Natural capital is seen as a key priority for Digi, realising the opportunities from limiting natural capital exposure within our own operations, as well as enabling more efficient resource use in other industries. Malaysia has committed to become carbonneutral nation by as early as 2050. This mandate would require a concerted effort as well as a high-level green commitment and investment from both the public and private sectors. As the level of decarbonisation readiness on a national level is often mirrored by the level of readiness or progress at sectoral levels, Digi aspires to continue our climate leadership in the mobile sector through progressive climate action. It includes how we safeguard and protect the renewable and non-renewable resources that we consume in our day-to-day operations.

#### **Mapping to Our Strategy and Material Matters**









(Please refer to pages 38-40 on detailed description of our Material Matters)

## Key Inputs

#### Optimised efficiencies from allocated radio spectrum

**Environmental Management** System - ISO14001:2015 certified

### Used 341.01 GWh

(FY2020: 329.18 GWh)

Piloted AI use cases with partners

General waste and e-waste management

Respected land rights when building and maintaining networks

On-going initiatives to fulfill **Leed**<sup>1</sup> and Green Building Index (GBI)<sup>2</sup> **certification** requirements

- 1 LEED is a green building certification programme and a globally recognised standard for the design, construction and operation of high-performance green buildings
- <sup>2</sup> GBI is Malaysia's industry recognised green rating tool for buildings

# **Key Activities**

- Setting energy reduction and decarbonisation strategies across short, medium and long-term goals to keep us focused
- Climate Data Integrity exercise for best practice methodology in environmental data collecting and reporting
- > Explored opportunities to create a more sustainable workplace
- Collaborated within and across industries to address environmental concerns
- > Natural crisis preparedness, adaptation and mitigation strategies

## Outcomes

- Network modernisation and cleaner energy innovations for sustainable growth
- Sustainable workplace and remote working arrangements
- Managed our environmental footprint and recycling of network equipment
- > Managed climate risks by strengthening network resilience
- > Strengthened controls on climate data management and reporting
- Carbon intensity per data usage (tCO<sub>2</sub>e) improvements by 13.7%

#### Challenges in securing the capital

- > Efficient resource management by leveraging effective methodology and practices, including new investments into technological advancements to minimise our environmental impact
- > Our partnerships with external parties will have a positive impact on this capital as we progress to employ green technologies in contributing towards our decarbonisation pathway

#### Outlook - Our continuous focus:

- > Drive more network modernisation for sustainable growth
- Expand our existing energy optimisation and decarbonisation initiatives
- Adopt cleaner energy innovations and solutions
- > Strengthening controls on climate data management
- > Transition towards data driven network planning and higher spectrum efficiencies
- Industry collaboration with third parties towards driving climate best practices

Our detailed performance and outcomes created are further deliberated on the following pages.

NATURAL CAPITAL

#### **Climate Action**

Digi takes a pragmatic approach in addressing climate change and will work in collaboration with the industry, government, environmental agencies and partners towards achieving a net zero greenhouse gas emissions by 2050, in line with a 1.5-degree pathway. While there remain challenges in large scale  $CO_2$  reductions due to our dependency on the national grid, we will continue to strengthen our governance and reporting mechanisms while exploring new technologies and solutions.

Excellence in climate reporting, compliant with mandatory requirements and guided by global best practices

**Short Term** 

#### **Medium Term**

#### **Long Term**

2022-2025

2025-2030

2030-2050

Develop carbon reduction strategy and conduct climate risk assessment to guide strategies and target setting. Enhance business resilience over climate transition risks and adopt Board ownership in climate governance. Develop greenhouse gas (GHG) strategy in parallel to national net zero targets and to drive climate actions across our value chain.

#### Driving network modernisation and cleaner energy innovations for sustainable growth



31

Fuel powered off-grid sites converted to grid power



102 sites

CSON<sup>1</sup> Al pilot initiative



15

Off-grid sites on hybrid with lithiumion battery



**3G** Sunset

Progressive efforts to shutdown remaining 30 Core Base Station Control (BSC) and 41 Radio Network Controller (RNC) in 2022



> 4000 sites

Site Battery Autonomy Prediction Tool<sup>2</sup> to reduce downtime and drive greater

efficiencies

#### <sup>1</sup>CSON AI initiative

In 2021, Digi worked with ZTE through the Centralised Self Organising Network (CSON) Artificial Intelligence (AI) pilot initiative, deploying tools to automatically analyse and implement power-saving mode at our Radio Access Network (RAN) sites. 102 sites were involved in the pilot over the course of a month and demonstrated 3.77% energy reductions (kWh consumed) per site, on average. We will be taking a phased approach in scaling the initiative, targeting to equip more than 50% of our sites to be equipped with this capability in 2022.

#### <sup>2</sup>Site Battery Autonomy Prediction Tool

The 'Site Battery Autonomy Prediction Tool' is another Al-based initiative deployed to automatically monitor and record usage information of backup batteries at Digi's network sites. This information is crucial for timely sites restoration and battery replacements planning to ensure minimal service disruptions.

#### Sustainable workplace

- > Digi's headquarters and Technology and Operations Centre (TOC) has been accredited with Gold certification by LEED in 2017, and by Green Building Index (GBI) in 2012 and 2016 respectively. We provide electric vehicle charging stations for company vehicles and employees. We will continue to monitor and maintain high quality and healthy workspaces to boost productivity, optimise energy usage and implement responsive heating and cooling measures
- In adherence to LEED standards, we have embarked on the following energy efficiency and conservation efforts in 2021
  - Lighting setting and scheduling
  - · Balancing of chiller load and chilled water
  - Heating, ventilation, and air conditioning (HVAC) temperature setting and scheduling



**50**%

Reduction in energy use by changing to higher efficiency air-cooled chiller

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15.6%

Savings up to 1,015,000 kWh of energy use in our office due to remote working arrangements

#### Managing our environmental footprint

In 2021, to meet rising consumer demands, our carbon emission increased by 5%, attributed to data growth and network expansion. Our annual greenhouse gas (GHG) emissions inventory FY2021 in accordance to the GHG Protocol Corporate Standard are as follows:

Direct Energy Consumption from Fuel (GWh)



42.50

(FY2020: 44.12) (FY2019: 40.10)

**Indirect Energy** Consumption from Grid and Green Electricity (GWh)



297.21

(FY2020: 281.94) (FY2019: 267.84) Indirect Energy Consumption from Value Chain (GWh)



(FY2020: 3.12) (FY2019: 7.94)

Scope 1 Carbon Emissions (Tonnes)

Scope 2 Carbon Emissions (Tonnes)

Scope 3 Carbon Emissions (Tonnes)

10,345,14

(FY2020: 10,750.88) (FY2019: 9,763.92)

196,776.12

(FY2020: 185,745.74) (FY2019: 174,044.00) 332.79

(FY2020: 734.70) (FY2019: 1,638.03)

Total Energy (GWh)

Total Carbon Emissions (Tonnes)



341.01\*

(FY2020: 329.18) (FY2019: 315.88)



207,454.05\*

(FY2020: 197,231.32) (FY2019: 185,445.95) Digi restated our climate data for 2019-2020 following the outcome of a Climate Data Integrity exercise undertaken with an independent advisor to improve our methodology in data collection and management approach. Corrective measures have been undertaken to ensure consistency, accuracy and transparency of the data presented here, in line with good climate governance practices.

<sup>\*</sup> Total energy consumption and carbon emissions FY2021 has been independently assured by KPMG PLT

#### Managing our environmental footprint (Continued)

During the year under review, we have improved on our Carbon Intensity per Data Usage by 13.7% YoY. We have achieved a lower carbon footprint per unit of data consumed, although the average customers are using more data. Our carbon intensity is measured by tonnes of CO<sub>2</sub> (tCO<sub>2</sub>e) per terabyte of data.

Customer Base (mil)



**10.32** (FY2020: 10.44) (FY2019: 11.28)

Energy Usage per Customer (kWh)



**33.05** (FY2020: 31.53) (FY2019: 28.00)

Carbon Intensity per Customer



**0.020** (FY2020: 0.019) (FY2019: 0.016)

Energy Usage per Data Terabyte (MWh)



**0.16** (FY2020: 0.18) (FY2019: 0.24)

Carbon Intensity per Data Usage (†CO<sub>2</sub>e)



**0.094** (FY2020: 0.109) (FY2019: 0.141)

#### **General** waste

**Waste Collected** 



**148 tonnes** (FY2020: 251 tonnes) (FY2019: 281 tonnes)

Waste Generated per Employee<sup>1</sup>



**103 KG** (FY2020: 170 KG) (FY2019: 183 KG)

**Waste Recycled** 



**1.7 tonnes** (FY2020: 2 tonnes) (FY2019: 6 tonnes)

Water consumption

**Water Consumed** 



**68,435 m³** (FY2020: 78,856 m³) (FY2019: 93,770 m³)

Water Consumed per Employee<sup>1</sup>



**48 m³** (FY2020: 54 m³) (FY2019: 61 m³)

E-waste (obsolete electrical and electronic waste)\*

**E-waste Collected** 



**162 tonnes** (FY2020: 47 tonnes) (FY2019: 30 tonnes)

E-waste Resold and Recycled



**162 tonnes** (FY2020: 10 tonnes) (FY2019: 30 tonnes)

- E-waste directly produced from our operations are managed under the Environment Quality (Scheduled Wastes) Regulation 2005 and our internal guidelines
- Decommissioned network equipment constitutes the largest amount of e-waste generated by tonnes. We reuse equipment, and send those that are obsolete to recycle and disposed off safely by a licensed vendor
- Under our refreshed ESG guidelines, Recycled shall include e-waste treated by professional service provider who guaranteed that the waste is processed, sorted, resold, recycled or disposed in an environmentally sound manner

<sup>1</sup> Total employees - 1,438

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#### Managing climate risks

Towards the end of 2021, the country experienced severe flooding in eight states, affecting more than 125,000 people. This exposed the reality of extreme weather conditions caused by climate change. The floods affected 280 of our network sites with access roads being blocked, electricity shutdowns and other hazards.

Digi recognises climate change as an important risk element, and will continue to adopt proactive measures in addressing both physical risks and transitional risks anticipated to arise due to climate change.



Digi supported WWF Malaysia and BCG Malaysia, and provided telecommunications specific insights in the development of the study on **Net Zero Pathways for Malaysia 2050**.

This report is meant to catalyse stronger and more cohesive climate action amongst all stakeholder groups. Digi will continue to collaborate with WWF Malaysia and BCG Malaysia, delving deeper into industry specific topics.

The report is available at <a href="https://www.wwf.org.my/our work/climate">www.wwf.org.my/our work/climate</a> and energy/towards net zero emissions by 2050/



As a member, we are committed to engage with various stakeholders including our supply chain, regulators and policy makers, government, as well as our peers across various sectors to forge partnerships that are committed to responsible business practices and sustainable development.

In 2021, Digi, CAN and Climate Governance Malaysia (CGM) organised a Telco CEO Roundtable with six CEOs for conversations and sharing on various climate initiatives, challenges and aspirations to decarbonise the mobile sector. Digi is a steering committee member in the CEO Action Network (CAN) which is a closed door peer to peer informal network of over 50 corporate CEOs and Board members, focused on sustainability advocacy, capacity building, action and performance.



#### How We Create Value



#### Strengthened controls on climate data management and reporting



Digi's Environmental Management System (EMS) is ISO 14001:2015 certified.



Digi discloses its climate impacts, energy and GHG emissions via **Telenor Group to the CDP global disclosure system**.



Since 2020, Digi discloses its emissions data through its **Integrated Reporting** process. Digi adopts the following principles as part of its GHG emissions management.

- Define the scope and boundary
- · Identify the GHG emission sources
- · Collect and quantify GHG emissions
- Set emissions reduction objectives and prepare action plans
- Involve employees, suppliers and conduct trainings
- · Implement emissions reduction initiatives

#### Climate Data Integrity exercise

In 2021, Digi embarked on a Climate Data Integrity exercise with guidance from an independent advisor to better improve on its carbon and energy management and reporting standards for Scopes 1,2 and 3.

The six months initiative resulted in the development of new formalised data templates, with embedded calculations and estimations so as to minimise human errors. The data templates also presents automated historical and future projections that will allow the team to better perform trend analysis and to make informed decisions. The respective data stream owners have begun populating the templates with 2021 data and will be the standardised template used in Digi moving forward.

