How Dirty Is Your Data (2011)
Company Data Centre Facilities and Estimates of Power Demand

Facility Location	Status	Sq Footage[1]	Estimated Max Power Demand (MW)[2]	% of Dirty Energy Generation on Local Grid	% of RE Supply to Data Center	Coal Intensity[3]	Clean Energy Index[4]
amazon.com web services [5]						**28.5%**	**26.8%**
Boardman, Oregon(Vadata)	Not yet occupied	100,000	5	9% Nuclear	85.5%		
McNary, Oregon(Vadata)	Under Construction	120,000	6	9% Nuclear	85.5%		
Dublin, Ireland	Operational	240,000	12	27% Coal	12%		
Manassas, Virginia	Operational	110,000	5	45% Coal 35% Nuclear	3%		
Ashburn, Virginia	Operational	180,000	9	45% Coal 35% Nuclear	3%		
Sterling, VA	Operational	125,000	6	45% Coal 35% Nuclear	3%		
Apple						**54.5%**	**6.7%**
Maiden, North Carolina	Nearly Completed	500,000	100	62% Coal 32% Nuclear	4.6%		
Newark, California	Operational	100,000	15	22% Nuclear 8% Coal	27%		
facebook						**52.8%**	**13.8%**
Prineville, Oregon	Near completion	307,000	40MW	63% Coal	9.3%		
Forest City, North Carolina	Under construction	300,000	40MW	62 % Coal 31% Nuclear	3.6%		
San Jose, California (Fortune)	Lease	25,000	5MW	20% Nuclear 8% Coal	27%		
Santa Clara, California (Digital Realty Trust)	Lease	86,000	15MW	25% Coal 2% Nuclear	43.6%		
Ashburn, Virginia (Digital Realty Trust)	Lease	49,000	8 MW	45% Coal 35% Nuclear	3%		
Ashburn, Virginia (Dupont Fabros)	Lease	45,000	8 MW	45% Coal 35% Nuclear	3%		
Santa Clara, California Core Site Realty)	Lease	50,000	8 MW	25% Coal 2% Nuclear	43.6%		

Facility Location	Status	Sq Footage[1]	Estimated Power Demand (MW)[2]	% of Dirty Energy Generation on Local Grid	% of RE Supply to Data Center	Coal Intensity	Clean Energy Index
Google [6]						**34.7%**	**36.4%**
Berkeley County, South Carolina	Under Construction	200,000	76	78% Coal 9% Nuclear	2%		
Council Bluffs, Iowa	Under Construction	200,000	76	52% Coal 7% Nuclear	100%[7]		
Dalles, OR	Operational	200,000	70	9% Nuclear	85.5%		
Eemshaven NL	Operational	215,000	40	25% Coal 4% Nuclear	7.5%		
Hamina, Finland	Near Completion		22	30% Nuclear 18% Coal & Peat	35%		
Lenoir, North Carolina	Phase I complete— phase II under construction	140,000 +337,000	76	62% Coal 31% Nuclear	3.6%		
Mayes County, OK	Near Completion		76	55% Coal[8]	14.5%		
St Ghislain-Belgium	Operational		40	54% Nuclear 8.5% Coal	6%		
hp						**49.4%**	**9.9%**
Atlanta (Alpharetta), Georgia	Operational	200,000	20	62% Coal 22% Nuclear	3.6%		
Atlanta (Suwanee), Georgia	Operational	200,000	20	62% Coal 22% Nuclear	3.6%		
Austin	Operational	100,000	20	31% Coal 27% Nuclear	30%[9]		
Colorado	Operational	250,000	10	66% Coal	5%		
Tulsa (Cherokee)	Operational	250,000	20	62% Coal 22% Nuclear	3.6%		
Wynyard, UK	Recently Completed	305,000	19	28% Coal 18% Nuclear	3%		

Facility Location	Status	Sq Footage[1]	Estimated Power Demand (MW)[2]	% of Dirty Energy Generation on Local Grid	% of RE Supply to Data Center	Coal Intensity	Clean Energy Index
IBM						51.6%	10.9%
Boulder, Colorado	Operational	300,000	60	50% Coal 12% Nuclear	15%		
Dublin, Ireland	Operational		3	27% Coal	13%		
Research Triangle, North Carolina	Operational	100000	30	61% Coal 38% Nuclear	3.6%		
Singapore	Recently Completed		3	20% Oil	0		
Microsoft						34.1%	25%
Boydton, Virginia	Under Construction		50	45% Coal 35% Nuclear	3%		
Chicago, Illinois	Operational	700,000	60	47% Nuclear 47.6% Coal	1%		
Dublin, Ireland	Operational	303,000	22	27% Coal	80%[10]		
Quincy, Washington	Operational	500,000	27	9% Nuclear	88.5%		
San Antonio, Texas	Operational	477,000	27	35% Nuclear 34% Coal	16%		
W Des Moines, Iowa	Under Construction		11	52% Coal 7% Nuclear	20%		
twitter						42.5%	21%
Salt Lake City, Utah (C7)	Lease	15000	2	82% Coal	1%		
Sacramento, California (RagingWire)	Lease		2	3% Coal	56%		

Facility Location	Status	Sq Footage[1]	Estimated Power Demand (MW)[2]	% of Dirty Energy Generation on Local Grid	% of RE Supply to Data Center	Coal Intensity	Clean Energy Index
YAHOO!						18.3%	55.9%
Avenches, Switzerland	Under Construction		7.2	40% Nuclear	55%		
Ashburn, Virginia Dupont Fabros)	Operational	112,000	10	45% Coal 35% Nuclear	3%		
Lockport, New York	Operational		18	27.8% Nuclear 23% Coal	92%[11]		
Omaha, Nebraska	Operational	180,000	20	56% Coal 35% Nuclear	1%		
Quincy, Washington	Operational	180,000	26	9% Nuclear	88.5%		
Quincy, Washington (Chicken Coop model)	Under Construction		7.2	9% Nuclear	88.5%		

1 Square footage listed is as provided or announced by company or firms building or managing the facility; or as reported by media during facility construction process.

2 As provided or announced by the company. If not disclosed by the company, estimated [deleted of] maximum power (MW) is derived from other facility information that has been disclosed, including: company reported or industry average MW of IT power demand per dollar invested; air quality permits for backup generators; estimated powered demand per square foot.

3 For methodology in calculating Coal Intensity, please see full report, How Dirty is Your Data?, p. 29.

4 For methodology in calculating Clean Energy Index, please see full report, How Dirty is Your Data?, p. 28.

5 AWS was provided facility power demand estimates to review. AWS responded they were not correct, but did not provide alternative estimates. Using conservative calculations, Greenpeace has used the best information available to derive power demand, and have decided to publish and invite AWS to be transparent and provide more accurate data for their facility power demand.

6 Google was provided facility power demand estimates to review, and indicated they substantially exceeded Google's current electricity demand, but did not make additional information available. Given that these estimates are based on maximum power of each facility, and not estimates of current use, we elected to publish and invite Google to provide current data on energy footprint.

7 100% RE Based on Google's power purchase agreement for 114 MW of wind by Google Energy in Iowa.

8 Generation mix of Grand River Dam Authority, excluding pumped storage hydro.

9 Includes purchase of RE to cover 20% of electricity demand.

10 Reported by company to be 80% powered by renewable energy.

11 Clean Energy % based on reported allocation of 16 MW of power from local utility.