

The Environmental Sustainability Charter (ESC)



Beginnings

Steel has always been recognised as a sustainable material, however, there was a need to establish mechanisms for companies looking to reinforce environmental credentials for their projects, to determine what a sustainable steelwork supplier is and how to identify one. The Green Building Council of Australia (GBCA) challenged the ASI to design a scheme to encourage the steel industry chain to operate in a more environmentally responsible way and to develop a means of accrediting committed downstream enterprises associated with steel manufacturing, fabrication or services. After meetings of a task force of building environmental scientists, academics and industry stakeholders in 2010 and a public review period, the Environmental Sustainability Charter came into being and achieved its first signatories.

Sustainability in Steel Construction
ES CHARTER MEMBER

Who becomes a Charter member and what does the Charter stand for?

The Charter is designed for steelwork fabricators, steelwork processors and contractors that can demonstrate a company's commitment to environmental improvement through their in-house factory processing of steel. An ESC Charter member company is able to fulfil the steelwork sustainability requirements where a project specifies this commitment as a contractual requirement. The scheme is designed to be used by regulators, environmental rating agencies and bodies such as the GBCA, State authorities such rail and road, and any other contracting body wanting to demonstrate environmental improvement through their contracting process.

How is a Green Star point obtained via the Environmental Sustainability Charter?

In the GBCA criterion Mat 5, there are two Green Star credits that may be earned for steel on a project. The ESC provides for one of these points, in the Responsible Building Materials Credit. Where at least 60% of the fabricated structural steelwork on the project is supplied by a steel fabricator or contractor certified by the ESC, this Green Star point can be gained. This point is provided to the builder for using an ESC certified company for the fabrication/manufacturing work on the steel used in the project.

Additionally, for a project to be covered by the Environmental Sustainability Charter, 95% of the steel (by mass) used in the project must be supplied from an Environmentally Responsible Steelmaker as follows:

As determined by the GBCA and other contracting bodies, the steel used in projects requiring ESC membership and therefore being eligible for green points must be supplied by steel maker/s or manufacturer/s who have:

- A valid ISO 14001 Environmental Management System (EMS) in place
- Membership of the World Steel Association's Climate Action Program (WSA CAP). Ref. Steel Credit www.gbca.org.au



This criterion does not attract a point but is a prerequisite for qualification of the project.

Criterion	Provider	Requirements
Green Star point or contract requirement for environmentally fabricated steelwork	The fabricator/contractor for the steelwork	Continuous environmental improvement and commitment to sustainability, environmental responsibility and communication of this commitment through operation of a management system audited annually
Prerequisite: Responsible sourcing of the steel	The steelmaker	The steelmaker must operate to an ISO 14001 Environmental Management System and be a member of the World Steel Association's Climate Action Programme

What is the second Green Star credit for steel?

There is a second credit for the efficiency of steel use called the Life Cycle Impacts Credit. It relates to the **engineering design of the project** and up to one point is available when there is a reduction in the mass of steel framing used when compared to standard practice. The reduced mass can be demonstrated by the use of high tensile grade steel material or the reduction in mass of steel framing by 5% when compared to a suitable reference building.

This second point is awarded if the project team can demonstrate that:

1. $\geq 95\%$ "Category A" product and
2. $\geq 25\%$ "Category B" product meet the strength grades in the table following, as applicable

Category A - $\geq 95\%$ by weight	Minimum strength Grade MPa
Roof and wall sheeting	550
Profiled steel decking	550
Purlins and girts	450
Light steel framing	450

Category B - ≥ 25% by weight	Minimum strength Grade MPa
Hot rolled structurals	350
Hot rolled plate	350
Cold-formed and hollow sections	450
Welded sections	400

How does a company become a member of the ESC?

To become a ESC member, it is necessary to sign the Charter declaration committing the company to operating its business to reduce its environmental footprint, to increasing the efficiency of its resource use, to demonstrating environmental responsibility and sharing its knowledge of sustainability with others and to seeking this in its choice of sub-contractors and suppliers. There is a joining fee and an annual fee payable which cover the introductory mentoring session, an annual audit and administration costs. During the annual audit, the environmental improvement of the company is measured and evaluated. The ASI reserves the right to conduct the ESC audit on-site to ensure that the projects listed on the ESC online Environmental Management System (EMS) Mentor are operational.

What is required?

1. The fabricator / steelwork contractor is required to be a member of the ASI Environmental Sustainability Charter and maintain an environmental management scheme. The ASI provides a mentoring scheme to BS 8555 through a web-based EMS which is designed for small to medium enterprises. Fabricators with ISO 14001 can use this to fulfil their obligations but must provide evidence through the web-based EMS Mentor and be working on an environmental improvement project.
2. Steel used in the project must meet the criterion of coming from an environmentally responsible steelmaker (see above).

For further information about the ESC contact ASI on 02 8748 0190 or esc@steel.org.au