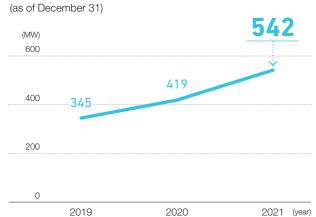




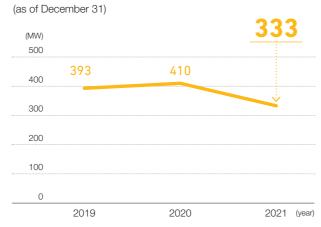


#### Total capacity in operation\*

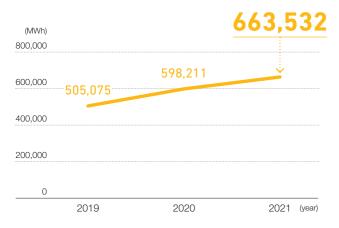


\* Includes the capacity in operation of the power plant (1.8 MW) in Taiwan acquired in 2020. Not included in other graphs.

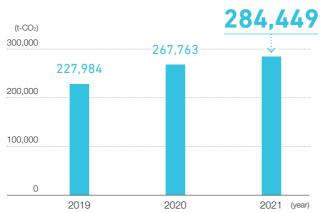
#### Total capacity under construction



#### Total renewable energy sold

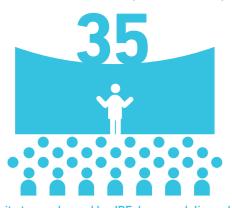


#### Annual amount of CO2 reduction effect\*



\* Calculated by multiplying the amount of purchased energy (deducting the amount purchased with non-fossil fuel energy certificates) by emission factors for each electric

#### Number of events held (2021 results)\*

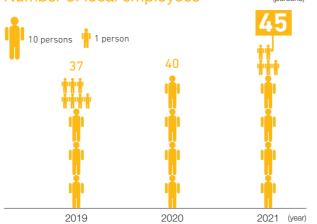


(e.g., site tours planned by JRE, lessons delivered, etc.)

 $^{\ast}$  Due to COVID-19, in 2021 there was a period of time when we did not hold events or accept visitors.

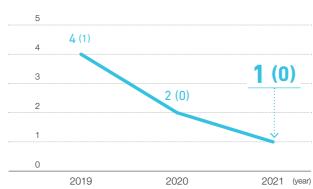
utility that we supply power to (as of December 31 each year) in accordance with the Act on Promotion of Global Warming Countermeasures

#### Number of local employees\*



\* Local personnel recruited from the area where power plants are located

#### Number of employee-related incidents\* (including lost-time injuries)



\* Total number of labor injuries of lost-time accidents (lost for one day or more) and lost occupational accidents caused by labor, and the number of sufferers of commuting injuries

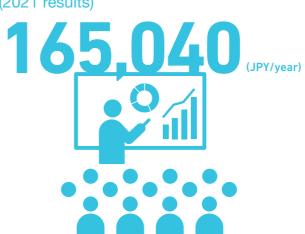


#### Number of fatalities

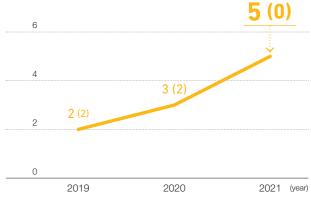


(Ever since our establishment)

#### Average training cost per employee (2021 results)

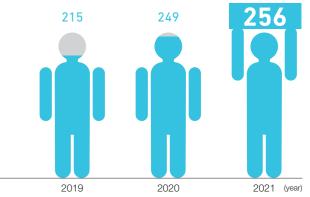


#### Number of construction contractor-related incidents\* (including lost-time injuries)



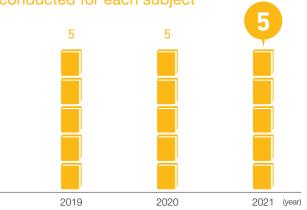
\* Total number of labor injuries of lost-time accidents (lost for one day or more) and lost occupational accidents caused by labor, and the number of sufferers of commuting injuries

#### Number of employees\*



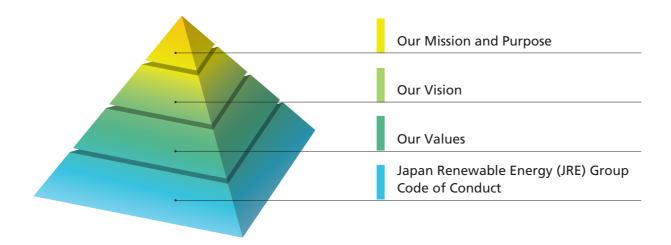
\* The sum of Japan Renewable Energy Corporation and JRE Operations Corporation

#### Number of group compliance trainings conducted for each subject



1 Sustainability Fact Book 2022 Sustainability Fact Book 2022 2





Our Mission and Purpose

Changing the World with Renewable Energy
For Sustainable Tomorrow

#### **Our Vision**

We will take leadership in creating a prosperous and sustainable society through the development of renewable energy.

Society currently grasps the necessity for the expansion of renewable energy sources as a countermeasure towards climate change caused by the emission of greenhouse gases from fossil fuel-based power generation and a depleting fossil fuels reserve.

At JRE, our aim is to stably and economically supply electric power from renewable energy sources and become the leading company in our industry, while flexibly adapting to a changing business environment to address the needs of future eras.

While continuously seeking harmonious coexistence with the local community, we will engage in the development of renewable power plants from early development stage to operational stage and hold, maintain and operate our plants for the entire project life, so that we can continue to challenge to create a sustainable society for the prosperity and security of the next generation.

#### Our Values (FORCE)

Fun Enjoy work and contribute to an open and enjoyable workplace

**Open Communication** Actively voice our thoughts and show respect for the thoughts of others to promote free,

open discourse and mutual understanding

**Responsibility** Proactively engage in all issues and initiatives, work with enthusiasm and never give up

**Challenge** Resolve issues with an innovator's mind and unyielding spirit

**Expertise**Continue personal growth by passionately seeking new information with a humble heart

#### Japan Renewable Energy (JRE) Group Code of Conduct

- 1. Compliance with laws, regulations and corporate ethics
- (1) As responsibility for engaging in social infrastructure construction, we will act with highest ethics.
- (2) We will observe laws, regulations and internal rules concerning business activities.
- (3) To conduct our business activities equitably, we will pay heed to laws, regulations and to social norms, and will maintain sound and normal relationships with political and government bodies in our activities.
- (4) We will take a resolute stance toward anti-social activities and forces, and refuse not only any patronage but also any association whatsoever.
- 2. Coexistence with the global environment and local communities
- (1) We will actively strive to preserve the global environment.
- (2) We will place utmost importance on dialog with local communities for realizing coexistence.
- 3. Proper management of assets and information
- (1) We will properly manage and make efficient use of the assets of the company.
- (2) We will carefully manage and handle confidential corporate and personal information.
- 4. Respect for humanity
- (1) We will aim to create safe and comfortable workplace environments.
- (2) We will respect each other's human rights and will act with passion and responsibility.
- (3) We will proactively practice fair and open communication.
- (4) We will always humbly embrace feelings of thoughtfulness and gratitude.

Contents

- 1 At a Glance
- 3 Corporate Philosophy / Contents / Editorial Policy
- 5 Top Commitment
- 7 Description of Business
- 9 Project Report
- 11 Business Process
- 13 Contribution to the SDGs through Business / Materiality
- 21 Sustainability Data
- 22 Company Overview / History

#### **Editorial Policy**

Japan Renewable Energy Corporation (JRE) publishes the Sustainability Fact Book as an important tool for communicating with our stakeholders.

The JRE Sustainability website provides the latest information about our sustainability.

https://www.jre.co.jp/english/sustainability/

#### Scope of report

Japan Renewable Energy Corporation and JRE Operations Corporation

#### Period coverd

Fiscal 2021 (January 1, 2021 to December 31, 2021)

\* The report includes some activities from after this period

Publication date

June 2022

#### Guidelines for reference

- GRI Standards Global Reporting Initiative (GRI)
- Sustainability Accounting Standards Board (SASB)

3 Sustainability Fact Book 2022 Sustainability Fact Book 2022

## Top Commitment



# At JRE we are committed with renewable energy to

#### Takeuchi Kazuhiro

President and CEO, Representative Director Japan Renewable Energy Corporation

Curbing global warming and expanding the use of clean energy are issues that countries worldwide should address in common, and these are also listed as main themes for the Sustainable Development Goals (SDGs) adopted at the United Nations Conference in 2015. The Paris Agreement at COP21 came into force in 2016. Japan also ratified this agreement and pledged to significantly expand its use of renewable energy to curtail emissions of greenhouse gases.

The year 2020 marked a historic turning point for the entire world. Along with changes resulting from the spread of COVID-19 in social life and the advance of digitization, the momentum toward a decarbonized society also accelerated. Additionally, in October 2020, Prime Minister Yoshihide Suga declared in his first policy speech that he would commit to cutting greenhouse gas emissions to virtually zero by 2050, thereby setting the 2050 goal of

achieving a carbon-neutral society. In working to attain this goal, Japan has declared it will reduce greenhouse gas emissions by 46% by FY2030 compared with the level of FY2013. Besides Japan, over 120 countries have declared their commitments to becoming carbon neutral in 2050.

Japan Renewable Energy Corporation (JRE) was founded in August 2012 in the aftermath of the Great East Japan Earthquake and is entrusted with the mission of "changing the world with renewable energy" to solve the issues of preventing global warming and improving Japan's energy self-sufficiency rate.

During the following years up to the present, we have built or are operating more than 50 power plants in various locations, including solar, onshore wind, and biomass projects. Looking ahead, we will widely cover the entire to changing the world realize a sustainable tomorrow.

range of renewable energy, including offshore wind power and hydroelectric power, and strive to develop our business as a leading company in the industry.

Developing and operating power plants requires the understanding and support of the residents of local communities, government agencies, construction companies, and fund providers. All employees place utmost importance on dialogue with society and earnestly undertake their work to earn the trust of stakeholders.

In 2016, JRE became the first renewable energy company in Japan to support the United Nations Global Compact and join the Global Compact Network Japan. As a member of this global community, we commit to upholding The Ten Principles of the UN Global Compact, which cover human rights, labor, environment, and anticorruption.

In 2019, JRE conducted its inaugural materiality analysis, and in doing so, established the basis of its sustainability approach and disclosures. I am confident that the results of this analysis will create a strong foundation for JRE as it fulfills its responsibilities and makes contributions to solving global issues.

The safety and health of our employees are indispensable for ensuring the sustainable growth of our business. In 2020, we strengthened workplace safety and health to prevent the spread of COVID-19 and also created an environment that realizes diverse workstyles such as promoting remote work.

Looking ahead, we will continue to expand and strengthen our initiatives toward sustainability and will promote and expand our renewable energy business in a manner compatible with the local community and society.

5 Sustainability Fact Book 2022 Sustainability Fact Book 2022





#### Solar power generation

We develop and operate solar power plants, which harness the infinite energy of the sun, all over the country.

#### Features

- Because there is infinite sunlight, there are no fuel costs.
- It generates clean energy without emitting greenhouse gases during power generation.
- Almost no noise is produced during power generation.

Solar power is not generated during nighttime and the power output varies depending on the weather. As such, solar power is combined with other power sources and battery technologies to power your life.





#### **Onshore wind power generation**

We build and operate wind farms with the aim of promoting and expanding wind power generation, which utilizes the inexhaustible resource of natural wind.

#### **Features**

- It can generate power as long as there is sufficient wind and needs no special fuel, thereby eliminating fuel costs.
- It generates clean energy without emitting greenhouse gases during power generation.
- It generates power day and night as long as there is wind with velocities high enough for power generation.
- It is a power source with relatively high power-generation efficiency from renewable energy sources.





#### Offshore wind power generation

We build and operate offshore wind farms with the aim of promoting and expanding offshore wind power generation, which utilizes the powerful and more stable wind conditions at sea.

#### Features

- Wind is stronger at sea than on land, and stable wind is available as there are no obstacles at sea, enabling efficient power generation.
- Generated power is sent through transmission cables that are laid on the seabed to power grids on land.
- Large wind turbines, which offer a more efficient form of power generation, can be built.
- Because offshore wind power plants are far from residential areas, noise issues are said to be unlikely to occur.
- It generates clean energy without emitting greenhouse gases during power generation.



#### **Biomass power generation**

We utilize wood construction waste and woody materials collected in Japan to generate energy from combustion. We also recycle combustion ash.

#### Features

- Power can be generated from waste (recycling of resources).
- Carbon neutral (Carbon dioxide emissions from the combustion of plant-derived biomass are considered to be cancelled out by the earlier carbon uptake in the photosynthesis process for plant growth.)
- Stable power generation throughout the year and around the clock (except for planned shutdowns for inspection or the like), unaffected by the weather





## Operation and maintenance JRE Operations

JRE Operations engages in operation, maintenance, and asset management of renewable energy power plants.







## Recycling Eco Green Holdings

Eco Green Group gathers construction waste and wood from the forest, recycles mainly into wood biomass chips, and supplies them as biomass fuel.



Sustainability Fact Book 2022

Sustainability Fact Book 2022

## Project Report Nakak

Nakakyushu Onitayama Wind Farm

Blending our mountaintop
power plant into the landscape
and harnessing the natural energy of the wind

The Nakakyushu Onitayama Wind Farm, one of the first projects that JRE investigated and began developing, was completed in September 2016. Eight wind turbines, for a total output of 16,000 kilowatts, have the highest altitude (1,000–1,200 meters) among all wind farms in the Kyushu region and offer a view of Mount Aso's five peaks in the far distance.

Opinions received during the environmental assessment process and views expressed at meetings with local residents were duly taken into account when planning the Nakakyushu Onitayama Wind Farm. Our goal was to develop a plant that is friendly to local communities as well as to the natural environment. Efforts were made to increase local residents' understanding of wind farms. Before starting construction work, we led a group of interested residents on a tour of an existing wind power station operated by another company. Once construction began at the Onitayama site, we offered resident tours of the construction site, one to see a turbine foundation being built and another to observe the lifting of a turbine.

We encountered many obstacles along the way to project completion, but we were able to overcome each obstacle thanks to the guidance and support of all the people involved.

One of our first issues was the leasing of land for the plant site. A power plant requires a vast expanse of land, which usually means obtaining agreement from many land owners. Some plots have multiple owners, who may live in all

parts of Japan. There were times when we could not obtain agreement from land owners in distant areas. Local residents helped us by calling them to introduce JRE and explain the project. Such support was invaluable for a not-very-well-known company like us and allowed us to obtain agreement from all land owners, local and otherwise.

Transport was another challenge. We had to bring all the turbine parts overland for 85 kilometers from Nobeokashinko port. There were many difficult spots along the route, especially the multi-curved Roppo Kaido forest road. The freight company made full use of their long experience and technical expertise to devise ingenious solutions to ensure safe delivery, such as using a special truck capable of transporting a 39-meter turbine blade in an upright position.

JRE hopes to grow together with the local community. Toward this end, we have endeavored to do business with local firms and employ local residents. At present, four JRE employees living in Miyazaki Prefecture are involved in on-site operations.

We are deeply grateful to the local community for welcoming the Nakakyushu Onitayama Wind Farm with a warm heart

Mr. Kazuyoshi Omote

Japan Renewable Energy Corporation Project manager for development



#### Perspectives

#### I am looking forward to seeing JRE expand its renewable energy operations worldwide.



Mr. Toshifumi Teramoto Chief Priest, Josenji Temple Gokase Town, Nishi-usuki County, Miyazaki Prefecture

This temple has a history of 400 years, and throughout its existence it has maintained close ties with local residents, who have provided support through the ages.

When I first heard from JRE of their plan to build a wind power station on Onitayama, I asked JRE to conduct a sufficient level of resident briefings, as I believed it was essential for the project to obtain the understanding of the local community.

JRE presented their plans to local residents with great care, and I think they succeeded in building a relationship of trust with them and gaining their understanding.

Renewable energy should be promoted, and I hope JRE will become a major company and expand its renewable energy operations in Japan and around the globe to the extent that nuclear power generation will no longer be needed.

#### I was impressed by JRE's thorough briefings and earnest response to local concerns.



Mr. Hitoshi Fujioka Shrine Representative, Iiboshi Shrine Morotsuka Village, Higashiusuki-gun, Miyazaki Prefecture

JRE gave thorough briefings on their project, even including experts on legal paperwork and environmental matters. People from Kajima Corporation came to tell us about the construction process, explaining even technical matters in detail. I am happy to say they acted in an impeccable manner, such as responding to requests immediately during construction and repairing and repaving road sections that had been damaged by the transport of construction materials. However, it would have been even more satisfactory if they could have used companies in Morotsuka.

When I viewed the plant from afar after its completion, I thought the white turbines against a blue sky made quite an attractive sight. The power station is aesthetically pleasing and environmentally friendly, so I think it is like killing two birds with one stone. Since there are no wind power plants nearby and local residents and children are highly interested in them, I am glad that JRE welcomes tours of the site and participates in community events and school workshops, and I hope they will continue to do so.

#### It is my hope that JRE will pave the way for the spread of renewable energy.



Mr. Takeshi Kawasaki Kajima Corporation Main person in charge of project construction

When taking charge of the construction of this project, my first thought was that there were many challenges to overcome, considering that the site was on top of a mountain and the construction schedule was very tight. When excavating soil from the site, for example, we sometimes had to make over 100 trips a day to the dumping site. We took pains to minimize the impact of construction activity on the local community. Thanks to the cooperation of local residents, we were able to manage and carry out construction work more or less according to schedule.

I believe people responded favorably to the way JRE kept the community on board, allowing the company to earn their trust.

I hope JRE will build their operations aggressively and greatly advance the renewable energy field.

9 Sustainability Fact Book 2022
Sustainability Fact Book 2022



JRE undertakes all phases of the renewable energy power generation business from preliminary surveys to power sales and maintenance/ inspections.

In cooperation with local residents as well as construction firms, financial institutions, and other diverse parties, JRE takes responsibility in carrying out projects under autonomous general management that extends from preliminary surveys for commercialization to business plan formulation, financing, equipment procurement, construction management, and operation/maintenance.



**Planning** 

### Survey

We implement field surveys upon narrowing down candidate sites for power plants from among communities that might agree to their construction and operation. In doing so, we take into consideration such factors as good exposure to sunlight suitable for solar power generation and excellent wind conditions conducive to wind power generation in addition to topography and area dimensions that are suitable for plant construction and the availability of connections to the electric power grid. It is also important to confirm necessary procedures and permits for development.

> Local governments / Administrative authorities

Stakeholders

In consultation with construction companies and manufacturers, we are promoting the development of environment-related technologies and introducing cutting-edge technologies, which includes incorporating designs that maximize power generation. In addition, we will formulate a plan to minimize impacts on the living environments while obtaining consensus after engaging in repeated discussions with local residents and local governments.



#### Financing

JRE establishes an SPC (Special Purpose Company) for each project either independently or with a joint investment with a local partner. Each SPC undertakes diverse and efficient project financing as environment-related finance from financial institutions including regional banks.



#### Construction

After the completion of a well-planned design. the construction of the plant is carried out while ensuring safety. During the construction of a wind power plant, we give great consideration to not inconveniencing local residents when transporting and assembling huge wind turbine parts. At solar power plants as well, we are adopting a variety of measures to ensure reliable and safe operation.

Construction firms

Equipment

manufacturers



Operation

Each operation is continuously monitored to

ensure a stable power supply. Engineers are

failures. The JRE Group proactively interacts

organizing study tours and other activities at

deployed to respond to any accidents and

with members of the local community by

several power plants to contribute to

community development.

#### Maintenance / Inspection

In addition to monitoring remotely, some of the JRE Group's or partner companies' employees are permanently stationed at an office located close to the wind power plants and biomass power plants to carry out management work such as inspection and maintenance to ensure safe and stable operation.

They can find early signs of equipment abnormalities before problems occur so that they are able to respond as early as possible.

**Electric utilities** 

Maintenance and inspection service companies

Through such actions, we act as the operating body to conduct project management with long-term consistency, enabling the realization of power generation projects with a high level

We continue to own and operate the power plants that we develop while carrying out the stable, long-term operation of plants with the top priority on safety.

11 Sustainability Fact Book 2022 Sustainability Fact Book 2022 12

# Contribution to the SDGs through Business

## Contribute to the Sustainable Development Goals (SDGs) through business

Based on our business, JRE will contribute to 17 Global Goals under the 2030 Agenda for Sustainable Development adopted by the United Nations in September 2015.

JRE will promote our business to achieve the goal corresponding to Goal 7 and Goal 13 in particular.



Goal 7: Affordable and Clean Energy Ensure access to affordable, reliable, sustainable and modern energy for all



Goal 13: Climate Action

Take urgent action to

combat climate change and its impacts



#### **Overview**

Gaining a comprehensive understanding of the environmental, social, and governance (ESG) issues of most interest to our stakeholders empowers us to make better decisions – both as a business and as a member of the community. To better identify, understand, and prioritize these ESG issues, in 2019, we conducted our inaugural materiality analysis. The analysis focused on issues that are especially relevant to us as a renewable power generator.

As a result, we identified three sustainability priorities that we will aim to leverage as differentiators for our sustainability approach, which will utilize our unique strengths to create social value. We also identified three management fundamentals that will serve as a foundation to our sustainable business management. The sustainability priorities we identified were: Stable

supply of renewable energy and contribution to GHG emissions reduction; Harmony with community and society; and Stable growth through expansion of our energy generation business. The management fundamentals that we identified were: Environmental protection; Health and safety and human capital investment; and Sound governance.

By achieving a balanced approach between our sustainability priorities and our management fundamentals, we hope to maintain a strategic and effective sustainability program in the long term.

We will commit to making progress on our material issues by continuously implementing progressive initiatives and reporting publically on these issues in a transparent and timely manner.

#### **Priority material issues**

Materiality		Definition	Relevant SDGs
Environment			
	Stable supply of renewable energy and contribution to GHG emissions reduction	Renewable energy will play a central role in providing stable, economical and low carbon power, thereby helping to tackle the global challenge of climate change.	7 HORSON JOS 13 CHAT - 13 CHAT - 15
	Environmental protection	Minimizing our overall environmental footprint in terms of emissions, water and effluents, energy, waste, and natural resource consumption. We must also preserve local biodiversity around our sites.	12 stream to superior to the s
Society			
$\bigcirc$	Harmony with community and society	We must continuously engage with and invest in our local communities to create long-term relationships and maintain our social license.	8 DECEMBER CHARACTER OF MACHINER OF MACHIN
بي	Employee safety and development	Our employees are our most valuable asset. We can only accomplish our corporate mission by ensuring the safety of our employees and by continuously investing in employees to attract and retain top talent, such as by investing in employee trainings, promoting diversity in the workplace, and implementing career development initiatives.	3 SOUR HALTHU 4 CONCENT OF THE PROPERTY OF THE
Economy and governance			
	Stable growth through expansion of our energy generation business	By building a robust financial base and enhancing our fund raising capacity, we anticipate a sustainable development for our business, allowing us to contribute to the solving of social concerns in Japan, and developing Japan's energy landscape.	7 HINGSHIFAN  R CONTROL  CONTR
	Sound governance	A strong, effective corporate governance structure is essential to sustainable business management and implementing our mid-term business plans. Strong and transparent corporate governance keeps us accountable to the interests of our stakeholders, including shareholders.	16 PULL SHOTE SET STATE SET SET SET SET SET SET SET SET SET S

#### **Participation in the UN Global Compact**



In April 2016, JRE announced our support for the UN Global Compact's Ten Principles, which are international initiatives aimed at achieving a more sustainable society.

#### **External recognition**



JRE has been highly evaluated by GRESB Infrastructure Assessment in terms of ESG since 2018.

#### **Environment**



## Stable supply of renewable energy and contribution to GHG emissions reduction

#### Why it matters for us

At our core, JRE's vision is based on the belief that providing renewable energy contributes to the realization of a sustainable society. This vision aims to accomplish two crucial goals:

- At the global level, renewable energy generation is essential for a goal of mitigating climate change. As the
  energy sector accounts for around 70% of global greenhouse gas (GHG) emissions, energy systems will
  need to undergo a dramatic transformation toward decarbonization, which requires increased renewable
  energy capacity.
- At the local level, renewable energy contributes to safeguarding the stability of energy supply. By
  providing additional sources of locally generated energy, JRE aims to strengthen the resilience of the
  Japanese energy market.

#### Our approach

JRE develops diversified renewable energy sources, including solar, onshore and offshore wind, biomass, and small hydropower. In particular, biomass power plants contribute greatly to stable supply of renewable energy power by around-the-clock operation regardless of the weather.

As one of our steady efforts to provide a stable supply of renewable energy, we constructed a solar power plant equipped with large storage batteries in 2021 and commenced its operation in 2022. We are also verifying various measures such as energy time-shifting, production/demand imbalance mitigation, and enhancement of forecast technology.

In addition, JRE is conducting joint-research projects to promote offshore wind power generation with universities and other institutions. Such endeavors include the study on a new method of wind field measurement with the University of Tokyo and the study on wake flows behind wind turbines with Kyushu University.

From 2021, the JRE Group began to switch to energy purchased with non-fossil fuel energy certificates. This move allows us to purchase CO<sub>2</sub>-free electricity in addition to supplying power through the generation of renewable energy that does not emit CO<sub>2</sub>.





#### Why it matters for us

As a renewable energy company, our relationship with the environment is an essential part of our corporate identity and license to operate. When constructing and operating our sites we strive for minimal disturbance of the local environment. We actively promote energy efficiency, and where possible, aim to contribute to a circular economy by promoting efficient use of natural resources, including recycling of materials. Efficient use of natural resources and energy not only reduces operational costs but also helps us to minimize our overall risk exposure to legal, regulatory, and reputational risks related to environmental issues.

#### Our approach

JRE is undertaking several initiatives to reduce our environmental impact throughout the entire value chain, from project development to construction and operations.

#### Developing and adopting environmental protection technologies

Having held discussions with the construction companies and equipment manufacturers from the planning stage, we are developing and introducing various environmental protection technologies, such as employing designs that maximize power generation during our development and operation of power plants.

#### Biomass power generation

Our biomass power plant exclusively utilizes as fuel local wood chips (recycled from construction waste and made from forest residue and unused timber), which are supplied by Eco Green Holdings Co., Ltd. (JRE Group company) to generate electricity.





#### **Society**



### Harmony with community and society

#### Why it matters for us

Developing renewable energy projects in harmony with local communities and society is at the center of JRE's values. Creating long-term relationships is essential for us to maintain our social license to operate, and therefore is essential to the success of our business. Our social responsibility goes beyond just our neighbors – it extends to empowering local communities and promoting an understanding of the importance of renewable energy.

#### Our approach

Continuous and transparent engagement with local communities to build mutual understanding is a central element to our project development. During the development phase, we hold two-way communication through briefing sessions and on-site explanation meetings. We explain how potential future activities may impact local communities, and encourage them to ask questions to learn more about our projects. Throughout construction and operation of our sites, we strive to maintain this continuous communication with our stakeholders.

JRE conducts such events as power plant tours, environmental education, and seminars.

Our employees generously volunteer their time to help local communities, such as for environmental sport events and cleanup activities, throughout the year.







Moreover, JRE aggressively recruits local personnel and conducts business with local companies for the construction and operation of power plants. Through business activities tailored to regional characteristics, JRE aims to continue contributing to the development of communities as a good corporate citizen.



### (ዶሴ) Employee safety and development

#### Why it matters for us

Our employees are our most valuable asset. We can only accomplish our corporate mission by ensuring the safety of our employees and by continuously investing in employees to attract and retain top talent. Creating a people-centric work environment allows employees to give their best while enjoying their work. To do so, we promote a diverse and inclusive workforce.

#### Our approach

Our safety culture nurtures trust between the company and our employees by ensuring optimal work conditions. We have put in place comprehensive measures to safeguard our workers' safety, such as by having an Environment, Health and Safety (EHS) Guideline, providing EHS training for employees and suppliers, and implementing a crisis and incident management system.

#### **EHS Policy**

In 2020, we revised our original EHS Policy to add the prohibition of child labor and forced labor, hereby enhancing our efforts.

### Implementing COVID-19 disease control measures

We have established Disease Control Guidelines as employee guidelines for behavior during the coronavirus crisis.

Anti-droplet protective panels and sanitizer dispensers have been set up where deemed necessary.

#### Sick leave system

We have a sick leave system in place since 2018. In 2021, two days were added for a total of seven days by taking into account the COVID-19 pandemic and the side effects of vaccination.

#### Implementing a telework system

To encourage diverse work styles, we have employed a telework system since 2020. We will continue using this system after the COVID-19 pandemic ends.

#### **EHS Policy**

The JRE Group has a social responsibility to build an energy foundation that will allow future generations to lead happy and secure lives. To fulfill this responsibility, we have defined our basic stance on the environment, health, and safety in our JRE EHS Policy.

- We comply with all applicable laws and regulations, in all countries and regions where we operate, and are committed to not using child labor or forced labor.
- We place the highest priority on the safety of our personnel, our contractors, and the community members around our project sites.
- We give maximum consideration to the protection of the global environment and ecosystems.
- We respect diversity among our personnel and are committed to creating a healthy and comfortable work environment.
- We widely disclose EHS-related information and make efforts to communicate with society.
- We are enhancing our EHS management and are committed to making continuous improvements in a systematic manner.

#### **Economy and governance**



## Stable growth through expansion of our energy generation business

#### Why it matters for us

As a renewable energy power producer, we play a vital role in combatting climate change and enhancing energy self-sufficiency in Japan. Our success relies heavily on the support and trust we gain from our investors. We must therefore maintain a strong financial foundation to fulfill our responsibility to our stakeholders and to society.

#### Our approach

In order to realize and sustain business growth, we have made strategic preparations across each of our energy segments to plan for a competitive and diversified renewable energy mix. In addition to solar power that led our growth so far, we will focus on both onshore and offshore wind, thereby actively expanding our generation capacity. In particular, we expect offshore wind to be a significant growth driver.

We anticipate steady growth in our solar power segment, following our initial investments in this area. Over the long term we see the opportunity for a second wave of investment in this segment. We are also actively engaging with diverse power generation technologies, with steady growth in our biomass power capacity and small hydropower. JRE plans to undertake strategic initiatives in the field of biomass working with its subsidiary, Eco Green Holdings Co. Ltd., an eco-solution company specialized as a recycled biomass wood chip supplier.

Furthermore, we also prioritize stability in the operation of our plants and engage in efforts to minimize the outage time of our power generators. Specifically, our initiatives aim to identify concerns and issues that can be addressed preventatively before leading to unplanned repairs and accidents. For example, we conduct maintenance based on detailed plans and closely monitor our generators to identify

any preventative measures we can implement. These initiatives allow us to maintain stability in revenue from power generation, and at the same time, maximize our contribution to GHG emissions reduction.





#### Why it matters for us

Sound corporate governance serves as the backbone to a responsible management structure that is accountable to shareholders and other stakeholders. We aim to maintain a robust and effective corporate governance structure that lays the managerial foundation for long-term business growth, helping us to achieve our mid-term business plans and make sustainable progress across all of our material issues.

#### Our approach

The enhancement of governance is important for the long-term maximization of corporate value, and we will continue to work to increase management efficiency, transparency, and fairness.

#### Risk management

Identifying, assessing, and managing risks and opportunities is fundamental to meeting our corporate mission and business objectives. To ensure a consistent, formalized approach across our business, we have established a Risk Management Policy.

#### Corporate ethics

We strictly prohibit corruption in any form, including bribery, facilitation payments, and insider trading. To ensure we maintain the highest standards of ethics and integrity, we established the Japan Renewable Energy Group Code of Conduct. Compliance with this code of conduct is monitored by our risk management department, which is responsible for drafting and updating our supplementary compliance manual that is disseminated through compliance training for directors and employees.

We also aim to engage with our business partners to eliminate the risk of corrupt practices throughout our value chain.

#### Contact desks

We have established a contact desk to allow employees (including persons who left the company within the last one year) to report violations or suspected violations of corporate compliance by our staff members or officers.

Since January 2021, we have also been operating an external contact desk on our website for our business partners.



Indicators	2018	2019	2020	2021
Total capacity in operation (MW) as of December 31*1	295	345	419	542
Solar (MW)	256	282	347	419
Onshore wind (MW)	39	39	48	99
Biomass (MW)	-	24	24	24
Total capacity under construction (MW) as of December 31	116	393	410	333
Total renewable energy sold (MWh)	345,091	505,075	598,211	663,532
Solar (MWh)	265,862	321,523	365,282	394,541
Onshore wind (MWh)	79,229	82,858	95,841	108,702
Biomass (MWh)	-	100,694	137,089	160,289
Annual amount of CO <sub>2</sub> reduction effect*2 (t-CO <sub>2</sub> )	165,904	227,984	267,763	284,449
Total generated renewable energy (MWh)	366,480	532,146	639,874	699,443
Purchased energy*3 (MWh) (including energy purchased with non-fossil fuel energy certificates)	2,941	4,326	4,904	4,737 (952)
Time spent through employee volunteering for events JRE recruited*4 (days)	20	15	0	0
Number of large-scale events held (e.g., site tours planned by JRE, lessons delivered)*5	4	2	2	3
Number of small-scale events held (e.g., site visit tours held upon request)*5	32	37	24	32
Number of local employees*6	22	37	40	45
Number of employee-related incidents*7 (including lost-time injuries)	1 (0)	4 (1)	2 (0)	1 (0)
Number of construction contractor-related incidents*7 (including lost-time injuries)	1 (1)	2 (2)	3 (2)	5 (0)
Number of fatalities	0	0	0	0
Number of employees*8	169	215	249	256
Percentage of female employees (%)	28	24	26	28
Average training cost per employee (JPY/year)	254,000	208,000	100,000	165,040
Number of reports to the hotline	7	2	2	1
Number of group compliance trainings conducted for each subject	7	5	5	5
Number of compliance trainings conducted by e-learning	12	12	12	12

<sup>\*1</sup> The total capacity in operation includes the power plant (1.8 MW) in Taiwan acquired in 2020. Not included in other line items.



Company name Japan Renewable Energy Corporation

Location Roppongi Hills North Tower 10F, 6-2-31 Roppongi, Minato-ku, Tokyo, 106-0032, Japan

TEL: +81-3-6455-4900 FAX: +81-3-6455-4901

Founded August 20, 2012

Capital, capital reserves, etc. 40 billion yen

Investors ENEOS Corporation, Sumitomo Mitsui Trust Bank, Limited

Number of employees 207 JRE Group 391 (as of December 31, 2021)

Executives Board of Directors and Corporate Auditors

President and CEO, Representative Director

Executive Vice President and COO, Representative Director

Members of the Board

Kazuhiro Takeuchi Takahisa Nakagawa Masahide Morita Arisa Katsuki Atsuji Yamaguchi

Audit & Supervisory Board Members

Atsuji Yamaguchi Masafumi Mori Soichiro Tanaka

Chairman & Executive Officers

**Executive Officer** 

Chairman Shigeru Yasu
President and CEO Kazuhiro Takeuchi
EVP and COO Takahisa Nakagawa
Managing Executive Officers Tadashi Ibusuki
Kiyoshi Doi

Masahide Morita Koki Yoshino

Description of business

Preliminary surveys, planning, design, materials procurement and sales, civil engineering, electrical service, construction, operation, maintenance and inspection work, and electric power sales pertaining to power generation plants (wind, solar, biomass, and other natural energy-based power generation)



August 2012 Founded in Minato-ku, Tokyo, with renewable energy-based power generation and electric

power sales as main business purpose

April 2013 Founded JRE Operations Corporation with maintenance/inspection of own power plants as

main business purpose

January 2014 Launched commercial operation of first power plant developed by JRE, the 0.9MW Namegata

Solar Power Plant

April 2014 Took over 16MW operating wind power generation facilities in Sakata, Yamagata Prefecture,

launched operation of wind power plant

January 2015 Launched commercial operation of one of largest solar power plants in east Japan, the

39.2MW Mito Newtown Mega Solar Park

September 2015 Made Eco Green Co, Ltd. (current Eco Green Holdings Co., Ltd.) a consolidated subsidiary

April 2016 Became first renewable energy single-business firm in Japan to participate in The United

Nations Global Compact

August 2016 Launched commercial operation of our first power plant publicly offered, Niigata Umibeno-

mori Solar Park

September 2016 Launched commercial operation of first wind power plant developed by JRE, the 16MW

Nakakyushu Onitayama Wind Farm

October 2017 GIC Private Limited invested in JRE

January 2018 Launched commercial operation of Hibikinada Wind Energy Research Park, our first hybrid

power plant (wind and solar)

May 2019 Launched commercial operation of first biomass power plant developed by JRE, the 24.4MW

JRE Kamisu Biomass Power Plant

January 2022 ENEOS Corporation became our major shareholder

<sup>\*2</sup> Calculated by multiplying the amount of purchased energy (deducting the amount purchased with non-fossil fuel energy certificates) by emission factors for each electric utility that we supply power to (as of December 31 each year) in accordance with the Act on Promotion of Global Warming Countermeasures

<sup>\*3</sup> Energy purchased from outside for power generation and office use; energy purchased with non-fossil fuel energy certificates shown in parentheses

<sup>\*4</sup> Due to COVID-19, in 2020 and 2021 we did not send employee volunteers

 $<sup>^{\</sup>star}5$  Due to COVID-19, in 2020 and 2021 there was a period of time when we did not hold events or accept visitors.

<sup>\*6</sup> Local personnel recruited from the area where power plants and located

<sup>\*7</sup> Total number of labor injuries of lost-time accidents (lost for one day or more) and lost occupational accidents caused by labor, and the number of sufferers of commuting injuries

<sup>\*8</sup> The sum of Japan Renewable Energy Corporation and JRE Operations Corporation