



U.S. DEPARTMENT
of ENERGY

Time Meeting 9-02-2025 SDCC/SCDF

X f i @BrookhavenLab

Major Data Center Outage 8/29

- Major loss of power to the 725 data center ~ 1:45PM
 - 1.2MW of power off line due to UPS failure
 - Up to 40 racks of compute initially offline
 - Up to 40 racks of infrastructure and storage racks initially off line
- Problem was noticed when the diesel generators fired up.
- UPS failure triggered shutdown of all chillers and water pumps
- Loss of all cooling resulted in over-temperature of the data center
 - SCDF staff began shutting down compute equipment to shed load.

Recovery

- F&O traced failure to blown inverter in UPS 1
- PDU's energized by UPS-1 were switch over to the "bypass" power system
- Chillers and water pumps restarted after restoration of power
- Data center IT equipment restarted once power and cooling were restored

Note that the "bypass" system is a direct connection to PSE&G. Any significant "blip" in power may result in IT systems going off line.

Open questions

- MTTR yet to be determined
- Root cause of blown inverter not yet determined
- Reason why UPS-1 didn't switch to the generators TBD
- Reason why chiller and pumps went down TBD, as there are three sets of chillers and pumps, each powered by a different UPS system
- Post mortem investigation is in progress.