



Confederation of Indian Industry



# *GreenCo Rating* *for* *Cement Sector*

**May 2016**



[www.greenco.in](http://www.greenco.in)

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## **I Introduction**

Businesses across the globe have begun to realize the impending impact of their actions on the environment and its contribution to the phenomenon of climate change. The achievement of higher growth with optimal use of resources and better emission and discharge standards is need of the hour.

Several companies have taken proactive initiatives to integrate environmental concerns in their businesses and have improved the environmental performance and business competitiveness.

Pursuing “Green” has become the new driver for companies on the quest towards growth, competitiveness and global excellence. Numerous benefits have been achieved by companies restructuring their various business processes towards ecological sustainability.

Need for Development of GreenCo Rating for cement sector Companies across the globe have taken many initiatives to reduce their ecological footprint, in several areas such as energy efficiency, water, GHG, waste reduction, etc. With number of businesses going green on the rise and several initiatives on different areas evokes a spark in an individual’s mind on “How Green is the Company”. A clear holistic mechanism is presently not available for evaluating the performance of companies on the ecological front. Against this background, CII, through an extensive stakeholder consultation and interaction with experts have developed the ‘GreenCo rating’ for evaluating the ‘greenness of companies’.

The GreenCo Rating is a framework to define and assess the performance of a company on Green front. The GreenCo Rating is a framework to monitor and sustain green initiatives and guide the companies towards achieving excellence in Green. CII have extended this voluntary framework for cement sector with all the GreenCo parameters and credits fine tuned to the sector.

### **Scope of the Rating**

The proposed rating covers cement plant and captive power plant. The rating is applicable to existing as well as new facilities.

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## II Background of the GreenCo Rating for cement sector

CII has been the pioneer organization in promoting green concepts across the country. To encourage industry tread this path, CII initiated a voluntary programme “Mission on Sustainable Growth” to facilitate ecologically sustainable business growth.

As a first step towards this direction, CII - Code for Ecologically Sustainable Business Growth was developed with the aim to involve top management of companies and seek voluntary commitments towards reducing intensity of the consumption of energy, water and other natural resources and promote ecologically sustainable growth in their companies.

The initiative launched by CII in 2008 has evoked great interest from the Indian Industry. More than 450 organizations in India are voluntarily committed to this initiative.

In continuation to this initiative, CII launched GreenCo, Green Company Rating System for companies in 2011. At present, 65 companies have been certified and more than 200 companies are working on the rating.

This rating extended for cement sector will act as a holistic framework to assess and evaluate the performance of the company’s activities on the green front.

## III Benefits of the GreenCo Rating for cement sector

Application of GreenCo rating for cement sector would address national priorities leading to benefits, such as energy efficiency, water conservation, renewable energy, waste management, green supply chain, etc.,. Some of the major benefits are highlighted below:

- **Energy Efficiency-** Businesses consume energy for various reasons like operating machinery, running computers, office maintenance etc. The GreenCo rating calls for energy monitoring and accounting system as well as technology that is less energy intensive. The GreenCo rating would help the organizations to benchmark themselves at the national / international level, guides them towards achieving national / global levels of energy efficiency. Involvement of employees and building capability of relevant employees is also part of the rating.
- **Water Conservation-** Our requirements for water to meet our fundamental needs and our collective pursuit of higher living standards, coupled with the need for water to sustain our planet’s fragile ecosystems, make water unique among natural resources. According to World Bank estimates, by 2035, it is projected that 3 billion people will be living in conditions of severe water stress. To ensure sustainability in the long run, industries should not be seen as competing for water, by the society. The GreenCo rating promotes sustainable use of water through “reduce, recycle, reuse and reclaim” strategies. It prescribes metering to monitoring water consumption, rain water harvesting and water use reduction strategies. The rating also encourages companies to take efforts for groundwater recharge beyond the fence.

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- **Renewable Energy-** The cement industry exports renewable energy to the Grid and has the uniqueness of contributing to the Green power in the country. The GreenCo Rating for cement sector encourages the companies to increase the export of renewable energy to the grid both during season and off-season. The ultimate goal is to increase the green power generation in the country.
  - **Waste Management-** The GreenCo Rating recommends waste management strategies that enable businesses to identify and segregate different types of waste. The rating presents guidelines on waste inventory study to enable businesses to quantify data on amount of waste generated and hence empower them to adopt suitable waste disposal strategies. The rating also recommends waste reduction strategies. For businesses, this means that the work area is healthy and the clean surroundings present an inviting ambience for prospective customers. The reduction of waste generation also presents an excellent business case for the organization to pursue.
  - **Material Conservation, Recycling and Recyclability-** Material conservation and recycling is closely related to waste management. It is self-evident that the more we conserve and recycle/ re-use, the less waste we generate. Apart from this, by reusing materials there is a definite saving in costs. The cost savings is in the form of reduced material costs (as we reuse the same material) as well reduced waste disposal cost (since lesser waste is generated). The rating promotes recovery of material & improving yield, reduction in usage of consumables and reuse, recycling of packing materials.
  - **Green Supply Chain-** As environmental awareness among consumers increase, the demand for products with lower environmental footprint will also increase. In keeping with consumer sentiments, businesses will have to not only green their operations, but also across their supply chain. This calls for a rethink of the business's current procurement process. Studies have shown that improved green supply chain process means lower waste-disposal, lower environmental impact at the vendor premises and, often, reduced materials costs. The GreenCo rating aims to make businesses aware of these benefits to their bottom-line so that they are encouraged to implement green supply chain processes.
  - **Green House Gases Reduction** - The global average concentrations of various greenhouse gases in the atmosphere reached their highest levels ever recorded, and continue increasing. The combustion of fossil fuels from human activities and land-use changes are largely responsible for this increase. The ill effects of green house gases generated by the consumption of fossil fuels are very well known. The GreenCo rating encourages companies to inventorize scope 1, scope 2 and scope 3 emissions and reduce the emissions.
  - **Product Stewardship-** Product Stewardship is 'Extended Producer Responsibility' over the Life cycle of a product beyond production, during distribution, use and disposal of products. The rating encourages businesses to undertake various initiatives involving farmers, research institutions to improve productivity and reduce environmental impacts (cane yield, soil quality, reduced use of pesticides, encouraging organic fertilizers etc). It guides businesses to perform a comprehensive analysis of the products/process on environmental impacts and explore options for reducing such impacts

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- **Life Cycle Assessment** – Several initiatives are being taken to reduce the environmental impact of products at different stages – production, distribution, use and disposal. There is a need to have an evaluation of the impact of the product throughout its life cycle, so that ultimately, only those with minimum life-cycle impact are made available. The life-cycle assessment parameters such as GHG, toxicity, material and water can guide organizations to move towards products of lower impact. The rating facilitates in this direction.

**Business Specific Benefits Include:**

1. Communicates corporate commitment towards environmental sustainability to all stake holders
2. Enhances the competitiveness of the company through resource conservation and improved efficiency
3. Current Standing- The rating is an easy way for businesses/ companies to compare themselves against their peers or competitors
4. Businesses can use the recommendations of the rating to develop a long term plan to improve competitiveness and be ecologically sustainable
5. Most governments are prescribing strict environmental compliance guidelines for companies. Companies that accept the GreenCo rating will have a ‘head start’ in complying with these requirements and thus have an advantage over non-complying competitors
6. With consumer awareness related to the environment growing at a fast pace, GreenCo rated companies will enjoy considerable consumer support and goodwill
7. Many business owners/ managers wish to adopt environmentally healthy practices but are not aware of what needs to be done. The rating can act as an excellent guide for such businesses

**IV GreenCo Rating for cement sector: Overview & Process**

The GreenCo Rating for Companies advocates a performance based approach. It aims to provide leadership and guidance to businesses on how to implement green strategies. These strategies are designed based on an iterative and consultative process that includes building partnerships with stakeholders and employing their cumulative knowledge and experience to address issues related to ecological sustainability. The rating employs a holistic approach, wherein, it not only advises businesses on strategy and actions required but also provides mechanisms to quantify the impact of such actions and make course corrections if required.

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The rating evaluates green features for companies against the following performance parameters:

- Energy Efficiency
- Water Conservation
- Renewable Energy
- Greenhouse Gas Emission
- Waste Management
- Material Conservation, Recycling and Recyclability
- Green Supply Chain
- Product Stewardship
- Life Cycle Analysis
- Other Areas (Ventilation, Green Belt, Site Location & Innovation)

Weightages (points) are assigned to varying degrees of goals that are set for each of these parameters. For example, the points are awarded for reducing energy consumption. But points awarded will be higher for a business that demonstrates a higher degree of reduction in energy consumption compared to another business that demonstrates a lower degree of reduction in energy consumption. The companies at various levels of efficiency (for example; Top 5 energy efficient plants in the world) are also suitably recognized in this rating.

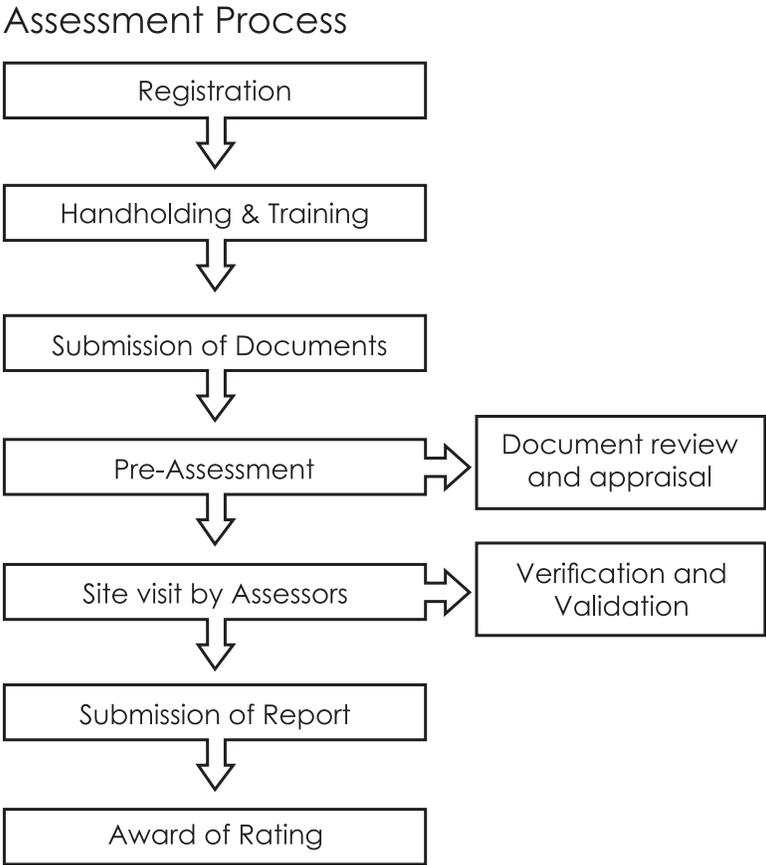
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### GreenCo Rating for Cement Sector Registration

Companies interested participating in GreenCo Certification must first register with CII – Godrej GBC. Projects can be registered on CII – Godrej GBC website ([www.greenbusinesscentre.org](http://www.greenbusinesscentre.org)) under ‘GreenCo Rating for Companies’. Registration is the initial step, which helps establish contact with CII – Godrej GBC and provides access to the required documents, templates, important communications and other necessary information.

### Assessment Process

Subsequent to the registration, the CII team will communicate with the plant team to explain the detailed process of the assessment. The various steps involved in the assessment process are detailed as under:



The threshold criteria for certification levels are as following:

<b>Level</b>	<b>Points</b>	<b>Greenco Rating</b>
Level 1	350 – 449 points	Certified
Level 2	450 – 549 points	Bronze
Level 3	550 – 649 Points	Silver
Level 4	650 – 749 Points	Gold
Level 5	> 750 points	Platinum

#### Criteria and Weightages

<b>S. No</b>	<b>Parameters</b>	<b>Suggested Weightages (Points)</b>
1	Energy Efficiency	200
2	Renewable Energy	100
3	Greenhouse Gas Emissions Mitigation	125
4	Water Conservation	100
5	Waste Management	100
6	Material Conservation, Recycling and Recyclability	100
7	Green Supply Chain	50
8	Product Stewardship	50
9	Life Cycle Assessment	75
10	Others (Ventilation, Site Selection & Innovation)	100
	<b>Total</b>	<b>1000</b>

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A training program would be organised for the companies registered for the GreenCo Rating. The objective of the training program is to aid the companies understand the rationale behind the various credit points, explain them which are relevant to the company and make the process of assessment easier for the company. The company submits the filled up rating questionnaire to CII.

Subsequent to the receipt of the assessment questionnaire, site visit will be conducted by a team of independent assessors and representatives of CII. The number of site visits and assessors will be decided based on the size of the company / unit being assessed. The objective of site visit is to validate the data submitted as well as present to the company on improvement areas and opportunities.

The assessor team will report their findings to the judges' panel, which will review and award the rating to the company. The company also will have an opportunity to appeal once for a higher rating with the judges' panel. The judges' panel will then revisit the assessment and award the final rating. The rating awarded will be final.

The rating will be periodically communicated and will be in the website of CII – Godrej GBC. There would also be an annual review to revalidate the rating as well as guide the organisation towards improvement. The rating is valid for 3 years and at the end of 3 years the companies will have to apply for the rating again. In between, if the company feels that they have improved their performances they can apply for a fresh rating. During the period of rating, the companies can use 'GreenCo' certified company in their letterheads and other corporate communication.

<b>Energy Efficiency (Max: 200 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>EE Mandatory Requirement - 1</b>	<b>Energy Policy</b>		
<b>EE Mandatory Requirement - 2</b>	<b>Energy Management Cell &amp; Energy Manager (certified by BEE)</b>		
<b>EE-Mandatory Requirement - 3</b>	<b>For all Designated Consumers, Mandatory Energy Audit &amp; Monitoring &amp; Verification should have been conducted</b>		
<b>EE Credit 1</b>	<b>Leadership and Strategy</b>	<b>20</b>	
EE Credit 1.1	Target Setting		
	>Internal benchmarking / exceed PAT Target (DC)		5
	> National/World class benchmarks		10
EE Credit 1.2	Financial Resource Allocation at the beginning of the year		5
EE Credit 1.3	Monthly reviews pertaining to Energy Efficiency		5
<b>EE Credit 2</b>	<b>Employee Involvement &amp; Capacity Building</b>	<b>20</b>	
EE Credit 2.1	Strategies adopted for awareness creation & employee involvement		5
EE Credit 2.2	Training program, at least once in a year		5
EE Credit 2.3	Energy scorecard		<b>10</b>
EE credit 2.3.1	Energy Scorecard: Individual Performance Appraisal	<b>5</b>	
EE credit 2.3.2	Energy Scorecard: Energy performance of major equipment.	<b>5</b>	
<b>Credit 3</b>	<b>Energy Monitoring System</b>	<b>20</b>	
Credit 3.1	Energy monitoring for equipment (Electrical & thermal) having > 10% of total energy consumption		5
	Energy monitoring for equipment (Electrical & thermal) having > 5% of total energy consumption		10
Credit 3.2	Daily Variance Analysis and Correction		10
<b>Credit 4</b>	<b>Plant with Specific Energy Consumption (SEC)</b>	<b>140</b>	
Credit 4	Reduction in SEC in the last 3 years: Cement: 80% Weightage [Thermal : 40%, Electrical : 40%] CPP :20% Weightage		<b>75</b>
<b>Credit 5</b>	<b>Energy Efficiency Improvement in Equipment</b>		<b>35</b>
<b>Credit 6</b>	<b>Benchmarking with World Class Performance</b>		<b>30</b>

	Among top 10 Units / Top 10% of the units at national level		10
	Among top 5 units / Top 5% of the units at national level		15
	Among top 20 Units / Top 20% of the units at international level		20
	Among top 10 units / Top 10% of the units at international level		25
	Among top 5 units / Top 5% of the units at international level		30
	<b>Sub total</b>	<b>200</b>	

Note: Equipment to be monitored for credit 5:

Cement Plant: (1) Preheater fan, (2) RABH Fan, (3) Cooler vent fan, (4) cement mill separator fan, (5) raw mill fan, (6) Coal mill fan

CPP: (1) BFP pump, (2) FD Fan, (3) ID fan, (4) CEP pump

<b>Renewable Energy (Max: 100 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>Mandatory Requirement - 1</b>	<b>Renewable Energy Policy</b>		
<b>RE Credit 1</b>	<b>Leadership and Strategy - Setting targets with specific time lines for increasing share of Renewable Energy</b>	<b>10</b>	
RE Credit 1.1	Target Setting -Short term & Long term action plan and monitoring mechanism		5
RE Credit 1.2	Approved budget allocation for current & ensuing year		5
<b>RE Credit 2</b>	<b>On-site Renewable Energy Generation (Both Electrical &amp; Thermal Energy)</b>	<b>25</b>	
	>1% substitution		5
	>2% substitution		10
	>3% substitution		15
	>4% substitution		20
	>5% substitution		25
<b>Credit 3</b>	<b>Offsetting both Electrical &amp; Thermal energy through Renewable Energy Sources (65-80)</b>	<b>65</b>	
	≥2.5 substitution		5
	≥5 substitution		10
	≥10 substitution		20

	≥15 substitution		30
	≥20 substitution		35
	≥25 substitution		40
	≥30 substitution		45
	≥35 substitution		50
	≥40 substitution		55 -60
	≥45 substitution		60 -70
	≥50 substitution		65 - 80
	<b>Sub-Total</b>	<b>100</b>	

#### Notes

- 1 In case the unit earns maximum points in RE Credit 1 & 2, then the maximum number of points than can be earned in RE Credit 3 is only 65
- 2 In case the organisation is unable to implement any onsite generation, it may choose to offset 100 % through offsite RE generation, in which case the max points awarded will be 80 under RE Credit 3
- 3 If the company meets > 80% of its energy requirement through RE additional 5 points will be considered under innovation category
- 4 In case the onsite substitution exceeds 5 % the balance will be accounted in RE Credit 3

Note: For a company that has invested in Renewable Energy at the corporate level, credit for RE can be shared on the basis of (1) contribution of that facility w.r.t. total production volume or (2) contribution of that facility in that State or (3) complete credit but in this case, other facilities will not be able to achieve points under GreenCo RE.

<b>Greenhouse Gas Emissions Mitigation (Max: 125 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>Mandatory Requirement - 1</b>	<b>GHG Emission inventorisation</b>		
<b>GHG Credit 1</b>	<b>GHG emission intensity reduction targets - Short term &amp; Long term</b>	<b>15</b>	
GHG Credit 1.1	Setting short term & Long term GHG targets		5
GHG Credit 1.2	Developing detailed action plan for achieving the targets		10
<b>GHG Credit 2</b>	<b>Employee Involvement &amp; Capacity Building</b>	<b>15</b>	
GHG Credit 2.1	Awareness Creation & Employee Involvement		5
GHG Credit 2.2	Organising capacity building programmes to relevant employees once in a year to involve them in GHG emission activities		10
<b>GHG Credit 3</b>	<b>GHG Management Systems</b>	<b>10</b>	
GHG Credit 3.1	Quality Management - GHG Emission Inventorisation		5
GHG Credit 3.2	Monitoring system for mitigation efforts		5
<b>Credit 4</b>	<b>GHG Emission Intensity Reduction -</b>	<b>30</b>	
<b>Option-1</b>	<b>Internal Performance Approach</b>		<b>30</b>
	> 5% in last 3 years		5
	> 10% in last 3 years		10
	> 15% in last 3 years		15
	> 20% in last 3 years		20
	> 25% in last 3 years		25
	> 30% in last 3 years		30
<b>Option-2</b>	<b>Benchmarking with National &amp; International Performances</b>		<b>30</b>
	Company is among the top 15% of lowest GHG emission intensity companies in the country		5
	Company is among the top 10 % of lowest GHG emission intensity companies in the country		10
	Company is among the top 5 % of lowest GHG emission intensity companies in the country		15
	Company is among the top 15% of lowest GHG emission intensity at global level		20

	Company is among the top 10% of lowest GHG emission intensity at global level		25
	Company is among the top 5 % of lowest GHG emission intensity at global level		30
<b>Credit 5</b>	<b>Carbon Neutral Approach</b>	<b>35</b>	
<b>Option-1</b>	<b>GHG Intensive</b>		<b>35</b>
	Offset / sequestration $\geq$ 5% of total GHG emission		5
	Offset / sequestration $\geq$ 10% of total GHG emission		10
	Offset / sequestration $\geq$ 15% of total GHG emission		15
	Offset / sequestration $\geq$ 20% of total GHG emission		20
	Offset / sequestration $\geq$ 25% of total GHG emission		25
	Offset / sequestration $\geq$ 30% of total GHG emission		30
	Offset / sequestration $\geq$ 35% of total GHG emission		35
<b>Credit 6</b>	<b>Scope 3 emission inventorization</b>	<b>20</b>	
GHG Credit 6.1	Scope 3 emission inventorization		5
GHG Credit 6.2	>5 % Reduction in scope 3 emission intensity		5
	>10 % Reduction in scope 3 emission intensity		10
	>15 % Reduction in scope 3 emission intensity		15
	<b>Sub total</b>	<b>125</b>	

<b>Water Conservation (Max: 100 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>WC Mandatory Requirement - 1</b>	<b>Water Policy</b>		
<b>WC Mandatory Requirement - 2</b>	<b>Water Manager &amp; Accountability</b>		
<b>WC Mandatory Requirement - 3</b>	<b>Norm for Specific Water Consumption in CPP</b>		
<b>WC Credit 1</b>	<b>Leadership and Strategy</b>	<b>10</b>	
WC Credit 1.1	Target setting & action plan		5
WC Credit 1.2	Monthly Reviews on Water conservation & management		5

<b>WC Credit 2</b>	<b>Employee Involvement &amp; Capacity Building</b>	<b>10</b>	
WC Credit 2.1	Awareness creation & employee involvement		5
WC Credit 2.2	Training & Capacity building		5
<b>WC Credit 3</b>	<b>Metering &amp; Overall Monitoring</b>	<b>10</b>	
WC Credit 3	Water Metering at critical locations, accounting 80% total water consumption		10
<b>WC Credit 4</b>	<b>Reduction in Fresh Water Consumption in the last 3 years</b> <b>Cement plant: 50% weightage</b> <b>CPP (only coal based power plants) : 50% weightage</b>	<b>30</b>	
<b>Option -1</b>	<b>Reduction in specific fresh water consumption</b>		30
	≥ 5% reduction		5
	≥ 10 % reduction		10
	≥ 15% reduction		15
	≥ 20% reduction		20
	≥ 25% reduction		25
	≥ 30% reduction		30
<b>Option -2</b>	<b>Reduction in Total fresh water consumption</b>		30
	≥ 5% reduction		5
	≥ 10 % reduction		10
	≥ 15% reduction		15
	≥ 20% reduction		20
<b>WC Credit 5</b>	<b>Rain water Harvesting in roof and non-roof areas</b>	<b>20</b>	
WC credit 5.1	Separate storm water drains for rainwater		5
WC Credit 5.2	50% of potential captured		5
	100% of potential captured		10
WC Credit 5.3	Freshwater substitution		5
<b>WC Credit 6</b>	<b>Augmentation of ground water beyond fence</b>	<b>20</b>	
	1: 1 recharging/collection		5
	1: 2 recharging/collection		10
	1 : 3 recharging/collection		15
	1: 4 recharging/collection		20
	<b>Sub total</b>	<b>100</b>	

<b>Waste Management (Max:100 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>WM Mandatory Requirement - 1</b>	<b>Waste management policy</b>		
<b>WM Mandatory Requirement - 2</b>	<b>Emission reports w.r.t revised standards for SPM, Sox, Nox, Heavy metals</b>		
<b>WM Credit 1</b>	<b>Leadership &amp; Strategy</b>	<b>10</b>	
WM Credit 1.1	Short term & long term targets		5
WM Credit 1.2	Action plan and resource allocation		5
<b>WM Credit 2</b>	<b>Employee Involvement &amp; Capacity Building</b>	<b>10</b>	
WM Credit 2.1	Strategies adopted for awareness creation and employee involvement		5
WM Credit 2.2	Training programs and capacity building		5
<b>WM Credit 3</b>	<b>Waste Management Systems &amp; Inventorization</b>	<b>10</b>	
WM Credit 3.1	Inventorisation of hazardous & non hazardous waste		5
WM Credit 3.2	Maintenance of waste management yard		5
<b>WM Credit 4</b>	<b>Utilization of waste as alternate fuel</b>	<b>30</b>	
	TSR >= 5%		5
	TSR >= 10%		10
	TSR >= 15%		15
	TSR >= 20%		20
	TSR >= 25%		25
	TSR >= 30%		30
<b>WM Credit 5</b>	<b>Liquid Waste Management</b>	<b>15</b>	
	Percentage fresh water substitution by recycle/reuse of treated water		15
<b>WM Credit 6</b>	<b>Gaseous Waste Management</b>	<b>25</b>	
WM Credit 6.1	Ambient Air Quality		5
WM Credit 6.2	≥ 5% reduction over and above the current norms		5

	≥ 10% reduction over and above the current norms		10
	≥ 15% reduction over and above the current norms		15
	≥ 20% reduction over and above the current norms		20
	<b>Sub total</b>	<b>100</b>	

Note: Gaseous Waste Management

Cement: 75% Weightage & CPP: 25% Weightage Stack emissions should be monitored at the kiln, cooler vent, cement mill and CPP

<b>Material Conservation, Recycling &amp; Recyclability (Max: 100 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>MCR Credit - 1</b>	<b>Leadership &amp; Strategy</b>	<b>10</b>	
	Short & long term targets and allocation of resources for use of Alternative Raw material (ARW) & Clinker Factor Improvement		10
<b>MCR Credit - 2</b>	<b>Employee Involvement &amp; Capacity Building</b>	<b>10</b>	
MCR Credit 2.1	Strategies adopted for awareness creation and employee involvement		
MCR Credit 2.2	Training programs and capacity building		
<b>MCR Credit 3</b>	<b>Systems to monitor clinker factor, fly ash utilisation, packaging material on daily basis</b>	<b>10</b>	
<b>MCR Credit 4</b>	<b>Raw Material Conservation</b>	<b>40</b>	
MCR Credit 4.1	Percentage increase in blended cement		<b>20</b>
MCR Credit 4.2	Clinker Factor Improvement		<b>15</b>
MCR Credit 4.3	Reduction in consumption of consumables like lube oil, bearings, bricks, general stores, water treatment chemicals		<b>5</b>
<b>MCR Credit 5</b>	<b>Management of Packaging Material</b>	<b>10</b>	
MCR Credit 5.1	Reduction in Packaging Material		<b>5</b>
MCR Credit 5.2	Bulk Transport		<b>5</b>
<b>MCR Credit 6</b>	<b>Use of alternative raw material (Ex- bed ash from boiler, ETP sludge, zinc slag, etc.)</b>	<b>10</b>	
	>2 % substitution		5
	>5 % substitution		10
<b>MCR Credit 7</b>	<b>Mines Management</b>	<b>10</b>	
	<b>Sub total</b>	<b>100</b>	

Note: MCR Credit 4.1: Minimum points are awarded for at least 60% blended cement and maximum points are awarded for 80% blended cement

MCR Credit 4.2:

- In case of OPC, usage of 3% filler will be awarded 10 points
- In case of PPC, usage of 33% flyash will be awarded 15 points
- In case of PSC, usage of 65% slag will be awarded 15 points

<b>Green Supply Chain (Max.50 points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>GSC Credit 1</b>	<b>Leadership and Strategy</b>	<b>5</b>	
GSC Credit 1.1	Strategy and Targets (Short and Long term)		5
<b>GSC Credit 2</b>	<b>Education and Awareness Creation</b>	<b>5</b>	
	List the suppliers, transporters, dealers and contractors		2
	50% of suppliers are covered		3
<b>GSC Credit 3</b>	<b>Common Banking System for Supplies like electrode, refractory, bearing and lube oil</b>	<b>5</b>	
<b>GSC Credit 4</b>	<b>Green Purchasing Guidelines &amp; Implementation</b>	<b>5</b>	
<b>GSC Credit 5</b>	<b>Greening suppliers and dealers facilities</b>	<b>10</b>	
<b>GSC Credit 6</b>	<b>Resource intensity reduction in the supply chain and logistics (Energy, Material, Operational efficiency improvement)</b>	<b>20</b>	
	Logistics (cement)		10
	Supply chain (raw material)		10
	<b>Sub-Total</b>	<b>50</b>	

Note: GSC Credit 3 is not applicable for cement plants that do not have other cement plants within 50 kms.

<b>Product Stewardship(Max: 50 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>PS Credit 1</b>	<b>Leadership &amp; Strategy</b>	<b>10</b>	
<b>PS Credit 2</b>	<b>Education, awareness creation &amp; communication programs for all stake holders</b>	<b>10</b>	
<b>PS Credit 3</b>	<b>Improving product and process efficiency through research and development</b>	<b>15</b>	
<b>PS Credit 4</b>	<b>Extended Producer Responsibility</b>	<b>10</b>	
PS Credit 4.1	Initiatives by the plant to promote use of blended cement		5
PS Credit 4.2	Initiatives on recycling of construction & demolition waste		5
<b>PS Credit 5</b>	<b>Engagements to Voluntary codes (CSI, GreenPro, GRI, etc.)</b>	<b>5</b>	
	<b>Sub-Total</b>	<b>50</b>	

<b>Life Cycle Assessment (Max: 75 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>LCA Credit 1</b>	<b>Leadership and Strategy</b>	<b>10</b>	
LCA Credit 1.1	Goals & Targets (Short term & long term)		5
LCA Credit 1.2	Action plan for Life Cycle Analysis or Management		5
<b>LCA Credit 2</b>	<b>LCM reviews-new products and existing products</b>	<b>10</b>	
<b>LCA Credit 3</b>	<b>LCA for any of the products/service occupying the highest share in the productline</b>	<b>20</b>	
LCA Credit 3.1	Internal Study		5
LCA Credit 3.2	LCA with peer review		5
<b>LCA Credit 4</b>	<b>Environmental impact reduction</b>	<b>10</b>	
<b>LCA Credit 5</b>	<b>Detailed Environmental Product Declaration for Products</b>	<b>15</b>	
<b>LCA Credit 6</b>	<b>External Partnerships contribute to LCI Database at National Level</b>	<b>10</b>	
	<b>Sub-Total</b>	<b>75</b>	

<b>Others (Max: 100 Points)</b>			
<b>Credit Number</b>	<b>Parameters</b>	<b>Maximum Credit Points Allocated</b>	
<b>Green Factory Building</b>	<b>To achieve IGBC Green Factory Building Rating, the unit / facility has to either follow Credit 1 Or Credit 2, 3 and 4</b>	<b>50</b>	
<b>OS Credit 1</b>	<b>Achieve Green Building as per IGBC Green Factory Rating</b>		<b>50</b>
<b>OS Credit 2</b>	<b>Indoor Environment Quality</b>	<b>20</b>	
OS Credit 2.1	Fresh Air Ventilation		10
Air conditioned	> 20 % improvement over min fresh air requirement -5 Points		
	> 30 % improvement over min fresh air requirement -10 Points		
Naturally Conditioned	Opening to carpet Area Ratio $\geq$ 3 % - 5 Points		
	Opening to carpet Area Ratio $\geq$ 4 % - 10 Points		
Forced ventilation	> 20 % improvement over min Air changes / hour-5 Points		
	> 30 % improvement over min Air changes / hour-10 Points		
OS Credit 2.2	Low VOC Paints		
	Use of paint with low / No VOC - 3 points		3
	Adhesive & Sealant with VOC content within limits - 2 points		2
OS Credit 2.3	Eco friendly house keeping chemicals		5
<b>OS Credit 3</b>	<b>Site Selection Planning</b>	<b>10</b>	
OS Credit 3.1	Housing facility for 40% of Employees within 5 km radius		5
OS Credit 3.2	Access to Public Transport / Shuttle Services		5
<b>OS Credit 4</b>	<b>Landscaping</b>	<b>20</b>	
OS Credit 4.1 (under CPCB)	Maintain Additional Green belt $\geq$ 10% of Standard requirement		5
	Maintain Additional Green belt $\geq$ 20% of Standard requirement		10
OS Credit 4.2 (CPCB guidelines not applicable)	Develop green belt $\geq$ 50% in the unused site area		5
	Develop green belt $\geq$ 75% in the unused site area		10
OS Credit 4.2	Efforts to create and maintain biodiversity by preserving native & adoptive species		5
OS Credit 4.3	Recreational and inspirational spaces		5

<b>OS Credit 5</b>	<b>Innovation (exemplary performances in any of 9 parameters or other innovations)</b>	<b>40</b>	
<b>OS Credit 6</b>	<b>Accredited Green Professionals</b>	<b>10</b>	
	At least one Green professional		5
	>= 3 Green professionals		10
	<b>Sub total</b>	<b>100</b>	





