



2012 Capital Projects

| Capital Project | Amount * |
|--|---------------|
| 2012 local capacity requirements study | small |
| Architecture: consolidation of customer reporting | medium |
| Control area scheduler (CAS) improvements | medium |
| Common user interface deployment | small |
| Duplicate data | small |
| Energy management system automatic generator control enhancements | small |
| Hour ahead and resiliency and single points of failure remediation | medium |
| Implement enterprise model management systems | medium |
| Integration: deployment of common adaptor framework | medium |
| Market services enhancements including congestion revenue rights | medium |
| Market validation tool | medium |
| Master File enhancements | small |
| Outage management system (OMS) Phase 3 | medium |
| Resource Interconnection Management System enhancements | small |
| Smart grid California Energy Commission Phasor project | small |
| State estimator enhancements | small |
| Automated load forecast system (ALFS) upgrade to 5.0/5.1 | small |
| Ancillary services forecasting system | small |
| Bid cost recovery / meter energy adjustment factor (MEAF) | medium |
| Data release – phase 3 | small |
| Dynamic transfers | small |
| FERC Order 755 – compensation for regulation | large |
| Flexible ramping | medium |
| Greenhouse gas regulation implementation | small |
| Non-Generator resources in ancillary services market requirements (REM Project) | large |
| Operations enhancements 2012 | large |
| Ramp forecasting tools | small |
| Replacement requirements for schedule generation outages | small |
| Access and identity management | small |
| Customer Inquiry Dispute and Information system functionality expansion | small |
| Customer experience improvement initiative | small |
| Update Business Process Manual application | small |
| Architecture: consolidation of settlement and post processes. | small |
| Compliance North American Energy Reliability Council audit | small |
| Corporate systems enhancements project | medium |
| Enterprise server hardware upgrades and equipment purchases | large |
| Testing automation for compliance requirements | small |
| Assessment of visibility and control options – phase 2 | small |
| Distributed energy resources penetration update process and implementation with investor owned utilities | small |
| Studies for renewable integration / fleet characteristics study | small |
| Vehicle to grid pilot program | small |
| Annual request for facilities costs | small |
| Blue Ravine (former headquarters site) decommissioning costs | large |
| Program Office project management costs | large |
| Total | \$ 20,800,000 |

^{*} Note: The costs of the individual projects are not shown, but are categorized by size as follows: small projects under \$500k, medium projects from \$500k to \$1 million, and large projects over \$1 million. The actual projects completed during 2011 will vary, including the potential addition of projects not on this list, the deferral of projects on this list to future years, or the elimination of projects on this list if no longer necessary.