



## Ten finalists announced for TERA-Award smart energy innovation competition highlighting battery and hydrogen innovation projects

(10 December 2021) Co-organised by The Hong Kong and China Gas Company Limited (Towngas) and State Power Investment Corporation (SPIC), the TERA-Award smart energy innovation competition officially announced its 10 finalists on 15 November, with entries such as Liquid Sunshine Methanol, High Temperature Fuel Cell Stack Industrialization Project, Smart Micro-grid Dual Carbon Energy Management System and Perovskite/Crystalline Silicon tandem PV emerging.

Since the competition's launch in mid-June, 208 projects from 23 countries and regions have taken part. Twenty projects were subsequently shortlisted, entailing intense competition. The judging panel comprises eight experts from Towngas, SPIC, Tsinghua University, The University of Hong Kong and leading international energy research organisations. The 10 finalists were chosen after professional and stringent assessment of the submissions on the aspects of implementation, innovation, commercialisation and talent capability.

Shortlisted projects include (in no particular order): Copper-HeteroJunction with Intrinsic Thinlayer (C-HJT) Battery, Fuel Cell Power Station (hydrogen storage power station), Perovskite/Crystalline Silicon tandem PV, High Temperature Fuel Cell Stack Industrialization Project, Liquid Sunshine Methanol, Highly efficient and low-cost H<sub>2</sub> production using AEM Water Electrolyzers, Advanced Vanadium Redox Flow Battery, Smart Micro-grid Dual Carbon Energy Management System, Iron-chromium Flow Battery Energy Storage, and Safe and Low-cost Flow Battery (please refer to table below for details).

The above projects ranging from battery to hydrogen energy to the energy internet serve to represent visionary innovations in the realm of smart energy technology. The top three projects and winner of the US\$1 million prize will soon be selected.

### The Ten Finalists

Project	Company	Country/Region
Copper-HeteroJunction with Intrinsic Thinlayer (C-HJT) Battery	SPIC New Energy Science and Technology Co., Ltd.	Mainland China
Fuel Cell Power Station (hydrogen storage power station)	Zhejiang Gaocheng Green Energy Technology Co., Ltd.	Mainland China
Perovskite/Crystalline Silicon tandem PV	Heiking PV Technology Co. Ltd.	Mainland China

High Temperature Fuel Cell Stack Industrialization Project	Zhejiang H2-Bank Technology Co., Ltd.	Mainland China
Liquid Sunshine Methanol	Dalian Institute of Chemical Physics, Chinese Academy of Sciences	Mainland China
Highly efficient and low-cost H2 production using AEM Water Electrolyzers	Greendrogen	USA
Advanced Vanadium Redox Flow Battery	VFlow Tech Pte Ltd	Singapore
Smart Micro-grid Dual Carbon Energy Management System	SPIC Central Research Institute, Shanghai Fangrong Technology Co., Ltd.	Mainland China
Iron-chromium Flow Battery Energy Storage	Beijing Herui Energy Storage Company	Mainland China
Safe and Low-cost Flow Battery	Luquos Energy Limited	HKSAR, China