



RegenR8

Descriptive Summary

Our cloud-based AI-enabled platform for on-demand renewable energy (energy as a service) in the Middle East empowers farmers to implement efficient sustainable agriculture practices by providing clean energy, minimising water use, and reducing the carbon footprint of agriculture, making it an environmentally sustainable solution for the agriculture industry.

Background

ReGen-R8 was created to solve one of the most pressing and protracted issues the Lebanese community has been facing for years in the most vital sector, the power sector, and that has drained billions of dollars in losses and hindered any prospects of economic prosperity.

Aims and Goals

- (em)Powering Farmers: We aim to provide easy-to-access, easy-to-manage and easy-to-afford clean energy to farming communities, AI allowing them to make a huge stride towards sustainability and reduction of their carbon footprint with no sacrifice to their livelihood. Improving farmers' livelihoods: Our ReGen-R8 aim to enable our farmers to optimize their irrigation processes hence conserving water, implementing cold storage to reduce crop wastage & set up food processing facilities to increase the value of their products in the retail market.
- Conserve & Restore Ecosystems: We strive to contribute both directly and via our partnership with the farmers to helping the environment & ecosystems - our direct impact is in the replacement of diesel generators - each 15 kW R8-unit results in 20 tons of carbon dioxide emissions reduction with our 8 units in operation, we will be contributing to 160 tons reduction in 2023 alone.

Actions taken

We are constantly looking for innovative and novel ways to reduce the environmental impact of our operations, and we rely on cutting-edge technologies like internet of things

(IoT) and AI to monitor and optimise energy usage. We also prioritise transparency about our environmental impact, disclosing information about our carbon footprint, water usage, and other environmental metrics.

Community engagement is a crucial aspect of sustainability, and we engage with communities through education and outreach, encouraging sustainable practices in their personal lives.

We are committed to ethical sourcing, sourcing materials and products in a way that minimizes their environment impact. We also prioritize environmental responsibilities by enabling the use of renewable energy and contributing to the reduction of carbon emissions.

Finally, we prioritize accessibility, by removing both the financial and technical barriers to implementing renewable energy solutions.

Main Achievement to date

Since our launch in 2021, we were able to create tens of jobs for qualified Lebanese individuals where most of whom are residents of rural areas with limited access to opportunities, especially in light of the economic recession. We worked on providing basic training for hundreds of farmers on the benefits of resorting to renewable energy and the potential it has in eliminating energy security threats with the purpose of raising awareness and maximizing the adoption and retention rates. With eight units, we were able to save at least 20 tons of CO2 emissions thus far, and where we plan to have at least 125 tons of CO2 emissions saved by the end of 2023 when all eight units are operating.

Lessons, replicability and scalability potential

Lessons Learned: The ReGen-R8 initiative has demonstrated that solar PV technology can effectively provide sustainable energy for agriculture in remote areas, reducing reliance on fossil fuels. One of the critical lessons learned is the importance of local partnerships in ensuring adoption and long-term success, particularly with smallholder farmers and cooperatives.

Replicability: The modular design of ReGen-R8 makes it highly replicable in various agricultural settings and adaptable to different crop types and regions. It is particularly suited to environments facing energy challenges, allowing for easy deployment in both Lebanon and similar markets in the MENA region.

Scalability: ReGen-R8's scalability is evident in its flexible energy generation capacity, which can be tailored to meet both small-scale and large-scale agricultural needs. This enables the system to grow alongside farming operations, enhancing productivity while reducing costs

Affiliation

ReGen

Keywords

Renewable Energy Solar Energy

Country

Lebanon

Start year

Fri, 01/01/2021 - 12:00

LinkedIn

<https://www.linkedin.com/company/yy-regen/>

Acknowledgement of funding source

Clean Energy and Food System Challenge

Total funding

100 - 500k €

Environmental

Medium-High

Social

Medium-Low

Technological

Medium-High

Financial

Medium

Institutional

Medium-Low

SDGs



**YouTube**

<https://www.youtube.com/@yyregen2021>

Website

<https://yy-regen.com/>

E-mail address

hasan.jaafar@yy-regen.com

Nexus Dimensions

Energy

Food

City

Beirut

Source URL: <https://wefe4med.eu/demo/regenr8>