

### **Corporate Philosophy**

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# To become a pioneer in the new era of electric power with renewable energy at its core

### **Mission**

Opening up our future with new ideas and actions

Challenge and speed Do not forget the venture spirit and work boldly

"Realizing a sustainable society"

### Values

**Co-creation** 

With trust and cooperation Creating value with various stakeholders

# **1999**-Taking Advantage of Industry Deregulation to Establish a New Business

There has been a global trend toward deregulating the energy industry and Japan is no exception. Since 1995, Japan has been gradually liberalizing the industry in an attempt to increase competition to improve management efficiency, correct high cost structures, and address the gap between the price of electricity in Japan and overseas.

It was against this backdrop that erex was founded in 1999, to create the top energy business in a liberalizing electricity market. Following the deregulation of retail sales for extra-high voltage customers in 2000, erex entered the market as a new electricity retailer.

The Company initially based its retail business on buying and selling surplus energy from Asahi Kasei Corporation's Nobeoka Plant in Mizyazaki Prefecture, before gradually diversifying its procurement contracts and expanding its sales area.

#### **Our Beginnings as a Start-Up**

#### **Collaborating with Partners**



When erex entered the market as a new electricity retailer in March 2000, the deregulation of the energy industry was focused on extra-high voltage customers, such as large factories and office buildings. The industry, however, was dominated by major energy companies, and newer companies such as erex were virtually unknown. This made it difficult to attract customers, and the Company's only recourse was to differentiate itself by its pricing.

In 2004, further reforms were introduced and sales to high voltage customers were also deregulated. The following year, the Japan Electric Power Exchange (JEPX) was established to facilitate the wholesale electricity market.

These developments provided a tailwind that accelerated liberalization, which in turn bolstered the company's business activities.



We gradually expanded our sales area from the Kyushu, Kanto, and Tohoku regions by introducing a sales partner system, and we then steadily grew the number of sales partners by holding recruitment events in various locations.

In addition, we invited chief electrical engineers, who can supervise the safety of electrical equipment, to become our sales partners.

The leveraging of partnerships through the sales partner system demonstrates the business-building know-how that has become the Company's most important strengths and helped it survive as a start-up with minimal capital.

# Transforming our Business to Meet the Changing Needs of Society

In the aftermath of the nuclear disaster caused by the Great East Japan Earthquake in 2011, Japan confronted the issue of securing safe and stable energy supply, and system reform was rapidly accelerated. In the context of the growing need to promote renewable energy, erex decided to take on the challenge of generating biomass energy when feed-in tariffs (FIT) were introduced, because biomass energy, unlike solar and wind energy, is not affected by weather conditions and can produce a steady flow of electricity 24 hours a day.

Erex's First Power Generation Project



Having long had the goal of owning and operating a power plant to ensure the Company's growth.

To bring this goal to fruition, erex purchased a retired coal-fired power plant in Tosa, Kochi Prefecture, from Taiheiyo Cement Corporation and converted it into a biomass power plant.

The Tosa Power Plant (Erex New Energy Co., Ltd.) entered commercial operations in 2013 and is the first biomass power plant in Japan to use palm kernel shell (PKS)\*1 as its main fuel.

Since then, our efforts in the power generation business have been strengthened by partner companies who have provided personnel and technical support to reinforce our workforce, including power plant operators.

One of our management philosophies is co-creation, and this is a flagship project for our goal of engaging in successful business partnerships with various stakeholders.

# **2011**-



Following the success of the Tosa Power Plant, erex fully embarked on its biomass power generation business, listing its shares on the Mothers Market segment of the Tokyo Stock Exchange in 2014 to further solidify its business foundation. At the time, erex's then-vice president Hitoshi Honna (now president) noted that assembling the right people would be the catalyst for expansion and lead to stable growth, reflecting the Company's view that securing human resources was just as vital as raising funds.

The Company then moved to the Tokyo Stock Exchange's 1st Section in 2015<sup>\*2</sup>, further accelerating its rate of growth. At the same time, discussions about the need to bolster the upstream fuel business to promote growth centered on the biomass power generation business began in earnest.

- \*1 PKS is an agricultural byproduct of palm oil production. Because of its low water content and high calorific value, erex decided to use PKS as the main fuel for Japan's first thermal power plant.
- \*2 Erex moved to the Prime Market segment of the Tokyo Stock Exchange in April 2022.

# **2016**-From New Energy Supplier to Integrated Energy Company

With the full liberalization of the electricity market in 2016, a year after erex's listing on the 1st Section of the Tokyo Stock Exchange and its establishment of Okinawa Gas New Power Co., a new joint venture with Okinawa Gas Co., Ltd., the Company needed to secure a sufficient supply of energy. Therefore, in addition to its retail business activities, the Company sought to increase energy supply by constructing new biomass power plants. Entering the biomass fuel business, which has become the foundation of its business activities today, is just one example of how erex has taken on various challenges to promote Company growth. A major turning point for the Company was the construction of its first new-build power plant, the Saiki Power Plant in Saiki, Oita Prefecture.

#### **New Biomass Power Plants**



It goes without saying that we did not achieve the successful construction and commercial operation of the Saiki Power Plant (erex New Energy Saiki Co., Ltd.) alone. At the time, erex was a small energy company with fewer than 50 employees. To fully seize the opportunity to grow, we focused on building a business that would be beneficial to our partners. Thanks to personnel and technical support from many of our partners—including Taiheiyo Cement Corporation, which has provided us with a great deal of support since the Tosa Power Plant commenced operations—we have been able to build a new business that we could not have created alone.

The successful operation of the Saiki Power Plant gave us the confidence to move forward with the construction of subsequent power plants in Japan, including the Buzen Power Plant through joint venture Buzen New Energy Co., Ltd.

#### Building a Stable Value Chain



As of 2016, erex had two power plants in commercial operation and plans to build three more. Stabilizing the quality, cost, and quantity of fuel was essential to ensuring the stable operation of its power plants.

To that end, erex started directly securing its own fuel sources in addition to purchasing fuel from trading companies. Employees surveyed producers of biomass fuels in various countries, including those in Southeast Asia, to verify production conditions and build relationships of trust within the supply chain. These persistent efforts have borne fruit and led to the stable procurement of high-quality fuel. Erex not only consumes fuel in-house for its own retail business but has also grown to the point where it can play the role of a trading company and sell fuel to other companies.

# **From Japan to Overseas**

Although erex started out with a handful of employees, it has managed to establish its current business model and accelerate its efforts to decarbonize by moving upstream into the fuel business. To expand the supply of energy generated via biomass, it has been necessary to secure a large amount of inexpensive fuel in-house.

Noting the abundance of resources that could be used as biomass fuel in Vietnam and other Southeast Asian countries, erex began to develop its own new source of biomass fuel overseas.

Currently, erex promotes global decarbonization by building new biomass power plants in Vietnam and other Southeast Asian countries and converting existing coal-fired power plants to biomass power plants.

#### A Pioneer in the Biomass Field

#### Steady growth of overseas businesses

#### Vietnam

New biomass power plant development

19 locations (1,120 MW) Including the Hau Giang biomass power plant (20 MW) scheduled to commence operations in 2024

Conversion of coal-fired power plants

6 locations (1,585 MW) Vinacomin Power Holdings

- Development and production of biomass fuels
- Establishment of an R&D center Developing new fuels, securing wood and agricultural residues Constructing biomass fuel pellet plants

• Development of a hydroelectric power plant (80 MW)

Cambodia

- Scheduled to commence operations in 2025
   Further hydroelectric power development downstream under consideration
- New biomass power plant development
   Up to 5 locations by 2030 (50 MW per power plant)

#### Taiwan

• Development of an integrated aquaculture and solar power generation project (55 MW)

# 2018-

# Working Toward a Decarbonized Society

Committed to providing a stable supply of electricity and to decarbonization, erex has made undeterred progress and overcome challenges that have shaken the energy industry, such as soaring electricity prices. We are working toward a decarbonized society through our power generation business and making strides not only in Japan but also overseas, especially in Southeast Asian countries with inadequate power supply.



# Dessidences Message

# Acting with a Sense of Urgency to Persistently Strive for a Better Future

#### Plans to Limit Losses to the Current Fiscal Year, Regroup, and Move Forward to the Next Stage of Growth

Regrettably, the Company posted a significant loss for the first half of fiscal 2023, especially in comparison to the previous fiscal year, for which it posted record profits. I would like to take a moment to explain the broader factors that led to this outcome. Looking at Japan as a whole, energy supply was sufficient due to the successful securing of a large amount of fuel, but demand was sluggish, partly owing to growing electricity conservation efforts. As a result, the Company had a surplus supply of power that had been procured in the previous fiscal year. In addition, energy trading prices on the Japan Electric Power Exchange (JEPX) fell sharply, in part due to fossil fuel prices settling down. These circumstances directly impacted the Company, which had secured its supply in the previous fiscal year when energy prices were still relatively high. It was then forced to sell the surplus on JPEX at a loss in the first half of fiscal 2023 after prices had already fallen, contributing in no small part to the decrease in profit.

In the second half of fiscal 2023, erex will inevitably have to sell any additional surplus power procured in fiscal 2022 at a loss, which is expected to further impact business performance negatively. Going forward, the Company will take drastic measures to prevent a similar situation from occurring in the future.

Specifically, based on detailed sales and power generation forecasts, erex has adjusted its organizational structure so that the division that procures energy can communicate more promptly and smoothly with the retail division. There have also been changes to the existing energy procurement strategy to ensure that there will be as little surplus as possible in fiscal 2024. As a result of these measures, the Company will be able to procure energy without excess supply or shortfalls. Even if the electricity market fluctuates significantly in the next fiscal year, we expect to avoid further losses.

In contrast, if we consider only erex's electricity retail business, it made a profit in the first half of fiscal 2023. Since its establishment more than 20 years ago, the Company's retail business has grown through collaboration with local sales partners. The retail business has capitalized on its strengths, such as its ability to develop energy rate plans not offered by other companies by leveraging its sales network and trading techniques such as electricity futures contracts.

As for the overseas business, erex is constructing biomass power plants and fuel manufacturing plants in Vietnam, where coal production peaked in 2015, while in Cambodia, where local electricity supplies cannot meet demand, the Company is constructing a hydroelectric power plant and, at the request of the Cambodian government, it is investigating the viability of potential biomass power plant projects. Erex believes that through its business operations in these countries, it will be able to contribute to decarbonization as well as to reducing poverty and resolving other social problems.

The world is facing extremely difficult times. As exemplified by the US-China conflict that has escalated in earnest in recent years, ideological conflicts between nations and economic activities have become inseparable. In addition, geopolitical events such as Russia's invasion of Ukraine and the conflict between Israel and Hamas have triggered turmoil across the globe, and the fragmentation of the international community is unlikely to subside in the near future. As geopolitical risks increase, political conflicts are spilling over into economic activities, and it is predicted that the world economy will remain uncertain and continue to undergo rapid change. Furthermore, the environment surrounding erex is about to change significantly amid concerns about tight supply and demand for energy resources leading to issues such as inflation and compromised energy security. In these chaotic times, all erex divisions are united in their efforts to further develop the Japanese economy and, more broadly, the economy of Asia.

#### A Steadfast Vision since the Foundation

Since its establishment in 1999, erex has boldly embraced challenges that seemed impossible to overcome, by valuing strategy and creative ideas stemming from its inexhaustible passion and determination above all else.

The Company started out by purchasing surplus electricity from power plants and selling it at retail. Compared to larger electric power companies, erex had limited management capital in terms of employees, technology, and equipment, but it overcame these limitations by strengthening its alliances with numerous partners, such as sales investors and joint investors in power plants. These partnerships proved essential to the development of the Company. To ensure its continued growth, erex has developed and used frameworks for business transactions that balance its own interests with those of its partners, thereby expanding business opportunities and breaking new ground in the energy sector.

Despite starting with small-scale transactions, these partnerships, including those with sales partners in the retail business, have since been very profitable for the Company. A more detailed example is erex's partnership with Taiheiyo Cement Corporation, which previously sold surplus electricity to the Company. In 2013, erex purchased Tosa Power Plant from Taiheiyo Cement Corporation and converted it from an inactive coal-fired power plant that provided energy for private use into Japan's first biomass-fired power plant using palm kernel shells (PKS) as fuel. Erex has continued to cooperate with Taiheiyo Cement Corporation in the construction of subsequent biomass power plants, both at a technical level and at a practical level to secure land for power plants, and this partnership has become a cornerstone of erex's business. Including Tosa Power Plant, erex currently operates five biomass power plants in Japan.

Erex was founded on the concept of "always looking ahead, thinking ahead, and taking on challenges." Working proactively, erex demonstrates its ability to lead the industry by making strides ahead of other companies still stuck in the planning phase, and, if an action proves unsuccessful, the Company promptly takes a step back and seeks out an alternative course. Above all, erex has continued to provide value in the industry by keeping in mind that, when in doubt, one should choose the more difficult path without shying from daunting challenges.

While a certain amount of volatility in the energy industry is unavoidable, the industry is facing a period of rapid change as society takes major steps toward decarbonization. However, even in this era of great change, erex's priorities have stayed the same since its founding. In particular, the Company's business activities have the potential to help efficiently achieve decarbonization overseas, especially in Southeast Asia and other regions facing difficulties due to their high carbon emissions. Erex aims to continue to be a company that people and society can expect great things from.

#### Expanding Business through Biomass as the Core

Although biomass is a major driver of growth at erex today, at the time of its establishment, the Company was an electricity retail business. The decision to enter the biomass power generation business was prompted by the introduction of Japan's national Feed-in Tariff (FIT) system for renewable energy in 2012. While many companies started solar power generation projects, erex surmised that biomass power generation, which is not affected by weather conditions and has a high operating rate, would contribute to a stable supply of energy, based on its belief that energy should be supplied stably and inexpensively. Biomass power generation can also significantly contribute to "the realization of a decarbonized society," which is one of erex's materiality.

Fuel costs and logistical efficiency need to be addressed before biomass power generation projects can gain traction. Biomass can contribute to job creation because it necessitates power plant operation, maintenance, and fuel transportation. It also has an advantage over some other renewable energy sources in that it can provide a more stable supply of electricity because biomass fuel can be easily stored. However, to succeed in this age of decarbonization while pursuing a business centered on biomass, it is essential to secure fuel, which accounts for the majority of power generation costs, and to control fuel price fluctuations.

### Vietnam: Rising Coal Import Rates



Coal production Coal imports

Until recently, erex procured biomass fuels from external sources, but in 2022, the Company took on the challenge of securing its own fuels and began to research and develop new biomass fuels in Vietnam. Southeast Asia is a region with high potential for biomass resources. Vietnam has the potential to generate 1.5 times the energy provided by its existing coal-fired power plants, which produce approximately 20 GW, if untapped biomass resources are taken into account. In addition to using common biomass resources, erex will increase the availability of cost-effective fuel by developing new fuels.

Furthermore, because biomass fuel can be cofired with coal at existing coal-fired power plants, demand for biomass fuel is expected to increase as fuel conversion projects at coal-fired power plants become more commonplace both domestically and overseas. Currently, coal-fired power plants are being phased out around the world because of their high greenhouse gas emissions, but it is not practical to immediately discontinue their use. Erex will facilitate decarbonization in a gradual and smooth manner by co-firing coal with biomass fuels at coal-fired power plants, while steadily increasing the co-firing ratio to maintain supply capacity and building new biomass singlefuel power plants.



### Cambodia: Rising Electricity Import Rates



#### Domestic and International Growth Centered on the Biomass Fuel Business

To provide a stable supply of electricity in Japan even after the Feed-in-Tariff (FIT) and Feed-in Premium (FIP) systems expire, erex is accelerating the expansion of its domestic fuel business, with the aim of securing a large quantity of inexpensive fuels from Southeast Asia, in particular from Vietnam and Cambodia.

Most of the renewable energy ventures in Japan, including those undertaken by erex, are based on the FIT/FIP systems, which are supported by the renewable energy levies paid by the public. However, to realize a stable supply of biomass energy over the long term, it is necessary to establish power generation methods that are not based on these systems. Erex is currently planning the construction of a large-scale biomass power plant in Niigata Prefecture that is independent of the FIT/ FIP systems, with the aim of commencing operations in fiscal 2029. Once this plan comes to fruition, the plant will be one of the largest biomass power plants in the world, with an output of 300 MW. Electricity output is dependent on a power plant's electricity generation capacity and the amount of time that the plant's generators operate at a specific capacity. As bioenergy exhibits stable operational capabilities, distinguishing it from other renewable energy sources, the Niigata plant's output will be equivalent to an output of about 1,000 MW of wind power or 1,800 MW of solar power.

Overseas, erex is expanding its power generation business by taking advantage of the rich biomass resource potential in Vietnam and Cambodia. By establishing power plants locally, we aim to curtail expenses, including transportation costs, and generate low-cost electricity. In Vietnam, the first plant is scheduled to start operation in fiscal 2024, and there are 18 biomass power plants scheduled for construction sequentially.

Vietnam is undergoing rapid economic development, and demand for electricity continues to increase at an annual rate of approximately 10%. On the other hand, domestic coal mining has been declining since the 2010s, natural gas production has stagnated, and fossil fuel imports are increasing, making energy security an important national issue. Consequently, leveraging biomass power generation, for which Vietnam produces abundant raw materials, has the potential to significantly improve the country's energy self-sufficiency and security.

While Vietnam's urban areas are developing rapidly, some rural areas have yet to develop industries on a scale that can sufficiently support residents' livelihoods. Erex has selected these rural areas as sites for the development of new fuels and power plants, as their weather conditions are suitable for crop cultivation, and they have room for economic growth. In this way, erex can contribute not only to a more stable energy supply but also to economic development through job creation to fill the various roles required in fuel production, collection and transportation, and power generation. The Vietnamese national and provincial governments have shown great interest in erex's biomass power generation ventures, not to mention in the larger social impact of the significant potential for job creation when compared to power generation using other renewable energy sources. Top officials from various provinces have visited Japan and inspected several of the Company's biomass power plants to better understand the possibilities offered by its biomass business, in turn stimulating the Vietnamese government's support for erex's project.

In Cambodia, electricity supply is unstable, with the country relying on electricity imports from neighboring countries for about 30% of its total electricity demand, making relatively high electricity prices a national issue. As in Vietnam, erex is expanding its power generation business in Cambodia by leveraging the country's abundant

#### Driving a Competitive Edge in the Energy Business

One of the reasons I have taken the time to explain the Company's vision to expand its power generation business by focusing on the fuel business is to emphasize that the ability to mitigate the volatility of fuel prices will have a significant impact on erex's capacity to offer competitive electricity



biomass resources. Construction of a hydroelectric power plant is already underway in Pursat Province, with operations scheduled to commence in fiscal 2025. Furthermore, erex plans to start operation of a smaller hydroelectric power plant downstream of the aforementioned plant as well as of five newly constructed biomass power plants by fiscal 2030.

To ensure sustainable biomass power, it is essential to consider the cost of fuel logistics. Countries such as Vietnam and Cambodia offer numerous advantages, including abundant biomass resources that can be used as fuel, and erex believes that they could become model nations that develop economically while utilizing decarbonized energy, and erex would like to help shape that future. The Company is currently developing its renewable energy business by establishing biomass fuel value chains not only in Vietnam and Cambodia but also in other Southeast Asian countries. Erex plans to steadily increase the significance of its overseas business.

prices to its customers. Despite fuel price volatility being a serious risk factor that affects the profitability of electricity retail businesses, not many companies have opted to commercialize fuel procurement both domestically and internationally. However, looking back at its own growth trajectory to date, erex is convinced that building value chains that span upstream and downstream operations is the key to remaining competitive now that electricity has been deregulated in Japan.

Based on my 25 years of experience at TonenGeneral Sekiyu K.K. (currently, ENEOS Corporation) and my position as a founding member of erex, I firmly believe that in order to remain competitive globally, the Company needs to implement a business model that integrates upstream operations.

I have been in the energy industry since 1973, when I joined TonenGeneral Sekiyu K.K. At that time, Japan was facing an oil crisis and energy prices skyrocketed. I learned that while a stable energy supply is essential to social infrastructure, Japan's energy industry is volatile, especially because it imports most of its fuel, thereby exposing itself to the risk of sudden price fluctuations that can be manipulated by external factors. As a result, I have come to view risk management as one of the most important facets of the industry.

Until the Electricity Business Act was revised in 1995 to allow new entrants into the market, Japan's energy industry was a regulated regional monopoly, protected by national law. The external environment underwent major changes which had an impact on international energy resources, with resource nationalism resulting in price hikes and the entry of powerful foreign companies into the Asian market, which led me to believe that it would be difficult to survive international competition after deregulation and liberalization if we were to remain part of an energy value chain protected by monopoly regulations.

With this in mind, erex was established to build a company that would provide integrated services from fuel procurement and power generation to sales, in other words, business operations ranging from upstream to downstream, regardless of its size at the time. At the same time, following the precedent set by deregulated energy markets overseas, erex anticipated that Japan would establish its own electric power exchange platform. Erex has succeeded as a new entrant to the Japanese energy market because it sought a competitive advantage by offering energy trading capabilities while positioning its fuel business as an important aspect of upstream operations and conducting risk management throughout its value chain.

#### Decarbonization as a Global Issue

The operating life of a biomass power plant boiler is said to be about 30 years. In the energy business, where the business cycle is relatively long, it is important to align the Company's interests with those of society. When it comes to global issues such as decarbonization, it is doubly important to devise and promote business activities that align with social interests. This perspective is also connected to the Sustainable Development Goals (SDGs) and environmental, social, and governance (ESG) factors. Erex will continue to move forward with its business, operating under the belief that the Company exists to provide the value that society demands.

Erex has plans for biomass power generation projects in Vietnam and Cambodia. The GDP per capita for both countries is still low at US\$4,163 and US\$1,759, respectively, but they are struggling to meet their electricity needs domestically as their economies continue to grow. When considered along with the current global trend toward decarbonization, the development of renewable energy must be critical to the economic development of both countries. Erex trusts that its biomass business will contribute to job creation and local economic development, as well as to the green energy growth strategies of both countries.

To realize a decarbonized society, it is essential to share energy-saving technologies across borders and build cross-national relationships to facilitate optimal global distribution of energy resources. From this perspective, the current situation of a world divided by war and other conflicts will only reduce the likelihood of achieving decarbonization. Moreover, I believe that Japan, which is not a resource-rich country, needs to strategically consider what role it should play in achieving global decarbonization.

Even internationally, there are currently no major players in the field of biomass fuels. I am confident that erex can make its mark in the biomass fuel industry through its fuel conversion projects and the expansion of its biomass power generation business.

The entire world, including countries with developing economies and growing electricity demands, must push forward with an energy conversion toward decarbonization. On this basis, efforts to develop biomass fuels in countries with developing economies will likely increase the prevalence of international carbon credit trading, which is set to play an important role in achieving global decarbonization. Erex will take an active role in carbon credit trading as it has the potential to contribute to society and lead to significant revenue opportunities.

In this era of environmental awareness, erex is determined to continue to take on the challenge of becoming a pioneer in the field of decarbonization by centering its business activities around biomass and using mobility and speed to gain a competitive edge. We thank you for your continued support of our Company.

#### Hitoshi Honna Representative Director and President



# Our Company DNA and Strengths



#### An Entrepreneurial Mindset Is in Our Company DNA

Guided by an entrepreneurial spirit, erex has created new value by boldly taking on pioneering ventures. When erex launched its power generation business, it became the first company in Japan to successfully use palm kernel shells (PKS) as fuel, developing what has since become a standard biofuel in the biomass energy industry. The Company's use of biomass fuel necessitated the conversion of coal-fired powerplants to biomass powerplants, driving its current conversion initiatives.

In this era of decarbonization, erex is one of the few energy companies to commercialize fuel procurement aimed at expanding the supply capacity of renewable energy sources, especially biomass fuels. As a pioneer in the biomass field, erex will continue to take on the challenge of realizing a low carbon society.

#### Early Achievements

- Converted coal-fired power plant to biomass power plant (first conversion completed in 2013)
- Increased customer base through introduction of the sales partner system, a first among electric retailers
- Developed in-house procurement of biomass fuels, including PKS

# **Strong Partnerships**

To create value beyond its financial assets, erex has built alliances with a wide variety of partner companies. For example, erex established a sales structure with intermediaries, strengthening its sales capability by introducing its sales partner system in 2008, an unprecedented move in the energy industry at a time when most electric power companies sold directly to customers. Despite having less than 10 sales staff at the time, erex competently leveraged its sales partners to expand its sales network across Japan, acquiring more than 10,000 customers.\*

\* This number reflects the total number of contracts in 2008 and differs from the current number of contracts

#### Establishment of Evergreen Marketing

In March 2019, erex established Evergreen Marketing Co., Ltd. as a joint venture with TEPCO Energy Partner, Inc. We are constantly working to expand our business activities, strengthening our sales capabilities in response to the changing times by concluding outsourcing contracts with partner companies in a wide variety of industries that use different sales methods, including liquefied petroleum gas companies, newspaper distributors, and companies that excel at face-to-face sales, as well as those that are expanding their digital reach through online sales and other methods.

#### Number of Sales Partners



# **Trading Capabilities**

Electric power cannot be stored, so it is necessary to match the amount of electricity being generated with the amount being used. When erex first entered the energy market, it was a new energy supplier that did not have its own power plants and, unlike major power companies, it did not have a history of supplying a specific geographical area. The Japan Electric Power Exchange (JEPX) became one of erex's main suppliers of electricity. As a result, the Company was one of the first power companies in Japan to participate in market trading, accumulating trading expertise along the way. Today, based on extensive expertise and experience, erex optimizes its power supply mix and reduces costs by adjusting the procurement ratio across three different sources; namely, erex-owned power plants, electricity purchased from other companies through direct negotiations, and electricity purchased from JEPX.

#### Importance of Risk Management in Trading

Erex achieved record sales in fiscal 2022 by leveraging its trading activities to successfully implement cost control. However, in the first half of fiscal 2023 the Company posted significant losses, mainly due to negative spreads between procurement and selling. To learn from this experience and ensure that it does not reoccur in the future, organizational reforms were implemented in December 2023 to further strengthen risk management. These reforms included the creation of the SCR Office and the Supply and Demand Strategy Office.



### **Vertical Value Chain**

Erex started out as an electricity retailer, but it soon acknowledged the need to generate electricity in-house to secure a stable supply and reduce costs, leading to the launch of the Company's biomass power generation business in 2013. With an aim of further reducing production costs, erex started procuring its own fuel. Additionally, erex trades electricity, allowing it to ensure a stable and inexpensive supply through centralized risk control management and cost reduction throughout the value chain.

A Value Chain That Supports Stable Supply Capacity





- In-house procurement ensuring high-quality, low-cost biomass fuel
- Power plant construction and operationIn-house power generation
- securing energy supply and stabilizing revenue



- Electricity procurement and wholesale, etc.
   Decision making informed by
  - Decision-making informed by more than 20 years of expertise, minimizing the impact of market fluctuations
- Varied customer service plans.
- Varied customer service plans, including a CO<sub>2</sub>-free plan
  Nationwide network

# Achievements in the Biomass Field

Many businesses rely on trading companies and other importers to procure fuel for power generation. However, as one of Japan's leading biomass fuel consumers, erex established a subsidiary in Singapore in 2017 as a centralized fuel management base to strengthen the Company's fuel procurement capabilities and improve fuel quality. The Company also started to develop its own fuels and is currently developing new sources of biomass fuel, such as sorghum in Vietnam, in addition to utilizing existing untapped biomass resources. In the future, the fuel produced in Vietnam will be used in the Company's Vietnam biomass power plants, achieving a local production for local consumption business model, while excess fuel will be exported for use in large non-FIT biomass power plants and in coal-fired power plant conversions in Japan.

#### Top Expertise in the Biomass Field

Pioneering Biomass Energy

Erex is a large-scale biomass energy provider in Japan with seven biomass power plants that provide 644 MW (including planned output) nationwide.

Securing Biomass Fuel Procurement and Profitability

Erex utilizes various sources of biomass fuel and leverages its procurement know-how to procure fuel for in-house consumption and sell it to external parties.

Developing and Growing New Biomass Fuels

Erex is developing new fuel sources for power generation, including fast-growing and low-cost sorghum.

# **Advantages of Biomass Power Generation**

Compared to other renewable energy sources such as solar and wind energy, the efficiency of which is affected by weather conditions, biomass is a reliable and highly efficient power source. Furthermore, crops being cultivated for biomass fuel absorb CO<sub>2</sub> from the atmosphere during photosynthesis, resulting in net-zero carbon emissions and contributing greatly to the realization of a carbon neutral society.

At the COP26 UN Climate Change Conference in 2021, countries reaffirmed the need to phase out coalfired power plants. As Japan currently relies on coal for approximately 25% of its energy supply, biomass power generation will undoubtedly become more important as an alternative power source in the near future.

	Biomass	Solar Power	Wind Power	Small and Medium Hydroelectric Power
Features	<ul> <li>Requires fuel input</li> <li>Leads to effective use of waste and untapped resources</li> <li>Contributes to the gradual disuse of coal-fired power</li> </ul>	<ul> <li>Does not require fuel</li> <li>Can be installed in existing, underuti- lized spaces, e.g., roofs</li> </ul>	<ul> <li>Does not require fuel</li> <li>Can only be implemented in locations with suitable wind conditions</li> </ul>	<ul> <li>Does not require fuel</li> <li>Can only be imple- mented at points where energy can be captured, e.g., rivers, agricultural irrigation systems, and water and sewage systems</li> </ul>
Output stability	Can be used as a base power source with stable 24-hour operation	Unstable due to reliance on weather conditions and daylight hours	Unstable due to reliance on wind conditions, clear surroundings, etc.	Highly stable if water sources can be secured
Capacity utilization rate*	Approximately 80%	Approximately 18%	Approximately 20% to 30%	Approximately 60%
Output capacity	Thousands to hun- dreds of thousands of kilowatts	One to several thou- sand kilowatts	One to several hundred thousand kilowatts	Several hundred to several tens of thou- sands of kilowatts
Installation costs	Biomass power can be implemented at low cost if existing infrastructure can be used, for exam- ple, if coal-fired power plants are converted to bio- mass power plants	Decreasing costs as solar technology becomes more widespread	High installation costs, including assessment costs such as environ- mental impact evaluations	High installation costs, especially when done on a large scale, including assessment costs such as environmen- tal impact evaluations

<sup>\*</sup> Ratio of actual output over the maximum possible output

\* Cost data on power generation by the Agency for Natural Resources and Energy (Japanese only) https://www.enecho.meti.go.jp/committee/council/basic\_policy\_subcommittee/2021/048/048\_004.pdf

### **Special Feature**

# **Strengthening Biomass Power Generation** by Expanding into the Fuel Business

#### Developing the Biomass Business by Reinforcing Upstream Functions

Japan, with its limited land area and high fuel costs, procures most of its biomass fuel from North America and Southeast Asia. To generate stable and low-cost biomass power, it is essential to reduce the cost of fuel, which accounts for a large portion of power generation costs, and to secure a stable supply.

Erex has strengthened its own fuel procurement, starting with the establishment of a fuel management base, erex Singapore, in 2017. The Company also launched a plan to build one of the world's largest non-FIT large-scale biomass power plants (300 MW output) in 2018 and began procuring and developing fuel to ensure stable operation of a large-scale plant.

It became increasingly clear that in order to achieve an economically viable power plant, it would be necessary to cultivate and develop stable and inexpensive biomass fuels. To this end, in 2021 erex began to cultivate a

nascent fuel called new sorghum in Vietnam. Additionally, the Company has launched various initiatives in its biomass fuel business, including the securing of untapped biomass resources, and construction of a wood pellet plant to convert the acquired biomass resources into pellets to be used as fuel for power generation is well underway.

Fuel developed and acquired in Vietnam will not only be used domestically, but also exported to Japan and other countries outside of Vietnam. The fuel will be used in new biomass power plants scheduled to be built in Vietnam, in our fuel conversion projects converting coal-fired plants to biomass plants, and in the above-mentioned non-FIT biomass power plant currently under construction in Japan, with the aim of reducing power generation costs.

Finally, by selling excess fuel externally, erex will solidify its position in the biomass fuel industry.

#### The Significance of the Fuel Business

Compared to fuels used in other power generation methods, biomass fuels account for a much higher percentage of the overall cost of biomass power generation. To reduce fuel costs, erex is developing low-cost biomass fuels in Southeast Asia, which has abundant untapped biomass resources. In particular, Vietnam has a thriving agriculture and forestry industry and is rich in diverse biomass resources.

Biomass fuel is a renewable energy source made from the earth's natural resources. By using alternative fuel

sources such as biomass, finite resources can be used more efficiently, and we can do our part to form a circular society in which resources are circulated sustainably.

Moreover, we believe that making effective use of under-utilized resources will help revitalize local communities. By effectively using these biomass resources, erex will promote reduced fuel costs for biomass power plants, along with stable fuel procurement and increased energy self-sufficiency.



Policy costs Social costs Fuel costs Operation and maintenance costs Capital costs Source: Ministry of Economy, Trade and Industry, "Power Generation Cost Verification" https://www.enecho.meti.go.jp/committee/council/basic\_policy\_subcommittee/2021/048/048\_004.pdf

#### **Developing New Fuel in Vietnam**

Even by global standards, Vietnam is a country with a thriving agriculture and forestry industry, and numerous biomass resources are generated in Vietnam as by-products of these industries, including rice straw, rice husks, fuelwood, timber from forest thinning, forest residue, and manufacturing residue. We have capitalized on the abundance of untapped biomass resources and the capability to cultivate and develop emerging biomass fuels due to the country's mild climate throughout the year.

These resources will be effectively utilized as fuel in a new biomass power plant in line with Vietnam's Eight Power Development Plan (PDP8), scheduled to be constructed in the near future. By developing biomass fuel for local consumption, we will be able to reduce transportation costs for fuel, leading to higher earning potential and

**Rice Husks** 

Raw timbe



Rice husks, rice straw, and other agricultural sidues South



South Central





#### Conversion to Coal Co-firing

Coal-fired power generation is an important base load power source that can stably and consistently supply electricity at low cost. Because multiple countries produce coal, it has a low geopolitical risk and a stable supply. In addition, it has a low unit cost per calorific value and economic efficiency. On the other hand, coal is problematic because it generates high greenhouse gas emissions such as carbon dioxide.

To reduce the burden on the environment, we believe it is necessary to shift to cleaner, more efficient, next-generation coal-fired power and to work toward phasing out inefficient coal-fired power to achieve carbon neutrality by 2050.

Erex will promote decarbonization while ensuring a stable supply of electricity, bringing existing inefficient coal-fired power plants up to date by effectively utilizing coal-fired power plant facilities through the co-firing or single-firing burning of new, low-cost fuels developed in-house.

We are not only promoting the conversion of coalfired plants to biomass power plants in Japan, but also in Vietnam. The Vietnamese government has stated that it aims to achieve virtually zero greenhouse gas emissions by 2050, making it necessary to increase supply capacity to mitigate electricity shortages associated with economic growth while also decarbonizing the country.

Vietnam's electricity mix is dominated by fossil fuels such as coal, despite the country having abundant under-utilized biomass resources. By using locally produced biomass fuel in our Vietnamese power plants, we will promote biomass power generation projects that take advantage of the country's untapped potential while reducing fuel transportation costs.



#### Coal-Fired Power Conversion Project

#### Acquisition of Itoigawa Power Plant, Plans to Convert from Coal-fired to **Biomass Power Plant**

The Itoigawa Power Plant Corporation was originally a joint venture between Power Development Co., (J-Power) and Taiheiyo Cement Corporation. In August 2022, erex concluded a business transfer agreement with J-Power, acquiring the latter's shares. As our first non-FIT power generation project, the plant will be operated as a co-firing biomass power plant, with plans to convert it to a singlefiring biomass power plant in the future.

Erex currently operates five biomass power plants across Japan. However, it did not begin with a newly built biomass power plant, but rather with the acquisition and conversion of a small-scale, privately-owned coal-fired power plant that became Japan's first

FIT biomass power plant to burn PKS exclusively.

The switch from biomass co-firing to single-fuel firing after the start of commercial operation was a pioneer in biomass single-fuelfiring, as well as a forerunner of biomass co-firing in coal-fired power plants, leading to the knowledge of current power generation technology.

#### New Biomass Power Plant Planned for Vietnam

Since its establishment, erex has been developing its power generation business with a focus on domestic operations, but around 2019 it set itself a new challenge of expanding its power generation and fuel businesses overseas, mainly in Southeast Asia countries. Among these businesses being developed in Southeast Asian countries, we are putting significant effort into our power generation business in Vietnam.

Currently, we are working on biomass conversion projects for six coal-fired power plants in Vietnam. There are also plans for new biomass power plants. At present, we are planning to construct 18 new biomass power plants with a total output of 1,100 MW in addition to Hau Giang biomass power plant (20MW). Three of these power plants are currently undergoing feasibility studies, and we are making steady progress toward the realization of our goals.

Vietnam and other Southeast Asian countries are experiencing remarkable economic growth; however, they are also experiencing increasingly severe power shortages. Erex's efforts in Southeast Asia will help the region to realize both a stable supply of electricity and

Source: Policy Concerning Thermal Energy https://www.meti.go.jp/shingikai/enecho/denryoku\_gas/denryoku\_gas/pdf/052\_05\_01.pdf



decarbonization, which is a global concern. Erex believes that its power generation business will contribute significantly to the creation of local employment and the development of local economies.

#### PDP8 Proposed Sites for New Biomass Power Plants



### Toward New Growth: Outlook to 2030

#### Outline

By stabilizing our domestic earnings base and promoting the biomass business in Vietnam and Cambodia as the main drivers of growth, we aim to achieve sales of ¥535.8 billion and ordinary income of ¥60.2 billion by 2030.



#### **Overview and Outlook of Overseas Business**

#### Business Development in Southeast Asia

Southeast Asian economies are slated for continued growth, and energy consumption is expected to rise steadily along with this growth. At the same time, the trend toward decarbonization is expected to expand and accelerate, and governments are under pressure to maintain economic growth while also contributing to decarbonization efforts.

#### 2030 Roadmap for Overseas Operations

Vietnam

Cambodia

In its overseas business, erex will engage in biomass business operations mainly in Vietnam and Cambodia, aiming for net sales of ¥231.3 billion and ordinary income of ¥45.3 billion by 2030.

#### 2023

- Construction of 20 MW plant (PDP7 project) has started in Hau Giang Province Scheduled to start operations in December 2024
- Investment decision has been made for biomass pellet factories in Yen Bai and Tuyen Quang Provinces
- Investment decision for biomass power generation projects in Yen Bai and Tuyen Quang provinces is scheduled to be made by the end of the fiscal year
- Construction of 80 MW hydroelectric power plant has started in Pursat Province, with operation scheduled for fiscal 2025
- Feasibility study approval has been obtained from the local government, and it is under process
   Proposals received for potential power

Proposals received for potential power plant sites Countries in Southeast Asia are rich in biomass resources due to their climate. The biomass business is one possible solution to the problems facing Southeast Asia. Erex plans to leverage the expertise it has accumulated through the development of domestic biomass power plants and in-house procurement of biomass fuel to greatly expand its business in Southeast Asian countries.

Specifically, we plan to focus on the biomass business in Vietnam and the biomass and hydroelectric power generation business in Cambodia.



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#### **Erex's Approach to Carbon Credits**

As the global trend toward decarbonization is expected to expand and accelerate, erex predicts that the carbon credits\* generated from decarbonization initiatives will contribute to Company earnings.

\* Credits predicted in conformance with Article 6.2 of the Paris Agreement



#### Cambodia Business Update

#### Erex Concludes a Memorandum of Understanding on Biomass Business with the Cambodian Ministry of Mines and Energy

Erex and SPHP (Cambodia) Co., Ltd. (Chairman: MYUNG IL KIM) have signed a Memorandum of Understanding (MOU) with the Ministry of Mines and Energy of Cambodia to confirm their roles and cooperation in the development of biomass fuels, biomass power generation, and other energy sources in Cambodia.

On December 18, 2023, Prime Minister Kishida held a summit meeting with Cambodia's prime minister, Hun Manet, at the Prime Minister's office, followed by the exchange of bilateral cooperation documents including the above-mentioned MOU between erex, SPHP, and the Cambodian Ministry of Mines and Energy in the presence of the two leaders.



The MOU document exchange ceremony held in the presence of Prime Minister Kishida and Prime Minister Hun Manet (December 18, 2023)



MOU Ceremony at the ASEAN-Japan Economic Co-Creation Forum (December 16, 2023)

#### Overview and Outlook of the Domestic Business

Our aim is to achieve sales of ¥304.5 billion and ordinary profit of ¥14.9 billion by 2030. To raise funds that can be allocated to investment in growth, including in our overseas business, we will work to stabilize the earnings base of our domestic business and aim for steady growth.

	Stabilizing Measures	Growth Measures
Retail and Trading	<ul> <li>Responding to Energy Market Price Fluctuations</li> <li>Low-voltage (residential) business has shifted to market-linked energy plans</li> <li>High-voltage business is focusing on selling energy plans that combine market-linked and futures contract options</li> </ul>	<ul> <li>Responding to Customer Needs with a Focus on Decarbonization</li> <li>Fully conversion to carbon-free plan for low-voltage business</li> <li>Implementing various means to meet customer needs for both competitive prices and decarbonization in the high-voltage business by considering non-FIT power purchase agreements (PPAs) and credit substitutions.</li> </ul>
Power Generation and Fuel	<ul> <li>Leveraging Economies of Scale</li> <li>Securing relatively sought-after fuels by leveraging one of the largest-scale transactions in Japan</li> <li>Further improving efficiency by capitalizing on accumulated expertise in biomass power generation</li> </ul>	<ul> <li>Fuel Conversion/Non-FIT Large-Scale Biomass</li> <li>Planned fuel conversion project at Itoigawa, a coal-fired power plant</li> <li>Promoting non-FIT large-scale biomass power generation project planned in Niigata</li> </ul>
Other New Businesses	<ul> <li>Demand Response</li> <li>Maximizing the use of cutting-edge demand response systems to ease the burden on the capacity market and pass on the benefits to customers</li> </ul>	<ul> <li>Storage Batteries/Non-FIT Solar</li> <li>Planned storage battery initiatives to further contribute to the introduction of renewable energies</li> <li>Progress in non-FIT solar energy initiatives to meet customers' demands for renewable energy</li> </ul>

#### **Review of Business Promotion Structure**

In order for business performance to recover in fiscal 2024 and beyond, we have determined that business policies as well as organizational reforms are necessary.

Under a new organizational structure, we will work to strengthen collaboration among divisions to expand our business domain, including our overseas businesses, and to cope with the rapidly changing business environment in Japan.

	Creation of SCR Office	<ul> <li>This office will strengthen the ris and promptly implementing cour each division, including busines well as administrative divisions,</li> <li>SCR Office is also responsible for methods, and managing overse</li> </ul>
	Creation of Supply & Demand Strategy Office	<ul> <li>Coordination between retail and rence of wide gaps between po sales volumes. In addition, the o curement strategies. Specifically ment strategy and strengthen p</li> </ul>
-	Creation of Overseas Business Management Department	<ul> <li>We will centralize the managem expansion.</li> <li>Specialized and cross-functiona the Overseas Business Manage</li> </ul>

isk management system by identifying the risks faced by divisions ountermeasures with the participation of the people responsible for ess divisions, such as power generation, fuel, trading, and retail, as such as corporate planning, finance, and accounting.

for confirming trading positions, developing risk management eas business risks.

nd market trading divisions will be strengthened to prevent recurower procurement and sales prices and power procurement and development of new rate energy plans will be integrated with prolly, we will integrate an "aggressive sales" function into our managepower source procurement.

ment of overseas business promotion in line with plans for significant

nal groups such as a new Finance Group will be established within gement Department to promote projects in various countries.

# **Financial Management**



# We will invest in growth toward decarbonization through financial management practices that focus on both the short term and the long term.

Q. What were the highlights of the Company's performance in fiscal 2022 and what is the current state of performance in fiscal 2023?

While many electric power companies suffered operating losses due to the global energy supply chain disruption that has resulted from the crisis in Ukraine and the effects of soaring fuel prices. in fiscal 2022 the Company posted net sales of ¥296.3 billion, operating income of ¥14.8 billion, and ordinary income of ¥15.2 billion, achieving its highest results on record for net sales and ordinary income.

Our power sources consist of electricity generated in-house and electricity procured from the Japan Electric Power Exchange (JEPX) mainly through bilateral trading based on trading arrangements with other electric power companies. Since its founding, the Company has stressed the importance of power trading in realizing a competitive power market and it has participated in this market since its inception. We have always operated our business with the assumption that energy prices can increase unexpectedly, having experienced the impact of fluctuations in electricity market prices, which stemmed from soaring energy prices such as the record price of crude oil in 2008. While the majority of electric power companies that are generally known as "new power providers" entered the market after the liberalization of electric power retailing in 2016, I believe that erex's establishment of a procurement policy that reflects this earlier experience contributed to its record-breaking operating results in fiscal 2022.

Meanwhile, the market price of electricity has been declining rapidly since the start of 2023, and it remained low even in the summer, when we experienced record heat waves in Japan. Because of this, we have had to sell electricity procured at high market prices in the previous year during a period of low market prices, which has led to significant deterioration in our current earnings. Our performance has also been impacted by the fact that the sales volume of our in-house generated electricity has failed to reach expected levels. Overall, while we had made every effort to prepare

#### **Performance Trends**

Achieved highest results on record for net sales and ordinary income in fiscal 2022





for increases in the market price of electricity, I would say that we have encountered issues in terms of our preparedness for declining market prices and our outlook on the procurement and sales of in-house generated electricity. We will take all possible measures to restore our business performance and ensure that we do not repeat the same mistakes again. These measures will include a review of our internal risk management system.

### Q. Please share your views on the Company's financial strategies.

Along with the steady accumulation of profits since fiscal 2017, the exercise of stock acquisition rights to third parties in fiscal 2020 has stabilized our financial base. Against this backdrop, we have been investing in future growth, including through plans to construct biomass power plants in Japan and overseas and develop biomass fuel production and power plants outside of Japan. While remaining committed to our policy of investing in future growth, we will not only continue to assess our investment decisions thoroughly but also take an even more cautious approach to maintaining financial discipline in light of the difficult earnings situation we currently face.

# Q. Please tell us about the Company's procurement strategy that draws on its power trading capabilities.

In our power trading business, we do not aim to generate profits through speculative transactions. Rather, the business is based on the key premise that we meet the demands of the retail market. That is to say, we procure the amount of electricity necessary to ensure adequate supply to our contracted electricity customers and meet their actual demands.

Through this basic policy, we are able to minimize the impact in the case when market prices increase rapidly by raising the proportion of energy sourced in-house and through direct contracts with suppliers, and reducing the amount of energy procured from the wholesale market. Conversely, we can benefit from decreases in the market price of energy by increasing the amount of energy procured from the wholesale market and reducing the proportion of energy sourced through direct contracts.

In fiscal 2022, our profits increased due partly to our proactive efforts to conduct power trading based on this policy as well as to our ability to source energy internally and procure energy through direct contracts with suppliers in a balanced manner and utilize the wholesale market effectively. Meanwhile, in fiscal 2023 we have faced an extremely difficult profit situation when we encountered a variety of issues in addressing the impact of declining market prices. While we have refrained from engaging in speculative transactions, we will carefully reexamine our preparedness for the risk of fluctuations in price and demand and rebuild a framework for securing steady profits.

## Q. What are your thoughts on growth investments going forward?

Recognizing the importance of a stable financial base to investing in our future growth, we will carry out investments that enable investors to reap the benefits of our growth by managing risks appropriately. We believe that the movement toward decarbonization is an irreversible trend, that the demand for renewable energy will continue to rise, and, as we have seen in the non-fossil value trading market, that an era in which environmental value will become a major source of revenue in the energy business will arrive in the not-too distant future. In light of these perspectives, we will steadily proceed with investments in decarbonization on a global scale.

The key to advancing our business in both Japan and overseas with a focus on decarbonization is our in-house development and cultivation of biomass fuel. Initially, our biomass fuel was procured from external sources. However, with the increasing need for biomass fuel around the world, we have been procuring it directly from countries in Southeast Asia, allowing us to secure a stable supply at lower prices. Moreover, in Vietnam we are proceeding even further with such efforts through the development of our own biomass and its conversion to fuel by securing the necessary land and cultivating plants. In particular, we have been conducting experimental cultivations of a new biomass fuel called new sorghum, which we aim to transport from Vietnam from fiscal 2024. Given the potential of Vietnam as a fuel-rich country, we aim to produce approximately five million tons of biomass fuel per year by around 2030, and we expect to generate earnings through external sales in the future.

Furthermore, the economy in Southeast Asia is growing remarkably, fueling expectations of an increase in demand for electricity. There is also an abundance of unused biomass resources in the region, which we intend to actively utilize in our investments. Currently, our plan is to construct 18 biomass power plants in Vietnam. The first of these to be established is the Hau Giang Biomass Power Plant, which has been selected for Financing Programme for Joint Crediting Mechanism (JCM) Model Projects\* in FY2023 and we will proceed with capital investments accordingly, while receiving government support. Preparations are also under way for the construction of our other biomass power plants. We do not believe that we will necessarily need to raise substantial amounts of new capital for the construction of many of these plants. In light of our current earnings situation, we will carefully select and steadily proceed with the most appropriate investments for our future growth. Based on this idea, we will reinvest the earnings from our initial projects, conduct joint investments with other companies, and even consider diversifying our financing methods.

In Japan, we are forging ahead with a plan to establish new large-scale biomass power plants in Niigata Prefecture that are independent of the country's Feed-in Tariff (FIT) system. Although it has taken some time for the environmental assessment procedure to be completed and the start of operations has been delayed, we will steadily move ahead with this project as we believe it will play an extremely significant role in ensuring stable supplies of electricity in this age of decarbonization.

We are also converting existing coal-fired power plants to biomass power plants. In fiscal 2022, although the unexpected increase in coal prices weakened profitability and hindered the consideration of transfers of coal-fired power plants, we will continue to further the conversion away from coalfired power not only in Japan but also in Vietnam, while carefully monitoring the price of coal.

In the energy business, while it is important to minimize the risks of short-term volatility, we must also ensure a stable plan for the long term and high returns on investments. I believe that it is my mission to manage our business based on both the short term and the long term by taking these factors into account.

## Q. What differentiates the Company in the electric power market?

We are securing business opportunities ahead of our competitors by leveraging our venture spirit and underscoring the importance of making timely decisions. Our sales of electricity based on cocreation with sales partners throughout the country and our pioneering efforts in biomass power generation to date are the product of such commitment. However, energy must be supplied in a low-cost and stable manner. In order to fulfill this mission, we believe that we must secure a certain level of profit and achieve the sustainable operation of our business, which will ultimately contribute to the betterment of society.

Prior to becoming a part of the management team at erex, I was involved in energy administration. Based on this experience and looking at the Company objectively, I believe that, through new ideas and actions, we have stimulated the development of the electric power market, a previously tightly regulated sector, enhanced efficiency through competition, and promoted new alliances. There is often a perception that new market players come into conflict with existing electric power companies, but in the case of erex, as demonstrated by the establishment of Evergreen Marketing Co., Ltd., a joint venture with TEPCO Energy Partner, Inc., we have been advancing a series of new initiatives, without being bound by industry conventions.

When communicating with our investors and other stakeholders, I find that it is sometimes difficult to communicate our business structure due to the relatively small number of similar peer companies in this industry. In light of these challenges, we intend to continue to demonstrate our commitment as a leader in realizing a carbon-free society by providing information even more proactively.

<sup>\*</sup> The Ministry of the Environment, Japan has been implementing the "JCM Model Projects," which provides financial supports covering up to half of the initial investment costs.

The purpose of this model projects is to financially support the implementation of projects which reduce GHG emissions by utilizing leading decarbonizing technologies in developing countries, and in return, to acquire JCM credits for achievement of Japan's GHG emission reduction and the partner countries' emission reduction taroet.

### **Strategies by Business**

# **Fuel Business**

Erex steadily procures high-quality biomass fuel through its supply chain, with a focus on Southeast Asia. In addition to supplying fuel to its in-house power plants, erex also acts as a trading company and sells fuel to third parties.

# **Power Generation Business**

Erex constructs and operates biomass power plants in Japan and overseas. The Company also plans to build large-scale non-FIT power plants and convert coal-fired power plants to biomass power plants.

#### Strengths

- In-house procurement of high-quality fuel directly from the country of origin
- Operational expertise in procuring fuel, including chartering and assigning vessels
- Green Gold Label (GGL) certification of all domestic power plants

#### **Business Environment**

- Mandatory certification in fuel procurement within the supply chain
- Increased transportation costs due to soaring energy prices

#### Measures for

- **Promoting Growth**
- Developing new fuel sources
- Utilizing untapped biomass resources in Southeast Asia
- Construction of a wood pellet plant in Vietnam

#### Message from Management

Erex is one of Japan's leading biomass power companies, importing approximately one million tons of biomass fuel annually principally to supply biomass fuel to its in-house power plants.

With the recent surge in global efforts to realize a decarbonized society, we believe that carbon trading and carbon tax will be introduced, and biomass fuels are expected to become increasingly valuable within the power industry. In light of these changes, erex believes that it is important to develop its own biomass fuels, and it is reviewing the structure and staffing of its fuel business to facilitate the development of biomass fuels in Vietnam and other Southeast Asian countries. The biomass fuel developed in-house in Southeast Asian countries will be made into pellets and exported to countries such as Japan, Korea, and China. Additionally, as part of a local production for local consumption business model, the fuel will be used to produce carbon-free electricity in countries facing electricity shortages.

The erex Group aims to become the leader in biomass fuel development in Asia and contribute to the realization of a decarbonized society.



#### Strengths

- Proven track record of converting the Tosa Power Plant from a coal-fired to a biomass power plant
- · Power plant utilization factor of approximately 90% maintained since launching the biomass power generation business
- Stable and inexpensive power plant operations achieved through in-house procurement
- · Zero occupational accidents at all mercial operations

#### **Business Environment**

- Government policy to reduce greenhouse gas emissions by 46% by 2030 (compared to fiscal 2013)
- Phasing out of inefficient coal-fired thermal power plants that are failing to achieve 43% power generation efficiency under the Act on the Rational Use of Enerav
- Frequent directives to control the national output of renewable energy
- power plants since the start of com-

#### Message from Management

Erex's power generation business is responsible for the planning and construction of power plants as well as the management and technical support of subsidiaries that operate and maintain power plants. It also serves an important role on-site, persistently building win-win co-creation relationships with stakeholders, including local government bodies and partner companies.

The most important role of a power plant is to stably manage its power facilities through precise handling and regular maintenance. This requires reliable operation and management. Furthermore, it is necessary to set ever greater goals, using imagination and ideas based on power generation technology to analyze more efficient methods of operation and introduce innovative maintenance methods.

Erex is taking on new challenges to achieve decarbonization, including expanding overseas, encouraging the technological innovation of biomass fuels, converting inefficient coal power plants to coal and biomass co-firing power plants, planning highly efficient large-scale power plants, and developing technologies for alternative power sources such as hydrogen. With biomass power generation technology at the center of its activities, the power generation business aims to contribute to the growth of the Company as quickly as possible by investing in imaginative and curious employees who are willing to embrace new technologies in power generation and nascent fields.

#### Measures for **Promoting Growth**

- Developing new biomass fuels Technical involvement in pioneering new fuels
- Developing biomass power plants in various Southeast Asian countries
- Constructing large-scale non-FIT biomass power plants
- Converting inefficient coal-fired power plans to biomass power plants
- Improving the operating rate of existing power plants in Japan

#### Toyohiko Ishimaru

Executive Officer Head of Power Generation Departmen

# **Trading Business**

Erex's trading business intersects with its retail and power generation businesses, both of which are regulate Japan's energy sector, optimizing its position to balance energy supply and consumption.

# **Retail Business**

Centering around Evergreen Marketing Co., Ltd., a joint venture between erex and TEPCO Energy Partner, erex's retail business supplies electricity to meet the needs of its various customers.

#### Strengths

- Experience in electricity trading since the establishment of the Japanese energy market
- Multiple trading methods based on many years of experience

### **Business Environment**

- Ensuring a secure energy supply and realizing a decarbonized society are presented as mutually exclusive ideals
- Burgeoning societal need to regulate the supply and demand of electricity as Japan moves toward renewable energy
- Measures for **Promoting Growth**
- Product development based on expertise in electricity futures trading
- Leveraging market transactions to drive business expansion

#### Message from Management

Since its establishment, erex has traded electricity on the energy market. Significantly, the Company was able to successfully leverage this experience fiscal 2022, practicing flexible trading to support stable power procurement and increase earnings in the face of volatile electricity prices.

In the future, the Company will continue to steadily develop the business through market trading activities. By proposing market-based electricity rates to electric power companies and other consumers, erex intends to meet the needs of consumers who wish to control their costs. Since the unit price of electricity differs depending on the time of day, the trading business monitors the changing supply and demand of electricity before implementing arrangements such as peak-load shifting.

With global efforts to realize a decarbonized society, renewable energy is expected to grow in popularity. To this end, trading will likely become indispensable as it becomes more necessary than ever to maintain the balance of energy supply and demand. The energy market depends on the participation of many players, and we intend to do our part in maintaining a transparent and fair market.

Ren Kawamura

Executive Officer Head of Energy Market Department

#### Strengths

- · Nationwide customer base through a sales partner system
- · Electricity plans that combine environmental value and economic efficiency

#### **Business Environment**

- Rapidly rising energy prices causing retail electricity providers to downscale or close their businesses
- Increasing importance of a stable power supply

#### Message from Management

Erex has been developing its retail business as a power producer and supplier since Japan's energy sector was partially deregulated in 2000. Currently, it supplies electricity to corporate and individual customers throughout the country, from Hokkaido to Okinawa, via its five sales subsidiaries.

In its business activities, erex has leveraged the strengths of each subsidiary to sustain growth and expansion, fostering diverse sales channels and methods based on the core value of co-creation through collaboration with alliance partners and community-based sales partners nationwide and creating various price plans, such as CO<sub>2</sub> free plans. When ranking electric power companies in Japan by sales, the erex Group ranks ninth\* out of 700 power companies, and first among independent power providers.

However, the energy industry is changing dramatically due to the recent surge in energy resource prices and increasing demands to realize a decarbonized society. In this business environment, erex will further temper the strengths of each sales subsidiary, expanding area-specific sales strategies and service plans tailored to meet the needs of customers, promoting efficient management by integrating the back-office operations and systems of its five sales subsidiaries, and formulating optimal sales strategies that balance growth and profit.

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#### Measures for **Promoting Growth**

- Developing various supply channels and service plans to expand market demand
- Implementing sales strategies that prioritize fair pricing and profitability
- Providing services to realize a decarbonized society

\* As of September 2023

#### Toshimichi Tanaka

Director



# Working Toward Sustainability

Energy is indispensable for human life. As a company that handles energy, erex is committed to supporting secure lifestyles in which access to electricity is commonplace, and to achieving sustainability through the realization of a low-carbon society so that future generations can continue to live in a world where access to electricity can be taken for granted.

Erex offers new innovations to help realize decarbonized societies globally. Through fuel development and the creation of environmental added value, erex aims to achieve both decarbonization and energy security.

Furthermore, erex seeks to fulfil its corporate responsibility by taking a broad perspective, supporting the individuals who make up wider society, the communities where its power plants are located and its fuels are produced, and its employees, stakeholders, and supply chain partners.

#### **Basic Sustainability Policy**

Erex aims to become a decarbonized company that continues to evolve for the betterment of people's lives as society works to address climate change with determination and speed.

Erex's mission is to provide safe and stable energy that is both environmentally friendly and economically rational, and to realize sustainable, decarbonized societies globally.

By leveraging its experience in biomass power generation projects, erex will work on various projects not only in Japan but also in countries all over the world to solve the

problems of energy self-sufficiency, poverty, and inequality. We also aim to build a global decarbonization chain by returning value, including environmental value, to Japan.

Erex endeavors to support people's lives and co-create a better future and will continue to evolve while prioritizing determination and speed.

#### Structures for Promoting Sustainability Initiatives

In fiscal 2022, erex established a Sustainability Committee to build a governance structure for sustainability. Chaired by the director in charge of corporate planning, its members include erex's managing director and three full-time employees who work in the secretariat established within the Corporate Planning Department.

The committee aims to help realize a sustainable society by promoting and overseeing activities across the erex Group, such as climate change countermeasures and initiatives focused on human capital. Through the establishment of this committee, erex strives to conduct operations that lead not only to short-term enhancement but also to medium- and long-term corporate value enhancement.

In addition, the committee meets at least twice a year to report and deliberate on matters discussed by the Environmental, Social, and Governance subcommittees, which comprise members selected from each erex division and affiliate company and are supervised by the secretariat. After receiving reports on matters discussed and decided by the Sustainability Committee, the Executive Committee considers any proposed actions as important management and business strategies and consults with the Sustainability Committee as necessary when making management decisions.

The Board of Directors supervises implementation plans, for example, those for initiatives related to climate change issues.



#### Identifying Materiality

Under the instruction of the director in charge of corporate planning, the secretariat takes the lead in collecting and organizing information on materiality, which is then reported to and discussed by the Sustainability Committee before being referred to the Board of Directors to make a final decision.

#### Environment

#### • Realize a decarbonized society • Reduce erex's greenhouse gas

# (GHG) emissions

by business operations

Environment

While erex's power generation business is centered on biomass, the company aims to realize a decarbonized society by expanding the use of renewable energies, including through solar and hydroelectric power generation, and considering new energy sources such as hydrogen. Erex began calculating its GHG emissions in fiscal 2021 and is committed to decreasing its emissions while also increasing its contribution to GHG reductions (for reference, please see page 36).

Through biomass fuel development, power generation, and electricity retailing, erex fulfills its corporate social responsibility by creating local employment opportunities and providing a stable supply of electricity. Profits earned through business operations are used to revitalize local economies through investment and other means. The Company also actively invests in human capital in local communities, such as by supporting a foreign exchange program for students from Vietnam.

Governance

To clarify management responsibility and accountability to shareholders, customers, employees, and other stakeholders and provide benefits by maximizing corporate value, erex's basic policy is to ensure transparency and soundness in management and business execution, and to promote thorough compliance along with efficient management. In pursuing these initiatives, erex strives to further enhance corporate governance.

#### Society

- Contribute to the resolution of social issues such as poverty
- Contribute to and communicate
- with the local communities affected

#### Governance

- Promote thorough compliance
- Ensure appropriate information disclosure and communication

# Environment

Erex's mission is to provide a safe and stable energy supply that is both environmentally friendly and economically rational, and we aim to realize sustainable, low-carbon societies globally.

To date, the Company has promoted the decarbonization of society by promoting the use of electricity derived from renewable energy sources, including biomass. Erex will leverage the knowledge and experience it has gained through its domestic biomass power generation business to work on various projects not only in Japan but also overseas, particularly in Southeast Asia, to help realize decarbonized societies through its business activities. The Company aims to foster the decarbonization of value chains globally by returning the environmental value created through these initiatives to both domestic and overseas markets.

#### **Environmental Initiatives**

Constructing power plants that consider the characteristics of local communities

The erex Group's biomass power plants prioritize environmental measures, thoroughly treating wastewater, exhaust, dust, and other emissions from the plants in an effort to protect the local environment.

One such example is the Nakagusuku Biomass Power Plant in Uruma City, Okinawa, which uses industrial water instead of seawater to cool water used in the power generation process. Normally, seawater is used and subsequently discharged into the ocean, but erex sends the industrial water to a sewage treatment plant via a wastewater treatment facility to protect the ecosystem of the surrounding sea area and the beauty of Okinawa's ocean.

In addition, combustion ash from the power plant is granulated and solidified by an industrial waste contractor. then reused as roadbed material and soil conditioner to make effective use of waste. Finally, biomass fuel is transported from the port to the power plant in a custom-built, covered truck with an airtight structure to prevent dust dispersion during transportation.



Wastewater treatment facility at Nakagusuku Biomass Power Plant



Trucks with a covered cargo bed control dust dispersion during transportation

#### Selling carbon-free electricity

Supported by the erex Group's abundant supply of renewable energy, the Company's retail subsidiary Evergreen Marketing Co. Ltd., offers carbon-free plans and other services to help create a sustainable, low-carbon society based on its management philosophy of "making renewable energy more accessible and creating a society where green in the norm."

By providing these services, the Group is working to increase the use of environmentally friendly, low-impact energy and to realize a low-carbon society. In addition, the carbon-free plans offered by the erex Group can be beneficial to customers who wish to report to international

initiatives such as RE100, CDP, and the Science Based Targets initiative (SBTi), as well as to environmental assessment organizations. As environmental awareness deepens, the need for socially significant services is expanding.



#### Validating proof of concept at Fujiyoshida Hydrogen Power Plant

Hydrogen has been attracting increasing attention in recent years as an energy source that does not generate CO<sub>2</sub> in the power generation process. The Basic Strategy for Hydrogen<sup>\*1</sup> formulated by the Agency for Natural Resources and Energy has set national targets to expand hydrogen consumption to around three million tons per year in 2030 and 20 million tons per year in 2050, while the Agency's Sixth Basic Energy Plan\*<sup>2</sup> envisions that hydrogen and ammonia will account for about 1% of the national power supply in 2030. In April 2022, erex commenced operations at the Fujiyoshida Hydrogen Power Plant as a proof of concept, with the plant being the first commercial hydrogen-fired power plant in Japan. Through this demonstration operation project, the Company has validated the continuity, stability, and economic rationality of the plant, and is conducting R&D for its commercialization in the future.

#### Erex's Hydrogen Power Generation Mechanism

causing a reaction between water and the catalyst, using almost no heat or electric power.







Fujiyoshida Hydrogen Power Plant

- \*1 The national strategy for hydrogen was formulated in 2017 and revised in 2023 in consideration of domestic and international circumstance
- \*2 The government formulated this strategy based on the Basic Act on Energy Policy to clarify the general direction of Japanese energy policy, which was approved by the Cabinet in 2021
- \*3 The process is a proprietary technology of Hydrogen Technology Inc., which supplies hydrogen at this power plant.

# **TCFD** Initiatives

#### Response to Climate Change (TCFD Response)

In March 2023, erex expressed its support for the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD).

Following on from this endorsement, erex will reconfirm the environmental impact of its business activities and work to improve its information disclosure. In addition, the Sustainability Committee will play a central role in the Company's efforts to become carbon neutral and its aim to achieve a sustainable society together with its stakeholders.

Items included in erex's information disclosure are based on the framework developed by the TCFD and will be reviewed and improved upon annually through discussion by the Sustainability Committee.





#### Governance

Governance related to climate change has been integrated into general sustainability governance (see "Structures Promoting Sustainability Initiatives" on page 34 for details).

In fiscal 2023, the Sustainability Committee identified and assessed climate-related risks in line with TCFD recommendations and organized and reviewed measures to address them.

#### 2 Strategy

To improve business resilience in the face of a distant and highly uncertain future, erex has assessed the impact of global average temperature increases on the Company, focusing on the power generation business, which is the Company's mainstay business, by referring to the 1.5°C scenario (for example, the benchmark set by IEA's net zero emissions NZE scenario to achieve decarbonization) and the 4°C scenario (for example, the IEA's stated policies scenario, which predicts the future impact of prevailing emissions) to project potential outcomes for 2050, considering both risks and opportunities.

As a result, we assume that the demand for fuel will increase and have identified the growing demand for renewable energy and biomass as a transition risk. Furthermore, we assume the possibility that the supply of fuels that meet renewable energy standards will not keep pace with demand, and that the resulting increase in cost prices will have a significant impact on our business activities.

On the other hand, by promoting the development of various biomass fuels, such as through our new sorghum development project, and by strengthening in-house procurement of fuels that meet renewable energy standards, we expect that we will be able to procure raw materials at stable prices over the long term, and thus have an opportunity to expand sales by lowering our sales prices.

Since it is difficult to quantitatively evaluate the impact of climate change on our financial condition, we have qualitatively evaluated impact on three levels: major, moderate, and minor. We will continue to analyze climate change scenarios to improve the accuracy of our predictions regarding the degree of impact on our financial condition while strengthening our ability to respond to the risks and opportunities associated with climate change to make our business more sustainable.

Finally, we assume that risks and opportunities will emerge within three years for short-term predictions, beyond three years to 2030 for medium-term predictions, and after 2030 for long-term predictions.

#### Main Risks Related to Climate Change and Response Measures

Classification		Impact on the Company	Severity	Projected time frame	Countermeasures	
	Policy and Law (Orders and regulations for existing products	If there are changes to the regulations on fuels used for biomass power generation, erex may have to conversion to other fuels that maintain their status as renewable energy sources. In this case, the Company may incur costs associated with conversion to fuels that meet revised regulations, or the Company's fuel costs may increase if it converts to higher cost fuels that meet the revised regulations.	Medium	Short term	To ensure a stable supply of PKS, erex takes the initiative to procure biomass fuel such as palm kernel shells (PKS) and woo pellets from overseas. In addition, the Company is working to obtain certification that cover various aspects of supply chain management in relation to the protection of the natural environment and the sustain-	
	and services)	Increased reputational risk and costs associated with addressing unmet emis- sion targets and inadequate disclosure information (including information on mixing fuels that have not received third- party certification and discrepancies in certified biomass ratios).	Medium	Short term	able use of biomass fuels, such as obtain- ing Green Gold Label (GGL)* certification for PKS in 2020. * Green Gold Label is an international certification program for sustainable biomass.	
Conversion Risks	Technology (Replacing existing products and services with low-emission alternatives)	As environmental awareness continues to grow, the supply of renewable energy is likely to increase. This could lead to an increase in the number of days that renewable energy output is curtailed, thereby leading to lower sales.	Small	Medium to long term	To lay the groundwork for achieving carbo neutrality in 2050, erex will promote and monetize its hydrogen power generation demonstration project, invest in renewable energies other than biomass, and optimize sales price and volume.	
	Markets (Increased cost of raw materials)	While demand for fuels is likely to increase in response to a growing demand for renewable energy and biomass power generation, the supply of fuels that meet renewable energy standards may not keep pace with demand, resulting in an increase in the cost of fuel.	Large	Short term	Erex will promote the development of various biomass fuels by strengthening its in-house procurement of fuels that meet renewable energy standards and through its projects to develop fuels such as new sorghum.	
	Reputation (Increased stake- holder concerns or negative stakeholder feedback)	An inadequate response to climate-related issues or information disclosure require- ments may cause a decline in share prices or a loss of investors, leading to increased financing costs, or a decrease in company value.	Medium	Short term	In its management plan, the Company has set a target to reduce carbon emissions b 25 million tons in 2030. It also aims to reduce in-house greenhouse gas (GHG) emissions and promote avoided emissions through its biomass business.	
		Increasingly severe windstorms and floods may cause damage to biomass fuel production plants or cause disruptions in the supply chain, thereby impeding fuel procurement and power plant operations, resulting in a decrease in sales.	Medium	Medium to long term	To mitigate the risk of power plants becon ing inoperable due to supply chain disrup- tions, erex procures fuel from multiple countries and sales channels.	
Physical Risks	Acute risk (Increased sever- ity and frequency of extreme weather events such as cyclones and floods)	Increasingly severe windstorms and floods may damage power generation facilities, thereby causing them to cease operations and resulting in a decrease in sales.	Medium	Medium to long term	It has been confirmed that the inundation depth during storm surge and flood in the area where the power plant is located will not change significantly from the current inundation depth predictions of 1.5°C and 4°C in 2050. In addition, in preparation for emergency situations, erex will conduct thorough risk management for its personnel, such as securing evacuation routes, and it will incorporate business continuity planning measures into its contingency plan as necessary.	
					* Source: The Aqueduct Global Flood Analyzer, World Resources Institute.	

#### **Environment**

#### **Opportunities Related to Climate Change and Response Measures**

Classi	fication	Impact on the Company	Severity	Projected time frame	Countermeasures
	Technology (Poplacing	The introduction of policies promoting a shift to power grids that capitalize on the potential of renewable energy will likely lead to fewer days of output control and increase revenues. Earnings will increase through the develop- ment and practical application of a busi- ness that improves the efficiency of energy management systems that utilize storage batteries.	Medium	Middle to long term	To lay the groundwork for achieving carbon neutrality in 2050, erex will promote and monetize its hydrogen power generation demonstration project, invest in renewable energies other than biomass, and optimize sales price and volume.
Opportunities	(Replacing existing products and services with low-emission alternatives)	Cost of sales will likely decrease as new technologies develop biomass fuels with higher power generation efficiency that lower the cost per unit of electricity generated.	Medium	Middle to long term	Erex has established biomass R&D centers in Japan and Vietnam to promote the in-house development of various biomass fuels, for example, new sorghum.*
		An increased need for bioenergy with carbon capture and storage (BECCS) will likely increase the demand for biomass power generation, resulting in higher sales.	Small	Middle to long term	To lay the groundwork for achieving carbon neutrality in 2050, erex will promote dem- onstration and monetization of its hydrogen power generation project, investment in renewable energies other than biomass, and optimization of sales price and volume.
	Markets (Increased cost of raw materials)	Erex will be able to procure raw materials at stable prices over the long term by strengthening its own procurement of fuel that meets FIT standards, resulting in lower fuel costs.	Large	Short term	The Company will promote the develop- ment of various biomass fuels, for example, new sorghum.*
	Reputation (Changes in customer behavior)	The growing demand for renewable energy by companies and others working to address climate change will likely increase the need for electricity generated from renewable energy sources, including biomass energy, resulting in higher sales.	Large	Short term	Erex will undertake the challenge of non- FIT biomass power generation, while Evergreen Marketing Co., Ltd., an erex Group company, will sell carbon-free plans
		Sales will likely increase as the country expands electrification as part of its response to climate change and demand for renewable electricity increases.	Small	Short term	to RE100 member companies and other companies.
	Reputation (Increased stakeholder concerns or negative stakeholder feedback)	By proactively addressing and disclosing the status of ESG issues and attracting ESG investment, the company's value will likely increase as a result of higher stock prices.	Medium	Short term	In its management plan, the Company has set a target to reduce carbon emissions by 25 million tons in 2030. It also aims to reduce in-house GHG emissions and promote avoided emissions through its biomass business.

### 3

4

#### **Risk Management**

The Sustainability Committee secretariat takes the lead in collecting and organizing information on the identification and assessment of risks and general response policies for risks and opportunities deemed significant. The Sustainability Committee uses this information to discuss and decide on matters before reporting to the Board of Directors.

### **Goals and Indicators**

Based on the GHG Protocol, the erex Group began calculating GHG emissions as an indicator for achieving carbon neutrality in fiscal 2021. The Company identified and organized its calculation methods for each relevant business

#### Actual GHG emissions (Unit: t-CO<sub>2</sub>)

	Scope 1*1	Scope 2	Scope 3*2	Total
FY2021	4,975	3,990	3,008,877	3,017,842
FY2022	483,134	1,391	1,980,456	2,464,981

In using GHG emissions as an indicator from now, it is important to recognize that GHG emissions could temporarily increase due to business growth, aggressive global expansion, and the Company's project to gradually convert coal-fired power plants to biomass power plants.\*3 Erex is working to reduce in-house GHG emissions through various initiatives while simultaneously working to

\*2 Scope 3 emissions decreased in fiscal 2022 due to a decrease in the amount of electricity sold. \*3 Under erex's coal-fired power plant conversion plan, the Group's Scope 1 emissions will increase in the short term due to the purchase of coal-fired power plants. However, by partially converting coal-fired power plants to biomass power plants and increasing the ratio of biomass to fossil fuels used, erex can mitigate its increased Scope 1 emissions and contribute to the reduction of global GHG emissions (that is, through avoided emissions achieved by minimizing coal use).

The forward-looking statements in this integrated report are based on certain assumptions that were considered reasonable at the date of submitting the Annual Securities Report. Actual results may differ significantly due to various factors.

In addition, the Company is currently considering the establishment of a risk management system that would aid in the refining and progressing of response measures to significant risks and opportunities related to climate change.

activity and emission source and calculated its Scope 1, Scope 2, and Scope 3 emissions. Erex will continue to calculate its emissions and monitor the environmental impact of the Group's operations.

increase emission reductions known as "avoided emissions" in the future. The erex Group defines avoided emissions as global carbon emissions that it can reduce through its business activities, for example, by offering carbon-free plans to its customers, and it estimates that avoided carbon emissions for the entire Group will be 25 million tons in 2030.

\*1 In August 2022, erex acquired the Itoigawa Power Plant (a coal-fired power plant) as part of its coal-fired power conversion plan. As a result, Scope 1 emissions increased from fiscal

<sup>2021</sup> to fiscal 2022.

# Society

With the development of its power generation business in Asia, erex has added contributing to the resolution of social issues, such as poverty, to its material issues. Promoting decarbonization through the introduction of renewable energy while ensuring that people can lead prosperous lives is indispensable to achieving the aim of leaving no one behind, which is the principle of the United Nations Sustainable Development Goals. We provide support to people and communities to realize a future in which all people have access to reliable and safe sources of energy that are sustainable and economically efficient.

Through a support program we operate in Vietnam, we have established a scholarship scheme and provided housing for community members with our local business partner. Biomass fuel development and biomass power generation require significant ongoing local recruitment, driving decarbonization and invigorating local economies.

Human capital is essential to the promotion of such activities. Mindful of this, we will develop and nurture the abilities of all our employees, create a comfortable working environment for them-irrespective of their gender or nationality-by advancing diversity, and promote their well-being.

#### **Basic Approach**

We have built an organization based on the concept of conducting business activities through a compact team of highly capable people and created an environment that allows all employees to demonstrate their capabilities to the full so that we can achieve our management vision and develop decarbonization businesses globally.

As a result, net sales per employee exceeded ¥1.1 billion in fiscal 2022. We will continue to create a working environment that provides employees with opportunities to enjoy job satisfaction and achieve growth.



#### **Specific Strategies**

#### **Recruitment and Development of Human Resources**

Along with recruiting human resources who identify with our corporate philosophy and relish being tasked with responsible work as new graduate employees, erex also strives to create an organization that is best suited to a compact team of highly capable people and facilitate business expansion by recruiting experienced human resources with a diverse array of knowledge.

In addition to creating opportunities for all employees to regularly review their progress through quarterly meetings with their supervisors, we are also expanding training

programs according to rank. In particular, new graduate employees acquire the basic knowledge required of businesspeople from a variety of perspectives by taking more than 10 internal training programs in their first three years with the Company.

We also proactively implement job rotations, developing human resources with broad outlooks encompassing upstream to downstream areas who can promote our energy businesses.

#### **Promotion of Diversity**

Diversity is an indispensable element in developing businesses alobally.

We will create a diverse organization and establish a working environment that allows women and non-Japanese employees to play an active role by recruiting human resources from a variety of backgrounds.

In expanding overseas, we will also contribute to communities by proactively recruiting local staff and deepening our understanding of local characteristics and social issues.

#### Providing Support for Human Resources from Vietnam to Study in Japan Tuition Fee Assistance for Young Central, Regional or Female Government Officials

In Vietnam, we have launched a human resources development program scholarship. The program develops human resources who will contribute to future growth by providing tuition fee assistance for young government officials from Vietnam when studying at universities in Japan. Such officials must be either regional, or female to be eligible for the assistance. The program is expected to improve the lives of a diverse range of people in Vietnam by developing government officials who can engage in governance with broad outlooks.

#### Earning Recognition for Outstanding Health and Productivity Management

On March 8, 2023, erex was recognized under the 2023 Certified Health & Productivity Management Outstanding Organizations Program (small and medium-sized enterprise category). Companies recognized under the program are selected jointly by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi.\*

The program honors large and small and medium-sized enterprises that practice particularly outstanding health and productivity management based on initiatives aligned with local health issues and health promotion initiatives advanced by the Nippon Kenko Kaigi.

Having long viewed the maintenance and improvement of employee well-being as an important management task, erex has endeavored to create a working environment that allows all employees to demonstrate their capabilities to the full in good health. We will continue engaging in activities to maintain and promote employee well-being

#### Fair Evaluation and Treatment

Erex rewards its employees for producing results. Applying a fair personnel evaluation system, we will provide the best possible treatment to human resources who are full of motivation and a sense of responsibility, and who constantly challenge management issues.

At the same time, we seek to improve employee benefits. In particular, we are developing a system for employees seconded overseas that takes into account local characteristics and also considers employees' families.

#### Examples of Initiatives



so that we remain a company that is healthy and rewarding for employees and their families.

\* The Nippon Kenko Kaigi is an organization that encourages workplaces and communities to achieve specific measures to overcome health-related challenges through collaboration with private organizations including economic associations, medicalcare associations, and insurers, and municipalities



# **Corporate Governance**

#### Basic Concept

The Company seeks to provide benefits to its stakeholders, including shareholders, customers and employees, by maximizing its corporate value. To this end, the Company will ensure transparency in management and the execution of business as well as rigorous compliance. At the

same time, the Company aims to promote efficient management. While advancing these initiatives, the Company will strive to further enhance its corporate governance.

#### Corporate Governance System

Erex is a Company with an Audit and Supervisory Board. The outline of this system is as follows.

Directors and Audit & Supervisory Board members are directly appointed by shareholders. Entrusted with management, they are responsible for fulfilling their respective roles satisfactorily and are accountable to all stakeholders, including shareholders, for the state of management.

As the erex Group is involved in the energy business from upstream to downstream and has recently expanded its business overseas, it is necessary to use expertise and business experience in the energy industry to evaluate a

wide variety of risks when pursuing management resolutions, making decisions, or supervising management.

Erex has therefore chosen the current system to ensure transparent and fair supervision and decision-making by having the executive directors-who are familiar with the Group's business activities-make management-related decisions from diverse perspectives, while the outside Audit & Supervisory Board members provide advice and guidance, and the outside directors, who have complete independence from the Board of Directors, oversee the execution of duties by directors.

#### Corporate Governance and Internal Control System



#### Stance on the Diversity, Size, and Balance of Knowledge, Experience, and Abilities of the Board of Directors

The Board of Directors currently has eight members, which erex believes is an appropriate number for promoting rapid decision-making as the Company expands its lines of business. Furthermore, erex believes that its Board of Directors is well-balanced and composed of diverse members with different professional

#### Skills Matrix

The following skills matrix sets out each director's business experience and expertise.

	Corporate Management & Business Strategy	Energy Industry	International Business	Engineering	Sales & Marketing	New Business & Innovation	Finance & Accounting	Compliance	IT
Representative Director and President Hitoshi Honna	0	0	0		0	0	0	0	
Managing Director Takanobu Yasunaga	0	0	0			0	0	0	0
Managing Director Tomoki Kakuta	0	0	0	0		0		0	0
Director <b>Yasushi Saito</b>	0	0		0	0	0		0	
Director Toshimichi Tanaka	0	0	0		0	0		0	
Outside Director Makoto Tamura	0		0		0	0	0	0	0
Outside Director Michiaki Morita	0		0		0		0	0	0
Outside Director Shigeru Kimura	0	0	0		0		0	0	

#### Process and Policy for Appointing Directors

The president and representative director selects directors who have high ethical standards and can suitably fulfill the responsibilities of the position, based on past performance, backgrounds, experience, and expertise. Directors have a deep understanding of each of the Group's businesses, while outside directors, provide supervision from an objective and independent point of view. All outside directors have management experience at other companies.

character, insight, and other factors. Candidates are chosen after sufficient deliberation at Board of Directors' meetings attended by outside directors.

#### **Criteria for Selecting Outside Directors**

The appointment of outside directors is made on the condition that they meet the requirements for independence as stipulated by the Tokyo Stock Exchange, have expertise and experience in a range of fields, and can be expected to provide objective and neutral advice and supervision of management.

Name	Reason for Election	Attendance at Board of Directors' Meetings (FY 2022)
Makoto Tamura	Makoto Tamura has a high level of insight based on his many years of experience in the finance and securities industries as well as a broad range of knowledge in all aspects of management. He has been appointed as an outside director because it was determined that he can play a role in ensuring the adequacy and appropriateness of the Board's decision-making by providing useful independent advice on the Group's management strategies and other matters.	14/14 times
Michiaki Morita	Michiaki Morita has a high level of insight based on his many years of experience in the finance and securities industries as well as a broad range of knowledge in all aspects of management. He has been appointed as an outside director and independent member because it was determined that he can play a role in ensuring the adequacy and appropriateness of the Board's decision-making by providing useful advice on the Group's management strategies and other matters.	14/14 times
Shigeru Kimura	Shigeru Kimura has a high level of insight based on his many years of experience in the energy industry as well as a broad range of knowledge in all aspects of management. He has been appointed as an outside director and independent member because it was determined that he can play a role in ensuring the adequacy and appropriateness of the Board's decision-making by providing useful advice on the Group's management strategies and other matters.	14/14 times

#### Governance System

To improve the effectiveness of the Board of Directors, the Company conducts an evaluation of the Board at a fixed time each year to identify and share issues that need to be addressed. Below is a summary of the evaluation results for fiscal 2022.

#### 1. Evaluation Method

- (1) In March 2023, all directors completed a five-step scale self-evaluation questionnaire. In addition to questions verifying the effectiveness of the Board of Directors on an ongoing basis, the evaluation included questions to verify how the Board was responding to the changing external environment and other factors affecting corporate governance.
- (2) At the Board of Directors meeting held in April 2023, board members shared their views on the analysis of questionnaire results. To ensure objective evaluation, the question design and tabulation and analysis of results were outsourced to an external organization.

#### 2. Main Items in the Evaluation Questionnaire

- Composition and processes of the Board of Directors
- Management and business strategies
- Business ethics and risk management
- Performance monitoring and management evaluation and compensation
- Dialogue with shareholders

#### 3. Evaluation Results

The results of the self-evaluation questionnaire show that the responsibilities of independent outside directors and shared value created with stakeholders are suitable, and that the content, amount, and prior explanation of documents used in meetings are appropriate. On the other hand, the results revealed several issues that should be addressed, including the formulation and implementation of a training and succession plan for CEO candidates and the insufficient understanding of the digital transformation promotion policies. With this in mind, we will work to further improve the effectiveness of the Board.

#### **Executive Compensation**

#### 1. Basic Policy

To create a compensation system that adequately incentivizes directors to continuously strive to improve corporate value, the Company's basic policy sets compensation

Componentian	Basic	Performance-based compensation			
Compensation by type	compensation (Monetary compensation)	Performance-based compensation bonus (Monetary compensation)	Restricted stock (Non-monetary compensation)		
Overview	Fixed compensa- tion paid monthly	Short-term incentive encouraging directors to steadily achieve performance goals for the fiscal year	Medium- to long-term incentive promoting man- agement that increases corporate and shareholder value over the medium- to long-term		
Position	Executive Director Outside Director	Executive Director Outside Director	Executive Director		

#### 2. Policy to Determine Basic Compensation for Each Director (Including Timing and Other Conditions for Granting Compensation)

Basic compensation for directors is determined by taking various factors into consideration, including the Company's business performance and the compensation levels at other companies in the industry. A base amount is set according to each position as well as status as a director

#### 3. Policy to Determine Amount, Calculation Method, and Other Details for Performance-Based Compensation (Including Timing and Other Conditions for Granting Remuneration)

Performance-based compensation comprises bonuses and restricted stock. Bonuses are paid at a fixed time each fiscal year, with the amount subject to consolidated ordinary income as well as individual performance targets set for the previous fiscal year.

Regarding restricted stock, shares issued to directors as compensation cannot be transferred or disposed of during a certain period, usually three years or more, as determined by the compensation framework agreed upon at the General Meeting of Shareholders. Monetary compensation shall be paid to eligible directors for delivery of

#### 4. Policy to Determine the Ratio of Basic Compensation and Performance-Based Compensation for Each Director

Based on benchmarks set by companies of the same size and in related industries and businesses, erex has adopted a compensation framework in which the ratio of performance-based compensation increases according to

Category	Basic compensation (Monetary compensation)	Bonus (Monetary compensation)	Restricted stock (Non-monetary compensation)
Director	40-100%	0-40%	0–20%
Outside director	70–100%	0-30%	_

at a level appropriate to each director's responsibilities. The compensation system for directors comprises the following three components.

or outside director, and reflects individual performance for the previous fiscal year as determined through discussions between the president and representative director and the director in charge of human resources.

restricted shares at a fixed time. The amount shall be determined by the Board of Directors each fiscal year. Limits on the number of restricted shares to be delivered shall be determined according to internal rules set at a Board of Directors' meeting attended by outside directors. More specifically, the number of shares is determined each fiscal year on an incremental scale between 80% and 130% according to the degree of accomplishment of consolidated ordinary performance targets set for the previous fiscal year.

rank. As performance-based compensation fluctuates according to company performance and other factors, guidelines for the ratios of compensation types differ according to the category of director as summarized below.

# Compliance

The erex Group has established its compliance regulations, which stipulate basic compliance-related matters within the Group and set out 15 principles to be observed by directors and employees of the Company and its subsidiaries.

The Company has appointed a director in charge of compliance, who conducts compliance training within the Group, maintains an internal reporting system, and works to address any violations of laws, company bylaws, and other internal regulations. In the unlikely event that a violation of a law, bylaw, or other internal regulation is discovered, the matter is reported to the Board of Directors in accordance with compliance regulations, and action is taken in cooperation with outside specialists, such as legal advisors.

In addition, a quarterly meeting of compliance officers is held to discuss any incidents within the Group and to develop Groupe-wide response measures, while compliance training is conducted within the erex Group to raise compliance awareness.

Not only does the training outline compliance guidelines and encourage behavior in line with common sense, but it also addresses specific topics to promote understanding of these issues, including insider trading regulations, managing confidential information, protecting personal information, and preventing harassment.

#### Code of Conduct

Through the process of realizing the vision, mission, and five "attitudes" laid out in the Company's management philosophy, erex directors and employees (including fixedterm employees) become mindful of the Company's corporate social responsibility and comply with the law.

Based on various experiences accumulated over the years, erex's grounding principle is to contribute to society through its business activities.

#### Internal Reporting System

The erex Group has established "internal reporting regulations" to help prevent illegal or illicit conduct as well as early detection of such behavior. These regulations ensure the anonymity of whistleblowers, the confidentiality of information received, and prescribe the appropriate point of contact. Recorded cases of compliance violations are reported to the Board of Directors on a quarterly basis.



# **Respect for Human Rights**

Based on the belief that a company's social responsibility compels it to respect human rights, the erex Group has newly established the Erex Group Human Rights Policy as an action guideline, using the Group's sustainability policy as a starting point. The Group is committed to engaging in sincere and honest business activities in each country and region where it operates.

#### Compliance with Human Rights Laws and Regulations

- · Comply with the laws and regulations applicable in each country or region where we conduct business activities

#### 2 Scope of the Policy

Applies to all persons working for erex Group, including directors, officers, and employees

#### 3 Respect for Human Rights in Business Activities

• Promote initiatives that prioritize respect for human rights to stakeholders

#### 4 Human Rights Due Diligence

• Work to identify, prevent, and mitigate any apparent or potential negative human rights impacts that may occur in our business activities

#### 5 Remediation and Correction

#### Dialogue with Stakeholders

• Proactively engage in dialogue and negotiation with stakeholders on how to respond to apparent or potential human rights risks

#### 7 Information Disclosure

Disclose information appropriately through websites and other platforms

#### erex Group Human Rights Policy (excerpt)

• Respect international standards when the above laws and regulations differ from international standards

• In the event that a business activity causes, or is found to have indirectly caused, a negative impact on human rights, take remedial and corrective action through appropriate procedures and work to prevent a recurrence

#### **Roundtable Discussion with Outside Directors**



With the aim of securing long-term growth, three outside directors discuss their perspectives required for management, their evaluation of existing governance practices, and potential areas for enhancement aimed at fortifying the company.

#### Leveraging Our Experience in Our Duties as Outside Directors

Kimura I built my expertise in the energy industry through roles at Tokyo Electric Power Company (TEPCO). While erex and TEPCO share a common base of knowledge of the energy industry and work under similar regulations, the two companies have completely different corporate stances.

As an infrastructure company, TEPCO is responsible for providing a last resort service. Erex's priority, on the other hand, is to achieve its mission of providing a stable supply of electricity by pioneering a new energy business that meets the needs of a changing society. Their organizational structures are also very different, with erex leveraging its flexibility as a venture company to distinguish itself with its rapid decision-making and business development.

I recognize that erex differs from a major energy company in terms of stance and approach and I try to fulfill my duties as an outside director accordingly. Morita With extensive experience in markets and finance, including my time at the Bank of Japan, I apply my knowledge and experience to monitoring erex's organizational and general business management, with a particular focus on risk management.

Tamura I started my career at a brokerage firm, working primarily in the investment banking department, and I now manage an investment fund. Informed by this experience, I make a conscious effort to advise from a shareholder's perspective, not only on business strategy but also on monitoring risks related to financing and M&As. As erex's longest-standing outside director, I would say that its governance has progressed steadily with the growth of the Company.

#### **Ensuring the Steady Implementation of Plans**

Tamura Erex has put a support system in place to facilitate outside directors' participation in discussions, sharing relevant documents and materials with us in advance. A few years ago, meeting agendas were only shared with us right before board meetings, but now we are given plenty of time to prepare. Depending on the matter at hand, information is shared promptly and the gap in the quality and quantity of information shared with directors and outside directors seems to be closing.

Kimura Upon request, erex creates opportunities for us to learn about its work and to conduct inspections as needed. Most recently, we visited a hydrogen power plant in Yamanashi Prefecture and toured the Company's business sites in Vietnam. Vietnam will serve as a base for the development of the Company's fuel business and overseas businesses, and we visited a sorghum farm there to learn more about what goes into cultivating the raw materials for biomass fuels, including local climate conditions.

Morita As stated in erex's Outlook to 2030, the Company aims to achieve its vision of pioneering a new era of electric power that prioritizes renewable energy by developing an overseas fuel business and constructing biomass power plants. Although the Company is likely to face difficulties as it executes this plan, it has the advantage of flexible decision-making and can promptly adapt its policies if it finds that its original plan is unfeasible. As a prerequisite for overseas business development, it is of course necessary to ensure the stability and profitability of domestic businesses while moving forward, constantly remaining alert to risks to business expansion and conferring with executive officers.



Kimura The Southeast Asian region is politically unstable. Large companies do not necessarily have an advantage doing business in such territories, nor can they necessarily build good relationships there. Rather, companies like erex, which emphasize alliances with local partners, can more readily build amicable business partnerships through mutually beneficial arrangements. In fact, during our visit to Vietnam, a local company saw the growth potential in erex's biomass power generation business and agreed to become a partner company.

Tamura There are risks to expanding business activities overseas that any company would encounter, no matter what its size, but I am of the opinion that erex's executive officers have carefully discussed the various risks inherent in overseas business development, and that there is a high probability that the vision outlined in the Company's Outlook to 2030 can be achieved. As outside directors, we will continue to encourage and supervise strategic risk-taking as well as offering advice on mitigating any negative impacts if necessary.

#### Strengthening Governance to Create a Foundation for Erex's Growth



Kimura Erex has achieved success under the leadership of President Honna, although I would not describe his management style as a so-called one-man show. It is evident that management decisions on important matters are made after extensive internal discussion. This deliberative approach is one of the Company's best gualities, and I would like to play a part in fostering a culture in which employees continue to feel they can express their opinions without hesitation.

Morita Related to what Kimura-san just said, as a company and its organizational structure grow, different departments often become siloed, with people becoming hesitant to comment on matters outside their roles. That being said, I think that erex has done a good job of maintaining an open culture where employees express their opinions from a holistic, Companywide perspective, even on matters outside their area of responsibility. To further enhance the effectiveness of its governance, erex must consider the diversity of its Board members. For example, as the Company begins to expand overseas in earnest, it could consider appointing someone with global business experience.

Tamura In terms of governance, I believe that all companies are looking for ways to improve their corporate governance systems. Erex recognizes that it needs to address the issue of maintaining diverse representation at Board level, including diverse genders and backgrounds. From this perspective, when it comes to selecting outside directors, there should not be any bias toward a particular professional background or age. This is true for many companies, but the first step for erex is to clarify which skills it requires of an executive officer. It is also important to avoid preconceived notions about age when nominating outside directors. The Board can benefit from someone who speaks their mind confidently, even if they are young.

Kimura As an outside director, I would like to deepen discussions to enhance the effectiveness of erex's governance. Last, but not least, the Company's biomass power generation business in Southeast Asia plays a very important role in promoting decarbonized energy, and we will continue to monitor it closely both domestically and overseas, and steadily move forward while preserving the soundness of the business.

I am convinced that erex will grow into a unique energy company in the coming era of a low carbon society centered on biomass power generation. We recognize that short-term business performance is important, but we hope that stakeholders will take a long-term perspective and look toward the future as erex strives to be a pioneer in decarbonized energy.





1 Representative Director & President Hitoshi Honna As of June 2016

2 Managing Director Takanobu Yasunaga As of June 2019

5 Director Toshimichi Tanaka As of June 2019

Makoto Tamura As of January 2014

6 Outside Director

9 Full-time Auditor Takeshi Kusano As of June 2023

10 Outside Auditor Eriko Ishii As of June 2023

- 3 Managing Director Tomoki Kakuta As of June 2023
- 7 Outside Director Michiaki Morita As of June 2018
- 11 Outside Auditor Makoto Kojo As of June 2020

4 Director Yasushi Saito As of July 2022

8 Outside Director Shigeru Kimura As of June 2019



### Investor Relations Activities / Company Information / Stock Information (as of March 31, 2023)

#### The Basic Policy of IR Activities and Their Purpose

The erex Group has established its basic IR policy with an aim to increase long-term corporate value by building fair and favorable relationships and promoting dialogue with shareholders, investors, and other stakeholders, while disclosing information appropriately.

We explain our business conditions and operating policies as accurately and promptly as possible to our shareholders and investors, and endeavor to reflect their opinions and requests in our business management decisions, thereby enhancing our corporate value.

Throughout the year, we hold general shareholders' meetings, biannual financial results briefings, quarterly individual briefings for institutional investors, as well as a number of individual investor briefings and business presentations. In addition, we communicate with our various stakeholders through the planning and operation of the erex IR webpages and the publication of IR-related booklets such as integrated reports and shareholder newsletters.

#### Main IR Activities (Number of Times)

Activities	FY 2021	FY 2022
Financial results briefings	2	2
Briefing for institutional investors	8	4
Briefing for individual investors	1	2
Conferences sponsored by securities companies	4	3
Overseas roadshow	0	1

#### Company Profile

Company name	erex Co., Ltd.
Headquarters	14F Kyobashi Edogrand, 2-2-1 Kyobashi, Chuo-ku, Tokyo 104-0031, Japan
Contact	+81-3-3243-1185
Established	December 8th,1999
Capital	¥11,313,929,171 (As of February 28, 2023)
Number of employees	263 (Consolidated) 162 (Non-Consolidated)

#### Small Meeting for Institutional Investors (Number of People)

Domestic/Overseas	FY 2021	FY 2022
Domestic	355	383
Overseas	111	96

Erex New Energy K.K.

Erex New Energy Saeki K.K. Buzen New Energy Co., Ltd.

Evergreen Retailing Co., Ltd.

erex Vietnam Co., Ltd. Saiki Biomass Center Co., Ltd.

EREX (CAMBODIA) CO., LTD.

T'dash LLC e-sell Co., Ltd. erex Singapore Pte. Ltd. Straits Green Energy Sdn. Bhd. Straits Green Energy Pte. Ltd. erex Biomass Management Co., Ltd

erex HT G.K.

Evergreen Marketing Co., Ltd. Okinawa Gas New Power Co., Ltd.

Okinawa Uruma New Energy K.K. Itoigawa Power Generation Company

Hau Giang Bioenergy Joint Stock Company

#### Stock Status

Total number of shares authorized to be issued Total number of shares Number of shareholders

#### Major Shareholders (Top 10)

Name of Shareholder	Number of Shares Owned (shares)	Shareholding Ratio (%)	
UH Partners 2, Inc.	5,032,900	8.47	
The Master Trust Bank of Japan, Ltd. (Trust Account)	4,942,900	8.32	
Hikari Tsushin, Inc.	4,403,700	7.41	
KISCO Ltd.	4,158,976	7.00	
Ueda Yagi Tanshi Co., Ltd.	3,435,000	5.78	
Hanwa Co., Ltd.	3,249,000	5.47	
Custody Bank of Japan, Ltd. (Trust Account)	2,922,400	4.92	
CBC Co., Ltd	2,922,278	4.92	
Sumitomo Realty & Development, Ltd.	2,488,000	4.18	
Taiheiyo Cement Corporation	2,190,000	3.68	

#### Number of Shareholders by Investor Type





#### Rating Information (as of October 22, 2022)

Rating Agency	Type of Rating	Rating	Outlook
JCR	Long-term Issuer Rating	А—	Stable

Affiliated

Companies

163,572,000
59,382,058 shares (including treasury stock 2,228)
17,149

nstitutions	····· 9,891,286 shares	16.7%
nstruments Business Operator <sup>.</sup>	····· 1,362,336 shares	2.3%
porations	30,528,660 shares	51.4%
orporations	····· 9,463,563 shares	15.9%
and Other	····· 8,133,985 shares	13.7%

#### Website

Various IR materials, including recent news and information on financial results, are posted on the Investor Relations section of the erex website. For more information, please refer to the Company website.

#### https://www.erex.co.jp/en/ir/

