

# Klenergy

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## INTRODUCTION

Klenergy is an idea based on the future of the hydrogen technology. The concept is to create self-sufficient energy from renewable energy (solar panel, wind energy, bioenergy) using the hydrogen technology instead of conventional batteries. The end result of this process is on-site generation of energy for your house, infrastructure and facilities. Every step of the process is designed to be sustainable for the environment. The hydrogen itself is extracted from plain water, the only residue produced when consuming the hydrogen is water. With this process we aim to satisfy our society's growing energy needs and at the same time reduce the environmental impact on our world only residue useful for the electrolysis process.

## WHY KLENERGY

Klenergy came out from an energy necessity. How can we store all the energy that the sun and the wind produce for all the year? Klenergy is the most efficient solution to solve this big problem. We provide the tool to save and make money in the same time for energy companies, wind/solar farm, energy brokers and private households. We are helping those entities who produce power from sun and wind to become more efficient. Klenergy is aimed at challenging the current way to store energy and satisfying the global energy needs. The key point is connect our battery-on-grid anywhere and go big scale to sell energy when people need it and when is convenient. We are making a battery-like device that can store electric power. This way we make sure to get all the energy out of the wind and the sun when it is blowing and shining and then use it when people need it later at peak times. We have found the most efficient way to store electric energy that is, at the same time completely environmental friendly using Hydrogen as battery. Aside from this, hydrogen can be produced from domestic resources, eliminating the need to import foreign oil, natural gas or coal. This helps the local economy and government; every energy dependent household increases a state's political and economic independence

## How is the role of technology?

The hydrogen technology that we use is the future of energy. Klenergy stores and then produces clean energy without any emission. We eliminate the capacity limitations of battery based storage technologies with our system based on hydrogen storage. This process works by using the surplus energy generated from solar panels and wind turbine (the surplus comes from the hours in which the facility's demand is lower than production) in order to produce hydrogen through a process of electrolysis. The hydrogen is kept in a deposit which varies in size depending on different energy needs. The key part of this process is carried out by the fuel cells which generate energy from the hydrogen with water as the only byproduct. We are working on developing a prototype to generate 300-1000 Watts of power.