

Table S1. Carbon Disclosure Index

No.	Disclosure Items
Strategy and Policy	
Climate Change Risks and Opportunities	
1.	Recognition of climate change risks
2.	Explanation of climate change risks
3.	Discussion of climate change opportunities
4.	Response to risks and opportunities
5.	Assessment of financial implications of selected risks or opportunities
Corporate GHG Emissions Targets	
1.	Target of carbon neutrality
2.	Commitment to or adoption of science based GHG emissions targets
3.	Absolute GHG emissions reduction target
4.	GHG emissions intensity reduction target
5.	GHG emissions target breakdown
Company Wide Carbon Footprint	
1.	Disclosure of total GHG emissions in absolute terms
2.	Breakdown of total GHG emissions
3.	Disclosure of Scope 1 GHG emissions
4.	Breakdown of Scope 1 GHG emissions
5.	Disclosure of Scope 2 GHG emissions
6.	Breakdown of Scope 2 GHG emissions
7.	Disclosure of Scope 3 GHG emissions
8.	Breakdown of Scope 3 GHG emissions
9.	Disclosure of GHG emissions intensity
10.	Breakdown of GHG emissions intensity
11.	Scope 1 GHG emissions intensity
12.	Scope 2 GHG emissions intensity
13.	Scope 3 GHG emissions intensity
GHG Emissions Change Over Time	
1.	Comparison of absolute GHG emissions with previous year
2.	Explanation of changes in absolute GHG emissions over time
3.	Breakdown of absolute GHG emissions change
4.	GHG emissions intensity change from last or base year

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5. Breakdown of GHG emissions intensity change over time
 6. GHG emissions saved due to a specific initiative
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Energy Related Reporting

1. Energy-related targets
 2. Total energy consumption
 3. Breakdown of energy consumption
 4. Energy consumption change over time
 5. Breakdown of energy consumption change
 6. Energy intensity
 7. Breakdown of energy intensity
 8. Energy intensity change over time
 9. Breakdown of energy intensity over time
 - 10 Targets related to renewable energy use
 - 11 Renewable energy consumption
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Emission Reduction Initiatives Implementation

1. Carbon offsetting or purchase of renewable energy credits
 2. Investment in low carbon or energy R&D
 3. Sustainable building construction and renovation process
 4. Improving efficiency of everyday operations
 5. Installing energy-efficient lighting
 6. Heating and cooling systems improvements
 7. High-efficiency equipment
 8. Efforts to reduce transportation related emissions
 9. Renewable energy use
 - 10 Customer engagement in emissions reduction
 - 11 Employee engagement in emissions reduction
 - 12 Supplier engagement in climate change efforts
 - 13 Engagement with business partners on climate change
 - 14 Participation in external collaborations on climate change
 - 15 Targets related to specific initiatives
 - 16 Performance-related to specific initiatives
 - 17 Product classified as low-carbon, carbon-neutral or carbon positive
 - 18 Cost of future emissions factored into capital expenditure planning
 - 19 The contribution of renewable electricity to the company's EBITDA in the current reporting year
 - 20 The projected contribution of renewable electricity to the company's EBITDA at a given point in the future
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Carbon Emission Accountability

1. Indication of which board committee/other executive body has overall responsibility for actions related to climate change
 2. Description of the mechanism by which the board/other executive body reviews the company's progress regarding climate change
 3. Carbon policy/mission/vision statement
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4. Description of stakeholder engagement programs
 5. Support for organizations promoting climate change
 6. Awards received
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Quality of Disclosure

1. Boundaries for GHG emissions calculations are specified
 2. The reporting period which the data covers is specified
 3. Scope of total emissions is specified
 4. Scope 2 emissions are specified as either location- or market-based
 5. Both location- and market-based Scope 2 GHG emissions are reported
 6. Inclusions of emissions sources for each scope are explained
 7. Exclusions from GHG emissions calculations are explained
 8. Targets have clearly stated base year, target year and target value
 9. Methodology for GHG emissions calculations is provided
 - 10 Methodology for GHG emissions calculations follows global or national standards
 - 11 External assurance statement in English is available
 - 12 Independent assurance of Scope 1 emissions
 - 13 Independent assurance of Scope 2 emissions
 - 14 Independent assurance of Scope 3 emissions
 - 15 Independent assurance of emissions intensity
 - 16 Independent assurance of energy consumption
 - 17 Independent assurance of energy intensity
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Table S2. Women Board Members Classification

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No.	Woman Board Members Description	Classification
1.	<ul style="list-style-type: none"> - Current and former female senior officers who provide the company with their professional background, experiences, advice and alternative positions about internal business affairs - Directors who serve currently or have served in the past as active managers, employees or owners of the firm - Directors who are active or retired executives in other for-profit organizations, and directors who serve on other large corporate boards. - Bring expertise and knowledge to the firm as a result of their experience in internal decision making in other firms. - These directors serve as executives in other organizations, they bring a working knowledge of strategic decision making and internal firm operations - Expertise with competition, decision making and problem solving for large firms - Serve as sounding boards for ideas - Provide alternative viewpoints on internal and external 	Industry Expert (IE)

	problems	
	- Channels of communication between firms legitimacy	
2.	<ul style="list-style-type: none"> - The group that made up of professionals specialized in individual fields such as law, finance or marketing, among others, who offer companies their knowledge and expertise - Firm's strategies but do not form the foundation on which the strategy is built - Provide support for senior management in areas requiring specialized expertise such as capital markets, law, insurance and public relations to meet the need for specialized expertise and linkages to support organizations outside the firm's product markets, such as financial institutions, law firms, public relations firms and so forth - They lack general management experience - Bring specific expertise and/or access and information about environmental contingencies and provide support for the competitive strategy of the firm - Expertise on the firm itself as well as general strategy and direction as well as the current or former officers of the firm - Specific knowledge in areas such as finance and law - Current and former senior officers of other large for-profit firms - Directors of other large for-profit firms - Provide specialized expertise on law, banking, insurance and public relations - Provide channels of communication to large and powerful suppliers or government agencies - Ease access to vital resources, such as financial capital and legal support - Lawyers, Bankers (commercial and investment), Insurance company representatives, Public relations experts 	Advisors (ADV)
3.	<ul style="list-style-type: none"> - Non-executive directors who can be classified as politicians, heads of non-profit foundations, clerics and other public celebrities who bring reputation opportunities and networking to the firm - Symbolic directors - Directors with experience and linkages relevant to the firm's environment beyond competitor firms and suppliers. - Possess knowledge about or influence over important non-business organizations, and includes retired politicians, university or other institutional representatives, and officers of social organizations. - Provide non-business perspectives on issues, problems and ideas - Expertise about and influence with powerful groups in the 	Community Leaders (CL)

community – political leaders, university faculty, members of clergy, leaders of social or community organizations
- Representation of interests outside competitive product or supply markets

Table S3. Descriptive Statistic

Variable	N = 291			
	Mean	Std. Dev.	Min	Max
CDScore	68.19	15.06	0	87
WBMP	0.24	0.14	0.00	0.60
WBMIEP	0.21	0.14	0.00	0.56
WBMADVP	0.20	0.14	0.00	0.60
WBMCLP	0.13	0.12	0.00	0.50
BSIZE	11.61	3.16	0	22
BIND	7.60	3.18	0	22
BMEET	11.14	7.68	0	66
CEOD	0.84	0.37	0	1
FSIZE	24.88	3.56	0.00	32.57
FLEV	0.58	0.18	0.00	1.56
ROA	0.01	0.10	-0.53	0.50
FAGE	59.78	38.86	6	179

Table S4. Pairwise Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) WBMP	1.000											
(2) WBMIEP	0.910*	1.000										
(3) WBMADVP	0.865*	0.805*	1.000									
(4) WBMCLP	0.631*	0.580*	0.472*	1.000								
(5) BSIZE	-0.018	-0.091	0.008	0.055	1.000							
(6) BIND	0.271*	0.197*	0.258*	0.280*	0.567*	1.000						
(7) BMEET	-0.173*	-0.136	-0.175*	-0.085	0.036	-0.051	1.000					
(8) CEOD	-0.016	-0.017	-0.044	-0.006	0.069	0.014	0.193*	1.000				
(9) FSIZE	-0.091	-0.132	-0.099	-0.032	0.403*	0.121	0.296*	0.210*	1.000			
(10) FLEV	0.185*	0.198*	0.146	0.073	0.235*	0.140	0.010	0.080	0.074	1.000		
(11) ROA	0.006	-0.047	0.057	0.029	0.066	0.010	0.013	0.158*	0.107	-0.385*	1.000	
(12) FAGE	0.264*	0.278*	0.145	0.207*	0.032	0.212*	-0.061	-0.107	-0.006	0.061	-0.062	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table S5. Regression Result

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Variables	Model 1	Model 2	Model 3	Model 4	Model 5
WBMP	32.932*** (5.48)				18.893 (1.14)
WBMIEP		29.621*** (4.96)			1.328 (0.10)
WBMADVP			28.484*** (4.86)		8.364 (0.74)
WBMCLP				28.538*** (4.00)	11.053 (1.26)
BSIZE	0.054 (0.16)	0.056 (0.16)	-0.063 (-0.19)	-0.197 (-0.58)	0.045 (0.13)
BIND	0.716** (2.28)	0.841*** (2.70)	0.795** (2.52)	0.894*** (2.81)	0.661** (2.08)
BMEET	0.273** (2.58)	0.24** (2.26)	0.26** (2.44)	0.214** (1.99)	0.269** (2.53)
CEOD	5.712*** (2.65)	5.623** (2.59)	6.226*** (2.86)	5.733*** (2.60)	5.837*** (2.69)
FSIZE	1.681*** (6.74)	1.718*** (6.82)	1.702*** (6.75)	1.671*** (6.55)	1.69*** (6.74)
FLEV	6.597 (1.35)	6.912 (1.40)	7.885 (1.60)	11.242** (2.30)	6.927 (1.40)
ROA	22.948** (2.56)	25.399*** (2.83)	21.976** (2.42)	26.43*** (2.90)	22.268** (2.46)
FAGE	0.001 (0.03)	0 (-0.02)	0.016 (0.78)	0.011 (0.52)	0.002 (0.11)
Prob> F	0.000	0.000	0.000	0.000	0.000
N	291	291	291	291	291
R-squared	0.386	0.375	0.373	0.357	0.390
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$					