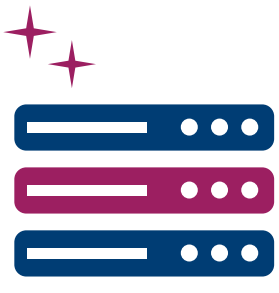
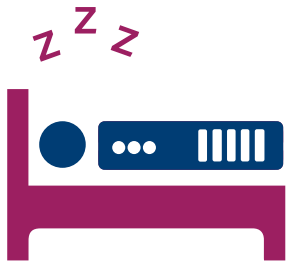
Major energy efficiency opportunities in **SMALL EMBEDDED DATA CENTERS** (SEDCs)

INCREASE uninterruptible power supply utilization

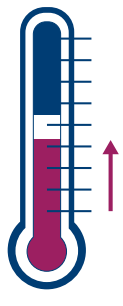
REPLACE older servers with current generation models



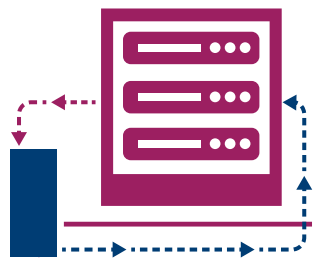
REMOVE dormant servers



INCREASE data center temperature set points



UPGRADE cooling efficiency at end of equipment life



8%–20% OF ENERGY CONSUMPTION CAN BE REDUCED by these efficiency opportunities when multiple measures are installed at a single site.

92% OF THE SAVINGS POTENTIAL in SEDCs is associated with efficiency improvements that would be delivered by a service provider including UPS use, server and storage consolidation, migration of data to the cloud, and airflow management.

BARRIERS

- Some IT service providers we contacted were **unfamiliar with energy efficiency programs** and **do not routinely leverage efficiency incentives** for their customers.
- Due to low energy savings per measure, **most service providers did not view the incentive ranges** cited for SEDCs **as large enough to have significant impact** on customer purchasing decisions.

HOWEVER

- HVAC and RCx service providers we interviewed regularly engage with facilities that have SEDCs. These firms are also **accustomed to leveraging efficiency incentives** for their customers.
- HVAC and RCx service providers are willing to include IT measures in their projects when **straightforward, prescriptive incentives** are available, even if incentive amounts are relatively small.

OUR RECOMMENDATIONS for energy efficiency program administrators:

- **Keep the participation process simple** and minimize paperwork requirements.
- **Provide certainty on what incentives will be** from the beginning—before the customer has made the decision to move ahead. Prescriptive incentives or standardized calculations are preferred.
- **Provide co-marketing support** and allow service providers to leverage the energy efficiency program brand.
- **Provide a dedicated point of contact** for program questions.
- **Provide education** on optimal thermostat set points in data centers.