COOL IT LEADERBOARD

VERSION 6: APRIL 2013

Company	Score	Change
CISCO	58	⬆ +9
GOOGLE	58	⬆ +5
ERICSSON	51	⬆ +3
FUJITSU	44	⬇ -4
SPRINT	43	NEW
WIPRO	43	⬆ +10
HP	43	⬆ +9
IBM	40	⬆ +5
ALCATEL-LUCENT	40	⬅ =
VODAFONE	40	⬇ -5
SOFTBANK	39	⬆ +1
MICROSOFT	34	⬆ +11
HCL	28	⬆ +7
DELL	27	⬇ -2
SAP	24	⬆ +1
TELEFÓNICA	21	⬆ +10
NTT	20	⬆ +1
AT&T	19	⬇ -3
NEC	17	⬆ +2
TOSHIBA	13	NEW
HITACHI	13	NEW

The Cool IT leaderboard evaluates top IT companies on their efforts to provide economy-wide climate solutions, reduce emissions from their own operations, and lobby for science-based climate and energy policies.

www.greenpeace.org/coolit

GREENPEACE

EXECUTIVE SUMMARY

Information Technology (IT) companies have a central role to play in enabling a modern, renewable-powered energy infrastructure. As originally outlined by the IT sector in broad terms in the SMART 2020 report, published in 2008, the IT sector has the opportunity to drive transformative change in the consumption and production of energy, with the potential to drive a significant reduction in the greenhouse gases (GHGs) that cause climate change. This analysis was reconfirmed in 2012 in the SMARTer2020 report, with global estimates of GHG reduction potential exceeding 16% by 2020.

Greenpeace began evaluating global IT companies through its Cool IT Leaderboard in May 2009 in order to identify which firms were leading efforts to drive change in the energy sector. The Leaderboard examines how IT companies use their considerable influence to change government policies that will drive clean energy deployment. In this 6th edition of the Cool IT Leaderboard, the sector continues to show slow but steady improvement in offering energy solutions that have the ability to achieve significant scale, with companies demonstrating that they are willing to make major investments to drive clean energy deployment. In addition, a growing number of companies are increasing their commitment to power their operations with greater percentages of renewable energy, which is critically important given their rapidly growing electricity consumption.

However, despite the business opportunities and corporate commitments to renewable energy that IT companies are adopting, the sector still lacks leadership in demanding the policy changes needed to drive investment in clean technology and renewable energy deployment. Monopoly electric utilities, such as Duke Energy in the US and TEPCO in Japan, have not embraced the innovative potential of the IT sector on energy systems, and instead remain committed to polluting, centralised electricity generation like coal and nuclear power. Many of these same utilities support right-wing front groups such as ALEC (American Legislative Exchange Council) in the US, and trade associations such as the Keidanren in Japan, which are some of the biggest political obstacles to a transition to a renewable energy economy. To combat the formidable power of this dirty energy political bloc, IT companies have to take vocal leadership in advocating for renewable energy, as well as the IT energy solutions they can provide as the backbone of a modern, 21st century energy infrastructure.

Overall Scores		
Company Ranking		**Score**
1st	Cisco	**58**
	Google	**58**
3rd	Ericsson	**51**
4th	Fujitsu	**44**
5th	Sprint	**43**
	Wipro	**43**
	HP	**43**
8th	IBM	**40**
	Alcatel-Lucent	**40**
	Vodafone	**40**
11th	SoftBank	**39**
12th	Microsoft	**34**
13th	HCL	**28**
14th	Dell	**27**
15th	SAP	**24**
16th	Telefónica	**21**
17th	NTT	**20**
18th	AT&T	**19**
19th	NEC	**17**
20th	Toshiba	**13**
	Hitachi	**13**

There are promising signs. **Wipro**, **Google**, **Sprint** and **SoftBank** have prioritised changing the laws and policies governing our energy system, working to break down utility monopolies and incentivising investment in advanced energy efficiency technologies and renewable energy. As this will be a critical year in many countries to determine whether there will be a meaningful break in the status quo energy policies, Greenpeace will continue to update the advocacy leadership of IT companies throughout 2013.

As a result of recent evaluations of company leadership, Oracle and Tata Communication Services (TCS), which were included in the 5th edition of the Cool IT Leaderboard, have been dropped from this edition due to a significant decline in performance. We will continue to monitor Oracle and TCS's efforts, and will consider including them again in subsequent Leaderboards. Similarly, Sharp – which has been evaluated in each of the previous five Leaderboards –is undergoing significant structural change due to economic conditions and poor performance, and evaluation has been suspended for this edition while the company stabilises.

Highlights of the 2013 Leaderboard

Google and **SoftBank** put their money and their mouths behind a renewable energy transition, with both making significant new investments into renewable energy deployment and advocating for policies that will incentivise greater investment in renewable energy. **Cisco** returns to the top of the Leaderboard with an updated set of targets for its operations, along with a performance-based commitment to move away from coal. **Wipro** and **Sprint** demonstrate critical leadership in the passage of renewable energy legislation in India and the US respectively.

This Leaderboard shows an increased assessment of negative lobbying penalty points for IT companies who support front groups or trade associations that are actively working to undermine government policies to address climate change and promote renewable energy investments.

CLIMATE SOLUTIONS

IT technologies have the potential to transform the way we use energy, breaking our dependence on dirty sources of power such as coal, gas, and nuclear. By developing technology that allows users to monitor and prevent greenhouse gas (GHG) emissions from everyday activities, IT companies can provide society with solutions to phase out fossil fuels and drive the necessary changes needed to mitigate climate change impacts. The industry is continuing to progress on these solutions, but at a pace that does not meet the urgency of the climate crisis.

Building on the contributions and leadership by companies such as **Cisco**, **Ericsson**, and **Fujitsu**, the sector has made significant progress in developing standardised methodologies for how IT energy savings solutions will be measured and evaluated on an ongoing basis. This should help to increase the confidence of energy policy makers and the investor community to feel confident of the savings potential from IT solutions.

Energy Savings Calculations

Ericsson, **IBM** and **Cisco** continue to lead in this category, with multiple well developed case studies providing clear evidence that the clean energy benefits of their IT energy solutions are tangible and quantifiable.

Public Metrics

Network and telecommunications companies **Ericsson**, **Cisco**, and **Vodafone** continue to provide well developed methodologies for accurately measuring the total energy savings associated with IT energy solutions at significant scale.

Investment

Google continues to set the bar for its clean energy investment leadership among IT companies, with Japan's **SoftBank** a close second. Google's clean energy investments, now topping $1bn US dollars since 2010, illustrate that Google understands and in fact embraces the idea that corporations can play an important role in providing a new and much needed source of capital to the renewable energy sector. SoftBank announced significant new renewable energy projects in Japan in the past year through its newly created subsidiary SoftBank Energy, totalling over 200MW of renewable energy.

Future Savings Goal

The ambition level for energy saved from the Japanese brands remains considerably higher than companies from elsewhere, with **Fujitsu** still best in class in terms of a savings goal with evidence of a solutions investment strategy that will allow it to realise its ambition.

Climate Solutions	
Company Ranking	**Score**
1st Fujitsu	**28**
2nd Cisco	**24**
Ericsson	**24**
4th Vodafone	**23**
5th IBM	**19**
6th NTT	**18**
7th Google	**17**
HP	**17**
9th NEC	**14**
Alcatel-Lucent	**14**
AT&T	**14**
12th SoftBank	**11**
Toshiba	**11**
Microsoft	**11**
15th Hitachi	**10**
16th SAP	**9**
Telefónica	**9**
Wipro	**9**
19th HCL	**8**
20th Dell	**7**
21st Sprint	**5**

IT ENERGY IMPACT

The IT sector serves as a critical backbone of the 21st century economy, and is one of the fastest growing consumers of electricity, driven by the rapidly expanding internet infrastructure and the devices that we use to connect to our online world. While aggregate electricity demand in most of the developed world is flat or is in decline, IT-driven electricity demand continues to climb, with data centres growing between 12% and 19% annually. Without a significant increase in the use of renewable energy, the IT sector's environmental footprint will continue to grow at a rate of concern, and will increase the demand for electricity produced from coal and other forms of dirty energy.

Recognition of this challenge and the need to move beyond improvements in energy efficiency have led a growing number of companies to set or strengthen renewable energy targets. Several companies have committed to becoming 100% powered by renewable energy, including Japan's **SoftBank**, whose CEO did so via Twitter (of course).

Energy and Emissions Targets

Cisco announced an updated set of targets for greenhouse gas (GHG) reductions (40% below 2007 levels by 2017), energy intensity goals (15% energy per unit of revenue by 2017) and renewable energy (25% of total by 2017) targets in early 2013.

Mitigation Strategies

Google continues to pursue a number of different strategies to secure more renewable energy by directly purchasing it wherever possible. The most recent example involved collaboration with a local utility in Oklahoma to increase the amount of renewable energy for its data centre there. As part of a comprehensive GHG mitigation strategy, **Wipro** has set a goal of achieving 85% of its emissions reductions through the increased use of renewable energy.

Infrastructure Siting Policy

Cisco helps set the bar for this criterion with the recent adoption of performance-based goals for its facilities, defined by the emissions factor of the local electricity. In combination with its other goals, this new commitment should serve to drive significant new growth by Cisco away from coal-fired generation.

Product Efficiency & Supply Chain Footprint

Last year **HP** increased the energy efficiency of its consumer products by 50% compared to 2005. HP leads the industry in its reporting of GHG emissions from its operations and supply chain, with estimates of supply chain emissions from 86% of its first-tier suppliers.

IT Energy Impact		
Company Ranking		**Score**
1st	Cisco	**22**
2nd	IBM	**20**
3rd	Google	**19**
	Sprint	**19**
	Alcatel-Lucent	**19**
	Wipro	**19**
7th	Dell	**18**
8th	Ericsson	**17**
9th	SAP	**15**
10th	HP	**14**
11th	Microsoft	**12**
12th	Telefónica	**11**
	Vodafone	**11**
14th	Fujitsu	**10**
15th	AT&T	**9**
16th	NEC	**8**
17th	HCL	**7**
	Hitachi	**7**
	SoftBank	**7**
20th	Toshiba	**6**
	NTT	**6**

POLITICAL ADVOCACY

While the IT sector has strengthened its energy solutions offerings, and a growing number of leaders in the sector have made long-term commitments to renewable energy, the policy landscape governing energy investment is not keeping pace in a way that will allow IT companies to deliver on either promise. The need for policy change has received increased attention within the sector, as recently highlighted in the SMARTer 2020 report, which noted "potentially the most important barrier to ICT adoption: public policy".

As we see in this year's Leaderboard ratings, the increased awareness within the IT sector of the importance of policy barriers has not yet translated to IT companies advocating for policy changes to drive investment in clean technology and renewable energy deployment at scale. Energy policy that informs our choices in electricity remains dominated by large monopoly utilities – such as Duke Energy (the largest electric utility in the US) – which remain committed to centralised dirty electricity generation such as coal and nuclear power. These companies often see a transition to distributed renewable electricity generation, enabled by IT-driven smart grid and energy efficiency technologies, as a threat to their monopolies and profit margins. As a result, many of these same utilities are supporting front groups, such as ALEC (American Legislative Exchange Council) in the US, and trade associations such as the Keidanren in Japan, which are actively undermining government efforts to transition to a renewable energy economy. This year's Leaderboard unfortunately also saw an increase in the number of companies who were assessed negative lobby penalty points for their continued membership in regressive trade associations, or for support of front groups like ALEC.

Japan

SoftBank continues to demonstrate strong leadership in post-Fukushima Japan, demanding a change in energy policy to require changes in ownership of electricity transmission infrastructure to increase access to renewable energy sources. SoftBank has also called for a shift away from nuclear energy. In sharp contrast, the Keidanren – an influential Japanese trade organisation – continues to demand a return to reliance on nuclear power, while attacking a proposed government carbon tax and important feed-in tariff for renewable energy. **Toshiba**, **Hitachi**, **NTT**, and **NEC** are all members of the Keidanren, earning them penalty points.

Political Advocacy		
Company Ranking		**Score**
1st	Google	**22**
2nd	SoftBank	**21**
3rd	Sprint	**19**
4th	Wipro	**15**
5th	HCL	**13**
6th	HP	**12**
	Cisco	**12**
8th	Microsoft	**11**
9th	Ericsson	**10**
10th	Alcatel-Lucent	**7**
11th	Fujitsu	**6**
	Vodafone	**6**
13th	Dell	**2**
14th	IBM	**1**
	Telefónica	**1**
16th	SAP	**0**
17th	NTT	**-4**
	Toshiba	**-4**
	Hitachi	**-4**
	AT&T	**-4**
21st	NEC	**-5**

United States

Encouragingly, this year's assessment saw a fairly broad degree of advocacy around a key policy decision, most notably the extension of the Production Tax Credit for wind energy in the US, which elicited strong leadership by newcomer **Sprint** as well as Microsoft, who has previously demonstrated a long-standing allergy to renewable energy policy advocacy.

However, **Microsoft** and **AT&T** are linked to ALEC, which is leading efforts to repeal renewable energy standards in half a dozen US States, including North Carolina, where Google, Wipro, AT&T, IBM, and Cisco all have significant operations.

India

Wipro continues to provide important advocacy leadership in support of stronger Renewal Power Obligations, a critical policy driver for renewable energy in India, and for more aggressive targets under the National Solar Mission.

European Union

While several companies were active in UK energy policy debates, there was very little leadership evident in the broader EU. With the EU now beginning a critical round of debate on the level of ambition for 2030 climate and energy policy, IT companies who want to see IT solutions form the backbone of the EU's 21st century energy infrastructure should speak out and distinguish themselves from BusinessEurope and other trade associations that have historically sought to maintain the fossil fuel and nuclear status quo.

COOL IT LEADERBOARD SCORING CRITERIA

The Cool IT Leaderboard is updated regularly to track the progress of the world's largest IT companies towards the achievement of economy-wide greenhouse gas (GHG) emission reductions of 15% by 2020. Companies are evaluated for leadership in three key areas:

1. Efforts to offer **economy-wide technological climate solutions** that contribute to global greenhouse gas reductions. (40/100)

2. Initiatives to **reduce their own global warming emissions**. (25/100)

3. Active engagement in **political advocacy and support for science-based climate and energy policies**. (35/100)

CLIMATE SOLUTIONS — 40 POINTS

- **Energy Savings Calculations (10 points)**
  Company makes public calculations of current net GHG emissions savings provided by IT solution(s) in any of five key areas of the economy - buildings, transport, manufacturing, power and "dematerialisation" of services - via case study data. In the case of software solutions, company projects reductions from associated behavioural change.

- **Public Metrics (10 points)**
  Company makes public the metrics and assumptions used to calculate net GHG emissions savings of IT solutions.

- **Investment (10 points)**
  Company makes significant financial investment in clean technology solutions, including specific investments in existing offerings and R&D for IT climate solutions and/or makes direct investments in external third party clean energy opportunities.

- **Future Savings Goal (10 points)**
  Company sets short to mid-term target for future net GHG savings based on current savings calculations, investment and growth.

Note: Points listed above represent the maximum number of points for given criteria.

IT ENERGY IMPACT — 25 POINTS

- **Energy & Emissions Targets (5 points)**
  Company makes commitment to reduce absolute GHG emissions of its own operations on a defined timeline. Maximum points awarded to companies with absolute reduction goals of at least 20% by 2012, using a 2008 or earlier baseline.

- **Mitigation Strategies (10 points)**
  Company demonstrates specific GHG mitigation strategy in the following order of importance: energy efficiency and avoided emissions; direct installation of renewable energy; offsets directly secured in electricity load centre, servicing data centre or major company infrastructure; renewable energy credits and/or offsets clearly proven to be additional.

- **Infrastructure Siting Policy (5 points or 10 points – see Notes below)**
  Cloud service companies have a cloud infrastructure siting policy that maximises clean energy sources and avoids growth in demand for coal or nuclear-powered electricity.

- **Product Efficiency & Supply Chain Footprint (5 points or 10 points - see Notes below)**
  IT equipment companies manufacture high-efficiency products and aggressively manage the carbon footprint of their product supply chains.

Notes:
(1) No points for target / mitigation are possible without footprint disclosure.
(2) Points listed above represent the maximum number of points for given criteria.
(3) If one or other of the Infrastructure Siting Policy or Product Efficiency & Supply Chain Footprint criteria are not applicable for a given company, then it will be evaluated for 10 maximum points under the other criterion.

POLITICAL ADVOCACY

35 POINTS

- **Political Speech (10 points)**
  Public speech, preferably by the CEO, made before a relevant national or international audience, which references need for science-based, mandatory GHG reduction cuts.

- **Political Policy (15 points)**
  Company takes public position in favour of specific and current policy advocacy priorities that support sciencebased, mandatory GHG reduction cuts at the national or international level.

- **Repetition Bonus (10 points)**
  Measures the repetition of positive speech and advocacy.

- **Negative Lobby Penalties (-5 to -15, dependent on severity)**
  Companies that directly undertake or are members of trade associations/organisations which engage in negative lobbying, defined as a policy position that undermines or negates a scientifically-achieved emissions reduction target and/or clean energy policies.

Notes:
(1) Only advocacy conducted within the past 12 months will be applied.
(2) Points listed above represent the maximum number of points for given criteria.
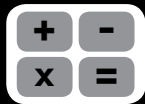
SUMMARY TABLE

CLIMATE SOLUTIONS

	PREVIOUS TOTAL	TOTAL SCORE		TOTAL (40 POINTS)	ENERGY SAVING CALCULATIONS (10 POINTS)	PUBLIC METRICS (10 POINTS)	INVESTMENT (10 POINTS)	FUTURE SAVINGS GOAL (10 POINTS)
ALCATEL-LUCENT	40	40		14	6	4	4	0
AT&T	22	19		14	6	6	2	0
CISCO	49	58		24	9	10	5	0
DELL	29	27		7	3	3	1	0
ERICSSON	48	51		24	10	10	4	0
FUJITSU	48	44		28	9	8	3	8
GOOGLE	53	58		17	3	3	10	1
HCL	21	28		8	6	2	0	0
HITACHI	N/A	13		10	3	2	1	4
HP	34	43		17	7	7	3	0
IBM	35	40		19	9	5	5	0
MICROSOFT	23	34		11	4	6	1	0
NEC	15	17		14	6	4	1	3
NTT	19	20		18	8	3	2	5
SAP	23	24		9	3	1	4	1
SOFTBANK	38	39		11	1	0	9	1
SPRINT	N/A	43		5	3	0	2	0
TELEFÓNICA	11	21		9	3	2	4	0
TOSHIBA	N/A	13		11	3	1	3	4
VODAFONE	45	40		23	9	10	2	2
WIPRO	33	43		9	4	1	2	2

IT ENERGY IMPACT

TOTAL (25 POINTS)	ENERGY & EMISSION TARGETS (5 POINTS)	MITIGATION STRATEGIES (10 POINTS)	INFRASTRUCTURE SITING POLICY (5 OR 10 POINTS)*	PRODUCT EFFICIENCY & SUPPLY CHAIN FOOTPRINT (5 OR 10 POINTS)*
19	5	8	N/A	6
9	3	3	1	2
22	5	8	4	5
18	5	6	3	4
17	3	6	N/A	8
10	3	2	1	4
19	3	9	7	N/A
7	2	2	0	3
7	4	1	0	2
14	3	5	2	4
20	5	8	3	4
12	1	6	5	N/A
8	2	3	0	3
6	3	2	1	0
15	4	8	3	N/A
7	3	2	2	0
19	4	8	3	4
11	3	5	2	1
6	1	2	0	3
11	4	4	0	3
19	5	10	0	4

* If one or other of the Infrastructure Siting Policy or Product Efficiency & Supply Chain Footprint criteria are not applicable for a given company, then it will be evaluated for 10 maximum points under the other criterion.

POLITICAL ADVOCACY

TOTAL (35 POINTS)	POLITICAL SPEECH (10 POINTS)	POLITICAL POLICY (15 POINTS)	REPETITION BONUS (10 POINTS)	NEGATIVE LOBBY PENALTIES (-5 TO -15 POINTS)
7	4	3	0	
-4	1	0	0	-5
12	2	7	3	
2	2	0	0	
10	6	2	2	
6	6	0	0	
22	7	9	6	
13	7	6	0	
-4	1	0	0	-5
12	1	11	0	
1	1	0	0	
11	1	11	4	-5
-5	0	0	0	-5
-4	1	0	0	-5
0	0	0	0	
21	8	11	2	
19	5	11	3	
1	1	0	0	
-4	1	0	0	-5
6	0	6	0	
15	1	11	3	

Alcatel·Lucent

👍 ENERGY AND EMISSIONS TARGETS OF 50% BY 2020

👎 AS WITH RIVAL ERICSSON, FAILURE TO CONNECT BROAD IT SOLUTIONS ADVOCACY WITH NATIONAL POLICY ADVOCACY

👁 WILL ALCATEL-LUCENT UPDATE ITS GOAL OF ALTERNATIVE-ENERGY POWERED BASE STATIONS?
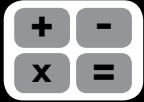
SUMMARY 40/100 =8TH PLACE

Alcatel-Lucent holds steady at 40 points from last year's evaluation, earning the company a tie for 8th place, but down two spots overall. Alcatel-Lucent again demonstrated strong leadership in managing its own energy footprint, matching newcomer Sprint to set the pace among the telecommunications companies, but continues to fall well short of rival Ericsson both in solutions and advocacy leadership.

Although it is undergoing some turmoil due to a CEO transition, if Alcatel-Lucent continues to build on its existing strength in solutions offerings and energy footprint management, it is well positioned to demonstrate much stronger leadership, particularly among the telecommunication companies. Through Green Touch, which it helped create, and other mechanisms, Alcatel-Lucent can leverage its understanding of the energy savings potential of the telecommunications sector to advocate for more sustainable policies. Those policies would help Alcatel-Lucent and others in the industry grow their solutions business and help its telecommunication operator customers transition their growth to highly efficient and renewable-powered infrastructure.

CLIMATE SOLUTIONS 14/40 =9TH PLACE

Energy Savings Calculations (6/10)

Alcatel-Lucent submitted a number of case studies that identified existing ways in which the company is driving solutions development, including transportation and smart grid application. However, many of these case studies were light on details. More detailed case studies, including net emissions savings calculations such as those provided by Ericsson and Cisco, would earn Alcatel-Lucent full marks.

Public Metrics (4/10)

Alcatel-Lucent continues to be involved in creating standardised methodologies, modestly incorporating these metrics in its own case studies. For a higher score, Alcatel-Lucent needs to expand its case studies to be more transparent in demonstrating how it calculates IT solutions on a net impact basis.

Investment (4/10)

Alcatel-Lucent had previously signaled a high level of its investment in development of Bell Labs' focus on "green" innovation. The company has prioritised investments in projects such as LightRadio Network, which in concert with broadband expansion will better utilise alternative energy in remote areas. Stronger evidence of its ambition to provide IT energy solutions is still needed.

Future Savings Goal (0/10)

In 2010, Alcatel-Lucent had set a target of a 40% increase in the number of base stations deployed with alternative energy powering solutions by the end of 2011, but these goals have unfortunately not been updated, resulting in a drop in leadership points for this year's evaluation.

COMPETITOR COMPARISON		🌐	🏭	📢
ALCATEL-LUCENT	40	14	19	7
CISCO	58	24	22	12
ERICSSON	51	24	17	10
HP	43	17	14	12

🏭 IT ENERGY IMPACT — 19/25 =3RD PLACE
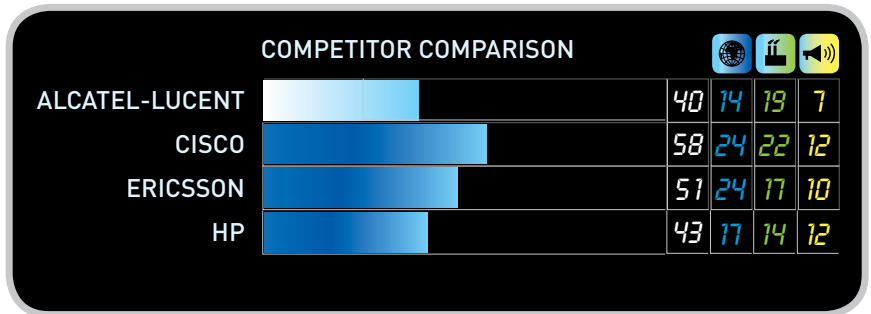
Energy & Emissions Targets (5/5)

Alcatel-Lucent has set an ambitious commitment to reduce its carbon emissions by 50% from a 2008 baseline by 2020, and has already achieved a 22% reduction by the end of 2011.

Mitigation Strategies (8/10)

Alcatel-Lucent has a hierarchy of action for its greenhouse gas mitigation strategy – avoid emissions through efficiency, work with the supply chain to reduce those companies' carbon emissions, and then use renewable energy sources to bridge the remaining gap.

Infrastructure Siting Policy (not applicable)

Given the distributed nature of Alcatel-Lucent's business model, product efficiency is a stronger measurement of its energy leadership. The company was evaluated for 10 points in that category (see below) so its total potential Energy Impact points is still 25.

Product Efficiency & Supply Chain Footprint (6/10)

While Alcatel-Lucent's products do not have applicable Energy Star standards, it is useful to see that Alcatel-Lucent is using other metrics such as ATIS and ETSI to gauge energy efficiency. However, to effectively chart progress, benchmarks and more data about these various standards are needed. Alcatel-Lucent asks its major suppliers to report on their emissions so that the company can begin to calculate its Scope 3 emissions. The company can raise the bar by working with many suppliers to set Scope 3 emissions reduction targets with its suppliers.

📢 POLITICAL ADVOCACY — 7/35 10TH PLACE

Political Speech (4/10)

Alcatel-Lucent, like its competitor Ericsson, has engaged at a high level with the Broadband Commission for Digital Development and other bodies that highlight the potential for the IT sector to save energy. Unfortunately, the company has not yet translated its championship of the sector's solutions potential into a call for stronger government leadership at a national level for policies that will drive IT energy solutions deployment.

Political Policy (3/15)

Alcatel-Lucent receives minimal points for its support participating in a call to action from the Broadband Commission for sustainable development in conjunction with the Rio+20 summit.

Alcatel-Lucent received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.

	IMPROVEMENT IN IT ENERGY MANAGEMENT, INCLUDING HANDSET ECO-RATING PROGRAM
	CONTINUED MEMBERSHIP IN ALEC, ONE OF THE BIGGEST THREATS TO RENEWABLE ENERGY POLICY IN THE US
	WILL AT&T OFFER VOCAL SUPPORT FOR RENEWABLE ENERGY, AS RIVAL SPRINT HAS?
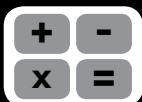
SUMMARY — 19/100 — 18TH PLACE

AT&T unfortunately ranks in the bottom quartile of this leaderboard, falling 3 points from its inaugural ranking last year, and losing ground to other telecoms companies, including US newcomer Sprint. While AT&T received an increase in points in Energy Impact, this is more than offset by its decline in advocacy leadership, including receiving 5 penalty points for its membership with the American Legislative Exchange Council (ALEC).

AT&T scores slightly higher in the Energy Impact category for taking a larger initiative to understand its product and supply chain emissions. AT&T has the potential to score higher in this category with a more aggressive infrastructure siting policy that states a preference for renewable energy.

AT&T has the potential to establish itself as an important clean energy leader within the IT sector. It should begin by withdrawing its support from ALEC, an organisation that promotes many state bills designed to undermine critical policies to increase renewable energy and combat climate change. AT&T should then use its considerable influence among government decision-makers - the company ranked 10th in federal corporate lobbying expenditures in the US in 2012, spending over $17m US dollars - to push for policy changes that would unlock the kind of IT energy savings potential identified in the SMARTer2020 report that AT&T sponsored.

CLIMATE SOLUTIONS — 14/40 — =9TH PLACE

Energy Savings Calculations (6/10)

AT&T continues to score in this criteria for its telepresence case study written in conjunction with the Carbon Disclosure Project. AT&T has also begun to expand its solutions offerings for home energy management, but the company needs to increase its Solutions transparency for emissions avoided by including pre- and post-intervention data.

Public Metrics (6/10)

AT&T published a report "ICT Sustainability Modeling" with its video conferencing solution as the model. The report provides useful and easy-to-read blueprints for measuring IT solutions and should advance the conversation of methodological standards industry-wide. AT&T should also strive to include more energy impacts (such as embedded energy in the equipment it uses) in its net analysis of emissions savings.

Investment (2/10)

AT&T is clearly investing in IT solutions, as referenced above, and is also partnering with a number of companies on smart grid applications, such as Petra Solar and Current Group, but thus far appears to lack the same ambition to scale up these investments as demonstrated by other telecom companies. With a market cap hovering in the top 20 of all global companies, AT&T can afford to take a Google-sized bite of the renewable energy market.

Future Savings Goal (0/10)

AT&T has not set a future savings goals for the amount of emissions it will save with its services and products.

COMPETITOR COMPARISON

	🌐	⛭	📢
AT&T	19	14	9	-4
NTT	20	18	6	-4
SPRINT	43	5	19	19
VODAFONE	40	23	11	6

IT ENERGY IMPACT 9/25 15TH PLACE
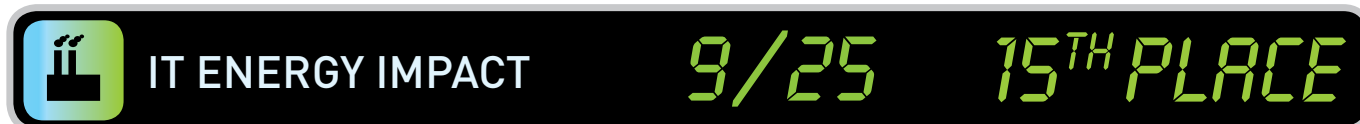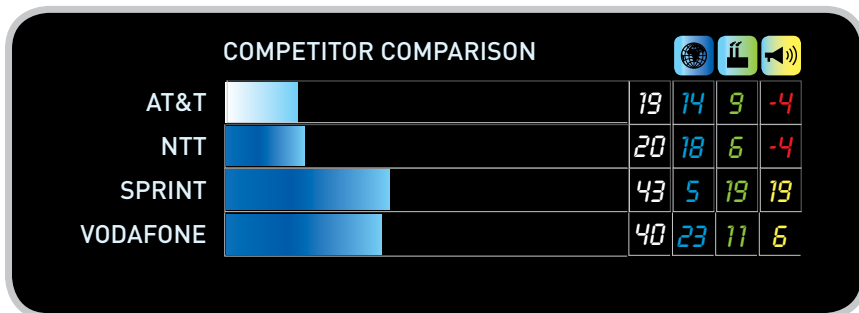
Energy & Emissions Targets (3/5)

AT&T has an absolute emissions reduction goal of 14% by 2014 from a 2008 baseline. Given the large amount of electricity that is used to power its network, AT&T has what is an effective Scope 2 intensity reduction goal for 2011 of 17% reduction relative to data growth compared to 2010.

Mitigation Strategies (3/10)

AT&T is making modest improvements in reducing its energy footprint through gains in efficiency. While it is important to start somewhere, AT&T should increase the ambition of its mitigation efforts, including a much stronger effort to power its telecommunications infrastructure with renewable energy.

Infrastructure Siting Policy (1/5)

Despite having performed some site sustainability analysis for data centres, AT&T earns only 1 point for infrastructure siting leadership, as it does not prioritise access to renewable energy in any meaningful way.

Product Efficiency & Supply Chain Footprint (2/5)

AT&T takes a step forward with the development of its Eco-Rating program for the mobile handsets it sells, providing customers with basic ratings system across five criteria areas.

POLITICAL ADVOCACY -4/35 =17TH PLACE

Political Speech (1/10)

AT&T made no speech for which scores could be given in this year's evaluation. Minimal points are awarded for identifying climate change as key priority on its website.

Political Policy (0/15)

AT&T also failed to demonstrate any leadership in Political Policy, having not used its considerable influence to support sustainable energy and climate change policies.

AT&T received no **Repetition Bonus (0/10)**.

Negative Lobby Penalty (-5)

AT&T is one of the few companies that receives negative points for advocacy, due to the penalty points assessed for its ongoing membership and support of ALEC, which is leading the effort to undermine clean energy and climate policies at the US State level.
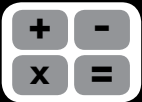
CISCO ™

SUMMARY 58/100 =1ST PLACE

Cisco regains a share of the top ranking in this year's Leaderboard, with a 9-point gain from 2012, earning a 1st-place tie with Google at 58 points. Cisco's leadership improved across each of the three evaluation areas, particularly for updated commitments to manage its energy footprint and increase the amount of renewable energy powering its operations.

Cisco continues to maintain its strong position in demonstrating and measuring the energy savings potential of the IT sector, bested only by Fujitsu in the Solutions category, and shows signs of increasing its investment in its solutions offerings, particularly those related to the smart grid. Cisco earns top marks for its increased leadership in addressing its growing energy footprint, with an update to its greenhouse gas (GHG) and renewable energy targets, along with a performance-based commitment to direct its growth toward cleaner sources of electricity and away from coal.

Cisco scored higher for its policy advocacy leadership than it did last year, but nearly all of its advocacy occurred in the EU - particularly the UK - while being nearly non-existent in the US and even its home state of California. As a company that has clearly shown its interest in both increasing its supply of renewable energy and business opportunities with IT-enabled energy management and the smart grid, Cisco needs to demonstrate much stronger advocacy leadership in its home market. For inspiration or ideas on how to improve, Cisco would be well served by looking at the leadership shown by its California neighbour and the company with whom it shares top honours in this year's Leaderboard: Google.

CLIMATE SOLUTIONS 24/40 =2ND PLACE

Energy Saving Calculations (9/10)

Cisco continues to maintain strong evidence of the energy savings potential of its IT solutions in several areas identified in the SMARTer2020 report, and continues to update its analysis and assumptions.

Public Metrics (10/10)

Cisco continues to provide transparent and well developed methodologies and associated calculators for measuring the energy savings impact of Cisco IT solutions, and has also demonstrated leadership in contributing this knowledge toward the development of standardised metrics for such solutions across the sector.

Investment (5/10)

Cisco appears to be increasing its investments in its energy solutions offerings, most notably its investments relating to smart grid services and solutions, under its Emerging Technologies Business Group.

Future Savings Goal (0/10)

Despite having strong real world case studies and well developed methodologies for measuring the impact of its clean energy solutions, with a much greater range than most companies, Cisco still declines to state a level of ambition for how much energy savings its products will produce.

COMPETITOR COMPARISON

CISCO	58	24	22	12
ALCATEL-LUCENT	40	14	19	7
ERICSSON	51	24	17	10
HP	43	17	14	12
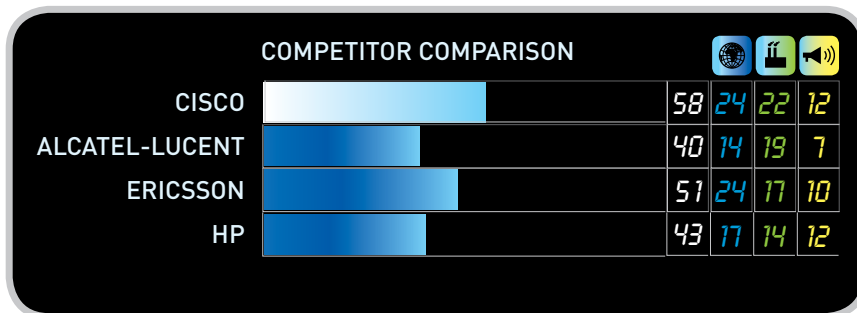
IT ENERGY IMPACT — 22/25 — 1ST PLACE

Energy & Emissions Targets (5/5)

Cisco maintains full marks as it provided an <u>updated set of targets for greenhouse gas reductions</u> (40% below 2007 levels by 2017), energy intensity goals (15% energy per unit of revenue by 2017) and renewable energy (25% of total by 2017) targets in early 2013.

Mitigation Strategies (8/10)

Cisco has been transparent about the major elements of its strategy to achieve its GHG and energy reduction goals, having successfully achieved its previous goals last year. Cisco should provide greater detail regarding how much of its renewable energy is being secured directly through its local utilities or renewable energy developers, and to what extent Renewable Energy Credits (RECs) – a more problematic strategy at increasing renewable energy – are being relied upon, as Google has begun providing.

Infrastructure Siting Policy (4/5)

Cisco helps set the bar for this criteria with the <u>recent adoption of performance-based goals</u> for its facilities, defined by the emissions factor of the local electricity. In combination with its other goals, this new commitment should serve to drive significant new growth by Cisco away from coal-fired generation.

Product Efficiency & Supply Chain Footprint (5/5)

Cisco again helps set and maintain the bar for this category, which includes efforts to ensure its suppliers are reporting data on their respective energy footprints and are themselves establishing reduction targets.

POLITICAL ADVOCACY — 12/35 — =6TH PLACE

Political Speech (2/10)

Cisco scores minimal points for speech in support of clean energy policies, with leadership occurring primarily in the UK context.

Political Policy (7/15)

Cisco does score higher for its policy advocacy leadership compared to last year, though nearly all leadership examples occurred in the EU, and in particular the UK, through its participation in the <u>Aldersgate Group</u>, including <u>support for a low-carbon power target</u>. Cisco needs to re-engage in energy policy advocacy in its home country, the US, and advocate with a stronger voice for the policy changes that are needed to unlock the energy savings potential identified in the SMARTer2020 analysis.

Repetition Bonus (3/10)

Repetition bonus awarded for support of letters sent by Aldersgate Group on <u>mandatory reporting</u> and clean energy investment.

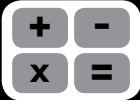Cisco received no **Negative Lobby Penalties**.

SUMMARY

PRODUCT EFFICIENCY AND SUPPLY CHAIN MANAGEMENT

LACK OF ANY MEASURABLE LEADERSHIP IN POLICY ADVOCACY

WILL TRANSITION TO PRIVATELY HELD COMPANY ALLOW DELL TO RETAKE LEADERSHIP MANTLE?

SUMMARY — 27/100 — 14TH PLACE

Dell's climate and clean energy leadership unfortunately continues on a slow decline, although with some signs of improvements. Dell continues to show the most leadership in its own footprint management. Dell's global emissions reduction targets include absolute and relative goals. Dell has committed to reduce global greenhouse gas (GHG) emissions by 15% per dollar of revenue from 2007 to 2012. Having backed away from its carbon neutral goal, Dell de-prioritised renewable energy credits (RECs). RECs do not sufficiently add new renewable power to the grid, so we see this as a positive step in increasing the company's installed and direct purchasing of renewable energy potential. Like HP and other companies whose business model is still heavily based in the manufacturing of PCs, Dell has struggled compared to solutions leaders such as IBM, Cisco, and Ericsson, in identifying and quantifying IT solutions that help save energy outside the IT sector's own footprint. However, even in the methodology and metrics for measuring IT-related energy savings, Dell lost points in the solutions criteria for failing to keep pace in its calculation methodology.

The most troubling aspect of Dell's leadership decline is the complete lack of engagement in policy advocacy. Dell, particularly CEO Michael Dell, was once known for vocal executive-level focus on the environment. Now Dell barely registers a voice in clean energy advocacy leadership. As Dell seeks to transition to again being a privately held company, hopefully this transition will also help Dell and its CEO rediscover their voice in calling for government policies and leadership among IT companies that will leverage the innovative talents of the IT sector to drive the energy savings we need to address climate change.

CLIMATE SOLUTIONS — 7/40 — 20TH PLACE

Energy Savings Calculations (3/10)

Dell provides several case studies, including on virtualisation and data storage, which highlight the potential energy benefits of the company's IT solutions, but fail to include high-quality details as to how these solutions are achieving GHG reductions outside the IT sector. Dell also needs to update solutions case studies to include pre- and post-intervention data and the methodology used to determine the included data.

Public Metrics (3/10)

Dell articulates the assumptions of its energy calculators, as provided on its Energy Smart website. However, Dell drops in this criteria for its continued lack of detail on its methodology used to calculate emission reductions. Several of Dell's competitors such as HP, Fujitsu, and NEC, continue to perform far better here.

Investment (1/10)

Dell currently does not separate out or report R&D or IT energy solutions investment figures, or how they are being prioritised in its changing business model. Dell received a minimal score here for continued evidence of investments in "2%" IT-related energy savings product offerings.

Future Savings Goal (0/10)

Dell has not set a future savings goal.

COMPETITOR COMPARISON		🌐	🏭	📢
DELL		27	7	18	2
CISCO		58	24	22	12
HP		43	17	14	12
IBM		40	19	20	1
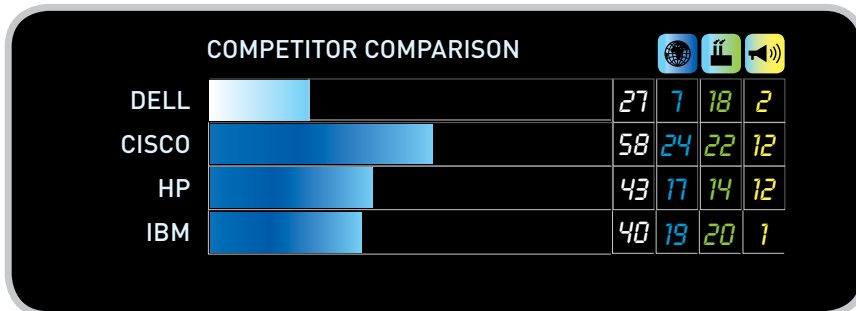
🏭 IT ENERGY IMPACT — 18/25 — 7ᵀᴴ PLACE

Energy & Emissions Targets (5/5)

Dell's global emissions reduction targets include absolute and relative goals. Dell has committed to reduce global GHG emissions by 15% per dollar of revenue from 2007 to 2012. Dell also aims to reduce its worldwide facilities' absolute GHG emissions by 40% by 2015 from a 2007 baseline.

Mitigation Strategies (6/10)

In late 2011, Dell backed away from its previous commitment to be carbon neutral. The company had largely depended on carbon offsets and renewable energy credits (RECs) to claim that accomplishment. Dell is using numerous positive mitigation tactics to reduce its global emissions, including now de-prioritising RECs while increasing its direct purchase of renewable energy. Dell is also gaining information from 80% of its suppliers that require emissions reduction goal setting and helping to set standards in the supply chain. In 2012, 19% of the company's energy came from renewable sources.

Infrastructure Siting Policy (3/5)

Dell receives minimal points in this criteria for its lack of a substantial siting policy that shows industry leadership in its effort to site facilities in areas with the highest renewable energy available. Dell increased its score by 1 point due to its construction of a new data centre in Washington State, in a location that allows it to access existing hydroelectric power supply instead of fossil fuel or nuclear sources.

Product Efficiency & Supply Chain Footprint (4/5)

Dell continues to score well in this criteria, reporting that it produces 59% of its laptop models and 63% of desktop models compliant with Energy Star 5.0 standards. Dell has begun to solicit GHG accounting and reporting from its first-tier suppliers. Dell has also updated its goals for a more sustainable supply chain.

📢 POLITICAL ADVOCACY — 2/35 — 13ᵀᴴ PLACE

Political Speech (1/10)

Dell has a reasonably forward-looking statement on climate change on its website, but its speech unfortunately ends there. For more points, Dell must publish a meaningful and specific statement that demonstrates the company's dedication to global emissions reductions.

Political Policy (1/15)

While Dell attempted to play a constructive role in shaping standards and metrics for environmental performance within the sector, that is no substitute for using its influence to shape policy change to drive renewable energy and IT solutions, which Dell has not done.

Dell received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.

ERICSSON

STRONG METHODOLOGY FOR MEASURING IT ENERGY SAVINGS IMPACT AND REAL-WORLD CASE STUDIES OF IT SOLUTIONS

FAILURE TO CONNECT BROAD ADVOCACY FOR POTENTIAL IT SOLUTIONS TO REAL POLICY OUTCOMES BY NATIONAL GOVERNMENTS

WELL POSITIONED TO SET THE AMBITION LEVEL FOR AN ENERGY SAVINGS GOAL FOR ITS SOLUTIONS PRODUCTS

SUMMARY — 51/100 — 3RD PLACE

Ericsson maintains its 3rd position in this updated Leaderboard, increasing its score by 3 points. Ericsson continues to provide strong examples of IT solutions, including providing one of the most comprehensive case studies detailing an innovative connected bus transportation solution in Brazil, and its methodology for measuring IT energy savings potential remains among the best. While Ericsson earns respectable scores for its efforts to reduce its own operational footprint, it continues to lose ground to other companies, including Cisco and Alcatel-Lucent.

While Ericsson has shown continued CEO-level leadership in the UN's Broadband Commission to promote greater access to IT innovations capable of reducing emissions, Ericsson fails to link its global leadership with similar leadership in advocating for sustainable climate change policy at the national or sub-national level.

CLIMATE SOLUTIONS — 24/40 — =2ND PLACE

Energy Savings Calculations (10/10)

Ericsson continues to set the bar for this category, providing a number of well developed case studies demonstrating the climate and energy savings potential of IT-based solutions in different parts of the economy, including a recent study conducted in 2012 called "Connected Buses in Curitiba", which compare pre- and post-intervention data and accounts for absolute reductions in CO_2 tonnes/year.

Public Metrics (10/10)

Ericsson continues to score very high for transparent and thorough methodology in measuring the energy saving impact of its IT solutions, as outlined in Measuring Emissions Right.

Investment (4/10)

Ericsson is clearly putting real money into developing and testing its IT energy solutions offerings, and has several innovative public-private partnerships underway. However, the lack of detail of how those efforts are being prioritised within the company limits its leadership score here.

Future Savings Goal (0/10)

Ericsson fails to set a Future Savings Goal, so it receives zero points.

COMPETITOR COMPARISON

	🌐	🏭	📢	
ERICSSON	51	24	17	10
ALCATEL-LUCENT	40	14	19	7
AT&T	19	14	9	-4
CISCO	58	24	22	12

IT ENERGY IMPACT — 17/25 — 8TH PLACE
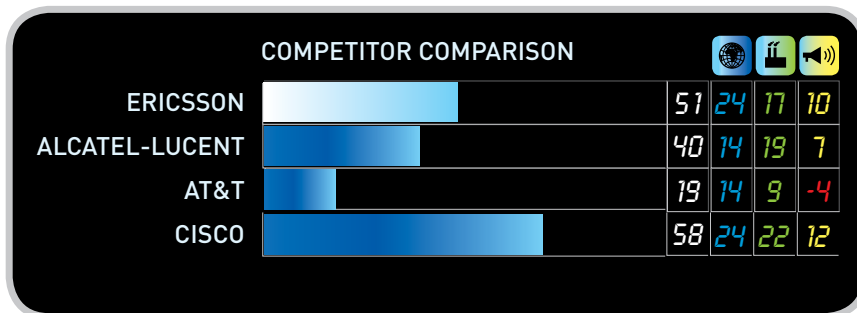
Energy & Emissions Targets (3/5)

While Ericsson has set a goal to achieve a 40% reduction of CO_2 emissions per subscriber 2008 levels by 2013 (2008 baseline), this is the one area that Ericsson clearly lags behind rival Alcatel-Lucent, which has set a clear absolute target for 2020.

Mitigation Strategies (6/10)

Ericsson increased its transparency this year by announcing that the company includes 30% renewable energy through the purchase of renewable energy credits (RECs). Ericsson could show stronger leadership by prioritising direct procurement of renewable energy over the purchase of RECs.

Infrastructure Siting Policy (not applicable)

Given the distributed nature of its business model, product efficiency is a stronger measurement of Ericsson's energy leadership. Ericsson is evaluated out of 10 points under product efficiency and supply chain footprint (see below), so that it's total potential Energy Impact is still scored out of 25 points.

Product Efficiency & Supply Chain Footprint (8/10)

Ericsson scores in the top tier for its efforts to measure and manage the environmental impacts of its products throughout their life cycle, including supply chain and product use. The company has begun using Life Cycle Assessment to enable greater transparency and accountability among its suppliers and operators, but has not yet begun setting performance targets for its suppliers.

POLITICAL ADVOCACY — 10/35 — 9TH PLACE

Political Speech (6/10)

Ericsson receives its Political Speech points this year for its work on the Broadband Commission for Digital Development. It dedicated high-level executives and resources to co-chair an initiative to promote greater access to broadband and thus emissions reduction innovations.

Political Policy (2/15)

Ericsson sponsored the release of the latest SMARTer2020 report showing the potential influence of the IT industry on reducing global greenhouse gas emissions by an estimated 9.1Gt CO_2e by 2020. However, Ericsson, like many other companies, has not connected this advocacy with national or state policies that will help drive IT solutions deployment.

Repetition Bonus (2/10)

Ericsson earns additional repetition bonus points for repeated speech by its CEO about the energy savings potential of the IT sector.

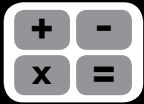Ericsson received no **Negative Lobby Penalties**.

FUJITSU
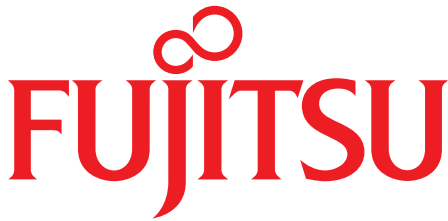
STRONG EXAMPLES AND METHODOLOGY BEHIND ITS IT ENERGY SOLUTIONS, WITH SIGNIFICANT AMBITION FOR GROWTH IN ITS SOLUTIONS BUSINESS

WEAK ADOPTION OF RENEWABLE ENERGY FOR ITS OWN OPERATIONS

OPPORTUNITY TO SUPPORT RESTRUCTURING OF GRID OWNERSHIP IN JAPAN TO ALLOW MORE RENEWABLE ENERGY

SUMMARY — 44/100 — 4TH PLACE

Fujitsu's score dropped 4 points in the latest edition of the Leaderboard, though it still earned 4th overall position in this year's ranking. Fujitsu still possesses well developed case study data of its solutions with fairly transparent methodology, and is the leading company in terms of establishing ambitious and detailed goals for future carbon savings from its IT solutions. However, Fujitsu still has ample room for improvement in other key areas. Most importantly, the company should use its political capital to advocate for clean energy policies and measures to reduce emissions both globally and nationally.

CLIMATE SOLUTIONS — 28/40 — 1ST PLACE

Energy Savings Calculations (9/10)

Fujitsu publishes a plethora of IT energy solutions, ranging from transport and shipping logistics to building efficiencies and manufacturing, with data from pre- and post-solution intervention.

Public Metrics (8/10)

Fujitsu publishes extensive metrics that qualify the assumptions made in its solutions calculations. The company also contributes key personnel to working groups that establish uniform standards for IT solutions. Fujitsu showcases an EcoCALC, updated for 2012, with additional data to calculate CO_2 reductions from the IT sector.

Investment (3/10)

Fujitsu lists a number of examples, though qualitative, as examples of its IT solutions investment. Given its solutions offerings, the company clearly is investing in IT solutions, but is only representing this as a part of its overall research and development budget, which has grown 18% in the past fiscal year.

Future Savings Goal (8/10)

Fujitsu has had a future savings goal for its IT solutions for many years, so the company can both track its progress since 2009, and also set additional future savings goals. The company set a goal of 15 million tons of CO_2 saved from its solutions from 2009 to 2012 and the company plans on setting an updated target in April 2013.

COMPETITOR COMPARISON		🌐	🏭	📢
FUJITSU		44	28	10	6
IBM		40	19	20	1
NEC		17	14	8	-5
TOSHIBA		13	11	6	-4
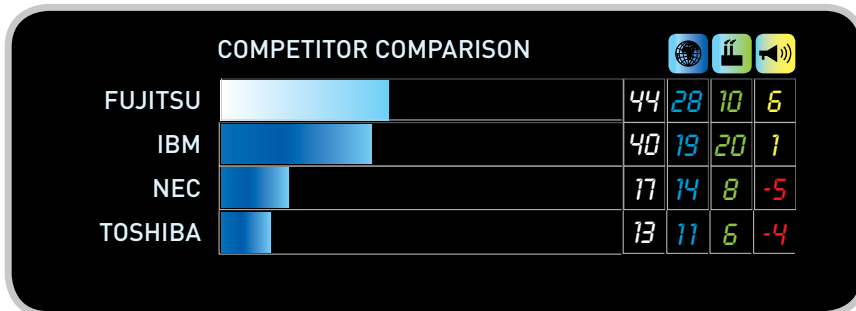
🏭 IT ENERGY IMPACT — 10/25   14ᵀᴴ PLACE

Energy & Emissions Target (3/5)

Fujitsu had established a goal to reduce its greenhouse gas (GHG) emissions associated with manufacturing globally to 6% below FY1990 levels by the end of FY2012. The company has not yet set a new goal, however.

Mitigation Strategies (2/10)

Fujitsu has technically increased the amount of renewable energy used in its operations, installing a miniscule total of 343kW of RE in FY2011. Fujitsu should produce a more comprehensive strategy for reducing its operational footprint via efficiency measures, as well as increased clean energy purchasing, including a sizable direct purchase of renewable energy.

Infrastructure Siting Policy (1/5)

Fujitsu lists a number of attributes it uses for an environmentally friendly data centre, including significant advances in energy efficiency technologies. However, the company doesn't set a preference for siting its data centres with access to clean, renewable sources of power.

Product Efficiency & Supply Chain Footprint (4/5)

Fujitsu's consumer electronic products meet the latest Energy Star standards and an increasing number of its products meet its internal Super Green Products standard. Fujitsu has established a few goals about reducing emissions in particular parts of its supply chain (transport and distribution in Japan only) but has not fully disclosed its supply chain emissions nor set comprehensive reduction goals for its suppliers.

📢 POLITICAL ADVOCACY — 6/35   =11ᵀᴴ PLACE

Political Speech (6/10)

Fujitsu presented a number of political speech examples, but the company needs to go beyond general proclamations about the efficacy of IT savings and general presentations on the need for action on climate change. Fujitsu should engage in particular political campaigns, and support specific policies that will reduce CO_2, such as when Fujitsu's Hiroshi Takahashi advocated grid separation in Japan.

Political Policy (0/15)

Fujitsu submitted no relevant examples of applicable policy advocacy.

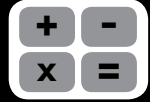Fujitsu received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.

Google

SUMMARY   58/100   =1ST PLACE

Google's continued advocacy for clean energy and willingness to put its money where its mouth is helps keep it atop the Cool IT Leaderboard for the second year in a row, gaining 5 points from last year's total to earn a 1st place tie with Cisco. Google's clean energy investments, now topping $1bn US dollars since 2010, illustrate that corporations can play an important role in providing a new and much needed source of capital to the renewable energy sector. Google's continued strong leadership in making clean energy investments has not only driven significant deployments of renewable energy, but also enhanced its standing as a credible corporate advocate for stronger clean energy and climate policies.

Google continues to retain the top ranking for policy advocacy, challenging the IT sector to work with it to help bring more renewable energy on the grid. Google has remained active in pushing government decision-makers for policies that will support energy efficiency and renewable energy investment, particularly in the US. As Google rapidly expands outside of the US as well, most recently in Asia and Latin America, it will be critical to the company's 100% renewable energy goal that it brings the same combination of investment and policy advocacy to bear in these expanding markets. Google can also bring that combination to bear in specific regions of the US where it has data centres but faces monopoly utility companies who offer little in the way of renewable energy to its customers, such as Duke Energy in the south-eastern US.

Google's decision to grant $2.5m to support "intelligent" energy policy reforms sets an important example to other IT companies, and will hopefully help set the right policy conditions for Google and other IT companies to help save energy through IT-enabled energy management tools. While Google's commitment to advancing renewable energy remains strong, it has made only modest progress in demonstrating how its products and services can help save energy or reduce greenhouse gases for its customers.

🌐 CLIMATE SOLUTIONS   17/40   =7TH PLACE

Energy Savings Calculations (3/10)

Google's leadership remains modest for its solutions offerings. Google has a number of energy and greenhouse gas (GHG) reduction tools in use or under development - such as measuring deforestation via the Google Earth platform, or Google Transit, which could facilitate greater use of public transportation – but the true impact of those tools has remained difficult to quantify. Recent investments in driver-less car technology powered by Google data centres have the potential to reduce fuel consumption, but the potential savings is not yet well documented.

Public Metrics (3/10)

Google has well-developed methodology showing the energy savings potential of its Google Apps cloud-based software services. However, as the savings are measured only against IT-related energy savings, only partial points are awarded.

Investment (10/10)

Google continues to set the bar for its clean energy investment leadership among IT companies, with Japan's SoftBank a close second. Google's clean energy investments, now topping $1bn since 2010, illustrate that Google understands, and in fact embraces, the idea that corporations can play an important role in providing a new and much needed source of capital to the renewable energy sector.

Future Savings Goal (1/10)

Google has not established a future savings goal for its IT solutions, though it earns minimal points for its stated ambition of its $1bn in clean energy investments producing more energy annually than Google consumes within its own operations.

COMPETITOR COMPARISON		🌐	🏭	🔊
GOOGLE	58	17	19	22
IBM	40	19	20	1
MICROSOFT	34	11	12	11
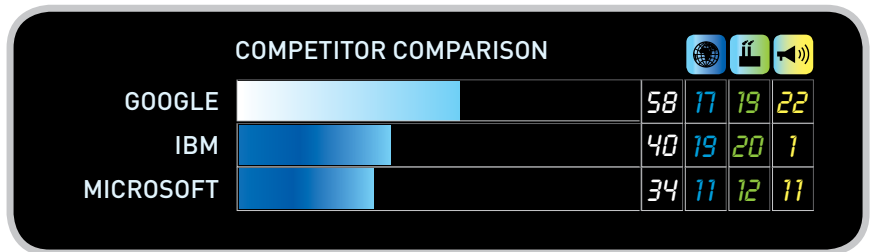
IT ENERGY IMPACT — 19/25 =3RD PLACE

Energy & Emissions Targets (3/5)

While Google's overarching goal is to be "Carbon Neutral", it also has established a long-term goal of being 100% powered with renewable energy, and has begun reporting regularly its progress toward this goal, with 35% renewable energy reported for 2012. Continued updating of this progress will be important as Google continues to expand outside the US.

Mitigation Strategies (9/10)

Along with Wipro, Google continues to help set the bar in mitigating its rapidly growing footprint with renewable energy. Google continues to pursue a number of different strategies to secure more renewable energy by directly purchasing it wherever possible. The most recent example involved a collaboration with local utility in Oklahoma to increase the amount of renewable energy the utility is providing to Google's Oklahoma data centre. Having made significant progress securing renewable energy in other parts of the country, Google faces more challenging utility partners in the south-eastern US, such as Duke Energy, which remains committed to coal and other dirty sources of electricity generation.

Infrastructure Siting Policy (7/10)

Google has demonstrated it is taking seriously its goal to power its data centres with 100% renewable energy; it currently stands at approximately 35%. Google continues to expand to new markets, and professes to weigh electricity generation mix and employ a carbon shadow price when deciding on new infrastructure. With several new data centres recently announced outside of the US, including in Asia and Latin America, Google will face new challenges in siting decisions and in developing an investment and advocacy strategy that will ensure it has access to renewable energy for these new facilities.

Product Efficiency & Supply Chain Footprint (not applicable)

POLITICAL ADVOCACY — 22/35 1ST PLACE

Political Speech (7/10)

Google has steadily increased its profile in energy finance circles to make the case for the public and private sector to provide much needed investment to the renewable energy sector. Google gets high marks for Vice President of Data Centres Joe Kava's challenge to data centre operators to work together in a consortium to bring renewable energy onto the grid at scale, bringing green electricity to their data centres and to the surrounding grid as well.

Political Policy (9/15)

Google continues to remain active in supporting policies to enable greater investment in renewable energy and energy efficiency both among US and EU policy makers, including support for the extension of renewable energy tax credits in the US. Google received high marks for its $2.5million grant to support "intelligent" energy policy reforms, which could play an important catalytic role in setting the policy conditions for Google and other IT companies to help realise the energy savings potential of IT energy solutions as identified in the SMARTer2020 report.

Repetition Bonus (6/10)

Google earns the highest advocacy repetition bonus for this Leaderboard, for a range of policy advocacy actions in support of clean energy investment incentives.
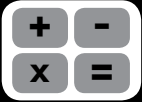
Google received no **Negative Lobby Penalties**.

STRONG ADVOCACY FOR RENEWABLE ENERGY IN INDIA

LACK OF AN ADEQUATE MITIGATION PLAN TO ADDRESS ONGOING GROWTH

MORE DETAILED EVIDENCE OF ENERGY SAVINGS OR AMBITION ASSOCIATED WITH ITS SOLUTIONS

SUMMARY — 28/100 — 13TH PLACE

HCL increased its score in its second ranking in the Cool IT Leaderboard, primarily through greater advocacy leadership in India, providing critical support for laws supporting renewable energy. However, HCL still lags far behind its competitors in offering IT energy saving solutions, and also has substantial room for improvement in mitigating its own climate footprint.

HCL offers a number of IT savings solutions, but doesn't offer much in terms of metrics behind its solution offerings and case studies.

CLIMATE SOLUTIONS — 8/40 — 19TH PLACE

Energy Savings Calculations (6/10)

HCL offers a number of IT savings solutions - of all of its energy savings technology, the company provided the most detail about its green logistics terminal. HCL should provide more detail of the pre- and post-intervention data behind most of its IT solutions.

Public Metrics (2/10)

HCL doesn't offer much in terms of metrics behind its solution offerings and case studies, scoring only minimal points. HCL should provide much more detail in order to build confidence that its solutions can be brought to scale and deliver significant energy savings.

Investment (0/10)

HCL does not score in this criteria, as it provides no concrete information on the total or scale of its investments in IT solutions that reduce carbon emissions.

Future Savings Goal (0/10)

HCL has not set a future savings goal for its IT solutions. The company continues to say that it will set a future savings goal soon.
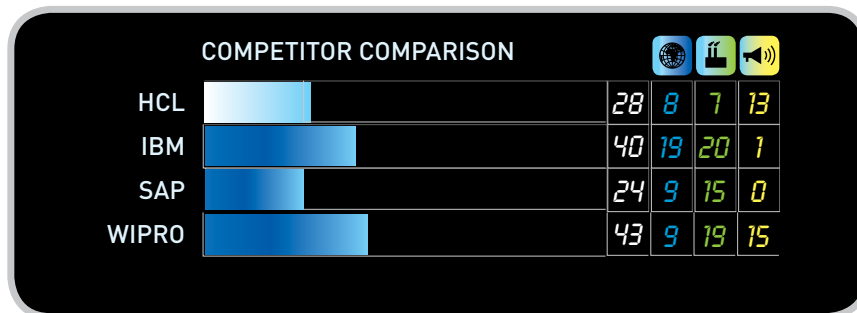
IT ENERGY IMPACT   7/25   =17TH PLACE

Energy & Emissions Targets (2/5)

HCL has increased the disclosure of its carbon footprint, but falls short of other Indian companies who have met a target reduction of 20% (or more) by 2015. HCL has committed to reduce its carbon emissions by 20% by 2020, but that reduction target is in relative terms - it could be improved if it were an absolute target.

Mitigation Strategies (2/10)

HCL has not improved its greenhouse gas mitigation strategy since last year's Leaderboard. HCL has cited a scant amount of additional renewable energy to "offset" its emissions, but the company provides little detail about that claim, and has not placed it in the broader context of an overall mitigation strategy. HCL has set a goal of 20% renewable energy by 2020, yet provides little detail of the mid-term steps it would have to take to achieve this goal.

Infrastructure Siting Policy (0/5)

HCL does not have a siting policy that prioritises access to renewable energy for its infrastructure investment. Given that the company has a set a renewable energy goal, HCL should match that goal with a corporate policy to steer growth investments to regions or utilities with access to renewable energy.

Product Efficiency & Supply Chain Footprint (3/5)

HCL's products are, on average, more efficient than those of its competitors. The information that HCL supplies about its supply chain emissions are focused solely on its internal production portion of its emissions profile. HCL should disclose its suppliers' footprint, and set goals for reducing supply chain emissions.

POLITICAL ADVOCACY   13/35   5TH PLACE

Political Speech (7/10)

HCL's leadership has supported a significant increase in renewable energy in India, as stated in Greenpeace's Energy [R]evolution report. HCL has actively communicated its support for renewable energy to the government.

Political Policy (6/15)

HCL also supported policy and regulatory changes for India's first national solar mission, and has pushed for a strong renewable power obligation.

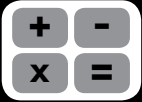HCL received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.

HITACHI

ABSOLUTE GREENHOUSE GAS EMISSIONS TARGET

FAILURE TO SUPPORT RENEWABLE ENERGY POLICIES IN JAPAN AND ALLOWING CONTINUED UNDERMINING OF GOVERNMENT ACTION ON CLIMATE CHANGE

SCALING OF SOLUTIONS BY SHIFTING OF INVESTMENTS FROM NUCLEAR AND COAL BUSINESS UNITS

SUMMARY — 13/100 — 20TH PLACE

Hitachi Group is a new addition to the Cool IT Leaderboard in 2013. Hitachi has recently attached its growth to its "Social Innovation Business", which supplies advanced social infrastructure fused with information technology (IT) through its five business groups. Hitachi has also identified addressing global warming as a high priority, laying out its "Environmental Vision 2025", which includes goals both for its own operations as well as a reduction goal of 100 million tonnes of CO_2 from its solutions offerings. Yet, despite this stated ambition for solutions, Hitachi unfortunately remains heavily invested in continuing to offer nuclear power as its primary "clean" energy solution. As a result, Hitachi lags far behind other IT leaders in developing and deploying the type of IT solutions identified in the SMARTer2020 report.

CLIMATE SOLUTIONS — 10/40 — 15TH PLACE

Energy Savings Calculation (3/10)

Despite possessing a unique range of business units that have significant reach into most of the solutions areas identified by the SMARTer2020 analysis, Hitachi is currently lagging behind most of its peers in providing clear case studies demonstrating the savings achieved from its solutions offerings, with the Motor Drive Conservation Service being the clearest example.
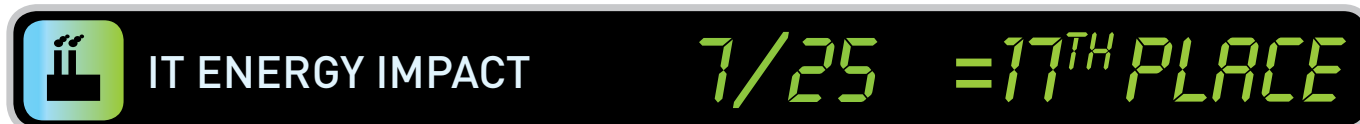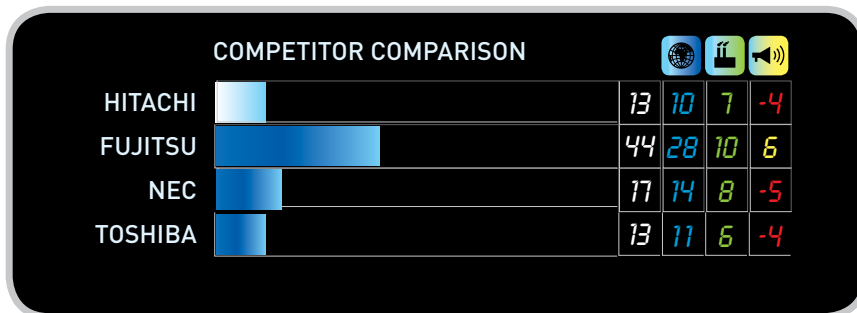
Public Metrics (2/10)

Hitachi Ltd. provides only a very basic methodology for measuring product energy saving, though its subsidiary Hitachi Solutions provides much stronger metrics.

Investment (1/10)

Hitachi spent ¥230bn yen in FY2011 for "sustainable society" but offers no further breakdown of how that investment is being spent..

Future Savings Goal (4/10)

Though Hitachi does have an ambitious savings goal from its solutions and services, these greenhouse gas (GHG) savings goals appear to still be highly dependent on the expansion of Hitachi's nuclear power business, and have thus stalled in reaching the most recent milestones for GHG reductions in the wake of public rejection of nuclear power following the Fukushima disaster.

COMPETITOR COMPARISON		🌐	⚙	📢
HITACHI	13	10	7	-4
FUJITSU	44	28	10	6
NEC	17	14	8	-5
TOSHIBA	13	11	6	-4

🏭 IT ENERGY IMPACT — 7/25 =17TH PLACE

Energy & Emissions Targets (4/5)

Hitachi scores well for its 20% absolute reduction target for GHG emissions by 2015, using 1990 as the base year, but the company does not yet have a goal for adoption of renewable energy.

Mitigation Strategies (1/10)

Hitachi reports only broad measures to achieve its GHG reduction target, with no percentage breakdown or raw energy numbers associated with noted measures. Similarly, gross renewable energy consumed is reported, but not as a percentage of the total energy Hitachi used.

Infrastructure Siting Policy (0/5)

Unlike an increasing number of IT companies, Hitachi does not appear to factor access to renewable energy supply it its infrastructure siting decisions.

Product Efficiency & Supply Chain Footprint (2/5)

Hitachi has implemented an eco-label system to identify top performers in environmental impact.

📢 POLITICAL ADVOCACY — -4/35 =17TH PLACE
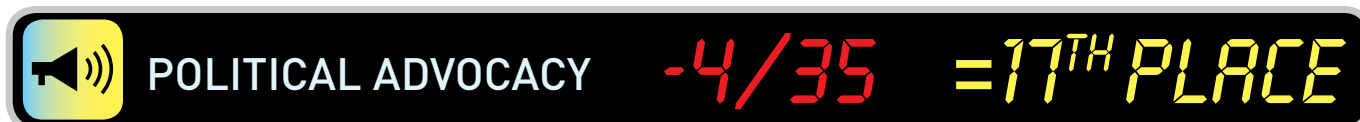
Political Speech (1/10)

Similarly to Toshiba, Hitachi appears to make the challenge of addressing climate change a central organising principle of its Environmental Vision 2025 and related environmental action plan, but Hitachi refuses to speak out in support of smart clean energy and climate change policies in Japan.

Political Policy (0/15)

Hitachi did not advocate for any relevant policies in the past year.

Hitachi received no **Repetition Bonus (0/10)**.

Negative Lobby Penalty (-5)

Hitachi is part of Keidanren, an influential Japanese trade organisation that made a statement in December 2012 to demand continuous investment in coal and nuclear, while it criticises carbon tax and feed-in tariff policies that would promote renewable energy. The organisation challenged the feed-in policy again in its March 2013 statement. Hitachi has not distinguished itself from either Keidanren or that statement.
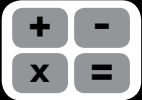
HP

- 👍 ADVOCACY IN SUPPORT FOR RENEWABLE ENERGY POLICY IN THE US
- 👎 FAILURE TO ADOPT CLEAN ENERGY SITING POLICY TO GUIDE EXPANSION OF CLOUD COMPUTING INFRASTRUCTURE
- 👁 ADOPTION OF NEW TARGETS AND MITIGATION PLAN TO ADDRESS OWN ENERGY FOOTPRINT

SUMMARY 43/100 =5ᵀᴴ PLACE

HP increased its score in each of the three leadership evaluation categories, but by far the biggest jump comes in Political Advocacy. After barely registering in advocacy leadership for the past two editions of the Leaderboard, HP receives points for supporting a renewable energy policy priority in the US, signing onto a letter alongside Sprint and Microsoft to Congressional leadership on the importance of extending the wind tax credit in the US.

HP still helps to set the bar for product efficiency and measurement of its supply chain emissions, but HP has largely stood still in demonstrating leadership in managing its own environmental footprint, while other companies have caught up and surpassed it, including Dell. HP has certainly had its own share of struggles as it seeks to regain its footing in the "post-pc" era, and may find it tempting to delay adoption of new environmental performance goals until it has done so. However, HP would be much better served in the long term if it uses environmental and renewable energy performance goals to guide the next phase of its growth toward becoming more of a service-oriented company as delivered through cloud computing infrastructure.

Similarly, HP had been an early leader in the sector in climate and energy policy advocacy, but has increasingly remained silent while peers have become stronger advocates. Having endured several sudden CEO transitions in recent years, hopefully the recent support for the extension of renewable energy tax incentives in the US is an early sign that HP intends to again use its influential brand to push for government policies that will drive renewable energy investments.

CLIMATE SOLUTIONS 17/40 =7ᵀᴴ PLACE

Energy Savings Calculations (7/10)

HP offers many case studies, and receives a higher than average score for its case study "The Environmental Case for Digitally Printing Books", in which the company details a life cycle analysis including climate change impact of traditional book printing in comparison to digital technology.
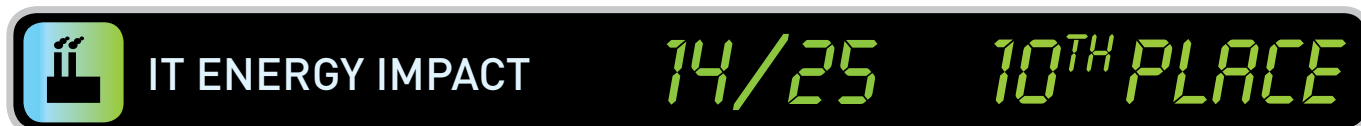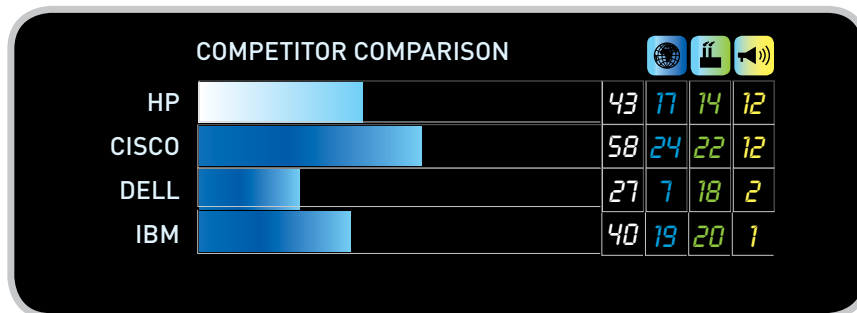
Public Metrics (7/10)

HP discloses assumptions made in the company's calculation of energy savings in its case study, Project Moonshot. Additionally, HP discloses its assumptions in its case study of Citigroup data centre infrastructure consolidation. The company worked with Citigroup to maintain its LEED-certified data centres with HP services that would result in lower energy consumption. HP also provides online calculators for printing as well as calculators for home and business computing.

Investment (3/10)

HP increased its investment score by one point from 2012. The company is investing in emissions reducing technology such as shown in its Project Moonshot and HP Labs' sustainable data centre projects.

Future Savings Goal (0/10)

HP has taken no applicable future savings goal to receive points.

COMPETITOR COMPARISON		🌐	⛭	📢
HP	43	11	14	12
CISCO	58	24	22	12
DELL	27	7	18	2
IBM	40	19	20	1

IT ENERGY IMPACT — 14/25 — 10TH PLACE

Energy and Emissions Targets (3/5)

HP states that it achieved its 2013 emissions reduction target in 2011, but has yet to lay out a new target and plan. The company achieved a 50% reduction of 2005 levels by the end of 2011, exceeding its original target of 40%.

Mitigation Strategies (5/10)

With a modest increase of renewable energy to 10% from 8% in 2011, HP received a middle-of-the-road score. In order to receive more points, HP must set a longer-term renewable energy goal with concrete short and mid-term milestones.

Infrastructure Siting Policy (2/5)

Though HP has no siting policy that prioritises sustainable energy, the company receives minimal points for data centre projects that are powered by renewable energy, such as the Wynyard data centre.

Product Efficiency & Supply Chain Footprint (4/5)

Last year HP increased the energy efficiency of its consumer products by 50% compared to 2005. HP leads the industry in its reporting of greenhouse gas (GHG) emissions from its operations, as well as its supply chain, with estimates of supply chain emissions from 86% of its first-tier suppliers.

POLITICAL ADVOCACY — 12/35 — =6TH PLACE

Political Speech (1/10)

HP receives only minimal points for a company statement on its website on the global importance of mitigating climate change and supporting the IPCC recommendations in limiting GHG emissions.

Political Policy (11/15)

HP scores well in this category for adding its name to a letter to US Congressional leadership on the importance of extending the wind energy tax credit, a policy advocacy priority in the US, along with Sprint and Microsoft.

HP received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.
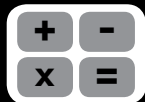
IBM

👍 STRONG EVIDENCE OF IT-SCALABLE ENERGY SOLUTIONS

👎 FAILURE TO USE ITS POLITICAL INFLUENCE TO SUPPORT GOVERNMENT POLICIES THAT PROMOTE RENEWABLE ENERGY GROWTH IN THE US

👁 AS IBM CONTINUES TO GROW ITS CLOUD, WILL IT PRIORITISE RENEWABLE ENERGY SO THAT IT CAN CONTINUE TO REDUCE ITS EMISSIONS?

SUMMARY   40/100   =8TH PLACE

The self anointed home of the "Smarter Planet," IBM is active in several of the IT energy solutions areas identified by the SMARTer2020 report, including Smart Grid, smart logistics, and transportation-focused solutions. IBM has consistently ranked high for its solutions leadership, and continues to help lead the sector in operationalising the energy saving potential identified in the SMARTer2020 report, scoring 5th in solutions leadership in this Leaderboard. IBM also has an impressive track record in setting and reaching energy and greenhouse gas (GHG) reduction goals, and ranks second among companies evaluated here for its leadership in addressing its own energy use.

Despite continued strong leadership in two of the three leadership categories, IBM unfortunately continues to be near the bottom of advocacy leadership. IBM maintains that it does not engage in advocacy on climate change because its greater contribution is getting ahead of policy by demonstrating what is possible. Greenpeace certainly agrees that demonstrating solutions is important, which is why we have placed the greatest point value on solutions leadership. However, as most recently identified by the SMARTer2020 report, significant changes in the policies governing our use and generation of energy, including a price on carbon, must be enacted in order for the IT sector to deliver on its ability to drive energy savings and enable greater amounts of renewable energy.

At the US national level, IBM has spent an average of $5m US dollars a year each of the past five years on lobbyists on a wide range of issues, putting it consistently among the top five among IT companies, but apparently without any priority given to climate or renewable energy advocacy.

In an earlier version of this edition of the Leaderboard, Greenpeace had penalised IBM by 5 points for its membership in the American Legislative Exchange Council (ALEC), a lobby group working to block clean energy and climate policy. IBM alerted us that they have no affiliation with ALEC at this time, so the 5 points have been restored, moving IBM from its previous 11th place overall to its current position in a tie for 8th place. We regret the error.

CLIMATE SOLUTIONS   19/40   5TH PLACE

Energy Savings Calculations (9/10)

IBM again receives high points for detailed case studies that provide significant pre- and post-intervention data highlighting how the company's IT solutions contribute to the reduction of greenhouse gas emissions.
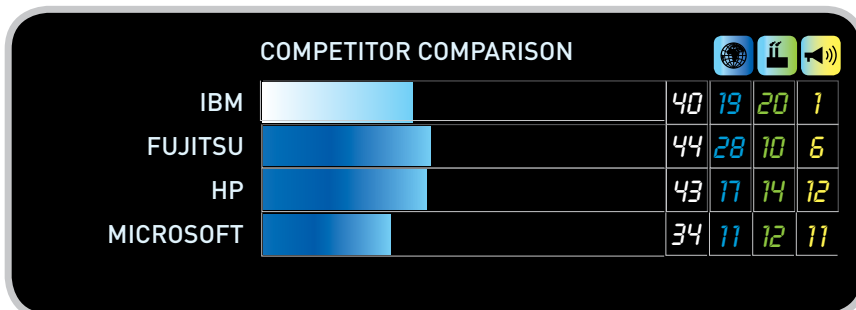
Public Metrics (5/10)

Despite a large number of case studies and examples of IT energy solutions, IBM lags behind other high scoring solutions companies such as Cisco and Ericsson in providing the details and underlying metrics that illustrate how IBM is calculating those emissions reductions and future energy savings.

Investment (5/10)

IBM has a proven commitment to reducing GHG emissions, but to highlight its leadership it needs to offer more public information on how its business model includes significant investment in IT solutions that reduce emissions.

Future Savings Goal (0/10)

Despite having one of the strongest portfolios of solutions offerings, IBM once again failed to provide any future savings goal information.

IBM	40	19	20	1
FUJITSU	44	28	10	6
HP	43	17	14	12
MICROSOFT	34	11	12	11

IT ENERGY IMPACT — 20/25 — 2ND PLACE

Energy & Emissions Targets (5/5)

IBM ranks high for its reported emissions reductions of 40% by 2005 from a 1990 baseline year, and has recently completed a second emissions reduction goal of a 12% reduction by 2012 from a 2005 base year. IBM is set to announce a third target, one of the few companies to do so. Having made significant efficiency gains already, IBM should also consider setting a target for a percentage of renewable energy, as a number of other companies have done.

Mitigation Strategies (8/10)

IBM continues to help set the bar for the sector with its comprehensive plan to reduce its emissions, which has produced impressive gains in efficiency. The company has avoided the use of offsets, understanding that offsets actually undermine its ability to contribute to the reduction emissions of its clients. More attention is needed to expand the base of renewable energy percentage to well above the current 11%, including support of renewable energy policies in regions where IBM has significant operations.

Infrastructure Siting Policy (3/5)

IBM has identified access to renewable sources of electricity as an important criteria in evaluating site locations for its data centres, which still puts it ahead of many companies, though that gap is closing rapidly. IBM should consider deploying a more comprehensive strategy, such as has been pursued by Google, to identify ways in which it can directly increase the supply of renewable energy powering its facilities.

Product Efficiency & Supply Chain Footprint (4/5)

IBM continues to score highly for requiring first-tier suppliers to report their emissions and set voluntary reduction goals. Publication of more data and the savings results of this request would earn IBM full points.

POLITICAL ADVOCACY — 1/35 — =14TH PLACE
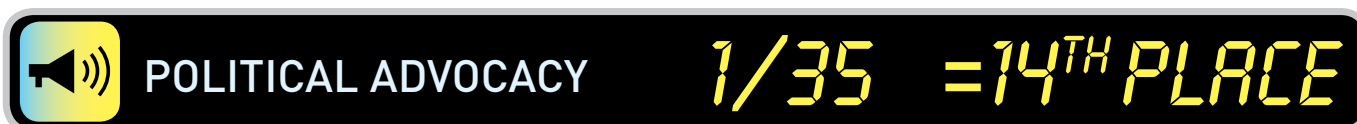
Political Speech (1/10)

Despite its strong solutions portfolio, IBM continues to remain silent on policies that define our energy supply and whether we will be able to avoid the worst impacts of climate change, placing it well out of step with other leading companies in the sector. IBM receives minimal points in this criterion for a public statement on its website.

Political Policy (0/15)

IBM maintains that it does not engage in advocacy on climate change because its greater contribution is getting ahead of policy by demonstrating what is possible. Greenpeace certainly agrees that demonstrating solutions is important, which is why we have placed the greatest point value on solutions leadership. However, as most recently identified by the SMARTer2020 report, significant changes in the policies governing our use and generation of energy, including a price on carbon, must be enacted in order for the IT sector to deliver on its ability to drive energy savings and enable greater amounts of renewable energy.

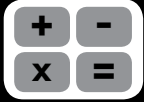IBM received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.

Microsoft

👍 SUPPORT OF WIND ENERGY TAX CREDIT IN THE US, A KEY RENEWABLE ENERGY POLICY DRIVER

👎 CONTINUED SUPPORT OF GROUPS SUCH AS ALEC THAT SEEK TO BLOCK OR UNDO SUPPORT FOR RENEWABLE ENERGY

👁 ADOPTION OF INTERNAL CARBON TAX COULD BECOME CRITICAL DRIVER FOR CLEAN ENERGY INVESTMENT

SUMMARY   34/100   12TH PLACE

Microsoft rebounds after two years of declining scores on the Leaderboard, with a gain of 11 points, the biggest change by any company. Though still trailing Google by a significant amount, Microsoft shows improvements in all three evaluation categories, the biggest improvement coming with its increased engagement in supporting clean energy policies, most significantly the extension of wind energy tax credits in the US.

Microsoft's May 2012 commitment to become "Carbon Neutral" identifies several important steps to increase its renewable energy usage and decrease its global emissions, including the adoption of an internal carbon tax, which could become an important driver for renewable energy investment . However, Microsoft's execution of its plans thus far lags well behind leaders such as Google and Wipro, who have sought to directly purchase renewable energy to power their operations. Microsoft instead has opted simply to pay for the right to say it is green by purchasing renewable energy credits (RECs) and carbon offsets. Despite also holding significant cash reserves, Microsoft has also chosen not to follow Google's lead by investing its private capital in renewable energy projects.

While Microsoft made important gains in policy advocacy leadership in this leaderboard, the company was assessed penalty points for its continued support of the American Legislative Exchange Council (ALEC), which is leading efforts to undue renewable energy standards in many US States.

CLIMATE SOLUTIONS   11/40   =12TH PLACE

Energy Saving Calculations (4/10)

Microsoft has several solutions case studies, including its Sprint Nextel report highlighting efforts to measure and set parameters to reduce Sprint Nextel's emissions. In partnership with Accenture, Microsoft released an "Energy Smart Buildings" report detailing energy and cost cutting opportunities through more sustainable building.

Public Metrics (6/10)

Microsoft worked with Environmental Science and Technology to release a comprehensive assessment of its own online store. The report uses life cycle analysis methodology to delve into the energy consumption and greenhouse gas emissions of electronic software distribution.

Investment (1/10)

Microsoft receives low investment scores for lack of disclosure on its global and long-term renewable energy investments. Microsoft has invested in innovative prototypes for powering data centres through on-site electricity production. Despite its adoption of an internal carbon tax, Microsoft has not begun to tap its considerable cash resources to drive clean energy investment at meaningful scale, unlike SoftBank and Google.

Future Savings Goal (0/10)

Microsoft has not divulged any applicable information on future emission reduction targets that can be used for scoring.

COMPETITOR COMPARISON	🌐	🏭	📢
MICROSOFT	34	11	12	11
GOOGLE	58	17	19	22
IBM	40	19	20	1
SAP	24	9	15	0
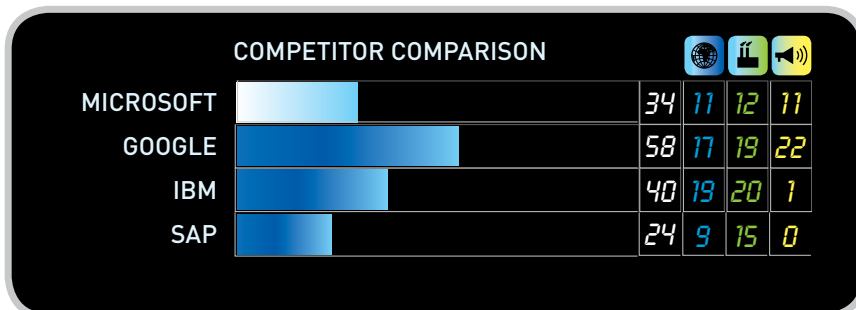
IT ENERGY IMPACT   12/25   11TH PLACE

Energy & Emissions Targets (1/5)

Despite having announced its commitment to being "Carbon Neutral", and adopting some positive components as seen in the mitigation scoring below, Microsoft deserted its near-term targets or meaningful performance metrics to track its performance on a comparative basis, and thus falls one point from the 2012 Leaderboard.

Mitigation Strategies (6/10)

Microsoft has released an outline of a mitigation plan that includes an internal carbon tax. The company states it is "investigating" renewable energy power purchasing agreements (PPAs) to put additional renewable energy into the grid where it is creating demand, but lags well behind Google and others who are already implementing such arrangements.

Infrastructure Siting Policy (5/10)

Microsoft's score improved slightly due to its adoption of a policy to site operations near renewable energy "where possible". This policy needs to show an impact in Microsoft's investments, however, as highlighted by its recent decision to build a data centre in Wyoming. Wyoming has both some of the strongest wind resources in the US, as well as one of the dirtiest electricity grids (over 90% coal powered). How Microsoft chooses to meet its electricity needs for this facility provides a clear test of whether Microsoft is taking its siting policy seriously.

Product Efficiency & Supply Chain Footprint (not applicable)

Given the software and services nature of its business model, a stronger measurement of Microsoft's energy impact leadership is through its data centres and office locations. Microsoft was evaluated out of 10 points under Infrastructure Siting Policy (see above), so that its total potential Energy Impact points is still 25.

POLITICAL ADVOCACY   11/35   8TH PLACE

Political Speech (1/10)

Microsoft continues to be active in several forums promoting the potential for the IT sector to produce energy savings and reduce our environmental impact, but it rarely points to what policy changes must occur to realise this potential.

Political Policy (11/15)

Microsoft finally shows it can use its considerable influence in Washington for clean energy, receiving significant leadership points for stepping into the ring and signing onto a letter with HP and Sprint to congressional leadership to extend the wind energy tax credit in the US.

Repetition Bonus (4/10)

Microsoft earns four points for its support of clean energy policy initiatives in the UK through the Aldersgate Group.

Negative Lobby Penalty (-5)

Microsoft is given 5 penalty points for its membership and support of the American Legislative Exchange Council (ALEC). ALEC continues to thwart legislative progress on climate change at the state level in the US, including "model bills" that require teaching climate change denial in the public school system. In 2013, ALEC has pledged to help repeal renewable electricity standards in several US States.
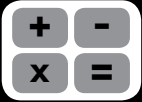
NEC

INTEGRATED IT SOLUTIONS CAN DELIVER DRAMATIC ENERGY SAVINGS OF 30-40%

CONTINUED MEMBERSHIP IN KEIDANREN, WHICH UNDERMINES MEANINGFUL CLEAN ENERGY AND CLIMATE CHANGE POLICY INITIATIVES IN JAPAN

NEEDS TO ADOPT CLEAR LONG-TERM GHG REDUCTION TARGETS, AS WELL AS A MORE AMBITIOUS GOAL FOR RENEWABLE ENERGY

SUMMARY — 17/100 — 19TH PLACE

NEC Corporation (NEC) remains poised to offer energy savings solutions in a number of areas identified by the SMARTer2020 report. Yet despite having an ambitious future energy savings goal for its solutions, most of the increase in energy in the past year was attributed to more efficient IT products, not from using IT solutions to reduce energy consumption in other areas. While NEC scored at the same level for its energy impact criteria as it did in last year's Leaderboard, it loses ground as other companies have notched greater improvements. NEC's ranking is also reduced due to a negative lobby penalty from its membership in Keidanren, which continues to use its influence to undermine government efforts to put Japan on a cleaner energy pathway.

CLIMATE SOLUTIONS — 14/40 — =9TH PLACE

Energy Savings Calculations (6/10)

NEC maintains the same score as it did in last year's Leaderboard for its IT energy-saving solutions offerings, which range from building energy management tools, to smart grid and energy storage, to avoided emissions from web-based conferencing tools. NEC needs to showcase more specific examples of its solutions, including pre- and post-intervention data.

Public Metrics (4/10)

NEC points to a life cycle analysis methodology established by the Japanese Forum for eco-efficiency. But unlike solutions leaders Cisco, Ericsson, and Fujitsu, NEC does not provide detailed evidence of its application of these metrics.

Investment (1/10)

While NEC appears to have a growing portfolio of IT energy solutions, it is still unclear whether NEC has prioritised such investments in a way that will allow these solutions to reach scale.

Future Savings Goal (3/10)

NEC has stated a goal for the CO_2 reduction contribution from its IT solutions to be 15 million tons in 2017, and 50 million tons in 2030.

COMPETITOR COMPARISON		🌐	⚒	📢
NEC	17	14	8	-5
FUJITSU	44	28	10	6
HITACHI	13	10	7	-4
TOSHIBA	13	11	6	-4
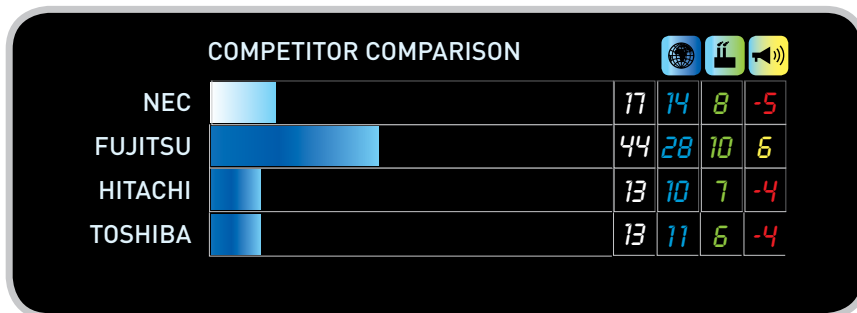
IT ENERGY IMPACT — 8/25 — 16TH PLACE

Energy & Emissions Targets (2/5)

NEC appears to have a year-over-year 1% reduction goal for greenhouse gases (GHGs), but it needs to set more transformative goals to guide its growth. NEC should set medium- and longer-term GHG reduction goals for its Scope 1, 2 and 3 (travel) emissions as other industry leaders have done. NEC's current goal to increase renewable energy by a factor of 10 by 2021 is not meaningful given that its current levels are minuscule.

Mitigation Strategies (3/10)

NEC again provides only basic information on its GHG mitigation strategies, lacking detail on how it quantifies the efficacy of various strategies.

Infrastructure Siting Policy (0/5)

NEC still does not have any policy or preferences to site its infrastructure near cleaner sources of energy.

Product Efficiency & Supply Chain Footprint (3/5)

NEC has shown considerable leadership in producing energy efficient products. However, NEC has not provided much information about how it seeks to measure and manage the embedded energy from its hardware's supply chain.

POLITICAL ADVOCACY — -5/35 — 21ST PLACE

Political Speech (0/10)

NEC made no relevant political speech about clean energy or climate change in the past year.

Political Policy (0/15)

NEC did not advocate for relevant policies that would increase renewable energy or combat climate change at the global or national level.

NEC received no **Repetition Bonus (0/10)**.

Negative Lobby Penalty (-5)

NEC is a member of Keidanren, an influential Japanese trade organisation that made a statement in December 2012 to demand continuous investment in coal and nuclear, while it criticises carbon tax and feed-in tariff policies that would promote renewable energy. The organisation challenged the feed-in policy again in its March 2013 statement. NEC has not distinguished itself from Keidanren or that statement.
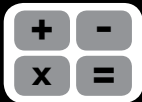
NTT

STRONG IT ENERGY SAVINGS SOLUTIONS PRODUCTS

FAILURE TO SPEAK OUT IN SUPPORT OF RENEWABLE ENERGY POLICIES

WILL NTT DISTINGUISH ITS POSITION FROM THE NEGATIVE POSITION OF KEIDANREN?

SUMMARY — 20/100 — 17TH PLACE

NTT Group is one of the largest global telecommunications companies, with a number of business units with significant opportunities for pursuing IT energy solutions. NTT was evaluated for the first time last year in Version 5 of the Cool IT Leaderboard. NTT still scores highly for its solutions leadership, ranking 6th overall, but its leadership falls far below its competitors for both IT energy impact and advocacy.

Unlike its Japanese competitor SoftBank, NTT has not spoken out in the aftermath of the Fukushima disaster in support of policies to shift Japan toward renewable energy. Mr. Satoshi Miura, CEO of NTT, is one of the vice presidents of the Keidanren, the Japanese business council that announced its opposition to Japan's 25% CO_2 reduction target, Feed-in Law and Carbon Tax in December, 2012. As NTT has not distinguished itself from the statement or the Keidnaren, NTT is penalised with 5 points for negative lobbying.

CLIMATE SOLUTIONS — 18/40 — 6TH PLACE

Energy Savings Calculations (8/10)

NTT highlights a number of IT energy-saving solutions, such as its "SmartCloud" virtual desktop service, including clear basic data on the methodology and assumptions used in calculating estimated savings.
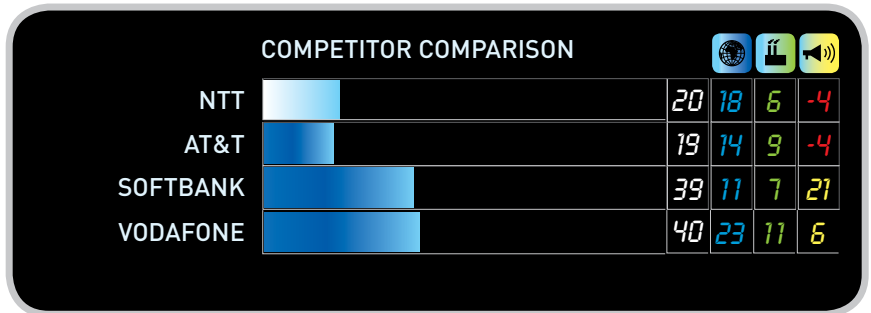
Public Metrics (3/10)

NTT points to metrics and LCA (Life Cycle Assessment) methodologies established by others for measuring the impact of IT energy solutions, but still needs to demonstrate more clearly how these metrics are being applied to its own solutions offerings.

Investment (2/10)

NTT is expanding a range of IT solutions across its subsidiaries, though it is not yet clear that NTT is committed to putting the necessary investment behind them to bring them to scale. NTT has begun to deploy renewable energy powered base stations across its network, but at a much smaller scale than companies like SoftBank have leveraged just in the past year.

Future Savings Goal (5/10)

NTT had previously established a greenhouse gas savings target for its products equivalent to 10m tonnes CO_2/year by 2011. As part of its recently adopted Green Vision 2020, it has established a goal of reducing emissions economy-wide by 20m tonnes CO_2/year by 2020. However, due to the lack of clear metrics and methodology for measuring the impact of its solutions, NTT receives a lower score for its goals at this time than Fujitsu, which has communicated clear metrics for measuring its IT solutions.

COMPETITOR COMPARISON

		🌐	🏭	📢
NTT	20	18	6	-4
AT&T	19	14	9	-4
SOFTBANK	39	11	7	21
VODAFONE	40	23	11	6

🏭 IT ENERGY IMPACT 6/25 =20TH PLACE

Energy & Emissions Targets (3/5)

As part of its Green Vision 2020, NTT Group has now established a 2020 absolute reduction target of 15% below 2009 levels, but its goal for renewable energy remains quite weak compared to others in the sector.

Mitigation Strategies (2/10)

NTT can point to improvement in its energy efficiency performance, and the company has established a Green NTT program in 2008 with a mandate to increase the amount of solar power supporting NTT operations. Deployment, however, has not been aggressive; five years later, only 5MW of solar will have been installed by the end of 2013, representing well less than 1% of total electricity consumption.

Infrastructure Siting Policy (1/5)

NTT's "Green NTT" has placed the adoption of renewable energy at a higher priority across the entire NTT Group, including the establishment of NTT-Green LLP to support this broad goal. However, the level of ambition of this plan has been very modest to date, and it is not clear if the Green NTT plan is serving to influence data centre infrastructure siting decisions.

Product Efficiency & Supply Chain Footprint (0/5)

NTT does not appear to evaluate the life cycle impact of the products or handsets it offers to its customers, nor does it provide customers with information on those products' operational impact. NTT should evaluate the eco-rating scheme currently under development by Vodafone and its related work to reduce the carbon footprint of its supply chain, and consider adopting similar measures.

📢 POLITICAL ADVOCACY -4/35 =17TH PLACE
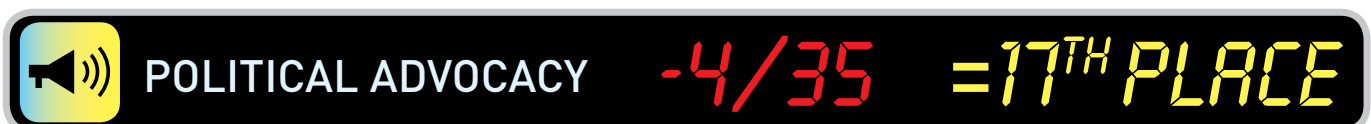
Political Speech (1/10)

Minimal advocacy points are awarded for the support of electricity market liberalisation by Ennet, a joint venture in which NTT is a partner.

Political Policy (0/15)

NTT has shown no evidence of policy advocacy leadership in the past year.

NTT received no **Repetition Bonus (0/10)**.

Negative Lobby Penalty (-5)

Mr. Satoshi Miura, the CEO of NTT, is one of the vice-presidents of the Keidanren. On 18 December 2012 the Keidanren announced its opposition to Japan's 25% CO_2 reduction target, feed-in law and carbon tax. NTT has not distinguished itself from the statement or the Keidanren.
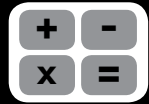
STRONG COMMITMENT TO RENEWABLE ENERGY ALONGSIDE CONTINUED GROWTH

NO EVIDENCE OF POLICY ADVOCACY LEADERSHIP

GROWTH IN CARBON MANAGEMENT SOLUTIONS FOR BUSINESS CUSTOMERS SHOULD LEAD TO STRONGER EXAMPLES OF IT-ENABLED ENERGY SOLUTIONS

SUMMARY   24/100   15TH PLACE

The business management software provider SAP gains only 1 point in this version of the Leaderboard. SAP's strongest leadership is again related to managing its Energy Impact, making year-on-year progress on the company's carbon emissions reduction goals despite growth in revenue. SAP data on its own emissions is also impressively transparent and well presented, with strategies for tackling the largest sources of emissions clearly explained and backed up with data. However, SAP needs to publicly disclose more detail in how its own IT solutions are reducing emissions in other sectors of the economy. SAP has made several large acquisitions over the last four years (Clear Standards, Sybase and TechniData) that offer climate solutions. There is promise for clearly showing how SAP software can help significantly reduce companies' emissions such as the Danone–SAP collaboration on carbon analytics.

CLIMATE SOLUTIONS   9/40   =16TH PLACE

Energy Savings Calculations (3/10)

While SAP offers many sustainability solutions, it provides little detail of how these solutions deliver large-scale emissions reductions in specific examples. The case studies showcased offer no pre- or post-intervention data, and only the example of Danone provides some information on actual large carbon savings using SAP's solutions.
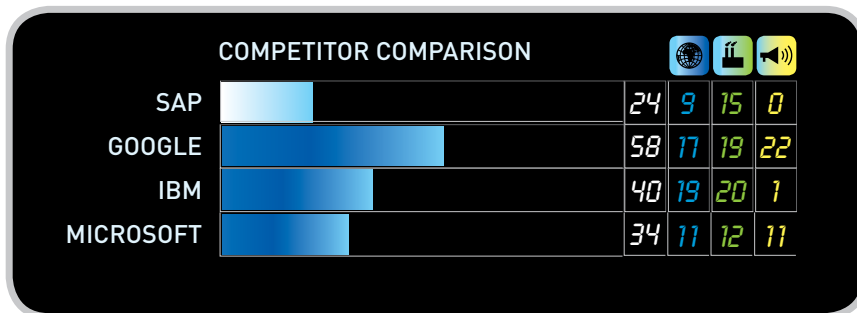
Public Metrics (1/10)

SAP scores 1 point for the explanation of its cost abatement curve for solutions, but given the wealth of data experience at SAP's disposal, it could outline far better how the benefits of specific solutions are calculated, for example by applying the GeSI solutions methodology.

Investment (4/10)

SAP has made several large acquisitions over the last four years (Clear Standards, Sybase and TechniData) that offer climate solutions. SAP gains 1 point for disclosure in its Carbon Disclosure Project submission that investment in research increased 10% for 2011.

Future Savings Goal (1/10)

SAP gains one point for estimating its energy management solutions are saving approximately 5.7 million tons of carbon emissions, saving $550m US dollars in energy expenditures. However, like many other IT companies, SAP does not set a goal for how it plans to increase measurable and verifiable savings in the future.

COMPETITOR COMPARISON		🌐	🏭	📢
SAP		24	9	15	0
GOOGLE		58	17	19	22
IBM		40	19	20	1
MICROSOFT		34	11	12	11

🏭 IT ENERGY IMPACT — 15/25 — 9TH PLACE

Energy & Emissions Targets (4/5)

While SAP's target remains the same (lower total greenhouse gas emissions to 2000 levels by the year 2020; overall reduction of 50% compared to a 2007 baseline), its emissions grew slightly in 2011. As it remains on course to meet its target, SAP clearly explains how it is tackling emissions with yearly data broken down by business area in an easy-to-use web page.

Mitigation Strategies (8/10)

SAP has provided good information on specific measures it is undertaking to reduce its own emissions in five priority areas: Electricity usage, Corporate Cars, Business Flights, Employee Commuting and data centres. SAP also documents increasing renewable energy purchasing with specific examples and set a 2012 goal of 54% renewable energy. This is one of the highest renewable energy targets of any company in the Leaderboard.

Infrastructure Siting Policy (3/10)

While SAP does not have a formal siting policy that mandates renewable energy sourcing for data centres, SAP does gain points for some sourcing of renewable energy for its overall company infrastructure. To lead in this criterion, the company must state a public policy with a preference for renewable energy when making new data centre investments.

Product Efficiency & Supply Chain Footprint (not applicable)

Given the software and services nature of its business model, a stronger measurement of SAP's energy leadership is through its data centres and offices locations. SAP was evaluated for 10 points under Infrastructure Siting Policy so that its Energy Impact total still equalled 25 potential points.

📢 POLITICAL ADVOCACY — 0/35 — 16TH PLACE

Political Speech (0/10)

SAP submitted no relevant examples of senior executives supporting climate change or clean energy policy or of relevant public speech by the company.

Political Policy (0/10)

SAP submitted no relevant examples of SAP advocating for climate change or clean energy policy.

SAP received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.

SoftBank

👍 MATCHED RENEWABLE ENERGY ADVOCACY WITH REAL MONEY THROUGH ITS SUBSIDIARY, SOFTBANK ENERGY

👎 LAGS BEHIND OTHER TELECOMS COMPANIES IN MEASURING AND QUANTIFYING ENERGY SAVINGS FROM ITS PRODUCTS

👁 CHAIRMAN'S RECENT PLEDGE TO BECOME 100% POWERED BY RENEWABLE ENERGY HAS GREAT PROMISE FOR PUTTING SOFTBANK ON THE RIGHT PATH
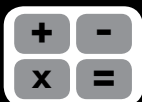
SUMMARY   39/100   11ᵀᴴ PLACE

Japanese telecommunications company SoftBank made an impressive debut in last year's Cool IT Leaderboard, most notably for its strong leadership in clean energy policy advocacy in post-Fukushima Japan. SoftBank's Chairman Son has described the post-Fukushima power supply in Japan as a national crisis, and shifted SoftBank to provide renewable energy at significant scale. While SoftBank has continued this advocacy at a lower volume and frequency in the past year, it has also stepped forward and backed up this advocacy with significant new investment in renewable energy projects in Japan.

SoftBank announced significant new renewable energy projects in Japan in the past year through its newly created subsidiary, SoftBank Energy (SB Energy). SoftBank plans to install over 200 megawatts (MW) of renewable energy. As of the end of 2012, SoftBank Energy was already generating 6.6 MW-equivalent of solar PV.

CLIMATE SOLUTIONS   11/40   =12ᵀᴴ PLACE

Energy Savings Calculations (1/10)

SoftBank has a number of case studies for the IT solutions offerings that have significant potential for energy savings, including its "White Cloud Work Style", which is expected to cut paper and electricity usage, but unlike telecom operators like Vodafone or Sprint, SoftBank does not provide any quantification of energy or greenhouse gas (GHG) emissions savings.

Public Metrics (0/10)

Since SoftBank did not provide any quantification of energy or emissions savings, it could not provide any methodology for quantifying such savings.

Investment (9/10)

SoftBank announced significant new renewable energy projects in Japan in the past year through its newly created subsidiary SoftBank Energy. SoftBank plans to install over 200MW of renewable energy. As of the end of 2012, SoftBank Energy was already generating 6.6MW-equivalent of solar PV.

Future Savings Goal (1/10)

As a result of the rapid expansion of SoftBank Energy, SoftBank has pledged to produce more energy than it consumes, but SoftBank has not articulated a goal for broader energy savings.

COMPETITOR COMPARISON

		🌐	🏭	📢
SOFTBANK		39	11	7	21
AT&T		19	14	9	-4
NTT		20	18	6	-4
VODAFONE		40	23	11	6
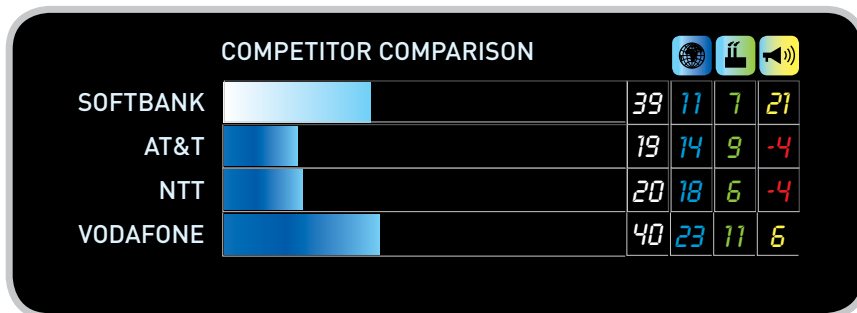
IT ENERGY IMPACT — 7/25 = 17TH PLACE

Energy & Emissions Targets (3/5)

SoftBank's score improved with the establishment of an energy savings target, but the company still lacks a greenhouse gas emissions reduction target. Additional leadership points were awarded for SoftBank's commitment to be 100% renewable-powered. In addition to a tweet by Chairman Son (#142), SoftBank should clearly name that target on the company website.

Mitigation Strategies (2/10)

SoftBank provides detail on steps that it is enacting to reach energy savings goals, but offers little quantification of energy saved or GHG reductions.

Infrastructure Siting Policy (2/5)

Though the company still has no formal siting policy, SoftBank's commitment to be 100% renewable-powered and policy that gives preference to locations that offer opportunities for reduced emissions earns it minimal points thus far.

Product Efficiency & Supply Chain Footprint (0/5)

SoftBank does not appear to evaluate the life cycle impact of the products or handsets it offers to its customers, nor does it provide customers with information on those products' operational impact. SoftBank should evaluate the eco-rating scheme currently under development by Vodafone and its related work to reduce the carbon footprint of its supply chain, and consider adopting similar measures.

POLITICAL ADVOCACY — 21/35 — 2ND PLACE

Political Speech (8/10)

SoftBank Chairman Masayoshi Son spoke strongly at a keynote speech of his foundation's seminar that Japan needs grid separation and electricity market liberalisation to increase investment in and access to renewable sources of electricity. Chairman Son has also been outspoken about the government's need to transfer subsidies for nuclear energy towards the expansion of renewable energy.

Political Policy (11/15)

In April 2012, Softbank submitted its view to the government and TEPCO's proposal on Smart Meters in order to highlight the importance of grid separation and electricity market liberalisation by referring to its experience in the telecommunications area.

Repetition Bonus (2/10)

SoftBank has spoken out strongly for the need to transition to renewable energy in at least eight major speeches since the Fukushima Nuclear Diaster, but only three of those have been in the past year.

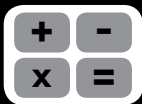SoftBank did not receive any **Negative Lobby Penalties**.

Sprint

- STRONG ADVOCACY FOR RENEWABLE ENERGY POLICIES IN THE US
- LACK OF DATA FOR ITS SOLUTIONS OFFERINGS
- IMPACT OF POTENTIAL SOFTBANK ACQUISITION ON LEADERSHIP

SUMMARY — 43/100 =5TH PLACE

This is Sprint's first appearance in the Leaderboard, and Sprint debuts as the top scorer among telecommunications operators, including its potential parent company SoftBank, who was last year's Leaderboard's star newcomer. This high score is a result of Sprint's leading work on climate and energy advocacy, as well as a robust and ambitious strategy to reduce its greenhouse gas footprint. Sprint still has significant room for improvement in offering climate saving solutions. With Japan-based SoftBank aiming to acquire a 70% stake in Sprint in 2013, it will be interesting to see how the potential acquisition will impact both their respective environmental and sustainability commitments and policy advocacy.

CLIMATE SOLUTIONS — 5/40 21ST PLACE

Energy Savings Calculations (3/10)

Sprint offers evidence of a number of solutions, ranging from smart grid applications to transportation efficiencies driven by its products and services. However, the company offers scant data about the quantifiable greenhouse gas (GHG) emissions provided by its solution offerings; it should be more transparent with its case study data.
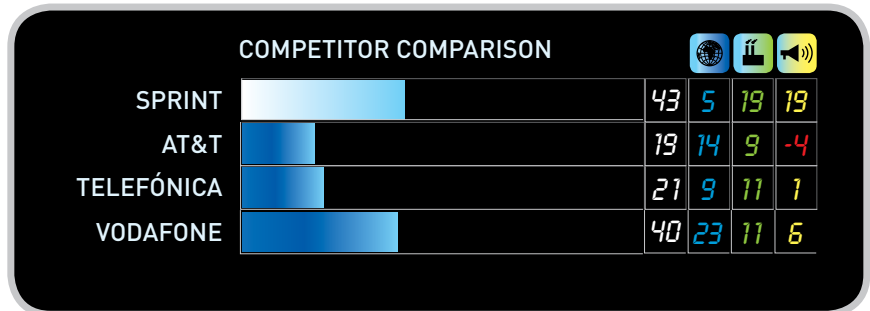
Public Metrics (0/10)

Similar to its savings calculations, Sprint's lack of hard numbers is coupled with a lack of transparency about the metrics and assumptions it used to claim emissions savings from Sprint's solutions.

Investment (2/10)

Sprint earns points here for its direct renewable energy and power purchase agreements, as well as evidence that it is investing money in IT solutions that drive energy efficiencies. The company should parse out in more numerical detail its investments in renewable energy and climate saving technologies.

Future Savings Goal (0/10)

Sprint has not articulated a future goal for reducing GHG emissions through its products and services.

COMPETITOR COMPARISON		🌐	🏭	📢
SPRINT	43	5	19	19
AT&T	19	14	9	-4
TELEFÓNICA	21	9	11	1
VODAFONE	40	23	11	6

IT ENERGY IMPACT   19/25   =3 RD PLACE

Energy & Emissions Targets (4/5)

Sprint has the most robust GHG emissions reduction target of any US telecommunications company. The company set a goal to reduce GHG emissions in absolute numbers by 20% by 2017, compared to a 2007 baseline. Additionally, Sprint's goal does not include any offsets for renewable energy.

Mitigation Strategies (8/10)

Sprint clearly articulates its three-pronged approach to GHG emissions mitigation: reduce the need for additional energy, improve energy efficiency, and increase the use of renewable energy. Given that almost 90% of Sprint's GHG footprint comes from electricity usage, the focus on renewable electricity is critical. Sprint states clearly its preference for long-term power purchase agreements (PPAs) over renewable energy credits (RECs), and it should continue to invest in renewable PPAs.

Infrastructure Siting Policy (3/5)

Sprint has set a goal for renewable energy use – and that modest goal should be met and increased as soon as possible. The company has stated a preference for renewable energy and has invested in widespread deployment of fuel cell technology as backup power for its cell tower sites.

Product Efficiency & Supply Chain Footprint (4/5)

Even with data growth, Sprint has achieved energy efficiencies and has set additional mid-term efficiency goals for 2016. Sprint has undergone a significant accounting of its Scope 3 emissions, and is seeing modest reductions over the past few years of the supply chain emissions it has been tracking. Sprint has yet to calculate and report on a few significant emission categories, including product use. Sprint can still do more, including setting an overall emissions reduction target, but the work so far leads other telecommunication companies.

POLITICAL ADVOCACY   19/35   3 RD PLACE

Political Speech (5/10)

Sprint was vocal on the need for Congressional leadership on a number of issues, specifically calling for support for continuing the wind production tax credit (PTC).

Political Policy (11/15)

Sprint seems to understand that meeting its renewable energy goals requires strong policy incentives for more renewable energy production. Sprint took a leadership role on multiple occasions in 2013, lobbying the US Congress to extend the wind production tax credit (PTC) by advocating for congressional leadership on the issue.

Repetition Bonus (3/10)

Sprint took the fight for the wind PTC even further by sending its sustainability and government affairs staff to lobby on this issue directly. Sprint's work here provides a great example of the type of climate leadership needed from IT companies.
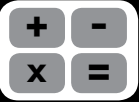
Sprint has received no **Negative Lobby Penalties**.

Telefónica

> 👍 GROWING COMMITMENT TO RENEWABLE ENERGY AS PART OF MITIGATION STRATEGY
>
> 👎 NO LEADERSHIP IN ADVOCATING FOR CLEAN ENERGY AND CLIMATE CHANGE POLICIES
>
> 👁 FURTHER DEVELOPMENT OF IT ENERGY SOLUTIONS AND RELATED AMBITION TO DRIVE ENERGY SAVINGS AND SMART GRID DEPLOYMENT

SUMMARY — 21/100 — 16TH PLACE

Telefónica is one of the world leaders in the telecommunication sector with a strong presence in Spanish and Portuguese-speaking markets, and with strong growth in emerging markets. While still scoring relatively poorly overall, Telefónica moved up 10 points since the last Leaderboard with improvements in solutions and energy criteria, tying for second most improved from last year's Leaderboard. Its overall score is dragged down by its lack of clean energy advocacy. In order to prove its standing as a clean tech solutions provider, Telefónica needs to be more transparent on the scope of energy savings its IT solutions provide. Telefónica is not yet leveraging its own leadership in either global or national climate change policy discussions. As this company expands into new markets, its own energy footprint will grow, increasing the importance to build this growth in renewable energy sources.

CLIMATE SOLUTIONS — 9/40 — =16TH PLACE

Energy Savings Calculations (3/10)

Telefónica makes reference to several cases studies to report how its services could provide greenhouse gas (GHG) savings. Nevertheless, these case studies are vaguely described and present no detailed pre- and post-intervention data. Additionally, descriptions of tools specifically to reduce emissions, such as Smart Cities, do not provide the needed details to score high in this criterion. Telefónica states that more details will be published on case studies when relevant industry metrics are released in 2013. Providing verified case studies on savings will not only allow future clients and customers to understand Telefónica's offerings, but will also spur greater innovation and acceptance by policy makers.
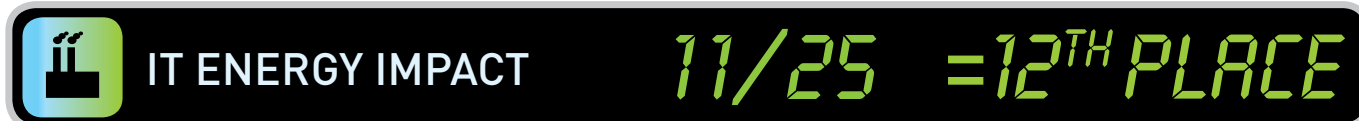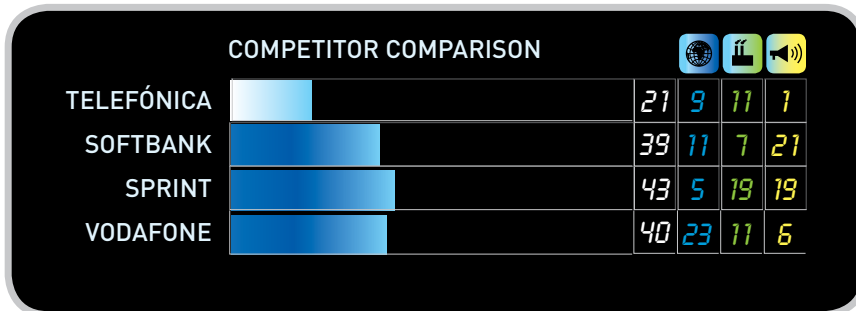
Public Metrics (2/10)

In the case studies at hand, Telefónica refers to some methodologies but does not offer any verification or assumption used to calculate the GHG savings that its services offer. Telefónica is credited with a lead role in the development of International Telecoms Union methodologies on IT solutions savings, due to be published in 2013.

Investment (4/10)

Telefónica's annual report discloses that 1.5% of its annual Research and Development budget goes to Green IT solutions based on Machine to Machine (M2M) technology in telecoms networks.

Future Savings Goal (0/10)

Telefónica has no future savings goal.

COMPETITOR COMPARISON		🌐	🏭	🔊
TELEFÓNICA	21	9	11	1
SOFTBANK	39	11	7	21
SPRINT	43	5	19	19
VODAFONE	40	23	11	6

🏭 IT ENERGY IMPACT — 11/25 =12TH PLACE

Energy & Emissions Targets (3/5)

Telefónica sets a strong relative target for network use of a 30% emissions reduction by 2015 from a 2007 baseline. The company states that this energy consumption represents 80% of its carbon footprint. In November 2012 it also set a 30% CO_2 reduction target per connection by 2020. While this is significant, the company needs to commit to a deadline for reducing its absolute GHG emissions, as Sprint has already done.

Mitigation Strategies (5/10)

Telefónica highlights significant energy efficiency savings on its networks. Its Carbon Disclosure Project submission reveals that 11% of company electricity is provided by a small amount of on-site renewable energy and purchased renewable energy. To improve its score, Telefónica needs to set a target for increasing renewable energy use, especially for off-grid mobile base stations.

Infrastructure Siting Policy (2/5)

Unlike many companies, Telefónica does not yet have a policy that prioritises investment in its operations in locations that have a high availability of renewable energy. However, it does score for increasing the amount of mobile base stations powered by solar energy to replace diesel use, which is a large source of emissions by mobile networks in developing countries.

Product Efficiency & Supply Chain Footprint (1/5)

Telefónica receives 1 point for the "Green Customer Experience" in partnership with Nokia, and the ECORATING project in the UK, both for mobile services. To improve its score, Telefónica needs to provide more clear information on how it is taking responsibility for its supply chain footprint as part of its mitigation strategy.

🔊 POLITICAL ADVOCACY — 1/35 =14TH PLACE

Political Speech (1/10)

Telefónica submitted no relevant examples of senior executives supporting climate change or clean energy policy or of relevant public speech by the company. It received minimal points only for a broad recognition of climate change.

Political Policy (0/15)

While Telefónica is active in many industry groups, it has submitted no example of company support for specific clean energy policy, such as Vodafone's support for a UK decarbonisation target for the power sector.

Telefónica received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.
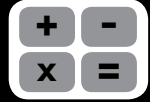
TOSHIBA

SUMMARY — 13/100 = 20TH PLACE

After being left off the last two CoolIT Leaderboards due to a lack of ambition and leadership commitment to delivering IT energy solutions at scale, Toshiba has been re-added to Version 6 in light of recent investments in distributed generation technologies and a broader commitment to address climate change under its Fifth Environmental Action Plan.

Toshiba has been making notable new investments in energy solutions offerings, particularly under its Smart Community business, including its 2011 entry into the wind generation business and its recent acquisition of smart meter manufacturer Landis + Gyr. These investments have great potential to help connect Toshiba's standing and expertise in the electricity sector with its IT energy solutions, as evidenced by a number of pilots under its Smart City program.

Despite a renewed set of targets under its latest environmental action plan, Toshiba's greenhouse gas (GHG) mitigation plan and adoption of renewable energy lag far behind others within the sector, as well as behind other Japanese brands. While Toshiba touts its increased use of renewable energy, renewable energy currently accounts for less than one percent of its total electricity demand. Toshiba needs to set a target to dramatically increase renewable electricity use by 2020 and use political opportunities to advocate for more access to renewable energy.

Despite having potentially significant renewable energy solutions offerings, such as wind, solar, and geothermal energy, Toshiba has at best remained on the sidelines of the debate over Japan's post-Fukushima energy future. Toshiba continues to invest heavily in coal and nuclear reactor product offerings, which may help explain why it has not yet become a strong advocate for renewable energy solutions and distributed generation.

CLIMATE SOLUTIONS — 11/40 = 12TH PLACE

Energy Savings Calculation (3/10)

Toshiba has outlined several significant cases - including large-scale solutions projects that are under development under its SmartCity program, such as Yokohama - which will test wide-area energy management and demand response systems, with the potential to reduce emissions up to 30%. However, at present, these initiatives have only estimated future savings, with no actual pre- and post-intervention data. Toshiba's expansion of its smart grid and home energy management IT solutions show promise, but currently lack details on savings achieved.
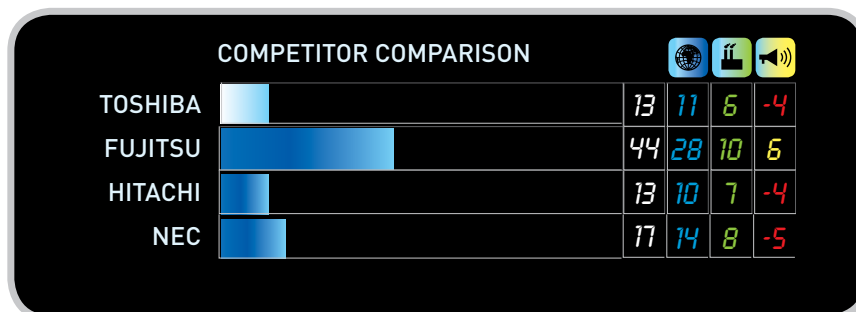
Public Metrics (1/10)

Unlike many of its competitors, such as Fujitsu, Toshiba has not shown leadership in the development of scalable metrics and details on the application of its methodologies for measuring its IT solutions offerings outside the IT sector. Minimal points are awarded for its measurement of energy savings achieved within the IT sector.

Investment (3/10)

Toshiba has been making notable new investments in energy solutions offerings, particularly under its Smart Community business, including its 2011 entry into the wind generation business and its recent acquisition of smart meter manufacturer Landis + Gyr. These investments have great potential to help connect its standing and expertise in the electricity sector with its IT energy solutions. However, at this juncture, Toshiba continues to invest heavily in coal and nuclear reactor product offerings.

Future Savings Goal (4/10)

Toshiba has established both sales and carbon reduction goals for its energy related products for the 2015 timeframe. However, Toshiba's energy-related products include both products that further dependence on nuclear and coal, as well as IT energy solution products and wind, geothermal, and solar energy solutions. Toshiba fell short of its energy savings goal in its Fourth Environmental Action Plan.

COMPETITOR COMPARISON

		🌐	🏭	📢	
TOSHIBA		13	11	6	-4
FUJITSU		44	28	10	6
HITACHI		13	10	7	-4
NEC		17	14	8	-5

IT ENERGY IMPACT   6/25 =20TH PLACE

Energy & Emissions Targets (1/5)

Toshiba gets some credit for providing details of its operational footprint, and its GHG emissions targets and energy figures seem carefully crafted to convey the impression of significant improvement. But when compared to historical performance and total consumption, the picture is much more complex, particularly for energy-related carbon emissions. While Toshiba has certainly achieved energy savings through improved efficiency and reduction of Sulfur Hexafluoride (SF_6), its continued use of a 1990 baseline (which marked an all-time high) for its GHG reduction target(s) hides the fact that its emissions are now rising on an annual basis. Faced with an electricity supply in Japan that relies more on fossil fuels after Fukushima, Toshiba saw its emissions rise in 2011 and predicts an increase in GHG emissions of 27% by 2015.

Mitigation Strategies (2/10)

Faced with a rapidly growing carbon footprint and having failed to meet even its product intensity goals for its recently completed Fourth Environmental Action Plan, Toshiba clearly needs to strengthen its mitigation efforts and use of renewable energy. While Toshiba touts its increased use of renewable energy, renewable energy currently provides less than one percent of the company's total electricity demand. Toshiba needs to set a target to dramatically increase renewable electricity use by 2020 and use political opportunities to advocate for more access to renewable energy.

Infrastructure Siting Policy (0/5)

While Toshiba possesses a growing portfolio of renewable energy solutions and has developed a modular data centre product that can be integrated with renewable energy sources, Toshiba does not appear to be prioritising access to renewable energy for its own data centres and other operations, with renewable energy currently providing less than 1% of its total energy consumption.

Product Efficiency and Supply Chain Footprint (3/5)

Toshiba reports that all PCs developed since 2009 (as of September, 2010) comply with Energy Star Version 5.0 for all configurations (except no-OS models). Toshiba informs Greenpeace that 88% of the above products exceed the standard by more than 30%. In its Fifth Environmental Action Plan, Toshiba plans to triple the sales of its high performing products.

POLITICAL ADVOCACY   -4/35   =17TH PLACE

Political Speech (1/10)

While Toshiba makes the challenge of addressing climate change a central organising element of its Fifth Environmental Action Plan, the company has refused to speak out in support of smart clean energy and climate change policies in Japan.

Political Policy (0/15)

Despite having potentially significant renewable energy solutions offerings, such as wind, solar, and geothermal, Toshiba has at best remained on the sidelines of the debate over Japan's post-Fukushima energy future.

Toshiba received no **Repetition Bonus (0/10)**.

Negative Lobby Penalty (-5/15)

Toshiba is part of Keidanren, an influential Japanese trade organisation that made a statement in December 2012 to demand continuous investment in coal and nuclear, while it criticises carbon tax and feed-in tariff policies that would promote renewable energy. The organisation challenged the feed-in policy again in its March 2013 statement. Toshiba has not distinguished itself from Keidanren or that statement.
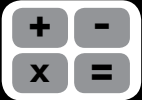
vodafone

SUMMARY — 40/100 =8ᵀᴴ PLACE

After making an impressive debut in last year's Leaderboard, when it lead telecom operators with a 5th-place ranking, Vodafone unfortunately takes the biggest tumble in this year's leaderboard, dropping 5 points to 8th place and allowing newcomer Sprint to take top honours among telecom operators. This was nearly entirely due to a sudden drop in its Political Advocacy leadership, as its Climate Solutions and Energy Impact leadership remain largely unchanged.

Vodafone maintains its 4th-place Solutions ranking, with strong case studies of IT-enabled solutions and methodology that highlight the scalable potential of IT energy solutions. However, Vodafone maintains virtually the same level of leadership for managing the impact of its growing operations, putting it in the bottom half of companies on the Leaderboard and telecom operators.

The loss of leadership in policy advocacy is surprising, given Vodafone's strong support in the EU context for a 30% emission reduction target. Hopefully, the company will take renewed inspiration from fellow telecom operator Sprint, who helped set the bar for policy advocacy in its Cool IT Leaderboard debut.

CLIMATE SOLUTIONS — 23/40 — 4ᵀᴴ PLACE

Energy Saving Calculations (9/10)

Vodafone was among the top companies in demonstrating the effectiveness of IT energy solutions, providing several clear and detailed case studies, detailing pre- and post-intervention data and demonstrating real-world application of energy-saving IT solutions in three major areas identified in the Smart 2020 report: telecommuting, smart grid, and smart logistics, and a new case study showing potential benefits to the agriculture sector.

Public Metrics (10/10)

Vodafone's case studies included detailed consistent methodologies for measuring the net energy savings of its IT solutions, utilising the methodology established by GESI.
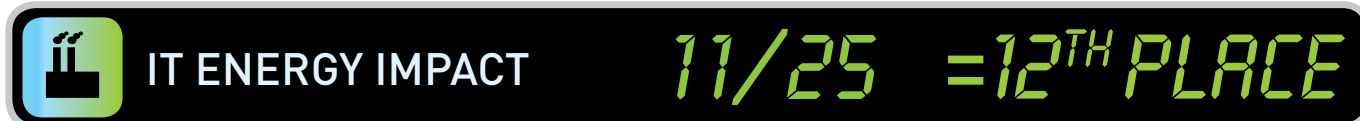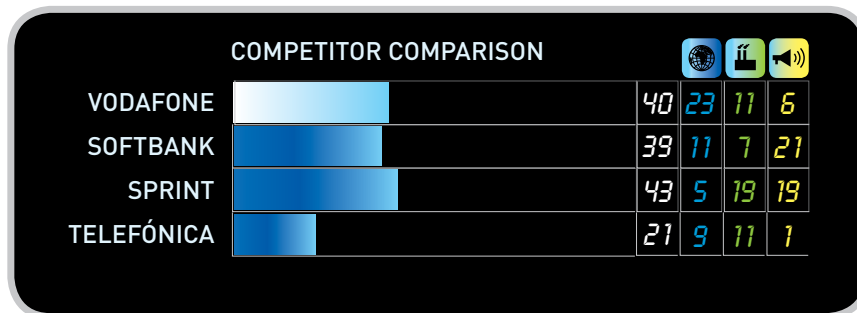
Investment (2/10)

While Vodafone is clearly increasing its investments in energy-related solutions offerings, the broader context illustrating its relative level of prioritisation of these investments is still missing.

Future Savings Goal (2/10)

Vodafone has established a carbon-saving Machine-to-Machine (M2M) goal of 10 million by 2013, having delivered 6.4 million by the end of 2012.

COMPETITOR COMPARISON		🌐	🏭	📢
VODAFONE	40	23	11	6
SOFTBANK	39	11	7	21
SPRINT	43	5	19	19
TELEFÓNICA	21	9	11	1

IT ENERGY IMPACT 11/25 =12TH PLACE

Energy & Emissions Targets (4/5)

Vodafone maintains a high score for its goal to cut its carbon footprint by 50% by 2020 from a 2006/7 baseline in mature markets and for a 20% reduction in CO_2 per network node from a 2010/11 baseline by 2015 in emerging markets.

Mitigation Strategies (4/10)

While Vodafone acknowledges that its efficiency gains are currently not sufficient to keep it on track for its 50% CO_2 reduction goal by 2020 for mature markets, its rapid growth in developing markets has resulted in a drop in Vodafone's overall percentage of renewable energy. A stronger mitigation plan – both on efficiency and renewable energy input – will be necessary for Vodafone to meet its target.

Infrastructure Siting Policy (0/5)

Vodafone still does not have an infrastructure policy that prioritises the use of renewable energy.

Product Efficiency & Supply Chain Footprint (3/5)

Vodafone has started an eco-rating scheme for mobile handsets, and has also started working with suppliers to reduce the carbon footprint of its supply chain. Both initiatives show significant promise, but need to be further established and extended to achieve a higher score.

POLITICAL ADVOCACY 6/35 =11TH PLACE
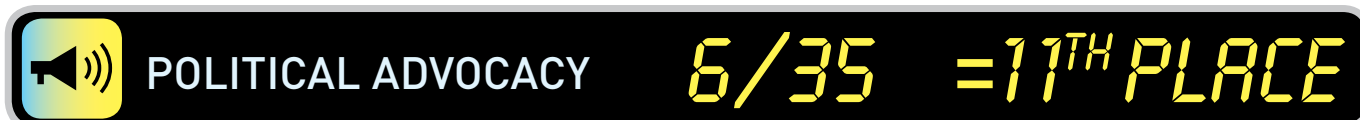
Political Speech (0/10)

Vodafone has made no relevant political speech about renewable energy or climate change in the past year. Vodafone should re-engage in the EU policy debate in the coming year, as the Commission looks to establish new greenhouse gas and renewable energy targets for a 2030 timeframe.

Political Policy (6/15)

Vodafone's advocacy leadership was largely absent in 2013, with the clearest evidence of advocacy coming from a letter to UK Energy & Climate Secretary broadly calling for stronger leadership in supporting policies to help advance greater energy efficiency and deployment of renewable energy by the private sector.

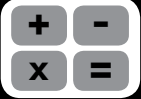Vodafone received no **Repetition Bonus (0/10)** or **Negative Lobby Penalties**.

POLICY ADVOCACY LEADERSHIP IN SUPPORT OF SOLAR ELECTRICITY DEPLOYMENT IN INDIA

SITING OF DATA CENTRE IN NORTH CAROLINA WITHOUT A PLAN TO AVOID INCREASING DEMAND FOR COAL AND NUCLEAR POWER

DEVELOPMENT OF STRONGER IT SOLUTIONS CASE STUDIES WITH TRANSPARENT METRICS

SUMMARY   43/100   =5TH PLACE

Wipro earned a significant increase in its score in this Leaderboard, gaining 10 points and raising its overall ranking to 5th place, primarily on the strength of its score in the IT Energy Impact and Advocacy leadership criteria. Wipro took a leadership role in clean energy advocacy in India, and made significant advances in its greenhouse gas (GHG) mitigation strategy, including substantial renewable energy purchases.

Wipro sunk considerable corporate resources into political advocacy in India in the past year. Wipro has weighed in on the regulatory efforts to change the National Solar Mission, and the company has pushed to increase the amount of renewable energy by at least 20% through the Renewable Power Obligations (RPO). Wipro again continues to set the leadership bar for its comprehensive mitigation strategy of its own growing energy footprint.

CLIMATE SOLUTIONS   9/40   =16TH PLACE

Energy Savings Calculations (4/10)

Wipro offers a number of IT saving solutions, ranging from energy management to carbon accounting and energy intelligence. Wipro's case studies offer final GHG reduction data, but the company needs to be much more specific in its disclosure of how these figures are calculated.

Public Metrics (1/10)

Wipro needs to provide the data and metrics being used to make its energy savings calculations. The company needs to significantly increase its transparency for how it is calculating its energy savings.

Investment (2/10)

Wipro publishes some raw data on its IT investments, and also specific data on the number of employees dedicated to IT solutions in its company (350) with specific human resources goals of increasing its personnel working in this area.

Future Savings Goal (2/10)

Wipro has set a goal of 10% to 15% emissions reductions from its climate solutions offerings. This goal needs to be further refined, with greater details on its IT solutions metrics as noted above.

COMPETITOR COMPARISON		🌐	🏭	🔊
WIPRO	43	9	19	15
HCL	28	8	7	13
HP	43	17	14	12
IBM	40	19	20	1
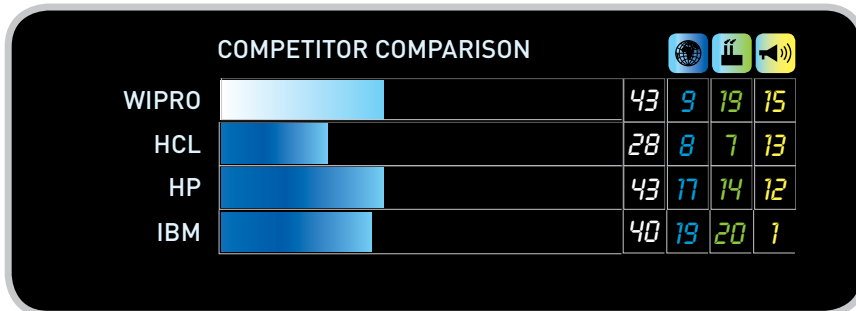
IT ENERGY IMPACT — 19/25 =3ʳᵈ PLACE

Energy & Emissions Targets (5/5)

Wipro has set an ambitious target for its GHG reductions; the company is committed to reduce emissions by 44% by 2015 from a baseline year of 2008 with year-by-year breakdowns from 2010 onward.

Mitigation Strategies (10/10)

As part of its GHG mitigation strategy for five years, Wipro identified three key elements: energy efficiency, renewable energy purchase and renewable energy generation. It stated that 85% of its emissions reduction target will be achieved through the use of renewable energy – 80% through the purchase of renewable energy and 5% through direction generation from renewable energy sources. The remainder of the 15% of its emissions reduction will be achieved through enhanced energy efficiency measures.

Infrastructure Siting Policy (0/5)

Wipro has hinted that it considers energy source as a key criterion for site selection of its data centres. However, those hints have not manifested in reality, as shown by Wipro's decision to site infrastructure in locations like North Carolina, where the electricity grid is powered mostly by coal and nuclear energy.

Product Efficiency & Supply Chain Footprint (4/5)

While products are a smaller part of Wipro's business, all of the company's products meet Energy Star standards; 63% of the products exceed the Energy Star standard by 50%. Wipro surveys its suppliers for carbon accounting; the company should take the next step and establish a reduction target for its supply chain GHG emissions.

POLITICAL ADVOCACY — 15/35 4ᵗʰ PLACE

Political Speech (1/10)

Wipro has a statement on its website acknowledging the need for climate action, but didn't otherwise use its influence and standing both inside and outside of the IT sector to speak publicly about the need for clean energy and climate policy.

Political Policy (11/15)

Wipro has sunk considerable corporate resources in political advocacy in India. Wipro has weighed in on the regulatory efforts to change the National Solar Mission, and the company has pushed to increase the amount of renewable energy through the Renewable Power Obligations (RPO) of at least 20%.

Repetition Bonus (3/10)

Wipro's multiple efforts at clean energy advocacy in India earn the company an additional 3 points.

Wipro did not receive any **Negative Lobby Penalties**.

GREENPEACE

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