



Net Zero Methodology and Reporting

Act on Climate Change

Version 1.0

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POTENTIAL IN PLACE



About this Document

This document represents part of Hesperia's approach to the focus area Act on Climate Change by setting out the pathway to achieving zero carbon emissions in delivering our projects. It sets out the content of the Net Zero Carbon Reporting that each project will issue to capture their contribution to the transition to a Net Zero economy and align with the World Green Building Council's Net Zero Carbon Buildings Commitment, to which Hesperia is a signatory.

A driver for this methodology is that although the concept of Net Zero is reasonably widely understood, the details are not. Hesperia is determined to be transparent about what we are disclosing in as much detail as is practical rather than leaving disclosures open to interpretation.

The intention is to publish this document on the Hesperia website and to publish the project Net Zero reports in the same location as they are completed.

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Disclaimer

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Foreword

The world is going into the Net Zero journey knowing that there is no future if we don't make this happen quickly, creatively and with transparency. It is not a straight-forward journey and as in every stage of industrial change we need leaders prepared to try new ways that demonstrate how we can be economically successful as well as being quick, creative and transparent. This is why the Net Zero Precincts project at Curtin is working with the CRC RACE on how we do certification of Net Zero Precincts. Hesperia is one of our key partners as we together try to create a new, net zero urban development process.

This document from Hesperia sets out their Net Zero Methodology so we can all learn from how they are trying to show what is possible and what is difficult in this journey. They are not fearing the journey but embracing it. The next stretch action that will really test their system is always going to be there, drawing them into another challenge. We are there to help provide context from around the world, to suggest new possibilities and to cheer when something works. This clear, creative and transparent methodology document is something to cheer about. We are all hoping that it can help set the next steps for us all as we try to create the cities of the future.

Peter Newman AO

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October 2024



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1. Introduction

Hesperia is determined to take all practical steps to decarbonise our operations, our projects, our portfolio of assets, and our investments. We are working toward a trajectory that will see us reduce the need to offset emissions and consistently deliver near-zero carbon projects from 2040 onwards.

Climate change represents one of the most significant challenges of our time, with consequential impacts on ecosystems, human health, and global economies. The increasing frequency of extreme weather events and bushfires, rising sea levels, and shifts in biodiversity patterns are stark reminders of the urgent need for comprehensive action.

Hesperia considers Climate Change from two perspectives, acknowledging what is known as ‘double materiality’:

Outside-in: Impacts on the company’s operations, assets and finances; and

Inside-out: Responsibility to respond to the property industry’s climate-related externalities and opportunities that may arise from that.

These materialities demand that we address both climate resilience and decarbonisation in operations, our projects, our portfolio of assets, and our investments.

“Net Zero” is being used to capture Hesperia’s decarbonisation strategies that are being implemented in our project work to stay on a practical trajectory to be delivering near-zero carbon projects from 2040 onwards. This is ahead of the 2050 Net Zero target that has been adopted internationally. This acceleration is to acknowledge that, for the national economy to achieve the 2050 target, sectors that can do more, should do more.

While targets can be useful in monitoring progress and alerting us to potential shortfalls, the reality of decarbonising the built environment is that every practical opportunity to lower carbon intensity must be acted on. For Hesperia the term “practical” includes both technical and financial feasibility, as well as ensuring that decarbonisation initiatives don’t compromise other sustainability considerations. We believe this is achievable and are proceeding on that basis.

Net Zero Process:

Hesperia’s Net Zero Process captures the decarbonisation strategies and effort from design to documentation to implementation, and the reporting on and monitoring of the outcomes of those strategies. The Process is defined but varies for different project and asset types.

It is aligned in all cases to the World Green Building Council (WGBC) framework used for the Net Zero Carbon Buildings commitment, to which Hesperia is a signatory. The key elements in the process are:

- Measure
- Reduce (including setting benchmarks and targets to be achieved)
- Offset
- Report
- Assess ongoing risks

- Philanthropy and Research funding

Net Zero reporting:

Reports generated at the completion of a development project, or at the completion of a stage of development project, or whenever the Net Zero process is sufficiently settled that a definitive report can be compiled for a project or an asset.

1.1 Glossary of Important Terms Used in this Document

Many of the terms and language at play in this topic have variable, or sometimes vague definitions. Hesperia does not seek to reinvent the wheel here, but we believe that, in the interest of genuine transparency, we need to declare our interpretation of some of the terms that we use. This is not intended as an exhaustive glossary; this document captures Hesperia's methodology on the topic and is not presented as a formal reference guide. While the correct terms should always be used for precise communication, there are terms such as 'carbon emissions' or 'carbon offset' that are in common usage and which Hesperia seeks to use consistently as per the definitions below, if they must be used.

Carbon Dioxide equivalent (CO₂e): Is a metric used to compare the emissions of various greenhouse gases based on their global warming potential. It expresses the impact of each gas in terms of the amount of CO₂ that would have the same warming effect over a specific time period. Emissions of CO₂e are often referred to as 'carbon emissions' or 'greenhouse gas emissions. Units used by Hesperia are generally tonnes of CO₂e (tCO₂e) or kilograms of CO₂e (kgCO₂e).

Carbon Neutral: Hesperia generally uses this term only to describe an outcome certified by the Australian Government's Climate Active agency. Climate Active does not have exclusive use of the term in Australia, but it is well enough established that if a party states that an outcome is 'Carbon Neutral', then there will generally be an assumption that Climate Active endorses the claim. Other standards may achieve a similar level of recognition, in which case Hesperia may adopt those if they align with this methodology.

Carbon Offsetting: The Earth's natural systems rely on a balanced, dynamic carbon cycle. Zero Carbon is a good objective for human economic activities and industries because it creates an imbalance in natural cycles, releasing greenhouse gases faster than they can be re-absorbed. Carbon Offsetting in the sense that Hesperia uses it, is a practice established in the Kyoto Protocol that allows activities that correct the natural carbon cycle by reducing greenhouse gas emissions (reduction) or sequestering greenhouse gases that have been withdrawn from the atmosphere (removal) to create credits that are recorded in public registries. For each tonne of Carbon-Dioxide-equivalent that is removed or reduced, based on agreed measurement methods, one credit can be created. These credits can then be traded in marketplaces. When a carbon offset, credit is applied to 'neutralise' a carbon emission, it must be 'retired', meaning that in the registry it is listed as cancelled and cannot be used again.

Carbon Intensity: The rate of greenhouse gas emissions per unit. For Hesperia the carbon intensity figures most often used are greenhouse gases emitted per unit area (typically tCO₂e/m²) or per capita (e.g. tCO₂e/year/person).

Greenhouse Gases (GHG): Most life on Earth relies on the atmosphere and the heat that it contains. This capturing of heat is known as 'the greenhouse effect' and is due to the gases of the atmosphere storing heat and reflecting radiant heat back towards the surface. The five most abundant greenhouse gases in Earth's atmosphere, listed in decreasing order of prevalence, are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Global Warming Potential: Any gas can contribute to the greenhouse effect, with the relative effect of a gas represented by its Global Warming Potential (GWP), which is a combination of how strongly it tends to retain heat and how long it is resident in the atmosphere.

Climate Change: Often referred to as 'Human-Induced Climate Change', refers to the changing weather patterns that are understood to be driven by the changing mix of gases in the atmosphere. Human activity often results in GHG emissions, often particularly potent (high GWP) gases and often in large quantities. Climate Change has broad-reaching impacts, including Rising temperatures, extreme weather, rising sea levels, ecosystem disruption, health risks, and economic losses. Water vapor causes about half of the greenhouse effect but is not considered a major cause of human-induced climate change because it only remains in the atmosphere for a few days.

Net Zero: Hesperia uses this term to describe the decarbonisation of project work aligned with the World Green Building Council's (WGBC) Commitment to Net Zero Carbon Buildings. Using the term Net Zero also communicates that the project outcome is part of a broader strategy to meet the international target of Net Zero by 2050. The WGBC, referring to the definitions used by the [Science Based Targets Initiative \(SBTi\)](#) defines Net Zero in two parts (Operational then Embodied) as follows:

When the amount of carbon dioxide emissions associated with building operations on an annual basis is reduced (highly energy efficient and fully powered from on-site and/or off-site renewable energy sources) to a level that is consistent with reaching net zero at the global or sector level in 1.5°C pathways. Any residual emissions that remain unfeasible to eliminate should be neutralised through carbon removals.

When, in addition to net zero operational carbon, upfront carbon and other embodied carbon across the building lifecycle are reduced to a level consistent with reaching net zero at the global or sector level in 1.5°C pathways, any residual emissions that remain unfeasible to eliminate should be neutralised through carbon removals.

Life Cycle Assessment (LCA) is a framework for assessing an activity's whole-of-life impact. An internationally adopted standard, EN15978, guides the calculations and reporting in LCA, as well as the indicators that are to be reported on. This document and Hesperia's current focus are primarily on Global Warming Potential, but this will expand as more quantitative approaches to a wider range of environmental impacts become the norm.

Near-Zero Carbon Construction: Construction using materials and methods that emit no carbon. While largely self-explanatory, it is important to be clear that there is no clear pathway to achieving this target, and there is a strong likelihood that some emissions sources will prove very difficult to shift. If we get very close to this target, we won't be ashamed of being ambitious. Obviously, there is a level of carbon emissions that is unavoidable because humans, their food, and their waste streams have a carbon footprint that is not insignificant when the supply chain is also included. Hesperia has strategies around reducing waste, but this element of the overall carbon footprint is not expected to be zero in direct emissions on the site and operation. Hesperia's commitment to Near-Zero Carbon relates to practically avoidable emissions and returning the ecosystem to a state where natural carbon sinks are balancing sources in a way that has stabilised the climate at a healthy and sustainable level for all life.

1.2 Context for this Document

The imperative “Act on Climate Change” is one of the Focus Areas identified in Hesperia’s Sustainability Strategy and reported on annually in Hesperia’s Sustainability Performance Report. Hesperia’s full response to this Focus Area covers a much broader scope than is covered in this document. The key components of the response to Act on Climate Change are presented through corporate, project, asset and investment responses:

Corporate:

Maintain Carbon Neutral Organisation certification against the Climate Active Standard.

Review climate risks and opportunities annually in alignment with the voluntary components of the emerging Australian Sustainability Reporting Standards ASRS framework and respond to any risks identified.

Ensure that corporate operations and accommodation are resilient to climate change.

Projects:

Achieve Net Zero Upfront Carbon by measuring, reducing and offsetting.

Maintain a trajectory to zero carbon construction projects by 2040.

Conduct a climate impact assessment prior to acquisition and incorporate risks into business plans.

Adopt a Climate Change Adaptation and Resilience plan on every project, covering the design, construction and operation of the created asset.

Assets:

Conduct a Due Diligence review of all assets prior to acquisition and include any upgrades needed to comply with Hesperia’s Net Zero process and improve climate resilience in the business case and eventual capital works program.

Where Hesperia has operational control of an asset, achieve a suitably recognised Carbon Neutral operations certification.

Where Hesperia does not have operational control, ensure that the building supports tenants to achieve low carbon operations to the extent that they choose.

Conduct a Due Diligence review of all assets prior to acquisition, including any upgrades needed to achieve a similar level of climate resilience to Hesperia’s built (stabilised) assets.

Investments

Do not make investments inconsistent with the achievement of the globally adopted Net Zero 2050 target.

Invest in building sustainability-based, financially robust opportunities consistent with transitioning to a Net Zero, renewable, circular economy.

This document relates specifically to the Net Zero elements of Projects component above. The other items listed are shown for context. They are subject to strategies and methodologies captured elsewhere in the Hesperia Sustainability Process.

1.3 Alignment

Several frameworks inform how Hesperia projects and assets will report on Net Zero activities and outcomes.

World Green Building Council Net Zero Carbon Buildings Commitment

Hesperia became a signatory in 2021: [HESPERIA - World Green Building Council \(worldgbc.org\)](https://www.worldgbc.org/)

This document aims to ensure that project delivery, asset management, and reporting align with Hesperia's obligations under the World Green Building Council Net Zero Carbon Buildings Commitment. Hesperia believes that the approach outlined in this document aligns with a significantly advanced interpretation of the Commitment's requirements, incorporating a fuller scope of operational emissions and addressing 'upfront' embodied carbon.

In terms of documentation, this document is effectively the Implementation Plan item referred to in the [WGBC Net Zero Carbon Buildings Commitment Detailed Guidance \(v1, 2019, p. 29\)](#).

The commitment is presented through five components.

1. **Commit:** The commitment addresses lifecycle emissions in two parts:
 - 1.1 **Operational Carbon:** Commit assets under direct control to reduce (and compensate where necessary) all operational carbon emissions by 2030.
 - (i) When Hesperia does not have direct operational control, which is frequently the case for tenanted buildings, Hesperia seeks to enable Net Zero operation through the delivery of an energy-efficient building with access to 100% renewable energy (sourced on or off-site).
 - (ii) Where sufficient direct control exists, Hesperia will seek to achieve Carbon Neutral Building certification from Climate Active, or an equivalent achievement under a similar framework.
 - 1.2 **Embodied Carbon:** Commit new developments and major renovations under direct control to reduce and compensate (for residual emissions) embodied carbon emissions by 2030.
 - (i) Hesperia uses the concept of 'Upfront Carbon Emissions' to define the embodied emissions of construction, which has wide acceptance in the Australian property industry. Net Zero Upfront Carbon is defined in detail in the following section.
2. **Disclose:** Hesperia will disclose Net Zero outcomes through publication of these Net Zero Reports at the project level, and through annual portfolio reporting using the WGBC reporting framework.
3. **Act:** Hesperia is focused on reducing embodied carbon through design and by supporting low-carbon options in the supply chain. To genuinely reduce operational carbon, Hesperia's approach is to deliver efficient, all-electric buildings and secure 100% renewable electricity supplies whenever these are under direct control.
4. **Verify:** Hesperia has adopted Life Cycle Assessment as a standard tool for construction projects and is setting up comprehensive asset monitoring to verify operational performance.
5. **Advocate:** Hesperia is committed as an active member of the GBCA and the Materials and Embodied Carbon Leaders Alliance (MECLA). Hesperia will strengthen collaboration with academia and industry in creating programs that set standards, change policy, and involve the WA community. Engage with the supply chain on carbon intensity.

1.3.1 Green Building Council of Australia (GBCA) – Green Star

The document aligns to the GBCA's Green Star Climate Positive Pathway requirements, providing guidance on what projects should consider and report on to address carbon and climate issues.

Hesperia uses the risk assessment and response framework set out in the Green Star Buildings tool to guide the development of adaptation and resilience in building assets.

1.3.2 Urban Development Institute of Australia (UDIA) – EnviroDevelopment

The EnviroDevelopment tool, administered by the Urban Development Institute of Australia, is used as a guide for land development, including carbon and climate considerations.

1.3.3 Climate Active Carbon Neutral

In Australia, the Commonwealth Government has developed a standard for Carbon Neutral claims that is administered by Climate Active, an agency attached to the Clean Energy Regulator. Hesperia uses the Carbon Neutral Organisation standard to certify corporate operations.

In cases where Hesperia has ongoing ownership and sufficient operational control of an operating building and access to the required data, the building's operations will be certified using the Climate Active Carbon Neutral Buildings standard.

More recently, Climate Active has developed a guide to using the Climate Active Products and Services standard to certify a building as Carbon Neutral in construction, addressing the building's embodied carbon. Hesperia may consider using the Carbon Neutral Product (Building) framework for certain projects or if it emerges as a more helpful mechanism to achieve the aims set out in this document.

Hesperia also uses the Climate Active determination on acceptable verified carbon offsets in making any claims around Carbon Neutral or Net Zero. In cases where Hesperia has purchased and retired non-verified carbon offset credits, these have been in addition to also retiring verified offsets equal to 100% of the calculated footprint. Non-verified offsets have been used in order to support worthy revegetation projects that have not had offsets verified because of the cost of doing so.

1.3.4 International Living Futures Institute (ILFI) Zero Carbon certification

The Zero Carbon certification is intended to be applied at the project level. It sets out a disclosure framework and some targets to decarbonise within that framework. The tool has less recognition in Australia than the Climate Active standards but is better known internationally.

Hesperia may consider using the ILFI framework for certain projects or if it emerges as a more helpful mechanism to achieve the aims set out in this document.

1.3.5 Carbon Offset Integrity Guidance

The GBCA and the Property Council of Australia (PCA) published '[Carbon offsets, Last but not later \(A framework for the environmental integrity of offsets in the property sector\)](#)' in July 2023. This document is important to Hesperia as it provides guidance on achieving an acceptable level of integrity in using carbon offsets and claims made concerning that offsetting. The document provides industry-specific guidance with reference to the work of the Integrity Council for the Voluntary Carbon Market (ICVCM) and other bodies in this space.

1.4 Net Zero Disclosure Reporting for Hesperia Projects

1.4.1 Annual Reporting Disclosing Net Zero Data

Hesperia publishes an annual Sustainability Performance Report, compiled by the Hesperia Sustainability Group, that covers a large set of metrics, analysis, and narratives for each financial year. The metrics include the carbon intensity of project work, broken down by development sector / typology. Progress is reported against the 2040 zero carbon target, which is used for benchmarking by establishing a 'straight-line' trajectory between the first Hesperia project carbon intensity disclosures, in Financial Year 2024 (FY24), and near-zero carbon in construction at end FY40. The trajectories are shown in the chart below by development typology.

Land development tends to be significantly less carbon intensive, but much larger areas are often involved, so addressing carbon intensity in land development remains an important objective.

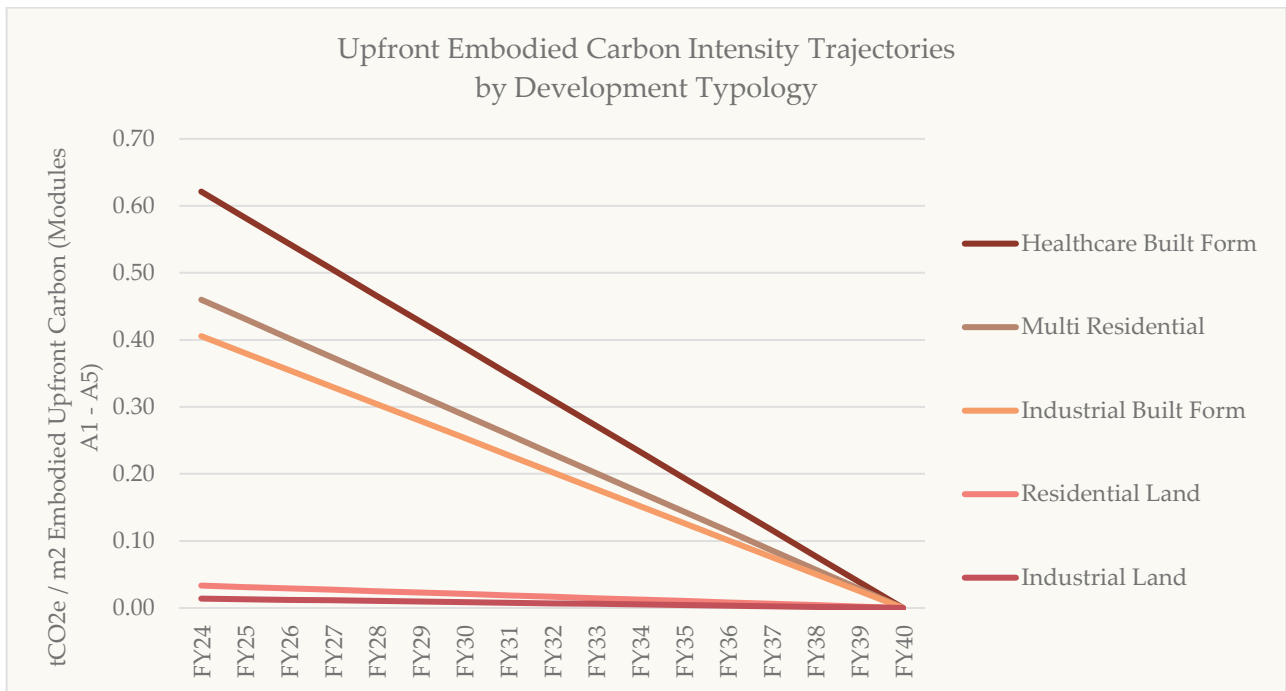


Figure 1: Targeted Upfront Embodied Carbon Intensity Trajectories

This trajectory effectively indicates the need for an average annual reduction of 6.3% in absolute terms in the carbon intensity of construction for each of the five typologies considered here.

Hesperia has set a minimum requirement for projects to achieve a 20% reduction in embodied carbon compared to the completion of a similar project. This aligns with the Green Star Climate Positive Pathway and is more practical than responding to a portfolio-level annual reduction. Monitoring the annual portfolio-level reduction can identify any trends that can then be responded to by adjusting the project-level target appropriately.

Operational disclosures are also published in the Annual Report. Hesperia ensures that the design process considers the efficiency of the design in terms of operational GHG emissions and seeks to ensure that the building is serviced by 100% renewable energy, including low-cost renewable energy from an onsite renewable energy system.

Disclosures include total electricity consumption, renewable energy portion, exports, and carbon-neutral electricity consumed, along with waste streams and water consumption. Offsetting and carbon-neutral outcomes are disclosed but are only implemented where Hesperia has operational control and access to data.

1.4.2 Project Net Zero Reporting

Hesperia projects are to issue a Net Zero Disclosure Report after completion, or when the Net Zero process is sufficiently settled, a definitive report can be compiled for a project or asset. These reports are to follow a structure outlined below.

Executive Summary

Identifying the project and any relevant aspects that inform the reported outcomes.

Present the key embodied (upfront) and operational figures being disclosed in tabular form.

Net Zero Methodology

A description of the frameworks used, for example:

The World Green Building Council (WGBC) Net Zero Carbon Commitment.

The Climate active Carbon Neutral Buildings standard, or the Carbon Neutral Products and Services (Upfront Carbon Guideline).

Project Information

This section is to include:

- Project Name
- Location
- Site Area (m²/ha)
- Gross Floor Area (m²) (FECA + UCA)
- Net Lettable Area (m²)
- Floors (#)

- Primary Usage
- Design Life (Years)

Emissions Boundaries

A summary, consistent with the Boundary Setting section of this document, of the items considered in the carbon calculations used in the report. At minimum, the reports will articulate:

A list of the included emission sources – the items for which the Global Warming Potential (GWP) has been directly calculated and the sources of information used as input to that process.

The included but not quantified emissions sources – items for which actual consumption information was not available but which an estimate of (GWP) has been included.

Excluded emissions sources – items that are relevant to the subject of the report, and that have GWP impact, but which are not included in the estimate of the GWP impact of the project or asset for reasons outlined in the report.

Upfront Embodied Carbon Sources Summary

This section is to include:

1. A table listing the top ten embodied carbon sources, the amount of CO₂ from each, and the percentage of the total Upfront Carbon footprint.
2. A pie chart expressing the profile of emission sources, including the 'Other' emissions such that the total is consistent with the total upfront carbon estimate.
3. A bar chart expressing the total emissions from each of the top ten sources, including the 'Other' emissions.

Upfront Carbon Reduction Strategies

This section is to include:

1. A list of upfront carbon reduction strategies, for example, the use of low-carbon concrete, with the modelled reduction achieved by each.
2. The total reduction in upfront carbon was achieved compared to a robust reference case (using the Green Star methodology or other comparable project parameters for the reference case).

Emission Summary

This section is to include:

- A tabular breakdown of the upfront carbon by LCA module profile as below showing separate totals for modules A1-A3, module A4, module A5, and the total.
- A comparison of the As-constructed scenario to the reference case scenario by module.
- A pie chart representation of the data.

Offsetting for Net Zero Construction

A summary of the offsets retired against the upfront embodied carbon footprint including the following information:

- Project description
- Type of offset units
- Registry
- Date retired
- Serial Numbers / hyperlink*
- Vintage

Operational Carbon Emissions Forecast

There is generally no actual data at the time that the Net Zero disclosure is made, so the operational emissions disclosure is based on forecasts from modelling. Actual operational data is disclosed through Hesperia Annual Sustainability Performance reports and through other portfolio reporting frameworks.

This section is to include the following.

- **Certification target:**
 - If the operations phase is expected to be within Hesperia’s operational control (financial responsibility for and ability to influence choices), then any certification that may be targeted can be addressed here.
- **An electricity summary:**
 - Summary of electricity forecasts including total demand.
 - Proportion of demand is met by onsite renewable energy systems.
 - Proportion of demand met by offsite sources (through the grid supply).
- **A summary of the operational sources that have been forecast, including any reduction strategies in the design, reporting at minimum against:**
 - Forecast electricity demand (kWh/year)
 - Forecast gas consumption (MJ/year)
 - Forecast Refrigerant leakage (kg /year)
 - Forecast mains water consumption (kL/year)
 - Forecast general waste generated (t/year)
 - Forecast organic waste generated (t/year)
- **A summary of the overall operational carbon forecast**
 - Total annual emissions (tCO₂e/year)

- Carbon Intensity (kg CO₂e/m²/year)
- Forecast reduction on a reference case (%)

Relevant Information

- **Attached to the report should be:**
 - The original LCA report from consultant/software platform.
 - The LCA validation report/letter if available.
 - The Offset Credit retirement certificate
- **Other reference material not published but to be kept on file against the project includes:**
 - As Constructed Materials Inventory
 - As Constructed Drawings
 - Carbon Mitigation Workshop Summary
 - Product EPD's
 - Product Third Party Certificates

1.5 Roles and Responsibilities

1.5.1 Hesperia Directors

Directors are responsible for ensuring that all projects deliver against the Hesperia Sustainability Strategy, including Net Zero objectives. Directors also consider climate change risks including financial risks and physical risks to operations, as well as opportunities that may arise.

1.5.2 Hesperia Development Managers

Hesperia Development Managers, collaborating with the Hesperia Sustainability Group, are responsible for ensuring that the design process includes:

- A decarbonisation workshop and assignment of agreed actions to design team members, facilitated by the ESD Lead
- A Life Cycle Assessment or agreed alternative carbon calculation method that reports in design (to inform the decarbonisation workshop) and at completion, or whenever the Net Zero process is sufficiently settled that a definitive report can be compiled for a project or an asset (the As Constructed assessment), completed by a suitable experienced built form carbon modelling specialist.
- A review of the design documentation by the ESD Lead to ensure that decarbonisation targets are on track to be met.

1.5.3 Hesperia Sustainability Group



The Hesperia Sustainability Group will meet reporting requirements as required by the WGPC framework and any other portfolio indexing tools that may be adopted.

The Group also prepares the Annual Sustainability Performance Report, with inputs from the broader organisation.

The group assists project teams in achieving the expected level of performance and gathering the data for disclosures.

1.5.4 Main Contractor

The Main Contractor is required to deliver on the design and specifications without compromising carbon intensity outcomes. It must also provide comprehensive data or confirm that all quantities are as per design to enable the completion of the As Constructed LCA and for other disclosures around the construction process and supply chain.

1.5.5 LCA Consultant

Provide a Life Cycle Assessment and report with sufficient information for a decarbonisation workshop to be held and for Hesperia to complete reporting as per this methodology.

2. Guidance on Boundaries for Disclosures

Hesperia’s approach to addressing climate change involves understanding and defining our emission boundaries by clearly identifying emission sources, including direct emissions from operations, indirect emissions from energy use, or emissions across the value chain. This approach enables accurate measurement and reporting, facilitating the development and implementation of effective emission reduction strategies.

2.1 Levels of Control, Impact and Influence

The WGBBC has published a set of levels of control that assist in determining the inclusion or exclusion of an item and an appropriate level of response.

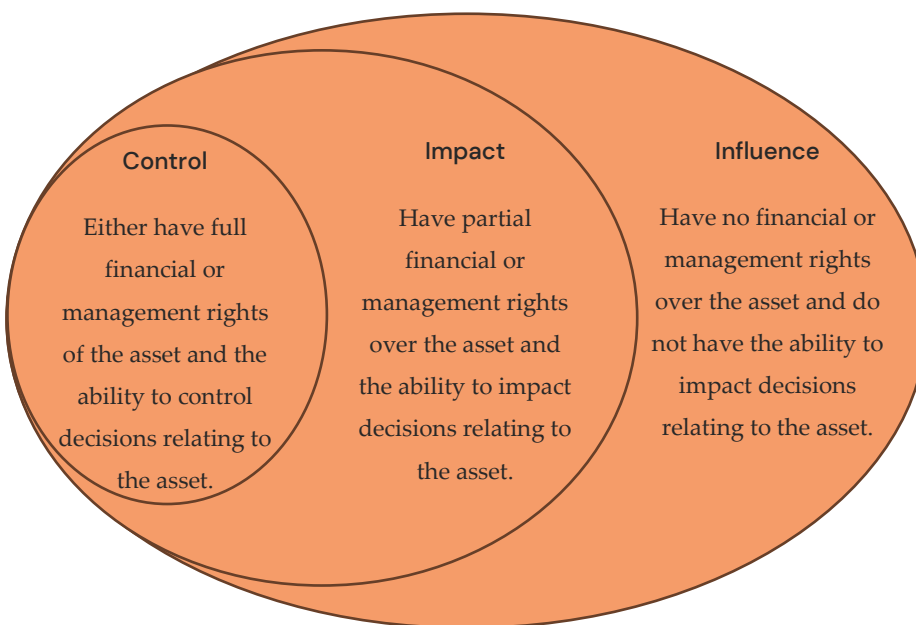


Figure 1: World Green Building Council levels of Control and Influence

The following table lists a range of existing development scenarios that describe different aspects of Hesperia’s work and operations. These are mapped to indicate the level of influence that Hesperia has in each, the kinds of responses that Hesperia makes to get the best result for a given level of control, and the reporting commitment against Net Zero for upfront embodied carbon and carbon neutral operations. This reporting may present the outcomes of partial delivery of Hesperia’s Sustainability Standard Inclusions, where the level of control prevented full delivery.

There is no ‘typical’ Hesperia project. Most projects require Hesperia to engage with owners, investors, tenants, and other stakeholders to gain support for the delivery of the most robust sustainability outcome that is practically possible.

NOTE: The table references Hesperia’s ‘Sustainability Standard Inclusions’ for projects, which is a voluntary standard applied by Hesperia wherever possible given control or the agreement of investors and clients. The Inclusions cover a broad range of green building items, including a third-party sustainability certification. Relevant here, projects are required to target a Net Zero position for upfront embodied carbon, 100% renewable energy supply, and an operational carbon neutral position if sufficient control exists.



Control

Scenario	Response	Reporting
Construction projects in which Hesperia controls design and delivery, either because it is the majority investor or because the investor group delegates decision-making to Hesperia.	Design and Build according to the Hesperia Sustainability Standard Inclusions. Energy efficient design benchmarks. Net Zero Upfront Carbon. Rooftop PV in most cases.	Net Zero reporting: Buildings to achieve Net Zero in Upfront Embodied Carbon and outline the operational carbon strategy per the asset scenarios in this table.
Stabilised assets (those that originated in a Hesperia development project) or acquired assets (developed by others) managed by Hesperia.	Carbon neutral process for operations, including Measure/Reduce/Offset carbon emissions. 100% renewable energy supply through the grid for base buildings and tenants.	Carbon neutral annual disclosure: Operational carbon neutral certification targeted for base building, or for whole-of-building in collaboration with tenants.

Impact

Scenario	Response	Reporting
Construction projects where the investors or tenants do not fully delegate control and may not adopt all of Hesperia’s Inclusions.	Propose the Hesperia Sustainability Standard Inclusions to the investors and tenants, ensure they understand the value they bring, and record the agreed-upon Strategy.	Net Zero reporting: developments to target Net Zero in Upfront Embodied carbon and in the operation of the base building to the degree agreed with investors and tenants. Reported on regardless of the final outcome.
Stabilised assets, developed and retained by Hesperia that are wholly managed by the tenant, no real operational control. Most Hesperia Industrial developments.	Access to 100% renewable energy supply through the grid if agreed to by tenants.	Carbon Neutral operational position targeted in some cases in collaboration with tenants.
Acquired assets managed by Hesperia wholly managed by the tenant; Most Hesperia Industrial acquired assets.	An energy audit prior to acquisition. Upgrade works program to align to Hesperia’s Standard Inclusions where practical.	Embodied: Hesperia does not target upfront embodied carbon outcomes in acquired assets as data is generally unavailable and because we consider the key outcome, and primary target for Hesperia resources in this scenario is the extension to the life of the existing building. Operational: Carbon-neutral operational position targeted in some cases in collaboration with tenants.
Hesperia’s corporate office	Through cost sharing, Hesperia has been able to negotiate with the landlord on	Hesperia maintains Carbon Neutral Organization certification, including

upgrades, including rooftop PV and EV charge points.

the office accommodation's carbon footprint.

Influence

Scenario	Response	Reporting
Projects where Hesperia is not an investor or owner.	Hesperia makes the case to investors/owners for aligning with the project's Hesperia Sustainability Standard Inclusions.	Hesperia will not produce Net Zero reporting for assets and projects outside our portfolio unless the owner adopts Net Zero.
Assets that have been sold.	Hesperia intends to improve and decarbonise the building stock. If an asset is sold while the Net Zero construction process is incomplete, Hesperia will seek to complete it. Assistance will be offered to transfer any operational carbon-neutral processes or energy efficiency upgrade plans to the new owner.	Net Zero reporting: completed to the degree of the original commitment. Operational carbon neutral: process to be transferred to new owner by their agreement.
Projects where land has been sold on, for example residential subdivisions.	Hesperia seeks to influence subsequent owners through incentives (such as energy efficiency rebates) and Design Guidelines, which are part of the approvals process and typically include a mix of advice and some mandatory items.	Hesperia will have produced a Net Zero report for the underlying land development but not for the eventual development on the sold land.
Influence beyond Hesperia's work and operations.	Hesperia seeks to show leadership in Acting on Climate Change through transparent reporting, proactive industry outreach, and supporting research.	Hesperia reports on these industry-level enabling efforts in our annual Sustainability Performance Report.

2.1.1 Disclosure

Hesperia Development Managers, collaborating with the Hesperia Sustainability Group, are responsible for ensuring that a Project Net Zero Report is published within 3 months of practical completion.

2.2 Greenhouse Gas Protocol

The Greenhouse Gas Protocol (GHG Protocol) is a framework based on a partnership between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The GHG Protocol also works with governments, industry associations, NGOs, businesses and other organizations. The GHG Protocol has been defining terminology and methodologies in greenhouse gas measurement and reporting since the late 1990s.

In 2011 the GHG Protocol published [Corporate Value Chain \(Scope 3\) Accounting and Reporting Standard](#) as a supplement to the GHG Protocol Corporate Accounting and Reporting Standard. This is a useful document in defining what should be included in assessing scope 3 emissions, particularly with the subsequent issue of further guidance by the [GHG Protocol](#) and then by organisations such as the [UK Green Building Council](#).

The following table summarises Hesperia's responses to the fifteen Scope 3 reporting categories identified by the GHG Protocol, with reference to the guidance provided by the UKGBC. These responses focus on new construction works and



major asset renovations. Scope 3 emissions in Hesperia’s operations and in the day-to-day operations of our assets are defined and captured through the relevant Climate Active standards and included in our annual Public Disclosure Statements.

Upstream Activities:

GHG Protocol reporting category	Description	Relevance to Hesperia Projects	Data collection in our projects	To be offset by Hesperia
1. Purchased goods and services	Emissions from the extraction, production, and transportation (i.e. cradle-to-gate emissions) of goods and services acquired by a company in the reporting year, not otherwise included in another upstream category.	Yes, where there is an item not captured in the following categories.	Monthly consumption and waste stream records Constructed Bill-of-Quantities are required from the main Contractor on every project.	Yes
2. Capital goods	Extraction, production, and transportation of capital goods purchased or acquired by the company in the reporting year. Capital goods are goods, e.g. plant, property, and equipment that the company uses to provide its service and would include buildings.	Most of Hesperia’s Scope 3 emissions result from the procurement of building materials and products.	As Constructed Bill-of-Quantities is required from the main Contractor on every project.	Yes
3. Fuel and energy-related activities	Extraction, production, and transportation of fuels and energy purchased or acquired by the company in the reporting year, not already accounted for in scope 1 or 2.	All energy consumption onsite during construction is disclosed.	All Main Contractors are required to report monthly on electricity, gas and fuel consumption.	Yes
4. Upstream transportation and distribution	Transportation and distribution of products purchased by a company in the reporting year between suppliers and its operations (in vehicles and facilities not owned or controlled by the company).	All transport of materials and waste to and from the site is captured through fuel consumption (covered in Category 3), and from records of truck movements, and estimates based on materials consumption (covered in Category 1 & 2)	All Main Contractors are required to report monthly on truck movements and other relevant data.	Yes

GHG Protocol reporting category	Description	Relevance to Hesperia Projects	Data collection in our projects	To be offset by Hesperia
5. Waste generated in operations	Disposal and treatment of waste generated in the company’s operations in the reporting year (in facilities not owned or controlled).	Hesperia requires monthly reporting against project-specific targets for recycling and total waste production.		All Main Contractors are required to report monthly on construction waste streams.
6. Business travel	Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the company).	This category is not included in construction scope 3 emissions as it relates to the Main Contractor’s operations outside Hesperia’s influence.		Not currently captured. Move to requiring a certified Carbon Neutral Service from contractors when there are sufficient in the market.
7. Employee commuting	Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the company).	This category is not included in construction scope 3 emissions as it relates to the Main Contractor’s operations outside Hesperia’s influence.	Not currently captured. Move to requiring a certified Carbon Neutral Service from contractors when there are sufficient in the market.	No
8. Upstream leased assets	Operation of assets leased by the company (lessee) in the reporting year and not included in scope 1 and scope 2 – reported by lessee.	This category is not included in construction scope 3 emissions as it relates to the Main Contractor’s operations outside Hesperia’s influence.	Not currently captured. Move to requiring a certified Carbon Neutral Service from contractors when there are sufficient in the market.	No

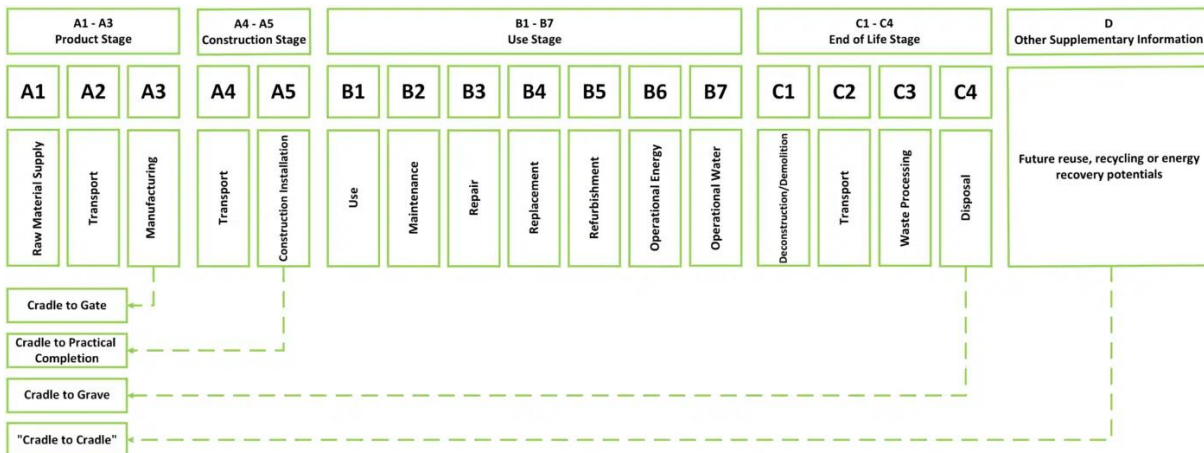
Downstream Activities:

GHG Protocol reporting category	Description	Relevance to Hesperia Projects	Data collection in our projects	To be offset by Hesperia
9. Downstream transportation and distribution	Transportation and distribution of products sold by the company in the reporting year between the company's operations and the end consumer (if not paid for by the company), including retail and storage (in vehicles and facilities not owned or controlled by the company).	Hesperia's 'products' are developed land and building assets, which are generally not transported. Transportation associated with the operations of assets would be attributable to the tenants of those assets.	If transport emissions are to be disclosed in this category, they would be captured in Hesperia's corporate or building operations disclosures.	Yes
10. Processing of sold products	Processing of intermediate products sold in the reporting year by downstream companies (e.g. manufacturers).	Developed land and buildings generally pass directly to the end users.	NA	No
11. Use of sold products	End use of goods and services sold by the company in the reporting year.	For sold developed land and buildings, emissions are attributable to the owners.	NA	No
12. End-of-life treatment of sold products	Waste disposal and treatment of products sold by the company (in the reporting year) at the end of their life.	Hesperia includes any demolition emissions but excludes end-of-life emissions. Hesperia implements design reviews to identify opportunities to maximise end-of-life re-use and recycling.	Emissions due to the demolition of existing built forms is measured and disclosed. End-of-life emissions are estimated and disclosed but not offset because they are typically highly uncertain, and Hesperia believes they are better addressed at demolition.	No

GHG Protocol reporting category	Description	Relevance to Hesperia Projects	Data collection in our projects	To be offset by Hesperia
13. Downstream leased assets	Operation of assets owned by the company (lessor) and leased to other entities in the reporting year, not included in scope 1 and scope 2 – reported by lessor.	Leased developed land and buildings emissions are attributable to the tenants. Base building emissions in Hesperia assets are captured and disclosed.	Hesperia captures and discloses operational energy and water consumption data for all assets and offsets base building emissions.	Base Buildings only.
14. Franchises	Operation of franchises in the reporting year, not included in scope 1 and scope 2 – reported by franchisor.	Unlikely to ever be applicable to Hesperia.	No	No
15. Investments	Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scope 1 or scope 2.	Typically, all ‘Hesperia projects’ are delivered through joint venture vehicles. The comments made in this document relate to those construction projects and investments that are managed by Hesperia on behalf of an investor group, and where that investor group agrees to be bound by Hesperia’s processes.	Any scope 3 emissions arising from investments that are not already captured in other categories (e.g., when Hesperia invests in starting new business units) are captured in Hesperia’s Carbon Neutral Organisation certification.	Yes

2.3 Life Cycle Assessment Module Breakdown

The following diagram is borrowed from the international standard that guides Life Cycle Assessment (LCA): EN 15978 Sustainability of construction works – Assessment of environmental performance of buildings – Calculation method. It sets out the standard ‘modules’ into which any LCA should report. It seeks to cover the full lifecycle of a built asset but also allows for selective reporting where appropriate, for example the use of the first five modules (A1-A5) to define what in Australia is often referred to as “Upfront Carbon”, more widely known as ‘Cradle-to-Completion’.



The following sections discuss Hesperia’s treatment of each of these modules. Where there is a statement that the modules are “Included in Hesperia’s Net Zero process”, this means that Hesperia addresses the module by measuring, reducing and 100% offsetting.

2.4 Upfront Carbon – Cradle to Completion (EN15978 Product and Construction Stages)

2.4.1 Upfront Carbon

A net zero carbon future requires a significant focus on embodied carbon research has identified that in high performance buildings new buildings, embodied carbon represents approximately 45% of whole-life carbon emissions. The GBCA has identified that the share of Australia's national emissions caused by embodied carbon in buildings will increase from 3.9% in 2019, to at least 6.0% in 2050 (GBCA, 2024).

Upfront Carbon is a term used to refer to the greenhouse gas emissions that result from a construction project including the materials supply chain and site works. This is also referred to as "Cradle to Completion". This is the aspect of the Whole-of-Life greenhouse impact of a building project that the developer has most control over and has been adopted by the Green Building Council of Australia as the focus for addressing 'embodied carbon' in its Green Star Buildings tool.

2.4.2 Modules A1–A3

These modules are included in Hesperia’s Net Zero process.

Product stage also known as ‘cradle to gate’ and modules A1–A3, are carbon emissions (kgCO₂e) released during raw material extraction, processing, manufacture (including prefabrication of components or elements), and transportation of materials between these processes until the product leaves the factory gates to be taken to site.

2.4.3 Modules A4 & A5

These modules are included in Hesperia’s Net Zero process.

Modules A4 to A5 are associated with the embodied carbon released during the transport of materials/products to the site (A4), the energy usage due to activities on site (machinery use, etc.), and the carbon emissions associated with the production, transportation, and end of life processing of materials wasted on-site (A5).

2.5 Operational Carbon – (EN15978 Use Stage)

2.5.1 Modules B1 – B5

These are not included in Hesperia's project level Net Zero report but may be included in a subsequent operational Carbon Neutral process.

These emissions are not offset as part of a Net Zero project but may be offset if the asset is subject to a Carbon Neutral operations process.

The B modules relate to the operational phase of a building. Module B1 includes some Scope 1 emissions such as refrigerant leakage and emissions from glues and other chemicals that are part of the materials covered in the A1-A5 modules. B1 can be negative because some processes such as building beds-in may absorb carbon dioxide, such as the carbonation of concrete over time. The other B-modules relate to embodied carbon emissions in the materials and products that are added to the building during maintenance and refurbishment. Forecasts for emissions against these modules are highly uncertain because there are many variables, they are in the future and because less comprehensive research has been undertaken to develop robust estimation factors.

Where Hesperia has operational control of an asset, we will pursue a Carbon Neutral outcome, which is aligned to the Net Zero process. The results are not covered in the Net Zero report for the project as this is generally completed prior to occupancy.

In assets where the asset is sold, or where the tenant manages the whole building, the operational control of decisions and behaviours impacting these modules is largely with tenants, so Hesperia is not in a position to commit to emissions reductions or other outcomes. Also, the data required to report on these modules is held by tenants and is typically not available.

2.5.2 Modules B6 and B7

These modules are included in Hesperia's Net Zero project reports on the basis of modelled operational performance and resulting carbon outcomes and would be included in a subsequent Carbon Neutral operations process if pursued.

These emissions are not offset as part of a Net Zero project but may be offset if the asset is subject to a Carbon Neutral operations process.

Energy and water consumption is commonly estimated as part of the building design process. These forecasts can be used to map an appropriate scale strategy to address operational carbon.

Where an agreement with the tenant to share data exists, Hesperia then monitors actual performance in our assets. This actual operational data is not the subject of this Net Zero report but is reported annually through Hesperia's Sustainability Reports and portfolio level disclosures.

2.6 Demolition Carbon (EN15978 End of Life Stage)

2.6.1 Modules C1 – C4

These modules are not included in reporting because they are considered outside operational control and are highly uncertain to forecast, however related emissions are reported in modules A4 and A5.

The demolition phase emissions are far in the future (typically 60-100 years depending on building type and design intent), in a context where the value of recycled materials is likely to be dramatically different, with uncertainty about what new technologies may be available for the demolition process.

Hesperia considers that the responsibility for reporting on, and therefore the incentive to minimise the emissions of these modules sits with the party undertaking the eventual demolition. By this rationale, Hesperia includes in the GWP the impact of the emissions from demolition of an existing structures onsite at the beginning of our projects. We believe this is a more reasonable and practical interpretation of the LCA asset lifecycle and has the positive effect of incentivising more reuse of existing structures.

For these reasons Hesperia puts modules C1-C4 outside of the emissions boundary for Net Zero reporting BUT includes emissions due to demolition at the start of a project in modules A4 and A5.

2.7 Future Benefits (EN15978 Other Supplementary Information)

2.7.1 Module D

This module is not included in reporting because it is considered outside operational control, and highly uncertain to forecast.

The benefits that are typically reported under Module D typically include material recycling/reuse post demolition, or during refits, or energy recovery from those materials.

Calculating and reporting on Module D could incentivise positive actions, for example design-for-deconstruction or other initiatives that may improve end-of-life outcomes, however there are significant uncertainties around estimation.

Despite putting this Module outside the reporting boundary, Hesperia will work with design and construction teams to ensure opportunities to improve building end of life outcomes are incorporated.

2.8 Responses to Emissions Scopes

Greenhouse gases (GHGs) are commonly categorized as 'direct' or 'indirect' and reported across three scopes: Scope 1, Scope 2, and Scope 3. These categories originate from the Greenhouse Gas Protocol, established by the World Resources Institute and the World Business Council for Sustainable Development to set global standards for measuring GHG emissions. These protocols serve as the foundation for most GHG reporting practices.

The following sections describe the three scopes in the context of development and property, and the LCA measurement process.

2.8.1 2.8.1 Scope 1: Direct Emissions

Scope 1 covers direct emissions that occur onsite, generally through burning fossil fuels such as diesel or gas. The emissions caused by burning diesel fuel in site equipment is an example. Release of leaked refrigerants is also a Scope 1 item.

- Hesperia includes these onsite Scope 1 emissions in Net Zero reporting.
- Hesperia seeks to measure/reduce/offset Scope 1 EMBODIED emissions.
 - Measurement: captured in the A4 and A5 modules of the LCA process. The data is typically sourced from construction site records of fuel and water consumption, and waste streams.
 - Reduction: There is a cost driver that tends naturally to improve construction site efficiency. The next big change is the move to electric site machinery. Hesperia does not currently incentivise this transition but may consider doing so.
 - Offset: Hesperia includes Scope 1 in the emissions footprint that is offset by purchasing carbon credits and retiring them.
- Hesperia seeks to measure/reduce/offset Scope 1 OPERATIONAL emissions unless prevented by an investor or tenant.
 - **Measurement:** Captured in the B6 module of the LCA process. However, this is typically not accurate, so more developed energy and thermal models are used for forecasting operational emissions. For assets disclosing data in their operational phase, real world data is used, generally disclosed annually.
 - **Reduction:** Hesperia buildings are not to be connected to reticulated gas supply. Gas appliances are removed and replaced with efficient electric versions, such as electric heat pumps. Low Global Warming Potential refrigerants are preferred.
 - **Offset:** Hesperia includes Scope 1 in the emissions footprint that is offset by purchasing carbon credits and retiring them (if this is applicable to the operational phase).

2.8.2 Scope 2: Indirect Emissions

Scope 2 covers indirect emissions that occur offsite but result from energy consumed onsite. Electricity purchased through the grid is the main example.

- Hesperia includes these onsite Scope 2 emissions in Net Zero reporting when they are embodied emissions of construction, but not when they are operational emissions controlled by the tenant or subsequent purchaser. Hesperia seeks to measure/reduce/offset Scope 2 EMBODIED emissions.
 - **Measurement:** Captured in the A5 module of the LCA process. The data is typically sourced from construction site records of electricity consumption.
 - **Reduction:** There is a cost driver that tends naturally to improve construction site efficiency. The transition to electric site machinery is not currently directly incentivized by Hesperia.

- **Offset:** Hesperia includes Scope 2 embodied (upfront carbon) in the footprint of emissions that is offset by purchasing carbon credits and retiring them.
- Hesperia seeks to measure/reduce/offset Scope 2 OPERATIONAL emissions unless prevented by an investor or tenant.
 - **Measurement:** Captured in the B6 module of the LCA process. However, this is typically not accurate, so more developed energy and thermal models are used for forecasting operational emissions. For assets disclosing data in their operational phase, real world data is used, generally disclosed annually.
 - **Reduction:** Electricity efficiency targets are set for the design of Hesperia buildings; generally, 20% on BAU or higher if appropriate. A 100% renewable energy commitment has been made for all electricity purchased by Hesperia (including electricity on-sold to tenants in buildings managed by Hesperia).
 - **Offset:** Hesperia includes Scope 2 operational emissions in the footprint that is offset by purchasing carbon credits and retiring them IF Hesperia has clear operational control, or an agreement with the tenant, and generally when the asset is seeking an operational carbon neutral certification. Where there is no direct influence on the choices and operational practices made, Hesperia does not offset the emissions that result.

2.8.3 Scope 3: Indirect Emissions (Upstream)

Scope 3 (upstream) covers indirect emissions that occur in the supply chain. Mining, manufacture, and transportation of building materials is an example. The emissions that are relevant to Hesperia’s work are those in the supply chains of our construction projects and those in the supply chains of the maintenance and refurbishment of Hesperia assets, for which we are using the term “operational embodied emissions”.

- Hesperia includes these Scope 3 (upstream) emissions in Net Zero reporting.
- Hesperia seeks to measure/reduce/offset Scope 3 (upstream) EMBODIED emissions (also known in the construction industry as Upfront Carbon).
 - **Measurement:** captured in the A1-A3 modules of the LCA process (known as ‘cradle-to-gate’). The data is typically sourced from construction site records of material consumption, source location, and any certification documentation that defines a given level of carbon intensity for a given material.
 - **Reduction:** Hesperia sets performance targets for projects to achieve with a minimum of 20% reduction of Scope 3 (upstream) embodied emissions against a comparable reference case. A design process, including a decarbonisation workshop with the design team, sets the strategy to achieve the targeted reduction.
 - **Offset:** Hesperia includes Scope 3 (upstream) EMBODIED emissions in the emissions footprint that is offset by purchasing carbon credits and retiring them.
- Hesperia seeks to measure/reduce/offset Scope 3 (upstream) OPERATIONAL EMBODIED emissions unless prevented by an investor or tenant.
 - **Measurement:** Captured in the B-modules of the LCA process. However, this is typically not accurate, so more developed energy and thermal models are used for forecasting operational emissions. For assets disclosing data in their operational phase, real world data is used, generally disclosed annually.
 - **Reduction:** Electricity efficiency targets are set for the design of Hesperia buildings; generally, 20% on BAU or higher if appropriate. A 100% renewable energy commitment has been made for all electricity purchased by Hesperia (including electricity on-sold to tenants).

- **Offset:** Hesperia includes Scope 3 (upstream) OPERATIONAL EMBODIED emissions in the footprint that is offset by purchasing carbon credits and retiring them only if Hesperia has operational control of the asset, and generally only if this this offsetting is applicable to an operational phase Carbon Neutral certification or other stated objective.

2.8.4 Scope 3: Indirect Emissions (Downstream)

Scope 3 (downstream) covers indirect or direct emissions that occur in the tenant’s operations and activities, unrelated to the operational of the building, are downstream Scope 3 emissions with respect to the developer and the construction project. For example, tenant staff commuting and travel, embodied emissions in the supply chains of products or services produced by the tenant, and emissions related to use of those products or services, are considered outside Hesperia’s sphere of influence and are not generally included in our Net Zero reporting.

- Hesperia generally does not include these Scope 3 (downstream) emissions in Net Zero reporting.
- Depending on the context, and particularly the ownership of the building, Hesperia has different approaches to addressing these emissions:
 - Assets that are sold, or wholly operated by the tenant: The building design will optimise the ability of the building user to minimise emissions and, at their discretion, operate as carbon neutral.
 - Assets that are retained, or acquired, and operated by Hesperia with one or more tenants: Hesperia will respond to the Scope 1 and 2 operational emissions, as addressed in those sections above. Hesperia will not include downstream emissions in our Net Zero process as we consider these beyond our ability to control impact or influence beyond the performance of the building.

Note: Carbon neutral building claims will be based on disclosing against a reputable carbon neutral framework, typically the Australian Government’s Climate Active program.

3. Carbon Offsetting Strategy

This strategy is presented in alignment with the GBCA and PCA's guidance document '[Carbon offsets, Last but not later: A framework for the environmental integrity of offsets in the property sector](#)'. Hesperia's offsetting approach has meant that the cost of offsetting has been more than the minimum cost that could have been achieved but has proved achievable for all Hesperia owned projects to date at the time of writing and has resulted in significant environmental plantings as well as other positive outcomes such as economic activity in rural Western Australia.

Type and Source of Offsets

Hesperia's policy is to procure offsets that are comparatively cost effective, are as local as available, and are in the following mix on average across the portfolio:

- 50% nature-based carbon removals (generally revegetation through bio-diverse planting).
- 50% emission reduction (generally renewable energy projects in developing countries where the carbon offset value genuinely enables the projects such that the carbon offsets are additional).

Hesperia will seek to source offsets from multiple providers and multiple offset generating projects to reduce the impact of one source being compromised by failing to achieve claimed integrity levels.

Verification and Integrity

Hesperia procures offsets covered by schemes that are listed as compliant for use in a Climate Active disclosure.

Voluntary schemes recognised by Climate Active include:

- Gold Standard: Verified Emission Reductions (VERs)
- Verra: Verified Carbon Units (VCUs)
- Certified Emissions Reductions (CERs)

Australian Carbon Credit Units (ACCU) are also acceptable for use with Climate Active certifications. Hesperia has to date not procured ACCUs due to doubts about the integrity of the types that are most available, including 'Avoided Deforestation', 'Human Induced Regeneration', and 'Savannah Burning'.

Expert Opinion

Hesperia procures offsets from credible, well-established brokers who can provide project information and opinion about the quality of offsets.

Vintage

Offsets are to have been generated no earlier than 2016.

Additional Integrity Reviews

Hesperia monitors the offset market and may introduce additional criteria for offset purchases if an effective approach is identified.

3.1 The Limitations of Offsetting

Hesperia acknowledges that carbon offsets are an imperfect response to carbon emissions. Carbon offsets, as with all offset schemes, are disconnected from the damage that they are said to balance. This disconnection arises from the offsetting projects being in different locations to the emissions, the sequestration of carbon occurring at a different time to the emissions, and in some cases the gases involved being different. There are a number of gases that are all considered “greenhouse gases”, which are resolved into a single term: Carbon-Dioxide-Equivalent (CO₂e)¹. This disconnection is not necessarily a reason to dismiss offsetting completely but is important to understand.

There are other concerns with offsets that come from more familiar roots in human nature. The term ‘integrity’ is used to describe the degree to which carbon offsets achieve the intended purpose, and meet claims made. There have been large variations in the level of integrity in carbon offset projects and there will always be a risk that a given offset does not represent what is claimed.

Due to these limitations, Hesperia is committed to making actual reductions and to move to a zero-carbon position, requiring minimal offsetting by 2040.

Despite these limitations, Hesperia sees a place for offsetting on the pathway to Net Zero. There are several reasons:

- Offsetting provides a mechanism, even if is flawed, to instigate immediate action on emissions and signal the importance that Hesperia places on this challenge.
- The cost of offsetting introduces a ‘shadow price’ on carbon for Hesperia operations and projects. In construction projects this shadow price can drive reductions through value engineering if low carbon options can compete with offsets for cost of abatement. Even if they are not competitive, the shadow price still acts to reduce the net cost of including a low carbon initiative.
- Hesperia’s offsetting expenditure has supported revegetation projects that, to the best of our ability to verify, appear to be genuinely good outcomes for biodiversity and land management, regardless of the carbon impact.
- Some level of ‘carbon balancing’ will be necessary even in a Net Zero world because life involves CO₂ emissions. A robust scientific understanding of the ecosystem and of long-term solutions can be gained through the development of genuine offsetting projects with high integrity.

Hesperia is seeking to achieve best practice in offsetting, while also investigating creating our own high-quality offsets, and, again, by reducing and removing the need for offsets as soon as possible.

¹ Carbon Dioxide equivalent (CO₂e) represents the amount of CO₂ being released that would have an equivalent effect on global warming to a given quantity of a mix of greenhouse gases being released.

4. Frequently Asked Questions

Reviewers have asked for some clarifications or simplifications that we felt were better responded to directly, rather than by changing the content of the methodology.

Q: Does Hesperia take responsibility for Scope 3 emissions? Do you measure and offset them in your Net Zero process?

A: Yes, we have an ability to influence those Scope 3 emissions, even if our influence is indirect or distant. For example, we include all of the supply chain embodied emissions in our construction projects, and we include the emissions created suppliers and consultants that support our corporate operations. What we don't include are emissions created by parties, such as tenants in our buildings, when they have control of those buildings, who are free to address their own emissions in the same way Hesperia does. Of course, we seek to make it as simple and cost effective as possible for organisations in our buildings to respond to Climate Change by creating efficient, resilient buildings that can operate on 100% renewable energy. In buildings managed by Hesperia, we do what we can to support low carbon operations, for example by supplying tenants with 100% renewable energy, but again, other sources of emissions such as their waste streams, their staff commuting, or their use of consultants, we feel are for them to address. We always extend the offer to assist tenants to achieve Carbon Neutral operations if they choose to act.

Scope 3 emissions are an artifact of incomplete action on greenhouse gas emissions: as more organisations take responsibility for reporting and acting on their Scope 1 and 2 emissions, the less need there will be for organisations like Hesperia to offset them in our Scope 3 assessment or select other low and zero carbon suppliers.

Q: Is Hesperia's approach 'Whole of Life'?

A: Yes. LCA's cover the project life cycle into becoming an operational asset. While we don't include refurbishment and end-of-life in the initial Net Zero carbon offsetting process, we would treat a major fitout refurbishment undertaken by Hesperia as a 'project' and address its life cycle, and we include any demolition of pre-existing structures on our sites in the project assessment and carbon offsetting. In this sense we feel we have captured all the major elements of the Whole-of-Life of the building.

Q: What does Hesperia mean by Net zero – as briefly as possible?!

A: In brief:

- 1) Our company: Carbon Neutral Organisation (Scope 1, 2 and 3)
- 2) Our project work: Net Zero Upfront Carbon (Scope 1, 2 and 3)
- 3) Our assets: Carbon Neutral operations (Scope 1 and 2, and sometimes 3)

Q: How can you realistically achieve zero emissions by 2040 – is that not impossible?

A: We are setting a target that will rely on technical innovations and changes in the operating environment, for example in the energy system, which are beyond our control. Notwithstanding that the technological solutions required are still emerging, or even unknown, we feel that setting this target and seeking these solutions is critical to transitioning the economy so that the climate is stabilised. Hesperia is disclosing the carbon intensity of the construction projects that we complete each year and monitoring that against a 'straight line trajectory' to zero by 2040. If we are not trending below that trajectory with each year's disclosure, then we will adjust settings in our project processes to correct the trend.

Q: How is Hesperia quantifying reductions in upfront carbon – what is the baseline you are comparing against?

A: Hesperia is targeting reductions in upfront carbon in our projects. These reductions are intended to track along a trajectory to achieve zero carbon projects from 2040 onwards. We use Life Cycle Assessment (LCA) and the measurement tool and 'Comparative LCA' as the method to measure reductions achieved. In buildings, this method means comparing the building that we are delivering to a base case or reference building that would represent 'business as usual' for the industry. The Green Star framework provides guidance on setting up this reference building and Hesperia aligns with this guidance.

Q: Part of Hesperia's business model is to receive rent from tenants in your building assets. Why don't you include tenant emissions in your downstream scope 3 emissions?

A: We acknowledge that emissions due to our tenants' operations are downstream scope 3 emissions related to our activities but have chosen to exclude them from our Net Zero offsetting to date. For Hesperia, as the landlord, to take responsibility for the tenant's emissions would a) dis-incentivise the tenant from taking action themselves, b) risks over-reporting of emissions if tenants do take action, and c) mis-understands the relationship between landlord and tenant in most of our buildings where the sole tenant is also effectively the building manager. In a sense, the emissions of the entire economy can be considered as scope 3 for every organisation and every economic activity. Obviously, this is not a practical position and would lead to extreme over reporting but it indicates the need to set a practical boundary. Gathering sufficient data from tenants to fully assess their emissions is, in our experience of having attempted this, received as overreach by the landlord and is not practical. We observe that there is no barrier to tenants becoming carbon neutral organisations themselves. To assist tenants to manage their emissions Hesperia sets the best practice efficiency benchmarks for our building designs, waste management infrastructure, sustainable transport infrastructure, renewable energy systems, and metering and monitoring systems, and we may include lease clauses, sales conditions or other guidance to ensure that there is a strong common understanding of the objectives.

Appendix A: Environmental Impact Indicators

The standards that guide the LCA process, particularly EN15804, call for a set of Indicators to be assessed and reported on to determine a fuller picture of environmental impacts. The standard set is summarised in the table below. The Characterisation Methods are essentially the sources of the factors used to quantify impacts.

Hesperia is currently focused on greenhouse gases and GWP but is seeking to include the full set of indicators in LCA reports wherever practical. In this way, if desirable in the future, adding these other considerations to the Strategy will be more straightforward and benchmarks will be able to be set off a broader base.

Environmental Indicator	Unit	Characterisation Methods (EN 15804;2012+A1:2013)
Global Warming Potential, GWP	kg CO ₂ equivalent	Global Warming Potentials (GWP) for a 100-year time horizon, as per IPCC Fourth Assessment Report (IPCC 2007) ¹
Ozone Depletion Potential, ODP	kg CFC-11e	CML-IA baseline V4.1 Ozone Depletion Potential (ODP) factors published by the World Meteorological Organisation
Acidification Potential for Soil and Water, AP	kg SO ₂ equivalent	CML-IA baseline V4.1 Change in critical load exceedance, currently based on European characterisation factors
Eutrophication Potential, EP	kg PO ₄ ³⁻	CML-IA baseline V4.1 Eutrophication Potential (EP)
Photochemical Ozone Creation Potential, POCP	kg ethylene	CML-IA V4.1 Photochemical Ozone Creation Potentials
Abiotic Depletion Potential - Elements, ADPE	kg Sb equivalent	CML-IA baseline V4.1 Absolute Reserves (note the deviation from ALCAS recommendation of currently economic reserves and rate of deaccumulation)
Abiotic Depletion Potential - Fossil Fuels, ADPF	MJ	CML-IA baseline V4.1 Abiotic depletion of fossil fuels based on energy content (lower heating value)

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