

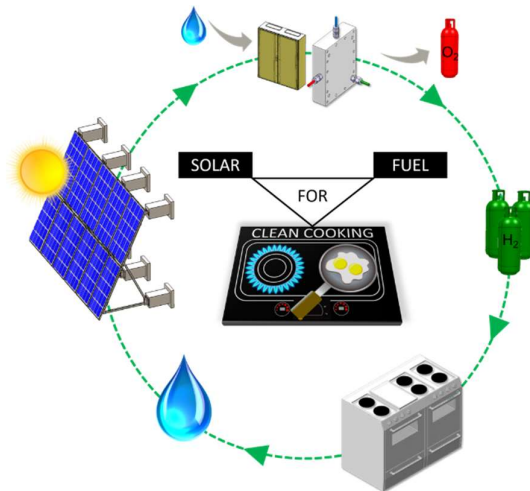
**Call for partner: Local production of an affordable solar fuel for clean cooking in Cameroon**

The Laboratory of Renewable Energy Science and Engineering at EPFL (Switzerland) is seeking for a Cameroonian and/or Swiss research partner for the implementation of a Tech4Dev research project in Cameroon entitled “Local production of an affordable solar fuel for clean cooking in Central Africa” (<https://actu.epfl.ch/news/practical-technologies-for-the-global-south/>).

**Budget for partner: 26’000 CHF (ca. 16 million XAF)  
Application deadline: July 1<sup>st</sup>, 2020**

**About the project**

The project addresses indoor air pollution through the practical demonstration of the use of solar hydrogen as a competitive fuel for clean, safe and modern cooking in the developing countries of the Global South. Specifically, we will design and install a decentralized and small-scale (20 kW<sub>e</sub>) solar hydrogen production power plant in Cameroon. The system will be coupled to an efficient storage solution for fuel delivery to households, the latter being equipped with an efficient hydrogen-fueled stove. Interesting, exploitable side products of the process are oxygen during the electrolysis (usable in medical applications) and drinkable water during the combustion.



**Partners and organization of the project**

The project budget and tasks will be shared between three complementary partners who will work in close collaboration. The first two partners are:

- **EPFL – Laboratory of Renewable Energy Science and Engineering** (<https://www.epfl.ch/labs/lrese/>): The laboratory investigates the conversion of solar energy into storable fuels and commodities. EPFL-LRESE will contribute to: 1) design of the system, 2) small-scale demonstration of the system, 3) definition of safe process operation, and 4) knowledge transfer to Cameroon.
- **SOFT Power 2020** (<https://softpower2020.com/>): The renewable energy startup is specialized in developing solar energy conversion solutions and, by doing so, aims at contributing to reducing poverty and global warming. SOFT Power 2020 will contribute to: 1) design of the storage and distribution system, 2) installation, testing and operation of the solar power plant in Cameroon, 3) installation and operation of the fuel production system, 4) stoves and fuel distribution, and 5) usage assessment by user surveys.

### **Description of the work package for the third partner**

The third partner will work in synergistic collaboration with the other partners for a successful implementation of the project, while mainly focusing on the following tasks:

- Ethical and environmental impact assessment of the project and technology;
- Local implementation support and public outreach;
- Risk assessment and safety measures;
- Durability and scalability studies;
- Organization of a project meeting in Cameroon;

### **Duration and location of the project**

The project will last two years, from 01.06.2020 to 31.05.2022, and will be implemented in Cameroon (Douala), with some meetings between the different partners in Switzerland (Lausanne). The 3<sup>th</sup> partner is supposed to start end of July 2020.

### **How to apply?**

Applications should be sent to Prof. Sophia Haussener before July 1<sup>st</sup> 2020 and should include a description of the partner's track record in the field of energy and environment, involvement and experience with projects in the Global South (specifically Cameroon) as well as the list of instruments and/or tools available for contributing to the project. A template is provided below for guidance and the application should not exceed 2 pages.

Contact: Sophia Haussener, Associate Professor at EPFL ([sophia.haussener@epfl.ch](mailto:sophia.haussener@epfl.ch))

### **Template for application**

#### **Partner details**

Name of contact person

Mailing address

Email address

Phone number

Website

#### **Partner description (1 page max)**

Summary of work relevant to solar energy and hydrogen & List of most relevant publications

#### **Motivation for the project (10 lines)**

Describe your motivation to join this project

#### **Tools/instrumentation available**

Description of networks, tools or instruments for ethical and environmental assessment, local implementation, public outreach, system studies, etc.