

# **MSCI ESG Ratings Methodology: Opportunities in Clean Tech Key Issue**

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## Introduction

This document provides essential information on the components of the Opportunities in Clean Tech Key Issue to enable users of ESG Ratings to understand how our outputs are determined. Opportunities in Clean Tech is a Key Issue in the Environmental Pillar of the MSCI ESG Ratings model. Companies are evaluated on their positioning to meet market demand for products with environmental benefits.

For additional details on the MSCI ESG Ratings Model, refer to Section 2, Data, ratings and scores, of “ESG Ratings Methodology.”

### Exhibit 1: MSCI ESG Key Issue hierarchy

3 Pillars	10 Themes	33 ESG Key Issues
Environmental	Climate Change	Carbon Emissions
		Climate Change Vulnerability
		Financing Environmental Impact
	Natural Capital	Product Carbon Footprint
		Biodiversity & Land Use
		Raw Material Sourcing
		Water Stress
	Pollution & Waste	Electronic Waste
		Packaging Material & Waste
		Toxic Emissions & Waste
	Environmental Opportunities	Opportunities in Clean Tech
Opportunities in Green Building		
Opportunities in Renewable Energy		
Social	Human Capital	Health & Safety
		Human Capital Development
		Labor Management
		Supply Chain Labor Standards
	Product Liability	Chemical Safety
		Consumer Financial Protection
		Privacy & Data Security
		Product Safety & Quality
		Responsible Investment
		Community Relations
	Stakeholder Opposition	Controversial Sourcing
		Access to Finance
	Social Opportunities	Access to Health Care
Opportunities in Nutrition & Health		
Governance		Corporate Governance
	Pay	
	Ownership & Control	

3 Pillars	10 Themes	33 ESG Key Issues
		Accounting
	Corporate Behavior	Business Ethics
		Tax Transparency

## Opportunities associated with this Key Issue

- Increased access to markets due to regulatory reforms and incentives.
- Increased revenue from capturing changing demand, early-mover advantage.

## Opportunities in Clean Tech Key Issue Score

The Opportunities in Clean Tech Key Issue Score evaluates the company's level of exposure to, and management of, opportunities on this Key Issue. The Key Issue Score is based on the Exposure Score and the Management Score using the formula below. The Exposure Score and the Management Score are combined such that the Exposure Score determines the weight placed on the Management Score, ranging from 50% (when Exposure Score is equal to zero) to 100% (when Exposure Score is equal to 10).

$$KI_i = \left( \left( \frac{EXP_i}{20} + .5 \right) \times MGMT_i \text{ Score} \right) + \left( \left( .5 - \frac{EXP_i}{20} \right) \times 5 \right)$$

Where:

- $KI_i$  is the Key Issue Score for company  $i$ .
- $EXP_i$  is the Exposure Score for company  $i$ .
- $MGMT_i$  is the Management Score for company  $i$ .

## Opportunities in Clean Tech Management Score

The Opportunities in Clean Tech Management Score evaluates the company's ability to manage its exposure to opportunities on this Key Issue. It is based on an average of the scores associated with each of the Management Score categories listed below. These scores are derived from data points that are scored on a 0-10 scale, with 10 corresponding to best practice and 0 corresponding to lack of management.

Refer to Section 3.3, Analyzing risk management, of “ESG Ratings Methodology” for additional details. Sources are company disclosures except where otherwise indicated. The following formula is used to calculate the Opportunities in Clean Tech Management Score:

$$MGMT_{OCT,i} = \frac{STRAT_{OCT,i} + PERF_{OCT,i}}{2}$$

Where:

- $MGMT_{OCT,i}$  is the Opportunities in Clean Tech Management Score for company  $i$ .
- $STRAT_{OCT,i}$  is the Strategy Score for company  $i$ .
- $PERF_{OCT,i}$  is the Performance Score for company  $i$ .

The following data points, without constituting an exhaustive list, are representative of the inputs to the Management Score and are used in the Management Score calculation:

## Management Score category: Strategy Score

- **Targets to increase investment in clean tech.**

**Definition:** Indicates whether the company has disclosed quantitative targets to increase investment in clean technology.

## Management Score category: Performance Score

**Representative performance metrics:**

- Revenue derived from clean tech activities
- Involvement in clean tech activities
  - For clean technologies, extent of involvement assessed as: research and development, noncore business, core business, pure play.

## Opportunities in Clean Tech Exposure Score

The Opportunities in Clean Tech Exposure Score evaluates the company's exposure to opportunities on this Key Issue. It is based on the Business Exposure Score only. The Business Exposure Score is scored on a 0-10 scale, with 10 corresponding to the highest opportunity and 0 corresponding to the lowest opportunity. Refer to Section 3.2, Analyzing risk exposure, of "ESG Ratings Methodology" for additional details. The following formula is used in the Exposure Score calculation:

$$EXP_{OCT,i} = BUS_{OCT,i}$$

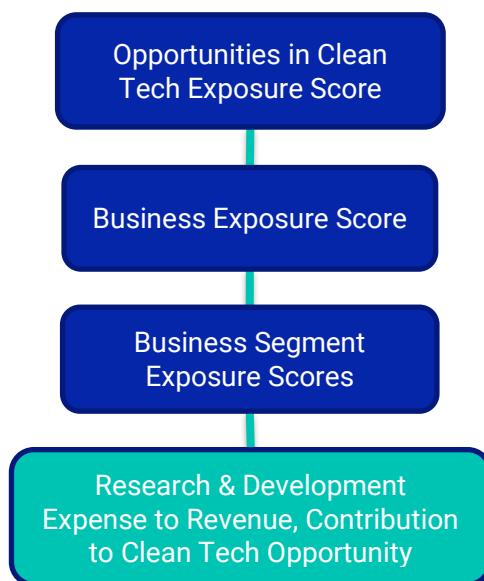
Where:

- $EXP_{OCT,i}$  is the Opportunities in Clean Tech Exposure Score of company  $i$ .
- $BUS_{OCT,i}$  is the Business Exposure Score of company  $i$ .

## Exhibit 2: Exposure Score components

### Business Exposure Score

The Business Exposure Score is a weighted average of the Business Segment Exposure Scores of a company's business segments. Scores are weighted by the proportion of a company's total revenue in each business segment, using the following formula to calculate the Business Exposure Score:



$$BUS_{OCT,i} = \sum_{j=1}^{n_i} w_{Revenue,i,j} BSE_{OCT,j}$$

Where:

- $BSE_{OCT,j}$  is the Business Segment Exposure Score for business segment  $j$ .
- $w_{Revenue,i,j}$  is the weight of business segment  $j$  for company  $i$  based on the contribution to total company revenue.
- $n_i$  is the number of business segments of company  $i$ .

## Business Segment Exposure Score

The Business Segment Exposure Score of a business segment is based on a mapping of the business segment as disclosed by the company to a corresponding business activity. MSCI ESG Research uses the Standard Industrial Classification (SIC) system along with industry-specific adjustments to define business activities. The score associated with a business activity is used to calculate a Business Segment Exposure Score. Each business activity score is determined by a weighted average of the Research and Development Expense Score of the activity and Contribution of Opportunities in Clean Tech Score of the activity:

$$BSE_{OCT,j} = 0.3RDF_j + 0.7COCT_j$$

Where:

- $RDF_j$  is the Research and Development Expense Score for business activity  $j$ .
- $COCT_j$  is the Contribution of Opportunities in Clean Tech Score for business activity  $j$ .

A business segment's Research and Development Expense Score is assessed using the ratio of research and development expenses to revenues at the business activity level. The Research and Development Expense Score is scored on a 0-10 scale, with 10 corresponding to the highest research and development expenses per unit of revenue and 0 corresponding to the lowest research and development expenses per unit of revenue.

The Contribution of Opportunities in Clean Tech Score of a business activity is assessed using a qualitative assessment based on predefined guidance to determine whether the business activity is a major contributor to opportunities in clean technology. Segments which are major contributors receive a score of 10. Segments with no potential opportunities in clean technology receive a score of 0.



## Data sources

The following sources are used to determine the Opportunities in Clean Tech Exposure Score:

Sources: Refinitiv, MSCI ESG Research, company disclosures.



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