

Topic: Energy-related investment decisions for Data Centers.**Focus Group Questionnaire**

First name: Alan

1. Which of the following do you do in your position?

- a. Participate in decisions about purchasing equipment for your data center (e.g., servers, software, racks, lighting, cooling equipment)? Yes No

- b. Participate in decisions about servicing or maintaining equipment for your data center?

 Yes No**2. How many data centers, server rooms, and server closets does your company own or operate?**Enter number here 2 DATA CENTERS**3. [If more than one data center] For how many data centers are you involved in major equipment purchase and maintenance decisions?**Enter number here 2**4. The majority of the data centers you help manage are:**

- a. Server closets or rooms (less than 500 square feet)
- b. Localized data centers (500 – 5,000 square feet)
- c. Enterprise data centers (> 5,000 square feet)
- d. Mega or utility-scale data centers (>10,000 square feet)

5. What is the average number of racks in your typical data center?Enter number here _____ or if > 2000**6. How many servers are there in your organization as a whole?**

- < 2000
- 2000 – 10,000
- 10,000 – 50,000
- > 50,000

WE DON'T PROVIDE SERVERS

1 This project is approved by U.S. Office of Management and Budget. The clearance # is 2090-0028.

7. What type of data centers does your company operate?

- Server rooms or closets
- Enterprise/corporate data centers
- Cloud/hyperscale computing
- High-performance/scientific computing
- Multi-tenant/colocation data centers

8. Which sectors does your data center support? (Name top three)

- a. IT services
- b. Energy and utilities
- c. Media and telecommunications
- d. Banking and financial services
- e. Health care
- f. Education
- g. Co-location/shared
- h. Other: _____

9. What state(s) are your data centers located in?

Enter states here:

NY

10. When did you last pursue a major equipment purchase/upgrade for your data center?

- a. Within the last 3 years
- b. 3-5 years ago
- c. More than 5 years ago

11. How often do you replace servers in your data centers?

NOT OUR VENUE . . .

12. How often do you make major infrastructure upgrades to your data centers?

HA

13. Do you actively participate in the EnergySTAR Buildings, Green Grid, or another third-party energy-efficiency program?

Yes

No

22. Has your company considered or used any of the following technologies and energy saving strategies: (check all that apply)

	Has used		Never used		Don't know
	would use again	would not use again	would consider in the future	would not consider	
Facility Management					
Isolating hot/cold aisles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blanking panels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enclose server racks (e.g., strip curtains)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data center infrastructure management (DCIM) software	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Raising temperature set points List typical facility temperature: _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Variable speed fan drives	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy-efficient air handling units	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modular facility design for data center expansion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air-side economizer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water-side economizer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy-efficiency lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Predictive modeling of future IT deployments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Servers 					
Energy-efficient server hardware (e.g., power supply, fans, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Underclocking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Virtualization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decommission idle servers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consolidate lightly used servers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improve data storage efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT power management software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[Multi-tenant DCs] Adjust pricing models to incentivize energy efficiency					
Space-based pricing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Space and power block pricing (differentiate power and energy)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Space and actual power pricing (differentiate power and energy)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>