|  |  |  |  |
| --- | --- | --- | --- |
| NOGRR Number | [245](https://www.ercot.com/mktrules/issues/NOGRR245) | NOGRR Title | Inverter-Based Resource (IBR) Ride-Through Requirements |
| Impact Analysis Date | April 15, 2024 |
| Estimated Cost/Budgetary Impact | Between $150k and $250kAnnual Recurring Operations and Maintenance (O&M) Budget Cost: Between $1.3M and $3.1M. Short term contract labor (O&M) Budget Cost: Between for $0.2M to $0.6M.See ERCOT Staffing Impacts |
| Estimated Time Requirements | The timeline for implementing this Nodal Operating Guide Revision Request (NOGRR) is dependent upon Public Utility Commission of Texas (PUCT) prioritization and approval. Estimated project duration: 6 to 9 months |
| ERCOT Staffing Impacts (across all areas) | Implementation Labor: 100% ERCOT; 0% VendorThere will be ongoing operational impacts to the following ERCOT departments totaling between 7.9 to 14.2 Full-Time Employees (FTEs) to support this NOGRR:• Dynamic Studies (3.5 FTEs to 5.0 FTEs effort)• Resource Integration (1.0 FTE Effort)• Event Analysis (1.1 to 2.2 FTEs effort)• Operations IBR Performance Evaluation (2.3 to 6.0 FTEs effort)ERCOT has assessed its ability to absorb the ongoing efforts of this NOGRR with current staff and concluded the need for FTEs in the following departments:• Planning department (3 to 5 FTEs) • Resource Integration department (1 FTE)• Event Analysis department (1 to 2 FTEs) • Operations IBR Performance Evaluation department (2 to 6 FTEs)• Dynamic Studies - department requires three to five additional FTEs to support the following work: \* 6,539 to 10,539 hours for data & performance reviews, tracking, coordination & communication between internal and external individuals.• Resource Integration - department requires one additional FTE to support the INR process efforts: \* 1,800 hours per year to check and collect data = 3 hours per INR for 600 INRs per year.• Event Analysis - department requires one to two additional FTEs to support an additional 3 minor and 1 major event each year beyond current levels: \* 2000 - 4000 hours to support additional events = 300 hours per minor event (3 - 6) ~ 900 -1800 hours and 600 hours per major event (1 - 2) ~ 600 - 1200 hours and 500 - 1000 hours to support NERC/FERC/TRE and ERCOT Reliability Monitor event investigations, manual contingency creation, and rule change needs.• Operations IBR Performance Evaluation - department requires two to six additional FTEs. \*4,000 - 12,000 hours for review, tracking, coordination & communication with OEMs, REs and serve as SMEs for ERCOT Reliability Monitor for performance failures, new exemption requests, retirement of exemptions, support for appeals, support for commercially reasonable determination, and Coordinate with Dynamic Studies department as necessary. Assuming 100 - 400 activities annually, (10% - 40%) representing approximately 7.5 to 30 GW with 20 hrs. per activity. |
| ERCOT Computer System Impacts | The following ERCOT systems would be impacted:* Resource Integration and Ongoing Operations (RIOO) 99%
* Service Management Systems 1%
 |
| ERCOT Business Function Impacts | ERCOT will update its business processes to implement this NOGRR. |
| Grid Operations & Practices Impacts | ERCOT will update grid operations and practices to implement this NOGRR. |

|  |
| --- |
| Evaluation of Interim Solutions or Alternatives for a More Efficient Implementation |
| None offered. |

|  |
| --- |
| Comments |
| ERCOT provides a broader O&M budget range on the FTE impacts associated with the TAC-approved version of NOGRR245 because of the uncertainty on the magnitude of IBR exemptions and extensions that will be necessary to manage and monitor performance over time. At this time, ERCOT is unable to narrow the unbudgeted FTE impact until the exemption/extension process begins. |