# **Green Businesses**

# **Green Businesses Based on TCFD Recommendations Designed to Create Happiness for the Future**

If we do not take action, the average global temperature is projected to rise to 4°C above pre-industrial levels by the turn of the century, which would be devastating to the global environment. A global movement to prevent this catastrophic outcome by limiting the rise in the average global temperature to 2°C above pre-industrial levels was kicked off in 2015 with the adoption of the Paris Agreement.\* Accordingly, combating climate change is becoming particularly important among environmental, social, and governance (ESG) issues. This situation prompted MARUI GROUP to declare its support for the recommendations of the TCFD and to begin taking concrete action.

\* An international agreement for combating climate change adopted at the 2015 United Nations Climate Change Conference held near Paris, France



# **Future-Oriented Action**

In August 2018, Greta Ernman Thunberg, a then-15-yearold girl from Sweden, held up a sign urging students around the world to take part in a school strike to promote the fight against climate change. Later taking to the stage at the World Economic Forum in January 2019, Ms. Thunberg delivered a speech calling for action among younger generations worldwide, stating "Since the climate

crisis has never once been treated as a crisis, people are simply not aware of the full consequences on our everyday life... I want you to act as you would in a crisis. I want you to act as if our house is on fire. Because it is." This speech inspired people of her generation across the globe to take part in a series of simultaneous "Fridays for Future" demonstrations, spreading support for her cause.



asserting that it is her generation who will be most threatened by the climate crisis Photograph provided by CTK NEWS; Kyodo News Images Inc.

One of simultaneous "Fridays for Future" demonstrations held in over 2,000 locations in 125 countries with more than 1.6 million participants Photograph provided by Deutsche Presse-Agentur; Kyodo News Images Ior



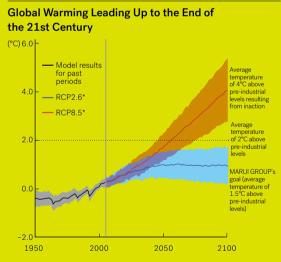
Following the adoption of the Paris Agreement in December 2015, there was a rise in institutional investors evaluating the potential impacts of climate change on the assets of investees.

Amid this trend, the TCFD was established by the Financial Stability Board based on the intentions of the G20. The goal of this task force was to encourage companies to disclose financial information pertaining to climate change in order to facilitate ESG-minded institutional investors in making appropriate investment decisions. The final TCFD report, *Recommendations of the Task Force on Climate-related Financial Disclosures*, was released in June 2017.

In November 2018, MARUI GROUP became the first Japanese retailer to declare its support for the recommendations of the TCFD. This move was meant to allow for accurate assessments and verification of financial impacts on our green businesses. As of August 31, 2019, more than 800 institutions had announced support for these recommendations, including the Government Pension Investment Fund, which manages the world's largest portfolio of pension funds, and the Ministry of the Environment in Japan as well as financial, non-financial, government, international, and publicsector organizations in 50 countries across the globe. Concern regarding climate change is notably high in

Japan, as seen in the establishment of the TCFD Consortium.





\* Please refer to Figure 1 on page 52 for more information on the RCP2.6 and RCP8.5 scenarios.

Source: Prepared by MARUI GROUP CO., LTD., based on Summary for Policymakers of the Working Group I of IPCC Fifth Assessment Report released by Intergovernmental Panel on Climate Change (official Japanese-language translation provided by the Japanese Meteorological Agency)

# **Climate Change-Related Risks and Opportunities**

MARUI GROUP has identified and organized the climate change-related risks and opportunities faced in its green businesses, which are a central part of its inter-generational businesses, based on the four recommended thematic areas for disclosures of the TCFD. In identifying these risks and opportunities, we used the multiple scenario analysis methodology recommended by the TCFD to analyze three potential scenarios leading up to 2050 in order to measure the financial impact on our green businesses in 2050.

⇔ For more information on the four recommended thematic areas for disclosures of the TCFD, please refer to "TCFD Management" on page 54.

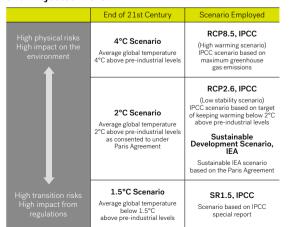
## Enhancement of Efforts Targeting 1.5°C Scenario **Based on Scenario Analysis**

The TCFD encourages all companies to identify the future climate change-related risks and opportunities they may face and to evaluate their financial impact. It also recommends disclosures based on the four thematic areas of governance, strategy, risk management, and metrics and targets.

Based on these recommendations, MARUI GROUP performed scenario analyses using three scenarios for 2050: (1) the world with average temperatures 4°C above pre-industrial levels described by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA), (2) a world with average temperatures 2°C above pre-industrial levels based on the Paris Agreement, and (3) the world illustrated in the IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels.

Recognizing how damaging climate change would be in a world with average temperatures 4°C above preindustrial levels, we realized the importance of contributing to a global movement for keeping average

#### Figure 1: Analyses of Three Scenarios and Projected Risks



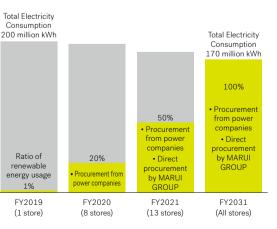
temperatures below 1.5°C above pre-industrial levels. (see Figure 1).

#### Risks and Financial Impacts of 1.5°C Scenario

Risks associated with climate change include damages to assets from extreme climate events and other physical risks as well as transition risks brought about by changes in government policies and regulations. In the 1.5°C scenario, transition risks will be higher than physical risks, especially when compared to the 2°C and 4°C scenarios. MARUI GROUP has defined those risks associated with the 1.5°C scenario that may have a particularly high impact on the Company. These risks primarily fall into two categories: (1) increases in renewable energy costs and (2) the introduction of a carbon tax in Japan.

MARUI GROUP has put forth a target of sourcing 100% of the electricity used in its business activities from renewable sources by the fiscal year ending March 31, 2031, along with two intermediary goals. Accordingly, increases in renewable energy costs will have a significant financial impact (see Figure 2). Our climate change scenario estimates that the price of renewable energy will peak around

Figure 2: Roadmap toward Goal of Using 100% Renewable Energy



2030 and will reach levels as high as ¥4 per kWh. Calculated based on the Company's current annual electricity consumption level of 200 million kWh, such prices would result in a total increase in costs of approximately ¥0.8 billion. Meanwhile, the introduction of a carbon tax in Japan could have an impact on MARUI GROUP amounting to around ¥2.2 billion (see Figure 3).

### Benefits of 1.5°C Scenario

MARUI GROUP is encouraging EPOS cardholders to switch to renewable energy. This switch would increase the number of cardholders using their EPOS card to make recurring payments along with the number of Gold cardholders, thereby contributing to higher LTV for credit cards and consequently an increase in profit of approximately ¥2.0 billion.

In addition, if we achieve our goal of sourcing 100% of our electricity from renewable sources by 2030, we would not be impacted by potential carbon taxes, reducing costs by around ¥2.2 billion. We also expect to be

#### **Figure 3: Financial Impacts of Risks**

• Large-sca	imates based on current renewable energy prices* le power providers focusing on hydropower: +¥3-¥5/kWh • Blockchain: +¥2.5/kWh Maximum increase estimated to be around ¥4/kWh	Annual electricity consumption 200 million kWh Approx. ¥0.8 billion
Estimates u	se projections for peak-hour usage around 2030	

Introduction of carbon taxes: Approx. ¥2.2 billion

Estimates based on IEA's Sustainable Development Scenario	Annual CO <sub>2</sub> emissions
Projections for carbon taxes in developed countries	110,000 tons
• ¥6,000/t-CO: in 2025 • ¥14,000/t-CO: in 2040	Approx. ¥2.2
Further increase leading to taxes of around ¥20,000/t-CO <sub>2</sub> in 2050	billion

Total: ¥3.0 billion

#### Figure 4: Financial Benefits from Opportunities

Co-creation with power retailers: Approx. ¥4.2 billion

Increase in recurring payment transactions due to customers switching to renewable energy Rise in EPOS Gold cardholders Higher credit card LTV	Approx. ¥2.0 billion
Reduction in carbon taxes from achieving zero $\mbox{CO}_2$ emissions	Approx. ¥2.2 billion
Entry into power retailing business: Approx. ¥0.3 billio	on
Direct procurement as power retailer Reduction in intermediary costs (commissions): Approx. 10%	Approx. ¥0.3 billion

Total: ¥4.5 billion

able to lower costs by approximately ¥0.3 billion by entering into the power retail business. The combined financial benefits of these opportunities would amount to ¥4.5 billion (see Figure 4).

Furthermore, we are examining the possibility of introducing large-scale storage batteries at stores that could be charged at night to reduce electricity bills. The estimated benefit would be a reduction of around 7% in annual per store electricity bills.

# **Opportunities of Green Businesses Exceeding Risks**

As explained, the financial benefits of opportunities for green businesses under the 1.5°C scenario will amount to ¥4.5 billion, exceeding the financial impacts of ¥3.0 billion from risks (see Figure 5).





won a commendation in his junior high school speech competition by talking about how his dad's job is contributing to the environment through renewable energy. I didn't expect this position to elevate my position in my own family.

# **Green Businesses**

### **TCFD Management**

The four thematic areas recommended for disclosures by the TCFD are governance, strategy, risk management, and metrics and targets. Based on these recommendations, MARUI GROUP is enhancing the information it discloses through a variety of media, including its annual securities reports, co-creation management reports, co-creation sustainability reports, ESG data books, and corporate website. In addition, the TCFD recommendations are used as a benchmark for assessing the appropriateness of MARUI GROUP's climate change response activities.

#### Governance

The Sustainability Committee was established in May 2019 as an advisory body to the Board of Directors tasked with examining and deliberating on basic policies and important items regarding climate change. This committee is chaired by the president and representative director and features members including executive officers and the chairman of the Central Executive Committee of MARUI GROUP UNION. Under the Sustainability Committee, the Environment and CSR Committee was formed as an organization for managing relevant risks and carrying out the instructions of the Sustainability Committee. The members of this committee include officers from Group companies (retailing, facility operation, distribution, building management, etc.) and from MARUI GROUP UNION. Through this framework, we are strengthening governance of climate change-related activities by making business strategy and investment and financing decisions based on comprehensive deliberations taking into account the MARUI GROUP Environmental Policy and important items pertaining to climate change.

### Newly Established Sustainability Committee



### Strategy ——

MARUI GROUP is enhancing its efforts to realize the 1.5°C scenario for climate change. To this end, the Company tracks the impacts of climate change-related risks and opportunities on its business activities and formulates and discloses strategies accordingly. In addition, analyses of various trends will be performed periodically in the future in order to revise assessments and disclose information on risks and opportunities related to other areas.

#### **Risk Management**

MARUI GROUP performs scenario analyses to track and access the impacts of climate change on its business and identify climate change-related risks and opportunities. The identified risks and opportunities are managed in terms of strategy formulation and individual business operations through a promotion system centered on the Sustainability Committee. In addition, the results of discussions at the Environment and CSR Committee are periodically reported to the Sustainability Committee, which deliberates on this information. Reports and advice are provided to the Board of Directors as necessary for specific items. Going forward, strategies and measures will be examined based on a myriad of factors. External factors on which information will be shared include climate change and other trends that may impact corporate strategies as well as legal and regulatory revisions. Internal factors examined will include progress in the measures of Group companies and future risks and opportunities.

#### Metrics and Targets ——

MARUI GROUP has set medium-term, long-term, and ultralong-term targets for its green businesses.

⇔ For more information, please refer to "1. Green Businesses—Options for Coexistence with the Global Environment" on page 49.

Committee Membership www.0101maruigroup.co.jp/pdf/committee\_members\_en.pdf

MARUI GROUP Environmental Policy www.0101maruigroup.co.jp/en/sustainability/theme03/ environment\_01.html#environment1



## **Renewable Energy with Visibility of Producers**

In its green businesses, MARUI GROUP has set a target of sourcing 100% of the electricity it uses from renewable sources by the fiscal year ending March 31, 2031. To accomplish this mission, we have begun switching to renewable energy at all Marui and Modi stores across Japan, beginning with Shinjuku Marui Main Building. Furthermore, MARUI GROUP concluded a business and capital alliance with Minnadenryoku, Inc., the first company in the world to realize the traceability of electricity with its proprietary blockchain technology, in December 2018. We have thereby created a framework for procuring renewable energy in a consistent and prioritized manner.

The future is projected to see society as a whole embracing decarbonization. MARUI GROUP will

contribute to this trend by using renewable energy itself and also by encouraging the 6.9 million EPOS cardholders nationwide to switch to renewable energy. These efforts will be complemented by a scheme that allows customers to pay their monthly electricity bills with their EPOS card. In addition to the benefit for customers of accruing EPOS card points when they pay their monthly power bills, this scheme also makes it possible for them to learn exactly from which producer the renewable energy they use each month is procured, making the producers visible. In this manner, we are providing sustainable options for coexistence with the global environment while simultaneously investing in support for local power producers.

#### Provision of Sustainable Options

Referral of customers considering switching to renewable energy through MARUI GROUP



#### •• Message from a Business Partner



CEO

Minna-denryoku, Inc.

## Realization of Lifestyles with Visibility of Producers

With its proprietary blockchain technology, Minna-denryoku was the first company in the world to commercialize an electricity traceability system, thereby giving visibility to power producers. In other words, we created new value in the form of connections between the producers and consumers of electricity. However, there were not many that realized the value of our efforts. MARUI GROUP was the first to recognize this value, promptly switching to our renewable energy with the visibility of producers at Shinjuku Marui Main Building. That store is now linked to various power producers. I hope to work together with MARUI GROUP to create sustainable businesses in the future. Efforts in this regard could include planning power producer tours for store customers or encouraging EPOS cardholders to use our renewable energy with the visibility of producers.

Furthermore, I aim to evolve this scheme to achieve traceability of food, clothing, and other products to realize lifestyles with the visibility of producers in order to contribute to a society in which the work and commitment of producers is properly recognized.

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