STEAM PLANT ADDITIONS:

Blundell: Well Integration (Reference page 8.6.21)
This project integrates two new geothermal wells, one production well and one injection well, into the current Blundell Unit 1 and Unit 2 operations. These wells were drilled as part of the Blundell Unit 3 development project. These wells will provide added flexibility in plant operations and maintenance. The project includes all activities required to integrate and commission the two geothermal wells. This includes:
1. Installation of all production well site equipment at the well site. This includes the installation of one steam/brine separator, brine transfer pump, instrumentation and control systems, back-up power generator, instrument air compressor, disposal ponds, security fencing and a well site building.
2. Installation of three overland pipelines; a) the first pipeline from the wellhead separator to the Unit 1 main steam line supply line, b)the second pipeline, between the wellhead separator to the Unit 2 brine supply line, and c) the third pipeline from the Unit 2 brine return line to the injection well.

Naughton Unit 3: Conversion to Natural Gas (Reference page 8.6.21)
The project will convert the Naughton Unit 3 steam electric plant from a coal fueled base loaded unit to a 100 percent natural gas fueled slow start peaking unit. Due to environmental compliance requirements, the project is currently anticipated as an alternative to adding a selective catalytic reduction system ("SCR") and baghouse environmental controls to operate Unit 3 beyond December 31, 2014.

Jim Bridger Unit 3: Replace Finishing Superheater (Reference page 8.6.21)
Purchase and install a new finishing (secondary) superheater for the Jim Bridger Unit 3 boiler for installation in 2015. The purpose of the secondary superheater is to heat the main steam to its final temperature before exiting the boiler and entering the high-pressure turbine. The main driver for replacement is that the tubing and dissimilar metal welds (DMW's) in the superheater have reached end of life.

Huntington Unit 1: Submerged Drag Chain Conveyor (SDCC) (Reference page 8.6.21)
This project will replace the current slurry bottom ash system with a SDCC system for bottom ash removal. The project will change the economizer ash removal systems to dry flight conveyor systems dumping into the SDCC. The project will utilize an existing newly renovated pyrite belt conveyor (including belt reversal) with an added belt conveyor. The added pyrite belt conveyors will redirect the pyrites into the concrete ash bins. SDCC system operations will be tied into the plant's existing ovation control system.

Hunter Unit 1: Reheat Pendant Replacement (Reference page 8.6.21)
This project entails the replacement of 100% of the front and rear pendant reheater and associated outlet header in the Hunter Unit 1 boiler. The existing reheater has never been replaced. There is a significant amount of fly ash erosion, sootblower erosion, and creep damage affecting these assemblies.

Jim Bridger Unit 3: Replace Cooling Tower (Reference page 8.6.21)
This project will completely replace cells 1 through 10 of the existing unit 3 cooling tower. Cells 1 through 10 of the cooling tower were last replaced in approximately 1990 and are nearing the end of their expected service life. Remaining strength testing completed during 2009 and 2011 on lumber from this tower confirms that the indicated tower cells should be replaced.

Jim Bridger Unit 1: Replace Cooling Tower (Reference page 8.6.21)
This project will completely replace cells #1 through #9 of the existing unit 1 cooling tower. Cells #1 through #9 of this cooling tower were last replaced in approximately 1990 and are nearing the end of their service life. Lumber strength testing completed during 2010 and 2013 confirms that the indicated cells should be replaced.

Huntington Unit 1: Boiler Vertical Low Temp Superheater (Reference page 8.6.21)
Project is to replace the existing boiler vertical low temperature superheater (VLTSH). The existing VLTSH has been in operation since 1977. Data from the 2005 & 2010 overhauls has shown that replacement of the VLTSH component is economically preferable to other alternatives. This project will reduce the number of boiler tube failure events which will increase unit reliability. Tube failures are frequently a result of fly ash erosion which occurs as a normal part of boiler operations.

Craig: Environmental Upgrade Phase 2 (Reference page 8.6.21)
This project is phase 2 of the overall Craig Station State Implementation Plan related to nitrogen oxide (NOx) reduction. The project includes installation of low NOx burners (LNB) and Selective Catalytic Reduction (SCR) technology.

Hunter Unit 1: Clean Air – PM (Reference page 8.6.21)
This project is the conversion of the Hunter Unit 1 electrostatic precipitator to a pulse jet fabric filter (PJFF) baghouse. The installation of the baghouse is required for compliant operation under the Regional Haze Rules, the State of Utah's § 309 (g) Implementation Plan, the State of Utah's best available retrofit technology (BART) review process, and the state of Utah's Approval Order for Hunter Unit 1 (DAQE-AN0102370012-08) dated March 2008.

Hayden Unit 1: Selective Catalytic Reduction (SCR) system (Reference page 8.6.21)
This project provides for the installation of a Selective Catalytic Reduction (SCR) system on Hayden Unit 1. The purpose is to reduce emissions of nitrogen oxides (NOx) formed as products of combustion in the boilers. Selective Catalytic Reduction (SCR) systems will be retrofitted and tied into existing ductwork. The SCR will use an ammonia compound to react with the NOx producing elemental nitrogen and water. The reaction takes place in multiple catalyst layers within the new SCR reactor. The catalyst reactor will be located between the economizer and the air heater to provide the optimum temperature range for the reaction to occur. The SCR system will include the following components: Ammonia Vaporizer, Ammonia Dilution Blowers, Distribution Piping and injection Nozzles, Catalyst Bed & Housing (Reactor), and Transition Ductwork. Additionally, an ammonia storage system will be constructed to deliver anhydrous ammonia in liquid form to the SCR skid vaporizers. New I.D. Booster fans may be required to overcome the additional system pressure drop incurred from the installation of the SCR system.

Hunter Unit 1: NOX LNB Clean Air (Reference page 8.6.21)
Installation of low nitrogen oxide burners (LNB) and separated over-fired air (SOFA) in the Hunter Unit 1 boiler. The project consists of design, fabrication and construction of two levels of SOFA and modifications of boiler wind box. Installation of the LNB project is required for compliant operation under the Regional Haze Rules, the state of Utah's § 309 (g) Implementation Plan and the state of Utah's Approval Order for Hunter Unit 1 (DAQE-AN0102370012-08) dated March 2008.

HYDRO PLANT ADDITIONS:

Merwin Upstream Collect/Transport (Reference page 8.6.22)
This project fulfills the conditions specified in Section 4.3 of the Lewis River Settlement Agreement. The Lewis River Settlement Agreement stipulates that PacifiCorp must construct and start up an upstream fish collection and transport facility at the Merwin Dam to provide collection, handling, sorting and transportation of adult salmon and steelhead fish within approximately five and one-half years (including approved extensions) after the issuance of a new Federal Energy Regulatory Commission license.

OTHER PLANT ADDITIONS:

Lake Side 2: Build (Reference page 8.6.23)
Lake Side 2 is a nominally rated 645 megawatt (MW) natural gas fired resource located adjacent to PacifiCorp's existing Lake Side 1 plant. It will provide cost-effective, natural gas-fueled generation for PacifiCorp's customers. The Lake Side 2 project is a "2x1" combined cycle facility consisting of two "F" class natural gas-fired combustion turbine-generators, two heat recovery steam generators equipped with nitrogen oxide emissions control systems and carbon monoxide oxidation catalysts, one steam turbine-generator and the associated ancillary and support facilities. The facility will be equipped with duct firing capability. The project will include a new 345 kilovolt (kV) switchyard and an interconnection to the new 345 kV Steel Mill Substation that will connect with the Hunter-Camp Williams 345 kV transmission line.

Lake Side Unit 12: Combustion Turbine Overhaul (Reference page 8.6.23)
Lake Side unit 12 gas combustion turbine overhaul includes the replacement of combustion turbine parts and associated labor in accordance with the long term maintenance plan. The overhaul includes the replacement of program parts in the combustion and hot gas path sections of the gas turbine. The program parts are defined as transition seals, baskets, pilot nozzles, transitions, ring segments, blades and vanes. The service contract requires that the combustion turbine be maintained to the standards agreed upon per the maintenance contract and should occur after a specified number of factored fired hours or equivalent gas turbine starts.

Lake Side Unit 11: Combustion Turbine Overhaul (Reference page 8.6.23)
Lake Side unit 11 gas combustion turbine overhaul includes the replacement of combustion turbine parts and associated labor in accordance with the long term maintenance plan. The overhaul includes the replacement of program parts in the combustion and hot gas path sections of the gas turbine. The program parts are defined as transition seals, baskets, pilot nozzles, transitions, ring segments, blades and vanes. The service contract requires that the combustion turbine be maintained to the standards agreed upon per the maintenance contract and should occur after a specified number of factored fired hours or equivalent gas turbine starts.

Chehalis Unit 2: Combustion Turbine Overhaul (MI) (Reference page 8.6.23)
Chehalis 2 gas combustion turbine overhaul includes the replacement of combustion turbine parts and associated labor in accordance with the long term maintenance plan. The overhaul includes the replacement of program parts in the combustion and hot gas path sections of the gas turbine. The program parts are defined as transition seals, baskets, pilot nozzles, transitions, ring segments, blades and vanes. The service contract requires that the combustion turbine be maintained to the standards agreed upon per the maintenance contract and should occur after a specified number of factored fired hours or equivalent gas turbine starts.

Chehalis Unit 1: Combustion Turbine Overhaul (MI) (Reference page 8.6.23)
Chehalis unit 1 gas combustion turbine overhaul includes the replacement of combustion turbine parts and associated labor in accordance with the long term maintenance plan. The overhaul includes the replacement of program parts in the combustion and hot gas path sections of the gas turbine. The program parts are defined as transition seals, baskets, pilot nozzles, transitions, ring segments, blades and vanes. The service contract requires that the combustion turbine be maintained to the standards agreed upon per the maintenance contract and should occur after a specified number of factored fired hours or equivalent gas turbine starts.

Lake Side 11: Combustion Turbine Exhaust Cylinder Replacement (Reference page 8.6.23)
This project replaces a damaged combustion turbine exhaust cylinder on the Lake Side Unit 11 with a new exhaust cylinder. During a recent combustion inspection, deformation to one of six tangential struts (#6 or bottom strut) holding the exhaust bearing concentric with the exhaust casing was observed. Subsequent inspections identified an exhaust bearing bore drop that resulted in damage to the row one and two turbine blades turbine seals, ring segments, compressor blades and other components requiring

repair or replacement. This project replaces the combustion turbine exhaust cylinder with a new single piece exhaust cylinder as well as replace or repair subsequent damaged turbine and compressor components.

GENERAL PLANT ADDITIONS / INTANGIBLE PLANT ADDITIONS:

EMS/SCADA Replacement / Upgrade (Reference page 8.6.27 and page 8.6.28)
The existing 10 year old technology based system is operating near full capacity while running obsolete software and hardware. The system will no longer be supported by the vendor and is becoming problematic in meeting current and future business requirements related to compliance, growth and reliability. The existing system will be replaced by a modern supportable EMS/SCADA system that will provided needed functionality to support system operational requirements.

TRANSMISSION PLANT ADDITIONS:

Mona – Limber – Oquirrh 500/345 kV line (Reference page 8.6.24)
As part of the Energy Gateway Program (Gateway Central), the Mona – Oquirrh project constructed a new transmission line approximately 100 miles in length between Mona/Clover Substations and Oquirrh Substation. The line was built to maintain adequate transmission capacity for network load and reliability. A new single circuit 500 kilovolt transmission line was constructed from the Mona/Clover Substations near Mona, Utah to the future Limber Substation near Tooele, Utah which is between Mona and Oquirrh. This line segment was approximately 65 miles in length and was initially energized at 345 kilovolts. A 35 mile double circuit 345 kilovolt line was constructed from the future Limber Substation to the existing Oquirrh Substation in West Jordan, Utah. The project was placed in-service in May of 2013 and close out activities including reclamation and right of way payments will continue into 2014.

90th South - West Jordan - Taylorsville Rebuild (Reference page 8.6.24)
This project is to rebuild the 90th South- West Jordan- Taylorsville 138 kilovolt line with new transmission poles and 1557 ACSR conductor. Distance is approximately 7.27 miles. The project also includes relocating approximately 4.2 miles of 12.5 kilovolt distribution underbuild facilities from existing transmission poles to the new transmission poles. Increasing the capacity of this line will increase the transfer capability of the Wasatch Front south boundary and is necessary in order to meet NERC transmission planning system performance standard (TPL-003-0a Category C-5). The project was placed in-service in September of 2013.

Line 3 Convert to 115kV - phase 1 (Reference page 8.6.24)
The Line 3 Conversion Project will improve the reliability of 115 kilovolt and 69 kilovolt transmission supply to customers in the Medford, Oregon and Ashland, Oregon areas. Line 3 and Talent Substation are being converted from 69 kilovolt to 115 kilovolt operation to provide redundant 115 kilovolt transmission supply to Talent, Ashland, Mountain Avenue and Oak Knoll substations. Circuit breakers and protective relaying are being installed at Ashland and Oak Knoll substations and at Baldy Switching Station to reduce the transmission line-miles of outage exposure, reducing the number of customers interrupted by each transmission outage. Fully redundant 69 kilovolt transmission capacity will be restored to Belknap and Foothill Road substations.

Q313 ENEL Cove Fort – LGI (Reference page 8.6.24)
This interconnection project includes a new 138 kilovolt three (3) breaker ring bus point of interconnection substation, as well as a loop-in of the existing Sigurd-Cameron 138 kilovolt transmission line to the new point of interconnection substation. This project also includes installation of 23.8 miles of fiber optic communication cable on the existing Sigurd-Cameron line between the new point of interconnection substation and proposed Cove Fort substation and protection and communications upgrades at Sigurd substation. Communications upgrades will occur at Salt Lake Control Center, Scipio Pass, Milford and Blundell. The project was placed in-service in October of 2013.

Sigurd - Red Butte 345 kV line (Reference page 8.6.24)
As part of the Energy Gateway Program, the Sigurd – Red Butte 345 kV line will support current and future electrical load growth in southwestern Utah. The Project will improve the ability of PacifiCorp's transmission system to transport energy into southwest and central Utah, and into high growth urban areas in and around Salt Lake City including the Wasatch Front. Due to the interconnected nature of the Company's transmission system, this Project will benefit PacifiCorp's network customers system-wide. In addition, this Project is key to maintaining the Company's compliance with mandated North American Electric Reliability Corporation ("NERC") and Western Electricity Coordinating Council ("WECC") reliability and performance standards as necessary during normal system operations and during certain transmission system and generation plant outage conditions.

Carbon Plant Replacement (Reference page 8.6.24)
The plant investments associated with the Carbon Plant replacement project consist of installation of capacitor banks and installation of a static var compensator at the Mathington Substation; the upgrade of communications and the modifying of the protection and control equipment at multiple locations; and the installation of one substation control building, one phase shifting transformer, the relocation of a series reactor from Spanish Fork Substation, six circuit breakers with associated voltage transformers, and switches at the Upalco Substation.

The plant investment for the Carbon Plant replacement project is needed because of the decommissioning of the existing 172 MW Carbon Thermal Generation ("Project") facility located in Carbon County, Utah. The northeastern to central Utah transmission system consists of the Vernal-Ashley-Upalco-Carbon 138 kilovolt line (owned by PacifiCorp) and the Bonanza-Mona 345 kilovolt line (owned by Deseret Generation and Transmission Cooperative). The balance of energy flow between the 138 and 345 kilovolt lines is critical to maintaining the Bonanza West path rating granted by the Western Electricity Coordinating Council. With the 2015 decommissioning of the Carbon generation the relay load level for tripping the Bonanza unit will be significantly lowered (more than 100 MW) to maintain the path rating when the Sunnyside generation (52 MW) is operating. The Sunnyside Cogeneration Plant is owned by Exelon Corporation and is located near the town of Sunnyside, Utah. For operating conditions with the Sunnyside generation off-line and high Bonanza West flows, the Bonanza West path rating will be reduced by 50 to 100 MW due to high flow on the Upalco-Carbon 138 kilovolt line, and Bonanza unit generation will have to be reduced more than 100 MW. Therefore, installation of the assets described above and included in the Carbon Plant replacement project are critical to maintain transmission system stability and current path ratings after the Carbon generating plant is decommissioned.

Union Gap - Add 230 - 115kV Capacity - TPL002 - Phase 1 (Reference page 8.6.24)
This plant investment includes relocating and upgrading the existing 230 kilovolt bus into a ring bus including the installation of six new 230 kilovolt breakers and the addition of a new 230/115 kilovolt, 250 Mega Volt Ampere transformer to be placed in service in March of 2015. Final completion of the project that will be placed into service in June of 2016 includes a rebuild of the existing 115 kilovolt main transfer bus to a breaker and a half scheme, and fifteen new 115 kilovolt breakers on the 115 kilovolt bus.

The plant investment for the Union Gap upgrade transmission substation project is needed to comply

with reliability standards of the North American Electric Reliability Corporation ("NERC"). Specifically, the project is necessary to enable compliance with NERC Standard TPL-002 "System Performance Following Loss of a Single Bulk Electric System Element (Category B)" that requires bulk electric system elements, including transmission transformers, to be within thermal limits following the single contingency loss of a transmission system element. An outage of one of the two 230/115 kilovolt transformers results in an overload of the remaining transformer of approximately 50 MWs which can be maintained for a maximum of four hours. Beyond four hours, the transformer load has to be reduced back to the continuous rating of the remaining transformer impacting approximately 10,000 customers. PacifiCorp's West System Assessment for TPL-002 Compliance Requirements, submitted to NERC in 2011, notes that for the loss of a Union Gap 230/115 kilovolt transformer in heavy summer loading conditions, overload of the posted four hour emergency will be experienced by 2016.

Whetstone 230-115KV Substation phase 1 - TPL002 (Reference page 8.6.24)
This plant investment consists of a new substation with one 150/200/250 Mega Volt Ampere, three phase, load tap changer autotransformer, four 115 kilovolt breakers and three 230 kilovolt breakers with associated switches. Other investment includes a generator, a control house with a battery system, communication facilities, relay equipment, and a reconfiguration and reconductor of 3.8 miles of 115 kilovolt transmission line from the Scenic substation to the Whetstone substation.

This plant investment for the Whetstone Substation construction project is needed because NERC Standard TPL-002 "System Performance Following Loss of a Single Bulk Electric System Element (Category B)" requires bulk electric system elements, including transmission transformers, to be within thermal limits following the single contingency loss of a transmission system element. The loss of one of the Lone Pine 230/115 kilovolt 250 Mega Volt Ampere transformers overloads the other transformer beyond the summer four hour emergency rating and violates the NERC TPL-002 standard. After completing the new substation and reconfiguring the Medford system, the TPL-002 overload violation for loss of a Lone Pine 230/115 kilovolt transformer will be resolved. The reconductor of Line 74 must be completed to accommodate the loss of line 99 from Lone Pine to Brookhurst prior to Whetstone substation being placed in service.

ETSR Q1256 Lakeside II Transmission Service (Reference page 8.6.24)
Transmission of energy from the generation facility to beyond Steel Mill substation requires the installation of two new 345 kilovolt breakers and looping in of the Camp Williams – Emery 345 kilovolt line at Spanish Fork substation. Also required is a reconductoring of the approximately ten mile Spanish Fork – Tanner 138 kilovolt line and communication fiber to Hale substation. Equipment replacement, control modifications and communications upgrades will be required at the Spanish Fork, Tanner and Hale substations.

A transmission customer has requested transmission service to PacifiCorp's network at the Lake Side 2 Generating facility near Vineyard, Utah ("Project") under FERC Open Access Transmission Tariff ("Tariff"). Under the Tariff, PacifiCorp has completed the necessary studies and identified the additional network facilities necessary to provide transmission service for the generation project. PacifiCorp is required to provide transmission service per the Tariff.

Populus - Terminal 345 kV line - condemnation settlements (Reference page 8.6.24)
This project is part of the close out activities on the Populus-Terminal 345kV line project which constructed a 135 mile double circuit 345kV line originating from Populus substation near Downey, Idaho and ending at Terminal substation near Salt Lake City, Utah. There were a number of condemnation complaints filed during this project that were resolved and there are two remaining condemnation actions that are both related to the impact of the transmission line on open pit mining activities.

Highland Sub - Lehi Rebuild for Network Customer (Reference page 8.6.24)
This project is to meet the request of Utah Associated Municipal Power Systems (UAMPS) for an additional Point of Delivery for Lehi City at a delivery voltage of 138 kV. The request is at a voltage of 138 kV because the local 46 kV system is overloaded. Increased load service for the UAMPS network customer (Lehi City Bull River and Carter substations) has resulted in transmission line loading on Highland-Lehi above the 45 MVA rating on the 46 kV system as well as the inability to restore all load with a 40 MVA mobile 138/46 kV transformer during an outage of the existing 138/46 kV 75 MVA Highland transformer. There are two phases to the project. The first phase will be to convert part of the 46 kV Highland to Lehi line to 138 kV and is scheduled to be completed in 2014. This includes rebuilding 3.8 miles of the Highland-Lehi 46 kV line with 138 kV capable avian safe construction and aluminum conductor steel reinforced (ACSR) conductor. The second phase will be to add additional 138 kV equipment to the Highland substation which includes completing the ring bus, installing three 138 kV breakers, and re-terminating the Highland-Lehi Bull River line in the new 138 kV ring.

Goshen Sub Bus Rebld-Kinsport Line Relo - TPL003 (Reference page 8.6.24)
This project will eliminate the risk and consequence of loss of significant load in the Goshen area for TPL Category C stuck breaker contingency due to the bus configuration where two 345/161 kV Goshen transformers and the two 345 kV lines (Goshen-Kinport & Goshen – Three Mile Knoll) share common breakers. The Goshen 345kV substation reconfiguration project was identified as a system deficiency during the Company's Annual Transmission System Assessment performed in compliance with NERC/WECC TPL standards and is a part of the action plan formed from that assessment. This project consists of installing a new 345 kV, three breaker line position on the East side of the Cedar Creek Wind project's position that will become the new line termination for the existing Kinport line. Rebuilding and extending the Northern east-west cross bus to the west to allow for the connection of the new line bay. Constructing a northern bus extension which requires the removal of existing breaker and associated switches and the installing of a new 362kV breaker and associated disconnect switches, replacing the existing 345kV break switches with their structure and foundations with new 345kV, vertical break switches, structure and foundation, and the installing of a new 345kV instrument transformer on the newly located Kinsport line.

Fry Sub Instl 115 kV Capacitor Bank TPL2 (Reference page 8.6.24)
This project achieves compliance with TPL-002 planning criteria for several years; helps defer a long-range capital project, while also addressing four existing system deficiencies. The project allows operators to maintain acceptable voltage for both the 230 kV and 115 kV busses at Fry Substation, and to control the reactive power exchange between BPA and PacifiCorp at the BPA Albany to Hazelwood tie, which will significantly reduce the power exchange charges. The project also addresses numerous TPL issues associated with loss of a system component, including the Fry 115 kV main bus and the BPA Albany 115 kV main bus. The project addresses voltage control issues and overload of the BPA Albany to Hazelwood line and Hazelwood 115 kV bus associated with loss of the PGE Bethel to Parrish Gap 230 kV line. The project resolves the TPL issue associated with a transformer bus fault at Fry Substation, combined with a breaker failure. The project consists of installing capacitor banks and breakers connected to the bypass bus and upgrading protective relay equipment. This includes extending the fenced area and existing 115 kV bus structure to the west and relocating the access road and access gate further west.

Standpipe Substation Construct New 230 kV Sub (Reference page 8.6.24)
This plant investment consists of a new 230 kilovolt substation called Standpipe. The substation will be constructed as a 2-bay breaker and a half bus, with a partial build out of a third bay to connect a future synchronous condenser. A shunt reactor will also be added at Standpipe. Other additions include upgrades at the existing Platte and Latham Substations located near Rawlins, Wyoming, including bus reconfigurations, and a shunt capacitor bank at Latham, and the associated controls, breakers, and protection. The synchronous condenser and associated equipment will be placed into service in June of 2016.

The plant investment for the Standpipe Substation construction project is needed because customers in the Platte area of the Wyoming system have been exposed to excessively high steady state voltages as well as a large number of transient voltage excursions that do not meet PacifiCorp engineering criteria as specified in the PacifiCorp Engineering Handbook, Section 1B.3. Reported customer impacts following these high voltage conditions have been significant, and at this time, there are limited operational means of reducing voltage during these conditions. To mitigate system instability resulting from high voltage levels, installation of shunt reactors and capacitors in addition to a synchronous condenser at a new Standpipe substation will provide a means to mitigate these conditions and improve power quality and reliability in the region. Additionally, the installation of a synchronous condenser at Standpipe will increase the reactive support of the transmission system in the region, resulting in better voltage stability and attenuation of voltage swings during system operation.

Tooele Replace T1, T3 add 138kV Source - TPL-002 (Reference page 8.6.24)
This project will connect the new Tooele to Oquirrh 345kV #1 line to the Tooele and Oquirrh 138kV buses and operate the 345 kV line at 138 kV. This will provide a third power source to Tooele substation and increase the capacity of the 138-46 kV transformers (75 to 112 MVA) with LTC capability at Tooele substation. The Tooele Valley primary source comes from the Tooele Substation. This substation has two 138 kV sources and loss of the Tooele to Oquirrh 138 kV line causes an overload on the remaining Terminal to Toole 138 kV line and results in low voltage on the Tooele 46 kV system.

West Point: New 138 kV Line & 40 MVA Substation (Reference page 8.6.24)
The western sections of Davis and Weber Counties (consisting of the following cities: Layton, Syracuse, West Point, Clinton, Hooper, and West Haven) are continuing to develop. Numerous residential and commercial developments are being planned and constructed. The load is currently served by distribution feeders that are approximately seven miles long and being fed from substations located near, or east of the existing transmission corridor. Some of these distribution feeders and substations will become fully loaded by 2014. A new 138 kV line needs to be built on the west side of Weber and Davis Counties to support the construction of new substations capable of supplying the expected loads.

This project will build approximately 4 miles of 138 kV line, build one (1) new 138-12.5 kV, 40 MVA substation (West Point) with four distribution feeders, and modify a 138 kV substation (Clearfield South) for the transmission tap to feed the loads in the western sections of Davis and Weber Counties.

Casper Outer Loop - New 115kV Red Butte to WAPA (Reference page 8.6.24)
Historical data indicates that an outage of the Casper-Rawhide-Elkhorn 115 kV line will result in the Casper-Center Street-Elk Horn 115 kV line exceeding the summer emergency rating.

This Project will complete the conversion of the Casper Outer Loop from 69 kV to 115 kV. A 115 kV transmission line between Red Butte Substation and a new three terminal tap on the existing Casper – WAPA Casper 115 kV line will be constructed. The section of this transmission line from the existing 69 kV right of way to the new three terminal tap will be constructed double circuit. One side

of the new double circuit line will be energized at 69 kV to restore a preferred / alternate configuration to the remaining outer loop 69 kV substations.

Red Butte Substation (Casper, WY): Convert to 115 kV Phase I (Reference page 8.6.24)
Red Butte substation is a 69-12.47 kV substation with one 20 MVA (24 MVA winter rating) transformer located towards the southwest side of Casper, Wyoming. It feeds the surrounding residential area which has been experiencing substantial development over the past five years. By the summer of 2014, the transformer is projected to be loaded to 105% of the summer nameplate rating.

This project will rebuild and convert the Community Park to Red Butte 69 kV line and the Red Butte substation to 115 kV. The Red Butte substation will contain a 30 MVA transformer.

DISTRIBUTION PLANT ADDITIONS:

West Point: New 138 kV Line & 40 MVA Substation (Reference page 8.6.25)
Same as above.