fuel and needs very little maintenance. All you need to do is fill the water tank once a year with rain water. Maintenance and costs of ownership are therefore very low.



Two product designs, two types of applications:

Housing or Industrial equipment

The MYE 1 system perfectly fits with isolated sites « premium »:

- Islands: hotels and isolated, private eco-houses...
- Mountains: tourism facilities, refuges, ski stations...
- On vast territories: *eco-lodges*, natural reserves, parks...





Atawey's device: MYE 1 (Photo Credits: Atawey)

Whereas the MYE10 answers industrial telecommunication relay applications needs for those not linked to a traditional network:

- Meteo stations, relays...
- Security and monitoring systems: pipelines, environmental sensors, mine...



The device's basic elements

Atawey's system is based on five key elements:

- **1.** A full set of lead batteries stocking electricity over a short period of time (day-night).
- **2. An electrolyser to produce hydrogen** (alkaline technology) created and manufactured in partnership with SAGIM.
- **3. A solid hydrogen storage system** developed by McPhy Energy, our exclusive partner.
- **4. A PEM technology fuel cell** transforming hydrogen into electricity.
- **5. A control system**, heart and brain of the device, developed by Atawey's teams.

Energy on demand

Thanks to hydrogen, Atawey's system allows to stock energy, in large quantity and over a long period of time.

It **reduces renewable energies wastage** and serves as **provision** when the production is not sufficient.

Without Atawey's system, the loss of renewable energies on an isolated site can reach 30 to 50%.



Atawey, energy transition player

Atawey's energy autonomy solutions come within the scope of an environmental coherence and a real economic viability. Respectful of the People and the Ecosystem, not only they answer housing sites needs (islands, eco-lodges, refuges,) but also those of industrial applications (relay transmission equipment) on isolated sites (harsh environment or hard-to-access locations). Furthermore, Atawey's solutions offer total fossil and voltage energy independence.

Atawey's solutions advantages

If other energy storage solutions exist, their capacities are quite limited. Herewith, they do not offer all the benefits provided by Atawey's devices which are:

- The use of **100** % renewable, always available anywhere energies.
- Works without any input of fuel offering a simple use and a total independence from fossil energies.
- It is an ecological solution (noise-free, no atmospheric emissions and using of ecoresponsible components).
- Compatibility with extreme weather conditions, with a high level of security and reliability.
- **Reduced maintenance** associated with a **high flexibility** and a saving of space on the ground.

Finally and above all, **these energy autonomy solutions are economically competitive**. An important competitive advantage which will keep growing thanks to a growing market and the scarcity of fossil energy.

The total cost of ownership of the energy on isolated sites will be halved. This will allow a return on investment of about two to five years for the user.

Atawey's products in a few key figures:

Atawey's device is 100 % automated

Two to five: is the number of years needed to amortize these energy autonomy solutions

More than 15 years: is the product lifetime

365 days/year and 24h/24h: availability of Atawey's remote processing

O gram: atmospheric emissions (CO2)

O litre: use of fuel