

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Uniper is an international energy company, with approximately 12,000 employees in 2018 and operations in more than 40 countries.

Corporate portfolio comprises power generation, commodity supply and trading, gas storage and infrastructure, sales and service provision. Since September 2016, Uniper has been listed on the stock exchange and represented in the MDAX and MSCI-Germany.

With an experience of more than 100 years, Uniper's main activities concentrate on gas fired power plants, coal fired power plants, nuclear power plants, hydro power plants, regasification, gas storage, gas infrastructure, energy sales (large and small customers) and trading. Those activities are distributed in following operational areas:

Power Generation

Uniper is among the largest global power generators with an installed capacity of 36.6 GW (accounting view from Asset Overview 2018) geographically distributed as follows in 2018 (Q4 status):

Russia: 10.8

Germany: 10.5

United Kingdom: 6.4

Sweden: 4.6

France: 2.3

Netherlands: 1.6

Hungary: 0.4

Czech. Rep. 0.02

The generation capacity by technology (GW) is as follows:

Nuclear: 1.4

Natural Gas: 18.9

Other Conventional Thermal (Coal, Liquid Fossil Fuels): 12.5

Hydro: 3.57

Other renewables: 0.25

Commodity Trading

Uniper supplies counterparties with a broad range of power products and services throughout Europe and North America. We offer our customers access to European markets. We engage in supplying, storing and transporting natural gas. Uniper supplies more than 40% of wholesale gas in the German speaking markets and contributes significantly to the security of supply of gas. Uniper sources, transports and markets Liquefied Natural Gas (LNG) worldwide. Uniper's comprehensive portfolio management service enables the company to optimise the entire coal supply chain to meet quality, timing and price requirements.

Energy Storage

Uniper's natural gas storage sites in Germany, Austria and the United Kingdom play an important role in ensuring a secure and flexible gas supply. Hydro pumped storage power plants are essential for ensuring grid stability and for integrating power generation from wind and photovoltaic plants. Uniper offers solutions that help to limit earnings risks caused by weather fluctuations. This means that public utility companies, for example, can secure their absolute margins from the gas business segment against any temperature fluctuations.

Energy Sales

Uniper's energy sales offer individual power, heat and natural gas supply to industrial customers and energy partners such as municipal and regional utilities in Germany and neighbouring countries. Alongside power and natural gas supplies, Uniper also offers a wide range of services, energy-efficient, and innovative products in the context of the energy transition.

Engineering & Energy Services.

Uniper offers customers the experience of 100 years of operations to help operate and maintain power plants, engineer new plant solutions and gas infrastructure. From the earliest project phases up to commissioning and handover, Uniper leverages its extensive experience with project development and implementation. Portfolio optimization, benchmarking, maintenance strategies, lifetime extensions and asset upgrades are part of Uniper's offering. Uniper delivers maintenance, outage management and inspection activities, and can operate assets on behalf of its customers. Uniper has first-hand experience managing the end-of life options of a broad range of energy technologies.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	No	<Not Applicable>

C0.3

(C0.3) Select the countries/regions for which you will be supplying data.

Czechia
France
Germany
Hungary
Netherlands
Russian Federation
Sweden
United Kingdom of Great Britain and Northern Ireland

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation

Other divisions

Gas storage, transmission and distribution

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Sustainability Officer (CSO)	To facilitate the cooperation among different Business Units and the Sustainability team, to ensure appropriate actions and responses as well as to monitor emerging trends and communications, the Board of Directors has delegated to one of its members (COO) the organisation and preparation of all the sustainability-related tasks at group level, namely the Chief Sustainability Officer, since 2016. While tackling this role as Chief Sustainability Officer, the Board Member has budget autonomy over Sustainability-related activities. The CSO's main task is to direct and integrate sustainability-oriented initiatives into Uniper's overall business, with the aim to protect and support the company's performance and long-term interests, ensuring that material issues related to corporate sustainability are discussed at highest management level. This includes specific climate related topics related to regulations, operations or strategy, thus ensuring these topics to reach top management.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	<ul style="list-style-type: none"> Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues 	<p>The Uniper SE Board of Management bears overall responsibility for Sustainability Management in Uniper. The Board of Management approves the Sustainability Strategic Plan for the Group and Group Policies implementing the strategy. The Board of Management will be given advice by the central HSSE and Sustainability function and will regularly receive reports regarding Sustainability performance and activities including climate related topics, like Carbon Footprint, Carbon Intensity, Climate Targets, Science Based Targets, TCFD and CDP.</p> <p>The Board has oversight to direct and integrate sustainability (including climate) -oriented initiatives into Uniper's overall business, with the aim to protect and support the company's performance and long-term interests. The board supports the development of the Sustainability Strategic Plans (SSP) aimed to drive a sustainability vision for the company in alignment with the overall business strategy through a SDGs based approach. Moreover, the Board:</p> <ul style="list-style-type: none"> - Sets targets (including climate related) and oversee performance against targets. - Approves appropriate budgets requirements for climate-related projects, R&D and investments. - Ensures that ESG risks to the business are managed effectively and opportunities maximised, following a precautionary approach in line with internationally-recognised frameworks, specifically on environment, climate, society, human rights protection and diversity. - Secures and leverages senior level commitment and support for integrating sustainability initiatives and principles (including climate related ones) into core processes and decision-making - Approves levels of disclosure of company information for the different audiences they are aimed for. Climate related topics do affect boards decisions systematically and increasingly at Uniper given the nature of the business (energy trading and energy generation with fossil fuels), therefore climate related topics are permanently and increasingly present in many decision making processes at high management level, strongly influenced by a changing legal framework (CSR, BREF, upcoming Climate Protection Law), voluntary standards, increasing climate related investment criteria from shareholders, and also reputation related decisions on operations, reporting and investments.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	Managing climate-related risks and opportunities	Quarterly
Other, please specify (Executive Vice President HSSE&Sustain.)	Both assessing and managing climate-related risks and opportunities	Quarterly
Chief Risks Officer (CRO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify (HSSE & Sustainability Consultative Council)	Assessing climate-related risks and opportunities	Quarterly
Please select	<Not Applicable>	<Not Applicable>

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Chief Sustainability Officer (CSO): Board Member in his integrated role as Chief Operations Officer and Chief Sustainability Officer, Highest responsible for decisions related to corporate Sustainability, Highest level management, including monitoring and decision-making processes of climate related topics related to operations, regulatory framework, investor and strategy.

Executive Vice President of HSSE & Sustainability: Appointed by and reporting directly to the Chief Sustainability Officer, The Executive Vice President Sustainability & HSSE directly reports to the CSO and provides support to the CSO's decisions and tasks as above. Specific responsibilities include:

- Allocation of sufficient resources to the requirements for Sustainability Management in Uniper;
- Monitor and evaluate the effectiveness of Uniper's Sustainability Strategic Plans.
- Identify challenges, risks, megatrends and emerging issues that will affect Uniper.
- Approve the budgets for Sustainability projects, prioritizing those initiatives aimed to address key material issues.

The EVP HSSE & Sustainability continuously monitors and supervises projects, voluntary initiatives and KPIs related to climate, for example:

Carbon accounting information is monitored and tracked via various data collection tools and reported to ensure that our climate target is tracked.

Historical emissions are studied and trends monitored.

Climate related target definition and monitoring.

Regulatory and energy policy updates are monitored through engagement with stakeholders, information from our Governmental Relations colleagues and regulation review.

Developments in new frameworks and tools are also monitored such as assessment of TCFD recommendations.

Chief Risk Officer (CRO): Highest internal position related to risk management, reporting to the Chief Financial Officer (CFO); The CRO is responsible for ensuring that:

- Enterprise risks, including climate-related risks, are understood by the organization, by the Management Board as well as Audit & Risk Committee of the Supervisory Board.
- Risk is quantified and depicted in a way that is actionable.
- Risks are warehoused according to Uniper's capabilities, core business and risk strategies, appetite for uncertainty and capital resources.
- Unwanted risks are minimized or removed into appropriate markets where possible.

HSSE & Sustainability Consultative Council

The council's tasks include prioritization of HSSE related matters (including climate related issues) linked to operations in consideration of different internal groups of interest, including Workers Council.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Who is entitled to benefit from these incentives?

Board Chair

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

Financial incentives are linked to Board members and one level below management group for the achievement of the objectives stated in the HSSE & Sustainability Improvement Plan. In 2018 one of these objectives was to review the Sustainability Strategic Plans with a focus on our most material topics of which Climate Change remains in the first place.

Who is entitled to benefit from these incentives?

Other, please specify (Asset Operations)

Types of incentives

Monetary reward

Activity incentivized

Efficiency project

Comment

Financial incentives are linked to the head of Asset Operations for the achievement of plant efficiency improvement measures. As in last year, measures increasing efficiency in production (thermal and energy efficiency, which result in CO2 reductions) are rewarded at this management level.

Who is entitled to benefit from these incentives?

Environmental, health, and safety manager

Types of incentives

Monetary reward

Activity incentivized

Other, please specify (Carbon footprint and monitoring)

Comment

Currently incentives for climate related issues is implemented at project level and therefore incentives are aligned with project performance of projects. This is the general approach for any Uniper employee. In the case of employees with responsibilities in projects related to climate change, their performance on specific project related milestones is assessed and rewarded in the frame of the contractual conditions on variable remuneration. Uniper examples of climate related incentives: - Progress in Innovation Projects (amount of initiatives which implementation would result in CO2 reductions) by Project Managers. - Energy efficiency (with respective reduction of CO2 emissions) is part of the personal KPI of the Energy Efficiency Manager. - Carbon Footprint (Progress in Scope 3 accountability, following GHGP classification) is part of the personal KPI of the Corporate CO2 Accounting Manager. - Carbon Intensity calculation based on Financial Control consolidation approach is part of the personal KPI of the Corporate CO2 Accounting Manager.

Who is entitled to benefit from these incentives?

Other, please specify (Head of Innovation)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction project

Comment

One of the main focus of Uniper's innovation unit is to identify and support the development of new energy efficiency/producing/storing technologies from any stage of their development. Most of these technologies have CO2 reducing or CO2 recycling potential. The performance targets of Unipers innovation team members, including the head of Innovation are rewarded for their performance against their personal targets defined in accordance to the salary policies of Uniper.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	1	We define Short Term as immediate future for which uncertainties related to operations, market development and political & regulatory constraints are relatively low, allowing a high certainty in business development forecasts.
Medium-term	1	3	Medium-term is defined as the time frame for which the above-mentioned uncertainties are measurable, allowing a known level of certainty in financial planning. Time frames are in line with Uniper's Medium-Term Planning (MTP), which is a Group-wide term.
Long-term	3		Long term is defined as the time frame for which above mentioned uncertainties are much greater and more difficult to measure. This is viewed as the strategic horizon.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	Uniper identifies, assesses and manages its risks and chances combining efforts from both functional units and a central enterprise risk management (ERM) system that considers all risk and chance categories. Given the vast variety of activities and locations involved, every reporting unit can define its own risk management processes and procedures, which are then evaluated by ERM based on a central defined assessment process to decide on the inclusion of risks into the corporate risks list.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Within Uniper there are 2 main processes that identify and assess Climate-Related Risks and Opportunities depending on the time horizon associated with the risks:

- Short and Medium-Term Time Horizon: The Enterprise Risk Process
- Long Term Time Horizon: Uniper Strategy Review Process

The descriptions below refer primarily to risk identification and assessment, however the same approaches apply to Opportunities.

The Enterprise Risk Process

Uniper's risk management process is overseen by the Uniper Board of Management and the Audit & Risk Committee of the Supervisory Board. On a quarterly basis, the material financial risks from across the Group are reported by the Chief Risk Officer to both governance bodies. The key risks are publicly communicated in the Uniper SE Annual Report. The basis for creating transparency of the material financial risks and to enable them to be managed is the Group Enterprise Risk Management (ERM) process.

The ERM process requires that all functions across the Uniper Group identify and assess their material risks, including those that are climate-related, on a quarterly basis through a bottom-up process. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfilment of the requirements for Uniper's non-financial declaration . The process has already been designed and approved by the Board of Management and is in the process of being rolled out.

Climate-related risks are defined as uncertain events that can cause a significant negative financial impact on the company and the environment and/or society. Climate-related risks are identified from expert knowledge, publications, associations and memberships and other information from external and internal sources such as current and emerging legislation, government policy, stakeholder communications including interactions with NGOs, investors and asset level risk assessments. These risks are identified on different levels in the organization i.e. political developments are monitored on national and regional levels and form part of wider-ranging global risks impacting the organization. Potentially relevant climate related physical impacts like extreme weather events such as floods/storms are monitored at an asset level.

The identified risks are assessed in quantified financial terms wherever possible.

Substantive Financial impact is defined as: Any risk which is assessed as having a potential net worst case impact of EUR -20M in any 1 year (EUR +20M for an Opportunity) and has not already been considered in medium-term financial planning is included in the ERM process. Quantified material Enterprise Risks are assessed based on either the potential impact on Net Income, the potential impact on Adjusted EBIT, the potential impact on cash or any combination of all 3 metrics. If the impact on different metrics is distinctively different, the risk or chance is split in several separate items. Any insurance coverage and/or provisions that reduce the worst-case impact are also considered. The likelihood of occurrence is also considered and a range of statistical distributions support in deriving an expected value risk impact. Where quantification is not possible for varying reasons, a qualitative assessment of individual risks is made. Qualitative risks are assessed based on pre-defined ranges for their likelihood of occurrence and the materiality of their potential impact.

Uniper considers risks to have a substantive financial impact when they exceed the above mentioned criteria to be included in the Enterprise Risk Process. Based on the assessment of the risk, actions are taken to ensure that the impacts are mitigated and managed as effectively as possible. This is a continuous and interactive process with relevant stakeholders and is subject to ongoing monitoring and review.

Climate-related risks and opportunities are also specifically identified as part of the Strategy process and are based on known facts such as the decarbonisation of the energy sector which poses a risk or opportunity for Uniper and anticipating trends such as shifts towards new and cleaner technologies which could pose an opportunity.

Each strategic risk and opportunity is assessed based on the perceived strategic importance to the organisation, aligned to the defined Corporate Strategy. If a risk is perceived as having strategic importance, then a suitable mitigation strategy is developed to mitigate the negative impact as much as possible. If an opportunity is perceived as having strategic importance then an active strategy to pursue and maximise the positive impact of the opportunity is developed. Continuous monitoring of the delivery of the Corporate Strategy is performed by the Uniper BoM with oversight from the Uniper Supervisory Board.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. Example of current regulatory risk type: The Large combustion plant BREF (Best Available Technologies Reference document) is legally active under the Industrial Emissions Directive. Uniper will need to be compliant with the amended emissions thresholds and re-permitted by the stated timeframes. Inclusion in climate-related risk assessment: This risk is identified and assessed under ERM. There is a dedicated project team to look at the risks and implementation of BREF – this includes members from the Asset Risk team and the HSSE team.
Emerging regulation	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. Example: An emerging regulation risk from upcoming changes in governmental policy on coal closure, such as the Climate Protection Law and regulatory framework of the Coal Commission recommendations in Germany.
Technology	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. Example: A technological risk type: Costs to transition to lower emissions technology to meet requirements for BREF. Inclusion in climate-related risk assessment: This risk is identified and assessed under ERM. There is a dedicated project team to look at the risks and implementation of BREF – this includes members from the Asset Risk team and the HSSE team.
Legal	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. Example of a legal risk from potential penalties and fines against Uniper for failing to comply with EU Emissions Trading Scheme.
Market	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. For example a market risk is from changing customer behaviour towards low carbon energy generation. This risk is assessed in Uniper's Group Strategy process.
Reputation	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. Example of reputational risk from Uniper's contribution to climate change from carbon emissions may affect its reputation as a large polluter and contributor to the impacts caused by climate change. This in turn may affect investment into Uniper - investors of Uniper expect to invest in a company that only works with ethical suppliers and that the risks are minimised through effective due diligence.
Acute physical	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. For example acute physical risk from increased severity of extreme weather events leading to impacts such as floods/storm damage to Uniper assets, examples include at our power plant in Scholven there were recorded loss of production due to a lightning hit at a switchgear station during a thunderstorm. Another case was loss of grid connection due to a thunderstorm at our power station Gönyü in Hungary.
Chronic physical	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. For example chronic physical risk from rising ambient temperatures has affected water temperatures which has led to affects to Uniper assets. Rising ambient temperature from climate change leads to lower production availability from Uniper's asset fleet due to the limited cooling water capacity, as restricted by the permits for water temperature and the loss in efficiency of the water steam cycle itself. In 2018, Uniper had several events of restricted operations due to external influences that are connected to increased ambient temperatures. For example, in 2018, Uniper's European generation portfolio had over 0.5 TWh of production 'losses' from the thermal sites (which correspond to 0.0007% of the companies European generation). If we trend our Gönyü power plant from 2011 until 2018, we see an increase of ambient temperatures leading to a rising trend in restricted production, with significant losses in 2014 and 2015.
Upstream	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. For example upstream risk from disruptions to fuel supply through supply chain from extreme weather events or lower water levels - a direct or indirect impact of climate change. Lower water levels of the river Rhein in the year 2018 led to multiple cases of interrupted operations at our power plant Scholven, owing to a lack and delay of fuel (coal) supply.
Downstream	Relevant, always included	This risk type is part of Uniper's Enterprise Risk & Opportunity management process. This process focuses on identifying, assessing and managing any risk/opportunity with a substantive financial impact on the Group. This includes risks & opportunities triggered by climate or ESG related events. During this year Uniper will set up a new bottom up process to identify, assess and manage climate related and ESG risks independent of their financial impact. This new bottom up process will consider the TCFD recommendations and support the fulfillment of the requirements for Uniper's non-financial declaration. The process has already been designed and approved by the BoM and is in the process of being rolled out. For example risk from reduced demand for goods and/or services such as provision of electricity due to shift in consumer preferences, such as increasing requests for 'green' power.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

The descriptions below refer primarily to the management of risks - the same approaches apply to Opportunities.

Climate-related risks and opportunities are managed in the same way as all risks across the Uniper Group, in that they are managed proactively and continuously by the most effective and efficient measures and actions available. Measures and actions include but are not restricted to the implementation of adequate and effective controls, avoiding and restricting specific actions and options, and ensuring effective legal and insurance coverage. Climate-related risks are managed by the individual function that is most capable of managing the specific risk based on expertise and experience of the specific risk topic. The function decides on and or endorses the most appropriate course of action to effectively and efficiently manage the risk i.e. acceptance, alleviation, transfer of risks either individually or jointly across functions within the Uniper Group. All climate-related risks are managed across the Uniper Group irrespective of materiality. However, the more material risks are prioritised based on the potential impact materiality, with the material climate-related risks being given greater management attention and focus via the Group-wide Enterprise Risk Process and or Strategy Review process. Climate related risks that could potentially become a threat to Uniper's existence are managed effectively and countermeasures are taken. Decisions over how the risks are managed are made based on the materiality of the risk, the timing of the potential impact to the organisation and the available resources to effectively manage the risk.

Example of how a Transition risk is managed:

To support the implementation of the Paris Agreement various measures are taken to increase the Carbon price. The Market Stability Reserve in the EU ETS is one component with effect across Europe. This is complemented (or planned to be complemented) by various country specific measures such as Carbon floor prices or Carbon Taxes. Due to this Uniper expects an increase of the Carbon price over the coming years which will increase the cost for its fossil fuel based energy production. To the extent these additional costs cannot be passed on, Uniper will suffer from lower margins and may have to shut down some of its assets which are made uneconomical by this development. To manage this, Uniper continually monitors the Carbon price development and the political and regulatory decisions driving it. Where meaningful and possible, hedges are put in place however there will always remain a residual open position which is exposed to price increases.

Example of how a Physical risk is managed:

Climate change may lead to lower availability and energy production from Uniper's asset fleet. Longer hot and dry periods like in 2003 or 2018 can lead to cooling water availability issues because river levels are too low to extract cooling water or water temperatures are too high for cooling. Low water levels on rivers increase fuel shipping costs as ships can't carry the normal load and they reduce energy production volumes in river plants. The increase of extreme weather scenarios may lead to damages to our plants from floods/storms and cause unplanned outages. To manage this where possible and meaningful, unavailability is insured. Management actions and measures include: investment in technology improvements and asset optimisation, ongoing maintenance and inspection and business continuity planning to manage operations. Fuel shippings are scheduled such that drought periods are avoided, or alternate transportation via rail is being pursued.

Examples of how other climate-related risk types are being managed:

- **Emerging Regulation Risk:** The Uniper Group manages climate-related regulatory developments on an ongoing basis with there being a dedicated function overseeing all political and regulatory developments which could pose a risk or opportunity for Uniper. Management actions and measures include; active lobbying of regulatory developments, maintenance of an open dialogue with regulators, governmental bodies, political parties and environmental associations to allow Uniper a voice over regulatory developments and continuous monitoring of the climate-related regulatory landscape. These actions ensure that Uniper has an understanding and ability to influence emerging regulation which impacts the organisation.
- **Acute Physical Risk:** The Uniper Group manages climate-related physical risks including extreme weather events and events impacting asset availability e.g. the inability to operate cooling units for assets due to water scarcity on an ongoing basis across multiple dedicated functions on both an individual asset level and Group level. Management actions and measures include: investment in technology improvements and asset optimisation, ongoing maintenance and inspection, business continuity planning to manage operations.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact

Write-offs, asset impairment, and early retirement of existing assets due to policy changes

Company- specific description

The Uniper Group is exposed to the risks of policy and legal changes. In Europe, the focus is on decarbonization with the continued strong growth in the expansion of renewables and stricter climate protection regulations of planned, and in some cases, already approved phase-out of coal in numerous European core countries where Uniper operates. Due to the ongoing debate across Europe on the early exit from coal powered generation, Uniper faces the risk of lost revenues, potential asset impairments in case no adequate compensation will be granted and dismantling and social plan costs due to having to exit from coal generation earlier than our financial planning assumes. The main countries impacted for Uniper are Germany, Netherlands and the UK.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The close out is long term but the impact on Uniper's financial planning e.g. via impairments starts with the decision of an early exit, in case no adequate compensation will be granted, while social and dismantling costs will mostly occur only at the time of closure. To reflect this the risk was classified as the lowest denominator short term but different impacts will affect Uniper in the short, medium and long term. Specific figures are confidential and therefore cannot be disclosed.

Management method

Uniper supports the EU legally binding climate agreements but this must be aligned with continuing to supply a stable and affordable power supply. To limit regulatory risk, the Uniper Group maintains intensive dialogue with external stakeholders such as government agencies, political parties, regulators and associations, to identify in a timely manner any potential adverse effects on the Uniper Group arising from changes in the political, regulatory and legislative environment and to reduce this risk through involvement in shaping the proposed measures. In case of the Coal exit this means Uniper will accept the political decisions made but will also seek compensation for any adverse financial effects. The measures described for the management method are taken by various departments within Uniper and are linked to and required for different business activities. The costs incurred cannot therefore be clearly allocated to this specific risk.

Cost of management

1

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

To support the implementation of the Paris Agreement various measures are taken to increase the Carbon price. The Market Stability Reserve (MSR) in the European Emissions Trading System is one component with effect across Europe. This is complemented (or planned to be complemented) by various country specific measures such as Carbon floor prices or Carbon Taxes. Due to this Uniper expects an increase of the Carbon price over the coming years which will increase the cost for its fossil fuel based energy production. To the extent these additional costs cannot be passed on, Uniper will suffer from lower margins and may have to shut down some of its assets which are made uneconomical by this development.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Impact is based on Uniper's average unhedged Carbon position until 2025 and the expected Carbon price increase until then. Figure for this cannot be disclosed - this information is confidential.

Management method

Uniper continually monitors the Carbon price development and the political and regulatory decisions driving it. The insights of this monitoring, e.g., expected supply-demand balance of EUAs, expected EUA prices etc., are typically part of a carbon hedging strategy, which furthermore considers Uniper's commodity risk framework. As a result of this, carbon positions are closed by buying EUA to protect Uniper against rising prices or are kept as open positions, in case falling prices are expected. By this Uniper can manage the risks and opportunities resulting from fluctuating carbon prices. The measures described for the management method are taken by various departments within

Uniper and are linked to and required for different business activities. The costs incurred cannot therefore be clearly allocated to this specific risk.

Cost of management

1

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Rising mean temperatures

Type of financial impact

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

Company- specific description

Rising ambient temperature from climate change leads to lower production availability from Uniper's asset fleet due to the limited cooling water capacity, as restricted by the permits for water temperature and the loss in efficiency of the water steam cycle itself. In 2018, Uniper had several events of restricted operations due to external influences that are connected to increased ambient temperatures. For example, in 2018, Uniper's European generation portfolio had over 0.5 TWh of production 'losses' from the thermal sites (which correspond to 0.0007% of the companies European generation). If we trend our Gönyü power plant from 2011 until 2018, we see an increase of ambient temperatures leading to a rising trend in restricted production, with significant losses in 2014 and 2015. Similar trends can be seen developing for the remaining thermal sites, requiring increasing restrictions in the operational regimes. Another direct or indirect impact of climate change is lower river water levels. Lower water levels of the river Rhein in the year 2018 led to multiple cases of interrupted operations at our power plant Scholven, owing to a lack and delay of fuel (coal) supply. In the last years, there have also been cases of damages to plant assets due to extreme weather conditions. Power plant Scholven recorded loss of production due to a lightening hit at a switchgear station during a thunderstorm. Another case of loss of grid connection due to a thunderstorm was seen by power station Gönyü.

Time horizon

Current

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The total impact for Uniper's European thermal assets amounting to 0.5 TWh operational losses in year 2018. It was significantly better than 2017, where we had losses due to high ambient temperature of over 4TWh. Moreover, unforeseen cost of repairs of the damages caused by storms, additional costs of fuel shipping etc. also add to the overall financial impact. A financial impact figure will not be disclosed due to confidentiality reasons.

Management method

In addition to complying with industry standards & environmental management systems such as ISO14001, Uniper tackles these critical risks via the Uniper Management Framework and our Physical Asset Policy (similar to ISO55001). The Asset Engineering Risk & Opportunity (AERO) process is implemented systematically within Uniper's European generation portfolio to identify such risks in due time and assess their impact on the business. The outcome of these risk assessments is used to determine the right risk mitigation strategies and allocate the required budget for the projects. The cyclic review nature of this process ensures a continuous monitoring of the risk levels for Uniper's assets. For example: One of the opportunities identified to reduce the impact of restricted operations is the extension of cooling water capacity. Uniper is considering as a mitigation measure, investing in such an extension project at some of our power stations in order to meet better production targets in the summer months. Additionally, contingencies are regularly planned and adapted for certain periods to ensure uninterrupted fuel supply. The measures described for the management method are taken by various departments within Uniper and are linked to and required for different business activities. The costs incurred cannot therefore be clearly allocated to this specific risk.

Cost of management

1

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Other

Type of financial impact

Other, please specify (Increased power prices)

Company-specific description

As Power is still to a big extent produced with fossil fuels where emissions need to be covered via Carbon certificates, the Carbon price is a major driver of the Power price. The discussed coal exit will reduce the available Supply and is expected to contribute to increasing Power prices. As Uniper also has Hydro and Nuclear assets which don't require Carbon certificates it would benefit from higher Power prices without the offset on the Carbon cost side.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Increased revenues from Nuclear and Hydro plants due to increasing Power prices. Depending on hedge ratio, carbon price increase and subsequent ceteris paribus increase of outright power prices. Financial impact figures cannot be disclosed due to confidentiality.

Strategy to realize opportunity

Ceteris paribus of all other factors impacting the market prices, e.g., supply-demand balance, fuel prices (in particular coal and gas prices) an increase in carbon prices should result in an increase in outright power prices. Depending on Uniper's commodity risk appetite and assuming risking carbon and thus outright power prices over time – not forward selling power production in nuclear and hydro assets, provides Uniper with the chance to benefit from a ceteris paribus increase in carbon prices. This implies that – if supported by risk limits – the hedge ratio for these portfolios would be reduced.

Cost to realize opportunity

0

Comment

No additional cost to realize the opportunity.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Other

Type of financial impact

Other, please specify (Higher profitability of gas business)

See comment above: Coal and nuclear exits are obvious drivers of a switch to more gas-fired generation. In line with the argument above, rising CO2 prices and fuel-switching driven by market prices rather than regulation may also provide significant upside for Uniper's gas-fired fleet. Answer: see above. (This is an example of a climate related Opportunity, not a Risk)

Company-specific description

Uniper could benefit from increased revenues from our Gas fired Power plants in case they are needed within the merit order alongside the planned Coal exit and expected rising Power prices and Gas through additional overall market demand. This could happen as flexible Gas plants are an ideal partner to secure security of supply for an increasing renewable production. In addition to this Uniper could benefit from higher revenues resulting from possible higher Gas sales and Gas optimization revenues on the back of the above effects.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Increased revenues from Gas plants and Gas Sales & Optimization business in case Gas plants come into the merit order.

Strategy to realize opportunity

For some of our gas plants our strategy is to ensure these are operated and maintained in the most (cost) effective way and targeted improvements for e.g. efficiency, flexibility, component life etc are assessed and implemented. Secondly, mothball gas plants while out of the merit order to keep the optionality to bring them back into the market once energy-only or capacity remuneration is attractive again.

Cost to realize opportunity

0

Comment

No additional cost to realize the opportunity.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Type of financial impact

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

Company-specific description

Developments in the political and regulatory environment in the countries in which Uniper is active can have a positive impact on the earnings, financial and asset situation. For example, the introduction of additional capacity markets could mean that the supply of flexible power plants to compensate for the fluctuating generation of renewable energies is possible under better conditions than previously planned. In addition, new technologies such as the conversion of electricity from renewable energies into gas (Power to Gas) or heat (Power to Heat) or products and services in the area of transportation could open up additional sources of revenue, for example LNG for trucks/ships.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

We expect to identify new products and markets which can replace some of the lost revenues from Coal exit and plant closures due to other reasons.

Strategy to realize opportunity

Significant opportunities regarding the market environment are addressed in the strategy process through diversification of the Uniper portfolio and research and implementation of new technologies such as battery storage and power to gas. Uniper is also diversifying its products and engineering services and expertise by entering developing and emerging markets. Our Innovation and Energy and Engineering services have set up dedicated teams and projects to realize these potential opportunities.

Cost to realize opportunity

0

Comment

No additional cost to realize the opportunity.

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Not yet impacted	Due to the shift in customer preference to lower carbon / climate friendly energy sources, Uniper will be impacted by having to develop new products and services aligned to this trend for example green gas/hydrogen or offering of Guarantees of Origin to our Power Sales customers confirming that the Power they receive was produced climate friendly. The impact of this will be Medium-low and expected in the Medium term.
Supply chain and/or value chain	Not yet impacted	Early coal closure will affect the full coal-fired power plants supply and value chain at Uniper. Specifically, the fuel supply chain will be impacted as coal will no longer need to be procured as the associated plants will be closed. The impact of this will be Medium-low and expected in the Short-term as although there will be financial impacts for the generation supply chain, Uniper will continue to trade in physical coal globally.
Adaptation and mitigation activities	Impacted	Due to Uniper being vulnerable to extreme weather patterns, Uniper must ensure that effective measures are in place to both reduce its contribution to climate-change as well as building the resilience against the impacts of it. This impacts Uniper as there needs to be continuous expert analysis of meteorological and hydrological fluctuations, effective business continuity planning and ongoing investments in asset optimisation and maintenance. These aspects impact Uniper in the form of costs and are estimated as being Medium-low as initiatives and controls are continually developed, implemented and managed across the organisation.
Investment in R&D	Impacted	For opportunities to be realized in new lower carbon /climate friendly technologies, Uniper will need to further invest in R&D to maximise these opportunities. For example Uniper is working on further development of Power-to-gas(P2G) technology for the conversion and storage of power from renewables. In 2018 our P2G pilot plant "WindGas Falkenhagen" was expanded to include a methanization plant. In this new part of the plant, renewable energy is first converted to hydrogen and then converted into a synthetic natural Gas with the help of CO2. Another example is Uniper's engagement in alternative fuels such as LNG in heavy goods vehicles. The impact of this is Low as although an R&D budget will need to be spent, each opportunity will need to be assessed for its financial viability and only those which indicate a profit will be actively pursued.
Operations	Impacted	Due to the ongoing exit of coal-fired power plants and the growth of renewables across Europe, Uniper is impacted by lower load factors of its conventional plants as well as the closure of specific plants across its European asset fleet. This will heavily impact the operations of such plants and the supporting infrastructure of these operations as arrangements will need to be made to discontinue these in a safe and effective way. The impact of this will be Medium-high in the Short-term and will take the form of asset values and increased costs for dismantling and social plans.
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Impacted	Due to the ongoing exit of coal-fired power plants and the growth of renewables across Europe, Uniper is impacted by lower load factors of its conventional plants as well as the closure of specific plants across its European asset fleet. This will need to be factored into Uniper's financial planning in the form of reduced future revenues with the impact being Medium-high. In 2018, Uniper had several events of restricted operations due to external influences of increased ambient temperatures from climate change. For example, in 2018, Uniper's European generation portfolio had over ½ TWh of production 'losses' from the thermal sites that affect Uniper revenues.
Operating costs	Impacted	Operating costs associated with the ongoing adaption and mitigation techniques associated with being vulnerable to extreme weather events are continually factored into Uniper's financial planning process already today with the impact being Medium. In 2017 and 2018, Uniper's European thermal fleet was strongly influenced by ambient temperatures, they lead to lower efficiencies (thus high costs) and to 4.5TWh restriction of production lowering costs but also income.
Capital expenditures / capital allocation	Impacted	Capital expenditure/capital allocation associated with the R&D initiatives into lower carbon /climate friendly technologies are factored into Uniper's financial planning process already today with the impact being Low. There is a clear decision not to allocate any capex to new build coal fired plants. Extended cooling systems is something considered during our capital allocation program. However, due to uncertainty of coal generating sites, little has yet been invested in such measures.
Acquisitions and divestments	Not yet impacted	Depending on the development of the carbon price, and the potential risk that this would make some of Uniper's fossil fuel based generation assets non-economical, it could be foreseen that Uniper would need to factor divestments of these plants into the financial planning process with the impact being Medium. This was one of several drivers to divest Uniper's French business.
Access to capital	Not impacted	It is not expected that Uniper would need to raise additional capital to fund any effects of climate change related risks/opportunities and therefore would not need to be factored into the financial planning process. Any planned initiatives would be funded by existing capital.
Assets	Impacted	Due to the planned exit of coal-fired power plants across Europe, Uniper will be impacted by having to close specific plants across its European asset fleet. This has already been partially factored into the financial planning process in the form of reduced asset book values of affected plants with the impact being Medium-high. As an example the planned operation time of Uniper's new Coal plant in Maasvlakte (NL) has been reduced until 2029 based on a Coal exit law under discussion in NL.
Liabilities	Not yet impacted	Due to the planned exit of coal-fired power plants across Europe, Uniper will be impacted by having to close specific plants across its European asset fleet. This could lead to Uniper having to include additional provisions for the dismantling of the impacted plants and associated social plans for the effected employees with the impact being Medium.
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

Yes, qualitative and quantitative

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

In development, we plan to complete it within the next 2 years

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

How business objectives and strategy have been influenced by climate-related issues

Adapting to market and regulatory climate-related transition risks continued to represent substantial elements of our business strategy. In 2018 some of the key assumptions of our base case scenario, an evolutionary development of the energy markets derived by IEA NPS, were proven right. In Germany, the need to correct grid instability created by new renewables and by the closure of old conventional plants led to a public tender for new reserve capacity. Uniper won a tender to build a 300MW gas-fired new unit in Irsching. In line with our forecasts were also the EU ETS carbon price developments – which affect the profitability of our generation fleet.

For the medium term we anticipate relevant adjustments for the energy system where our conventional power plants will be increasingly used to ensure security of supply. The plan is to make optimal use of the existing, very well positioned portfolio and to selectively expand it in the changing environment. In terms of growth investments, Uniper focuses on gas business, as a fuel enabling transition to a lower carbon energy world.

The role of natural gas as enabler for the global energy transition represents a climate-related market opportunity, particularly for our gas trading and optimization business. Uniper plans to further expand its activities in the gas business in Europe and globally.

As owner and operator of a coal plant portfolio and a coal trading business, Uniper is exposed to risks associated with climate policies. For example, in the past years the French government released statements on phasing out coal. The early closure of all remaining coal-fired power plants in France by no later than the end of 2021 jeopardized Uniper's coal-fired generation in the country (1.2 GW). Against this backdrop, Uniper had to put its business activities in France under a strategic review. In 2019, Uniper sold its French business.

A diversification strategy will be followed also by our coal trading desk, looking to expand beyond the segment of thermal coal. Such an approach will allow to reduce market risks, mitigate the financial impacts of the coal phase out for energy use in several EU countries and to minimise potential climate-related supply chain disruption risks arising in countries where coal mining is hampered.

Uniper will continue to be confronted with a rapidly changing energy landscape: decarbonization, decentralization and digitization are three trends that will have a major impact on the energy world. Uniper has invested in efficiency (process and technical efficiency), energy storage and carbon utilization technologies. An example is the new power-to-gas plant in Falkenhagen (Germany), which allows the storage and usage of surplus energy from wind turbines as hydrogen and methane for transport and heating.

Relevant business decisions and examples of substantial strategic developments driven by climate-related issues

Among the most substantial business developments that are driven by climate-related concerns is the decision to not invest in any new coal-fired power plant after the commissioning of our 1.1 GW coal-fired power plant in Datteln, Germany. This decision was discussed at top management level since 2017 and was communicated in 2018. The Datteln case is expected to be driven by social and climate-related issues: in Germany the Commission on Growth, Structural Change and Employment in October 2018 suggested a complete phase out of any coal-fired plant by 2038, latest. This will affect the expected lifetime of the plant. Examples include modernization of plants (Russia) strategic review of investments (France), and others. But also Uniper participation in the greenfield gas project Nordstream II is a decision driven by our conviction of the role of gas in the phase of transition to a decarbonized world.

On the upstream of the value chain, there are no plans to directly own any stakes in gas exploration and production or to invest directly in coal mining. The company instead plans to expand its contractual portfolio and intensify trading and optimization activities. This should enhance Uniper's role as a mid-stream player and contribute to avoid direct exposure to any climate-related sharp devaluation of fossil reserves.

Links between strategy and emission reduction targets

The implementation of our business strategy seeks a balance between ensuring security of supply and supporting global decarbonisation. Dedicated sustainability commitments and targets have been approved by the Board of Management. They constitute integral part of the described strategy. The Sustainability Strategic Plan proposes improvement targets for Uniper main ESG performances, including climate-related ones until 2022.

Here below the specific climate-related commitments, targets and links to strategy:

- **Monitor and optimize the carbon intensity of Uniper's generation portfolio** – Uniper set a group-wide carbon intensity target in June 2018 of 500 g of CO₂ per kilowatt hour threshold (on average) from 2018 to 2020. It affects the whole generation mix, including hydro and nuclear assets. This is aligned with the expected higher utilization of gas-fired plants, despite the introduction of Datteln and the Berezovskaya plant in Russia. If the threshold is not met, proportioned and voluntary remediation measures shall be taken, in accordance with the "polluter pays" principle. This will not apply if the reason for missing the target is due to climate/weather-related issues (e.g. lower hydroelectric production). The magnitude and type of measures will be discussed on a case by case basis.

· **Include decarbonization activities as a focus area for innovation** – our target is to conduct, by 2022, at least 20 projects whose aims include decarbonization. This means that our project pipeline (e.g. in-house R&D, start-up partnerships, plant optimization and innovative engineering projects) will take in account the positive or negative impacts on the company and/or customers' carbon footprint. Projects that receive a Board approval need to include a clear assessment of their carbon footprint.

· **Promote lower-carbon fuels for energy generation** – no quantitative target has been defined, as it is directly linked with the company's sales volumes, by nature quite volatile. In general, we see our business model intertwined with low-carbon hydro and nuclear business, together with an overall stronger role for natural gas.

Internal capacity building efforts have been promoted, to better support the business and increase awareness of internal stakeholders.

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios	Details
2DS	Consideration of TCFD Recommendations In 2018, in a first approach to introduce climate scenarios, Uniper co-operated with the Bocconi University (Milan, Italy) for the identification and analysis of climate related scenarios in consideration of the TCFD recommendations and taking following variables into consideration: - Timing - Population - Macroeconomic variables - Discount rate - Policy - Carbon Price -Energy demand and energy mix - Price of commodities - Technology - Efficiency Concluding remarks of the 2DS "The Model 2DS pictures a likely future in line with a global decarbonisation focus, shifting towards efficiency and green technologies. It presents a rising trend for population, GDP, and global energy demand, but a clear reduction in reliance on fossil fuel technologies. Especially coal will be most dramatically affected, with oil also having to cope with a demand decrease. Shifts in the energy landscape away from fossil fuels could have significant implications for Uniper's business and profitability of assets. The increase in gas production to 2060 in the Model 2DS is another of these transitions, providing an economic opportunity for the company. Nonetheless, it is important to keep in mind that the increase in natural gas is projected to be weaker than the development of renewable energy sources." (Extract from the Report from Bocconi University) Uniper is in an early phase of climate related scenario analysis. Uniper requested an external proposal for the preparation of a decision paper for the board on the implementation of the TCFD recommendations.
Other, please specify (Rapid Decarbonisation Scenario)	Consideration of TCFD Recommendations In 2018, in a first approach to introduce climate scenarios, Uniper co-operated with the Bocconi University (Milan, Italy) for the identification and analysis of climate related scenarios in consideration of the TCFD recommendations and taking following variables into consideration: - Timing - Population - Macroeconomic variables - Discount rate - Policy - Carbon Price -Energy demand and energy mix - Price of commodities - Technology - Efficiency Concluding remarks of the RDS "Uniper should consider the Model RDS as a challenging climate scenario that puts pressure on its assets and sources of income. Analysing their resilience to this scenario will help identify specific transition risks that Uniper is most exposed to." (Extract from the Report from Bocconi University) Uniper is in an early phase of climate related scenario analysis. Uniper requested an external proposal for the preparation of a decision paper for the board on the implementation of the TCFD recommendations.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Scope

Scope 1

% emissions in Scope

99

Targeted % reduction from base year

1

Metric

Metric tons CO2e per megawatt hour (MWh)*

Base year

2017

Start year

2018

Normalized base year emissions covered by target (metric tons CO2e)

62257720

Target year

2020

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

% of target achieved

100

Target status

New

Please explain

The intensity target (average of 500 gCO₂ per kWh of generated electricity between 2018 and 2020) applies to direct CO₂ emissions from Uniper stationary assets selected under the financial control consolidation approach. Not included (less than 1%) are direct emissions (CO₂ equivalents) from CH₄ and N₂O from fossil fuel combustion as well as direct emissions from mobile sources and combustion for internal purposes such as heating, pumping, etc. This is the first CO₂ target disclosed by Uniper and is calculated yearly (calendar year) on the basis of well defined processes. The generation component includes electricity from all Uniper assets except 100% heat plants. Heat component from CHPs is converted into electricity equivalents. We consider 100% of target achievement as the intensity in 2018 was below the target (499g/kWh). Nonetheless, by definition the target is a three years average, therefore the intensity figure of 2018 cannot be understood as a target achievement. In regard to science based targets, Uniper needs to clarify if the reductions achieved since 1990 or 2005 through plant decommissioning are recognized for SBT or if only future reduction measures count from the SBT perspective. Depending on this we could commit to SBT.

% change anticipated in absolute Scope 1+2 emissions

-5

% change anticipated in absolute Scope 3 emissions

0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO₂e savings.

	Number of initiatives	Total estimated annual CO ₂ e savings in metric tonnes CO ₂ e (only for rows marked *)
Under investigation	5	4000
To be implemented*	2	0
Implementation commenced*	1	0
Implemented*	5	8978
Not to be implemented	1	0

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative type

Low-carbon energy installation

Description of initiative

Other, please specify (CO2 to Fuel)

Estimated annual CO2e savings (metric tonnes CO2e)

228

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

3-5 years

Comment

STORE&GO Falkenhagen Synthetic Natural Gas. This initiative (co-funded by the EU) allows the CO2-free production of hydrogen via alkaline electrolysis using 100% renewable (wind or solar) energy. Produced hydrogen can be directly used, injected into the natural gas pipelines or further transformed into synthetic methane gas via methanation, for which CO2 is added. Decoupling the energy from its renewable sources contributes to solve the issue of security of supply from those sources. Methanation Plant: - Full load capacity : 57 Nm3/h - Full load hours: 2000 p.a. - 114000Nm3 p.a. - Natural Gas would otherwise emit 228 t CO2. Project consortium consists of 28 members across Europe Opening: May 2018 Commissioning: July 2018 No commercial project, but technical demonstration Methanation plant in Falkenhagen will be operated for 2 years; after test operation it will be decided, whether plant will be further operated or decommissioned

Initiative type

Low-carbon energy installation

Description of initiative

Other, please specify (LNG stations for trucks - LIQVIS)

Estimated annual CO2e savings (metric tonnes CO2e)

1250

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

250000

Investment required (unit currency – as specified in C0.4)

Payback period

4 - 10 years

Estimated lifetime of the initiative

6-10 years

Comment

LIQVIS: this Uniper subsidiary develops LNG terminals and tanking systems for the transportation and logistic sectors. With LNG's significantly improved climate performance (through decreased CO2 emissions) and lower costs in regard to Diesel, through this business LIQVIS expects to have a role in the energy transition to a low carbon economy. In 2018, this implemented initiative allowed savings of about 1230 t of CO2 in Germany and France when compared to the displaced Diesel combustion.

Initiative type

Energy efficiency: Processes

Description of initiative

Heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

3000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

Representatives of Minegas and Uniper Wärme GmbH commissioned in 2017 the heat recovery from the existing CHP blocks located in the Hugo 2/5/8 Shaft facility close to Gelsenkirchen. With a heat capacity of 3,5 MW the heat injected into Uniper heat pipelines can cover the heat needs of about 2000 households. In 2018 this initiative generated 16791 MWh, which corresponds to approximately 3000tCO2 that would have been otherwise emitted using alternative heat production.

Initiative type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

4000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

90000

Investment required (unit currency – as specified in C0.4)

0

Payback period

Please select

Estimated lifetime of the initiative

6-10 years

Comment

This measure correspond to an efficiency improvement measures at Uniper Grain Power Plant in the UK, which improved the plant efficiency by 0,2%. Revisions to Grain's heat rate parameters to take effect for post C inspection (efficiency update from 58.17 % to 58.37% at Pmax) thanks to the implementation of the Advanced Performance Package (APP) (main products: peak mode, flex mode, extended life mode, fast start) Approximate annual savings are sum of CO2 costs (at spot EU ETS price) and cost of fuel required to generate the difference of efficiency achieved. Update in unit 7 in June. Update in unit 6 and 8 in October

Initiative type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

500

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

0

Payback period

Please select

Estimated lifetime of the initiative

Please select

Comment

Berezovskaya (Russia): Reconstruction of gaskets in the places of the passage of collectors through fencing constructions of the boiler units 1 and 2. The increase of efficiency rate was 0,012%

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for low-carbon product R&D	Carbon recycling/ CO2 utilization Converting captured CO2 into competitive and sustainable products can contribute to reducing CO2-emissions. That's just one example of how we are thinking about changes in the energy sector to attractive business opportunities – for us and for our potential customers. Because we see CO2 as a valuable resource, not a waste product. These business models are part of Uniper's DNA, owing to the experience we have in capturing CO2 at our power plants. Moreover, in the past we've also made direct use of CO2 by supplying it to greenhouses, for example. We intend to build on this experience and will continue to expand our know-how in the field of CO2 conversion to create high-quality products, chemicals and fuels. We believe we will be able to develop viable and scalable business models in this field. Technical feasibility is an important issue – one we are working on intensively. Of equal importance, however, is the need to eliminate the legal and regulatory barriers to large-scale deployment of these new technologies. A goal that we at Uniper are also committed to achieving. Supplying carbon to greenhouses in Russia: ECO-Culture, one of Russia's biggest agricultural companies, is building a large complex of greenhouses near our Berezovskaya power plant, which is currently undergoing repairs. When these are completed, Berezovskaya will provide heat and CO2 to the greenhouses. This will enable it to derive more energy from each unit of fuel and to put some of its carbon emissions to good use.
Dedicated budget for low-carbon product R&D	Hydrogen Decarbonization is the most important driver for long-term scalable hydrogen business, but there are also short-term drivers such as local emission reduction, security of supply, diversification, system optimization and technology switch. Beside our already operational sustainable hydrogen production installations (electrolysis in Falkenhagen and Reitbrook, Germany) we investigate, where hydrogen could play already today a relevant role, to support and develop the sustainable hydrogen market to take off. The uptake of the market depends mainly on political agenda and technology costs.
Dedicated budget for energy efficiency	New flexibility New flexibility based on innovative technologies for the power grid is part of our innovation agenda – power-to-gas for sector coupling is one element of this activity that addresses also the low-carbon hydrogen market. Another key element is battery storage: -peaking and peak shaving capacity and integration of renewable energy systems enabling the energy transition -demand reduction & management for industry -ancillary grid services to enable higher share of intermittent renewables in the power grid In 2017 we have successfully marketed the flexibility of MSBAT (a hybrid of different battery technologies that optimally combines storage capacities for periods of seconds, minutes or hours, whereby the storage system is designed for a total storage capacity of around 5 megawatt hours (MWh)). Additionally, we explore e-mobility and help overcome one of its major concerns: fast charging must be available everywhere for everyone. With our know how in energy we explore the options to become the enabler for the breakthrough of e-mobility. Additionally, we do see the potential of mobile EV batteries to become an energy storage to increase integration of renewable electricity.
Dedicated budget for other emissions reduction activities	Explorer project: Project to test different ideas where renewables are used in "hybrid" solutions aiming at industrial customers. "hybrid" solution is a combination of renewables, energy storage, possible Diesel and/or gas engines and digital technology. Goal is to decide if this is something for Uniper to do on a larger scale or not and how this should be done if it is decided to proceed.
Compliance with regulatory requirements/standards	Upstream: In Europe EU ETS compliance requirements drives emission reduction activities, additionally the German federal government's policy decisions to the phase out of nuclear power by 2022 and to transform the country's energy system; Downstream: In the UK for example there is CERT and CESP which drive emission reduction activities.
Dedicated budget for energy efficiency	Upstream business: Each power generation asset manages its own controllable cost. Energy efficiency is just one element of controllable costs. Downstream Business: Energy efficiency is one of the strategic subject areas for Uniper. The EU energy efficiency directive entered into force in December 2012 and was also part of our activities in 2017. Among other provisions, it obliges all energy distributors and energy retailers to achieve, between 2014 and 2020, annual savings of 1.5 percent on the amount of energy they sell to their customers. However, member states have the option of replacing this provision with alternative measures that achieve a comparable effect. The other provisions afford member states a similar degree of flexibility. Consequently, how the directive is transposed into national law is of significance and could pose risks for our regional units. Most member states transposed the directive into national law in 2014. Although the increasing efforts to enhance energy efficiency in all European energy markets create sales-volume risks for Uniper, they also create new sales opportunities by enlarging the market for energy-service businesses. In the UK for example the Uniper business is structured to deliver energy efficiency measures to our customers and as such therefore have dedicated budgets.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Product

Description of product/Group of products

Synthetic Natural Gas

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year

0

Comment

Project Concept development: 2017. Opening ceremony of methanation plant: May 2018 Technical commissioning scheduled for July 2018. LCI Registry Taxonomy: Energy Storage – New Technologies that Increase Energy Storage Capacity.

Level of aggregation

Product

Description of product/Group of products

Liquefied Natural Gas for Trucks

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year

0

Comment

Incentive of use of LNG as fuels for trucks through communication campaign and construction of filling stations. LCI Registry Taxonomy – Transport – Transport Logistics – Systems and Technologies that improve efficiency of vehicle and passenger movements.

Level of aggregation

Product

Description of product/Group of products

Electrolysis Hydrogen

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year

0

Comment

Still no business case as no willingness to pay for green hydrogen but we see this as an important mid-term opportunity. Highly depending on regulatory framework (e.g. subventions or mandatory use). LCI Registry Taxonomy

Level of aggregation

Group of products

Description of product/Group of products

Hydroelectricity from Hydro power plants (Sweden) Hydroelectricity from Hydro power plants (Germany) Hydroelectricity from HydroPower(Austria) Nuclear power production (Sweden)

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year

9.5

Comment

We commercialize the corresponding certificates of origin. Revenue calculated on the basis of share of electricity produced by the company.

Level of aggregation

Group of products

Description of product/Group of products

Service to optimise third party assets

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year

0

Comment

Uniper is carrying out numerous activities to reduce the carbon footprint of industrial and municipal customers, by either process optimization, e.g. heat integration, or by supporting them as general planner to build cogeneration units. Furthermore, technical experts can help to reduce power consumption by planning the exchange of lighting installations or electrical drives. Studies to use solar heat generation or biomass as fuel have also been carried out.

Level of aggregation

Product

Description of product/Group of products

Solar Energy: two photovoltaic farms in France with a total installed capacity of 10,5 MW

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year

0

Comment

Level of aggregation

Product

Description of product/Group of products

Wind power: six onshore wind farms in France with a total installed capacity of 84 MW

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

% revenue from low carbon product(s) in the reporting year

0.2

Comment

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.

Methane emissions from Uniper business can be categorized as follows:

1. CH4 release from losses of Natural Gas from Uniper Gas Storage Business. Natural Gas releases into the atmosphere as losses related to storage and pumping activities are inherent to the natural gas storage business. In the interest of the own business we make systematically our best efforts to minimize those releases. Methane releases can be classified into leaks, and process related releases for pipeline maintenance, repair or exchange measures. Leaks are repaired as soon as they are identified and leaked volumes can be only roughly estimated through mass balance. Initiatives to capture voluntary releases of Natural Gas are constantly being assessed against their financial viability. In the reported year, Uniper did not have methane reduction targets.

Already realized projects/ measures (all of them running in 2018):

- Flaring of emissions from labyrinth seals of compressor units (Etzel ESE)
- Definition of closed relief areas to minimize vent gas (Epe 2017, Bierwang, implemented 2016):
- Access points in process piping (Bierwang, implemented 2017) → possibility to route gas to CHP that is not directly connected
- Compressed air or nitrogen as replacement for methane actuator gas (Bierwang, implemented 2017)
- Losses from planned maintenance measures are flared (Etzel ESE)

Upcoming projects/ measures

- Buffer piping → use of subsurface piping sections to buffer methane for further use in CHP (not a fixed measure à ongoing studies)(no decision for subsurface buffer tanks yet)
- Mobile GRMS to route high to low pressure gas usage (Epe)
- Set up of recompression system for planned maintenance measures (Epe)
- Exchange of gas starting systems on the last two engines (compressed air/electrical)
- Ongoing studies on flash gas tanks to reduce flash gas emissions
- Ongoing studies on leakage detection systems (detection by drones, cars, cameras etc.)

2. CH4 release from combustion of fossil fuels in electricity generation assets. This category corresponds to the residual methane released resulting from the combustion of each fuel and is calculated in Uniper's Carbon Footprint by multiplication of the fuel amounts by a valid (Greenhouse Gas Protocol) and updated fuel specific emission factor. Uniper's business interest is to maximize the combustion efficiency as much as possible, nonetheless nothing can be technically done to reduce CH4 emissions of this residual amounts of CH4. **Example:** The combustion of 936.009.645 m3 of Natural gas in our ROCA plant in the Netherlands generated 296733 t CO2. This combustion process releases marginal amounts of CH4 and N2O, which are also considered greenhouse gases and for which a Global Warming Potential (GWP) is defined. In the case of CH4, the ratio of CO2 eq from CH4 (including GWP of 25 β Laut Marcogaz 28) and the emitted CO2 is 0,00141, which means that for each ton of CO2 released 0,00141t COeq must be added due to the effect of the release of CH4.

3. CH4 release from coal extraction. Uniper business related coal extraction activities are undertaken by third parties that provide coal to Uniper for both commodity trading activities and combustion in our own assets. Uniper is member and co-funder of Better Coal and two of its board members are currently Uniper employees. Even though not all Uniper coal providers are Better Coal Suppliers, the assessment of this condition is part of Uniper's due diligence process to select its coal providers and Uniper not only recognizes a competitive advantage when candidate providers are Better Coal Suppliers. Chapter 9.3 of the Better Coal Code refers to requirements to coal mining companies regarding emissions to air, including specific requirements to greenhouse gases. Quantification under recognized national standards, internationally recognized methodologies and good practices are part of these requirements, as well as procedures to minimize fugitive emissions from tailing facilities, waste dumps, stockpiles and other exposed areas.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

72839561

Comment

Including EU ETS and Russian reporting scheme corporate emissions. Emissions also include N2O and CH4 equivalents from fuel combustion as well as other minor direct emissions from the activity (owned vehicles and leased vehicles, internal fuel consumption for heating, pumping, etc). Updated emission factors obtained from valid sources (UBA and DEFRA) are used.

Scope 2 (location-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

211288

Comment

Calculations based on valid grid emission factors of each of the relevant countries (UBA & DEFRA, 2015/2016)

Scope 2 (market-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

280035

Comment

Calculations based on residual mix emission factors of each of the relevant countries obtained from the association of issuing bodies (2015)

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

Other, please specify (Russian Federation methodology for the calculation of CO2)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

Uniper reports most of its Scope 1 (direct) emissions under the EU-ETS (about 57% of Scope 1 emissions for 2018). Our plants in Russia account CO2 emissions according to the greenhouse gas emission monitoring and reporting methodology proposed by the federal government (affecting about 42% of Scope 1 emissions in 2018). In Russia (Uniper assets include 5 plants, 4 of them operating with natural gas and one with brown coal), the Russian Federation government offers a method to calculate CO2 emissions, but there is no obligation to report those as it is the case in Europe under the EU-ETS.

Other Scope 1 subcategories comprising significantly smaller emission amounts are not accounted under the above-mentioned schemes. Examples include N2O and CH4 released during fossil fuel combustion, released natural gas (mainly CH4) without combustion (for example pipeline maintenance/replacement procedures), as well as minor SF6 releases due to broken devices containing this gas, and emissions from owned mobile devices. Those emissions as well as Scope 2 emissions, are accounted under the principles and procedures of the Greenhouse Gas Protocol. Data sources and responsibilities are partially centralized and partially decentralized. During 2018 Uniper implemented a new data collecting system (Sinergy Life) for the HSSE department, including Scope 1 and 2 emission data, after an adaptation of the software in co-operation with the software provider. National CO2 coordinators (NCCs) fed Sinergy Life for the first time in 2018 with good results. This data feeding task will be forwarded to the Local CO2 Coordinators (plant level) from the data gathering process 2019 onwards.

In order to ensure emission data consistency with the data from the EU ETS, for Scope 1 data we collect the emission data after being calculated locally using EU-ETS approved Emission Factors, which may differ between EU countries.

For Scope 2 emissions we use country specific grid emission factors (location based method) and residual mix emission factors (market based method) obtained from DEFRA or the Association of Issuing Bodies, respectively.

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

59783519

Start date

January 1 2018

End date

December 31 2018

Comment

Figure includes EU-ETS emissions, Russian asset direct emissions, owned & controlled mobile emissions, CO2e from CH4 and N2O from fuel combustion, biomass emissions, combustion from internal minor processes (heating, pumping), Natural Gas controlled and uncontrolled (estimated) releases and CO2e from SF6.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

To know the relationship between the two approaches, Uniper has decided to calculate both. For location based approach, calculations were made using a calculation tool which includes valid Grid Emission Factors (UBA & DEFRA, 2015/2016). For market based approach calculations were based on the country specific residual mix emission factors from the ASSOCIATION OF ISSUING BODIES (2015) considering that no certified low carbon energy was purchased.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

265968

Scope 2, market-based (if applicable)

339871

Start date

January 1 2018

End date

December 31 2018

Comment

This volumes include both purchased electricity and purchased heat amounts (same heat related emissions volume for both approaches as no alternative approaches available for heat). Location based Scope 2 Emissions from electricity were calculated using valid National Grid emission factors, whereas marked based Scope 2 emissions from electricity were calculated using residual mix emission factors issued by the ASSOCIATION OF ISSUING BODIES (2015). No certified low carbon electricity was purchased in the period. Emissions from heat purchases were calculated using a default emission factor of 0,0001974 tCO2/kWh

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1327889

Emissions calculation methodology

Uniper has own defined categories for purchased goods and services. We link each of those categories to the categories defined by DEFRA for goods and services for which emission factors have been defined. Once the correspondence of categories is done, the amount of money spent is multiplied by the corresponding emission factor, obtaining an estimate of related emissions.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Explanation

For internal financial accounting, all goods and services related purchases (including capital goods) are registered under a large list of categories defined by Uniper. Those were linked to the DEFRA list of goods and services, and its Emission Factors have been used to calculate this categories emissions.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1163254

Emissions calculation methodology

Uniper has own defined categories for purchased goods and services. We link each of those categories to the categories defined by DEFRA for goods and services for which emission factors have been defined. Once the coorespondance of categories is done, the corresponding amount of money spent is multiplied by the respective emission factor, obtaining an estimate of related emissions.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Explanation

For internal financial accounting, all goods and services related purchases (including capital goods) are registered under a large list of categories defined by Uniper. This list's elements were linked to the DEFRA list of goods and services, and its Emission Factors have been used to calculate this categories emissions. All data sources are internal.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

10291578

Emissions calculation methodology

Well-to-tank emissions are calculated using updated DEFRA Emission factors and volumes of fuel (by fuel type) consumed during the year. Upstream T&D losses and upstream heat emissions are calculated using the Scope 2 amounts of electricity and heat purchased multiplied by updated corresponding DEFRA emission factors.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Explanation

All data sources are internal.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

The non-energy related transportation and distribution is irrelevant at Uniper due to the nature of the business (energy generation). We do transport/distribute significant amounts of fuels for both own and third party consumption, but related emissions are already accounted under cat.3 (Energy Related Emissions). On the other hand, emissions from other goods are also accounted under cat. 1. and 2. (Goods & Services and Capital Goods).

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Uniper is integrating the available information of solid waste generation. So far we have assumed that the CO2 relevant waste is negligible due to the nature of the business, and it would be limited mainly to domestic waste and paper/paperboard, but aiming to have an overall view of waste generation, Uniper is putting some efforts in clustering different waste categories of the different countries where it operates, in order to better assess the GHG relevance of the resulting amounts of waste not used for any reuse or recycling activity. For this reason we have classified this category as relevant but not yet calculated.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5070

Emissions calculation methodology

Calculation was done using air travel data (point to point segments in km), DEFRA and GHGP emission factors for air travelling (Kg CO2e). Value provided is the most conservative (highest) of both.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Only air travel included. Other means of mobilization not included yet.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

12935

Emissions calculation methodology

This calculation is highly uncertain but we have estimated related emissions based on following very conservative assumptions: - 11780 employees - 220 working days a year - average distance to work of 18 km (110% of German average) - 24% of office workers and 32% of plant workers driving a middleclass diesel car with a consumption of 6,5/100km - 50% of workers in offices, 50% in plants -30%of office workers and 40% of plant workers using open mobilization services 2018 DEFRA Emission factors used

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Uncertainty very high and small volumes (compared to Scope 1 emissions). Difficulties to obtain employee commuting information for personal data safety reasons (legally protected). We are looking for options to reach better GHG volumes related to this category but we do not expect significant variations. Conservative assumptions were made.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Main sources of emissions from leased assets are related to energy consumption (lighting and heating), which is already accounted under Scope 2.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Fuels transported by Uniper have three possible destinations: own consumption, final user or reseller. Emissions for owned consumption were already accounted as part of the Well-to-Tank (WTT) emissions calculated on the base of type and amount of fuel consumed under Scope 3.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Uniper does not sell any products which would require an emission relevant processing. We combust and trade fuel commodities which do not require any previous processing beyond transportation and storage.

Use of sold products

Evaluation status

Not evaluated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Once combusted, fuels are reduced to combustion products, mainly CO2 and H2O. Therefore there is no end of life treatment to consider in Uniper business.

Downstream leased assets

Evaluation status

Not evaluated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Uniper does not have a significant amount of buildings being leased to third parties.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Uniper does not operate under the franchising business model.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Uniper did not make any emission relevant investment in 2018. Emissions from our Datteln 4 plant (pre-operation phase) were considered under Scope I.

Other (upstream)

Evaluation status

Not evaluated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Other (downstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biologically sequestered carbon relevant to your organization in metric tons CO2.

Row 1

Emissions from biologically sequestered carbon (metric tons CO2)

305261

Comment

These volumes correspond to our facilities in France (Provence 4, with 303,205 t CO2 from wood) and the Netherlands (Maasvlakte, 2056 t CO2 from biopropane).

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.77

Metric numerator (Gross global combined Scope 1 and 2 emissions)

60.11

Metric denominator

unit total revenue

Metric denominator: Unit total

78.18

Scope 2 figure used

Location-based

% change from previous year

13.9

Direction of change

Decreased

Reason for change

Uniper sales were about 7,6% higher in 2018 than in 2017, nonetheless Scope 1 emissions decreased by about 6%. This explains the significant decrease in specific emissions related to revenue. Numerator expressed in mt CO2, denominator expressed in billion EUR. Source: Annual Report 2018.

Intensity figure

0.000527

Metric numerator (Gross global combined Scope 1 and 2 emissions)

60.11

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

113902

Scope 2 figure used

Location-based

% change from previous year

0.6

Direction of change

Decreased

Reason for change

Scope 1 Emissions decreased 6,1% in 2018, whereas generation decreased only 5,5%. Te intensity decrease is due to this change. Intensity figure represents tCO2/MWh. This intensity figure is not comparable with our published CO2 intensity, as by definition it does not include Scope 2 Emissions (as requested here) and the Scope 1 boundary is different (biomass emissions, CHPs consideration and others).

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	59560715	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	94391	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	128374	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	5	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	4.18	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0	1802	0	45050	NO CO2 fugitive emissions.
Combustion (Electric utilities)	59559776	1974.8	0	59609146	Emissions due to Combustion in electricity generation assets
Combustion (Gas utilities)	0	0	0	0	
Combustion (Other)	940	0	0	940	Combustion from owned and leased vehicles
Emissions not elsewhere classified	0	0	0	128374	CO2 equivalents from N2O

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Germany	17319381
Russian Federation	25345496
United Kingdom of Great Britain and Northern Ireland	7670548
Netherlands	5530601
Sweden	10579
France	2959426
Hungary	847454
Czechia	94710

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Uniper Kraftwerke	17183485.7
Uniper UK PLC	7670548.5
Sydskraft Thermal Power AB	8781.4
Sydskraft Hydro Power AB	351.81
Uniper Benelux NV	5530601.2
Uniper France Power	2959426.9
Uniper Hungary Elektrikai Kft.	847454
OKG	1446.02
Unipro	25345495.9
Uniper Energy Storage DE	135895
Teplarna Tabor	94710.5

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility generation activities	59778197	<Not Applicable>	Overall sum of direct Scope 1 emissions in 2018, including operations (in 8 countries) and non-operational sources (internal non ETS emissions, owned vehicles, CH4 and N2O, volatile gases).
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Germany	157385	221506	290029	0
Russian Federation	59617	59617	151378	0
United Kingdom of Great Britain and Northern Ireland	827	1135	2351	0
Netherlands	29107	41952	72960	0
Sweden	4833	2153	46386	0
France	1122.64	705	19027	0
Hungary	175.4	207	551	0
Czechia	0	0	0	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Uniper Kraftwerke GmbH	155009	217822
Uniper UK plc	826.6	1135.7
Sydskraft Thermal Power AB	679.4	1483.5
Sydskraft Hydro Power AB	67.6	136.22
Uniper Benelux NV	29107	41952
Uniper France Power	1122.7	705
Uniper Energies Renouvelables S.A.S	0	0
Uniper Hungary Energetikai Kft.	175.3	207
OKG	4086	534
Unipro	59617	59617
Uniper Wärme	0	0
Uniper Energy Storage DE	2375.4	3684
Uniper Energy Storage UK	0	0
Uniper Benelux Holding	0	0
Uniper Generation Belgium	0	0
Teplarna Tabor	0	0

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	No change in RE consumption during 2018
Other emissions reduction activities	0	No change	0	No significant other emission reduction activities undertaken in 2018
Divestment	2363845	Decreased	4.7	Maasvlakte Plants 1 and 2 in Netherlands stopped operations in 2017, therefore they were not part of the accounting in 2018 anymore.
Acquisitions	0	No change	0	No emission relevant acquisitions in 2018
Mergers	0	No change	0	No mergers in 2018
Change in output	606040	Decreased	1.3	Reduction in generation in Uniper assets located in France and Russia. Increase in Germany and UK with an overall balance of 4% decrease
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	Boundary was the same as previous year in 2018
Change in physical operating conditions	0	No change	0	No relevant change in physical conditions
Unidentified	0	Please select	0	
Other		<Not Applicable>		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 30% but less than or equal to 35%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	249344400	249344400
Consumption of purchased or acquired electricity	<Not Applicable>	0	40277	40277
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	320793	<Not Applicable>	320793
Total energy consumption	<Not Applicable>	0	249384677	249705470

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

62665000

MWh fuel consumed for self-generation of electricity

62665000

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

Amount of energy calculated from amount of coal combusted and coal emission factor from DEFRA

Fuels (excluding feedstocks)

Lignite Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

35766400

MWh fuel consumed for self-generation of electricity

35766400

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

Amount of energy calculated from amount of lignite combusted and lignite emission factor from DEFRA

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

150913000

MWh fuel consumed for self-generation of electricity

150913000

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

Amount of energy calculated from amount of Natural Gas combusted and Natural Gas emission factor from DEFRA

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Coal

Emission factor
0.307

Unit
metric tons CO2 per MWh

Emission factor source
DEFRA 2017

Comment

Lignite Coal

Emission factor
0.321

Unit
metric tons CO2 per MWh

Emission factor source
DEHST 2017

Comment

Natural Gas

Emission factor
0.184

Unit
metric tons CO2 per MWh

Emission factor source
DEFRA 2017

Comment

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	117319060	3519571	10515000	315450
Heat	4866948	146008	0	0
Steam	3147274	94418	0	0
Cooling	0	0	0	0

C-EU8.2e

(C-EU8.2e) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)
7200

Gross electricity generation (GWh)
21442

Net electricity generation (GWh)
20818

Absolute scope 1 emissions (metric tons CO2e)
19238159

Scope 1 emissions intensity (metric tons CO2e per GWh)
897.2

Comment

Gross Generation has been considered for this calculation

Lignite**Nameplate capacity (MW)**

3200

Gross electricity generation (GWh)

11294

Net electricity generation (GWh)

10966

Absolute scope 1 emissions (metric tons CO2e)

11472101

Scope 1 emissions intensity (metric tons CO2e per GWh)

1015

Comment

Gross Generation has been considered for this calculation

Oil**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Oil assets included in "Gas"

Gas**Nameplate capacity (MW)**

20900

Gross electricity generation (GWh)

62352

Net electricity generation (GWh)

60536

Absolute scope 1 emissions (metric tons CO2e)

28072602

Scope 1 emissions intensity (metric tons CO2e per GWh)

450.2

Comment

Includes both Oil and Gas Assets. Gross generation used for the intensity calculation.

Biomass**Nameplate capacity (MW)**

150

Gross electricity generation (GWh)

803.4

Net electricity generation (GWh)

779.6

Absolute scope 1 emissions (metric tons CO2e)

303205

Scope 1 emissions intensity (metric tons CO2e per GWh)

3374

Comment

Intensity calculated on the base of gross generation

Waste (non-biomass)

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Nuclear

Nameplate capacity (MW)

1400

Gross electricity generation (GWh)

11050

Net electricity generation (GWh)

10729

Absolute scope 1 emissions (metric tons CO2e)

1280

Scope 1 emissions intensity (metric tons CO2e per GWh)

8.63

Comment

Gross electricity generation was used

Geothermal

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Hydroelectric

Nameplate capacity (MW)

3600

Gross electricity generation (GWh)

10650

Net electricity generation (GWh)

10340

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Wind

Nameplate capacity (MW)

84

Gross electricity generation (GWh)

177

Net electricity generation (GWh)

175

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Solar

Nameplate capacity (MW)

11

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Other renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Other non-renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Total**Nameplate capacity (MW)**

36600

Gross electricity generation (GWh)

117319

Net electricity generation (GWh)

113902

Absolute scope 1 emissions (metric tons CO2e)

59738469

Scope 1 emissions intensity (metric tons CO2e per GWh)

509.2

Comment

This intensity value includes emissions from non operational scope 1 sources as well as biomass and does not include electricity equivalents from heat generation. Therefore it cannot be used to assess our intensity target, which boundaries include electricity equivalents from CHPs, exclude non operational scope 1 emissions and exclude biomass emissions.

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

Low-carbon technology type

<Not Applicable>

Region of consumption of low-carbon electricity, heat, steam or cooling

<Not Applicable>

MWh consumed associated with low-carbon electricity, heat, steam or cooling

<Not Applicable>

Emission factor (in units of metric tons CO2e per MWh)

<Not Applicable>

Comment

Uniper did not purchase any low-carbon electricity

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?

No

C9. Additional metrics**C9.1**

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-EU9.5a

(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Coal – hard	499710000	26	2020	
Lignite	543740000	29	2020	
Oil	6820000	0	2020	
Gas	435860000	23	2020	
Biomass	64000000	3	2020	
Waste (non-biomass)	2300000	0	2020	
Nuclear	165700000	9	2020	
Hydroelectric	188280000	10	2020	

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Please select				

C-CO9.6/C-EU9.6/C-OG9.6

(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.

Investment start date

January 1 2018

Investment end date

December 31 2018

Investment area

Equipment

Technology area

Infrastructure

Investment maturity

Small scale commercial deployment

Investment figure

Low-carbon investment percentage

0-20%

Please explain

LIQVIS: this Uniper subsidiary develops LNG terminals and tanking systems for the transportation and logistic sectors. With LNG's significantly improved climate performance (through decreased CO2 emissions) and lower costs in regard to Diesel, through this business LIQVIS expects to have a role in the energy transition to a low carbon economy.

Investment start date

January 1 2017

Investment end date

December 31 2017

Investment area

Products

Technology area

Energy storage

Investment maturity

Pilot demonstration

Investment figure

1500000

Low-carbon investment percentage

0-20%

Please explain

STORE&GO Falkenhagen Synthetic Natural Gas. (18M€ EU funding, 1.5M€ Uniper part) This initiative allows the CO2-free production of hydrogen via alkaline electrolysis using 100% renewable (wind or solar) energy. Produced hydrogen can be directly used, injected into the natural gas pipelines or further transformed into synthetic methane gas via methanation, for which CO2 is added. Decoupling the energy from its renewable sources contributes to solve the issue of security of supply from those sources. Methanation Plant: - Full load capacity :57 Nm3/h - Full load hours: 2000 p.a. - 114000Nm3 p.a. - Natural Gas would otherwise emit 228 t CO2. Project consortium consists of 28 members across Europe.No commercial project, but technical demonstration. Methanation plant in Falkenhagen will be operated for 2 years; after test operation it will be decided, whether plant will be further operated or decommissioned. Investment includes support from the European Union.

Investment start date

January 1 2018

Investment end date

December 31 2018

Investment area

R&D

Technology area

Carbon capture and storage/utilisation

Investment maturity

Applied research and development

Investment figure

Low-carbon investment percentage

0-20%

Please explain

ECO2 Project, a co-operation to investigate CO2 chemically binding potential, was concluded in 2018. 50-70% of CO2 can be chemically bound, depending on the exhaust gas volume flow. Binding of CO2 can be applied to any CO2 source as end-of-pipe solution, with costs of about 250Euro/t (experimental scale), significantly reduceable when scaling up.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Uniper Vermerk_sNFR_limited_English_20190214_final.docx

Page/ section reference

The evidence provided corresponds to limited assurance (provided by PWC) as only one document can be uploaded as evidence. Nonetheless, 57% of Unipers emissions (those included in the EU ETS) have been verified according to the rules of the EU ETS which level of assurance corresponds to "Reasonable Assurance".

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

57

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Uniper Vermerk_sNFR_limited_English_20190214_final.docx

Page/ section reference

We are requesting a third party verification for our Scope 1 emissions in Russia (42% of corporate Scope 1 emissions under operational control approach) for the first time, which are not mandatory as under the EU ETS.

Relevant standard

Other, please specify (Independent verification of operational CO2 Emissions in Russian assets (5 locations))

Proportion of reported emissions verified (%)

42

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

UK carbon price floor

C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.

EU ETS

% of Scope 1 emissions covered by the ETS

57.3

Period start date

January 1 2018

Period end date

December 31 2018

Allowances allocated

717026

Allowances purchased

33234896

Verified emissions in metric tons CO₂e

33951922

Details of ownership

Other, please specify (Facilities we operate, regardless of ownership (Operational Control approach))

Comment

Operational control approach. Biomass emissions included (despite being accounted with Emission Factor of 0).

C11.1c

(C11.1c) Complete the following table for each of the tax systems in which you participate.

UK carbon price floor

Period start date

January 1 2018

Period end date

December 31 2018

% of emissions covered by tax

22.4

Total cost of tax paid

154415380

Comment

Amount expressed in Euro, using a conversion rate of 1,12264 EUR/GBP from xe.com on 14.6.2019

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

Uniper supports any CO2 regulation system that is market oriented. Currently Uniper must participate in e.g. the UK carbon price floor and the EU ETS by law. Therefore, Uniper's installations comply with the system by obeying its underlying rules and regulations. Since Uniper manages CO2 like any other commodity such as coal or gas we develop e.g. a hedging strategy to minimize CO2 market risk and to maximize the contribution of this commodity to Uniper's performance. For the purpose of financial analysis of coal and gas fire plants, spot market price of CO2 certificates (EU ETS) is used for all countries except Russia (as no CO2 trading system in place). This allows for a short-term decision process; which kind of power station is dispatched to fulfil the demand of power. The stocking of certificates for generation is planned centrally. We have integrated carbon risk into our operational decision making for projects. All projects that fall within the requirements of the EU ETS have a financial assessment based on their future emissions which allows to identify the most profitable option.

On the operational side, we created the Uniper Competence Service Center CO2 to serve as our central entity for collecting and managing data relating to carbon emissions and EUAs. This improves the quality of our planning and makes Uniper's participation in the ETS more efficient. Uniper has documented processes to ensure compliance with the EU ETS. Moreover, Uniper has trained personnel both at site and group (centralized) level, thus ensuring a high quality MRV system.

To be politically and financially viable, the strategies for achieving climate related objectives require a stable investment framework. Such strategies will involve capital-intensive assets with operating lives lasting several decades. To have the confidence to operate such assets, energy companies like Uniper need a consistent, predictable policy and regulatory environment. To assist us in our decision-making, we discussed scenarios reflecting assumptions about carbon prices levels (e.g. carbon allowances may become scarcer, resulting in higher carbon prices) and other future developments in energy markets. In this way, climate protection is factored into our planning, investment decisions, and risk management.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

Other, please specify (Certified Emission Reductions (CER) from CDM projects)

Project identification

We use CERs from several CDM Projects (Kyoto Protocol Mechanisms) in accordance with the EU ETS rules, without focusing on any particular project sector or technology. Therefore the nature of those CERs varies depending on price conditions, which plays the top criterion for the procurement.

Verified to which standard

CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)

8765

Number of credits (metric tonnes CO2e): Risk adjusted volume

8765

Credits cancelled

Yes

Purpose, e.g. compliance

Compliance

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations
Drive energy efficiency
Stress test investments
Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Application

Uniper Commodity Outlook (UCO) EUA prices included in investment decisions

Actual price(s) used (Currency /metric ton)

22.15

Variance of price(s) used

Evolutionary pricing

Type of internal carbon price

Shadow price

Impact & implication

The applied Uniper internal carbon price is derived from the future commodity outlook which forecasts EUA prices based on fundamental market factors. In the context of the Uniper asset fleet strategy, this price is used to make judgements on future power plant investments. No new coal plants to be invested in (strategic announcement).

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism
Code of conduct featuring climate change KPIs

% of suppliers by number

100

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Uniper has following documented conditions on HSSE for providers and business partners including climate related conditions: - Provider Code - General Procurement Conditions - Safety and Environmental Guideline for Partner Companies Control measures (including auditing) are defined in those documents and breaching of the agreed conditions could affect the relationship and therefore the continuity of ongoing works. Uniper reviews this documents periodically.

Impact of engagement, including measures of success

The conditions related to climate impacts set by Uniper demonstrate that corporate climate responsibility is not understood only within Uniper walls. Those conditions for providers and partners are expected to increase in response to the increasing interest on this topic by the top management, partially as a result of the rising pressure from shareholders, regulatory framework (Non-financial reporting, BREF, voluntary initiatives (TCFD), but also on relation to own climate related criteria.

Comment

Uniper will increase the emphasis on climate responsibility in the supply chain by further specifying climate related conditions for partners and suppliers.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

100

% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

Uniper strongly considers Natural Gas as the fuel of the transition considering its reduced climate impacts compared to coal and its potential to secure energy services during decarbonization. Uniper identifies in "Coal to Gas" business opportunities considering the potential of its coal plants for this fuel switch and publishes this concept transparently.

Impact of engagement, including measures of success

As impact Uniper expects: - better understanding of the limitations of the coal exit without affecting the energy services - the need of transition solutions for the decarbonization process with Natural Gas playing a central role

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations
- Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support	Uniper very clearly supports a strengthening of the EU-ETS. This has been addressed by speeches and talks with politicians as well as journalists by our Political Affairs team.	Permanent proposals of improvements of the EU-ETS mechanisms in our condition as user.
Cap and trade	Support	Indirect engagement in discussions on CO2 price stability mechanisms (Backloading and Market Stability Reserve)	Implementation of Backloading and Market Stability Reserve Mechanisms by the European Commission.
Energy efficiency	Support	Issue is addressed in speeches and talks by the CEO and other senior executives.	The market driven development is supported by a strengthened European Emissions Trading Scheme that should become the leading instrument to address climate change.
Other, please specify (Coal Phase Out)	Support with major exceptions	Germany: general support for establishment of coal commission. Closely following discussions during 2018. NL: Proposed phase-out until 2030 only if Uniper is compensated for losses	Germany: No proposals so far.
Other, please specify (Support of Renewable Energy)	Support with minor exceptions	Support market oriented reforms via EFET	No specific proposals
Other, please specify (Implementation of Energy Efficiency Laws)	Support	none	none
Other, please specify (BREF)	Support	Support efficient approach via BDI	None so far

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

EFET

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Acknowledge the 2°C limit and set an EU Climate Change target for 2030.

How have you influenced, or are you attempting to influence their position?

Directly as regular member

Trade association

BDI

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Acknowledge the 2°C limit and set an EU Climate Change target for 2030. Support German Energy Transition.

How have you influenced, or are you attempting to influence their position?

Indirect through an association.

Trade association

CO2 Value Europe

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Development of CCU processes

How have you influenced, or are you attempting to influence their position?

Directly, own professional is president of the board

Trade association

IETA

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Build international policy and market frameworks for reducing greenhouse gases at lowest cost.

How have you influenced, or are you attempting to influence their position?

Regular Member

Trade association

Working Group Emission Trading at BMU

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Space for discussion and assessment of topics related to Emission Trading and Carbon Markets, also in the context of climate policy packages, aiming to make proposals for increasing robustness of the instruments.

How have you influenced, or are you attempting to influence their position?

Directly as regular member

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

Yes

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Uniper's memberships shows key associations and initiatives that may be directly or indirectly related to our material sustainability topics, including climate change. The membership of these associations and initiatives can be highly diverse, and it is not always possible to assign them unequivocally to individual sustainability topics. Nevertheless, these memberships are fundamentally relevant to our sustainability efforts.

Uniper's memberships in key associations and initiatives in 2018 were following:

Gas/Gas Storage

- Zukunft ERDGAS e. V. (Germany): Association representing of product Natural Gas and counterpart for users, politics and market partners. Voluntary membership.
- Eurogas (Europe, global): Association representing the European gas wholesale, retail and distribution sectors towards the EU institutions. Voluntary membership.
- INES – Initiative Erdgasspeicher [Gas Storage Initiative] (Germany): Association of natural gas storage operators in Germany. Voluntary membership.
- International Gas Union (IGU) (global): Worldwide non-profit association advocating gas as an integral part of a sustainable global energy system and to promote the political, technical and economic progress of the gas industry. Voluntary membership.

Coal:

- Bettercoal (global): association for a responsible coal supply chain established by a group of coal buyers to promote continuous improvement of sustainability performance in their coal supply chain. Voluntary membership.
- Coal Industry Advisory Board (CIAB) (global): group of high level executives from coal-related industrial enterprises established by the IEA to provide advice to the IEA on a wide range of issues related to coal. Voluntary membership.
- Verein der Kohleimporteure (VdKi) [Association of Coal Importers] (Germany): represents the political and commercial interests of coal importers. Voluntary membership.

Technology:

- VGB PowerTech e.V. (Europe): international technical association for generation and storage of power and heat. Voluntary membership.
- AGFW E.V.: Association for Energy-Efficient Heat, Cooling, and Cogeneration. Voluntary membership.
- Hydrogen Europe (Europe): European hydrogen and fuel cell association. Voluntary membership.

Climate Protection:

- DVGW -Deutscher Verein des Gas- und Wasserfaches e.V.(Germany): Standardization body for the gas and water industry, centre for technical and scientific know-how in the gas and water sectors and initiator and promoter of research projects and innovations.
- CO2 Value Europe (Europe): industry-driven European association representing CO2 utilization community at European level, building an integrated vision and action plan to develop CO2 utilization.
- EnerChain P2P Trading Project (Europe): Blockchain based distributed ledger capable of covering the entire trade cycle. Voluntary membership.
- SBP – Sustainable Biomass Program (global): sustainability certification system designed for woody biomass (pellets or wood chips) used in the large-scale energy production. Voluntary membership.
- IETA (Europe): non-profit organization to serve businesses engaged in the field of carbon markets, with the objective to build international policy and market frameworks for reducing greenhouse gases at lowest price. Voluntary membership.
- Innovationsforum Energiewende (Germany): forum for stakeholders from the energy sector to discuss on options for a cost-effective energy transition.

NOTE: This list may not be conclusive!

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Energy supply is a heavily regulated business and is the subject of extensive political debate, particularly with regard to climate protection. Europe's commitment to climate protection is fundamentally altering its energy supply system. To meet these challenges, we need a policy and regulatory environment that enables us to take action that makes business and environmental sense. Adequate representation of our business interests is essential for the successful operation of our assets and for our strategic prospects.

We conduct an intensive dialog with a variety of external stakeholders, such as government entities, political parties, regulatory agencies, and trade associations. This dialog is crucial for us to communicate openly and transparently with representatives of political parties and institutions and to explain our positions. As an example, Uniper uses the "Uniper in Dialog" format to engage in stakeholder discussions at, for example, party conventions in Germany to answer questions about our business activities. We're committed to keeping activities in advocacy groups transparent at all times. This is the only way to avoid the suspicion of undue influence on policymaking and to prevent damage to our reputation.

Uniper has effective organizational structures & assigned roles & responsibilities based on the principles of good corporate governance. We promote a constructive, proactive & transparent bi-lateral dialog with our stakeholders. Our primary considerations in designing our sustainability strategy are to identify which aspects influence shareholder value & ensure the long-term stability of our business. We focus on material aspects: those that are highly relevant for Uniper & for our external & internal stakeholders. Material aspects have a significant direct or indirect impact on the key drivers of value creation at Uniper. We count with government & regulatory support mechanisms to facilitate the implementation of these programmes & help achieve the global targets. Our updated Stakeholder Management Policy establishes clear rules for our participation in political decision-making processes & the open, consistent topical interaction with our stakeholders. It sets standards for the information we convey & delineates responsibilities, processes, & mechanisms. These include rules regarding the transparent management of information & policy dialog by Uniper government affairs staff, prohibiting the release or distribution of wrong, misleading or excessively selective information, taking immediate action if those releases occur. Our policy also contains additions to sustainability management & communication. It specifically guides the tasks & responsibilities of Group management, as well as our global & regional business units. All processes related to climate change are steered by corporate strategy, political affairs, communications & HSSE & Sustainability. In relation to Climate our management mechanisms are driven through the close coordination of corporate strategy, lobbying, stakeholder management, power plant planning & the sustainability work program. As part of our general performance we organize multidisciplinary HSSE meetings with our Group-wide Management Units: Climate Change as part of the environmental subject which delivers to our Sustainability performance is one of the issues systematically raised in it.

Uniper is committed to a transparent exchange with citizens, EU institutions and governments of the countries Uniper operates. Uniper joined the EU Transparency Register for organizations & self-employed individuals influencing EU policymaking & implementation. We are also signatory members to the Code of Conduct it contains. We authorize our representatives through the EU Parliament's accreditation process for lobbyists. Uniper complies with European & national laws of the countries where we operate, as well as with the applicable rules for participating in committees & public policy working groups. We contribute our expert knowledge to legislative decision-making processes and do so transparently for our stakeholders. We focus primarily on energy, environmental & climate policy.

Examples include:

- Discussions on overarching topics such as the review of EU Climate Targets to 2030,
- Regulation on Wholesale Energy Market Integrity & Transparency (REMIT) & the harmonization of electricity transmission tariff mechanisms - the latter especially within the framework of the dialog process initiated by the Agency for the Cooperation of Energy Regulators (ACER),
- Discussions on measures to stabilize CO2 price (Backloading and Market Stability Reserve for the EU-ETS),
- Debate of the gas supply security: This has a high priority both for EU legislators & members,
- Contribution to discussions on technological standards (e.g. BREF),
- Discussion on Coal Phase-Out, Renewable Energy and Energy Efficiency promotion
- Debates on introduction of capacity market mechanisms

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

Uniper Annual Repoort 2018.pdf

Page/Section reference

Pages 111 to 113

Content elements

Emissions figures

Emission targets

Comment

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Uniper_Sustainability_Report_2018.pdf

Page/Section reference

Pages 7 to 16

Content elements

Governance

Strategy

Emissions figures

Emission targets

Comment

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Sustainability Officer	Chief Sustainability Officer (CSO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	78176000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	XS	1529854280

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

National Grid PLC

Scope of emissions

Scope 1

Allocation level

Please select

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

7641480

Uncertainty (±%)

0

Major sources of emissions

All the generated electricity produced by Uniper in UK is sold to National Grid. The amount of CO2 calculated from the amounts of fuel combustion in our assets (Mainly Natural Gas in Grain, Enfield, Connhas Quay, Cottham and Killingholme, (total of 2728572 t CO2), Black Coal in Ratcliffe (595744,32 t CO2) and Oil in Taylors Lane(45,8 t CO2)).

Verified

Yes

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The sources were identified in accordance with the EU ETS rules. All above mentioned assets are registered under the EU ETS. Calculations including Activity Data, Emission Factors, Oxidation Factors and Calorific Values were independently verified according the rules of the EU ETS.

Requesting member

Please select

Scope of emissions

Scope 2

Allocation level

Please select

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

8265

Uncertainty (±%)

20

Major sources of emissions

Electricity consumed from the open grid during outages of own plants.

Verified

No

Allocation method

Allocation not necessary due to type of primary data available

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Simply by multiplying the amount of electricity purchased from outside by the national grid emission factor.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

No public information used, except factors approved by the EU ETS, which are public.

The Registry of the EU ETS has public information, where the amounts of CO2 emissions can be confirmed.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	As National Grid is the only off taker of Uniper electricity in UK and the processes for calculating CO2 emissions are well defined and established, we see no big challenges related to allocation of emissions.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

As mentioned, allocation issues are not there, since our electricity is sold to 100% to National Grid in UK

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC3.1

(SC3.1) Do you want to enroll in the 2019-2020 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2018-2019 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

100

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service

Electricity

Description of good/ service

No need to describe electricity

Type of product

Final

SKU (Stock Keeping Unit)

N.A.

Total emissions in kg CO2e per unit

±% change from previous figure supplied

Date of previous figure supplied

Explanation of change

No previous figure supplied

Methods used to estimate lifecycle emissions

GHG Protocol Product Accounting & Reporting Standard

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

Name of good/ service

Electricity (MWh)

Please select the scope

Scope 1

Please select the lifecycle stage

Energy/Fuel

Emissions at the lifecycle stage in kg CO2e per unit

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

High data quality (EU ETS methods and external Verification)

If you are verifying/assuring this product emission data, please tell us how

According to EU ETS rules, i.e. by an external accredited verifier with a "reasonable assurance" level.

SC4.2c

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit
Electricity	Initiative 1	Efficiency Measures	Ongoing	

SC4.2d

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

No

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Public	Investors Customers	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms