Welcome to your CDP Climate Change Questionnaire 2023

(Note: This reporting period aligns with IPL's 2022FY)

C0. Introduction

C0.1

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

Incitec Pivot Limited (IPL) is a global diversified industrial chemicals company that supplies explosives, industrial chemicals, fertilisers and related services to the mining, infrastructure & construction, chemicals and agriculture industries. IPL has extensive operations throughout Australia, the United States, Canada, Mexico, Europe and Indonesia, including over 30 manufacturing plants, scores of distribution centres and well-established channels to market. The Company employs over 5,000 staff worldwide, including almost 2,000 staff in Australia and over 2,500 staff in North America.

IPL manufactures a range of explosives and fertiliser inputs and products globally. Through the Dyno Nobel brand, IPL is the second largest supplier of explosives in Australia and is a market leader in North America. Products include a complete range of commercial explosives including ammonium nitrate bulk explosives, packaged emulsions and dynamite as well as a range of initiating systems. Services provided include expert technical consulting to customers such as mining companies and their suppliers, quarries and companies supporting the construction industry. In addition, IPL manufactures various industrial chemical products used in water treatment, process manufacturing and other industrial applications.

Through the Incitec Pivot Fertilisers brand (IPF) IPL is Australia's largest supplier of fertilisers, dispatching approximately two million tonnes each year for use in the grain, cotton, pasture, dairy, sugar and horticulture industries. This year, products including ammonium phosphates, ammonia, urea, sulphuric acid and superphosphates were manufactured at five IPL facilities across eastern Australia, including Australia's only ammonium phosphate manufacturing facility. IPL has a long-term commitment to investment in soil nutrition research and its Nutrient Advantage laboratory is industry accredited. As a leading provider of nutrition advice to farmers and customers, IPL promotes the sustainable use and safe handling of its fertiliser products to customers and farmers.

Due to the energy intensity of manufacturing nitrogen-based fertiliser and explosives products, IPL's manufacturing facilities make up ~98% of the Company's global Scope 1 and 2 GHG. Natural gas is used as both a feedstock and an energy source, with ~37% of global GHG arising from the use of natural gas for hydrogen, and ~34% from the use of natural gas for energy to drive chemical reactions and make electricity. ~19% of GHG are N2O process emissions from the manufacture of nitric acid, which is then used to make ammonium nitrate explosives products. Only ~9% of the

Company's global GHG arise from purchased electricity (Scope 2). , major capital investment is required to decarbonise operations.

During this reporting period, the 2022 IPL Financial Year (ending 30 September 2022), IPL's Decarbonisation and Energy Transition Steering Committee continued to work on 4 major projects to progress IPL's Pathway to Net Zero:

1. Moranbah Tertiary Nitrous Oxide (N2O) Abatement: Approved for installation in 2024. Although this facility was built in 2012 with secondary abatement of N2O already in place, this project will deliver IPL's short-term global GHG absolute reduction target of 5% by 2025 through increased abatement of N2O.

2. The Gibson Island green ammonia project aims to achieve a 12% reduction in IPL's global GHG through conversion of an existing ammonia plant from natural-gas-for-H2 to electrolysis-of-water-for-H2 using renewable energy (green hydrogen). This is at Front End Engineering Design (FEED) stage and has a A$13.7m Federal Government ARENA grant in conjunction with Fortescue Future Industries (FFI).

3. Waggaman, Louisiana Carbon Capture and Storage (CCS) would achieve a 22% reduction. This project is also at Front End Engineering Design (FEED) stage, with MOUs signed for the transportation and sequestration of the pure CO2 stream generated in the ammonia plant, which requires only drying and compression before sequestration by a third party. Louisiana is an ideal site for CCS due to its geology, its existing CO2 pipeline infrastructure, and a range of potential local partners with experience in using proven technology and management techniques to meet the very stringent regulatory requirements set by the US EPA for Class VI wells. Subject to the successful completion of the FEED study, construction of the carbon capture unit at WALA is expected to begin in 2023 and be completed by the end of 2025. Class VII well approval may take until 2026-27.

4. Louisiana, Missouri N2O Abatement was under investigation during the reporting period, with at least 11% reduction achievable. This is IPL's only nitric acid plant without some form of abatement already installed.

Work is also underway to establish systems to track and manage scope 3 by FY25, with an IPL Scope 3 Manual completed to assist the business units with tracking and managing their scope 3.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

October 1, 2021

End date

September 30, 2022

Indicate if you are providing emissions data for past reporting years

No

C0.3

(C0.3) Select the countries/areas in which you operate.

Australia
Canada
Mexico
Turkey
United States of America

C0.4

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

AUD

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 chosen approach for consolidating your GHG inventory.

Operational control

C-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Bulk inorganic chemicals

Ammonia
Fertilizers
Nitric acid

Other chemicals

Other, please specify

Ammonium nitrate (explosives)

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	ASX:IPL
Yes, another unique identifier, please specify IPL has an LEI that is quoted for all derivative trades and is consistent across transactions. (Each debt instrument on issue also has a ISIN but they differ per debt issue)	LEI: 254900UW2F3BKV6Z9V18
Yes, another unique identifier, please specify The American Depository Receipts (ADR) program sponsored by Bank of New York Mellon is traded on the New York Stock Exchange. The stock DR symbol is INCZY.	INCZY

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 or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	The CEO is a Board Member and Chair of the IPL Decarbonisation and Energy Transition (DET) Steering Committee, which comprises selected executives and other senior management. The CEO and the DET Steering Committee are responsible for the Company's Net Zero Pathway and the strategic management of business risks and opportunities related to climate change, including the incorporation of opportunities into business strategy.
Board-level committee	The Audit and Risk Management Committee (ARMC) of the Board has oversight of climate-related risk management, although the Board retains overall accountability for IPL's risk profile. The ARMC reviews risk scenarios, risk analyses and mitigation strategies, as well as how climate change-related risks are integrated into IPL's risk management processes. There are three key ways in which the ARMC receives reporting on climate change-related risks and opportunities: 1. Via standard risk reporting, which is undertaken at each of the five ARMC meetings per year; 2. The annual Risk Review process with the Executive Team (ET) that informs the ARMC on the Group's strategic risks and mitigation plans; and 3. By exception, other significant events and progress related to the management of climate change-related risks are reported to the ARMC as required. In addition, the Charter of the ARMC requires IPL's future climate related scenarios to be updated every three years and reported to the ARMC.
Board-level committee	The Health, Safety, Environment and Community (HSEC) Committee of the Board assists the Board in overseeing the Group's health, safety, environment and community (HSEC) performance and governance responsibilities, and the adequacy of the Group's HSEC framework. This includes the management and governance of climate change issues relating to employee health and safety, such as heat stress and risks to our people associated with extreme weather events; emergency planning and response procedures for our operations relating to extreme weather events; and the management of risks to the environment which are likely to be exacerbated by climate change, such as procedures to monitor and plan for an increasing risk of pond overflows and other releases to the environment due to increasing or shifting rainfall patterns over time. The HSEC Committee also assists the Board in its review and approval of IPL's annual Sustainability Report.

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 – all meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan	The IPL Climate Change Policy was adopted by the Board in 2019, and the IPL Board Charter and Charter of the Audit and Risk Management Committee were updated to formally enshrine Directors' roles in relation to the strategic management and oversight of climate change-related issues. The Charter of the Board states that the Board will: "(c) Review and approve, at least annually, Incitec Pivot's climate change management strategy, strategic business opportunities and risks related to climate change, and potential targets and performance objectives". In addition, climate-related issues are integrated into 'reviewing and guiding major plans of action' and 'decision making processes regarding major capital expenditures, acquisitions and divestitures". This is due to both the nature of our markets (mining, quarry & construction and agriculture, which can be impacted by both market transitions associated with climate change and extreme weather events) and the nature of our main manufacturing process which requires long term access to both gas supply and large volumes of high quality fresh water (for cooling purposes), as well as the management of the physical impacts of extreme weather events. Due to the use of gas as a feedstock, the manufacturing process is also carbon intensive. For these reasons, investment decisions regarding long term capital projects consider an assessment of likely carbon regulation, changing market forces and market sentiment (which can influence regional gas and water supplies) and possible impacts on customer demand from either market changes or extreme weather events. Assessment of capital projects also include an internal carbon price. Climate change risks and opportunities are integrated into risk management procedures and Business Unit (explosives and fertilisers) business strategies.

Scheduled – some meetings	Reviewing and guiding annual budgets Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Overseeing and guiding employee incentives	Due to the nature of IPL's manufacturing facilities, decarbonisation requires major capex investments which achieve large reductions. During this reporting year, IPL established 'Sustainability Capital' as a first order capital allocation to fund these investments. Decarbonisation project costs are included in Business Unit budgets, and GHG reduction targets associated with these projects are included in the performance objectives of the CEO&MD and are cascaded to the members of the Executive Team, and also to the relevant employees in their teams. As a result, monitoring and overseeing progress against goals and targets for addressing climate-related issues are integrated into governance mechanisms. For example, the table 'A summary of the Company's approach to Executive remuneration for the 2022 financial year' on page 66 of the IPL 2022 Annual Report states that 2022 Sustainability Measures (generally, 10% of STI award) include 'Greenhouse gas reduction targets' and that 'Performance conditions are designed to align with the overall Sustainability strategy of the business and focus an Executive on the key short term objectives within their area of influence'. Page 68 states under '2.2 Executive remuneration strategy' that "IPL's purpose is to unlock the potential in the Earth to help people grow. IPL embraces a set of Strategic Value Drivers that underpin the Company's business and form the platform for the Company's future earnings growth and shareholder returns. The company's commitment to addressing climate change challenges and looking for opportunities in decarbonizing the world's energy systems is at the heart of the business strategy and is integrated across all the Strategic Value Drivers".
Scheduled – some meetings	Reviewing and guiding strategy	The IPL Climate Change Policy was adopted by the Board in 2019, and the IPL Board Charter and Charter of the Audit and Risk Management Committee were updated to formally enshrine Directors' roles in relation to the strategic management and oversight of climate change-related issues, which are integrated into IPL's risk management processes and reported on in the Principal Risks section of the IPL Annual Reports. These include climate-related transition and physical risks identified by a comprehensive risk and opportunity analysis conducted during 2021 using four future climate-related scenarios: a 1.5oC scenario, an updated 2oC scenario, a 3oC+ scenario (which is an update of the previously used 4o

		scenario) and an Inevitable Policy Response (IPR) scenario, in which delayed but sudden policy action is taken as the impacts of physical climate change ae realised. The identified climate-related risks and opportunities were reviewed by the Audit and Risk Management Committee of the Board and are disclosed for IPL in IPL's 2021 Climate Change Report, and by business unit in IPL's 2022 Climate Change report. Risk controls, risk control owners and KPIs for the management of risks have been identified and management strategies are reported to the Board through the established risk management reporting process.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

		Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	IPL recognises that transitioning a business for success in a sustainable future, and as part of a low carbon economy, requires related expertise within its decision-making bodies. IPL considers that the most valuable capabilities required to do this include: **1. Strategy and Global Perspectives:** Experience in developing and executing business strategy and driving growth outcomes in large and complex organisations with a global perspective. This includes the ability to think strategically, not only in the short-term, but in the medium and long-term time frames that is demanded of leadership engaged in the task of transitioning a global business through the energy transition in response to climate change. **2. Risk Management:** Experience in understanding and responding to emerging risks, opportunities, and impacts, which includes identifying and managing risks that could impact upon the business and its reputation, monitoring the effectiveness of risk frameworks and controls, and building organisational risk culture. **3. Environment and Sustainability:** Experience in managing and driving environmental compliance and social responsibility, including in relation to the medium and long-term timeframes associated with establishing sustainable business practices and managing climate change. A summary of IPL directors' skills and experience is set out in the table on page 6 of the IPL 2022 Corporate Governance Statement. As shown in that table, for assessment of the seven Board members against the three criteria above: 1. Strategy and Global Perspectives: Seven 'Highly skilled' Board members are reported

		2. Risk Management: Six 'Highly skilled' and one 'Skilled' Board member are reported 3. Environment and Sustainability: Two 'Highly skilled' and four 'Skilled' Board members are reported

C1.2

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

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Providing climate-related employee incentives
Developing a climate transition plan
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing climate-related risks and opportunities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The MD&CEO and her Executive Team develop the Group's business strategy, planning, investment decisions and risk management processes. The MD&CEO is responsible for delivering the climate change strategy approved by the Board. The CEO Chairs the IPL Decarbonisation and Energy Transition Steering Committee (DETSC) and, as the person with Board delegated authority to implement the corporate strategy and policy initiatives, is responsible for managing climate-related issues. These responsibilities include coordinating with the other DETSC members on decarbonisation the assessment and monitoring of climate-related risks and opportunities and reporting results to the Board during the quarterly Board Meetings.

Position or committee

Chief Financial Officer (CFO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Providing climate-related employee incentives
Managing climate-related risks and opportunities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Chief Financial Officer (CFO) is responsible for the management of the financial aspects of climate change. The CFO is the Executive Team member with oversight of the management and mitigation of principal risks, including the assessment and management of climate related financial risks, that could materially impact the Group's business objectives and exceed its risk tolerance. The Chief Risk Officer reports to the CFO.

The CFO is also responsible for IPL's Capital Allocation Framework and IPL's internal carbon pricing model. The updated Capital Allocation Framework was presented to our investors in September. It prioritises 'Sustainability Capital' as part of the order 1, or 'first taker' of capital, as shown in the diagram on the previous page. This capital is allocated to progress a range of major projects required to decarbonise our operations.

Internal carbon pricing has been included in capital expenditure assessments for projects at our major manufacturing sites in Australia since Australian Carbon Credit Units (ACCUs) were introduced in 2012, with the price reflecting the market price of ACCUs. During 2021, the Board formally approved the application of this carbon price to all future growth capital and investment decisions. We are continuing to embed this into our processes, with the objective of applying the carbon price to all capital projects, consistent with the Capital Allocation Framework, during 2023. The price is currently AU$38 and is projected to increase to AU$50 by 2026, AU$65 by 2030, AU$130 by 2040 and AU$258 by 2050. A range of carbon prices are also included in IPL's scenario analyses, as reported in Chapter 4 of the 2022 IPL Climate Change Report.

Position or committee

Other C-Suite Officer, please specify
Chief Strategy and Sustainability Officer

Climate-related responsibilities of this position

Managing climate-related acquisitions, mergers, and divestitures
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate
Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Chief Strategy and Sustainability Officer (CSSO) has significant experience in strategy and sustainability, and is tasked with overseeing the development of the IPL Net Zero Pathway and the integration of climate-related issues into Company strategy. This role is also responsible for the evaluation and prioritisation of developing technologies to decarbonise IPL's manufacturing operations and has responsibility for progressing IPL's partnership with FFI to investigate green ammonia production at Gibson Island. The CSSO's team includes:
→ The Corporate Sustainability Manager (CSM)
→The VP Strategic Project Development

Position or committee

Other C-Suite Officer, please specify

Chief HSE & Operations Excellence Officer

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related risks and opportunities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Chief HSE & Operations Excellence Officer is an expert in IPL's global manufacturing facilities, which generate 97% of the Company's GHG, and also oversees the maintenance shutdown schedules required to implement new technologies to reduce emissions. As such, this position is assigned the responsibility of implementing projects to achieve GHG emissions reductions at IPL's manufacturing facilities and to establish a technical capability and practices framework to support IPL's Green Ammonia Operate and Maintain strategy.

Position or committee

Chief Technology Officer (CTO)

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related risks and opportunities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Chief Technology Officer is responsible for the development of low carbon products and services, which reduce customer GHG and, therefore, IPL's downstream scope 3 GHG.

Position or committee

Business unit manager

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Providing climate-related employee incentives
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Managing value chain engagement on climate-related issues
Managing climate-related risks and opportunities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Business Unit Managers (The President Dyno Nobel Asia Pacific, President Dyno Nobel Americas and President Incitec Pivot Fertilisers) oversee the manufacturing maintenance shutdown schedules required to implement the major aspects of the climate transition plan, including the installation of new technologies to reduce operational GHG emissions. As such, these positions are assigned the responsibility of overseeing the major CAPEX projects required to achieve GHG emissions reductions at the manufacturing facilities within their regions, such as the nitrous oxide abatement projects at Moranbah, Australia and Louisiana, Missouri, as well the Waggaman, Louisiana CCS project, as well as resilience/adaptation projects within their BUs. They are also responsible for the development and implementation of scope 3 management strategies and scope 3 reduction targets as they pertain to their Business Units' value chain activities.

Position or committee

Other committee, please specify

Decarbonisation and Energy Transition Steering Committee

Climate-related responsibilities of this position

Developing a climate transition plan

Implementing a climate transition plan

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The MD&CEO is Chair of the IPL Decarbonisation and Energy Transition (DET) Steering Committee, which comprises selected
executives and other senior management. The MD&CEO and the DET Steering Committee are responsible for the development of IPL's Net Zero Transition Pathway and the strategic management of business risks and opportunities related to climate change, including the incorporation of opportunities and key trends into business strategy.

Position or committee

Other, please specify

VP Strategic Project Development

Climate-related responsibilities of this position

Developing a climate transition plan

Implementing a climate transition plan

Reporting line

Corporate Sustainability/CSR reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The VP Strategic Project Development has significant experience in IPL's global manufacturing facilities and CAPEX approval process and is tasked with the assessment of the technical and commercial readiness of emerging technologies required for IPL's decarbonisation. The VP Strategic Project Development also works with operations-based project teams to provide the DET Steering Committee with an additional level of oversight regarding the progress of specific projects related to IPL's Net Zero Pathway.

Position or committee

Environment/ Sustainability manager

Climate-related responsibilities of this position

Conducting climate-related scenario analysis

Other, please specify

Advising on climate related issues across business units and corporate functions

Reporting line

Other, please specify

Chief Strategy and Sustainability Officer reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Corporate Sustainability Manager (CSM) is an Environmental Geoscientist with postgraduate research in palaeo-climate reconstruction. As a subject matter expert in the fields of climate change and sustainability, the CSM has been assigned the responsibility of working with the Chief Risk Officer to oversee climate-related scenario risk assessment. The CSM also engages with investors and other stakeholders, in conjunction with the Company Secretary and General Manager Investor Relations, during discussions on IPL's Climate Management Strategy, is a member of the DET Steering Committee and chairs the Carbon Pricing Steering Committee. The CSM also advises across IPL's business units and corporate functions on climate-related issues including the management of risks and opportunities, incorporating climate considerations into business unit strategies, integrating scope 3 measurement and management into business unit strategies, mandatory GHG reporting schemes and carbon pricing schemes globally.

Position or committee

Other committee, please specify

IPL Carbon Pricing Steering Committee

Climate-related responsibilities of this position

Other, please specify

Managing carbon pricing schemes and integrating into strategy

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

As important matters arise

Please explain

The Carbon Pricing Steering Committee (CPSC) is chaired by the Corporate Sustainability Manager and comprises manufacturing, strategy, finance, treasury, environmental and energy contract management personnel across our global sites. Through the Corporate

Sustainability Manager and VP Strategic Project Development, the committee continually monitors emerging carbon pricing developments and informs the CFO, the Decarbonisation & Energy Transition Steering Committee and the Board of relevant compliance requirements and market opportunities. For example, the emerging carbon cap and trade regulation in Oregon, a result of the Governor's Executive Order, is currently being tracked by the CPSC. Corporate Legal
and site-based personnel at our St Helens, Oregon site are engaging with the relevant regulatory body and report back to the CPSC.

Position or committee

Facility manager

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Implementing a climate transition plan
Managing climate-related risks and opportunities

Reporting line

Other, please specify

Operations - Chief HSE & Operations Excellence Officer reporting line (through to CEO)

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Facility Managers implement decarbonisation projects, including managing the major capital and operational expenditures that relate to these, and manage climate related risks and opportunities pertaining to their operational sites.

Position or committee

Process operation manager

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Reporting line

Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Process Operation Managers implement decarbonisation projects and manage climate related risks and opportunities pertaining to their processes and plant equipment (i.e., where these processes emit GHG)

Position or committee

Procurement manager

Climate-related responsibilities of this position

Implementing a climate transition plan
Managing climate-related risks and opportunities

Reporting line

Other, please specify

Business Unit Presidents (through to CEO)

Frequency of reporting to the board on climate-related issues via this reporting line

Annually

Please explain

Supply Chain Managers are responsible for the management of Scope 3 management strategies developed by their BU Presidents.

Position or committee

Chief Risks Officer (CRO)

Climate-related responsibilities of this position

Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Chief Risk Officer works with the Corporate Sustainability Manager to oversee climate-related scenario risk and opportunity assessment and reports directly to the Audit and Risk Management Committee of the Board. (The Risk Manager reports to the CFO as far as management reporting line).

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	IPL's purpose is to unlock the potential in the Earth to help people grow. IPL embraces a set of Strategic Value Drivers that underpin the Company's business and form the platform for the Company's future earnings growth and shareholder returns. The Company's commitment to addressing climate change challenges and looking for opportunities in the decarbonisation of the world's energy systems is at the heart of the business strategy and integrated across all the Strategic Value Drivers. In order to align performance with strategic objectives, a 'Sustainability' component in included in the STI. The KPIs relate to progress on operational (Scope 1&2) GHG reduction projects. The Sustainability Condition was introduced for the LTI 2021/24 as an additional metric. This Condition will measure the Company's organisational performance against its 2030 GHG reduction targets, and its development of a Scope 3 GHG reduction strategy. Climate metrics are also included in the bonuses of many employees

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).

Entitled to incentive

Chief Executive Officer (CEO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

The performance conditions under the STI are determined by the Board for each financial year. The 2022 IPL Annual Report, on page 68, under '2.3 2022 STI outcomes' outlines

detailed STI outcomes for the MD&CEO. These include measures under 'Sustainability', specifically (in the 'Target' column: "Progress on operating emission reduction projects: Moranbah tertiary abatement project; WALA sequestration; Gibson Island green ammonia project; Delta E greenhouse gas (GHG) emission reduction (Scope 3)' and in the 'Commentary' column: Progress on operating emission reduction projects: sustainability strategies were developed, incorporated and integrated into business strategies. This includes pathways to net zero for both future businesses and initial insights into Scope 3.
WALA sequestration: Non-binding MOU's have been signed. This forms part of IPL's net zero pathway and in contributing towards reaching a Paris-aligned 2030 target Gibson Island green ammonia project: the GI project successfully passed the technical gate and has received contingent funding.
Moranbah tertiary abatement project: the project was sanctioned in March 2022 and resulted in meeting IPL's 2025 Scope 1 & 2 target.
Delta E GHG emission reduction: Certification significantly progressed, with initial study showing 25% GHG reduction.

See also the IPL annual Report under 'LTI performance conditions' on page 77, where the 'Sustainability Condition (10%)' of the LTI is explained: "The Sustainability Condition was introduced for the LTI 2021/24 as an additional metric. This Condition will measure the Company's organisational performance against the Sustainability (Climate Change) strategy, progress towards 2030 GHG targets, and its development of a Scope 3 emissions reduction strategy. Key successes during this 3-year period will be driven by demonstrating material progress on implementation of the Moranbah N2O tertiary abatement project, and the WALA CCS MoU/project. The Board has the discretion to determine the vesting outcome between 0% and 100% for this Condition as it considers appropriate."

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The incentives associated with the Performance conditions in the Sustainability measures (generally 10% of STI award and 10% of LTI award) and including :
» Sustainability (climate change - related) measures targeted at an Executive's area of influence
» Greenhouse gas reduction targets
are designed to align with the overall Sustainability strategy of the business and focuses an Executive on the key short-term objectives within their area of influence, that contribute towards the Company's longer-term milestones. These KPIs and projects underpin IPL's Net Zero Pathway and absolute GHG reduction targets and are cascaded by the CEO to her relevant Executive Team members, and on to their team members.

Entitled to incentive

Chief Sustainability Officer (CSO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Shareholder approval of climate transition plan
Achievement of climate transition plan KPI

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

See as above for STI and LTI performance conditions as described for the CEO. The 2022 STI KPIs for the CSSO related to progressing IPL's Net Zero Pathway, including the implementation of four key decarbonisation projects, establishing Scope 3 strategies at the BU level and achieving shareholder approval of the 2022 progress on developing the IPL Climate Transition Plan as published in the 2022 IPL Climate Change Report.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The incentives associated with the Performance conditions in the Sustainability measures (generally 10% of STI award and 10% of LTI award) and including :
» Sustainability (climate change - related) measures targeted at an Executive's area of influence
» Greenhouse gas reduction targets
are designed to align with the overall Sustainability strategy of the business and focuses an Executive on the key short-term objectives within their area of influence, that contribute towards the Company's longer-term milestones. These KPIs and projects underpin IPL's Net Zero Pathway and absolute GHG reduction targets and are cascaded by the ET Members to their relevant Team members, and on to their team members.

Entitled to incentive

Chief Technology Officer (CTO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of a climate-related target

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

See as above for STI and LTI performance conditions as described for the CEO. The 2022 STI KPI for the CTO related to obtaining independent assurance of the GHG reductions associated with a 12-month customer trial of a specific product. which reduces customer GHG during the use phase by a calculated 25%.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The incentives associated with the Performance conditions in the Sustainability measures (generally 10% of STI award and 10% of LTI award) and including :
» Sustainability (climate change - related) measures targeted at an Executive's area of influence
» Greenhouse gas reduction targets
are designed to align with the overall Sustainability strategy of the business and focuses an Executive on the key short-term objectives within their area of influence, that contribute towards the Company's longer-term milestones. These KPIs and projects underpin IPL's Net Zero Pathway and absolute GHG reduction targets and are cascaded by the ET Members to their relevant Team members, and on to their team members.

Entitled to incentive

President

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

See the IPL 2022 Annual Report, page 69 under 'Individual STI outcomes for other Executive KMP' which include the 'Sustainability' metric at 10% and page 68 where these are described for the CEO (and form the basis of what is cascaded to the Presidents) as:
"Delivery of various Sustainability-related projects (10%)" including
"Progress on operational GHG emission reduction projects:
Moranbah tertiary abatement project;
WALA CO2 sequestration;
Gibson Island green ammonia project;
Delta E greenhouse gas (GHG) emission reduction (Scope 3)
Projects achieved: Stretch result (15%)
Progress on operating emission reduction projects: sustainability strategies were developed, incorporated and integrated into business strategies. This includes pathways to

net zero for both future businesses and initial insights into Scope 3.
WALA sequestration: Non-binding MOU's have been signed. This forms part of IPL's net zero pathway and in contributing towards reaching a Paris-aligned 2030 target
Gibson Island green ammonia project: the GI project successfully passed the technical gate and has received contingent funding.
Moranbah tertiary abatement project: the project was sanctioned in March 2022 and resulted in meeting IPL's 2025 Scope 1 & 2 target.
Delta E GHG emission reduction: Certification significantly progressed, with initial study showing 25% GHG reduction, based on 10% less material.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The incentives associated with the Performance conditions in the Sustainability measures (generally 10% of STI award and 10% of LTI award) and including :
» Sustainability (climate change - related) measures targeted at an Executive's area of influence
» Greenhouse gas reduction targets
are designed to align with the overall Sustainability strategy of the business and focuses an Executive on the key short-term objectives within their area of influence, that contribute towards the Company's longer-term milestones. These KPIs and projects underpin IPL's Net Zero Pathway and absolute GHG reduction targets and are cascaded by the BU Presidents, who are ET Members, to their relevant Team members, and on to their team members.

Entitled to incentive

Environment/Sustainability manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Shareholder approval of climate transition plan
Achievement of climate transition plan KPI

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

See as above for STI performance conditions as described for the ET Members including Presidents. The 2022 STI KPI for the Corporate Sustainability Manager related to assisting the BU Presidents' team members with the establishment of Scope 3 management strategies for their BUs, KPIs associated with tracking and managing emerging carbon regulation, and TCFD aligned external reporting to meet investor and shareholder expectations.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Assisting the BU Presidents' team members with the establishment of Scope 3 management strategies for their BUs moves IPL towards its Net Zero by 2050 ambition. KPIs associated with tracking and managing emerging carbon regulation assist the company in managing the one of the potentially material transitional risks identified using future climate related scenarios, and which relates to the financial impact of carbon pricing, as well as meeting the regulatory requirements associated with climate related legislation. TCFD aligned external reporting to meet investor and shareholder expectations assist the company in achieving shareholder approval of the climate transition plan.

Entitled to incentive

Other, please specify

VP Strategic Project Development

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

See as above for STI and LTI performance conditions as described for the CEO. The 2022 STI KPI for the Vice President Strategic Project Development related to specific projects to meet IPL's short-term absolute GHG reduction target of 5% by 2025, and medium-term GHG reduction target of 25% by 2030 for our current portfolio (each against a 2020 baseline).

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

These bonuses incentivise the progression of specific projects to meet IPL's short-term absolute GHG reduction target of 5% by 2025, and medium-term GHG reduction target of 25% by 2030 for our current portfolio (each against a 2020 baseline).

Entitled to incentive

Facilities manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

See as above for STI performance conditions as described for the CEO and BU Presidents. The performance bonuses of certain facilities managers include KPIs relating to specific projects to meet IPL's short-term absolute GHG reduction target of 5% by 2025, and medium-term target of 25% by 2030 for our current portfolio (each against a 2020 baseline).

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

These bonuses incentivise the progression of specific projects to meet IPL's short-term absolute GHG reduction target of 5% by 2025, and medium-term GHG reduction target of 25% by 2030 for our current portfolio (each against a 2020 baseline).

Entitled to incentive

Process operation manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

See as above for STI performance conditions as described for the CEO and BU Presidents. The performance bonuses of certain process operations managers include KPIs relating to specific projects to meet IPL's short-term absolute GHG reduction target of 5% by 2025, and medium-term target of 25% by 2030 for our current portfolio (each against a 2020 baseline).

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

These bonuses incentivise the progression of specific projects to meet IPL's short-term absolute GHG reduction target of 5% by 2025, and medium-term GHG reduction target of 25% by 2030 for our current portfolio (each against a 2020 baseline).

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	3	IPL has historically made use of a three-year commodity cycle to define 'short-term'. Short term risks are assessed annually and addressed in the ‘Principal Risks’ section of the IPL Annual Reports. 'Current' and 'Short Term <1-3 Years' are two of the four time horizons used to categorise climate-related risks and opportunities in IPL's 2022 Climate Change Report.
Medium-term	3	6	Relates to two cycles of the three-year commodities cycle.
Long-term	6	30	Relates to three cycles of the three-year commodities cycle, or longer to 2050.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

IPL defines a 'material' financial impact as a AU$20 million impact or greater on EBIT. In addition to this financial threshold, IPL considers risks and management strategies based on an assessment of likelihood, with lower consequence risks that have a higher likelihood of occurring receiving an elevated level of management attention. IPL’s risk management process also reviews the appropriateness of controls and management strategies for climate related risks with impacts of less than AUD$20 million on EBIT.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Management, through the Managing Director & CEO and the Chief Financial Officer, is responsible for the overall design, implementation, management and coordination of the Group's risk management and internal control system. Each business unit has responsibility for identification and management of risks specific to their business. This is managed through an annual risk workshop within each business unit. The risk workshops are facilitated by the Chief Risk Officer, and form part of the annual internal audit program, thereby aligning the internal audit activities with material business risks. The outcomes of the business unit risk workshops are assessed as part of the annual corporate risk workshop. The resultant Corporate Risk Register is presented to the Audit and Risk Management Committee on an annual basis, and management is required to present regular updates to the Committee on material business risks.

Prior to 2018, the physical and transitional risks and opportunities for IPL associated with climate change were assessed by the IPL Sustainability and Carbon Steering Committee, a high-level cross functional committee which operated in 2010 for this specific purpose as part of IPL's Sustainability Strategy, which was formed and approved by the Board that year. The potential financial impact of each risk was estimated by this cross functional Committee. This single Committee has since been replaced with two: the IPL Decarbonisation and Energy Transition Steering Committee (DETSC), which is chaired by the CEO, and the IPL Carbon Pricing Steering Committee, which monitors global developments in carbon pricing and is chaired by a member of the DETSC.

Physical risks identified at that time include, but are not limited to, impacts from extreme weather events on farming and mining customers, IPL assets and IPL supply chain (including logistics). For example, increasing severity of both prolonged droughts and extreme flooding events in Australia would impact farming customers and have greater impact on fertiliser sales revenues than has previously been the case. This is being mitigated by both geographic and market diversity. Impacts relating to transitional risks identified at that time include, but are not limited to, compliance, regulatory and legal risk (including carbon pricing risk), reputational risk, and changing market sentiment impacting on our markets. For example, if carbon pricing which contains no exemption for Emissions Intensive Trade Exposed (EITE) industries was applied in only some countries/regions would impose a cost which could not be passed on to customers for bulk ammonia products (both explosives and fertilisers) because the price for these commodities is set by the international market, making IPL's manufacturing facilities in these regions uncompetitive. This risk is being mitigated by engaging with local regulatory bodies.

As of 2018, IPL began using future climate-related scenario analyses in its risk assessment processes, as recommended the G20 Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD) report. The Charter of the IPL Audit and Risk Management Committee (ARMC) of the Board mandates that these future climate-related scenarios be updated every three years. In 2018, IPL used 2oC and 4oC scenarios. In 2021, these were updated to 2oC and 3oC+ scenarios, and 1.5oC and Inevitable Policy Response Scenarios were added. Previous risks and their estimated financial impacts were reassessed against these updated scenarios. Newly identified and emerging risks are assessed against the IPL Risk matrix and integrated into IPL's risk management process, as described above, where they are included in annual risk reviews. The scenarios are compiled by an expert third party specifically for IPL using RCPs and SSPs, and each describe how physical climate change and efforts to reduce emissions would impact on areas including carbon pricing and carbon market development, the overall economy, the development of technology, people's consumption patterns and social structures, the physical environment, energy and power, agriculture, mining, quarry and construction, infrastructure and transport, with the risk assessments considering the financial risks and opportunities for IPL in these areas under each scenario. This incorporates a 'top-down' approach.

The scenario-based risk assessments also considered the physical and transitional impacts on IPL's 12 major manufacturing operations on an individual and detailed basis. This incorporated a 'bottom-up' approach, with facilities managers and risk personnel interviewed.

As per IPL's risk management process, the identified risks and opportunities are then assessed against the IPL Risk matrix, a matrix of varying likelihoods and consequences that is used to determine its overall Risk Rating, then ranked in order of importance to determine whether a risk is above or below IPL's Risk Threshold. All risks are integrated into IPL's risk management process (described in paragraph 1 above) through each risk being assigned to a risk owner in the appropriate business unit, and through controls (including monitoring) being assigned to risk control owners. This ensures that risks are reviewed annually, at a minimum, as part of IPL's Annual Risk Review process.

Physical risks identified include an increasing incidence of logistics and supply chain interruptions from extreme weather events, increasing water scarcity at some IPL manufacturing locations, increased risk of storm water pond overflows at some sites, increasing incidence of hurricanes for one manufacturing site, and an increased risk of storm inundation at two sites located close to sea level due to creeping sea level rise. For example, our Gibson Island site uses high volumes of high-quality water for cooling purposes. The site is located in an area that currently experiences high baseline water stress due to (a) a large local population and (b) high inter-annual variability in rainfall, and this water stress is expected to double by 2030. This could impact on production rates and/or result increased water costs for IPL, as well as impacting on local communities. This risk is being managed by connection of the site to a source of recycled water during 2021 which has ensured supply and leaves 6 million litres of potable water in south-east Queensland dams every day for our local communities.

Transitional risks identified include market changes, including impacts on bulk explosives

product demand arising due to shrinking thermal coal markets, which will affect revenues. The transition away from thermal coal customers supplied by a key explosives manufacturing site is being managed through increasing our market share in the Quarry & Construction segment, with potential to switch from explosives to fertiliser supply.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Examples include Current Carbon Pricing Risk (Short-term risk - impact on EBIT). For example, the current Australian Federal Government 'Direct Action' policy includes three IPL manufacturing facilities under the ERF Safeguard Mechanism. The Safeguard Mechanism has established annual GHG baselines for these facilities. If these baselines are exceeded, IPL is required to purchase and surrender one Australian Carbon Credit Unit for each tonne of CO2e in excess of the baseline, which would impact EBIT. For example, an unexpected maintenance issue at one site in 2018 resulted in less effective secondary abatement of nitrous oxide (N2O) for a period, causing the GHG baseline to be exceeded. IPL successfully applied for a three-year monitoring period and settled the liability at the end of this period in 2021. In this case the impact for this period was approximately AUD$2 million. IPL is managing the risk of future baseline exceedances by investigating more effective tertiary abatement technologies for the site, which would reduce annual emissions well below the current baseline.
Emerging regulation	Relevant, always included	E.g., Transitional Risks: 1. Emerging Carbon Pricing Risk (Short to medium-term risk - impact on EBIT & market competitiveness): If the current Australian Federal Government Safeguard Mechanism rules are changed to progressively lower baselines over time in order for Australia to meet international GHG reduction targets (NDCs), IPL EBIT could be impacted unless manufacturing processes could be decarbonised as quickly as baselines were lowered. Carbon pricing regulation may also be introduced in other jurisdictions where IPL operates. Our manufacturing facilities are located across various geographical locations that may be impacted by regulatory changes aimed at reducing the impact of, or otherwise addressing, climate change. Any changed regulation could result in an increase to the cost base or operating cost of plants, and it may not be possible to alter sales prices to offset these cost increases, due to commodities pricing being established by international markets. This would result in impacts on EBIT and pose a competition risk. 2. Carbon pricing may also increase costs to transport products, with impacts until road, rail & shipping options are retrofitted with zero or low carbon mobility options (e.g., hydrogen).

		3. Emerging 'GHG Limit' Regulation: Risk to Licence to Operate (medium to long term risk). Alternatively, certain regulatory changes may potentially impact the ability of manufacturing plants to continue functioning as currently operated. E.g., if the EPA or other regulatory bodies were to impose a GHG limit for a facility which could not be offset by purchasing carbon credits, investment in decarbonisation of plant processes or closure of the plant would need to occur. This would impact on CAPEX and manufacturing profits. 4. Competitiveness Risk: Risk of inconsistent regulations across jurisdictions impacting on competitiveness (medium-term risk). The above risks would be heightened if regulatory changes are implemented inconsistently across regions or countries so that IPL's facilities (principally located in Australia & North America) are impacted by regulatory changes while manufacturing facilities of competitors operating in other jurisdictions are less impacted. E.g., a Carbon Price in Australia, but no EITE protection considerations or Carbon Border Adjustment Mechanism would mean ammonia manufactured by IPL in Australia would have a higher cost to produce than that produced on the global market.
Technology	Relevant, always included	Transitional Risk: In the 1.5oC future scenario developed for IPL, the global economic and political environment is highly supportive of investment, deployment, and trade of no and low carbon technologies, including in transport, energy, agriculture and new infrastructure builds, whereas in the 3oC+ scenario, many regions start to focus on adaptation technologies, especially related to food and water security, and defence related to the protection of these resources. Although we are currently progressing several projects to convert our manufacturing plants to use new technologies, IPL is currently highly dependent on the availability of affordable natural gas, both as a feedstock for hydrogen and as a fuel to drive the reaction to use hydrogen from the methane molecule for ammonia manufacture. IPL would need to either transition away from natural gas to a low carbon feedstock or develop manufacturing processes which capture carbon for sequestration or as a solid, preventing it from being released to the atmosphere as carbon dioxide. A transition to low-carbon manufacturing technologies would involve not only a Capex expenditure to update plants but could also cause an increase in IPL's costs (impacting OPEX and in turn, EBIT). For example, as determined by our 2020 Moranbah Solar Hydrogen Feasibility Study, a transition to solar hydrogen (replacing hydrogen from natural gas - CH4 - with hydrogen produced from splitting water - H2O - with solar power) at the industrial scale required for this ammonia manufacturing facility was found to be more expensive than natural gas, and would affect IPL's P&L's or be reflected in an increased cost to the consumer, which in turn could result in a decrease in customers for the company. IPL continues to monitor developments in the renewables and

		low carbon energy space, including solar hydrogen and other alternative feedstocks. In 2022, our partnership with Fortescue Future Industries (FFI) to investigate green ammonia production at our Gibson Island manufacturing site reached Front End Engineering Design (FEED) stage, and a second partnership with Keppel Infrastructure and Temasek to investigate green ammonia production at Gladstone in Australia was progressed.
Legal	Relevant, always included	Carbon Pricing and Non-compliance risks (Short to Medium term risk): A range of legal implications related to climate change are considered in our risk assessments, including carbon regulations and carbon pricing, as reported above under 'Current Regulations' and 'Emerging Regulations'. In addition, there are legal risks associated with non-compliance with GHG reporting legislation or legislated GHG emissions limits. For example, if IPL were unable to source the required ACCUs (on the open market) to settle a carbon liability accrued due to an exceedance of GHG baseline limits at one of its Australian manufacturing sites under the 'Direct Action' Safeguard Mechanism (described above under 'Current Regulation'), IPL may be at risk of prosecution for non-compliance. IPL monitors the emerging carbon market in Australia and globally, as well as its GHG emissions at manufacturing sites in order to manage this risk.
Market	Relevant, always included	Market Risk: Transitional Risk (current to medium term): The impacts of climate change on IPL's major markets (mining, quarry & construction, and agriculture) are considered in our risk assessments in detail, and include not only the direct acute and chronic physical impacts on these customers, but also transitional risks associated with market shifts. Examples of potential market shifts include a trend towards increased recycling of metals (which would reduce the volume of explosives to mine these, impacting on IPL revenues); changes in mining trends away from coal towards the minerals required for new technologies (which require less volume of bulk explosives and would therefore reduce the volume of explosives to mine these, impacting on IPL revenues); changes in crop growing regions and physical impacts on global trade and high risk geographical regions as described in the Climate Risk Index (CRI). For example, our Cheyenne, Wyoming ammonia manufacturing facility is located close to the Powder River Basin (PRB) and currently supplies relatively large volumes of ammonium nitrate (AN) explosives to mine the Powder River Basin thermal coal mines located there. Declining demand for explosives to mine this thermal coal could impact on this site's revenues and asset valuation. Thermal coal demand in this region is already declining and this risk is being managed through expanding IPL's market share in the Quarry and Construction and metals sectors. The site captures carbon dioxide created from the production of ammonia to use in the manufacture of urea and is also planning to increase the production of a urea-based Diesel Exhaust Fluid (DEF) product which is used to mitigate NOx emissions in diesel vehicles, providing an alternative income stream.

Reputation	Relevant, sometimes included	Reputational risks are considered in risk assessments due to IPL's carbon intensive manufacturing process. The risks relate to IPL's transparent reporting of the management of climate change related issues to ensure that stakeholders are aware of internal actions being taken to transition the company to a low carbon future. Attitudes and expectations towards companies with respect to climate-related issues, for example, to assess and report risks appropriately, as well as to describe their Net Zero Pathways and Transition Plans are expected to increase. For example, IPL is an ASX listed company with institutional investors. If IPL does not communicate effectively and transparently regarding its Net Zero Pathway and Transition Plan, and/or management of climate related risks and opportunities, this could impact share price and customer sentiment, further impacting on revenues. This risk could be exacerbated by climate activist NGOs and media reporters. IPL is managing this risk by engaging with stakeholders to communicate our Net Zero Pathway and Transition Plan and by reporting risks, opportunities, strategy, governance and metrics associated with managing climate change in line with the Task Force on Climate-related Financial Disclosure (TCFD) guidelines.
Acute physical	Relevant, always included	Impacts on Operations (including supply chain): Some of IPL's manufacturing plants are located in areas that are susceptible to extreme weather events, such as hurricanes, tropical storms and tornadoes. An increase in the severity and/or frequency of these extreme weather events as a result of climate change may cause more frequent disruption to IPL's operations directly or as a result of supply chain disruption, which includes transportation of raw materials and finished product via road, rail and water. Impacts such as these may increase in the short term (1-3 years). Should this occur, particularly as is expected under the IPR (Delayed, then Rapid Action) and 3oC+ scenarios, insurance premiums would be expected to increase along with a possibility that some events may be excluded from cover. Interruptions to logistics from extreme weather events could result in financial loss if product cannot be stored effectively and degrades, or cannot be transferred off-site, resulting in production losses once site storage has reached capacity. For example, a single rail line connecting our Phosphate Hill fertiliser manufacturing site (which is remotely located to access a natural phosphate deposit) could be affected more frequently by an increased incidence of flooding events, or by extreme heat. This risk to operations is being managed through the advanced planning of fast-response road load-out to temporary rail loading facilities at various points along the rail line and building of larger storage facilities at the site so that more tonnes of product can be stored, and production levels at the 24-hour chemical plants maintained.
Chronic physical	Relevant, always included	IPL provides products and services to end markets, individual customers and suppliers that may be impacted by changes to weather patterns resulting from climate change. Changes to the number and/or intensity of storms, hurricanes and other extreme weather events may impact IPL's

		end markets, primarily mining and agriculture. Increasing periods of drought may also impact on agriculture customers, and therefore IPL's revenues. Water is also a key raw material for manufacturing, with the majority used for cooling purposes. The 3oC+ scenario describes a future where total average annual rainfall is reduced across the southern half of Australia, and longer periods of prolonged drought, especially in south-eastern Australia, which may cause water shortages which impact on IPL's manufacturing facilities. One manufacturing and distribution facility, at Brisbane in Australia, and one fertiliser distribution site at Portland in Australia, are located on coasts and are very close to sea level. A significant rise in sea level combined with a king tide and a storm-event may cause flooding events at these sites from 2030 onward (considered a long-term risk), particularly with an expected increase in low-pressure cell related storm surges to become more intense.

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 & Primary climate-related risk driver

Acute physical

Cyclone, hurricane, typhoon

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Impacts on Operations (including supply chain): Some of IPL’s manufacturing plants are located in areas that are susceptible to extreme weather events, such as hurricanes,

tropical & electrical storms, floods and tornadoes. These sites include our Waggaman, Louisiana ammonia plant (hurricanes), Phosphate Hill ammonium phosphate manufacturing plant (floods), Louisiana, Missouri ammonium nitrate manufacturing plant (floods) and two initiating systems plants located in the USA (electrical storms). An increase in the severity and/or frequency of these extreme weather events as a result of climate change may cause more frequent disruption to IPL's operations directly or as a result of supply chain disruption, which includes transportation of raw materials and finished product via road, rail and water. Impacts such as these may increase in the short term (1-3 years) under all scenarios, even the 1.5oC scenario. Under the 2 oC, 3 oC+ and IPR scenarios, insurance premiums would be expected to increase along with a possibility that some events may be excluded from cover. Interruptions to logistics from extreme weather events could result in financial loss if product cannot be stored effectively and degrades, or cannot be transferred off-site, resulting in production losses once site storage has reached capacity.

For example, our Phosphate Hill ammonium phosphate fertiliser manufacturing site is located in remote northern Australia (near a natural phosphate deposit) where all scenario analyses describe hotter, wetter weather conditions and an increase in the incidence & magnitude of flooding events due to climate change. While the site itself is not located in the flood zone, a single third-party-operated rail line is used for supply in, and product transport out, of the site. In 2016, flood waters caused a derailment of sulphuric acid supply to the site, resulting in an AU$10 million impact on EBIT. In 2019, a one-in-one-hundred-year flooding event damaged third-party rail infrastructure, interrupting rail services to the site for 3 months (early Feb to early May 2019). This rail outage required a temporary emergency change from rail to road transport of product for the three months. Production was also halted once product storage was at capacity, and several plant trips were experienced during restarting. This resulted in a period of almost three months in which production was interrupted. The total EBIT impact of the event was AU$115m.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

115,000,000

Explanation of financial impact figure

The AU$115m impact reported is the actual impact of the 2019 one-in-one-hundred-year flooding event before the development of comprehensive contingency plans and CAPEX spend to increase site storage. The following breakdown is provided:
AU$95m implied lost sales margin
+ $13m loss from manufacturing plant inefficiencies (sulphur, gas, electricity, sulphuric acid, take or pay agreements)

+ $2m to set up temporary alternative rail loading facility beyond flood damaged zone
+ $3m road freight to alternative rail loading facility
+ $2 other one off costs
= $115m.
(Note: No costs were incurred by IPL in repairing the damaged rail infrastructure because the rail line is owned and operated by a third-party. No IPL operations were damaged by the flood).

Learnings and contingency plans which have been developed as a result of this event have reduced the potential financial impact of future similar events. Product storage capacity at the site has been increased and lessons learned during the event have informed contingency planning for future events. As a result, the expected financial impact of a similar future event at this site is expected to be ~AU$30m (using commodities prices the same as those in hte 2019 event).

In similar event, extensive flooding near our Louisiana, Missouri site damaged third-party rail infrastructure during 2019, which also required 3 months to be repaired. In this case, multiple third party operated transloading facilities along the rail line were able to be accessed, allowing our supply chain team to divert product loadouts to these by alternative road transport and maintain customer supply with a non-material impact (US$320,000 for additional freight costs).

Cost of response to risk

3,820,000

Description of response and explanation of cost calculation

Following the one-in-one-hundred-year flooding event at Phosphate Hill in 2019, a detailed review of contingency plans for rail interruptions at the site was completed. As a result, additional on-site and contingency storage was built, a dry truck unloading chute/conveyor and telehandler were hired for the 2021 wet season and a number of other process changes were implemented which will allow IPL to better prepare for, manage and mitigate the risks associated with future rail interruptions, both minor and major. In association with the risk review, an internal audit was conducted by KPMG which identified further minor improvements to contingency plans and resulted in an overall rating of ‘satisfactory’. This Case Study has been used to arrive at the cost of response figure reported above as follows:
AU$3.6m installation of increased product storage to avoid plant shutdowns in the event that rail transport must be transferred to road (which is slower)
+ $220,000 over the wet period to hire a dry truck unloading chute/ conveyor and telehandler for the 2021 wet season in case it is required.

Other mitigation responses for physical impacts include:
• Geographic and customer market diversification to reduce the financial impact of single point risks
• Due to its location in a hurricane zone, the Waggaman Louisiana plant was built to comply with wind codes set out by the International Building Code Design Standard IBC 20 and Minimum Design Loads for Buildings and Other Structures ASCE 7-05. The design was signed off by a Louisiana based certified Professional Engineer with experience in design

standards for the region, where the impacts of future hurricanes must be considered.
• Safety and evacuation plans are in place for all personnel and sites.
• IPL has developed technology solutions to increase the shelf life of products since this assessment in 2018.
• The Group endeavours to include force majeure clauses in agreements where relevant.
• Insurance policies are in place across the Group.
• The location of the Moranbah facility close to high quality metallurgical coal producers would provide IPL with a strategic advantage over its competitors in the event of supply chain disruption due to extreme weather events.
• Domestic co-location of critical products and diversification away from single source suppliers, already being managed, will assist in managing supply chain interruption.
• Monitoring of weather by Site Managers in high risk locations

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Chronic physical
Changing precipitation patterns and types (rain, hail, snow/ice)

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

IPL provides products and services to end markets, individual customers and suppliers that may be impacted by changes to weather patterns resulting from climate change. Changes to temperature, the amount of rainfall or the number and/or intensity of storms and other weather events may impact IPL's end markets, primarily mining, quarry & construction, and agriculture. Such changes are expected in the short term in all scenarios, with more extreme impacts described in the 2oC, 3oC+ and IPR scenarios in the medium to long term. For example, scenarios describe the south of Australia as becoming hotter and drier due to climate change, and IPL supplies 60-70% of the fertiliser market in this region. Much of eastern Australia experienced severe drought conditions during 2018-19. These conditions impacted on IPL's fertiliser sales volumes and mix, with the impact on EBIT calculated and publicly reported as $33.6 million in the 2019 IPL Annual Report.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure – minimum (currency)

20,000,000

Potential financial impact figure – maximum (currency)

40,000,000

Explanation of financial impact figure

This figure is based upon reported annual impacts on EBIT associated with previous drought and flooding events impacting on IPL's customer markets. The range was arrived at using the past actual reported impacts below:

• AU$33.6m impact of prevailing drought conditions in Northern Victoria, New South Wales and Southern Queensland adversely impacted fertilisers sales volumes and mix (revenues) in early 2019

• AU$19.8 non-material impact on distribution earnings which were adversely impacted by sales mix in 2018 due to drought conditions in NSW and Southern Queensland dampening nitrogen demand for winter crop application in these regions. The impact of dry weather was somewhat mitigated by higher global Urea prices, higher sales volumes in non-drought affected regions and higher distribution margins, demonstrating the advantage of geographical, market and product diversity.

• A non-material impact on EBIT due to drought in Northern Australia which negatively impacted fertiliser sales (revenues), primarily lower BigN sales into the Northern NSW and Queensland

cotton markets, due to drought conditions in those regions.

Cost of response to risk

3,000,000

Description of response and explanation of cost calculation

• The S&OP process incorporates forecasting which enables upcoming seasonal scenario planning and some supply flexibility. Forecasts are based on typical weather conditions and are reviewed on an ongoing basis as the seasons progress to help align supply to changing demand.

• Geographic and market diversity (fertiliser): IPL’s Australian fertilisers business operates in all Australian States other than Western Australia. In addition to geographical diversity, there is also diversity across crops – IPL supplies fertilisers for a wide range of agricultural applications – and customers serviced. For example, in 2018 distribution earnings were adversely impacted by sales mix due to drought conditions (in NSW and Southern Queensland) dampening nitrogen demand for winter crop application in these regions. The impact of dry weather was somewhat mitigated by higher global Urea prices, higher sales volumes in non-drought affected regions and higher distribution margins, demonstrating the advantage of geographical, market and product diversity.

• Geographic and market diversity (explosives): The explosives business operates across North America and Asia Pacific, and in Europe, and is primarily aligned to customers with tier 1 assets, being those with the most efficient operations and best resources. Also, there is diversity in customer base, with products and services supplied for iron ore, base and

precious metals, quarry and construction, and thermal and MET coal customers.
• DEVELOPING FERTILISERS FOR A WARMING CLIMATE: In 2020, IPL continued the testing of silicon fertilisers which have been shown to increase stress resistance in crops & replace silicon lost from soils through certain crops. Results to date indicate that crop tolerance of abiotic stresses, such as heat stress, can be increased.
The 'cost of 'response' reported here is the annual R&D investment into the development of fertilisers for a warming climate, as described above. Zero is included for the other mitigating actions reported here because the S&OP process and our geographic diversity requires no additional investment.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation
Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

IPL has manufacturing facilities across various geographical locations that may be impacted by regulatory changes aimed at reducing the impact of, or otherwise addressing, climate change. Any changed regulation could result in an increase to the cost base or operating cost of these plants, and it may not be possible to alter sales prices to offset these cost increases. This includes, but is not restricted to, any regulations relating to reducing carbon emissions. Alternatively, any such regulatory changes may potentially impact the ability of these plants to continue functioning as currently operated. This risk would be heightened if regulatory changes are implemented inconsistently across regions or countries so that IPL's facilities (principally located in Australia and North America) are impacted by regulatory changes while manufacturing facilities of competitors operating in other jurisdictions are less impacted.

For example, carbon pricing currently exists in Australia, with changes to rules expected in 2023 that may increase costs each year. The scheme applies to three of our major manufacturing sites, covering over 95% of our total Australian Scope 1 emissions, which were 1.4million tonnes CO2e in 2022. Under a 1.5oC scenario, a global carbon price is rapidly introduced and reaches ~US$300/t CO2e by 2030 and ~US$550/t CO2e by 2040, with a global carbon price of US$50-100 in the short-term (1-3 years). In this scenario, carbon pricing would increase operational costs as well as costs to transport products until 2025, when the scenario describes most transport options being retrofitted with zero or low carbon mobility options (e.g., electricity and hydrogen). The transition to a global carbon

price may give rise to a period of volatility where IPL would not be able to pass through the immediate carbon costs to customers, who may choose to source products more locally where available to avoid these carbon costs. However, well designed carbon pricing schemes may also offer opportunities to leverage grants to assist in the transition to low carbon technologies.

In a second example, the US State of Oregon, where IPL's St Helens ammonia manufacturing facility is located, has introduced a Carbon Reduction Scheme with the first three-year cycle beginning in January 2021. The impact on the St Helens facility could be up to $10m by 2024, depending on the success of the state's industry in achieving carbon reductions before 2024.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure – minimum (currency)

70,000,000

Potential financial impact figure – maximum (currency)

177,000,000

Explanation of financial impact figure

• IPL's Australian scope 1 emissions were 1.4m tCO2e in 2022. If a A$50 carbon price was applied to all of these emissions the impact would be AU$80m (1,400,000 tCO2e x $50 = 70m)
• IPL's global scope 1 emissions were 3,550,961 tCO2e in 2022. If a A$50 carbon price was applied to all of these emissions the impact would be AU$166m (3,550,961 tCO2e x $50 = 177m)
• A global US$100 carbon price would result in an impact of 3,319,417 x $100 = $US332m. However, a global carbon price (rather than carbon pricing emerging in some jurisdictions and not others) would mean that such a cost impost could be passed on to customers and would not result in IPL being disadvantaged unless competitors produced products with lower emissions intensities than IPL.

Cost of response to risk

137,550,000

Description of response and explanation of cost calculation

To manage this risk, the IPL Corporate Sustainability Manager chairs the Carbon Pricing Steering Committee (CPSC). The CPSC comprises manufacturing, strategy, finance, treasury & energy contract management personnel across our global sites. The CPSC, through the Sustainability Manager and VP Strategic Projects, continually monitors

emerging carbon pricing developments & informs the Decarbonisation & Energy Transition Steering Committee and the Board of relevant compliance requirements and market opportunities. For example, the emerging carbon cap and trade regulation in Oregon, and the Safeguard Mechanism changes in Australia, are currently being tracked by the CPSC. The CEO formed and Chairs the IPL Decarbonisation and Energy Transition (DET) Steering Committee to develop the Company's Net Zero Pathway and reduce exposure to carbon pricing risks. The DET Steering Committee comprises selected executives including the CFO, the Chief Technology Development Officer and the President Global Manufacturing and HSE, and management including the VP Strategic Project Development and the Sustainability Manager. For example, the DETSC identified potential projects for implementation at IPL"s manufacturing sites to achieve IPL's 5% absolute reduction target by 2025 against a 2020 baseline. $800,000 was allocated to the DETSC for 2021-2022 to investigate these.
The reported cost of response to risk includes the following:
A$750,000 in specialist roles related to carbon pricing management and the development of IPL's Net Zero Pathway.
+ A$800,000 in DETSC funding allocated to manage decarbonisation pathway projects
+ A$16,000,000 in approved Capex
+ A$100-140m in aggregate to 2030 for decarbonisation projects, which is 'Sustainability Capital', and part of the first order capital allocation
'No cost' risk management actions and resilience aspects include:
• IPL has a large, diverse supplier group, which would assist in avoiding carbon pricing pass through in the short-term.
• IPL customer agreements provide for the pass through of carbon pricing where possible.
• Domestic co-location of critical products will reduce carbon costs associated with transport.
• Diversification away from single source suppliers, already being managed, will also assist in managing the potentially volatile/variable costs associated with increased regulation, including carbon pricing, in the period 2030-2040 where carbon pricing may be applied unevenly (in some jurisdictions).

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market

Other, please specify

Market shift away from mining of thermal coal for energy

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

IPL's 1.5oC and 2oC scenarios describe a transition away from fossil fuels, which would significantly decrease demand for thermal coal, with impacts beginning in the short term (1-3 years). IPL supplies explosives to the thermal coal mining sector in the Powder River Basin in the US. Revenues from supply to this market have been reducing for several years and made up 21% of IPL's Americas revenue and 4.3% of IPL's total global revenue in 2022. Continued reduction in demand for thermal coal would reduce IPL's revenues from this sector.

However, the 1.5oC and 2oC scenarios also describe technologies associated with renewable energy, such as electric vehicles and largescale batteries, as likely to expand dramatically, with World Bank estimates indicating that demand for the metals required for these technologies could grow by 1000% under a 2oC scenario.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

307,000,000

Explanation of financial impact figure

This figure is the total revenue from IPL's supply of explosives to the thermal coal mining sector in the US (AU$307m) in 2022. The figure reported therefore assumes the total impact if the entire market was lost (in 2022 earnings) with no expansion of revenues in other sectors.

Cost of response to risk

30,000,000

Description of response and explanation of cost calculation

IPL's major exposure to thermal coal is supplying the Powder River Basin (PRB), North America's most competitive thermal coal mining region with ammonium nitrate (AN) explosives manufactured at our Cheyenne, Wyoming plant (which is located adjacent to the PRB) and some imported AN. This sector made up 21% of IPL's Americas revenue, and 4.3% of IPL's global revenues in 2022. The Cheyenne site is also well positioned to service the Base & Precious Metals mining sector in Western US. To date, the decline in revenues from thermal coal mining in the PRB has been managed through expanding revenues into the Base & Precious Metals and Quarry & Construction sectors, which made up 36% and 42% of IPL's Americas revenues in 2022.

In addition, the Cheyenne site captures carbon dioxide created from the production of ammonia to use in the manufacture of urea and is also planning to increase the production

of a urea-based Diesel Exhaust Fluid (DEF) product which is used to mitigate NOx emissions in diesel vehicles, providing an alternative income stream.

The 'Cost of response' figure reported here is the estimated AU$30m CAPEX cost to expand into the DEF urea market.

Comment

In addition:
• Since IPL currently buys in a portion of its ammonium nitrate to fulfil current demand in the PRB, the Group could manage a more rapid than expected market change away from thermal coal through reduced purchasing of third-party ammonium nitrate.
• IPL seeks to maintain competitive cost positions in its chosen markets, whilst maintaining quality product and service offerings. This focus on cost and quality positions its business units to compete over the medium to longer term in changing and competitive environments.
• In the 2-degree scenario the reduction in demand for explosives supplying the thermal coal markets will be partly offset by the mining of new world commodities required for renewable technologies which could be higher margin activity.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical
Precipitation and/or hydrological variability

Primary potential financial impact

Other, please specify
Interruption to production

Company-specific description

Water is a key raw material for manufacturing at some manufacturing sites, with the majority used for cooling purposes. The IPR, 2oC and 3oC+ climate change scenarios describe reduced average annual rainfall and longer periods of prolonged drought across south-eastern Australia, with increased variability also impacting the northern half of Australia. While this would be offset somewhat by increased 1 in 20-year flooding events at some locations, and up to 15% more rainfall in each single rain event (than historical averages), water restrictions may become more frequent in some areas. These impacts could occur in the short-term (1-3 years), with very low dam levels being recorded near some sites in the recent past. Three IPL sites which may be affected in Queensland, Australia are the Mt Isa sulphuric acid manufacturing plant, the Moranbah ammonium nitrate manufacturing plant and the Gibson Island ammonia manufacturing plant. (The Phosphate Hill site is supplied by a groundwater source which is renewed each year during the northern wet season, where rainfall is expected to increase).

For example, the Gibson Island ammonia manufacturing site is located in Brisbane, Queensland and currently uses high volumes of high-quality cooling water in the ammonia plant. A partnership with Fortescue Future Industries to convert this plant from natural gas to electrolysis of water (using renewable electricity) for green ammonia production reached Front End Engineering Design (FEED) stage in 2022. The WRI Aqueduct Water Tool identifies this site as being located in a catchment currently subject to high (40-80%) baseline water stress and high 'Physical risk - Quantity' due to a relatively large local population and high inter-annual variability in rainfall. The Tool also predicts that baseline water stress in the catchment will double by 2030 due to climate change affecting rainfall, and a growing population.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

7,000,000

Explanation of financial impact figure

This figure is the impact on EBIT which would result from a three-week outage at the Gibson Island ammonia manufacturing site due to water shortages.

Cost of response to risk

4,000,000

Description of response and explanation of cost calculation

IPL worked with Seqwater, the Queensland Government Bulk Water Supply Authority, and Urban Utilities, who operate a water recycling plant located near the Gibson Island site, to enable the purchase of recycled water. Last reporting year (during 2021) we concluded an agreement and completed construction of a pipeline to bring around 6,000 kL per day of recycled water to the site. This will ensure an uninterrupted supply in the event that municipal water supplies become restricted and ensure a recycled water supply for the production of green ammonia should the Gibson Island Green Ammonia conversion project reach a Final Investment Decision. Compared to natural gas-based manufacturing, it also left 6,000 kL per day in the municipal water supply dams for community use during 2022.

The 'cost of response' provided is the $4m total project cost to lay the pipeline from the recycled water plant to the Gibson Island plant, and connect it to site.

While the site will cease natural gas-based manufacturing of ammonia in the 2023 IPL financial year, IPL is seeking to convert the manufacturing of ammonia at the site to

electrolysis of water using renewable energy, which will produce green ammonia, in partnership with FFI, using water as the hydrogen feedstock.

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?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

Increased revenues through continued development and increased sales of Enhanced Efficiency Fertilisers (EEFs including Green Urea NV®, ENTEC®, and eNpower™), a new form of sustainable fertilisers in conjunction with Australian Bio-ferts, and lower emissions explosives, including DeltaE (Differential Energy explosives technology).

Global fertiliser demand initially grows in all scenarios before severe physical impacts described in the 3oC+ and IPR scenarios cause a decline. Domestic demand in Australia and the US (where IPL manufacturing sites are located) becomes more important as the physical impacts of climate change impact on international trade and geopolitical stability. The 1.5oC scenario describes a rise in fertiliser use overall from 2025 due to increased focus on restoring degraded agricultural land and developing unused land close to urban centres in order to provide food and fibre for a growing population. Artificial growing environments may be developed to meet growing demand while avoiding additional land clearing. Higher yields will need to be obtained from smaller land plots and precision

agriculture develops to reduce the environmental impacts of fertiliser use while maintaining yields. New farms are expected to be built around urban centres, using highly controlled environments (i.e., vertical and high-density farms with unique soil mixes). Products that reduce carbon emissions for growers, improve soil carbon content, are environmentally friendly and provide precision nutrient application for plant growth (e.g., slow-release fertilisers and precision liquid fertilisers) will have a significant competitive advantage in this scenario.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

30,000,000

Explanation of financial impact figure

Customer uptake of IPL's enhanced efficiency fertilisers, which have been shown to reduce nitrogen losses as N2O (a greenhouse gas) and enhanced efficiency explosives, which reduce fossil fuel use (and therefore also GHG) continues to grow. In 2020, we saw 28% growth in the sales volumes of our third high efficiency fertiliser, eNpower™, which was released to market in 2019.

The 'potential financial impact' reported is the revenue increase that would result if 20% of fertiliser sales (tonnes sold in 2020) made in 2020 were replaced with premium high efficiency (low GHG release) fertiliser sales. (EBIT is not reported here due to issues related to commerciality in confidence).

Cost to realize opportunity

48,000,000

Strategy to realize opportunity and explanation of cost calculation

Following a strategic review of IPL's fertilisers business (IPF) undertaken in 2020, the long-term strategy is to grow Incitec Pivot Fertiliser (IPF) from a leading fertiliser company, manufacturing and distributing a range of domestic fertilisers, to a sustainable soil health company providing sustainable plant nutrition solutions to improve soil health. This strategy will be leveraged through IPF's expansive distribution footprint to drive new growth products and services towards soil health, including precision application of nutrients to reduce environmental impacts, such as GHG, and increase yields. Our Enhanced Efficiency Fertiliser (EEF) range (Green Urea®, Entec® products and eNpower™) are products specially formulated to retain nutrients in more stable forms for longer periods, reducing the likelihood of volatilisation losses to the atmosphere as GHG and to waterways through leaching. EFF products not only reduce nitrogen losses to the atmosphere as N2O (a

GHG), but they also facilitate greater uptake of nitrogen to the crop, enabling higher yields for growers on less cleared land.

During 2022, IPF announced a $38 million investment in Australian Bio Fert (ABF) to enable the construction of Australia's first large-scale plant to develop and deliver a new category of sustainable fertilisers for Australian farmers. The investment will enable the construction of a new plant which uses organic waste materials sourced predominantly from the poultry industry to produce a dry, friable product which is free of harmful pathogens. It is intended that this safe organic material could be blended with other fertilisers to streamline traditional practices of separate fertiliser and compost applications. This circular economy model contributes to our commitment to reduce environmental impacts and develop products with consistent and guaranteed quality which address soil degradation and assist in restoring soil carbon on farms.

The 'cost to realise opportunity' figure is the cost of CAPEX to build an additional product coating facility to switch 20% of our fertiliser sales to EEFs, which is AU$10m + the AU$38m investment in ABF.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Other, please specify

Increase in product demand due to physical impacts

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Market changes: All scenarios describe conditions in which demand for explosives in the Quarrying and Construction sector will increase. In the 1.5oC and 2oC scenarios, steady urbanisation rates and enough global wealth to support stable development will likely lead to the building, reinforcing and repairing of roads, buildings and other infrastructure. As only 1 percent of all residential buildings and commercial buildings in the USA are certified 'green', an enormous opportunity presents itself for retrofitting of buildings in a future which addresses climate change. Although not as severe, physical impacts are still expected to occur, and rebuilding is required. While these scenarios describe this being completed in a resource efficient way, the scale of the transition is large and generates increased demand for aggregate, even though the use of recycled aggregate and re-use of building materials occurs.

The 3oC+ and IPR scenarios both describe a future in which natural disasters severely impact on cities, towns and infrastructure, particularly along coasts due to sea level rise. An immense quantity of aggregate and other quarried materials is required to rebuild, and to build new climate resilient infrastructure. The IPR scenario describes the Quarrying and Construction sector expanding between 2020 and 2040 as the world (and the USA in particular) seeks to rebuild and protect itself from the physical impacts of climate change. From 2035, the scenario describes decreasing demand for fertiliser and explosives products from many emerging and developing economies which cannot afford to rebuild after the cumulative losses from both the acute and chronic physical impacts of climate change.

For example, IPL's has an ammonium nitrate manufacturing facility in Australia, ammonium nitrate manufacturing facilities at Louisiana, Missouri and Cheyenne Wyoming, and initiating system manufacturing plants at Wolf Lake in Illinois, Simsbury in Connecticut, Gregory in Kentucky and Carthage in Missouri. These plants are domestically located in the USA and Australia, countries which have strong governance and can afford to rebuild infrastructure in the event that the physical impacts of climate change cause damage. This would provide IPL with an opportunity to maintain revenues through supplying increased demand for domestically produced explosives products in these domestic markets.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

40,400,000

Explanation of financial impact figure

The revenues from IPL's supply of explosives to the quarry and construction sector were AU$404m in 2022. A 10 percent increase would be equivalent to $40.4m.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

IPL's Dyno Nobel business is the second largest industrial explosives distributor in North America by volume, providing ammonium nitrate, initiating systems and services to the Quarry & Construction sector in the southern US, northeast mid-west US and Canada. In 2019, 40 percent of Dyno Nobel Americas explosives revenue was generated from this sector. In 2020, this increased to 43%, which has been maintained to 2022, with strong growth due to both market and share growth.

We have a leading position in this end market, which benefits from a favourable mix of our high-grade explosives, proprietary initiating systems and services. We continue to leverage our premium technology platform throughout and beyond the sector, including our proprietary Differential Energy offering. DeltaE has been in operation across the USA over the last three years and is well established in the quarry and construction and hard rock segments where customers value its safety, environmental, and efficiency benefits, including reduced GHG emissions due to reduced energy use. This technology was rolled out in the Asia Pacific business during 2018 and has continued to expand.

Dyno Nobel Americas also operates a Quarry Academy training centre for stone quarry operators, maximising contact with potential new customers.

The cost to realise this opportunity is reported as zero due to their being no additional costs associated with managing customer market share.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

Our climate transition plan is voted on at Annual General Meetings (AGMs)

Attach any relevant documents which detail your climate transition plan (optional)

IPL 2022 Climate Change Report.pdf

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative, but we plan to add quantitative in the next two years

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios RCP 8.5	Company-wide		The RCP 8.5 scenario was used in IPL's 3oC+ Scenario to assess physical risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit.
Physical climate scenarios RCP 8.5	Facility		The RCP 8.5 scenario was also used in IPL's 3oC+ Scenario to assess physical risks which may impact on our 12 major manufacturing facilities, and on their suppliers, logistics and customer demand at the facility level.
Physical climate scenarios RCP 6.0	Company-wide		The RCP 6.0 scenario was used in IPL's Inevitable Policy Response scenario to assess physical and transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit.
Physical climate scenarios RCP 4.5	Company-wide		The RCP 4.5 scenario was used in IPL's 2oC scenario to assess physical and transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit.
Physical climate scenarios RCP 2.6	Company-wide		The RCP 2.6 scenario was used in IPL's 1.5oC scenario to assess physical and transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit.
Transition scenarios IEA SDS	Company-wide		The IEA SDS scenario was used in IPL's 1.5oC, 2oC and Inevitable Policy response scenarios to assess physical and transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit.
Transition scenarios IEA STEPS (previously IEA NPS)	Company-wide		The IEA NPS scenario was used in IPL's 1.5oC and 2oC scenarios to assess transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit.
Transition scenarios BNEF NEO	Company-wide		The BNEF NEO was used in IPL's 1.5oC and 2oC scenarios to assess transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit.

Transition scenarios Customized publicly available transition scenario	Company-wide	1.5ºC	Shared Socioeconomic Pathway 1 (SSP1: Sustainability – Taking the Green Road) is a scenario of projected socio-economic global changes up to 2100 which outlines a future in which there are low challenges to mitigation and adaptation. SSP1 was used in creating IPL's bespoke 1.5oC scenario, which was used to assess physical and transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit. See https://www.carbonbrief.org/explainer-how-shared-socioeconomic-pathways-explore-future-climate-change/
Transition scenarios Customized publicly available transition scenario	Company-wide	1.6ºC – 2ºC	Shared Socioeconomic Pathway 2 (SSP2: Middle of the Road) is a scenario of projected socioeconomic global changes up to 2100 which outlines a future in which there are a medium level of challenges to mitigation and adaptation. SSP2 was used in creating IPL's bespoke 2oC scenario, which was used to assess physical and transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit. See https://www.carbonbrief.org/explainer-how-shared-socioeconomic-pathways-explore-future-climate-change/
Transition scenarios Customized publicly available transition scenario	Company-wide	2.1ºC - 3ºC	The UNPRI Inevitable Policy Response (IPR) scenario was used by IPL to assess transitional risks which may impact our own operations, our suppliers, logistics, and customer demand for our products and services across each business unit. The Inevitable Policy Response (IPR) is a climate transition forecasting consortium commissioned by the Principles for Responsible Investment (PRI, an investor initiative in partnership with UNEP Finance Initiative and UN Global Compact) which aims to prepare institutional investors for the portfolio risks and opportunities associated with a period of relatively little policy action followed by an acceleration of policy responses to the impacts of climate change. IPR forecasts a continued acceleration in climate policy to 2025, driven, in part, by the 2023 Paris Stocktake and the 2025 Ratchet. IPR assesses that those policy responses will be increasingly forceful, abrupt, and disorderly, with financial, market and real economy uncertainties inherent in the climate transition. See https://www.unpri.org/sustainability-issues/climate-change/inevitable-policy-response

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

The results of our scenario analyses, along with detailed descriptions of our scenarios, are published in Chapter 4 of the 2022 IPL Climate Report at https://www.incitecpivot.com.au/~/media/Files/IPL/Sustainability/2022%20IPL%20Climate%20Change/2022%20Climate%20Change%20Report.pdf

See a brief summary below (with page references to the report above):

• Which IPL operations are most exposed to physical risk and why?

• What will each scenario mean for policy and legal risks, such as carbon pricing?

• What will each scenario mean for demand for our products and services across each business unit?

• Which customers are most exposed under each scenario and why?

• How may our suppliers and associated logistics be impacted under each scenario? Which items are at most risk under each scenario?

• Where do opportunities exist under each scenario? What actions should be put in place now to maximise future opportunities?

• What are the signposts that indicate a risk or opportunity is becoming more likely?

For the Inevitable Policy Response scenario the following additional focal questions were used:

• Are there any business relationships or long-term contracts which may be exposed under a rapid transition?

• Are there IPL operations which require a long-lead time to transition and therefore may have a higher exposure to a rapid transition?

Results of the climate-related scenario analysis with respect to the focal questions

The results of scenario analyses, along with detailed descriptions of our scenarios, are published in Ch4 of the 2022 IPL Climate Report at: https://www.incitecpivot.com.au/~/media/Files/IPL/Sustainability/2022%20IPL%20Climate%20Change/2022%20Climate%20Change%20Report.pdf

A summary:

• Physical risks, all scenarios: Louisiana, Missouri & Phosphate Hill, QLD (flooding impacting logistics rather than the operations themselves); Carthage, Missouri (flooding, impacting logistics & employee commuting); Moranbah, QLD (heavier rainfall events may lead to dam overflows); Waggaman, Louisiana (hurricanes, which may impact operations directly, or result in extended power outages); Gibson Island, QLD & Portland, VIC (sea-level rise may increase risk of inundation during storms in the long-term; at GI, increased baseline water stress may cause water shortages in the medium to long term)

• Policy risks: In the 1.5oC, 2oC & IPR scenarios, carbon pricing will materially impact IPL, if it is not applied uniformly across global markets and cannot be passed on.

• Products & services across each business unit: A decline in demand for thermal coal first,

then also metallurgical (MET) coal is described in the 1.5°&2° scenarios. This will reduce demand for bulk explosives across thermal coal markets (mainly in the US) in the short term and MET coal markets (Australia) in the medium to long term. However, both the 1.5°&2° scenarios see an increase in the mining of primary metals due to increased demand for the 'new world minerals' required for low-carbon technologies, and the 2o, 3o+ and IPR scenarios see an increased demand for quarry & construction explosives for rebuilding following impacts. The IPR & 3°+ scenarios describe climate impacts reducing farming yields which may result in increased demand for specialist fertilisers.
• Customer exposure: Farming customers are most impacted under the 3o+ and IPR scenarios due to physical impacts such as acute events and extended droughts. Thermal & MET coal mining customers are most impacted under 1.5oC & 2oC scenarios due to transitioning to renewable energy.
• Opportunities: The 1.5°C &2°C scenarios describe opportunities for low GHG fertilisers (EEFs), partnerships for soil carbon sequestration and low GHG explosives in the short term, and the development of green ammonia (NH3) & renewable H2 in the medium term. IPL is an expert in the manufacture & handling of both H2 & NH3 and is well placed to maximise opportunities.
• Business relationships / long-term contracts: The 1.5°C &2°C scenarios describe increased pressure from capital markets & investors to improve climate disclosure, worsening lending conditions, and risk of divestment in the short term. Certain long-term contracts & rising insurance costs present risks.
• Lead time to transition: IPL's ammonia manufacturing plants run continuously. GHG reductions require major capital investments with project implementation during 3-year cycle maintenance shut-downs.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Climate change considerations have been built into our Core Strategic Drivers. 'Customer Focus' and providing 'Leading Technology Solutions' is a key driver for our business and we recognise the importance of developing and delivering products and services which enable our customers to reduce their greenhouse gas emissions, as well as partnering with research institutions to share and develop knowledge (see R&D below). • Case Study: Re-evaluating business strategy and developing new Enhanced Efficiency Fertilisers (EEFs) to reduce GHG emissions from farming: IPL's 1.5oC scenario describes a $300 price on carbon emissions by 2030 and identifies that a significant change in farming practices would be required to

		limit global warming to 1.5oC (Risk 4). An opportunity analysis identified a high likelihood of increased demand for EEF fertilisers which reduce GHG emissions during their use, allowing our customers to reduce their exposure to carbon pricing. Our Incitec Pivot Fertiliser (IPF) business, which operates in eastern Australia, has responded by announcing that its new long-term strategy is to grow IPF from a leading fertiliser company, manufacturing and distributing a range of domestic fertilisers, to a sustainable soil health company providing sustainable plant nutrition solutions to improve soil health. The strategy will be leveraged through IPF's expansive distribution footprint to drive new growth products and services towards soil health, including EEFs. We continue to develop these with our eNpower™ product released in 2019. Like our Green Urea® & Entec® products, eNpower™ is specially formulated to retain nutrients in more stable forms for longer periods, increasing plant nutrient uptake and reducing volatilisation losses to the atmosphere as GHG.
Supply chain and/or value chain	Yes	IPL's 2oC, 3oC+ and IPR scenario analyses identified the likelihood of an increase in the incidence and severity of disruptions to IPL's supply chains due to physical impacts, beginning in the short-term. In response, IPL moved to reduce our reliance on single source suppliers and increased stocks where a single source supply chain risk remained. • Case Study - Ensuring DET NET component supply: Specialist components for IPL's Dyno Nobel DET NET explosives initiating systems are manufactured by a JV in South Africa. IPL's RCP based 2oC, 3oC+ and IPR scenarios all describe a likelihood of impacts to ports due to the increased incidence of extreme weather events, beginning in the short term, with extreme impacts in the medium to long term in the 3 oC+ scenario. In response, IPL's supply chain team stockpiles a 6-month supply of components in the US in the event that supply is interrupted. This strategy was tested during 2020 when the SA export port became congested due to COVID-19 impacts, with no resulting impact on US production. • Case Study: Ensuring continued production and product delivery at Phosphate Hill, where logistics are at risk of interruption due to climate change: IPL's Phosphate Hill ammonium phosphate manufacturing facility is remotely located in northwest Queensland, Australia and is serviced by a single third-party operated rail line. This supply chain was identified as being at risk of increased incidence of flooding by IPL's RCP based 2oC and 3oC+ scenarios, beginning in the short term, with more extreme impacts in the medium to long term in the 3oC+ scenario. IPL altered the supply chain

		strategy by emptying product storage tanks and sheds at the site and stockpiling product at our Townsville Port site in advance of the summer wet season each year. This strategy allows production at Phosphate Hill (and customer supply out of Townsville) to continue throughout a rail outage of up to three weeks. In 2019 a one-in-one-hundred-year flooding event damaged the third-party rail infrastructure, washing out rail sections and rail bridges which had to be rebuilt. As a result of this event, increased storage capacity has been built at the Phosphate Hill site and a response plan to switch quickly from rail to road freight for transfer product out of the site has been developed, and weather is monitored.
Investment in R&D	Yes	The development and adoption of low carbon manufacturing technologies has been built into our 'Manufacturing Excellence' strategy. These technologies have been identified as both a risk management strategy for carbon pricing impacts and an opportunity for revenue increase associated with premium 'low carbon' products. • Case Study: Investigating Solar Hydrogen: The IPL 1.5oC scenario estimates that a US$300 price on carbon would be required by 2030 to limit global warming to less than 2oC (Risk 4). The IPR scenario describes carbon pricing systems becoming widespread across the developed world as early as 2025, increasing to US$65/t by 2030 and continuing to rapidly increase between 2030-2040, with international carbon pricing and boarder adjustment mechanisms also rapidly implemented from 2030. The IPL 3oC+ scenario describes a future in which global carbon pricing never emerges and carbon pricing is established in only some jurisdictions, which presents a risk that IPL's manufacturing facilities in the US & Australia may become uncompetitive due to this cost. In response, and also to mitigate the physical impacts of climate change (Risks 1,2,5,6) IPL has developed a Net Zero Pathway. In line with this, and driven by our Manufacturing Excellence & Profitable Growth Strategic Drivers, in 2020 we completed a $2.7m feasibility study, supported by the Australian Renewable Energy Agency. The study assessed the potential to use renewable hydrogen to increase ammonia production at our manufacturing facility at Moranbah, Queensland. Rather than being made from natural gas, renewable hydrogen can presently be made at very small plants using solar energy to split water into hydrogen and oxygen, allowing ammonia to be produced without the GHG associated with natural gas. The aim of the feasibility study was to determine whether renewable hydrogen can be made at an industrial scale, and at a commercially competitive price. Our study found that solar

		ammonia at an industrial scale was technically viable, and a facility was designed that could reliably provide a continuous supply of renewable hydrogen suitable for ammonia manufacturing. However, commercial feasibility requires either a price premium for the solar ammonia; a reduction in renewable energy prices; and/or an increase in grant funding of approximately A$395m, or approximately 60% of the estimated capex.
Operations	Yes	The IPL 1.5oC scenario estimates that a US$300 price on carbon would be required by 2030 to limit global warming to less than 1.5oC (Risk 4). The IPR scenario describes carbon pricing systems becoming widespread across the developed world as early as 2025, increasing to US$65/ tonne by 2030 and continuing to rapidly increase between 2030 and 2040, with international carbon pricing and boarder adjustment mechanisms also rapidly implemented from 2030. The IPL 3oC+ scenario describes a future in which global carbon pricing never emerges and carbon pricing is established in only some jurisdictions, which presents a risk that IPL's manufacturing facilities in the US & Australia may become uncompetitive due to this cost. This scenario describes severe physical impacts from climate change if GHG are not reduced. This has led to our CEO's strategic decision to form the Decarbonisation and Energy Transition Steering Committee (DETSC), which is Chaired by the IPL CEO, and includes the President Global Manufacturing & Corporate HSE, VP Strategic Project Development, CFO and Corporate Sustainability Manager. The DETSC is overseeing the development IPL's Net Zero Pathway and the identification and investigation of new/emerging technologies and major capital projects that will be required to substantially reduce emissions in our hard-to-abate chemical manufacturing processes. In 2020, the DETSC set an absolute GHG reduction target of 5% by 2025 and 25% by 2030 for our current portfolio, both against a 2020 baseline, for IPL globally as part of IPL's Climate Change Management strategy. This target is linked to the executive remuneration of the CEO and Executive Team members.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures Capital allocation	• Capital expenditures have been influenced by the physical risks of climate change to operations (Risk 1). All of IPL's scenarios describe the acute impacts of climate change increasing in the short term, with more extreme impacts in the medium to long term in the 2oC, 3oC+ and IPR scenarios. Capital expenditures have been made to manage these impacts. For example, during 2020, AU$3,634,971 was invested in increasing product storage capacity to manage the risk of production interruptions at our remote Phosphate Hill site in Australia due to flooding. This site is serviced by a single third-party operated rail line which has been identified as being at increasing risk of extreme flooding events associated with the summer monsoon in the short-term. Flooding events in the area have been increasing and have interrupted rail services which transport product out of the site. Once storage capacity is reached, production must be halted, leading to the Capex investment in increased storage. • Approximately AU$16m Capex will also be invested in the installation of tertiary abatement of nitrous oxide at our Moranbah site in Queensland, Australia, which will reduce IPL's global GHG emissions by ~200,000t CO2e and underpin our short-term absolute reduction target of 5% by 2025 against our 2020 baseline. This investment will mitigate the risk of carbon pricing impacting the site in the event that the site's GHG baseline is progressively reduced as part of the expected rule changes to the Australian Federal Government's Safeguard Mechanism (a cap-and-trade scheme). In addition, Internal carbon pricing has been included in capital expenditure assessments for projects at our major manufacturing sites in Australia since Australian Carbon Credit Units (ACCUs) were introduced in 2012, with the price reflecting the market price of ACCUs. During 2021, the Board formally approved the application of this carbon price to all future growth capital and investment decisions. We are continuing to embed this into our processes, with the objective of applying the carbon price to all capital projects, consistent with the Capital Allocation Framework, during 2023. The price is currently AU$38 and is projected to increase to AU$50 by 2026, AU$65 by 2030, AU$130 by 2040 and AU$258 by 2050. A range of carbon prices are also included in our scenario analyses. This price is between the carbon prices in our 1.5oC and 2oC scenarios. • Capital allocation has been influenced by both the risk of carbon pricing and the risk of physical impacts, should warming not be limited to well

		below 2oC. This has led to the establishment of a new category in IPL's Capital Allocation Framework in 2022. The updated Capital Allocation Framework prioritises 'Sustainability Capital' as part of the Order 1, or 'first taker' of capital. This capital is allocated to progress a range of major projects required to decarbonise our operations and includes A$100-140m in aggregate to 2030 with A$50-60m spend on decarbonisation projects expected in FY23.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
Row 1	No, but we plan to in the next two years

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Is this a science-based target?

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

Target ambition

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Base year

2020

Base year Scope 1 emissions covered by target (metric tons CO2e)

3,646,215

Base year Scope 2 emissions covered by target (metric tons CO2e)

345,181

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

3,991,396

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

0

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2025

Targeted reduction from base year (%)

5

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

3,791,826.2

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

3,550,961

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

338,223

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

3,889,184

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

51.216165973

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This target covers IPL's total global Scope 1 and 2 GHG emissions. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

Installation of tertiary nitrous oxide abatement on the nitric acid plant at IPL's Moranbah Ammonium nitrate manufacturing facility in Queensland, Australia.

List the emissions reduction initiatives which contributed most to achieving this target

Target reference number

Abs 2

Is this a science-based target?

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

Target ambition

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Base year

2020

Base year Scope 1 emissions covered by target (metric tons CO2e)

3,646,215

Base year Scope 2 emissions covered by target (metric tons CO2e)

345,181

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

3,991,396

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

0

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

25

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

2,993,547

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

3,550,961

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

338,223

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

0

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

3,889,184

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

10.2432331946

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This target covers IPL's total global Scope 1 and 2 GHG emissions. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

IPL has identified a pathway to achieving a Paris aligned reduction of 42% in operational GHG for our current portfolio by 2030 based on the implementation of 4 major capital projects. These are as follows:

1. 5% reduction through improved nitrous oxide abatement at our Moranbah site, with the installation of tertiary abatement - approved for installation.
2. 12% reduction through Gibson Island Green ammonia would achieve a 12 % reduction in global GHG. - at Front End Engineering Design stage.
3. 22% Carbon Capture and permanent geological sequestration of CO2 (CCS) at Waggaman Louisiana - at Front End Engineering Design stage.
4. 12-15% reduction through the installation of N2O abatement at our LOMO nitric acid plant, which is the only nitric acid manufacturing site we own without abatement - under investigation.

List the emissions reduction initiatives which contributed most to achieving this target

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Target reference number

Abs 3

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

1.5°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Base year

2020

Base year Scope 1 emissions covered by target (metric tons CO2e)

3,646,215

Base year Scope 2 emissions covered by target (metric tons CO2e)

345,181

Base year Scope 3 covered by target (metric tons CO2e)

0

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

3,991,396

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

0

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2050

Targeted reduction from base year (%)

100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

3,646,215

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

345,181

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

0

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

3,889,184

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g., non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

2.5608082987

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This target covers IPL's total global Scope 1 and 2 GHG emissions. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

IPL has identified a pathway to Net Zero by 2050, including achieving a Paris aligned reduction of 42% in operational GHG by 2030 for our current portfolio based on the implementation of 4 major capital projects. These are as follows:

1. 5% reduction through improved nitrous oxide abatement at our Moranbah site, with the installation of tertiary abatement - approved for installation.
2. 12% reduction through Gibson Island Green ammonia would achieve a 12 % reduction in global GHG. - at Front End Engineering Design stage.
3. 22% Carbon Capture and permanent geological sequestration of CO2 (CCS) at Waggaman Louisiana - at Front End Engineering Design stage.
4. 12-15% reduction through the installation of N2O abatement at our LOMO nitric acid plant, which is the only nitric acid manufacturing site we own without abatement - under investigation.

Remaining identified projects to reach Net Zero operational emissions include:

5. Installation of solar power plants to replace gas fired power plants (or grid connection to purchase renewable electricity) at Phosphate Hill and Moranbah facilities.
6. Conversion of remaining ammonia plants from natural gas to green hydrogen feedstock as per Gibson Island
7. Electrification of vehicles
8. The purchase or generation of offsets for the remaining (~10%) of GHG that cannot be abated.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

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 CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	12	
To be implemented*	8	1,770,000
Implementation commenced*	8	1,774,421
Implemented*	3	4,421
Not to be implemented	0	

C4.3b

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

Initiative category & Initiative type

Company policy or behavioral change

Other, please specify

Funding of the IPL Decarbonisation and Energy Transition Steering Committee (DETSC) to investigate and implement new low carbon technologies.

Estimated annual CO2e savings (metric tonnes CO2e)

0

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

0

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

500,000

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

During the IPL 2022 FY AU$500,000 was invested in the assessment of low carbon technologies and the advancement of projects under investigation which are yet to be implemented. These included one pre-feasibility assessment, continued investigation of Carbon Capture and Storage (CSS) for the pure CO2 stream from our Waggaman, Louisiana ammonia plant, which is located close to geologically suitable geological formations, and investigation of renewable hydrogen and other feedstocks to replace natural gas for ammonia making.

Initiative category & Initiative type

Non-energy industrial process emissions reductions

Other, please specify

Tertiary abatement of nitrous oxide (N2O) process emissions

Estimated annual CO2e savings (metric tonnes CO2e)

200,000

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

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

5,600,000

Payback period

No payback

Estimated lifetime of the initiative

>30 years

Comment

During the year AU$5.6m was invested in engineering and long lead item purchasing to install tertiary abatement of N2O at the nitric acid plant at our Moranbah Ammonium Nitrate manufacturing facility. The plant was built in 2012 with secondary abatement, which has reduced GHG emissions by approximately 400,000-500,000 t per year. Tertiary abatement will reduce this by a further ~200,000 tCO2e. Board approval for the full $16m project, to be installed in 2024, was given in March 2022.

Initiative category & Initiative type

Other, please specify

Other, please specify

Green Ammonia conversion of our Gibson Island ammonia manufacturing plant

Estimated annual CO2e savings (metric tonnes CO2e)

470,000

Scope(s) or Scope 3 category(ies) where emissions savings occur

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)

3,800,000

Payback period

No payback

Estimated lifetime of the initiative

>30 years

Comment

During the year IPL invested $3.8m in our partnership with Fortescue Future Industries to investigate green ammonia production at our Gibson Island manufacturing site. The study is investigating making hydrogen for ammonia manufacturing by splitting water via electrolysis using renewable energy, rather than using natural gas as both the hydrogen source and as the energy source to drive the reaction. This would avoid the use of approximately 6,800,000 GJ feedstock gas and 6,100,000 GJ of natural gas used to drive the chemical reaction.

Initiative category & Initiative type

Non-energy industrial process emissions reductions

Other, please specify

Tertiary abatement of nitrous oxide (N2O) process emissions

Estimated annual CO2e savings (metric tonnes CO2e)

400,000

Scope(s) or Scope 3 category(ies) where emissions savings occur

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)

100,000

Payback period

No payback

Estimated lifetime of the initiative

>30 years

Comment

During the year $100,000 was invested in FEL 1 (project design, project development process and concept evaluation) to install tertiary abatement of N2O on the nitric acid plant at our Louisiana, Missouri (LOMO) Ammonium Nitrate manufacturing facility. This is IPL's only nitric acid plant without abatement of some form in place. Emissions reductions are expected to be approximately 400,000 tCO2e annually, depending on the design, should this project proceed.

Initiative category & Initiative type

Non-energy industrial process emissions reductions
Carbon capture and storage/utilization (CCS/U)

Estimated annual CO2e savings (metric tonnes CO2e)

700,000

Scope(s) or Scope 3 category(ies) where emissions savings occur

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)

1,000,000

Payback period

No payback

Estimated lifetime of the initiative

>30 years

Comment

During the year approximately AU$1m was invested in Front End Engineering Design to progress a project to install new equipment to dry and compress the process stream of CO2 from the ammonia plant at our Waggaman, Louisiana ammonia manufacturing facility (WALA) in order to deliver it into a 3rd-party pipeline for transport and sequestration at a

3rd-party facility. It is estimated that this would result in approximately 700,000 tCO2 being permanently geologically sequestered each year.

Initiative category & Initiative type

Low-carbon energy consumption
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

340

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

659,500

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

2,638,000

Payback period

4-10 years

Estimated lifetime of the initiative

21-30 years

Comment

Install 500kW solar project to replace ~40-45% of electric purchases from the grid at our Wolf Lake, Illinois manufacturing site. This will reduce CO2 emissions by ~340tCO2e per year.

Initiative category & Initiative type

Energy efficiency in production processes
Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)

101

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

3,000

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

133,500

Payback period

>25 years

Estimated lifetime of the initiative

21-30 years

Comment

Compressor Replacement with more efficient model at our Carthage Missouri Initiating Systems manufacturing plant.

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

3,980

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

480,000

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

4,800,000

Payback period

4-10 years

Estimated lifetime of the initiative

3-5 years

Comment

Replacement of catalyst to achieve more efficient production process. This is expected to reduce natural gas use for energy by 1.4% per annum.

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	Our fertiliser and explosives manufacturing businesses have dedicated R&D budgets for product development which includes research and development of Enhanced Efficiency Fertilisers (EEFs) which are treated to reduce nitrous oxide (N2O) GHG emissions and reduced energy explosives products and delivery systems.
Employee engagement	Consistent improvement in energy efficiency is a key part of IPL's Manufacturing Excellence process review across our manufacturing business. Manufacturing Excellence involves continuous improvement and engagement of our employees by involving them directly in the implementation of 'best practice' in their own work areas. Employees at all levels of our business are encouraged to think laterally, to share their experiences and ideas, and to participate in implementing improvements, resulting in outcomes which are highly valued by both the business and our employees.
Financial optimization calculations	Due to the high cost of energy to our business, which includes the use of gas as both an energy source and a feedstock, consistent improvement in energy efficiency not only reduces greenhouse gas emissions, but also delivers costs savings.
Dedicated budget for other emissions reduction activities	The IPL Decarbonisation and Energy Transition Steering Committee is Chaired by the CEO and is responsible for IPL's Net Zero Pathway and the identification and implementation of projects to decarbonise IPL's operations. In 2021, $800,000 was allocated to the DETSC for this purpose. In 2022, the DET Steering Committee established 'Sustainability Capital' within the IPL Capital Allocation Framework. The updated Capital Allocation Framework prioritises 'Sustainability Capital' as part of the order 1, or 'first taker' of capital, as shown in the diagram on page 11 of the 2022 IPL Climate Change Report. This capital is allocated to progress a range of major projects required to decarbonise our operations.
Internal price on carbon	Internal carbon pricing has been included in capital expenditure assessments for projects at our major manufacturing sites in Australia since Australian Carbon Credit Units (ACCUs) were introduced in 2012, with the price reflecting the market price of ACCUs. During 2021, the Board formally approved the application of this carbon price to all future growth capital and investment decisions. We are continuing to embed this into our processes, with the objective of applying the carbon price to all capital projects, consistent with the Capital Allocation Framework, during 2023. The price is currently AU$38 and is projected to increase to AU$50 by 2026, AU$65 by 2030, AU$130 by 2040 and AU$258 by 2050. A range of carbon prices are also included in our scenario analyses.

Partnering with governments on technology development	Industry and government collaboration on green technologies towards Net Zero' was identified as a material issue for the sustainability of IPL's business in our most recent GRI aligned materiality assessment. IPL has engaged with the Australian Government on its Low Emissions Technology Investment Roadmap through IPL's Decarbonisation and Energy Transition Steering Committee members and partnered with the Australian Renewable Energy Agency (ARENA) to complete the $2.7m Solar Hydrogen Feasibility Study for renewable ammonia production at Moranbah, Queensland in 2020. The Gibson Island Green Ammonia project is a partnership between IPL and Fortescue Future Industries (FFI) to investigate green ammonia production at Incitec Pivot Fertilisers' Gibson Island site. In 2022, the project progressed to FEED stage and secured an AU$13.7m ARENA grant. Should the project proceed to a final investment decision, it would be Australia's first industrial scale green ammonia production facility, demonstrating existing infrastructure can be retrofitted to utilise zero-emissions energy sources. IPL continues to engage with the Australian Clean Energy Regulator and the Department of Industry, Science, Energy and Resources (DISER) on a range of issues related to the development of low emissions technologies and the development of Emissions Reduction Fund (ERF) methodologies to incentivise the uptake of new low carbon technologies by our customers. For example, no ERF methodology currently exists to recognise and quantify the GHG reductions associated with EEF (N-inhibited) fertiliser products during their use. IPL continues to engage with a range of industry bodies and directly with DISER to develop such a method.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Thapa, R., Chatterjee, A., Awale, R., McGranahan, D. & Daigh, A. (2016) Effect of Enhanced Efficiency Fertilizers on Nitrous Oxide Emissions and Crop Yields. Soil Science Society of America Journal. 80. 1121–1134. 10.2136/sssaj2016.06.0179.

Type of product(s) or service(s)

Other

Other, please specify

Fertilisers

Description of product(s) or service(s)

Enhanced Efficiency Fertilisers (EEFs) are treated to keep nitrogen (N) in stable chemical forms in the soil for longer, reducing volatilisation to N2O during their use phase. E.g., Results from a field trial conducted in a ryegrass pasture system in south–western Victoria show the application of EEF with the inhibitor DMPP reduced N2O emissions by 73 per cent when compared to urea application alone. See the Australian Government Department of Agriculture, Water and the Environment Climate Research Program: Reducing Nitrous Oxide Emissions, p.5 at http://www.naturalresources.sa.gov.au/files/78984243-0fc0-487e-8f64-a35d00d2f3dd/reducing-nitrous-oxide-emissions-gen.pdf.

Our EEFs include:

1. Green Urea NV products containing urea treated with the urease inhibitor, N-(n-butyl) thiophosphoric triamide (NBPT), which delays hydrolysis of urea into unstable forms;

2. Entec®, a fertiliser treatment that retains nitrogen in the stable ammonium form for an extended period. Both trials and customer use demonstrate the potential for significant reductions in GHG as well as yield increase (see page 35-42 of the Australian Sugarcane Annual 2016 and Less Nitrogen Lost is More Gain in Cane, also in the Australian Canegrower, Sept 2017).

3. eNpower™ 18:20 contains the nitrification inhibitor DMP in IPF's patented DMP-G formulation. DMP works by inhibiting nitrifying bacteria in the soil to slow down the conversion of ammonium N to nitrate, which is more prone to losses to air as GHG.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

1

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	During 2022, we engaged a specialist third party to assist us to investigate Science Based Targets (SBTs). SBTs are targets verified by the Science Based Targets Initiative as being aligned with the Paris Agreement on climate change. The work included: → External verification of our global scope 1, 2 and 3 GHG methodologies and data set. → Modelling of our future GHG emissions trajectories. (IPL's future GHG emissions were modelled using long range forecasts based on a range of assumptions including asset utilisation, market demands and business growth.) → Estimations of the % emissions reductions associated with each of our GHG reduction projects against our 2030 modelled emissions. → Alignment of our scope 3 calculation methodology more fully with the GHG Protocol, resulting in a more complete and reliable scope 3 baseline. → Updating of all emissions factors to AR5. As a result of this work, our scope 1 &2 GHG for the years 2020, 2021 have been restated with minor variations to previously stated numbers, and our scope 3 GHG has been restated for 2020 and 2021 with a significant increase against previously stated numbers. This is due to the use of LCA based 'cradle to gate' scope 3 emissions factors for purchased products, and the inclusion of emissions values for categories not previously included, such as business travel and employee commuting. See IPL 's 2022 Climate Change Report for more details.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, location-based Scope 3	IPL's policy is to restate its baseline year GHG emissions where external review or internal processes have improved the calculation methodologies to align with the GHG protocol and/or updated emissions factors to the most recently available IPCC recommendations. In this case, there was no significance threshold used.	Yes

C5.2

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

Scope 1

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

3,646,215

Comment

Our 2020 IPL financial year is chosen as the baseline year because it is the baseline year for our absolute GHG reduction targets. Our 2020 global Scope 1 emissions were restated from 3,663,898 tCO2e to 3,646,215 tCO2e in 2022. This was due to an external review of our GHG calculation methodology associated with the investigation of Science Based Targets, which aligned our global scope 1 calculations more fully with the GHG Protocol.

Scope 2 (location-based)

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

345,181

Comment

Our 2020 IPL financial year is chosen as the baseline because it is the baseline year for our absolute GHG reduction targets. Our 2020 global Scope 2 emissions were restated from

297,324 tCO2e to 345,181 tCO2e in 2022. This was due to an external review of our GHG calculation methodology associated with the investigation of Science Based Targets, which aligned our global scope 2 calculations more fully with the GHG Protocol, and the correction of several Scope 2 emission factors pertaining to our North American sites.

Scope 2 (market-based)

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

345,181

Comment

Our 2020 IPL financial year is chosen as the baseline because it is the baseline year for our absolute GHG reduction targets. Our 2020 global Scope 2 emissions were restated from 297,324 tCO2e to 345,181 tCO2e in 2022. This was due to an external review of our GHG calculation methodology associated with the investigation of Science Based Targets, which aligned our global scope 2 calculations more fully with the GHG Protocol, and the correction of several Scope 2 emission factors pertaining to our North American sites.

Scope 3 category 1: Purchased goods and services

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

3,151,000

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.
IPL's 2020 Scope 3 baseline for this category was restated from 1,404 kt to 3,151 kt in 2022 due to the external review of our GHG calculation methodology associated with the investigation of Science Based Targets. This review aligned our calculation methodology more fully with the GHG Protocol and resulted in an increase in Scope 3 GHG in this category due to the use of LCA based 'cradle to gate' emissions factors for purchased products.
Calculation Status: Material. Calculated.
Calculation Boundary: This category covers emissions generated upstream of IPL's operations associated with the manufacture of purchased fertilisers, explosives and chemical products, from the moment resources are mined, extracted, or grown to make these products, through all processing, manufacturing and transport to the exit at our suppliers' gates. The manufacture of many of these products, such as ammonia based

fertilisers and explosives, are classified as Emissions Intensive Trade Exposed (EITE) activities under the Australian National Greenhouse and Energy Reporting (NGER) system and are the most material contributors to this category.
Exclusions: Only the emissions associated with purchased chemical products (and the proportion of expenditure and volume they represent) are included. Due to the high emissions intensity of these products, these sources are estimated to include the majority of IPL's scope 3 emissions in this category.
Calculation methodology: Total tonnes purchased of each material is extracted from IPL's internal purchasing system for each financial year period. A cradle to gate LCA database scope 3 emissions factor specific to each material and region of manufacture was then applied per tonne.

Scope 3 category 2: Capital goods

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

Category description: Upstream emissions from the extraction, production and transportation of capital goods purchased or acquired by the reporting company in the reporting year.
Calculation Status: Not material. Not calculated.
Explanation: Based on industry intensity factors applied to IPL's annual capital goods expenditure, emissions from this category are not considered to be material. This was confirmed by the expert third party during its external review of our GHG calculation methodology associated with the investigation of Science Based Targets, which aligned our global scope 3 calculations more fully with the GHG Protocol.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

657,000

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.
IPL's 2020 Scope 3 baseline for this category was restated from 580 kt CO2e to 657 kt in 2022 due to an external review of our GHG calculation methodology associated with the

investigation of Science Based Targets. This review aligned our calculation methodology more fully with the GHG Protocol and resulted in an increase in Scope 3 GHG in this category due to the use of LCA based 'cradle to gate' emissions factors for purchased fuels.
Calculation Status: Material. Calculated.
Calculation Boundary: This category covers emissions arising from the extraction, production, and delivery of fuels, including natural gas, diesel, gasoline, LPG, greases, oils and lubricants) and electricity purchased by the operations over which IPL has operational control. Due to IPL's use of natural gas as both an energy source and a feedstock for hydrogen to make ammonia, the emissions associated with the upstream extraction, processing and pipeline delivery of natural and coal seam gas, including fugitive emissions, are material contributors to this category.
Exclusions: None.
Calculation methodology: Total energy and fuels purchased (volumes) have been multiplied by an LCA data base cradle to gate scope 3 emission factor specific to each fuel and the region of its purchase.
Data sources: For natural gas (GJ) and electricity (kWh) purchased, data is collected from invoices. For all other fuels, 'annual volumes purchased' data is extracted from the IPL internal system that tracks all external spend.

Scope 3 category 4: Upstream transportation and distribution

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

430,000

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.
IPL's 2020 Scope 3 baseline for this category was restated from 184 kt CO2e to 430 kt in 2022 due to an external review of our GHG calculation methodology associated with the investigation of Science Based Targets. This review aligned our calculation methodology more fully with the GHG Protocol and resulted in an increase in Scope 3 GHG in this category due to the use of LCA based 'cradle to gate' emissions factors.
Calculation Status: Material. Calculated.
Calculation Boundary: This category includes the scope 3 emissions associated with the shipping, rail, and trucking of our purchased goods from Tier 1 suppliers by third parties. (It should be noted that natural gas used as feedstock for the chemical manufacture of ammonia is delivered via pipeline - scope 3 emissions associated with the delivery of this raw material are reported under Category 3).
Exclusions: None.
Calculation methodology: For marine cargoes to and around Australia, RightShip – a leading maritime risk management and environmental assessment organisation, provided an accurate scope 3 emissions estimate based on its EN16258:2012 certified methodology.

For marine cargoes associated with our subsidiary Quantum Fertilisers, and for road and rail freight, the 'distance-based' method as described in the scope 3 Guidance was used: emissions were calculated by applying the appropriate emissions factor to the 'mass x distance' multiplier for each mode of transport.

Scope 3 category 5: Waste generated in operations

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

6,000

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.
Calculation Status: Not material. Calculated.
Calculation Boundary: This category includes scope 3 emissions associated with all of the waste generated by the operations over which IPL has operational control.
Exclusions: None.
Calculation methodology: For wastes generated by our Australian sites, the supplier-specific method was used, whereby a national waste contractor supplied waste-specific emissions factors. For wastes in Australia disposed of by other waste contractors, and for sites outside of Australia, the average-data method was used. This involves estimating emissions based on total tonnes waste going to each disposal method (e.g., landfill) multiplied by an average emission factor for each disposal method.

Scope 3 category 6: Business travel

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

7,000

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.
Calculation: Status Not material. Calculated.
Calculation Boundary: This category includes flights and accommodation taken by employees for business-related activities, and travel outside of
Australia in vehicles not owned or operated by IPL. Emissions associated with employee travel by hire car within Australia are defined as being under IPL employee operational

control under Australian National Greenhouse and Energy Reporting legislation, and are therefore calculated and reported as scope 1 emissions.

Calculation methodology: Estimate based on peer extrapolation. The methodology for Business Travel was developed by assessing this scope 3 category from three of IPL's peers. Emissions figures were extracted from sustainability reports and/or CDP reporting. The average was determined for tCO2e/employee for each category across these peers. This was then multiplied by IPL's employee numbers for the relevant year.

Scope 3 category 7: Employee commuting

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

700

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.

Calculation Status: Not material. Calculated.

Calculation methodology: Estimate based on peer extrapolation. The methodology for Employee Commuting was developed by assessing this scope 3 category from three of IPL's peers. Emissions figures were extracted from sustainability reports and/or CDP reporting. The average was determined for tCO2e/employee for each category across these peers. This was then multiplied by IPL's employee numbers for the relevant year.

Scope 3 category 8: Upstream leased assets

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

Calculation Status: Not relevant. Not calculated.
Explanation: IPL has very few upstream leased assets. In Australia, where properties are leased and electricity use is included in the lease (rather than invoiced directly to IPL) an estimate of electricity use is made in accordance with the National Greenhouse and Energy

Reporting legislation, ensuring that this energy use is included in IPL's scope 2 and Scope 3 emissions data sets and calculations.

Scope 3 category 9: Downstream transportation and distribution

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

Included in 'Scope 3 category 4: Upstream transportation and distribution.'
Calculation Boundary: This category includes emissions associated with the transport of products sold by IPL in vehicles not owned or controlled by IPL. Due to the nature of shipping, in which a single voyage may include delivery of a supplier's product to a port for unloading to an IPL facility, then also load product manufactured by IPL for distribution to ports further along the voyage in addition to purchased product, Category 9 emissions are included in Category 4 calculations.

Scope 3 category 10: Processing of sold products

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

Calculation Status: Not material. Not calculated.
Explanation: IPL primarily manufactures and supplies fertilisers and explosives which are typically consumed during their use by the customer.

Scope 3 category 11: Use of sold products

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

5,649,000

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.
IPL's 2020 Scope 3 baseline for this category was restated from 3,712 kt CO2e to 5,649 kt in 2022 due to an external review of our GHG calculation methodology associated with the investigation of Science Based Targets. This review aligned our calculation methodology more fully with the GHG Protocol and resulted in an increase in Scope 3 GHG in this category due to the use of LCA based 'cradle to gate' emissions factors.

Calculation Boundary: This category includes the calculation of scope 3 emissions associated with the end use of fertilisers, explosives and industrial chemicals sold by IPL, whether the end user is a direct customer or, in the case of some fertilisers, the customer of a third-party distributor. This category is a material source of emissions in IPL's value chain.

Calculation methodology: The scope 3 emissions associated with customer use of IPL's products are Direct Use-Phase Emissions; that is, greenhouse gases that are emitted during the product use, as defined in the GHG Protocol scope 3 Guidance. Tonnes sold of each product were obtained and a product specific scope 3 emissions factor was applied to each tonne sold. Tonnes sold are sourced from the IPL internal system that tracks IPL's sales. Fertiliser application volumes were estimated by end market and geography, based on IPL sales data.

Scope 3 category 12: End of life treatment of sold products

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

IPL primarily manufactures and supplies fertilisers and explosives which are typically consumed during their use by the customer.

Scope 3 category 13: Downstream leased assets

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

Not relevant. Leasing of downstream assets is not a material part of IPL's business.

Scope 3 category 14: Franchises

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

Not relevant. IPL has no franchises.

Scope 3 category 15: Investments

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

110,000

Comment

This year is chosen as the baseline year because it is the same as the baseline year for PL's 2025 and 2030 Scope 1&2 GHG reduction targets and therefore the baseline year used when investigating setting Science Based Targets for all scopes.

Calculation Boundary: This category includes the scope 1 and 2 emissions (on an equity basis) from our assets that are owned as a joint venture but not operated by IPL. (The scope 3 Standard categorises this as a downstream category as the provision of capital or financing is framed as a service provided by IPL.)

Exclusions: Only joint ventures engaged in emissions intensive manufacturing activities have been included in the calculation of emissions from this category.
Calculation methodology: The accounting approach for ‘equity investments’ as described in the scope 3 Guidance is used to calculate these emissions.

Scope 3: Other (upstream)

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

NA

Scope 3: Other (downstream)

Base year start

October 1, 2019

Base year end

September 30, 2020

Base year emissions (metric tons CO2e)

0

Comment

NA

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Australia - National Greenhouse and Energy Reporting Act
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol Agricultural Guidance: Interpreting the Corporate Accounting and Reporting Standard for the Agricultural Sector
The Greenhouse Gas Protocol: Scope 2 Guidance
The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard
US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources
US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources
US EPA Emissions & Generation Resource Integrated Database (eGRID)
Other, please specify
BEIS Greenhouse gas reporting: Conversion factors 2021: full set - revised January 2022. Department for Business, Energy & Industrial Strategy, UK Government. https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021

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)

3,550,961

Comment

This period is IPL's 2022 Financial year.

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 have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

338,223

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions

Emissions from electricity used in small remote offices and despatch sites in North America.

Scope(s)

Scope 2 (location-based)

Relevance of location-based Scope 2 emissions from this source

Emissions are not evaluated

Estimated percentage of total Scope 1+2 emissions this excluded source represents

Less than 1%

Explain why this source is excluded

The kWh of electricity used in small remote offices and despatch sites in North America is difficult to obtain.

Explain how you estimated the percentage of emissions this excluded source represents

Use of corresponding Australian sources.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,759,000

Emissions calculation methodology

Average product method

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

0

Please explain

Calculation Boundary: This category covers emissions generated upstream of IPL's operations associated with the manufacture of purchased fertilisers, explosives and chemical products, from the moment resources are mined, extracted, or grown to make these products, through all processing, manufacturing and transport to the exit at our suppliers' gates. The manufacture of many of these products, such as ammonia-based fertilisers and explosives, are classified as Emissions Intensive Trade Exposed (EITE) activities under the Australian National Greenhouse and Energy Reporting (NGER) system and are the most material contributors to this category.

Exclusions: Only the emissions associated with purchased chemical products (and the proportion of expenditure and volume they represent) are included. Due to the high emissions intensity of these products, these sources are estimated to include the majority of IPL's scope 3 emissions in this category.

Calculation methodology: Total tonnes purchased of each material is extracted from IPL's internal purchasing system for each financial year period. An LCA cradle to gate scope 3 emissions factor specific to each material and the region it was sourced from was then applied per tonne.

Data sources: 'Annual tonnes purchased' data is extracted from the IPL internal system that tracks all external spend. The LCA cradle-to-gate emission factors were taken from the EcoInvent data base at ecoinvent.org.
References:
» GHG Protocol Technical Guidance for Calculating scope 3 Emissions (v1): Supplement to the Corporate Value Chain scope 3) Accounting and Reporting Standard; WRI/WBCSD; 2013; https://ghgprotocol.org/scope-3-technical-calculation-guidance
» National Greenhouse Accounts Factors: Australian National Greenhouse Accounts, October 2020; Australian Government Department of Industry, Science, Energy and Resources; 2020; https://www.industry.gov.au/sites/default/files/2020-10/national-greenhouse-accounts-factors-2020.pdf
» EcoInvent (licenced database) ecoinvent.org
» Wood, S. & Cowie, Annette. (2004). A Review of Greenhouse Gas Emission Factors for Fertiliser Production; https://www.researchgate.net/figure/Greenhouse-Gas-Emission-Factors-for-Phosphate-Fertilisers_tbl4_235704822

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

Calculation Status: Not material. Not calculated.
Explanation: Based on industry intensity factors applied to IPL's annual capital goods expenditure, emissions from this category are not considered to be material.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

606,000

Emissions calculation methodology

Fuel-based method

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

0

Please explain

Calculation Boundary: This category covers emissions arising from the extraction, production, and delivery of fuels, including diesel, gasoline, LPG, greases, oils and lubricants) and electricity purchased by the operations over which IPL has operational control. Due to IPL's use of natural gas as both an energy source and a feedstock for hydrogen to make ammonia, the emissions associated with the upstream extraction, processing and pipeline delivery of natural and coal seam gas, including fugitive emissions, are material contributors to this category.

Exclusions: None.
Calculation methodology: Total energy and fuels purchased (volumes) have been multiplied by a scope 3 emission factor specific to each fuel.
Data sources: For natural gas (GJ) and electricity (kWh) purchased, data is collected from invoices. For all other fuels, 'annual volumes purchased' data is extracted from the IPL internal system that tracks all external spend.

Emissions factor references:
» GHG Protocol Technical Guidance for Calculating scope 3 Emissions (v1): Supplement to the Corporate Value Chain (scope 3) Accounting and Reporting Standard; WRI/WBCSD; 2013; https://ghgprotocol.org/scope-3-technical-calculation-guidance
» National Greenhouse Accounts Factors: Australian National Greenhouse Accounts, October 2020; Australian GovernmentDepartment of Industry, Science, Energy and Resources; 2020; ttps://www.dcceew.gov.au/sites/default/files/documents/national-greenhouse-accounts-factors-2020.pdf
» National Inventory Report 2018, Volume 1; Australian Government Department of Industry, Science, Energy and Resources; 2020; https://www.industry.gov.au/sites/default/files/2020-05/nga-national-inventory-report-2018-volume-1.pdf
» eGRID Summary Tables, Table 1 'Non-baseload output emission rates'. USEPA; https://www.epa.gov/sites/default/files/2021-02/documents/egrid2019_summary_tables.pdf
» The Emissions & generation Resource Integrated Data Base eGRID Technical Guide, USEPA; https://www.epa.gov/system/files/documents/2022-01/egrid2020_technical_guide.pdf
» BEIS Greenhouse gas reporting: Conversion factors 2021: full set (for advanced users) - revised January 2022, Tab WTT-Fuels; Department for Business, Energy & Industrial Strategy, UK Government. https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

339,000

Emissions calculation methodology

Supplier-specific method

Fuel-based method

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

25

Please explain

Calculation Boundary: This category includes the scope 3 emissions associated with the shipping, rail, and trucking of our purchased goods from Tier 1 suppliers by third parties. (It should be noted that natural gas used as feedstock for the chemical manufacture of ammonia is delivered via pipeline - scope 3 emissions associated with the delivery of this raw material are reported under Category 3).

Exclusions: None.

Calculation methodology: For marine cargoes to and around Australia, RightShip – a leading maritime risk management and environmental assessment organisation, provided an accurate scope 3 emissions estimate based on its EN16258:2012 certified methodology. For marine cargoes associated with our subsidiary Quantum Fertilisers, and for road and rail freight, the ‘distance-based’ method as described in the scope 3 Guidance was used: emissions were calculated by applying the appropriate emissions factor to the ‘mass x distance’ multiplier for each mode of transport.

Data sources: Tonnes shipped and transported by road and rail were collected from a range of sources including the IPL internal system that tracks all external spend, internal logistics support software and third-party reports from logistics suppliers such as RightShip and several road transport contractors. Activity data from external service providers are converted to net tonne kilometres for rail, road and shipping, and the appropriate emissions factor was applied.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,000

Emissions calculation methodology

Supplier-specific method

Average data method
Waste-type-specific method

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

40

Please explain

Calculation Boundary: This category includes scope 3 emissions associated with all of the waste generated by the operations over which IPL has operational control.

Exclusions: None.

Calculation methodology: For wastes generated by our Australian sites, the supplier-specific method was used, whereby a national waste contractor supplied waste-specific emissions factors. For wastes in Australia disposed of by other waste contractors, and for sites outside of Australia, the average-data method was used. This involves estimating emissions based on total tonnes waste going to each disposal method (e.g., landfill) multiplied by an average emission factor for each disposal method.
Data sources: Annual reports from Australian waste management provider; the internal SAI Global data base used by IPL to collect and manage data associated with monthly site reports on energy use, water use and waste; relevant emission factors (see references below).

Emissions factor references:
» GHG Protocol Technical Guidance for Calculating Scope 3 Emissions (v1): Supplement to the Corporate Value Chain (Scope 3) Accounting and Reporting Standard; WRI/WBCSD; 2013; https://ghgprotocol.org/scope-3-technical-calculation-guidance
» National Greenhouse Accounts Factors: Australian National Greenhouse Accounts, October 2020; Australian Government Department of Industry, Science, Energy and Resources; 2020; https://www.industry.gov.au/sites/default/files/2020-10/national-greenhouse-accounts-factors-2020.pdf
» BEIS Greenhouse gas reporting: Conversion factors 2021: full set (for advanced users) - revised January 2022, Tab Waste Disposal; Department for Business, Energy & Industrial Strategy, UK Government. https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021
» EcoInvent (licenced database) ecoinvent.org

Business travel

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

7,000

Emissions calculation methodology

Other, please specify
Peer extrapolation

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

0

Please explain

Calculation methodology: Estimate based on peer extrapolation. The methodology for Business Travel was developed by assessing this scope 3 category from three of IPL's peers. Emissions figures were extracted from sustainability reports and/or CDP reporting. The average was determined for tCO2e/employee for each category across these peers. This was then multiplied by IPL's employee numbers for the relevant years.
Data sources: Peer Sustainability reports/ CDP responses.

Employee commuting

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

700

Emissions calculation methodology

Other, please specify

Peer extrapolation

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

0

Please explain

Calculation methodology: Estimate based on peer extrapolation. The methodology for Employee Commuting was developed by assessing these scope 3 categories from three of IPL's peers. Emissions figures were extracted from sustainability reports and/or CDP reporting. The average was determined for tCO2e/employee for each category across these peers. This was then multiplied by IPL's employee numbers for the relevant years.
Data sources: Peer Sustainability reports/ CDP responses.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

IPL has very few upstream leased assets. In Australia, where several office properties are leased with electricity use included in the lease (rather than invoiced directly to IPL) an estimate of electricity use is made in accordance with the National Greenhouse and Energy Reporting legislation, ensuring that this energy use is included in IPL's scope 2 and Scope 3 data sets and emissions calculations.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

0

Emissions calculation methodology

Supplier-specific method
Average data method

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

0

Please explain

Included in Category 4.
This category includes emissions associated with the transport of products sold by IPL in vehicles not owned or controlled by IPL. Due to the nature of shipping, in which a single voyage may include delivery of a supplier's product to a port for unloading to an IPL facility, then also load product manufactured by IPL for distribution to ports further along the voyage in addition to purchased product, Category 9 emissions are included in Category 4 calculations.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

IPL primarily manufactures and supplies fertilisers and explosives which are typically consumed during their use
by the customer.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

5,329,000

Emissions calculation methodology

Average product method

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

0

Please explain

Calculation Boundary: This category includes the calculation of scope 3 emissions associated with the end use of fertilisers, explosives and industrial chemicals sold by IPL,

whether the end user is a direct customer or, in the case of some fertilisers, the customer of a third party distributor. This category is a material source of emissions in IPL's value chain. Calculation methodology: The scope 3 emissions associated with customer use of IPL's products are Direct Use-Phase Emissions: products that contain or form greenhouse gases that are emitted during use, as defined in the scope 3 Guidance. Tonnes sold of each product were obtained and a product specific scope 3 emissions factor was applied (see 'References' below).

Data sources: Tonnes sold are sourced from the IPL internal system that tracks IPL's sales. Fertiliser application volumes are estimated by end market and geography, based on IPL sales data.
Emissions factor references:
» GHG Protocol Technical Guidance for Calculating Scope 3 Emissions (v1): Supplement to the Corporate Value Chain (Scope 3) Accounting and Reporting Standard; WRI/WBCSD; 2013; https://ghgprotocol.org/scope-3-technical-calculation-guidance
» National Inventory Report 2018, Volume 1; Australian Government Department of Industry, Science, Energy & Resources; 2020; https://www.industry.gov.au/sites/default/files/2020-05/nga-national-inventory-report-2018-volume-1.pdf
» 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4: Agriculture, Forestry and Other Land Use, Chapter 11: N2O Emissions From Managed Soils, and CO2 Emissions From Lime And Urea Application; https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch11_Soils_N2O_CO2.pdf
» Gokul Prasad Mathivanan, et al. "New N2o Emission Factors for Crop Residues and Fertiliser Inputs to Agricultural Soils In Germany." Agriculture, ecosystems & environment, v. 322 ,. pp. 107640. doi: 10.1016/j.agee.2021.107640107640; https://pubag.nal.usda.gov/catalog/7499559

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

IPL primarily manufactures and supplies fertilisers and explosives which are typically consumed during their use by the customer.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Downstream leased assets are not a material part of IPL's business.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

IPL has no franchised operations.

Investments

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

110,000

Emissions calculation methodology

Investment-specific method

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

100

Please explain

Calculation Boundary: This category includes the scope 1 and 2 emissions (on an equity basis) from our assets that are owned as a joint venture but not operated by IPL. (The scope 3 Standard categorises this as a downstream category as the provision of capital or financing is framed as a service provided by IPL.)

Exclusions: Only joint ventures engaged in emissions intensive manufacturing activities have been included in the calculation of emissions from this category.

Calculation methodology: The accounting approach for ‘equity investments’ as described in the scope 3 Guidance is used to calculate these emissions.

Data sources: Estimates of scope 1 and 2 emissions for each investment (which form the basis of scope 3 emissions in IPL’s value chain) are sourced from publicly available information, including the most recently available government-published data from mandatory or voluntary reporting programs in place in the country, state or region; the most recent reports published by the operating entity e.g., sustainability and annual reports; and other sources if identified through desktop research.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

There are no other upstream scope 3 sources.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

There are no other downstream scope 3 sources.

C6.7

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

No

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

0.0006158

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

3,889,184

Metric denominator

unit total revenue

Metric denominator: Unit total

6,315,300,000

Scope 2 figure used

Location-based

% change from previous year

21.6

Direction of change

Decreased

Reason(s) for change

Change in output
Change in revenue

Please explain

Revenues increased by 45%, partially due to due to commodities prices. Manufactured product (the source of 95% of our Scope 1&2 GHG) increased by only 2%.

Intensity figure

3,836.62

Metric numerator (Gross global combined Scope 1 & 2 emissions, mric tons CO2e)

3,889,184

Metric denominator

Other, please specify: Net Profit After Tax (in AUD$m)

Metric denominator: Unit total

1,013.7

Scope 2 figure used

Location-based

% change from previous year

83

Direction of change

Decreased

Reason(s) for change

Other, please specify

Increase in NPAT

Please explain

IPL's Net Profit After Tax (in AU$m) increased by 508%.

Intensity figure

1.0626

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

3,889,184

Metric denominator

metric ton of product

Metric denominator: Unit total

3,660,000

Scope 2 figure used

Location-based

% change from previous year

12

Direction of change

Increased

Reason(s) for change

Change in physical operating conditions

Please explain

Both 'energy use per tonne of product' and 'GHG emissions per tonne of product' are affected by plant reliability and production rates. That is, in a year where the chemical plant processes are uninterrupted and production rates are high, energy and GHG intensities will be lower, as the plants are more energy efficient.

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	2,704,893	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	5,402	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	840,656	IPCC Fifth Assessment Report (AR5 – 100 year)
SF6	10	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Australia	1,451,361
North America	2,099,274
Turkey	326

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)
Incitec Pivot Fertilisers	850,532
Dyno Nobel Americas	2,099,274
Dyno Nobel Asia Pacific (includes European business)	601,155

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	Comment
Chemicals production activities	3,550,961	The amount reported here includes emissions from activities at facilities operated by IPL which supported chemicals production and distribution. These include IPL administration buildings, and fertiliser distribution sites under IPL operational control.

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Australia	152,516	152,516
North America	185,224	185,224
Turkey	483	483

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 (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Incitec Pivot Fertilisers	149,659	149,659
Dyno Nobel Americas	185,225	185,225
Dyno Nobel Asia Pacific (includes European business)	3,339	3,339

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

No

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Chemicals production activities	338,223	338,223	

C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Natural gas	12	IPL uses natural gas (CH4) as both an energy source and a feedstock for hydrogen, which is used to make to make ammonia (NH3). Total natural gas used as feedstock vs energy is obtained from internal plant meters and/or the chemical formulas which govern the amount of hydrogen (and therefore natural gas: CH4) required to make a tonne of ammonia, and is reconciled back to invoiced amounts of natural gas purchased. Amounts of natural gas used for feedstock (in GJ) have been multiplied by the cradle to gate LCA Scope 3 emission factor specific natural gas from the regions it was purchased. The resulting tCO2e is 340,478 tCO2e. These are included in Category 3 'Fuels and energy purchased' but are here described as a percentage of our Category 1 Scope 3 as requested.
Ammonia	6	IPL manufactures all of the ammonia it uses to make ammonium phosphate fertilisers, and most of the ammonia it uses to make ammonium nitrate explosives and UAN. However, during 2022 some ammonia was purchased to make AN and UAN. The tonnes purchased to make these products have been multiplied by the cradle to gate LCA Scope 3 emission factor specific to ammonia for the regions it was purchased from. The resulting tCO2e is 163,604 tCO2e and are described here as the percentage of our Category 1 Scope 3 as requested.

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	157,360	IPL captures a pure CO2 stream, which arises from the use of natural gas as a feedstock to make hydrogen for ammonia manufacture, at four manufacturing facilities. Some of this CO2 is sold to make melamine, and some is sold for industrial and food industry use. Total sales are reported here.
Methane (CH4)	0	IPL does not sell CH4
Nitrous oxide (N2O)	0	IPL does not sell N2O
Hydrofluorocarbons (HFC)	0	IPL does not sell HFCs
Perfluorocarbons (PFC)	0	IPL does not sell PFCs
Sulphur hexafluoride (SF6)	0	IPL does not sell SF6
Nitrogen trifluoride (NF3)	0	IPL does not sell NF3

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?

Increased

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 in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	No change in renewable energy consumption
Other emissions	37,381	Decreased	1.1	Previous year's ERA having impact this year (-33,502) + WALA catalyst replacement (-3,980) + compressor

reduction activities				replacement (-101) = -37,381/3412,020 = 1.1%
Divestment	0	No change	0	There were no divestments in 2022.
Acquisitions	0	No change	0	There were no acquisitions in 2022.
Mergers	0		0	There were no mergers in 2022.
Change in output	514,763	Increased	15.1	An overall increase in production meant more natural gas and electricity was used. This was mostly due to unplanned outages at the Waggaman, Louisiana ammonia manufacturing plant in the previous year, with production recovering this year. Decreased production in Australia (-117,715) plus an increase in US production (632,478) =514,763/3412,020 = 15.1%
Change in methodology	0	No change	0	Changes in methodology did not materially affect Scope 1 and 2 GHG.
Change in boundary	0	No change	0	No boundaries were changed.
Change in physical operating conditions	0	No change	0	There were no changes in physical operating conditions.
Unidentified	0	No change	0	
Other	0	No change	0	

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 5% but less than or equal to 10%

C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
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 (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	5,907,236	5,907,236
Consumption of purchased or acquired electricity		165,605	410,688	582,983
Consumption of self-generated non-fuel renewable energy		60,607		60,607
Total energy consumption		226,212	6,317,924	6,550,826

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

Consumption of fuel (excluding feedstocks)

Heating value

HHV (higher heating value)

MWh consumed from renewable sources inside chemical sector boundary

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

5,907,236

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

5,907,236

Consumption of purchased or acquired electricity

MWh consumed from renewable sources inside chemical sector boundary

165,605

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

410,688

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

582,983

Consumption of self-generated non-fuel renewable energy

MWh consumed from renewable sources inside chemical sector boundary

0

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

0

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

0

Total energy consumption

MWh consumed from renewable sources inside chemical sector boundary

226,212

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

6,317,924

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

6,550,826

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	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Sustainable biomass

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

No sustainable biomass was consumed by the organisation.

Other biomass

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

No other biomass was consumed by the organisation.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

No other renewable fuels were consumed by the organisation.

Coal

Heating value

HHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

No coal was consumed by the organisation.

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

64

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

64

Comment

64 MWh of fuel oil was consumed by the organisation for the generation of heat.

Gas

Heating value

Total fuel MWh consumed by the organization

5,825,716

MWh fuel consumed for self-generation of electricity

813,969

MWh fuel consumed for self-generation of heat

5,011,747

Comment

813,969 MWh of natural gas was used to generate electricity at gas fired power plants at our Moranbah and Phosphate Hill sites in Queensland, Australia. The rest of our natural gas use was to generate heat, with the majority used to drive the chemical conversion of feedstock gas (CH4) to hydrogen (H2) for ammonia (NH3) production, with the N being obtained from the air (75% N). While steam is also generated from some of this heat, it is not possible for IPL to separate and therefore quantify the MWh gas used for steam.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

81,456

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

574

Comment

These 'Other non-renewable fuels' include diesel and petrol fuels, and LPG used for heat.

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

5,907,236

MWh fuel consumed for self-generation of electricity

813,969

MWh fuel consumed for self-generation of heat

5,012,385

Comment

C8.2d

(C8.2d) 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	296,921	296,921	0	0
Heat	5,012,385	5,012,385	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C-CH8.2d

(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

Electricity

Total gross generation inside chemicals sector boundary (MWh)

296,921

Generation that is consumed inside chemicals sector boundary (MWh)

296,921

Generation from renewable sources inside chemical sector boundary (MWh)

0

Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

0

Heat

Total gross generation inside chemicals sector boundary (MWh)

5,012,385

Generation that is consumed inside chemicals sector boundary (MWh)

5,012,385

Generation from renewable sources inside chemical sector boundary (MWh)

0

Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

0

Steam

Total gross generation inside chemicals sector boundary (MWh)

0

Generation that is consumed inside chemicals sector boundary (MWh)

0

Generation from renewable sources inside chemical sector boundary (MWh)

0

Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

0

Cooling

Total gross generation inside chemicals sector boundary (MWh)

0

Generation that is consumed inside chemicals sector boundary (MWh)

0

Generation from renewable sources inside chemical sector boundary (MWh)

0

Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

0

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area

Australia

Consumption of purchased electricity (MWh)

185,867

Consumption of self-generated electricity (MWh)

296,921

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

482,788

Country/area

Other, please specify

Americas

Consumption of purchased electricity (MWh)

395,828

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

395,828

Country/area

Other, please specify

Europe

Consumption of purchased electricity (MWh)

1,287

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

1,287

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?

Yes

C-CH8.3a

(C-CH8.3a) Disclose details on your organization's consumption of fuels as feedstocks for chemical production activities.

Fuels used as feedstocks

Natural gas

Total consumption

980,804.94

Total consumption unit

thousand cubic metres

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

1.95

Heating value of feedstock, MWh per consumption unit

0.03

Heating value

HHV

Comment

In the interests of providing good data, in order to be able to use emissions factors as determined under NGER without conversions, and in order to be able to incorporate the differing range of HHVs, densities and composition of the different natural gas and coal seam natural gas sources used at our different manufacturing plants located across the US and Australia, we request that CDP kindly include the option of 'GJ' for unit selection (rather than volumetric measurements) for natural gas in this question.

C-CH8.3b

(C-CH8.3b) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.

	Percentage of total chemical feedstock (%)
Oil	0
Natural Gas	100
Coal	0
Biomass	0
Waste (non-biomass)	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	0
Unknown source or unable to disaggregate	0

C9. Additional metrics

C9.1

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

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product
Ammonia

Production (metric tons)
1,480,403

Capacity (metric tons)
1,780,000

Direct emissions intensity (metric tons CO2e per metric ton of product)
1.97

Electricity intensity (MWh per metric ton of product)
0.454

Steam intensity (MWh per metric ton of product)
0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

IPL manufactures (rather than purchases) it's ammonia, including ammonia used to manufacture ammonium nitrate. Ammonia is an energy intensive product.

Output product

Nitric acid

Production (metric tons)

876,851

Capacity (metric tons)

900,000

Direct emissions intensity (metric tons CO2e per metric ton of product)

0.82

Electricity intensity (MWh per metric ton of product)

0

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

Our nitric acid plants are net exporters of energy to other manufacturing processes, therefore have zero electricity intensity.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6)

Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

Technology area

Other, please specify

Low GHG emitting fertilisers

Stage of development in the reporting year

Applied research and development

Average % of total R&D investment over the last 3 years

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

20

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

For approximately 10 years IPL has been developing and marketing enhanced efficiency fertilisers (fertilisers with nitrogen inhibitors) which have been shown to reduce GHG emissions to the atmosphere (as nitrous oxide) during the use phase, with applied research currently ongoing.

Technology area

Other, please specify

Low GHG emitting fertilisers

Stage of development in the reporting year

Large scale commercial deployment

Average % of total R&D investment over the last 3 years

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

20

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

IPL estimates a capital investment of approximately $1 million, with training and promotional costs of approximately $2 million (when employee costs are included) in the large-scale commercial deployment of our Green Urea NV, Entec and eNpower products, which continue to demonstrate the potential for significant reductions in GHG during their use.
In 2021, our new Big N EEF was test marketed with a group of eight growers and agronomists, using commercial quantities of the new formulation. Widely used in broadacre crops such as cotton, Big N is an anhydrous ammonia nitrogen fertiliser that is applied as a gas or in liquid form using modified application equipment. The high concentration of nitrogen means growers can cover more ground per tonne of fertiliser with BIG N, resulting in even higher efficiency due to precision application. The lower volume of nitrogen applied over larger expanses delivers a lower environmental footprint for growers, with the inhibitor aiding increased nitrogen uptake to maximise yields.
A number of these trials undertaken throughout the year have been used to assist our teams in the collection of data to support this product and other novel inhibitors.

Technology area

Other, please specify

Differential EnergyTM explosives technology

Stage of development in the reporting year

Large scale commercial deployment

Average % of total R&D investment over the last 3 years

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Differential EnergyTM is a proprietary explosives method which allows blasters to accurately vary the density of chemically gassed emulsion as it is being loaded into the blast hole, allowing the operator to load multiple densities of gassed emulsion into the same hole in order to match the unique geological characteristics present in the ground. Because the explosives energy is precisely targeted to match the rock properties, the amount of energy loaded into the blast hole will match only what is required for an optimal blast, reducing total energy and therefore vertical movement at the surface, air overpressure and noise from the blast event.

A twelve-month trial completed in 2022, in collaboration with a mining customer, showed a GHG reduction of 25% with the use of DeltaE, with the results currently being verified by an independent third party.

The use of Differential Energy continues to result in reduced GHG as well as reduced energy use, NOx emissions, dust, noise and ground vibration and increased productivity while reducing overall costs for our mining customers.

Technology area

Radical process redesign

Stage of development in the reporting year

Basic academic/theoretical research

Average % of total R&D investment over the last 3 years

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

In line with our commitment to reducing our GHG emissions and driven by our Manufacturing Excellence and Profitable Growth Strategic Drivers, we completed a AU$2.7 million feasibility study in 2020, supported by the Australian Renewable Energy Agency (ARENA), to assess the potential to use renewable hydrogen to increase ammonia production at our manufacturing facility at Moranbah, Queensland. Rather than being made from natural gas, renewable hydrogen can presently be made at very small plants using solar energy to split water into hydrogen and oxygen, allowing ammonia to be produced without the GHG associated with natural gas. The aim of the feasibility study is to determine whether renewable hydrogen can be made at an industrial scale at a commercially competitive price. The results have been published by ARENA.

Key Findings:

• Our study found that solar ammonia at an industrial scale was technically viable and a

facility was designed that could reliably provide a continuous supply of renewable hydrogen suitable for ammonia manufacturing, a 24/7 chemical production process. The design uses an off-grid (behind-the-meter) solar energy supply, with 160MW of electrolysis capable of producing approximately 25% of Moranbah's ammonia production.
• Such a facility can be cash flow positive at A$2.00 per kg of hydrogen. However, to achieve a 5% return on equity contribution, the project would require A$395m in grant funding, or approximately 60% of the estimated capex.
• Economic displacement of purchased ammonia at Moranbah requires solar hydrogen to be produced at A$2.00 per kg – at 5%

Technology area

Radical process redesign

Stage of development in the reporting year

Full/commercial-scale demonstration

Average % of total R&D investment over the last 3 years

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

IPL is partnering with global green energy company Fortescue Future Industries (FFI) to develop industrial-scale green ammonia production at IPL's Gibson Island facility. During 2021, FFI found that the project is technically feasible, and the project proceeded to Front End Engineering Design (FEED) study stage in 2022. The study is undertaking to refine cost, schedule, permitting and commercial agreements, and inform a potential Final Investment Decision.

Located in Brisbane, the Gibson Island plant used natural gas as a feedstock to produce ammonia during the reporting period. The project aims to replace the natural gas with renewable hydrogen to produce industrial scale green ammonia as part of IPL's Ambition to be Net Zero by 2050.

If the project proceeds, it is currently proposed that FFI would construct an on-site water electrolysis plant and develop and operate the hydrogen manufacturing facility, with IPL operating the ammonia manufacturing facility. The new water electrolysis facility would produce up to 50,000 tonnes of renewable hydrogen per year and be a complete replacement of Gibson Island's current gas use, where 60% of natural gas is currently used as feedstock and 40% is used for energy to drive the natural-gas-to-hydrogen feedstock reaction. The renewable hydrogen would then be converted into more than 300,000 tonnes of green ammonia for Australian and export markets.

The project provides the potential to transition Gibson Island's ammonia manufacturing to a renewable future, following IPL's decision to cease manufacturing ammonia at the plant in December 2022 due to the cost and availability of natural gas on the east coast of Australia.

Technology area

Other, please specify

International partnership to investigate green ammonia supply from Australia's hydrogen hubs

Stage of development in the reporting year

Average % of total R&D investment over the last 3 years

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Keppel Infrastructure Holdings Limited (Keppel Infrastructure) , Incitec Pivot Limited (IPL) and Temasek have signed a memorandum of understanding (MOU) to investigate the feasibility of producing green ammonia in Queensland, Australia for export to meet the rapidly growing market demand for carbon-free energy globally, including Singapore. The green ammonia may be used as a direct feedstock in renewable energy generation, or as a hydrogen carrier to provide green hydrogen solutions.

The MOU is bringing together the complementary strengths and capabilities of the three international partners:

Keppel Infrastructure has a strong track record in developing and operating efficient and reliable energy and environmental infrastructure, such as combined cycle power plants and waste-to-energy facilities, as well as in electricity retailing, and is looking to deepen its involvement in renewables and end-to-end low-carbon solutions including green electricity importation, hydrogen and carbon capture, utilisation, and storage.

IPL is Australia's largest supplier of fertiliser on Australia's east coast and a global leader in the resources and agricultural sectors, with assets capable of blue/green conversion of ammonia. IPL will contribute our world class expertise in ammonia production, along with its strategic land at Kooragang Island in the Port of Newcastle, NSW.

Temasek is a global investment company with a net portfolio of S$381 billion as at 31

March 2021. Temasek is actively supporting a range of decarbonisation opportunities, including feasibility of various renewable energy options. Temasek will fund part of the feasibility study.

The three parties will work closely with the Queensland and NSW Governments to explore the feasibility of essential infrastructure, licences and approvals to facilitate the production and export of green ammonia.

Green ammonia can be safely transported by ship and used to produce carbon-free electricity. It can also be used to replace bunker fuels to decarbonise the global maritime industry.

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)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance

Limited Assurance

Attach the statement

[1]IPL FY2021 NGER Limited Assurance Opinion.pdf

[2]IPL FY2022 NGER Limited Assurance Opinion.pdf

Page/ section reference

Page 1: "Conclusion:"
~41% of IPL's Scope 1 GHG (100% of Australian Scope 1) is verified as part of the Limited Assurance Opinion provided by Deloitte on an annual basis for our National

Greenhouse and Energy Report (NGER). Since this is completed on a June 30 year-end, and the CDP reporting year is the Company financial year (Sept 30 year-end), this assurance is currently partially completed for the data in this report. This report and the previous annual report are attached.

Relevant standard

ASAE 3140

Proportion of reported emissions verified (%)

41%

C10.1b

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance

Limited Assurance

Attach the statement

[1]IPL FY2021 NGER Limited Assurance Opinion.pdf

[2]IPL FY2022 NGER Limited Assurance Opinion.pdf

Page/ section reference

Page 1: "Conclusion:"
~45% of IPL's Scope 2 GHG (100% of Australian Scope 2) is verified as part of the Limited Assurance Opinion provided by Deloitte on an annual basis for our National Greenhouse and Energy Report (NGER). Since this is completed on a June 30 year-end, and the CDP reporting year is the Company financial year (Sept 30 year-end), this assurance is currently partially completed for the data in this report. This report and the previous annual report are attached.

Relevant standard

ASAE 3140

Proportion of reported emissions verified (%)

45%

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?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ASAE 3140	52% of IPL's energy use (100% of our Australian energy use) and 34% of our total purchased electricity is verified as part of the Limited Assurance Opinion provided by Deloitte on an annual basis for our National Greenhouse and Energy Report (NGER). Since this is completed on a June 30 year-end, and the CDP reporting year is the IPL financial year (Sept 30 year-end), this assurance is currently partially completed for the data in this report. The assurance statements attached include the energy assurance for the years ending June 30 2021 and June 30 2022. See Page 1: "Conclusion" 1, 2

[1]IPL FY2021 NGER Limited Assurance Opinion.pdf

[2]IPL FY2022 NGER Limited Assurance Opinion.pdf

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.

Australia ERF Safeguard Mechanism - ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Australia ERF Safeguard Mechanism - ETS

% of Scope 1 emissions covered by the ETS

43

% of Scope 2 emissions covered by the ETS

0

Period start date

July 1, 2021

Period end date

June 30, 2022

Allowances allocated

0

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

1,511,773

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Three of IPL’s manufacturing facilities in Australia are captured under the Australian ERF Safeguard Mechanism. These three sites make up more than 99.8% of IPL's Australian Scope 1 emissions and 90.0% of IPL's total (Scope 1 + 2) GHG emissions.

Note: Scope 2 emissions are verified under our annual NGER audit but are NOT covered by the Australian ERF Safeguard Mechanism.

Note: The Australian ERF Safeguard Mechanism ETS is based on the Australian Federal Government tax year ending 30 June, while this CDP report and our sustainability reporting is based on the IPL financial year ending September 30.

Oregon ETS

% of Scope 1 emissions covered by the ETS

2.9

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

September 30, 2022

Allowances allocated

0

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

Verified Scope 2 emissions in metric tons CO2e

Details of ownership

Facilities we own and operate

Comment

GHG emissions are not verified under this scheme. Under the scheme, the natural gas shipper is required to implement GHG reduction projects to avoid penalties, which would otherwise be passed to customers. Our natural gas provider identified projects to meet the required targets for the reporting period. As a result, no costs were passed to our St Helens manufacturing site in Oregon during this period.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

The IPL Corporate Sustainability Manager chairs the Carbon Pricing Steering Committee (CPSC). The CPSC comprises manufacturing, strategy, finance, treasury and energy contract management personnel across our global sites. The CPSC, through the Sustainability Manager and VP Strategic Projects, continually monitor emerging carbon pricing developments and inform the Decarbonisation and Energy Transition Steering Committee (chaired by the CEO) and the Board of relevant compliance requirements and market opportunities. This includes the new carbon cap and trade regulation in Oregon, a result of the Governor's Executive Order, which is currently being tracked by the CPSC. Corporate legal and site-based personnel at our St Helens, Oregon site are engaging with the relevant regulatory body and report back to the CPSC.

Our compliance procedure for the ERF Safeguard Mechanism is set out in the IPL Carbon Accounting Policy (Australia):
• Engineering and accounting specialists in our three Australian ERF Safeguard Mechanism-captured manufacturing facilities are responsible for implementing compliance plans to facilitate ongoing compliance.
• Site based accountants are responsible to collect monthly emissions data to track progress against site baselines and report to treasury on a monthly basis. In the event of an exceedance, a specific reporting process and management response is triggered.
• Treasury is responsible to monitor the carbon market/ACCU price and source any ACCUs which may be required.
• The Sustainability Manager is responsible to surrender any ACCUs required to settle a liability as directed by Treasury.
Our strategy for maximising opportunities related to carbon pricing schemes is managed by the VP Strategic Projects and the Sustainability Manager, as members of both the CPSC and the DETSC.

The strategy includes:
• Quantifying and understanding our emissions sources;
• Identification of the required technologies to reduce these emissions as part of our Net Zero Pathway;
• Examining our exposure to current, emerging and likely future carbon pricing schemes and incentives;
• Use of an internal carbon price to evaluate CAPEX applications;
• Identification of site-based opportunities for GHG reduction capital projects and external partnerships, particularly in jurisdictions where financial incentives (such as carbon credits or tax credits) can be used to improve the business case; and
• Regular reporting of opportunities to the DETSC for consideration.

C11.2

(C11.2) Has your organization cancelled any project-based carbon credits within the reporting year?

No

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.

Type of internal carbon price

Shadow price

How the price is determined

Alignment with the price of allowances under an Emissions Trading Scheme

Objective(s) for implementing this internal carbon price

Change internal behavior
Drive low-carbon investment
Identify and seize low-carbon opportunities
Navigate GHG regulations
Stress test investments

Scope(s) covered

Scope 1
Scope 2
Scope 3 (upstream)
Scope 3 (downstream)

Pricing approach used – spatial variance

Differentiated

Pricing approach used – temporal variance

Evolutionary

Indicate how you expect the price to change over time

Internal carbon pricing has been included in capital expenditure assessments for projects at our major manufacturing sites in Australia since Australian Carbon Credit Units (ACCUs) were introduced in 2012, with the price reflecting the market price of ACCUs. During 2021, the Board formally approved the application of this carbon price to all future growth capital and investment decisions. We are continuing to embed this into our processes, with the objective of applying the carbon price to all capital projects, consistent with the Capital Allocation Framework, during 2023. The price during the reporting period was AU$38 and is projected to increase to AU$50 by 2026, AU$65 by 2030, AU$130 by 2040 and AU$258 by 2050. This price is between the carbon pricing described in our 1.5oC and 2oC scenarios.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

38

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

258

Business decision-making processes this internal carbon price is applied to

Capital expenditure
Operations
Product and R&D
Risk management
Opportunity management

Mandatory enforcement of this internal carbon price within these business decision-making processes

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

• The internal carbon price is included in CAPEX applications to assess the risk of future carbon pricing costs associated with projects. For example, a project to increase the capacity of ammonia production at our Moranbah site included an internal price on carbon to assess the potential cost of increased GHG emissions under future schemes where baselines were reduced under the ERF Safeguard Mechanism. This ensures that low carbon designs for the expansion are being considered.
• The internal carbon price is used to improve the IRR of low carbon capital investments such as those relating to renewable energy. For example, IPL applied its internal carbon price when assessing Rooftop Solar Installations to improve the IRR, resulting in the projects proceeding to installation where they otherwise would not have met CAPEX hurdles.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers/clients

C12.1a

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

Type of engagement

Information collection (understanding supplier behaviour)

Details of engagement

Collect GHG emissions data at least annually from suppliers
Collect climate transition plan information at least annually from suppliers

% of suppliers by number

5

% total procurement spend (direct and indirect)

5

% of supplier-related Scope 3 emissions as reported in C6.5

4

Rationale for the coverage of your engagement

1. We have engaged with our shipping suppliers to collect information regarding the energy efficiency and GHG emissions of ships for three reasons:
(a) Because our vessel selection partner, Rightship, rates ships on a scale from A to F regarding fuel efficiency and GHG emissions;
(b) Because Rightship quantifies our Scope 3 shipping GHG using an internationally recognised standard (EN16258:2012); and
(c) Because Rightship's ship rating tool allows us to reduce our Scope 3 emissions by selecting more efficient ships for our freight.
2. We have engaged with our suppliers of purchased products and raw materials in order to calculate 'cradle-to-gate' Scope 3 emission factors per tonne of product we supplied to two customers during the reporting period for two reasons:
(a) The customer requested this information
(b) Being able to provide this information (cradle-to-gate Scope 3 EFs per tonne of our products supplied) gives us an advantage over our competitors.

Impact of engagement, including measures of success

1. The Rightship GHG methodology uses the standard European energy efficiency scale and allows emissions to be benchmarked and tracked per journey and over time and the methodology has been verified according to an internationally recognised standard (EN16258:2012). This allows us to reliably quantify the scope 3 GHG associated with our global shipping. Since we began using the RightShip greenhouse gas emissions rating system in 2016, we have reduced our emissions per tonne of cargo by 29%. In 2021, 32% of our ships were rated A or B, and 89% were rated D and above. We used no F or G rated ships in 2020, 2021 or 2022.
2. We have been able to include detailed calculation manuals, with a break-up of the cradle to gate emissions factors for products supplied, in two customer tenders. Success will be measured by the success of these tenders and customer feedback.

Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Offer financial incentives for suppliers who reduce your downstream emissions (Scopes 3)
Offer financial incentives for suppliers who reduce your upstream emissions (Scopes 3)

% of suppliers by number

5

% total procurement spend (direct and indirect)

5

% of supplier-related Scope 3 emissions as reported in C6.5

4

Rationale for the coverage of your engagement

We have engaged with our shipping suppliers because our vessel selection partner, Rightship, rates ships on a scale from A to F regarding fuel efficiency and GHG emissions, allowing us to reward higher efficiency, low GHG ship owners with more trade by selecting them for our shipping over low efficiency-high emitting operators. This allows us to influence the shipping sector in transitioning to more efficient low GHG ships.

Impact of engagement, including measures of success

The Rightship GHG methodology uses the standard European energy efficiency scale and allows emissions to be benchmarked and tracked per journey and over time and the methodology has been verified according to an internationally recognised standard (EN16258:2012). This allows us to reliably quantify the scope 3 GHG associated with our global shipping. Since we began using the RightShip greenhouse gas emissions rating system in 2016, we have reduced our emissions per tonne of cargo by 29%. In 2023, 37% of our ships were rated A or B, and 88% were rated D and above. We used no F or G rated ships in 2020, 2021 or 2022.

Comment

C12.1b

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

Type of engagement & Details of engagement

Collaboration & innovation

Other, please specify

Customer trials of our enhanced efficiency fertiliser, Entec, which reduces nitrogen losses to the atmosphere as N2O (a GHG) and to waterways through leaching.

% of customers by number

2

% of customer - related Scope 3 emissions as reported in C6.5

91

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

Emissions from fertiliser use on farm make up 91% of our Scope 3 emissions from this 'customer use' category, and 53% of our total Scope 3 emissions. Our Enhanced Efficiency Fertiliser (EEF) range, which includes ENTEC treated fertilisers, are products specifically formulated to reduce Nitrogen (N) losses as N2O, a GHG, and to waterways through

leaching, which can impact on aquatic life and reef health. Customer trials allow IPL to demonstrate and quantify GHG reductions on farms related to switching to our EEF products.

Impact of engagement, including measures of success

Research has demonstrated that using nitrogen stabilisers, such as ENTEC®, can provide crop growers with additional help in guarding against potential nitrogen losses to the atmosphere as GHG (as N2O) and can also therefore improve nitrogen use efficiency. Applied to ammonium and urea-based fertilisers, ENTEC works by delaying the activity of the bacteria, which oxidise ammonium to the nitrate form of nitrogen, for a period of time. While the nitrogen is stabilised in the ammonium form in the soil, it is safe from denitrification, resulting in less volatilisation to the atmosphere as GHG and less leaching losses to waterways. In addition, the crop can still access the stabilised nitrogen in the soil, resulting in increased yields.

A two-year trial co-funded by DAFF and the Victorian DPI demonstrated consistent reductions in nitrous oxide emissions by around 60% when ENTEC was applied to NPK and urea-based fertilisers. Broccoli trials at Werribee and Boneo recorded yield increases of between 8% and 59% respectively from adding ENTEC to the base fertiliser (Nitrophoska®). These results highlight great potential for ENTEC in improving nitrogen use efficiencies, reducing greenhouse gas emissions, while achieving equivalent, if not improved, yields for a better bottom line for farming customers.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, and we do not plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, but we plan to have one in the next two years

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

The IPL Climate Change Policy states that "We support the international climate agreement developed at the 2015 Paris Conference of Parties, as well as the Nationally Determined Contributions of the countries in which we operate. We believe carbon pricing can be an effective tool in reducing greenhouse gas emissions and advocate for a global, technology-neutral approach which delivers real reductions fairly and equitably."

IPL conducts its engagement activities in line with this statement and to reach our Net Zero ambition by 2050. The IPL Climate Change Policy was endorsed by the Board and describes how the management of climate change-related issues is incorporated into the Company's six Strategic Agenda Value Drivers.
Day-today management of Company affairs and the implementation of the corporate strategy and policy initiatives are formally delegated to the Managing Director and CEO. Responsibility for climate change strategy and governance resides with the Executive Team, advised by the Corporate Sustainability Manager, The Carbon Pricing Steering Committee (CPSC, which is Chaired by the Corporate Sustainability Manager) and the Decarbonisation and Energy Transition Steering Committee. The DETSC is tasked with developing the Company's Net Zero Pathway and to manage the risks and strategic opportunities associated with climate change. The DET Steering Committee comprises the following selected executives, aligning actions and engagement with policy, company strategy, financial performance and financial processes for the Company:

The CEO Chairs the DETSC and, as the person with Board delegated authority to implement the corporate strategy and policy initiatives, is responsible for managing climate-related issues.
• The CFO is a member of the DET SC due to the financial and strategic aspects of the management of climate change.
• The Chief Technology Development Officer (CTDO) is a member due to his expertise in developing low carbon products and services.
• The VP Strategic Projects in tasked with the development of IPL's Net Zero Transition Plan and projects to support it.
• As per IPL Policy, no statements are made to external parties without IPL legal review. This legal review ensures that all statements align with IPL strategies approved by the Board. These statements include, but are not limited to, formal submissions regarding proposed government policies, statements to media organisations and formal statements to trade associations.

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

The Australian ERF Safeguard Mechanism

Category of policy, law, or regulation that may impact the climate

Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate

Emissions trading schemes
Subsidies for renewable energy projects
Subsidies for low-carbon, non-renewable energy projects

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Australia

Your organization's position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

As our Climate Change Policy states, IPL supports the Nationally Determined Contributions (NDCs) of the governments in the countries in which we operate. During the reporting period, IPL engaged with Australian Federal Government policy makers regarding the design of the Australian ERF Safeguard Mechanism 2.0 with the aim of ensuring that Australian manufacturers are not commercially disadvantaged by new aspects of the scheme, so as to ensure a just transition for its Australian workforce. The engagement was primarily in the form of written submissions in response to consultation on the new rules being developed.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

IPL has engaged with policy makers on the following aspects of the proposed rule changes:
1. Lack of a mechanism to ensure Australian manufacturers are not commercially disadvantaged by a carbon cost being applied to product tonnes manufactured in Australia, but not applied to the same type of product tonnes imported into Australia. Solutions proposed included a Carbon Border Adjustment Mechanism applied to imported product tonnes or funding to assist Australian manufacturers to decarbonise their operations. This would protect Australian manufacturing jobs and ensure a just transition for Australian workers.
2. Changes to the Emissions Reduction Fund that remove previously secured funding for decarbonisation projects which were already underway before the start date of the proposed new rules. IPL proposes that contracts which were entered into with the Government to support decarbonisation projects should be honoured where these were in place before the start date of the new scheme.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

1. Ensuring that Australian manufacturers are not commercially disadvantaged by a carbon cost being applied to IPL product tonnes manufactured in Australia, but not applied to the same product tonnes imported into Australia, is central to IPL's Just Transition Plan because it will assist to keep IPL's manufacturing facilities competitive through the transition, protecting them against closure and therefore also protecting Australian manufacturing workers jobs.
2. Ensuring that the Emissions Reduction Fund changes do not remove previously secured funding for decarbonisation projects which were already underway before the start date of the proposed new rules will support the implementation of these decarbonisation projects, and the associated emissions reductions they will achieve.

Specify the policy, law, or regulation on which your organization is engaging with policy makers

The Australian Technology Investment Roadmap, which is a strategy to accelerate the development and commercialisation of low emissions technologies, including green hydrogen/green ammonia.

Category of policy, law, or regulation that may impact the climate

Low-carbon products and services

Focus area of policy, law, or regulation that may impact the climate

Technology requirements

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Australia

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

IPL is engaging with policy makers regarding the Australian Technology Investment Roadmap and the development of the green hydrogen industry in Australia. With a core competency in the manufacture, storage and transportation of ammonia, IPL is well placed to play a role in green hydrogen and green ammonia for a low-carbon economy, generating sustainable shareholder returns into the future. Our partnership with global green energy company Fortescue Future Industries, on a feasibility study into industrial scale production of green ammonia at our Gibson Island facility, represents a crucial step in realising Australia's, and Queensland's, potential as a green ammonia powerhouse. The study will investigate building a new water electrolysis facility at the Gibson Island plant to produce

around 50,000 tonnes of renewable hydrogen per year, which would then be converted into green ammonia for Australian and export markets.
The project aligns with the strategies of both the Queensland and Federal governments to develop a clean, innovative and competitive hydrogen industry delivering reliable domestic supply and new export opportunities.

IPL's international partnership with Singapore-based Keppel Infrastructure and Temasek to investigate the feasibility of producing green ammonia in Queensland. The goal is to produce green ammonia for export to meet the rapidly growing market demand for carbon-free energy in Singapore and elsewhere, as well as for potential domestic uses. The parties are working in step with the Queensland Government to explore the feasibility of essential infrastructure, licences and approvals to facilitate the production and export of green ammonia. We are proud to be at the forefront of this pioneering project that could revolutionise Australia's energy market.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

Bringing forward the production of green ammonia at industrial scale is central to the achievement of our climate transition plan because it is a new technology that allows ammonia to be manufactured without the use of natural gas. It is also therefore central to decarbonising the manufacture of fertilisers required to feed the world and explosives required to extract the minerals required for new, low-carbon technologies and the aggregates required for infrastructure.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Business Council of Australia

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

BCA's climate policy supports the Paris Agreement and advocates for integrated energy and climate change policy which focuses on affordability, reliability, emissions reduction and investment in Australia. BCA has outlined a pathway to achieve Net Zero in Australia and highlights Australia's transition to net-zero as one of its advocacy priorities. Our alignment with this industry association was assessed in 2022 as 'The Member Association's position is in line with IPL's, or is more progressive than IPL's.' See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

90,000

Describe the aim of your organization's funding

Membership Fee only.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Minerals Council of Australia

Is your organization's position on climate change policy consistent with theirs?

Inconsistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

MCA's 'Climate Action Plan' notes that "MCA and all of its members are taking serious action on climate change and are committed to the Paris Agreement and its goal of net zero emissions." Its 2021 progress report affirmed the industry's ambition to achieve Net Zero by 2050, and continued to advocate for advancement of low-emissions technology as the key driver for this to occur. This position was echoed in 2022. Our alignment with this industry association was assessed in 2022 as "The Member Association's position is not in line with IPL's but it is also not contrary to IPL's stated position, OR IPL's position is more progressive than its Member Association." See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

9,300

Describe the aim of your organization's funding

Membership fee only.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

National Mining Association

Is your organization's position on climate change policy consistent with theirs?

Inconsistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The NMA recognises that mining is an energy-intensive industry, and that global action is needed to reduce GHG and help mitigate the adverse effects of human impacts on climate change. However, there are differences between the views of the NMA and those of IPL in relation to climate policy. Since the last review in 2021, NMA has published its 'Climate Change Position' on its website which states that the NMA is "committed to working with elected officials, policymakers and other key stakeholders in the development of domestic and international policy to address the global climate challenge". Our alignment with this industry association was assessed in 2022 as "The Member Association's position is not in line with IPL's but it is also not contrary to IPL's stated position, OR IPL's position is more progressive than its Member Association." See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

70,000

Describe the aim of your organization's funding

Member ship fee only. Our Dyno Nobel business is a member and collaborates on matters such as safety in the mining sector.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

World Coal Association

Is your organization's position on climate change policy consistent with theirs?

Inconsistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The WCA recognises the objective of the Paris Agreement and supports a pathway to zero emissions 'which starts with high efficiency low emission (HELE) coal technologies and includes carbon capture, use and storage (CCUS)'. It continues to advocate for the use of thermal and metallurgical coal. Our alignment with this industry association was assessed in 2022 as "The Member Association's position is not in line with IPL's but it is also not contrary to IPL's stated position, OR IPL's position is more progressive than its Member Association." See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

70,000

Describe the aim of your organization's funding

Member ship fee only. Our Dyno Nobel business is a member and collaborates on matters such as safety in the mining sector.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

Australian Industry Greenhouse Network (AIGN)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

AIGN supports the Paris Agreement and Net Zero by 2050. It advocates for climate policy that creates positive short- and long-term outcomes and considers sustainable industrial development and economic growth. It supports Australia's equitable contribution to global action to reduce emissions. Policy principles include promoting investment in 'first-of-a-kind' low-emissions technologies. Our alignment with this industry association was assessed in 2022 as 'The Member Association's position is in line with IPL's, or is more progressive than IPL's.' See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

14,045

Describe the aim of your organization's funding

Membership fee only. IPL is a member and participates in information sessions and discussions arranged by the AIGN on a variety of topics related to greenhouse gas regulation in Australia, the Paris and Bonn CoPs, GHG related not-for-profits and state and federal schemes. IPL has contributed to some submissions made regarding consultation on relevant topics.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Australian Climate Leaders Coalition

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The CLC supports the Paris Agreement and Australia's commitment to it, including the objective to keep global warming well below 2 degrees above Pre-industrial levels. It broadly supports 2030 emissions reduction targets and a vision to transition Australia to a low emissions economy. Our alignment with this industry association was assessed in 2022 as 'The Member Association's position is in line with IPL's, or is more progressive than IPL's.' See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

3,000

Describe the aim of your organization's funding

Membership fee only. The Australian Climate Leaders Coalition (CLC) is a group of cross-sectoral Australian corporate CEOs supporting the Paris Agreement commitments and setting and implementing public decarbonisation targets. The CLC is action orientated and provides an open, confidential and authentic forum for CEOs to share the challenges of their decarbonisation journeys. It is inclusive and IPL has participated in developing several case studies for those CEOs not yet taking action and wanting to understand their options.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Carbon Market Institute (CMI)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

CMI supports the Paris Agreement and its 2021 Policy Position Statement outlines its commitment to independent, non-partisan and evidence-based advocacy. CMI's 2020 strategy paper outlines its 2050 vision for a 'prosperous, climate-resilient, Net Zero emissions world', and CMI's commitment to developing and promoting efficient and effective emissions reduction policy. Our alignment with this industry association was assessed in 2022 as 'The Member Association's position is in line with IPL's, or is more progressive than IPL's.' See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

10,175

Describe the aim of your organization's funding

Membership fee only.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

See page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

This varies - see page 58 of the IPL 2022 Climate Change report under '5. MEMBERSHIP AND CLIMATE REVIEW OF INDUSTRY ASSOCIATIONS'.

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, incorporating the TCFD recommendations

Status

Complete

Attach the document

IPL 2022 Climate Change Report.pdf

Page/Section reference

All

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

IPL releases a TCFD aligned report annually.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	The B Team UN Global Compact	IPL's CEO is a member of the Australian Climate Leaders Coalition, which is an initiative of The B-Team Australasia. IPL has participated in collaborative projects on supply chain decarbonisation and other Case Studies. See https://www.climateleaders.org.au/case-studies/page/2/ IPL is a participant in the UNGC and has registered to participate in the UNGC Climate Ambition Accelerator in 2023.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility	Description of oversight and objectives relating to biodiversity
Row 1	Yes, board-level oversight	The Health, Safety, Environment and Community Committee of the Board has responsibility for oversight and management of issues related to biodiversity. While risks and opportunities associated with our own operations are limited in relation to impacts on biodiversity, soil degradation, including loss of soil biodiversity, is a material issue for our farming customers. Excessive use of mineral fertilisers can reduce soil biodiversity, which is the number and variety of species which exist within soil. Soil biodiversity is essential to both the environment and to agricultural industries because soil organisms cycle nutrients, making them available to plants, improve water entry and storage, provide resistance to erosion, aid in carbon capture and break down organic matter. Soil species include microbes, such as algae and cyanobacteria, micro-fauna, including amoebas and fungi, mesofauna, such as mites and other tiny insects, and macrofauna such as earth worms, ants, termites, and other insects which are large enough to be identified. These organisms are part of a vast food web that ensures the cycling of energy and nutrients within soils, promoting plant growth and soil productivity, and helps sustain organisms living above ground. IPL recognises that sustainable soil health includes restoring soil biodiversity in farmland soils where it has been reduced over time. Our Incitec Pivot Fertilisers (IPF) strategy is to grow IPF from a leading fertiliser company, manufacturing and distributing a range of domestic fertilisers, to a sustainable soil health company providing sustainable plant nutrition solutions to improve soil health. During 2022, announced an investment in Australian Bio Fert (ABF) with the aim of developing a new category of sustainable fertilisers for Australian farmers. IPF's soil analysis laboratory, Nutrient Advantage, also launched a new Soil Health Test Package that enables farmers to benchmark and improve the health and productivity of their soil. Our soil and plant testing services provide farmers and agronomists with high quality analytical results to support sustainable fertiliser application recommendations.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity
Row 1	No, and we do not plan to do so within the next 2 years

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Other, please specify Committed to conducting TNFD LEAP Assessment in 2023, with third party specialist engaged

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity Biodiversity strategy	See under 'SOIL HEALTH AND BIODIVERSITY' and 'NAVIGATING THE TRANSITION TO A LOW-CARBON ECONOMY' on pages 49-51 of the 2022 IPL Sustainability Report. [1]
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity Biodiversity strategy	See page 8 under 'GRI 304-2 Significant impacts of activities, products and services on biodiversity'.

[1] 2022_IPL_Sustainability Report.pdf

C16. 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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Strategy and 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	6,315,300,000

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

The Dow Chemical Company

Scope of emissions

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

Major sources of emissions

We do not supply to this company.

Verified

Allocation method

Market value or quantity of goods/services supplied to the requesting member

Unit for market value or quantity of goods/services supplied

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

SC1.2

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

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
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Increased metering and human resourcing to complete calculations
Other, please specify Obtaining actual upstream (supplier) GHG is difficult.	In addition to our own Scope 1&2 GHG, we also need to assign various upstream Scope 3 to our products per tonne in order to provide customers with 'cradle to gate' Scope 3 EF per tonne of our product supplied to them, in line with the GHG Protocol Scop e 3 Guidance. These are difficult to obtain. We currently use EcoInvent LCA database factors where we cannot obtain upstream GHG. Human resourcing to engage with suppliers directly across geographies and language barriers would assist in collecting this information. In some cases, our own employees would be required to assist suppliers in calculating their own Scope 1&2 their upstream Scope 3 GHG in order for us to obtain cradle to gate Scope 3 emission factors for the products we purchase.

SC1.4

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

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We have created customer specific GHG Scope 3 calculation manuals for two of our customers regarding their purchases of emissions intensive products (specifically, ammonium nitrate explosives and explosive emulsions products). These show the Life Cycle (Cradle to gate) emissions factors per tonne of product to their gate, including the proportion of the factors which relate to our upstream suppliers (back to extraction of the raw materials), our Scope 1&2, and transportation to their gate. These were time intensive to create, but we anticipate adding to these each year. We are developing a strategy to obtain actual supplier specific Scope 3 GHG factors.

SC2.1

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

Requesting member

The Dow Chemical Company

Group type of project

Other, please specify

There are currently no projects on which we could collaborate as we do not supply this company.

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO2e savings

Estimated payback

Details of proposal

SC2.2

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

No

SC4.1

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

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms