

Preliminary Project Listing 2020-2021

| <b>Description</b>   |
|--|
| Access and identity management (AIM) improvements  |
| Automated dispatch system (ADS) and demand response system (DRRS) enhancements   |
| Agreement management system (AMS) from access to an application  |
| Application recovery alignment   |
| Area control error (ACE), Automatic generation control (AGC), and South Orange County (SOC) reporting to market participants |
| Automation of market disruption  |
| Black start automation   |
| Campus operation annual funding  |
| Customer ISO resource adequacy (CIRA) technical enhancement  |
| Common user interface (CUI)  |
| Constraint parameter enhancement   |
| Contingency modeling enhancements - transmissions  |
| Capacity procurement mechanism (CPM) soft offer cap  |
| Critical data business continuity improvements   |
| Congestion revenue rights (CRR) auction efficiency phase 2   |
| Customer service improvement projects  |
| Day ahead market (DAM) enhancements  |
| Dispatch operating target (DOT) tariff clarifications  |
| Do not allow markets to procure undeliverable congestion ancillary services (A/S)  |
| Energy costs and index calculator phase 2b   |
| Energy imbalance market (EIM) enhancements 2020  |
| Energy management system (EMS) enhancements  |
| Enhance Behind the Meter Forecast  |
| Enhanced day ahead market (EDAM)   |
| Enhancements to integrated forward market (IFM) renewable schedules and forecast in aggregate                                |
| Enterprise model management system (EMMS) phase 4  |

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| Enterprise telephony refresh  |
| Energy storage and distributed energy resources (ESDER) phase 4   |
| Excess behind the meter production  |
| Existing transmission contract calculator (ETCC) path limit calculator enhancements   |
| Expand external capability for hands-on training  |
| External training program development - CBT Part 3  |
| Facilities reserve funding  |
| FERC Order 841 removes barriers to the participation of electric storage resources  |
| FERC Order 845 interconnection procedures and agreements  |
| FERC Order 831 bid cap  |
| Flexible ramping product enhancements   |
| Frequency response analysis tool  |
| Full network model (FNM) expansion phase 2  |
| Hybrid resources  |
| Import bid cost verification  |
| Incorporation of operations non-core tools into final destination   |
| Initialization funding for capital projects   |
| Interconnection process enhancement 2020  |
| Intertie deviation settlement   |
| Intertie offer cost verification  |
| Job description tool  |
| Market & grid integrated information (MAGII) with analytics data base - data modeling (Includes market validation tool (MVT) phase 2 and 3) |
| Market quality system (MQS) redesign  |
| Market timeline settlement transformation   |
| Masterfile service oriented architecture (SOA) phase 2  |
| Market engine performance improvements 2020   |

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| Model synchronization and activation (MSAA) automation  |
| Move detailed unit information tool (DUIT) from Critical System Support (CSS) and integrate into Masterfile |
| Move interest calculations from market clearing to settlements  |
| Network access control (NAC)  |
| Operations systems improvements (OSI)   |
| Operations training environment improvements  |
| Optimal multi-stage generator (MSG) transitioning profile   |
| Oracle cost management -data-base (DB) alternatives   |
| Outage optimization Phase 2   |
| Program office internal labor   |
| Pump storage with multiple pumping levels   |
| Real time (RT) redesign simplify timeline   |
| Reliability coordinator (RC) voltage stability analysis (VSA) enhancements                                  |
| Reducing time gap between real time pre dispatch (RTPD) running time and binding interval                   |
| Reliability and deliverability assessment tool (RDAT)   |
| Rerun stabilization   |
| Resource adequacy enhancements  |
| Resource interconnection management system (RIMS) enhancements  |
| Robust sturdy state estimator (SE) and real time contingency analysis (RTCA) availability                   |
| Robustness (data streams quality) improvements  |
| SAS implemented price corrections   |
| Settlements replacement   |
| Storage as a Transmission Asset   |
| Support efficiency improvements   |
| Technology robustness 2020  |
| Technology system improvements (TSI)  |

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| Transmission access charge (TAC) billing   |
| Transmission register (TR) replacement phase 1   |
| Upgrade congestion revenue rights (CRR) system   |
| Use market operator in e-tag   |
| Use of dynamic voltage stability analysis (VSA) limits for dynamic transfer capability (DTC) and rate of change( ROC) limits (BPA) |
| Variable energy resource (VER) forecasting phase 2   |
| Vulnerability scanner  |
| Web service standardization  |