

LESSONS LEARNED AND BEST PRACTICES

As part of its COVID-19 pandemic response, PJM equipped a third Control Center to supplement PJM's dual primary Advanced Control Centers (AC1 and AC2). The third control center will serve as an additional dedicated control room for PJM's Balancing Authority, Transmission Operator and Reliability Coordinator responsibilities. As this third Control Center was not included in prior PJM Business Continuity Planning (BCP) efforts, developing this space during a pandemic was challenging.

Location

The location chosen is our dedicated Operator/Dispatch Training Simulator (OTS/DTS) room. The OTS/DTS location offered many advantages due to its physical location and layout, but it had never been optimized to serve as a functioning real-time control room.

A further obstacle was that the location was being temporarily leveraged by our IT Operations Center (ITOC) staff as a second ITOC during the pandemic. However, once PJM determined that the pandemic called for a third Control Center, an alternate ITOC location was acquired and repurposed and the OTS/DTS conversion efforts began in earnest.

NERC CIP Compliance

The OTS/DTS was not in a designated NERC Critical Infrastructure Protection (CIP) environment, so a cross-divisional effort was required to quickly establish it as a CIP environment. This posed an additional human performance and compliance risk when done within time constraints and pandemic-reduced onsite staff.

In order to mitigate the myriad of Real-time tool network access and compliance concerns around tools associated with the conversion of a simulator room to a CIP Control Center, a tactical response team was established and a collaborative score card was built to track status and mitigation efforts around open technical and non-technical issues.

Some of these mitigation efforts included:

- EMS and LAN workstation, security constrained economic dispatch, and associated situational awareness and logging tool access
- Physical security monitoring hardware, software and establishment of a defined perimeter
- PJM to member/neighbor/interconnection telemetry, telecommunication tools/software and recording devices
- Control room to control room video conference equipment installation

Additional Challenges

Creating the third PJM control center resulted in some additional challenges, such as:

- Need for a backup simulator location in order to train dispatchers and support staff during the pandemic and ramp back to normal operations
- Challenge of developing a plan to undo the third control room once its purpose has been served
- Creation of a backlog of work that is not being performed while the control room is established.