News Release

INCJ to make follow-on investment in LE System

Company develops and manufactures vanadium electrolytes
for redox flow batteries

- Supports the realization of mass production and a stable supply of high-quality electrolytes through the low-cost recovery of vanadium compounds from industrial byproducts
- Supports the plant construction for the mass production of electrolytes in Futaba district, Namie, Fukushima Prefecture. Aiming to begin operations in summer 2021
- Contributes to the expansion of renewable energy and CO_2 reduction through the promotion of redox flow batteries

Tokyo, August 24, 2020 – INCJ, Ltd. ("INCJ") announced today its decision to make an follow-on investment of a maximum of JPY 800 million in LE System Co., Ltd. ("LE System"), recognizing the progress made in the company's business development. The investment will be made through a third-party allocation of shares. There will be an initial investment of JPY 300 million followed by further investments up to the maximum amount in line with business progress. INCJ will be joined in this fundraising round by existing investors TOA Electric Industry Co., Ltd. and Nishimatsu Construction Co., Ltd. The total amount raised by LE System in this round is JPY 700 million.

LE System is a venture company that has developed technology to recover rare metal vanadium compounds from electrostatic precipitator (EP) residue and other industrial byproducts. These are used to produce high-quality vanadium electrolytes for redox flow batteries at a low cost. LE System has completed verification of the technology at its mother plant and is now targeting mass production.

In recent years, the use of renewable energy such as solar or wind power is being promoted globally with the objective of creating a low-carbon society. Renewable energy generation can be unstable and the duration and amount of power generated depends on weather conditions and other environmental factors. These challenges lead to frequency and voltage fluctuations in electric power systems. To resolve this issue, high-capacity batteries that capable of storing significant amounts of electric power are needed.

Compared to other high-capacity batteries, redox flow batteries have no limit to the number of charge and discharge cycles and there is no deterioration which enabling stable operation over a long period of time. The scalability and stability offered by redox flow batteries is superior to other options. However, the cost of producing these batteries remains high due to the cost of acquiring electrolytes. Thus, lowering the cost of electrolyte will be the key to their popularization.

In November 2017, INCJ announced its decision to invest up to JPY 800 million in LE System. At the time of the announcement, it had already completed the investment of JPY 400 million of this amount. The remaining JPY 400 million was invested in August 2019.
LE System is currently constructing a new plant in the Futaba district of Namie, a town in

Fukushima Prefecture, and preparations are underway to begin operations in the summer of 2021. At present there are no companies in Japan capable of manufacturing a stable and constant amount of vanadium electrolyte, so there is considerable demand in the market for a stable supply of quality product at a low price. Redox flow battery manufacturers in Japan and abroad are looking to LE System with a very high degree of expectation.

Through the investment in LE System, INCJ aims to create a success case of redox flow batteries that are highly competitive in the global market, and promote the use of renewable energy and the adoption of redox flow batteries. INCJ will support partnerships among leading Japanese companies and venture companies in order to create and promote new open innovation.

Redox Flow Battery

A redox flow battery is a storage battery that can be charged and discharged through redox reactions of ions such as vanadium through a circulation of electrolyte. The redox flow battery is operable at room temperature, and is secure as it does not use any combustible or explosive substances. Measuring the open circuit voltage of the electrolyte enables accurate monitoring and control of electric energy stored in real-time. Therefore, it is possible to utilize surplus electricity at night and is suitable for storing irregular and fluctuating renewable energy generation output (solar, wind power, etc.).

About LE System Co., Ltd.

Established: January 2011

Headquarters: Kurume, Fukuoka Prefecture

Technical Centre: Tsukuba, Ibaraki Prefecture

Representative Director: Junichi Sato

Business Outline: Renewable energy-related business and redox flow battery business

URL: http://www.lesys.jp/

About INCJ, Ltd.

INCJ, Ltd. was established in September 2018 via company split from Innovation Network Corporation of Japan (INCJ). INCJ was established in July 2009 with the aim of overcoming boundaries between companies and industries, creating and nurturing key industries via open innovation for the prosperity of future generations. Following revisions to its governing law—the Industrial Competitiveness Enhancement Act—the continuing company changed its name to Japan Investment Corporation (JIC) and began new activities. INCJ, Ltd. is mandated until March 2025 to pursue the activities of the original Innovation Network Corporation of Japan, engaging in “Value Up” initiatives at portfolio companies, making additional and milestone investments, and developing exit strategies from investments in portfolio companies.

URL: http://www.incj.co.jp/english/

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Appendix

INCJ, Ltd.

Overview of additional investment

Target: LE System Co., Ltd.

Established: January 2011

Representative: Junichi Sato

Headquarters: Kurume, Fukuoka Prefecture

Business outline: Renewable energy-related business / redox flow battery business

Overview of investment

Authorized investment: JPY 800 million (maximum)

Amount invested in this round: JPY 300 million (phased investment subject to satisfaction of preconditions)

Announcement date: August 24, 2020

Previous investment: November 14, 2017

- Press Release: INCJ to invest in LE System Co., Ltd. Kurume-based Venture company https://www.incj.co.jp/english/newsroom/upload/docs/INCJ_LE_20171114.pdf

Significance of Investment

Supporting social needs:

- Increasing penetration of renewable energy power generation requires high-volume electricity storage for large-scale power grids. In this context, long life and recyclability of redox flow battery offer a great promise.
- The key to the popularization of redox flow batteries is a cheap and stable supply of high-quality vanadium, a rare metal used in electrolytes.

Growth potential:

- The demand for redox flow batteries is increasing amid consistent growth trends in renewable energy.
- While the number of redox flow battery cell manufacturers is growing, the number of vanadium electrolytes suppliers is not. Currently, no manufacturer can supply vanadium electrolytes at a constant price.
- There is interest in this business among the private sector and investment can be expected from companies in related industries and from private-sector venture capital.

Innovation

- LE System holds patents for the technology to manufacture and stably supply vanadium electrolytes for redox flow batteries by recovering vanadium from combustion residue

and waste products.　Replication by companies would be difficult.

- LE System promises to become a global competitive company in the renewable energy sector through open innovation with companies in relevant industries.

Comment from Minister of Economy, Trade and Industry

I expect that INCJ will provide the appropriate support to expand the use of renewable energy and achieve a stable supply of power from these sources through the steady development of this investee's business and the company's battery technology.

Moreover, with the close collaboration of METI, I would like to ensure that any future exit from this investment, through a transfer of shares or other means, will have a positive ripple effect for Japan's battery industry and the energy sector as a whole.

LE System

Target: LE System Co., Ltd.
Business Outline: Development, manufacture and sales of electrolytes for redox flow batteries
Authorized Investment: JPY 800 million (Max) / JPY 800 million (Max)
Date of Announcement: November 14, 2017 / August 24, 2020

INCJ

Investment Management Support Dispatch of external directors

Venture Capital Companies

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Venture Capital Companies

Investment Management Support

LE SYSTEM CO., Ltd.

LE SYSTEM Co., Ltd.

- A venture company based in Kurume, Fukuoka which developing and producing electrolytes for redox flow battery.
- Development of technology and techniques to recover vanadium in a stable way from industrial waste at a low price
- Supply of vanadium electrolyte at a low price to solve cost issue in redox flow battery
- Plan for completing mass-production plant construction by 2021

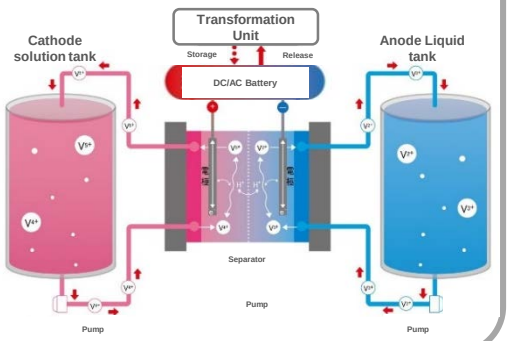
<Material>

Recover

<Electrolyte>

Supply

<Redox flow battery>



Cooperation on vanadium recovery

Domestic oil companies
Foreign companies

Cooperation on electrolyte sales

Trading companies

Joint development
Business partnership

Other companies
Universities