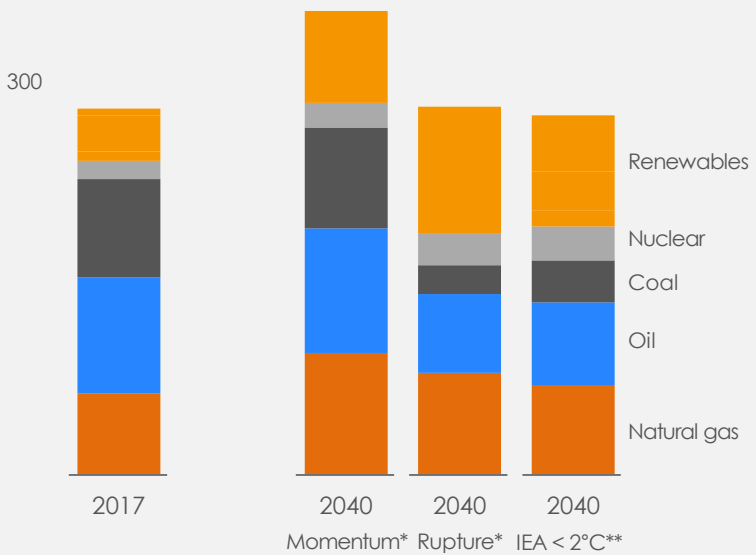
Integrating Climate into our Strategy

Bertrand Janus – Investor Relations – CSR Reporting manager

Energy markets in transition

Global energy demand
Mboe/d



* Scenarios Total Energy Outlook (Feb. 2019)
** IEA 2018 Sustainable Development Scenario (SDS)

Oil
~25% of energy demand in IEA 2°C in 2040
No more growth by 2040

Gas
Growing in all scenarios, abundant and affordable, essential complement to intermittent renewables

Power
Energy of the 21st Century
Demand growing by > 50% from 2015-40

Renewables
Cost base increasingly competitive
Accounts for > 60% of the electricity demand growth

Energy Outlook 2040
Demand fundamentals

Key drivers		Key outcomes for net energy demand
GDP:	+ 3.3 % p.a.	**Energy demand growth**
Population:	~9 Bn in 2040	
Access to energy:	~1 Bn people without access to electricity in 2018	
Regulation and policies		**Energy savings**
Technology		Development of **low carbon energies**

Multiple pathways addressed by modeling **scenarios**

Energy Outlook 2040

Total presents two scenarios: Momentum and Rupture (February 2019)

Momentum

Energy demand based on

- **Announced policies** and regulations
- EV: **50%** of sales, **32%** of total fleet by 2040
- Adopting **state of the art technologies**
- Energy intensity falls by **2.2 %** pa

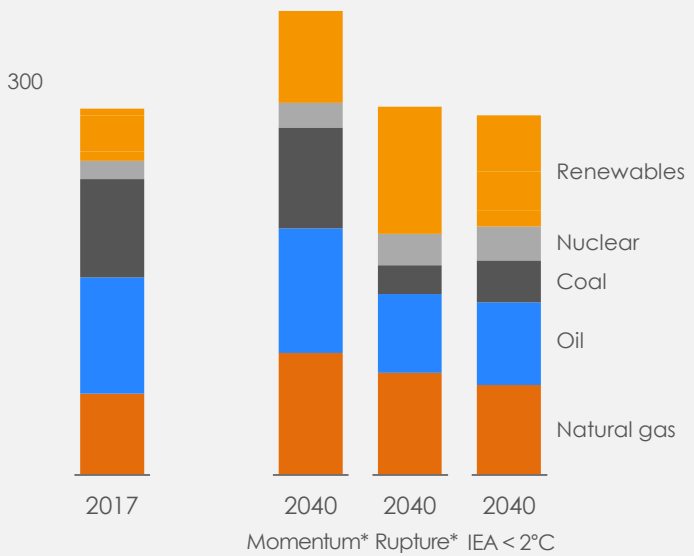
Rupture

Anticipating **technological breakthroughs** and strong shift in **public policies**

- Mass **electricity storage**
- Massive switch to **renewable** power generation
- Faster **electrification** in all sectors
- **Steeper decrease** of energy intensity, ending with same energy demand level in 2040 as in 2015

Integrating climate into strategy
Taking into account anticipated market trends

Global energy demand
Mboe/d



* Scenarios Total Energy Outlook (Feb. 2019)
** IEA 2018 Sustainable Development Scenario (SDS)

Focusing on **oil projects** with low breakeven

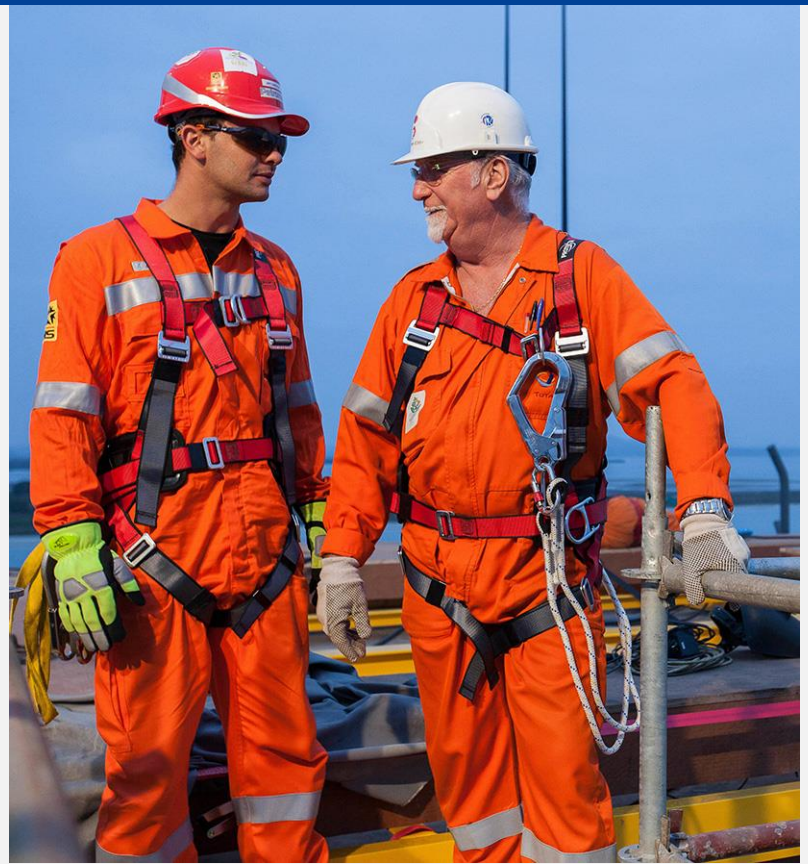
Expanding along the **gas value chain**

Developing profitable & sizeable **low carbon electricity**

Investing in **carbon neutrality** businesses

Further improving efficiency of our operations

Over 10% improvement of energy efficiency since 2010



Objectives

- **Energy efficiency: -1% /year**
  > 10% reduction achieved*
- **Zero routine flaring by 2030**,
  > 80% reduction achieved*

Actions

- **300 M$ capital investment plan in energy efficiency** over 5 years in downstream facilities
- **GHG intensity reduction for new facilities:** process electrification, no routine flaring, fuel switch to low-carbon energies
- **30 $/t CO_2 price** embedded in investment decisions

* Over 2010-2018

iGRP: investing in growing markets

Building strong positions along the integrated gas and electricity chains

Global LNG

Expanding **global LNG** portfolio **50 Mt/y** by 2025

Electricity in Europe

Integrating along the **electricity value chain** from supply to end customer

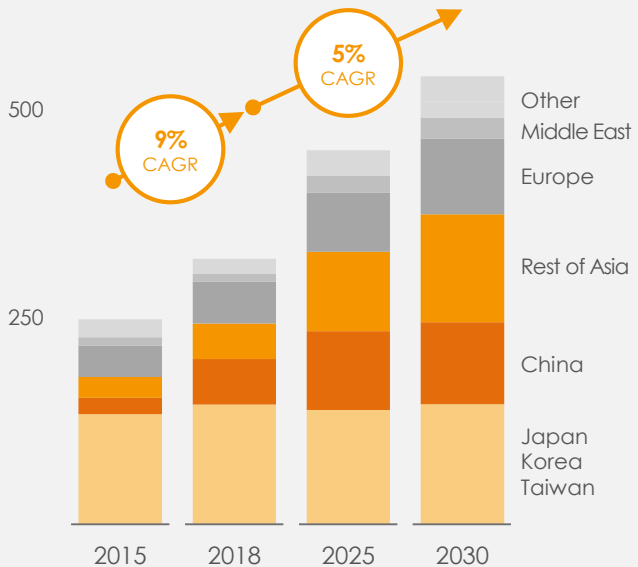
Renewables worldwide

Selectively investing in **wind and solar** electricity generation

CFFO growing by 3.5 B$ over 2019-25 mainly from LNG
Investing 1.5-2 B$/y in low carbon electricity

Growing in natural gas
Key to fast climate action

2015-30 LNG demand
Mt/y



+10% in 2018 (China +41%)

Integrating along the gas value chain

- 2nd LNG player, 10% market share
- Developing B2B and B2C gas marketing

Creating new LNG markets

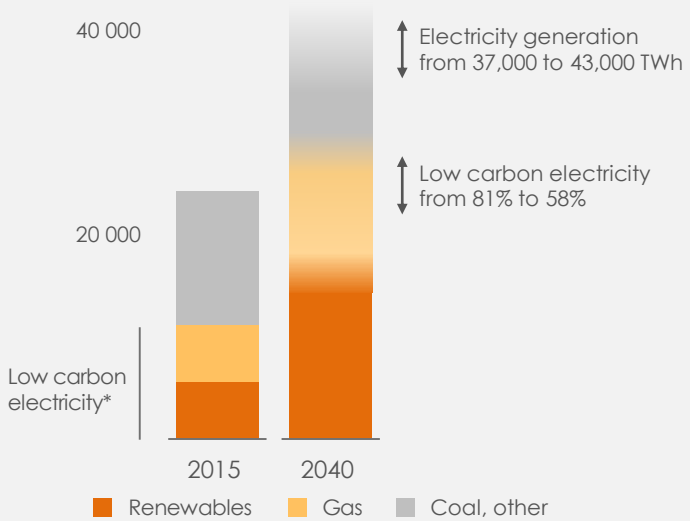
- Developing LNG-to-Power through FSRU in emerging countries
- Pioneer in LNG for transportation

Reducing upstream methane emissions

- 2018 upstream level below 0.3%
- Emissions sustainably below 0.2% by 2025 or earlier

Developing a profitable low carbon electricity business

2015-40 electricity generation
TWh



Solar, wind and gas: x2.5 over 2015-40

* Gas and renewables
Source: IEA scenarios - SDS, NPS, CPS

Low carbon power generation

- ~3 GW current capacity (gas, solar & onshore wind)
- Offshore wind and hydro ambitions
- 10 GW within 5 years

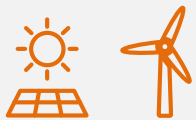
Batteries to leverage renewables, developing Saft in energy storage systems

Marketing electricity

- Targeting 15% market share B2C in France and Belgium by 2022 (vs. 6% and 9% in 2017)

Developing integrated strategy along the Power chain in Europe

Generation



Renewables
~7* GW by 2025

Gas (CCGT)
~3 GW

Development of energy storage (Saft batteries, H_2)

Infrastructure

No utility model: not investing in power infrastructure

Trading

Trading
~175 TWh in 2018

+ Aggregation platform

> 15x more volume traded than produced

Customers

Marketing B2B/B2C

TOTAL direct energie · lampiris

~8 M power customers by 2025

Mobility services

TOTAL EV Charge

150,000 charge points by 2025

#1 customer satisfaction in 2018

* 100% view

Investing in carbon neutrality businesses
Anticipating on carbon pricing

Energy efficiency

- **GreenFlex:** 400 people, 2018 turnover ~500 M$

Venture Capital

Total Carbon Neutrality Venture: 400 M$ fund by 2023

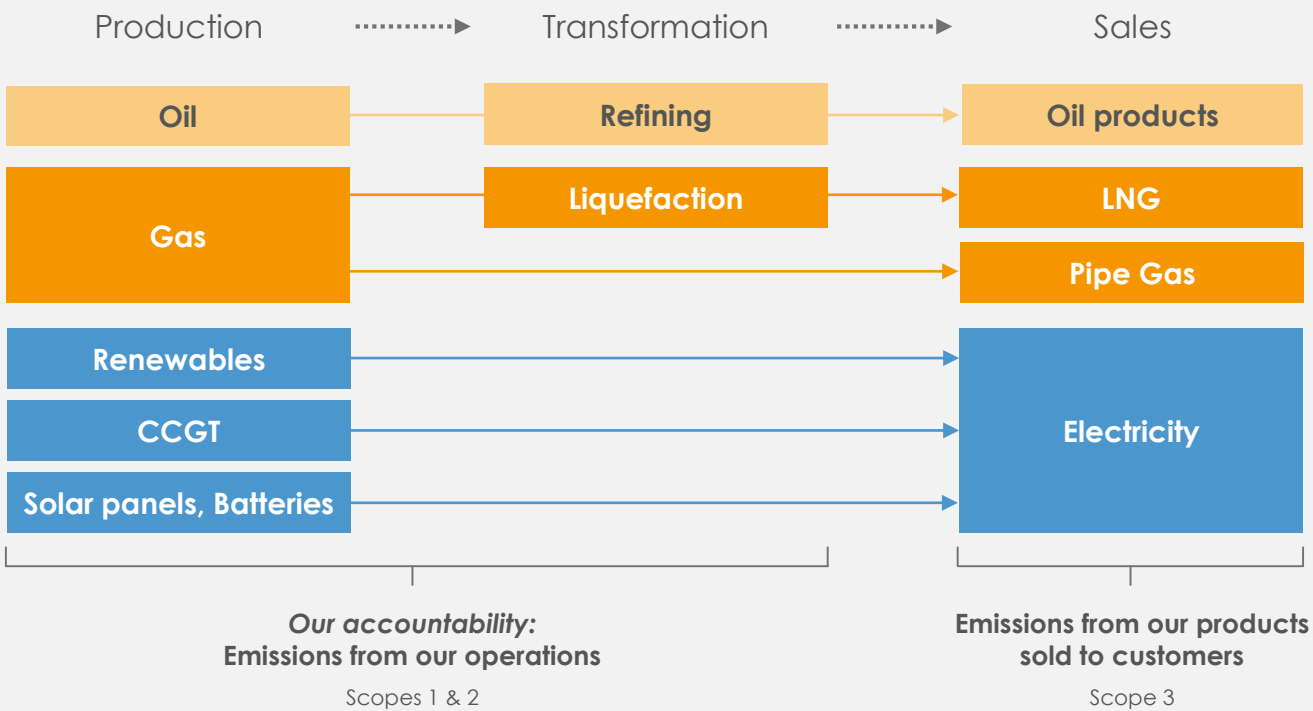
Nature based solutions

- Dedicated business unit in place
- **Investing 100 M$/y** from 2020 in sustainable and regenerative forestry & agri-operations
- 5 Mt CO_2/y of sustainable annual carbon sink capacity by 2030
- Communities-inclusive approach

CCUS

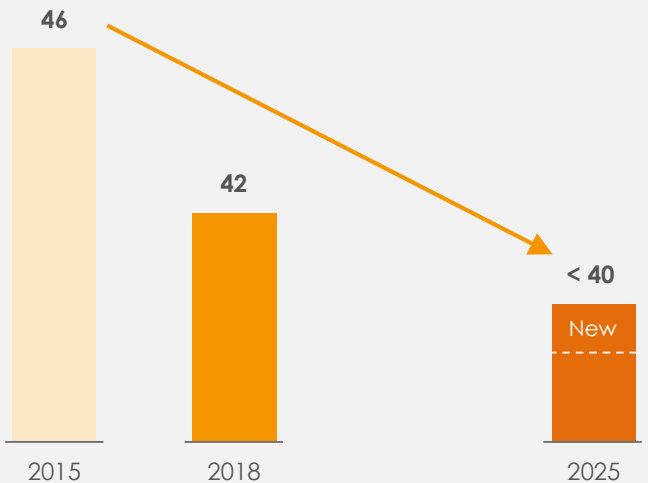
- **10% of R&D program**
- Successful pilot in Lacq
- Projects in Norway (Northern Lights) and UK (Clean Gas Project, Acorn)
- CO_2 injection plan in Papua LNG project

GHG emissions: from our operations to our sales



Reducing CO_2 emissions while growing the company

Scope 1 & 2 emissions from operated oil & gas facilities
Mt/y - $CO_{2\,eq}$



Flaring reduction

Methane reduction

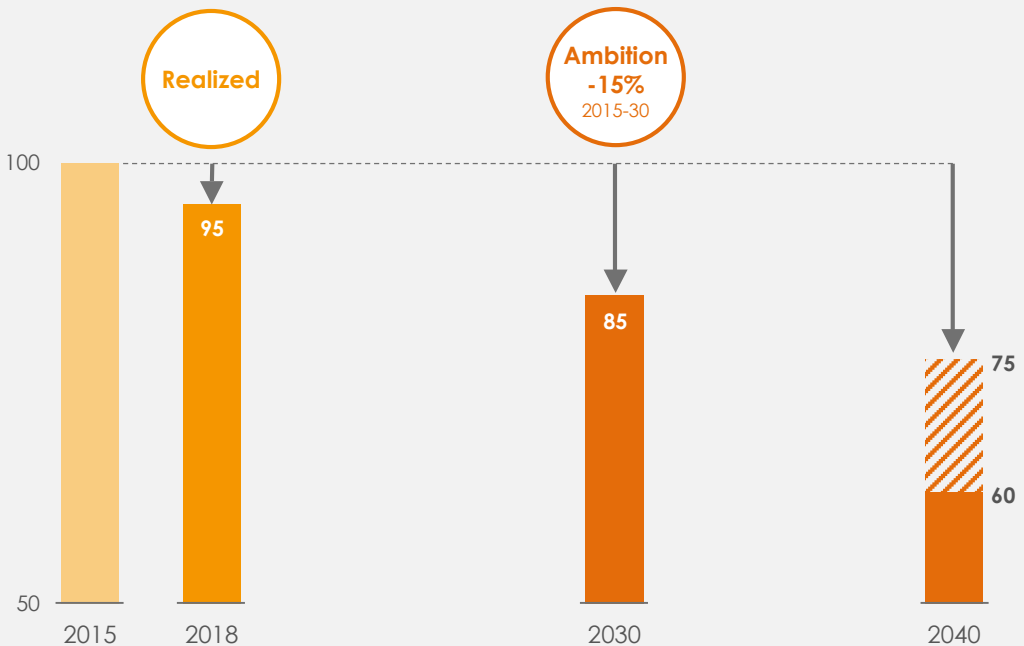
Energy efficiency

Process electrification

- **Each site to display CO_2 emissions** to promote staff awareness
- **"CO_2 fighter squad"** to leverage all Total competences and reduce CO_2 emissions

Our ambition: reducing the carbon intensity of energy products used by our customers

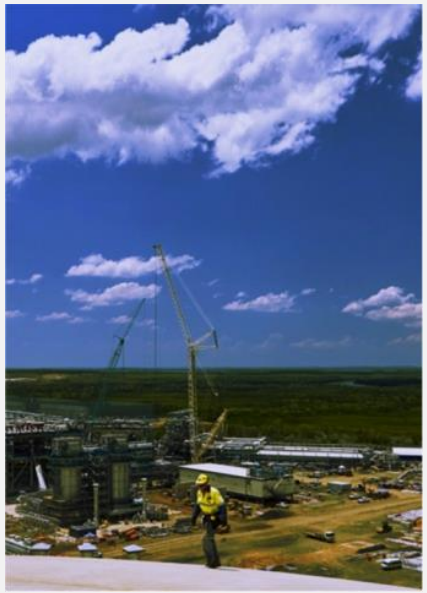
Carbon intensity of the energy products sold to our customers
Base 100 in 2015 (75 $gCO_2e/kbtu$)



Possible sales mix in 2040 depending on consumer behavior

- Natural gas: 45-55%
- Oil (incl. biofuels): 30-40%
- Low carbon electricity: 15-20%

A Resilient Portfolio

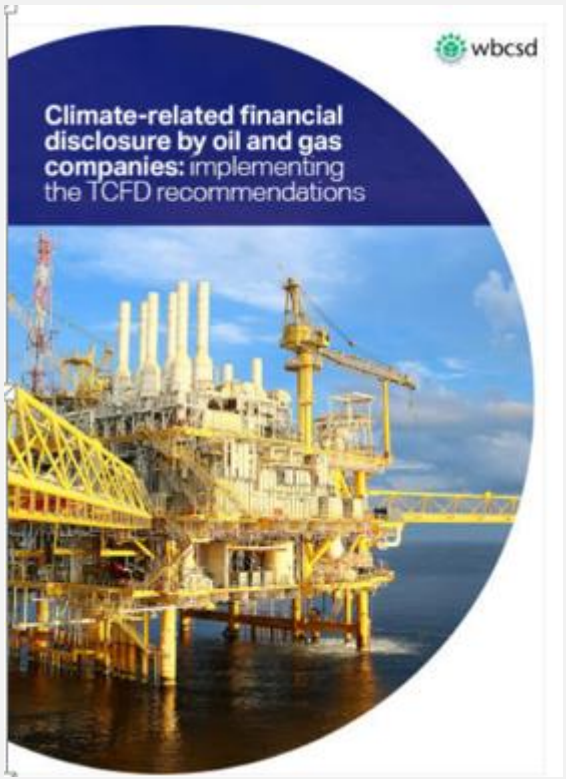


A long-term CO_2 price of **$30 to $40** per ton, applied worldwide, would have an impact of around

5%

on the discounted present value of Total's upstream and downstream assets

TCFD Oil & Gas Preparer Forum



TCFD Oil & Gas Preparer Forum established in October 2017 by the World Business Council for Sustainable Development (WBCSD) with input from the TCFD Secretariat

Forum was made up of representatives from **Eni, Equinor, Shell** and **Total**

The Forum's objectives were to review the current state of climate-related financial disclosures, to identify examples of effective disclosure practices and make proposals on how disclosures may evolve over time

Final report published in **July 2018**

Total - TCFD reporting
2018 Registration Document (p. 198-204)

5.6 Climate change-related challenges

TOTAL's ambition is to become the responsible energy major. The Group is committed to contributing to the United Nations Sustainable Development Goals, particularly with regards to those subjects that are connected to climate change and the development of more available and cleaner energy for as many people as possible.

The Group has therefore identified its main climate change challenges:

- reduce the greenhouse gas emissions of its operated oil & gas activities including methane emissions;
- implement a strategy allowing to reduce the carbon intensity of the energy products used by its customers;
- identify and support technologies and initiatives that helps respond to the challenge of climate change.

In order to make an effective contribution to the climate change issue, TOTAL relies on an organization and structured governance framework to make sure climate-related challenges are fully integrated into the Group's strategy. Consequently, the Group has a robust strategy and implements a structured risk management system.

In line with the multiple situations encountered in the field, and while supporting the Group's governance bodies, the Strategy and Climate division shapes the Group's approach to climate change while working with the operational divisions of the Group's business segments. By monitoring indicators, progress can be measured and the Group's actions can be adjusted.

5.6.1 Governance

TOTAL has an organization and structured governance framework to make sure climate-related challenges are fully integrated into the Group's strategy. Since September 2016, its organization includes a Strategy-Innovation corporate division, which includes the Strategy & Climate division as well as the Gas, Renewables & Power business segment, whose President is a member of the Executive Committee.

Oversight by the Board of Directors

TOTAL's Board of Directors ensures that climate-related issues are incorporated into the Group's strategy and examines climate change risks and opportunities during the annual strategic outlook review of the Group's business segments.

To carry out its work, the Board of Directors relies on its Strategic & CSR Committee, whose rules of procedure were changed in September 2017 then in July 2018 in order to broaden its missions in the realm of CSR and in questions relating to the inclusion of climate-related issues in the Group's strategy.

Thematic area	Recommended TCFD disclosures	Source of information in TOTAL's reporting
Governance		
Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities.	RD 2018 – 5.6.1 CR p. 10 CDP C1.1
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	RD 2018 – 5.6.1 CR p. 5-9 CDP C1.2
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.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	RD 2018 – 5.6.2 CDP C2
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	RD 2018 – 5.6.2 CDP C2.5, C2.6
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	RD 2018 – 5.6.2 CR p. 30
Risk Management		
Disclose how the organization identifies, assesses, and manages climate-related risks.	a) Describe the organization's processes for identifying and assessing climate-related risks.	RD 2018 – 5.6.3 CDP CC2.2
	b) Describe the organization's processes for managing climate-related risks.	RD 2018 – 5.6.3 CDP C2.2d
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	RD 2018 – 5.6.3 CDP C3.1
Metrics & targets		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	RD 2018 – 5.6.4 CR p. 52 CDP C6.5, C10
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	RD 2018 – 5.6.4 CR p. 52 CDP C6.5, C10
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	RD 2018 – 5.6.4 CR p. 24-25, 42 CDP C4.1a,b

THANKS

FOR YOUR ATTENTION