Alternicq
Innovation at Scale



INTERNAL CARBON **PRICING REPORT**

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Chief Sustainability Officer's Message

Climate change and global warming are increasingly affecting natural systems and everyday life. These impacts also translate into tangible risks for businesses, ranging from physical and operational disruptions caused by extreme weather events to regulatory changes, carbon pricing mechanisms, and shifting customer demand toward low-carbon products and solutions. At the same time, the transition to a low-carbon economy presents significant opportunities for innovation, efficiency, and sustainable growth.

Alternicq has consistently recognized the importance of addressing climate change as an integral part of its long-term business strategy. Guided by our commitment to responsible manufacturing and sustainable packaging solutions, we actively align our actions with global climate goals, including the objectives of the Paris Agreement. By embedding sustainability into our operations and decision-making, we aim to contribute meaningfully to global efforts toward a net-zero future, while creating shared value across our value chain.

To strengthen carbon management and support our transition pathway, Alternicq has adopted internal mechanisms that integrate carbon considerations into business operations. Internal carbon pricing is used as a strategic tool to translate emissions impacts into financial signals, enabling better decision-making across functions. By assigning accountability for emissions at an operational level, we encourage teams to factor carbon efficiency into planning, investment, and day-to-day activities.

The outcomes of this approach are increasingly evident. Internal carbon pricing has supported progress toward our science-based climate ambitions, while enhancing preparedness for future regulatory requirements and market-driven transition risks. Through proactive climate action, continuous improvement, and collaboration with industry partners, Alternicq seeks to contribute to a broader low-carbon transition. We believe that organizations, irrespective of geography or carbon price levels, can benefit from setting internal carbon prices to guide strategy, unlock efficiencies, and accelerate practical actions toward achieving net-zero goals.

1. Executive Summary

1.1. Purpose of ICP

Alternicq has initiated the design and implementation of an Internal Carbon Pricing (ICP) framework to strengthen the quality, consistency, and long-term resilience of business decision-making in an increasingly carbon-constrained operating environment. As a diversified packaging manufacturer with energy-intensive operations and a large base of long-life manufacturing assets, a significant proportion of the Company's future emissions profile, operating costs, and transition risk exposure is shaped by capital investment, technology selection, and energy sourcing decisions taken today.

The purpose of implementing ICP is to ensure that greenhouse gas emissions are considered systematically and consistently alongside financial, operational, and strategic criteria when evaluating such decisions. By assigning a notional internal value to carbon emissions, ICP translates climate impacts from an external or downstream consideration into a clear internal decision signal. This enables management to better understand and evaluate trade-offs between upfront capital cost, operational efficiency, asset performance, long-term carbon exposure, and alignment with the Company's transition objectives.

At this stage, ICP is explicitly designed as a decision-support mechanism, not as an internal tax, fee, or accounting charge. It does not create internal financial transfers or impose penalties on operating teams. Instead, it is intended to strengthen capital discipline, improve comparability between investment options, reduce the risk of carbon-intensive asset lock-in, and support alignment between near-term business decisions and Alternicq's long-term decarbonisation and competitiveness objectives in a structured and transparent manner.

1.2. Climate as Strategy

Climate change is increasingly influencing the strategic, operational, and financial context for manufacturing and packaging companies through regulatory developments, customer expectations, investor scrutiny, and volatility in energy and commodity markets. While India does not currently have an economy-wide carbon tax, transition risks are already materialising through indirect channels, including sustainability requirements imposed by multinational customers, expectations in export markets, evolving disclosure standards, and the pass-through of carbon-related costs in energy, materials, and logistics.

For Alternicq, these dynamics translate into concrete strategic considerations. Capital investments in machinery, utilities, and infrastructure typically have asset lives of 10 to 20 years, during which energy efficiency, emissions intensity, and carbon performance will increasingly influence operating costs, customer preference, and regulatory exposure. At the same time, leading FMCG and brand-owner customers are embedding carbon foot print, recycled content, and sustainability criteria into packaging design, supplier selection, and long-term sourcing strategies.

Internal Carbon Pricing provides a structured mechanism to reflect these emerging risks and opportunities directly within business decision-making. By making the long-term relevance of emissions visible at the point of investment and planning, ICP supports proactive risk management, improves strategic foresight, and enables Alternicq to position itself as a credible, forward-looking, and low-carbon packaging partner in an increasingly competitive market.

1.3. Selected ICP Model

Following a review of global internal carbon pricing practices and an assessment of organisational readiness, Alternicq has selected **shadow carbon pricing** as the initial ICP approach. Under this model, a notional carbon price is applied analytically to greenhouse gas emissions associated with specific decisions, without creating internal cash flows, budgetary charges, or accounting entries.

Shadow pricing has been selected because it aligns well with the Company's current stage of climate maturity and governance. It allows carbon considerations to be embedded into capital investment, technology selection, and strategic planning processes in a non-disruptive manner, while building internal understanding of how carbon cost signals influence decision outcomes. Importantly, shadow pricing enables the Company to test how different transition scenarios and carbon price assumptions could affect the relative attractiveness of alternative options, without committing to a single forecast of future regulatory carbon prices.

This approach reflects global best practice, where many companies adopt shadow pricing as an entry point to internal carbon pricing before progressing, over time, to more operational models as data quality improves, governance systems mature, and internal acceptance strengthens.

1.4. Decision Use-Cases

The ICP framework has been designed to focus on decision areas where emissions implications are material and long-lasting. For Alternicq, these include:

- Capital expenditure decisions related to manufacturing equipment, utilities, and site infrastructure
- Energy sourcing decisions, including renewable energy adoption, captive generation, and efficiency upgrades
- Technology selection and process optimisation initiatives that influence energy intensity and emissions performance
- Selected forward-looking pilot decisions related to materials and logistics, explored on a limited and conservative basis

By applying shadow carbon pricing to these decision contexts, the Company is able to compare options on a more holistic basis, particularly where lower-emissions alternatives involve higher upfront investment but offer superior long-term cost, risk, and sustainability outcomes.

1.5. Net-Zero Alignment

Alternicq's Internal Carbon Pricing framework has been explicitly designed to support the execution of its net-zero ambition and Science-Based Targets by translating long-term climate commitments into operational and investment-level decision signals. While targets define the scale and pace of emissions reductions required, ICP provides a mechanism to influence how those reductions are achieved through everyday business choices.

The framework prioritises real and measurable reductions in Scope 1 and Scope 2 emissions, reflecting the areas where Alternicq has direct operational control and where capital investment decisions play a decisive role. By applying an internal carbon signal at the planning and evaluation stage, ICP helps steer investment toward technologies, energy sources, and process configurations that are consistent with the Company's decarbonisation pathway, thereby reducing the risk of carbon-intensive asset lock-in.

Importantly, the ICP approach avoids reliance on offsets or external credits as a primary means of achieving targets. Instead, it reinforces a mitigation-first logic in which emissions reductions are driven through efficiency improvements, energy transition, and process optimisation. This approach is aligned with Science-Based Targets expectations, which emphasise real emissions abatement within operational boundaries as the foundation of credible net-zero strategies.

Over time, internal carbon pricing also supports transition planning by enabling more transparent assessment of how current investment decisions perform under future carbon-constrained scenarios. By embedding forward-looking carbon considerations into decision-making, ICP strengthens consistency between near-term actions and long-term climate objectives, ensuring that Alternicq's net-zero commitment is supported by disciplined, repeatable, and auditable internal processes rather than standalone targets.

1.6. Design Outcomes

Through the ICP design exercise, Alternicq has developed a structured, transparent, and business-relevant framework tailored to its operating context and decision-making processes. Key outcomes include the definition of a shadow carbon pricing methodology aligned with existing emissions accounting practices, identification of priority decision contexts where ICP delivers the greatest value, and development of an indicative shadow carbon price range for scenario analysis and sensitivity testing.

In addition, governance arrangements have been established that align with existing financial approval and sustainability oversight structures, ensuring that internal carbon pricing is integrated into business processes rather than operating as a parallel system. A phased pathway has also been articulated for future enhancement of the ICP framework as organisational maturity, data quality, and external expectations evolve.

Collectively, these outcomes enable leadership to apply internal carbon pricing in a consistent and credible manner while retaining flexibility to refine and strengthen the approach based on practical experience.

1.7. Way Forward

Implementation of Internal Carbon Pricing at Alternicq will follow a phased and adaptive approach. In the near term, the focus will be on applying shadow pricing to selected investment and planning decisions, refining assumptions through real-world application, and building internal familiarity with the framework across sustainability, finance, and operations teams.

Over the medium to long term, the Company will evaluate opportunities to expand the scope of ICP application, deepen scenario analysis, and strengthen integration with capital planning and approval processes. Subject to organisational readiness and changes in the external environment, Alternicq may also explore progression toward more operational internal carbon pricing models in future phases.

This measured approach ensures that Internal Carbon Pricing remains a practical, value-adding management tool that evolves in line with business priorities, data maturity, and the Company's long-term transition strategy.

2. Company Context & Climate Ambition

2.1. Business and Manufacturing Context

Alternicq Limited (formerly Manjushree Technopack Limited) is a leading packaging solutions provider in India, supplying rigid plastic packaging and allied solutions to a broad portfolio of domestic and multinational customers. The Company serves critical end-use sectors such as fast-moving consumer goods, food and beverages, personal care, pharmaceuticals, and other consumer-facing industries where quality, reliability, regulatory compliance, and scale are essential requirements.

Operations are supported by a geographically distributed manufacturing footprint comprising multiple production facilities across India. These facilities are designed for continuous, high-volume manufacturing and rely on energy-intensive processes such as injection moulding, extrusion, blow moulding, and associated finishing operations. Supporting utilities and infrastructure—including compressed air systems, cooling and chilling systems, heating, material handling, and auxiliary equipment—form a substantial component of overall energy demand.

A defining characteristic of Alternicq's operating model is the long service life of production assets. Manufacturing equipment and plant infrastructure are typically deployed for periods ranging from 10 to 20 years or more. As a result, decisions taken today regarding technology selection, energy systems, and plant configuration have enduring implications for operational efficiency, cost structure, and emissions performance. Capital investment therefore represents a critical lever for shaping the Company's long-term emissions trajectory and exposure to transition risks.

2.2. Packaging Sector Transition Dynamics

The global packaging sector is undergoing an accelerated transition driven by climate change, resource efficiency concerns, regulatory developments, and evolving customer expectations. Emissions within the sector are generally concentrated across three interconnected areas: energy consumption during manufacturing, upstream material production, and logistics across complex and often global supply chains.

For rigid plastic packaging manufacturers, electricity consumption is a dominant source of emissions, particularly in regions where grid power remains carbon intensive. In parallel, emissions embedded in raw materials such as polymers and resins are becoming increasingly visible through customer reporting requirements and lifecycle-based assessments, elevating the importance of Scope 3 considerations.

Key transition risks relevant to Alternicq include rising and volatile energy prices that directly affect operating costs and margins; increased scrutiny from customers regarding product-level and supplier-level carbon footprints; evolving regulatory frameworks related to energy efficiency, emissions disclosure, and plastics sustainability; and growing expectations from investors and lenders regarding climate risk integration and transition planning.

At the same time, the sector presents meaningful opportunities for companies that proactively manage emissions. Investments in energy efficiency, renewable energy adoption, material optimisation, and process innovation can deliver cost savings, improve resilience to energy price volatility, and strengthen long-term

customer relationships. The ability to systematically evaluate these opportunities is therefore becoming a source of strategic differentiation and competitive advantage.

2.3. Emissions Profile Overview

Alternicq's greenhouse gas emissions profile reflects the structure of its manufacturing operations and the characteristics of its value chain.

Direct emissions arise primarily from the combustion of fuels used for utilities, backup power generation, and certain process-related applications within manufacturing facilities. While these emissions are typically smaller in magnitude relative to indirect emissions, they remain an important focus area for efficiency improvements, fuel optimisation, and technology upgrades.

Indirect emissions from purchased electricity constitute a significant share of the Company's overall emissions footprint. Electricity consumption across production lines, utilities, and supporting infrastructure is therefore a central priority for decarbo nisation initiatives. Given the scale of electricity use and the carbon intensity of grid power, decisions related to energy sourcing and efficiency have a disproportionate impact on emissions outcomes.

Indirect value-chain emissions span a broader range of activities, including raw material production, inbound and outbound logistics, and downstream product use and end-of-life treatment. While these emissions are more complex to quantify and influence directly, selected categories are recognised as strategically material due to customer expectations, regulatory trends, and lifecycle impacts.

At the current stage, Alternicq's decarbonisation strategy prioritises areas where operational control and data maturity are strongest—namely direct and energy-related emissions. Value-chain emissions are acknowledged as an important longer-term consideration and are being explored progressively, particularly where they intersect with material business decisions and customer requirements.

2.4. Climate Commitment and Targets

Alternicq has articulated a long-term commitment to decarbonisation that is aligned with global climate objectives and grounded in climate science. This commitment is formalised through Science-Based Targets, which define a quantified and time-bound emissions reduction pathway consistent with limiting global temperature rise.

The Company's science-based targets provide external validation of ambition and methodological robustness, establish a clear reference point for internal planning, and support consistent communication with customers, investors, and other stakeholders. Importantly, these targets define not only the direction of travel, but also the pace of emissions reductions required over time.

However, targets alone do not ensure delivery. Achieving science-based targets depends on how effectively climate considerations are embedded into everyday decision-making—particularly in areas such as capital investment, energy sourcing, and technology selection. Internal Carbon Pricing is introduced as a practical mechanism to bridge the gap between long-term commitments and operational execution.

2.5. Role of Investment Decisions

For Alternicq, structural emissions reductions are driven primarily by capital investment and technology choices rather than incremental operational adjustments alone. Manufacturing equipment, utilities, and process configurations determine energy intensity and emissions performance over extended periods.

Investment decisions that materially influence emissions outcomes include the selection of energy-efficient moulding and processing equipment, the design and optimisation of utilities and auxiliary systems, adoption of renewable energy solutions and energy management technologies, and modernisation or retrofit of existing assets to improve efficiency and performance.

Once installed, these assets define emissions trajectories for many years, creating the risk of carbon-intensive lock-in if emissions considerations are not evaluated at the planning stage. Integrating carbon impacts into capital appraisal therefore becomes essential to ensure that investments made today remain aligned with future regulatory developments, customer expectations, and transition pathways.

2.6. Relevance of Internal Carbon Pricing

Internal Carbon Pricing is particularly relevant for Alternicq given the convergence of energy-intensive operations, long-life assets, and rising external expectations around climate performance. Even in the absence of explicit carbon taxation, carbon-related risks and opportunities are increasingly embedded within financial, operational, and strategic decisions.

By implementing an Internal Carbon Pricing framework, Alternicq is able to make the long-term relevance of emissions visible at the point of decision-making, strengthen alignment between investment choices and climate commitments, enhance preparedness for future regulatory and market-driven carbon costs, and demonstrate to customers, investors, and lenders that climate risks are being actively and systematically managed.

Internal Carbon Pricing does not replace emissions reduction initiatives or financial evaluation processes. Instead, it complements them by introducing a consistent internal lens through which carbon impacts are assessed. This approach supports disciplined, forward-looking decision-making while preserving operational flexibility and financial prudence.

3. External Context

Carbon Pricing, Regulation, and Market Expectations

3.1. Global Carbon Pricing Landscape

Globally, carbon pricing has emerged as a central policy and market-based mechanism for internalising the cost of greenhouse gas emissions and accelerating the transition to a low-carbon economy. Governments, regulators, and market institutions are increasingly deploying carbon pricing instruments—such as carbon taxes, emissions trading systems, and hybrid mechanisms—to influence corporate behaviour, guide capital allocation, and shift long-term investment patterns.

Over the past decade, the coverage, sophistication, and stringency of these mechanisms have increased steadily. Emissions trading systems have expanded across Europe, East Asia, and parts of North America, while carbon taxes and sector-specific pricing mechanisms have been introduced or strengthened in multiple jurisdictions. Importantly, carbon price levels in many markets are no longer static; they are increasingly designed to rise over time in line with long-term climate objectives, creating a forward-looking cost signal for businesses.

Alongside formal regulatory mechanisms, a growing number of companies are adopting internal carbon pricing as a voluntary and anticipatory management tool. These internal mechanisms are used to stress-test investments, inform strategic planning, and evaluate long-term asset resilience—even in jurisdictions where explicit carbon pricing is not yet fully implemented. This convergence of public policy and corporate practice signals a clear direction of travel toward greater monetisation of carbon impacts within business decision-making.

3.2. Relevance for Indian Manufacturing

Although India does not currently operate an economy-wide carbon tax or emissions trading system comparable to some other regions, Indian manufacturing companies are not insulated from carbon pricing or transition risks. Instead, these risks are increasingly transmitted through indirect and market-mediated channels rather than through direct regulation alone.

For energy-intensive manufacturers, rising and volatile energy prices already reflect underlying transition dynamics linked to fuel markets, grid decarbonisation, and renewable energy deployment. In parallel, multinational customers are embedding carbon performance expectations into procurement requirements, while export markets are placing greater emphasis on embedded emissions, product-level footprints, and supplier transparency.

Indian companies are also facing growing scrutiny from lenders, investors, and insurers regarding climate risk preparedness, transition planning, and governance maturity. As financial institutions increasingly align with climate-related disclosure frameworks and stress-testing expectations, the ability to demonstrate proactive management of carbon-related risks is becoming a material consideration in access to capital.

In this context, internal carbon pricing serves as a preparatory mechanism. It enables companies such as Alternicq to anticipate and manage future carbon constraints, rather than responding reactively once regulatory or market pressures intensify.

3.3. Customer Expectations Across the Value Chain

Customers in the FMCG and consumer goods sectors are increasingly integrating climate considerations into procurement, product design, and supplier engagement strategies. Packaging suppliers are no longer assessed solely on cost, quality, and delivery reliability; they are also expected to demonstrate credible progress toward emissions reduction, energy efficiency, and low-carbon innovation.

Key customer-driven expectations increasingly include transparent reporting of direct and indirect emissions, availability of lower-carbon packaging solutions, alignment with science-based climate targets, and evidence that climate considerations are embedded within operational and investment decision-making processes. These expectations are particularly pronounced among global brand owners with publicly stated net-zero commitments and value-chain decarbonisation strategies.

For Alternicq, responding to these expectations requires more than standalone sustainability initiatives or retrospective reporting. It requires internal systems that demonstrate how carbon considerations influence real business decisions. Internal Carbon Pricing provides such a system by embedding a forward-looking carbon signal directly into capital planning and technology evaluation, thereby strengthening credibility with existing customers and enhancing competitiveness in new business opportunities.

3.4. Investor and Lender Perspectives

Investors and lenders are increasingly viewing climate change as a material financial risk with the potential to affect asset values, operating costs, cash flows, and long-term business viability. As a result, capital providers are seeking greater assurance that companies understand, manage, and integrate climate-related risks into governance, strategy, and decision-making processes.

Expectations from investors and lenders typically extend beyond disclosure alone. They include evidence that climate considerations are reflected in capital allocation, that transition risks are assessed on a forward-looking basis, and that management has tools in place to evaluate the resilience of investments under different carbon-constrained scenarios.

Internal Carbon Pricing is increasingly recognised in this context as an indicator of climate governance maturity. Its use signals that a company is proactively assessing carbon-related risks and embedding them into financial and strategic decisions, rather than treating climate change solely as a compliance or reporting issue.

3.5. Alignment with Disclosure Frameworks

Alternicq's approach to Internal Carbon Pricing has been designed to align with leading global disclosure and reporting frameworks that shape stakeholder expectations and define best practice in climate governance.

The Science Based Targets initiative emphasises the importance of credible, forward-looking mechanisms to support delivery of emissions reduction targets. While SBTi does not mandate internal carbon pricing, it recognises ICP as a valuable tool for guiding investment decisions and avoiding carbon-intensive lock-in. By applying shadow carbon pricing to capital and strategic decisions, Alternicq strengthens the operational credibility of its science-based targets.

Similarly, the CDP Climate Change Questionnaire explicitly examines whether companies use internal carbon pricing and how it is applied. The ICP framework developed by Alternicq aligns with these expectations by

clearly defining the type of pricing used, its purpose, governance arrangements, and application in decision-making contexts.

Together, these frameworks reinforce the expectation that climate considerations are not only disclosed but actively integrated into core business processes. Internal Carbon Pricing supports this integration in a structured and transparent manner.

3.6. Strategic Implications

The external trends outlined above have direct and material implications for Alternicq's strategic planning and investment decisions. As carbon-related considerations increasingly influence customer preferences, investor expectations, and policy direction, the ability to anticipate and manage these factors becomes a source of resilience and competitive advantage.

By adopting Internal Carbon Pricing, Alternicq is better positioned to future-proof capital investments against emerging carbon constraints, strengthen alignment between financial planning and climate strategy, enhance credibility with customers, investors, and lenders, and identify and prioritise low-carbon investment opportunities.

In this context, Internal Carbon Pricing is not positioned as a compliance response. It is a strategic enabler that supports disciplined, forward-looking decision-making in an external environment where carbon performance is becoming an increasingly important determinant of long-term business success.

4. Overview of Internal Carbon Pricing

4.1. Definition and Purpose

Internal Carbon Pricing refers to the practice by which an organisation assigns a monetary value to greenhouse gas emissions for internal decision-making purposes. Unlike carbon taxes or emissions trading systems imposed by governments or regulators, internal carbon pricing is a voluntary, organisation-defined mechanism designed to support strategic planning, investment evaluation, and long-term risk management.

The fundamental purpose of internal carbon pricing is not to monetise emissions for accounting purposes, but to introduce a consistent and forward-looking signal that reflects the long-term relevance of carbon within business decisions. Many investment, technology, and sourcing choices have emissions implications that extend well beyond the immediate planning horizon. Without an internal carbon signal, these implications often remain external to financial analysis, increasing the risk that decisions optimise short-term cost or performance while embedding long-term transition risk.

By translating emissions into a comparable internal reference, internal carbon pricing enables structured evaluation of trade-offs between capital cost, operating efficiency, asset lifetime, emissions performance, and exposure to future carbon constraints. While approaches differ across organisations, the common objective is to improve decision quality in an operating environment where carbon-related risks and opportunities are becoming increasingly material.

4.2. Use by Global Corporates

Globally, internal carbon pricing has become an increasingly common management practice among large corporates, particularly those operating in energy-intensive sectors, asset-heavy industries, or value chains exposed to customer-driven decarbonisation pressures. Companies adopt internal carbon pricing not primarily as a compliance response, but as a forward-looking tool to anticipate future constraints and align business strategy with long-term climate commitments.

In practice, internal carbon pricing is used by global corporates to inform capital allocation and investment appraisal, allowing emissions considerations to be embedded alongside traditional financial metrics. It is also applied in scenario analysis and stress testing to assess how different carbon price trajectories could affect asset performance, cost structures, and strategic options over time. For many organisations, internal carbon pricing plays a role in transition planning by supporting alignment between near-term investments and longer-term decarbonisation pathways.

Importantly, corporates that disclose the use of internal carbon pricing consistently emphasise that its value lies less in the precision of the price itself and more in the discipline of applying a transparent and repeatable internal logic. As a result, many organisations rely on price ranges, scenario-based assumptions, or differentiated price signals rather than a single fixed carbon value.

4.3. Common ICP Models

Internal carbon pricing is implemented through several distinct models, each reflecting different objectives, levels of organisational maturity, and governance capacity. These models vary in complexity, behavioural impact, and integration with financial systems.

Shadow carbon pricing is the most widely adopted approach, particularly as an entry point. Under this model, a notional carbon price is applied analytically to emissions associated with specific decisions, without triggering internal financial transfers or budgetary charges. The price is used to compare alternatives, assess long-term exposure, and inform investment choices rather than to penalise emissions. Because it integrates easily with existing appraisal processes and avoids behavioural resistance, shadow pricing is commonly used to influence capital and strategic decisions.

Internal carbon fees involve charging business units based on their emissions using a predefined internal carbon price. Fees collected are typically reinvested in emissions reduction initiatives or low-carbon innovation. This model creates stronger behavioural incentives but requires mature emissions measurement, internal acceptance, and clear governance to manage financial flows and accountability.

Implicit carbon pricing embeds carbon considerations indirectly through internal benchmarks, thresholds, or decision rules, such as preferential treatment of lower-emissions options or minimum performance criteria for investments. While simpler to implement, implicit pricing often lacks transparency and comparability, limiting its usefulness as a systematic decision-support tool.

Internal emissions trading systems replicate features of external cap-and-trade mechanisms within an organisation. Business units are allocated allowances and can trade internally based on emissions performance. These systems generate strong price signals but are highly complex and typically feasible only for very large, decentralised organisations with advanced governance and data infrastructure.

4.4. Suitability for Alternicq

In assessing the suitability of different internal carbon pricing models, Alternicq has considered its operational context, organisational maturity, emissions profile, and strategic objectives. Key considerations include the energy-intensive nature of manufacturing operations, the prevalence of long-life assets, centralised capital expenditure decision-making, and the early-stage introduction of internal carbon pricing.

Against this backdrop, models involving internal financial transfers or trading mechanisms were assessed as premature due to governance complexity and potential disruption. Implicit pricing approaches were considered insufficiently transparent and systematic to support consistent decision-making or external credibility.

Shadow carbon pricing was identified as the most appropriate model to meet current objectives. It offers an effective balance between analytical rigour and practical feasibility, allowing carbon considerations to be embedded into decision-making without requiring changes to internal accounting systems, budgeting processes, or incentive structures.

Table 1: Reference sources considered for shadow carbon price selection

Source Category	Description	Key External References	Relevance for Alternicq
Regulatory and Market Carbon Prices	Carbon prices applied through existing or emerging carbon taxes, emissions trading systems, penalties, and future regulatory signals across jurisdictions.	International Carbon Action Partnership (ICAP) emissions trading system data; World Bank carbon pricing dashboards and annual reports; global carbon price databases maintained by research institutions.	Helps anticipate future transition risks for export markets and multinational customers; supports scenario analysis for potential carbon cost pass-through in supply chains.
Social Cost of Carbon (SCC)	An economic estimate of the global or regional damage caused by emitting one additional tonne of CO_2, including impacts on health, ecosystems, and economic productivity.	Academic and policy research published in peer-reviewed journals; global SCC estimation tools developed by climate economics institutions.	Provides a science-based, long-term reference for aligning internal carbon prices with net-zero and societal impact considerations beyond short-term compliance costs.
Industry Benchmarks and Peer Practices	Internal carbon prices adopted by companies across different sectors, as disclosed through sustainability reporting and investor platforms.	CDP global carbon price reports and questionnaires; sectoral studies published by management consulting firms.	Enables benchmarking against peers in manufacturing and consumer goods; supports credibility and defensibility of Alternicq's chosen price range.
Internal Abatement and Mitigation Costs	Historical or projected cost incurred by the company to reduce one tonne of CO_2 through efficiency, renewable energy, or process improvements.	Internal project records, energy audits, and decarbonisation investment analyses.	Ensures that the carbon price reflects real business economics and helps prioritise projects with the highest emission reduction impact per rupee invested.
Cost of External Mitigation Options	Market prices for renewable energy procurement, energy attribute certificates, and carbon credits.	Corporate procurement data; voluntary carbon market price trends.	Provides a practical ceiling or reference point for internal pricing, especially when evaluating offsetting or renewable energy strategies.

4.5. Rationale for Shadow Pricing

The selection of shadow carbon pricing as the initial internal carbon pricing model for Alternicq reflects a combination of strategic, operational, and governance considerations. Shadow pricing aligns with the Company's current level of organisational maturity and enables internal learning and capability-building without introducing unnecessary complexity.

The model integrates seamlessly with existing capital appraisal and decision-making frameworks, ensuring that carbon considerations complement rather than compete with established financial discipline. By relying on indicative price ranges and scenario-based assumptions, shadow pricing accommodates uncertainty around future regulation, market conditions, and carbon price trajectories while still providing a meaningful internal signal.

Importantly, shadow carbon pricing directly supports strategic objectives related to emissions reduction, asset resilience, and avoidance of carbon-intensive lock-in. It allows Alternicq to strengthen alignment between investment decisions and long-term climate commitments in a credible and transparent manner, while preserving operational flexibility.

At this stage, shadow carbon pricing provides a robust foundation for internal carbon pricing—one that enhances decision quality today and can evolve over time as organisational readiness, data maturity, and external expectations continue to develop.

5. Selected ICP Approach for Alternicq

5.1. Shadow Pricing Overview

Alternicq has adopted **shadow carbon pricing** as the initial expression of its Internal Carbon Pricing framework. Under this approach, a notional internal value is assigned to greenhouse gas emissions associated with specific business decisions and applied analytically during evaluation and planning processes. The shadow price does not result in internal financial transfers, budget charges, or accounting entries; instead, it functions as a decision signal that allows emissions impacts to be assessed alongside conventional financial and operational metrics. In practical terms, shadow carbon pricing converts emissions, expressed in tonnes of carbon dioxide equivalent (tCO_2e), into an indicative monetary value that can be incorporated into comparative assessments of alternative options. This enables decision-makers to evaluate how emissions performance influences long-term cost, risk exposure, and strategic alignment, particularly for investments and initiatives with multi-year or multi-decade implications.

At Alternicq, shadow carbon pricing is intentionally designed to be embedded within existing decision frameworks rather than operating as a standalone sustainability mechanism. By integrating carbon considerations into established capital appraisal, planning, and evaluation processes, the approach strengthens analytical rigour without disrupting existing governance or financial discipline.

5.2. Rationale for Selection

Shadow carbon pricing has been selected as the most appropriate Internal Carbon Pricing approach for Alternicq at the current stage of organisational and climate maturity. This choice reflects a careful assessment of regulatory context, data readiness, governance capacity, and the nature of the Company's emissions drivers.

The Company operates in a jurisdiction where economy-wide carbon pricing mechanisms are still evolving, creating uncertainty around future regulatory price signals and timelines. In this context, adopting an internal charging mechanism linked to a single assumed carbon price would risk false precision and potential misalignment with future policy developments. Shadow pricing, by contrast, allows the Company to test decisions against a range of plausible carbon cost assumptions without committing to a specific regulatory forecast.

At the same time, Alternicq already maintains robust Scope 1 and Scope 2 emissions inventories and has established Science-Based Targets, providing a strong technical foundation for the analytical use of emissions data. Given that capital investment decisions are a primary determinant of long-term emissions performance, a decision-centric pricing approach is particularly well suited to influencing outcomes that matter most for the Company's decarbonisation pathway.

Introducing internal fees or trading mechanisms at this stage would add governance complexity and behavioural friction without proportionate benefit. Shadow pricing enables the Company to integrate carbon considerations in a measured, non-disruptive manner while building internal understanding, consistency, and confidence in the use of carbon cost signals.

5.3. Strategic Objectives

The implementation of shadow carbon pricing at Alternicq is guided by clearly defined strategic objectives that align with both climate ambition and core business priorities. The intent is not to optimise emissions in isolation, but to improve the quality and resilience of business decisions in a carbon-constrained future.

Key objectives include embedding carbon considerations directly into capital allocation and strategic planning processes, ensuring that emissions impacts are evaluated at the same stage and with the same seriousness as cost, performance, and operational feasibility. Shadow pricing is also intended to improve visibility of long-term carbon-related risks associated with investment and technology choices, particularly where asset lives extend well beyond current planning horizons.

A further objective is to support alignment between near-term decisions and long-term net-zero ambition by influencing choices related to energy sourcing, equipment selection, and process configuration. By making the emissions implications of different options explicit, shadow pricing helps reduce the risk of carbon-intensive asset lock-in and strengthens the credibility of the Company's transition pathway.

Finally, the approach supports external credibility by demonstrating to customers, investors, and lenders that climate considerations are systematically embedded in core decision-making rather than addressed solely through reporting or standalone initiatives.

5.4. Intended Function

At its current stage of application, Internal Carbon Pricing at Alternicq is intended to function as a structured decision-support mechanism rather than an enforcement or compliance tool. The framework provides a consistent internal reference point for considering emissions impacts during the evaluation of material business decisions, enabling more informed and transparent comparison between alternatives with differing emissions profiles.

Shadow pricing is applied to inform capital expenditure decisions, energy sourcing strategies, and technology selection processes where emissions implications are material and long-lasting. It also supports scenario analysis and sensitivity testing, allowing decision-makers to understand how choices perform under different assumptions about future carbon constraints, energy prices, or customer expectations.

Equally important, the framework facilitates informed dialogue between sustainability, finance, and operations teams. By translating emissions into a common analytical language, shadow pricing helps bridge functional perspectives and supports more integrated decision-making across the organisation.

5.5. Explicit Boundaries

To ensure appropriate and constructive use, the scope and limitations of the Internal Carbon Pricing framework are clearly defined. At the current stage, ICP is not intended to function as an internal carbon tax, penalty, or revenue-generating mechanism, nor does it involve internal financial transfers between business units.

The framework is not designed to replace emissions reduction initiatives, operational efficiency programmes, or regulatory compliance activities. It also does not serve as a substitute for external reporting or disclosure obligations, nor is it intended to be used for individual or departmental performance management.

These boundaries are important to maintain focus on the primary purpose of shadow pricing: improving decision quality and long-term alignment, rather than introducing new behavioural incentives or governance burdens prematurely.

5.6. Maturity Pathway

Alternicq recognises that Internal Carbon Pricing is a capability that evolves over time in response to organisational learning, data maturity, and external conditions. The Company has therefore defined a phased maturity pathway that allows the framework to develop progressively while remaining aligned with business priorities.

In the current phase, shadow carbon pricing is applied selectively to priority decisions in order to build experience, test assumptions, and establish consistent analytical practices. As internal familiarity increases, the approach may be expanded to additional decision contexts, supported by more refined scenario analysis and stronger integration with capital planning and investment governance processes.

Subject to demonstrated readiness and strategic need, the Company may explore more operational ICP models in future phases, such as internal carbon fees or hybrid mechanisms. Any such progression would be guided by clear evidence of added value, robust governance capacity, and alignment with Alternicq's broader transition strategy. This phased approach ensures that Internal Carbon Pricing remains practical, credible, and value-adding throughout its evolution.

6. Governance Framework

6.1. Leadership Oversight

Oversight of Internal Carbon Pricing at Alternicq is anchored at senior governance levels to ensure that climate considerations are embedded within strategic, financial, and investment decision-making in a disciplined and consistent manner. Internal Carbon Pricing is treated as a strategic decision-support instrument rather than a standalone sustainability initiative, and its use is aligned with the Company's broader approach to risk management, capital allocation, and long-term value creation.

The Board of Directors, through existing governance and oversight structures, retains responsibility for overseeing climate-related risks and opportunities, including the Company's approach to integrating carbon considerations into business decisions. Senior management is responsible for translating this oversight into operational practice by ensuring that the ICP framework is applied consistently, appropriately, and in alignment with the Company's climate ambition, risk appetite, and strategic priorities.

Board and senior management oversight focuses on ensuring that Internal Carbon Pricing supports high-quality decision-making rather than prescribing outcomes. This includes periodic review of how ICP is being applied in material decisions, assessment of alignment with the Company's Science-Based Targets and transition strategy, and consideration of whether the framework remains fit for purpose as external conditions and internal maturity evolve.

6.2. Functional Roles

Effective application of Internal Carbon Pricing requires coordinated involvement across multiple functions, with clearly defined roles to ensure analytical robustness, financial relevance, and operational feasibility. At Alternicq, responsibilities are distributed across sustainability, finance, and operations in a manner that reflects existing decision workflows and accountability structures.

The sustainability function is responsible for maintaining the integrity of emissions data and methodologies used within the ICP framework. This includes ensuring consistency with the Company's corporate greenhouse gas inventory, providing emission factors and assumptions, supporting scenario development, and interpreting ICP outputs in the context of climate risk, transition pathways, and SBTi alignment. Sustainability also plays a key role in ensuring coherence between ICP application and external disclosures.

The finance function is central to embedding Internal Carbon Pricing into decision-making processes. Finance ensures that shadow carbon pricing outputs are integrated into capital appraisal, lifecycle cost analysis, and investment evaluation using familiar financial metrics such as NPV, IRR, payback, and sensitivity analysis. Finance also supports comparability across projects, maintains financial discipline, and ensures that ICP outputs are presented in a manner that is decision-relevant and consistent with existing approval frameworks.

Operations and engineering teams provide the technical and operational inputs required to apply Internal Carbon Pricing meaningfully. This includes supplying activity data, defining baseline and alternative scenarios, identifying feasible technology options, and validating operational assumptions. These teams are also responsible for implementing approved decisions and providing feedback on actual performance, supporting learning and refinement of the framework over time.

6.3. Process Integration

Internal Carbon Pricing is integrated into existing capital expenditure and decision approval processes rather than operating as a parallel or standalone mechanism. This integration ensures that carbon considerations are evaluated alongside cost, performance, reliability, and risk at the point where long-term decisions are made.

In practice, shadow carbon pricing is applied selectively during the evaluation of capital investments and strategic initiatives where emissions implications are material and long-lasting. ICP outputs are presented as an additional analytical lens that informs discussion and comparison between options, rather than as a gating or compliance criterion.

By embedding ICP within established approval workflows, Alternicq avoids duplication, reduces administrative burden, and reinforces the relevance of carbon considerations in mainstream business decisions. This approach also ensures that responsibility for decisions remains clearly aligned with existing governance structures.

6.4. Decision Accountability

Clear ownership and accountability are fundamental to effective governance of Internal Carbon Pricing. At Alternicq, ICP does not alter existing decision rights or approval hierarchies.

Final decision authority remains with the relevant management and governance bodies as defined under existing capital and strategic approval processes. ICP outputs inform these decisions by enhancing transparency around emissions impacts and long-term carbon exposure, but they do not override management judgement or financial authority.

Decision owners remain fully accountable for financial, operational, and sustainability outcomes associated with approved investments or initiatives. This reinforces the role of Internal Carbon Pricing as a decision-support tool rather than a decision-making substitute and ensures that governance discipline is maintained.

6.5. Review and Escalation

The Internal Carbon Pricing framework is designed to remain dynamic and responsive to changes in internal strategy, external market conditions, and regulatory expectations. Regular review mechanisms are therefore built into the governance structure.

These mechanisms include periodic review of shadow carbon price ranges, assumptions, and scenarios; assessment of how ICP is being applied in practice; and evaluation of whether the framework continues to support high-quality decision-making. Learnings from early applications are used to refine guidance, improve consistency, and address any unintended consequences.

Material issues, inconsistencies, or proposed changes to scope, methodology, or pricing approach are escalated to senior management for review. Significant changes, including expansion beyond shadow pricing or integration into additional decision contexts, are subject to senior management approval and, where appropriate, Board oversight. Alignment with external disclosures under SBTi, CDP, and related frameworks is reviewed to ensure consistency and credibility.

6.6. Capability Building

For Internal Carbon Pricing to function effectively, relevant teams must understand both its purpose and its limitations. Alternicq therefore places strong emphasis on internal awareness and capability building as part of ICP implementation.

This includes targeted awareness sessions for finance, engineering, and operations teams; clear documentation of methodology, assumptions, and intended use; and practical guidance on how to interpret and apply ICP outputs in real decision contexts. Support is provided during initial applications and pilot use cases to ensure consistent and constructive use.

Capability building is treated as an iterative process rather than a one-time activity. Feedback from users and decision-makers is used to refine tools, guidance, and training materials, ensuring that Internal Carbon Pricing evolves into a well-understood and trusted component of the Company's decision-making architecture.

7. Scope, Boundaries & Data Foundations

7.1. Boundary Definition

Internal Carbon Pricing at Alternicq is underpinned by a clearly defined and deliberately scoped emissions boundary. The boundary has been established to balance decision relevance, data reliability, and governance credibility, ensuring that internal carbon pricing functions as a practical decision-support mechanism rather than an abstract analytical exercise.

At the current stage, the ICP framework explicitly covers Scope 1 and Scope 2 greenhouse gas emissions. These scopes represent emissions sources over which the Company exercises the highest degree of operational control, measurement confidence, and decision influence. By anchoring internal carbon pricing to these emissions, the framework ensures that carbon signals are directly linked to investment, energy, and operational choices made within the organisation.

The boundary is applied at the level of individual decisions rather than at an aggregate enterprise level. Only emissions that are materially affected by the decision under evaluation are included, reinforcing proportionality and analytical relevance.

7.2. Scope 1 Coverage

Scope 1 emissions comprise direct greenhouse gas emissions from sources owned or controlled by Alternicq. Within the context of Internal Carbon Pricing, Scope 1 emissions are included where they are directly attributable to the decision being evaluated and where changes in technology, fuel choice, or operating configuration can reasonably influence outcomes.

Typical Scope 1 sources considered within the ICP framework include direct fuel combustion in on-site utilities and equipment, fuel use in backup power generation systems, and other process-related fuel consumption associated with manufacturing operations. Inclusion is decision-specific rather than blanket, ensuring that only materially relevant emissions are captured.

Quantification of Scope 1 emissions follows the same activity-based methodologies and emission factors applied in the Company's corporate greenhouse gas inventory. This alignment ensures consistency, avoids methodological fragmentation, and supports reconciliation between internal analysis and external reporting.

7.3. Scope 2 Coverage

Scope 2 emissions represent indirect emissions associated with purchased electricity consumed across manufacturing facilities and supporting infrastructure. Given the energy-intensive nature of Alternicq's operations, Scope 2 emissions constitute a significant share of the Company's emissions profile and are therefore a central focus of internal carbon pricing.

Within the ICP framework, electricity consumption linked to specific decisions—such as equipment upgrades, process changes, or renewable energy investments—is quantified and converted into emissions using grid emission factors consistent with corporate reporting practices. Alternative scenarios, including energy efficiency improvements or renewable energy sourcing, are evaluated on a comparable basis to ensure analytical consistency.

The inclusion of Scope 2 emissions ensures that energy-related decisions fully reflect their long-term carbon implications and that trade-offs between capital cost, operating cost, and emissions performance are transparently assessed.

7.4. Scope 3 Treatment

Scope 3 emissions encompass indirect emissions across the value chain, including upstream material production, logistics, and downstream product use and end-of-life. While these emissions are recognised as material from a lifecycle, customer, and long-term transition perspective, their treatment within the Internal Carbon Pricing framework is intentionally conservative at the current stage.

Scope 3 emissions are not included systematically in internal carbon pricing calculations. Instead, selected Scope 3 categories may be explored through limited pilot analyses where decision relevance is high and data quality is sufficiently robust. Typical pilot applications include material substitution decisions and logistics optimisation scenarios.

These pilot analyses are used to support internal learning, prioritisation, and strategic discussion. Results are explicitly identified as exploratory, are not aggregated into enterprise-level carbon costs, and are not used for performance management or target tracking. This approach reflects emerging global practice and avoids overstating precision where control and data reliability are limited.

7.5. Scope Rationale

The decision to focus Internal Carbon Pricing on Scope 1 and Scope 2 emissions at the current stage is driven by a combination of practicality, influence, and credibility considerations.

Scope 1 and Scope 2 emissions benefit from higher data accuracy, clearer attribution to individual decisions, and stronger linkage to capital investment and operational choices. These emissions can be directly influenced through internal actions such as technology selection, energy sourcing, and process optimisation, making them well suited for decision-use pricing.

Concentrating on these scopes allows the ICP framework to deliver meaningful decision support while avoiding the risk of introducing noise or false precision through uncertain proxy data. This focused approach is also consistent with the Company's near-term decarbonisation priorities and Science-Based Targets, which emphasise real and controllable emissions reductions.

7.6. Inventory Alignment

A core design principle of Alternicq's Internal Carbon Pricing framework is strict alignment with the Company's corporate greenhouse gas inventory. Emissions data, calculation methodologies, and emission factors used for ICP analysis are consistent with those applied for external reporting, target tracking, and disclosure.

This alignment ensures that internal carbon pricing outputs are grounded in established and verified data, that there is no divergence between internal analysis and external disclosures, and that results can be reconciled with reporting under frameworks such as SBTi and CDP.

Where decision-specific assumptions or estimates are required—such as asset utilisation rates or projected operating profiles—these are documented transparently and applied consistently across comparable decisions to preserve integrity and comparability.

7.7. Data Foundations

The effectiveness of Internal Carbon Pricing depends on the quality, traceability, and appropriateness of underlying data. Alternicq's ICP framework therefore places strong emphasis on data governance and transparency.

Primary data sources include site-level electricity consumption records, fuel usage data derived from operational logs and invoices, and asset-specific operating assumptions where relevant. Emission factors are drawn from nationally recognised or internationally accepted sources consistent with corporate reporting practice.

Secondary or estimated data may be used selectively where primary data is unavailable, subject to clear documentation and conservative assumptions. The use of such data is limited to exploratory analysis and does not replace primary data where material decisions are concerned.

7.8. Key Assumptions

Internal Carbon Pricing relies on a defined set of assumptions that are applied consistently across analyses to support comparability and interpretation. Common assumptions include stable emission factors over the evaluation period unless explicitly varied, asset utilisation rates aligned with historical performance or approved plans, and the use of indicative shadow carbon prices solely for analytical purposes.

For Scope 3 pilot analyses, conservative assumptions are deliberately applied to avoid overstating emissions impacts or decision sensitivity. All assumptions are documented, reviewed periodically, and refined as data quality and organisational maturity improve.

7.9. Known Limitations

The ICP framework explicitly recognises certain limitations at the current stage. These include limited systematic inclusion of Scope 3 emissions, uncertainty regarding future regulatory carbon prices, and reliance on forecast assumptions for long-life asset evaluations.

These limitations are managed through conservative application, use of price ranges and scenario analysis, transparent documentation, and ongoing refinement of the framework. By acknowledging and managing limitations rather than obscuring them, Alternicq strengthens the credibility and appropriate use of Internal Carbon Pricing as a decision-support tool.

8. Methodology

8.1. Purpose and Functional Role of Shadow Carbon Pricing

The purpose of shadow carbon pricing at Alternicq is to convert greenhouse gas emissions into a structured internal decision signal that can be evaluated alongside financial, operational, and strategic parameters. The methodology is explicitly designed to enhance decision quality and long-term resilience, rather than to introduce internal financial charges, budget reallocations, or compliance obligations.

Functionally, shadow carbon pricing serves three interrelated roles within the organisation. First, it makes the long-term carbon implications of near-term decisions visible at the point where choices are made, particularly for investments that lock in emissions over extended periods. Second, it enables structured comparison between alternatives that differ in emissions intensity but may not be directly comparable on upfront cost alone. Third, it supports alignment between capital allocation, operational decisions, and the Company's net-zero ambition and Science-Based Targets.

Shadow carbon pricing is therefore applied selectively and proportionately, only in decision contexts where emissions outcomes are material, long-lived, and strategically relevant.

8.2. Applicability of the Methodology to Alternicq

The shadow carbon pricing methodology has been designed specifically to reflect Alternicq's operating realities and decision architecture. The Company's manufacturing footprint is characterised by energy-intensive processes, long-life production and utility assets, and centralised capital approval processes where early design and technology choices materially influence emissions trajectories.

The methodology deliberately leverages existing systems rather than creating parallel analytical frameworks. It draws directly on established greenhouse gas inventories, existing financial appraisal tools, and current governance structures. This ensures that carbon considerations are embedded within familiar decision processes and that results are interpretable by finance, operations, and leadership teams.

By avoiding unnecessary analytical complexity, the methodology prioritises usability, consistency, and internal acceptance, while still providing a disciplined and defensible basis for incorporating carbon considerations into decisions.

8.3. Identification of Applicable Decision Contexts

Shadow carbon pricing is not applied universally across all business decisions. Instead, it is targeted to contexts where emissions implications are material and where decisions influence long-term outcomes.

Step 1: Screen Decisions for ICP Applicability

Decisions are screened using a set of qualitative and quantitative filters, including capital value, expected asset life, impact on energy consumption or fuel use, and the potential to materially affect Scope 1 or Scope 2 emissions. The intent is to focus analytical effort where it adds the most decision value.

Typical decision contexts include capital expenditure for manufacturing equipment and utilities, renewable energy and energy efficiency investments, technology upgrades and process optimisation initiatives, and

selected pilot-level Scope 3 decisions related to materials or logistics. Decisions with negligible emissions impact are excluded to maintain proportionality and avoid analytical dilution.

8.4. Definition of Baseline and Alternative Scenarios

Step 2: Define the Baseline Scenario

The baseline scenario represents the most realistic business-as-usual option that would otherwise be implemented in the absence of internal carbon pricing. It reflects conventional technology choices, existing energy sourcing arrangements, and current operating practices. The baseline must be credible and grounded in actual decision pathways rather than hypothetical constructs.

Step 3: Define Alternative Scenario(s)

Alternative scenarios represent feasible options with different emissions profiles. These may include higher-efficiency equipment, renewable energy sourcing, process improvements, automation, or—on a pilot basis—material or logistics alternatives. All alternatives must be technically and operationally viable within the Company's context to ensure that comparisons remain meaningful and actionable.

8.5. Emissions Quantification Methodology

Step 4: Define Emissions Boundary

For each decision evaluated, the emissions boundary is defined explicitly. Scope 1 and Scope 2 emissions are included by default, reflecting direct fuel use and purchased electricity consumption linked to the decision. Scope 3 emissions are included only for limited pilot analyses where decision relevance and data quality justify exploratory assessment. Boundary choices are documented to preserve transparency and consistency.

Step 5: Calculate Annual Emissions

Annual emissions are quantified using activity-based calculations consistent with the corporate greenhouse gas inventory. The standard equation applied is:

Annual Emissions (tCO_2e) = Activity Data × Emission Factor

Activity data may include electricity consumption, fuel use, or other relevant operational metrics. Emission factors are aligned with those used for external reporting to ensure methodological consistency. Calculations are performed separately for baseline and alternative scenarios.

Step 6: Determine Annual Emission Reduction

Annual emission reduction is calculated as the difference between baseline and alternative emissions. Only reductions directly attributable to the decision under evaluation are considered, avoiding double counting or attribution ambiguity.

8.6. Asset Life Considerations and Carbon Lock-In Effects

Step 7: Determine Asset Life

For capital investments, the expected asset life is defined based on technical specifications, historical experience, and maintenance or replacement practices. Typical asset lives range from 10 to 20 years, though this may vary by asset type.

Step 8: Assess Carbon Lock-In

Where assets are long-lived, annual emissions are extrapolated over the asset life to illustrate potential carbon lock-in effects. This step is not intended to predict future operations with precision, but to provide directional insight into the cumulative emissions implications of today's choices. The analysis reinforces the strategic importance of selecting lower-emissions options at the investment stage.

8.7. Selection of the Shadow Carbon Price Range

Step 9: Apply Indicative Shadow Carbon Prices

Rather than adopting a single fixed value, Alternicq applies a range of indicative shadow carbon prices to test the robustness of decisions under different transition assumptions. The price range typically includes a conservative reference price reflecting near-term transition risk, a core working price aligned with medium-term policy and market expectations, and a higher stress-test price aligned with long-term net-zero pathways.

These prices are used solely for analytical and comparative purposes. They are reviewed periodically and do not represent forecasts of future regulatory carbon prices.

8.8. Calculation of Indicative Shadow Carbon Cost

Step 10: Calculate Annual Shadow Carbon Cost

Annual shadow carbon cost is calculated for each scenario by multiplying annual emissions by the selected shadow carbon price. This calculation is performed for both baseline and alternative scenarios.

Step 11: Calculate Annual Shadow Carbon Benefit

The annual shadow carbon benefit represents the notional benefit associated with emissions reductions achieved by the alternative option. It is calculated as the annual emission reduction multiplied by the shadow carbon price.

Step 12: Calculate Lifecycle Shadow Carbon Impact

For long-life assets, the annual shadow carbon benefit may be extrapolated over the asset life to support lifecycle-based investment evaluation. This provides additional insight into long-term value and risk exposure.

8.9. Integration into Financial and Investment Evaluation

Step 13: Integrate into Existing Financial Metrics

Shadow carbon costs and benefits are integrated into existing evaluation frameworks, including lifecycle cost comparison, payback analysis, and sensitivity testing. Shadow pricing does not replace traditional financial metrics, nor does it result in internal charges or accounting entries.

Final decisions remain subject to management judgement. Internal carbon pricing outputs are presented as an additional decision lens that informs discussion and comparison rather than acting as a deterministic approval threshold.

8.10. Interpretation and Use of Shadow Pricing Results

Step 14: Interpret Results Appropriately

Results from shadow carbon pricing are used to inform structured discussion among sustainability, finance, and operations teams. They help highlight long-term carbon exposure, support alignment with climate commitments, and improve transparency around trade-offs inherent in major decisions.

Shadow pricing results are not used as mandatory approval criteria, performance penalties, or forecasts of future regulatory prices. Their value lies in improving decision quality, strengthening internal discipline, and supporting informed, forward-looking judgement.

9. Shadow Carbon Price Selection and Rationale

9.1. Approach to Using a Price Range

Alternicq has intentionally adopted a **shadow carbon price range,** rather than a single fixed internal price, as the foundation of its Internal Carbon Pricing framework. This design choice reflects both global best practice and the inherent uncertainty associated with climate policy evolution, market responses, and the pace of the low-carbon transition.

Carbon pricing signals are expected to evolve over time, influenced by regulatory developments, energy market dynamics, technological change, and shifting customer and investor expectations. In such an environment, a single-point estimate can create a false sense of precision and may unintentionally constrain decision-making. By contrast, a price range enables a more resilient and informative assessment of how decisions perform under different levels of carbon constraint.

The use of a range allows the Company to move away from the narrow question of identifying a "correct" carbon price, and instead focus on a more decision-relevant inquiry: **how sensitive are investment, technology, and sourcing decisions to varying assumptions about future carbon costs?** This framing supports informed discussion, comparative evaluation, and strategic judgement rather than mechanical decision rules.

This approach is widely observed among global corporates, particularly in jurisdictions where explicit carbon pricing mechanisms are still evolving or where future policy trajectories remain uncertain.

9.2. Indicative Price Levels

For analytical and decision-support purposes, Alternicq applies a structured set of indicative shadow carbon price levels. These prices are used solely for internal analysis and do not represent forecasts of future regulation, internal charges, or accounting provisions.

The indicative structure includes:

- **Lower-bound (Conservative) Reference Price:** Reflects near-term transition signals, existing market conditions, and current customer expectations. This level is used to test decisions against modest carbon constraints that may materialise in the short term.
- **Core Working Price:** Represents a medium-term perspective incorporating anticipated policy direction, evolving customer requirements, and the Company's own decarbonisation ambition. This level serves as the primary analytical reference for most decision contexts.
- **Upper-bound (Strategic Stress-Test) Price:** Reflects long-term, net-zero-aligned transition pathways and is applied selectively to stress-test major investments with long asset lives or high emissions lock-in potential.

The use of these three levels enables consistent scenario analysis across decisions while avoiding over-reliance on a single assumption.

9.3. Basis for Price Selection

The shadow carbon price range has been informed by a convergence of **external signals and internal business considerations.** No single input is determinative; instead, the range reflects a balanced interpretation of policy trends, market expectations, peer practices, and Alternicq's operational realities.

Policy and Regulatory Signals

Globally, policy trajectories point toward progressively tighter carbon constraints over time. While India does not currently operate an economy-wide carbon tax or emissions trading system, policy developments related to renewable energy deployment, industrial efficiency, climate disclosure, and border-adjustment mechanisms indicate a clear long-term direction of travel.

Within this context, shadow carbon pricing is used as a **forward-looking preparedness tool** rather than as a proxy for existing regulation. Lower-bound prices reflect near-term policy and compliance-related signals, while upper-bound prices reflect longer-term transition pathways consistent with global climate goals. This ensures that investment decisions remain resilient to future regulatory tightening, even in the absence of immediate carbon pricing.

Market and Customer Expectations

Alternicq operates within value chains where customers—particularly multinational FMCG and consumer goods companies—are increasingly integrating carbon considerations into procurement, packaging design, and supplier evaluation processes.

Customer-driven signals influencing shadow price selection include growing demand for lower-carbon packaging solutions, sustainability scorecards and audits, and expectations of alignment with science-based targets and net-zero commitments. As a result, carbon performance is increasingly linked to commercial competitiveness, market access, and long-term customer relationships.

The shadow carbon price range therefore reflects not only regulatory considerations, but also the **commercial reality** that carbon efficiency is becoming a differentiating factor in the packaging sector.

Sectoral and Peer Practices

Public disclosures under frameworks such as CDP and TCFD indicate that internal carbon pricing practices vary widely across sectors and geographies. However, several common structural patterns are evident among peer organisations:

- Shadow pricing is frequently used as an initial or primary ICP approach
- Price ranges or scenario-based values are preferred over fixed prices
- Prices are reviewed and escalated over time as climate strategies mature

Alternicq's approach aligns with these structural practices, while tailoring absolute price levels to its specific operating context, geographic exposure, and transition priorities. This balance supports external credibility without adopting generic benchmarks that may not be decision relevant.

Internal Abatement Cost Considerations

Internal abatement costs provide an additional, important reference point for shadow carbon price selection. These costs reflect the approximate expenditure required to reduce emissions through measures such as energy efficiency improvements, renewable energy adoption, process optimisation, or technology upgrades.

By considering internal abatement costs, the shadow carbon price range remains grounded in operational and financial reality. This linkage ensures that carbon pricing signals reinforce, rather than conflict with, the Company's decarbonisation strategy and investment planning, and that shadow pricing remains relevant to actual choices faced by decision-makers.

9.4. Price Escalation and Scenario Testing

Recognising that carbon-related risks and expectations are likely to intensify over time, Alternicq applies price escalation and long-term scenario testing selectively, particularly for decisions involving long-life assets.

Key principles guiding this approach include the use of escalation assumptions for long-term investment analysis, application of higher price scenarios to stress-test major capital projects, and avoidance of mechanical escalation for short-term or low-impact decisions. Scenario testing helps illustrate how the relative attractiveness of options may change under more carbon-constrained futures, supporting resilient and forward-looking decision-making.

9.5. Governance and Review

Shadow carbon price levels are subject to structured governance and periodic review to ensure continued relevance, credibility, and alignment with the Company's evolving strategy.

Oversight rests jointly with sustainability and finance leadership, with reviews conducted in alignment with strategy cycles or in response to significant external developments. All assumptions, rationale, and changes are documented transparently, and material revisions are escalated to senior management and, where appropriate, to the Board.

Importantly, price levels are reviewed not only in response to external signals but also based on **internal learning from practical application.** This ensures that the shadow carbon price range evolves alongside Alternicq's transition journey, data maturity, and strategic priorities.

10. Application of ICP in Business Decisions

Internal Carbon Pricing at Alternicq is applied selectively to business decisions where emissions impacts are both **material and enduring.** The intent is not to universalise carbon pricing across all activities, but to deploy it where it meaningfully improves the quality, robustness, and future-readiness of decisions—particularly those involving capital allocation, energy systems, and technology choices.

The application of ICP is deliberately aligned with existing governance, approval, and investment workflows. Carbon considerations are therefore evaluated alongside financial, technical, and operational criteria, rather than as a separate sustainability overlay. This integration ensures that emissions impacts are considered at the point where long-term business outcomes are shaped.

10.1. Capital Investment Decisions

Capital expenditure decisions for manufacturing assets represent the most critical and value-sensitive application of Internal Carbon Pricing at Alternicq. Production equipment, utilities, and plant infrastructure typically have operational lifetimes of 10 to 20 years, during which emissions intensity is largely fixed. Decisions taken at the investment stage therefore determine a significant portion of the Company's long-term carbon exposure.

Within capital appraisal processes, shadow carbon pricing is used to compare baseline and alternative investment options with differing energy consumption and emissions profiles. Electricity and fuel-related emissions attributable to each option are quantified, and indicative shadow carbon costs are calculated over relevant time horizons. These outputs are presented alongside conventional financial metrics such as capital cost, operating cost, payback period, and lifecycle economics.

Importantly, ICP does not function as a gating or approval threshold. Higher-emissions options are not automatically rejected, nor are lower-emissions options automatically approved. Instead, shadow carbon pricing makes explicit the **long-term carbon implications** of equipment selection, particularly in cases where more efficient or lower-emissions technologies involve higher upfront investment but offer reduced exposure to future transition risks.

This approach supports informed trade-offs between near-term capital efficiency and long-term resilience, helping to avoid inadvertent carbon-intensive lock-in while preserving financial discipline.

10.2. Energy Sourcing Decisions

Energy sourcing decisions are a priority application area for Internal Carbon Pricing due to their direct influence on Scope 2 emissions and operating cost volatility. Choices related to grid electricity, renewable energy procurement, captive generation, and efficiency improvements have multi-year implications for both emission performance and cost structure.

Shadow carbon pricing is applied to evaluate renewable energy investments such as on-site solar installations, power purchase agreements, and captive generation options. It is also used to compare alternative energy sourcing strategies and assess demand-side efficiency measures.

Through this application, Internal Carbon Pricing helps surface the long-term emissions benefits of lower-carbon energy options that may not be fully reflected in short-term cost comparisons. It enables scenario-based testing of energy decisions under different carbon constraint assumptions and supports alignment between energy strategy, cost management, and climate commitments.

By complementing existing assessments of cost, reliability, and operational feasibility, ICP strengthens the business case for energy decisions that contribute to both emission reduction and long-term risk mitigation.

10.3. Process and Technology Choices

Process optimisation and technology selection decisions frequently involve multiple technically viable options, each with different implications for energy intensity, throughput, reliability, and emissions performance. In such contexts, emissions impacts may be diffuse or accrue gradually over time, making them less visible in traditional evaluations.

Internal Carbon Pricing is applied to support comparison between conventional and advanced technologies, automation initiatives, and digitalisation efforts that influence energy efficiency. By assigning an indicative carbon value to emissions associated with different process configurations, ICP ensures that emissions intensity is explicitly considered alongside performance and cost.

This application is particularly relevant where efficiency gains are incremental but cumulative, or where technology choices influence emissions trajectories over extended periods. Shadow carbon pricing helps ensure that technology selection decisions remain aligned with longer-term decarbonisation pathways, even where immediate financial differences are marginal.

10.4. Maintenance, Retrofit, and Replacement

Maintenance, retrofit, and replacement decisions offer recurring opportunities to influence emissions performance without the scale or complexity of major capital investments. These decisions often determine whether existing assets continue operating in their current configuration or are upgraded, modified, or replaced with more efficient alternatives.

Internal Carbon Pricing is applied to evaluate retrofit options, compare repair versus replacement decisions, and assess upgrades that improve energy efficiency or reduce fuel consumption. By incorporating shadow carbon pricing, the Company is able to identify incremental emissions reduction opportunities that may otherwise be overlooked in routine operational decisions.

This application also helps avoid unintentionally extending the life of carbon-intensive assets where technically and economically viable alternatives exist. In this way, ICP supports continuous improvement and reinforces the integration of carbon considerations into both strategic and operational decision-making.

10.5. Integration with Approval Processes

A core design principle of Alternicq's Internal Carbon Pricing framework is seamless integration with existing financial and approval processes. ICP is not implemented as a standalone system or parallel workflow.

In practice, shadow carbon pricing outputs are incorporated into existing investment evaluation templates and decision papers where emissions impacts are material. Results are presented as supplementary analytical

inputs to decision-makers, providing additional context without altering established approval hierarchies or accountability structures.

Final decision authority remains unchanged and continues to rest with existing governance bodies. This approach ensures that ICP enhances decision quality without introducing procedural complexity or undermining managerial judgement. It also supports consistent application across business units and investment types, reinforcing the credibility and practicality of the framework.

11. Forward-Looking Scope 3 Pilot Applications

Alternicq recognises that Scope 3 emissions form a significant component of the overall climate impact associated with the packaging value chain. Upstream material production, inbound and outbound logistics, and downstream product use and end-of-life can collectively exceed the emissions generated within direct operations. As a result, Scope 3 emissions are increasingly relevant to customer expectations, value-chain engagement, and long-term transition planning.

At the same time, the Company acknowledges that Scope 3 emissions are inherently more complex to quantify, influence, and manage than Scope 1 and Scope 2 emissions. These emissions often depend on third-party data, proxy assumptions, and activities outside direct operational control. For these reasons, the Internal Carbon Pricing framework at Alternicq adopts a **deliberately cautious and phased approach** to Scope 3.

Rather than applying internal carbon pricing across Scope 3 categories on an enterprise-wide basis, the Company incorporates Scope 3 considerations only through **carefully defined pilot applications.** These pilots are designed to support learning, prioritisation, and strategic discussion, without overstating precision, control, or accountability.

11.1. Purpose of Scope 3 Pilot Analysis

The primary purpose of Scope 3 pilot analysis within the Internal Carbon Pricing framework is **exploratory rather than prescriptive.** The intent is not to monetise value-chain emissions comprehensively, but to understand how upstream and downstream carbon considerations may influence selected business decisions where relevance is high.

Scope 3 pilot analysis is intended to:

- Build internal understanding of key value-chain emissions drivers and hotspots
- Support informed discussion on material and logistics choices with carbon implications
- Enable prioritisation of lower-carbon options where credible alternatives exist
- Strengthen readiness for evolving customer, investor, and disclosure expectations
- Create an internal foundation for potential future expansion of Scope 3 consideration

Importantly, Scope 3 pilot results are **not** used to set targets, allocate internal costs, or assess business unit or individual performance. Their role is to inform judgement, improve decision awareness, and support strategic direction setting.

This framing is aligned with emerging global best practice, where organisations progressively explore Scope 3 decision-use before attempting broader pricing or integration.

11.2. Material-Related Pilot Applications

Material selection is one of the most significant drivers of Scope 3 emissions in the packaging value chain, particularly in relation to polymer and resin production. Customers are increasingly seeking packaging solutions with lower embodied carbon, higher recycled content, and improved circularity outcomes.

Within the Internal Carbon Pricing framework, material-related Scope 3 pilot applications are used to explore:

- Comparative emissions implications of virgin versus recycled content
- Directional impact of alternative material formulations or blends
- Trade-offs between carbon intensity, cost, quality, and performance
- Strategic implications for product design and customer offerings

These pilots are applied selectively in decision contexts where material choice is actively under consideration, such as new product development, major customer tenders, or material substitution initiatives.

Emissions are estimated using **conservative, publicly available emission factors** and secondary data sources. The focus is on **relative differences between options,** not on absolute footprint precision. Results are used to highlight directional impacts and inform discussion rather than to assert definitive emissions values.

By approaching material-related Scope 3 analysis in this way, Alternicq is able to engage constructively with customer expectations while avoiding overstatement of control over upstream emissions.

11.3. Logistics-Related Pilot Applications

Logistics and transportation can represent a material source of Scope 3 emissions, particularly where long transport distances, fragmented routing, or carbon-intensive transport modes are involved. Logistics-related Scope 3 pilot applications are therefore explored where changes in transport configuration are being considered as part of broader business decisions.

Typical logistics-related pilot contexts include:

- Comparison of alternative transport modes, such as road versus rail
- Evaluation of route optimisation, consolidation, or network redesign
- Assessment of logistics implications associated with new suppliers or facilities

As with material pilots, logistics-related Scope 3 analyses rely on **simplified and conservative assumptions.** Emissions estimates are used to compare options on a relative basis, highlighting potential reductions or trade-offs rather than producing exhaustive carbon inventories.

These pilots support better-informed logistics decisions by ensuring that carbon considerations are visible where they intersect meaningfully with cost, service levels, and operational feasibility.

11.4. Safeguards and Conservative Treatment

To maintain credibility, transparency, and alignment with global expectations, Scope 3 pilot applications within the Internal Carbon Pricing framework are subject to explicit safeguards and conservative treatment. Key safeguards include:

- Clear identification and labelling of all Scope 3 analyses as pilot or exploratory
- Separation of Scope 3 pilot results from Scope 1 and Scope 2 ICP calculations
- Avoidance of aggregation of Scope 3 pilot outputs into enterprise-level carbon costs
- Use of conservative assumptions, emission factors, and boundaries
- Transparent documentation of data sources, assumptions, and limitations

These safeguards ensure that Scope 3 pilot outputs are interpreted appropriately and are not misconstrued as precise measurements or formal pricing mechanisms.

11.5. Limitations and Pathway for Future Expansion

Alternicq recognises that Scope 3 pilot applications have inherent limitations at the current stage of implementation. These include limited availability of primary supplier data, variability in emission factors across sources, and reduced direct influence over upstream and downstream activities.

These limitations are explicitly acknowledged, and pilot results are used with appropriate caution. Over time, subject to improvements in data availability, supplier engagement, customer collaboration, and organisational maturity, the Company may consider:

- Expanding pilot coverage to additional Scope 3 categories
- Refining methodologies as data quality improves
- Integrating Scope 3 considerations more systematically into selected decision processes
- Aligning Scope 3 decision-use with evolving disclosure and transition planning expectations

Any such expansion will be **phased, governed, and proportionate,** ensuring alignment with Alternicq's broader climate strategy, operational realities, and external commitments.

12. Illustrative Decision-Use Case Studies

The following illustrative case studies demonstrate how Internal Carbon Pricing (ICP) is applied in practice to support decision-making at Alternicq. These examples are indicative and hypothetical in nature. They are intended to illustrate decision logic, analytical flow, and interpretation of results, rather than to represent actual investment approvals, financial commitments, or operational outcomes.

All case studies apply the shadow carbon pricing methodology described earlier and use the indicative price range approach to test sensitivity under different transition assumptions. The purpose of these illustrations is to show how ICP functions as a **decision-support lens,** integrated into existing evaluation processes, rather than as a deterministic or outcome-driving mechanism.

12.1. Equipment Upgrade and Energy Efficiency

Decision context

Alternicq is evaluating the replacement of an existing manufacturing machine with a newer, higher-efficiency alternative. The proposed upgrade involves a higher upfront capital cost but offers improved energy performance and lower electricity consumption over the operating life of the asset.

Such decisions are typical within manufacturing operations, where equipment upgrades are driven by reliability, productivity, and lifecycle cost considerations, and where emissions impacts may not be fully visible under conventional financial analysis.

Baseline scenario

The baseline reflects continued operation of existing equipment with standard energy efficiency characteristics. Electricity consumption is aligned with historical operating data, and the expected remaining asset life is assumed to be approximately 12 years.

Alternative scenario

The alternative scenario considers installation of a higher-efficiency machine with lower electricity consumption per unit of output, while maintaining comparable production capacity, quality, and operational reliability.

Emissions assessment

Scope 2 emissions are calculated for both scenarios based on annual electricity consumption, using emission factors consistent with the corporate GHG inventory. The annual emissions difference between the baseline and alternative scenarios represents the potential reduction attributable to the upgrade decision.

Application of shadow carbon pricing

The annual emissions reduction is multiplied by the indicative shadow carbon price range to calculate annual and lifecycle shadow carbon benefits over the assumed asset life. These results are presented alongside traditional financial metrics.

Decision insight

Under conventional financial analysis, the energy-efficient option may exhibit a longer payback period or marginally lower short-term returns. The inclusion of shadow carbon pricing makes visible the long-term

carbon exposure avoided by selecting the lower-emissions option. This strengthens the strategic rationale for the upgrade, particularly under medium and higher shadow price scenarios, without replacing financial judgement or mandating a specific outcome.

12.2. Renewable Energy Investment

Decision context

Alternicq is assessing options to reduce reliance on grid electricity through renewable energy investments. Alternatives may include on-site renewable generation or long-term power procurement arrangements, each with different cost, reliability, and contractual characteristics.

Baseline scenario

The baseline assumes continued procurement of grid electricity, with associated exposure to prevailing grid emission factors, energy price volatility, and evolving transition risks.

Alternative scenario

The alternative scenario considers partial or full replacement of grid electricity with renewable energy, resulting in materially lower Scope 2 emissions over the contract period or asset life.

Emissions assessment

Scope 2 emissions are calculated using the location-based methodology applied in corporate reporting. Renewable energy options are assumed to have significantly lower associated emissions, consistent with recognised accounting conventions.

Application of shadow carbon pricing

Avoided emissions are valued using the shadow carbon price range. Results are presented alongside energy cost projections, reliability considerations, and contractual implications.

Decision insight

Shadow carbon pricing highlights the longer-term carbon risk mitigation achieved through renewable energy adoption. Under higher shadow price scenarios, renewable energy investments demonstrate increased strategic attractiveness, reinforcing alignment with net-zero ambition and Science-Based Targets. ICP does not override cost or reliability considerations but ensures that carbon benefits are explicitly considered in the overall evaluation.

12.3. Material or Logistics Pilot Application

Decision context

As part of a forward-looking Scope 3 pilot, Alternicq explores options to reduce upstream material-related emissions or logistics-related emissions associated with product delivery. These analyses are exploratory and are undertaken only where decision relevance is high.

Pilot scope

The pilot may involve comparison between virgin and recycled material content, or evaluation of alternative logistics routes or transport modes. The scope is intentionally narrow and clearly defined.

Baseline scenario

The baseline reflects conventional material sourcing or logistics configuration, with emissions estimated using conservative secondary emission factors.

Alternative scenario

The alternative scenario considers increased recycled content or optimised logistics arrangements, with emissions estimated using comparable assumptions.

Emissions assessment

Scope 3 emissions are assessed on a pilot basis only. The analysis focuses on relative differences between options rather than absolute values, recognising data limitations and indirect control.

Application of shadow carbon pricing

Shadow pricing is applied to illustrate the directional carbon implications of different options. Results are clearly labelled as exploratory and non-binding and are not aggregated into enterprise-level ICP outputs.

Decision insight

The pilot highlights where Scope 3 emissions may be material to customer expectations or longer-term strategy. While results are not used for formal decision approval, they help prioritise areas for further analysis, supplier engagement, or future action, without overstating precision or control.

12.4. Cross-Cutting Insights

Across the illustrative case studies, several consistent insights emerge:

- Internal Carbon Pricing improves visibility of long-term carbon implications that are often under-represented in traditional financial analysis
- Shadow pricing is particularly valuable for decisions involving long-life assets, energy systems, and structural cost exposure
- Use of a price range supports robust discussion under different transition scenarios rather than mechanical decision-making
- Conservative treatment of Scope 3 pilots protects credibility while enabling learning and prioritisation

Collectively, these case studies demonstrate that Internal Carbon Pricing at Alternicq functions as a **practical, disciplined decision-support tool,** embedded within real business contexts and aligned with existing governance processes, rather than as a theoretical construct or disclosure-only exercise.

13. Global Alignment & Benchmarking

13.1. Design Principles in Practice

A review of Internal Carbon Pricing approaches adopted by global corporates across manufacturing, consumer goods, and industrial sectors reveals a consistent set of design principles that underpin effective and credible implementation. These principles have emerged through practical application rather than theoretical prescription and are widely reflected in public disclosures and transition planning narratives. The most commonly observed principles include:

- Use of internal carbon pricing primarily as a **decision-support mechanism,** rather than as a compliance tool or internal accounting charge
- Initial adoption of **shadow carbon pricing** before progressing to more operational or financially binding models
- Concentration on **capital-intensive and long-term decisions,** where emissions lock-in risk is highest
- Application of **price ranges or scenario-based pricing** rather than a single fixed internal carbon price
- **Conservative, phased treatment of Scope 3 emissions,** particularly during early stages of adoption

Alternicq's ICP framework has been deliberately designed around these principles. This ensures that the framework reflects established global practice, balances analytical rigour with organisational practicality, and avoids premature complexity that could undermine usability or credibility.

13.2. Structural Peer Alignment

Public disclosures by peer companies that report the use of internal carbon pricing demonstrate strong structural convergence in how ICP frameworks are presented, governed, and explained to external stakeholders. While price levels and scope vary, the underlying narrative architecture is broadly consistent. Common structural elements observed across peer disclosures include:

- Clear articulation of the **purpose and intended role** of ICP within the organisation
- Explanation of **how and where ICP is applied** in business decisions
- Description of **governance, oversight, and review mechanisms**
- Use of **illustrative examples or case studies** to demonstrate practical application
- Explicit clarification of **what ICP is not intended to do,** to avoid misinterpretation

The structure of this report closely mirrors these elements. Sections addressing governance, scope, methodology, application, and illustrative decision-use cases follow a format commonly used by global peers. This structural alignment enhances comparability, improves interpretability for external reviewers, and reduces the risk that the Company's approach is misunderstood or overstated.

13.3. Consistency with CDP Practice

The CDP Climate Change Questionnaire explicitly captures whether companies use internal carbon pricing, the type of pricing applied, the scope covered, and how pricing informs business decisions. Analysis of CDP

disclosures across sectors indicates several recurring patterns among companies reporting ICP use. These include:

- Predominant use of **shadow carbon pricing,** particularly during early or intermediate stages of adoption
- Use of **multiple price points or ranges** to support scenario analysis
- Primary focus on **Scope 1 and Scope 2 emissions,** with selective and cautious Scope 3 exploration
- Clear articulation of **governance arrangements and review processes**

Alternicq's ICP framework is closely aligned with these disclosed practices. The Company's use of shadow pricing, scenario-based price ranges, conservative Scope 3 pilot applications, and documented governance arrangements reflects the way ICP is most commonly described in CDP responses by global peers.

This alignment strengthens the Company's readiness to respond to CDP disclosures in a consistent and defensible manner and supports comparability with peer companies assessed under similar criteria.

13.4. Alignment with SBTi Transition Planning

The Science Based Targets initiative does not mandate the use of internal carbon pricing. However, it recognises internal mechanisms that support credible transition planning and help translate long-term targets into near-term decision-making. Alternicq's ICP framework aligns with SBTi-linked expectations in several important respects:

- Emphasis on **real and attributable emissions reductions,** rather than reliance on offsets or accounting adjustments
- Integration of carbon considerations into **capital investment, energy sourcing, and technology decisions**
- Avoidance of double counting or inflation of emissions reduction impacts
- Clear linkage between ICP application and **long-term decarbonisation pathways**

By embedding shadow carbon pricing into decision contexts that materially influence emissions outcomes, the Company strengthens the operational credibility of its science-based targets and demonstrates that climate commitments are supported by internal decision processes rather than existing solely at a strategic or reporting level.

13.5. Strengths and Evolution Path

The benchmarking exercise highlights several areas where Alternicq's ICP framework demonstrates strong alignment with global practice, as well as areas where future evolution may be considered as organisational maturity increases.

Areas of Strength

- Disciplined and transparent use of shadow carbon pricing
- Strong integration with existing financial and capital approval processes
- Conservative and clearly bounded treatment of Scope 3 emissions
- Governance arrangements consistent with peer disclosures
- Use of illustrative, non-binding case studies to demonstrate application without overstating outcomes

Opportunities for Evolution

- Gradual expansion of ICP application to additional decision contexts
- More sophisticated scenario analysis as data quality and internal familiarity improve
- Progressive integration of Scope 3 considerations where decision relevance and data robustness allow
- Potential exploration of more operational ICP models in future phases, subject to readiness

These opportunities are consistent with the phased maturity pathways observed among global peers. They provide a clear, credible roadmap for the continued evolution of Alternicq's internal carbon pricing approach without implying premature escalation or over-commitment.

14. Risks, Limitations and Safeguards

Internal Carbon Pricing is inherently a forward-looking analytical tool. It relies on emissions data, assumptions, and indicative price signals to inform decisions that have long-term implications. Alternicq recognises that, while Internal Carbon Pricing strengthens decision-making discipline and alignment with climate objectives, it also involves methodological limitations and potential risks if applied without appropriate boundaries and controls.

This section sets out the key limitations associated with the ICP framework and the safeguards adopted to ensure that it is applied responsibly, proportionately, and in line with its intended role as a decision-support mechanism.

14.1. Methodological and Data Limitations

The Internal Carbon Pricing framework is underpinned by emissions data, scenario assumptions, and indicative pricing references that are subject to uncertainty. These limitations are inherent to any forward-looking analytical approach and are explicitly recognised within the framework. Key limitations include:

- **Dependence on emissions data quality,** particularly for Scope 2 emissions calculated using grid emission factors that may change over time, and for any Scope 3 pilot analyses that rely on secondary or industry-average data
- **Reliance on forward-looking assumptions,** including asset life, utilisation rates, operating conditions, and technology performance, which may diverge from actual future outcomes
- **Uncertainty in future carbon pricing trajectories,** as shadow carbon prices are not forecasts of regulatory carbon taxes or market mechanisms
- **Simplification of complex systems,** particularly where long-term behavioural, technological, or market changes cannot be modelled with precision

These limitations do not undermine the value of Internal Carbon Pricing, but they do necessitate cautious interpretation. The framework is therefore designed to provide directional insight and comparative signals rather than precise valuation.

14.2. Risk of Misinterpretation or Over-Reliance

Beyond data and methodological constraints, there is a recognised risk that internal carbon pricing outputs could be misinterpreted or over-weighted if not accompanied by clear guidance and governance. Potential risks include:

- **Misconstruing indicative shadow carbon costs as actual or committed financial liabilities**
- **Treating ICP outputs as determinative decision criteria,** rather than as one input alongside financial, operational, and strategic considerations
- **Applying shadow prices mechanistically,** without sufficient consideration of feasibility, reliability, or business context
- **Over-interpreting Scope 3 pilot results,** particularly where analyses are exploratory and based on simplified assumptions

If unmanaged, such risks could lead to suboptimal decisions or erode confidence in the ICP framework.

14.3. Safeguards for Responsible Use

To mitigate the above risks, Alternicq has embedded explicit safeguards within the design, governance, and application of its Internal Carbon Pricing framework. These safeguards are intended to ensure that ICP strengthens decision quality without introducing unintended behavioural, financial, or governance consequences. Key safeguards include:

- **Clear articulation of purpose:** Internal Carbon Pricing is explicitly positioned as a decision-support tool. It is not an internal tax, fee, accounting mechanism, or performance management instrument.
- **Defined scope and boundaries:** Systematic application is limited to Scope 1 and Scope 2 emissions, where data quality and control are highest. Scope 3 emissions are included only through clearly labelled pilot analyses with conservative treatment.
- **Use of price ranges and scenario analysis:** Indicative price ranges are used to avoid false precision and to support informed discussion under different transition assumptions, rather than to produce deterministic outcomes.
- **Governance and oversight mechanisms:** Oversight by sustainability and finance leadership ensures consistency of application, with escalation to senior management where material issues or deviations arise.
- **Documentation and transparency:** Key assumptions, data sources, methodological choices, and limitations are documented for each application to support traceability and appropriate interpretation.

Together, these safeguards ensure that Internal Carbon Pricing is applied proportionately, consistently, and in line with its intended analytical role.

14.4. Continuous Improvement and Refinement

Alternicq views Internal Carbon Pricing as an evolving organisational capability rather than a static framework. Continuous improvement is therefore integral to the design and long-term effectiveness of the ICP approach. Key refinement mechanisms include:

- **Periodic review of methodologies, assumptions, and shadow price ranges** to reflect internal learning and external developments
- **Incorporation of insights from practical application,** including pilot use cases and decision outcomes
- **Progressive enhancement of emissions data quality and granularity,** particularly at site and asset level
- **Alignment updates** in response to changes in external standards, disclosure expectations, or policy signals
- **Ongoing capacity building** across sustainability, finance, and operations teams to ensure consistent and informed use

Through these measures, the ICP framework is expected to mature in step with organisational readiness, data availability, and the Company's broader transition strategy, while remaining credible, decision-relevant, and aligned with long-term climate objectives.

15. Monitoring, Review & Improvement

Alternicq recognises that Internal Carbon Pricing is not a static framework or a one-time analytical exercise, but a **living management capability** that must evolve in response to organisational learning, changes in the external environment, and progress along the Company's decarbonisation pathway. The value of Internal Carbon Pricing lies not only in its initial design, but in how consistently, intelligently, and proportionately it is applied over time.

Accordingly, the Company has established structured mechanisms for monitoring the effectiveness of Internal Carbon Pricing, reviewing its application in real decision contexts, and refining the framework to ensure continued relevance, credibility, and alignment with long-term business and climate strategy.

15.1. Monitoring Effectiveness of ICP Application

Monitoring of Internal Carbon Pricing focuses on **how the framework is being used,** rather than on prescribing or enforcing outcomes. The intent is to assess whether ICP is functioning as an effective decision-support tool and whether it is influencing the quality of discussion and analysis in material business decisions. Monitoring activities are qualitative and governance-oriented in nature and include:

- Periodic review of whether ICP is being applied consistently across decision contexts where emissions impacts are material and long-term
- Assessment of how ICP outputs are presented within capital expenditure proposals, investment notes, or strategic decision papers
- Evaluation of whether carbon considerations are being discussed explicitly alongside financial, technical, and operational metrics, rather than being treated as supplementary or peripheral
- Identification of decision areas where ICP could add value but is not yet being applied, either due to data limitations, process gaps, or awareness constraints

The objective of monitoring is **not to judge decisions ex post,** nor to assess performance against carbon pricing "targets". Instead, it is to ensure that the framework remains decision-relevant, proportionate, and aligned with its stated purpose of improving long-term decision quality.

15.2. Learning from Implementation and Practical Use

Learning from application is a central design principle of Alternicq's Internal Carbon Pricing approach. Early implementation and pilot use cases are treated as opportunities to test assumptions, validate methodology, and understand how decision-makers interact with carbon-related information in practice. Structured learning mechanisms include:

- Post-decision reflection on selected ICP-supported decisions to understand how carbon pricing influenced discussion, option comparison, and final outcomes
- Feedback from finance, operations, engineering, and sustainability teams on the clarity, usability, and perceived relevance of ICP outputs
- Review of key assumptions used in emissions quantification, asset life estimation, and shadow price application

- Identification of areas where methodological simplifications are appropriate, as well as areas where additional rigour or refinement may be warranted

Insights from these reviews are documented and used to refine internal guidance, calculation templates, scenario structures, and explanatory notes. Importantly, refinement is pursued **without unnecessarily increasing analytical complexity,** ensuring that ICP remains accessible and usable across functions.

15.3. Progressive Expansion of Scope and Decision Coverage

Alternicq adopts a deliberately phased approach to expanding the scope and coverage of Internal Carbon Pricing. Expansion is driven by **demonstrated value, organisational readiness, and data maturity,** rather than by a desire for completeness or external signalling. Potential areas for progressive expansion include:

- Application of ICP to a broader range of capital investment categories, including infrastructure, utilities, and major retrofit programmes
- Deeper integration of ICP into energy procurement strategies and long-term energy planning
- Incremental expansion of Scope 3 pilot analyses where decision relevance is high and data robustness improves
- Enhanced use of scenario analysis for major, long-life investments with material emissions lock-in implications

Any expansion of scope or coverage is subject to internal review and governance oversight to ensure that the framework remains focused, credible, and proportionate to available resources and decision needs.

15.4. Readiness for Advanced ICP Models

While shadow carbon pricing is the selected approach at the current stage, Alternicq periodically assesses its readiness for more advanced Internal Carbon Pricing models as part of continuous improvement and strategic review. Readiness assessments consider:

- The maturity and consistency of emissions data across sites and decision contexts
- Organisational understanding of carbon pricing concepts and comfort with their application
- Governance capacity to manage more operational mechanisms, such as internal carbon fees or hybrid models
- The incremental strategic value that more advanced models would provide relative to the additional complexity introduced

Progression to more complex ICP models is **not treated as an objective in itself.** Any future transition would be based on clear evidence that such models would strengthen decision-making, accountability, or emissions outcomes in a manner aligned with business priorities.

15.5. Integration with Long-Term Transition Planning

Internal Carbon Pricing is explicitly integrated with Alternicq's long-term transition planning and climate strategy. Insights generated through ICP application are used to inform broader discussions on capital planning, technology roadmaps, and decarbonisation sequencing. Key integration points include:

- Use of ICP outputs to support evaluation of alternative long-term investment pathways and technology trajectories
- Alignment of shadow price scenarios with net-zero and science-based transition assumptions
- Informing prioritisation and timing of emissions reduction initiatives across sites and functions
- Supporting consistency between internal decision logic and external climate disclosures under frameworks such as SBTi and CDP

Through this integration, Internal Carbon Pricing functions as a **practical connective tissue** between near-term business decisions and long-term climate ambition, ensuring that strategic commitments are translated into disciplined, forward-looking action.

16. Conclusion and Way Forward

16.1. Summary of ICP Value

The Internal Carbon Pricing framework developed by Alternicq represents a deliberate shift from treating climate considerations as an external reporting requirement to embedding them as a **structured internal decision lens.** Through the adoption of shadow carbon pricing, the Company has established a disciplined mechanism to ensure that greenhouse gas emissions are systematically considered alongside financial performance, operational feasibility, and strategic intent.

The value of Internal Carbon Pricing lies in its ability to translate emissions data—often abstract or retrospective—into a forward-looking signal that is meaningful within real business decisions. This is particularly critical for Alternicq, where capital investments, energy systems, and technology choices define emissions trajectories over asset lives of 10 to 20 years or more. By applying shadow pricing at the point of decision-making, the Company reduces the risk of carbon-intensive lock-in and strengthens the alignment between near-term investments and long-term decarbonisation objectives.

Importantly, the ICP framework has been designed to add rigour **without disrupting** existing governance, financial discipline, or approval structures. It enhances decision quality rather than replacing judgement, ensuring that climate considerations are integrated in a proportionate, transparent, and business-relevant manner.

16.2. Strategic Relevance

The strategic relevance of Internal Carbon Pricing for Alternicq extends well beyond immediate emissions management. The operating environment for packaging manufacturers is undergoing structural change, driven by evolving customer expectations, increasing scrutiny of supply-chain emissions, and strengthening global norms around climate risk governance. In this context, ICP provides Alternicq with a credible internal mechanism to:

- Strengthen the resilience of capital investments under increasingly carbon-constrained futures
- Demonstrate to customers, particularly multinational FMCG and consumer goods companies, that climate considerations are embedded within core business decisions
- Enhance preparedness for expanding disclosure expectations under frameworks such as SBTi and CDP
- Support disciplined transition planning without relying on speculative assumptions or external price forecasts

By embedding ICP into capital allocation, energy sourcing, and technology evaluation, the Company reinforces its positioning as a forward-looking manufacturing partner capable of supporting customer transition goals while protecting long-term enterprise value.

16.3. Near-Term Focus

In the near term, the priority for Alternicq is **effective application rather than expansion.** The emphasis is on embedding the ICP framework into selected, high-impact decision contexts and ensuring that it is understood, trusted, and used consistently across relevant functions. Key near-term actions include:

- Applying shadow carbon pricing systematically to major capital expenditure and energy-related decisions where emissions impacts are material
- Building internal familiarity and confidence through repeated, practical use rather than formal mandates
- Refining assumptions, templates, and scenario structures based on learning from early applications
- Ensuring consistency between ICP outputs, SBTi target delivery, and external climate disclosures

This phase is intentionally focused on usability and decision relevance, recognising that the effectiveness of ICP depends on quality of application rather than breadth of coverage.

16.4. Medium- and Long-Term Evolution

Over the medium to long term, Alternicq anticipates a **measured evolution** of its Internal Carbon Pricing framework, guided by organisational maturity, data quality, and external developments rather than predefined timelines.

Potential areas of evolution include:

- Expansion of ICP application to additional decision contexts where emissions lock-in risk is significant
- More sophisticated scenario analysis for long-life assets and strategic infrastructure investments
- Gradual and disciplined integration of selected Scope 3 considerations as data robustness and governance capability improve
- Periodic assessment of readiness for more operational ICP models, such as internal carbon fees, where clear value can be demonstrated

Crucially, progression along this pathway is not automatic. Any evolution of the ICP framework will be governed, evidence-based, and aligned with business priorities, ensuring that increased sophistication does not come at the expense of clarity or credibility.

16.5. Closing Statement

Internal Carbon Pricing at Alternicq has been designed as a **pragmatic management capability,** not a symbolic climate initiative. It reflects the Company's recognition that credible climate action requires integration into decision-making processes where capital is allocated, technologies are selected, and long-term risks are shaped.

By establishing a transparent, disciplined, and forward-looking ICP framework, Alternicq has created a strong foundation for aligning operational decisions with its net-zero ambition and science-based targets. The framework enables informed trade-offs, supports strategic resilience, and reinforces accountability without imposing unnecessary complexity.

As the Company continues its transition journey, Internal Carbon Pricing will remain a central tool for learning, refinement, and long-term value protection—ensuring that climate considerations are not only articulated in commitments but demonstrably reflected in the decisions that define Alternicq's future.

17. Annexures

Annex A: Detailed Calculation Methodology and Equations

This annex sets out the detailed calculation logic underpinning the Internal Carbon Pricing (ICP) framework applied by Alternicq. The intent of this annex is to provide transparency, methodological clarity, and repeatability for all calculations used within the ICP framework, while maintaining consistency with the Company's corporate greenhouse gas (GHG) inventory and external reporting practices. The calculation approach is deliberately designed to balance analytical rigour with proportionality. It avoids unnecessary complexity or false precision, while ensuring that emissions impacts are quantified consistently and credibly for decision-support purposes.

1. General Calculation Framework

For each applicable decision, greenhouse gas emissions are quantified separately for the baseline scenario and for each feasible alternative scenario. Calculations are performed on an annual basis and, where relevant, extended over the expected life of the asset or decision horizon.

The general emissions calculation framework applied is:

Annual Emissions (tCO_2e) = Activity Data × Emission Factor

Where:

- Activity Data represents the quantified operational input associated with the decision, such as electricity consumption (kWh), fuel usage (litres, kg, or GJ), or other relevant parameters.
- Emission Factor represents the greenhouse gas emissions intensity associated with the activity data and is aligned with recognised national or international sources consistent with corporate reporting.

2. Emission Reduction Calculation

Emission reductions are calculated as the difference between baseline and alternative scenario emissions, focusing exclusively on emissions that are directly attributable to the decision under evaluation.

Annual Emission Reduction (tCO_2e) = Baseline Emissions – Alternative Emissions

Key principles applied include:

- Only incremental changes resulting from the decision are included
- No double counting of emissions reductions is permitted
- Reductions are calculated on a like-for-like operational basis
- Assumptions are documented clearly for transparency

3. Shadow Carbon Cost Calculation

The shadow carbon cost represents the notional internal valuation of emissions associated with a given scenario. It is calculated as:

Annual Shadow Carbon Cost (₹) = Annual Emissions (tCO_2e) × Shadow Carbon Price (₹/tCO_2e)

This cost is:

- Used purely for analytical and comparative purposes
- Not recorded as an actual expense or liability
- Not transferred between business units
- Presented alongside traditional financial metrics

4. Shadow Carbon Benefit Calculation

Where an alternative scenario results in lower emissions than the baseline, the notional benefit of avoided emissions is calculated as:

Annual Shadow Carbon Benefit (₹) = Annual Emission Reduction (tCO_2e) × Shadow Carbon Price (₹/tCO_2e)

5. Lifecycle Shadow Carbon Impact

For decisions involving long-life assets, lifecycle impacts are considered to highlight carbon lock-in effects and long-term exposure.

Lifecycle Shadow Carbon Benefit (₹) = Annual Shadow Carbon Benefit × Asset Life (years)

Lifecycle calculations are:

- Indicative rather than predictive
- Used to illustrate directional long-term implications
- Not treated as forecasts or guaranteed outcomes

This approach supports more resilient investment decisions while avoiding false precision.

Annex B: Emission Factors and Data Sources

This annex summarises the emission factors and data sources used within the Internal Carbon Pricing framework. All factors are aligned with those applied in Alternicq's corporate GHG inventory to ensure consistency and reconcilability.

Scope 1 Emission Factors: Scope 1 emission factors include:

- Fuel combustion emission factors aligned with national guidelines or recognised international standards
- Factors differentiated by fuel type and combustion context
- Application consistent with corporate emissions reporting methodologies

These factors are applied only where fuel use is directly attributable to the decision being evaluated.

Scope 2 Emission Factors: Scope 2 emissions are calculated using:

- Grid electricity emission factors aligned with Indian grid data or approved reporting sources
- A location-based methodology applied consistently across ICP applications

This ensures comparability across sites and decisions while remaining aligned with external disclosures.

Scope 3 Pilot Emission Factors: For Scope 3 pilot applications:

- Secondary emission factors from publicly available and conservative sources are used
- Factors are applied only for exploratory, non-binding analysis

- Results are clearly labelled as indicative

Scope 3 factors are not used for enterprise-wide pricing or performance management.

Data Quality Hierarchy: A clear data hierarchy is applied to prioritise accuracy and credibility:

- Primary site-level operational data
- Supplier, utility, or contract-specific data
- Secondary or proxy data (pilot use only)

The hierarchy ensures that higher-quality data is used wherever available and that limitations are transparently acknowledged.

Annex C: Shadow Pricing Scenarios and Sensitivity Analysis

This annex explains how shadow carbon pricing scenarios are applied and how sensitivity analysis supports robust decision-making under uncertainty.

Shadow Price Scenarios: The following scenarios are applied for analytical purposes:

- Conservative reference scenario
- Core working scenario
- Strategic stress-test scenario

Each scenario reflects a different assumption set regarding future carbon constraints and transition pressures.

Sensitivity Testing Approach: Sensitivity analysis involves:

- Testing key decisions under multiple shadow price levels
- Comparing outcomes to assess robustness
- Identifying decisions that are highly sensitive to carbon assumptions

No single scenario is treated as definitive or predictive.

Interpretation of Results: Scenario outputs are used to:

- Inform discussion and prioritisation
- Highlight risk exposure and resilience
- Support structured judgement

They are **not** used as approval thresholds, financial forecasts, or regulatory proxies.

Annex D: Illustrative Calculation Examples

This annex provides simplified examples to demonstrate practical application of the ICP methodology. All examples are illustrative and non-binding.

Energy Efficiency Example

- Baseline and alternative electricity consumption defined
- Emissions calculated using Scope 2 factors
- Shadow carbon benefit illustrated

Renewable Energy Example

- Grid electricity compared with renewable sourcing
- Scope 2 emissions difference calculated
- Indicative shadow carbon benefit shown over contract life

Scope 3 Pilot Example

- Virgin versus recycled material comparison
- Directional emissions difference highlighted
- Clearly labelled as exploratory

These examples are included solely to demonstrate methodology and interpretation logic.

Annex E: Framework Cross-Reference

This annex demonstrates alignment between the ICP framework and major global climate frameworks.

Science Based Targets initiative (SBTi)

The ICP framework:

- Supports delivery of targets through investment alignment
- Focuses on real emissions reductions
- Avoids reliance on offsets
- Reinforces avoidance of carbon lock-in

CDP Climate Change Questionnaire

The ICP framework:

- Clearly defines type, scope, and purpose of internal carbon pricing
- Aligns with CDP expectations on governance and application
- Supports transparent and consistent disclosure

Annex F: Glossary of Terms

- **Internal Carbon Pricing (ICP):** An internal mechanism that assigns a monetary value to greenhouse gas emissions to support decision-making.
- **Shadow Carbon Pricing:** A notional carbon price applied analytically without financial transfers or accounting entries.
- **Scope 1 Emissions:** Direct emissions from owned or controlled sources.
- **Scope 2 Emissions:** Indirect emissions from purchased electricity.
- **Scope 3 Emissions:** Indirect value-chain emissions outside direct operational control.
- **tCO_2e:** Tonnes of carbon dioxide equivalent.
- **Baseline Scenario:** Business-as-usual option against which alternatives are compared.
- **Alternative Scenario:** Feasible option with a different emissions profile.
- **Carbon Lock-In:** Long-term emissions impact resulting from investment in carbon-intensive assets.