GreenGrid - CUE Factsheet

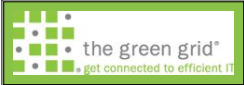|	
the green grid® — get connected to efficient IT	Carbon Usage Effectiveness (CUE): A Green Grid Data Centre Sustainability Metric
Name of Initiative/Methodology	White Paper #32 – Carbon Usage Effectiveness (CUE): A Green Grid Data Centre Sustainability Metric
Link to the latest published version	White Paper #32 (12/2010): Version 3 https://www.thegreengrid.org/en/resources/library-and-tools/241-Carbon-Usage-Effectiveness-(CUE)%3A-A-Green-Grid-Data-Center-Sustainability-Metric
Developed by	The Green Grid
History and Status	• Indicator introduced as a complement to Power Usage Effectiveness (PUE) • Issued in December 2010
Involved companies / parties	• Microsoft • Symantec • Intel • Emerson • HP

Scope	✔ **Organisation env. accounting** ✔ Scope 1 ✔ Scope 2 ✘ Scope 3	✘ **Product env. assessment** ✘ Life cycle approach ✘ Use phase only
	✘ GWP ✘ Energy (focus on secondary energy)	✘ Other environmental impacts ✔ KPIs (CUE)

System(s) covered by the methodology	Existing or new data centres
Goals	• Calculating the Carbon Usage Effectiveness, related to carbon emissions associated with operations of data centres • Providing guidance to IT organisations to better understand and improve the sustainability and energy efficiency of their existing data centres or when deploying new data centre • Comparing results with similar data centres
Generic features	• Only operations of the data centre are covered; the full environmental burden of the life cycle of the data centre and IT equipment is not considered • Electricity from the grid: the carbon emission factor used for the operations of the site is based on government's published data for the region of operation for the year. • Electricity produced on-site or CO_2 generated in other manners: the actual CO_2 emission data is used (i.e. from locally produced electricity or generating sources) • Measured CO_2 emissions data (from local meters) is preferred, however calculations may be made using the generator manufacturer data for emission and fuel source
ICT-specific features	• The IT equipment energy includes the load associated with all of the IT equipment, including computer, storage and network equipment, along with supplemental equipment such as monitors, laptops used to monitor or control the data centre • The total data centre energy includes the IT equipment energy and any equipment supporting the IT equipment load, including: ∘ Power delivery components (generators, UPS) ∘ Cooling system components ∘ Other components such as data centre lighting ∘ Any energy used, such as natural gas, etc.
Examples of implementation / experience feedback	None identified – to be filled later
Interaction with other methodologies	[GHG Protocol]

How do I use this methodology? Ask for support!