

**Sigurd to Red Butte No. 2 345kV Transmission Project
Preliminary Right-of-Way Application
Standard Form 299**

SUBMITTED BY:

**ROCKY MOUNTAIN
POWER**

A DIVISION OF Xcel Energy

SUBMITTED TO:



West Desert District
Color Country District



Dixie National Forest
Fishlake National Forest

DECEMBER 2008

STANDARD FORM 299 (6/99)
Prescribed by DOI/USDA/DOT
P.L. 96-487 and Federal
Register Notice 5-22-95

**APPLICATION FOR TRANSPORTATION AND
UTILITY SYSTEMS AND FACILITIES
ON FEDERAL LANDS**

FORM APPROVED
OMB NO. 0596-0082

FOR AGENCY USE ONLY

Application Number

Date Filed

3. Telephone (area code)

Applicant

Authorized Agent

NOTE: Before completing and filing the application, the applicant should completely review this package and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the preapplication meeting.

1. Name and address of applicant (include zip code)

PacifiCorp (DBA Rocky Mountain Power, PacifiCorp Energy, and Pacific Power)
1407 W. North Temple
Salt Lake City, UT 84116

2. Name, title, and address of authorized agent if different from item 1 (include zip code)

Same as 1

4. As applicant are you? (check one)

- a. Individual
- b. Corporation*
- c. Partnership/Association*
- d. State Government/State Agency
- e. Local Government
- f. Federal Agency

* If checked, complete supplemental page

5. Specify what application is for: (check one)

- a. New authorization
- b. Renewing existing authorization No.
- c. Amend existing authorization No.
- d. Assign existing authorization No.
- e. Existing use for which no authorization has been received *
- f. Other*

* If checked, provide details under item 7

6. If an individual, or partnership are you a citizen(s) of the United States? Yes No

7. Project description (describe in detail): (a) Type of system or facility, (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (Length, width, grading, etc.); (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction (Attach additional sheets, if additional space is needed.)

See Attachment A

8. Attach a map covering area and show location of project proposal – See Attachment 1

9. State or Local government approval: Attached Applied for/in progress Not Required

10. Nonreturnable application fee: Attached Not required

11. Does project cross international boundary or affect international waterways? Yes No (if "yes," indicate on map)

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

See Attachment A

13a. Describe other reasonable alternative routes and modes considered.

See Attachment A

b. Why were these alternatives not selected?

See Attachment A

c. Give explanation as to why it is necessary to cross Federal Lands.

See Attachment A

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name)

See Attachment A

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.

See Attachment A

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

See Attachment A

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

See Attachment A

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plantlife, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

See Attachment A

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

See Attachment A

20. Name all the Department(s)/Agency(ies) where this application is being filed.

Bureau of Land Management – Richfield, Fillmore, Cedar City, and St. George Field Offices
U.S. Forest Service, Fishlake and Dixie National Forests

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant

Branda Smith

Date

12/19/08

Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

**GENERAL INFORMATION
ALASKA NATIONAL INTEREST LANDS**

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation and utility systems and facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.
3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
4. Systems for the transmission and distribution of electric energy.
5. Systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
6. Improved right-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

Department of Agriculture
Regional Forester, Forest Service (USFS)
Federal Office Building,
P.O. Box 21628
Juneau, Alaska 99802-1628
Telephone: (907) 586-7847 (or a local Forest Service Office)

Department of the Interior
Bureau of Indian Affairs (BIA)
Juneau Area Office
Federal Building Annex
9109 Mendenhall Mall Road, Suite 5
Juneau, Alaska 99802
Telephone: (907) 586-7177

Department of the Interior
Bureau of Land Management
222 West 7th Avenue
P.O. Box 13
Anchorage, Alaska 99513-7599
Telephone: (907) 271-5477 (or a local BLM Office)

U.S. Fish & Wildlife Service (FWS) Office of the Regional Director 1011 East Tudor Road Anchorage, Alaska 99503 Telephone: (907) 786-3440	National Park Service (NPA) Alaska Regional Office, 2225 Gambell St., Rm. 107 Anchorage, Alaska 99502-2892 Telephone: (907) 786-3440
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Note - Filings with any Interior agency may be filed with any office noted above or with the Office of the Secretary of the Interior, Regional Environmental Office, P.O. Box 120, 1675 C Street, Anchorage, Alaska 99513.

Department of Transportation
Federal Aviation Administration
Alaska Region AAL-4, 222 West 7th Ave., Box 14
Anchorage, Alaska 99513-7587
Telephone: (907) 271-5285

NOTE - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual department/agencies may authorize the use of this form by applicant for transportation and utility systems and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

SPECIFIC INSTRUCTIONS

(Items not listed are self-explanatory)

- 7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
- 8 Generally, the map must show the section(s), township(s), and range(s) within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
- 9, 10, and 12 The responsible agency will provide additional instructions.
- 13 Providing information on alternate routes and modes in as much detail as possible, discussing why certain routes or modes were rejected and why it is necessary to cross Federal lands will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate routes and modes as related to current technology and economics.
- 14 The responsible agency will provide instructions.
- 15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
- 16 through 19 Providing this information in as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.

Application must be signed by the applicant or applicant's authorized representative.

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the information is voluntary. If all the information is not provided, the application may be rejected.

DATA COLLECTION STATEMENT

The Federal agencies collect this information from applicants requesting right-of-way, permit, license, lease, or certification for the use of Federal lands. The Federal agencies use this information to evaluate the applicant's proposal. The public is obligated to submit this form if they wish to obtain permission to use Federal lands.

SUPPLEMENTAL		
NOTE: The responsible agency(ies) will provide instructions	CHECK APPROPRIATE BLOCK	
	ATTACHED	FILED*
I - PRIVATE CORPORATIONS		
Articles of Incorporation	<input type="checkbox"/>	<input type="checkbox"/>
Corporation Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
A certification from the State showing the corporation is in good standing and is entitled to operate within the State	<input type="checkbox"/>	<input type="checkbox"/>
Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	<input type="checkbox"/>	<input type="checkbox"/>
If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications.	<input type="checkbox"/>	<input type="checkbox"/>
If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	<input type="checkbox"/>	<input type="checkbox"/>
II - PUBLIC CORPORATIONS		
Copy of law forming corporation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proof of organization	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Copy of Bylaws	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Copy of resolution authorizing filing	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If application is for an oil or gas pipeline, provide information required by item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>
III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY		
Articles of association, if any	<input type="checkbox"/>	<input type="checkbox"/>
If one partner is authorized to sign, resolution authorizing action is	<input type="checkbox"/>	<input type="checkbox"/>
Name and address of each participant, partner, association, or other	<input type="checkbox"/>	<input type="checkbox"/>
If application is for an oil or gas pipeline, provide information required by item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>

If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information (e.g., number, date, code, name). If not on file or current, attach the requested information.

NOTICE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082.

This information is needed by the Forest Service to evaluate the requests to use National Forest System lands and manage those lands to protect natural resources, administer the use, and ensure public health and safety. This information is required to obtain or retain a benefit. The authority for that requirement is provided by the Organic Act of 1897 and the Federal Land Policy and Management Act of 1976, which authorize the secretary of Agriculture to promulgate rules and regulations for authorizing and managing National Forest System lands. These statutes, along with the Term Permit Act, National Forest Ski Area Permit Act, Granger-Thye Act, Mineral Leasing Act, Alaska Term Permit Act, Act of September 3, 1954, Wilderness Act, National Forest Roads and Trails Act, Act of November 16, 1973, Archeological Resources Protection Act, and Alaska National Interest Lands Conservation Act, authorize the Secretary of Agriculture to issue authorizations or the use and occupancy of National Forest System lands. The Secretary of Agriculture's regulations at 36 CFR Part 251, Subpart B, establish procedures for issuing those authorizations.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

Public reporting burden for this collection of information is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**SIGURD TO RED BUTTE NO. 2
345kV TRANSMISSION LINE PROJECT**

Preliminary Right-of-Way Application Standard Form 299

Attachment A

December 24, 2008

Submitted to:

**United States Department of the Interior
Bureau of Land Management**
Color Country District (Cedar City, Kanab, St. George,
and Richfield Field Offices)
West Desert District (Fillmore Field Office)

**United States Department of Agriculture
Forest Service**
Dixie National Forest
Fishlake National Forest

Submitted by:

PacifiCorp
(DBA Rocky Mountain Power, PacifiCorp Energy, and Pacific Power)

- 7) **Project description (*describe in detail*): (a) type of system or facility (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (*length, width, grading, etc.*); (d) term of years needed; (e) time of year of use or operation; (f) volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction.**

PacifiCorp proposes to permit, construct and operate a new single-circuit 345 kilovolt (kV) transmission line from the Sigurd Substation in Sevier County located approximately 6 miles northeast of the town of Richfield, Utah, to the Red Butte Substation west of State Route 18 and the town of Central in Washington County, Utah. Where feasible the new transmission line generally will be located in association with federally designated utility corridors and/or parallel to existing transmission facilities and other linear facilities. For system reliability and design capacity purposes, physical separation must be maintained between this new line and other existing transmission supply lines. The proposed route being considered at this time is illustrated in Figure 1. Following is a description of the Sigurd to Red Butte No. 2 345kV Transmission Line Project (the Project).

(a) Type of system or facility

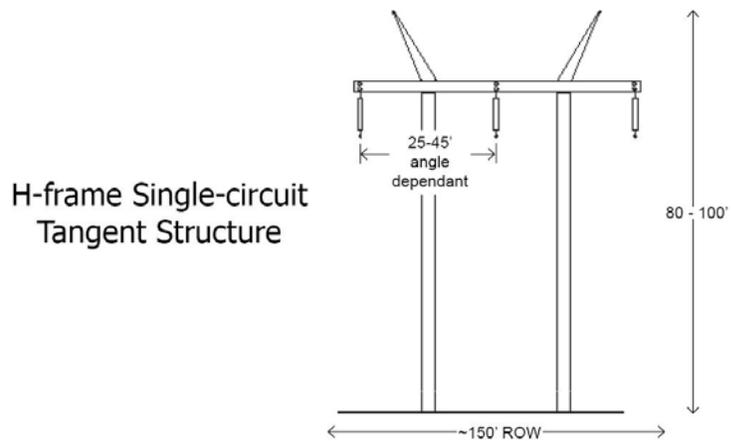
A high-voltage transmission line, including interconnections to the existing Sigurd and Red Butte Substations, is proposed as a 345kV alternating current (AC) facility.

(b) Related structures and facilities

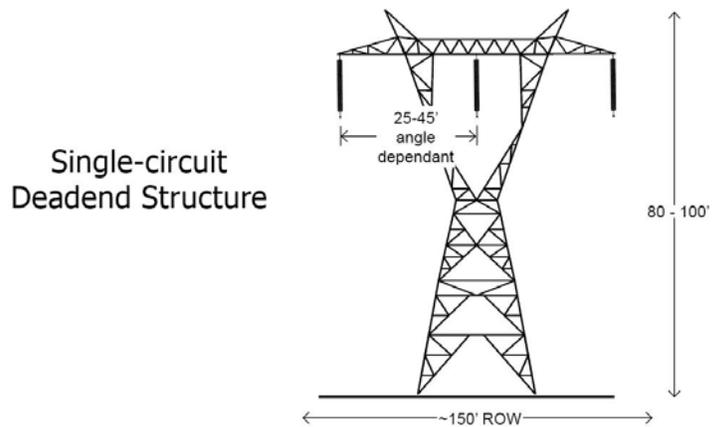
Designs for typical 345kV transmission line structures are illustrated in Figure 2 through Figure 4. At this time, it is anticipated that H-frame tangent structures will be used predominantly, in conjunction with dead end structures in selective locations (at angle and turning points) as illustrated in Figure 2. Typically these structures would be spaced approximately 1,000 to 1,200 feet apart (5 to 6 structures per mile). In locations in the vicinity of the Sigurd and Red Butte Substations double-circuit structures possibly may be used to fulfill the Project needs (see Figure 3). Likewise, these transmission line structures may vary depending on prescribed design and/or mitigation measures.

New substation equipment will be needed at the terminus points in order to interconnect the transmission line with the existing Sigurd and Red Butte Substations. Design for the substation facilities, including any potential additions, will be determined from engineering and design studies. Access to the transmission line may vary on a case-by-case basis and will include new and improved access roads where necessary. In general, these roads will be a minimum of 14 feet wide.

Typical Single-Circuit 345kV Structures



NOTE: The H-frame single-circuit is the structure that will be used predominantly.

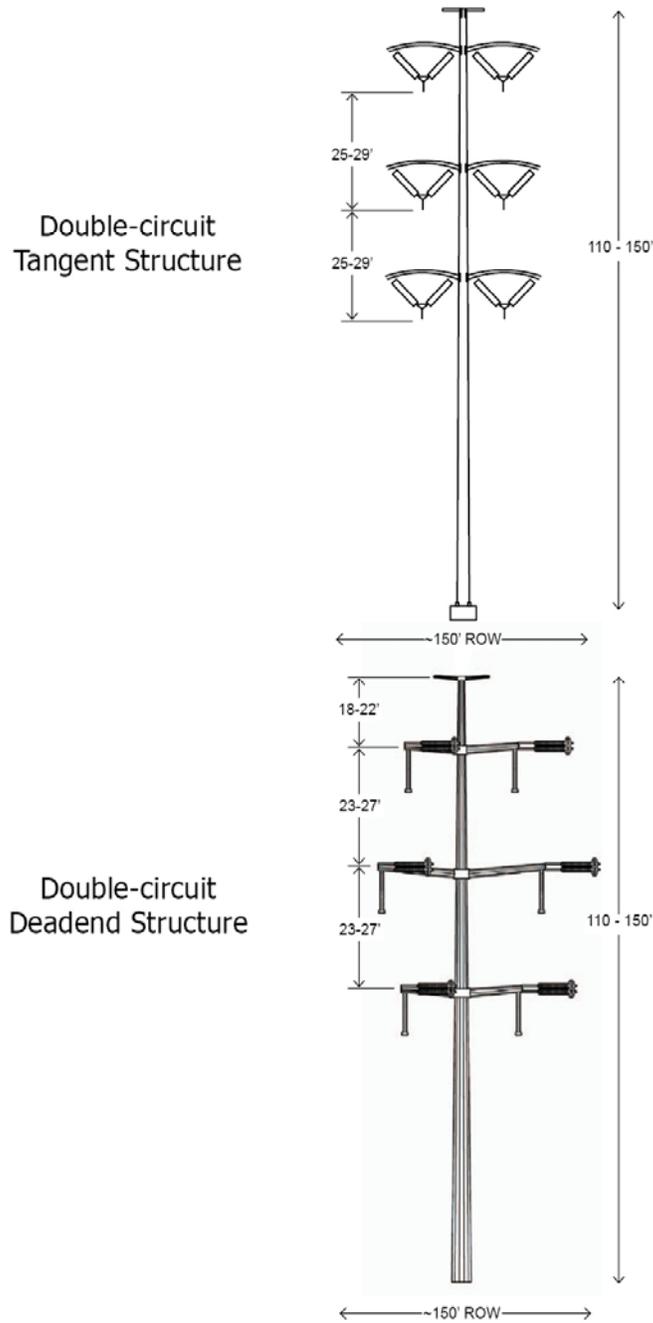


NOTE: This single-circuit deadend structure will be used only when conditions warrant.

**Sigurd to Red Butte No. 2
345kV Transmission Project**

Figure 2

Typical Double-Circuit 345kV Structures

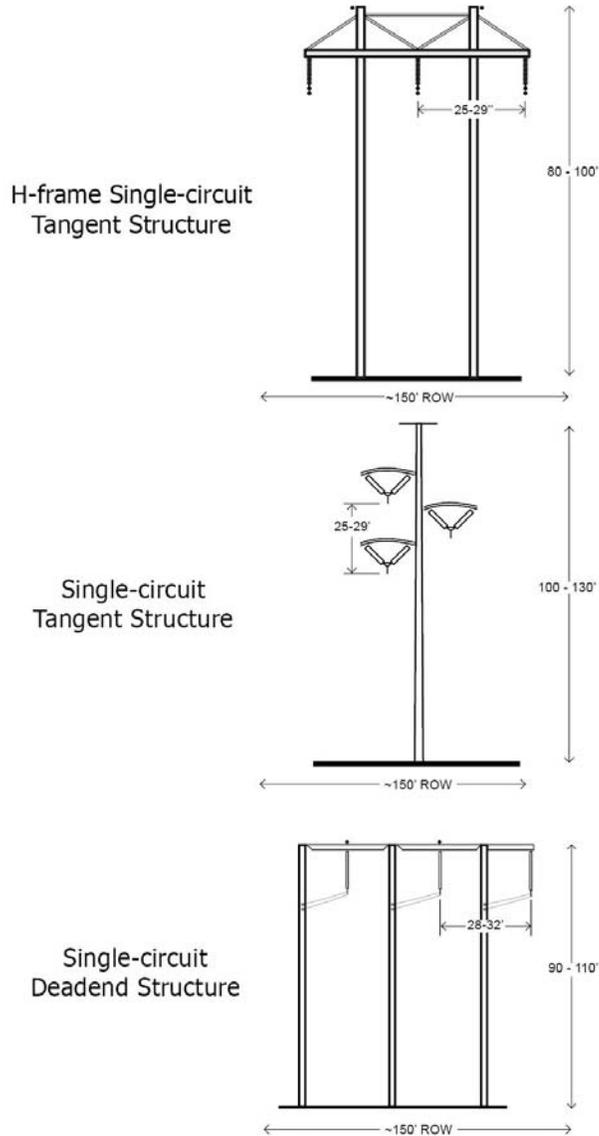


NOTE: These double-circuit structures will be used only when conditions warrant.

**Sigurd to Red Butte No. 2
345kV Transmission Project**

Figure 3

Alternative Single-Circuit 345kV Structures



NOTE: These three alternative structures will be used only when conditions warrant.

**Sigurd to Red Butte No. 2
345kV Transmission Project**

Figure 4

Final specifications for these facilities and features will not be determined until further design and engineering studies have been completed.

(c) Physical Specifications

The transmission system length will be approximately 150 to 160 miles in length with a right-of-way width of approximately 150 feet and maintaining separation from other existing transmission lines, as required, based on planning criteria. Final design for the proposed transmission lines and substation facilities will be determined upon further engineering and design studies.

(d) Term of years needed

The requested term of right-of-way grant for the Project is 50 years.

(e) Time of year of use of operation

The transmission line will operate year-round and on a daily basis, 24 hours a day. Maintenance activities will be scheduled and coordinated with other facilities to avoid service interruptions to customers served by the transmission line. Emergency repair and maintenance of the line will occur immediately as needed.

(f) Volume or amount of product to be transported

As an integral part of the electric supply grid, this transmission line will support the transmission systems capacity to carry approximately 600 megawatts (MW) of power on the major transmission path between Utah and Nevada.

(g) Duration and timing of construction

The duration of construction activities is dependent partially on the timing of project authorization, but in general, the entire construction period could last as much as 30 months, of which up to 16 months is anticipated for heavy construction activities associated with the proposed transmission line and substation interconnections. Construction is planned to occur between 2010 and 2012, with a critical in-service date of June 1, 2012.

(h) Temporary work areas needed for construction

Temporary work areas will be determined during preliminary design and studies conducted in compliance with the National Environmental Policy Act (NEPA). In general, temporary work areas include material staging areas and construction yards (approximately 10 to 20 acres), will be required every 30 to 40 miles and will be located on private property to the maximum extent possible. Work areas of approximately 150-by-200 feet are required at each tower site, and pulling and tensioning sites (every 2 to 4 miles) require approximately 150-by-750 feet. Wire splicing sites (100-by-100 feet) will be located approximately every 2 miles.

8) Attach a map covering area and show location of project proposal.

The location of the proposed route and alternatives, including alternative routes eliminated from further consideration, are illustrated in Figure 1.

9) State or local government approval:

Applications for all required state and local permits will be submitted during, or after, the BLM and U.S. Forest Service's (Forest Service) review and approval process, as appropriate.

10) Nonreturnable application fee:

An application fee will be filed with the final project right-of-way application.

12) Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

PacifiCorp has successfully constructed, operated, and maintained similar electrical facilities throughout the state of Utah (and its six-state service territory) for more than 75 years. PacifiCorp has the technical and financial capability to construct, operate, and maintain the requested transmission line.

13a) Describe other reasonable alternative routes and modes considered.

Regional transmission corridor feasibility studies were completed for the area from the Sigurd Substation to the Red Butte Substation, to assist in identifying alternative transmission line corridors and routes that will minimize potential environmental impacts. As a part of these studies, the location of existing linear facilities and designated utility corridor options between the substations were considered. Subsequent to this analysis, additional review and screening of these alternatives has been performed with further consideration for the following criteria:

- Presence of designated or proposed utility corridors
- Presence of other existing electrical and non-electrical linear facilities
- Sensitive resource areas and land use constraints (at a macro level)
- Substation interconnection requirements
- System planning criteria including separation requirements from existing and planned bulk electric facilities for reliability reasons
- Construction, operation, and maintenance of facilities

As a next step, PacifiCorp's interdisciplinary team used the information above and then applied additional engineering and planning criteria to further identify routes:

1. Use federally designated utility corridors, but minimize the use of corridors that contain existing extra-high voltage (EHV) transmission lines.
2. Parallel linear facilities, such as pipelines, low-voltage transmission lines, etc.

3. Minimize segments and/or line mileage that conflict with the NERC planning criteria, and would result in reduced reliability or capacity which is explained further below.

Figure 1 depicts the proposed route and alternatives that are not considered viable, which resulted from this screening process.

As a regulated utility, PacifiCorp needs to conform to the requirements set forth by the North American Electric Reliability Corporation (NERC), which is subject to oversight by the U.S. Federal Energy Regulatory Commission (FERC). NERC's mission is to ensure the reliability of the bulk power system in North America and transmission systems in the United States must be planned, operated, and maintained under NERC reliability standards. In compliance with these standards, transmission systems must be built with sufficient levels of redundancy to enable the transmission system to reliably operate in the event of the loss of any single or multiple elements (i.e., transmission line segment[s] or substation element[s]). For example, a plan to construct a bulk transmission system consisting of one line and one station will need to be constructed with a duplicate line and station capable of providing backup in the event any single element fails. Furthermore, as a transmission line reaches its fully rated capacity, it approaches this condition wherein the fully utilized line can withstand an outage, but it can not provide back up (or redundancy). As a result, new transmission lines that are added to a fully utilized system must be designed with 'extra' capacity in order to maintain system reliability. This is a key driver in the planning of the Sigurd to Red Butte No. 2 345kV Transmission Project and the importance of this issue is reinforced in the West-Wide Energy Corridor Final Programmatic EIS (WWEC PEIS), released in November 2008 by the BLM and the Department of Energy, wherein it states:

"Compliance with NERC and regional reliability standards *is essential* to guaranteeing the reliability of the nation's bulk electricity transmission network and nothing in this PEIS, including the establishment of energy corridors that may subsequently result, contravenes, replaces, or relaxes the applicability or enforceability of NERC or Western Electricity Coordinating Council (WECC) reliability standards..."

Furthermore, NERC/WECC guideline G6 explicitly states that "the interconnected transmission systems should be planned to avoid excessive dependence on any one transmission circuit, structure, right-of-way, or substation". The level of dependence on any transmission circuit, structure, right-of-way or substation is influenced by the availability of redundant or 'back up' systems to connect generation and to connect loads to the grid. As a result, PacifiCorp must plan its main grid transmission in a manner that avoids potential risks of large-scale interruption of load service or generation integration that may result from loss of multiple lines in an area. Therefore, to the maximum extent possible the proposed route uses federally designated energy corridors and parallels existing linear facilities. However, in order to satisfy the planning criteria and ensure that the proposed transmission line, when fully utilized, will meet the standards, it was necessary to identify segments that were outside these two initial criteria. This scenario was anticipated in the WWEC PEIS, which further states:

"In those instances where the postulated specifications of hypothetical energy corridors are inconsistent with the reliability standards or criteria, *those specifications shall be deemed moot*, replaced with specifications that are consistent with the applicable standards or criteria."

In order to achieve the reliability and capacity needed to serve present and future loads within the PacifiCorp service area, the planning standards require a minimum separation from existing and future planned transmission lines that serve substantially the same load as that served by each of the Sigurd to Red Butte No. 2 345kV transmission line. That separation depends on the purpose of the existing line, its capacity, and its impact on the wider grid due to outage or failure. NERC transmission planning criterion (TPL (001-004)-WECC-1-CR) issued April 18, 2008, specifies that in order to avoid a rating as an adjacent transmission circuit (which assumes both are likely to fail if an event affects either one), each circuit must be separated by at least "the longest span length of the two transmission circuits at the point of separation or 500 feet, whichever is greater, between the transmission circuits." (WECC 2008b) For the purposes of this project, the longest span for the 345kV transmission line was assumed to be 1,500 feet, as the minimum distance for planning purposes between existing and proposed EHV lines. However, this criterion by itself does not guarantee transmission system reliability or future performance and additional separation may be prudent in order to insure the reliability of the interconnected grid. The WWEC PEIS speaks to this issue by stating that:

"One area where the [NERC and WECC] reliability standards or criteria critically dictate corridor specifications is with respect to the distance separations between multiple bulk electricity transmission lines located in common or adjacent corridors. Reliability criteria recently proposed by WECC address the potential for simultaneous or successive failures of multiple transmission lines within a common corridor or within parallel adjacent corridors... by far the most cost effective preemptive strategy against multiple simultaneous line loss involves ensuring adequate distance separation between lines at the planning stage."

Therefore, based upon a combination of the governing planning criteria and reliability standards, historical precedents, and the collective professional expertise of the electrical industry, PacifiCorp intends to ensure system reliability by maximizing transmission line separation distances between the proposed route and other EHV lines or paths to the greatest extent possible. Figure 1 depicts the proposed route and alternative routes that were eliminated from further consideration through this screening process.

Detailed environmental studies, engineering studies and refinement, and field review/surveys will be required for the proposed transmission line route to be evaluated during the NEPA process.

13b) Why were these alternatives not selected?

At this point, no alternative routes out of the Sigurd substation met system planning criteria. However, other routes may be determined through consultation with the respective land-management agencies and through the NEPA process.

13c) Give explanation as to why it is necessary to cross federal lands.

The total distance between the locations of the terminal points (i.e., Sigurd Substation and Red Butte Substation) is approximately 150 to 160 miles (depending upon alternative selected), and would require crossing federally managed land primarily administered by the BLM for a majority of the route, with limited areas of lands administered by the Forest Service; therefore, crossing federally owned land is unavoidable. Generally, the study area is identified as open and undeveloped; however, small incorporated towns, cities, and other rural populated areas are dispersed throughout. In general alternatives identified outside of the more highly developed areas would cross federally managed land.

14) List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency (*Specify number, date, code, or name*).

Two preliminary right-of-way applications have been filed with the BLM for EHV transmission lines within the Project study area: (1) Energy Gateway South 500kV Transmission Project, filed November 2007 with the BLM Wyoming State Office by PacifiCorp (revised version), and (2) TransWest Express 500kV Transmission Project (TransWest Express), filed in November 2007 by National Grid. These preliminary applications are currently being revised and have been resubmitted to the BLM separately by PacifiCorp (Energy Gateway South) and Anshutz Corporation (current proponent for the TransWest Express).

In addition, PacifiCorp filed a preliminary right-of-way application with BLM Salt Lake and Fillmore Field Offices in January 2007 for the Mona to Oquirrh 500/345kV Transmission Corridor Project.

15) Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (*construction, operation, and maintenance*); (b) estimated cost of next best alternative; and (c) expected public benefits.

As a regulated utility, PacifiCorp is responsible to provide its customers with safe, reliable adequate transmission capacity to meet short-term and long-term load growth via connection to generation resources and through access to energy markets. The Project addresses PacifiCorp's need to meet these obligations by adding facilities to its transmission system thereby improving reliability and increasing capacity required to serve loads in Utah. The Project allows potential access to renewables and other generation sources in the future and provides increased capacity to export energy in the event of energy surpluses. In this regard, this Project supports PacifiCorp's current and future Integrated Resource Plan. The purpose and need for the Project is summarized below.

Reliability: The existing 345kV transmission line (Sigurd to Red Butte No. 1), as part of the electric supply grid, is currently being operated at full capacity. The new proposed 345kV (Sigurd to Red Butte No. 2) line will provide redundancy to the existing infrastructure and substantially improve PacifiCorp's need to provide reliable electrical service to its customers as mandated by federal and state agencies. By 2012, load growth in southwestern Utah will exceed the capability of the existing system and new facilities must be constructed to provide

reliable capacity for load service. In addition, without the new line, peak load in southwestern Utah cannot be served during line outage contingencies.

Service to Load: The 345kV line will not only support future electrical load growth in southwestern Utah, but also will improve the ability of PacifiCorp's transmission system to transport energy into central Utah and to growth areas along the Wasatch Front. Due to the interconnected nature of its transmission system, this Project will benefit PacifiCorp's system in a regional context.

Transfer Capacity: The current system supports up to 300 MW of transfers (non-simultaneous) between southwestern Utah and southern Nevada. PacifiCorp has contractual commitments to deliver 400 MW of additional service from Utah into Nevada beginning in 2013 and has received queue requests for 600 MW of imports beginning June 2012. To meet these requests, PacifiCorp must upgrade the total capacity of the existing path. This will be accomplished by construction of a new bi-directional 345kV line between the Sigurd and Red Butte Substations.

Access to Renewables/Generation Sources: The 345kV line may provide improved access to existing and new generation sources, and provide options for access to energy resources, including growing generation of renewable types.

(a) Cost of proposal (construction, operation, maintenance):

The cost of the Project, including interconnections into the Sigurd and Red Butte Substations is anticipated to be approximately \$270,000,000.

(b) Estimated cost of next best alternative

This right-of-way application identifies transmission line alternatives. As the Project progresses through the NEPA process, detailed studies would be completed, and the costs associated with alternatives will be evaluated in detail.

(c) Expected public benefits

The transmission line will increase reliability and maintain economic viability of electricity to consumers throughout this portion of southern Utah. Other public benefits may include increased employment in rural areas as part of transmission line construction and operation, and an increased tax base.

16) Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

The Project may provide the local population with job opportunities (e.g., construction, operation, maintenance) and increased tax revenues based on the value of the Project's assets. All aspects of the Project's impact on the rural lifestyle that might be affected would be examined in detail during the NEPA process.

- 17) **Describe likely environmental effects that the proposed project would have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.**

Following is a general overview of the likely environmental effects of the proposed Project. These effects will be examined in detail during the NEPA process and mitigation measures would be developed, where necessary, to minimize potential adverse environmental impacts on natural, human, and cultural resources. These measures will be included in the Plan of Development (POD) for the Project.

(a) Air quality

Construction of the Project will have relatively short-term and localized effects on air quality in the study area, from fugitive dust and emissions from equipment exhaust.

(b) Visual impacts

Effects on visual resources will result from the visibility of project facilities (e.g., transmission structures, conductors, and substation), vegetation clearing, and ground-disturbing construction activities. Viewers potentially affected by the Project include residences, recreationists, and travelers along roads, as well as viewers at sensitive historic and cultural sites.

(c) Surface and ground water quality and quantity

Effects on water resources are anticipated to be minimal. Minimal, if any, changes to drainage patterns are expected. Potential effects on surface water would be short-term during construction.

(d) Control or structural change on any stream or other body of water

There will be no control or structural change of any perennial stream or other permanent body of water. Efforts will be made to place the transmission structures outside perennial streams and all other water bodies.

(e) Existing noise levels

Noise levels resulting from the Project will be almost entirely due to construction-related activities, which will result in a temporary increase in noise levels during daytime hours. Measures will be implemented to mitigate potential noise effects to receivers during construction activities. The Project will comply with all local noise ordinances during construction, maintenance, and operation of the transmission line(s) and substation.

(f) The surface of land including vegetation, permafrost, soil, and soil stability

For operational safety reasons, vegetation in the transmission line(s) right-of-way will be removed according to PacifiCorp's standards and/or selectively cleared in order to meet or exceed the requirements of the National Electric Safety Code. There also will be impacts on vegetation from construction including the disturbance to, or removal of vegetation in areas of temporary and permanent use.

Potential impacts on soil stabilization will occur primarily from the construction of the Project and are anticipated to be minimal.

18) Describe the probable effects that the proposed project would have on (a) populations of fish, plant life, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

There are no probable effects that the Project will have on populations of fish, marine life, marine mammals, including hunting, capturing, collecting, or killing these animals. Potential effects on populations of plant life, wildlife, including threatened and endangered species, will be evaluated in the NEPA compliance process.

19) State whether any hazardous material, as defined in this paragraph, would be used, produced, transported, or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance, or termination of the right-of-way or any of its facilities.

No hazardous material will be produced, transplanted, or stored on, or within the right-of-way. Petroleum products, such as gasoline, diesel fuel, and lubricants, will be present on-site during construction. These products will be used to fuel and lubricate vehicles and equipment but will be contained within fuel trucks or in approved containers. Vehicle-fueling and maintenance activities would not occur in any environmentally sensitive areas. When not in use, such materials will be stored properly to prevent drainage or accidents during Project construction.

Construction, operation, and maintenance activities will comply with applicable federal, state, and local regulations regarding the use of hazardous substances. Hazardous materials will not be drained onto the ground or into streams or drainage areas. Totally enclosed containment would be provided for all trash. All construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials, will be removed and transported to a disposal facility authorized to accept such materials. Spills are not expected, but, should they occur, will likely be minimal and would be immediately addressed. All potentially hazardous materials will be addressed during the NEPA process.

20) Name all the Department(s)/Agency(ies) where this application is being filed.

A majority of the federal lands potentially crossed by the Project are managed by the BLM, with limited areas of the Project located on Forest Service lands. This right-of-way application is being filed with the following BLM and Forest Service offices:

U.S. Department of the Interior, Bureau of Land Management

Color Country District (Cedar City, Kanab, St. George, and Richfield Field Offices)
West Desert District (Fillmore Field Office)

U.S. Department of Agriculture, Forest Service

Dixie National Forest
Fishlake National Forest