

Major Capital Projects/Programs

Major projects with an estimated total direct capital cost of \$3 million or more (in \$M)

Asset Category: Transmission Sustain

Programs	Project or Program Name	Description of Project/Program	Approved?	Drivers of Business Need	Prioritization Criteria	Key Project Cost and Schedule Uncertainties	Prior year actuals	FY12	FY13	FY14	FY15	Out Years	Total Estimated Dir. Capital costs	Key Dependencies on Other Orgs
								SOY	2012 IPR	2012 IPR	2012 IPR			
Upgrades & Additions	CC INFRASTRUCTURE COMPONENTS	Projects that replace, upgrade, substantially enhance, or support management of existing cyber and facilities infrastructure for the CC's	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	For the CC capital portfolio, resources are being challenged with Compliance other Agency priorities (January FERC Audit, Synchrophasor, OMET, MRRP, Alternate Scheduling Center, etc)	\$3.6	\$2.7	\$1.9	\$2.6	\$1.9	\$8.2	\$20.9	
Upgrades & Additions	CC SYSTEM & APPLICATION	Projects that replace, upgrade, substantially enhance, or support management of existing information systems that support Grid Operations	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	For the CC capital portfolio, resources are being challenged with Compliance other Agency priorities (January FERC Audit, Synchrophasor, OMET, MRRP, Alternate Scheduling Center, etc)	\$0.6	\$1.1	\$3.0	\$2.1	\$2.7	\$17.7	\$27.2	
Control Center Subtotal							\$4.2	\$3.8	\$4.9	\$4.7	\$4.6	\$25.9	\$48.1	
System Replacements	LINES - WOOD POLE LN REBUILDS	1. Systematic replacement of wood pole lines that are at the end of their service life. 2. Replacement of danger pole and priority pole structures, including all aged components.	Yes	Sustain: Meet reliability standards (R/A)	Sustain: Operational failure	Major costs are materials and contract construction. Key uncertainty is schedule changes due to land rights and NEPA requirements which can delay projects.	\$35.0	\$36.0	\$42.8	\$47.2	\$42.2	\$228.8	\$432.0	NSS, NSSM, NSSV, NST, NSTP, KEP, TELF, TELP, TELC, TELD, TELM, TEP, TEPO, TF (district TLM) TF(sub ops), TFBW, TETQ, TOT, TPP, TPS
Wood Lines Subtotal							\$35.0	\$36.0	\$42.8	\$47.2	\$42.2	\$228.8	\$432.0	
System Replacements	LINES - STEEL HARDWARE REPLCMT	1. Refurbishing steel transmission line components reaching the end of their service life. 2. Addressing urgent and emergency Asset component intervention as needed (like tower moves.)	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Operational failure	Key project costs are for asset component replacement, for example: spacer dampers, insulators and conductor. Schedule uncertainties come from outage availability, construction resource availability and material availability.	\$51.2	\$32.7	\$28.4	\$16.5	\$12.6	\$72.0	\$213.4	NSS, NSSM, NSSV, NST, NSTP, KEP, TELF, TELP, TELC, TELD, TELM, TEP, TEPO, TF (district TLM) TF(sub ops), TFBW, TETQ, TOT, TPP, TPS
Steel Lines Total							\$51.2	\$32.7	\$28.4	\$16.5	\$12.6	\$72.0	\$213.4	
Upgrades & Additions	ACCESS ROADS	Road upgrade programs to improve the transportation routes that access the Transmission line corridors. Some programs directly support other sustain activities.	Yes	Sustain: Meet reliability standards (R/A)	Sustain: Designation of Transmission criticality	The Major program cost is contract construction cost to perform actual road upgrades. Key uncertainties involve: time to acquire easements, time to achieve environmental permits for some activities, and timing the construction contract so that work is done during good weather windows	\$0.0	\$13.1	\$14.9	\$12.2	\$13.6	\$65.8	\$119.6	KEP, KEC, TER, TPO, TELD, TFBW, TEP, NSSV
Upgrades & Additions	LAND RIGHTS- TRIBAL RENEWALS	Renewal of tribal contracts for land rights.	Yes	Sustain: Meet legislative, regulatory, or contractual obligations (R/A)	Sustain: Designation of Transmission criticality	The major program costs are for land payments.	\$1.6	\$1.4	\$4.8	\$5.2	\$5.1	\$4.0	\$22.1	
Upgrades & Additions	LAND RIGHTS- VEG MITIGATION	Acquire easement rights for orchards and other vegetation buy backs.	Yes	Sustain: Meet reliability standards (R/A)	Sustain: Designation of Transmission criticality	The major program costs are for land payments.	\$1.0	\$1.4	\$0.6	\$0.5	\$0.5	\$3.0	\$7.0	
Upgrades & Additions	LAND RIGHTS - ACCESS ROADS	Acquire easement rights for off ROW road routes that access the Transmission line corridors	Yes	Sustain: Meet reliability standards (R/A)	Sustain: Designation of Transmission criticality	The major program costs are for land payments.	\$3.0	\$8.3	\$5.8	\$5.5	\$4.4	\$7.7	\$34.7	
Rights of Way Subtotal							\$5.6	\$24.2	\$26.1	\$23.4	\$23.6	\$80.5	\$183.4	
System Replacements	SUB AC-CIRCUIT BRKR & SWTCH GR	Replace circuit breakers, circuit switchers and disconnect switches that are at or near end of life.	No	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	Dependent on outage scheduling related to OB-19 criteria.	\$6.5	\$12.9	\$17.3	\$18.2	\$13.9	\$69.4	\$138.2	NS, TE, TEP, TF, TO
System Replacements	SUB AC-TRANSFORMERS & REACTORS	Replace spare transformers and reactors that have been placed in service following a failure. Replace transformers that are at or near the end of life. Add CLR's to existing shunt capacitor banks that were missed when circuit switchers were replaced. For back to back switching. Replace fuses at or near the end of life or of obsolete technology.	No	Sustain: Manage asset/equipment failure (R/A)	Sustain: Operational failure	Dependent on transformer/reactor failures. Transformer/reactor spare replacements are forecasted based on historical failure rates.	\$0.8	\$0.4	\$9.8	\$5.7	\$5.2	\$29.6	\$51.5	NS, TE, TEP, TF, TO
System Replacements	SUB AC - CVT/PT/CT & ARRESTERS	Replace arresters that are at or near the end of life and of obsolete technology. Instrument transformer replacement program carried by Pollution Prevention and Abatement. Replace instrument transformers that fail in service.	No	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	Arrestor replacement dependent on transformer and line outages. The outages may be dependent on OB-19 criteria. Instrument transformer scheduled replacement dependent on outage scheduling related to OB-19 criteria. Instrument transformer replacements due to in service failures are forecasted based on historical failure rates.	\$1.3	\$0.6	\$1.5	\$1.2	\$1.5	\$7.3	\$13.4	NS, TE, TEP, TF, TO
System Replacements	SUB AC- SHUNT CAPACITORS	Replace shunt capacitor groups that are at or near the end of life.	No	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Operational failure	Resource availability and time of year related to system conditions and season.	\$0.3	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	NS, TE, TEP, TF, TO
System Replacements	SUB AC - LOW VOLTAGE AUX.	Replace batteries and chargers at or near the end of life. Replace station service transformers and/or station service cables that are at or near the end of life. Replace engine generators that are at or near the end of life.	No	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Operational failure	Battery replacement dependent on design, space constraints and material and resources to perform the work. Currently, scheduled battery and charger replacements on a one year design/build schedule. Starting FY13 battery and charger replacements will begin to transition to a two year design/build schedule which will help with obtaining material, assigning resources and accuracy of design.	\$3.0	\$4.1	\$5.1	\$2.2	\$3.2	\$19.8	\$37.4	NS, TE, TEP, TF, TO

Programs	Project or Program Name	Description of Project/Program	Approved?	Drivers of Business Need	Prioritization Criteria	Key Project Cost and Schedule Uncertainties	Prior year actuals	FY12	FY13	FY14	FY15	Out Years	Total Estimated Dir. Capital costs	Key Dependencies on Other Orgs
								SOY	2012 IPR	2012 IPR	2012 IPR			
System Replacements	SUB AC- BUS & STRUCTURES	Perform seismic upgrades to rigid bus on 500kV line drops west of the Cascades. Replace deteriorating bus, supports, foundations and insulators that are at or near the end of life. Replace deteriorating engine generator fuel systems and housings that are at or near the end of life.	No	Sustain: Provide for business continuity needs (BC)	Sustain: Operational failure	Seismic upgrades dependent on scheduled TLM line maintenance and materials. The outages can be deferred based on system conditions and dependent on OB-19 criteria. Replacement of deteriorating bus, supports, foundations, engine generator fuel systems and housings dependent on available resources to perform the work.	\$0.4	\$0.2	\$7.1	\$12.4	\$2.2	\$2.0	\$24.3	NS, TE, TEP, TF, TO
Subs AC Total							\$12.3	\$18.3	\$40.8	\$39.7	\$26.0	\$128.1	\$265.2	
System Replacements	SUB DC- PWR ELCTRNC & SRS CAPS	Converter Replacement, Mercury Cleanup, 13.2Kv Service, Low Voltage Station Svc, DC Filters, COI Series Caps Controls	Yes	Sustain: Improve equipment/asset operability (R/A)	Sustain: Designation of Transmission criticality	Vendor Performance for DC Cap Controls	\$86.1	\$11.3	\$11.2	\$7.2	\$4.5	\$0.0	\$120.3	TE, TEP, NS
Upgrades & Additions	CELILO UPGRADES PROJECT	Celilo Refurbishment, Controls Project, Low Voltage STN Service Upgrade.	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Operational failure	Scope, Schedule, Cost, Funding Sources	\$2.2	\$1.3	\$85.4	\$116.1	\$93.6	\$27.6	\$326.2	TE, TEP, NS, Southern Partners
Subs DC Total							\$88.3	\$12.6	\$96.6	\$123.3	\$98.1	\$27.6	\$446.5	
Upgrades & Additions	SYSTEM TELECOMMUNICATION	Replace/upgrade/expand major telecommunications systems to meet demand for high-capacity, high-speed reliable communications to support transmission grid operation and generation interconnection	Yes	Sustain: Meet reliability standards (R/A)	Sustain: Operational failure	labor constraints; equipment selection; unforeseen technology incompatibilities	\$12.8	\$16.7	\$71.2	\$52.4	\$41.4	\$65.6	\$260.1	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	PSC - VHF	Current VHF system upgrade is included under the System Telecommunications node	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
System Replacements	PSC - TLECOM TRANSPORT	replace obsolete, failing equipment, primarily UHF radio and antenna systems	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	time frame for receiving frequency licenses from the NTIA; land and site access; agreements with other agencies such as BLM, Forest Service	\$1.0	\$1.2	\$1.2	\$1.5	\$1.1	\$7.0	\$13.0	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	PSC- TELECOM SUPPORT EQUIPMENT	replace obsolete, failing equipment, including comm batteries, chargers, engine generators and alarm systems; for FY12, equip additions for training and testing initiatives	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	high failure rate and replacement backlog of batteries and chargers resulting in several emergency replacements each year	\$0.4	\$0.2	\$0.9	\$1.7	\$1.8	\$29.4	\$34.4	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	PSC - SCADA/TELEMETRY/SUP CNTRL	replace obsolete, failing SCADA, telemetering and supervisory control equipment	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	labor constraints in design, T&E, TOS, Control Center versus large backlog of critical equipment with no OEM support and limited spares	\$1.2	\$0.5	\$1.3	\$1.8	\$2.1	\$34.7	\$41.6	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	PSC - FIN/OP NETWORKS	replace obsolete, failing maintenance and operational network equipment	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	regulatory changes in network security, management, operation oversight; rapid technology changes	\$0.0	\$0.0	\$0.1	\$0.2	\$0.4	\$3.4	\$4.1	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	PSC - TRANSFER TRIP	replace obsolete, failing transfer trip and RAS equipment with focus on removing analog equipment	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	outage availability; constraints in design, T&E, construction; impact of replacement backlog on other projects	\$3.9	\$3.0	\$10.1	\$11.9	\$11.9	\$72.8	\$113.6	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	PSC - TELEPHONE SYSTEMS	replace obsolete, failing telephone systems such as key telephone and DATS systems	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	backlog of replacements, lack of OEM support, rapid technology changes	\$0.5	\$0.4	\$0.3	\$0.5	\$0.3	\$13.5	\$15.5	TPM, TPW, TEPO, TEP, TEC, TF, TET
PSC Subtotal							\$19.8	\$22.0	\$85.1	\$70.0	\$59.0	\$226.4	\$482.3	
System Replacements	SPC - RELAYS	Replace Obsolete, failing equipment, primarily consisting of Electro-Mechanical and Electronic-non-microprocessor protective relays and RAS equipment, then manage to lifecycle.	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	outage availability; constraints in design, T&E, construction; impact of replacement backlog on other projects	\$10.4	\$4.5	\$20.6	\$24.8	\$24.4	\$115.5	\$200.2	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	SPC - CONTROL AND INDICATION	Replace obsolete, failing equipment, primarily consisting of control cables, indicating meters and substation control equipment, then manage to lifecycle.	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	outage availability; constraints in design, T&E, construction; impact of replacement backlog on other projects	\$3.3	\$0.1	\$1.7	\$0.5	\$0.0	\$2.8	\$8.4	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	SPC - METERING	Replace obsolete, failing revenue metering equipment, then manage to lifecycle.	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	outage availability; constraints in design, T&E, construction; impact of replacement backlog on other projects	\$0.3	\$0.5	\$0.6	\$0.5	\$0.5	\$9.2	\$11.6	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	SPC - DFRS	Replace obsolete, failing Digital Fault Recorders, then manage to lifecycle.	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	outage availability; constraints in design, T&E, construction; impact of replacement backlog on other projects	\$0.5	\$1.8	\$0.0	\$0.0	\$0.0	\$5.6	\$7.9	TPM, TPW, TEPO, TEP, TEC, TF, TET
System Replacements	SPC - SER	Replace obsolete, failing SER equipment with SER/SCADA unit, then manage to lifecycle.	Yes	Sustain: Replace due to equipment end-of-life, obsolete or lack of OEM support (R/A)	Sustain: Technological obsolescence	outage availability; constraints in design, T&E, construction; impact of replacement backlog on other projects	\$0.5	\$0.5	\$3.2	\$3.1	\$3.2	\$17.0	\$27.5	TPM, TPW, TEPO, TEP, TEC, TF, TET
SPC Subtotal							\$15.1	\$7.4	\$26.1	\$28.9	\$28.1	\$150.1	\$255.7	
System Replacements	TEAP - TOOLS		Yes	Sustain: Improve equipment/asset operability (R/A)	Sustain: Operational failure			\$0.9	\$1.0	\$1.0	\$1.1	\$6.6	\$10.6	
TEAP Subtotal							\$0.0	\$0.9	\$1.0	\$1.0	\$1.1	\$6.6	\$10.6	
Sustain Total							\$231.5	\$157.9	\$351.8	\$354.7	\$295.3	\$946.0	\$2,337.2	

Major Capital Projects/Programs

Major projects with an estimated total direct capital cost of \$3 million or more (in \$M)

Asset Category: Transmission Expand

Programs	Project or Program Name	Description of Project/Program	Approved?	Drivers of Business Need	Prioritization Criteria	Key Project Cost and Schedule Uncertainties	Prior year actuals	FY12	FY13	FY14	FY15	Out Years	Total Estimated Dir. Capital costs	Key Dependencies on Other Orgs
								SOY	2012 IPR	2012 IPR	2012 IPR			
Main Grid	WEST OF MCNARY INTEGRATION PROJECT	New McNary-John Day 500 kV line (approx. 79 miles), new 230 kV shunt capacitors, RAS modification, line upgrades	Yes	Expand: NOS	Provides congestion relief	Minimal, Wrapping up 7 year project.	\$141.0	\$8.0	\$0.1	\$0.0	\$0.0	\$0.0	\$149.1	TEP
Main Grid	OLYMPIC PENINSULA REINFORCEMENT	Replace 14.5 miles of 115 kV with new 230 kV double circuit line, Olympia 115 kV bus sectionalizing breaker addition, North of Fairmount Safety Net Scheme, Non-Wires alternative to Port Angeles Sub.development. Potential outyear project is new double circuit 230 kV line.	Yes	Other: Meet reliability standards	Increases capacity to meet load growth	Planning Requirements	\$28.2	\$0.2	\$1.6	\$3.9	\$10.0	\$73.6	\$117.5	TPP,TEP,NS
Main Grid	I-5 CORRIDOR UPGRADE PROJECT	New Castle Rock 500 kV Sub., New Sundial 500 kV Sub., New Castle Rock-Sundial 500 kV line (approx. 70 miles)	No	Expand: NOS	Provides congestion relief	Scope (Route), Schedule, Cost	\$16.7	\$17.4	\$8.4	\$12.0	\$20.0	\$286.0	\$360.5	TPP,TE,TEP,NS, Customer input, PTSA Signatories
Main Grid	LIBBY-TROY LINE REBUILD	Rebuilding 17 miles of 115 kV line and upgrading 14 miles of access roads	Yes	Other: Meet reliability standards	Asset condition	None	\$17.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$17.3	TEP
Main Grid	MISC. MAIN GRID PROJECTS	Various Main Grid reinforcement projects such as reactive additions, new substation bays, line re-terminations, bus sectionalizing.	Partial	Other: Meet reliability standards	Increases capacity to meet load growth	Scope, Schedule, Cost	\$332.0	\$3.0	\$6.4	\$9.7	\$9.5	\$122.7	\$483.3	TPP,TE,NS,TEP
Main Grid	MID-COLUMBIA REINFORCEMENT	5 new breakers at Vantage Substation, 9 new disconnect switches at Vantage Substation, 2 new breakers at Midway Substation, 6 new disconnect switches at Midway Substation, 10.55 miles of new Deschutes conductor on the Vantage-Midway 230 kV line and any required structure replacements to support the new conductor	Partial	Other: Meet reliability standards	Increases capacity to meet load growth	None	\$0.2	\$1.2	\$5.3	\$1.5	\$0.0	\$0.0	\$8.2	None
Main Grid	BIG EDDY-KNIGHT 500kv PROJECT	New 500KV line (approx. 28 miles), New Knight 500 kV Substation, New Wautoma 500 kV Shunt Reactor and Line upgrades	Yes	Expand: NOS	Provides congestion relief	Scope, Schedule, Cost	\$18.0	\$116.0	\$63.9	\$6.7	\$0.0	\$0.0	\$204.6	TEP, NS, PTSA Signatories
Main Grid	CENTRAL FERRY- LOWER MONUMNTAL	New 500Kv line (approx. 38 miles), New Shunt Reactor and reconfiguration of Lower Monumental Sub	Yes	Expand: NOS	Provides congestion relief	Scope, Schedule, Cost	\$7.5	\$30.3	\$38.7	\$14.0	\$0.0	\$0.0	\$90.5	TEP, NS, PTSA Signatories
Main Grid	CENTRAL OREGON REINFORCEMENT	New 230/115 kV transformer at Redmond, Redmond 230 kV and 115 kV bus sectionalizing, 500/230Kv Bank at Ponderosa	Yes	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Minimal, Project under construction	\$14.8	\$23.7	\$4.3	\$2.4	\$0.0	\$0.0	\$45.2	TEP, NS
Main Grid	SEATTLE-PUGET SOUND AREA	Schultz-Raver Series Caps, Monroe 500 kV Shunt Capacitors, Raver 500/230KV Transformer addition, RAS addition, possible cost-sharing in PSANI reinforcement	Yes	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Scope, Schedule, Cost	\$0.0	\$0.0	\$7.0	\$22.4	\$19.7	\$11.2	\$60.3	TPP,TE,TEP,NS
Main Grid	PORTLAND-VANCOUVER	Ostrander Line Swap, Ostrander 500KV Breaker and 500/230 kV Bank, Pearl 500 kV bay addition, Keeler 230 kV bus sectionalizing breaker, Pearl- Sherwood 230Kv line work	Yes	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Scope, Schedule, Cost	\$24.4	\$10.1	\$1.5	\$2.7	\$0.9	\$3.3	\$42.9	TPP,TE,TEP,NS
Main Grid	WEST OF CASCADES NORTH	New 500 kV cross-Cascades line	No	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Scope, Schedule, Cost	\$0.0	\$1.5	\$1.5	\$6.0	\$0.0	\$164.3	\$173.3	TPP,TE,TEP,NS
Main Grid	WEST OF CASCADES SOUTH	TBD - Potential New 500 kV Substation and Series Compensation	No	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Scope, Schedule, Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	TPP,TE,TEP,NS
Main Grid	NORTHERN INTERTIE	Monroe-Echo Lake 500 kV No.2 Line, NOS 10	No	Expand: Provide congestion relief	Provides congestion relief	Scope, Schedule, Cost	\$0.0	\$0.0	\$0.3	\$0.3	\$0.5	\$68.0	\$69.1	TPP,TE,TEP,NS
Main Grid	SALEM- ALBANY-EUGENE AREA	Lebanon 115 kV shunt capacitor, Alvey 500 kV shunt reactor, Lane 230 kV bus sectionalizing breaker	No	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Scope, Schedule, Cost	\$0.8	\$1.9	\$10.0	\$0.0	\$0.0	\$0.0	\$12.7	TPP,TE,TEP,NS
Main Grid	TRI-CITIES AREA	White Bluffs 115 kV bus sectionalizing breaker and shunt capacitors, Franklin 115 kV shunt capacitors, McNary 230 kV shunt capacitors, New 115 kV line (approx.0.5 mile) from Sacajawea to tap Ice Harbor-Franklin #3, McNary-Badger Canyon 115 kV transfer trip addition	Partial	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Scope, Schedule, Cost	\$1.4	\$2.7	\$6.1	\$4.1	\$10.3	\$9.5	\$34.1	TPP,TE,TEP,NS
Main Grid	IDAHO REINFORCEMENT	Add 230Kv shunt reactor and bus tie	No	Expand: Provide congestion relief	Enables optimal use of existing asset	Scope, Schedule, Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	TPP,TE,TEP,NS
Main Grid	MONTANA-WEST OF HATWAI	Hatwai Sub Sectionalizing Breaker, Bell 115 kV bus sectionalizing breaker	No	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Scope, Schedule, Cost	\$89.3	\$1.0	\$3.0	\$22.6	\$40.0	\$49.0	\$204.9	TPP,TE,TEP,NS
Main Grid	NERC CRITERIA COMPLIANCE	Various MG Projects to address identified NERC/CIP or legal issues	No	Other: Meet reliability standards	Provides congestion relief	Scope, Schedule, Cost	\$0.0	\$0.0	\$5.7	\$6.0	\$6.0	\$36.0	\$53.7	TPP,TE,TEP,NS
Main Grid Subtotal							\$691.6	\$217.0	\$163.8	\$114.3	\$116.9	\$823.6	\$2,127.2	
Area & Customer Service	CITY OF CENTRALIA PROJECT	Rebuild Chehalis-Centralia line	Yes	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Minimal. Project is wrapping up after 5 years of work.	\$10.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$10.1	TEP
Area & Customer Service	SOUTHERN IDAHO - LOWER VALLEY	Add Hooper Springs Sub and new 115 kV line, Drummond Shunt Capacitor addition, work at Heyburn	Partial	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Construction Resources	\$15.9M	\$6.7	\$5.8	\$0.0	\$0.0	\$0.0	\$12.5	TPP,TPC,TE,TEP,NS
Area & Customer Service	MISC. AREA & CUSTOMER SERVICE	Various smaller Customer projects	Partial	Expand: Meet customer service requests	Fulfills customer service requests	Projects not defined	\$57.3M	\$2.5	\$3.1	\$9.5	\$11.3	\$60.0	\$86.4	TPP,TPC,TE,TEP,NS
Area & Customer Service	ROGUE SVC ADDITION	Install new 115 kV SVC at Rogue	Yes	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Minimal. Project is wrapping up after 4 years of work.	\$10.3M	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	TPP,TPC,TE,TEP,NS
Area & Customer Service	LONGVIEW AREA REINFORCEMENT	Longview 115 kV bus sectionalizing breaker addition, BPA share of 7th Avenue project (joint project with Cowitz PUD), Longview 230 kV bus tie addition, Longview-Lexington 230 kV line re-termination	Partial	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Awaiting Construction Completion	\$2.1M	\$1.9	\$16.0	\$5.9	\$0.0	\$0.0	\$23.8	TPP,TPC,TE,TEP,NS
Area & Customer Service	KALISPELL-FLATHEAD VALLEY	Columbia Falls 230 kV bus sectionalizing breaker addition, Columbia Falls-Kerr RAS additions	No	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Construction Resources	\$1.6M	\$0.4	\$2.3	\$2.0	\$0.8	\$0.0	\$0.0	TPP,TPC,TE,TEP,NS
Area & Customer Service Subtotal							\$10.0	\$13.2	\$27.2	\$17.4	\$12.1	\$60.0	\$134.4	
Upgrades & Additions	MISC. UPGRADES AND ADDITIONS	Various system Upgrades	Partial	Other: Meet reliability standards	Increases capacity to meet load growth	Construction Resources	\$355.5	\$34.0	\$14.7	\$6.5	\$3.1	\$33.3	\$447.1	TPP,TE,TEP,TF,NS
Upgrades & Additions	LINE CAPACITY UPGRADES	LINE CAPACITY UPGRADES	Partial	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Construction Resources	\$1.9	\$0.9	\$1.0	\$1.0	\$1.0	\$6.0	\$11.8	TPP,TE,TEP,TF,NS
Upgrades & Additions	LINE SWITCH UPGRADES	LINE SWITCH UPGRADES	No	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Minimal	\$1.0	\$0.0	\$0.3	\$0.3	\$0.3	\$1.8	\$3.7	TPP,TE,TEP,TF,NS

Programs	Project or Program Name	Description of Project/Program	Approved?	Drivers of Business Need	Prioritization Criteria	Key Project Cost and Schedule Uncertainties	Prior year actuals	FY12	FY13	FY14	FY15	Out Years	Total Estimated Dir. Capital costs	Key Dependencies on Other Orgs
								SOY	2012 IPR	2012 IPR	2012 IPR			
Upgrades & Additions	SUBSTATION UPGRADES	SUBSTATION UPGRADES	Partial	Expand: Increase capacity to meet load growth	Increases capacity to meet load growth	Construction Resources	\$39.5	\$16.7	\$10.1	\$10.6	\$9.0	\$54.0	\$139.9	TPP,TE,TEP,TF,NS
Upgrades & Additions	CONTROL CENTERS	Projects that add new systems or expand current systems, infrastructure, or environment for new business demands on the CC	Yes	Expand: Meet new or expanding Agency business & operating demands	Supports various Agency Expansion Demands	For the CC capital portfolio, resources are being challenged with Compliance other Agency priorities (January FERC Audit, Synchrophasor, OMET, MRRP, Alternate Scheduling Center, etc)	\$0.7	\$0.0	\$2.4	\$2.6	\$3.2	\$17.5	\$26.4	TEC, TPC, NWF
Upgrades & Additions Subtotal							\$398.6	\$51.6	\$28.5	\$21.0	\$16.6	\$112.6	\$628.9	
Expand Total							\$1,100.2	\$281.8	\$219.5	\$152.7	\$145.6	\$996.2	\$2,890.5	