



## « GREEN HYDROGEN CAMP: FROM THEORY TO ACTION »

### Unlocking Potential with Online GH2 Summer School during August 2024 (Online) & Hackathon on Tuesday, September 17, 2024, Beirut

Call for Application Extended

Under the patronage of the Ministry of Energy and Water (MEW), the Lebanese Center for Energy Conservation (LCEC) and the European Union funded Mediterranean Green Electrons and Molecules Network (MED-GEM) are thrilled to announce "Green Hydrogen Lebanon Camp: From Theory to Action. », a pioneering program combining an intensive online training on Power-to-X (PtX) technologies and a 24h Hackathon focused on renewable energy and green hydrogen solutions in-and-for Lebanon. This ambitious initiative aims to raise awareness among 20 selected students who are enrolled in a **Bachelor in Engineering, or in a Master Program, or affiliated as Ph.D. candidates** in fields such as **energy, environment, chemical or process engineering, or other related disciplines.**

#### FROM THEORY... AUGUST, ONLINE SUMMER SCHOOL "RENEWABLE & POWER-TO-X BASIC TRAINING »

In August 2024, the selected candidates are required to enroll in the mandatory online training "Power-to-X Training: Renewable Power-to-X Basic Training," offered in partnership with the International PtX Hub and PtX Academy. This online course provides a comprehensive exploration of the principles and practical applications of Power-to-X (PtX) technologies. As Lebanon progresses toward sustainable energy solutions, this program offers a unique opportunity to delve into these cutting-edge advancements under the guidance of leading experts in the field. Our goal is to equip participants with extensive knowledge, practical skills, and a thorough understanding of RE, green hydrogen and PtX technology. The training will ensure that participants are well-prepared to address the real-world problems they will face during the Hackathon, helping them to become active contributors to Lebanon's transition to renewable energy.

#### TO ACTION... SEPT. 17TH HACKATHON ON RENEWABLE ENERGY AND GREEN HYDROGEN

After attending the mandatory training in August and being delivered a certificate of completion, participants of the inaugural Green Hydrogen Lebanon Camp will shift from Theory to Action by joining the first Green Hydrogen Hackathon in Lebanon, set for Tuesday, September 17, 2024, in Beirut. Divided into teams, they will have less than 24 hours to develop innovative solutions tailored to Lebanon's green hydrogen and renewable energy challenges, focusing on infrastructure, industry, and possibly political and financial frameworks. The top team will earn the distinguished honor of presenting their solution Thursday, September 19, 2024, at the opening ceremony of Beirut Energy Week (BEW 2024), in front of esteemed guests and international experts, and will receive prizes to further support their project.



## I. AUGUST ONLINE SUMMER SCHOOL TRAINING CONTENT

This training, designed by the International PtX Hub and PtX. Academy, provides an exceptional opportunity to delve deeply into the principles and practical aspects of Power-to-X technologies:

### Introduction to Renewable PtX:

- Understanding the basic concepts of Power-to-X technologies and their role in converting renewable electricity into other forms of energy like green hydrogen.

### Renewable PtX Production Pathways:

- Exploring the production processes of renewable PtX and downstream products such as green ammonia and methanol, with a focus on sustainable carbon.

### Economics of Renewable Energy and PtX:

- Analyzing the economics of PtX technologies, including cost development of Electrolysers, green hydrogen, and PtX derivatives.

### Infrastructure and Techno-Economic Criteria:

- Studying the technical and economic criteria for the necessary infrastructure for transportation, storage, and trade of PtX products.

### EESG Sustainability Framework:

- Utilizing the EESG framework to integrate economic, environmental, social, and governance sustainability into PtX development.

### Case Studies and Best Practices:

- Presenting best practices and institutional frameworks for the development of future energy systems.

### Key Objectives:

- ▶ **Comprehensive Understanding:** Equip participants with a thorough understanding of Renewables, green hydrogen and PtX technologies.
- ▶ **Practical Skills:** Develop practical skills essential for working in the EE, RE and green hydrogen sector.
- ▶ **Sustainability Focus:** Emphasize the importance of high standards in quality and sustainability.
- ▶ **Hackathon Preparation:** Prepare participants to effectively tackle the challenges presented during the Hackathon.



## II. APPLICATION PROCESS

### Eligibility:

- ▶ Applicants must be in Lebanon.
- ▶ Applicants must be currently enrolled in a Bachelor, or Master in Engineering or affiliated as a Ph.D. student with an accredited University in the field of energy, environment, chemical or process engineering or other fields in relation with the topic of the hackathon.
- ▶ Applicants should have a strong knowledge in one of the following fields: energy systems, energy economics, climate, energy policy or equivalent.
- ▶ Applicants must have excellent verbal and written communication skills in English.

### Application:

- ▶ Applicants must complete [the application form](#) (uploading their CV and a 1 min motivational Video).
- ▶ Guidance for the video is specified in the application form.
- ▶ The deadline for submitting the application form is 23:59 on 28st July 2024. Applications received incomplete or after the deadline will not be considered.

## III. COST OF THE GREEN HYDROGEN CAMP

The Green Hydrogen Hackathon is fully sponsored, and the selected participants will also have their meals and transportation covered.

## IV. CERTIFICATION

At the end of the GH2 Camp, participants will receive certificates of attendance.

## V. TRAINING

Selected applicants are required to attend a mandatory self-paced modular PtX training where they will be requested to present a certificate of completion at the end of the training.

## VI. PRIZES

Prizes will be presented to the winners on the second day of the Beirut Energy Week (BEW) on September 19, 2024. These awards aim to encourage the continued development of their solutions and may include:

- **Visibility:** The chance to showcase their solution during the opening ceremony of the BEW.
- **Expert Network:** Access to a wider network of experts and professionals in the green energy field.
- **Main prize:** For the winning project a Field trips and/or a week-study-trip to a European University and/or internship and/or trainings and mentorship for the wining project.