

August 3, 2018

Hitachi, Ltd.

Marubeni Corporation

Miyagi Consumer's Co-operative Society

Tomia City, Miyagi Prefecture

Commencement of Demonstration of Low Carbon Hydrogen Supply Chain
in Tomia City, Miyagi Prefecture

With the Completion of the Demonstration Facility, an Operation Commencement Ceremony was
Held in the Presence of Related Parties

Hitachi, Ltd. (Toshiaki Higashihara: President & CEO; hereinafter "Hitachi"), Marubeni Corporation (Fumiya Kokubu: President & CEO; hereinafter "Marubeni"), Miyagi Consumer's Co-operative Society (Hiromu Miyamoto: President; hereinafter "Miyagi COOP") and Tomia City, Miyagi Prefecture (Hirotohi Wako: Mayor; hereinafter "Tomia City") were adopted by the Ministry of the Environment as "Low Carbon Hydrogen Technology Demonstration Project in Cooperation with Local Government" and prepared for a demonstration project (hereinafter "Demonstration") to establish a low carbon hydrogen supply chain in Tomia City. Operation will commence in mid-September after a test run and an adjustment of the completed demonstration facility.

As the demonstration facility has been completed, an operation commencement ceremony (hereinafter "Ceremony") was held at Miyagi COOP Tomia logistics center today. Among those in attendance at the Ceremony were Mr. Toru Doi, State Minister for Reconstruction and Mr. Yoshihiro Murai, Governor of Miyagi Prefecture. At the Ceremony, the process of delivering and attaching cassettes containing metal hydride* to the fuel cell in afterschool children's club houses of the local elementary school (hereinafter "Afterschool Children's Club"), which is one of the users, was broadcasted to the ceremony hall in real time.

The Demonstration used the existing solar power generation system installed at the logistics center of Miyagi COOP. Solar power is transformed to hydrogen by an electrolyzer, and then stored in the form of cassettes containing metal hydride and then delivered through an existing distribution network to three family houses (registered as members of Miyagi COOP), Miyagi COOP supermarkets and Afterschool Children's Club in Tomia City. After delivery, the cassette is attached to a pure hydrogen fuel cell and converted to power and heat that the users can utilize as energy. The facilities will be operated for more than 1 year with results to be obtained by March 2020.

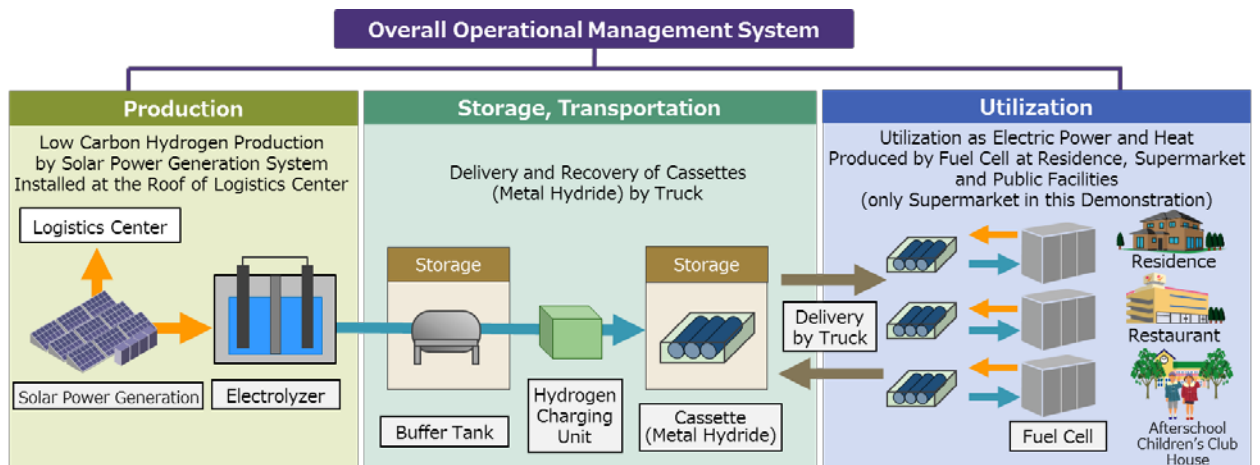
Based on the result of the Demonstration, Hitachi, Marubeni, Miyagi COOP and Tomia City will contribute to the realization of a future city that emits no carbon dioxide, by promoting the nationwide expansion of the supply chain established in Tomia City across Miyagi Prefecture, the Tohoku region and then to all other areas in Japan.

*Metal Hydride: Alloy which reversibly absorbs hydrogen when temperature decreases or pressure increases, and desorbs when temperature increases or pressure decreases.

- The Demonstration Facility in Miyagi COOP logistics center



- Outline of the Demonstration



- Related Press Release

[August 4, 2017 Commencement of Demonstration to Establish Low Carbon Hydrogen Supply Chain in Tomiya City, Miyagi Prefecture Adopted by Ministry of the Environment as “FY2017 Low Carbon Hydrogen Technology Demonstration Project in Cooperation with Local Government”](#)

- Contact Information for the Demonstration

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