

# Energy Management Businesses



Domain

Energy Management

Corresponding SDGs



## Vision

## Using Energy Conversion and Control Technologies to Popularize the Use of Renewable Energy and Contribute to a Sustainable Society

Energy Management Business is working to spread the use of renewable energy to curb CO<sub>2</sub> emissions. Our aim is to create a society in which all people live in comfort. We contribute to energy efficiency through storage control technologies that support energy management, as well as through “the visualization of energy use” and other advanced initiatives. Further, We are involved in quality and functional improvements in all processes, from planning through to maintenance management. We are striving to be No.1 business partner in the field of environmental business. By leveraging our unique value chain to support the entire energy life cycle—from “efficient energy creation” to “effective energy storage” to “wise energy use”—we contribute to the creation of a sustainable society.

Executive Officer  
Senior General Manager, Energy Management Business HQ

Taisuke Tateishi

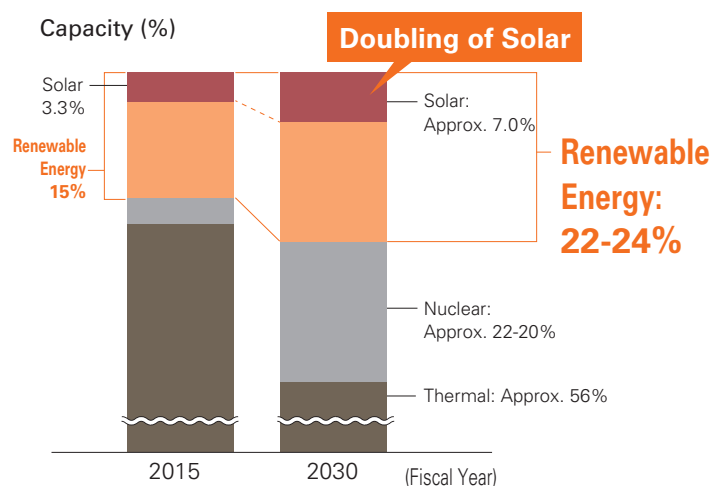


## Issues Confronting the Energy Management Market

Global climate change resulting from rising CO<sub>2</sub> emissions, the depletion of fossil fuels, frequent natural disasters, and soaring fuel costs, demonstrate the need for more use of clean energy in society. In corporate activities, we see a movement to rethink energy usage systems, including the effective use of renewable energy. Additionally, there is an urgent need to adapt to rapid changes in environmental laws and regulations and BCP<sup>\*1</sup>. In response, we see global measures to reduce greenhouse gas emissions in line with COP21<sup>\*2</sup>. Japan has set a goal to increase the ratio of renewable energy used from 15 percent in 2015, to between 22 and 24 percent by fiscal 2030. Japan also expects to double the ratio of solar power, from 3.3 percent to 7.0 percent.

More effect use and delivery of optimal control for power conditioners in solar power and energy storage systems will help spread renewable energy. This, in turn, will lead to reductions in greenhouse gas emissions, which is required to bring about a sustainable society.

### Energy Source Structure Targets for Japan



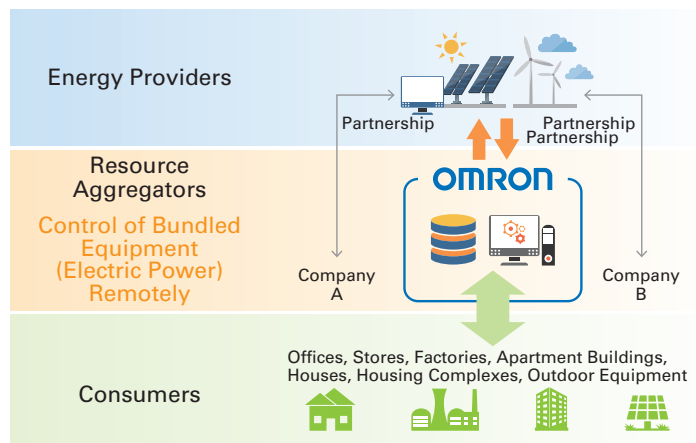
(Source:) Ministry of Economy, Trade and Industry, isep

<sup>\*1</sup> BCP (Business Continuity Planning): A plan to determine activities to be performed at normal times as well as methods and procedures to ensure business continuation during emergencies, while minimizing the impact on business assets and allowing for the continuation or rapid recovery of the core business in the event that a company is confronted with an emergency such as a natural disaster, major fire, or terrorist attack.

<sup>\*2</sup> COP21 (Conference of Parties to the Framework Convention on Climate Change): A conference held in Paris in 2015 to discuss measures to respond to global warming from 2020 onwards, and to determine a new international framework to replace the Kyoto Protocol.

## A Total Energy Management Solutions Provider

The volume of power generated by renewable energy fluctuates depending on the weather. Stable electricity levels are necessary if we are to use energy from renewable sources. Given our energy conversion and control technologies, OMRON focuses on renewable energy generation and the utilization of information related to energy usage. We are working on the challenge of achieving stable electricity via control through bundled batteries. We aim to stabilize electricity to maximize the use of renewable energy, as well as to create a society rich energy.



The Role of Resource Aggregators in Linking Energy Companies and Consumers

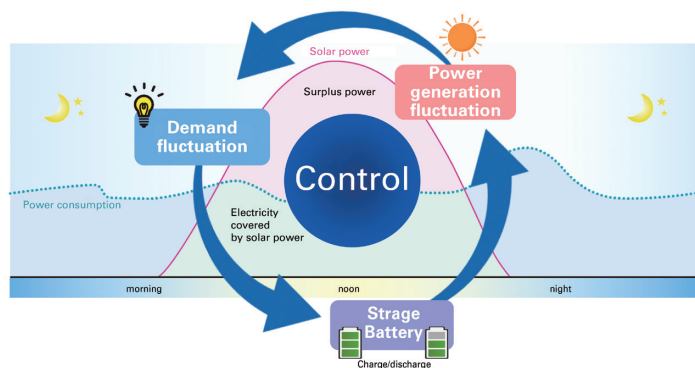
Recently, I have come across the phrases *population decline* and *aging society* with much more frequency. Each time I return to my hometown, I see more small shops shutting down and fewer buses running. Renewable energy that generates stable income from natural energy sources can be a big step toward solving these social issues. Our team thought through every scenario considering customer value and business models to encourage the adoption of photovoltaics and storage batteries. Ultimately, we came up with a model (service) that provides value for everyone. At present, we are using good customer feedback as our motivation to carry out business reform in selling services that encompass entire organizations.



Environmental Solutions  
Business HQ  
Marketing Division  
Yoshinori Kawai

## Energy Usage With No Waste ~Building Storage Solutions~

The end of fixed-priced purchasing (FIT) and measures to counter power due to natural disasters are just two elements that have accelerated the need for more energy that combines solar power generation with storage batteries. To this end, OMRON is developing energy control technologies that incorporate storage batteries consisting of different current and voltage characteristics. We are also participating in verification tests for electricity charge-discharge controls to increase electricity usage efficiency in buildings, as well as tests for electricity stabilization within defined areas. OMRON will continue to hone our proprietary technologies to expand storage battery solutions.



Sensing demand and solar power status, balancing electricity supply through storage battery control

## Spreading Renewable Energy

OMRON has taken up the challenge to achieve better energy management by linking renewable energy and storage batteries. This involves efficient energy creation, effective energy storage, and wise energy use, focused on energy conversion and control technologies. In the future, we intend to expand the scope of energy control to V2X, which takes advantage of electric vehicles. We also intend to achieve further improvements in building and structure energy efficiency. By bundling and controlling existing energy resources and stabilizing electrical power within defined areas, we can contribute to the further spread of renewable energy and to the creation of a sustainable society that has no impact on the environment.