

# DCOI At-a-Glance

The goal of the U.S. Federal Data Center Optimization Initiative (DCOI) is reducing, streamlining, and making government agency data centers more energy efficient and responsible for performance. The mandate calls for automated collection and reporting of systems, software and hardware inventory, and dictates specified levels of operation. Data centers that do not comply in time will be closed.

## The Facts

### Requirements



**9.30.2018**  
Compliance Deadline



**INSTALL AUTOMATED ENERGY METERING**  
Required for continuous PUE reporting



**DCIM\* SOFTWARE IMPLEMENTATION**  
\*Data Center Infrastructure Management



**PUE BELOW 1.5**  
Or will be closed

### Data Center Classifications



**TIERED\***  
Have a separate physical space, UPS, independent cooling system & backup power generator  
\*PUE monitoring applies



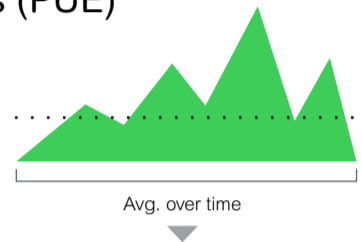
**NON-TIERED**  
All other sites

## The Metric

### Power Usage Effectiveness (PUE)

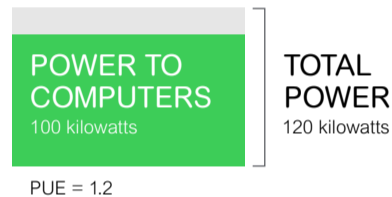
#### PUE DEFINITION

The total amount of power entering a data center divided by the amount of power that actually makes it to the data center computer equipment



#### EXPRESSED AS A RATIO

Overall efficiency improving as the quotient decreases toward 1



#### AVERAGE EFFICIENCY

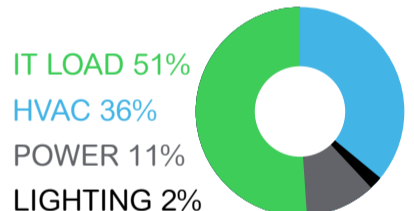
The energy consumption of a data center over a period of time is computed using the average of the data center efficiency over that period.

PUE measured instantaneously will generally NOT be equal to the annual PUE.

### DCOI PUE Requirements



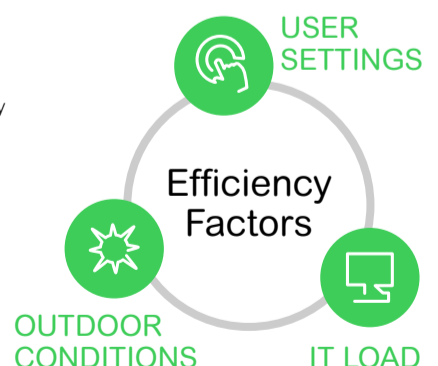
### Typical Data Center Allocation (PUE=2)



## The Actions

### Efficiency Best Practices: Achievable Savings Examples

10–30%	Right-sized infrastructure	1–10%	Variable Frequency Drives (VFD)
7–15%	More efficient cooling architecture	0–10%	Coordinated cooling units
4–15%	Use of cooling economizer modes	1–6%	Correct location of vented floor tiles
5–12%	More efficient floor layout	1–3%	Energy efficient lighting
4–10%	More efficient power equipment	1–2%	Blanking panels



## DCOI in Depth

Data centers play a critical role in meeting your core mission. Schneider Electric can help you operate intelligently and at maximum efficiency, within compliance. For DCOI in depth, read whitepaper: [“DCOI Compliance: A Guide to Improving PUE in U.S. Federal Data Centers.”](#)