

US EPA ARCHIVE DOCUMENT



# Cisco Systems Green Operations

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# Cisco Worldwide

## WW Headcount

66,392 employees\*

35% Engineering

30% Sales

35% all others



## WW Portfolio:

19.1 million sf\*\*  
(57% owned, 43% leased)

286 metros in 83  
countries

456 buildings

Over \$6B in Assets

## San Jose Headcount

22,435 employees\*

46% Engineering

54% all others

## San Jose Campus Portfolio:

51 buildings

6.6 million sf \*\*  
(90% Owned, 10% Leased)

End of Q3 FY08

\* Headcount Persons Housed "PH" (includes Cisco employees and non-Cisco contingent workforce); numbers do NOT include Scientific Atlanta PH unless they reside in Cisco buildings, but DO include addition of acquisitions (WebEx & IronPort)

\*\* Net-in-Service SF: Operating (Growth & Occupied) + Potential Excess + Approved for Disposition

# Cisco's Green Mission

## Operations

Impacting how we operate as a business

## Products

Creating efficiencies and innovations in our products

## Architecture

Providing solutions to our customers to address global environmental issues

## Employees & Advocacy

Inspiring our employees to get involved and take action

# Workplace Resources - Green Operations

- **Energy Management**
- **Water Management**
- **Waste and Recycling**
- **Maintenance Operations**
- **Education and Outreach**
- **Awards**



# Water Sources and uses

- Sources Where Cisco Receives its Water
- Types of water used
  - Potable
  - Recycled
- Types of applications
  - Domestic or potable water is used for bathrooms, toilets, boilers, kitchen, HVAC and as Fire suppressant
  - Recycled water is used for landscaping and fountains

“... designing the air-conditioning to deal with the real heat gains from office equipment can reduce capital costs of air conditioning by 20% ...”



# Cisco Water Sources by Locations

Location	Supply Source	Type of water	Quantity used in (HCF)
San Jose	Municipalities	Potable	200,000
RCDN	Municipalities	Potable	50,000
RTP--NC	Municipalities	Potable	60,000
Boxborough	Utility	Potable	40,000
Austin	Municipalities	Potable	20,000

# Water Conservation Measures Taken

- ET system installed for managing landscape
- Installed More Than 400 Waterless Urinals
- Installed Infrared Sensor Water Faucets
- Execute Water Conservation Campaign
- Execute native plant program at the San Jose campus
- Execute fountain conversion program

# Fountain Conversion Before & After



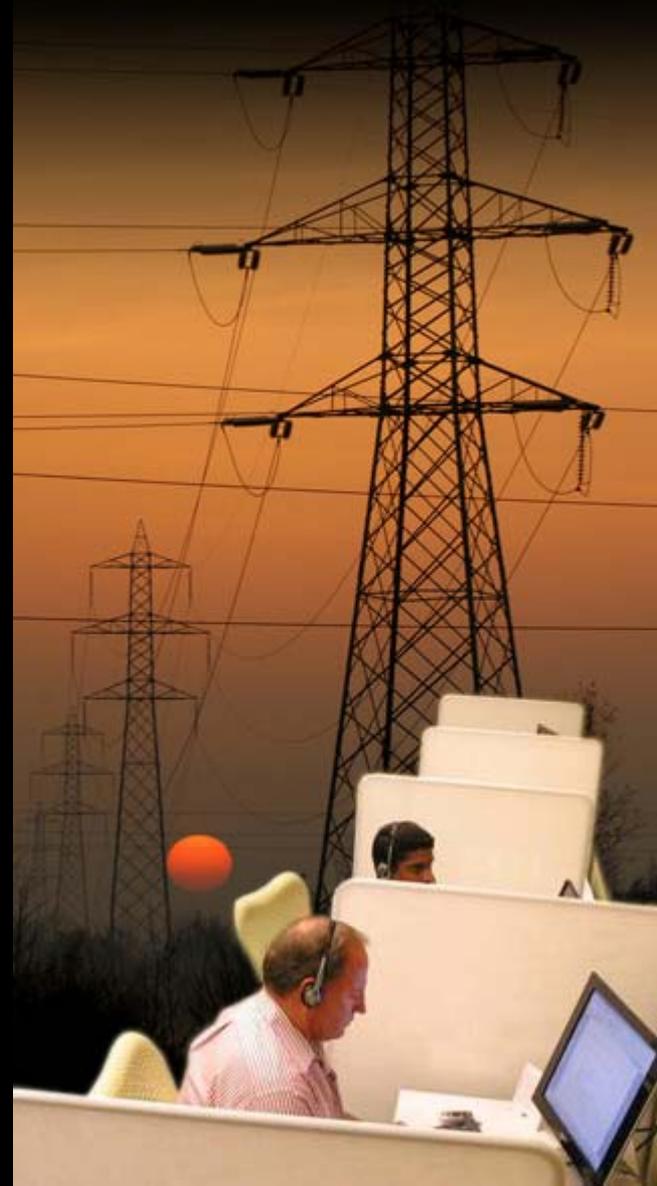
# Waste and Recycling

- San Jose Campus has a **85% Diversion Rate**
- **100% Sort Trash** removes all recycling material from waste stream
- Majority of **Construction Waste Recycled**
- Kitchen Oil converted to **bio-diesel**
- **Café waste is composted** (3.5 Tons/Yr)
- **Donation of excess office supplies** to local schools
- Milpitas compost is **converted to energy**



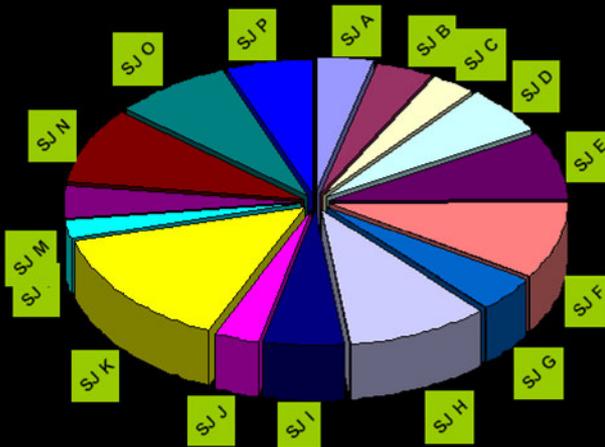
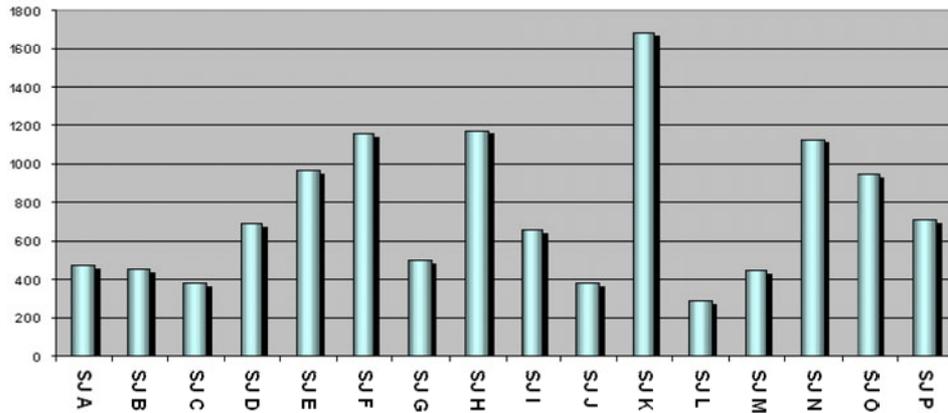
# Energy Management

- Cisco's is 7<sup>th</sup> largest green power purchases in the U.S. at **373 Million Kwh purchased**
- Since 2006, Cisco's US Energy program in **saved 74 Million Kwh**, provided over 2 Million in Energy Rebates and prevented 81 Million pounds of CO<sub>2</sub> from being released
- **San Jose Campus design exceeded Title 24 by 15%** with an annual energy cost savings of more than \$4.5 million. The annual energy savings are 49,000,000 kwh, enough to power 5,000 homes for a year.
- New construction being built to **LEED Standards**
- Cisco purchase Utilities as a commodity on the open market, **savings over \$2Mill per year**

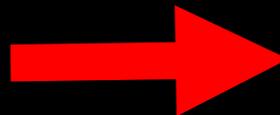


# Network Enabled Real-Time Energy/Costs Management

Site 1-3 KVA



**Real Time Load Reporting**



Campus Usage

Site 1-3		Site 4		Site 5	
SJ A	471	SJ 1	1106.25	SJ 20	3512
SJ B	457	SJ 2	243.75	SJ 21	1702
SJ C	384	SJ 3	2283	SJ 22	1478
SJ D	691	SJ 4	3263	SJ 23	2242
SJ E	967	SJ 5	3269	SJ 24	2734
SJ F	1154	SJ 6	2213		
SJ G	502	SJ 7	1622		
SJ H	1174	SJ 8	350		
SJ I	651	SJ 9	388		
SJ J	382	SJ 10	492		
SJ K	1678	SJ 11	233		
SJ L	295	SJ 12	3021		
SJ M	450	SJ 13	1118		
SJ N	1125	SJ 14	1199		
SJ O	948	SJ 15	3238		
SJ P	707	SJ 16	2265		
		SJ 17	760		
		SJ 18	1315		
		SJ 19	1209		
<b>Site 1-3</b>	<b>12036</b>	<b>Site 4</b>	<b>29588</b>	<b>Site 5</b>	<b>11668</b>

**Campus Total = 53292 KW**

Instant KW Cost / Day	\$147,085.92		
Instant KW Cost / Month	\$4,473,863.40		
Instant KW Cost / Year	\$53,686,360.80		

# Green Power Purchasing

**In April 2008, the U.S. Environmental Protection Agency ranked Cisco the seventh largest Fortune 500 purchaser of renewable energy in the United States.**

## FACTS

- **In FY2008, Cisco purchased more green power than ever before, increasing our overall green power purchases by 126%.**
- **Cisco's worldwide green power purchases in CY2008 will total in excess of 460 million kWh.**
- **Cisco's green power purchases in the U.S. in CY2008 will be equivalent to preventing more than 260K metric tons of carbon dioxide from entering the atmosphere, up from 92K metric tons in CY2007**
- **Combined with UK initiatives, this represents the prevention of 290K metric tons of carbon dioxide.**



# Reducing Water Use

Cisco has installed waterless urinals in restrooms at our San Jose headquarters and 60 taps with sensors in our Brussels office.

## FACTS

- Waterfree urinal project lowered fresh water consumption by more than 10 million gallons per year in San Jose
- At our San Jose headquarters, Cisco uses only recycled water for landscape irrigation and fountains, which represents approximately 30% of our total 700,000 cubic feet of water consumption.\*
- In California alone, we are saving more than 81 million gallons of water each year due to our water conservation efforts.\*
- Using Satellite controlled irrigation, lowered irrigation water use by 24%

# Greenhouse Gas Emissions

## FACTS

- **Environmental Data Tool developed with IT-Flex Services to collect energy usage from Real Estate Operations and back end db converts to GhG emissions.**
- **GhG emissions data is based on 89% of actual data and 11% estimated data**
- **Majority of GhG reductions are due to REC purchases in the US and Europe.**



# Sustainability Awards

Cisco's Sustainability Program has been recognized for its progress across the US, Europe and Asia.

## FACTS

- EPA Green Power Partners #7 – April 2008 (~ 51% of US power.)
- Queen's Awards for Enterprise: Sustainable Dev -FY07- Southampton
- Waste Reduction Awards Program (1994, 2000-2004, 2006-2008) for SJ recycling program.
- EPA Top 20 Best Workplaces for Commuters: San Jose and RTP 2006. Northern California Association for Commuter Transportation “Best Workplaces for Commuters” 2005-2007 San Jose.
- Australian Building Greenhouse Rating 4.5 Stars & National Australian Built Environment Rating System Water rating 4 Stars for Cisco's Sydney office; highest rated building in Australia.
- Flex Your Power Award for Best Energy Management Practices FY07

# Energy and Recycling Awards

