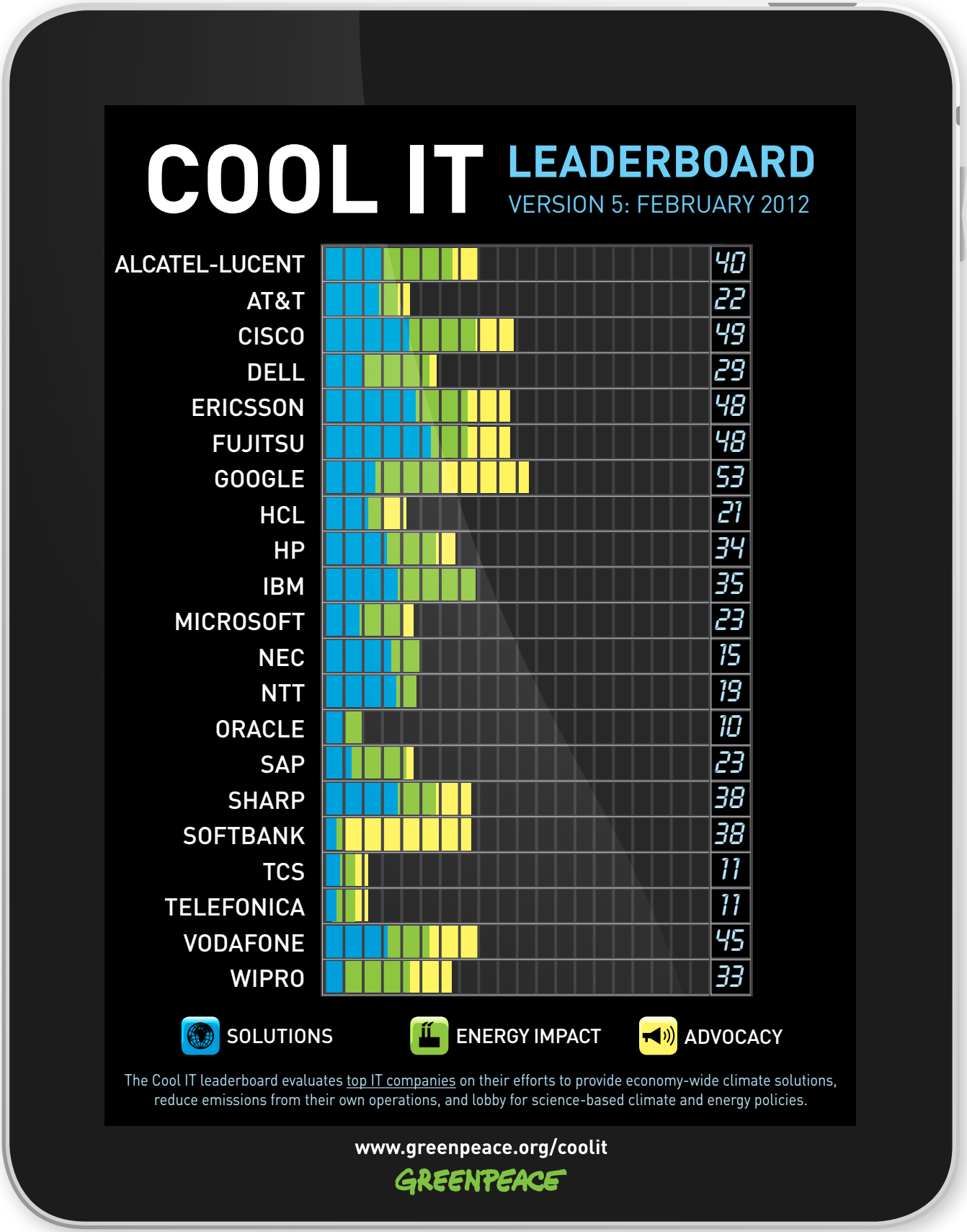


Detailed descriptions of all Leaderboard company scores are located on the Cool IT website

EXECUTIVE SUMMARY

Just as the power of the internet has revolutionised our communication by allowing users to provide content such as video, music and text material, generating new producers, journalists and authors, IT energy-related 'smart' solutions have the ability to put consumers in command of their electricity use and pave the way for dramatic improvements in energy efficiency and use of renewable energy. Greenpeace's own [E]nergy Revolution blueprint, which outlines a sustainable pathway for a transition to having 95% of global energy needs met by renewable energy by 2050, a significant disruption of the centralised dirty energy business model by ICT technologies is essential to achieving this goal.

In 2008, the Smart 2020 Report published by leading Information and Communication Technology (ICT) companies outlined in detail the business opportunities and potential for these companies to drive transformative change in the consumption and production of energy, with the potential to drive a reduction in greenhouse gases by at least 15% by 2020. Greenpeace began evaluating global ICT brands through its Cool IT Leaderboard in May 2009 in order to identify which companies were actually leading efforts to drive change in the energy sector. The Leaderboard also examines how they use their influence to change government policies that will drive clean energy deployment, and what companies were simply hand waiving on the transformative potential of ICT energy solutions, but not seriously pursuing these opportunities.

Now, nearly four years after the release of the Smart 2020 Report, the picture as outlined in Version 5 of the CoolIT Leaderboard is one that, while we see a steady increase in the quantity and strength of energy solutions offerings from many companies such as Cisco, IBM, Ericsson and Fujitsu, we also see a significant reduction in policy advocacy to change the rules to drive investment in clean technology and renewable energy deployment. A notable exception to this trend is Softbank (a new addition to the Leaderboard in Version 5), which has spoken up loud and long in calling for a transition away from nuclear power to renewable energy in Japan post Fukushima, and scoring the highest in this category since the launch of the Leaderboard in 2009.

Overall Scores

Company Ranking		Score
1st	Google	**53**
2nd	Cisco	**49**
3rd	Ericsson	**48**
3rd	Fujitsu	**48**
5th	Vodafone	**45**
6th	Alcatel-Lucent	**40**
7th	Sharp	**38**
7th	Softbank	**38**
9th	IBM	**35**
10th	HP	**34**
11th	Wipro	**33**
12th	Dell	**29**
13th	Microsoft	**25**
13th	SAP	**23**
15th	AT&T	**22**
16th	HCL	**21**
17th	NTT	**19**
18th	NEC	**15**
19th	Telefónica	**11**
19th	TCS	**11**
21st	Oracle	**10**

The rapid growth of the sector's energy demand continues to be a growing concern, given the lack of commitment to ensuring that this growth is not driving more dirty energy investment. As highlighted in last year's Leaderboard, and more recently in the Greenpeace publications *How Dirty Is Your Data?*, *Dirty Talk*, as well as the *Guide to Green Electronics*, the rapid expansion of telecom infrastructure and the data centres that power the 'Cloud' is driving significant energy investment in many areas, much of it from dirty sources, such as coal. While many brands are making steps to reduce pollution by increasing efficiency in their products and operations, few companies have demonstrated a commitment to meeting their electricity needs from renewable sources.

Without much stronger leadership among companies to driving renewable energy deployment, the amount of dirty energy in the sector's electricity supply chain will double and triple to keep pace with its demand, potentially locking in another generation of dependence on coal, nuclear, and other fossil fuels that the planet cannot afford.

Highlights from this year's Leaderboard:

Cisco, Ericsson, and Fujitsu stand out once again in the solutions criteria for providing detailed case studies of how their unique technology is creating pathways towards significant emission reductions.

Softbank has set a new bar in advocacy leadership with strong statements and efforts to move Japan away from dirty energy dependence post-Fukushima.

Google, Cisco, and Dell stand out for sourcing over 20% renewable energy globally for each company's infrastructure.

IT CLIMATE SOLUTIONS

IT technologies have the potential to transform the way we use energy, breaking our dependence on dirty sources of energy. By developing technology that allows users to monitor and prevent greenhouse gas emissions from everyday activities, ICT 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.

ICT companies featured on the Leaderboard repeatedly express in their own corporate sustainability reports, websites and executives' public speeches the importance of the industry's leadership in reducing emissions and preventing devastating climate change, but most have proven shy in disclosing investments and future savings goals. The industry's disclosure problem is an impediment to pushing the industry past current performance towards creating level playing fields that will spur faster innovation.

Fujitsu, Ericsson and Cisco continue to remain in the top tier of companies in driving ICT solutions providing comprehensive case studies that include well founded assumptions with pre- and post-intervention data on the energy and pollution savings potential of their solutions. Global telecommunications operators such as Vodafone and NTT also scored relatively well in solutions leadership, in the first Leaderboard evaluation.

The level of disclosure of investment in emission reducing solutions is disappointing. The level of disclosure of investment is often in contrast with how important companies portray solutions to climate change. For example, Dell continues to make the importance of the global reduction of greenhouse gas emissions a company focus, but fails to communicate any real details of how its business model invests in new technology to secure these meaningful reductions.

The scoring for the Solutions section was modified in this edition of the Leaderboard. Current savings calculations criterion has been lowered to 10 points from 20 points while at the same time both the investment and future savings goals criterion were increased to 10 points from 5 points. These changes were made to give greater leadership recognition to those companies that were attaching significant resources and ambition to their efforts to drive clean energy deployment, as their solutions offerings become more mature and methodology for measuring such reduction becomes standardised.

IT Climate Solutions Scores

Company Ranking		Score
1st	Fujitsu	**28**
2nd	Ericsson	**24**
3rd	Cisco	**22**
4th	Vodafone	**21**
5th	IBM	**19**
5th	Sharp	**19**
5th	NTT	**19**
8th	NEC	**17**
9th	HP	**16**
10th	Alcatel-Lucent	**15**
11th	AT&T	**14**
12th	Google	**13**
13th	HCL	**11**
14th	Dell	**10**
15th	Microsoft	**9**
16th	SAP	**7**
17th	Oracle	**5**
17th	Wipro	**5**
19th	TCS	**4**
20th	Softbank	**3**
20th	Telefónica	**3**

Solutions Highlights:

Current Savings Calculations - Cisco (10 out of 10 points) - Cisco has made public several detailed case studies that highlight how innovation technology is able to reduce emissions. Cisco provides three comprehensive case studies as well as a video on the company's EnergyWise solution.

Investment - Google (9 out of 10 points) - Google's clean energy investments stand out among the crowd. In addition to investing in new emerging clean energy start ups, Google is investing in utility projects to create renewable energy, including a large scale solar project near Sacramento, California.

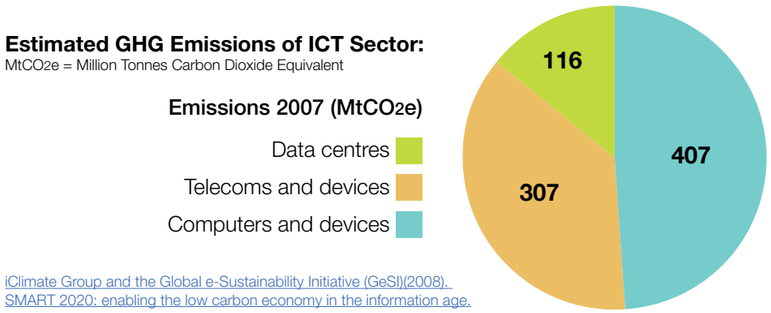
Future Savings Goal - Fujitsu (5 out of 10 points) - Fujitsu has established a goal of reducing cumulative carbon emissions by 15m tonnes between 2009 and 2012. The company also set a goal of reducing emissions in Japan by 30m tonnes by FY 2020.

IT ENERGY IMPACT

While the ICT sector has tremendous potential to drive renewable energy and transformational energy savings in other parts of the economy, the rapidly growing energy footprint of the IT industry is already very real, very significant, and the industry is increasingly relying on dirty energy to power its growth. Already, the aggregate global electricity demand of the data centres and telecommunications network that drive our modern online economy would rank among the top five countries in the world in terms of electricity use, and is expected to increase its use threefold in the next 10 years. (see chart, page 5.)

The estimates of the IT sector's carbon footprint performed to date have varied widely in their methodology and scope. One of the most recognised estimates of the IT sector's footprint was conducted as part of the 2008 SMART 2020 study, which established that the sector is responsible for 2% of global GHG emissions. The report outlines three broad areas of greenhouse gas associated with our online and electronic world:

Estimated GHG Emissions of ICT Sector:
MtCO2e = Million Tonnes Carbon Dioxide Equivalent



iClimate Group and the Global e-Sustainability Initiative (GeSI)(2008). SMART 2020: enabling the low carbon economy in the information age.

IT Energy Impact Scores		
Company Ranking		**Score**
1st	IBM	**20**
2nd	Alcatel-Lucent	**18**
3rd	Cisco	**17**
3rd	Google	**17**
3rd	Dell	**17**
3rd	Wipro	**17**
7th	SAP	**14**
8th	Ericsson	**13**
8th	HP	**13**
10th	Vodafone	**11**
10th	Microsoft	**11**
12th	Sharp	**10**
13th	Fujitsu	**9**
14th	NEC	**8**
15th	NTT	**5**
15th	AT&T	**5**
15th	Oracle	**5**
15th	Telefónica	**5**
19th	HCL	**4**
19th	TCS	**4**
21st	Softbank	**2**

Comparison of Differences in IT Sector Energy Footprint:

1. Services, Software & Cloud Computing Companies (Fujitsu, Google, Microsoft, IBM, Oracle, SAP, TCS)

With an increase in businesses run on software and services provided online, it is not surprising to see an expansion of data centres around the globe. Unfortunately, this industry growth is currently not being sourced by renewable energy in equal measure. The increase in and expansion of data centres provide the opportunity to set greater demands for renewable energy and thus create clear pathways towards achieving global emission reduction targets. With responsible infrastructure siting policies (location plans for building data centres), ICT companies have the opportunity to leverage its buying power to raise the bar of offered renewable energy in the areas in which it sites its own buildings.

For a more detailed comparison of how global cloud computing companies are choosing clean sources of energy, please see *How Dirty is Your Data.*

2. Telecommunications Operators (AT&T, NTT, Telefonica,Vodafone)

As telecom networks focus on sustaining growth and expansion into new markets and areas, they are increasingly troubled by the inadequacies ofpower grids around the world and risks of unexpected outages. In India, the sector has been continually reliant on diesel, and as a result is responsible for over 6m tonnes of CO_2 emissions from diesel generated power annually. Network suppliers, such as Ericsson and Alcatel Lucent, are increasing their investment in energy efficient telecommunications infrastructure, and are beginning to offer solutions that can shift away from diesel to renewable powered base stations, but the telecommunication operators thus far lag behind in the adoption of this new form of investment.

For a comparative analysis of the telecom sector in the India subcontinent, see report by Greenpeace India, *Dirty Talking*

3. Equipment Manufacturing (Dell, HP, Sharp, Wipro, HCL) & Network Companies (Alcatel-Lucent, Cisco, Ericsson)

Highly energy efficient ICT products, whether they are for consumer or for the business sector, can have a significant impact on the amount of energy our online products demand. In addition, the supply chain is heavily concentrated in countries in Southeast Asia, and are often driving significant investment in dirty energy supply to manufacture these products. Many companies included in the Cool IT Leaderboard are beginning to actively manage greenhouse gas emissions in different stages of the supply chain, such as in the manufacturing and use stages.

The Leaderboard awards top marks to companies that report verified emissions up to or exceeding 80% of the embedded energy in their supply chain and/or have manufactured products that significantly meet or exceed established energy efficiency standards. The highest scoring companies in this criterion include, HP, Dell and Sharp. More IT companies should showcase any efficiency targets or existing efficiency work among their suppliers to establish energy reduction in their supply chain.

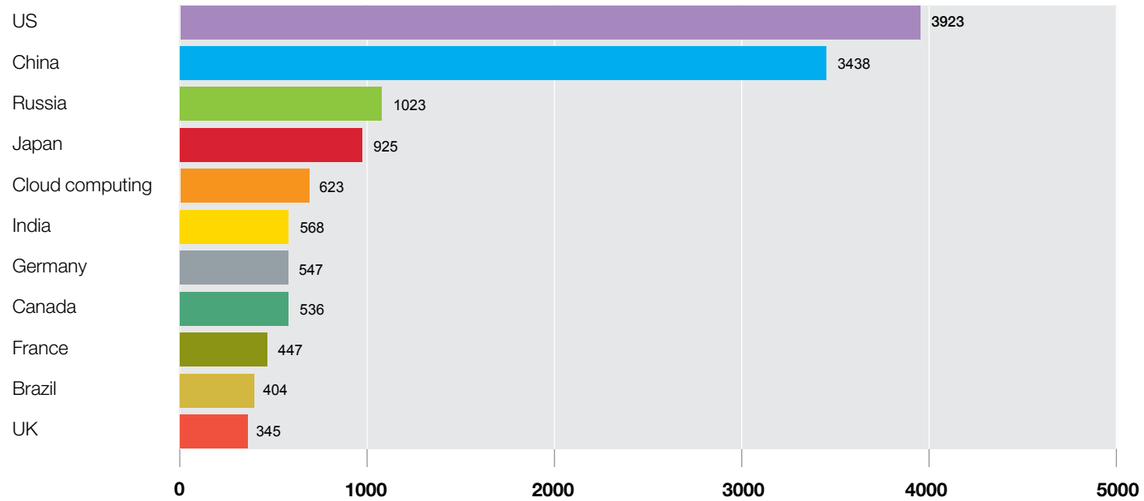
For additional comparative analysis on the environmental and clean energy performance of major consumer electronic manufactures, please see *Greenpeace's Guide to Greener Electronics*.

Greenpeace released its own report, *Make IT Green: Cloud Computing and its Contribution to Climate Change* in March of 2010, highlighting the scale of IT's estimated energy consumption, and providing new analysis on the projected growth in energy consumption of the internet and cloud computing for the coming decade, particularly as driven by data centres.

Key findings and outstanding questions from the Make IT Green report include:

- The electricity consumption of data centres may be as much as 70% higher than previously predicted.
- The combined electricity demand of the internet/cloud (data centres and telecommunications network) globally is 623bn kWh (and would rank 5th among countries).
- Based on current projections, the demand for electricity will more than triple to 1,973bn kWh, an amount greater than the combined total demands of France, Germany, Canada and Brazil.

2007 electricity consumption. Billion kwH



Greenpeace's Make IT Green Report, 2010.

The International Energy Agency (IEA) warned in fall 2011 that unless a decisive shift is made to clean energy investment and move away from high carbon sources of energy, such as coal, in the next five years (2017), the Earth will be locked into a disastrous level of unavoidable global warming. Electronic devices and the network that supports our demand for greater online access are a significant force in driving global energy demand. While many brands are making steps to manage and reduce pollution by increasing efficiency in their products and operations, only a few companies have demonstrated a significant commitment to meeting their growing electricity needs from renewable sources.

POLITICAL ADVOCACY

After a steady increase in IT sector advocacy leadership on climate and clean energy policy over the last two years, outside of Japan (see below), IT policy engagement fell dramatically across the board in the past year. The vacuum created by the lack of engagement and advocacy leadership has been quickly filled by status quo dirty energy companies, resulting in a retreat or stagnation of clean energy policy at nearly all levels of government.

While there have been important policy debates that companies on the Cool IT Leaderboard have contributed to in the past year, it has generally been at a much lower volume and of more incremental nature. This retreat was surprising given the leadership demonstrated by the sector at the end of 2010 with the adoption of the Guadalajara Declaration delivered to governments in Cancun at COP 16. This document spoke of the need for a transformational shift by governments to better leverage IT solutions in order to reduce emissions by at least 30% by 2020.

But with a few notable exceptions (see regional summaries below), the sector as a whole has withdrawn from the major energy policy debates in most every region. Instead returning to more incremental language and positioning, despite that political influence of the sector as a whole is increasing in every region. This is in contrast to the sector's growing importance to the modern economy.

Simply referring to the potential of the ICT sector to deliver emissions savings or reductions is not going to transition our energy sources to renewables while dirty energy companies continue to be fully focused on maintaining their dominant position in the energy marketplace. This status quo has to change if a meaningful pathway to a robust clean energy market is to be created. This pathway must be one that will not only create tremendous business opportunities for the IT sector and their energy solutions offerings, but will also address their growing coal and other dirty energy footprint of the IT sector.

Japan: The political debate on Japan's energy future is front and centre in post Fukushima Japan, and Softbank, more than any other IT company, has forcefully stepped forward to call for a transition away from nuclear power and put the country on an aggressive renewable energy path, and has challenged the Keidanren position to restart the nuclear power plants. Sharp has also increased its advocacy efforts post the Fukushima disaster to support better government policies to promote solar generation.

Political Advocacy Scores		
Company Ranking		**Score**
1st	Softbank	**33**
2nd	Google	**23**
3rd	Vodafone	**13**
4th	Wipro	**11**
4th	Ericsson	**11**
4th	Fujitsu	**11**
7th	Cisco	**10**
8th	Sharp	**9**
9th	Alcatel-Lucent	**7**
10th	HCL	**6**
11th	HP	**5**
11th	Microsoft	**5**
13th	AT&T	**3**
13th	Telefónica	**3**
13th	TCS	**3**
16th	Dell	**2**
16th	SAP	**2**
18th	Oracle	**0**
19th	IBM	**-4**
20th	NTT	**-5**
21st	NEC	**-10**

EU: While many countries have sought to increase the EU's reduction efforts to at least 30% below 1990 levels by 2020, the steady attack by BusinessEurope and other national trade associations continue to delay a decision by EU leaders. Vodafone, Google and Cisco have spoken in support of more aggressive reductions but need to speak with greater volume. Other companies, like IBM, need to step forward to refute the positions taken by BusinessEurope, who otherwise will continue to speak for the business community in opposition to the efforts driving clean energy production and greenhouse gas emissions.

US: While Google clearly takes a backseat to Softbank in this year's Leaderboard policy advocacy ranking, Google is still among the most active in its efforts to advocate and inform the clean energy debate in the US. However, the steady attack on government policies by many members of the business community threatens to eliminate critical clean energy investment incentives, with little or no push back from the IT sector, effectively killing off a major avenue for renewable energy and energy efficient deployment.

India: It is of critical importance to the sector that government policies direct energy-related investments toward clean energy and away from additional coal use and diesel consumption, given the sector's rapidly rising energy footprint. The government's recent directive mandating the telecommunications to power 50% of their rural towers with renewable energy is an important step forward, as is India's National Solar Mission, which should help increase support for decentralised renewable electricity generation, and has been politically supported by Wipro. In order to enable higher utilisation of renewable energy a real commitment of resources is needed in grid infrastructure. However, without a significant push from the business sector, India's reliance on dirty energy is only expected to deepen.

"Law can be made by only politicians, by no other people. I urge you to do your job with utmost efforts to pass the Feed In Tariff bill. Then we at civil sector do our job to expand renewable energy through fair competition."

Softbank CEO, Masayoshi Son, June 15 2011

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)

IT CLIMATE SOLUTIONS

represent 40 out of 100 points, divided as follows:

- **Current Savings Calculations** (20 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** (5 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** (5 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

represents 25 out of 100 points, divided as follows:

- **Absolute Emissions Reduction Target** (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):
  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):
  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 company does not have significant cloud driven footprint to warrant an Infrastructure Siting Policy, it will be evaluated for 10 maximum points under Product Efficiency and/or Supply Chain Footprint, and vice versa.

POLITICAL ADVOCACY

represents 35 out of 100 points, divided as follows:

- **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 Penalty** (-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.

Detailed descriptions of all Leaderboard company scores are located on the Cool IT website

SUMMARY 40/100

Paris based Alcatel-Lucent is a global telecommunications company supplying network equipment and broadband access to the telecommunications industry. Alcatel-Lucent was added to the Leaderboard for the first time in version 5 and finished sixth overall. The company excelled in managing its energy impact, placing second overall on this set of criteria.

IT CLIMATE SOLUTIONS 15/40

Current Savings Calculations (5 of 10)

Alcatel-Lucent submitted a number of case studies that identified existing ways in which the company is driving solutions development. However, many of these case studies were light on detail and heavy on narrative. Studies such as the one profiling Hampshire Hotels provided a good example of a study that calculated pre- and post-invention data. In the future, more case studies that provide detail and net emission savings will receive more points on this question.

Public Metrics (4 out of 10)

Alcatel-Lucent submitted a good number of white papers and life-cycle assessments (LCAs), including ones with only tangential connections to the company, which detail the assumptions needed when calculating IT solutions savings. It is unclear if or how Alcatel-Lucent is applying this methodology to its own solutions offerings.

While it's not imperative that Alcatel-Lucent create and publish its own methodology, given the somewhat less refined nature of many of its current methodologies, it would be something that the company could do to advance the discussion as ICT methodology and assumptions become codified standards.

Investment (4 out of 10)

Alcatel-Lucent has indeed invested in a number of projects that could save greenhouse gas emissions, including investing in the technology necessary to deploy a 40% increase in alternative-powered base stations by 2011. In order to roll out these technologies, such as its alternative energy powered telecom base stations that could eliminate the need for traditional diesel generators, Alcatel-Lucent has flipped its R&D budget, where the company is now spending 75% on new technologies research.

Additionally, Alcatel-Lucent's Bell Labs has spent a 'significant' portion of its budget to establish an alternative energy laboratory and to work with partners on smart grid applications.

However, it is unclear without more granular data how much, in absolute or relative terms,that Alcatel-Lucent is investing in IT solutions technology.

Future Savings Goal (2 out of 10)

In 2010, Alcatel-Lucent set a target of a 40% increase in the number of base stations deployed with alternative energy powering solutions by the end of 2011. Goals such as these need to be updated.

IT ENERGY IMPACT 18/25

Absolute Emissions Reduction Target (5 out of 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 significant progress with this stretch goal, being slightly ahead of schedule with 12.6% reductions by the end of 2010.

Mitigation Strategies (7 out of 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 their carbon emissions, and then use renewable energy sources to bridge the remaining gap, though currently the renewable percentage is low (5%) with unquantified aims to increase this percentage.

Infrastructure Siting Policy (not applicable)

Product Efficiency & Supply Chain Footprint (6 out of 10)

As many Leaderboard companies do, Alcatel-Lucent submits greenhouse gas accounting data to the Carbon Disclosure Project (CDP) and this information is verified by a third party. Alcatel-Lucent asks what it refers to as 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 emission reduction targets with its suppliers.

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.

POLITICAL ADVOCACY 7/35

Political Speech (5 out of 10)

Alcatel-Lucent had a number of instances of political speech. The company signed the Guadalajara Declaration prior to COP16 in 2010. Additionally, CEO Ben Verwaayen consistently talked about how the ICT sector and the business community in general need to take much more aggressive action to curb climate pollution, most significantly in the Wall Street Journal in May 2011.

Political Policy (0 out of 15)

No Leadership points.

Repetition Bonus (2 out of 10)

For the repetition of political speech listed above, Alcatel-Lucent was awarded 2 points as a repetition bonus.

SUMMARY 22/100

Dallas, Texas based AT&T is one of the world's largest companies in terms of market value, and a key mobile telecom operator in the US. This is AT&T's first assessment in the Cool IT Leaderboard and the company ranks 14th overall in Version 5, ranking third of five telecommunication companies new to the rankings. The company scored the bulk of its points in its solutions offerings with detailed case studies and methodological transparency. The company, like many in the Leaderboard, has ample opportunity to improve its leadership in climate advocacy.

IT CLIMATE SOLUTIONS 14/40

Current Savings Calculations (6 out of 10)

AT&T showcases a number of IT solutions. Some, like the Verdantix and Carbon Disclosure Project study sponsored by the company, showcase the potential of IT solutions. However, the focus of this criterion and the Leaderboard in general is to move beyond the potential and highlight what is being done now to actualise this potential. Thankfully, AT&T showcased a number of solutions with relevant case study data, including its AT&T Telepresence Solution, telecommuting and Carbon Impact Assessment Tool. Future case studies need to include the net savings, accounting for the electricity used by equipment, including telecommunication infrastructure.

Public Metrics (6 out of 10)

AT&T is an active member in GeSI, the Global e-Sustainability Initiative, one of the authors of the Smart 2020 analysis, and heading the call to take the Smart 2020 analysis to the next step by identifying key models and methodology to calculate ICT emission savings.

In August 2011, AT&T published an initial report on ICT sustainability modeling, with its telepresence solutions as a model. The report provides useful and easy to read blueprints for measuring ICT solutions and should advance the conversation of methodological standards, industry wide – though it 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 out of 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. From the company's disclosures, though, it is not clear how much AT&T is investing in solutions-based business, so for an improved score in the next Leaderboard, more details are needed.

Future Savings Goal (0 out of 10)

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

IT ENERGY IMPACT 5/25

Absolute Emissions Reduction Target (2 out of 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. A more comprehensive benchmark for overall Scope 2 emissions would be preferable, and future and more ambitious targets, even if they are relative, would be a step forward.

Mitigation Strategies (3 out of 10)

AT&T is making some improvements in mitigating its footprint, with investments in alternative fuel vehicles and making a more efficiently run network. It is important to start somewhere, but the ambition of mitigation goals and targets should be increased. For example, AT&T set a goal in 2010 to expand by minimum of 5 megawatts (MW) of renewable energy in additional installations. However, the overall current consumption of the company is 1,500 MW a year. With a market cap hovering in the top 20 of all global companies, AT&T can afford to take a Google-sized bite in the renewable market.

Infrastructure Siting Policy (0 out of 5)

AT&T does not have a infrastructure siting policy that prioritises the use of renewable energy.

Product Efficiency & Supply Chain Footprint (0 out of 5)

As a company, AT&T requests high energy efficiency in the equipment it buys from suppliers for use in AT&T offices and stores by AT&T employees. However, as a leading retailer, the company can have a much more profound impact by introducing an eco-rating that details the overall impact, including but not limited to the energy efficiency rating of the products it sells to consumers, and to stop selling products that would not meet the company's own internal procurement requirements for environmental attributes.

AT&T already engages its electronics suppliers on a host of environmental issues.While it aims to spend more than 50% of its money on suppliers that have tracked GHG emissions or have plans to do so, AT&T should use its buying power to require its suppliers to not only report on their GHG emissions, as companies such as HP have done, but to work with those suppliers to set reduction goals for embedded energy in the supply chain, as fellow telecom Vodafone is doing.

POLITICAL ADVOCACY 3/35

Political Speech (3 out of 10)

AT&T receives 3 points for signing the Guadalajara Declaration prior to COP16 in 2010. Significant further advocacy leadership is needed to achieve the call to action by companies in this document.

Political Policy (0 out of 15)

No Leadership points.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

SUMMARY 49/100

Cisco has shed the greatest number of points in the 2012 Leaderboard, down from 1st place with 70 points in 2010 to 2nd place with 49 points in this current version. While a portion of this can be attributed to a redistribution of points within the solutions criteria, Cisco also loses 12 points in the climate advocacy category because of a much less forceful support for priority climate and energy policies in 2011. For example, Google and Vodafone were vocal in supporting a proposed 30% EU emissions reduction target, yet Cisco failed to show specific support for this in 2011.

Cisco is one of the top scorers on energy impact, with good progress towards its reduction goal for 2012 and for its clear and transparent programme to reduce its own carbon footprint. Cisco continues to engage its supply chain, attempting to ensure that the carbon emissions of its products are reduced during manufacturing by suppliers.

IT CLIMATE SOLUTIONS 22/40

Current Savings Calculations (9 out of 10)

Cisco remains one of the highest scoring companies in this category with excellent information on specific solutions and transparent case studies to back up examples of the impact.

Public Metrics (10 out of 10)

Cisco provides various calculators for its remote collaboration, connected workplace, connected building and telecommute offerings. The methodology and assumptions are detailed and transparent.

Investment (3 out of 10)

Cisco has a wide range of solutions and has made acquisitions of companies to improve its solution range but Cisco needs to be more open about the levels of investment in these climate solutions as part of it overall business.

Future Savings Goal (0 out of 10)

Cisco believes it is still too early to set future savings goals but these are needed to provide an indication of both the company's scale of ambition and the real scale of cuts that IT solutions can provide in the medium term.

IT ENERGY IMPACT 17/25

Absolute Emissions Reduction Target (5 out of 5)

Cisco scores full points as it has set an absolute greenhouse gas emission reduction target of 25% of 2007 emissions by 2012. Cisco will be setting a new target in 2012.

Mitigation Strategies (7 out of 10)

Cisco has a clear and transparent programme for reducing its own emissions but needs to clarify why its renewable energy use dropped from 37% in 2009 to 27% in 2010.

Infrastructure Siting Policy (2 out of 5)

Cisco includes the cost of renewable energy credits into site selections but does not have a policy to prioritise the availability of renewable energy or good conditions for energy efficiency. To score higher, Cisco needs to firmly prioritise renewable energy as a source of electricity supply for operations with a goal to eliminate fossil fuel use by 2020, and actively push for Renewable Energy Standards where it locates its infrastructure.

Product Efficiency & Supply Chain Footprint (3 out of 5)

Cisco scores well as it encourages all suppliers to report emissions to the Carbon Disclosure Project, and the company is active in a discussion on the setting of greenhouse gas emission reduction goals. Cisco could score higher if it worked with more of its top suppliers to disclose emissions from their supply chain (Scope 3).

POLITICAL ADVOCACY 10/35

Political Speech (4 out of 10)

Cisco provided several examples of speech of the need for strong climate change policies. However, none of the speeches were as strong as previous speeches given by company executives and thus this year's score is not as high as last year's. Speeches of high quality that lay out specific policy plans to cut greenhouse gas emissions at all levels of government will secure a higher score.

Political Policy (4 out of 15)

In 2010 Cisco took a clear stance on Californian climate policy, but in 2011 Cisco has a weaker track record, scoring only 4 for its submission on UK low-carbon policy.

Repetition Bonus (2 out of 10)

Points here are given for repeating efforts to discuss the need for strong policy on climate change. Cisco provides a number of examples.

SUMMARY 29/100

Dell drops 10 points from last year's Leaderboard, scoring particularly low in the political advocacy criteria. Dell's CEO, Michael Dell – who has been a leader in speaking out for climate change solutions and IT's role in mitigating the climate crisis – has remained silent over the past year. Company executives must continue to speak out for climate change action in the business, as Michael Dell did in 2009 through an op-ed in Forbes.com.

While scoring in the top tier of companies in IT Energy Impact leadership in this year's Leaderboard, its low score for infrastructure siting policy is particularly troubling given Dell's rapidly growing investment in Cloud Computing infrastructure.

Dell sits in the middle of the pack of the Leaderboard and below competitors HP and Sharp. This is in contrast to how vocal the company has been over the past several years on the company's focus of protecting the environment. There is real potential for Dell to show more leadership. In order to improve in the next Leaderboard, Dell must also add greater details to solutions case studies, showing how its IT solutions are driving global reductions in emissions.

IT CLIMATE SOLUTIONS 10/40

Current Savings Calculations (3 out of 10)

Dell provides several case studies, including on virtualisation and data storage, that highlight the benefits of the company's IT solutions, but fails to include high quality details as to how these solutions are significantly reducing greenhouse gas emissions. To score higher in this criterion, Dell needs to update solutions case studies to include pre- and post-intervention data and the methodology used to determine the included data.

Public Metrics (6 out of 10)

Dell articulates the assumptions of its energy calculators, as provided on its Energy Smart website. Similar to Sharp, Dell needs to provide more details on other methodology used to calculate emission reductions in order to score higher points.

Investment (1 out of 10)

Dell does not separate out or report R&D or clean tech investment figures. By disclosing how its clean tech investments compare to its larger business model, Dell could receive a more competitive score.

Future Savings Goal (0 out of 10)

No future savings goal.

IT ENERGY IMPACT 17/25

Absolute Emissions Reduction Target (5 out of 5)

Dell has committed to reducing global absolute GHG emissions from its worldwide facilities by 40% by 2015, from a baseline year of 2007. Scope 1 GHG emissions have been reduced by 5% and Scope 2 GHG emissions by 10% from FY2009 to FY2010.

Mitigation Strategies (6 out of 10)

Dell has a fairly robust GHG mitigation strategy, including efficiency measures, server virtualisation, and renewable energy purchasing. Dell stated in its 2011 Corporate Responsibility Report that it will be moving away from RECs, but has yet to release its strategy for increasing the percentage of direct installation and purchase of renewable energy for its own operations. With the purchase of direct renewable energy, Dell has an opportunity to gain more points in this criterion.

Infrastructure Siting Policy (2 out of 5)

Dell has virtualised much of its data centre operations, and focused on a number of efficiency improvements in its existing infrastructure, while increasing the renewable energy that is powering a small percentage of its infrastructure.

Product Efficiency & Supply Chain Footprint (4 out of 5)

Dell 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 Tier I suppliers. The company has also updated its goals for a more sustainable supply chain.

POLITICAL ADVOCACY 2/35

Political Speech (0 out of 10)

Dell executives, including the company's environmentally-minded CEO, have not spoken out in the past year on specific policy recommendations to cut global emissions.

Political Policy (2 out of 15)

Dell has posted a public statement on its website that generally supports emission reductions, but must demonstrate more specific advocacy to a decision-making body at the executive level of the company.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

ERICSSON

SUMMARY 48/100

While Ericsson remains near the top of the sector in advancing ICT solutions metrics and measurement of the reductions potential of IT energy solutions, it falls 9 points in Version 5 from its 2nd place finish in Version 4, due to a sharp drop in its advocacy leadership in 2011. Ericsson remains well positioned to leverage its solid analysis of the energy savings potential of mobile communication technologies to drive transformative lower-carbon business models in a number of sectors. The company also has significant business opportunities tied to its next generation of highly efficient and renewable powered telecommunications infrastructure offerings. We hope to see Ericsson reactivating its leadership role in the policy arena in 2012, pushing for stronger climate protection and renewable energy policies with policy makers.

IT CLIMATE SOLUTIONS 24/40

Current Savings Calculations (10 out of 10)

Ericsson continues to help set the bar for this category, having provided a number of well developed case studies demonstrating the climate and energy savings potential of ICT-based solutions in different parts of the economy, including a recent study conducted in 2011 called 'Field force management in Turkey', which compare pre- and post-intervention data and account for absolute reductions in CO_2 tonnes/year.

Public Metrics (10 out of 10)

Ericsson continues to score very high for transparent and thorough methodology, and the company is actively contributing its insights to ITU-T and ETSI standardisation initiatives.

Investment (4 out of 10)

Ericsson IT solutions spending on its 'Community Power Project' is a very promising initiative, but the lack of detail on the scale of this investment makes it difficult to properly assess the level of commitment and associated leadership.

Future Savings Goal (0 out of 10)

Ericsson does not currently have a future savings goal for its solutions offerings.

IT ENERGY IMPACT 13/25

Absolute Emissions Reduction Target (3 out of 5)

Ericsson has set a goal to achieve 40% reductions of CO_2 emissions per subscriber 2008 levels by 2013 (2008 baseline). However, there is still no commitment for absolute emissions cuts.

Mitigation Strategies (5 out of 10)

Ericsson claims that a proportion of its total electricity use comes from renewable energy but absolute figures have not been submitted. Ericsson is recognised for significant efforts to improve energy efficiency across its telecommunication systems.

Infrastructure Siting Policy (not applicable)

Product Efficiency & Supply Chain Footprint (5 out of 10)

Ericsson is doing some good on identifying the environmental impacts of its products – which includes its supply chain and product use, where most of its carbon-related impact lies. However, it needs to be more transparent in its product efficiency metrics, as well as reach deeper into the supply chain to bring greater transparency and accountability among its vendors in reporting their supply chain energy footprint.

POLITICAL ADVOCACY 11/35

Political Speech (6 out of 10)

Ericsson receives six points for its leadership role in developing the Guadalajara Declaration presented by Ericsson's CEO, Hans Vestberg via video conferenceto Ministers of India, South Africa and Mexico, Cancun, December 2010. Disappointingly, there have been no additional public statements on climate change, resulting in Ericsson losing significant advocacy leadership points for not repeating the depth of advocacy as in Version 4, particularly in the lead up to COP16 in Cancun. Ericsson executives must remain active in the climate and energy policy debate and supportive of the IT sector as playing a critical role in driving energy solutions.

Political Policy (3 out of 15)

Ericsson helped to develop, alongside GeSI, the Transformative Step of the Day initiative at the COP 17 in Durban, South Africa, a way to focus on the importance of transformative low carbon IT solutions during this round of climate negotiations.

Repetition Bonus (2 out of 10)

Ericsson received two repetition bonus points for signing the Guadalajara Declaration.

FUJITSU

SUMMARY 48/100

Fujitsu fell seven points in this edition due to an increase of scores of close competitors as well as the addition of five new companies in the telecommunications sector. However, Fujitsu continues to score strongly.

Fujitsu has well-developed case study data of its solutions with transparent methodology. Fujitsu stands out in the Leaderboard for scoring high in the Future Savings Goal criterion. The company aims to provide IT solutions that will have the cumulative benefit of reducing emission by 15m tonnes between 2009 and 2012. In addition, it hopes to reduce emissions in Japan alone by 30m tonnes by 2020.

To rise above third position in the next Leaderboard, Fujitsu needs to increase its transparency of investments in IT solutions, speak out for policies to reduce emission both globally and nationally, and instate an infrastructure policy that ensures renewable energy sourcing for new and current buildings.

IT CLIMATE SOLUTIONS 28/40

Current Savings Calculations (9 out of 10)

Fujitsu remains one of the high scorers for solutions. The company provides multiple case studies calculating reduction in tonnes of carbon and percentage with good pre- and post-intervention data.

Public Metrics (8 out of 10)

The company provides a thorough background document on the methodology used to assess its solutions, the Environmental Burden Assessment Method. Fujitsu also released the EcoCalc, a web energy calculator, to business partners in October 2011, after proving results for reducing internal emissions.

Investment (3 out of 10)

The company has increased its investment and discloses numbers in its Corporate Sustainability Report. Given its leading score for solutions work, Fujitsu could increase its score by disclosing more details of current and future investments goals.

Future Savings Goal (8 out of 10)

Fujitsu continues to score high in this criterion. Fujitsu earns full points and stands out as one of the only companies to set a future savings goal for its product solutions. Fujitsu's goal is to reduce CO_2 emissions by 15m tonnes over a four-year period from FY2009 through FY2012, and in Japan by 30m tonnes annually by FY 2020. However, to keep this high score, Fujitsu must release an updated goal beyond 2012 within the coming year.

IT ENERGY IMPACT 9/25

Absolute Emissions Reduction Target (3 out of 5)

Fujitsu sets a goal in its Stage VI Fujitsu Group Environmental Protection programme to reduce total GHG emissions associated with manufacturing globally to 6% below FY1990 levels by the end of FY2012. To score more points it needs to increase the ambition of its absolute emission reductions.

Mitigation Strategies (2 out of 10)

Fujitsu has set a goal of increasing its modest renewable energy usage to three times FY2007 levels by end of FY2012. To score more points in this criterion, Fujitsu needs to showcase a more comprehensive strategy for operational footprint via efficiency measures, as well as increased clean energy purchasing, including the direct purchase of renewables.

Infrastructure Siting Policy (1 out of 5)

Fujitsu has developed a framework for configuring an environmentally-friendly data centre that goes beyond electricity usage efficiency to also focus on clean energy sourcing for its data centres; the company has a data centre in California powered by fuel cells. Fujitsu needs to showcase how this framework influences the siting of its infrastructure.

Product Efficiency & Supply Chain Footprint (3 out of 10)

Fujitsu reports that all of its notebook, tablet and desktop PCs released globally meet the latest EnergyStar standards. The company also provides more information on internal standards though to score more points Fujitsu should showcase what percentage of its models exceed the EnergyStar standards (and by how much), report and set reduction targets for GHG emissions from its external supply chain.

POLITICAL ADVOCACY 11/35

Political Speech (4 out of 10)

Fujitsu presented several examples of relevant political speech but to score significant points in this criterion needs to move beyond general presentations on the benefits of IT, increasing support for specific policy priorities at an executive level of the company. The company scores higher than last edition for Mr Takahashi's speech at Japan's Renewable Energy Foundation launch, where he expressed concerns on the troubles created by Japan's utilities' regional monopoly.

Political Policy (7 out of 15)

Fujitsu Research Institute, a 100% Fujitsu subsidiary, has released a policy report in November 2011 stating the need for energy reform in Japan.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

Google

SUMMARY 53/100

Google grabs the top spot in the Cool IT Leaderboard for the first time, gaining six points overall from Version 4, and is again among the top scorers for advocacy, showing clear support for stronger clean energy policy in the US. Along with Vodafone, Google was the only other Leaderboard company to clearly support the strengthening of the EU's current 20% greenhouse gas target to 30% by 2020.

In an overdue shift from a company that wants all of the world's information online (and searchable via its own cloud-based product), Google finally disclosed its energy footprint, which resulted in a significant increase in its IT Energy Impact leadership score. While Google has a large and rapidly growing demand for electricity, it is committed to plans to increase its renewable energy (RE) use from 25% in 2011 to 35% in 2012. Google is also the top scorer on the investment category under solutions with $915m US dollars invested in renewable energy projects, setting an important example for all IT companies to follow by investing in RE projects to meet a growing portion of its power demand but also other projects as business investments.

However, the strength of Google's leadership commitment to a clean energy future was recently thrown into question, particularly its advocacy efforts, in light of its decision to shutdown the RE<C (short for Renewable Energy Cheaper than Coal) programme in November 2011. While Google has steadily scaled up its clean energy investments outside of the RE<C programme, a key piece of analysis that anchored the RE<C programme and its clean energy policy advocacy was Google's 'Clean Energy 2030' energy scenario for the US, which outlined an investment and policy pathway that would result in 2030 with two-thirds of the electricity in the US coming from renewable sources, and cut oil consumption from autos by 44%. While the company recently provided an important new analysis of the economic and environmental impacts of clean energy innovation in the US (see below), it has become more incremental in its advocacy, and has not recently involved its CEO Larry Page or former CEO Eric Schmidt.

IT CLIMATE SOLUTIONS 13/40

Current Savings Calculations (0 out of 10)

Google's score in this category is now zero as a result of its decision to eliminate its PowerMeter platform in September 2011. PowerMeter provided an easy way for customers to track and manage their electricity use in their home in real time if they had an energy monitor or an electric utility that supported the PowerMeter web portal. While Microsoft also eliminated its similar Hohm platform, Facebook has begun to realise the value of providing this information to its users, as evidenced by its recent partnership with Opower.

Public Metrics (4 out of 10)

Google's calculation of societal GHG savings from plug-in hybrids under the RechargeIT programme remains strong, but Google can add to this in the future by providing measurements of potential savings from Google's self-driving car.

Investment (9 out of 10)

In this version of the Leaderboard, points available for investment have been increased to 10. Google strengthens its position as the leading IT company investing directly in new renewable energy capacity. It scores best-in-class for investment in potentially transformative offshore wind transmission infrastructure and other large-scale renewable energy technologies, such as geothermal.

Future Savings Goal (0 out of 10)

Google does not have a future saving goal for its solutions, perhaps due in some part to the fact that it currently lacks a significant solutions offering after having eliminated PowerMeter.

IT ENERGY IMPACT 17/25

Absolute Emissions Reduction Target (1 out of 5)

Google scores one point for its recent disclosure of its own carbon footprint and commitment to a carbon-neutral goal. However, these actions are very weak when compared to other companies with clear goals to reduce absolute carbon emissions.

Mitigation Strategies (9 out of 10)

Google scores strongly for its goal to increase current renewable energy purchasing from 25% to 35% of its total energy use. The company also explains how it ensures that its renewable energy purchasing drives additional renewable energy capacity, and has its own energy business with the creation of a subsidiary called Google Energy in order to buy 'the highest quality, most affordable renewable energy'.

Infrastructure Siting Policy (7 out of 10)

Google professes to employ a carbon shadow price when deciding on new infrastructure, and has recently announced a new data centre in Finland with sea water used for cooling, to reduce energy use. With several new data centres reportedly being planned including in Asia – Google should commit, as Facebook has, to prioritising access to renewable energy for all of its all new infrastructure investments.

Product Efficiency & Supply Chain Footprint (not applicable)

POLITICAL ADVOCACY 23/35

Political Speech (5 out of 10)

Google demonstrated significant leadership in the development and release of a major study on the long-term economic impacts of innovation in the clean energy sector in the US, highlighting the importance of acting fast and soon in putting the policies in place to drive clean energy investment. While not quite as ambitious as it previous Clean Energy 2030 Scenario, Google put significant resources in the development of this analysis and briefing of decision makers on their findings. Hopefully Google will continue to elevate the important conclusions of this analysis in the coming year around key energy debates, and attaching a level of importance closer to that which it gives to government policies on privacy and antitrust concerns.

Political Policy (12 out of 15)

Google scores well for supporting a 30% emissions reduction target for the EU, and for lobbying in support of stronger energy efficiency legislation in California, which was opposed by industry trade groups. Despite a difficult political climate on energy issues in Washington DC, Google demonstrates its leadership and commitment to advocacy as it continues to prioritise increasing its clean energy advocacy capacity, particularly for policies and regulations that are tied to increasing the amount of renewable electricity being produced.

Repetition Bonus (6 out of 10)

Google's score drops from 10 to 6 for the decrease in the amount of advocacy statements compared to 2010. New CEO Larry Page needs to ensure that he and his executives speak out on key climate and energy policy issues much more than has been the case in 2011.

SUMMARY 21/100

Indian HCL (Hindustan Computers Limited), a global technology and IT Enterprise company is a recent addition to the Leaderboard, added with eight other telecommunication's companies. The company, however, makes its first appearance close to the bottom of the Leaderboard at 15th place. Despite HCL's scores in this edition of the Leaderboard, the company has leadership potential in furthering renewable energy demands and providing innovative solutions capable of reducing greenhouse gas emissions in India.

HCL recently released its first Sustainability Report as well as a set of 10 goals to be achieved by 2020, including reducing its own energy footprint by 20%. However, other similar companies have released stronger reduction goals. HCL has failed to set up short term goals and a developed mitigation plan to reach this initial reduction goal and thus scores low in the Energy Footprint criterion.

IT CLIMATE SOLUTIONS 11/40

Current Savings Calculations (7 out of 10)

HCL provides a range of detailed case studies where emission savings are outlined for HCL IT solutions, including the company's G3 data centres and carbon accounting tools. However, to score higher, HCL must include pre- and post-intervention data and lay out a more comprehensive approach to how these savings occurred for its solutions.

Public Metrics (2 out of 10)

HCL provides a simple methodology without thorough assumptions or much detail of these metrics. HCL will continue to score low in future Leaderboard editions if additional details are not made public.

Investments (2 out of 10)

HCL scores low in this criterion, providing little concrete information on its total investment in solutions that reduce emissions.

Future Savings Goal (0 out of 10)

No applicable future savings goal to score. HCL states that in the next 3 to 5 years, the company will set future savings goals. These goals need to be made public to receive points.

IT ENERGY IMPACT 4/25

Absolute Emissions Reduction Target (2 out of 5)

HCL has made public a goal to reduce direct and indirect emissions by 20% by 2020, though fails to provide details on those emissions. The company received points for disclosure of an absolute goal. However, when compared to other similar companies, there is room for increased leadership by setting a more ambitious goal that includes a greater commitment to the purchasing and direct installation of renewable energy.

Mitigation Strategies (2 out of 10)

HCL has set a goal for 20% renewable energy by 2020 yet provides little detail of the mid-term steps with which it plan to achieve this goal. The company will set up a pilot project to test this expansion. More information on this pilot project should be made public. In order to score more points, HCL must provide a more detailed mitigation plan as well as set up mid-term goals.

Infrastructure Siting Policy (0 out of 5)

No applicable infrastructure siting policy is available. A formal infrastructure siting and energy sourcing policy will better set the company up to achieve its 20% renewable energy goal. In order to score points HCL needs to, at the minimum, give preference to clean energy sourcing for all new buildings.

Product Efficiency & Supply Chain Footprint (0 out of 5)

HCL does not provide information on energy efficiency or supply chain emissions.

POLITICAL ADVOCACY 6/35

Political Speech (2 out of 10)

HCL's CEO has posted a statement of sustainability on the company's website, yet it fails to detail specific policy and emission reductions at any level of government.

Political Policy (4 out of 15)

HCL's CEO Mr Nayar has spoken out to Mrs Jayanthi Natrajan, the Minister of Forests and Environment on a general need for national emission reductions of 15% by 2020.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

SUMMARY 34/100

Hewlett-Packard's (HP) climate leadership score for this version of the Leaderboard is perhaps the most emblematic of the companies evaluated: some early leadership, followed by middling but gradual improvements, followed by apathy and lack of focus as it slips backwards, particularly for its continued retreat in policy advocacy leadership.

HP's solutions score falls from last time, in part due to the reallocation of points to put equal weight on solutions investment and energy savings ambition, which HP scores more poorly in. Given its rapid expansion in data centre operations, HP needs to disclose a new long-term target within the year, alongside a robust mitigation plan that will allow the company to successfully achieve this new target. Currently, HP's emission reduction target only extends to 2013.

HP has certainly endured more than its share of tumult in company leadership lately, now on its third CEO in as many years. While the tenure of CEO Leo Apotheker showed some promise for putting a greater emphasis on HP's solutions offerings – and he had been quite outspoken on the need and opportunity for IT climate leadership while chairman of SAP – new CEO Meg Whitman's arrival in Palo Alto brings a recent record on climate leadership that is less inspiring. As a candidate for Governor of California, Meg had promised to suspend implementation of the State's climate protection law if elected; a law that is actually helping drive greater demand of IT energy solutions. Hopefully CEO Whitman's efforts to get HP back on track will include a recommitment to pursuing the business opportunities in helping save energy and help address our biggest environmental challenge.

IT CLIMATE SOLUTIONS 16/40

Current Savings Calculations (7 out of 10)

HP scores at the higher end of the IT Climate Solutions criteria. The company provides multiple case studies, but lacks detailed information similar to higher scoring companies. HP does provide a case study on a project for Citigroup, involving HP's services in consolidating the company's data centre infrastructure, which includes some emission reduction data but without including hard numbers. However, to score points at the level of HP's competitors Cisco and IBM, the company must supply case studies with more comprehensive emission reduction data, including pre- and post-intervention information.

Public Metrics (7 out of 10)

HP discloses assumptions made in the company's calculation of energy savings 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.

Investments (2 out of 10)

HP scores towards the bottom of this criterion, providing little data on how the company is investing in new research and end products that are able to reduce emissions and lower energy consumption. The company points to its current IT solutions as examples of investment. To score top points the company must disclose how its IT Solutions R&D measures within the context of the company's larger business model and where the company plans to expand such work.

Future Savings Goal (0 out of 10)

HP fails to disclose Future Savings Goals.

IT ENERGY IMPACT 13/25

Absolute Emissions Reduction Target (3 out of 5)

HP has an absolute emission reduction target of 20% below 2005 levels by 2013. HP discloses the progress being made to achieve this target. As we envelop new ICT companies into the Leaderboard, HP's score in this criterion drops by one point with other companies working towards the achievement of more ambitious reduction targets.

Mitigation Strategies (4 out of 10)

HP continues to score on the lower side for the mitigation criterion when compared to other companies' disclosure and detail. HP sources 8% of its energy from renewables, but has yet to disclose the breakdown between direct purchases and installation and renewable energy credits. To score higher the company needs to expand its use of renewable energy including detailed steps on how it plans to do so and reach ambitious emissions reduction.

Infrastructure Siting Policy (2 out of 5)

HP does not have a specific infrastructure policy that gives preference to renewable energy sources, though does include it among list of factors. HP touts that a significant portion of its UK data centre's energy needs are met by wind power, but in the US its data centre consolidation has left HP's operations in regions that are heavily dependent on coal.

Product Efficiency & Supply Chain Footprint (4 out of 5)

HP has 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 5/35

Political Speech (3 out of 10)

HP receives 3 points for signing the Guadalajara Declaration prior to COP16 in 2010. Significant further advocacy leadership is needed to achieve the call to action by companies in this document.

Political Policy (2 out of 15)

HP receives minimal points for a company statement on its website stating the global importance of mitigating climate change and supporting the IPCC recommendations in limiting GHG emissions. HP should score higher in this criterion with stronger and specific policy recommendations.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

IBM

SUMMARY 35/100

IBM's score drops 11 points in the 5th version of the Leaderboard, falling in every category and obtaining 4 penalty points in the Political Advocacy category. IBM drops the most points in the IT Solutions criteria, moving from 25 points to 19 in Version 5.

However, IBM is clearly an industry leader with great potential to help move the sector towards emission reductions and renewable energy commitment. IBM does stand out for comprehensive case studies on a range of provided solutions, but fails to set a future savings goal for achieving these solutions.

IBM does lead in many areas prioritised in the Leaderboard, in particulargreenhouse gas emission reduction targets for its own operations. The company is in its final year of achieving a reduction of 12% of the 2005 baseline. This is the second phase of a reduction plan that began in 1990. IBM sources 11% of its energy from renewable sources.

IT CLIMATE SOLUTIONS 19/40

Current Savings Calculations (9 out of 10)

IBM 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 out of 10)

As new companies show more leadership in this criterion, IBM's score drops by 1 point. A more detailed explanation of how IBM calculates emission reduction and future savings is needed to score higher points.

Investment (5 out of 10)

IBM has a proven commitment to reducing greenhouse gas emissions, but to highlight its leadership more public information is needed on how its business model includes significant investment in IT solutions that reduce emissions.

Future Savings Goal (0 out of 10)

IBM once again scores 0 points in this criterion, for failing to provide any future savings goal information.

IT ENERGY IMPACT 20/25

Absolute Emissions Reduction Target (5 out of 5)

IBM ranks high for its reported emissions reductions of 40% from 1990 to 2005 against a 1990 base year, and is now working on the second stage goal of 12% by 2012 with a 2005 base year. IBM should set a longer-term goal, and having made significant efficiency gains already it should also set a target for a percentage of renewable energy to ensure that the company is not only keeping up with other similar companies but is truly leading the industry.

Mitigation Strategies (8 out of 10)

IBM scores highly for 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. However, more attention is needed to expand the base of renewable energy percentage to well above the current 11%.

Infrastructure Siting Policy (3 out of 5)

IBM's score drops by one point as other companies provide more leadership this year. Points are given for transparency and approach for managing its data centre footprint. Additional priority given to renewable energy access in its siting policy and discrimination against dirty energy sources would earn IBM full marks.

Product Efficiency & Supply Chain Footprint (4 out of 5)

IBM continues to score well for requiring tier 1 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 -4/35

Political Speech (0 out of 10)

While it continues to put big money behind its 'Smarter Planet' ad campaign, IBM has gone silent during the past year in supporting government action that would reduce pollution or aggressively increase investment in renewable energy.

Political Policy (1 out of 15)

IBM receives minimal points in this criterion for a public statement on its website.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

Negative Lobbying Penalty: -5 points

IBM receives negative lobby penalties for failing to distinguish itself from the views and positions of the trade association BusinessEurope. IBM is a member of this trade association, which has been leading efforts to block the EU's proposed greenhouse gas reduction target of 30% by 2020.

Microsoft

SUMMARY 23/100

Microsoft continues to slip in the Leaderboard standings for the second time in a row. Microsoft's score falls, from 29 to 25 points, now ranking 13 out of 21 companies. It scores fall in nearly every category, most notably in its solutions offerings, as it elected to cancel its Holm online energy management tool in May 2011.

In version 4, Microsoft received 5 penalty points in the Political Advocacy criteria for failing to speak with its own voice on climate change, as BusinessEurope – a trade association of which Microsoft is a member – challenges progress for clean energy. However, this year those penalty points have been eliminated as a result of Microsoft publicly distancing itself from BusinessEurope's position.

Microsoft's Chief Environmental Strategist, Rob Bernard, posted a blog in December 2011 reiterating the company's stance on climate change, and separating itself from any trade association of which it is a member that engages in negative lobbying on this issue. While these broad corporate policies are useful for separating Microsoft from those corporations focused on holding the world back from a transition to clean sources of energy, in order to reverse its downward slide in the Leaderboard, Microsoft must show much greater leadership in moving the ICT industry away from dirty energy, and embrace the key policies on a larger scale that will drive transformational investment in renewable energy.

IT CLIMATE SOLUTIONS 9/40

Current Savings Calculations (3 out of 10)

Points dropped for Microsoft with the cancellation of its online energy management service Hohm. Microsoft receives points for case studies, such as its partnership with Sprint Nextel, which utilised the Microsoft System Configuration Manager 2007 to measure and set parameters to reduce Sprint Nextel's emissions.

Public Metrics (6 out of 10)

A white paper detailing the company's use of smart building tools allow others to see how Microsoft's innovative IT tools can reduce costs and reduce climate change inducing greenhouse gas emissions.

Investment (0 out of 10)

No applicable investment information available to score.

Future Savings Goal (0 out of 10)

No applicable information on future emission reduction targets available to score.

IT ENERGY IMPACT 11/25

Absolute Emissions Reduction Target (2 out of 5)

Microsoft does not provide absolute emissions targets for its own energy use, though it does disclose its energy footprint and sets a reduction target relative to the company's unit of revenue. The company has set a relative target of 30% reduction below 2007 levels by 2012.

Mitigation Strategies (5 out of 10)

Microsoft increased its renewable energy percentage target by a mere 1%. Score drops from 7 points to 5 points due to lack of leadership.

Infrastructure Siting Policy (4 out of 10)

Although Microsoft does not have an official siting policy that requires its siting to be connected to clean energy, it is making progress on its goal of increasing energy efficiency for its data centres. The company has increased its average PUE to 1.125.

Product Efficiency & Supply Chain Footprint (not applicable)

POLITICAL ADVOCACY 3/35

Political Speech (3 out of 10)

Microsoft receives 3 points for signing onto the Guadalajara Declaration prior to COP16 in 2010. Further leadership is needed to achieve the call to action by companies in this document.

Political Policy (0 out of 15)

No applicable policy actions taken over the past year.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

Negative Lobbying Penalty: 0

Microsoft's 5 penalty points have been removed for speaking in favour of a 30% emissions reduction by 2020 in Europe, in opposition to the trade association BusinessEurope's lobbying activities, of which Microsoft is a member.

NEC

SUMMARY 15/100

NEC Corporation, originally Nippon Electric Company, is well positioned for climate leadership, having made significant investments in telecommunications networks, server and cloud computing, consumer electronics and IT solution services. NEC is new to the Leaderboard, ranking 19th overall. The company ranked 7th overall in its Solutions leadership but also scored the largest negative score on the Leaderboard in its Advocacy Leadership.

IT CLIMATE SOLUTIONS 17/40

Current Savings Calculations (6 out of 10)

NEC highlights a number of IT energy-saving solutions, ranging from environmental assessment software tools, to showcasing the emission savings from dematerialising our economy, and online shopping for software and music. A detailed study (in Japanese) of CO_2 emission savings from avoided travel via web-based video conferencing is particularly useful. For more points, NEC needs to showcase more specific examples of its solutions, complete with pre- and post-intervention data.

Public Metrics (5 out of 10)

NEC points to a life-cycle analysis methodology established by the Japanese Forum for eco-efficiency. The company needs to specifically showcase how this – or other methodologies – are being applied to the specific case studies offered by NEC.

Investment (1 out of 10)

NEC is clearly investing in IT solutions, as referenced by the declarations posted on the company's website. To fully realise the potential GHG savings from IT solutions and maximise earnings potential, investment must increase Industry-wide, and increase as an overall percentage of company expenditure. In NEC's case, it is not clear what percentage of overall investment is related to IT solutions.

Future Savings Goal (3 out of 10)

NEC has set CO_2 reduction targets that appear at first blush to be industry leading goals. However, there are a few challenges in interpreting these goals. NEC includes in its goal future energy efficiency savings from its IT products (compared to the company's current business-as-usual), when the emphasis for this criterion is based on how the company's products and services will save energy and cut emissions in other parts of the economy. Additionally, NEC should detail more examples of how it will meet its ambitious 2018 and 2031 goals, including more detail of the types of solutions it will employ, how much savings these solutions will provide, and also provide more short-term (1-3 year) benchmarks to track its progress.

IT ENERGY IMPACT 8/25

Absolute Emissions Reduction Target (2 out of 5)

NEC does not have a concisely stated Scope 1 or Scope 2 reduction target, whether that be an absolute or intensity reduction goal, as the company breaks down its environmental reporting into a few different categories. The company does have an absolute reduction goal for its 'plant and office' related activities of 15% from a 2006 baseline by FY2011. The company does not have a future savings goal beyond this timeline. With its CO_2 emissions savings goal NEC has bundled a few CO_2 emissions projects that would relate to its own operational footprint, such as energy efficiency at its facilities, with a number of other savings (IT solutions, energy efficiency of its products compared to business-as-usual. NEC should set a comprehensive and ambitious reduction goal for its Scope 1, 2 and 3 (travel) emissions as other industry leaders have done.

Mitigation Strategies (3 out of 10)

NEC successfully surpassed its rather modest CO_2 reduction goals for its operations by the end of fiscal year 2011. Some of this operational success came through increased operational efficiency but it is difficult to explain how to attribute the remaining gains. Compared to leaders such as IBM and Cisco, a more detailed explanation of NEC's mitigation plan is needed to better understand how the company is working to reduce its operational footprint.

Infrastructure Siting Policy (0 out of 5)

NEC claims to not use much energy as a company, but instead focuses upon CO_2 savings from its solutions, so that these solutions should enable its customers to achieve renewable energy. The company does not have any policy or preferences in siting its infrastructure near cleaner sources of energy. While IT solutions savings are indeed important and receive the most cumulative points in the Cool IT Leaderboard, the question should not be framed as an either/or situation. As IT companies grow to provide the IT solutions that will reduce emissions in other parts of the economy, their growth needs to be powered by the greenest and safest forms of energy. Leadership of this nature is especially relevant in places such as Japan, where the bulk of NEC's operational footprint takes place, as the country determines its energy path post-Fukushima.

Product Efficiency & Supply Chain Footprint (3 out of 5)

NEC excels in the production of energy efficient products as seen on the company's website. However, there is not much information about how NEC manages the embedded energy from its hardware's supply chain. The company does have exciting initiatives relating to supply chain management, involving the use of bio-plastics. The company should extend this work to include an audit of its products' Scope 3 emissions and put plans in place to work with its suppliers to reduce this embedded energy, along the lines of work initiated by companies such as Hewlett Packard.

POLITICAL ADVOCACY -10/35

Political Speech (0 out of 10)

Unlike other Japanese Brands such as Softbank and Sharp, NEC has not spoken out in the aftermath of the Fukushima disaster in support of policies to shift Japan toward renewable energy (also see penalty points below).

Political Policy (0 out of 15)

No Leadership points.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

Negative Lobby Penalty (-10 Points)

NEC's current chairman Mr Kaoru Yano serves as the acting head of JEITA, the Japanese Electronics and Information Technology Industries Association. During COP17 in Durban, South Africa, JEITA insisted that Japan should not allow the extension of the Kyoto Protocol and urged the country to review and eliminate its commitment to a 25% reduction in greenhouse gases by 2020 (from a 1990 baseline). Given Mr Yano and NEC's leadership in pushing these positions from JEITA, a negative 10 points have been assessed.

NTT

SUMMARY 19/100

NTT Group is one of the largest global telecommunications companies, with significant fixed line, broadband, mobile and data subsidiaries. Additionally, the Japanese government continues to hold approximately one-third interest in the parent company. NTT is evaluated for the first time in Version 5 of the Cool IT Leaderboard, ranking 17th overall and 4th out of the five global telecommunications companies included in Version 5. NTT ranked 8th overall in its Solutions leadership, but was also one of three companies that received a negative lobbing score in its Advocacy Leadership.

IT CLIMATE SOLUTIONS 19/40

Current Savings Calculations (8 out of 10)

NTT highlights a number of IT energy-saving solutions, including clear basic data on the methodology and assumptions used in calculating estimated savings. More in-depth case studies of these solutions, as put forth by Vodafone, Ericsson and Cisco, are still needed.

Public Metrics (5 out of 10)

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

Investment (1 out of 10)

Though NTT clearly is exploring IT solutions, it is not clear what level of investment the company is putting into them. Recent announcements of intention to follow Softbank into developing renewable power generation business will be watched keenly for signs of significant investment.

Future Savings Goal (5 out of 10)

NTT had previously established a greenhouse gas savings target for its products, equivalent to 10m tonnes CO_2 a 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 of CO_2 a year by 2020. However, due to the lack of a clear metrics and methodology for measuring the impact of its solutions, NTT receives a lower score for this goal at this time than Fujitsu, which has communicated clear metrics for measuring its ICT solutions.

IT ENERGY IMPACT 5/25

Absolute Emissions Reduction Target (3 out of 5)

In 2011, NTT achieved a relative intensity per unit of revenue emission reduction target of 35% below 1991 levels for its telecommunications carriers, and 25% for other subsidiaries. However, in this same time frame, its absolute emissions increased nearly two and a half times. As part of its Green Vision 2020, NTT Group has now established a 2020 absolute reduction target of 15% below 2009 levels.

Mitigation Strategies (1 out of 10)

While NTT can point to some improvement in its energy efficiency performance, until the adoption of its Green Vision 2020, it did not appear to have a meaningful emissions mitigation strategy. This appears to be slowly changing, as the company established a Green NTT programme in 2008 with a mandate to increase the amount of solar power supporting NTT operations. However, three years later, only 3.8 MW of solar have been installed, equivalent to less than 0.4% of NTT total energy consumption each year. An ambitious plan to secure a larger portion of renewable energy would result in a higher score.

Infrastructure Siting Policy (1 out of 5)

NTT's 'Green NTT' plan appears to put the utilisation 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 out of 5)

NTT does not appear to evaluate the life cycle impact of the products or handsets it offers to its customers, or provide them with information on its 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.

POLITICAL ADVOCACY -5/35

Political Speech (0 out of 10)

Unlike other Japanese Brands, such as Softbank and Sharp, NTT has not spoken out in the aftermath of the Fukushima disaster in support of policies to shift Japan toward renewable energy (also see penalty points below).

Political Policy (0 out of 15)

No Leadership points

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

Negative Lobby Penalty (-5 Points)

NTT's current President & CEO Satoshi Miura serves as a Vice Chairman of the Keidanren (Japanese Business Federation), which is aggressively pushing the Japanese government to restart the nuclear power plants shut down after the Fukushima disaster. Given NTT's leadership position in the Keidanren, 5 negative lobby points are assessed against NTT.

ORACLE

SUMMARY 10/100

Oracle dropped two points, keeping its seat at the bottom of the Leaderboard. This drop in score is due in part to the addition of leading telecommunications companies. Oracle holds significant potential to be a leader in the ICT sector, and seems to recognise that its customer base is increasingly moving towards more environmentally sustainable practices. However, the company is currently failing to realise its potential to help its customers measure and manage its energy use.

Oracle must catch up with the rest of the Leaderboard companies on its Energy Impact management and Political Advocacy, starting by disclosing renewable as well as dirty energy use. Disclosure of this type of information alongside strong political advocacy for global and national emission reductions shows ICT leadership.

IT CLIMATE SOLUTIONS 5/40

Current Savings Calculations (2 out of 10)

Oracle continues to score low for failing to provide a broad range of detailed case studies on how the company's IT solutions are reducing emissions with pre- and post-intervention specifics.

Public Metrics (2 out of 10)

Oracle's Public Metrics score increases by 1 point for the release of the white paper 'Smart Facilities Management with Oracle Applications', which includes a simple methodology for calculating emissions reductions.

Investment (1 out of 10)

Besides minimal information, Oracle fails to adequately and publicly provide the details of their investments into IT climate change solutions. To score higher Oracle needs to discuss in more detail its current and future investment activities for ICT solutions that will reduce greenhouse gas emissions for clients.

Future Savings Goal (0 out of 10)

No future savings goal available.

IT ENERGY IMPACT 5/25

Absolute Emissions Reduction Target (1 out of 5)

The company needs a more comprehensive absolute greenhouse gas (GHG) target; it does not disclose its overall emissions footprint on its website or via its Carbon Disclosure Submission. Although stating that it has succeed in achieving its set 2010 goal of reducing GHG emissions, Oracle has failed to publicly continue to set new and longer-term goals.

Mitigation Strategies (2 out of 10)

Given Oracle's lack of transparency on its emissions, it is unsurprising that it does not articulate a robust mitigation strategy. While the company does showcase some of its energy use at data centres around the world, it provides very limited information and is not detailing exact numbers.

Infrastructure Siting Policy (1 out of 5)

Oracle provides a small amount of energy information on data centres. It does not articulate a preference or policy involving GHG emissions in siting its infrastructure.

Product Efficiency & Supply Chain Footprint (1 out of 5)

Oracle receives minimal points for this criteria for failing to provide detailed information on the company's supply chain sustainability. Top scorers disclose one-on-one work with suppliers to measure and manage emissions.

POLITICAL ADVOCACY 0/35

Political Speech (0 out of 10)

No applicable recorded speech is available from Oracle.

Political Policy (0 out of 15)

No applicable policy actions taken over the past year.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

SUMMARY 23/100

The business management software provider SAP redeems only 3 points after a 16 point drop in the last version of the Cool IT Leaderboard. SAP's Advocacy Leadership increases modestly with the signing on to the 2°C Challenge Communiqué. The Challenge was also signed by Vodafone and was initiated by the Prince of Wales Corporate Leaders Group on Climate Change to end the deadlock in international climate change negotiations.

SAP scores relatively well on Energy Impact, making year-on-year progress on the company's carbon emissions reduction goals despite growth in revenue. SAP data on emissions is also impressively transparent and well presented with strategies for tackling the largest sources of emission clearly explained and backed up with data.

SAP needs to make public a greater level of detail in how its own IT solutions are reducing emissions in other sectors of the economy. The company also needs to provide a better level of disclosure in the methodology in which it determines these reductions.

IT CLIMATE SOLUTIONS 7/40

Current Savings Calculations (3 out of 10)

A myriad of SAP's IT solutions can be found at the company's sustainability report website. However, the case studies showcased offer no pre- or post intervention data, nor is there an explanation of ROI for companies using SAP's solutions. Leading companies in this criterion, such as Cisco, provide a higher level of detail that allows clients and potential clients to understand the scope of future emission savings.

Public Metrics (1 out of 10)

SAP scores one point for the explanation of their 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 (3 out of 10)

While SAP has made large acquisitions over the last three years (Clear Standards, Sybase and TechniData) that offer climate solutions, SAP fails to provide the details on how these changes have impacted the company's investment priorities. SAP clearly has invested in an internal mechanism to pursue wider sustainability efforts with 500 people currently employed dedicated to increase the company's sustainability. However, companies that lead in this criterion provide current data as well as future investment goals for IT solutions that reduce emissions.

Future Savings Goal (0 out of 10)

SAP provides no future targets for savings using its solutions.

IT ENERGY IMPACT 14/25

Absolute Emissions Reduction Target (4 out of 5)

While SAP's target remains the same (lower total greenhouse gas emissions to the level of 2000 by the year 2020, overall reduction of 50% compared to a 2007 baseline), it gains a point for continued progress towards this goal (6% reduction) despite 17% company revenue growth. Yearly data is broken down by business area in an easy-to-use webpage.

Mitigation Strategies (7 out of 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. The company also uses 48% renewable energy and is detailed by source and geographic area.

Infrastructure Siting Policy (3 out of 10)

Wile SAP scores low for lacking a formal siting policy that mandates renewable energy sourcing for data centres, SAP does gain points for some sourcing of renewable energy for four of its data centres. To lead in this criterion the company must state a public policy with a preference for RE when making new data centre investments.

Product Efficiency & Supply Chain Footprint (not applicable)

POLITICAL ADVOCACY 2/35

Political Speech (0 out of 10)

No specific speeches on climate advocacy by company executives were submitted.

Political Policy (2 out of 15)

SAP receives 2 points for signing the 2°C Communiqué. This Challenge has been signed by 403 corporations around the world. It acknowledges that international negotiations on setting global emissions reductions are stalled, leaving communities vulnerable while climate change escalates.

Repetition Bonus (0 out of 10)

No applicable examples of advocacy repetition.

SHARP

SUMMARY 38/100

Consumer electronics company Sharp gains 9 points from the previous Leaderboard, showing gains in both the Solutions and Political Advocacy criteria. Sharp has provided increased public disclosure with details in the company's investments in IT solutions. The company also receives an increase in points in Current Savings Calculations for its energy monitor.

Sharp's Political Advocacy scores increases from 0 to 9 without shedding a 5 point penalty in this edition. Sharp's CEO has spoken out for the need to remove barriers to further investments in renewable energy. However, the company receives a negative lobby deduction for failing to distinguish its position from that of JEITA, a Japanese trade association of which Sharp is a member, and which opposes Japan's 25% greenhouse gas reduction target.

IT CLIMATE SOLUTIONS 19/40

Current Savings Calculations (5 out of 10)

Sharp offers hypothetical case studies for potential solar PV usage - and climate savings - based on different locations in Japan. To receive an increase in points, Sharp must add pre- and post-intervention data and more details in case studies with actual customer savings.

Public Metrics (6 out of 10)

Sharp details how it estimates savings from its solar calculator, but more details in its other savings methodology would earn the company a better score.

Investment (5 out of 10)

Sharp's score is adjusted for an increase in potential investment. Sharp continues to invest in solar products including beginning construction on solar cells with high conversion efficiency in March 2011.

Future Savings Goal (3 out of 10)

Sharp's score remains low despite a goal of reducing emissions produced by the company's business activities by half. This goal has not been updated and in order to score points the company must commit to a more aggressive savings goal for its IT solutions.

IT ENERGY IMPACT 10/25

Absolute Emissions Reduction Target (2 out of 5)

Sharp has a target to reduce relative CO_2 emissions (per adjusted production unit) by 35% compared to fiscal year FY1990 by 2010, but for production sites in Japan only. Sharp aims to reduce greenhouse gas (GHG) emissions below FY2007 levels and to reduce by 3% from the business-as-usual scenario.

Mitigation Strategies (1 out of 10)

Sharp has a meagre target of 0.5% renewable energy, which is especially low for a solar cell company. Sharp has mitigated its GHG footprint in offices and factories in the US and Europe with renewable energy. Sharp's score decreased by 1 point this edition for neither setting an ambitious renewables target nor producing a more comprehensive mitigation plan for its GHG footprint.

Product Efficiency & Supply Chain Footprint (7 out of 10)

Sharp reports on GHG emissions from its own operations and internal supply in absolute terms and by production unit. The company also provides data giving a breakdown of CO_2 emissions for products during their life cycle. 100% of Sharp TVs meet the latest Energy Star requirements; almost 90% of these are at least 50% more efficient in standby mode, with 60% at least 30% more efficient in 'on' mode. A wide range of other Sharp products are also ES qualified.

POLITICAL ADVOCACY 9/35

Political Speech (4 out of 10)

In an interview with the *Wall Street Journal*, Sharp CEO Mr Katayama expresses his concerns to barriers to greater renewable energy investments and the clear business opportunities for expanding the market.

Political Policy (10 out of 15)

Mr Katayama also spoke out on the need to pass a FIT policy in order to create greater investment in renewable energy. Furthermore he asked the government to present a plan for a smooth connect for renewable energy into the grid and modify existing laws that have proved to be a barrier to renewable energy installment.

Repetition Bonus (0 out of 15)

No applicable examples of advocacy repetition.

Negative Lobby Penalty (-5 Points)

Sharp continues to score -5 points for its association with trade association JEITA, and its lack of distancing itself from the organisation's negative lobbying on progressive emission reductions.

SoftBank

SUMMARY 38/100

Japanese telecommunications company Softbank makes an impressive debut on the Cool IT Leaderboard, most notably for its tremendous leadership in clean energy policy advocacy in post-Fukushima Japan. Though placing 7th overall, Softbank set a new bar for Policy Advocacy Leadership after scoring 33 out of 35 points.

Softbank Chairman Son has repeatedly and forcefully pushed for the strengthening and adoption of Renewable Energy legislation, and is also pushing for critical changes to the rules governing the electric utilities that would require separate ownership of the electricity grid and power stations, enabling much greater investment and access to renewable sources of electricity.

In addition to its advocacy work, Softbank is now moving to include clean energy as part of its business model, with Softbank Chairman Son asking authority from shareholders to amended its corporate charter to allow it to enter into the renewable energy business. With this shift and further development of a business strategy to drive its new renewable energy subsidiary, we expect to see Softbank's advocacy leadership extend to its clean energy solutions offerings and for its own operations as well.

IT CLIMATE SOLUTIONS 3/40

Current Savings Calculations (1 out of 10)

Softbank has made available a system to enable more sustainable home office work via cloud computing, titled 'White Work Style', which is expected to cut paper and electricity usage. However, there is no public information available on actual emission reduction data by using the service and thus Softbank scores a minimum score for its solutions leadership.

Public Metrics (0 out of 10)

No specific mention of methodology.

Investment (2 out of 10)

Although Softbank does not disclose information on its investment, the company's affiliate business SB Energy has started a feasibility study on a mega-solar plant in Hokkaido. It is planned that the final solar energy generation site will be 340 megawatts. In order to further promote renewable energy, the company plans to make public the collected data from the study.

Future Savings Goal (0 out of 10)

No future saving goals set for IT solutions.

IT ENERGY IMPACT 2/25

Absolute Emissions Reduction Target (0 out of 5)

No absolute emission reduction target is available.

Mitigation Strategies (1 out of 10)

Softbank Mobile has a network centre with 10MWh solar capacity in Saitama. They have also a mobile (telecom) tower with 50 solar panels, which enable the facility to be self-sufficient on electricity on a sunny day.

Infrastructure Siting Policy (1 out of 10)

Though the company has no formal siting policy, Softbank gives preference to locations that offer opportunities for reduced emissions.

Product Efficiency & Supply Chain Footprint (not applicable)

POLITICAL ADVOCACY 33/35

Political Speech (9 out of 10)

CEO Mr Son called on the government to strengthen Japan's new Feed-in Law (reported as setting a target of 30,000 MW of new renewable development within the next decade, nearly five times the 6,500 MW of wind, solar, and geothermal power currently operating in the country) and supported an effective tariff that enables renewable energy promotion. He has also been outspoken on the government's need to transfer subsidies for nuclear energy towards the expansion of renewable energy. Mr Son also supports efforts requiring the separation of grid ownership from the electric utilities, which would foster competition and increase access for renewable energy developers.

Political Policy (14 out of 15)

Mr Son established the Renewable Energy Council on 13 July 2011, which aims to promote renewable energy with Japanese local authorities and other stakeholders. The Council has issued policy recommendation papers that list detailed supportive advocacy on Feed-in Law, renewables target, and a review of grid access and competition rules.

Mr Son clearly challenged the status quo energy policy position of the Keidanren, a Japanese trade association, distinguishing his company position against the business group's stance to support nuclear power plants.

Repetition Bonus (10 out of 10)

There are numerous political speeches from Mr Son (including with ex-Prime Minister Kan) to national and local media after the Fukushima disaster.

TATA CONSULTANCY SERVICES

SUMMARY 11/100

Tata Consultancy Services (TCS) is an global IT services company based in Mumbai, India and is one of three global ICT companies from India represented on the Cool IT Leaderboard.

TCS's Leaderboard debut places it the bottom tier overall. TCS has the potential for demonstrating much stronger leadership, as it has been active in many of the ICT solutions areas identified in the Smart 2020 report. However, the company needs to provide stronger evidence of the energy and emissions savings it has achieved with its clients. Given the breath of its offerings, and its ability to integrate many of these into the product and services of its parent holding company, The Tata Group, TCS has unique opportunities to demonstrate the transformational potential of ICT solutions to our energy use and renewable energy generation.

IT CLIMATE SOLUTIONS 4/40

Current Savings Calculations (2 out of 10)

TCS provided basic evidence of solutions offerings in all four of the major areas identified in the Smart 2020 report (Buildings, Transport, Industry, Power), with over half of the examples given coming from the power sector, and has recently established an Eco-Sustainability Unit to bring its solutions offerings together to potential customers. However, much more detailed evidence of the application of these solutions and the savings achieved should be made public, as has been offered by Cisco, Ericsson, IBM and Vodafone.

Public Metrics (2 out of 10)

TCS provides limited information on the methodology the company uses to determine greenhouse gas (GHG) emission savings from its IT solutions.

Investment (0 out of 10)

No applicable examples of investment to score. Despite the breadth of its solutions offerings, TCS has not yet attached a clear level of ambition or commitment to drive this part of its business, either in terms of investment or energy savings achieved.

Future Savings Goal (0 out of 10)

No applicable examples of future savings goal

IT ENERGY IMPACT 4/25

Absolute Emissions Reduction Target (2 out of 5)

TCS should be recognised for its transparency and reporting of its energy footprint, but has thus far only established a near-term intensity-based GHG performance target (33% reduction per employee by 2012 against a 2007 baseline). No target beyond 2012 has been identified. In its most recent submission to the Carbon Disclosure Project, TCS had established a 2011 5% intensity-based reduction target compared to its 2010 emissions, yet reports 13.5% increase in absolute emissions.

Mitigation Strategies (2 out of 10)

TCS provides some evidence of efficiency measures that are tied to its performance based intensity target, but the rapid increase in absolute emissions (13.5% in the last year) and the failure of the company to reach even its own intensity target indicate their mitigation strategy needs further company prioritisation. TCS reports that less than 5% of its electricity comes from renewable sources, something that will have to receive far greater investment given its rapid growth.

Infrastructure Siting Policy (0 of 10)

TCS has neither a policy guiding its data centre energy investments nor preference for renewable energy when siting new buildings.

Product Efficiency & Supply Chain Footprint (not applicable)

POLITICAL ADVOCACY 3/35

Political Speech (3 of 10)

TCS receives 3 points for signing the Guadalajara Declaration prior to COP16 in 2010. Further leadership is needed to achieve the call to action by companies listed on the Leaderboard.

Political Policy (0 of 10)

No applicable policy advocacy over the past year.

Repetition Bonus (0 of 15)

No applicable examples of advocacy repetition.

SUMMARY 11/100

Telefónica is one of the world leaders in the telecommunication sector with a strong presence in the Spanish and Portuguese-speaking markets, and with strong growth potential in newer markets. However, this leader makes a poor debut on the Cool IT Leaderboard, coming in 19th overall and scoring relatively low in all three areas under evaluation.

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. The company has set an ambitious intensity target to reduce its own direct greenhouse gas (GHG) emissions but to show real leadership needs to commit to absolute targets.

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. In our changing climate, it makes sense that the company brings with them the ability to demand and secure greater renewable energy sourcing.

IT CLIMATE SOLUTIONS 3/40

Current Savings Calculations (2 out of 10)

Telefónica makes reference to several cases studies to report how its services could provide 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. Providing this data will not only allow future clients and customers to understand Telefónica's offerings but will also spur greater innovation and competition within the sector.

Public Metrics (1 out of 10)

In the case studies at hand, Telefónica refers to a couple of methodologies but does not offer any verification or assumption used to calculate the GHG savings that its services offer. For example, the ABBA case study briefly mentions the potential for energy consumption savings and fails to follow through with the details.

Investment (0 out of 10)

The company fails to provide information on investments in IT solutions. However, Telefónica does discuss a minimal amount of R&D in Smart Meters and other remote monitoring solutions. The company should provide more detailed information and figures of its investments in IT solutions relative to its larger business model.

Future Savings Goal (0 out of 10)

No future savings goal.

IT ENERGY IMPACT 5/25

Absolute Emissions Reduction Target (2 out of 5)

Telefónica sets a strong relative target for network use of 30% by 2015 from a 2007 emissions baseline, where the company states that this energy consumption represents 80% of their carbon footprint. This is significant, but in order to score more points the company needs commit to reduce its own direct absolute GHG emissions.

Mitigation Strategies (2 out of 10)

The company claims renewable energy use and energy savings yet provides no details on how that energy mix is broken down. In general, the information submitted was very unclear and thus, difficult to evaluate.

Infrastructure Siting Policy (0 out of 5)

Telefónica does not have a policy that determines its data centre sitting.

Product Efficiency & Supply Chain Footprint (1 out of 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. Apart from this, there is no indication that the company is measuring its products against the ES standards or actively taking responsibility for supply chain footprint as part of its mitigation strategy.

POLITICAL ADVOCACY 3/35

Political Speech (3 out of 10)

Telefónica scores for signing the Guadalajara Declaration at the COP16 in 2010 and for its support via ETNO (European Telecommunications Network Operators' Association) of the European Commission Roadmap for Moving to a Competitive Low Carbon Economy in 2050, in which an 80-95% reduction of GHG emissions by 2050 from a 1990 baseline is suggested. However, the company lacks leadership in advocating for specific policy priorities.

Political Policy (0 out of 15)

No applicable example of political policy.

Repetition Bonus (0 out of 10)

No applicable example of advocacy repetition.

Negative Lobby Penalty: 0

No negative lobby penalty was scored this time.
Nevertheless, we will follow up closely on Telefónica's prominent role within the industry association BusinessEurope as part of its Corporate Advisory group, which actively opposes the EU's proposed GHG reduction target of 30% by 2020.

vodafone

SUMMARY 45/100

Vodafone is a new addition to the 5th version of the Cool IT Leaderboard, and scores the highest overall among other telecom operators that were also added to this version. Vodafone scores strongest on its solutions leadership, primarily for its comprehensive case studies showing clear benefits of ICT solutions in driving energy savings and greenhouse gas reductions. Vodafone has a target to cut emissions in mature markets by 50% by 2020, and scores relatively strongly for outlining measures to cut its own emissions in its telecoms networks. To improve its score Vodafone needs to set a target to increase its use of renewables.

In a Leaderboard where advocacy leadership is way down across the board, Vodafone ranks 3rd at 13 points, but far off the mark of Softbank's 33 points and even further below Google's 23 points. Vodafone deserves recognition for being the only other company on the Leaderboard other than Google that publicly advocated in support of the proposed 30% EU emission reduction by 2020.

IT CLIMATE SOLUTIONS 21/40

Current Savings Calculations (9 out of 10)

Vodafone provided clear and detailed case studies in its submission for smart metering and smart working solutions, detailing pre- and post-intervention data to show clearly the overall real world savings of solutions. However, Vodafone has not yet posted these in depth case studies on its website, with only less-detailed summaries currently available (as at January 2012). Vodafone could score maximum points in the next Leaderboard by continuing to broaden the range and detail of public case studies.

Public Metrics (10 out of 10)

For in-depth case studies, Vodafone uses the GeSI methodology to analyse the solutions saving using standard metrics covering a comprehensive range of effects of the solution in use.

Investment (1 out of 10)

Prioritising its M2M (machine to machine) business unit gives Vodafone 1 point. To score higher, Vodafone must provide specific examples of the investments it is making in clean technology solutions.

Future Savings Goal (1 out of 10)

Vodafone scores 1 point for aiming to roll out 10 million carbon-reducing M2M connections by 2013 through its dedicated M2M business operations. The initial focus is on smart metering and smart logistics with research into the carbon-reducing potential of other M2M applications.

IT ENERGY IMPACT 11/25

Absolute Emissions Reduction Target (4 out of 5)

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

Mitigation Strategies (5 out of 10)

Vodafone provides specific examples of how it is reducing the impacts of its operations, specifically on network efficiency, base stations using renewable energy and data centre efficiency. Data and performance objectives are clearly provided on the website. To improve its score Vodafone needs to set a target for increasing renewable energy use.

Infrastructure Siting Policy (0 out of 5)

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

Product Efficiency & Supply Chain Footprint (2 out of 5)

Vodafone has started an eco-rating scheme for mobile handsets but this is currently only available in the Netherlands, later than in other markets. Vodafone has also started working with suppliers to reduce the carbon footprint of its supply chain but both programmes need to be extended to achieve a higher score.

POLITICAL ADVOCACY 13/35

Political Speech (3 out of 10)

Vodafone receives 3 points for signing the Guadalajara Declaration prior to COP16 in 2010. Significant further advocacy leadership is needed to achieve the call to action by companies in this document.

Political Policy (10 out of 15)

Vodafone repeatedly supported the proposed 30% emissions reductions target in the EU by 2020, providing an important counterweight to efforts by industry association BusinessEurope and others who are focused on holding back further government efforts to reduce pollution and transition to an EU powered by renewable sources of energy.

Repetition Bonus (0 out of 10)

No applicable example of repetitive policy advocacy.

SUMMARY 33/100

The global IT services and consulting company Wipro fell slightly from its strong premier in Version 4 of the Leaderboard, this time landing in the middle of the pack. It remains, however, above the other Indian brands TCS and HCL, which appear in Version 5 for the first time. Wipro was one of few companies whose advocacy leadership improved in the past year. However, evidence of its solutions leadership fell significantly from the last version. Given its substantial renewable energy mix for its own operations, Wipro is well positioned to push policymakers and the sector to rapidly drive greater supply of clean energy for the broader economy in India.

IT CLIMATE SOLUTIONS 5/40

Current Savings Calculations (2 out of 10)

Wipro's solutions case studies provided for Version 5 were of significantly lower quality than for Version 4, and based on energy efficiency improvements for the IT sector, are not enabling reductions outside the sector.

Public Metrics (0 out of 10)

No points are awarded, because the metrics provided were for measuring the Greening of IT, rather than to show measurement of IT solutions savings in other sectors.

Investment (2 out of 10)

Wipro provided some additional contextual data on its clean energy investments, demonstrating a large and expanding staff base to develop and support its clean energy services.

Future Savings Goal (1 out of 10)

Wipro has previously identified a future savings goal for its solutions offerings; however, the company did not provide updated details for this goal. Comparatively, other brands have put forward much more ambitious goals and stronger evidence of progress toward their achievement.

IT ENERGY IMPACT 17/25

Absolute Emissions Reduction Target (4 out of 5)

Wipro currently has dual targets governing its emissions reduction goals: an intensity-based reduction target based on metric tons per employee, and has set a absolute 10% reduction target for scope 1 and 2 emissions, and a tonnage-based target exceeding 63 metric tons for scopes 1, 2 and 3.

Mitigation Strategies (9 out of 10)

Wipro sets the bar for its mitigation plan by providing a transparent and detailed breakdown of its strategy for reaching its target, and with 50% of its reduction target addressed through renewable energy installation or purchase. However, offsets are also part of the mitigation plan, though currently limited to 10% of total carbon footprint.

Infrastructure Siting Policy (0 out of 5)

Wipro does not yet have a policy governing its data centre siting or procurement, as evidenced by its recent announcement to build its first US data centre in coal-heavy Virginia.

Product Efficiency & Supply Chain Footprint (4 out of 5)

Wipro is in the early stages of measuring the supply chain footprint of its products, and does not yet report its greenhouse gas (GHG) emissions of any parts of its supply chain. The company has made steady improvements in the efficiency of its computer product line to reduce end user emissions, with 100% of units exceeding current Energy Star standards.

POLITICAL ADVOCACY 11/35

Political Speech (3 out of 10)

Wipro receives 3 points for signing onto the Guadalajara Declaration prior to COP16 in 2010. Further leadership is needed to achieve the call to action by companies in this document.

Political Policy (8 out of 15)

Wipro has a clear and specific position in terms of national renewable energy policy. In a direct letter to the Indian Prime Minister, Wipro Chairman Azim Premji advocated for clarity in India's flag-ship Solar Energy Programme (Jawaharlal Nehru National Solar Mission (JNNSM), one of eight missions outlined under India's National Action Plan on Climate Change). With 35% of the population struggling for quality access to electricity, Wipro advocated for rural electrification through decentralised solar applications and bringing the rural electrification scheme under the country's Renewable Energy Ministry. Further to this, Wipro also advocates for clear long-term policy on incentive and benefits under JNNSM to drive investment in solar energy and the institution of a single nodal agency to facilitate transparency in approval and confidence in solar energy programmes.

Repetition Bonus (0 out of 15)

No applicable example of repetitive policy advocacy.

GREENPEACE

Greenpeace is an independent global campaigning organisation that acts to change attitudes and behaviour, to protect and conserve the environment and to promote peace.

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