

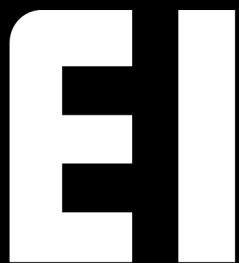


REPORT: ET NORTH AMERICA 300 2011 CARBON RANKINGS

Environmental Investment Organisation

Where the needs of the future meet the practicalities of the present





WHO WE ARE

ENVIRONMENTAL INVESTMENT ORGANISATION

An independent non-profit research organisation
promoting ecological investment systems

WHAT WE DO

ENVIRONMENTAL TRACKING

ET Carbon Rankings

creating public pressure through the “spotlight effect”

ET Index Series

creating share price incentive through supply & demand pressure

ET Engagement

engaging with companies to improve standards of disclosure & lower emissions

WHY WE DO IT

designed specifically to **reduce**
global corporate **Greenhouse Gas emissions**



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The Environmental Investment Organisation (EIO) is an independent non-profit body that seeks to improve the environmental 'output' of the financial system. In recent years this mandate has been focused almost entirely on the need to tackle the climate crisis.



ET North America 300 Carbon Rankings 2011 Report

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Foreword

Dear Reader,

Welcome to the ET North America 300 Report, one in a series of Regional Carbon Ranking Reports being released this week and complimenting the release of the ET Global 800 on the 1.11.11.

I think we can all agree that our rapidly changing and interconnected world is full of complex ecological, economic, social and health problems amongst many others. 'Progress' is clearly a very uneven and unequal process, but such has been the fate of humanity since the beginning of documented history.

The EIO does not claim to have a solution to any of the aforementioned problems. Instead, its sole focus is to prevent a problem that we have hardly seen the beginning of, but which, if allowed to spiral out of control, is almost guaranteed to make every other problem worse.

No less an authority than the US Department of Defense has described the likely consequences of severe climate change as a "threat multiplier". In plain language, whatever problems we already have, and no-one could overstate them, a climate calamity could prove one complex problem too many.

Some may confidently predict our ability to adapt, but that theory has never been applied in practice to a planet made up of nearly 200 independent nation states and 7 billion people, and rising.

Perhaps the greatest risk we face in dealing with this situation is the delusion that our current global political system is guaranteed to solve this problem. It is not.

So, is it possible to turn this impending disaster on its head and galvanise the entire global business and financial system in a new direction? Many individuals are already 'doing their bit' on multiple fronts all around the world. Progressive corporations and organisations are already making great efforts to address not only carbon emissions but broader environmental and human priorities.

But against this giant problem of climate change, surely we need an extra push. Something so in tune with the existing system that it can get right inside, like the famous "Trojan Horse" of ancient history, and put a stop to the madness of human induced climate change before it is too late. For surely the issue here is the time line. If the conclusions of our scientists are to be shown any respect, then there is no more time to emit and massive action is required now.

But what kind of action? Skillful action, if we are to carry people with us. For example, we do not need to decimate beautiful countryside with giant wind turbines when there are hundreds of square miles of empty ocean just waiting to be exploited by offshore wind farms benefiting from economies of scale which can hardly be imagined.



We need to think big and act fast, but not in haste. Every action has trade-offs and we certainly do not want to solve one problem by creating new ones.

Problem solving is as much an Art as a Science and so is the case with the subject matter of this report. In an ideal world every company would be reporting accurate and comprehensive Scope 1, 2 and 3 carbon emissions data. With such information available the ET Carbon Ranking would be able to very effectively reward emission reduction and penalise polluters. However, despite the very serious risks we are taking with our climate system, this information does not exist.

The EIO does not pretend that its system is perfect, or that a perfect system is even possible. It is a pragmatic and practical system working with the latest available data. It is our best effort to order this information in a logical manner. If the ranking and the indexes they are designed for can create incentives for higher universal standards of reporting followed by radical emission reduction strategies, it will have served its purpose. Whatever controversies are encountered in the process will be more than justified by such a result.

On the 4th October 2011 the Greenhouse Gas Protocol's new Scope 3 Corporate Accounting Standard was released. The EIO has always stated that Scope 3 is an essential component of the GHG Reporting process and that once the standard was released our Rankings would be adjusted to incentivise full Scope 3 disclosure.

We have fulfilled this pledge and wasted no time in doing so. The intensity metric now used to compile the Ranking includes a weighting for Scope 3 based on the worst case benchmark company for its broad sector. Additionally, we have rewarded companies over and above their emission intensity according to the number of Scope 3 categories reported.

As stated in my foreword to our first Reports on the ET Europe 300 and ET UK 100 Carbon Rankings, the chasm between public policy, public understanding, corporate behaviour and scientific reality is extraordinary and profound. The need for a practical mechanism to work quickly, circumventing the aforementioned log jam, is immense.

It may be true that “not everything that can be counted, counts, or that everything that counts, can be counted” but we can at least put the numbers we do have to good use.

Michael Gill,

Strategic Director & Founder, The Environmental Investment Organisation

October 2011

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EXECUTIVE 4

SUMMARY

The ET Carbon Rankings serve the twin purpose of encouraging transparency through making emissions data more publicly accessible, while also laying the foundations for the ET Index Series, a market mechanism designed to tackle emissions within a rapid time-frame.

With the introduction of the long awaited [New Scope 3 Standard](#) from the Greenhouse Gas (GHG) Protocol on the 4th October, the EIO has taken a proactive approach to incentivising companies to adopt this important new standard in GHG Reporting. The finalised standard has been the result of a three year global multi-stakeholders process that included more than 2,300 participants and road-tested by 60 companies in 17 countries.

It has long been the EIO's stated view that Scope 1 & 2 emissions do not in themselves provide an accurate picture of a company's carbon impact and therefore a bold approach needs to be taken in distinguishing between those companies reporting Scope 3 and those that are not.

This latest set of Carbon Rankings build on the methodology established previously for the ET UK 100 and ET Europe 300, launched in April 2011, where companies were placed into one of four Disclosure and Verification categories based on their Scope 1 & 2 emissions, and then ranked by carbon intensity (tonnes of CO₂ equivalent per million US dollars of turnover: tCO₂e/\$M turnover).

Where data is incomplete or not reported, companies are benchmarked against their sectoral competitors using the highest reported emissions intensity for that sector. Companies in each category are then ranked according to their emissions intensity across the three Scopes. Additionally, within their respective Disclosure Categories, companies are advantaged according to the number of Scope 3 categories disclosed, over and above their intensity.

Please see the methodology section for a fuller explanation.

THE RANKINGS ARE BASED ON THE FOLLOWING CORE PRINCIPLES:

- ▶ DATA USED IN THE RANKINGS MUST BE PUBLICLY AVAILABLE AND THEREFORE FULLY TRANSPARENT.
- ▶ IN ORDER TO ADDRESS THE ISSUE OF CLIMATE CHANGE, THE RANKINGS' PRIMARY OBJECTIVE MUST BE TO ENCOURAGE DISCLOSURE.
- ▶ DATA WHICH HAS BEEN VERIFIED BY AN INDEPENDENT THIRD PARTY WILL ALWAYS BE RANKED ABOVE DATA WHICH HAS NOT.
- ▶ COMPANIES HONEST ENOUGH TO DISCLOSE THEIR TOTAL EMISSIONS MUST NOT BE PENALISED FOR DOING SO RELATIVE TO THOSE WHO FAIL TO DISCLOSE.
- ▶ IN ORDER TO BE FULLY EFFECTIVE, THE RANKINGS MUST TAKE INTO ACCOUNT THE FULL SCOPE OF A COMPANY'S CARBON EMISSIONS, INCLUDING SCOPE 3.

EXECUTIVE 5

SUMMARY

Key Findings

- ▶ **9.3% of companies publicly disclose complete and independently verified Scope 1 and 2 emissions data**
- ▶ **39.3% of companies do not publicly disclose their emissions data**
- ▶ **23% of companies reported one or more Scope 3 categories**
- ▶ **Only 5 out of 300 have reported 5 or more Scope 3 categories**
- ▶ **Baxter tops the ET North America 300 Carbon Ranking, followed closely by United Parcel Service**
- ▶ **The biggest Scope 1 & 2 absolute emitter, for which information was available was Exxon Mobil, followed by American Electric Power, emissions of 282,000,000 and 134,000,000 (tCO₂e), respectively**

Topping the 2011 ET North America 300 Carbon Ranking is Baxter International, a US based health care company. It is the only company in the ET North America 300 to disclose six Scope 3 Categories, within the ET Carbon Rankings' first Disclosure Category: **Public, Complete and Verified**. It therefore earns them the top spot under the ET Carbon Ranking methodology, which rewards companies for their Scope 3 Disclosure.

Baxter is followed by logistics company United Parcel Service and Praxair, a manufacturer of industrial, process and specialty gases, who both disclose five Scope 3 Categories and therefore earn second and third spots. UPS have a lower combined Scope 1,2 & 3 emissions intensity under the ET Carbon Ranking methodology and therefore rank higher.

In terms of Scope 3 Disclosure, Bank of America and Du Pont disclose four each; Hess discloses three; Pepsico, News Corp, Dow Chemical and Air Products disclose two each; Bristol Myers and Dell Computers one each.

In terms of the ET Carbon Rankings' top Disclosure Category (**Public, Complete and Verified**), only 28 North American companies, including all of the above, fulfilled that criterion. Arguably, an ironic result, given that the GHG Accounting and Reporting Framework used throughout the world comes from the Washington based **GHG Protocol**.

That said, the top 10 of the ET North America 300 Carbon Ranking consists of US based companies. BCE is the first Canadian firm, ranked 11th, disclosing one Scope 3 category and with an emissions intensity of 45.2 tCO₂e/\$M turnover. BCE is followed in 12th place by Telus and Toronto Dominion Bank, ranked 14th, both also disclosing one Scope 3 category and with emissions intensities of 68.8 tCO₂e/\$M turnover and 112.6 tCO₂e/\$M turnover, respectively.

The best performing Mexican companies are Femsa (ranked 17th, 1,066.5 tCO₂e/\$M turnover) and GMexico (ranked 124th, 4,961.5 tCO₂e/\$M turnover). However, it should be noted that Mexican companies make up less than 5% of the total ET North America 300 Carbon Ranking Universe, which is based on free-float market capitalisation selection.

EXECUTIVE 6

SUMMARY

They therefore do not benefit from such a large sample size of companies.

The two best performers in the **Public, Complete and Unverified** Category are Intuit and Google, both disclosing five Scope 3 and with virtually identical emissions intensities of 565.8 and 594.1 tCO₂e/\$M turnover, respectively.

Canadian companies perform better relatively in terms of emissions reporting, with 56% of the companies reporting complete data, and 13% being verified. These percentages are 41% and 9% in the US by comparison.

These Rankings highlight that carbon reporting in North America is, with a few exceptions, highly inconsistent. Only 128 out of 300 companies report complete data according to GHG protocol, with only 69 reporting complete Scope 1 & 2 and some Scope 3 emissions.

With 118 companies not reporting any data at all, there is clearly significant room for improvement in the North American emissions reporting landscape.

The ET Carbon Rankings make up the first phase of the Environmental Tracking concept. The EIO would like to use the Rankings to create a series of tradeable ET Indexes, providing the investment community with a mainstream tool to encourage transparency and emission reductions on a global scale. It has already demonstrated the ability of these ET Indexes to track their conventional equivalents, through the launch of its two pilot indexes, the ET Europe 300 and the ET UK 100 earlier this year, based on its previously published rankings. These indexes can be described as a market mechanism designed to lower corporate emissions by influencing a company's share price.

Key Reporting Recommendations

- ▶ **Report Scope 1, 2 & 3 emissions following GHG Protocol guidelines**
- ▶ **Ensure emissions data is publicly available in CSR/Sustainability reports/Integrated Annual report and online**
- ▶ **Have emissions data verified by an independent third party**
- ▶ **Ensure verification statements are easily available to the public**

Know your Scopes!

- ▶ **Scope 1 emissions:** All direct emissions
- ▶ **Scope 2 emissions:** Indirect emissions generated from the purchase of electricity
- ▶ **Scope 3 emissions:** All other indirect emissions, such as distribution of goods, transportation of purchased goods, transportation of waste, disposal of waste, employee commuting, business travel or investments.

CARBON RANKING 7

METHODOLOGY

The ET Carbon Rankings have been designed specifically to encourage disclosure and verification, paving the way for absolute emissions reductions.

In essence, the ET Carbon Ranking methodology follows a three step process based on four information categories, as detailed below.

Step 1: Categorisation

Companies are placed into one of **four data categories**:

-  **1) Public, Complete, Verified**
-  **2) Public, Complete, Unverified**
-  **3) Public, Incomplete**
-  **4) No Public Data**

Step 2: Inference

Wherever data is not complete, which means Scope 1 and 2 have not been reported for the company's entire operations or they have not been expressed in a sufficiently clear manner or there is simply no public data available, a worst case figure is inferred; based on the highest reported emissions intensity by any company within the same sector across the full universe of companies within the ET Carbon Rankings. This is designed specifically to encourage disclosure and to avoid penalising companies honest enough to report their emissions figures.

The same principle is applied but in a slightly different manner to Scope 3 emissions. Because of the controversial nature of Scope 3 emissions - by definition they are not under the ownership or direct control of a company, nor do they always lend themselves to easy calculation or identification, it does not appear logical to the EIO for these emissions to be given equal weight to Scope 1 and 2 emissions, which clearly are the responsibility of the company.

THE CARBON RANKINGS HAVE BEEN DESIGNED SPECIFICALLY TO ENCOURAGE DISCLOSURE AND VERIFICATION

COMPANIES WITH EXTERNALLY VERIFIED DATA WILL ALWAYS FIND THEMSELVES RANKED ABOVE THOSE WITH UNVERIFIED DATA

COMPANIES THAT DO NOT HAVE ANY PUBLICLY AVAILABLE DATA ARE BENCHMARKED AGAINST THE HIGHEST INTENSITY FROM THE WORST PERFORMING COMPANY WITHIN THEIR SECTOR

CARBON RANKING 8

METHODOLOGY

Scope 3 Categories:

Upstream

1. Purchased goods and services
2. Capital goods
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased asset

Downstream

9. Downstream transportation and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
15. Investment

The EIO's current approach is to give a **50% weighting** to any **fully reported and verified Scope 3 emission total reported according to the 15 categories of the new Scope 3 standard**. This is then added to the Scope 1 and 2 total that has already been reported. Whenever a company does not report a complete and verified Scope 3 total, exactly the same inference method described for Scope 1 and 2 is employed for Scope 3 emissions.

The company in the relevant sector **across the full universe of ET Rankings** with the highest reported Scope 3 figure is identified and used to infer a figure for the remaining companies, thus avoiding penalising a company for being honest enough to report a high figure. The only route by which a company can avoid having an inferred figure allocated to them is to report its own complete and verified figure, and if that happens to be lower than the existing benchmark, then it gains the advantage of a higher ranking position by virtue of its lower emission total. If it is higher, then all the remaining non disclosing companies are benchmarked against it.

In summary, combined emissions intensity across the three Scopes is calculated according to the following formula: 100% of Scope 1 & 2 emissions intensity (disclosed or inferred) + 50% of Scope 3 emissions intensity (disclosed or inferred).

Step 3: Ranking

Once companies have been categorised according to the completeness and verification of their Scope 1 & 2 data, they are firstly ranked according to the number of Scope 3 categories disclosed.

Secondly, companies are ranked within the Disclosure Categories, according to their combined emissions intensity across the three Scopes. Please refer to the inference method as described in the previous section for detail on how companies not providing complete data are treated.

IT IS KEY THAT SCOPE 3 EMISSIONS ARE IDENTIFIED, REPORTED AND ULTIMATELY REDUCED

CARBON RANKING 9

METHODOLOGY

Accounting for size

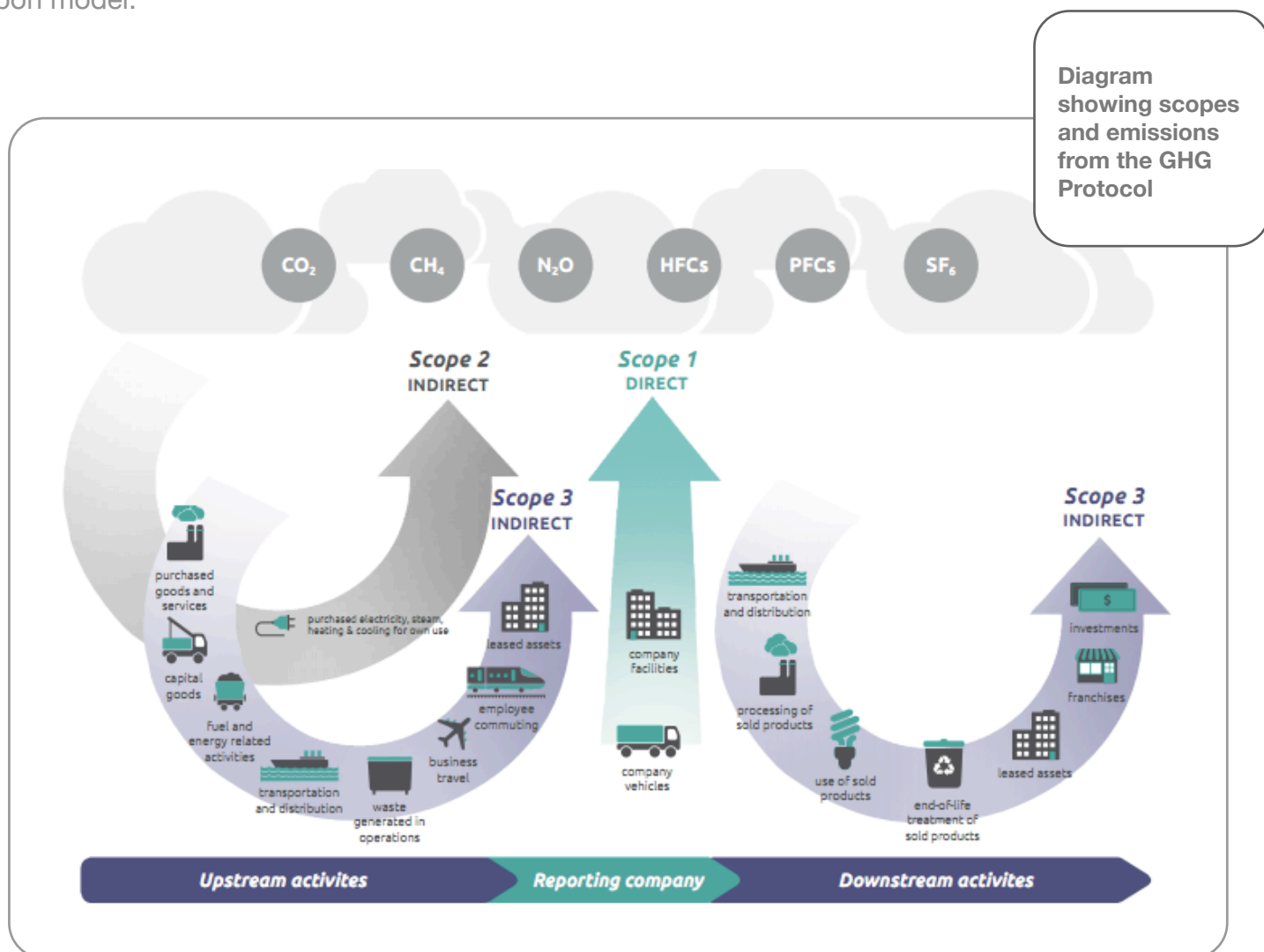
Emissions intensity is calculated using turnover figures from the same financial year as their latest publicly available (at time of publication) reported emissions.

Whilst there is no universally accepted system of establishing relative company size, turnover is generally accepted within the field of carbon accounting as a reasonable metric to determine company size.

Where one or more companies have the same emissions intensity within the Rankings, smaller market capitalisation is given an advantage. The justification for this is simple: larger companies have greater resources to both improve their reporting and realign their business towards a low carbon model.

FOR A COMPLETE EXPLANATION OF THE METHODOLOGY BEHIND THE ET CARBON RANKINGS PLEASE VISIT EIO.ORG.UK

Diagram showing scopes and emissions from the GHG Protocol

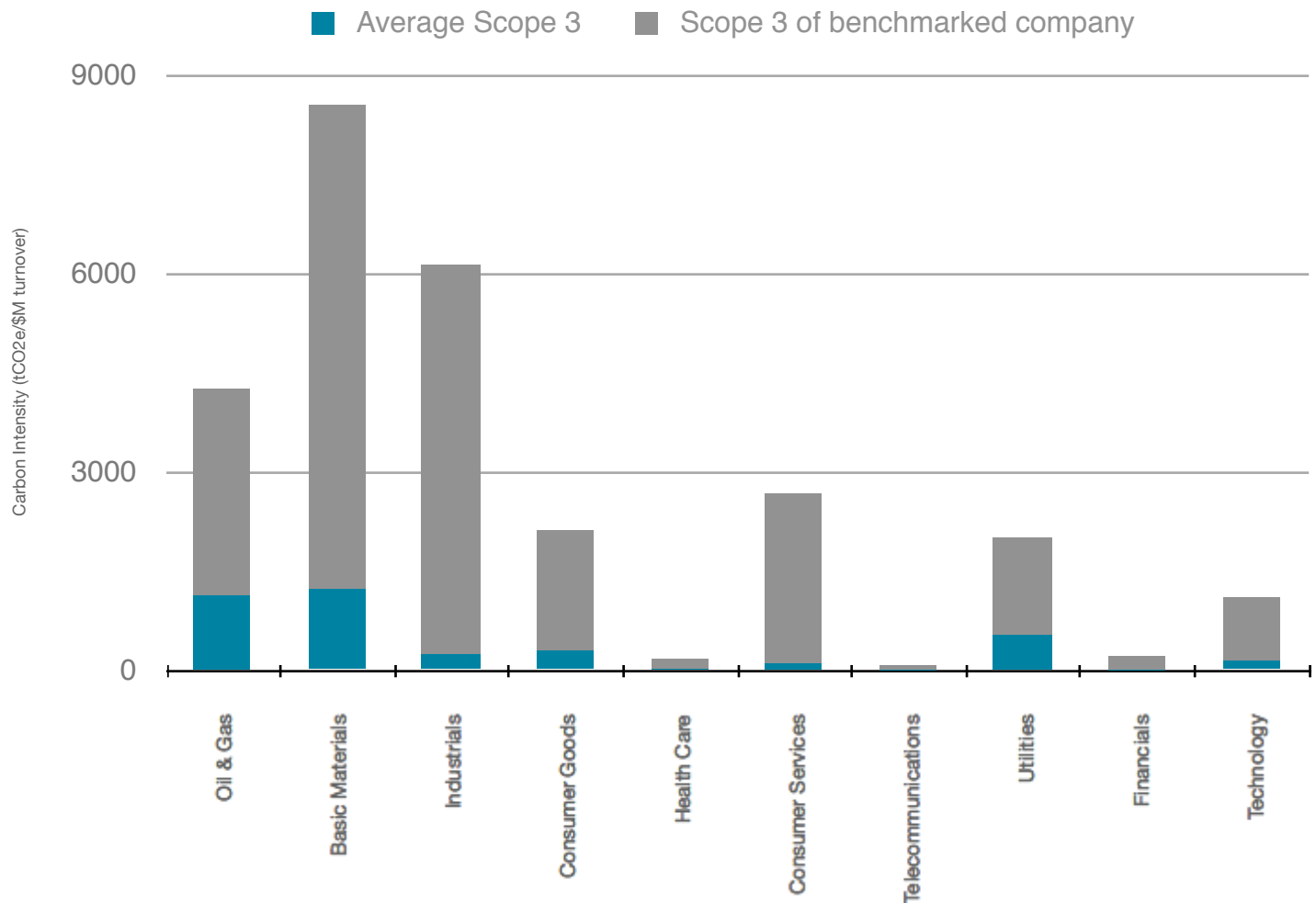


SPOTLIGHT ON 10

SCOPE 3

Global Scope 3 Analysis

Figure 1.



Global Scope 3 Benchmark companies

Figure 2.

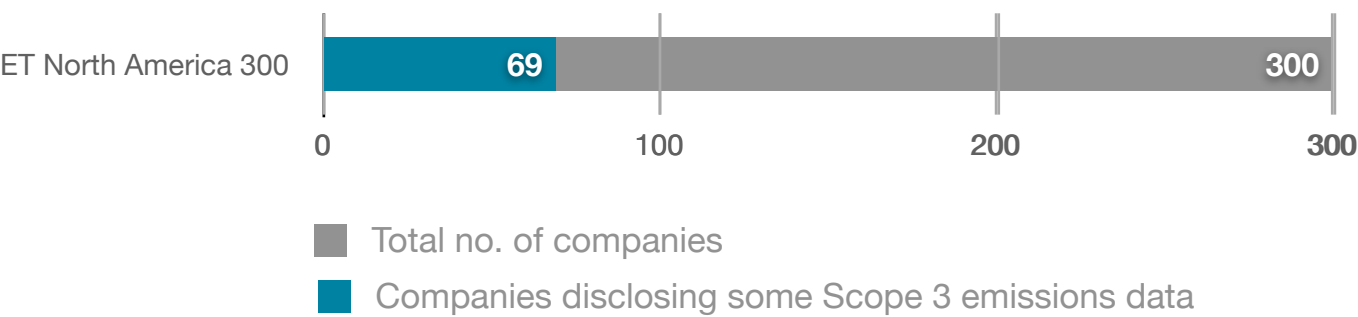
Sector	Benchmark Company Name	No. of Scope 3 Categories Disclosed	Scope 3 Intensity	Sector Scope 3 Intensity Average
Oil & Gas	OMV	1	4,246.31	1,133.87
Basic Materials	Rio Tinto	3	8,547.13	1,222.48
Industrials	Delta Electronics	1	6,130.53	238.84
Consumer Goods	Reckitt Benckiser Group	4	2,115.76	289.92
Health Care	Baxter Int.	6	166.90	19.50
Consumer Services	IC Hotels Group	4	2,665.29	101.85
Telecommunications	Sprint Nextel	2	64.51	6.02
Utilities	RWE	3	1,998.50	536.19
Financials	British Land	4	206.53	7.76
Technology	Motorola Mobility	4	1,103.38	141.30

SPOTLIGHT ON 11

SCOPE 3

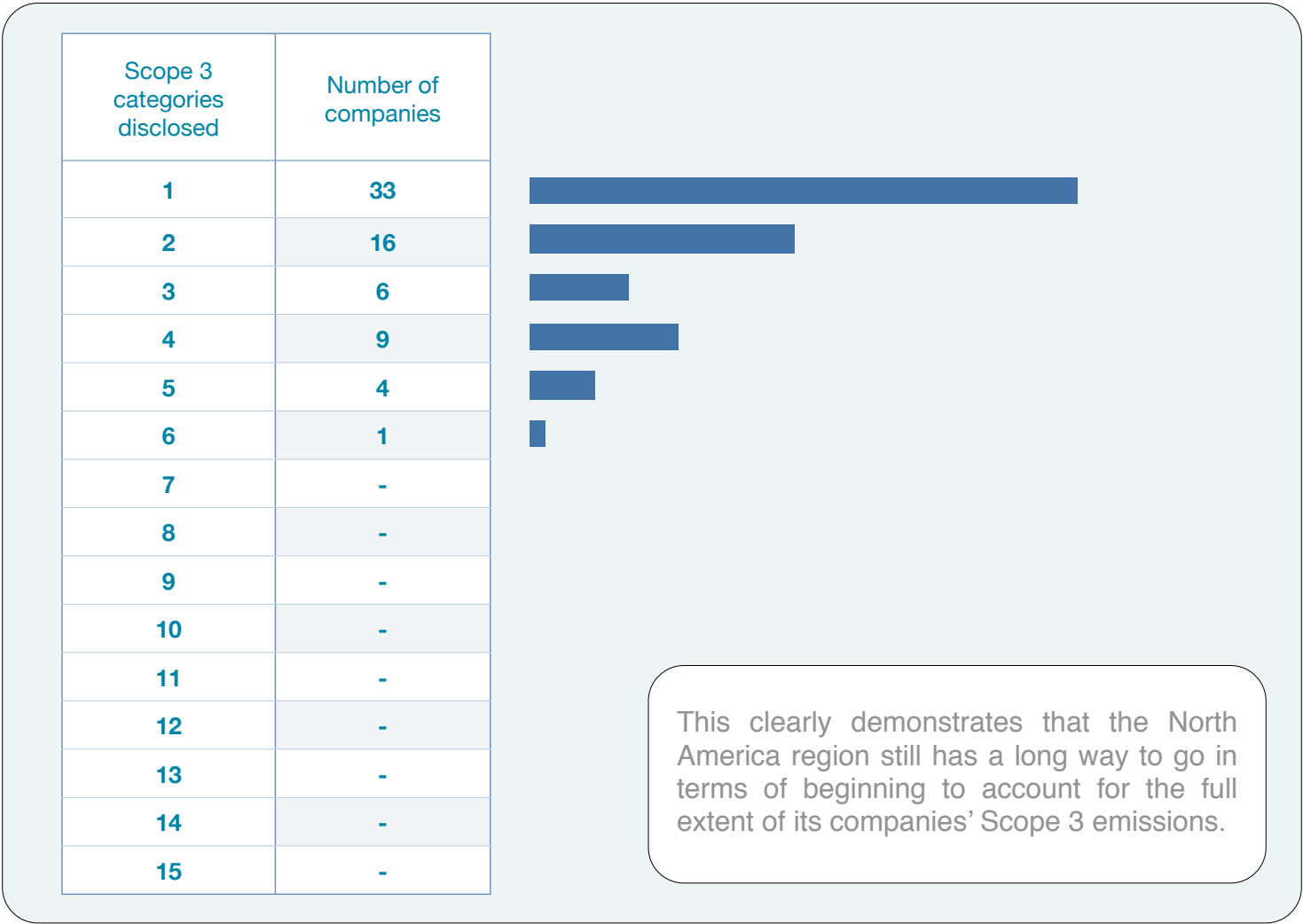
North America 300 Scope 3 Analysis

Figure 3.



North America 300 Extent of Scope 3 Disclosure

Figure 4.



INFERENCE: SCOPE 3

Figure 5.

As these three companies from the **Basic Materials** sector fail to disclose all 15 Scope 3 categories as defined by the GHG Protocol Corporate Value Chain (Scope 3) Standard, their disclosed Scope 3 figures are considered to be incomplete, and therefore they are **given an inferred Scope 3 figure**.

Disclosure & Verification status	Carbon Rank	Company Name	No. of S3 Categories Disclosed	Total Scope 3 Emissions	Disclosed Scope 3 Intensity	Inferred Scope 3 Intensity
No Public Data	294	Mfrisco	-	No Public Data	-	8,547.13
No Public Data	295	Eldorado Gold	-	No Public Data	-	8,547.13
No Public Data	296	Silver Weaton	-	No Public Data	-	8,547.13

Rio Tinto is one of the Scope 3 benchmark companies for the **ET Global Universe**, which means it is the company with the highest disclosed Scope 3 intensity within the **Basic Materials** sector.

Sector	Benchmark Company Name	Scope 3 Intensity
Oil & Gas	OMV	4,246.31
Basic Materials	Rio Tinto	8,547.13
Industrials	Delta Electronics	6,130.53
Consumer Goods	Reckitt Benckiser Group	2,115.76
Health Care	Baxter Int.	166.90
Consumer Services	IC Hotels Group	2,665.29
Telecommunications	Sprint Nextel	64.51
Utilities	RWE	1,998.50
Financials	British Land	206.53
Technology	Motorola Mobility	1,103.38

INFERENCE: SCOPE 1 & 2

Figure 6.

American Electric Power is the company with the highest emissions intensity disclosing complete data within the Electricity Industry across the entire **ET Global Universe**.

Disclosure & Verification status	Carbon Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Emissions Intensity (tCO ₂ e/\$M turnover)	No. of S3 Categories Disclosed
Complete & Unverified	126	Potash Corporation	10,315,000.00	1,518.86	-
Complete & Unverified	127	Xcel Energy	80,500,000.00	7,815.68	-
Complete & Unverified	128	American Electric Power	134,000,000.00	9,288.14	-

Disclosure & Verification status	Carbon Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Emissions Intensity (tCO ₂ e/\$M turnover)	No. of S3 Categories Disclosed
No Public Data	299	Edison International	No Public Data	9,288.14	-
No Public Data	300	First Energy	No Public Data	9,288.14	-

Here, Edison International and First Energy have been benchmarked against the highest disclosing company with complete data from the Electricity industry. This means they have been given an *inferred* intensity of 9,288.14 tCO₂e/\$M turnover. This is not an approximation of their emissions but a means of making sure that the highest *disclosing* company in the sector is not penalised for being honest enough to report a large figure.

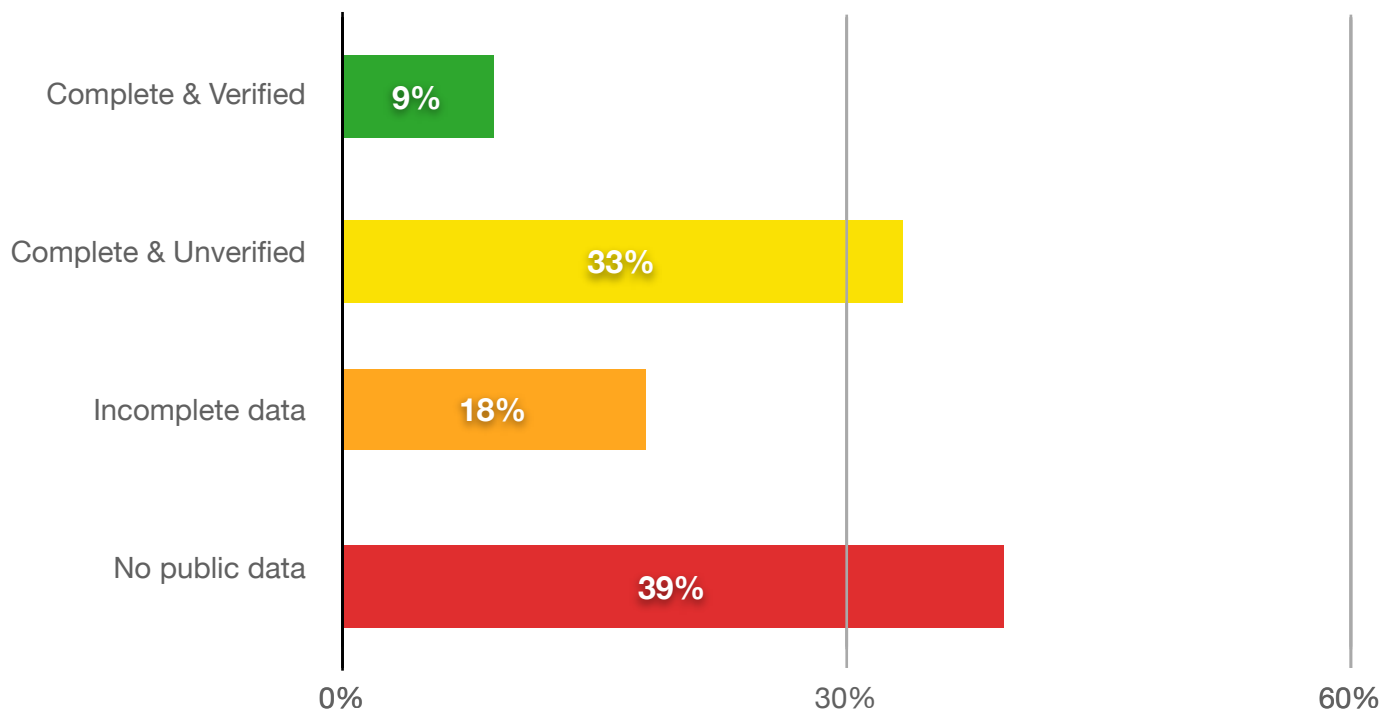
As both companies have the same *inferred* intensity figure, the company with the largest market capitalisation is placed lower down the Ranking.

RANKING 14

ANALYSIS

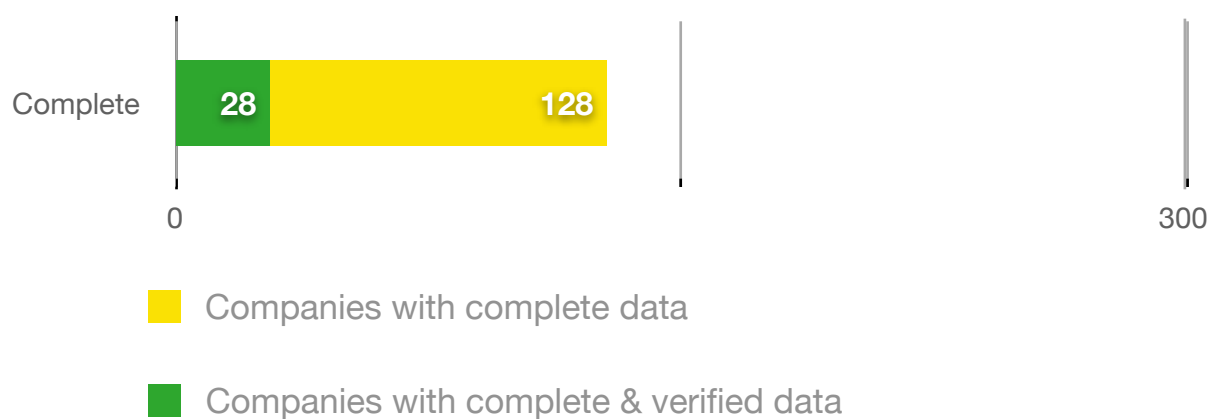
The disclosure and verification landscape of the ET North America 300

Figure 7.



Complete data versus verified data

Figure 8.



RANKING 15

ANALYSIS

ET North America 300 Top 5

Figure 9.

ET Rank	Company Name	S1+2 emissions (tCO ₂ e)	S1+2 Intensity	S3 Categories disclosed	S1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Baxter International, Inc.	851,000	66.25	6	149.70	Complete & Verified
2	United Parcel Service	12,630,000	255.41	5	3,320.68	Complete & Verified
3	Praxair, Inc.	15,059,154	1,488.65	5	5,762.21	Complete & Verified
4	Bank of America	1,847,253	13.69	4	116.96	Complete & Verified
5	E.I. du Pont de Nemours	15,432,000	590.34	4	4,863.90	Complete & Verified

Topping the 2011 ET North America 300 Carbon Ranking are US based medical consumer goods leader Baxter International, which is the only North American company reporting on six Scope 3 categories. Second place is occupied by US corporation United Parcel Service, which offers delivery services, with respective carbon intensities of 149.7 and 3,320.68 (tCO₂e/\$M turnover). US based basic materials company Praxair ranks third with an intensity of 5,762.21. Both report on five Scope 3 categories.

Numbers four and five are both reporting on four Scope 3 categories: Bank of America with an intensity of 116.96 and basic materials company E.I. du Pont with an intensity of 4,863.90, edging out Hess which comes in 6th as the only complete verified company in the North America Rankings to disclose 3 Scope 3 categories.

(Emissions Intensity is measured in tCO₂e/\$M turnover)

ET North America 300 Bottom 5

Figure 10.

ET Rank	Company Name	S1+2 emissions (tCO ₂ e)	S1+2 Intensity	S3 Categories disclosed	S1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
296	Silver Wheaton Corporation	no public data	2,993.71	-	7,267.28	No public data
297	Honeywell International	no public data	4,292.54	-	7,357.81	No public data
298	Entergy Corporation	no public data	9,288.14	-	10,287.39	No public data
299	Edison International	no public data	9,288.14	-	10,287.39	No public data
300	FirstEnergy Corporation	no public data	9,288.14	-	10,287.39	No public data

Last three among North America's largest 300 companies are US are utilities companies FirstEnergy, Edison International and Entergy Corporation, who have been benchmarked against the highest disclosing company from within their sector as they fail to put any data in the public domain. The Canada-based Silver

Wheaton Corporation features in the bottom five, which are among the 39.6% of North American companies that do not publicly disclose their emissions data.

(Emissions Intensity is measured in tCO₂e/\$M turnover)

ANALYSIS

Highest and Lowest Absolute Emitters:

Scope 1 & 2

Taken from the 128 Companies reporting complete data

Lowest Absolute Emitters (Scope 1 & 2 Only)

Figure 11.

Absolute Rank	ET Rank	Company Name	Scope 1+2 emissions (tCO2e)	Scope 1+2 Intensity	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(45)	National Bank of Canada	8,052	1.62	104.88	Complete & Unverified
2	(72)	Green Mountain Coffee	11,326	14.10	1,071.98	Complete & Unverified
3	(47)	BroadCom A	38,692	5.67	557.36	Complete & Unverified
4	(29)	Intuit	45,000	14.14	565.83	Complete & Unverified
5	(58)	Ace	58,213	3.76	107.03	Complete & Unverified

Figure 11 lists the five lowest absolute emitters from those disclosing complete Scope 1 & 2 information. Verification status is included on the right but does not affect the ranking. Despite their low absolute emissions, they don't appear in the

top 25 of the Ranking because all five don't have their emission data independently verified.

None of the above companies disclose more than five Scope 3 categories.

Highest Absolute Emitters (Scope 1 & 2 Only)

Figure 12.

Absolute Rank	ET Rank	Company Name	Scope 1+2 emissions (tCO2e)	Scope 1+2 Intensity	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
124	(19)	Chevron	59,200,000	312.22	2,435.38	Complete & Verified
125	(104)	ConocoPhillips	68,005,000	384.41	2,507.57	Complete & Unverified
126	(127)	XCEL Energy	80,500,000	7,815.68	8,814.93	Complete & Unverified
127	(128)	American Electric Power	134,000,000	9,288.14	10,287.39	Complete & Unverified
128	(21)	Exxon Mobil	282,000,000	825.58	2,948.74	Complete & Verified

Figure 12 lists the five largest absolute emitters from those disclosing complete Scope 1 & 2 information, ignoring verification status.

All of the bottom five companies are from the carbon-intensive Oil & Gas or Utilities sectors. Exxon Mobil representing the Oil & Gas sector and American Electric Power representing the Utilities sector as biggest emitters.

Of note: despite all of the bottom five having large Scope 1 & 2 totals, all are reporting Complete emissions or Complete & Verified emissions and thereby gain an advantage in the Ranking.

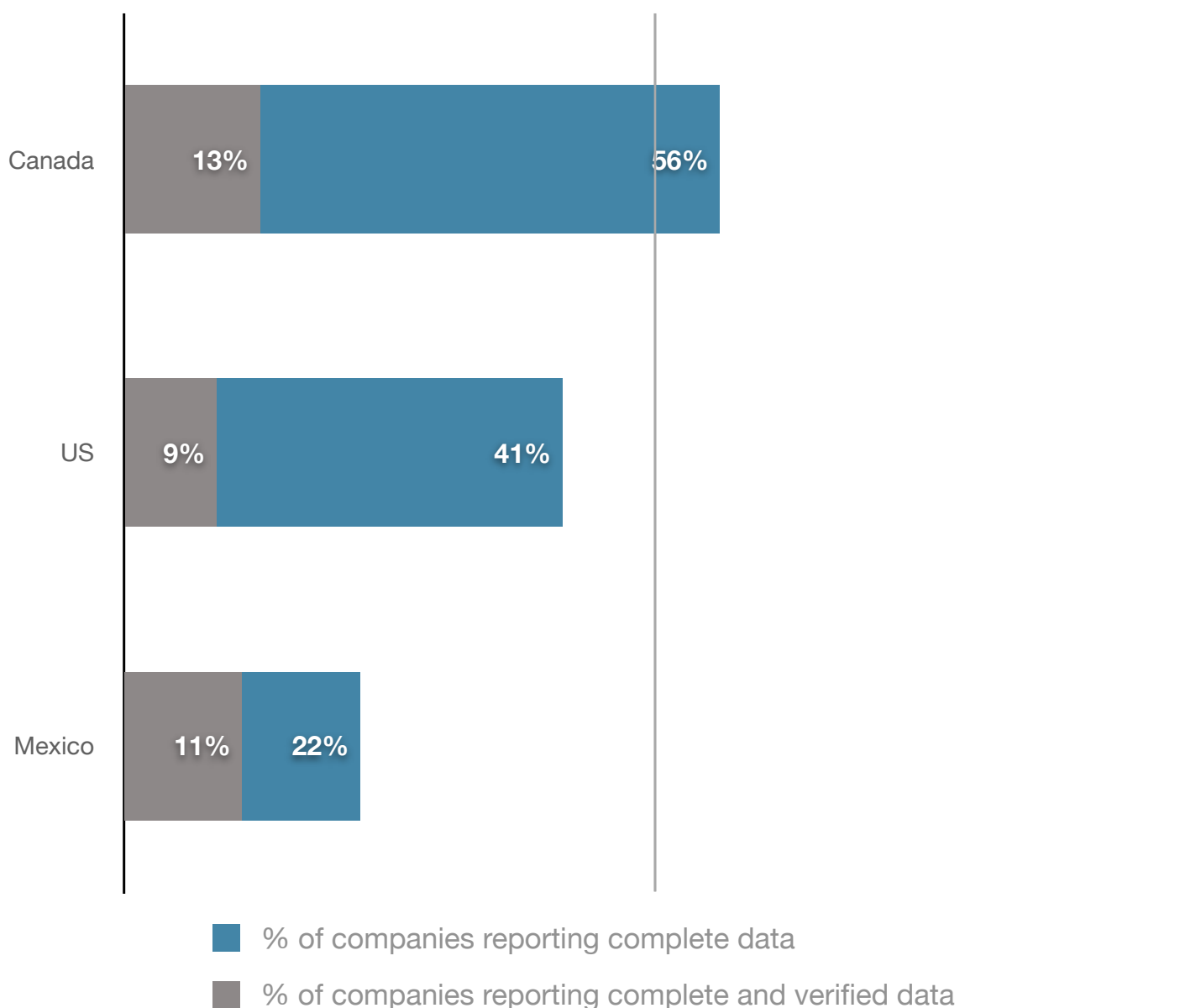
None of these company report Scope 3 emissions.

GEOGRAPHICAL ANALYSIS 17

Summary

Countries leading the field of disclosure

Figure 13.



It is interesting to note that the percentage of companies reporting complete data is below 60%, even in the country with the highest degree of reporting. This is indicative that though North America is making progress in terms of GHG emissions reporting, there is still a long way to go. The degree to which there is verification of data by an independent source is even lower, with Mexico and Canada showing 13% and the US

only 9% verified. This places Canada well in the lead in regional emissions reporting in terms of companies reporting complete data and companies with verified data. All three of these countries have significant room for improvement. The regulations and attitudes in the region have begun to shift towards a greater emphasis on reporting.

GEOGRAPHICAL 18

ANALYSIS

Spotlight on: United States

Top 5

Figure 14.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(1)	Baxter International	851,000	66.25	6	149.70	Complete & Verified
2	(2)	United Parcel Service	12,630,000	255.41	5	3,320.68	Complete & Verified
3	(3)	Praxair, Inc.	15,059,154	1,488.65	5	5,762.21	Complete & Verified
4	(4)	Bank of America	1,847,253	13.69	4	116.96	Complete & Verified
5	(5)	E.I. du Pont de Nemours	15,432,000	590.34	4	4,863.90	Complete & Verified

Bottom 5

Figure 15.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
248	(293)	CF Industries Holdings	No Public Data	2,627.96	-	6,901.53	No Public Data
249	(297)	Honeywell	No Public Data	4,292.54	-	7,357.81	No Public Data
250	(298)	Entergy	No Public Data	9,288.14	-	10,287.39	No Public Data
251	(299)	Edison International	No Public Data	9,288.14	-	10,287.39	No Public Data
252	(300)	FirstEnergy	No Public Data	9,288.14	-	10,287.39	No Public Data

Spotlight on: Canada

Top 5

Figure 16.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(11)	BCE	234,492	12.94	1	45.19	Complete & Verified
2	(12)	Telus	358,300	36.53	1	68.78	Complete & Verified
3	(14)	Toronto Dominion Bank	226,210	9.37	1	112.64	Complete & Verified
4	(23)	Talisman Engineering	12,792,000	1,874.98	-	3,998.13	Complete & Verified
5	(24)	Barrick Gold	4,969,840	441.21	-	4,714.77	Complete & Verified

Bottom 5

Figure 17.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
41	(243)	Thomson Reuters	No Public Data	38.51	-	1,371.16	No Public Data
42	(285)	Canadian Oil Sands	No Public Data	4,705.52	-	6,828.68	No Public Data
43	(287)	Crescent Point Energy	No Public Data	4,705.52	-	6,828.68	No Public Data
44	(295)	Eldorado Gold	No Public Data	2,993.71	-	7,267.28	No Public Data
45	(296)	Silver Wheaton	No Public Data	2,993.71	-	7,267.28	No Public Data

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Spotlight on: Mexico

Top 5

Figure 18.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(17)	Femsa	129,315	8.61	-	1,066.49	Complete & Verified
2	(124)	GMexico	5,720,000	687.95	-	4,961.51	Complete & Unverified
3	(147)	WalMex	Unclear Data	145.78	-	1,478.43	Incomplete & Unverified
4	(185)	AMX	No Public Data	64.79	-	97.05	No Public Data
5	(202)	GFINBUR	No Public Data	366.30	-	469.57	No Public Data

Bottom 5

Figure 19.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
6	(239)	Tlevisa CPO	No Public Data	38.51	-	1,371.16	No Public Data
7	(252)	Elektra	No Public Data	145.78	-	1,478.43	No Public Data
8	(260)	Bimbo	No Public Data	795.34	-	1,853.22	No Public Data
9	(294)	MFRISCO	No Public Data	2,993.71	-	7,267.28	No Public Data
-	-	-	-	-	-	-	-

Intensity is measured as tCO₂e/\$Million turnover

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North America Background

Over the course of the last two decades, sustainability in North America has evolved from a concept to an integrated business practice. The ET North America 300 Carbon Rankings puts the spotlight on the United States, Canada, and Mexico; all three of these economies rank in the top 15, globally in terms of GDP according to the IMF and World Bank. Yet, they have lagged in the implementation of sustainability regulation in comparison to the rest of the developed world, ranking in the top 15 globally in terms of absolute GHG emissions. This stems partially from the nature of their respective diverse economies, which have strong roots in energy intensive industries such as manufacturing and resource mining and refinement. The massive land area of these countries also results in a dependence on transport by highway and cost related hurdles to upgrading to more sustainable and extensive infrastructure.

With estimated GHG emissions of 6,663.2 million tonnes CO₂e in 2009, the US is the second largest emitter after China. The majority of these emissions relate to carbon dioxide. The total 2009 carbon dioxide emissions from the consumption of energy in the US amounted to 5,424.5 million tonnes CO₂. Canada emitted about a tenth of that at 541 million tonnes CO₂, and Mexico accounted for 443.6 million tonnes.

United States Emissions Landscape

Overall GHG emissions in the US increased 7.3% from 1990 to 2009, though a reversal in this trend has resulted in a decrease of 6.1% from 2008 to 2009. This reversal in the emissions trend was due primarily to the economic crisis, which fostered a decrease in economic output that was subsequently responsible for reduced energy consumption. The decreased emissions as a result of lower energy consumption were due in part to an overall shift from coal to natural gas based electricity generation, which has a lower carbon intensity.

THE US, CANADA, AND MEXICO ALL RANK IN THE TOP 15 GLOBALLY IN TERMS OF BOTH GDP AND ABSOLUTE GHG EMISSIONS.

THE US IS RANKED SECOND IN TERMS OF ABSOLUTE GHG EMISSIONS AND FIRST IN PER CAPITA EMISSIONS

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THE AVERAGE ELECTRICITY CONSUMPTION IN THE US IS 13,654 KWH PER CAPITA, AS OPPOSED TO 6,381 KWH PER CAPITA IN THE EUROPEAN UNION

THE CLEAN AIR ACT REQUIRES COMPANIES EMITTING MORE THAN 25,000 TONNES CO₂ PER YEAR TO REPORT ON THEIR ANNUAL EMISSIONS.

The consumer economy of the United States is evident in the average electricity consumption per capita of 13,654 Kwh in 2008, whereas the average electricity consumption in the European Union amounted for 6,381 Kwh per capita over the same period. The two-fold difference in energy consumption can be explained by the higher number of energy intensive appliances per household, such as air conditioning units.

As such, the US still has a long way to go to improve awareness about energy efficiency and carbon, which is demonstrated by the fact that the US is one of the few non-signatories of the Kyoto Protocol.

United States Regulatory Climate

Since President Obama assumed office in 2009, the US government appears more focused on climate change. As the US government realises the impact of CO₂ emissions, several legislative measures have been taken recently to ensure the reduction of carbon emissions. Due to the US governmental structure a distinction should be made between federal programs and programs in individual states.

At the federal level, the US government announced the Recovery Act in 2009. Through this act the US government invested more than \$90 billion in clean energy. Furthermore, through the announcement of new national fuel efficiency standards for cars and small trucks, the government aims to save 12 billion barrels of oil until 2025.

With the adjustment of the Clean Air Act in October 2009, by 30 September 2011 large emitters (emitting more than 25,000 tonnes CO₂ per year) had to report on their 2010 annual emissions for the first time. These requirements are applicable to 28 industrial sectors, including power plants, petroleum refineries and landfills. The Environmental Protection Agency expects to receive greenhouse gas data from approximately 7,000 large industrial emitters, who account for about 70% of greenhouse gas emissions in the US.

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For reporting year 2011 the number of industrial sectors covered by the program will increase to 41, covering around 13,000 large emitters and 85%-90% of all emissions. The goal of this program is to gather comprehensive and accurate data about greenhouse gas emissions, which is considered to be a critical step towards taking action on the reduction of these emissions.

AS A RESULT OF THE CLEAN AIR ACT, THE 13,000 COMPANIES RESPONSIBLE FOR 85-90% OF THE EMISSIONS IN THE US MUST BEGIN REPORTING EMISSIONS DATA TO THE EPA

Focus On: Industry

In the early 1990s, an international standard for energy efficient consumer products was established in the US. The Energy Star label for consumer devices such as computers and kitchen appliances generally indicates the product has a 20% to 30% lower energy consumption than required by federal standards.

Although the US is not considered to be a frontrunner in addressing climate change, it is one of the first countries that have developed and implemented a national strategy to control emissions of high-GWP (Global-warming potential) gases. These include Hydrochlorofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF6). These gases are 140 to 23,900 more potent than CO2 in terms of their capabilities to trap heat in the atmosphere over a 100-year period.

THOUGH NOT A LEADER IN GHG EMISSIONS REDUCTION, THE US WAS AMONG THE FIRST COUNTRIES TO IMPLEMENT A STRATEGY TO CONTROL EMISSIONS OF HIGH-GWP GASES

These high-GWP gases account for approximately 2 percent of total emissions in the US (based on 2007 data) and mainly result from aluminum production, semiconductor manufacturing, electric power transmission, magnesium production and processing and the production of the refrigerant HCFC-22.

Focus On: Electricity

In 2009, electricity generation in the US was mainly coal (45%) and natural gas (23%) based, with nuclear power accounting for another 20%. Conventional hydroelectric power generation and other renewable power generation only accounted for about 11%. The remaining 1% is petroleum based.

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FOSSIL FUEL BASED ELECTRICITY GENERATION ACCOUNTS FOR 68% OF THE TOTAL GENERATED, THOUGH RECENT FEDERAL PROGRAMS ENCOURAGE A SWITCH TO RENEWABLES

APPROXIMATELY 17% OF THE WORLD'S PETROLEUM IS CONSUMED THROUGH TRANSPORTATION IN THE UNITED STATES

CANADA ACCOUNTS FOR 2% OF GLOBAL EMISSIONS BUT IS AMONG THE HIGHEST IN PER CAPITA EMISSIONS

In 2008, the United States Environmental Protection Agency (EPA) announced the Green Power Partnership program in 2008. This voluntary program was implemented to encourage the use of renewable power sources and provide expert advice, technical support, tools and resources. For companies without direct access to renewable power, the program provides renewable energy credits to help these companies achieve their goals.

Focus On: Transportation

Transportation is responsible for the consumption of approximately 2/3 of the petroleum used in the United States. Of that consumption, 81% results from highway transportation. Responsible for roughly 25% of the world's oil consumption, the US has instituted several programs to reduce greenhouse gas emissions from the transportation sector, including:

CAFE - Corporate Average Fuel Economy regulations, intended to improve the average fuel economy of cars and light trucks.

Smartway Transport Partnership - a collaboration between the Environmental Protection Agency and the freight sector to improve fuel efficiency and reduce emissions.

Renewable Fuel Standard - a national standard to increase the volume of renewable fuel that is blended into gasoline.

Biomass and Biorefinery Systems Program - a program to develop technology for the conversion of biomass to fuels, chemicals, materials and power to help reduce US' demand for oil.

Canada Emission Landscape

Canada accounts for just 2% of global GHG emissions, yet its per capita emissions are among the highest in the world according to the Organisation for Economic Co-operation and Development (OECD). Industry accounts for approximately 50% of Canada's total emissions, with just 350 facilities responsible for 33% of that total. Analysis of historical data indicates that Canada's emissions in 2008 were about 19% higher than in 1990.

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electricity consumption per capita of 17,061 Kwh (2008) due to the widespread use of air conditioning and electric heating systems.

Canada Regulatory Climate

In April of 2007, Canada unveiled its Turning the Corner plan, which set out to reduce GHG emissions to 20% below 2005 levels by 2020. In 2010 this was reduced to 17% below 2006 levels by 2020. This goal was set internationally in the Copenhagen Accord during the COP 15. To achieve these goals, Canada created the Greenhouse Gas Emissions Reporting Program to gather and publish information on GHG emissions generated across Canada's provinces and territories, implemented new regulations on the transportation sector, introduced new regulations on coal-fired electricity generation, created mandatory industrial targets and invested heavily in green infrastructure, energy efficiency, and clean energy technologies. Though there is not a significant difference in GHG emissions policy between Canadian provinces, their respective industries vary considerably as does the relative impact of regulation of GHG emissions. Due to the interconnected nature of the North American economy, Canada has worked to align its policies and regulations with those of the United States through the Clean Energy Dialogue (CED) and by participating in the North American Leaders Summit.

CANADA AIMS TO REDUCE GHG EMISSIONS TO 17% BELOW 2006 LEVELS BY 2020

Focus On: Industry

In its Regulatory Framework for Air Emissions, Canada set comprehensive goals for its industrial sectors including Electricity Generation (by combustion), Oil and Gas, Forest Products, Smelting and Refining, Iron and Steel, some Mining, and Cement/Lime/Chemicals. Each year, from 2007 to 2010, these sectors were mandated to reduce GHG emissions by 6% per year and 2% per year after that, which results in emissions intensity reduction of 26% of 2006 levels by 2015.

CANADA AIMS TO REDUCE GHG EMISSIONS IN ITS MOST CARBON INTENSIVE INDUSTRIES BY 26% OF 2006 LEVELS BY 2015

Focus On: Electricity

Canada's electricity sector is one of the lowest emitting in the world with over 60% of its generation coming from renewable sources,

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ONLY 14% OF CANADA'S ELECTRICITY GENERATION COMES FROM COAL FIRED POWER PLANTS

FOLLOWING THE JOINT PASSAGE OF THE PASSENGER AUTOMOBILE AND LIGHT TRUCK GHG EMISSION REGULATIONS, CANADA AND THE US ARE WORKING TO DEVELOP SIMILAR GUIDELINES FOR HEAVY-DUTY VEHICLES

AS OF 2007, CO₂ EMISSIONS IN MEXICO HAD RISEN 50% TO 449.98 MT SINCE 1990, OR ABOUT 2.4% PER YEAR

yet there is still room for GHG emissions reductions in the 14% generated by coal-fired power plants. The proposed standards for the coal-fired electricity sector would impose stringent guidelines on emissions while mandating Carbon Capture and Storage technology implementation. Canada's efforts will be aided by the fact that by 2025, 66% of its current coal-fired facilities will have reached the end of their useful life. This means that as old facilities are wound-down, they are replaced by biomass, natural gas, and cleaner burning coal facilities, which results in considerable reductions in GHG emissions.

Focus On: Transportation

In concert with the US, Canada has instituted its Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations, which come into force for model years 2011-2016. The goal of these regulations is to lower vehicular emissions by 25% compared to 2008 levels by 2016 and even higher targets for 2017 onward. Additionally, Canada is working with the US to develop guidelines for Heavy-Duty Vehicle GHG emissions for 2014 model years and later. These guidelines are expected by December of 2011.

Mexico Emissions Landscape

In the year 1990, CO₂e emissions in Mexico were at 300.45 Mt. In recent decades, drastic population growth and shifts in the industrial sectors of Mexico have seen a rise in CO₂ emissions. Surprisingly in 2007, Mexico's total CO₂ emissions from fossil fuel combustion amounted to 449.98 Mt, only a 50% rise on 1990 levels, giving the country a surprising position of 16th in the global Climate-Change Performance Index (currently ranked 11th), a huge feat for a developing nation. On average, CO₂ emissions have risen by 2.4% per year between 1990-2007, a small amount when considering an average population growth of 1.56% and GDP increase of 3.06% per annum. Of the total 2007 CO₂ emissions from Mexico, energy contributes the most towards emissions totals at 43%, with transport in close second at 35%. Manufacturing and 'other sources' contribute a further 14% and 8% respectively.

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Mexico Regulatory Climate

As the 2007 Bali conference on climate change drew to a close, a surprising front-runner in the effort to combat climate change began to emerge: Mexico. Mexico is the second largest emitter of GHG in Latin America accounting for 1.5 percent of global GHG emissions with the country's state-operated oil industry being a major contributor. Since the Bali conference in 2007, Mexico has continued to reduce its GHG emissions through the announcement of a number of climate change initiatives, including the Mexican GHG Program, and promotion of environmentally friendly forms of energy production implemented through a partnership between the Mexican President Felipe Calderon and the US President Barack Obama. In 2007, Calderon announced the National Climate Change Strategy (ENACC) focusing on Mexico's central development policies, furthering this in 2009 with the publishing of the Special Climate Change Program (PECC), enshrining Mexico's long-term commitment to battling climate change.

In May 2007, a comprehensive plan to reduce GHG emissions from the nation's capital Mexico City was announced, comprising of a \$550 million investment into a comprehensive climate change mitigation strategy with the ultimate aim of lowering GHG emissions from the capital to half of what they were in 2002. In June 2011, the Mexican government announced that it had reduced its GHG emissions by 6.28 million tonnes since 2008 in Mexico City, keeping the country on track for an aimed reduction of 7.7 million tonnes by 2012.

Focus On: Electricity

Rapid population growth in Mexico has meant that demand for electricity has steadily risen by 4% a year since 1995. Although the average consumption per capita is relatively low at 1,996 Kwh (2008), this has increased by 47% since 1995. Under a baseline scenario agreed in the PECC report of 2009, meeting the increasing demand for electricity would mean a total increase of CO2 emissions from electricity production of 230 percent between 2008 and 2030 (from 142 Mt CO2e to 322 Mt CO2e). This increase puts considerable strain on Mexico's main electricity

FOLLOWING THE 2007 BALI CONFERENCE ON CLIMATE CHANGE, MEXICO HAS INTRODUCED INITIATIVES INCLUDING THE MEXICAN GHG PROGRAM, THE NATIONAL CLIMATE CHANGE STRATEGY, AND THE SPECIAL CLIMATE CHANGE PROGRAM

BETWEEN 2008 AND 2030, CO2 EMISSIONS FROM ELECTRICITY PRODUCTION ARE EXPECTED TO INCREASE 230% DUE TO RELIANCE ON FOSSIL FUELS

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BETWEEN 1996 AND 2006 MEXICO SAW A THREE-FOLD INCREASE IN VEHICLES ON THE ROAD, FROM 8 MILLION TO 21 MILLION, MAKING TRANSPORTATION THE FASTEST GROWING EMISSIONS SECTOR

THE MEXICO GHG PROGRAM IS A VOLUNTARY REPORTING SYSTEM WHICH, AS OF 2010, HAD 150 BUSINESSES REPORTING THEIR GHG INVENTORIES

sources: gas and oil-fired production. Renewable sources have so far been underdeveloped in Mexico despite the costs of wind generation in Mexico being among the lowest in the world. However there are a number of factors currently inhibiting the development of renewables in Mexico, including low planning prices and lack of contracting procedures for the cogeneration of small-scale renewable energy projects.

Focus On: Transportation

Transportation is the fastest growing commodity in Mexico in terms of energy consumption (burning of fossil fuels) and resultant GHG emissions. Between 1996 and 2006, Mexico's traffic fleet has almost tripled in size from 8 million vehicles to 21 million vehicles. In the busy streets of Mexico City, the transport sector accounts for 44% of total emissions alone. In 2012 however, the city was able to reduce its GHG emissions by 5.3 million tonnes through the implementation of the new Ecobici scheme (a bike sharing scheme) and the development of the Metrobus system, in which the Metrobus is assigned a separate and exclusive road lane, thereby creating a highly efficient public transport system.

Focus On: GHG Program

One of the most critically acclaimed climate change projects developed by the national government is the Mexico GHG Program. The program is a voluntary reporting system created in a partnership with the Mexican environment agency (SEMARNAT), the World Business Council for Sustainable Development (WBCSD) and various other high profile counter parts. The program provides a basis where some of Mexico's largest business sectors can compile and report their carbon emissions. As of November 2010, 150 businesses now report to the Mexico GHG Program of which 89 actively publish their GHG inventories. Over 25 different business sectors are now represented by the program, accounting for 140 Mt of Mexico's total CO₂ emissions. The program actively incentivizes companies to reduce their CO₂ emissions through the publishing of their GHG inventories to the global carbon markets with

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11 companies registering for projects held under the CDM framework.

Mexico's lead in combatting climate change has proven to be a valuable model for other developing nations to follow with future climate strategies looking set to increase Mexico's global status as a world leader in climate change mitigation.

North American Carbon Trading

From 2003 till 2010, the Chicago Climate Exchange operated a voluntary greenhouse gas trading system for emissions sources and offset projects in North America and Brazil. This was the first cap and trade system in North America. As a result of the market being flooded by credits from offset project generators, the price of carbon financial instruments decreased to almost zero, resulting in trade volumes of zero in virtually the entire year 2010. It was therefore decided to close the exchange by the end of 2010.

Although the Chicago Climate Exchange (CCX) was unsuccessful, most participants consider the learning experience to be valuable. Furthermore, according to CCX, its members achieved reductions of 700 million tonnes of GHG emissions over the period of its operations. 88% of this reduction was realised through direct industrial emission cuts and 12% through offsetting.

On the horizon...

- ▶ The US states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont have teamed up in the RGGI, the Regional Greenhouse Gas Initiative, to reduce CO₂ emissions through a cap and trade scheme. The goal is to reduce these emissions 10% by 2018. The RGGI is the first mandatory, market-based carbon emission reduction program in the US.

Looking further ahead...

- ▶ Several western states have teamed up as well to implement a similar cap and trade scheme through the Western Climate Initiative (WCI). These states include California, Montana, New Mexico, Oregon, Utah and Washington.

THE CHICAGO CLIMATE EXCHANGE
ACHIEVED REDUCTIONS OF 700 MILLION
TONNES OF GHG EMISSIONS, OF WHICH
DIRECT INDUSTRIAL EMISSIONS
ACCOUNTED FOR 88% OF REDUCTIONS

THROUGH RGGI, THE NORTH EASTERN US
AIMS TO REDUCE GHG EMISSIONS 10% BY
2018 THROUGH A CAP
AND TRADE SCHEME

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THE WESTERN CLIMATE INITIATIVE, WHICH INCLUDES SEVERAL STATES IN THE WESTERN US, PROVINCES IN CANADA, AND POTENTIALLY SEVERAL MEXICAN STATES, AIMS TO REDUCE GHG EMISSIONS BY 15% FROM 2005 LEVELS BY 2020

►Furthermore the Canadian provinces of British Columbia, Manitoba, Ontario and Quebec will participate. The Initiatives goal is to reduce GHG emissions by 15% from 2005 levels by 2020. Although currently no emission trading schemes have been implemented in Mexico, the government is considering implementing such a scheme. Several Mexican states are currently observing the developments of the Western Climate Initiative and have the opportunity to join the scheme in the near future.

International Outlook

The Kyoto Protocol will remain in force until 2012, but so far there is no legally binding emissions treaty to replace it. The Copenhagen (2009) and Cancun (2010) climate conferences both produced accords, but lacked binding commitments. Negotiation continues in the build up to Durban later this year, with UNFCCC Executive Secretary Christian Figueres urging countries to push ahead with their work to aim for another significant step in addressing global climate change in 2011 at Bangkok's summit (UNFCCC 2011). In the meantime, market-based schemes are beginning to occur at the national level in spite - or perhaps because - of a lack of concrete agreement at the international level.

A US cap-and-trade scheme has to date failed to be passed into law, but inter-state and intra-state schemes are becoming more prevalent in progressive states in the North-West and Mid-Atlantic. However, states such as Texas which are still heavily reliant on fossil fuels and energy-intensive industries are resisting local and national initiatives. China is also planning a national cap-and-trade scheme with the help of the Asian Development Bank.

This follows the relative success of two city-wide voluntary schemes but it also prompted by growing concerns around national energy security and the international competitiveness of China's biggest businesses through energy efficiency (Zhi and Bo 2010). Other regional actors are waiting to see the outcome before committing to similar plans. A move towards trading should greatly increase transparency in reporting and allow

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greater scrutiny of emissions data. However, emissions are likely to continue rising among the emerging economies of Brazil, China, India and Russia, although moves towards energy efficiency can lower overall intensity.

THERE IS CURRENTLY NO LEGALLY
BINDING EMISSIONS TREATY TO
REPLACE KYOTO WHEN IT EXPIRES IN
2012. IF THIS REMAINS THE CASE
THEN WE NEED TO BE PREPARED TO
LOOK BEYOND GOVERNMENT TO
BRING ABOUT THE NECESSARY
EMISSIONS REDUCTIONS

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Figure 20.

Sector: Oil & Gas

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Hess	US	9,000,000	256.78	3	2,388.94	Complete & Verified
2	Chevron	US	59,200,000	312.22	-	2,435.38	Complete & Verified
3	Noble Energy	US	2,530,000	678.83	-	2,801.99	Complete & Verified

Sector: Basic Materials

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Praxair	US	15,059,154	1,488.65	5	5,762.21	Complete & Verified
2	E.I. du Pont de Nemours	US	15,432,000	299.00	4	4,863.90	Complete & Verified
3	Dow Chemical	US	38,200,000	711.70	2	4,985.27	Complete & Verified

Sector: Industrials

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	United Parcel Service	US	12,630,000	255.41	5	3,320.68	Complete & Verified
2	Agilent Technologies	US	119,860	22.02	-	3,087.28	Complete & Verified
3	Northrop Grumman	US	1,450,000	42.96	3	3,108.22	Complete & Unverified

Sector: Consumer Goods

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	PepsiCo	US	3,683,000	85.19	2	1,143.07	Complete & Verified
2	Femsa	MX	129,315	8.61	-	1,066.49	Complete & Verified
3	Coca Cola	US	5,390,000	173.84	-	1,231.72	Complete & Verified

Sector: Health Care

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Baxter Intl	US	851,000	66.25	6	149.70	Complete & Verified
2	Bristol Myers Squibb	US	524,000	26.89	1	110.34	Complete & Verified
3	Abbott Laboratories	US	1,609,000	45.75	-	129.20	Complete & Verified

Intensity is measured as tCO₂e/\$Million turnover

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Figure 20. (continued)

Sector: Consumer Services

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	News Corp	US	537,585	16.40	2	1,349.05	Complete & Verified
2	CVS Caremark	US	1,778,000	18.44	2	1,351.09	Complete & Unverified
3	Kohl's	US	859,581	46.74	2	1,379.38	Complete & Unverified

Sector: Telecommunications

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	BCE	CA	234,492	12.94	3	45.19	Complete & Verified
2	Telus	CA	358,300	36.53	-	68.78	Complete & Verified
3	Rogers Communications	CA	194,008	20.86	-	53.12	Complete & Unverified

Sector: Utilities

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	PG&E	US	3,620,000	247.47	1	1,246.72	Complete & Unverified
2	Consolidated Edison	US	4,270,000	320.45	-	1,319.70	Complete & Unverified
3	Exelon	US	9,522,000	510.73	-	1,509.98	Complete & Unverified

Sector: Financials

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Bank of America	US	1,847,253	13.69	4	116.96	Complete & Verified
2	Toronto Dominion Bank	CA	226,210	9.37	1	112.64	Complete & Verified
3	Bank of Montreal	CA	64,907	4.27	4	107.53	Complete & Unverified

Sector: Technology

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Dell	US	290,366	4.71	1	556.40	Complete & Verified
2	Intuit	US	45,000	14.14	5	565.83	Complete & Unverified
3	Google	US	1,237,476	42.50	5	594.19	Complete & Unverified

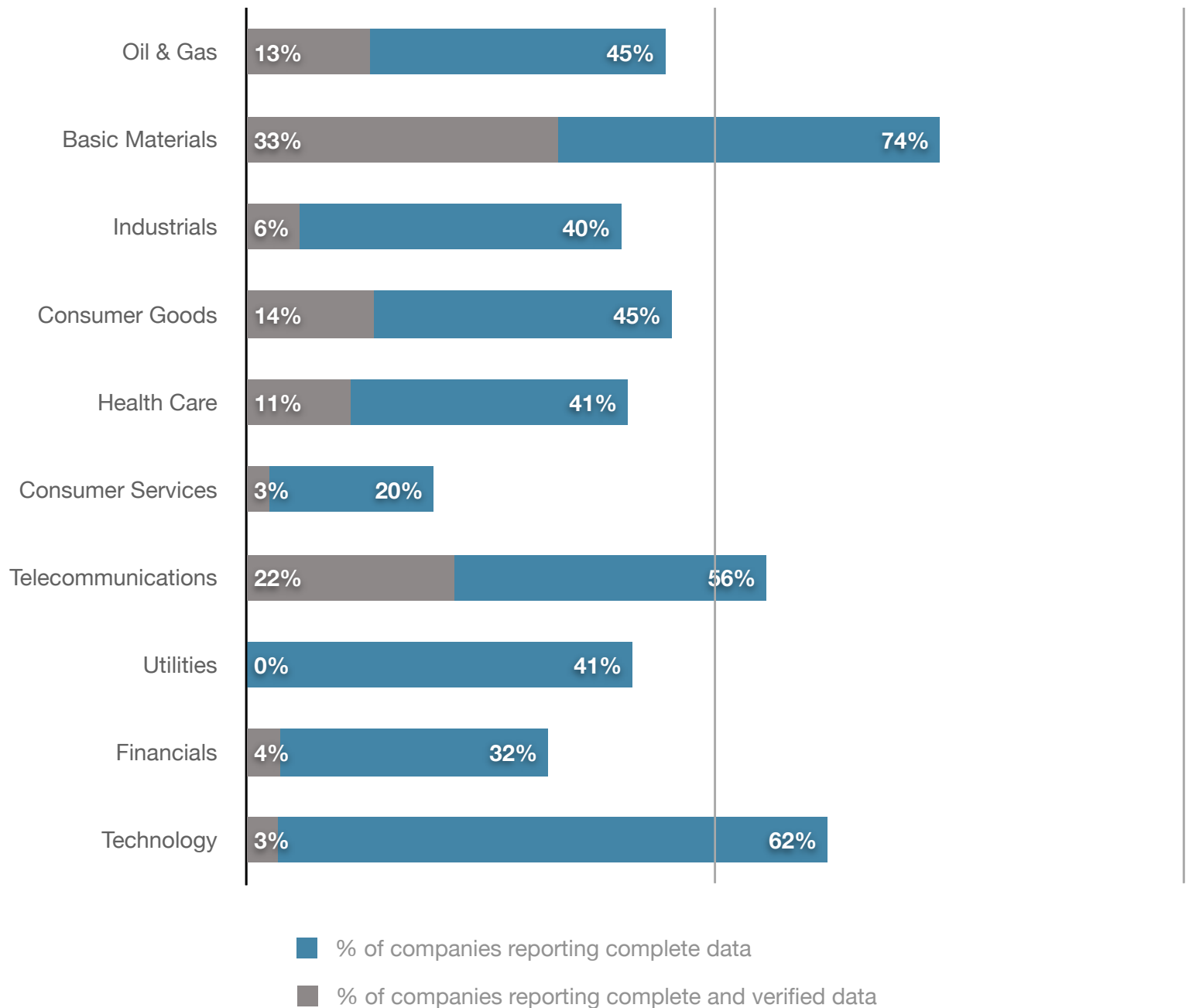
Intensity is measured as tCO₂e/\$Million turnover

SECTORAL 33 ANALYSIS

Summary

Sectors leading the field of disclosure

Figure 21.



The Rankings show that there is vast room for improving GHG emissions reporting and verification throughout North America and its dominant industry sectors. Basic Materials, with one of the highest carbon intensities, has the largest percent reporting both Complete data and Complete and Verified data. Interestingly, the

industry sector with the highest carbon intensity, Utilities, also has an average percent of companies reporting Complete data and no companies with Complete and Verified data. The sector with the lowest percent of companies reporting was Consumer Services, with most of the other sectors falling between 30-50%.

VERIFICATION 34

ANALYSIS

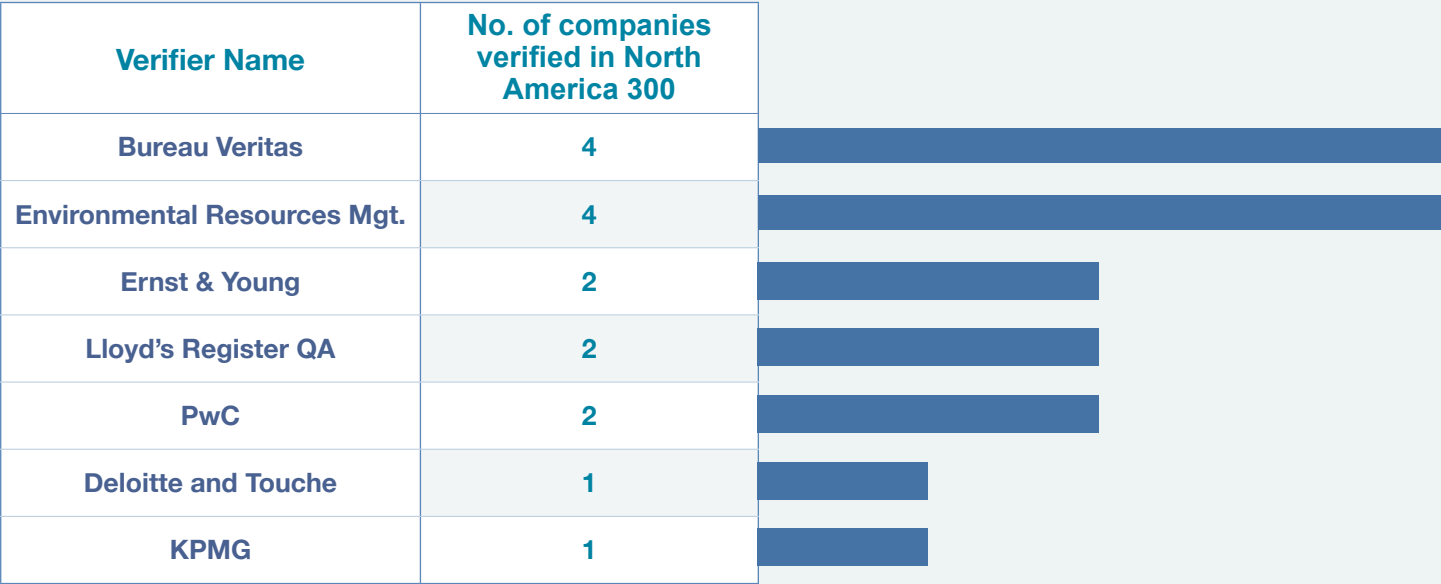
Verifier Analysis

The breakdown of the top 7 verifiers shown in figure 22 is taken from companies which have been categorised as having complete and externally verified emissions under the ET Carbon Ranking methodology.

With around 10% of the North American reports being verified, the verification level in the region is relatively low. The verification market is also more scattered than in Europe, with the Big Four audit firms only being responsible for about 20% of the verifications, as opposed to approximately 75% in Europe. Bureau Veritas and Environmental Resource Management are the biggest players in the region, with market shares of 14% each. In total 19 different verifiers have been identified.

The scattered market also results in different approaches and verification guidelines being adhered to by the verifiers. This makes it more difficult for the users of the reports to value the verification reports.

Figure 22.



DISCUSSION 35

KEY POINTS

WITHOUT COMPLETE AND VERIFIED DATA
WE CANNOT ACCURATELY PAINT A PICTURE
OF THE EMISSIONS LANDSCAPE

CONSIDERING BUSINESS' MOTIVATION TO
PROVIDE SHAREHOLDER RETURN, WE CAN
INCENTIVISE CHANGE THROUGH AFFECTING
A COMPANY'S SHARE PRICE

Non-Sectoral approach

The ET Carbon Ranking methodology is based on a non-sectoral approach as it is intended to create incentives for disclosure and emissions reduction across the board. Under this wider Environmental Tracking system, companies with higher intensities will experience greater downward pressure than those with low intensities, reflecting the science behind climate change mitigation dictating that absolute emissions have to be reduced.

Disclosure & Verification before intensity

It could be argued that the present Ranking does not accurately reflect the emissions landscape as the key determinant of positioning is disclosure and verification before intensity. However, without complete and verified data we cannot accurately paint a picture of the emissions landscape.

High intensity by definition

By definition some companies pollute more than others, moreover, many of these companies provide valuable and vital services to society. Yet without strong incentives to change, they will continue to carry out their activities in a way which is detrimental to the environment. Virtually all the technological advances needed to tackle climate change are already in existence, or are only a few years away with the necessary investment.

The only way we can expect these companies to invest in new technologies and employ new environmentally friendly policies is to provide them with an incentive to do so. The EIO argues that within the framework of the existing system this incentive must accord with a company's *raison d'être*: to maximise share price return. This can only be achieved by creating a system which influences share price according to the environmental costs of a company's actions.

REPORTING 36

LANDSCAPE

Sustainability reporting has grown rapidly over the past two decades as companies supplement their annual reports with issues pertaining to corporate social responsibility. However, the lack of a universally accepted or mandatory standard concerning corporate responsibility disclosure means both reporting formats and content vary widely. Although there are no legal requirements in the US, Canada nor Mexico to report on Corporate (Social) Responsibility (CR), a growing number of North American companies issue a yearly Corporate Responsibility report, thereby taking accountability for their environmental performance as well as their financial performance.

In 2010 approximately 40% of US companies published a corporate responsibility report, with about 78% of the companies publishing CR information on their websites. In Canada, about 72% of Canadian companies report CR information on their websites, and about 35% actually publishes a CR report. CR reporting in Mexico has not yet developed as much as in Canada and the US, however a growing trend is visible and expected to continue. In 2007 approximately 36% of the companies had a formal corporate responsibility report available, however only 18% reported annually.

Although (some) CR data is being published by a large amount of companies, it is not always easy to find the information. The data is presented in CR reports, annual financial reports or on corporate websites, and only a limited number of companies actually draw attention to it on their corporate homepage.

In 2000 the Carbon Disclosure Project launched an initiative to encourage corporate GHG disclosure. However, this information is not always included in sustainability reports or placed in the public domain.

► **Scope 1 emissions:**

All direct emissions

► **Scope 2 emissions:**

Indirect emissions generated from the purchase of electricity

► **Scope 3 emissions:**

All other indirect emissions, such as distribution of goods, transportation of purchased goods, transportation of waste, disposal of waste, employee commuting, business travel

AS THE ET NORTH AMERICA 300 CARBON RANKING HIGHLIGHTS, THERE ARE MAJOR DISCREPANCIES BETWEEN COMPANIES IN REGARD TO THE QUALITY OF REPORTING

REPORTING 37

LANDSCAPE

THERE ARE CURRENTLY WIDE VARIATIONS IN INTERPRETATION OF METHODS FOR THE MAJORITY OF VOLUNTARY SCHEMES

ERM (2010) NOTES THAT THERE ARE FEW INITIATIVES PROVIDING INCENTIVES SUCH AS LEAGUE TABLES OR FINANCIAL PENALTIES/REWARDS - A GAP THE EIO SEEKS TO ADDRESS DIRECTLY THROUGH ITS ET CARBON RANKINGS AND INDEX SERIES

Variations

As pointed out by the ERM (2010) study on GHG reporting methods and initiatives, “Voluntary methods are open to varying degrees of interpretation by the user whilst mandatory methods tend to be much more prescriptive. An example of this can be seen on the issue of boundary setting. Voluntary methods such as the WBCSD/WRI GHG Protocol, and voluntary reporting schemes such as CDP, allow the user to select the boundary based on a number of options (e.g. operational or financial control; equity share), to ensure maximum flexibility. By way of contrast, mandatory schemes and their associated calculation methods, such as those for the UK Carbon Reduction Commitment and the schemes linked to trading of emissions allowances or permits (e.g. EU ETS; JvETS), define quite precisely the boundary, to ensure consistency in reporting between organisations covered by the scheme.”

Gaps

Interestingly, the report notes that “few methods or initiatives provide incentives such as benchmarks, league tables and financial penalties/rewards”. This is a gap the EIO seeks to address through its Environmental Tracking (ET) Carbon Rankings and Index Series.

The report also draws attention to the “lack of clear statement of a ‘mandatory minimum’ GHG reporting requirements in most of the voluntary methods and initiatives”, suggesting that “most voluntary methods have shied away from being prescriptive on key issues or have put complex arrangements in place to ensure adaptability” in order to encourage maximum uptake (ERM 2010).

Please see the Reporting guidance section (pages 42-43) for suggestions on the EIO’s recommendations for how companies can report their GHG emissions more clearly.

EXEMPLARY 38

REPORT

IBM

Direct, Indirect Greenhouse Gas GRI EN16

Total direct and indirect greenhouse gas emissions by weight.

Direct and Indirect Greenhouse Gas (GHG) Emissions (in metric tonnes CO2 equivalent)	2010	2009	2008	2007	Company has targets for year:	C1
CO2 Direct	276,721	235,656	296,768	301,993		
CO2 Indirect Scope 2	2,125,986	2,380,946	2,381,447	2,445,791		
CH4 Direct						
N2O Direct	17,441	11,235	5,386	6,685		
HFCs Direct	42,289	14,566	13,060	10,570		C6
PFCs Direct	232,290	181,907	256,667	251,617		
CF6 Direct	9,549	13,291	8,452	9,066		
Subtotal Direct (Scope 1)	546,245	456,655	580,343	579,931		
Scope 1 data coverage (e.g. owned and as % of revenues, employees, etc...): leased operations	100					
Scope 1 estimated total (for 100% data coverage)						
Scope 1 emissions intensity per 100K revenue						
Total direct GHG emissions factored against base figure (please specify base figure here, e.g., revenue, volume or production, floor space area, etc):						
Subtotal Indirect (Scope 2)	2,125,986	2,380,946	2,381,447	2,445,791		
Scope 2 data coverage (e.g. owned and as % of revenues, employees, etc...): leased operations	100					
Scope 2 estimated total (for 100% data coverage)						
Scope 2 emissions intensity per 100K revenue						
Total Direct and Indirect GHG Emissions	2,672,231	2,837,601	2,961,790	3,006,271		
Subtotal Scope 3 (from GRI EN17 "GHG Scope 3 Emission")						
Total GHG Emissions	2,672,231	2,837,601	2,961,790	3,006,271		

Taken from IBM's website, this template clearly shows Scope 1 & 2 emissions and is easily accessible from the company's online GRI index (see next page), under the EN16 link.

IBM also provides its Scope 3 emissions information which is clearly referenced under EN17.

IBM ranks 35 in the ET North America 300 and discloses 4 Scope 3 categories.

TEMPLATE

- ☐ 3.12 Table identifying the location of the Standard Disclosures in the report. Identify the page numbers or web links where the following can be found: * Strategy and Analysis 1.1 - 1.2; * Organizational Profile 2.1 - 2.10; * Report Parameters 3.1 - 3.13; * Governance, Commitments, and Engagement 4.1 - 4.17; * Disclosure of Management Approach, per category; * Core Performance Indicators; * Any GRI Additional Indicators that were included; and * Any GRI Sector Supplement Indicators included in the report.



- ☐ 3.13 Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).

- ☐ 3.2 Date of most recent previous report (if any).

Using a GRI index helps anyone reading a report to navigate it quickly and easily.

It is strongly advised to clearly label where any verification statement can be found within the report.

- ☐ EN14 Strategies, current actions, and future plans for managing impacts on biodiversity. (Additional)
- ☐ EN15 Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk. (Additional)
- ☐ EN16 Total direct and indirect greenhouse gas emissions by weight. (Core)
- ☐ EN17 Other relevant indirect greenhouse gas emissions by weight. (Core)
- ☐ EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved. (Additional)
- ☐ EN19 Emissions of ozone-depleting substances by weight. (Core)
- ☐ EN20 NO_x, SO_x, and other significant air emissions by type and weight. (Core)



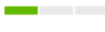
Clear labeling of where GHG emissions totals, calculated as tCO₂e (metric tonnes of CO₂ equivalent) is extremely important for a member of the general public to be able to find the data easily.

REPORTING 40

EXAMPLES

 = Fully reported
 = Partly reported
 = Not reported

Emissions, effluents & waste

EN16 Direct and indirect greenhouse gas emissions		Key indicators/Environment, page 56
EN17 Other relevant indirect greenhouse gas emissions		Key indicators/Environment, page 57
EN18 Initiatives to reduce greenhouse gas emissions		Environment, page 45 Environment, page 46
EN19 Emissions of ozone-depleting substances		Not reported.
EN20 NO, SO, and other significant air emissions		Not reported.
EN21 Total water discharge		Not reported.
EN22 Waste by type and disposal method		Key indicators/Environment, page 57
EN23 Number and volume of significant spills		Additional facts, page 64

This example shows a company making good use of an online GRI index which provides quick links to the relevant indicators. It also provides a clear key to indicate whether the information is fully reported or not.

2010 Global Enterprise CO₂e Emissions by Business Segment
('000 metric tonnes)

	U.S. Domestic Package		International Package		Supply Chain & Freight		Totals	
	2010	2009	2010	2009	2010	2009	2010	2009
Scope 1	6,649	6,566	4,022	3,720	1,042	1,151	11,713	11,437
Scope 2	683	702	75	63	159	159	917	924
Total Scope 1 & 2	7,332	7,268	4,097	3,783	1,201	1,310	12,630	12,361
Scope 3	2,464	500	1,997	1,266	5,404	4,607	9,865	6,373
Total Scope 1, 2 & 3	9,796	7,768	6,094	5,049	6,605	5,917	22,495	18,734
Carbon Offsets Retired							3.1	
2010 Net Global CO ₂ e Emissions							22,492	

UPS continues to increase the breadth and depth of carbon reporting. This is particularly evident with regard to Scope 3 emissions. In 2010, UPS began reporting on 5 of 15 categories in the new WRI Scope 3 (corporate value chain) standard.

This example shows an emissions statement clearly reporting the total CO₂e emissions data according to Scopes 1, 2, and 3. And additionally, providing the previous year for comparison.

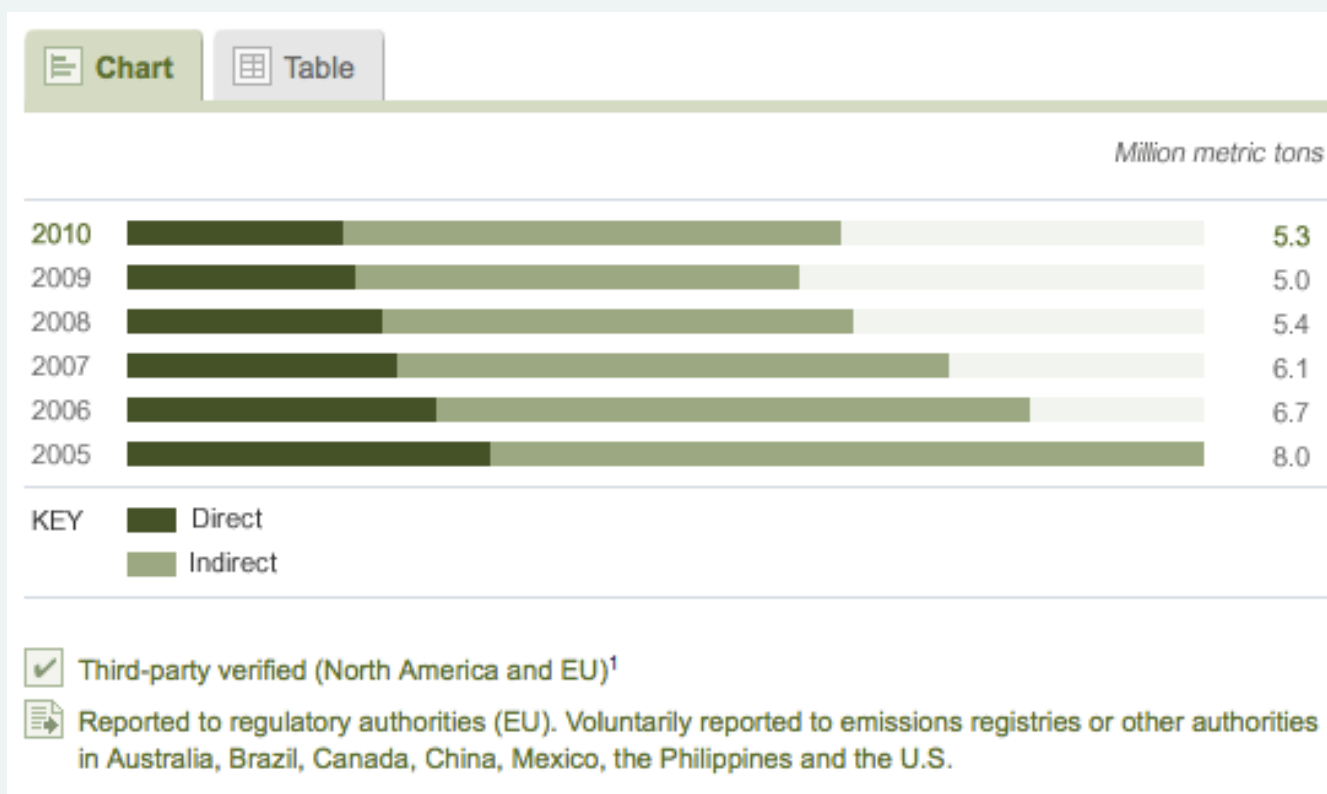
REPORTING 41

EXAMPLES

Chart **Table**

Million metric tons

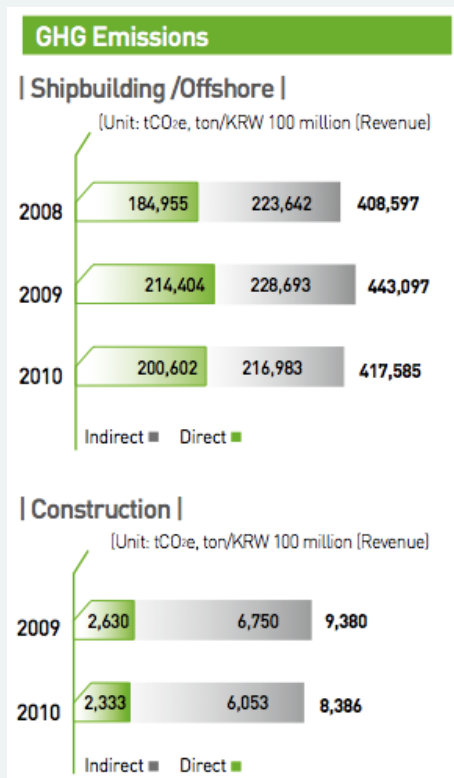
	2005	2006	2007	2008	2009	2010
Direct	2.7	2.3	2.0	1.9	1.7	1.6
Indirect	5.3	4.4	4.1	3.5	3.3	3.7
Total	8.0	6.7	6.1	5.4	5.0	5.3



In this example the company provides its CO₂e emissions data in tabular and chart format making the data easier to comprehend. It also clearly reports its emissions data in terms of direct or indirect emissions. A further improvement would be to report according to the Scope 1 and 2 categories.

REPORTING 42

EXAMPLES



This example shows a company not reporting its emissions using the GHG Protocol Corporate Standard by reporting its emissions as absolute tonnes of CO₂e.

Like many reports, this example has chosen its own metric. Whilst this is better than no disclosure at all, non-standardised metrics can prevent direct emissions comparisons between companies, and can also prevent a meaningful quantitative understanding of the emissions data.

A simple improvement would be to report an absolute and relative figure.

YEAR	SCOPE 1	SCOPE 2	SCOPE 3	TOTAL
2000	143,280	19,876	909	164,065
2001	160,106	19,500	1,083	180,689
2002	130,525	19,590	927	151,042
2003	153,140	23,162	791	177,093
2004	139,954	24,659	851	165,464
2005	122,319	24,385	752	147,456
2006	119,939	26,959	763	147,661
2007	138,934	14,203	2,874	156,011
2008	156,804	24,007	1,339	182,220
2009	155,742	12,035	1,010	168,787
2010	218,534	39,267	38,468	296,269

This example shows unclear reporting. Emissions are reported according to Scopes 1, 2 and 3, however the unit of measure is not identified. The units of emissions data should always be clearly given, preferably expressed as tonnes of CO₂e.

REPORTING 43

GUIDANCE

- ▶ **Report Scope 1, 2 & 3 emissions following GHG protocol guidelines**
- ▶ **Ensure emissions data is publicly available in CSR/Sustainability reports/Integrated Annual report and online**
- ▶ **Have emissions data verified by an independent third party to a recognised standard**
- ▶ **Ensure verification certificates are easily available to the publicly**

Companies can easily improve their standings within the ET Carbon Rankings by following several simple steps:

1. Publishing emissions data for Scopes 1, 2 and 3 in the public domain, in a clear and accessible manner, either on the company website or in a Sustainability Report, Annual report, Integrated Annual report or ideally, all of those that apply.
2. Ensuring this information has been externally verified to a reasonable standard of assurance, ideally against a specific GHG standard such as ISO 14064-3, but at least in accordance with a general assurance standard, such as ISAE 3000 (the International Standard on Assurance Engagement).
3. Calculate Scope 3 emissions comprehensively according to the new GHG protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The latest information on verification of Scope 3 can be found at the GHG Protocol and ISO websites.
4. Ensure that any verification statement is publicly available and included in the relevant Sustainability Report or Annual Report, as well as ensuring it can be easily found on your company's website.

One of the primary aims of the EIO's series of Rankings is to ensure that reliable GHG emissions data is publicly available and we applaud all companies making a serious effort to reach this standard.

Encouraging clearer reporting

The key areas which are identified by the various bodies of research carried out in the field of GHG emissions reporting, including by the EIO, suggest that there is an urgent need for:

- ▶ Standardised reporting
- ▶ More emphasis on the verification of GHG emissions data reported by companies

The following page outlines the EIO's suggestions for how companies could and should report their emissions going forward.

ET REPORTING 44

TEMPLATE



REPORTING TEMPLATE

ENVIRONMENTAL TRACKING REPORTING TEMPLATE

Reporting Period:

1 January 2009 to 31 December 2010: Yes/No? _____

If other please specify _____

The reporting template below provides guidance on how companies can report their Greenhouse Gas emissions in a **simple, clear** and **cross comparable** format. It is intended to integrate with the existing and widely used GHG Protocol standard of reporting emissions in terms of Scope 1, 2 & 3. Crucially, it seeks to provide a framework by which companies can report their key GHG information in one place covering three core areas: **total GHG emissions**; **scope of reporting**; and, **verification**. The EIO is currently exploring how it might be able to link the reporting of such data directly to the ET Carbon Rankings.

	Metric tonnes of CO2e (tCO2e)	
	2010	2009
Scope 1	25,000	23,000
Scope 2	350,000	370,000
Scope 3	11,000,000	9,600,000
Total gross emissions	11,375,000	9,993,000
Green tariff Energy Purchased	(28,000)	-
Total net emissions	11,347,000	9,993,000

Boundary setting:

What reporting boundary method have you adopted under the terms of the GHG Protocol? _____

Scope of Reporting: Scope 1 & 2

Do the gross emissions reported for Scope 1 & 2 as defined by the GHG Protocol represent 100% of your company's emissions for these Scopes? Yes/No? _____

If you have answered no to the previous question, what percentage of your company's operations do they represent? _____

Scope of Reporting: Scope 3

How many of the 15 Scope 3 categories, as defined by the GHG Protocol, does your company disclose data for? Please attach a full breakdown with the percentage coverage for each _____

Verifications/Assurance (to be completed by an independent third party)

Name of Verifier: _____

Which standard has been used to assure the data? (E.g. ISO14064, AA1000AS etc) _____

Which Scopes have been verified? _____

If the company is reporting Scope 3 emissions, has it covered all of the Scopes accurately (for Scope 3 please refer to the GHG Protocol new Corporate Value Chain (Scope 3) Accounting and Reporting Standard), including any GHGs not covered by the GHG Protocol which may be material? Yes/No? _____

Are there any material issues with the numbers represented for the company under Scope 1, 2 or 3? Yes/No? _____

Is the data presented by the company representative of the company's entire scope of operations? Yes/No? If no approximately what % does it cover? _____

Please state any other further comments or qualifications _____

Please attach the verification full statement.

ET INDEX 45

SERIES

Moving forward: The ET Index Series

The ET Carbon Rankings represent the first phase of the Environmental Tracking concept, paving the way for the ET Index Series, which will follow soon after.

The ET Index Series has been designed to provide the investment community with a tool to encourage transparency and emission reductions on a global scale. Through the creation of a mainstream financial product, in the form of a series of broad market indexes, the world's largest companies can be incentivised to cut their emissions. This is done by re-weighting companies in the index series, either positively or negatively, on a sliding scale, according to their position in the ET Carbon Ranking.

As pointed out by the recent Mercer report on Climate Change Scenarios and the Implications for Asset Allocation (Mercer 2011), the use of sustainability themed indices in passive portfolios is identified as one way investors can take action to improve their portfolio resilience to climate-related risks.

However, the key question, which the EIO seeks to address through its Index series, is how to create an investable index which can have sufficient appeal to investors, evidently concerned with the bottom line. This is why the ET Index Series has been created to mirror the risk/reward profile of their non weight-adjusted counterparts, whilst still applying pressure to companies across the board to reduce their emissions.

The potential of ET Index Series to tackle GHG emissions rests on the logic that if a significantly large pool of investors track the indexes, it will alter the supply and demand for these companies' shares based on their position in our Ranking. This effectively increases the cost of emitting Greenhouse Gases, incentivising companies to take action.



NATIONAL INDEXES:

ET UK 100

REGIONAL INDEXES:

ET EUROPE 300

ET NORTH AMERICA 300

ET ASIA-PACIFIC 300

ET BRICS 300

GLOBAL INDEXES:

ET GLOBAL 800

ET GLOBAL 1200

THROUGH APPLYING PRESSURE TO A
COMPANY'S SHARE PRICE, THE ET
INDEX SERIES AIMS TO RAISE THE
COST OF CARBON FOR COMPANIES

GLOSSARY 46

OF TERMS

BAU: Business As Usual

CCC: Committee on Climate Change

CCX: Chicago Climate Exchange

CDM: Clean Development Mechanism

CED: Clean Energy Dialogue

CRC: Carbon Reduction Commitment

C(S)R: Corporate (Social) Responsibility

CO₂e: Greenhouse Gas emissions expressed as Carbon Dioxide (CO₂) Equivalents, meaning calculated to express their global warming potential in terms of CO₂.

DECC: Department of Energy and Climate Change

EIO: Environmental Investment Organisation

EPA: Environmental Protection Agency (US)

ET: Environmental Tracking

EU ETS: EU Emissions Trading Scheme

GDP: Gross Domestic Product

GHG: Greenhouse Gas

GRI: Global Reporting Initiative

GWP: Global Warming Potential

IMF: International Monetary Fund

ISAE: International Standard on Assurance Engagements

ISO: International Organization for Standardization

JVETS: Japanese Voluntary Emissions Trading Scheme

kWh: kilowatt hours

Mt: Mega tonnes

OECD: Organisation for Economic Co-operation and Development

RGGI: Regional Greenhouse Gas Initiative

Jl: Joint Implementation

tCO₂e: Metric Tonnes Carbon Dioxide Equivalent

ROC: Renewable Obligation Certificates

Scope 1 (or S1): All direct GHG emissions.

Scope 2 (or S2): Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3 (or S3): Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

UNFCCC: United Nations Framework Convention on Climate Change

WBCSD/WRI: World Business Council for Sustainable Development / World Resources Institute

WCI: Western Climate Initiative

BIBLIOGRAPHY 47

OF SOURCES

American Lung Association Energy Policy Development: Transportation Background Document, February 2011. Available from: <http://www.lungusa.org/healthy-air/outdoor/resources/transportation-backgroundunder.pdf>

Canada's Continental Action. Available from: <http://www.climatechange.gc.ca/default.asp?lang=En&n=A4F03CA6-1>

Canada's Greenhouse Gas Target and Emissions Projections. Available from: <http://www.climatechange.gc.ca/default.asp?lang=En&n=DC025A76-1>

Climate Change Performance Index 2011. Available from: <http://www.germanwatch.org/klima/ccpi.htm>

Conference Board of Canada. Available from: <http://www.conferenceboard.ca/hcp/details/environment.aspx>

CSR Trends 2010. Available from: <http://www.pwc.com/ca/en/sustainability/publications/csr-trends-2010-09.pdf>

Designing and Managing Energy Innovation Institutions. Available from: <http://www.iea.org/work/2010/accelerate/Marlay.pdf>

Ecobici. Available from: <https://www.ecobici.df.gob.mx/home/home.php>

Environmental Law Resource: Power Plants, Petroleum Refineries and Landfills Take Note: USEPA Electronic Greenhouse Gas Reporting Tool Launches. Available from: <http://www.environmentallawresource.com/2011/08/articles/climate-change/power-plants-petroleum-refineries-and-landfills-take-note-usepa-electronic-greenhouse-gas-reporting-tool-launches>

Environmental Protection Agency: Green Power Partnership. Available from: <http://www.epa.gov/greenpower>

Environmental Protection Agency: HCFC Phaseout Schedule. Available from: <http://www.epa.gov/ozone/title6/phaseout/hcfc.html>

Environmental Protection Agency: Mandatory Reporting of Greenhouse Gases (40 CFR part 98). Available from: <http://www.epa.gov/climatechange/emissions/downloads09/FactSheet.pdf>

Features & Benefits of ENERGY STAR Qualified New Homes. Available from: http://www.energystar.gov/index.cfm?c=new_homes.nh_features

GHG Protocol, 2011. Corporate Value Chain (Scope 3) Accounting and Reporting Standard. [Online] Available at: [http://www.ghgprotocol.org/files/ghgp/Corporate%20Value%20Chain%20\(Scope%203\)%20Accounting%20and%20Reporting%20Standard.pdf](http://www.ghgprotocol.org/files/ghgp/Corporate%20Value%20Chain%20(Scope%203)%20Accounting%20and%20Reporting%20Standard.pdf)

Greenhouse Gas Protocol: Mexico. Available from: <http://www.ghgprotocol.org/programs-and-registries/mexico-program>

History of Energy Consumption in the United States, 1775-2009. Available from: <http://www.eia.gov/todayinenergy/detail.cfm?id=10>

Mexico GHG Program. Available from: <http://www.geimexico.org/english.html>

Mexico to present plan for emissions reductions at COP15, August 6, 2009. Available from: http://www.greenmomentum.com/wb3/wb/gm/gm_content?id_content=3420

Mexico Wind Project Gets Obama Seal of Approval, 10 June 2011. Available from: <http://www.renewableenergyfocus.com/view/18515/mexico-wind-project-gets-obama-seal-of-approval>

National Inventory Report 1990-2008: Greenhouse Gas Sources and Sinks in Canada. Available from: <http://www.ec.gc.ca/Publications/default.asp?lang=En&xml=492D914C-2EAB-47AB-A045-C62B2CDACC29>

BIBLIOGRAPHY 48

OF SOURCES

Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations, September 23, 2010. Available from: <http://www.gazette.gc.ca/rp-pr/p2/2010/2010-10-13/html/sor-dors201-eng.html>

Paul, Karen. Corporate Social Reporting Practices in Mexico: Two Paths. Available from: <http://www.slideshare.net/globalreporting/gri-conference-27-may-paul-sustainability-reporting-panel>

President Obama Announces Historic 54.5 mpg Fuel Efficiency Standard, July 29, 2011. Available from: <http://www.whitehouse.gov/the-press-office/2011/07/29/president-obama-announces-historic-545-mpg-fuel-efficiency-standard>

Reducing Transport Greenhouse Gas Emissions: Trends & Data 2010. Available from: <http://www.internationaltransportforum.org/Pub/pdf/10GHGTrends.pdf>

Regulatory Framework for Air Emissions. Available from: http://www.ec.gc.ca/doc/media/m_124/report_eng.pdf

Regional Greenhouse Gas Initiative. Available from: <http://www.rggi.org/design>

Smart Planet: Mexico City slashes greenhouse gas emissions; on track for 2012 target, 26 July 2011. Available from: <http://www.smartplanet.com/blog/smart-takes/mexico-city-slashes-greenhouse-gas-emissions-on-track-for-2012-target/17913?tag=search-river>
http://siteresources.worldbank.org/INTLAC/Resources/MEDEC_ExecutiveSummary_Eng.pdf

Turning the Corner: Detailed Emissions and Economic Modelling. Available from: http://www.ec.gc.ca/doc/virage-corner/2008-03/571/p1_eng.htm

The Western Climate Initiative. Available from: <http://www.westernclimateinitiative.org>

U.S. Energy Information Administration: International Energy Statistics (2005-2009). Available from: <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=90&pid=44&aid=8>

Wired: Bali Meeting Ends; Mexico Emerges as a Leader on Climate Change, 14 December 2007. Available from: http://www.wired.com/science/planetearth/news/2007/12/mexico_climate

The World Bank: Electric Power Consumption (2006-2010). Available from: <http://data.worldbank.org/indicator/EG.USE.ELEC.KH.PC>



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