CDP 2009 Information Request

Respondent: Cisco Systems, Inc.

General introduction

Cisco Systems, Inc. (NASDAQ: CSCO) is the worldwide leader in networking for the Internet. Today, networks are an essential part of business, education, government and home communications, and Cisco Internet Protocol-based (IP) networking solutions are the foundation of these networks.

Cisco hardware, software, and service offerings are used to create Internet solutions that allow individuals, companies, and countries to increase productivity, improve customer satisfaction and strengthen competitive advantage. The Cisco name has become synonymous with the Internet, as well as with the productivity improvements that Internet business solutions provide. At Cisco, our vision is to change the way people work, live, play and learn.

Cisco enables people to make powerful connections-whether in business, education, philanthropy, or creativity. Cisco hardware, software, and service offerings are used to create the Internet solutions that make networks possible-providing easy access to information anywhere, at any time.Cisco was founded in 1984 by a small group of computer scientists from Stanford University. Since the company's inception, Cisco engineers have been leaders in the development of Internet Protocol (IP)-based networking technologies. Today, with more than 67,647 employees worldwide, this tradition of innovation continues with industry-leading products and solutions in the company's core development areas of routing and switching, as well as in advanced technologies such as:
* Application Networking
* Data Center
* Digital Media
* IPICS
* Mobility
* Security
* Storage Networking
* TelePresence
* Unified Communications
* Video
* Virtualization
For more information, visit http://newsroom.cisco.com/dlls/corpinfo/corporate_overview.html

Risk and Opportunities

1. Regulatory Risks: (CDP6 1(a)(i))

1.1 Is your company exposed to regulatory risks related to climate change?

We consider our company to be exposed to regulatory risks.

Answer:

Regulations have been issued or are in process that could impact Cisco's operations, products, and supply chain. Climate-related regulatory developments affecting Cisco fall into three general categories:
(1) Operations. Efficiency measures that impact new or existing buildings, changes that impact assets that are direct emitters (e.g., vehicle fleet, diesel generators), and changes that would impact the price of energy (fuels and electricity).
(2) Supply chain. Similar impact as those that could affect Cisco's own operations but for direct and indirect procurement, potentially increasing costs.
(3) Products. Efficiency measures affecting the design and/or operation of network products.

Cisco sees a limited risk from increasing operational costs caused by stricter building codes or increasing electricity, fuel and transportation costs. Per the response to Question 16, Cisco is not a heavy emitter of greenhouse gases and is therefore less sensitive to changes in regulations than carbon-intensive industries.

Emerging product energy efficiency regulations impacting Cisco products may increase compliance costs or affect time to market. To address this latter concern, Cisco actively engages with regulatory or standards bodies, either directly or as part of industry groups to assure regulations are clear and effective. Cisco's engineering, manufacturing and facilities organizations are also actively involved in these efforts. Cisco generally believes these regulatory and standards activities bring clarity and consistency to the global marketplace, creating predictable requirements and a level playing field, and reduces risk. Regulatory engagement has increased compared to a year ago, but in general uncertainty has decreased as such efforts mature.

Regulatory activity has been underway for several years and is expected to require ongoing monitoring and engagement consistent with the time frame of global climate change discussions (Copenhagen/COP15). Kyoto expires in 2012. "Near-term" country-level commitments often reference 2020, so regulatory activity and risk assessment is expected to be an ongoing activity.

Currently, Cisco's engagements around the world generally address similar topics, with organizations including:
o ATIS (North America)
o Australia and Korea MEPS
o ETSI (Europe)
o EU/Codes of Conduct (Europe)
o EU/EUP (Europe)
o IEEE (worldwide)
o ITU (Worldwide)
o METI (Japan)
o US Department of Energy and Environmental Protection Agency (DOE and EPA) ENERGY STAR (U.S.)
o WRI/WBCSD GHG Protocol

and potentially affecting:
o electronics for domestic/home use, including audio/visual equipment
o external adapters
o wireless access points
o set top boxes
o external power supplies
o data centers
o service provider and enterprise routers and switches
o SMB and SOHO routers and switches
o servers
o displays and monitors

Potential impacts from regulatory action are also assessed jointly by Cisco's compliance, regulatory affairs, government affairs, corporate affairs, engineering, manufacturing and facilities organizations as part of the EcoBoard/Green Task Force-sponsored Product Environmental Compliance Steering Committee. Many of the functional organizations have staff located in the affected jurisdictions and are tasked with tracking and monitoring regional and local regulatory developments. Existing corporate risk assessment processes, described in the response to Question 2.1, also consider the regulatory environment.

Material risks are disclosed as part of Cisco's quarterly financial reporting process. To date, climate change has not been identified as a material risk. Please refer to Cisco's investor website for additional information:
http://investor.cisco.com/

Also see the related response to Question 28.1 concerning public policy engagement.

Further information

2. Physical Risks: (CDP6 1(a)(ii))

2.1 Is your company exposed to physical risks from climate change?

We consider our company to be exposed to physical risks.

Answer:

The physical risks to Cisco from climate change are believed to be relatively small and bounded by many existing, faster developing events (e.g., acts of nature, political instability). Cisco maintains design, sales and services offices in more than 90 countries, which provides some measure of protection against significant business interruption due to climate change. Our global customer base and geographic dispersion provides a measure of diversity against specific physical risks. Predicted changes in climate are described in the various sections of the Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report, Climate Change 2007 Synthesis Report, Contribution of Working Groups I, II and III to the Fourth Assessment Report, such as Figure 2.5 (http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf).

Potential impacts can also be considered through the perspective of the product life cycle.

o Product design: Potential impact during design would involve Cisco's real estate portfolio or its workforce. There is no indication that climate change and any accompanying changes in weather patterns--changes in rainfall, storms,

flooding or sea level--would render Cisco's facilities unavailable or obsolete or require relocation of our workforce. There may be impact on the cost of energy, water and other commodities, but is not thought to be significant. Any impact can be ameliorated through conservation, recycling and other alternatives already being implemented or under consideration.

o Product manufacturing: Physical risk to Cisco's subcontract manufacturing base and logistics and component suppliers is bounded by existing continuity of business planning scenarios and sound supply management practices. Climate change is a relatively slow phenomena and is enveloped by existing multi-sourcing strategies and normal and expected transitions in the supply base for other business reasons. As for Cisco facilities, the cost of energy, water and other resources may change, but is not thought to be material and can be offset through efficiency and other measures.

Secondary impacts, those which could impact local workforces and therefore Cisco or its supplier--such as on health and habitability as well as water restrictions and higher living costs--bear monitoring. There is less margin for absorbing adverse impacts of climate change in emerging economies compared to developed countries.

o Product sale and use: Changes in or more severe weather associated with climate change should not adversely impact the demand for networking equipment. In fact, the demand for additional and more timely weather information throughout the world should increase the need for universal and emergency network services and equipment.

The degree of physical risk from climate change, as assessed by Cisco's risk management function, has not changed significantly in the twelve months since Cisco's CDP6 submittal. The release in 2007 of reports, such as from the IPCC (see priori reference) and the UNDP (http://hdr.undp.org/en/media/hdr_20072008_en_complete.pdf) still provide excellent perspective on the timescale and potential primary and secondary impacts of climate change on the ecosystem and society. Cisco continues to monitor the factors and considerations covered in these reports.

Existing corporate risk assessment processes include physical risk considerations. Cisco's annual risk assessment process is conducted by Cisco's internal audit organization (part of Finance). The enterprise risk management function is also performed within this organization. The risk assessment process establishes the internal audit plan for the coming period and is presented to and approved by the CFO and the Audit Committee of the Board of Directors. Key executives and process owners across Cisco, including sustainable business practices/corporate social responsibility and manufacturing, are interviewed to identify the top potential risks for the company based on likelihood, severity, and present ability to manage the potential risk. Potential impacts from physical risks are also assessed by Cisco's engineering, manufacturing and facilities organizations as part of their normal business processes.

Material risks are disclosed as part of Cisco's quarterly financial reporting process. To date, climate change has not been identified as a material risk. Please refer to Cisco's investor website for additional information: http://investor.cisco.com/.

Further information

3. Other Risks: (CDP6 1(a)(iii))

3.1 Is your company exposed to other risks as a result of climate change?

We consider our company to be exposed to other risks.

Answer:

Market and brand risks are also considered and have not been covered in the regulatory (1.1) or physical (2.1) questions/answers. There is strong customer and stakeholder interest in climate change. Customer interest in climate change has been strong in Europe and the United Kingdom for more than three years and is steadily increasing in other areas of the world as organizations of all types become educated about the issue and their own risks and opportunities. Leadership in this regard is still centered in Europe and the UK.

The volume of corporate social responsibility (CSR), environmental ("green") and climate change inquiries from all stakeholders is increasing, with climate change as the leading or bellwether inquiry. Customers are including these topics with increasing frequency in formal request for quotations and informational discussions. Conversely, surveys of IT management show economic drivers still predominate in purchasing decisions, but this is offset by strong interactions with customer thought leaders. It is prudent to plan initiatives based on the assumption that upward trends in customer, consumer and stakeholder interest will continue for years. Such trends will be augmented by regulatory or legislative developments in the U.S. under the new administration, as well as by the global climate change negotiations (Copenhagen).

Other stakeholders, including NGOs, SRIs, industry and financial analysts, investors, and Cisco's employees have also increased their attention to climate change, "green" and CSR issues. Fostering leadership in all these areas is important to maintain reputation and brand value. Although CDP7 focuses on climate change, consistent performance is important across all CSR topics to maintain or improve access to markets and brand. Climate change also impacts other CSR activities and Millennium Development Goals (MDGs) that address poverty, health and nutrition, in general increasing the risks and vulnerabilities for those less able to respond or adapt.

These general risks have not increased since CDP6, but we continue to better understand the impacts of climate change on Cisco and the global ecosystem.

Material risks are disclosed as part of Cisco's quarterly financial reporting process. To date, climate change has not been identified as a material risk. Please refer to Cisco's investor website for additional information: http://investor.cisco.com/.

Further information

4. Regulatory Opportunities: (CDP6 1(b)(i))

4.1 Do regulatory requirements on climate change present opportunities for your company?

Regulatory requirements present opportunities for my company.

Answer:

Climate-related policy and regulatory developments can impose efficiency and reporting requirements on customer operations, including network equipment. Responding to these requirements can require improvements in network equipment efficiency, equipment configuration and utilization, changes to customer operations that affect Scope 1, 2 and 3 emissions, as well as new reporting requirements for energy consumption and greenhouse gas emissions. Each of these areas provide Cisco opportunities for the sale of existing and newly developed products and services.

These opportunities will continue to increase as regulatory activity continues through 2012 and looks forward to 2020, and as consensus forms how the network can be used as a platform for global-scale solutions to improve efficiency and reduce GHG emissions. Effectively addressing climate change, given the projected level of reductions suggested in IPCC reports, suggests the need for tremendous investment in transportation, power generation and building infrastructure. Changes to or reinvention of such infrastructure is necessarily an activity measured in decades.

Understanding of opportunities have increased since the last reporting period as the various regulatory tracks have matured, and as a consensus has formed on the positive contribution to be made by the ICT industry to address climate change. (See the SMART 2020 report, to which Cisco contributed, at http://www.smart2020.org/). Opportunities coincide with the regions or countries with significant regulatory activity (see response to Question 1.1). It is likely that more opportunity will be realized as regulations are finalized in major markets and as the post-Kyoto negotiations are completed.

In general, Cisco generally believes regulatory and standards activities bring clarity and consistency to the global marketplace, creating predictable requirements and a level playing field, and reduces risk. Regulations that place limits or restrictions on GHG emissions will increase the demand for Cisco products as outlined in our response to Question 14.1, excerpted at the end of the response to this question.

Opportunities are identified through the standard customer and stakeholder listening processes that inform product development. Financial impact concerning these and other opportunities is disclosed as part of Cisco's quarterly financial reporting process. Please refer to Cisco's investor website for additional information: http://investor.cisco.com/

***** Inserted excerpt on products from Q14.1 response *****

Cisco offers many products that can improve energy efficiency or reduce energy usage are provided below. Links are provided for additional information:

-- Remote Collaboration Tools: TelePresence, MeetingPlace, WebEx, Unified Communications,Business Video products. Addresses the transportation sector by reducing the need to travel.
http://www.cisco.com/en/US/netsol/ns870/index.html, http://www.cisco.com/en/US/netsol/ns813/networking_solutions_solution_segment_home.html
-- Data Center Virtualization: improves utilization of data center equipment, reducing emissions from the manufacture of unnecessary equipment and facilities as well as from idle or standby operation. Addresses the building sector.
http://www.cisco.com/en/US/netsol/ns872/index.html,http://www.cisco.com/en/US/netsol/ns836/index.html
-- EnergyWise: This new energy management architecture helps improve operational efficiency for any powered device, from Power over Ethernet (PoE) devices to IP-enabled building controllers. Addresses the building sector.
http://www.cisco.com/en/US/solutions/ns726/intro_content_energywise.html

-- Connected Urban Development: Technology development partnership between Cisco and cities around the world to create urban communications infrastructures that demonstrate how network connectivity can reduce carbon emissions in urban environments. Addresses transportation and building sectors in an urban "vertical". http://www.connectedurbandevelopment.org/

-- Smart+Connected Communities: An umbrella term to apply intelligent network technologies to improve productivity and the utilization of various forms of energy in buildings and transportation in industry verticals.
http://newsroom.cisco.com/dlls/2009/hd_050609.html at bottom
http://wwwin.cisco.com/industries/intelurban/thoughtleadership.shtml

-- SmartGrid: Software and hardware tools that enable generators to route power more efficiently and allows two-way, real-time information exchange with customers along with real-time demand side management, important for implementing dispersed renewable generation and the addition of hybrid/electric vehicles to the utility grid. Smart Grid applies Internet routing and switching technologies to electric utility transmission and distribution. Addresses power generation sector.
http://www.cisco.com/web/strategy/energy/smart_grid_solutions.html
http://newsroom.cisco.com/dlls/2009/prod_042009d.html?
CAMPAIGN=NewsAtCiscoGreen2008&COUNTRY_SITE=us&CREATIVE=Miami+Proposes+to+Lead+the+Nation+in+Energy+Efficiency+with+$200+million+Smart+Grid+Initiative&POSITION=LINK&REFERRING_SITE=NewsatCiscoPressKit

5. Physical Opportunities: (CDP6 1(b)(ii))

5.1 Do physical changes resulting from climate change present opportunities for your company?

Physical changes present opportunities for my company.

Answer:

Improved information gathering and dissemination over wireline and wireless networks will play a large role in mitigating the effects of climate change. If weather becomes more extreme, then early warning of storms and flooding, improved emergency response, and increased security and video surveillance may be needed to reduce impacts to health, property and agriculture. Video conferencing as part of emergency response for crisis management could increase. In general, severe weather increases demand for network products. Damage to infrastructure, including schools and health providers, requires reconstruction and increases demand for information and communications technologies and products.

Improved utility power management, such as by Cisco's smart grid products, will make utility grids more resilient, will permit more decentralized power generation, and offer improved monitoring of component loss or failure, increasingly possible in severe weather.

If water is more scarce, than improved management systems will be needed. Current projections for climate change show significant impact in many countries with emerging economies that currently have less network infrastructure. Therefore, the need for network equipment and services is tied not only to economic development, but the demands of climate change.

Opportunities from physical risks have increased in the last year as Cisco develops products to respond to demand for innovative solutions and adaptation to climate change. Opportunities are identified through the standard customer and stakeholder listening processes that inform product development. Financial information concerning these and other opportunities is disclosed as part of Cisco's quarterly financial reporting process. Please refer to Cisco's investor website for additional information: http://investor.cisco.com/

Further information

6. Other Opportunities: (CDP6 1(b)(iii))

6.1 Does climate change present other opportunities for your company?

Climate change presents other opportunities for my company.

Answer:

Many Cisco customers are responding to new energy and environmental policies by looking for ways to reduce their carbon footprint, accelerating investment and creating market opportunities for Cisco. Cisco believes that network technologies can help reduce GHG emissions.

Cisco references two main sources when reviewing the sources of energy-related GHG emissions:
1. U.S. Energy Information Agency (EIA) , Emissions of Greenhouse Gases Report, Table 6 (U.S., 2007, preliminary)
http://www.eia.doe.gov/oiaf/1605/ggrpt/carbon.html
2. International Energy Agency (IEA) , Energy Use in the New Millennium ,Figure 2.3 and p. 24 description (IEA14, 2004)
http://www.iea.org/textbase/nppdf/free/2007/millennium.pdf
Both sets of data indicate that about 75% of energy-related emissions come from transportation (personal and goods) and buildings (commercial and residential). These emissions represent a form of "total available market" for Cisco products that substitute for travel, make travel more energy efficient, or improve monitoring and increase energy efficiency in buildings. GHG emissions from power generation, which is a different slice of this same data is yet another opportunity for Cisco products like EnergyWise and SmartGrid.

These opportunities are distributed worldwide and impact developed countries as the retrofit existing infrastructure as well as developing countries as the build out infrastructure using the latest technologies. Because of the complexity of altering basic transportation, building and power infrastructure, these opportunities are available now and likely for decades.

A brief overview of some of the Cisco products that address the opportunity to improve efficiency and reduce GHG emissions is below, excerpted from the response to Question 14.1. Links are provided if additional information is required:

-- Remote Collaboration Tools: TelePresence, MeetingPlace, WebEx, Unified Communications, Business Video products. Addresses the transportation sector by reducing the need to travel.
http://www.cisco.com/en/US/netsol/ns870/index.html, http://www.cisco.com/en/US/netsol/ns813/networking_solutions_solution_segment_home.html
-- Data Center Virtualization: improves utilization of data center equipment, reducing emissions from the manufacture of unnecessary equipment and facilities as well as from idle or standby operation. Addresses the building sector.
http://www.cisco.com/en/US/netsol/ns872/index.html,http://www.cisco.com/en/US/netsol/ns836/index.html
-- EnergyWise: This new energy management architecture helps improve operational efficiency for any powered device, from Power over Ethernet (PoE) devices to IP-enabled building controllers. Addresses the building sector.
http://www.cisco.com/en/US/solutions/ns726/intro_content_energywise.html

-- Connected Urban Development: Technology development partnership between Cisco and cities around the world to create urban communications infrastructures that demonstrate how network connectivity can reduce carbon emissions in urban environments. Addresses transportation and building sectors in an urban "vertical". http://www.connectedurbandevelopment.org/

Smart+Connected Communities: An umbrella term to apply intelligent network technologies to improve productivity and the utilization of various forms of energy in buildings and transportation in industry verticals.
http://newsroom.cisco.com/dlls/2009/hd_050609.html at bottom
http://wwwin.cisco.com/industries/intelurban/thoughtleadership.shtml

SmartGrid: Software and hardware tools that enable generators to route power more efficiently and allows two-way, real-time information exchange with customers along with real-time demand side management. Applies Internet routing and switching technologies to electric utility transmission and distribution. Addresses power generation sector.
http://www.cisco.com/web/strategy/energy/smart_grid_solutions.html
http://newsroom.cisco.com/dlls/2009/prod_042009d.html?
CAMPAIGN=NewsAtCiscoGreen2008&COUNTRY_SITE=us&CREATIVE=Miami+Proposes+to+Lead+the+Nation+in+Energy+Efficiency+with+$200+million+Smart+Grid+Initiative&POSITION=LINK&REFERRING_SITE=NewsatCiscoPressKit

Many of these product benefit our own operations, which provides a template and case study for use by our customers.

Opportunities in general have increased in the last year as Cisco develops products to respond to demand for innovative solutions and adaptation to climate change. Opportunities are identified through the standard customer and stakeholder listening processes that inform product development. Financial information concerning these and other opportunities is disclosed as part of Cisco's quarterly financial reporting process. Please refer to Cisco's investor website for additional information: http://investor.cisco.com/

Further information

Greenhouse Gas (GHG) Emissions Accounting, Emissions Intensity, Energy and Trading

7. Reporting Year (CDP6 Q2(a)(ii))

Information about how to respond to this section may be found in "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)" developed by the World Resources Institute and the World Business Council for Sustainable Development ("the GHG Protocol"), see http://www.ghgprotocol.org/.
ISO 14064-1 is compatible with the GHG Protocol as are a number of regional/national programme protocols. For more information see http://www.ghgprotocol.org/ and use the guidance button above.

Please provide CDP with responses to questions 7, 8, 9, 10.1, 10.2, 11.1 and 11.2 for the three years prior to the current reporting year if you have not done so before or if this is the first time you have answered a CDP information request. Please work backwards from the current reporting year, so that you enter data for your oldest reporting period last.

Questions 10.1, 10.2, 11.1, and 11.2 are on subsequent webpages and the dates that you give in answer to question 7 will be carried forwards to automatically populate those webpages.

7.1. Please state the start date and end date of the year for which you are reporting GHG emissions.

Start date: 27 July 2007
End date: 26 July 2008
Financial accounting year: 27 July 2007

8. Reporting Boundary: (CDP6 Q2(a)(i))

8.1. Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.

Companies over which operational control is exercised.

8.2. Please state whether any parts of your business or sources of GHG emissions are excluded from your reporting boundary.

o The operational control approach best describes how Cisco's response has been prepared. Cisco defines operational control as either (1) global facilities occupied by Cisco employees or (2) assets over which Cisco influences its operating policies. All part of Cisco are accounted for in our GHG emissions accounting.

Cisco has used this same operational control approach for the last three submittals (CDP4, 5 and 6).

o No parts of the business or sources of GHG emissions are excluded from Cisco's reporting boundary. In practical terms, Cisco's organization is relatively straightforward as is the GHG accounting (although collecting data from facilities in more than 90 countries is challenging). All acquisitions, listed at http://www.cisco.com/web/about/doing_business/corporate_development/acquisitions/ac_year/about_cisco_acquisition_years_list.html, are consolidated in our GHG accounting. Because acquisition historical records are difficult to obtain, we typically don't obtain energy and other GHG information for the period before the acquisition closes, but rather introduce our standard, corporate-wide gathering and tracking process to each acquired facility shortly after the acquisition closes. For trending, we typically treat the addition of the acquisitions as organic growth, which is conservative for year-over-year trending (i.e., overstates growth, understates reduction).

Cisco has used this reporting boundary and treatment of acquisitions data for the last three submittals (CDP4, 5 and 6).

9. Methodology: (CDP6 Q2(a)(iii))

9.1. Please describe the process used by your company to calculate Scope 1 and Scope 2 GHG emissions including the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 GHG emissions.

Please provide your answer in the text box. In addition to this description, if relevant, select a methodology from the list of published methodologies. This will aid automated analysis of the data.

Cisco's energy and greenhouse gas inventory follows guidance provided by Greenhouse Gas Protocol (GHG Protocol) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). Additional detail is taken from the US EPA's Climate Leaders Greenhouse Gas Protocol Design Principles Guidance document. Reporting includes the six Kyoto Protocol gases, although not all are applicable to Cisco's operations:
-- Carbon dioxide (CO2)
-- Methane (CH4)
-- Nitrous oxide (N20)
-- Hydrofluorocarbons (HFCs) family of gases
-- Perfluorocarbons (PFCs) family of gases
-- Sulphur hexafluoride (SF6)

Cisco collects data from utility and service bills and enters the data into an enterprise Environmental Data Tool (EDT), from which analysis is completed and reported. Cisco makes its EDT, which runs on the standard x86 platform, available upon request at no charge. For more information, contact John Hailey at hailey@cisco.com. A direct link to download materials is at https://tools.cisco.com/cws/livelink?func=ll&objId=4719425&objAction=browse&sort=name.

Cisco joined EPA Climate Leaders in April 2007. We incorporate any additional detail from the EPA Climate Leaders guidance to the our prior methodology based on the GHG Protocol Corporate Accounting standard.

Cisco first reported FY2008 emissions in our FY2008 Corporate Citizenship Report, which can be found at:
http://www.cisco.com/web/about/ac227/csr2008/the-environment/sustainable-company-operations/mitigating-climate-change/index.html. Scope 1, 2 and 3 emissions have been updated since publishing this FY2008 Citizenship Report. This update is due to improvements in data collection and analysis as part of Cisco's continuous improvement program for energy and GHG reporting.

In particular, Scope 2 emissions were updated to include the most recent US electricity emission factors published in eGRID2007 Version 1.1. More detail on any other updates is provided with discussions of methodology in later questions.

Cisco also used fiscal year reporting for the last three submittals (CDP4, 5 and 6).

Select methodologies:

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
EPA Climate Leaders Design Guide. ISO 14064-1 is based on the GH Protocol Corporate Accounting Standard.

Please also provide:

9.2 Details of any assumptions made.

Answer: Most assumptions are addressed in the GHG Protocol and EPA Climate Leaders guidance documents. For Scope 1 and 2 reporting, Cisco utilizes the standard methodology and emissions factors from the US EPA's Climate Leaders GHG Protocol listed at http://www.epa.gov/stateply/resources/design-principles.html.

Cisco has very complete real estate records of all Cisco offices and facilities. However, we still aren't able to obtain utility bills for 100% of our facilities, particularly small, satellite, leased office space. In these instances, we estimate the energy consumption and GHG emissions for these facilities by assuming energy consumption based on square footage and housed employee count for similar facilities.

Similar assumptions were made for the last three submittals (CDP4, 5 and 6). We began publicly reporting estimates of energy consumption and other GHG emissions for facilities with missing data in CDP6. Previously, the completeness of data collection wasn't judged high enough to support extrapolation to 100% of the real estate portfolio.

9.3 The names of and links to any calculation tools used.

-- Direct Emissions From Stationary Combustion
http://www.epa.gov/stateply/resources/cross-sector.html
-- Indirect Emissions From Purchases/Sales of Electricity and Steam
http://www.epa.gov/stateply/resources/cross-sector.html
-- Direct Emissions From Mobile Combustion Sources
http://www.epa.gov/stateply/resources/cross-sector.html
-- Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment
http://www.epa.gov/stateply/resources/cross-sector.html
-- Indirect CO2 emissions from purchased electricity Version 3.0
http://www.ghgprotocol.org/calculation-tools/all-tools
-- Cisco's Environmental Data Tool (EDT), discussed in the response to 9.1.
-- CO2 emissions from business travel
http://www.ghgprotocol.org/calculation-tools/all-tools

Select calculation tools:

GHG Protocol - CO2 emissions from business travel 1.2 August 2005
GHG Protocol - Indirect CO2 emissions from purchased electricity 3.0 March 2008
-- Direct Emissions From Stationary Combustion http://www.epa.gov/stateply/resources/cross-sector.html -- Indirect Emissions From Purchases/Sales of Electricity and Steam http://www.epa.gov/stateply/resources/cross-sector.html -- Direct Emissions From Mobile Combustion Sources http://www.epa.gov/stateply/resources/cross-sector.html -- Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment http://www.epa.gov/stateply/resources/cross-sector.html -- Cisco's Environmental Data Tool (EDT), discussed in the response to 9.1.

9.4 The global warming potentials you have applied and their origin.

Cisco uses global warming potential (GWP) factors for carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O) and common HFCs published in Table 6-3: Gas Atmospheric Lifetime GWP, p.34, of the US EPA Design Principles Guidance document listed at http://www.epa.gov/stateply/documents/resources/design_princ_ch6.pdf. The original source is the IPCC Second Assessment Report (SAR).

9.5 The emission factors you have applied and their origin.

Answer:

Scope 1 Emission Factors
-- Direct Emissions From Stationary Combustion, http://www.epa.gov/stateply/resources/cross-sector.html
-- Direct Emissions From Mobile Combustion Sources, http://www.epa.gov/stateply/resources/cross-sector.html
-- Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment, http://www.epa.gov/stateply/resources/cross-sector.html

Scope 2 Emission Factors
-- For US operations (CO2, CH4 and N2O), Cisco uses subregional emission factors, eGRID2007 Version 1.1 Year 2005 GHG Annual Output Emission Rates, http://cfpub.epa.gov/egridweb/ghg.cfm
-- For international operations (CO2 only), Cisco uses country average emission factors, Indirect CO2 emissions from purchased electricity Version 3.0, http://www.ghgprotocol.org/calculation-tools/all-tools. Original source: International Energy Agency Data Services. 2007. "CO2 Emissions from Fuel Combustion (2007 Edition)"
-- For international operations (CH4 and N2O), Cisco uses country average emission factors, International Electricity Emission Factors by Country, 1999-2002, http://www.eia.doe.gov/oiaf/1605/excel/electricity_factors_99-02country.xls
-- For India (CO2 only), Government of India, Ministry of Power. 2008 Report. http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm.

Scope 3 Emissions Factors (business air travel)
-- CO2 emissions from business travel
http://www.ghgprotocol.org/calculation-tools/all-tools

Further information

10. Scope 1 Direct GHG Emissions: (CDP6 Q2(b)(i))

Instructions for question 10 and question 11 (following page)

When providing answers to questions 10 and 11, please do not deduct offset credits, Renewable Energy Certificates etc, or net off any estimated avoided emissions from the export of renewable energy, carbon sequestration (including enhanced oil recovery) or from the use of goods and services. Opportunities to provide details of activities that reduce or avoid emissions are provided elsewhere in the information request.

Carbon dioxide emissions from biologically sequestered carbon e.g. carbon dioxide from burning biomass/biofuels should be reported separately from emissions Scopes 1, 2 and 3. If relevant, please report these emissions in question 15. However, please do include any nitrous oxide or methane emissions from biomass/biofuel combustion in your emissions under the three scopes.

Please answer the following questions using Table 1.

Please provide:
10.1. Total gross global Scope 1 GHG emissions in metric tonnes of CO_2-e

Please break down your total gross global Scope 1 emissions by:
10.2. Country or region

Please provide CDP with responses to questions 10.1 and 10.2 for the three years prior to the current reporting year if you have not done so before or if this is the first time you have answered a CDP information request. Please work backwards from the current reporting year, so that you enter data for your oldest reporting period last. Table 1 (below) and table 5 (Q11.1 and 11.2) will be automatically populated with the dates that you give in answer to 7.1.

Electric utilities should report emissions by country/region using the table in question EU3.

Table 1 - Please use whole numbers only. Use the "Other" option in the drop down menu to enter the name of a region.

Reporting year Q7.1 Start date	27/07/2007
Reporting year Q7.1 End date	26/07/2008
10.1 Total gross global Scope 1 GHG emissions in metric tonnes CO_2-e	51620
10.2 Gross Scope 1 emissions in metric tonnes CO_2-e by country or region	
Rest of World	27810
USA	23809

Your answer to question 10.1 will be automatically carried forward to tables 2 and 3 below if you add a country or region in answer to 10.2 or press "Save" at the end of the page.

Please tick the box if your total gross global Scope 1 figure (Q10.1) includes emissions that you have transferred outside your reporting boundary (as given in answer to 8.1). Please report these transfers under 13.5.

Where it will facilitate a better understanding of your business, please also break down your total global Scope 1 emissions by:

10.3. Business division
and/or
10.4. Facility

10.3. Business division (only data for the current reporting year requested)

Table 2 - Please use whole numbers only.

Business Divisions - Enter names below	Scope 1 Metric tonnes CO2-e
Total gross global Scope 1 GHG emissions in metric tonnes CO_2-e - answer to question Q10.1	51620

10.4. Facility (only data for the current reporting year requested)

Table 3 - Please use whole numbers only.

Facilities - Enter names below	Scope 1 Metric tonnes CO2-e
Total gross global Scope 1 GHG emissions in metric tonnes CO_2-e - answer to question Q10.1	51620

10.5. Please break down your total global Scope 1 GHG emissions in metric tonnes of the gas and metric tonnes of CO_2-e by GHG type. (Only data for the current reporting year requested.)

Table 4 - Please use whole numbers only.

Scope 1 GHG Type	Unit	Quantity
CO_2	Metric tonnes	51522
CH4	Metric tonnes	3
CH4	Metric tonnes CO_2-e	70
N2O	Metric tonnes	0

N2O	**Metric tonnes CO$_2$-e**	28
HFCs	**Metric tonnes**	
HFCs	**Metric tonnes CO$_2$-e**	
PFCs	**Metric tonnes**	
PFCs	**Metric tonnes CO$_2$-e**	
SF6	**Metric tonnes**	
SF6	**Metric tonnes CO$_2$-e**	

10.6. If you have not provided any information about Scope 1 emissions in response to the questions above, please explain your reasons and describe any plans you have for collecting Scope 1 GHG emissions information in future.
Cisco has accounted for 100% of its Scope 1 GHG emissions in its responses to the above questions.

Further information
Revised historical figures are provided below for trending/reference:

10.1. Total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.
Answer:
FY2008: 51,620 metric tonnes of CO2-e
FY2007: 56,374 metric tonnes of CO2-e (revised historical)

FY2006: Cisco has not updated previously reported FY2006 emissions. Cisco's Scope 1 and 2 data collection for FY2006 and prior years typically covered only 50% of Cisco's total real estate operations and recovering missing data is difficult. For FY2007 and later years, Cisco has consistently collected data for over 90% of its real estate operations, permitting reliable extrapolation to 100% of emissions.

The GHG emissions listed above do not include reductions from offsets and/or other activities, such as sequestration and transfers.

10.2. Country or region
Answer:
FY2008 U.S.: 23,809.2 metric tonnes of CO2-e
FY2008 Rest of World: 27,810.4 metric tonnes of CO2-e

FY2007 U.S.: 29,258.7 metric tonnes of CO2-e
FY2007 Rest of World: 27,115.4 metric tonnes of CO2-e

Cisco has complete GHG emissions and energy data and analysis by country available upon request. Country-specific data provides competitive insight into Cisco's country-specific activities, and is not publicly disclosed.

10.3. Business division
Answer:
Cisco does not break emissions down by business division (i.e., product group) because most product groups share buildings. Such a breakdown is not required to facilitate reduction efforts as these are pursued company-wide by cross-functional boards and task forces.

and/or

10.4. Facility
Answer:
Cisco has complete GHG emissions and energy data and analysis by building, but does not believe it cost effective to report at this level. In addition, building-specific data provides competitive insight into Cisco's product activities, and is not publicly disclosed.

10.5. Please break down your total global Scope 1 GHG emissions in metric tonnes of the gas and metric tonnes of CO2-e by GHG type.
Answer:
CO2 = 51,521.8 tCO2 = 51,522 metric tonnes of CO2-e
CH4 = 3.3 tCH4 = 70 metric tonnes of CO2-e
N2O = 0.09 tN2O = 28 metric tonnes of CO2-e

11. Scope 2 Indirect GHG Emissions: (CDP6 Q2(b)(i))

Important note about emission factors where zero or low carbon electricity is purchased:

The emissions factor you should use for calculating Scope 2 emissions depends upon whether the electricity you purchase is counted in calculating the grid average emissions factor or not – see below. You can find this out from your supplier.

Electricity that IS counted in calculating the grid average emissions factor:
Where electricity is sourced from the grid and that electricity has been counted in calculating the grid average emissions factor, Scope 2 emissions must be calculated using the grid average emissions factor, even if your company purchases electricity under a zero or low carbon electricity tariff.

Electricity that is NOT counted in calculating the grid average emissions factor:
Where zero or low carbon electricity is sourced from the grid or otherwise transmitted to the company and that electricity is not counted in calculating the grid average, the emissions factor specific to that method of generation can be used, provided that any certificates quantifying GHG-related environmental benefits claimed for the electricity are not sold or passed on separately from the electricity purchased.

Click here to see the instructions from the previous page on answering question 11.

Please answer the following questions using Table 5.

Please provide:
11.1. Total gross global Scope 2 GHG emissions in metric tonnes of CO$_2$-e.
Please break down your total gross global Scope 2 emissions by:

11.2. Country or region

Please provide CDP with responses to questions 11.1 and 11.2 for the three years prior to the current reporting year if you have not done so before or if this is the first time you have answered a CDP information request. Please work backwards from the current reporting year, so that you enter data for your oldest reporting period last. Table 5 will be automatically populated with the dates that you gave in answer to 7.1.

Table 5 - Please use whole numbers only. Use the "Other" option in the drop down menu to enter the name of a region.

Reporting year Q7.1 Start date	27/07/2007
Reporting year Q7.1 End date	26/07/2008
11.1 Total gross global Scope 2 GHG emissions in metric tonnes CO$_2$-e	546762
11.2 Gross Scope 2 emissions in metric tonnes CO$_2$-e by country or region	
USA	371036
Rest of World	175727

Your answer to 11.1 will be automatically carried forward to tables 6 and 7 below if you add a country or region in answer to 11.2 or press "Save" at the end of the page.

Where it will facilitate a better understanding of your business, please also break down your total global Scope 2 emissions by:

11.3. Business division
and/or
11.4. Facility

11.3. Business division (only data for the current reporting year requested)

Table 6 - Please use whole numbers only.

Business Divisions - Enter names below	Scope 2 Metric tonnes CO2-e
Total gross global Scope 2 GHG emissions in metric tonnes CO$_2$-e - answer to question Q11.1	546762

11.4. Facility (only data for the current reporting year requested)

Table 7 - Please use whole numbers only.

Facilities - Enter names below	Scope 2 Metric tonnes CO2-e
Total gross global Scope 2 GHG emissions in metric tonnes CO$_2$-e - answer to question Q11.1	546762

11.5. If you have not provided any information about Scope 2 emissions in response to the questions above, please explain your reasons and describe any plans you have for collecting Scope 2 GHG emissions information in future.

Cisco has accounted for 100% of its Scope 2 GHG emissions in its responses to the above questions

Further information

Updated historical information provided below for accurate trending:

11.1. Total gross global Scope 2 GHG emissions in metric tonnes of CO2-e
Answer:

FY2008: 546,762 metric tonnes CO2-e
FY2007: 474,874 metric tonnes CO2-e (updated historical)

Cisco has not updated previously reported FY2006 emissions. Cisco's Scope 1 and 2 data collection for FY2006 and prior years typically covered only 50% of Cisco's total real estate operations and recovering missing data is difficult. For FY2007 and later years, Cisco has consistently collected data for over 90% of its real estate operations, permitting reliable extrapolation to 100% of emissions.

-- Reported numbers for our FY2008 and FY2007 for CDP7 are different from those reported in November 2008 for our 2008 corporate Social Responsibility (CSR) report (http://www.cisco.com/web/about/ac227/csr2008/the-environment/sustainable-compan... This difference is due primarily due to updating the US emission factors used to calculate Cisco's Scope 2 emissions from eGRID2006 to eGRID2007 Version 1.1.

Please break down your total gross global Scope 2 emissions by:

11.2. Country or region
Answer:
FY2008 U.S.: 371,036 metric tonnes of CO2-e
FY2008 Rest of World: 175,727 metric tonnes of CO2-e

FY2007 U.S.: 335,330.5 metric tonnes of CO2-e
FY2007 Rest of World: 139,543.5 metric tonnes of CO2-e

Cisco has complete GHG emissions and energy data and analysis by country available upon request. Country-specific data provides competitive insight into Cisco's country-specific activities, and is not publicly disclosed.

Where it will facilitate a better understanding of your business, please also break down your total global Scope 2 emissions by:

11.3. Business division
Answer: Cisco does not break emissions down by business division (i.e., product group) because most product groups share buildings. Such a breakdown is not required to facilitate reduction efforts as these are pursued company-wide by cross-functional boards and task forces. (same response for 10.3)

and/or

11.4. Facility
Answer: Cisco has complete GHG emissions and energy data and analysis by building, but does not believe it cost effective to report at this level. In addition, building-specific data provides competitive insight into Cisco's product activities, and is not publicly disclosed. (same response for 10.4)

12. Contractual Arrangements Supporting Particular Types of Electricity Generation: (CDP6 Q2(b)(i)- Guidance)

12.1. If you consider that the grid average factor used to report Scope 2 emissions in question 11 does not reflect the contractual arrangements you have with electricity suppliers, (for example, because you purchase electricity using a zero or low carbon electricity tariff), you may calculate and report a contractual Scope 2 figure in response to this question, showing the origin of the alternative emission factor and information about the tariff.
Answer:

Total Contractual Scope 2 Emissions = 307,413 metric tonnes CO2e
U.S. Contractual Scope 2 Emissions = 131,686.6 metric tonnes CO2e
Rest of World Contractual Scope 2 Emissions = 175,726.6 metric tonnes CO2e

The contractual "Rest of World Scope 2 Emissions" listed above is the same as listed in Question 11.1. This is because Cisco currently only uses country specific grid average emission factors when calculating Scope 2 emissions from purchased electricity outside of the US.

For the U.S., Cisco uses eGRID2007 Version 1.1 emission factors when calculating emissions from its electricity purchases as well as reductions through its purchase of green power and Renewable Energy Certificates (RECs). When calculating emissions reductions from green power and RECs, Cisco uses the Annual non-baseload output subregional emission rates published in eGRID2007 Version 1.1 (http://cfpub.epa.gov/egridweb/ghg.cfm) based on the location of the renewable energy system.

12.2. If you retire any certificates (eg: Renewable Energy Certificates) associated with zero or low carbon electricity, please provide details.
Answer:

In FY2008, Cisco purchased approximately 285,374,513 kWh of Green-e Certified Renewable Energy Certificates (RECs) and green power from various providers in the US. 100% of this green power was produced from renewable energy systems located in the US. Through these purchases, Cisco has reduced its Scope 2 Emissions by approximately 239,349 tCO2e in FY2008. In addition, Cisco purchases approximately 76 million kWh of green power through various European green tariff programs; however, is currently following the guidelines from the United Kingdom's Department for Environmental and Rural Affairs (http://www.defra.gov.uk/news/2008/080616a.htm) to use a grid average rate when calculating emissions associated with this power.

Further information

13. Scope 3 Other Indirect GHG Emissions: (CDP6 Q2(c))

For each of the following categories, please:
- Describe the main sources of emissions,
- Report emissions in metric tonnes of CO_2-e,
- state the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

Notes about question 13

When providing answers to question 13, please do not deduct offset credits, Renewable Energy Certificates etc, or net off any estimated avoided emissions from the export of renewable energy, carbon sequestration (including enhanced oil recovery) or from the use of goods and services. Opportunities to provide details of activities that reduce or avoid emissions are provided elsewhere in the information request.

Carbon dioxide emissions from biologically sequestered carbon e.g. carbon dioxide from burning biomass/biofuels should be reported separately from emissions Scopes 1, 2 and 3. If relevant, please report these emissions in question 15. However, please do include any nitrous oxide or methane emissions from biomass/biofuel combustion in your emissions under the three scopes.

13.1 Employee business travel
Describe the main sources of emissions

business air travel (airplane, jet fuel combustion)

Emissions in metric tonnes CO_2-e.

Using the latest air travel records and methodology, emissions for the last three year are:
FY2008: 197,951 metric tonnes CO2-e (current)
FY2007: 206,109 metric tonnes CO2-e (updated historical)
FY2006: 190,937 metric tonnes CO2-e (updated historical, includes 3,349 mtCO2-e of SA pre-acquisition emissions)

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

Answer:

METHODOLOGY, ASSUMPTIONS AND EMISSONS FACTORS/GLOBAL WARMING POTENTIALS
-- The general methodology is to use individual flight segment information from the travel provider that services Cisco's online, internal Cisco Travel Network (CTN). As of the end of FY2008, air travel information is reported from 82 travel-provider locations covering flights to/from 190 countries, regions or territories. Cisco has physical offices in more than 90 countries.

-- Utilizing flight distance for each segment, CO2 emissions are calculated using the UK DEFRA-based emissions factors. No additional forcing factor is included (such as the often cited 2.7 FF).

-- Treatment of acquisitions: As committed last year, Scientific Atlanta (SA), a division of Cisco acquired in Feb 2006, is now included in Cisco's air travel emissions reporting. In FY2008, SA air travel emissions were a bit more than 3% of the total. Because of its size, SA retained its own travel service for several years after acquisition close. As part of emissions reporting continuous improvement, we obtained air travel records back to the date of acquisition close and include these records in our reporting. All other acquisitions adopt use of CTN shortly after acquisition close and are included in our reported totals.

-- Air travel definitions and emissions factors are from the GHG Protocol "CO2 emissions from business travel, v1.2, Aug 2005" listed at http://www.ghgprotocol.org/calculation-tools/all-tools. The emissions factors listed therein for short and long haul flights are originally from UK DEFRA. Cisco maintains complete records of all flight segments and can update emissions calculations should the generally accepted standard emissions factors or methodology be updated.

-- As a secondary check, Cisco uses a more granular air-travel emissions model, developed by TRX, to benchmark air-travel emissions calculated with the GHG Protocol method. The TRX model, described at http://carbon.trx.com/TRX_CO2_Emissions_Documentation_v1.2.pdf, includes:
o City pair great circle distances;
o Representative equipment-specific fuel burn rates;
o Carrier-specific and equipment-specific capacity and configuration effects;
o Carrier-specific passenger load factors; and
o Equipment class and carrier-specific cargo to passenger payload ratios.
Perhaps because of Cisco's size and geographic dispersion, the relatively simple GHG Protocol methodology gives similar results and, in the interests of using a widely accepted standard, is therefore used for reporting.

-- Reported numbers for our FY2008 for CDP7 are different from those reported in November 2008 for our 2008 corporate Social Responsibility (CSR) report (http://www.cisco.com/web/about/ac227/csr2008/the-environment/sustainable-company-operations/mitigating-climate-change/index.html). This difference is due to three reasons. First, we found we were double counting certain employee travel. This double counting occurred when an employee changed a non-refundable ticket. The originally booked (but cancelled) flight and the new flight were both being counted. This duplication has now been eliminated after substantial analysis of multi-leg journeys as well as specific review by the EPA Climate Leaders auditor. Second, unused air travel tickets may be turned in up to a year after scheduled travel. Therefore, emissions reporting necessarily based on fairly recent travel data may not yet include transactions documenting the returned ticket. Third, travel provider master data is made up of input received from multiple travel systems. The aggregation process has some leakage, with some data delayed in the system or otherwise revised. Therefore, we typically rerun flight segment reports so all data is at least 6-9 months old to allow time for missing or incorrect data to be fully aggregated. The double counting is the largest error (~5-15% conservatively high). Returned tickets can cause travel emissions to be overestimated 2-4% of the total. Missing or incorrect data is relatively infrequent and small. Because of these updates, previously reported travel generally is reduced in successive reporting cycles.

Using the latest air travel records and methodology, emissions for the last three year are:
FY2008: 197,951 metric tonnes CO2-e (current)
FY2007: 206,109 metric tonnes CO2-e (updated historical)
FY2006: 190,937 metric tonnes CO2-e (updated historical, includes 3,349 mtCO2-e of SA pre-acquisition emissions)

Due to changes in how travel data records were obtained and their roll-off to tape archive, we haven't updated previously reported FY2005 GHG emissions. Cisco's GHG emissions reduction goals use either FY2006 (CGI) or CY2007 (EPA CL) as baselines, both of which are covered by the FY2006-FY2008 time frame reported above.

-- Cisco invests substantial resources in high-quality travel reporting because many of our products--such as MeetingPlace, WebEx and TelePresence--can help businesses greatly reduce travel and accompanying GHG emissions. Therefore, it is important for Cisco to have state-of-the-art travel reporting to accurately measure the positive impact of these collaborative technologies. (Cisco revenue and headcount between FY2006 and FY2008 grew about 40%, while emissions from air travel grew less than 4%.)

CALCULATION TOOLS AND DATABASES
-- Cisco uses a custom report written for AmEx's AXIS@work application to gather air travel records for a custom analysis written using an standard, SQL-based database program.
-- As previously mentioned, we use TRX's more granular emissions model as a check against the flight segment assumptions provided by the GHG Protocol.
-- We also use a custom report written against Cisco's financial system to estimate the percent of air travel covered by the AmEx data. Since employees must complete expense reports for travel in order to be reimbursed, it is highly likely expense account data contains essentially all business air travel. By comparing various accounts for air travel, we can determine the completeness of the AmEx air travel records. Air travel emissions are adjusted based on this degree of completeness to estimate 100% of Cisco's GHG emissions from business air travel.

OTHER BUSINESS TRAVEL EMISSIONS
Cisco currently does not report emissions from rental cars or hotels because (1) these emissions are much smaller than the associated air flights, (2) emissions from rental cars is likely offset by employees not driving their personal cars for commuting or personal use, and (3) emissions from hotels is likely offset by reductions in emissions at the employee's home.

In addition, trends in business air travel (and GHG emissions) are assumed to be similar to trending for emissions from hotel and rental car use accompanying most air travel. Therefore, Cisco Clinton Global Initiative (CGI) and U.S. EPA Climate Leaders (EPA CL) commitments to reduce GHG emissions from business air travel will also drive down these [unmeasurable] emissions from hotels and rental cars by a similar percentage. [Imprecisely] calculating emissions diverts resources from implementing new business processes that result in actual emissions reductions. In light of these considerations, gathering specific information on rental car make and miles travelled as well as hotel, facility-level GHG emissions--neither of which is readily available--is not seen as cost effective. In the absence of such specific information, reported reductions would likely need to be based on air-travel data, defeating the purpose of reporting hotel and rental car emissions in the first place.

13.2. External distribution/logistics
Describe the main sources of emissions

Transportation of sold products. Other transport-related emissions described in methodology.

Emissions in metric tonnes CO_2-e.

metric tonnes not calculated pending issue of WRI/WBCSD Scope 3 Accounting Standard

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

Answer: In general, efforts to reduce packaging (weight) and ullage (unfilled, free volume) also reduce emissions but an accurate and repeatable method for measuring or calculating the actual impact on GHG emissions is still under study. Manufacturing site selection is a balance between being close to the customer (for shorter lead time) and being close to the component supply base (to reduce inventory and cycle time), but impact on GHG emissions is mixed. We are addressing this issue through two representatives participating on the WRI/WBCSD Scope 3 Accounting Standard development effort addressing this and other Scope 3 sources of GHG emissions.

All transport-related activities are under discussion in the Scope 3 Accounting Standard technical working groups, including those listed in the following categories outlined on p. 29 of the issued Greenhouse Gas Protocol document, "A Corporate Accounting and Reporting Standard" (http://www.ghgprotocol.org/files/ghg-protocol-revised.pdf):

-- Transportation of purchased materials or goods: Considered part of supply chain emissions
-- Transportation of purchased fuels: Cisco-purchased fuels are small and emissions from the transportation of these fuels is very small.
-- Employee business travel: addressed in the response to Question 13.1.
-- Employees commuting to and from work: Cisco does not control where employees live or how employees choose to commute, if required, to a Cisco office. In addition, policy and privacy issues make collecting such data worldwide problematic. However, Cisco does recognize that emissions from employee commuting can be significant, and therefore has programs in place to (1) facilitate teleworking/telecommuting, (2) encourage and subsidize alternative transportation (mass transit and bicycle), (3) provide employees an opportunity to learn about their personal carbon footprint (environmental awareness campaigns), and (4) encourage employees to share personal "green" best practices via Cisco-supported online discussion forums. Cisco also provides VPN and dedicated home router services to permit working from home.
-- Transportation of sold products: this question
-- Transportation of waste: See response to Question 13.3. Emissions from transportation of waste from operations is estimated to be very small.

13.3 Use/disposal of company's products and services

For auto manufacture and auto component companies – please refer to the additional questions for these sectors before completing question 13.3.
Describe the main sources of emissions

Cisco network products require electricity to operate. Services use energy. End-of-life processes require energy for transport and recycling/disposal.

Emissions in metric tonnes CO_2-e.

See response under methodology.

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

Answer: As for distribution/logistics per the response to 13.2, Cisco is addressing GHG emissions from use and disposal of Cisco's products and services through two representatives participating on the WRI/WBCSD Scope 3 Accounting Standard development effort addressing this and other Scope 3 sources of GHG emissions.

PRODUCT SERVICES
Emissions from services--Cisco onsite and online technical support--are included in Scope 1, 2 and Scope 3 (business air travel).

PRODUCT USE
Summary: Regulations and industry standards to measure and maximize network product efficiency are under development. How products are configured and operated as well as characterizing the carbon content of the electricity used to power the products pose significant challenges to reporting GHG emissions from use of sold products.

Calculating emissions from product use requires standards that address product configuration, measurement protocol, and operating duty cycle. An example of a standard addressing these needs is the ENERGY STAR standard for personal computers (v 5.0, http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/computer/Version5.0_Computer_Spec.pdf).

Cisco has been an integral part of efforts to develop network equipment power measurement standards. In the last year, there have been a couple ad hoc or proprietary efforts that have confused the marketplace; such measurements are better addressed with a properly scoped, industry standard. Cisco has partnered with the Alliance for Telecommunications Industry Solutions (ATIS, http://www.atis.org/0050/meetings.asp) to develop an industry methodology for measurement and reporting for router and ethernet switch products. The final standard, ATIS-0600015.XX.2009, is essentially complete and is undergoing final approval and issue. (The ATIS standard does not address small office, CPE and personal networking products. Other standards in development, such as part of EuP and ENERGY STAR programs, address these other products. Cisco also participates in these efforts and will incorporate such measurements into its reporting.)

The ATIS standard provides a set of definitions, requirements and guidelines for calculating the Telecommunications Energy Efficiency Ratio (TEER) and energy efficiency of router and ethernet switch products. The ATIS TEER standard addresses equipment categorized as enterprise, service provider and branch office routers and ethernet switch products. Cisco is currently implementing this test standard for products in the scope of the ATIS standard and will test other products as standards are established. Currently, product power measurements, such as found in Cisco data sheets or online calculators, are intended to support facilities design, and don't represent the smaller power consumption actually seen in typical operation.

As addressed in the response to Question 1.1, Cisco is involved with measurement standards for other types of equipment we sell as shown below:

Organizations
o ATIS (North America)
o Australia and Korea MEPS
o ETSI (Europe)
o EU/Codes of Conduct (Europe)
o EU/EUP (Europe)
o IEEE (worldwide)
o ITU (Worldwide)
o METI (Japan)
o US Department of Energy and Environmental Protection Agency (DOE and EPA) ENERGY STAR (U.S.)
o WRI/WBCSD GHG Protocol

Products
o electronics for domestic/home use, including audio/visual equipment
o external adapters
o wireless access points
o set top boxes
o external power supplies
o data centers
o service provider and enterprise routers and switches
o SMB and SOHO routers and switches
o servers
o displays and monitors

PRODUCT DISPOSAL
Cisco is addressing GHG emissions from product disposal through its end-of-life processes. Emissions from product transport and processing are relatively small. The biggest leverage to reduce GHG emissions at EOL is to maximize original product life; maximize product reuse through return, repair and redeployment; and maximize recycled commodity streams. Through modular design and "no forklift" upgrade design criteria, Cisco products have an extended product life. Cisco has an extensive service network and offers customers return services for all Cisco products. Product are first screen for redeployment--either internally at Cisco, as a service spare or as a product donation to a community group or NGO partner. Finally, products that have reached the end of their useful life are sent to world-class recyclers, who similarly harvest individual components for reuse. Commodities are separated and each waste stream recycled. Less than 1% of product received by the recyclers goes to landfill. All of this reuse and recycling requires much less energy than the product of new product from virgin raw materials.

13.4 Company supply chain
Describe the main sources of emissions

Answer: Scope 1 and 2 emissions of direct [upstream] suppliers. "Direct" means associated with sold product and services. "Upstream" means suppliers that receive POs.

Emissions in metric tonnes CO_2-e.

See response under methodology.

State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

Answer: As for distribution/logistics (Question 13.2) and use/disposal of company products and services (Question 13.3), Cisco is addressing GHG emissions in the [upstream] supply chain through two representatives participating on the WRI/WBCSD Scope 3 Accounting Standard development effort addressing this and other Scope 3 sources of GHG emissions. Methodology for calculating emissions or otherwise reporting activities related to supply chain emissions has not been finalized.

It is not yet clear from the WRI/WBCSD activity that a closed-form solution to supply chain emissions will be developed. Within this limitation, Cisco agrees that supply chain emissions should be addressed by each company since the decision to outsource is the responsibility of the purchasing company.

To address the problems associated with calculating a useful, repeatable number, yet responsibly address the global problem of climate change, Cisco is studying a potential approach to supply chain emissions that can be generalized for all suppliers--both direct and indirect--and even extended to partners and other business contacts throughout the product lifecycle.
-- The overriding objective of the global fight against climate change is to reduce GHG emissions.
-- To reduce GHG emissions, an accurate, verified GHG emissions inventory is needed. The scope of this inventory should include Scope 1 (direct) and 2 (indirect) emissions, plus other indirect emissions directly linked to employee activities (primarily, business air travel). Employee commuting may also be included since companies exercise control over possible alternatives, such as work from home or work from satellite offices.

Therefore, a company's impact on "supply chain" GHG emissions may be measured by the following progression of activities:

1a. The company completing its own publicly available (i.e., transparent), emissions inventory (as outlined above)
1b. Third-party verification of this emissions inventory (per ISO guidelines)

2a. The percentage of suppliers that themselves complete a publicly available, GHG emissions inventory (as outlined above)
2b. Third-party verification of this emissions inventory (per ISO guidelines)
3. The percentage of suppliers that have adopted an absolute emissions reduction goal

4. The percentage of suppliers that adopt a policy of tracking their own suppliers emissions activities (per Items 2a/b and 3.

Ideally, if
(1) Company A completes a verified emissions inventory and commits to an absolute reduction goal, and
(2) Company A's suppliers also complete a verified emissions inventory and commit to an absolute reduction goal, and
(3) Company A's suppliers reviews their suppliers' reporting and reduction goal status,
then Company A has fully extended its internal policies to its supply base, effectively removing any "advantage" or loss of transparency from subcontracting production or other work.

Cisco is studying this approach as a simpler, more cost-efficient, more credible, and therefore more effective strategy to address climate change for this category of Scope 3 emissions. Preliminary assessment against CDP's database indicates that more than half of Cisco's component spend is from suppliers that already report to CDP and almost 2/3 of Cisco contract manufacturing spend is with suppliers that already report to CDP. Cisco will further develop this approach in the remainder of CY2009 and provide an update in our 2009 CSR report to be issued in early November.

For indirect procurement, Cisco has targeted several high visibility activities for supplier engagement, although methodologies for putting "a number" on relevant emissions has not been established.
o Bon Appétit Management Company, which provides onsite restaurant services to many U.S.-based Cisco cafes has introduced a "low-carbon diet" to lessen the emissions impact from consumed food.
http://innovation.edf.org/page.cfm?tagID=39280
o Cisco has introduced a comprehensive green leasing program for its operations in the U.S. and Canada. We've developed a new standard lease and related forms, along with the training for our real estate staff to use them.
http://innovation.edf.org/page.cfm?tagid=40224
o Cisco has established internal guidelines for green events as managed by our corporate events organization as well as for supplier RFQs.
We continue to develop and pilot processes to engage our indirect suppliers on the issues of sustainability, including climate change. As mentioned in the response to Question 25.3, Cisco addresses CSR topics and sustainability holistically and includes environmental issues--including climate change--in these discussions.

13.5 Other
If you are reporting emissions that do not fall into the categories above, please categorise them into transferred emissions and non-transferred emissions (please see guidance for an explanation of these terms).

Please report transfers in the first three input fields and non-transfers in the last three input fields.

Transfers
Describe the main sources of emissions

Answer: Per the Guidance for Question 10.1, Cisco does not transfer emissions outside the reporting boundary described in the response to Question 8.1. Current activity on Scope 3 emissions is addressed in the responses to Questions 13.1 to 13.4. The latest draft of the Scope 3 Accounting and Reporting Standard, no other category of Scope 3 emissions is applicable to Cisco at this time.

Transfers
Report emissions in metric tonnes of CO_2-e.

not applicable

Transfers
State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

not applicable

Non-transfers
Describe the main sources of emissions

not applicable

Non-transfers
Report emissions in metric tonnes of CO_2-e.

not applicable

Non-transfers
State the methodology, assumptions, calculation tools, databases, emission factors (including sources) and global warming potentials (including sources) you have used for calculating emissions.

not applicable

13.6 If you have not provided information about one or more of the categories of Scope 3 GHG emissions in response to the questions above, please explain your reasons and describe any plans you have for collecting Scope 3 indirect emissions information in future.

Answer:
An overview of Scope 3 emissions is provided below:

Stakeholder inquiries and feedback indicate that GHG emissions from employee business air travel, direct supply chain, and the use of Cisco products are of most interest. Cisco believe these three categories are likely the largest contributors to Scope 3 emissions and is therefore focusing resources on reporting and/or developing standards to characterize and report these emissions categories.

An evaluation of potential Scope 3 emissions, following the categories outlined on p. 29 of The Greenhouse Gas Protocol "A Corporate Accounting and Reporting Standard" (http://www.ghgprotocol.org/files/ghg-protocol-revised.pdf) is below.

• Extraction and production of purchased materials and fuels: Supply chain emissions for direct procurement are under investigation. Cisco is working through the EICC (http://www.eicc.info/) and the in-progress, WRI/WBCD Scope 3 Accounting Standard effort to develop efficient methods for accounting for supply chain emissions. There are significant hurdles to overcome

The focus of stakeholder attention is currently supply chain emissions for direct procurement. Cisco recognizes reporting emissions from indirect procurement would involve a very large number of local suppliers throughout the world.

• Transport-related activities
-- Transportation of purchased materials or goods: Considered part of supply chain emissions covered in the previous category
-- Transportation of purchased fuels: Purchased fuels are small and emissions from the transportation of these fuels is very small.
-- Employee business travel: Cisco includes employee business air travel in Scope 3 emissions. Emissions from rental cars and hotels are currently not reported, but would be significantly smaller than from business air travel.
-- Employees commuting to and from work: Cisco does not control where employees live or how employees choose to commute, if required, to a Cisco office. In addition, policy and privacy issues make collecting such data worldwide problematic. However, Cisco does recognize that emissions from employee commuting can be significant, and therefore has programs in place to (1) facilitate teleworking/telecommuting (see response to 1.b.iv), (2) encourage and subsidize alternative transportation (mass transit and bicycle), (3) provide employees an opportunity to learn about their personal carbon footprint (environmental awareness campaigns), and (4) encourage employees to share personal "green" best practices via Cisco-supported online discussion forums.
-- Transportation of sold products: Considered part of supply chain emissions.
-- Transportation of waste: Emissions from transportation of waste from operations is estimated to be very small.

• Electricity-related activities not included in scope 2: Not applicable or very small

• Leased assets, franchises, and outsourced activities: Not applicable or very small

• Use of sold products and services: Regulations and industry standards to measure and maximize network product efficiency are under development. How products are configured and operated as well as characterizing the carbon content of the electricity used to power the products pose significant challenges to reporting GHG emissions from use of sold products.

• Waste disposal: Cisco has programs in place to maximize reuse and recycling of waste from both operations and products, minimizing material sent to landfill. Current efforts are to reduce supply chain emissions through the reuse

and recycling of products and other materials.

Further information

14. Emissions Avoided Through Use Of Goods And Services (New for CDP 2009)

14.1. If your goods and/or services enable GHG emissions to be avoided by a third party, please provide details including the estimated avoided emissions, the anticipated timescale over which the emissions are avoided and the methodology, assumptions, emission factors (including sources), and global warming potentials (including sources) used for your estimations.

Answer:
EMISSIONS REDUCTIONS
Cisco has developed and is implementing a number of technologies that improve efficiency and reduce GHG emissions. As an example, before Cisco had widely implemented remote collaboration technologies, trends in air travel and revenue moved together. A 20% increase in revenue was accompanied by a similar increase in air travel (and emissions). As indicated in the response to Question 13.1, Cisco revenue and headcount between FY2006 and FY2008 grew about 40%, but because of implementation of remote collaboration technologies, emissions from air travel grew less than 4%. In FY2009, emissions from air travel will drop below FY2006 levels. Monthly data for CY2008 shows a continuing decrease in travel as management practices and business processes continued to be adapted to the remote collaboration technologies.

The application of technology does not result in an immediate drop in emissions. Company culture, management practices and business processes must all evolve to take advantage of the technology. However, this evolution create additional benefits not seen with physical travel, including:
-- Decisions are made faster
-- Cross-cultural communications are improved
-- Stakeholder and customer feedback from around the world is better disseminated within the company
-- Scarce resources from around the world are shared more effectively among more projects
-- Products move to market faster
These advantages are in addition to reducing carbon emissions, reducing travel costs, improving employee productivity, and providing better work-life balance.

The advantages of remote collaboration technologies are available to all Cisco customers. As the installed base of Cisco products increases, we will monitor customer emissions reporting for similar trending.

DISCUSSION
At the following URL (http://tinyurl.com/knbrhx) are two charts that illustrate the opportunity for information and communication technologies (ICT) to contribute to the reduction in GHG emissions. In the first chart, two sources of similar data are shown, the U.S. Energy Information Agency and the International Energy Agency. Both sources agree that about 75% of GHG emissions from energy production are from transportation and buildings. Cisco technologies and products are focused on addressing these sectors and this very substantial portion of overall, energy-related GHG emissions. The second chart, taken from the GeSI/TCG SMART 2020 report, breaks out potential savings from the implementation of ICT. (Cisco is a GeSI board member and was a significant contributor to the report.) Note that the meaning and boundaries of some terms between the first and second chart aren't the same, so the two charts can only be generally compared.

Cisco offers many products that can improve energy efficiency or reduce energy usage are provided below. Links are provided for additional information:

-- Remote Collaboration Tools: TelePresence, MeetingPlace, WebEx, Unified Communications,Business Video products. Addresses the transportation sector by reducing the need to travel.
http://www.cisco.com/en/US/netsol/ns870/index.html, http://www.cisco.com/en/US/netsol/ns813/networking_solutions_solution_segment_home.html
-- Data Center Virtualization: improves utilization of data center equipment, reducing emissions from the manufacture of unnecessary equipment and facilities as well as from idle or standby operation. Addresses the building sector.
http://www.cisco.com/en/US/netsol/ns872/index.html,http://www.cisco.com/en/US/netsol/ns836/index.html
-- EnergyWise: This new energy management architecture helps improve operational efficiency for any powered device, from Power over Ethernet (PoE) devices to IP-enabled building controllers. Addresses the building sector.
http://www.cisco.com/en/US/solutions/ns726/intro_content_energywise.html

-- Connected Urban Development: Technology development partnership between Cisco and cities around the world to create urban communications infrastructures that demonstrate how network connectivity can reduce carbon emissions in urban environments. Addresses transportation and building sectors in an urban "vertical". http://www.connectedurbandevelopment.org/

-- Smart+Connected Communities: An umbrella term to apply intelligent network technologies to improve productivity and the utilization of various forms of energy in buildings and transportation in industry verticals.
http://newsroom.cisco.com/dlls/2009/hd_050609.html at bottom
http://wwwin.cisco.com/industries/intelurban/thoughtleadership.shtml

-- SmartGrid: Software and hardware tools that enable generators to route power more efficiently and allows two-way, real-time information exchange with customers along with real-time demand side management, important for implementing dispersed renewable generation and the addition of hybrid/electric vehicles to the utility grid. Smart Grid applies Internet routing and switching technologies to electric utility transmission and distribution. Addresses power generation sector.
http://www.cisco.com/web/strategy/energy/smart_grid_solutions.html
http://newsroom.cisco.com/dlls/2009/prod_042009d.html?
CAMPAIGN=NewsAtCiscoGreen2008&COUNTRY_SITE=us&CREATIVE=Miami+Proposes+to+Lead+the+Nation+in+Energy+Efficiency+with+$200+million+Smart+Grid+Initiative&POSITION=LINK&REFERRING_SITE=NewsatCiscoPressKit

To help customers estimate the benefits of some of these technologies, Cisco has developed several Green Business Value Calculators (http://tinyurl.com/n9m642) . The calculators cover Connected Building, Connected Workplace, Remote Collaboration (TelePresence, WebEx, MeetingPlace and Unified Communcations), and telecommuting, and estimate not only the environmental impact, but also the financial costs and benefits of the solutions. The GHG emissions impact of these models has been independently validated by a third party.

Further information

15. Carbon Dioxide Emissions from Biologically Sequestered Carbon: (New for CDP 2009)

An example would be carbon dioxide from burning biomass/biofuels.

15.1. Please provide the total global carbon dioxide emissions in metric tonnes CO_2 from biologically sequestered carbon.

Emissions in metric tonnes CO_2 - Please use whole numbers only

0

Further information
None/not applicable. Cisco does not burn biomass or biofuels or sequester carbon.

16. Emissions Intensity: (CDP6 Q3(b))

16.1. Please supply a financial emissions intensity measurement for the reporting year for your combined Scope 1 and 2 emissions.

Please describe the measurement.
GHG emissions per unit of revenue (net sales)

16.1.1. Give the units. For example, the units could be metric tonnes of CO_2-e per million Yen of turnover, metric tonnes of CO_2-e per US$ of profit, metric tonnes of CO_2-e per thousand Euros of turnover.

metric tonnes CO2-e per billion dollars of revenue

16.1.2. The resulting figure.
Use a decimal point if necessary. Please use a "." rather than a "," i.e. please write 15.6 rather than 15,6

15134

16.2. Please supply an activity related intensity measurement for the reporting year for your combined Scope 1 and 2 emissions.

Please describe the measurement.

not applicable; see response to 16.2.1

16.2.1. Give the units e.g. metric tonnes of CO_2-e per metric tonne of output or for service sector businesses per unit of service provided.

Answer: Cisco doesn't have a useful activity-related intensity measurement as is common in commodity markets, such as per ton or per gallon of product). Cisco products vary from small home routers (Linksys) to huge routers that sit in the backbone of Internet fiber (CRS-1), so we don't believe a measure based on "boxes" or even rated capacity has much value. (For example, in the latest ATIS standard described in our response to Question 13.3, efficiency is measured separate for routers and switches for different locations in the network.)

We use intensity measures such as emissions per employee housed or per floor area of building for operational benchmarking for internal use, but these are not seen as particularly useful for external reporting where absolute reduction in GHG emissions is required. Comparing emissions by revenue is a reasonable approach as it provides a measure of comparison between cost (emissions) and benefit (product revenue) to society.

16.2.2. The resulting figure.
Use a decimal point if necessary. Please use a "." rather than a "," i.e. please write 15.6 rather than 15,6

Further information

17. Emissions History: (CDP6 Q2(f))

17.1. Do emissions for the reporting year vary significantly compared to previous years?

Yes

Answer: Yes, there was a significant reduction in Cisco's total GHG emissions between FY2007 and FY2008.

Scope 2 emissions over the last 3 years utilizing the latest data and methodology are:
FY2008: 307,413 metric tonnes CO2-e (factoring in reductions from US RECs/Green power)
FY2007: 410,584 metric tonnes CO2-e (factoring in reductions from US RECs/Green power)
FY2006: Cisco has set a corporate reduction goal with a baseline of CY2007. As a result, it is Cisco's policy to not update inventories before this baseline. In addition, Cisco's Scope 1-2 data collection for FY2006 and prior years typically accounted for only 50% of Cisco's total real estate operations. For FY2007 and later years, Cisco has been consistently collecting data for well over 90% of its real estate operations. As a result, we believe it would be misleading to compare FY2006 and earlier inventories with FY2007 or later years

Scope 1 emissions did not change significantly year-over-year. Scope 1 emissions over the last 3 years utilizing the latest data and methodology are:
FY2008: 51,620 metric tonnes of CO2-e
FY2007: 56,374 metric tonnes of CO2-e

Cisco has not updated previously reported FY2006 emissions. Cisco's Scope 1 and 2 data collection for FY2006 and prior years typically covered only 50% of Cisco's total real estate operations and recovering missing data is difficult. For FY2007 and later years, Cisco has consistently collected data for over 90% of its real estate operations, permitting reliable extrapolation to 100% of emissions.

The 23 percent drop in Scope 1-2 emissions is primarily due to Cisco increasing its renewable energy purchases in the U.S., which went from approximately 77 million kWh in FY2007 to approximately 285 million kWh in FY2008. The 4 percent drop in Scope 3 emissions can be attributed to Cisco joining the Clinton Global Initiative (CGI) and setting a target to reduce its Scope 3 emissions from business air travel by 10 percent using a FY2006 baseline. There has been a steady increase in the use of remote collaboration technologies over the last three years that has contributed to a significant reduction in travel (although most of this "reduction" has been counteracting substantial growth in revenue and employee headcount).

If the answer to 17.1 is Yes:

17.1.1. Estimate the percentage by which emissions vary compared with the previous reporting year.

This box will accept numerical answers containing a decimal point. Please use "." not "," i.e. write 10.6, not 10,6.

17 %

Have the emissions increased or decreased?

Decreased

Further information

Answer:
-- FY2008 Scope 1-3 emissions: 17 percent lower than in FY2007 (used this as The Answer in CDP ORS)
-- FY2008 Scope 1-2 emissions: 23 percent lower than in FY2007
-- FY2008 Scope 3 emissions: 4 percent lower than in FY2007

18. External Verification/Assurance: (CDP6 Q2(d))

18.1. Has any of the information reported in response to questions 10 – 15 been externally verified/assured in whole or in part?

Yes, it has been externally verified/assured in whole or in part.(Please continue with questions 18.2 to 18.5)

It would aid automated analysis of responses if you could select responses from the tick boxes below. However, please use the text box provided if the tick boxes menu options are not appropriate.

18.2. State the scope/boundary of emissions included within the verification/assurance exercise.

Scope 1 Q10.1
Scope 2 Q11.1
Contractual Scope 2 Q12.1
Retirement of certificates Q12.2
Scope 3 employee business travel Q13.1
Avoided emissions Q14.1

Please use the text box below to describe the scope/boundary of emissions included within the verification/assurance exercise if the tick box menu options above are not applicable.

Confirmation: All reported Scope 1-3 emissions were included within the verification/assurance. Avoided emissions modeling discussed in 14.1 was also validated by third party.

18.3. State what level of assurance (eg: reasonable or limited) has been given.

Answer: All emissions calculations and data are reviewed in June of each year by a representative of the U.S. EPA as part of the EPA Climate Leaders Partnership (http://www.epa.gov/climateleaders/). EPA's Climate Leaders program reviews our emissions inventory data as well as our progress in reaching our GHG emissions goal. In addition, Cisco is has received technical assistance from EPA in determining organizational and operational boundaries,

identifying the most appropriate emission factors for Cisco's industry, and in documenting these decisions in an Inventory Management Plan (IMP) that will ensure consistency and transparency in the inventory over time. EPA performs desktop reviews of both the inventory data and IMP to ensure they meet EPA's quality standards, and also conducts a risk-based on-site IMP review to ensure that the Management Plan is being implemented at the facility level. These reviews provide assurance to EPA that a well-implemented GHG data collection and management system is in place to track progress towards Cisco's 25% absolute reduction goal and result in EPA recognition for corporate leadership on the climate change issue.

As an alternate method of checking, in early FY2008, Cisco contracted with an outside consulting firm to check and improve Cisco's GHG emissions reporting. The scope of both the EPA audit and the outside consulting firm includes emissions from January 2006 to date and includes the period covered by CDP7.

Cisco performs the business air travel calculation (Scope 3) in-house based on travel records provided by Cisco's travel reservation provider. The air-travel provider has indicated Cisco's analysis is "cutting edge". An air travel data aggregator is contracted to perform an alternative emissions calculation using a aggregator-developed methodology (http://carbon.trx.com/). The outside consulting firm and the EPA include reported Scope 3 emissions in the scope of their verification/assurance.

The processes used for determining GHG inventory were also externally audited by a third-party via Cisco's normal ISO 14001 certification processes in September 2008. The next, external audit cycle is currently scheduled for late 2009. Cisco's internal ISO 14001 team also audits the emissions reporting process, the latest internal audit occurring in April 2009.

18.4. Provide a copy of the verification/assurance statement.

Please attach a copy/copies.

18.5. Specify the standard against which the information has been verified/assured.

18.4 Answer: The EPA has issued a statement that Cisco has met their requirements for the program and base year reporting. All verification statements can be provided upon request. ISO 14001 certification is available at: http://www.cisco.com/web/about/ac50/ac208/ac243/ac246/cisco_approach_to_quality_certifications_home.html

18.5 Answer: The underlying standard or protocol used for auditing is the GHG Protocol first referenced in the response to Question 9.1. The EPA Climate Leaders Greenhouse Gas Inventory Protocol Design Principles, http://www.epa.gov/climateleaders/documents/resources/design-principles.pdf, is based on the GHG Protocol. ISO auditing is per the response to Question 18.3.

18.6. If none of the information provided in response to questions 10-15 has been verified in whole or in part, please state whether you have plans for GHG emissions accounting information to be externally verified/assured in future.

not applicable

Further information

19. Data Accuracy: (CDP6 Q2(e) – New wording for CDP 2009)

19.1. What are the main sources of uncertainty in your data gathering, handling and calculations e.g.: data gaps, assumptions, extrapolation, metering/measurement inaccuracies etc?

If you do not gather emissions data, please select emissions data is NOT gathered and proceed to question 20.

Emission data is gathered.

Answer:
Please see the responses to Question 9 (Scope 1 and 2 methodology) and 13.1 (Scope 3 business air travel methodology) for previously provided information on uncertainties in Cisco data gathering, handling and calculations.

In general, within the constraints of the analytical model provided in the GHG Protocol, Scope 3 emissions from business air travel are believed to be very accurate (error less than 1%) because data collection is based on travel provider database queries, and a good mechanism to check the completeness of data collected is available (Cisco financial accounts). Further discussion on uncertainties in Scope 1 and 2 reporting is provided below.

In the case of Scope 1 and 2 GHG emissions, reporting accuracy is primarily a function of completeness of data gathering. The completeness of Scope 1 and 2 emissions can be characterized by the percent of the real estate portfolio covered. Cisco's worldwide real estate portfolio is managed at the corporate level and is well understood. The completeness of coverage has improved and is expected to continue improving every year.

Cisco has over one hundred employees globally who are responsible collecting energy and refrigerant data for all Cisco owned and leased facilities. These same people are responsible for identifying, investigating and correcting any omissions and suspect data on a quarterly basis. Cisco also has an Inventory Management Plan (IMP) Manager who reviews the submitted data on a quarterly basis and performs an annual inventory review prior to finalizing and reporting the year's inventory. This review includes, for a representative sampling of Cisco's primary campuses, comparing actual records of data (e.g. utility bills and fuel invoices) with the data that has been entered into Cisco's Environmental Data Tool (EDT). This annual review includes checking emission factors and calculation methodologies to ensure they are still consistent with the latest available information.

Cisco uses generally accepted de minimis guideline of 3-5% to guide its identification and tracking of GHG emissions. That is, Cisco's goal is for reported emissions to represent more than 95% of Cisco's actual emissions. This approach is best applied for Scope 1 and 2 emissions. In FY2008, Cisco estimated approximately 3% of its GHG emissions and received actual emissions data for approximately 97% of its inventory.

19.2. How do these uncertainties affect the accuracy of the reported data in percentage terms or an estimated standard deviation?

Answer: Uncertainty in reported Scope 3 emissions is believed to be less than 1%. Most uncertainty in Scope 1 and 2 emissions occurs when Cisco must estimate data in the absence of actual reported numbers (typically for smaller, lease-held facilities). Cisco is able to collect actual data for at least 95% of its GHG emissions so uncertainty is less than 5% and error in year-to-year trending, important for guaging reduction efforts, is even less.

19.3. Does your company report GHG emissions under any mandatory or voluntary scheme (other than CDP) that requires an accuracy assessment?

Yes (Please answer the following questions - 19.3.1, 19.3.2).

19.3.1 Please provide the name of the scheme.

Other

Answer: US EPA Climate Leaders program - http://www.epa.gov/stateply/. Cisco reports GHG emissions to the US EPA Climate Leaders program. Working with the EPA Climate Leaders program, Cisco has developed a corporate GHG emissions Inventory Management Plan (IMP), which includes all institutional, managerial, and technical arrangements made for the collection of data, preparation of the inventory, and implementation of steps to manage the quality of the inventory. An IMP provides a systematic process for ensuring data quality, and identifies areas where investments will likely lead to the greatest improvement in overall inventory quality. The primary objective of an IMP is ensuring the credibility of a company's GHG inventory information. Cisco's IMP can be obtained upon request.

Cisco believes that EPA Climate Leaders (U.S.) and Carbon Disclosure Project (global) are the best forums for reporting GHG emissions and reduction activities.

19.3.2. Please provide the accuracy assessment for GHG emissions reported under that scheme for the last report delivered.

Answer: The accuracy of EPA Climate Leaders submittals is the same as for CDP7 described earlier in Question 19 (Scope 1/2: >95% coverage; Scope 3: >99% coverage. The same data collection processes, analysis, adjustments, and reporting is used for all Cisco emissions reporting.

There are three, major, annual reports for Cisco GHG emissions:
-- CDP (May, for prior fiscal year),
-- EPA Climate Leaders (early summer, for prior calendar year) and
-- our annual CSR report (November, for prior fiscal year).

We are continually refining our data collection and analysis as well as updating emissions factors as appropriate. Each successive report includes this latest methodology as well as the restatement of prior year results (to continue to permit meaningful year-to-year trending).

Further information

20. Energy and Fuel Requirements and Costs: (New for CDP 2009)

Please provide the following information for the reporting year:

Cost of purchased energy

20.1. The total cost of electricity, heat, steam and cooling purchased by your company.

135000000

Select currency

United States dollar

20.1.1. Please break down the costs by individual energy type.

Table 8 - The "Cost" column will not accept text. Please use whole numbers only.

Energy type	Cost	Currency
Electricity		
Heat		
Steam		
Cooling		

Cost of purchased fuel

20.2. The total cost of fuel purchased by your company for mobile and stationary combustion.

17000000

Select currency

United States dollar

20.2.1. Please breakdown the costs by individual fuel type.

Table 9 - The cost column will not accept text. Please use whole numbers only.

Mobile combustion fuels	Cost	Currency

Stationary combustion fuels	Cost	Currency

Energy and fuel inputs

The following questions are designed to establish your company's requirements for energy and fuel (inputs). Please note that MWh is our preferred unit for answers as this helps with comparability and analysis. Although it is usually associated with electricity, it can equally be used to represent the energy content of fuels (see CDP 2009 Reporting Guidance for further information on conversions to MWh).

Purchased energy input

20.3 Your company's total consumption of purchased energy in MWh.

Please use whole numbers only.

1193872 MWh

Purchased and self produced fuel input

20.4. Your company's total consumption in MWh of fuels for stationary combustion only. This includes purchased fuels, as well as biomass and self-produced fuels where relevant.

Please use whole numbers only.

172710 MWh

In answering this question and the one below, you will have used either Higher Heating Values (also known as Gross Calorific Values) or Lower Heating Values (also known as Net Calorific Values). Please state which you have used in calculating your answers.

Higher Heating Values (also known as Gross Calorific Values)

20.4.1. Please break down the total consumption of fuels reported in answer to question 20.4 by individual fuel type in MWh.

Table 10 - Please use whole numbers only

Stationary combustion fuels	MWh
Natural gas	153953
Distillate fuel oil No.2	17666
Propane	1091

Energy output

In this question we ask for information about the energy in MWh generated by your company from the fuel that it uses. Comparing the energy contained in the fuel before combustion (question 20.4) with the energy available for use after combustion will give an indication of the efficiency of your combustion processes, taking your industry sector into account.

20.5. What is the total amount of energy generated in MWh from the fuels reported in question 20.4?

Please use whole numbers only.

139237 MWh

20.6. What is the total amount in MWh of renewable energy, excluding biomass, that is self-generated by your company?

Please use whole numbers only.

0 MWh

Energy exports

This question is for companies that export energy that is surplus to their requirements. For example, a company may use electricity from a combined heat and power plant but export the heat to another organisation.

20.7. What percentage of the energy reported in response to question 20.5 is exported/sold by your company to the grid or to third parties?

Please use whole numbers only.

0 %

20.8. What percentage of the renewable energy reported in response to question 20.6 is exported/sold by your company to the grid or to third parties?

Please use whole numbers only.

0 %

Further information

Cost of Purchased Energy

20.1. The total cost of electricity, heat, steam and cooling purchased by your company.

Answer: In FY2008, total electricity costs were approximately $135M as measured by financial accounts. As mentioned in our response to Question 9.1, Cisco collects data from utility and service bills and enters the data into an enterprise Environmental Data Tool (EDT), from which analysis is completed and reported. Total electricity costs include all taxes as Cisco does not currently differentiate energy costs and energy taxes in our current data collection. In FY2008, our primary focus was on collecting energy consumption data for current and baseline years since this information was specifically needed to track progress against our GHG reduction commitments.

As our worldwide facilities team has gained more experience with EDT, we are better gathering energy costs (e.g. natural gas, diesel fuel, and propane). This additional information will improve our understanding of breakeven for various energy reduction projects.

20.1.1. Please break down the costs by individual energy type.
Answer: We will be able to better report cost by individual energy type for FY2009. This was not a previously requested parameter.

Cost of Purchased Fuel

20.2. The total cost of fuel purchased by your company for mobile and stationary combustion.
Answer: Estimated fuel cost for mobile and stationary combustion is $17M. Total fuel costs include all taxes as Cisco does not currently differentiate between energy costs and energy taxes in our current data collection methodology.

20.2.1. Please breakdown the costs by individual fuel type.
Answer: We will be able to better report cost by individual fuel type for FY2009. This was not a previously requested parameter.

Purchased Energy Input

20.3 Your company's total consumption of purchased energy in MWh.
Answer: 1,193,872 MWh

Purchased and Self-Produced Fuel Input

20.4. Your company's total consumption in MWh of fuels for stationary combustion only. This includes purchased fuels, as well as biomass and self-produced fuels where relevant.
Answer: 172,710 MWh (using Higher Heating Values, also known as Gross Calorific Values)

20.4.1. Please break down the total consumption of fuels reported in answer to question 20.4 by individual fuel type in MWh.

Answer:
Natural Gas: 153,953 MWh
Diesel Fuel: 17,666 MWh
Propane Fuel: 1,091 MWh

20.5. What is the total amount of energy generated in MWh from the fuels reported in question 20.4?
Answer:
The fuels reported in question 20.4 are used in a variety of equipment (e.g. emergency generators, hot water heaters, and furnaces) located throughout Cisco's global facilities. Cisco does not currently track the combustion efficiency of each piece of equipment.

Given the following standard efficiency assumptions, Cisco has estimated the total energy generated from the fuels reported in question 20.4:
- 85% efficiency for equipment that consumes natural gas (e.g. primarily rooftop units, furnaces and water heaters)
- 45% efficiency for equipment that consumes diesel fuel (e.g. primarily diesel generators)
- 85% efficiency for equipment that consumes propane (e.g. primarily kitchen equipment and forklifts)

Given the above combustion efficiency assumptions, it is estimated that Cisco generates approximately 139,237 MWh.

20.6. What is the total amount in MWh of renewable energy, excluding biomass, that is self-generated by your company?
Answer: Cisco does not currently self-generate renewable energy at any of its global facilities as it is not our core expertise. Cisco purchases renewable energy provided by third parties.

20.7. What percentage of the energy reported in response to question 20.5 is exported/sold by your company to the grid or to third parties?
Answer: None

20.8. What percentage of the renewable energy reported in response to question 20.6 is exported/sold by your company to the grid or to third parties?
Answer: None

21. EU Emissions Trading Scheme: (CDP6 Q2(g)(i) – New wording for CDP 2009)

Electric utilities should report allowances and emissions using the table in question EU5.

21.1. Does your company operate or have ownership of facilities covered by the EU Emissions Trading Scheme (EU ETS)?

No (Please go to question 22.)

Please give details of:

21.2. The allowances allocated for free for each year of Phase II for facilities which you operate or own. (Even if you do not wholly own facilities, please give the full number of allowances).

Table 11 - Please use whole numbers only.

	2008	2009	2010	2011	2012
Free allowances metric tonnes CO2					

21.3. The total allowances purchased through national auctioning processes for the period 1 January 2008 to 31 December 2008 for facilities that you operate or own. (Even if you do not wholly own facilities, please give the total

allowances purchased through auctions by the facilities for this period).

Total allowances purchased through auction

21.4. The total CO$_2$ emissions for 1 January 2008 to 31 December 2008 for facilities which you operate or own. (Even if you do not wholly own facilities, please give the total emissions for this period.)

Total emissions in metric tonnes

Further information
Answer: Cisco does not have facilities covered by the EU Emissions Trading Scheme (per Annex I of EU Directive 2003/87/EC, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:275:0032:0046:EN:PDF).

22. Emissions Trading: (CDP6 Q2(g)(ii) - New wording for CDP 2009)

Electric utilities should read EU6 before answering these questions.

22.1. Please provide details of any emissions trading schemes, other than the EU ETS, in which your company already participates or is likely to participate within the next two years.

We participate or anticipate participating in trading schemes other than the EU ETS in the next two years.

Answer: Cisco currently does not participate in any emissions trading scheme but expects that its United Kingdom operations will likely participate in the UK Carbon Reduction Commitment (CRC) program (http://www.defra.gov.uk/environment/climatechange/uk/business/crc/pdf/crc-implement-govresponse-0803.pdf; http://www.decc.gov.uk/en/content/cms/consultations/crc/crc.aspx). CRC will cover large business and public sector organisations whose annual half-hourly metered electricity use, and 70 kilo Volt-Ampere (kVA) metered use in the UK and Northern Ireland, is above 6,000 Mega Watt hours (MWh). Cisco's FY2008 UK and Ireland electrical usage was approximately 34,600 MWh. Cisco has established a team to track this requirement as part of an internal, UK-based Connected Carbon Management program and per the implementation schedule, is making allowances based on energy usage.

22.2. What is your overall strategy for complying with any schemes in which you are required or have elected to participate, including the EU ETS?
Answer:
Cisco supports creation of broad-based cap-and-trade programs that efficiently and effectively address climate change. Cisco is continuously monitoring the voluntary and non-voluntary trading exchanges, registries and associated legislation, where applicable, but at this time has no plans to participate in the carbon markets.

At the outset, Cisco prefers to focus on internal energy efficiency and productivity programs that leverage our network technologies, which can then be leveraged as case studies for our worldwide customer base. In addition, internal programs direct energy reduction responsibility to each business function and minimizes potential downsides from externally administered efforts. Our preference is to "reduce" energy consumption (reduce-reuse-recycle) as well as support non-carbon-based electricity generation.

Although Scope 3 emissions from air travel is currently not subject to cap-and-trade schemes, investment in collaborative technologies and updating associated business processes reduces our emissions while providing substantial other business benefits (see the response to Question 14.1 copied below). Similarly, our engineering labs and data centers account for well over 3/4 of our electricity usage (Scope 2). To reduce Scope 2 emissions, implementing virtualization and EnergyWise products will (1) improve network equipment utilization and cut waste from powering equipment while in idle or standby and (2) improve our ability to monitor real-time energy use to identify opportunities for further reductions.

***** Inserted Q14.1 response *****

Answer:
EMISSIONS REDUCTIONS
Cisco has developed and is implementing a number of technologies that improve efficiency and reduce GHG emissions. As an example, before Cisco had widely implemented remote collaboration technologies, trends in air travel and revenue moved together. A 20% increase in revenue was accompanied by a similar increase in air travel (and emissions). As indicated in the response to Question 13.1, Cisco revenue and headcount between FY2006 and FY2008 grew about 40%, but because of implementation of remote collaboration technologies, emissions from air travel grew less than 4%. In FY2009, emissions from air travel will drop below FY2006 levels. Monthly data for CY2008 shows a continuing decrease in travel as management practices and business processes continued to be adapted to the remote collaboration technologies.

The application of technology does not result in an immediate drop in emissions. Company culture, management practices and business processes must all evolve to take advantage of the technology. However, this evolution create additional benefits not seen with physical travel, including:
-- Decisions are made faster
-- Cross-cultural communications are improved
-- Stakeholder and customer feedback from around the world is better disseminated within the company
-- Scarce resources from around the world are shared more effectively among more projects
-- Products move to market faster
These advantages are in addition to reducing carbon emissions, reducing travel costs, improving employee productivity, and providing better work-life balance.

The advantages of remote collaboration technologies are available to all Cisco customers. As the installed base of Cisco products increases, we will monitor customer emissions reporting for similar trending.

DISCUSSION
At the following URL (http://tinyurl.com/knbrhx) are two charts that illustrate the opportunity for information and communication technologies (ICT) to contribute to the reduction in GHG emissions. In the first chart, two sources of similar data are shown, the U.S. Energy Information Agency and the International Energy Agency. Both sources agree that about 75% of GHG emissions from energy production are from transportation and buildings. Cisco technologies and products are focused on addressing these sectors and this very substantial portion of overall, energy-related GHG emissions. The second chart, taken from the GeSI/TCG SMART 2020 report, breaks out potential savings from the implementation of ICT. (Cisco is a GeSI board member and was a significant contributor to the report.) Note that the meaning and boundaries of some terms between the first and second chart aren't the same, so the two charts can only be generally compared.

Cisco offers many products that can improve energy efficiency or reduce energy usage are provided below. Links are provided for additional information:

-- Remote Collaboration Tools: TelePresence, MeetingPlace, WebEx, Unified Communications,Business Video products. Addresses the transportation sector by reducing the need to travel.
http://www.cisco.com/en/US/netsol/ns870/index.html, http://www.cisco.com/en/US/netsol/ns813/networking_solutions_solution_segment_home.html
-- Data Center Virtualization: improves utilization of data center equipment, reducing emissions from the manufacture of unnecessary equipment and facilities as well as from idle or standby operation. Addresses the building sector.
http://www.cisco.com/en/US/netsol/ns872/index.html,http://www.cisco.com/en/US/netsol/ns836/index.html
-- EnergyWise: This new energy management architecture helps improve operational efficiency for any powered device, from Power over Ethernet (PoE) devices to IP-enabled building controllers. Addresses the building sector.
http://www.cisco.com/en/US/solutions/ns726/intro_content_energywise.html

-- Connected Urban Development: Technology development partnership between Cisco and cities around the world to create urban communications infrastructures that demonstrate how network connectivity can reduce carbon emissions in urban environments. Addresses transportation and building sectors in an urban "vertical". http://www.connectedurbandevelopment.org/

-- Smart+Connected Communities: An umbrella term to apply intelligent network technologies to improve productivity and the utilization of various forms of energy in buildings and transportation in industry verticals.
http://newsroom.cisco.com/dlls/2009/hd_050609.html at bottom
http://wwwin.cisco.com/industries/intelurban/thoughtleadership.shtml

-- SmartGrid: Software and hardware tools that enable generators to route power more efficiently and allows two-way, real-time information exchange with customers along with real-time demand side management, important for implementing dispersed renewable generation and the addition of hybrid/electric vehicles to the utility grid. Smart Grid applies Internet routing and switching technologies to electric utility transmission and distribution. Addresses power generation sector.
http://www.cisco.com/web/strategy/energy/smart_grid_solutions.html
http://newsroom.cisco.com/dlls/2009/prod_042009d.html?
CAMPAIGN=NewsAtCiscoGreen2008&COUNTRY_SITE=us&CREATIVE=Miami+Proposes+to+Lead+the+Nation+in+Energy+Efficiency+with+$200+million+Smart+Grid+Initiative&POSITION=LINK&REFERRING_SITE=NewsatCiscoPressKit

To help customers estimate the benefits of some of these technologies, Cisco has developed several Green Business Value Calculators (http://tinyurl.com/n9m642) . The calculators cover Connected Building, Connected Workplace, Remote Collaboration (TelePresence, WebEx, MeetingPlace and Unified Communcations), and telecommuting, and estimate not only the environmental impact, but also the financial costs and benefits of the solutions. The GHG emissions impact of these models has been independently validated by a third party.

Further information

22. Carbon credits
22.3. Have you purchased any project-based carbon credits?
No. (Please go to question 22.5)

Please indicate whether the credits are to meet one or more of the following commitments:

Please also:

22.4 Provide details including the type of unit, volume and vintage purchased and the standard/scheme against which the credits have been verified, issued and retired (where applicable).

not applicable

22.5. Have you been involved in the origination of project-based carbon credits?

No. (Please go to question 22.7)

22.6. Please provide details including:

• Your role in the project(s),
• The locations and technologies involved,
• The standard/scheme under which the projects are being/have been developed,
• Whether emissions reductions have been validated or verified,
• The annual volumes of generated/projected carbon credits,
• Retirement method if used for own compliance or offsetting.

all not applicable

22.7. Are you involved in the trading of allowances under the EU ETS and/or project-based carbon credits as a separate business activity, or in direct support of a business activity such as investment fund management or the provision of offsetting services?

No. (Please go to question 23)

22.8. Please provide details of the role performed.

not applicable

Further information

Performance

23. Reduction plans & goals: (CDP6 Q3(a))

23.1. Does your company have a GHG emissions and/or energy reduction plan in place?

Yes. (Please go to question 23.3)

23.2. Please explain why.

It would aid automated analysis of responses if you could select a response from the options below as well as using the text box. However, please just use the text box provided if the options are not appropriate.

If the menu options above are not appropriate, please answer the question using the text box below:

not applicable (23.2 is "please explain why not")

Goal setting

23.3. Do you have an emissions and/or energy reduction target(s)?

Yes. (Please answer the following questions)

23.4 What is the baseline year for the target(s)?

Answer:
(1) Clinton Global Initiative commitment: FY2006 baseline
(2) EPA Climate Leaders commitment: CY2007 baseline
Note that the CGI commitment is based on our fiscal year (as is our CDP and corporate social responsibility reporting). Our EPA Climate Leaders commitment uses a calendar year, consistent with typical EPA emissions reporting practices.

23.5. What is the emissions and/or energy reduction target(s)?

Answer:
(1) Clinton Global Initiative commitment: reduce GHG emissions from business air travel by 10% absolute
(2) EPA Climate Leaders commitment: reduce Scope 1, 2, and business air travel Scope 3 GHG emissions by 25% absolute by CY2012
Each Cisco reduction target is measured in absolute terms relative to the baseline. Reduction targets based on normalized emissions an allow for increases in total emissions. The global problem of climate change requires a significant reduction in emissions in absolute terms.

23.6. What are the sources or activities to which the target(s) applies?

Answer:
(1) Clinton Global Initiative commitment: GHG emissions from all Cisco business air travel
(2) EPA Climate Leaders commitment: Scope 1, 2, and business-air-travel Scope 3 GHG emissions.

Per the response to Question 9.1, Cisco's energy and greenhouse gas inventory follows guidance provided by Greenhouse Gas Protocol (GHG Protocol) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). Additional detail is taken from the US EPA's Climate Leaders Greenhouse Gas Protocol Design Principles Guidance document. Our Scope 1 and 2 emissions cover Cisco global real estate operations and owned and leased vehicles.

23.7. Over what period/timescale does the target(s) extend?

Answer:
(1) Clinton Global Initiative commitment: ongoing. Cisco will meet this goal in FY2009 (3 years).
(2) EPA Climate Leaders commitment: 5 years (through CY2012)

Further information

Cisco has developed a GHG emissions reduction plan in response to our:
(1) Clinton Global Initiative commitment to reduce GHG emissions from business air travel by 10% absolute (FY2006 baseline) and
(2) EPA Climate Leaders commitment to reduce Scope 1, 2, and business-air-travel Scope 3 GHG emissions by 25% absolute by CY2012 (CY2007 baseline).

Through the EPA Climate Leaders program, our company publicly announced a long-term corporate-wide GHG reduction goal. We worked closely with EPA throughout the goal's development to ensure that the accepted goal is both achievable and aggressive compared to the benchmark for the IT sector. This process included a benchmarking analysis conducted by EPA to compare our goal proposal against the projected GHG performance for our sector.

23. GHG emissions and energy reduction activities

23.8. What activities are you undertaking or planning to undertake to reduce your emissions/energy use?

Answer:

As also described in the response to Question 23.1, Cisco has developed a GHG emissions reduction plan in response to our:
(1) Clinton Global Initiative commitment to reduce GHG emissions from business air travel by 10% absolute (FY2006 baseline) and
(2) EPA Climate Leaders commitment to reduce Scope 1, 2, and business-air-travel Scope 3 GHG emissions by 25% absolute by CY2012 (CY2007 baseline).
These programs provide structure around which we organize our data collection, analysis, reporting, and reduction efforts.

SCOPE 3 GHG EMISSIONS
To reduce Scope 3 business-air-travel emissions, Cisco is relying on the rollout and implementation of Cisco remote collaboration technologies, including TelePresence, WebEx and MeetingPlace, to replace physical travel. Status of TelePresence implementation is provided below:

As of end of fiscal year TelePresence rooms cities countries
2007 (general use units) 110 ~60 >20
2008 (general use units) 165 116 39
2008 (executive and EBC units) 94 19 12

Our original air travel reduction commitment to CGI was made at the beginning of FY2007, which is when the first TelePresence units were installed at Cisco. Per Metcalfe's law, TelePresence utility improves with the square of the number of nodes, so initially impact on travel was low. At Cisco, worldwide utilization of Cisco TelePresence units remains near 50% based on a ten-hour day. Many Cisco units are booked at or over 100% capacity based on a ten-hour day. The impact of increasingly pervasive TelePresence, WebEx and MeetingPlace use is clear. Where changes in revenue and air travel once moved in sync, air travel in FY2008 was essentially flat compared to FY2006 even though revenue and headcount both increased about 40%. (In addition to the units shown above, as of April 2009, over 2,000 additional TelePresence units have been ordered or installed at customer sites worldwide, increasing the leverage of the network to reduce air travel.)

Cisco will continue to install TelePresence units at Cisco facilities around the world. New TelePresence products (CTS-500, CTS-1300 and CTS-3200) expand the kinds of remote collaboration available to Cisco employees and customers. Replacing business air travel with remote collaboration requires more than installing technology. Business processes, management practices, and culture must be updated to take full advantage of the new network technologies. Cisco has piloted remote company meetings and remote executive operational reviews, expanding the types of interactions that can effectively be completed remotely. This experience guides product development as well as informing new management practices.

Cisco acquired WebEx in the middle of FY2006. In addition to TelePresence, both WebEx and our enterprise MeetingPlace product are used extensively in place of physical travel. Use of and familiarity with TelePresence, WebEx and MeetingPlace, Unified Communications and Rich Media products will continue to expand at Cisco for more functions and business activities. As more organizations transform their operations to fully leverage all technologies, air travel emissions will be further reduced, while employee productivity and work-life balance will improve. As experience with remote collaboration technologies increases, both within Cisco and at our customers and partners, we expect remote interactions will progress from the exception of a few years ago to the expected norm.

The employee skill sets developed to reduce business air travel and the accompanying business process and management practices are also used to reduce employee travel between home and work, as well as between buildings at a Cisco site. The wide availability of sophisticated collaboration tools within Cisco permit employees to become well versed in integrating these technologies into daily business activities. Several Cisco technologies permit flexible working environments, either from home or in Cisco Connected Workplaces. Although telecommuting or working in a flexible office space does not directly reduce air travel, it does afford opportunities to become further proficient using collaborative technologies. This proficiency can be applied directly to business activities where remote collaboration does reduce air travel.

Cisco has found that a work force fully versed in remote collaboration is more effective overall than a culture requiring travel for face-to-face meetings.
-- Decisions are made faster
-- Cross-cultural communications are improved
-- Stakeholder and customer feedback from around the world is better disseminated within the company
-- Scarce resources from around the world are shared more effectively among more projects
-- Products move to market faster
These advantages are in addition to reducing carbon emissions, reducing travel costs, improving employee productivity, and providing better work-life balance.

SCOPE 1 AND 2 GHG EMISSIONS
Most of Cisco's Scope 1 and 2 GHG emissions are from purchased electricity (Scope 2). Within Scope 2, about 70% of purchased electricity is used to power equipment in engineering labs. The balance is about equally split between are data centers and office space. To this end, one track of our Green Engineering Task Force (GETF) is dedicated to improving lab power efficiency and is jointly led by our engineering and facilities (aka, Workplace Resources) organizations.

While equipment and vendor evaluation is underway, Cisco has initially relied more heavily on green power purchases to reduce emissions. Although there is ongoing discussion on the treatment of emissions from electricity generated from non-carbon sources, it seems sensible that helping to increase demand for a limited commodity (green power) coupled with a price premium over "standard" grid electricity should encourage further investment in noncarbon sources of electricity. Electricity from non-carbon sources is a cornerstone of the long-term solution to climate change given the substantial reductions published by the Intergovernmental Panel on Climate Change (IPCC). Cisco currently purchases power from non-carbon sources in both the US and throughout Europe and plans to support non-carbon energy sources in other regions of the world as it becomes available in the marketplace.

In the medium term, Cisco has been implementing a series of energy reduction activities to help it achieve its GHG reduction targets through optimizing energy efficiency:

LABS AND DATA CENTERS
-- installing smart PDU technologies on lab equipment (GETF track mentioned previously)
-- data center virtualization
-- implementation of Cisco's EnergyWise product, also referenced in our response to Question 14.1, in labs and data centers to turn off PoE devices (http://www.cisco.com/en/US/solutions/ns726/intro_content_energywise.html) as well as in a future release to interface with the aforementioned

ENERGY EFFICIENCY PRACTICES IN NEW CONSTRUCTION
Cisco's headquarters in San Jose, CA, represent over 31 percent of Cisco's global real estate space. All of the buildings in San Jose exceed Title 24 energy standards by 12 to 15 percent while buildings outside San Jose and California similar headquarters have been implemented to reduce energy and operating cost. A few measures worth mentioning include:

-- Selection of high efficiency chillers
-- Design and implementation of variable air volume system to efficiently control air supply
-- Selection of high efficiency lighting systems
-- Installation of motion sensors in conference rooms, private offices and restrooms
-- Installation of Building Automation System to control air conditioning and lighting operations
-- Selection of high-performance and energy-efficient window and glazing systems
-- Installation of variable frequency drives (VFDs) for supply air, return air, cooling fans, chilled water and supply pumps
-- Reduce required office space and its associated energy demands by increasing employee telecommuting and use of Cisco Connected Workplace
-- LEED certification for new construction

ENERGY EFFICIENCY PRACTICES FOR EXISTING BUILDINGS
Below is a partial list of energy savings measures Cisco has implemented through its major global campuses:

-- Add VFDs on condenser water pumps and chilled water pumps.
-- Replace air cooled HALT chamber with a liquid nitrogen system.
-- Condenser water return reset.
-- Reduced lighting levels in Cafeteria service areas.
-- Reduce lighting levels in display and walk-in coolers.
-- De-energize lights in beverage coolers.
-- Raise temperature in beverage coolers.
-- Adjust lighting schedules in office areas.
-- Adjust lighting schedules in parking lots.
-- De-energize all water feature/fountain pumps.
-- De-energize balcony lights.
-- Sweep office lights off during State Energy Warnings.
-- Raise temperature set points to 78 degrees Fahrenheit in non-critical areas during electric utility peak warning periods.
-- Eliminate refrigerated beverage coolers with Energy Star vending machines
-- Reduce required office space and its associated energy demands by increasing employee telecommuting and use of Cisco Connected Workplace

In addition, Cisco earned rebates from PG&E amounting to $5.9 million for implementing many of the energy efficiency measures listed above in California. Cisco estimates that through its energy efficiency programs in California alone, it reduced energy consumption by 49,000 MWh per year savings approximately $4.5 million in energy costs each year.

PUBLIC PROGRAM PARTICIPATION
In addition, Cisco participates in a number of public programs dedicated to reducing energy demand and identifying new energy efficiency opportunities in the IT sector, specifically:
-- California Energy Commission (CEC) Demand Response Program: Cisco Systems has participated in seeking funding from CEC to implement advance technology to expedite the load curtailment process. This funding was awarded based on the company's merit and ability to curtail electric load when called for by the State agency.
-- Lawrence Berkeley National Laboratory (LBNL): Cisco is collaborating with LBNL to identify energy efficiency opportunities in Labs, Data Centers & Products.
-- Flex your Power (FYP): Cisco works with FYP organization to implement employee outreach techniques to save energy at work and home.
-- Sustainable Silicon Valley (SSV): Cisco is a member of SSV. Working with this organization, Cisco identifies, implements and documents GHG reduction strategies.

Further information

23. Goal evaluation

23.9. What benchmarks or key performance indicators do you use to assess progress against the emissions/energy reduction goals you have set?

Answer:

SCOPE 3
Our business-air-travel reduction goal is presented in absolute terms, so we primarily use actual, calculated GHG emissions as our KPI. We also track TelePresence installation and use, as well as WebEx and MeetingPlace hours to correlate usage with air travel trends.

Since Cisco is a relatively large company, air miles is an effective proxy for GHG emissions. That is, a 10% reduction in air miles company-wide generally correlates to about a 10% decrease in GHG emissions. Education and communication on travel reduction focus on replacing travel completely, which individuals understand as reducing air miles.

SCOPE 1 and 2
As Cisco has set an absolute reduction target, our focus is tracking energy use, especially purchased electricity, which typically constitutes over 90% of Scope 1 and 2 emissions. We are retrofitting our labs with improved monitoring and control equipment, and we will be tracking installation progress once we exit the pilot phase.

Cisco also uses the following benchmarks to gain a better understanding of energy usage patterns in various functions and geographies:
-- energy consumption and GHG emissions as a function of revenue
-- energy consumption and GHG emissions as a function of employee headcount
-- energy consumption and GHG emissions as a function of building area (square feet)
-- energy consumption and GHG emissions as a function of lab and data center area (square feet)

Further information

23. Goal achievement

23.10. What emissions reductions, energy savings and associated cost savings have been achieved to date as a result of the plan and/or the activities described above? Please state the methodology and data sources you have used for calculating these reductions and savings.

Answer:

SCOPE 3
Achieved Reductions:
As seen in the following chart, through FY2008, Cisco has decoupled growth in revenue and headcount from growth in CO2 emissions due to air travel. Absolute FY2008 GHG emissions from business air travel are less than in FY2007 despite a double digit increases in revenue and headcount.

fiscal year yr-yr change headcount yr-yr change revenue yr-yr change GHG emissions
2005 5% 13% 23%
2006 13% 15% 13%
2007 18% 23% 8%
2008 17% 13% -4%
2006->2008 +38% +39% +4%

Both headcount and revenue have increased about 40% since FY2006, but absolute emissions are up only slightly and are expected to decrease in absolute terms in FY2009. (Changes in headcount are slightly different than shown in our 2008 CSR report due to corrections in the average daily headcount calculation.) Growth in year-over-year emissions from air travel continues to decrease as collaborative technologies become further integrated into daily business operations/processes. Cisco expects FY2009 travel emissions to be significantly less than FY2008 as the increasing use of collaborative technologies continues.

Achieved Savings:
Although there is some uncertainty in projecting "avoided" travel costs, if a 40% change in revenue and headcount were assumed to result in a similar increase in travel-related costs, Cisco saved an estimated $226M in travel costs in FY2008.

Methodology and Data Sources:
The methodology used for calculating business-air-travel GHG emissions is the same described in the response to Question 13.1 copied below. A comprehensive study of the economics of Cisco's collaboration experience, from which the $226M was extracted, is available at http://tinyurl.com/la3cmu .

SCOPE 1 AND 2

Although Cisco's energy consumption has increased by approximately 9% from FY2007 to FY2008, its GHG emissions have dropped by approximately 23%. As shown above, in FY2008 headcount and revenue increased 17% and 13% respectively so Cisco is moving in the right direction towards decoupling growth in revenue and headcount from growth in energy consumption and emissions. The 23% GHG reduction in Scope 1 and 2 emissions is primarily a result of Cisco increasing its purchase of renewable energy from approximately 77 million kWh in FY2007 to 285 million kWh in FY2008; however, Cisco did achieve substantial savings through its energy efficiency and conservation efforts.

Achieved Reductions:
Cisco estimates that through its energy efficiency programs, it reduced energy consumption by approximately 49,000 MWh in FY2008, representing approximately 16,200 metric tonnes CO2e pear year. In addition, through its renewable energy purchases, Cisco reduced its Scope 2 GHG emissions by approximately 239,349 metric tonnes CO2e.

Achieved Savings:
Cisco estimates that through its energy efficiency projects implemented on new construction, it saves approximately $4.5 million every year in energy costs. In addition, Cisco received approximately $5.9 million in rebates from local utilities to help pay for implementing these measures, all of which typically have a payback of three years or less.

Methodology and Data Sources:
The energy savings listed above are calculated by estimating the energy consumption of a piece of equipment or building system before and after an efficiency improvement is implemented. Once a conservative estimate of energy reduction is calculated, Cisco takes the average energy cost for the building for the past 12 months and estimates total energy cost savings associated with the project. If rebates are available from local utilities or government, those cost reductions are then factored into the economic analysis. Cisco will typically approve energy reduction projects if they have a simple payback of less than 3 years; however, Cisco will entertain longer payback periods depending on the type and location of project and technology involved.

For estimating emissions reductions from implementing energy efficiency projects, Cisco uses the same emission factors listed in our response to Question 9.5. For calculating emissions reductions through Cisco's green power and REC purchases, Cisco uses the Annual non-baseload output subregional emission rates published in eGRID2007 Version 1.1 (http://cfpub.epa.gov/egridweb/ghg.cfm) based on the location of the renewable energy system.

In addition, as stated above, Cisco is very aggressive at pursuing utility rebates to help fund energy efficiency projects. As such, energy savings estimates created by Cisco are typically validated by the local utilities when Cisco applies for each rebate. Utility rebate validation will often involve direct measurement and verification procedures where the utility sends a representative to measure direct energy usage of a piece of equipment or building system before and after the efficiency retrofit is implemented.

***** Inserted Q13.1 response *****
METHODOLOGY, ASSUMPTIONS AND EMISSONS FACTORS/GLOBAL WARMING POTENTIALS
-- The general methodology is to use individual flight segment information from the travel provider that services Cisco's online, internal Cisco Travel Network (CTN). As of the end of FY2008, air travel information is reported from 82 travel-provider locations covering flights to/from 190 countries, regions or territories. Cisco has physical offices in more than 90 countries.

-- Utilizing flight distance for each segment, CO2 emissions are calculated using the UK DEFRA-based emissions factors. No additional forcing factor is included (such as the often cited 2.7 FF).

-- Treatment of acquisitions: As committed last year, Scientific Atlanta (SA), a division of Cisco acquired in Feb 2006, is now included in Cisco's air travel emissions reporting. In FY2008, SA air travel emissions were a bit more than 3% of the total. Because of its size, SA retained its own travel service for several years after acquisition close. As part of emissions reporting continuous improvement, we obtained air travel records back to the date of acquisition close and include these records in our reporting. All other acquisitions adopt use of CTN shortly after acquisition close and are included in our reported totals.

-- Air travel definitions and emissions factors are from the GHG Protocol "CO2 emissions from business travel, v1.2, Aug 2005" listed at http://www.ghgprotocol.org/calculation-tools/all-tools. The emissions factors listed therein for short and long haul flights are originally from UK DEFRA. Cisco maintains complete records of all flight segments and can update emissions calculations should the generally accepted standard emissions factors or methodology be

updated.

-- As a secondary check, Cisco uses a more granular air-travel emissions model, developed by TRX, to benchmark air-travel emissions calculated with the GHG Protocol method. The TRX model, described at http://carbon.trx.com/TRX_CO2_Emissions_Documentation_v1.2.pdf, includes:
o City pair great circle distances;
o Representative equipment-specific fuel burn rates;
o Carrier-specific and equipment-specific capacity and configuration effects;
o Carrier-specific passenger load factors; and
o Equipment class and carrier-specific cargo to passenger payload ratios.
Perhaps because of Cisco's size and geographic dispersion, the relatively simple GHG Protocol methodology gives similar results and, in the interests of using a widely accepted standard, is therefore used for reporting.

-- Reported numbers for our FY2008 for CDP7 are different from those reported in November 2008 for our 2008 corporate Social Responsibility (CSR) report (http://www.cisco.com/web/about/ac227/csr2008/the-environment/sustainable-company-operations/mitigating-climate-change/index.html). This difference is due to three reasons. First, we found we were double counting certain employee travel. This double counting occurred when an employee changed a non-refundable ticket. The originally booked (but cancelled) flight and the new flight were both being counted. This duplication has now been eliminated after substantial analysis of multi-leg journeys as well as specific review by the EPA Climate Leaders auditor. Second, unused air travel tickets may be turned in up to a year after scheduled travel. Therefore, emissions reporting necessarily based on fairly recent travel data may not yet include transactions documenting the returned ticket. Third, travel provider master data is made up of input received from multiple travel systems. The aggregation process has some leakage, with some data delayed in the system or otherwise revised. Therefore, we typically rerun flight segment reports so all data is at least 6-9 months old to allow time for missing or incorrect data to be fully aggregated. The double counting is the largest error (~5-15% conservatively high). Returned tickets can cause travel emissions to be overestimated 2-4% of the total. Missing or incorrect data is relatively infrequent and small. Because of these updates, previously reported travel generally is reduced in successive reporting cycles.

Using the latest air travel records and methodology, emissions for the last three year are:
FY2008: 197,951 metric tonnes CO2-e (current)
FY2007: 206,109 metric tonnes CO2-e (updated historical)
FY2006: 190,937 metric tonnes CO2-e (updated historical, includes 3,349 mtCO2-e of SA pre-acquisition emissions)

Due to changes in how travel data records were obtained and their roll-off to tape archive, we haven't updated previously reported FY2005 GHG emissions. Cisco's GHG emissions reduction goals use either FY2006 (CGI) or CY2007 (EPA CL) as baselines, both of which are covered by the FY2006-FY2008 time frame reported above.

-- Cisco invests substantial resources in high-quality travel reporting because many of our products--such as MeetingPlace, WebEx and TelePresence--can help businesses greatly reduce travel and accompanying GHG emissions. Therefore, it is important for Cisco to have state-of-the-art travel reporting to accurately measure the positive impact of these collaborative technologies. (Cisco revenue and headcount between FY2006 and FY2008 grew about 40%, while emissions from air travel grew less than 4%.)

CALCULATION TOOLS AND DATABASES
-- Cisco uses a custom report written for AmEx's AXIS@work application to gather air travel records for a custom analysis written using an standard, SQL-based database program.
-- As previously mentioned, we use TRX's more granular emissions model as a check against the flight segment assumptions provided by the GHG Protocol.
-- We also use a custom report written against Cisco's financial system to estimate the percent of air travel covered by the AmEx data. Since employees must complete expense reports for travel in order to be reimbursed, it is highly likely expense account data contains essentially all business air travel. By comparing various accounts for air travel, we can determine the completeness of the AmEx air travel records. Air travel emissions are adjusted based on this degree of completeness to estimate 100% of Cisco's GHG emissions from business air travel.

OTHER BUSINESS TRAVEL EMISSIONS
Cisco currently does not report emissions from rental cars or hotels because (1) these emissions are much smaller than the associated air flights, (2) emissions from rental cars is likely offset by employees not driving their personal cars for commuting or personal use, and (3) emissions from hotels is likely offset by reductions in emissions at the employee's home.

In addition, trends in business air travel (and GHG emissions) are assumed to be similar to trending for emissions from hotel and rental car use accompanying most air travel. Therefore, Cisco Clinton Global Initiative (CGI) and U.S. EPA Climate Leaders (EPA CL) commitments to reduce GHG emissions from business air travel will also drive down these [unmeasurable] emissions from hotels and rental cars by a similar percentage. [Imprecisely] calculating emissions diverts resources from implementing new business processes that result in actual emissions reductions. In light of these considerations, gathering specific information on rental car make and miles travelled as well as hotel, facility-level GHG emissions--neither of which is readily available--is not seen as cost effective. In the absence of such specific information, reported reductions would likely need to be based on air-travel data, defeating the purpose of reporting hotel and rental car emissions in the first place.

23.11. What investment has been required to achieve the emissions reductions and energy savings targets or to carry out the activities listed in response to question 23.8 and over what period was that investment made?

Table 13 - The "Investment number" column will not accept text. Please use whole numbers only.

Emission reduction target/energy saving target or activity	Investment number	Investment currency	Timescale
estimated 80000 metric tonnes CO2-e; USD 226,000,000/year	75000000	United States dollar	emissions and cost avoided per year ongoing; investment fixed.
USD 2400000	1200000	United States dollar	per year

Further information

23.11. What investment has been required to achieve the emissions reductions and energy savings targets or to carry out the activities listed in response to question 23.8 above and over what period was that investment made?

Answer:

SCOPE 3
A comprehensive study of the economics of Cisco's collaboration experience, from which the $226M was extracted, is available at http://tinyurl.com/la3cmu.

From this study:
Savings: ~$226M in FY2008, ~$49M in FY2007. Savings are expected to increase as remote collaboration technologies are further adopted. There are further business benefits, detailed in the study, from the given investment.
Investment: Cisco has estimated an investment of $75M would be required to achieve an equivalent capability and benefit. (Cisco's CGI commitment was for at least $20M.)
Currency: All savings are provided in U.S. Dollars
Timescales: The savings shown are per year.

SCOPE 1 AND 2

Savings: ~$4.5M in annual energy cost savings. Reduction of 239,349 metric tonnes of CO2e from FY2007 to FY2008 and annual savings of approximately 16,200 metric tonnes CO2e from general efficiency measures.

Investment:
In FY2008, Cisco spent approximately $1.2M to purchase RECs in FY2008. The investment Cisco made to achieve the $4.5M in savings listed above was made during design and construction of some of Cisco's facilities prior to FY2008 and resulted in less than a two year payback. As a result, no investment was made in FY2008 to achieve the $4.5M savings in FY2008.

In addition, in FY2009, Cisco started a Self Funding Energy Efficiency program that will fund approximately $1.2M worth of energy projects and save approximately $2.4M in energy savings per year, which amounts to on average a 6 month simple payback. This program is expected to reduce energy consumption by an additional 24,000 MWh per year and reduce GHG emissions by approximately 8,000 metric tonnes of CO2e.

Currency: All savings are provided in U.S. Dollars
Timescales: The savings shown are per year. The investment for RECs is for FY2008 only.

23. Goal planning & investment

Electric utilities should read the table in question EU3 for giving details of forecasted emissions.

23.12. What investment will be required to achieve the future targets set out in your reduction plan or to carry out the activities listed in response to question 23.8 above and over what period do you expect payback of that investment?

Table 14 - The "Number" column will not accept text. Please use whole numbers only.

Plan or action	Investment number	Investment currency	Payback
funding general energy efficiency projects, installing remote collaboration technologies and purchasing renewable energy in order to achieve the 25% absolute reduction goal by CY2012.	20000000	United States dollar	3 years

23.13. Please estimate your company's future Scope 1 and Scope 2 emissions for the next five years for each of the main territories or regions in which you operate or provide a qualitative explanation for expected changes that could impact future GHG emissions.

If possible, please use table 15 below to structure your answer to the question or alternatively use the text box below.
Answer:

GLOBAL SCOPE 1-2 EMISSIONS FORECAST:
FY2008: 359,033 metric tonnes CO2e (actual)
FY2009: 328,220 metric tonnes CO2e
FY2010: 311,420 metric tonnes CO2e

US SCOPE 1-2 EMISSIONS FORECAST
FY2008: 155,496 metric tonnes CO2e (actual)
FY2009: 104,329 metric tonnes CO2e
FY2010: 110,862 metric tonnes CO2e

REST OF WORLD SCOPE 1-2 EMISSIONS FORECAST
FY2008: 203,537 metric tonnes CO2e (actual)
FY2009: 223,891 metric tonnes CO2e
FY2010: 200,558 metric tonnes CO2e

Economic uncertainties make projections beyond 2010 difficult.

Scope 1 forecasted emissions in Table 15 below are in the following units.

Scope 2 forecasted emissions in Table 15 below are in the following units.

Table 15 - The "Scope" columns will not accept text. Please use whole numbers only.
Type in the name of the territory or region for which you are giving data and then press "Add Territory/Region". If giving a global figure instead of separate figures for regions or territories, please write "global" in the box labelled "Enter name of territory or region".

Click here to see a sample table.

Future reporting years:										
End date for year end DD/MM/YYYY										
Emission forecasts	Scope 1	Scope 2	Scope 1	Scope 2	Scope 1	Scope 2	Scope 1	Scope 2	Scope 1	Scope 2

23.14. Please estimate your company's future energy use for the next five years for each of the main territories or regions in which you operate or provide a qualitative explanation for expected changes that could impact future GHG emissions.

If possible, please use table 16 below to structure your answer to the question or alternatively use the text box below.

Answer:
GLOBAL ENERGY CONSUMPTION FORECAST:
FY2008: 1,425,627 MWh (actual)
FY2009: 1,568,190 MWh
FY2010: 1,637,486 MWh

US ENERGY CONSUMPTION FORECAST
FY2008: 1,007,342 MWh (actual)
FY2009: 1,108,076 MWh
FY2010: 1,161,384 MWh

REST OF WORLD ENERGY CONSUMPTION FORECAST
FY2008: 418,285 MWh (actual)
FY2009: 460,114 MWh
FY2010: 476,102 MWh

Economic uncertainties make projections beyond 2010 difficult.

Table 16 - Please use whole numbers only.
Type in the name of the territory or region for which you are giving data and a description of the data you are giving e.g. electricity consumption. Then press "Add Row". If giving a global figure instead of separate figures for regions or territories, please use the word "global". This table will also accept different types of units e.g. units of volume or mass.

Click here to see a sample table.

Future reporting years:										
End date for year end DD/MM/YYYY										
Energy use estimates for territory/region	Number	Units	Number	Units	Number	Units	Number	Units	Number	Units

23.15. Please explain the methodology used for your estimations and any assumptions made.

Cisco estimates growth in emissions and energy consumption based on (1) business as usual (BAU) growth trends for previous years, (2) renewable energypurchases for FY2009 and FY2010 and (3) internal reductions expected to be achieved through energy efficiency and energy conservation projects.

Further information

23.12. What investment will be required to achieve the future targets set out in your reduction plan or to carry out the activities listed in response to question 23.8 above and over what period do you expect payback of that investment?

Answer:

SCOPE 3

Target: Per the response to Question 23.1, our targets are:
(1) Clinton Global Initiative commitment to reduce GHG emissions from business air travel by 10% absolute (FY2006 baseline) and
(2) EPA Climate Leaders commitment to reduce Scope 1, 2, and business-air-travel Scope 3 GHG emissions by 25% absolute by CY2012 (CY2007 baseline).

Investment and Payback: Cisco has already installed TelePresence, WebEx, MeetingPlace and other remote collaboration capability, which is sufficient to meet the CGI goal of a 10% reduction by FY2009. Cisco continues to invest in the rollout of TelePresence units throughout our global real estate portfolio. Investment has been steady since program inception, with an expected ROI of less than one year based on travel savings and gains in productivity. (Exact investment dollars is redacted as we believe publishing the total number of rooms as part of our CSR reporting is more useful.) Cisco has been installing at least 150 TelePresence rooms annually.

Currency: Investment is in U.S. Dollars.
Timescales: annual

SCOPE 1 AND 2
Target: Per the response to Question 23.1, our targets are:
(1) Clinton Global Initiative commitment to reduce GHG emissions from business air travel by 10% absolute (FY2006 baseline) and
(2) EPA Climate Leaders commitment to reduce Scope 1, 2, and business-air-travel Scope 3 GHG emissions by 25% absolute by CY2012 (CY2007 baseline).

Investment and Payback: Current planning includes $20M in the next three years funding general energy efficiency projects, installing remote collaboration technologies and purchasing renewable energy in order to achieve the 25% absolute reduction goal by CY2012. Cisco expects this overall investment will result in less than a three year payback.

24. Planning: (CDP6 Q3(c))

24.1. How do you factor the cost of future emissions into capital expenditures and what impact have those estimated costs had on your investment decisions?

Answer:

Cisco currently does not factor in future costs of emissions into its capital expenditures but expects that carbon regulation will soon be a reality and will result in higher effective energy prices that Cisco will need to be able to adjust to. As a result, in FY2010 Cisco plans to investigate how varying carbon prices will impact energy prices at its major operations throughout the world. Cost of energy is already one of many criteria considered when Cisco makes investment decisions (e.g. building a new data center) and by considering the future cost of emissions, Cisco will be using more accurate energy price forecasts and ultimately make better investment decisions.

Currently, there are many energy efficiency efforts that don't require a cost of carbon to be economically viable. To address lab energy consumption, Cisco is piloting smart PDUs for equipment in each rack. Payback is dependent on electricity rate/kWh, utility incentives/rebates, air conditioning type (air/water), PDU installed cost, and rack power. Except where electricity rates are low (usually coal-fired generation!), ROI is very favorable.

To track progress to meeting our EPA Climate Leaders goal of -25% by 2012, Cisco periodically updates a model of future emissions by considering past trends in revenue, energy consumption and business travel as well as factoring in head count projections used for facilities planning. Managing Cisco's future GHG emissions is dominated by the growth of our business. Reducing GHG emissions while also accounting for new GHG emissions accompanying substantial expected growth in Cisco's business is a major challenge and is an excellent litmus test for GHG reduction strategies.

Cisco bases its capital expenditure planning on early estimates of project cost. Once a project's scope is fully defined, Cisco evaluates the additional capital necessary to incorporate energy efficiency features into the design of the building or space. Current capital budgeting guidelines allow for energy efficiency features that provide payback within three years.

Further information

Governance

25. Responsibility: (CDP6 Q4(a))

25.1. Does a Board Committee or other executive body have overall responsibility for climate change?

Yes. (Please answer question 25.3 and 25.4)

25.2 Please state how overall responsibility for climate change is managed and indicate the highest level within your company with responsibility for climate change.

not applicable

25.3. Which Board Committee or executive body has overall responsibility for climate change?

Answer:

Cisco's EcoBoard is a cross-functional, executive-level body responsible for Cisco's environmental vision and strategy, including climate change. The EcoBoard is accountable to the operating committee and is jointly chaired at the VP/SVP level. EcoBoard membership currently comprises fourteen, key, business-unit and operational organizations, including government affairs, engineering, manufacturing, facilities, marketing, finance, services and IT. The EcoBoard strategic plan incorporates a set of environmental objectives to address Cisco operations and products, tackle customer green requirements, and provide opportunities for employee education and involvement.

Cisco's CSR Business Process addresses environmental issues--including climate change--under the larger umbrella of sustainability and corporate social responsibility. Sustainability must be managed holistically across the broad topics of CSR: environment, employee, social and corporate governance. Cisco CSR performance, stakeholder feedback, risks and opportunities are included in reporting to executive management (Connected Business Operations Council).

As also explained in the response to Question 2.1, Cisco's annual audit/risk assessment process establishes the internal audit plan for the coming period and is presented to and approved by the CFO and the Audit Committee of the Board of Directors. CSR considerations, which include the environment and climate change, are provided as input to identify the top potential risks for the company based on likelihood, severity, and present ability to manage the potential risk.

John Chambers, Cisco's CEO and Chairman of the Board, has identified green as an important market adjacency and company priority. Via the Office of the Chairman and CEO website, technologies that specifically address climate change include: remote collaboration, Smart+Connected, smart grid, and data center virtualization. John is personally leading by example to drive the adoption of remote collaboration technologies at Cisco to reduce physical travel: -- a VoiceCon 2008 video (http://tinyurl.com/n3ej6r) of a TelePresence discussion including John and Al Gore specifically addresses the role that technologies like TelePresence can have on mitigating climate change. Advance to 13:00 time mark for the beginning of actual TelePresence session. Original link is under "Media" at http://newsroom.cisco.com/dlls/2008/hd_030308.html (Nobel Laureate Al Gore and Cisco CEO John Chambers Host Virtual Discussion on Climate Change and Technology Innovation)
-- Cisco's first remote company meeting:
http://newsroom.cisco.com/dlls/2007/hd_082307b.html
-- Cisco Chairman and CEO John Chambers' remote quarterly executive operations review:
http://www.cisco.com/web/about/ciscoitatwork/highlights/080620081.html
-- Cisco's Strategic Leadership Offsite was converted to a virtual format to save travel costs and emissions and to further demonstrate collaboration in a large meeting/conference format. This is an internal meeting but an [informal] blog describing one VP's experience is posted at:
http://blogs.cisco.com/news/comments/the_future_is_here....the_virtual_world_for_large_meetings/

25.4. What is the mechanism by which the Board or other executive body reviews the company's progress and status regarding climate change?

Answer: The EcoBoard objectives are managed tactically by the Green Task Force (GTF) and tracked through an online dashboard hosted by our quality organization. The GTF teams report progress towards goals on a quarterly basis, as well as providing links and resources about the programs. The GTF reports to the EcoBoard and consists of Directors and senior managers who provide cross-functional management, monitoring, and coordination of environmental programs. The GTF teams report progress towards goals on a quarterly basis to the EcoBoard. Individual functions, such as the Green Engineering Task Force and the WPR Sustainability group, provide periodic updates directly to the EcoBoard.

Environmental initiatives--including those involving climate change--are managed tactically by the Green Task Force (GTF), are tied to Cisco's ISO 14001 process, and are subject to internal and external ISO 14001 audits. Progress on these initiatives is tracked through an online dashboard hosted by our quality organization (also responsible for the ISO audits).

Cisco's environmental programs are also summarized each year in our annual Corporate Citizenship Report, which is extensively reviewed by a broad cross-section of executive management before release.

In addition, Cisco has an established CSR Business Process, which includes environmental and climate change issues, where external stakeholder feedback and benchmarking information is reviewed with members of the EcoBoard and the GTF. Cisco CSR performance, stakeholder feedback, risks and opportunities are included in reporting to executive management (Connected Business Operations Board).

Further information

26. Individual Performance: (CDP6 Q4(b))

26.1. Do you provide incentives for individual management of climate change issues including attainment of GHG targets?

Yes. (Please go to question 26.2)

26.2. Are those incentives linked to monetary rewards?

Answer: Indirectly. Management by objective is a fundamental element of Cisco's performance management system. Each major business function--such as manufacturing, engineering and workplace resources/facilities--includes business leaders with performance goals addressing environmental sustainability, including climate change. Actual performance rewards are based on a combination of individual and company performance and the results of customer satisfaction surveys. (Environmental factors are also included in our customer surveys.)

Cisco looks to the cross-functional EcoBoard and the Green Task Force to manage our reduction commitments specifically because reduction in air travel and reduction in energy use are broad goals requiring widespread participation from the employee base.

There is no monetary award specifically tied to achieving our GHG emissions reduction goals (i.e., one-to-one relationship). Employees strive to reduce their air travel, and take time to learn how to integrate TelePresence, WebEx,

MeetingPlace and other remote collaboration tools into their daily work life because Cisco has made very visible GHG reduction commitments that are frequently cited by our CEO in internal meetings, news articles, interviews and internal "Birthday Breakfasts" (with the CEO). To improve the energy efficiency of our products, the VP of sustainability in engineering has requested the executive sponsors of the Green Engineering Task Force--chartered by the EcoBoard-- to build our green product objectives into FY2010 performance measurements.

26.3. Who is entitled to benefit from those incentives?

Answer: All employees set their performance objectives at the beginning of the review period. Employees who play a significant role in leading various programs, such as green initiatives or GHG reduction efforts would necessarily add such a goal to their objectives for end-of-cycle evaluation. Each individual initiative has program leads and individual performance is measured by progress on each initiative.

As explained in the response to Question 26.2, performance on each goal is evaluated and included in the individual rating, which is rolled up with company goals to provide the awarded incentive.

Further information

27. Communications: (CDP6 Q4(c))

27.1. Do you publish information about the risks and opportunities presented to your company by climate change, details of your emissions and plans to reduce emissions?

yes

If so, please indicate which of the following apply and provide details and/or a link to the documents or a copy of the relevant excerpt:

27.2. The company's Annual Report or other mainstream filings.

Yes

Answer: Yes

Risks and opportunities presented to Cisco by climate change, details of our emissions, and plans to reduce emissions are addressed in our corporate annual report and its companion CSR report. Both reports are released at the same time in concert with our annual shareholders meeting. Links to various references include:

o Annual corporate report:
-- 2008 annual report (pp. 6-7 and 14 at http://www.cisco.com/web/about/ac49/ac20/downloads/annualreport/ar2008/pdf/cisco_ar2008_complete.pdf)
-- 2007 annual report (pp. 7 and 14 at http://www.cisco.com/web/about/ac49/ac20/ac19/ar2007/printable_report/index.html).

o Annual corporate social responsibility report (current):
-- Architecting Networks for a Sustainable Future: http://www.cisco.com/web/about/ac227/csr2008/the-environment/architecting-networks/index.html
-- Mitigating Climate Change: http://www.cisco.com/web/about/ac227/csr2008/the-environment/sustainable-company-operations/mitigating-climate-change/index.html
-- Reducing GHG Emissions From Air Travel: http://www.cisco.com/web/about/ac227/csr2008/the-environment/sustainable-company-operations/mitigating-climate-change/reducing-ghg-emissions-air-travel.html
-- Reducing GHG Emissions from Operations: http://www.cisco.com/web/about/ac227/csr2008/the-environment/sustainable-company-operations/mitigating-climate-change/reducing-ghg-emissions-operations.html

o Annual corporate social responsibility report (prior years):
-- 2007 Citizenship Report, pp. 20, 68
http://www.cisco.com/web/about/ac227/ac333/pdf/Corporate_Citizenship_Report_2007.pdf
-- 2006 Citizenship Report, pp. 10, 50
http://www.cisco.com/web/about/ac227/ac222/pdf/Corporate_Citizenship_Report_2006.pdf
-- 2005 Citizenship Report, pp. 35
http://www.cisco.com/web/about/ac227/ac111/pdf/ccmigration_09186a0080536144.pdf

27.3. Voluntary communications (other than to CDP) such as Corporate Social Responsibility reporting.

Yes

Answer: Yes

Cisco participates in a number of initiatives highlighting the risks and opportunities presented to Cisco by climate change, including:

o As mentioned in the response to Question 9.1:
-- Cisco is participating in EPA Climate Leaders Partnership and is listed on the EPA website:
http://www.epa.gov/climateleaders/partners/index.html
http://www.epa.gov/climateleaders/partners/partners/ciscosystemsinc.html

-- Cisco has made a "Carbon to Collaboration" commitment to the Clinton Global Initiative (CGI) and reports the status of emissions reduction on the CGI website.
http://commitments.clintonglobalinitiative.org/projects.htm?mode=view&rid=43066

o Also through the Clinton Global Initiative, Cisco has initiated an advanced study project, Connected Urban Development (CUD), which is a partnership between Cisco and cities around the world to create urban communications infrastructures to reduce carbon emissions.
-- Connected Urban Development (CUD) website
http://www.connectedurbandevelopment.org/
-- Clinton Global Initiative website
http://commitments.clintonglobalinitiative.org/projects.htm?mode=view&rid=43067

o As a board member of GeSI, Cisco was a leading participant in the SMART 2020 study on enabling the low carbon economy in the information age. The report was published by The Climate Group and is available at:
http://www.smart2020.org/

o A VoiceCon 2008 video (http://tinyurl.com/n3ej6r, also referenced in the response to Question 25) of a TelePresence discussion including John and Al Gore specifically addresses the role that technologies like TelePresence can have on mitigating climate change. Advance to 13:00 time mark for the beginning of actual TelePresence session. Original link is under "Media" at http://newsroom.cisco.com/dlls/2008/hd_030308.html (Nobel Laureate Al Gore and Cisco CEO John Chambers Host Virtual Discussion on Climate Change and Technology Innovation)

o Cisco has published white papers on the opportunities to reduce emissions from the use of more efficient
-- Unified Communications: Use Virtual Collaboration to Improve Environmental Sustainability
http://www.cisco.com/en/US/solutions/collateral/ns340/ns394/ns165/ns152/white_paper_c11-459857.html
-- Cisco ASR 1000 Series Aggregation Services Routers: Achieving Energy Efficiency through Service Integration
http://www.cisco.com/en/US/prod/collateral/routers/ps9343/white_paper_c11-457418.pdf
-- Cisco Integrated Services Router: Reduce Power Consumption through Integrated Services Delivery
http://www.cisco.com/en/US/solutions/collateral/ns340/ns517/ns477/net_implementation_white_paper0900aecd80716af6.pdf
-- Greenbacks for Green Acts: The truth is that by overlooking "green" opportunities, corporations are spending enormous amounts of money to sustain expensive, wasteful, and costly inefficiencies in their operations
http://www.cisco.com/web/about/ac79/docs/pov/Green_Business_v6_042809.pdf

o Cisco EnergyWise won the Best of Interop 2009 award in the Green category for being a leader in improving corporate-wide energy efficiency and lowering operational costs with the innovative energy-management architecture. The award recognizes companies and products that embrace eco-friendly initiatives in their function, design, and manufacture.
announcement: http://www.bestofinterop.com/2009/#green
concept demo: http://blogs.cisco.com/green/comments/cisco_energywise_demonstration_from_interop_las_vegas_2009

Please also see product references provided in the response to Question 14.1.

Further information

28. Public Policy: (CDP6 Q4(d))

28.1. Do you engage with policymakers on possible responses to climate change including taxation, regulation and carbon trading?

Yes

Answer: Yes,

OVERVIEW
External policy-making is managed through Cisco Global Policy and Government Affairs headed by Laura Ipsen, SVP and co-chair of Cisco's EcoBoard. Cisco Global Policy and Government Affairs and Cisco Legal Environmental Regulatory Affairs work together to track, monitor and influence environmental policy and regulatory compliance. Implementation of policy and regulatory issues is the responsibility of Cisco's EcoBoard. (See the response to Question 25 for information on the EcoBoard.)

Cisco engages regularly with policy makers in Europe--notably the European Commission, the U.S. and elsewhere to promote effective regulation to reduce GHG emissions and mitigate climate change. In Europe, Cisco has worked closely with the European Commission on the second Communication on ICT and energy efficiency, launched in March 2009, by providing information on Telepresence; the Connected Urban Development program; and the use of ICT to measure, monitor, and reduce energy use and carbon emissions. Cisco was highlighted in the Annex of the European Commission press release launching this EU Communication on ICT. The European Commission has also recognized Cisco's commitment to reduce its global GHG emissions from operations by 25% world-wide by CY2012 (Scope 1, 2 and business-air-travel Scope 3, CY2007 baseline). Cisco has responded to European Commission questionnaires on ICT use to improve energy efficiency in order to help inform decision making.

DISCUSSION
Cisco policy positions include:
o Support reduction in global GHG through market mechanisms, such as cap and trade.
o Support policies that promote adoption of ICT as means of driving energy efficiency throughout more carbon-intensive sectors of the economy via smart grids, smart buildings, smart transportation and travel substitution.
o Support policies that increase tax incentives for use of energy efficient products, promote investment in renewables; increase funding for environmental/energy R&D and provide incentives for smart grid deployment.
o Support government leadership in own operations through use of travel substitution, smart buildings and smart grids for government-owned electric utilities.
o Support product efficiency standards that promote innovation by being performance-based; take into account product functionality; and rely on objective criteria, data and system-level efficiency.
o Committed to reduce its global GHG emissions by 25% world-wide by CY2012 (Scope 1, 2 and business-air-travel Scope 3, CY2007 baseline).
o Advocate using the network as the platform to effectively implement solutions to improve energy efficiency, and reduce energy consumption and GHG emissions.

Cisco believes that product efficiency regulation should be harmonized globally to avoid duplication and maximize environmental benefits. Such regulations should also promote innovation by being performance-based; take into account product functionality; and rely on objective criteria, real-world data, and system-level efficiency.

Cisco FY2008 advocacy includes:
o Cisco held an EU-US climate change policy panel on Earth Day with panelists from the European Commission and an advisor to the US administration to educate Cisco employees about policy/regulations in place to combat climate change and government responses and actions to reach an international agreement on climate change in Copenhagen at the end of 2009.

o Cisco GPGA team worked with the European Commission on their second Communication on ICT and energy efficiency, launched in March 2009 by providing examples of Telepresence and on the Connected Urban development program. Cisco was highlighted in the Annex of the European Commission press release launching the Communication as one of only 15 ICT companies. The European Commission highlighted that Cisco has committed to reduce its global GHG emissions from operations by 25% world-wide by 2012.

o European Commission recognized the Connected Urban development program as one of its Benchmark of Excellence in the European Commission's Covenant of Mayors program. The Commission invited Cisco to organize a Connected Urban Development workshop in Brussels as part of the European Commission's Sustainable Energy Week in February 2009. Nicola Villa, Director of Cisco's Connected Urban Development program, was a speaker at Commission conference on ICT and climate change in February 2009 and at the OECD conference on ICTs and Climate Change in Copenhagen in May 2009.

o Cisco is on the GeSI board and was chosen to lead the European GeSI policy working group. This group launched the Smart 2020 study in the EU at the end of 2008 and contributed to the European Commission Communication on ICTs and Energy efficiency in March 2009 by providing examples from the Smart 2020 report and the Commission quoted the Smart 2020 report in its Communication. Cisco also led the GeSI work and submission on the European Commission Consultation submitted to the European Commission in June 2009.

o In March 2009, Cisco Italy won first place in the "Sustainable projects and green public procurement" contest, sponsored by the Ministry of Economy and Finance. The award has been granted evaluating quality of all responses based on the following parameters: 1) strategic approach to reduction of environmental impact and reduction of energy consumption; products, 2) services and solutions offered by the company to help reducing environmental impact; 3) certification and compliances for products and processes.

o Cisco, represented by Chris Dedicoat, President of Cisco Europe, joined 100 business leaders in signing the Poznan Communiqué in December 2008 pointing out key elements of an international deal on climate change.

o Cisco is a member of the World Economic Forum Task Force on Low-Carbon Economic Prosperity that recently launched the Eco-Sustainability project. The aim of the Task Force is to synthesize the role ICT can play in mitigating climate change and to develop a charter highlighting the sector's role in shaping an eco-sustainable future. In March 2009, Cisco signed a letter directed to G20 Leaders and the UN Secretary General introducing the task force and producing a set of practical recommendations to give extra momentum to the climate discussions, in the context of economic recovery strategies. The letter was signed by 50+ companies and 34 experts:
http://www.weforum.org/pdf/climate/G20_ProsperityTaskForceLetter.pdf

o Cisco has two representatives participating on the WRI/WBCSD Scope 3 Accounting Standard development effort addressing all Scope 3 sources of GHG emissions.

o Cisco is active in the ITU-T Focus Group on ICTs and Climate Change, chairing the work on "Deliverable 2: gap analysis." The ITU-T Focus group work was centered on developing a method for calculating two elements:
-- Energy usage and carbon impact arising from ICT lifecycles.
-- Decrease in GHG emissions that can be achieved with ICTs, such as substituting ICT services and devices for intensive fossil-fuelled activities for travel and transport and by replacing atoms with bits, also known as "dematerialization".

Cisco actions from CDP6 includes. Many of these activities continue in FY2008.

Cisco has taken affirmative action to reduce the GHG emissions resulting from our operations. For example:
o Cisco purchases significant renewable energy and is ranked the eighth-largest purchaser of green power in the U.S. Environmental Protection Agency (EPA) Green Power Partnership. For more information, see http://www.epa.gov/grnpower/toplists/top25.htm.
o As part of the Clinton Global Initiative, Cisco committed to a 10% reduction in the carbon dioxide emissions that result from our corporate air travel in FY07.
o During FY2007, Cisco became a signatory to the U.S. EPA Climate Leaders program. During FY2008, Cisco is reviewing of the scope of our greenhouse gas emissions inventory to comply with the specific requirements of the Climate Leaders program and plans to publicly announce a corporate GHG reduction goal in June 2008.
o In support of the Clinton Global Initiative, Cisco has launched Connected Urban Development, an initiative that embeds advanced information communication technology in urban infrastructure and management systems. This initiative has the potential to reduce global warming by creating smarter, more environmentally-friendly cities. At the same time, it has the potential to increase social and economic value. The total value of Cisco's investment in this initiative is estimated at $15 million over five years.

Cisco is engaged with policymakers in key countries and regions where climate change legislation and regulation are under discussion, including the U.S., EU, China, India and Latin America. For example:
o Cisco contributed to a May 2008 European Commission (EC) Communication on Addressing the Challenge of Energy Efficiency through Information and Communications Technology. In its report, the EC focuses on proactively promoting broadband as a leading tool to reduce carbon usage in Europe. It makes a commitment to support the use of energy-efficient ICT to improve buildings, lighting and power distribution. The EC will support R&D and deployment of ICT components and systems, and support voluntary agreements covering issues such as procurement of green technologies. The Commission will also promote products and services, such as TelePresence, that can benefit the EU's environmental footprint. The Report highlights that special attention should be paid to urban areas, which represent a particular challenge and can provide the right setting for testing, validating and deploying ICT-based solutions.
o With thirteen, other multinational companies, Cisco signed a letter to then-UK Prime Minister Tony Blair, urging the UK government to provide leadership within the EU and G8 to develop a policy framework that would create long-term value for global emissions reductions, and consistently support and provide incentives for the development of new technologies by (among other things) setting targets for emissions trading and other related policies beyond 2012. For more information, see http://www.cpi.cam.ac.uk/programmes/energy_and_climate_change/clgcc/2005_letter.aspx.
o As a part of the World Economic Forum (WEF) Information Technologies and Telecoms Industry Partnership, Cisco provided leadership in the working group effort to produce a report entitled, "The Contribution of ICT to Climate Change Mitigation," published and shared with governments in January 2008.
o Cisco currently sits on the board of the Global e-Sustainability Initiative (GeSI) and currently chairs one working group.

o Cisco is actively involved in energy efficiency efforts within various government forums, including the U.S. EPA/Department of Energy (DOE) Energy Star® program, the Japanese Ministry of Economy, Trade and Industry (METI) Top Runner program, the EU Codes of Conduct and the EU Energy-Using Products Directive (EuP). (See the response to Question 1.a.i for more information.)
-- Cisco actively participated in the development of a new Energy Star specification for set-top boxes, which takes effect in September 2008.
-- Cisco is providing information to the Energy Star program to support the development of energy efficiency metrics for data centers.
-- Cisco is in dialogue with and is committed to working on standards for networking equipment the Japanese Ministry of Economy, Trade and Industry (METI)
-- Cisco participates in stakeholder consultations with the European Commission on an EU Codes of Conduct for Set Top Boxes and Data Centers, as well as on the development of implementing measures related to the EuP Directive.
-- Through its membership in the Information Technology Industry Council (ITI) and the Green Grid, Cisco actively supported the data center energy efficiency provisions which passed in the Energy Independence and Security Act of 2007. For more information, see §453, P.L. 110140, Dec. 19, 2007 at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_public_laws&docid=f:publ140.110.pdf
-- Through its membership in the Information Technology Industry Council (ITI) and the GridWise Alliance, Cisco actively supported the smart grid provisions which passed in the Energy Independence and Security Act of 2007. (See Title XIII from the URL directly previous.)