Special Feature

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Value Creation Story

Medium-term Management Plan

Foundation to Support Value Creation Financial and Corporate Information

Bolstering Our Strengths

The Kansai Electric Power Group, as a lifeline provider, has been creating new values in a variety of areas including the electricity business while taking on new challenges to contribute to the growth of Japanese society by leveraging its "strength," which originates from over 70 years of operations.



Zero-carbon power sources

As a leading company in zero-carbon energy, we have been striving to increase energy independence to secure stable supply of energy with a priority given to safety in an effort to create a sustainable society.

Problem-solving power

We have been offering multiple solutions to provide new values, promoting electrification and addressing various challenges and the needs of customers.

Comprehensive strengths of our Group

We have been providing solution services by leveraging the collective strengths of our group companies, with particular emphasis on our business domains of energy, transmission and distribution, information and telecommunications, and life/business solutions.

Responding to digitalization

We have been pursuing DX, primarily capitalizing on digital technology derived from our electricity business, as DX is a key to achieving the Medium-term Management Plan.

Click below to see our strengths:

https://www.kepco.co.jp/english/corporate/list/report/pdf/ar2022_e_07.pdf

Nuclear power's contribution as a zero-carbon power source

The output of Ohi Nuclear Power Station Units 1-4 reached 900 billion kWh on July 1, 2023, for the first time since Unit 1 went into commercial operation back in 1979. This has never been achieved before by a pressurized water reactor (PWR). The cumulative output of Mihama Nuclear Power Station Units 1-3 and that of Takahama Nuclear Power Station Units 1-4 stand at about 359 billion kWh and 778 billion kWh, respectively. With the three power stations combined, it brings total output to about 2,039 billion kWh (as of the end of July 2023). We will continue to promote zerocarbon electricity at home and abroad by operating nuclear power stations in a safe, stable manner.

Further expanding the possibility of nuclear power

The Group's nuclear power initiatives involve "improving the operation of nuclear power plants," "installation, expansion and replacement," and "hydrogen production using nuclear power," all designed to achieve the Zero Carbon Vision 2050, with safety ensured.

Improving the operation of nuclear power plants

Efforts are underway to operate our nuclear power plants more efficiently to stabilize power supplies and reduce CO₂ emissions.

Business Overview

Bolstering Our Strength

Specifically, we participate in a working group of the Atomic Energy Association (ATENA), engaging in dialogues with the Nuclear Regulation Authority to shift to a flexible operating cycle where the current maximum 13-month cycle is extended to a 15-month cycle. In addition, periodic inspection procedures and periods are compared with those of other nuclear power plants (in Japan and the U.S.) for streamlining processes, with discussions underway to optimize overall operations.

Installation, expansion and replacement

Discussions with plant manufacturers are underway to design next-generation light-water reactors that outperform existing reactors in safety and cost efficiency to improve Japan's energy security and decarbonization.

Hydrogen production using nuclear energy

We will extract the full potential of nuclear energy, which constantly produces a massive amount of zerocarbon electricity to use the electricity and heat it produces for hydrogen production in the future.





Clean hydrogen production is being demonstrated in Tsuruga City, using electricity derived from nuclear energy that emits no CO $_2$ for the first time in Japan.

01 Designing the infrastructure base for a large-scale hydrogen supply chain

On May 29, 2023 the Company announced that it entered into an agreement with Iwatani Corporation, Marubeni Corporation, Stanwell Corporation Limited, and Keppel Infrastructure Holdings Pte. Ltd. on FEED*1 of the Central Queensland Hydrogen (CQ-H₂) Project in the Gladstone Region, Queensland, Australia, where green hydrogen derived from renewable energy will be largely produced and liquefied for export to Japan as well as supplied to an ammonia production facility in the Gladstone Region. This project is the first of its kind, where the Company's hydrogen production business participates in FEED outside Japan, involving what may be one of the largest scale of green liquefied hydrogen production in the world.

Extensive feasibility studies will be conducted to make the final decision on investment in phased-in production and distribution of liquefied hydrogen, which will start in around 2030. The liquefied hydrogen will be supplied to the Company's thermal power stations in the Himeji area and to users nearby.

The Company and three of the participated companies (Iwatani, Marubeni and Stanwell Corporations) have been conducting feasibility studies since 2021 on large-scale production of green liquefied hydrogen and their export to Japan. With Keppel on board, who is a potential green hydrogen user, we the five companies will jointly work on the FEED, which involves a total investment of 117 million Australian dollars (about 10.53 billion yen*2), a sizable amount compared with a total of about six million Australian dollars (about 540 million yen*2) invested in previous feasibility studies.

Each of us, committed to being a pioneer in building a large-scale hydrogen/ammonia supply chain advocated by the governments of Japan, Australia, and Singapore, will leverage this project to help realize a carbon neutral world.

 ^{*1} FEED: Front End Engineering Design. Refers to the basic design (including studies related to commercial, financial, and contractual matters) to be conducted upon completion of conceptual designs and feasibility studies.
*2 Exchange rate of AUD 1 = JPY 90





Bolstering Our Strength

03 New company starts commercial operation of distributed energy resources

E-Flow LLC, which specializes in operation of distributed energy resources (DERs), was established in April 2023 to leverage the experience and expertise derived from our Virtual Power Plant (VPP) business.

Taking over the VPP business of the Kansai Electric Power Company, E-Flow is committed to optimizing operation of customers' DERs and maximizing their electric values through its VPP, grid storage battery, and renewable energy aggregation businesses, which are expected to grow as we transition to a zero-carbon society.

E-Flow also offers services based on the distributed service platform "K-VIPs+," which is equipped with an optimized operation AI incorporating cumulative operational expertise and market transaction data to improve its earnings. Incorporated into the grid storage battery and renewable energy aggregation businesses in the second half of fiscal 2023, this platform system will be expanded to other resources such as EVs and hydrogen production equipment.

Business objective



Business overview



Making inroads to the storage station business

The Company will have a stake in one of the largest storage stations in Japan (48 MW / 113 MWh) and E-Flow will be in charge of its operation. With this business, we will contribute to stabilization of electricity supply and demand and further introduction of renewable energy.

Bolstering Our Strength

4 Investing one trillion yen in hyper-scale data center business

We established CyrusOne KEP, Inc., a 50-50 joint venture with the US data center developer and operator CyrusOne, in May 2023. CyrusOne KEP, Inc. will develop and operate hyper-scale data centers (HSDCs)*1, with investments of more than one trillion yen over the next 10 years or so, aiming for a total storage capacity*2 of 900 MW.

Utilizing both companies' strengths: the Kansai Electric Power Group, which has developed its variety of businesses such as energy, real estate, information and telecommunications, and CyrusOne, which has accumulated advanced expertise in sales, design, development, and operation of HSDC business, this venture company will provide cloud service providers with the world's highest quality digital infrastructure services, facilitating improvement in social and digital infrastructures.



Leveraging the two companies' strengths

CyrusOne KEP, Inc. plans firstly to develop its business in the Tokyo metropolitan area and the Kansai area; its construction site for the first project has been secured in the Kansai area, where it is preparing to start construction as early as possible.

*1: Extremely large data centers that are designed for mega cloud service providers to process a massive amount of data

*2: Indicator that represents the size of data centers