Annex A to SEC 17-A: Sustainability Report

Contextual Information

Company Details	
Name of Organization	PetroEnergy Resources Corporation (PERC)
Location of Headquarters	7F JMT Bldg. ADB Avenue, Ortigas Center, Pasig City
Location of Operations	Pasig City, Metro Manila; Batangas, Tarlac, and Aklan, Philippines
Report Boundary: Legal entities (e.g. subsidiaries and affiliate) included in this report*	This report mainly covers information on the following operations of PERC: • PetroGreen Energy Corporation (PGEC) – the renewable energy subsidiary of PERC • Maibarara Geothermal, Inc. (MGI) - developer and operator of Maibarara-1 (20 MW) and Maibarara-2 (12 MW) Geothermal Power Projects (MGPP) in Sto. Tomas, Batangas • PetroWind Energy, Inc. (PWEI) - developer and operator of Nabas Wind Power Project (NWPP) in Nabas-Malay, Aklan • PetroSolar Corporation (PSC), developer and operator of Tarlac-1 (50 MW_{DC}) and Tarlac-2 (20 MW_{DC}) Solar Power Projects (TSPP) in Tarlac City
Business Model, including Primary Activities, Brands, Products, and Services	Renewable energy development and power generation and oil exploration and development
Reporting Period	January 1 to December 31, 2020
Highest Ranking Person responsible for this report	Milagros V. Reyes (President)

Materiality Process

Explain how you applied the materiality principle (or the materiality process) in identifying your material topics

PERC's Sustainability Team conducted several meetings on what the material topics are for PERC, while reviewing the role of sustainability within the Company. Sustainability issues were discussed and several perspectives to determine financial and non-financial performance drivers were considered. PERC employed the following materiality determination processes:

1. **Understanding the Sustainability Context:** The first step was to study and understand sustainability frameworks and models and to assess how the Company could craft its own. Sustainability and related concepts were defined to identify applicable financial and non-financial metrics. This exercise helped the Sustainability Team to focus on how PERC could positively contribute to the economy, environment, and society.

2. **Identifying Material Topics**: The Sustainability Team came up with an initial list of material topics, which were further validated through group discussions with sustainability point persons per unit, including middle management, power plant heads, stakeholder touch points (to grasp stakeholder perspectives), and data handlers and verifiers. In finalizing the material topics, the following guide questions were used:

   (a) Is it a key capital/risk/opportunity?
   (b) Does our key business of power development and generation impact it?
   (c) Do our business processes directly affect it?
   (d) Does our product/service contribute significant impact to it?
   (e) Is there a trend that will make it (the topic) material in the future?

3. **Defining Performance and Management Approach**: Once the list of material topics were identified, the Company's business performance was measured using relevant metrics. The Sustainability Team also referred to the Global Reporting Initiative (GRI) standards, a globally recognized sustainability reporting tool, to craft PERC's own management approaches. These approaches were aimed at mitigating risks and improving the performance metrics. The UN Sustainable Development Goals (SDGs) were also used as a guide for identifying the Company's societal, environmental, and economic impact and value.

ECONOMIC

Economic Performance

Direct Economic Value Generated and Distributed

Disclosure	Amount	Units
Direct economic value generated (revenue)*	2,364,792,039	PhP
Direct economic value retained	886,899,855	PhP
Direct economic value distributed:	1,477,892,184	PhP
a. Employee wages and benefits	145,963,019	PhP
b. Payments to suppliers, other operating costs	800,657,998	PhP
c. Dividends given to stockholders and interest payments to loan providers	455,470,070	PhP
d. Taxes given to government	69,766,221	PhP
e. Investments to community (e.g. donations, CSR)	6,034,876	PhP

**Direct economic value generated (revenue) and operating costs includes PERC's oil revenues and operating costs from four (4) oil fields located in Gabon, West Africa. However, these oil fields are not included in the scope of this Sustainability Report since PERC is not the operator of the Gabon petroleum operations. VAALCO Energy Inc., the operator of Gabon operations, promotes sustainable practices as indicated in their Sustainable Report available at https://www.vaalco.com/sustainability/sustainability-report*

The Philippine government has committed to accelerate the utilization of renewable energy resources in order to reduce harmful greenhouse gas emissions and achieve economic development while protecting the environment. As proof of this commitment, the Renewable Energy Act of 2008 (RE Law) gave incentives and privileges to support renewable energy development. In 2020, PERC received ₱628 million in incentives in the form of Feed-in-Tariff (FIT) and income tax holidays.

Direct Economic Value
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

In 2020, PERC generated ₱2.36 billion of direct economic impact, of which 62.50% (₱1.48 billion) was distributed among suppliers, employees, providers of capital, government, and community investments/donations.

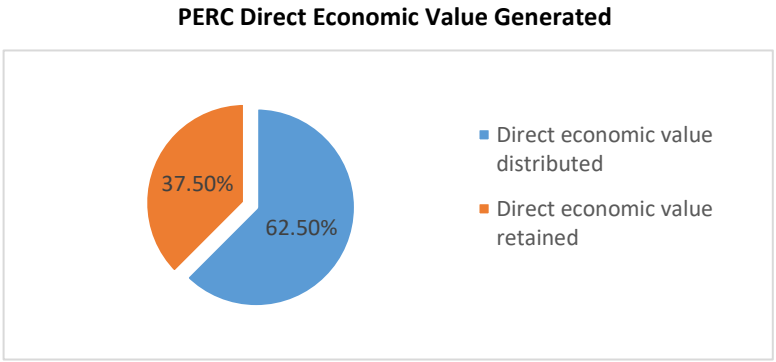

Figure 1: PERC Direct Economic Value Generated. PERC distributed 62.50% of economic value generated, and retained 37.50%

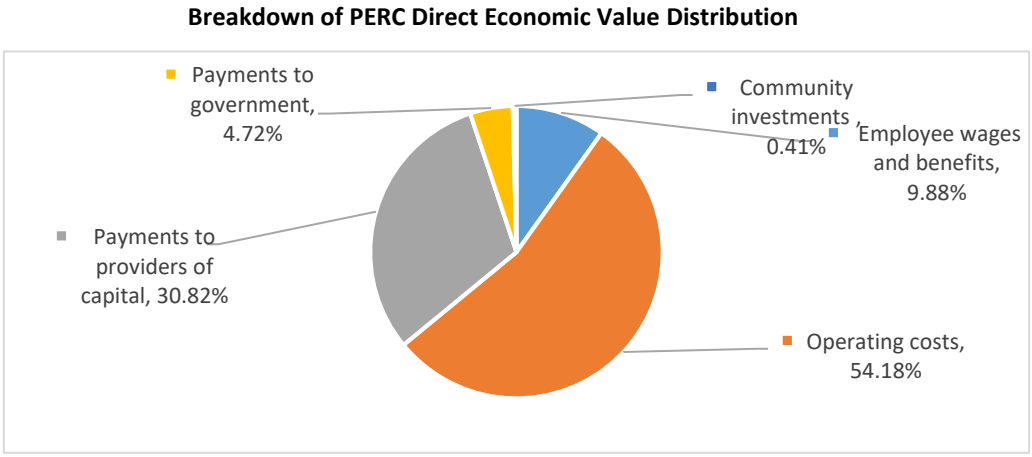

Figure 2: Breakdown of PERC Direct Economic Value Distribution shows the distribution of impact per stakeholder.

The bulk of the direct economic value generated was distributed as payments to suppliers and service providers (54.18%, ₱800.66 million) as operating costs. Of this, 68% was paid to local suppliers and 32% for expenses abroad, bulk of which is related to PERC's share in the operating expense in the oil fields in Gabon, Africa.

In relation to economic impact, PERC recognizes the following risks, which affect the Company's shareholders, employees, and other stakeholders:

(1) Risks related to operational preparedness due to climate-related risks

The Philippines is one of the most susceptible countries to climate-related hazards, including extreme warming events, extreme rainfall, sea level rise, and increase in ocean temperature. In 2013, the Philippines was hit by *Typhoon Haiyan* (locally *Super Typhoon Yolanda*), one of the most powerful typhoons ever recorded. Haiyan caused approximately US$2.98 billion in damages. Scientists agree that weather disturbances and natural calamities could adversely affect the Company's ability to generate revenue.

For PERC, actual and potential impacts of climate-related risks include plant outages, damage to major power plant components, damage to road network and offices, loss of communication signals, sub-optimal performance of power plant components, and general business interruption.

To manage these risks, PERC ensures that these risks are considered during financial and business strategic planning so that appropriate and reasonable protection, redundancy, and mitigating measures can be put in place. Specifically, PERC practices the following mitigating measures:

- Taking advantage of existing technologies, such as wind turbines that can withstand extreme winds, installation of lightning arresters, bio-engineering measures for slope and road protection, etc., to mitigate impact;
- Reinforcing and strengthening of major power plant components such as transmission poles, WTG foundations, and ground cables;
- Implementing monitoring protocols for climatic parameters such as ambient temperature, humidity, rainfall, and wind patterns;

- Institutionalizing disaster-preparedness and crisis-response protocols; and
- Regularly reviewing and ensuring that insurance coverages are adequate and up-to-date.

(2) Uncertainty in government regulations particularly in issuance of Feed-in-Tariff (FiT)

The Feed-in-Tariff (FiT) is a fixed-rate per kWh that electricity consumers pay to finance renewal energy incentives in the Philippines. The FiT was included in the Renewable Energy (RE) Act of 2008 to increase investments in renewable energy. Changes in regulations and different policy interpretations may result in reduction of FiT, and therefore may affect the Company's revenue and income.

To mitigate this risk, PERC constantly monitors policy directions to anticipate changes in regulations that could affect its projects. Also, PERC continuously strengthens ties with government agencies such as the Department of Energy (DOE) and the Energy Regulatory Commission (ERC) by participating in seminars and meetings to be abreast with new rules and regulations and by maintaining its advocacy efforts through industry associations.

(3) Inability to get returns on capital investments

PERC may also be exposed to equity partnership risk. For its RE projects, PERC partners with other firms to form incorporated Joint Venture (JV) operating companies. Business decisions made by these JV partnerships have a crucial effect on the sound operation and financial success of PERC's business. Although the Company maintains good relationships with its partners, there is no assurance that these relationships will be sustained in the future or that problems would not develop. For example, the Company's joint venture partners may be unable or unwilling to fulfil their obligations, take actions contrary to its policies or objectives, or may experience financial difficulties. If any of these events occur, the businesses of these joint ventures could be severely disrupted, which could have a material adverse effect on PERC's business, financial condition, and operations.

In order to avoid or mitigate these risks, PERC employs care and prudence in selecting its partners. The background of potential partners are heavily scrutinized, attention paid to the personalities behind the potential partners, their culture, reputation, and track record. The shareholders' agreements or joint venture agreements also contain penalty provisions in case a partner refuses or fails to fulfil its obligations. There are likewise exit mechanisms that could be utilized in case the relations among partners become unfavorable.

(4) Inability to retain key people

Due to high competitiveness in the power industry, key people may be pirated by other energy companies. This is a risk when PERC is unable to provide competitive compensation and benefits to its employees. Since PERC operates in a lean structure, there are risks on business continuity in case of resignations in key positions. Since the required skill sets are highly technical or specific, there could be a longer or steeper learning curve among new hires.

To manage this risk, the Company employs a strong mentor-mentee approach where coaching and in-house trainings are extensively practiced. Reporting lines among senior management, middle management, and rank-and-file are kept simple and non-bureaucratic to encourage constant communication and learning among all levels of function. A stringent and non-discriminatory screening among applicants is implemented to ensure skills and job match. The Company also continuously studies industry practices on compensation and benefits to offer a competitive package to potential employees.

(5) Risks related to opposition from local communities

Without proper social preparations, PERC may be exposed to opposition from local communities. This may arise when the community does not understand the importance and benefits of energy projects. Opposition may also be a result of the Company's inability to foster a mutually-beneficial relationship with the communities.

To manage this risk, PERC cultivates a good relationship with the communities and implements a Corporate Social Responsibility (CSR) Program with focus on health, education, and livelihood. This program is designed, implemented, and reviewed in partnership with community members to ensure input from the community, incorporating their own desires and constraints. PERC's CSR program is also subject to occasional third-party reviews by NGOs and academics, when needed. This approach has helped PERC achieve a high degree of host community acceptance and partnership engagement in the project sites.

(6) Risks due to health crisis or pandemic

Risks related to health crisis were manifested in 2020 when COVIP-19 pandemic hit the world. There were disruptions in economic activities, global supply, and working environment. Like any other companies, PERC also recognized these risks and had to introduce innovation in its operations and working arrangements.

To manage this risk, PERC activated its Crisis Management Team (CMT) to implement protocols and guidelines to ensure business continuity while prioritizing the health of its employees and their families. Flexible working arrangements were introduced, IT infrastructure was strengthened to enable employees to work remotely, regular COVID-19 testing and monitoring were implemented, and strict health protocols were observed in the project sites and head office.

Discussion on Opportunities

While PERC ensures multiple and strategic management of risks for business continuity, taking advantage of opportunities would also allow it to expand in the coming years.

PERC's main opportunity for continued growth is the increase in the Philippines' electricity demand. The DOE projects total energy demand to increase by 4.3% annually, from 33.1 metric tons of oil equivalent (MTOE) in 2016 to 91.0 MTOE in 2040, with 5.5% annual growth.

But with the current climate crisis, there will be more calls for investments in renewable energy. Already major multi-lateral financial institutions, such as the World Bank and the Asian Development Bank (ADB), as well as large private banks, have declared moratorium on loans for new coal-powered facilities. PERC could tap into this opportunity by focusing its growth towards RE. PERC's growth strategy is anchored on judiciously selecting and developing viable projects, promoting resiliency to climate-related risks, and contributing to the country's need for indigenous and cleaner energy sources.

PERC also recognizes the opportunity to enhance investors' confidence by maintaining efficient operations of its power plants. This can be achieved through the use of technology that would optimize revenue and reduce operating costs. With a stronger connection with investors, PERC can leverage on the Company's credibility and good reputation to attract more investments, gain access to increased credit, and reduce risks related to

equity partnership.

Opportunities also exist in interactions with key stakeholders such as with employees, suppliers, and host communities. By identifying each employee's abilities and providing suitable paths for professional growth, PERC will attract more talents and increase employee retention. Building trust and maintaining a professional relationship with suppliers will help in ensuring that PERC gets quality products and services as needed. Fostering good and mutually beneficial relationships with the surrounding communities through continuous, effective, and impactful CSR programs will likewise improve business sustainability and showcase the Company's commitment to being a good corporate citizen.

Climate-related risks and opportunities

Governance - Disclose the organization's governance around climate-related risks and opportunities.

1. **Describe the board's oversight of climate-related risks and opportunities**

To manage risks, which include climate-related risks, the PERC Board has established the Board Risk Oversight Committee (BROC) whose function is to oversee the risk management processes being performed at each operating level. The BROC monitors the effectiveness of the policies, procedures, and practices adopted by PERC and decides on measures to adopt to enable the Company to prepare for climate-related risks.

2. **Describe management's role in assessing and managing climate- related risks and opportunities**

The management, in coordination with BROC, has the following roles to address climate-related risks:

a. Reinforcing the importance of risk management and internal control by integrating them in organizational governance;
b. Communicating opportunities for strategic or business objectives so the staff can contribute in identifying and managing risks; and
c. Promoting a clear message for all staff on the importance of managing risks and their impact.

Strategy - Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

1. **Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term**

The following are some of the climate-related risks that may have significant impact to the Company's business, financial condition, and results of operations:

a. Equipment breakage due to natural disasters (e.g. typhoon, flooding);
b. Sub-optimal performance of major power plant components (e.g. cooling tower, PV panels, etc.) due to climate-related factors (e.g. increase in temperature);
c. Grid disruptions due to typhoons and other weather disturbances;
d. Loss of communication lines;
e. Breakdown of IT and networking facilities used for plant monitoring; and
f. Damage to access roads due to natural erosion or landslides.

Amidst these risks, PERC recognizes the following opportunities that the Company may explore:

a. Merging technology, energy systems, and advanced analytics to be able to predict outages due to temperature, humidity, precipitation changes, among others;
b. Incorporating reinforcements in the design of power plants to curb effects of climate change;
c. Designing a more comprehensive disaster preparedness, crisis response, and business continuity protocols;
d. Investing more on in-house talent development to reduce dependency on third-party suppliers or service providers; and
e. Institutionalizing further the environmental protection program for each site/project.

Risk Management - Disclose how the organization identifies, assesses, and manages climate-related risks

1. Describe the organization's processes for identifying and assessing climate- related risks

During pre-development stage of power projects, PERC conducts a social and environmental impact assessment to determine possible risks and impacts, including those coming from climatic risks, and plan for the necessary mitigation. Aside from the baseline assessments, another stage wherein risks are also considered is during the financial and business strategy planning. This is to ensure that governance measures are in place to identify, monitor, and mitigate risks.

2. Describe the organization's processes for managing climate- related risks

PERC's renewable energy facilities are exposed to climate-related risks, such as stronger and more frequent weather disturbances. These risks are taken into account as early as the facility's designing and planning stage. Thus, PERC practices the following climate-related risk management approaches:

a. Taking advantage of existing technologies to mitigate impacts such as wind turbines that can withstand extreme winds, installation of lightning arresters, and other bio-engineering measures;
b. Reinforcing and strengthening of major power plant components such as transmission poles, WTG foundations, and ground cables;
c. Implementing protocols to monitor changes in temperature, weather, and wind patterns;
d. Institutionalizing disaster-preparedness response protocols; and
e. Maintaining adequate insurance coverage.

3. Describe how processes for identifying, assessing, and managing climate- related risks are integrated into the organization's overall risk management

The Board of Directors, through the BROC, is responsible for providing oversight to PERC's fulfilment of management accountability and governance expectations in relation to management of climate-related risks. The line management is responsible for implementing the policy standards, management of mitigating measures through periodic assessments, development of direct channels for communication with employees, and monitoring and reporting of business challenges encountered in the course of managing the climate-related risks.

PERC also engages an internal auditor to regularly review the controls and progress in implementing the mitigating measures. All employees are responsible for the proactive assessment and documentation of significant climate-related risks and taking prompt action to manage and communicate to the management for needed business decisions.

Metrics and Targets- Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

1. **Disclose the metrics used by the organization to assess climate- related risks and opportunities in line with its strategy and risk management process**

Since PERC's objective is to avoid plant outage or minimize plant shutdown due to climate-related risks, the most important metric used in managing risks is continuous and efficient power generation. The latter is assessed in terms of daily gross and net electricity produced, capacity factor, availability factor, and outages experienced. PERC also uses other metrics like its compliance with environmental laws, its utilized budget for repairs, and its insurance claims due to these risks, to assess how well the Company manages these climate-related risks and opportunities.

Procurement Practices

Proportion of spending on local suppliers

Disclosure	Quantity	Units
Percentage of procurement budget used for significant locations of operations that is spent on local suppliers	68	%

Procurement Practices
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

PERC's primary risk regarding supply chain is the limited choices among local suppliers due to highly technical project requirements that are often not available locally. As a consequence, many items must be sourced abroad. This leads to inventory, transport/logistics, and foreign-exchange -related risks, where PERC may stockpile items (and thus invest more capital in non-moving items), as future deliveries of these imported items may be delayed due to uncontrollable circumstances.

To manage these risks, PERC accredits various suppliers to broaden choices and ensure supplier reliability. There is also proper coordination among business units to ensure the availability of inventory, when needed; and that enough spare parts of key components are sourced in advance. PERC follows accreditation policies and processes to assess its suppliers. As a general rule, PERC partners only with credible and globally known suppliers for its major equipment to ensure that PERC gets products with global standards and quality.

Due to certain equipment being highly technical in nature, PERC has to source machinery like generators, solar PV panels, and transformers and their spare parts from overseas suppliers. An Operations and Management (O&M) agreement is entered between the equipment supplier and operating company to ensure efficient operations and ready availability of critical imported equipment and parts. On the other hand, day-to-day supplies and simple maintenance materials and products are all sourced locally.

In 2020, there were lesser procurement-related activities due to the pandemic.

Discussion on Opportunities

There is an opportunity to increase the Company's support to local suppliers. At present, there is no formal or institutionalized program for such initiative. However, prioritizing purchase from local suppliers and service providers is done as a matter of practice. PERC may improve the practice by putting the preference for local suppliers into a formal policy. In addition, the RE Act of 2008 provides incentives to local RE suppliers and manufacturers in the form of VAT exemptions. If these incentives can be promoted, these local suppliers can save hundreds of millions in VAT payments.

Anti-corruption

Training on Anti-corruption Policies and Procedures

Disclosure	Quantity	Units
Percentage of employees to whom the organization's anti-corruption policies and procedures have been communicated to	100	%
Percentage of business partners to whom the organization's anti-corruption policies and procedures have been communicated to	100	%
Percentage of directors and management that have received anti-corruption training	100	%
Percentage of employees that have received anti-corruption training	10%	%

Incidents of Corruption

Disclosure	Quantity	Units
Number of incidents in which directors were removed or disciplined for corruption	0	#
Number of incidents in which employees were dismissed or disciplined for corruption	0	#
Number of incidents when contracts with business partners were terminated due to incidents of corruption	0	#

Anti-Corruption
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Corruption, whether it is committed by internal, external, or colluding parties, remains a risk despite policies and procedures in place designed to prevent it. Corruption results in diluted economic impact and loss of confidence in the Company by both internal and external partners.

PERC communicates its anti-corruption policies and procedures to its external partners via PERC's Supplier Accreditation Policy. All potential suppliers must abide by the Accreditation Policy, which requires suppliers to declare relatives and friends employed with PERC and its affiliates.

PERC abides by the highest ethical and legal standards set by the House of Investments (HI) and the Yuchengco Group of Companies (YGC). PERC sets and enforces its own policies as follows (more information posted in www.petroenergy.com.ph):

- PERC Code of Business Conduct
- PERC Related Party Transactions
- PERC Conflict of Interest
- PERC Insider Trading
- PERC Whistleblowing Policy

The above-mentioned policies cover all of PERC's directors, officers, employees, consultants, and contractors, including those of its subsidiaries.

PERC's Whistleblowing Policy enables employees to submit to their immediate manager/superior written reports and documentation on incidents of corruption or inappropriate conduct. If the employee has reason to believe that they will not receive a fair hearing and objective treatment, they may submit their written reports to the Human Resource Department (HRD). All concerns will be treated in confidence. Complaints or concerns given anonymously will be ignored unless there is a document or other corroborating evidence given together with the anonymous allegation.

All PERC employees, from rank-and-file to director-level, are made aware of PERC's anti-corruption policies during the mandatory employee orientation/reorientation. All the new employees are briefed on the Company's Code of Ethics which they have to sign-off and acknowledge. Current employees receive reorientations about the Company policies so they are reminded to comply with the Company's standards and ethics. The directors and managers of the Company also attend annual seminars on corporate governance to refresh and update their knowledge on anti-corruption measures.

In 2020, there were no incidents of corruption committed by PERC's directors, employees, or business partners.

Discussion on Opportunities

At present, only directors and managers receive training on anti-corruption. This will be extended to include other employees as part of PERC's training program. Also, suppliers are only accredited once, as a requirement for their inclusion in the supplier database. The Company may consider regular supplier audits to ensure their continued compliance with relevant laws and regulations.

ENVIRONMENT

Resource Management

Energy consumption within the organization:

Disclosure	Quantity	Units
Energy consumption (gasoline)	40,270	Liters
Energy consumption (LPG)**	0	m^3
Energy consumption (diesel)	163,658	Liters
Energy consumption (electricity)	21,248,448	kWh

In 2020, there was a decrease in total energy consumption for gasoline and diesel because there were lesser and minimal use of transportation to and from office and project sites. Electricity consumption slightly decreased because of work from home arrangements in the head office.

Energy consumption within the organization
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

PERC experiences reduced risk in energy availability, because it obtains most of its electricity requirement from its own renewable energy operations. This results in reduced GHG emission and air pollution from power generation.

Among PERC's power plants, MGPP consumes the most electricity for its operational needs (94.72% of PERC's total kWh consumption). This is mainly due to the 24/7 operations of this baseload geothermal power plant. PERC has no formal program yet in reducing energy consumption across the Company. However, PERC implements practical means to save on consumption. Air-conditioning units are maintained at 24°C and run for only nine (9) hours in the staff's quarters and for eight (8) hours in office/logistics offices. Signs and reminders to conserve electricity are also installed around the office premises. During lunch break, a 1.5 hour lights-off is also observed daily. Energy management trainings for employees are also conducted to raise awareness on energy conservation and to help in establishing systems and processes to improve energy efficiency and usage.

Discussion on Opportunities

PERC is planning to implement formal monitoring guidelines and schemes to keep track of energy reduction initiatives. The baseline information can be a tool for financial and administrative planning and for designing energy management innovations.

Water consumption within the organization

Disclosure	Quantity	Units
Water withdrawal	32,534.70	m^3
Water consumption	33,487.70	m^3
Water recycled and reused	0	m^3

In 2020, there was an increase in water consumption compared to 2019 specifically in the project sites. At the start of the pandemic, almost all of operations personnel were housed in the staff quarters as a precautionary measure. This resulted in increased domestic water consumption.

Water consumption within the organization
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

PERC sites withdraw water from the local aquifers via deep wells. These deep wells have the necessary permits from the National Water Resources Board (NWRB). The maximum amount of water allowed to be withdrawn from the aquifer is set by the permit. The risks of water consumption are from over-extraction (which may lead to ground subsidence) and competition with the local community for the water resource (which may lead to negative community relations).

To manage the risk, PERC ensures that there is proper monitoring of water use in all power plants through a water flow meter. PSC also uses a water withdrawal logbook. MGPP uses water holding tanks in both of its Fluid Collection Reinjection System (FCRS) and power plant operations.

The biggest consumer of water among PERC's projects is MGPP, where freshwater is used to dilute and quickly cool the hot brine in the open thermal ponds before being reinjected back into the reservoir. Otherwise, water consumption within PERC is limited to domestic use in the power plants and offices.

Water reduction strategies include consistent preventive maintenance of water equipment and facilities and the rapid repair of leaks or damage in the water system. NWPP also reuses its non-potable water for other non-operational activities on site.

Discussion on Opportunities

PERC will implement formal monitoring schemes to closely manage and conserve water consumption. As an example, there is a proposal to construct a greenhouse in the solar power plant where domestic water is recycled using technology. PERC will also continue to help in management of watershed areas such as in Makiling Forest Reserve adjacent to the MGPP and in the Bamban watershed a few km south of TSPP. In future power plants, PERC will look into installing rain harvesters as means to save water.

Materials used by the organization

Disclosure	Quantity	Units
Materials used by weight or volume		
• Renewable	Not Applicable	kg/liters
• non-renewable		
• Solar PV panels	0	panels
• Aggregates and back-filling materials (gravel, sand, basecourse, backfill)	0	m^3
• Cement	0	tons
• Steel	0	kg
• Oil	0	liters

Materials used by the organization
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

The quantity of materials used per year is dependent on the Company's growth plan. Materials consumption is strictly monitored, because any wasted material translates to additional cost. Materials consumption is

estimated based on previous projects'/previous years' consumption and activities for that particular year.

Another risk in using such materials is the generation of hazardous wastes, such as used oil from the maintenance of the turbines. Hazardous wastes have a potential impact on the environment and human health if not handled, stored, or treated properly. More in-depth discussion on hazardous waste management is found in the Hazardous Waste Management section.

Discussion on Opportunities

PERC will start monitoring the renewable and non-renewable materials used in day-to-day operations, such as the reams of paper, printer ink cartridges, and other office supplies used in the Head Office, so there is awareness of the amount of materials used and the Company can plan on how to save on usage.

Ecosystems and biodiversity (whether in upland/watershed or coastal/marine)

Disclosure	Quantity	Units
Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	• Maibarara Geothermal Power Project in Sto. Tomas, Batangas • Nabas Wind Power Project in Nabas-Malay, Aklan	Power plants
Habitats protected or restored	• Maibarara: 1 hectare through three planting activity • Nabas: 7.14 hectares through tree planting activity	ha
IUCN Red List species and national conservation list species with habitats in areas affected by operations	See separate tables below	

For Maibarara Geothermal Power Project:

Flora: Seven species are listed in the 2006 IUCN Red List of Threatened Species and DENR DAO 2007-01 (National Red List of Threatened Philippine Plants) as either vulnerable or critically endangered species (See table below). All the seven threatened species are trees.

Threatened Species recorded in the study area	Common name	Conservation status
Artocarpus blancoi	Antipolo	Vulnerable
Celtis luzonica	Magabuyo	Vulnerable
Drynaria quercifolia	Pakpak lawin	Vulnerable
Koordersiondendron pinnatum	Amugis	Vulnerable
Macaranga grandifolia	Takip asin	Vulnerable
Parashorea malaanonan	Bagtikan	Critically endangered
Pterocarpus indicus	Narra	Critically endangered

Fauna: No threatened species listed in the IUCN Red List and CITES List were recorded in the study area. Most of the recorded species are common and wide in distribution.

For Nabas Wind Power Project:

Flora: Only one (1) species is listed in the 2006 IUCN Red List of Threatened Species and DENR DAO 2007-01 (National Red List of Threatened Philippine Plants): narra (*Pterocarpus indicus*)

Fauna Seven (7) species are listed in the IUCN Red List and CITES. This means that hunting and trade of these species are strictly prohibited and is punishable by law under RA 9147 or the Philippine Wildlife Act of 1995.

Threatened Species recorded in the study area	Common name	Conservation status
Sus cebifrons	Visayan Warty Pig	Critically Endangered
Macaca fascicularis	Long-tailed macaque	CITES App. II
Prionailurus bengalensis	Leopard Cat	CITES II
Spilornis cheela	Crested Serpent Eagle	CITES II
Haliastur indus	Brahminy kite	CITES II
Varanus salvator	Water monitor lizard	CITES II
Malayopython reticulatus	Reticulated python	CITES II

Ecosystems and biodiversity
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Since PERC operates renewable energy power plants, attached risks related to biodiversity and ecosystem are inherently lower compared to operating fossil fuel power plants. However, these RE plants still have environmental risks. Examples of which are some changes in surrounding landscapes during the construction process, bird strikes on wind turbine towers during operations, etc.

PERC uses technological measures and cooperation with the local community to reduce impact to biodiversity and ecosystems.

PERC has two (2) facilities located adjacent to protected areas and areas of high biodiversity value: Maibarara Geothermal Power Project (adjacent to Mount Makiling Forest Reserve [MMFR]) and Nabas Wind Power Project (adjacent to Northwest Panay Peninsula Natural Park [NPPNP]). The MMFR covers 4,244 hectares and is under the jurisdiction of the University of the Philippines-Los Baños (UPLB). The NPPNP covers 12,009 hectares and is under the jurisdiction of the Northwest Panay Biodiversity Management Council (NPBMC).

For NWPP, bird strikes are mitigated through DTBird - a shutdown-on-demand technology that was installed in the wind turbines to minimize bird mortality. This system consists of several modules including the detection, dissuasion, stoppage, and collision control when the presence of birds is detected near the turbines. As important, prior to development, the environmental impact assessment study revealed that the wind farm's project site is not a path for migratory birds.

The RE plants also take steps to be good partners with the protected area management agencies and with the local communities. MGPP has an ongoing Memorandum of Understanding (MOU) with UPLB to protect the Makiling forest through tree planting and allocation of support funds. The project funded the construction of

two (2) watchtowers inside the MMFR to help in the protection and conservation of the area. The towers, similar to a lookout tower, serve as a forest station of MMFR forest guards so they can patrol the area against illegal activities, such as cutting of trees, slash and burn farming, etc.

MGPP also promotes habitat protection, which includes maintenance and protection of trees planted during the previous years (2015-2017). Planting and maintenance of flowering trees (fire trees *Delonix regia*) along the boundary of MMFR is covered by MOA between MGI and LGU of Sto. Tomas, Batangas in accordance with the policies of UPLB -College of Forestry and Natural Resources (UPLB-CFNR) which has jurisdiction over the area. The nearby communities were tapped for the tree planting activities, as well as the maintenance and protection of planted trees inside the MMFR.

In NWPP, the staff and communities partner together for an annual tree planting activity with continuous monitoring, protection, and maintenance of the planted trees. Information Education Campaign (IEC) on biodiversity and wildlife and forest protection for the host community are likewise conducted.

Discussion on Opportunities

The Nabas wind farm has been identified as a potential ecotourism site, and NWPP is already constructing a viewing deck to promote and enhance the ecotourism features of the wind farm. PERC is looking forward to developing an ecotourism plan with the LGUs and local communities, alongside the current construction of the view deck. The planned ecotourism development aims to increase awareness in environment protection and to provide additional sources of income for the local government and communities.

Environmental impact management

Air Emissions

GHG

Disclosure	Quantity	Units
Direct (Scope 1) GHG Emissions[1]	164.49	Tons CO_2e
Energy indirect (Scope 2) GHG Emissions[2]	151.27	Tons CO_2e
Emissions of ozone-depleting substances (ODS)	0	Tons

1 Scope 1 emissions calculated using Greenhouse Gas Protocol calculation tools: https://ghgprotocol.org/calculation-tools
2 Scope 2 emissions calculated using Grid Emissions Factors (GEFs) provided by the Department of Energy (DOE): https://www.doe.gov.ph/electric-power/2015-2017-national-grid-emission-factor-ngef

Air Emissions
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

As a developer and operator of renewable energy facilities, majority of PERC's overall GHG emissions are Scope 1 due to the fuel consumption of necessary equipment and vehicles. Though the power plants consume a lot of energy, most of them are self-generated, and thus do not generate GHG emissions. MGPP generates and uses its own electricity 24/7. NWPP also operates 24 hours, while TSPP generates its own electricity during the day and get feedback power from the main grid at night.

Basic energy reduction initiatives are already in place, such as use of energy-efficient lighting and equipment,

scheduled operation of air conditioners in offices and staff quarters, and regular preventive maintenance of equipment for efficient usage.

The 20 MW Maibarara Geothermal Power Project has been approved under the Clean Development Scheme of the UN Framework Convention on Climate Change and is qualified for carbon credits. This approval signifies PERC's commitment to lower carbon emission through its renewable energy operations

Discussion on Opportunities

PERC is targeting emissions reduction from transportation such as from fuel use through proper vehicle assignment (maximum seating capacity), carpooling in going to office, or by telecommuting, if applicable. At present, there is no explicit policy on reducing emissions.

PERC recognizes the opportunities in telecommuting as an alternative working arrangement to reduce GHG emissions. Although this is not possible for staff assigned in the power plant operations and maintenance, this can be applied to the staff in the business support units. PERC will continue to strengthen the robustness and security of its IT to allow for safe and efficient remote work for the staff whenever possible or needed. In addition, PERC will also increase its investments in online collaboration tools and platforms to enable staff engagement in a remote work setting.

Air pollutants

Disclosure	Quantity	Units
NO_X (NO_2)	268	mg/Nm^3
SO_X	Not Applicable	$\mu g/Nm^3$
Persistent organic pollutants (POPs)	Not Applicable	Kg
Volatile organic compounds (VOCs)	Not Applicable	Kg
Hazardous air pollutants (HAPs)	Not Applicable	$\mu g/Nm^3$
Particulate matter (PM)	Not Applicable	$\mu g/Nm^3$
CO	140	mg/Nm^3
H_2S	Below 0.007	ppm

*Air pollutant disclosure from MGPP only. NWPP and TSPP do not emit air pollutants during operations.

Air pollutants
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

As a developer and operator of renewable energy power plants, PERC emits much less air pollutants compared to power plants using fossil fuel. PERC's major source of air pollutants during operations is the MGPP. The NWPP and TSPP do not emit air pollutants during operations. PERC also does not use ozone-depleting substances in its operations.

MGPP emits 97% less sulfur compounds and 99% less CO_2 compared to fossil fuel plants of similar size. In particular, geothermal plants emit NOx, CO, and H_2S as part of its operations. Hydrogen sulfide is naturally found in geothermal reservoirs and is the source of the "rotten egg" smell in geothermal facilities.

In MGPP, NO_2 and CO are tested annually, while H_2S levels are monitored regularly through Continuous Air

Monitoring Stations (CAMS) located upwind and downwind the project site. Results show that the levels of NO_2, CO, and H_2S are compliant with regulatory requirements and are below the limits set by the Department of Environment and Natural Resources (DENR).

Discussion on Opportunities

PERC will continue to monitor emissions and ensure compliance with the standards set by regulatory agencies. The Company will also look into, and study, available applicable technologies and process improvements that could help reduce air pollutants.

PERC is also studying the viability of H_2S abatement systems. These systems, however, have not yet been installed in any local geothermal plants and have unconvincing success rates abroad. More information can be found in the Significant Impacts to Local Communities section.

Solid and Hazardous Wastes

Solid Waste

Disclosure	Quantity	Units
Total solid waste generated	66,302.94	kg
Reusable	0	kg
Recyclable	31,315.44	kg
Composted (landscaping waste + composted food waste)	3,279.50	kg
Incinerated	0	kg
Residuals/Landfilled	31,708.00	kg

Solid waste management
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Solid waste is a risk to both human health and the environment as a whole. Improper disposal of solid waste could lead to the spread of diseases and release of harmful substances into the environment. It also opens the Company to legal and financial repercussions.

The power plants are able to either compost or reuse food and garden waste. Food waste from the kitchen of the Control Buildings and the power plants is collected and composted or given to community members to be used as feed for domestic animals. Fruit and vegetable peelings and garden wastes are also composted.

The power plants also generate recyclable waste such as scrap tires, PET bottles, and cans. Scrap tires are donated to schools to be converted into planters. PET bottles are turned into eco-bricks as part of a community recycling initiative with nearby schools and communities.

All other recyclable materials and non-recyclable materials are disposed through DENR-accredited waste haulers. At present, the waste generation in the head office is not monitored. Overall, all power plants strictly comply with the proper management and disposal of wastes in relation to RA 9003 and RA 6969 of DENR EMB.

Discussion on Opportunities

PERC is looking forward to implementing more projects focused on upscaling wastes to be converted into more useful materials. The Company will also look at expanding the eco-brick project to involve more stakeholders. Another project under study is the provision of mobile libraries converted from a container van. These and other recycling initiatives will be more formalized and monitored.

Hazardous Waste

Disclosure	Quantity	Units
Total weight of hazardous waste generated		
• Used lead acid batteries (D406)	42	kg
• Used oil (I101)	1,620	Liters
• Busted fluorescent lamps (D407)	79.90	kg
• Waste electrical and electronic equipment (M506)	0	kg
• Other hazardous waste	5,164	kg
Total weight of hazardous waste transported	6,427	kg

Hazardous waste management
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Renewable energy power plants generate much less hazardous wastes compared to fossil fuel power plants. Such wastes have potential impact on the environment and human health if not properly handled. Risks applicable to PERC's operations include accidental spills, deliberate releases into the environment, improper storage, and improper disposal.

All PERC power plant operations comply with DENR rules and regulations on hazardous waste handling, storage, transport, and treatment/disposal. Each project site has a Pollution Control Officer (PCO) who is responsible for organizing the collection, transportation, , and disposal of hazardous waste off-site. In MGPP, the monitoring and management of hazardous waste has been formalized in the *Management of Waste from Geothermal Operation* manual.

Prior to disposal, all hazardous wastes are stored in impermeable and covered bins within a designated onsite hazardous waste storage facility. Training for hazardous waste handling and storage is also provided for personnel such as security, janitorial, and third party contractors, who may come into contact with the hazardous waste.

Used oil from the wind and geothermal power plants are disposed in partnership with *Bantay Langis*, the used oil recycling program of ABS-CBN Lingkod Kapamilya Foundation, Inc. (ALKFI). PERC donates the monetary value of the used oil to ALKFI, which goes to the Foundation's environmental protection programs.

All other hazardous wastes are transported and treated by hazardous waste transporters and treaters accredited by DENR. All treated wastes are issued with a Certificate of Treatment/Disposal by the partner treater.

Discussion on Opportunities

PERC may extend the partnership with ALKFI for hazardous waste to other projects. Current protocols, procedures, and technologies used may also be assessed to see if there are ways to minimize the generation of hazardous waste. An onsite audit of hazardous waste treaters' facilities may also be conducted to ensure that the hazardous wastes are treated properly.

Effluents

Disclosure	Quantity	Units
Total volume of water discharges	6,440.70	m^3
Percent of wastewater recycled	0	%

Effluents
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Improper wastewater discharge has a negative effect on the environment through pollution, increased sedimentation, and potentially spreading of diseases. It also opens the Company to legal repercussions.

All the power plants generate domestic wastewater. The wastewater goes through a three-chambered septic tank with concrete flooring. Once full, the septic tank is siphoned by an accredited third party contractor for proper disposal. The building where the head office is located also has its own septic tank.

In addition to effluents, MGPP also monitors the water quality of the brine used in its turbines.

MGPP uses a single-flash, condensing steam power cycle. The setup pumps hot water at high pressure from the reservoir into a "flash tank" on the surface. Because the flash tank is at a much lower temperature, the hot water quickly "flashes" into steam. The steam powers the turbines that generate electricity. Afterwards, the steam is cooled and condenses back into water (the brine). The brine is dumped into a thermal pond to allow further cooling, before it is reinjected into the ground through the reinjection wells.

The brine is not considered "effluent" because it is not discharged into the environment after use, but is still monitored because it may contain heavy metals that could contaminate groundwater. It is monitored through regular sampling and checking of its components.

Discussion on Opportunities

PERC will continue to research on and study available technologies that may help in managing water discharges. The Company will also continue to ensure compliance with regulatory obligations and ensure that any water discharge will not harm the environment and surrounding communities.

Environmental compliance

Non-compliance with Environmental Laws and Regulations

Disclosure	Quantity	Units
Total amount of monetary fines for non-compliance with environmental laws and/or regulations	0	PhP
No. of non-monetary sanctions for non-compliance with environmental laws and/or regulations	0	#
No. of cases resolved through dispute resolution mechanism	0	#

Environmental compliance
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

PERC prioritizes compliance with all environmental laws applicable to the Company's operations. Any non-compliance has regulatory risk, resulting in fines and/or sanctions which would affect the Company's credibility or worse disrupt the Company's operations. More importantly, the risk of actual environmental damage may also affect the Company's relationship with surrounding communities. Reputational risk is also present, as non-compliance may result in the stakeholders losing confidence in PERC.

PERC's approach in implementing compliance is to ensure that each project site has a DENR-accredited Pollution Control Officer (PCO) who is responsible for complying with permitting and reportorial requirements. An annual strategic and assessment planning is conducted with the PCOs in order to assess and strategize plans and programs for the coming year. PERC's good relationship with the local community also gives it the opportunity to investigate or remedy potential complaints before it becomes a regulatory issue.

In 2020, PERC did not receive any monetary fines nor non-monetary sanctions for non-compliance with environmental laws.

Discussion on Opportunities

PERC will continue to foster good relationships with regulating agencies and local communities to ensure that environmental issues are easily monitored, documented, and remedied. PERC will also capitalize on existing collaborative and online tools to allow for a centralized monitoring and documentation among the PCOs. PERC will also explore on how to use analytics to better understand environmental data and enable the Company to predict and anticipate possible environmental issues.

SOCIAL

Employee Management

Employee Hiring and Benefits

Employee data

Disclosure	Quantity	Units
Total number of employees[1]	155	
a. Number of female employees	50	#
b. Number of male employees	105	#
Attrition rate[2]	2.59	%
Ratio of lowest paid employee against minimum wage	1.43 : 1*	ratio

**Lowest-paid employee is paid 1.43x the minimum wage.*

1 Disclosure includes permanent employees only

2 Attrition rate = (no. of new hires – no. of turnover)/(average of total no. of employees of previous year and total no. of employees of current year. May also be considered as Labor Turnover.

Employee benefits

List of Benefits	Y/N	FEMALE		MALE	
		% coverage	% availed	% coverage	% availed
SSS	Y	100%	8%	100%	5%
PhilHealth	Y	100%	8%	100%	5%
Pag-ibig	Y	100%	100%	100%	100%
Parental leaves[1]	Y	76%	11%	98%	4%
Vacation leaves	Y	100%	86%	100%	74%
Sick leaves	Y	100%	54%	100%	45%
Medical benefits (aside from PhilHealth)	Y	100% coverage for female and male 518 utilization of Principal members 314 utilization of Dependents As of Aug. 2019 to December 2020			
Housing assistance (aside from Pag-ibig)	N				
Retirement fund (aside from SSS)	Y	100%	0 (no retirees in 2020)	100%	0
Further education support	Y	Certification trainings			
Company stock options	N				
Telecommuting	N				
Flexible-working Hours	Y	28%	100%	17%	83%

COVERAGE – Proportion of employees who are entitled to receive that benefit. Unless otherwise stated, discussion on coverage is based on total number of male and female permanent employees.

AVAILED – Proportion of covered permanent employees who used the benefit

1 Parental Leaves include Maternity, Paternity, and Solo Parent leaves

Employee hiring and benefits

Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Due to its technical operations, PERC requires personnel with highly technical skill sets. Because of this, there is high competition among energy companies for skilled personnel.

PERC also operates a lean team, with only 155 permanent employees in 2020. As a result, PERC's business

continuity is at risk from prolonged leaves, such as from maternity or paternity leaves.

The Company implements stringent, non-discriminatory applicant screenings to ensure not only skills and job match, but diversity in the workforce. The Company also continuously studies industry best practices in compensation and benefits to create competitive and attractive employment offers to new hires.

Once hired, employees benefit from a strong mentor-mentee approach, where coaching and in-house training are extensively practiced. Reporting lines among senior management, middle management, and rank-and-file employees are kept simple and non-bureaucratic to encourage constant communication and learning across all levels. These ensure that strong work ethics are passed on and cultivated among the staff.

PERC offers competitive compensation and employee benefits and promotes work-life balance. To keep talents within the Company, PERC invests in employee well-being programs to maintain high morale and keep employee turn-over low. The Company also promotes teamwork by ensuring proper turnover of tasks during leaves of absence. This allows the employee to take time off when needed, while ensuring continued function of the business unit during his/her absence. Employees are also provided with career and professional growth opportunities to maximize their talents and abilities.

PERC also provides further educational support by sending its staff to various certification trainings. Key staff are sent to supervisory and managerial training courses in the Asian Institute of Management (AIM). Engineers are also sent to attend technical courses overseas in geothermal, wind, and solar power plant operations and management.

Discussion on Opportunities

To further promote work-life balance among employees, PERC will explore the applicability of telecommuting to allow the staff to have more time with their families. Furthermore, as the Company grows and become more profitable, PERC will study how it can provide additional incentives and long-term benefits to its employees.

Employee Training and Development

Disclosure	Quantity	Units
Total training hours provided to employees	377	hours
a. Female employees	56	hours
b. Male employees	321	hours
Average training hours provided to employees	32.48	hours/employee
a. Female employees	56.92	hours/employee
b. Male employees	30.44	hours/employee

Employee training and development
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

As a Company operating in a highly technical field, PERC needs to constantly update its employees' knowledge and expertise. Since PERC personnel consists of highly trained individuals with a specific set of technical skills, the Company identifies employee piracy by other energy companies as a risk.

To address this, the Company continuously provides in-house and external trainings to employees to promote career and professional growth. There is also a service bond for every training rendered, depending on the total training cost.

Discussion on Opportunities

PERC will continue to provide trainings to the employees. This will also serve as venues to identify future leaders of the Company to ensure business sustainability. Career development activities also allow the HR Department to review career gaps and design more effective training programs for employees.

Labor-Management Relations

Disclosure	Quantity	Units
% of employees covered with Collective Bargaining Agreements	0	%
Number of consultations conducted with employees concerning employee-related policies	Not Applicable	#

PERC employees are not covered by a Collective Bargaining Agreement.

Labor-Management relations
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Good relationships between PERC management and employees is necessary to PERC's business sustainability. Risks related to labor-management relation include business disruptions due to potential negative impact of employee-employer or employee-employee conflicts. To address these risks, PERC ensures that platforms for grievances are well-established and communicated to employees.

PERC employs a peace mechanism to resolve employees' grievances and concerns with other employees. In the mechanism, the employees are advised to try to resolve the grievances as close to the source as possible through informal or verbal means. If the matter still cannot be resolved, the process continues and becomes formal, wherein complainants must submit a written complaint to be followed by a mediation meeting. Should the parties fail to reach amicable settlement, the grievance shall be elevated before a panel of three (3) members to finally resolve the dispute.

At the management level, employees are consulted, usually informally or through direct communication, if there are issues or concerns that could affect how they work, such as policy changes. To ensure a good working environment, the Company also organizes teambuilding sessions and social gatherings among employees. These activities enable the group to form a strong bond among one another and to promote teamwork.

Discussion on Opportunities

To further strengthen labor-management relations, PERC will promote more open dialogues and communication across all levels of function. PERC will also design and distribute a PERC Employee Handbook to help the employees understand PERC's corporate culture, core values, and principles. The Handbook will also contain operational guidelines that will equip the staff to work harmoniously with others and to help them adapt, innovate, and evolve as a PERC employee and as a person. Furthermore, PERC will continue to offer career improvement and work-life balance opportunities so the employees will feel valued and inspired.

Diversity and Equal Opportunity

Disclosure	Quantity	Units
% of female workers in the workforce	32.2	%
% of male workers in the workforce	67.8	%
Number of employees from indigenous communities and/or vulnerable sector*	1	#

**Vulnerable sector includes, elderly, persons with disabilities, vulnerable women, refugees, migrants, internally displaced persons, people living with HIV and other diseases, solo parents, and the poor or the base of the pyramid (BOP; Class D and E).*

Diversity and equal opportunity
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

PERC values diversity by observing non-discriminatory practices in the hiring process. PERC focuses on capabilities, skills, and qualifications of potential employees. This allows PERC to reduce risks associated with lack of diversity, including unwanted limitations in perspectives that can affect effective product and service development and highly-informed decision making. Promoting diversity can also help manage risks to brand and reputation.

The Company has started providing more local and international training in management and energy systems for female employees. Female engineers are also assigned to take on more supervisory roles in resource management and operations.

PERC is also providing opportunities to hire from local communities for the upkeep and simple maintenance works in the power plant sites. In PWEI, local communities were trained to install the geotextile and coco-fibers used for slope stabilization.

Discussion on Opportunities

PERC recognizes that there are still opportunities to explore in terms of increasing female participation in traditionally male-dominated units such as in operations, which can positively impact brand and reputation and organizational perspectives.

The Company will continue the increased training opportunities and availability of supervisory/managerial roles for female engineers.

Workplace Conditions, Labor Standards, and Human Rights

Occupational Health and Safety

Disclosure	Quantity	Units
Safe Man-Hours[1]	1,727,990	Man-hours
No. of work-related injuries	0	#
No. of work-related fatalities	0	#
No. of work related ill-health	0	#
No. of safety drills/trainings	196	hours

[1] *Safe man-hours as of December 31, 2020*

Occupational health and safety
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Given the nature of renewable energy power plants, there are several safety-related risks. For example, there are risks associated with working on heights for wind farm operations. The plants are also exposed to risks like earthquakes, fires, typhoons, and other natural disasters, which may result in safety incidents. There are also manmade risks such as risks in operating large equipment and working with chemicals and hazardous materials.

To mitigate these risks, standard operating procedures for health and safety of the highest standards are observed. This is to ensure a safe working environment for employees. There are Safety and Security Officers assigned to all sites to ensure that safety and health standards are implemented. Since there is a risk in working at heights, PERC provides trainings and certifications specifically for that job. Annual first-aid drills are done in all sites.

There are also annual OHS seminars and trainings to ensure that employees are updated on best practices in health and safety. In 2020, 196 employee training hours were dedicated to health and safety training. To further promote a culture of safety, the Company gives incentive tokens to employees if they are able to perform with no lost time accident.

As a result of PERC's safety program and initiatives, PERC's operating power facilities have been recognized for excellence in occupational safety by the DOE and Safety and Health Association of the Philippine Energy Sector, Inc. (SHAPES, Inc.) for five (5) consecutive years.

Discussion on Opportunities

PERC will continue to cultivate the culture of health and safety across its operations. The Company will work continuously with other OHS practitioners to enable a sharing of best practices in OHS.

Labor Laws and Human Rights

Disclosure	Quantity	Units
No. of legal actions or employee grievances involving forced or child labor	0	#

Do you have policies that explicitly disallows violations of labor laws and human rights (e.g. harassment, bullying) in the workplace?

Topic	Y/N	If Yes, cite reference in the Company policy
Forced labor	No	
Child labor	No	
Human rights	No	

Labor laws and human rights
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

PERC ensures ethical business by abiding by its Code of Ethics and Business Conduct. While forced labor, child labor, and human rights are not explicitly discussed in formal policies, existing laws and regulations on labor and human rights are deemed written in the Company's policies and are strictly observed as part of the Company's compliance with all national and local laws and regulations around these issues.

Discussion on Opportunities
There is an opportunity for PERC to strengthen its commitment to the promotion of human rights. PERC could include in its Company policies, specific provisions on human rights, including anti-child labor, anti-forced labor, and respect for vulnerable groups.

Supply Chain Management

Do you have a supplier accreditation policy? If yes, please attach the policy or link to the policy: YES

Procurement Shared Services (PSS) is a shared procurement services organization for all YGC members, including PERC and its subsidiaries. It is responsible for providing essential procurement shared services to YGC members including, but not limited to, vendor management, strategic sourcing of repetitive items, management of big ticket purchases, enterprise spend analysis, and procurement risk management. It also develops, implements, and enforces procurement policies, procedures, guidelines, and practices for all YGC members. Aside from this, PERC also has its own Supplier Accreditation Policy.

Please see attached Supplier Accreditation Policy for YGC PSS and PERC.

Procurement Shared Services (PSS) Supplier Accreditation Policy:

Topic	Y/N	Link or reference to policy
Environmental performance	N	Not explicitly mentioned in the PSS Supplier Accreditation Policy, but potential suppliers must submit copies of relevant valid environmental permits as part of the Supplier Profile Form required for accreditation.
Forced labor	N	Not explicitly mentioned in the PSS Supplier Accreditation Policy, but it is implicit due to suppliers being required to comply with all laws.
Child labor	N	Not explicitly mentioned in the PSS Supplier Accreditation Policy, but it is implicit due to suppliers being required to comply with all laws.
Human rights	N	Not explicitly mentioned in the PSS Supplier Accreditation Policy, but it is implicit due to suppliers being required to comply with all laws.
Bribery and corruption	Y	Code of Ethics for Suppliers, section on Bribes, Kickbacks, and Gifts from Suppliers

PERC Supplier Accreditation Policy:

Topic	Y/N	Link or reference to policy
Environmental performance	N	PERC-OP-01A Accreditation of Suppliers • Required environmental permits, if any
Forced labor	N	Not explicitly mentioned in the PERC Supplier Accreditation Policy, but it is implicit due to suppliers being required to comply with all laws.
Child labor	N	Not explicitly mentioned in the PERC Supplier Accreditation Policy, but it is implicit due to suppliers being required to comply with all laws.
Human rights	N	Not explicitly mentioned in the PERC Supplier Accreditation Policy, but it is

		implicit due to suppliers being required to comply with all laws.
Bribery and corruption	Y	Section 18: Bribery as cause for blacklisting of accredited supplier

Supply chain management

Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

PERC identifies possible risks related to uncontrollable external factors (e.g. a pandemic) that have a large impact on the general economy and could possibly affect PERC's supply schedules and availability. To mitigate this, PERC partners with international and local suppliers with good track record and credibility. These firms are known to have good practices in business continuity and are backed by strong financial and management foundation.

The PERC supplier accreditation process is subject to the following:

1. Supplier's submission of required documents;
2. Site visit of PERC Purchasing and Logistics;
3. Report on site visit, quality of items delivered, and interview of the Supplier's various suppliers and other customers; and
4. Review and approval by the Accreditation Committee.

Suppliers are assessed based on credentials of the company, including its track record on compliance with existing laws and regulations, price and credit terms, span of business to other clientele, years in business, capitalization, and successful transactions with others.

PERC reviews the list of accredited suppliers annually. Product and service review include the following criteria: quality of products and services in compliance with requirements, compliance with delivery time, competitive prices and terms of payments, timely responses to queries, and after-sales service. In addition, under provision No. 18 of the PERC's Supplier Accreditation Policy, suppliers are blacklisted if found to be bribing anybody in the Company.

At present, the PERC accreditation policy does not include assessment of environmental and social risks, aside from required regulatory compliance (e.g. DENR permits, DOLE clearance, etc.). The policy is also limited to Tier 1 suppliers, so this may affect the effectiveness of suppliers' assessment and key supply chain risks may be overlooked.

Discussion on Opportunities

PERC may explore enhancing supplier assessment to include other sustainability criteria. Moreover, PERC can also work on including Tier 2 suppliers (sub-suppliers) to enhance evaluation and minimize exposure to supply chain risks.

Relationship with Community

Significant Impacts on Local Communities

Operations with significant (positive or negative) impacts on local communities (exclude CSR projects; this has to be business operations)	Location	Vulnerable groups (if applicable) *	Does the particular operation have impacts on indigenous people (Y/N)?	Collective or individual rights that have been identified that or particular concern for the community	Mitigating measures (if negative) or enhancement measures (if positive)
Maibarara Geothermal Power Project	Sto. Tomas, Batangas	Not Applicable	No	Odor coming from the geothermal plant caused by H_2S	Continuous Air quality Monitoring System (CAMS) installed near facility, shows H_2S concentrations are within or below DENR standards Constant engagement with community to educate them on plant operations and reassure compliance with DENR
Nabas Wind Power Project	Nabas-Malay, Aklan	Not Applicable	No	Local hiring for applicable jobs	Health, Education, and Livelihood Projects
Tarlac Solar Power Project	Tarlac City	Not Applicable	No	Local hiring for applicable jobs	Health, Education, and Livelihood Projects

**Vulnerable sector includes children and youth, elderly, persons with disabilities, vulnerable women, refugees, migrants, internally displaced persons, people living with HIV and other diseases, solo parents, and the poor or the base of the pyramid (BOP; Class D and E)*

For operations that are affecting IPs, indicate the total number of Free and Prior Informed Consent (FPIC) undergoing consultations and Certification Preconditions (CPs) secured and still operational and provide a copy or link to the certificates if available: **NOT APPLICABLE**

Certificates	Quantity	Units
FPIC process is still undergoing	Not Applicable	#

Significant impacts on local communities
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

As an operator of RE generation facilities, PERC has much less impact on the local community compared to standard fossil fuel power plants. However, impacts still exist through potential air pollution from the power plants (geothermal) and competition for water resources. PERC mitigates these by complying with all environmental regulations and consistent engagement with the community.

An example of this is the engagement between MGPP and a nearby residential community. The residential community complained of foul odor coming from operations. The odor was hydrogen sulfide (H_2S), which is a gas that is inherent in all geothermal fields and is not "generated". In 2013, MGPP installed two Continuous Air Quality Monitoring Stations (CAMS) to monitor H_2S: one in the upwind and one in the downwind side of the project area, about 400-500m from the power plant complex.

Results of the CAMS show that H_2S levels are below the DENR ambient limit of 0.07ppm. Additional air quality monitoring through the services of an independent third-party has been implemented since 2015, even if complaints were not coming from residents nearest the community, but from an affluent gated community farther away from the project site. MGPP continues to hold dialogues with the community by giving numerous presentations explaining how a geothermal power plant operates and how its environmental and social impact are mitigated and managed.

PERC's projects involving the local communities have also received recognition both locally and internationally. Some of these include:

- **2017**: PWEI was awarded by Asian Power Magazine with the 2017 Environmental Upgrade of the Year Award for its innovative environmental protection program that simultaneously enhances the ecotourism value of the area while providing livelihood and skills development for its host communities;
- **2018**: PWEI received a citation from DENR, commending its efforts on the site rehabilitation and restoration. In the citation, DENR requested to present its environmental programs to other contractors and project developers in Aklan to serve as guide and model;
- **2019**: PSC was chosen by ASEAN Business Awards as the Philippine winner; and
- **2017 to 2019**: PERC received the Outstanding Community Awards from PEZA for three (3) consecutive years.
- **2020**: PWEI received the Top Community Care Award from MORS' Asia Corporate Excellence & Sustainability Awards (ACES)
- **2020**: PSC became a Hall of Fame Awardee of PEZA's Outstanding Community Awards

Discussion on Opportunities

To improve further the relationship with communities, PERC will continue its CSR program under the *We Power H.E.L.P.* banner. The Company will also assist the communities so that they could access RE incentives, such as the ER1-94 Benefit to Host Communities from the DOE. PERC will assist them in terms of drafting project proposals, opening bank accounts, and implementing and monitoring approved projects.

Customer Management

Customer Satisfaction

Disclosure	Score	Did a third party conduct the customer satisfaction study (Y/N)?
Customer satisfaction	None	Not Applicable

Customer management
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

As an energy generator, PERC's customers are retail electricity suppliers, Wholesale Electricity Spot Market (WESM) participants, and the government as represented by the National Transmission Corporation (TransCo). Risks in customer management include being unable to meet contractual demands due to force majeure or abrupt changes in government policies, which may lead to decreased customer satisfaction and possible termination of supply contract.

To mitigate this risk, PERC ensures a good relationship with its customers through constant meetings and dialogues.

Discussion on Opportunities
Currently, PERC does not have a formal survey questionnaire to score customer satisfaction, but this can be included as one area for improving future customer management.

Health and Safety

Disclosure	Quantity	Units
No. of substantiated complaints on product or service health and safety*	0	#
No. of complaints addressed	0	#

**Substantiated complaints include complaints from customers that went through the organization's formal communication channels and grievance mechanisms as well as complaints that were lodged to and acted upon by government agencies.*

Health and Safety
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach
PERC considers the health and safety of its product (electricity from renewable energy) to be a top priority. Risks include potential damage to equipment and loss of life.

PERC supplies electricity from renewable energy to the grid. Prior to the start of any project, a Grid Impact Study is done with the National Grid Corporation of the Philippines (NGCP) to ensure that the grid can handle the generated electricity. From the geothermal steam turbines, wind turbines, and solar panels, the electricity goes to the switchyard then to a substation so it can be safely (with correct voltage) distributed through the transmission lines, and finally to household and industrial end-users.

Discussion on Opportunities

PERC is currently evaluating its policies to ensure that it continues to protect customer health and safety and that the policies are updated and compliant with current laws and regulations.

Marketing and labelling

Disclosure	Quantity	Units
No. of substantiated complaints on marketing and labelling*	0	#
No. of complaints addressed	0	#

**Substantiated complaints include complaints from customers that went through the organization's formal communication channels and grievance mechanisms as well as complaints that were lodged to and acted upon by government agencies.*

Company marketing and labelling is not material to PERC, as its customers are retail electricity suppliers, WESM participants, and TRANSCO.

Customer privacy

Disclosure	Quantity	Units
No. of substantiated complaints on customer privacy*	0	#
No. of complaints addressed	0	#
No. of customers, users and account holders whose information is used for secondary purposes	0	#

**Substantiated complaints include complaints from customers that went through the organization's formal communication channels and grievance mechanisms as well as complaints that were lodged to and acted upon by government agencies.*

Customer privacy
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

As a matter of policy, PERC respects and upholds data privacy rights and ensure that all personal data collected from customers, suppliers, and other third parties are processed pursuant to the provisions of the Data Privacy Act of 2012. Risks due to loss of customer privacy include damage to the companies' reputation, disruption in operations, possible legal liabilities, and financial loss.

To mitigate the risk, PERC puts utmost importance to the privacy of its external and internal customers through the following data handling guidelines:

- PERC only collects data for the Company's business purpose and interest
- PERC receives consent from customers through signed Data Protection and Confidentiality Agreements
- The access to and use of collected data are only allowed by authorized representatives of PERC and are protected by adequate physical and digital protection.
- Data that are no longer necessary are deleted, except in cases identified by PERC's Legal and HR Departments.

PERC is also covered with Cyber Insurance Policy that includes protection to Data Privacy exposures. In 2020, PERC did not receive any substantiated complaints on customer privacy.

Discussion on Opportunities

PERC can still improve its adherence to the Data Privacy Act by formalizing its policies on data privacy, assigning a governing body within the Company, and constant awareness promotion and education among its employees.

Data Security

Disclosure	Quantity	Units
No. of data breaches, including leaks, thefts and losses of data	0	#

Data security
Discussion on Impacts and Risks: Where they occur, stakeholders affected, and management approach

Increased use of technology also increases the risks in cyberattacks and data breaches. This is a risk that is also recognized by PERC for its power plant and business operations. To mitigate the risk, PERC strengthened its IT infrastructure and processes. This includes security hardening, standardization, and implementation of IT policies and guidelines for all employees. PERC also ensures that Cyber Insurance is in place and up-to-date to mitigate cyber fraud and cybersecurity risks.

Discussion on Opportunities
PERC's data security can be improved further by strengthening adherence to Data Privacy Act and ensuring that employees are aware on how to avoid data breaches and leaks.

UN SUSTAINABLE DEVELOPMENT GOALS

Product or Service Contribution to UN SDGs

Key products and services and its contribution to sustainable development.

Key Products and Services	Societal Value / Contribution to UN SDGs	Potential Negative Impact of Contribution	Management Approach to Negative Impact
Renewable energy	7.2 Increase in global percentage of renewable energy 7.B Expand and upgrade energy services for developing countries	Land use changes Potential impacts to biodiversity Competition with local community for freshwater sources	Environmental Impact Assessment (EIA) for project sites Site rehabilitation and protection through bioengineering measures Partnership with PAMB, LGUs, NGOs, local community, and other stakeholders for biodiversity protection Controlled usage of freshwater

PetroEnergy Resources Corporation (PERC) renewable energy (RE) subsidiary PetroGreen Energy Corporation, has equity ownership in three (3) companies that operate five (5) separate power stations:

- Maibarara Geothermal, Inc. (MGI), developer and operator of Maibarara-1 (20 MW) and Maibarara-2 (12 MW) Geothermal Power Project in Sto. Tomas, Batangas;
- PetroWind Energy, Inc. (PWEI), developer and operator of 36 MW Nabas Wind Power Project in Nabas-Malay, Aklan; and
- PetroSolar Corporation (PSC), developer and operator of 50 MW_{DC} Tarlac-1 and 20 MW_{DC} Tarlac-2 Solar Power Project.