

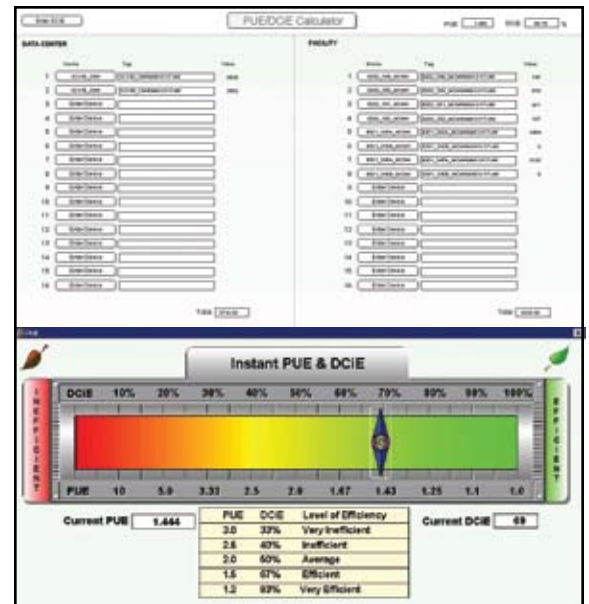
# Easily monitor your data center's efficiency



## Data Center Energy Efficiency KPI Solution

With the increase in energy usage by data centers, the need for energy efficiency has become more apparent. Currently data centers use 2% of the energy on the grid and this is expected to double within the next 5 years. It is essential to implement energy efficiency measures without compromising reliability. You can achieve improvements in both energy efficiency and reliability with an energy management and control system spanning power, building and facility systems.

The Data Center Energy Efficiency KPI Solution is the latest PowerLogic solution developed to help IT and data center managers accurately benchmark efficiency within their facilities. Two KPI's: are calculated, Power Usage Effectiveness (PUE) and Data Center Infrastructure Efficiency (DCiE). Evaluating the success of any green initiatives, determining energy saving opportunities, and comparing efficiency information with other data centers becomes easy. By reducing the impact on the environment through energy efficiency, the data center KPI solution can help obtain an energy star rating and green data center recognition.



PUE Calculator and Efficiency Bar



by Schneider Electric

## PUE and DCiE

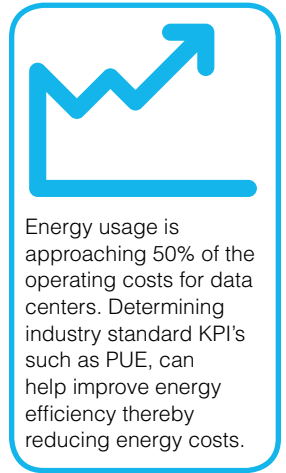
PUE measures how much power is actually delivered to the IT loads compared to the amount of power used by the data center facility. DCiE is simply the reciprocal of PUE and in comparison describes what percentage of the total load is used by the IT equipment. The PowerLogic KPI solution calculates these two values, allowing you to evaluate the success of any green initiatives, determine energy saving opportunities, and compare efficiency information with other data centers.

$$PUE = \frac{\text{Total Facility Power}}{\text{IT Equipment Power}}$$
$$DCiE = \frac{1}{PUE} = \frac{\text{IT Equipment Power}}{\text{Total Facility Power}} \times 100\%$$

Total Facility Power is the IT Equipment Power (load associated with all the IT equipment such as computers, storage, network, and monitoring equipment.) plus the everything that supports the IT equipment load such as power Delivery Components (UPS, Transformers) Cooling systems (Chillers, Pumps, Towers), and other miscellaneous loads such as lighting.

## Features and Benefits:

- Helps reduce energy usage, minimizing the economic and environmental impact associated with high energy usage
- Validate the effectiveness of energy efficiency deployments throughout the life of the data center facility
- Discover opportunities for improving data center efficiency by evaluating the PUE
- Show how your data center compares to other facilities
- Benchmarking and normalization to verify system improvements and accurately compare facilities



## System Requirements:

### Software:

- PowerLogic SCADA
- ION Enterprise
- System Manager Software

### Devices:

- PowerLogic Devices
  - > ION 7650,
  - > CM4000 series,
  - > PM800 series,
  - > Energy Meter,
  - > Micrologic Trip Unit (Series P & H),
  - > Sepam Relays,
  - > BCPM and
  - > MCM
  - > Additional modbus devices supported



### System survey:

A Schneider Electric application engineer will survey the site or review the facility plan to determine how to configure the application to monitor PUE and DCiE for the building.

Please contact your local sales representative for ordering information.

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