

30 March 2022

Award of a Grant from the Singaporean Government to Develop a Hydrogen Supply Chain Network in Singapore using SPERA Hydrogen™

Chiyoda Corporation (Chiyoda) is pleased to announce that the Singaporean Government has awarded a financial grant to support Chiyoda, Mitsubishi Corporation (Mitsubishi), five (5) Singaporean companies (PSA International Pte Ltd, Sembcorp Industries Ltd, City Energy Pte Ltd, Jurong Port Pte Ltd and Singapore LNG Corporation Pte Ltd) and two (2) Singaporean Universities (Nanyang Technological University (NTU) and National University of Singapore (NUS)) to develop a hydrogen supply chain network to power Singapore's energy future.

The grant was awarded under the Low-Carbon Energy Research Funding Initiative (LCER FI), led by the Singaporean Government, to support research and development and demonstrate low-carbon energy technology solution projects.

The program is an important initiative to design and commercialize a cost-effective hydrogen supply chain network in Singapore using SPERA Hydrogen. Since signing an MOU with Mitsubishi and the five (5) Singaporean companies in March 2020, Chiyoda has developed projects to commercialize a hydrogen supply chain in Singapore and reduce costs. Chiyoda will play a pivotal role in the program, supporting the research and development of practical applications towards a hydrogen society with researchers from NTU and NUS.

SPERA Hydrogen is a chemically stable liquid at ambient temperature and pressure, is easy to handle and maximizes the use of existing petrochemical infrastructure and international regulations and standards; key features favored by the Singaporean Government leading to the award. The consortium will also develop and test new catalysts and reactor systems to extract hydrogen from methylcyclohexane (MCH)*, using SPERA Hydrogen technology to accelerate the commercial use of hydrogen in Singapore and contributing to decarbonization towards a sustainable global environment.

* A liquid at ambient temperature and pressure. Produced from toluene and hydrogen and widely used as a pharmaceutical agent, a solvent for agricultural production, an admixture for jet-fuel and a solvent in correction liquid etc.

<Reference Information>

1. Chiyoda Corporation

- I. Headquarters: 4-6-2, Minatomirai, Nishi-ku, Yokohama, Japan
- II. Main Business: Integrated engineering business including consulting, planning, engineering, procurement, construction, commissioning and maintenance of facilities related to oil and gas, electricity, petroleum, petrochemical, chemical, pharmaceutical, antipollution, environment preservation and other services. Exploration and investment financing of oil, gas and other mineral resources.
- III. Representative: Mr. Masaji Santo, President & COO

2. Mitsubishi Corporation

- I. Headquarters: 3-1 Marunouchi 2-Chome, Chiyoda-ku, Tokyo, Japan
- II. Main Business: A global integrated business enterprise comprising ten (10) Business Groups: Natural Gas, Industrial Materials, Petroleum & Chemicals Solutions, Mineral Resources, Industrial Infrastructure, Automotive & Mobility, Food Industry, Consumer Industry, Power Solution and Urban Development.
- III. Representative: Mr. Takehiko Kakiuchi, President and CEO

3. PSA Corporation Limited

- I. Headquarters: SEAO, 1 Harbour Drive, #17-01, Singapore 117352
- II. Main Business: A leading global port group and a trusted partner to cargo stakeholders around the world.
- III. Representative: Mr. Ong Kim Pong, Regional CEO Southeast Asia

4. Sembcorp Industries

- I. Headquarters: 30 Hill Street, #05-04, Singapore 179360
- II. Main Business: A leading energy, marine and urban development group, operating across multiple markets worldwide.
- III. Representative: Mr. Neil McGregor, Group President & CEO

5. City Energy

- I. Headquarters: 26 Senoko Avenue, Singapore 758312
- II. Main Business: Production of town gas distributed for residents and commercial and industrial customers
- III. Representative: Mr. Tan Chuan Huat Kenny, Chief Executive Officer

6. Jurong Port

- I. Headquarters: 37 Jurong Port Road, Singapore 619110
- II. Main Business: A world-class multipurpose port operator serving as Singapore's premier gateway for general and bulk cargo.
- III. Representative: Mr. Ooi Boon Hoe, Director and Chief Executive Officer

7. Singapore LNG Corporation

- I. Headquarters: 991G Alexandra Road, #03-29C Singapore 119975
- II. Main Business: Providing terminal services to the LNG Aggregators and end users.
- III. Representative: Mr. Tang Kin Fei, Chairman of Singapore LNG Corporation Pte Ltd

8. Nanyang Technological University (NTU)

- I. Address: 50 Nanyang Avenue, Singapore 639798
- II. Representative: Professor Subra Suresh, President

9. National University of Singapore (NUS)

- I. Address: 21 Lower Kent Ridge Ro, Singapore 119077
- II. Representative: Professor Tan Eng Chye, President

[Please click here for the joint press release.](#)

For further details, please contact:

Chiyoda Corporation

IR, PR & CSR Section

Email: irpr@chiyodacorp.com

URL: <https://www.chiyodacorp.com/en/contact/index.php>