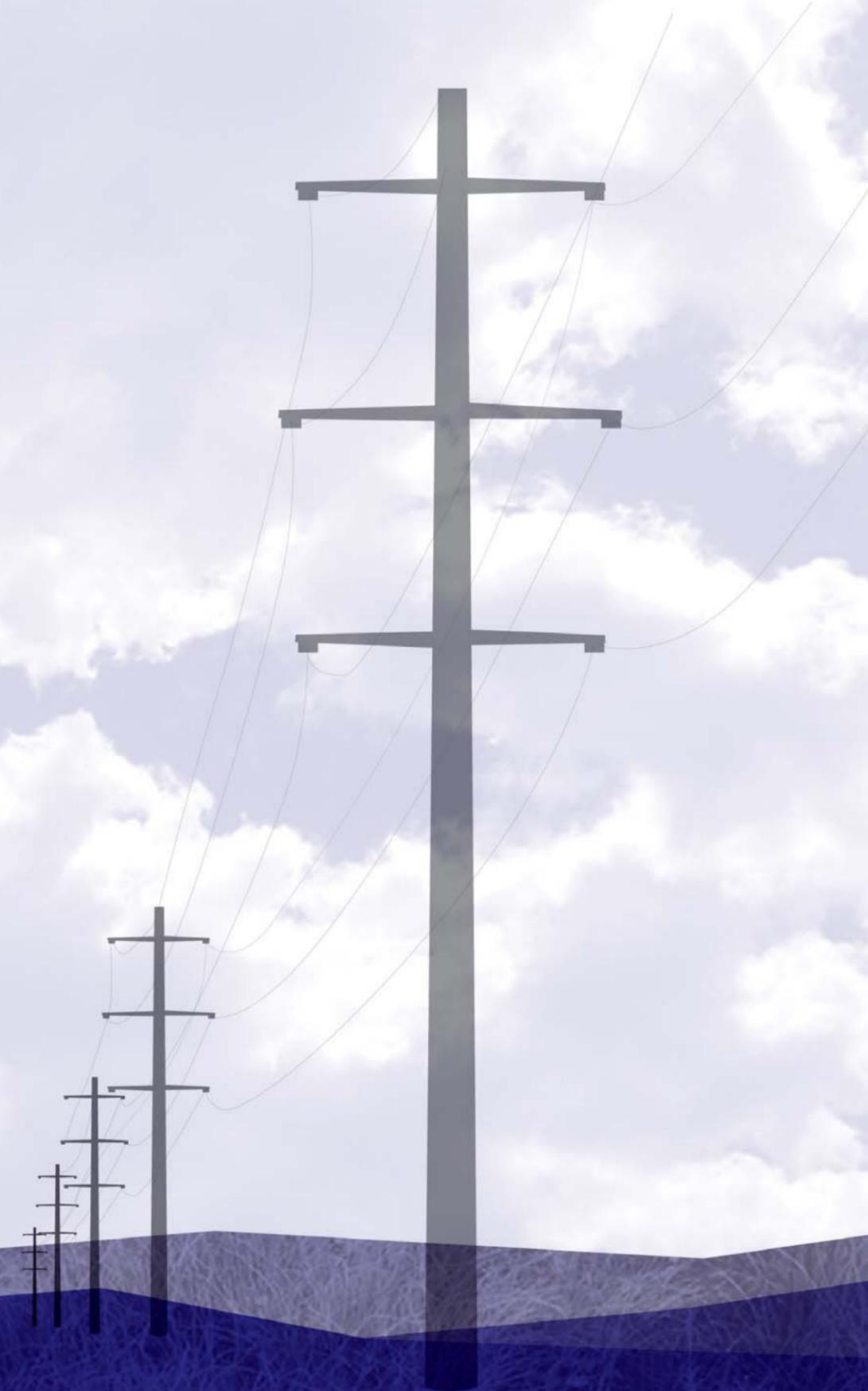


Exhibit CBA-1

Powering Our **FUTURE**

**Summit Wasatch Electrical Plan
Local Planning Handbook**

September 2010



Acknowledgements

Summit Wasatch Electrical Plan Task Force

- Allison Weyher – Francis Planning
- Bob Richins -- Henefer Planning
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- Bob Martino – Hideout Mayor
- Bob Wells -- Deer Valley
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This document and the accompanying map can be found at:

www.rockymountainpower.net/planning

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Executive summary

Planning, financing and building infrastructure to meet future growth in Summit and Wasatch Counties poses major challenges. Essential facilities like water, sewer, schools, roads and highways are routinely considered by government and community leaders in planning for the future. Equally critical but typically given less forethought by local planners, however, is electrical infrastructure.

Various projections put Summit and Wasatch Counties' population at approximately 132,000 by 2030, an increase of about 100 percent over 2010. How much electrical capacity will these counties need and where will they need it are questions rarely considered in traditional growth scenarios and planning decisions--until now.

The Summit Wasatch Electrical Plan is an unprecedented collaborative effort to keep pace with these counties' growth through 2030 by integrating local governments' long-term land-use development plans with future electrical network requirements. The effort recognizes that planning decisions made by local government are a major impetus of energy intensity requirements. The primary goal of this process is to develop a clear and documented plan to guide future infrastructure siting decisions to ensure adequate electrical capacity for local communities to achieve their goals.

The task force leading this effort includes a broad range of stakeholders including planning representatives from Summit and Wasatch Counties, municipalities in the counties served by Rocky Mountain Power, regional transportation and growth planners and other key stakeholders. An independent facilitator guided their deliberations while Rocky Mountain Power served as a technical adviser. As a group they share the goal of encouraging mutual understanding and cooperation with a county-wide perspective.

The product of the task force's year-long effort includes three elements:

- A list of criteria for evaluating future substation and transmission sites
- A map of approximate preferred locations of future substations and transmission lines and
- A tool kit, including general plan language for use by local governments to implement the facility siting plan in their respective jurisdictions

The plan does not address "main grid" high-voltage facilities used for bulk power. It is limited to substations and transmission lines of 138,000 volts or less.

Members of the Summit Wasatch Electrical Plan Task Force recognize that principles contained within the plan do not necessarily reflect the position of the particular jurisdictions or organizations they represent. As individuals, however, they support the Summit Wasatch Electrical Plan as a good-faith representation of the task force's input and ideas. They also support the Summit Wasatch Electrical Plan as a good-faith effort to balance community and regional quality of life and economic development considerations with the need to ensure that all jurisdictions in Summit and Wasatch Counties have a safe, adequate and reliable supply of electricity.

The task force members and Rocky Mountain Power support using the plan to guide future infrastructure planning efforts within their respective organizations. They jointly commit to share the plan and its underlying process with decision-makers and to introduce options to integrate electrical infrastructure considerations, including the Summit Wasatch Electrical Plan, into their formal planning processes. Identifying where electrical facilities are needed to support future growth will benefit local governments, transportation planners, developers, residents, businesses and Rocky Mountain Power. This type of clarity and predictability will not only help assure electrical capacity is available to meet communities' development needs, but also make more efficient use of limited financial resources and minimize potential conflict in the future.



Jacquelyn Mauer, Park City Planning; Diane Foster, Summit County; Allison Weyher, Francis Planning; Bob Richins, Henefer Planning; Sean Lewis, Summit County Planning; Liza Simpson, Park City Council; Tami Stevenson, Oakley Planning; Robert Whiteley, Coalville Engineer; Ted Knowlton, The Planning Center; Bob Martino, Hideout Mayor; Jani Gamble, Rocky Mountain Power; Demi Corbett, The Planning Center; Mike Sweeney, Town Lift Plaza; Chad Ambrose, Rocky Mountain Power; Mike Coopman, Promontory; Mickey Beaver, Rocky Mountain Power; Brent Giles, Park City Mountain Resort; Cliff Blonquist, Summit County; John Thomas, Utah Department of Transportation; Scott Kettle, Kamas & Francis Planning; Matt Cassel, Park City Engineer; Ken Shortt, Rocky Mountain Power



Task force members brainstormed potential infrastructure locations



1. Developing the Plan

“We can’t solve today’s problems by using the same kind of thinking we used when we created them.”

- Albert Einstein

Background

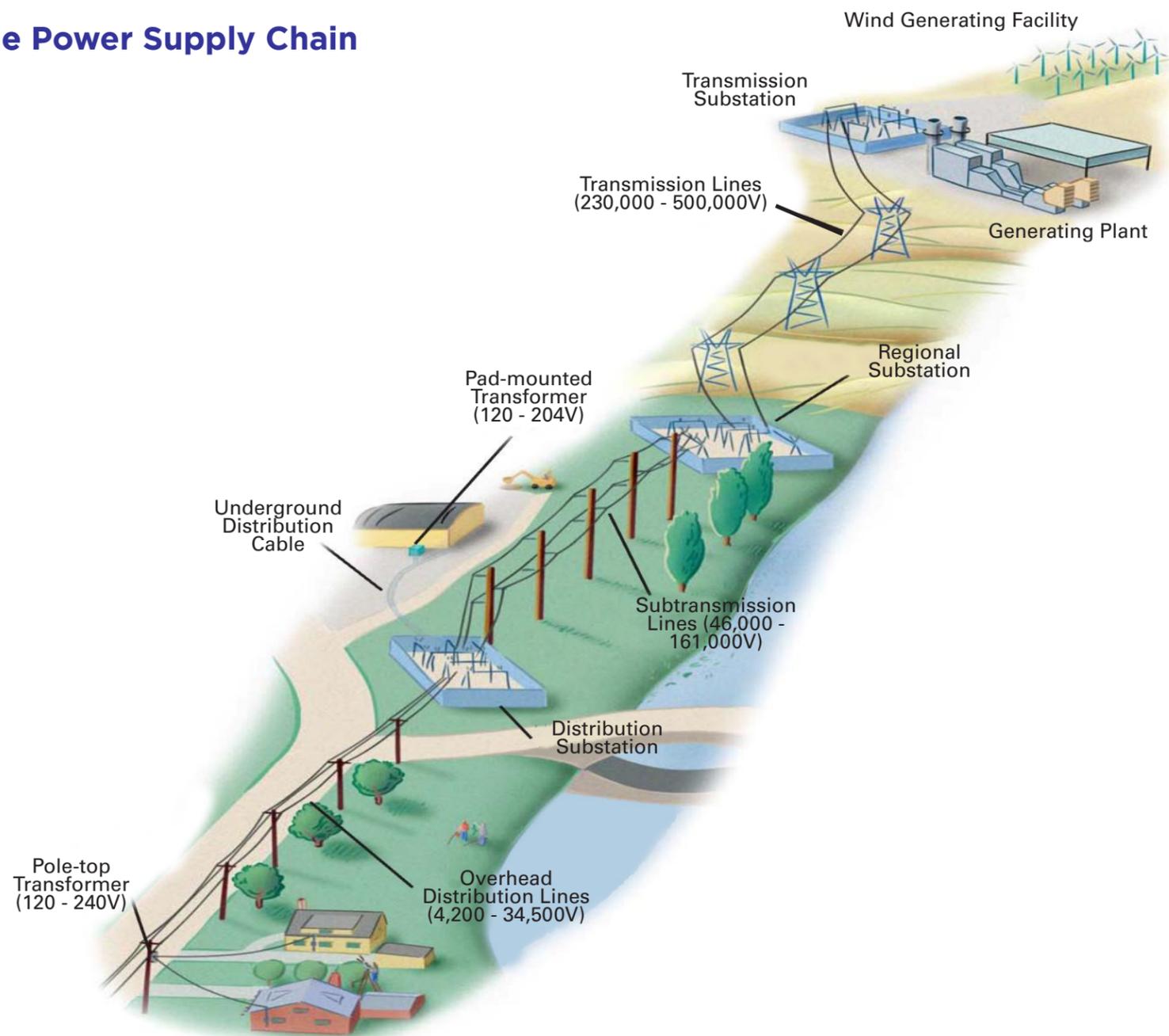
Like most utilities in the United States, Rocky Mountain Power operates as a regulated utility within a framework of regulatory, legal and financial requirements. The utility's prices and policies are regulated by the Utah Public Service Commission, which closely scrutinizes Rocky Mountain Power's resource portfolio, energy efficiency and peak-reduction programs, customer services, capital expenses, and operations and administrative costs. The utility is also subject to rules and regulations of various federal agencies and national reliability standards and electrical safety codes.

A legal obligation to deliver a safe, adequate and reliable supply of electricity at the lowest reasonable cost guides utility decisions about timing and location of new substation and transmission capacity. Historically, system requirements were the primary driver of the utility infrastructure planning process with secondary consideration given to local government land-use plans. When customers' needs approached the capacity limits of existing substations and power lines, Rocky Mountain Power made plans to bring new projects on line to meet growing customer demand.

Rocky Mountain Power's Utah residential customers use about 26 percent more electricity today than they did 20 years ago (see graph on page 5). In fact, usage among Utah households has grown at a higher rate since 1990 than the national average. Paradoxically, customers don't readily connect their dependence on electricity with the infrastructure needed to power their homes and businesses. At times, intense opposition to construction of new facilities or expansion of existing infrastructure to meet growing needs has resulted in project delays, reduced system reliability, costly mitigation measures, project cost overruns—and customers dissatisfied with their electric service.

As Rocky Mountain Power contemplated a two-fold increase in Summit and Wasatch Counties' population by 2030, it determined the time was right for a new approach to infrastructure planning. Working together with local government and key stakeholders gives communities and the utility an opportunity to jointly develop a mutually acceptable plan to meet customers' future electric energy needs.

The Power Supply Chain



MAGNITUDE OF THE CHALLENGE

Electrical infrastructure systems are designed to meet customers' needs when usage is at its greatest point during the year. Utilities call this "peak demand." Peak demand on Rocky Mountain Power's system in Summit and Wasatch Counties occurs in winter during the ski season. The 2009-2010 winter "peak" registered 182,500 kilowatts (kW) on December 31, 2009.

A network of 14 substations and over 1,538 miles of high-voltage transmission lines and local distribution lines delivers electricity to approximately 67,300 people in Summit and Wasatch Counties. At present, the average per capita "demand" on the electric system in the two counties is 2.7 kilowatts per person. Although it is difficult to predict future per-capita electrical demand, the task force agreed to apply this factor to a projected population of 132,000 by 2030, bringing future customer requirements to approximately 358,000 kilowatts. Approximately four new substations will be required during the next 20 years to satisfy growing communities' electricity needs, while up to six will either be upgraded or re-located.

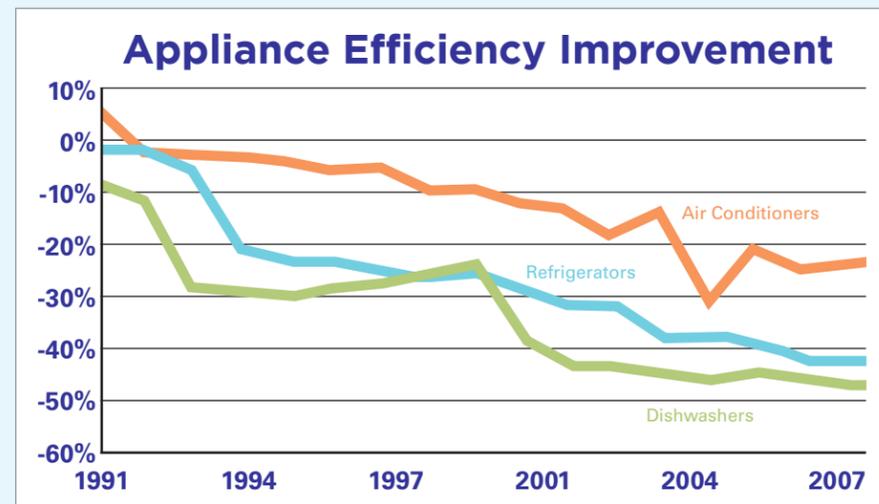
A significant challenge facing task force members and Rocky Mountain Power is, quite simply, the unknowable future. It is prudent to plan for tomorrow based on what we know today—realizing that a host of uncertainties will change many of the assumptions. For that reason, task force members and Rocky Mountain Power agree it is essential to update the plan periodically to account for changing circumstances. Some of the uncertainties include:

- Population projections, employment projections and development patterns are subject to economic, demographic and market conditions.
- The current economy is the most fragile it has been since the Great Depression. The speed and scope of economic recovery may alter customer demand projections.
- Climate change and carbon-reduction strategies could impose higher energy costs on consumers. Utah is among the states where prices are expected to increase significantly due to gradual replacement of inexpensive coal-based generation by more costly alternatives.

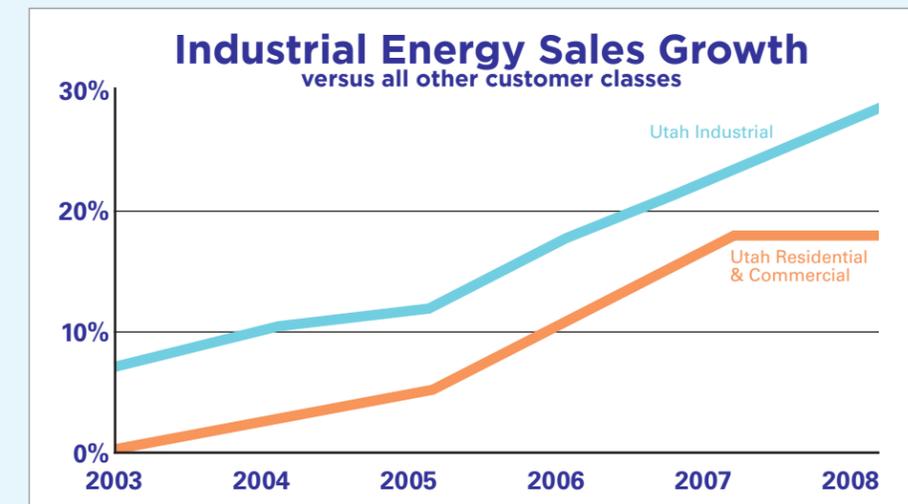
- Residential usage continues to climb despite improved appliance efficiency. According to the International Energy Agency, the average household today owns 25 electronic consumer devices compared with three in 1980. Central air conditioning is also more prevalent today.
- Electric rates are projected to escalate. Price elasticity could reduce the growth rate of future customer demand.
- Technology advancements in "smart" homes and buildings could allow customers to view real-time usage and prices and change their usage habits. The technology could also allow utilities to control certain appliances to manage peak demand. Emerging technologies popularly known as "smart grid," which call for bi-directional meters, are not currently economically viable in many utility regulatory environments. However, existing technologies like Rocky Mountain Power's industrial and agricultural load-control programs are currently cost effective in managing peak system use.
- Customer-owned wind and solar generation enjoys public support but it is not expected to appreciably reduce the need for future utility infrastructure. Peak generating periods of wind and solar seldom correlate with peak periods of customer usage. Battery storage is still an expensive option.

- Electric vehicles may gain broader penetration with technology advancements and higher oil prices. How might widespread use affect peak demand? Utilities will offer off-peak charging incentives, but will consumers respond to price signals or re-charge at their own convenience? A handful of communities nationwide have already installed charging receptacles in public places.

Task force members recognize that barring any new technology developments that eliminate the need for substations and transmission lines, these facilities will continue to be necessary to supply future growth of Summit and Wasatch Counties. The foregoing uncertainties, and perhaps others that are unfathomable today, will alter the timing of new facilities. This plan represents the best efforts of local government, important stakeholders and Rocky Mountain Power to identify preferred locations for electrical infrastructure based on today's knowledge about Summit and Wasatch Counties' future growth. It offers a starting point where local government, stakeholders and the utility can begin the conversation when increased customer use calls for new facilities.



Source: Trends in Energy Efficiency 2008, Association of Home Appliance Manufacturers



Source: Rocky Mountain Power Customer Use Data

The task force process

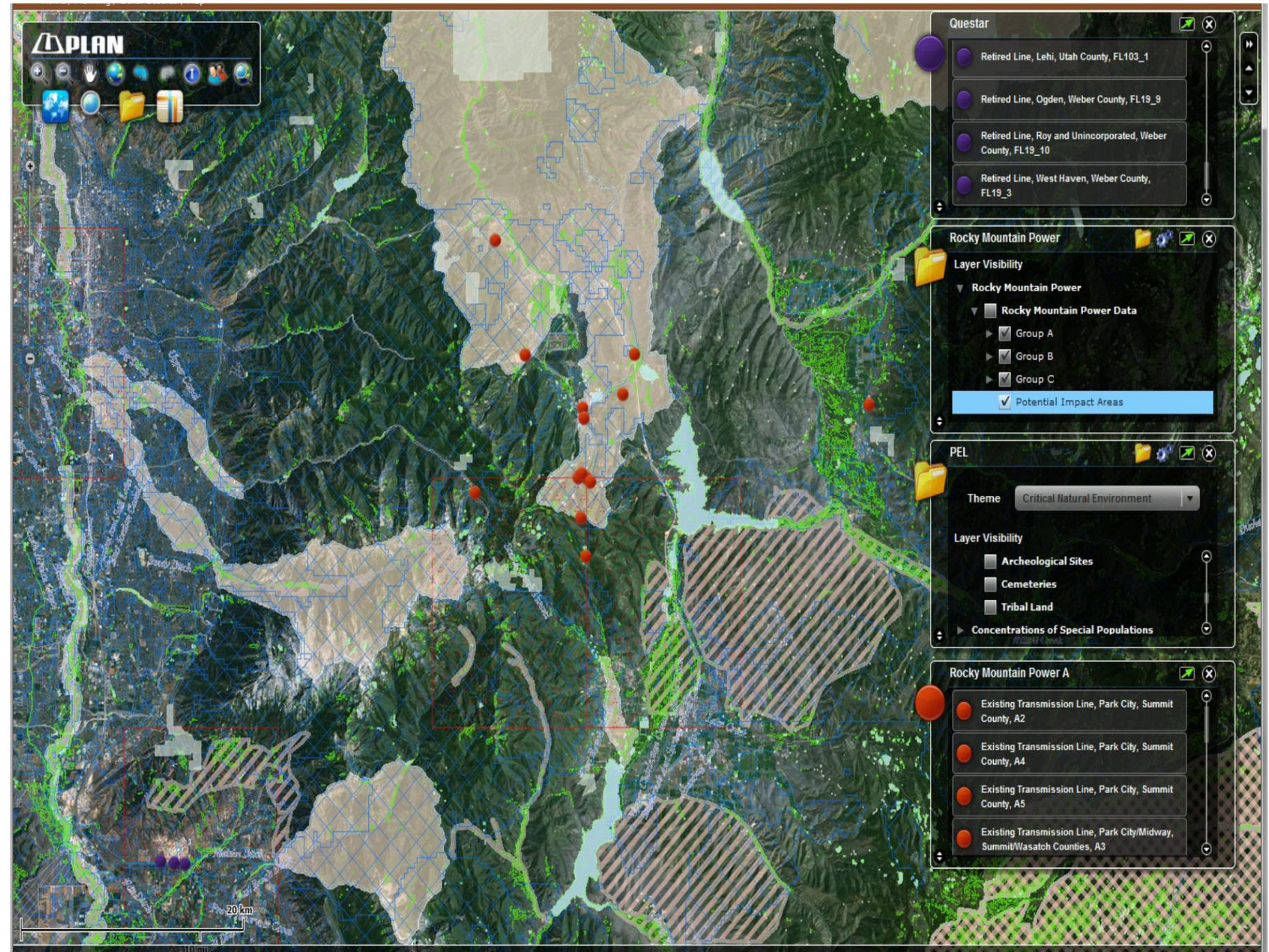
The Summit Wasatch Electrical Plan Task Force met monthly from October 2009 through May 2010. An independent facilitator guided their discussions, emphasizing from the outset that the task force would control the process within the overall scope of the effort and work towards consensus. Rocky Mountain Power participated with technical assistance and offered perspective on legal and regulatory requirements.

Throughout several months of meetings, members became more knowledgeable about the generation, transmission and distribution aspects of the electric utility industry as well as its legal and regulatory requirements. They discussed alternative energy resources, energy efficiency and peak-reduction measures as potential means to offset future infrastructure needs. They also learned about utility operating requirements such as reliability standards required by the National Electric Regulatory Commission and Western Electricity Coordinating Council. They became familiar with transmission structure design and clearance requirements prescribed by the National Electric Safety Code.

The task force set 2030 as the planning horizon for the Summit Wasatch Electrical Plan. Members reviewed population growth assumptions from the Governor's Office of Planning and Budget as well as Mountainland Association of Governments, which reflect future development potential according to each jurisdiction's general land-use plans. They also brought personal knowledge to the discussion about planned developments under consideration and insights about communities' future plans.

Task force members discussed and prioritized community issues and concerns during the course of several meetings. These discussions, which ultimately developed into a set of siting criteria, guided several mapping sessions to identify preferred locations for new substations in areas where future growth and development potential are expected to exceed existing electrical capacity. The plan does not address "main grid" high-voltage facilities used for bulk power. It is limited to substations and transmission lines of 138,000 volts or less.

The Summit Wasatch Electrical Plan map evolved over several months. Task force members worked in small groups using maps that showed existing electrical infrastructure and general plans. They discussed local impacts



and issues relevant to their own communities while designating suitable locations for new infrastructure with small place-markers (substations) and tape (transmission lines) on the map. Initially they divided the study area into two sections, which were later combined into a single map of both counties. Between mapping sessions they critiqued and refined their choices. The task force utilized UDOT's interactive Internet-based mapping software to understand the impacts of various locations on land features such as floodplains or fault lines, habitat and other infrastructure plans. Finally, Rocky Mountain Power reviewed the facility locations for engineering and operations feasibility and recommended minor changes.

DEVELOPMENT OF COMMUNITY SITING PRIORITIES

Community issues and concerns were at the center of the task force's discussions about facility siting. Members devoted several meetings to identifying and ranking factors that are important to the siting process from a community perspective. They ultimately created a set of "siting criteria" to guide future infrastructure planning decisions.

The siting criteria are an essential element of the plan. They are less likely than specific map locations to become outdated over time and can serve a broader application. The siting criteria represent the considerations that

the task force believes should be taken into account when evaluating sites for new infrastructure.

The siting criteria capture the intent and goals of the task force in terms of important considerations and also their relative importance to site selection. Members refined and prioritized the criteria through online surveys and voting sessions during task force meetings. They discussed and refined many of the more difficult criteria until the group could reach agreement. Finally, members ranked the criteria in order of importance. Thus, higher ranked criteria take precedence over lower ranked ones. Inherent conflicts may exist in some cases.

EVALUATION AND REFINEMENT OF PREFERRED LOCATIONS

During refinement of the map, task force members evaluated future infrastructure locations for potential environmental impacts and constraints. They took advantage of a tool developed by the Utah Department of Transportation, called UPlan, to view transmission line and substation locations in relation to natural conditions such as hillside slope, natural drainage and flood plains, earthquake potential, natural habitat, etc. The tool allowed task force members to magnify aerial imagery to a street-level view to see potential infrastructure sites at a more realistic scale than two-dimensional maps. Accordingly, they made some adjustments after seeing precise locations.

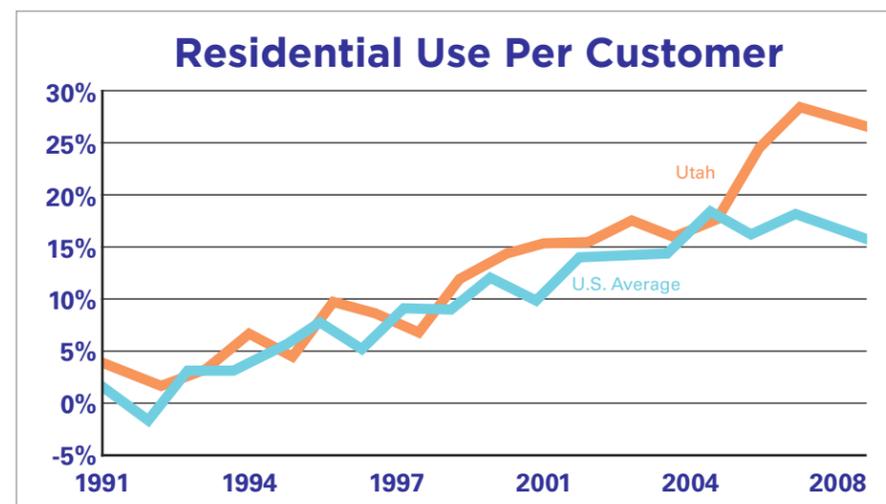
The siting criteria were essential to refining facility locations on the map. However the map does not identify precise locations. At this point, new substation "markers" indicate approximate locations. When customer demand increases to the point that new infrastructure is required in an area, the community and Rocky Mountain Power can use the siting criteria as a tool to evaluate alternate site options and select a specific location.

The task force refined the map in May 2010 using the siting criteria as well as feedback from Rocky Mountain Power following its technical review of facility locations for engineering and operations feasibility. The map represents the consensus of members' location choices for new substations and transmission lines to meet projected growth by 2030. Rather than pinpointing precise locations, the map identifies the general vicinity where

future infrastructure will be needed. It is intended to facilitate discussion about final site selection among local jurisdictions, the community and Rocky Mountain Power when it comes time to build additional electrical infrastructure to meet customers' needs.

To provide additional capacity in the future, the plan calls for four new substations located throughout Summit and Wasatch Counties, while up to six will either be upgraded or relocated. Potential expansion of several existing substations reduced the number that was initially projected. The majority of new transmission capacity can be supplied by upgrading voltage of existing lines or adding second circuits where possible. Both courses of action will reduce community impacts by minimizing the total number of new facilities required to meet customer demand.

The final product gives both local government and Rocky Mountain Power a degree of predictability that neither has previously enjoyed. New facilities will be built over a 20-year period as Summit and Wasatch Counties' electrical needs grow. As a regulated utility, Rocky Mountain Power must provide capacity to meet customers' needs but it cannot build facilities until they are necessary. As that point approaches, the Summit Wasatch Electrical Plan, including both the map and siting criteria, will serve as a blueprint for facility siting decisions.



Source: U.S. Energy Information Administration



2. The Plan

A. Principles of the Summit Wasatch Electrical Plan

The Summit Wasatch Electrical Plan Task Force defined key considerations that shaped the plan over the course of the nine-month dialogue. The key principles are listed here.

1. Bring together a broad range of stakeholders with varied perspectives to jointly develop a long-range regional electrical plan.
2. Foster communication and broader understanding of all stakeholders' needs and concerns.
3. Improve predictability of electrical infrastructure improvements for communities, residents, property owners and Rocky Mountain Power.
4. Integrate community considerations into electrical infrastructure planning.
5. Develop and maintain a plan that works among jurisdictions and across Rocky Mountain Power's service territory in Summit and Wasatch Counties.
6. Establish and maintain a long-term basis for continuing collaboration.
7. Establish a logical relationship between electrical infrastructure and land use, both existing and future.
8. Integrate planning efforts for electrical infrastructure, transportation, and local and regional land use. In short, engage in cooperative planning.
9. Maintain communication among stakeholders and update the plan's elements over time.

The plan's final products and suggested 'next steps' are consistent with these principles. Future plan updates should address the final products and 'next steps' in a manner to advance the overarching principles.

B. Siting criteria

Siting criteria were developed to guide the future facility siting process. The criteria represent the priorities established by the task force to optimize benefits and mitigate drawbacks to both the community and Rocky Mountain Power. They will be particularly useful in comparative evaluation of alternative sites.

Criteria are divided into three categories and listed in an order based on priorities established by the Summit Wasatch Electrical Plan Task Force. The categories are as follows:

- General considerations
- Criteria for substations
- Criteria for transmission lines

Criteria include the following:

- **Priority:** An indication of the priority level or relative importance on a scale of 1 to 3, shown with compact fluorescent lamp icons
- **Why:** A statement of rationale and underlying logic
- **Example Application:** In some instances, an example explaining how the criterion should be applied in siting electrical infrastructure

There may be conflicts among the criteria at any given site. For example, one site may be in a residential area (a negative consideration), yet have few impacts on prominent views. The siting criteria must be considered as relative priorities among several others and adapted to community circumstances.



Berms and slopes are used to integrate a substation into the surrounding neighborhood



The area under a transmission line is used to create a path and greenway providing a needed amenity for the community

1. GENERAL CONSIDERATIONS

System capacity, reliability and cost considerations are inherent in utility system planning. Other important considerations also have broad application to facility siting decisions. The following criteria are included as general factors that should be considered in future facility siting decisions. Given their general nature, they are not ranked and example applications are not provided.

- 1A System reliability
- 1B Utilize city and county land-use general plans
- 1C Future generation options
- 1D Follow soil ordinances
- 1E Balance reliability, design and cost
- 1F Minimize transmission line-miles

1A System reliability

Rocky Mountain Power is required to provide adequate electrical capacity to meet customers' needs during peak use times and emergencies, i.e., loss of generation resource, main grid transmission line or substation



Rocky Mountain Power is the second largest utility-owner of wind generation in the United States

Summit Wasatch Electrical Plan

transformer. Rocky Mountain Power facilities are usually designed with alternate service capability, or redundancy, so service can be maintained from an alternate source if the main source is interrupted.

1B Utilize city and county land-use general plans

Rocky Mountain Power, municipalities and Summit and Wasatch Counties should combine planning efforts of the utility, local government and other planning organizations, such as transportation and regional land use, to include electrical infrastructure in their general plans. Coordinated planning could address siting issues in advance of development and potentially avoid future conflicts with existing uses, such as agriculture. The Summit Wasatch Electrical Plan Task Force should provide the plan as a guide for adoption by local planning commissions through their respective public processes.

1C Future generation options

The scope of the Summit Wasatch Electrical Plan does not encompass future generation sites. When large generation facilities become necessary to meet customers' needs, Rocky Mountain Power will work with local authorities to select the best locations. In addition, technology advancements may create new generation options. Local authorities and Rocky Mountain Power should work together to facilitate capacity contributions from diverse generation resources, including wind, solar, bio-mass, etc.

1D Follow soil ordinances

Rocky Mountain Power should follow ordinances relating to soil structure, composition, etc., and conduct geotechnical studies before building new infrastructure. Substation design should include spill prevention and retention mechanisms.

1E Balance reliability, design and cost

While aesthetics is important to communities, it must be balanced with cost, electric service reliability and operational requirements. Careful consideration should be given to sites or design elements that create operational issues and are not economically justifiable.

Communities may prefer siting infrastructure on public land rather than private property. In some instances, in fact, it is necessary. However, the increased cost and lead time required to comply with the National Environmental Policy Act should also be considered.

1F Minimize transmission line-miles

Consistent with other siting criteria, the electrical infrastructure plan should utilize a greater number of smaller regional substations, rather than fewer but larger regional substations, to minimize transmission line-miles and to also provide better reliability. Regional substations typically have three or more supply sources and convert voltage from 138,000 volts to 46,000 volts or to 12,500 volts.

2. CRITERIA FOR SUBSTATIONS

The following criteria pertain to important land characteristics or related considerations in relation to siting NEW substations.

- 2A Maximize use of existing facilities and adjacent properties before building new facilities
- 2B Use topography to reduce visual impacts
- 2C Protect significant viewsheds
- 2D Build aesthetically pleasing facilities
- 2E Avoid dedicated open space and parks
- 2F Site in areas with high development potential
- 2G Avoid residential neighborhoods
- 2H Avoid adverse aesthetic impacts on development
- 2I Avoid discrimination based on income or ethnicity
- 2J Utilize land adjacent to other infrastructure
- 2K Protect critical habitat, wetlands, rivers and stream corridors



Oakley substation

2A Maximize use of existing facilities and adjacent properties before building new facilities

Priority – Tier 1



It is preferable to expand existing facilities rather than build new facilities whenever feasible. Voltage upgrades and/or expansion of existing facilities will minimize land disturbance by reducing the total number of new sites needed for new substations and also potentially reduce land acquisition costs. Maximizing use of existing facilities may also produce fewer conflicts with nearby buildings, land uses and environmental issues. A community already accustomed to existing facilities may prefer an upgrade or expansion over building a new facility at another location.

New substations should be designed to allow for future expansion. Sufficient property should be acquired at the time of initial purchase to accommodate such expansion. This way, there will be minimal impacts to the area when new capacity is added.

Resolving conflicting criteria may require tradeoffs with other considerations. For instance, upgrading an existing substation may be considered visually inappropriate (see Criterion #2D) or incompatible with existing land uses (see Criterion #2G). But it may be preferable to other alternatives.

Example Application

In order to serve the growing needs of industrial customers, an existing substation is expanded, requiring the purchase of additional adjacent land. Although the expanded substation occupies a larger footprint, the overall impact is less than building a new facility in a different location. It is compatible with existing uses and customers are accustomed to the facility in the area. Making aesthetic improvements during expansion may better integrate it into the neighborhood.

2B Use topography to reduce visual impacts

Priority – Tier 1



Topography, such as coves or raised berms, can be used to obscure a substation. This technique can lead to greater neighborhood integration, reduce adverse visual impacts and create greater cohesion.

Example Application

A new substation is sited in a cove. Drainage is not an issue. The site naturally reduces the visual impact of substation structures and incorporates the natural topography to screen the substation from view.



A natural slope obscures the view of a substation to the surrounding neighborhood

2C Protect significant viewsheds

Priority – Tier 1



Viewsheds are an essential element of community character and scenery. It is important to consider impacts to the neighborhood landscape as well as the view from surrounding areas. For example, ridge lines and undeveloped benches throughout Summit and Wasatch Counties should be avoided.

Where possible, avoid siting a substation on top of a ridge or high point where it would disrupt residents’ view of the mountains.

Example Application

A new substation is needed to serve customers who built homes up the slope of a prominent hillside and over the top to the other side. A site for the new substation is found at the base of the hillside.



Jordanelle Substation, with a simple fence and landscaping ties into surrounding area

2D Build aesthetically pleasing facilities

Priority – Tier 1



Infrastructure will be better integrated into the area and find greater acceptance if it is built to be aesthetically pleasing. Landscaping and concrete walls can be used to improve aesthetics. The use of high quality materials will ensure facilities withstand years of operation without deterioration and costly maintenance. Wall/fence design should be complementary to the area. For instance, a simple fence may draw less attention than a solid concrete wall.

Example Application

A substation is designed to integrate into the surrounding neighborhood by using high quality concrete walls. Little maintenance is required over time. Additionally, landscaping is designed to require little water and low maintenance. The concrete walls and landscaping are designed to match those within the neighborhood.

2E Avoid dedicated open space and parks

Priority – Tier 2



Dedicated open space and parks are an essential element of the community and may not be appropriate for construction of new electrical facilities. Care should be taken to avoid using open space for new electrical infrastructure.

Communities are encouraged, however, to utilize green space surrounding substations for pocket parks or other active uses. It is important to evaluate the uses in green space to ensure compatibility.

2F Site in areas with high development potential

Priority – Tier 2



Optimize use of land in projected growth areas, thus ensuring adequate electrical capacity is available to meet communities’ growing needs. Where possible, it is valuable to plan infrastructure locations in advance of development to minimize conflicts with expanding uses. However, care should be taken to preserve prime real-estate parcels needed for economic development.

2G Avoid residential neighborhoods

Priority – Tier 2



Residential areas are the least desirable locations for new substations due to impacts to the character of the neighborhood and important community viewsheds. Avoiding these areas will reduce community concern about perceived reduction of property values and health effects.

Example Application

While customer demand in a residential area may be driving the need for additional electrical capacity, an alternative substation site in an adjacent commercial area is preferable.

2H Avoid adverse aesthetic impacts on development

Priority – Tier 2



Electrical facilities are essential to meet communities’ plans for growth and development. However, their location and design can influence how well they are integrated into the community. Task force members emphasized that the aesthetics of new facilities should not have a significant adverse effect on new development. Avoid areas where the facility would harm development potential.

2I Avoid discrimination based on income or ethnicity

Priority – Tier 3



Whenever possible, work to ensure that demographic or ethnic groups are not impacted unfairly. New substations should be sited according to electrical supply needs and not within areas that may offer less public resistance. Be sensitive to low-income demographics in areas where property is cheaper and permitting requirements may be less restrictive.

Example Application

A low-income residential neighborhood in an industrialized area appears to be an ideal substation location. In order to protect the neighborhood, however, the substation is built in the industrial park.

2J Utilize land adjacent to other infrastructure

Priority – Tier 3



Where possible, substations should be sited adjacent to existing infrastructure and other complementary uses such as transportation corridors and other utilities. However, issues can arise from locating in or near freeway rights-of-way, including salt spray from snow plows, lack of access and insufficient clearance for in-coming transmission lines.



Silver Creek Substation, adjacent to other infrastructure

2K Protect critical habitat, wetlands, rivers and stream corridors

Priority – Tier 3



It is Rocky Mountain Power's policy to treat critical habitat, wetlands, rivers and stream corridors with extreme care and to avoid them where possible. Sites with potential for environmental issues should be evaluated for impacts and possible mitigation measures. Discussions with concerned parties should be made to identify locations with fewer adverse impacts.



Wetlands near Swaner Eco Center

3. CRITERIA FOR TRANSMISSION LINES

Criteria in this section pertain to important land characteristics or related considerations in relation to siting NEW transmission lines.

- 3A Protect significant viewsheds
- 3B Upgrade existing facilities before building new facilities
- 3C Avoid dedicated open space and parks
- 3D Build aesthetically pleasing facilities
- 3E Share rights-of-way with utilities, trails, railroads, canals, roads, etc.
- 3F Avoid residential neighborhoods
- 3G Utilize areas with development potential
- 3H Avoid discrimination based on income or ethnicity
- 3I Avoid adverse aesthetic impacts on development
- 3J Protect critical habitat, river and stream corridors
- 3K Avoid existing trails
- 3L Select sites that allow operations and maintenance access
- 3M Utilize large-format (big-box) retail

3A Protect significant viewsheds

Priority – Tier 1



Viewsheds are an essential element of community character and scenery. It is important to consider impacts to the neighborhood as well as the view from surrounding areas. For example, ridge lines and undeveloped benches throughout Summit and Wasatch Counties should be avoided. It is also preferable to use topography to make transmission lines less visible and blend in with the surroundings.

3B Upgrade existing facilities before building new facilities

Priority – Tier 1



Whenever possible, it is preferable to upgrade existing facilities rather than build new facilities. Voltage upgrades and/or addition of a second circuit will minimize land disturbance by reducing the total number of new corridors and also potentially reduce land acquisition and rights-of-way costs. Maximizing use of existing facilities may also produce fewer conflicts with nearby buildings, land uses and environmental issues. A community already accustomed to existing facilities may prefer an upgrade over building a new transmission line in another corridor.

Upgrading an existing transmission line may be considered visually inappropriate (see Criterion #3A) or incompatible with existing land uses (see Criterion #3F). Resolving conflicting criteria may require tradeoffs with other considerations.

Example Application

A transmission line adjacent to commercial development is upgraded to a higher voltage to provide new capacity for a growing community. The taller structures required for the upgrade are preferable to building a new transmission line.



Linemen work to replace an existing transmission line

3C Avoid dedicated open space and parks

Priority – Tier 1



Dedicated open space and parks are essential to the community and should be left undisturbed by electrical infrastructure. Care should be taken to avoid using open space for new electrical infrastructure. It is preferable to build transmission lines in industrial or commercial areas.

Example Application

The utility acquires right-of-way for a new transmission corridor through an industrial zone rather than using vacant land that is dedicated to open space on the periphery.

3D Build aesthetically pleasing facilities

Priority – Tier 1



Infrastructure will be better integrated into the area and find greater acceptance if it is built to be aesthetically pleasing. In siting new facilities, seek locations with minimal adverse aesthetic impact, such as utility corridors, industrial areas and highway rights-of-way. This may reduce impacts on surrounding areas such as residential viewsheds.

Communities may choose to create greenways, trails and pocket parks under transmission lines to beautify the corridor and enhance community amenities.

Within accepted industry standards, communities may also work with Rocky Mountain Power to make poles more aesthetically pleasing. For example, community art could be placed near a pole base as long as it doesn't interfere with utility operations or create maintenance problems.

Communities increasingly prefer underground transmission lines. State law provides that Rocky Mountain Power will build underground transmission lines if the community pays the cost difference with overhead construction and reliability is not jeopardized. Cost is currently about 6-15 times greater than overhead construction due to additional civil engineering, excavation,



A greenway and trail enhance the area under a transmission corridor

restoration, conduit, underground cable and potential congestion with other underground utilities. Outage times and expense are also significantly longer for underground transmission because it takes significantly longer to locate and repair the problem. Communities may decide, despite these issues, to pay the additional cost for underground transmission lines in high-density locations or other areas where new transmission lines will generate significant resistance. Nevertheless, the task force would like to see underground transmission utilized when feasible.

3E Share rights-of-way with utilities, trails, railroads, canals, roads, etc.

Priority – Tier 2



Where possible, co-locate transmission lines in existing major corridors and identified rights-of-way. Utilizing existing utility corridors and rights-of-way will minimize the cost of purchasing additional rights-of-way and mitigating potential impacts. Sharing corridors with complementary uses creates fewer disturbances to the aesthetic character of the area.

Transmission lines in a greenway serve as a buffer between major transportation corridors and other uses. Where transmission lines can be co-located with trails, railroads, and canals, they are more easily integrated into the neighborhood landscape. Communities may choose to convert areas under transmission lines into trails or greenways to utilize and beautify the existing right-of-way. This can benefit the community by adding green space and recreation.



Transmission line co-located with a trail near HWY 224 in Snyderville Basin

Example Application

A new transmission corridor is co-located with a new highway during the planning phase to combine similar uses. It results in reduced siting difficulty and provides a buffer between the roadway and the neighboring uses.

3F Avoid residential neighborhoods

Priority – Tier 2



Residential areas are the least desirable locations for new transmission lines due to impacts to the character of the neighborhood and important community viewsheds. Avoiding these areas will reduce community concern about perceived reduction of property values and health effects.

Example Application

To avoid a growing residential development, a transmission line is sited to circumvent the area by crossing a nearby commercial district.



Transmission lines placed outside a residential area buffered by a golf course

3G Utilize areas with development potential

Priority – Tier 2



Optimize use of land in projected growth areas, thus ensuring adequate electrical capacity is available to meet communities' growing needs. It is valuable to plan electrical infrastructure in advance of development to minimize conflicts with developing uses. However, care should be taken to preserve prime real-estate parcels needed for economic development.

Example Application

A new transmission corridor is master-planned near an area with high development potential to provide for future electrical requirements.

3H Avoid discrimination based on income or ethnicity

Priority – Tier 2



Whenever possible, work to ensure that demographic or ethnic groups are not impacted unfairly. New transmission lines should be sited according to electrical supply needs and not within areas that may offer less public resistance. Be sensitive to low-income demographics in areas where property is cheaper and permitting requirements may be easier.

Example Application

A low-income residential neighborhood appears to be an ideal location for a new transmission corridor. In order to protect the neighborhood, however, the transmission line is sited through a nearby industrialized area.

3I Avoid adverse aesthetic impacts on development

Priority – Tier 2



Electrical facilities are essential to meet communities' plans for growth and development. However, their location and design can influence how well they are integrated into the community. Task force members emphasized that the aesthetics of new facilities should not have a significant adverse effect on new development. Avoid areas where the facility would harm development potential.

3J Protect critical habitat, river and stream corridors

Priority - Tier 3



It is Rocky Mountain Power's policy to treat critical habitat, wetlands, rivers and stream corridors with extreme care and to avoid them where possible. Sites with potential for environmental issues should be evaluated for impacts and possible mitigation measures. Discussions with concerned parties should be made to identify locations with fewer adverse impacts.

3K Avoid existing trails

Priority – Tier 3



Transmission lines can sometimes be co-located with other infrastructure and rights-of-way. However, other criteria being met, avoid siting new transmission lines in existing trails. Steering clear of existing trails will reduce disruption to established recreation uses and also reduce community resistance to new infrastructure.

Communities are encouraged, however, to use the land beneath transmission lines as greenways or trails to take advantage of established rights-of-way and provide recreational amenities for the community.

3L Select sites that allow operations and maintenance access

Priority – Tier 3



Access to transmission lines for emergency operations and regular maintenance is an important consideration and should be considered in conjunction with other siting criteria.

Example Application

A transmission line and trail are co-located through a wooded area. The trail is widened to accommodate vehicle access to the line and trees are cleared to meet electric safety code.



Jordanelle Substation

3M Utilize large-format (big-box) retail locations

Priority – Tier 3



Consider locations near large-format retail, such as big-box stores, in an effort to site infrastructure with other compatible uses. These locations present fewer conflicts than many other uses. Large parking lots associated with this type of retail would not be disturbed by overhead transmission lines. Community impacts would be minimal.

Example Application

A community chooses to site a new transmission line through an area of large-format retail stores. The transmission line runs parallel to the parking lot, thereby preserving land with other value for different purposes.



Transmission line running through a large car dealership parking lot

C. Scorecard

A scorecard was developed as a tool for local jurisdictions and Rocky Mountain Power to use in evaluating alternative locations for new facilities. It provides a means to compare specific locations in terms of how well each site meets the siting criteria established by the task force. It is not intended to replace careful consideration and debate about the relative benefits or impacts of specific locations. Rather, it is a tool to be used in combination with other information to facilitate comparative evaluation.

INSTRUCTIONS FOR USE

The scorecard is separated into two sections, one for substations and one for transmission lines. To score the potential site, ask yourself how well the location meets each criterion and enter an x in the corresponding line. Then multiply the score for each criterion by the corresponding criterion weight to produce a total score for that criterion. The weight assigned to each criterion corresponds to the priority it was given by the task force and shown in the Siting Criteria section of this document. Finally, sum the points in the last column to obtain a total score for the potential infrastructure location.

This example illustrates how to score a potential site. Blank scorecards can be found in appendix D and in spreadsheet form at:

www.rockymountainpower.net/planning

Summit Wasatch Electrical Plan SAMPLE Scorecard

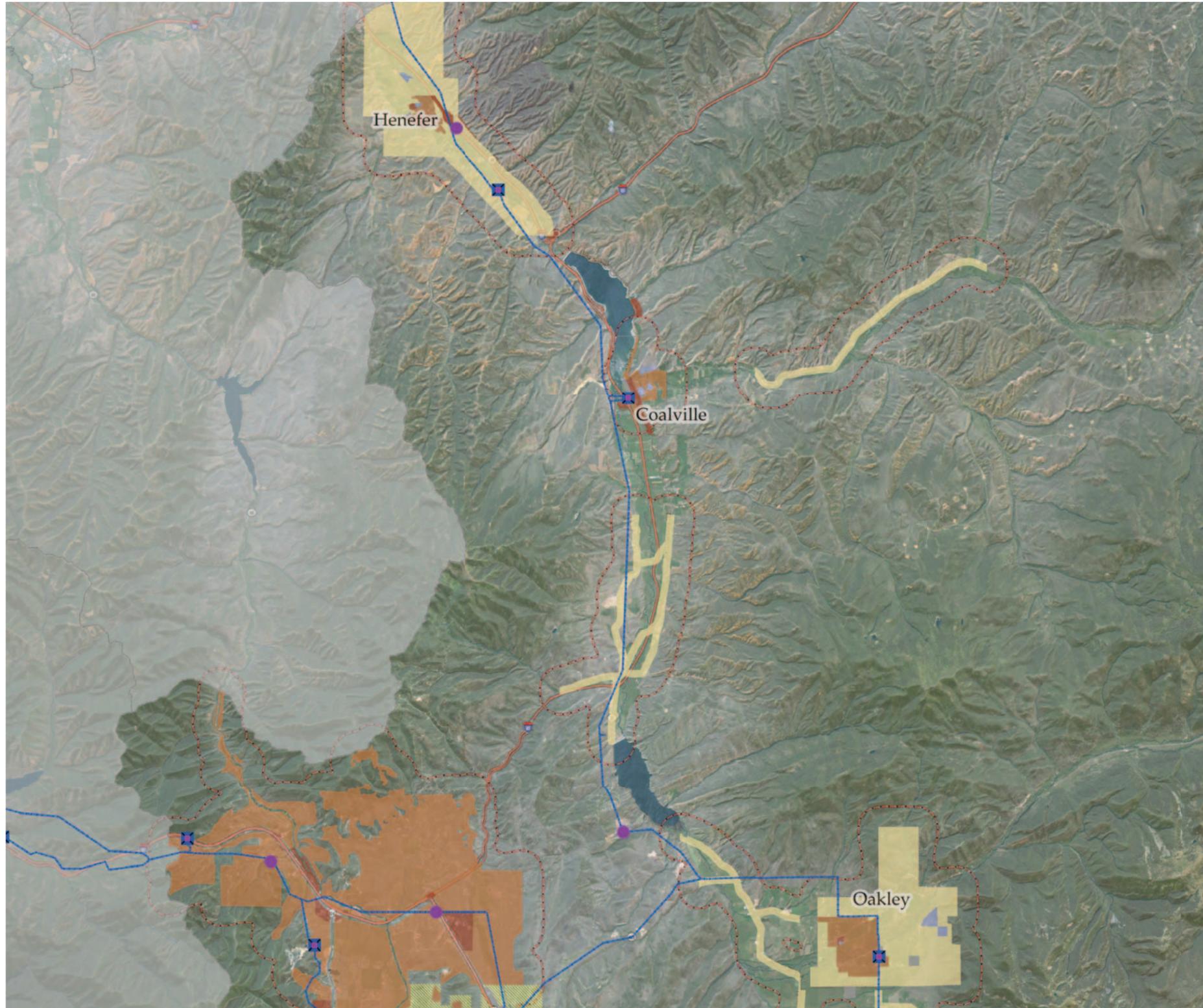
SUBSTATIONS				
Location Criteria	SCORE how well the criterion is met	Enter X where appropriate	Criterion WEIGHT	Criterion TOTAL = score X weight
2A Maximize use of existing facilities and adjacent properties before building new facilities	Substantially (2 points)		3	3
	Partially (1 point)	x		
	Poorly (0 points)			
2B Use topography to reduce visual impacts	Substantially (2 points)	x	3	6
	Partially (1 point)			
	Poorly (0 points)			
2C Protect significant viewsheds	Substantially (2 points)		3	3
	Partially (1 point)	x		
	Poorly (0 points)			
2D Build aesthetically pleasing facilities	Substantially (2 points)	x	3	6
	Partially (1 point)			
	Poorly (0 points)			
2E Avoid dedicated open space and parks	Substantially (2 points)		2	0
	Partially (1 point)			
	Poorly (0 points)	x		
2F Use areas with high development potential	Substantially (2 points)		2	2
	Partially (1 point)	x		
	Poorly (0 points)			
2G Avoid residential neighborhoods	Substantially (2 points)	x	2	4
	Partially (1 point)			
	Poorly (0 points)			
2H Avoid adverse aesthetic impacts on development	Substantially (2 points)		2	2
	Partially (1 point)	x		
	Poorly (0 points)			
2I Avoid discrimination based on income or ethnicity	Substantially (2 points)	x	1	2
	Partially (1 point)			
	Poorly (0 points)			
2J Utilize land adjacent to other infrastructure	Substantially (2 points)		1	1
	Partially (1 point)	x		
	Poorly (0 points)			
2K Protect critical habitat, wetlands, rivers and stream corridors	Substantially (2 points)		1	0
	Partially (1 point)			
	Poorly (0 points)	x		
SUBSTATION TOTAL				29

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D. Map

NORTHERN SUMMIT AND WASATCH COUNTIES



GENERAL ELECTRICAL SYSTEM LEGEND

Substations

- Existing Substation
- New Substation
- Existing Substation; Subject to Change

Lines

- Existing Line
- New Line
- Existing Line; Subject to Change (Expand, widen, upgrade, remove, etc)

SOUTHERN SUMMIT AND WASATCH COUNTIES

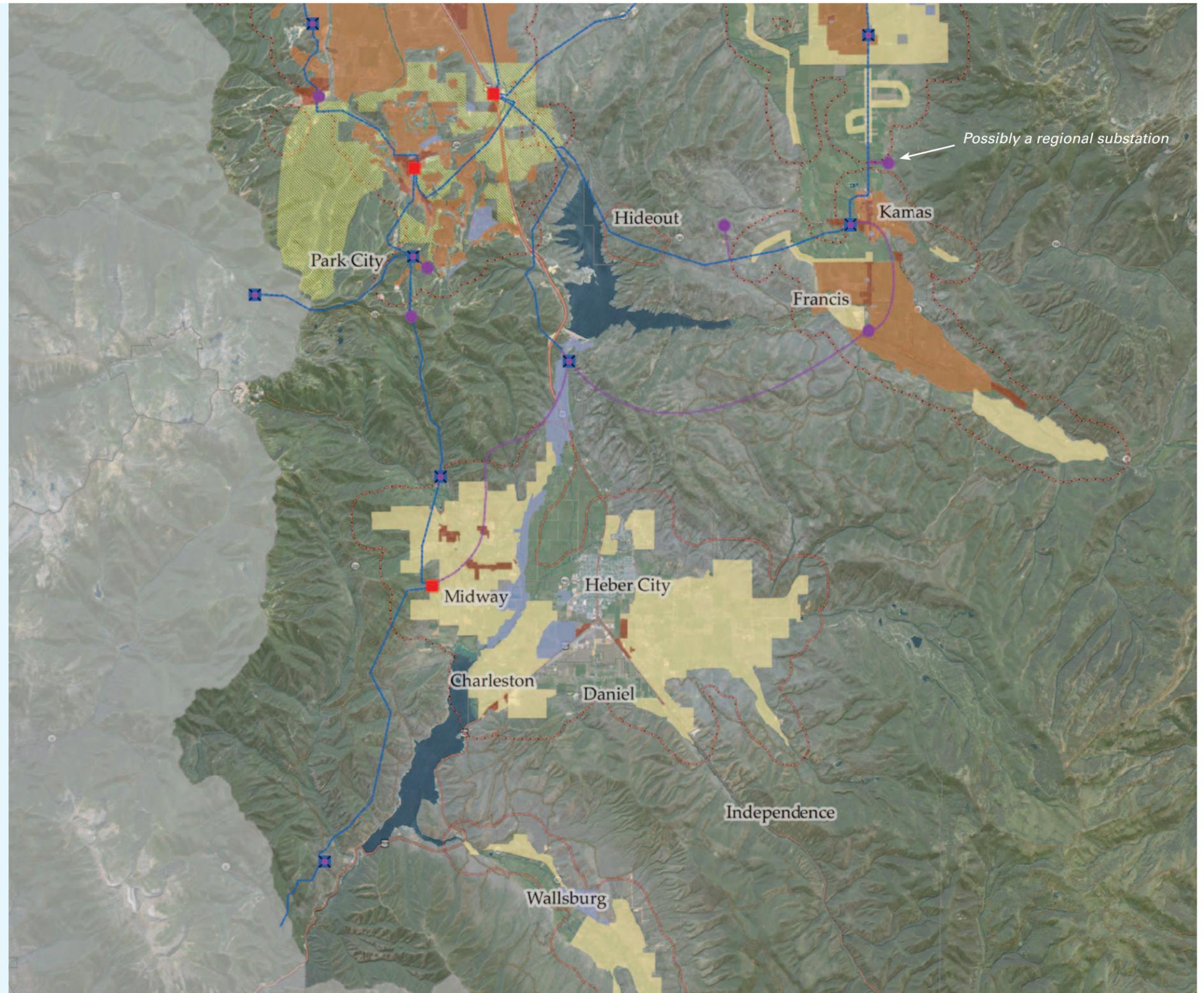
GENERAL ELECTRICAL SYSTEM LEGEND

Substations

- Existing Substation
- New Substation
- Existing Substation; Subject to Change

Lines

- Existing Line
- New Line
- Existing Line; Subject to Change (Expand, widen, upgrade, remove, etc)



E. How to use the plan in the future

The goal of the Summit Wasatch Electrical Plan is to facilitate cooperative planning by local government and Rocky Mountain Power for future electrical infrastructure needed for growing communities. It represents a shared understanding of the preferred locations of new electrical infrastructure and the process to be followed in making future siting decisions. It has no force of law; however communities and the utility can realize measurable benefits over time if it is implemented voluntarily.

The effort can fulfill two important goals of long-range planning:

1. Define appropriate land uses and design characteristics for future electrical facilities
2. Let residents and property owners know what to expect as the community changes over time

Cities and counties are accustomed to working towards these aims within the transportation or mobility components of their general plans. Further, community development considerations such as land use, parks and recreation are typically integrated into their transportation plans. But most cities do not address electrical infrastructure with the same long-range view. The Summit Wasatch Electrical plan offers communities an opportunity to treat electrical infrastructure in a similar and thoughtful manner.



SUMMIT WASATCH ELECTRICAL PLAN UPDATES

It is important to revise the Summit Wasatch Electrical Plan periodically to reflect the changing geography of energy use, such as the location of a new data center, land-use changes, or to incorporate major local modifications.

Minor changes

Minor changes (those that affect only one jurisdiction and maintain the basic technical feasibility of the plan) should be shared with Rocky Mountain Power.

Contact Rocky Mountain Power representative:

Administrative Assistant
801-220-2660
rmpmasterelecplan@pacificorp.com

Major changes

Major changes (those that affect more than one jurisdiction or affect basic technical considerations) should be addressed by affected parties (jurisdictions and Rocky Mountain Power) on an as-needed basis. Rocky Mountain Power should record these changes in a modified Summit Wasatch Electrical Plan and send copies to all jurisdictions.

Overall updates

Planning officials of jurisdictions served by Rocky Mountain Power should meet every five years to update the Summit Wasatch Electrical Plan. It should include changes to the plan map, the siting criteria, and local implementation best practices.

LOCAL IMPLEMENTATION CHECKLIST: SUGGESTED NEXT STEPS

- Present plan as an informational item to planning commission, city or county council.
 - Discuss concept and approaches to address electrical infrastructure in your locality.
- Review the siting criteria and the maps in the Summit Wasatch Electrical Plan.
 - Identify compatibilities/incompatibilities with your existing general plan.
- Develop a planning approach and schedule to address electrical infrastructure that considers:
 - Input from your elected and appointed officials. Approaches to consider include:
 - Developing an electrical infrastructure general plan element
 - Adopt as a stand-alone plan, referenced in relevant general plan elements
 - Note the plan as a reference document within the general plan
- Develop a schedule of anticipated general plan updates.
- Implement basic electrical infrastructure considerations in local plans and ordinances.
- Begin addressing substantive incompatibilities between local plans and ordinances and the Summit Wasatch Electrical Plan.

Inform Rocky Mountain Power, neighboring jurisdictions, and Summit and Wasatch Counties on an ongoing basis of any changes you make to plan elements to address incompatibilities.

A Rocky Mountain Power representative can assist in presenting the key components of the plan, how it was developed, and various approaches your jurisdiction might consider to implement the plan in your local long-range plans and ordinances.

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3. Local Planning Handbook

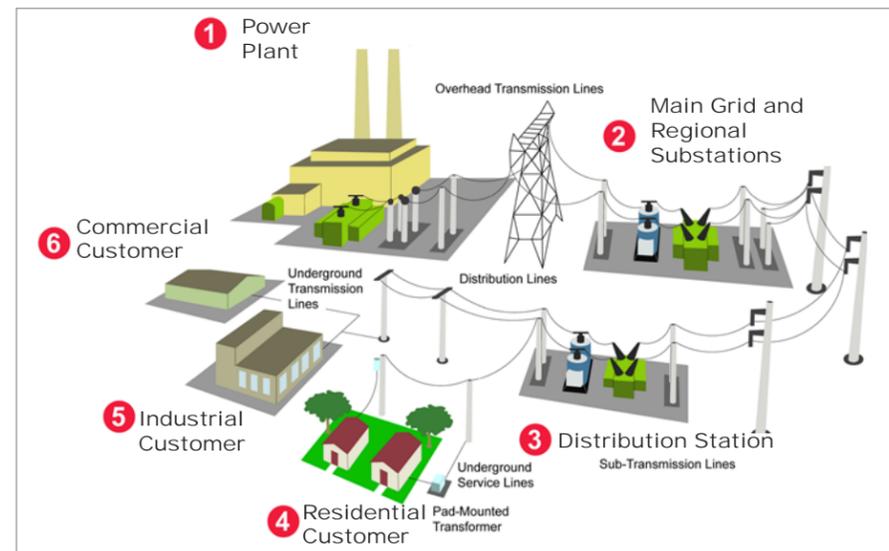
This handbook promotes a consistent ‘best practice’ approach to integrating electric substations and transmission lines into Utah’s communities. In doing so, it encourages citizens, community leaders, planners and utility representatives to actively participate in the utility siting process to improve the ability to efficiently coordinate future community growth, and recognizes the important role that electric utility service plays.

The electric utility transmission system is composed of electric power line corridors, which are linear routes through communities, and electric substations that are located on individual sites.

Electric power begins at power plants, transmitted through high voltage transmission lines, stepping down from higher to lower voltages through shorter-distance transmission lines and, ultimately, to distribution substations and distribution lines feeding residential and commercial users.

Electric substations and transmission lines should be sited in a way that is not only functional and cost-efficient, but also well-integrated into the community. Electric facilities should be part of a larger strategic plan that responds to community growth patterns and needs. Appropriate electric facility siting will ensure that safe, reliable electric services can be provided that also fits into the particular context. Siting decisions for electric facilities should consider impacts to natural systems like soils, drainage and habitat, and, with the aid of the community, address aesthetic considerations.

- 1. Proactive Planning
- 2. Best Management Practices
- 3. Sustainability
- 4. Communication
- 5. Multi-Purpose/Co-location
- 6. Neighborhood Integration



KEY QUESTIONS WHEN EVALUATING FACILITIES:

- Is this proposal consistent with the adopted electric service plan and corresponding siting criteria?
- Is this proposal compatible with existing land uses and the community's Comprehensive Plan?
- Can existing substations and transmission lines be utilized to meet the needs of the utility and the community?
- Does this proposal promote recreational use of utility corridors for trails, sports fields, and similar uses?
- Does this proposal limit the amount of site grading and vegetation, yet still meet adopted safety standards?
- Is proposed land development sited and screened in a manner that reduces the potential for conflicts with existing electrical facilities?
- Where feasible, are telecommunication facilities co-located with the proposal?
- Is the proposal screened with fences, walls, vegetation and/or topography or a combination thereof?
- Has the proposal included lighting designed to reduce impacts to the surrounding area yet meet safety and security requirements?
- Does this proposal's screening use color and materials minimizing aesthetic impacts?

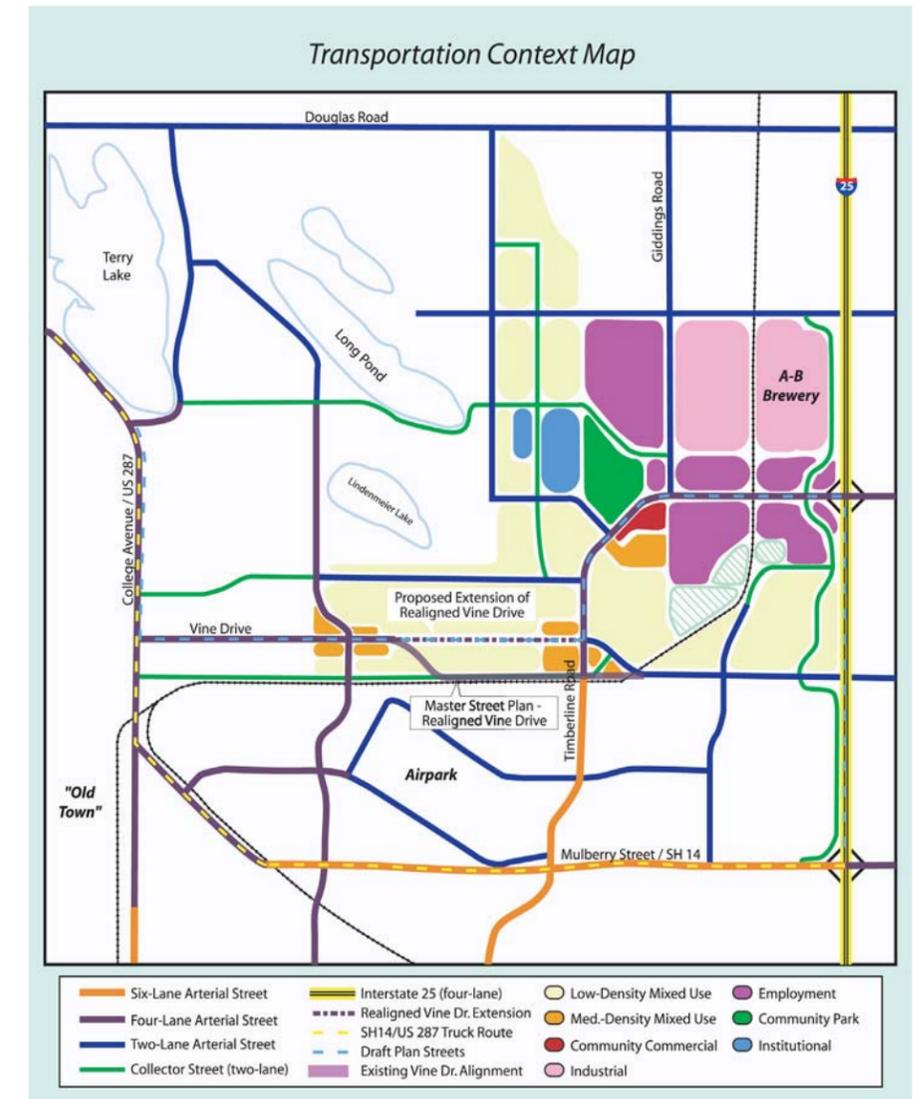
CORE CONCEPTS DISCUSSION

1. Proactive Planning

- Municipalities, counties and utilities should work together to appropriately site new substation and transmission facilities to maintain a reliable level of service and accommodate growth. Data and population projections should be generated to assist utilities in their growth planning.

Comprehensive plans should include the siting of electric facilities, much as is done for a water or sewer master plan, transportation plan, or a parks, recreation and open space plan.

The siting of new substation and transmission facilities should be taken into consideration during the comprehensive planning process, at the time the desired location of residential, commercial and industrial areas is determined. Data collected during the comprehensive planning process should include forecast energy demand and the location and timing of growth based on several factors such as, historical electric usage by market sector, density of development, and historic and



Integrate utilities with future transportation corridors

forecasted market trends. Armed with this information, it will improve decision-making in forecasting electric demand relative to existing supply, predict facility need by general location, and determine transmission and distribution requirements. Once known, electric facilities can become an inclusive component of the planning process and adopted plan.

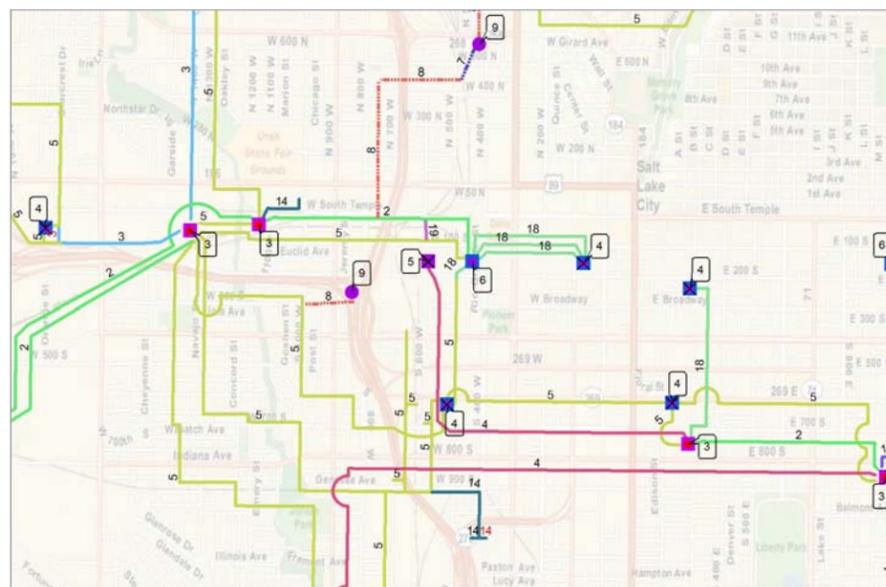
As with other Comprehensive Plan elements, communities should adopt utility policies that set a specific strategy to guide future decision-making. The following policies should be seen as a template for consideration by local municipalities:

- Develop siting and land use compatibility standards for electric facilities.
- Promote on-going coordination between municipalities and utility providers to ensure that electric transmission lines are provided in urban areas and can be coordinated with road right-of-way and other infrastructure.
- Consult the adopted Transportation Master Plan when designating new utility corridors.
- Consider utilizing new right-of-way corridors to minimize the need to tear up and replace existing roads.

- Secure new electric resources and transmission lines as necessary to meet projected demand levels.
- Require new development to dedicate sites and easements needed for substations, transmission, sub-transmission and distribution lines.
- Pursue reasonable and cost-effective energy efficiency, conservation, and load management programs.
- Develop and implement public education programs designed to increase the public's awareness of energy issues, including conservation measures and practices.
- Future facilities should follow the official electrical plan and corresponding siting criteria. The coordinated utilities plan suggests areas where expanded service may need to take place.
- Local jurisdictions should coordinate with the electrical provider when considering land use designations or new development in the

vicinity of proposed transmission and substation facilities. Potential encroachments into proposed utility corridors and at substation sites should be evaluated during the land development review process. Some of the tools to preserve these areas include:

- Identify future potential transmission corridors and substation sites in new developments and require utility integration into the development plan and/or subdivision plat.
- Require dedication of a strip of land along existing transmission corridors for potential future right-of-way expansions.
- Prescribe building set-backs or lot sizes for properties adjacent to transmission lines so that buildings don't constrain future rights-of-way.
- If property adjacent to an existing transmission line is to be developed, require the developer to dedicate land for a parkway, bike path, or buffer area.



Development Plans identifying utility easements



2. Best Management Practices

- Require the use of those proven methods or techniques that consistently produce positive results, i.e. - “best practices” for future substation and transmission facilities.
- Limit the disturbance to vegetation within major utility transmission corridors and substation sites to actions that are necessary for the safety, operation and maintenance of the facilities. Care should be exercised to preserve the natural landscape and conduct construction operations so as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. Except where clearing is required for permanent construction and conductor clearances, approved construction roads, or excavation operations, all trees, native shrubbery, and vegetation should be preserved and shall be protected from damage by construction operations and equipment. The edges of clearings and cuts through tree, shrubbery or other vegetation might be irregularly shaped to alter the visual impact of straight lines.

3. Sustainability

- Encourage conservation of electric resources to delay the need for additional transmission and substation facilities for electricity. Citizens and businesses can take advantage of electric conservation opportunities. Many conservation actions such as interior motion sensor lights that control lighting in response to room occupancy have minimal associated costs, making payback immediate and significant. Providing educational resources is a positive way that electric providers can inform the public about ways to improve energy efficiency that is both practical and economical.
- Consider cost-effective energy conservation technologies including, but not limited to, site planning, construction methods, materials used, and landscaping and development regulations. Such technologies for methods and materials should also promote practices that do not compromise human health conditions when occupied or used, reduce the need for future additional utility distribution facilities, and leave options for increasing conservation technologies in the future. Local jurisdictions can incorporate sustainability features directly into zoning and building codes. Minimum zoning standards should

allow various energy saving uses such as wind turbines, solar access, photovoltaic solar panels, geothermal heat, and green roofs. Since more efficient energy use in buildings decreases energy costs, then a major focus should be on implementing “green building” practices.

4. Communication

Utility providers should prepare a detailed communications plan that highlights how information about future substation and transmission improvements can be shared with public agencies and customers. The following communications program elements should include:

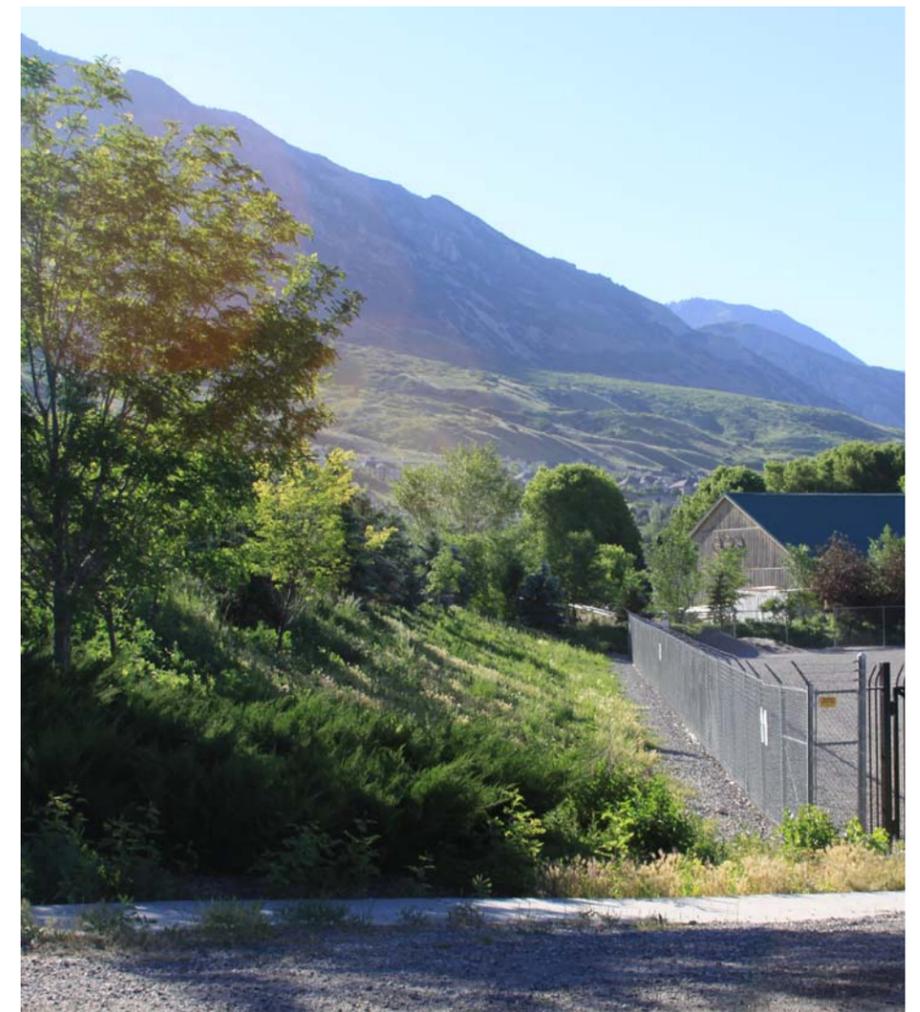
- Foster early and proactive communication between affected stakeholders
- Meet periodically with representatives of utility providers to ensure coordination of substation and transmission line plans.
- Coordinate with other jurisdictions in the planning and implementation of multi-jurisdictional substation and transmission improvements.
- Add transmission and substation information to the jurisdiction’s geographical information system (GIS), where feasible, and coordinate regularly with private utility providers to obtain up-to-date systems information.



Exercise care during construction to protect vegetation

5. Multi-Purpose /Co-location

- Where economically feasible and allowed by law, promote co-location of major transmission facilities. Many major transmission facilities such as electric transmission lines, water, and natural gas main pipe lines can share utility corridors. This will minimize the amount of land allocated for this purpose and the tendency of such corridors to divide neighborhoods or districts.



Minimize disturbance to adjacent slopes

- Promote recreational use of utility corridors for trails, sports fields, and similar uses. Communities should be encouraged to utilize electric transmission line rights-of-way for bicycle/pedestrian paths, equestrian trails and sports fields. The local Parks & Recreation Master Plan should be consulted when developing the utility system, and future corridors should be coordinated with greenway trails when possible.
- Promote the co-location of telecommunication facilities adjacent to electric substations without undue burden on any single utility provider.



Co-location of telecommunication towers with substations

To the extent feasible antenna towers, and equipment structures should be co-located adjacent to substations and be designed to provide for the consolidation of future facilities to eliminate or minimize the visual clutter resulting from multiple communication structures.

6. Neighborhood Integration

- Ensure that new transmission and substation facilities are designed in such a manner as to minimize adverse aesthetic impacts on the surrounding land uses.

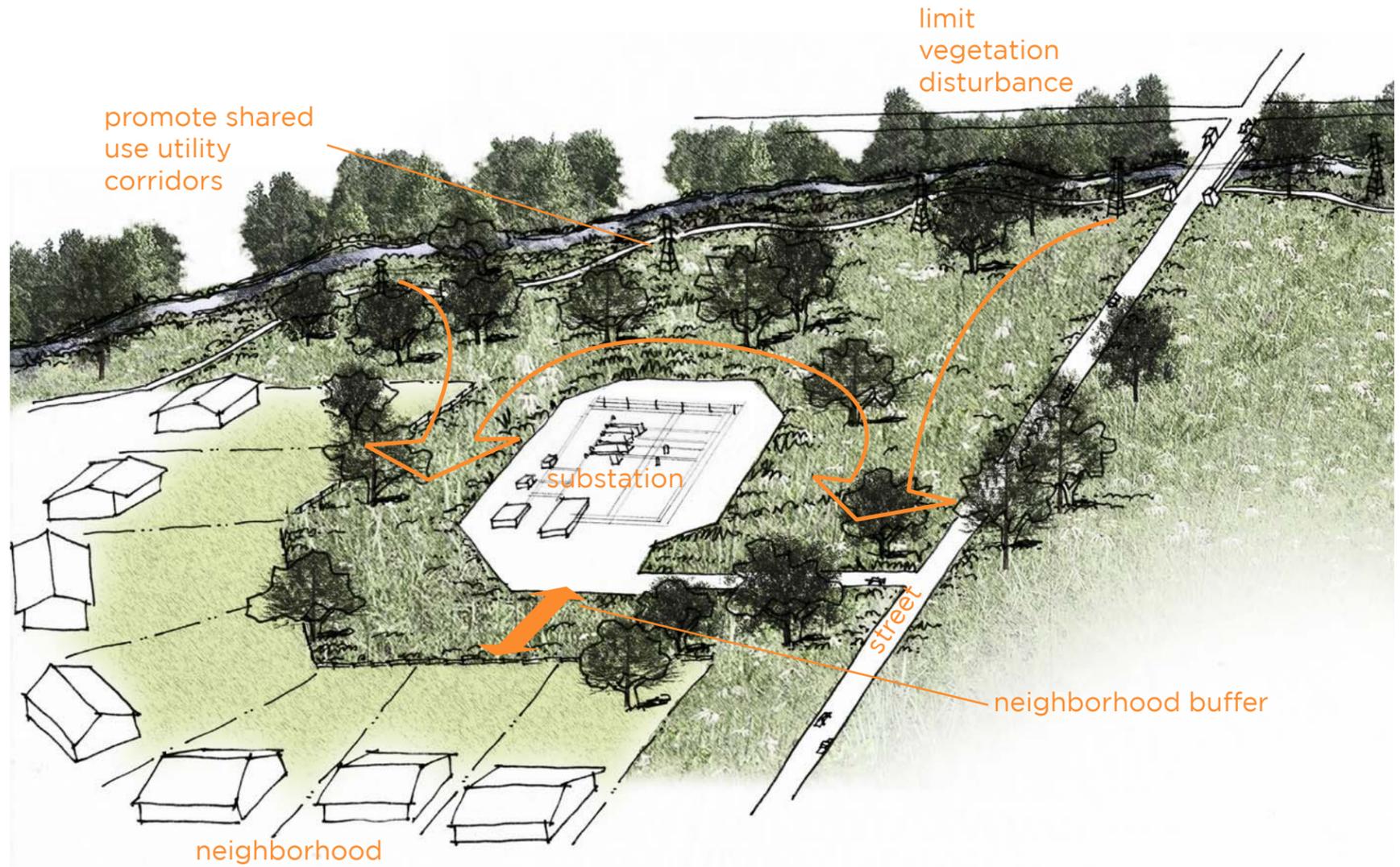


Minimize disturbance of existing vegetation

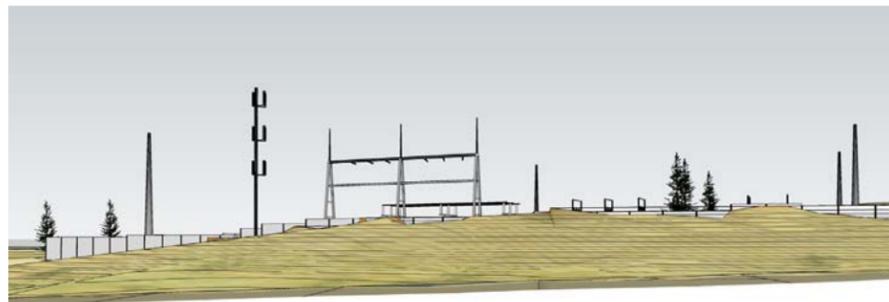
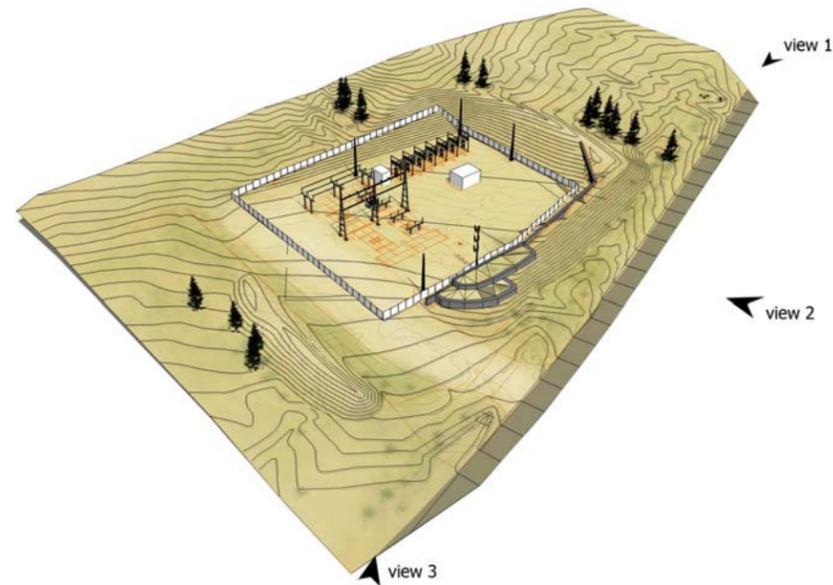
- Utilize buffer zones to integrate substations with surrounding neighborhoods and districts. Buffer zones can be defined through distance, land forms and plant material. Three types of landscaping options are currently available:
 1. **Hardscape** - Gravel, asphalt, decorative rock, paving etc.
 2. **Softscape** - Non-native trees, shrubs, grass, continual irrigation and maintenance required
 3. **Xeriscape** - Low watering intensity (waterwise), self sustaining shrubs and trees, native trees, shrubs and grasses
- If possible, move facilities behind natural landforms or vegetation to help screen them from view.
- Permanent exterior lighting must provide lighting adequate to meet safety and security needs, but should not be excessive. Dark sky practices should be utilized minimizing the impact of lighting to the adjacent properties.
- Encourage the use of design guidelines to address the location and screening of electric substations.
- New development approved adjacent to existing substation facilities should provide vegetative screening or buffers. Buffer yards, including vegetative screening and/or berms could be created that separate new residential land uses from existing substations and similar electrical equipment in order to eliminate or minimize potential nuisances, or to provide spacing to reduce visual impacts.
- Use color and material finishes to blend into the surroundings. The colors and finishes should be based on the following considerations:
 - Utilize uniform and non-contrasting colors for substation walls to blend with the immediate natural environment.
 - Selected on the basis of their ability to blend with both the sky and the environment in which they are being used.
 - Transmission line conductors should, over time, be non-reflective, and the insulators non-reflective and non-refractive.



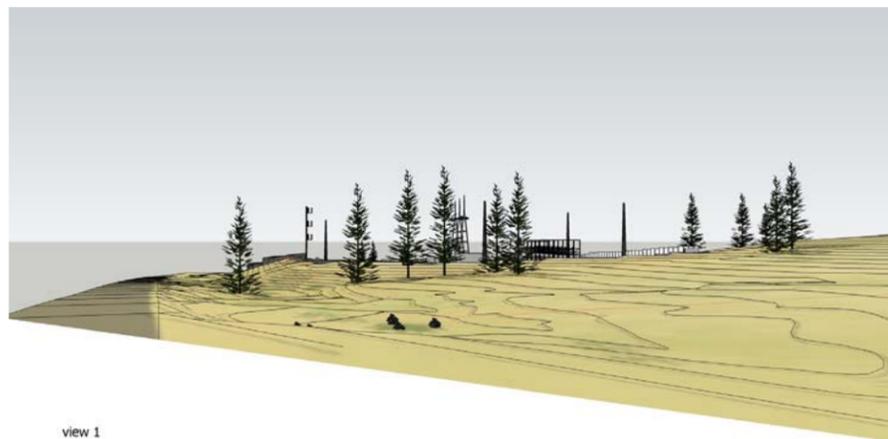
Vegetation acts as a buffer between a substation and the surrounding neighborhood



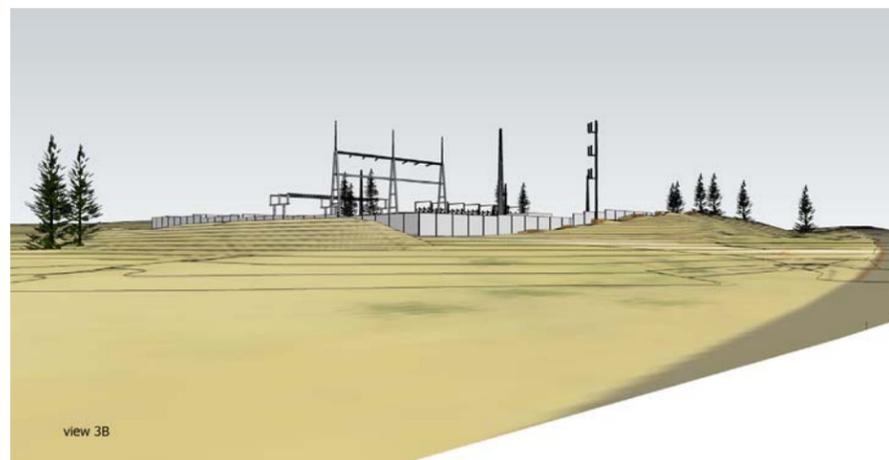
Techniques used to integrate substation into surrounding neighborhood



view 2B



view 1



view 3B

Example berming used to integrate substation into surrounding neighborhood

Resources

1. *The Case for New Electricity Transmission and Siting New Electricity Transmission Lines*, Roger W. Gale, Mary O'Driscoll, GR Energy LLC, September, 2001, http://oharas.com/ET/Transmission_Case.pdf
2. *The Neighborly Substation- Electricity, Zoning and Urban Design*, Hope Cohen, Deputy Director, Center for Rethinking Development, December, 2008. http://www.manhattan-institute.org/html/crd_neighborly_substation.htm
3. *Visual Impact Analysis Methodology for Transmission Line Planning Corridors*, EDAW, February 1977.





4. Appendices

Appendix A: Glossary of terms

A

Alternating Current (AC) – An electrical current which alternates direction repeatedly due to a change in voltage. With power companies the alternating current creates a sinusoidal waveform.

Ampacity – The current-carrying capacity, expressed in amperes, of an electric conductor under stated thermal conditions. As ambient temperatures decrease the ampacity increases.

Ampere – A unit of measurement for electrical current produced by one volt applied across a resistance of one ohm. See Current.

B

Breaker – See Circuit Breaker.

Bus – An electrical connection that connects multiple electrical devices which is sometimes referred to as a bus bar.

Bushing – An insulated connection between the internal and external components of electrical equipment.

C

Capacitor – A device to store an electrical charge. In the field of electric power transmission and distribution, capacitors are devices used for power factor correction and voltage regulation. Power factor correction improves the ability to deliver useful power (real power) to loads and voltage regulation helps to maintain constant service voltage.

Capacity – The maximum amount of electrical power which a device can utilize at one time without causing damage to the device. Also, the amount of electric power that can be delivered at one time by a generating unit, generating station, or all the plants on an electric system.

Circuit – A conductor or system of conductors through which an electric current is intended to flow

Circuit Breaker – A device to open (de-energize) or close (energize) a circuit either during normal power system operation or during abnormal conditions. During abnormal conditions, when excessive current develops, a circuit breaker opens to protect equipment and surroundings from possible damage due to excess current.

Conductor – A material, usually in the form of a wire, cable, or bus bar capable of carrying an electric current, which allows an electric current to pass continuously along it.

Continuous Load – A sustained electrical load.

Current – The flow of electricity commonly measured in amperes. See also Ampere.

Cycles-per-Second – See Hertz.

D

Direct Current (DC) – Electrical current that normally flows in one direction only.

Demand – The rate at which electric energy is delivered to or by a system, expressed in kilowatts, or other suitable units at a given instant or averaged over a designated period of time. Demand varies from hour to hour, day to day, and season to season.

Distribution Substation – A substation where one or more transformers reduces the line voltage from a local transmission level between 46,000 volts and 161,000 volts (46 kV – 161 kV) to a distribution level (4.2 kV – 34.5 kV) in order to distribute power to customers.

Distribution Line – A combination of conductors connected together to deliver power to customers at distribution voltages (4.2 kV – 34.5 kV). Each distribution line can be composed of overhead or underground conductors and can serve hundreds of customers.

Distribution System – The distribution system includes all lines energized at voltages 34,500 volts (34.5 kV) and below.

DSM (Demand Side Management) – The planning and implementation of strategies designed to encourage consumers to improve energy efficiency, reduce energy costs, change the time of usage, or promote the use of a different energy source.

E

Easement – An easement is a right given to a person or entity to trespass upon land that the person or entity does not own. Easements are used for roads, for example or given to utility companies for the right to construct and access power lines

Energy – Energy is a measure of the amount of power usage over time and is measured in kilowatt-hours or megawatt-hours.

F

Fault – A problem on a power line that interrupts the normal flow of power, which usually causes a protective device (see circuit breaker and fuse) to operate.

Feeder – See distribution line

FERC (Federal Energy Regulatory Commission) – An independent U.S. government agency that regulates the interstate transmission of natural gas, oil, and electricity.

Franchise – A license or similar legal authority, granted to a utility by a jurisdiction, to provide service at retail in a given geographic area. An exclusive franchise is a monopoly to provide service in that area.

Frequency – The number of complete alternations or cycles per second of an alternating current measured in Hertz.

Fuse – A protective device that is designed to and de-energize a circuit when there is a fault on the circuit. The fuse can only operate once and must be replaced when it has operated.

G

Generator – A unit that converts thermal, mechanical, hydro, wind, chemical or nuclear energy into electric energy.

Generation Mix – A term used to describe the types of electrical generation a utility uses, or presently has on line – coal, wind, hydro, etc.

Giga-watt (GW) – 1,000 mega-watts, or 1,000,000 kilo-watts, or 1,000,000,000 watts.

Ground – The reference point in an electrical circuit from which other voltages are measured. Electric utilities use the earth or ground as the reference point. The potential or voltage of ground or earth is assumed to be zero volts.

Grounded – Connected to or in contact with earth or connected to some extended conductive body in place of the earth.

Guy Wire – A cable fastened to the pole to keep it in position.

H

Hertz (Hz) – A unit of frequency. One Hertz equals one complete cycle per second of an AC source. This unit replaces the former “cycles-per-second.” The standard frequency in the US is 60 Hz. However, in some other countries the standard is 50 Hz

Horsepower – A measure of power used to define electric motors. For electricity one horsepower = 746 watts.

Hot – Energized (i.e., the line is hot or live).

I

IEEE (Institute of Electrical and Electronics Engineers) – A non-profit organization that is the world’s leading professional association for the advancement of electrical technology. The IEEE promotes the engineering process of creating, developing, integrating, sharing and applying knowledge about electro and information technologies and sciences for the benefit of humanity and the profession. The IEEE sponsors the National Electrical Safety Code (NESC)

Insulator – Hardware or equipment made of porcelain, glass, or polymer used to isolate conductors from distribution poles or transmission structures that support them.

IOU (Investor Owned Utility) – A utility that is structured as a tax-paying business financed through sales of common stock. Rocky Mountain Power is an Investor Owned Utility.

IPP (Independent Power Producer) – A company that generates power but is not affiliated with an electric utility.

IRP (Integrated Resource Plan) – A method for looking ahead using environmental, engineering, social, financial and economic considerations; includes using the same criteria to evaluate both supply and demand options while involving customers and other stakeholders in the process. The IRP is the product of the process many utility companies and utility commissions use to select the generation resources needed to meet future demand for electricity.

J

Junction Box – An electrical junction box is a container for electrical connections, usually intended to conceal them from sight and deter public tampering

K

Kilovolt (kV) – A measurement of voltage. One kilovolt = 1,000 volts. This unit of measurement is most commonly used when describing transmission and distribution lines.

Kilowatt (kW) – A measurement of electric power. Ten 100 watt bulbs would use one kilowatt or 1,000 watts.

Kilowatt-Hour (kWh) – A measurement of electric energy equal to one kilowatt of power supplied for one hour. A kilowatt-hour could be used to light a 100-watt bulb for 10 hours.

L

Line Loss – The electrical energy lost in the process of transporting power over transmission and distribution lines. For a fixed amount of power going into a system:

The greater the line length the greater the line loss

The higher the voltage the less the line loss.

Load – The demand for power at a given point in time. The peak load is the highest amount of power drawn down at any time, or the utility’s maximum demand. Load can be divided into three major classes – industrial load, commercial load, and residential load.

Load Curve – A graph showing power or demand against time

Load Factor – Load factor is the average power divided by the peak power, over a period of time. A high load factor is electricity used at a more constant rate without having peaks and valleys. A large business with a high load factor typically experiences a lower average cost per kWh and has a lower cost of service by the utility.

Load Forecasting – An estimate of future consumption of electricity. The estimates are used in planning for generation, transmission, and distribution facilities; in calculating future revenue from the sales of electricity; in determining cost allocations for the various rate classes; and in assessing the impact on load of changes in policies or underlying conditions such as the level of employment in the region.

M

Megawatt (MW) – 1,000 kilowatts or 1,000,000 watts.

Megawatt-hour (MWh) – 1,000 kilowatt-hours or 1,000,000 watt-hours.

Municipal Utility – An electric utility system owned by a municipality that serves retail customers generally within the boundaries of the municipality.

N

NEC (National Electrical Code) – A code for the safeguarding of people and property from hazards related to the use of electricity. Compliance with this code along with proper maintenance will result in an installation essentially free from hazard. The NEC does not cover installations under the exclusive control of an electric utility. The NEC is sponsored and updated by the National Fire Protection Association.

NERC (North American Electric Reliability Council) – An independent organization that works to ensure that the bulk electric system in North America is reliable, adequate, and secure.

NESC (National Electric Safety Code) – Rules published by the Institute of Electrical and Electronics Engineers (IEEE) applying to grounding, installation, maintenance and operation of electric supply, communication, utilization equipment, lines and facilities which have been adopted as standard by the American National Standards Institute. By law or statute electrical utilities are required to conform to the NESC.

Net Metering – A method of measuring the difference between the electricity the customer uses from the power company and the excess electricity given back by generating their own power. The net meter keeps track of power usage taken from the company and customer power provided back to the company.

Neutral Conductor – A system conductor other than a phase conductor that provides a return path for current to the source. It is intended to have approximately a zero voltage potential relative to earth or ground and such that the voltage differences between it and each of the phase conductors are approximately equal in magnitude.

O

Off-Peak – All times not identified as on-peak. See On-Peak.

Ohm – A unit of electrical resistance. A circuit resistance of one ohm will pass a current of one ampere with a voltage difference of one volt. Abbreviated using the Greek letter omega (Ω).

Ohm's Law – An equation that defines the relationship between voltage, resistance, and current. In 1828 the German physicist George Simon Ohm showed by experiment that the current in a conductor is equal to the difference of potential or voltage between any two points divided by the resistance between them. This may be written as $I = V / R$ where V is the voltage difference in volts, R is the resistance in ohms, and I is the current in amperes.

On-Peak – Those periods of time at which power is being delivered near the utility's maximum demand. Rocky Mountain Power's defined on-peak periods are:

October through April inclusive – 7:00 a.m. – 11:00 p.m., Monday through Friday except holidays

May through September inclusive – 7:00 a.m. – 9:00 p.m., Monday through Friday except holidays

Outage – Interruption in the delivery of electric service.

Overhead Service – Electric service supplied to the customer from the power company utilizing overhead conductors.

Overload – Operation of electrical equipment above its normal full-load rating, or of a conductor above its rated ampacity, that when it persists for a sufficient length of time, would cause damage to the equipment or conductor.

P

Partial Power – The loss of one or two energized conductors of a three-phase service or one energized conductor of a single phase service.

Peak Demand – The maximum demand imposed on a power system or component thereof.

Peak Load – See peak demand.

Phase – One wire or conductor of a two, three or four wire system.

Point of Delivery – The point where the electrical utility's circuit connects to the customer's system.

Potential – See voltage.

Power – The rate at which work is performed or that electric energy is converted to other forms of energy. Electric power is the product of voltage and current ($P = VI$) and is commonly measured in watts, kilowatts, or megawatts.

Power Grid – A network of power lines, transformers, generators, and associated equipment employed in distributing electricity over a geographical area. Rocky Mountain Power is part of a power grid that encompasses the western United States and parts of Canada and Mexico.

Power Plant – A complex of structures, machinery, and associated equipment for generating electric energy from another source of energy, such as nuclear reactions, coal, gas, wind, water, or sun.

PPE (Personal Protective Equipment) – Refers to protective clothing, helmets, goggles, or other garment designed to protect the wearer's body from injury by blunt impacts, electrical hazards, heat, chemicals, and infection, for job-related occupational safety and health purposes.

Primary – The high voltage part of the distribution system. In Rocky Mountain Power service territory the primary distribution power is between 4,160 volts (4.2 kV) and 34,500 volts (34.5 kV) with the majority at 12,500 volts (12.5 kV).

PSC (Public Service Commission) – A utility regulating authority.

PURPA (Public Utility Regulatory Policies Act) – A law passed in 1978 by the United States Congress as part of the National Energy Act, meant to promote greater use of renewable energy. This law created a market for non-utility electric power producers forcing electric utilities to buy power from these producers at the "avoided cost" rate, which was the cost the electric utility would incur were it to generate or purchase from another source. Generally, this is considered to be the fuel costs incurred in the operation of a traditional power plant.

Q

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R

Recloser – A switch that will automatically open a circuit if it detects electrical problems such as a fault, and then attempts to close the circuit at timed intervals. If the electrical problem fails to correct itself, the switch will remain open after a certain number of attempts to close the circuit.

RMP (Rocky Mountain Power) – An investor owned electric utility which serves customers in Utah, Idaho and Wyoming. A division of PacifiCorp which is a subsidiary of Mid-American Energy Holding Company (MEHC).

ROW (Right of Way) – Right-of-way is an interest in property either owned in fee or as an easement transferred through grant, prescription, dedication, or the right of Eminent Domain. Public utilities (regulated by the Public Utility Commission) have the right by State Statute to use a portion of the road right-of-way for installation and maintenance of their facilities.

S

SCADA (Supervisory Control & Data Acquisition) System – Rocky Mountain Power's SCADA system is a complex computer system that:

- Monitors frequency, generation, power, current, voltage and controlling device status on the utility's transmission and distribution systems.

- Controls (either automatically or via manual control) breakers, reclosers, and other controlling devices to maintain the integrity of the transmission and distribution systems.

Secondary – The low voltage part of the distribution system. In Rocky Mountain Power service territory the secondary distribution power is between 120 volts and 480 volts.

Sectionalize – To isolate a problem and restore as many customers to service as possible.

Single-phase – One phase of a three phase system. Single phase power is typically used to serve customers whose load characteristics are primarily lighting, heating, and small motors (typically residential and small commercial customers).

Single Phase Service – An overhead or underground service consisting of two “hot” wires and a neutral.

Smart Grid – A term used for an ever widening palette of utility applications that enhance and automate the monitoring and control of electrical use at the consumer level.

Structures – The poles or towers used to support transmission and distribution conductors.

Substation – An assembly of equipment in an electric power system through which electrical energy is passed for transmission, distribution, interconnection, voltage transformation, or switching. Substations can range in size from one acre to several hundred acres. A typical distribution substation whose primary purpose is to convert power from 138 kV to 12.5 kV is one acre inside the fence or wall. However, a main grid substation whose primary purpose is to convert power from 500 kV to 345 kV and connect to several 345 kV transmission lines may be 200 acres.

Sub-transmission – Lines that are typically energized between the voltages of 46,000 volts (46 kV) and 161,000 volts (161 kV). Sub-transmission lines are used to transfer power from transmission substations to regional and distribution substations.

Switch – A device that open or closes a circuit.

Switchyard – A substation that does not include voltage transformation.

T

Three - phase – The most common method used by electrical utilities worldwide to distribute power. In a three-phase system, three circuit conductors carry three alternating currents which reach their instantaneous peak values at different times. Three phase power is typically used to serve customers whose load characteristics include large motors, (typically industrial customers and large commercial customers).

Three Phase Service – An overhead or underground service usually consisting of three “hot” wires and a neutral.

Transformer – A transformer is an electrical device that takes electricity of one voltage and transforms it into another voltage.

Transmission System – An interconnected group of high voltage electric lines and associated equipment for transfer of electric energy between points of supply and points at which it is delivered to other utilities or transformed one or more times to lower voltages for delivery to consumers. Typically, at Rocky Mountain Power, transmission lines are energized at 230,000 volts (230 kV) and above.

Trip – A sudden shutdown of a piece of equipment or line. A trip is generally caused when a protective device (breaker, recloser) operates to isolate a portion of the system in order to protect the equipment or line.

U

Undergrounding – The act of converting the overhead transmission or distribution system to underground.

Underground Service – Electric service supplied to the customer from the power company utilizing underground cable.

V

Volt – A unit of measurement for voltage. The voltage difference across a one ohm resistance carrying a current of one ampere.

Voltage – The driving force, or “electrical pressure,” that causes current to flow through a closed circuit. The force can be compared to the pressure of water in a pipe. Voltage is measured in volts (V) or kilovolts (kV).

Voltage Drop – Voltage drop is defined as the amount of voltage loss that occurs through all or part of a circuit due to the impedance of the lines and equipment on the circuit.

W

Watt – A unit of measurement of power. One watt equals the power dissipated by a current of 1 ampere flowing across a resistance of 1 ohm

X

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Y

- - -

Z

- - -



Appendix B: Facility diagrams and requirements

ELECTRICITY 101

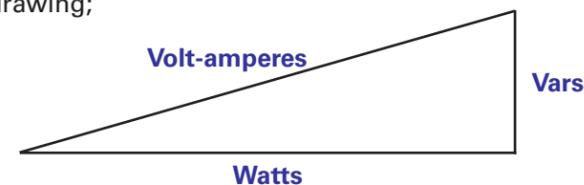
$V = IR$ or Voltage (volts) = Current (amperes) X Resistance (ohms)

Voltage is a measure of electrical “pressure” (similar to water pressure in a hose).

Current is the movement of electrons through a conductor, (similar to water flow in a hose) measured in amperes or amps.

$P = IV$ or Power (volt-amperes) = Current (amperes) X Voltage (volts)

Power (volt-amperes) has two components: Watts and Vars, as shown in the follow drawing;



Typically vars are not considered except with large customers and utility engineers. The remainder of this document will ignore vars and assume power only has one component, watts.

- 1,000 watts = 1 kilowatt = 1 kW
- 1,000,000 watts = 1 megawatt = 1 MW

The maximum amount of power a transmission line can carry is referred to as **capacity**.

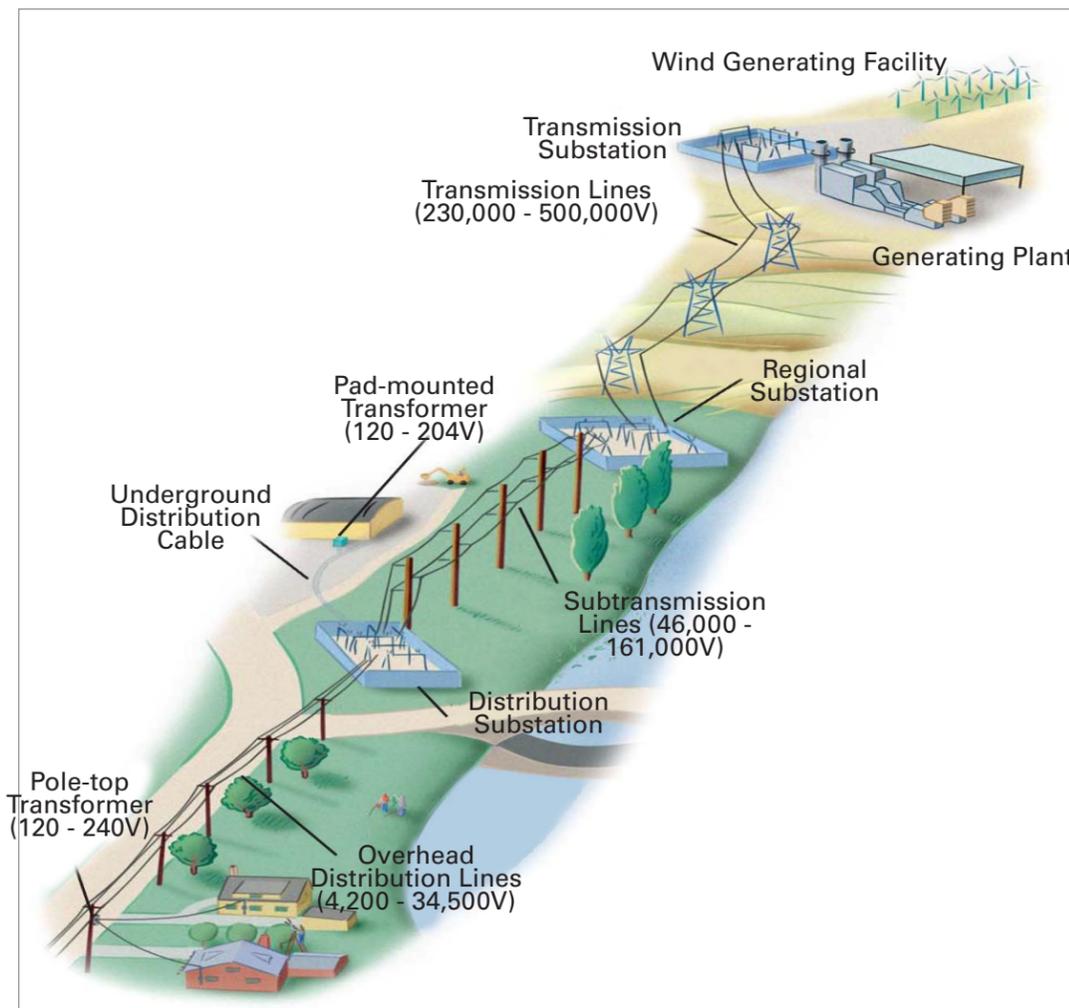
Energy represents the amount of power used or transmitted over a given period of time (energy = power x time). The basic unit of measure for electrical energy is the watt-hour.

- 1,000 watt-hours = 1 kilowatt-hour = 1 kWh
- 1,000,000 watt-hours = 1 megawatt-hour = 1 MWh

An electrical system is designed to accommodate Capacity (Demand (MW)) and Energy (MWh). Since capacity can be accommodated then Energy (MWh) will also be accommodated.

Load is power being used by customers. Instantaneous load represents capacity used. If customer load is greater than the electrical system capacity then load must be reduced or one or more components of the electrical system will fail.

Power System



Electricity moves from generation plants to transmission substations and distribution substation before being delivered to our homes

TRANSMISSION

Clearance

Minimum vertical and horizontal clearance is established by the National Electrical Safety Code (NESC). When a utility designs a transmission or distribution line they consider the maximum sag of the conductor (vertical component) and the maximum deflection of the conductor (horizontal component).

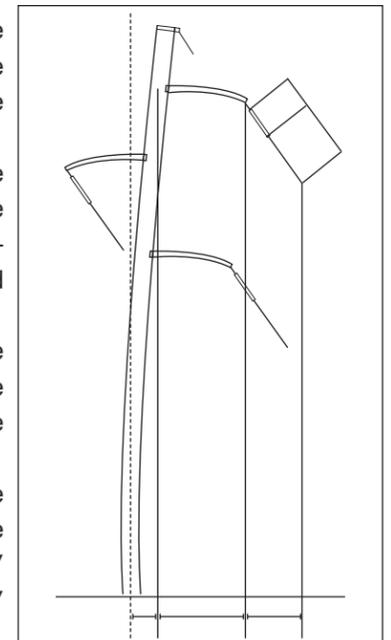
Vertical Clearance

Items that influence conductor sag include: (line loading, conductor capacity, line tension, ambient temperature, conductor weight, and conductor composition). The clearance required by code considers what the conductor crosses (roads, railroads, trails, water, structures, etc.) and the operating voltage of the line.

Clearance requirements are dependent on transmission line voltage.

As voltages increase, required clearances increase.

- Typical 345 kV single circuit H-frame structure will be 90-120' above the ground.
- Typical 345 kV double circuit single pole structure will be 130-170' above the ground (200' in some cases).
- Typical 138 kV single circuit H-frame structure will be 60-90' above the ground.
- Typical 138 kV double circuit single pole structure will be 70-95' above the ground (115' in some cases).

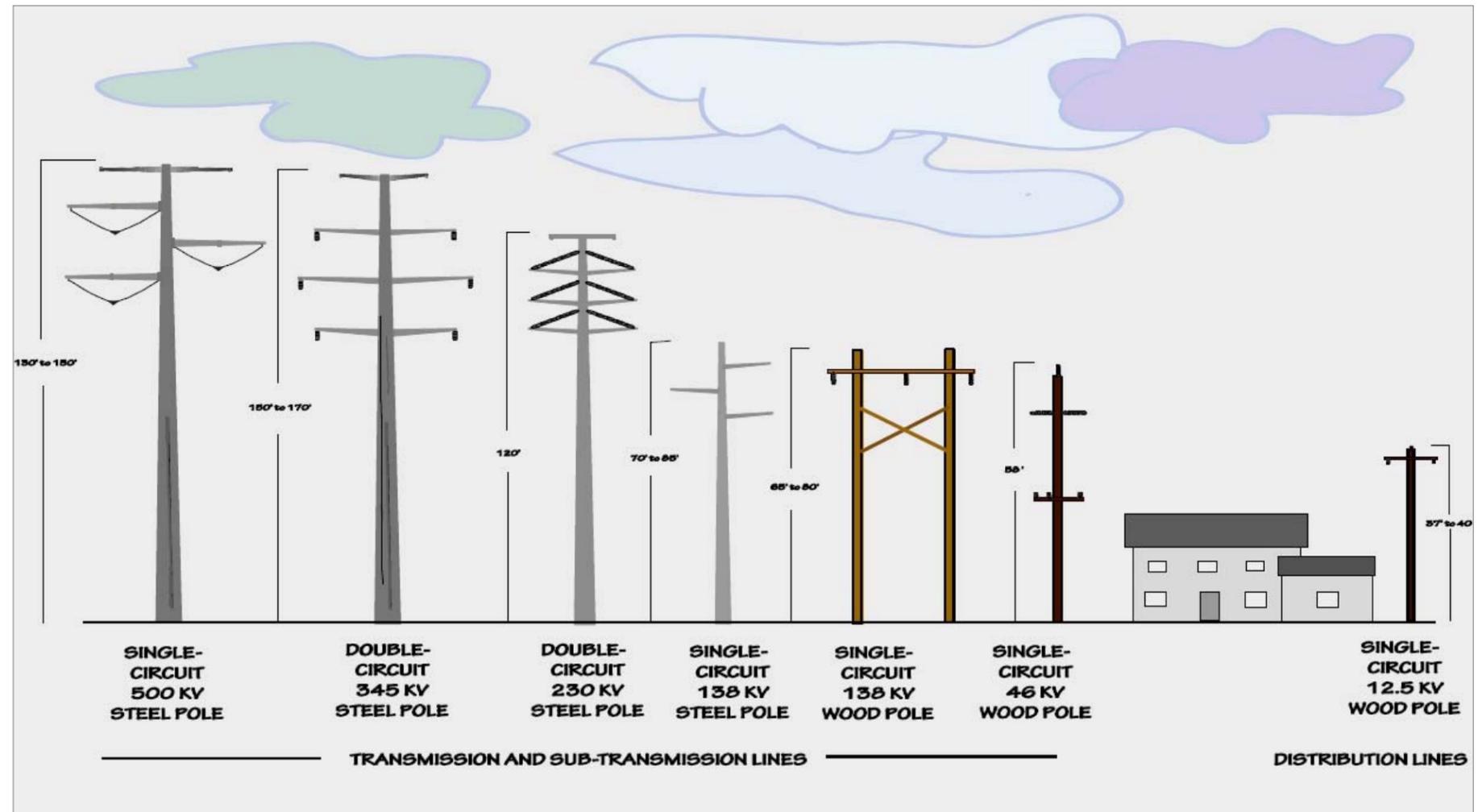


Horizontal Clearance and Right of Way

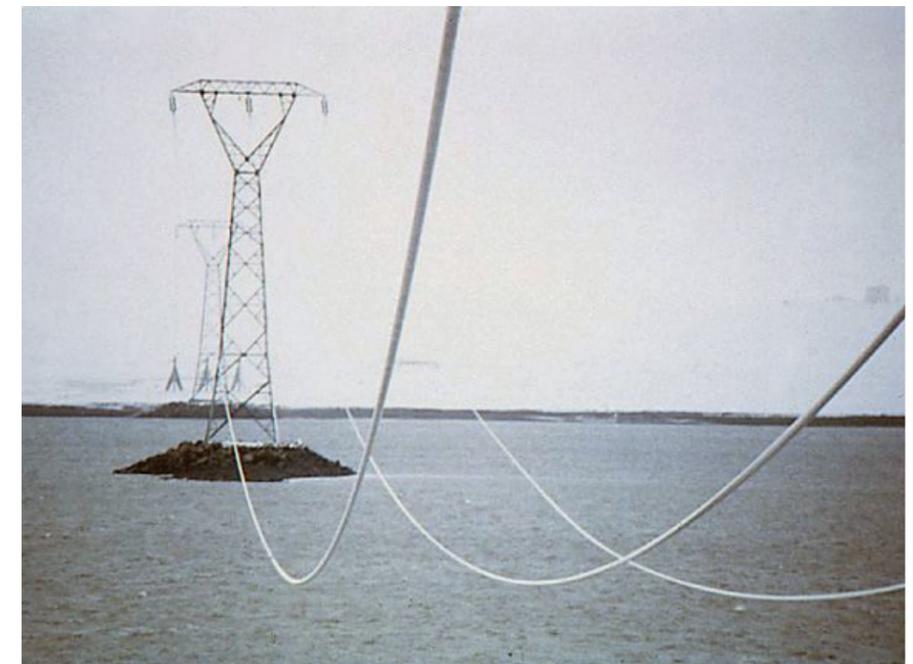
Horizontal clearance, like vertical clearance, increases as the voltage increases. As illustrated in the adjacent drawing, items that influence deflection include: pole structure design, pole material, wire size and span length, and maximum wind speed where the line is constructed. The horizontal clearance required by code considers what the conductor is passing by: tress, signs, buildings, etc.

Right of way width is determined by combining the maximum conductor deflection, the no wind conductor position (pole width and insulator length), and the minimum clearance required by code.

Single pole structures typically require less ROW width than lattice or multiple pole structures. Right of way can be shared with other infrastructure such as roads and pipelines.



Transmission and distribution line poles

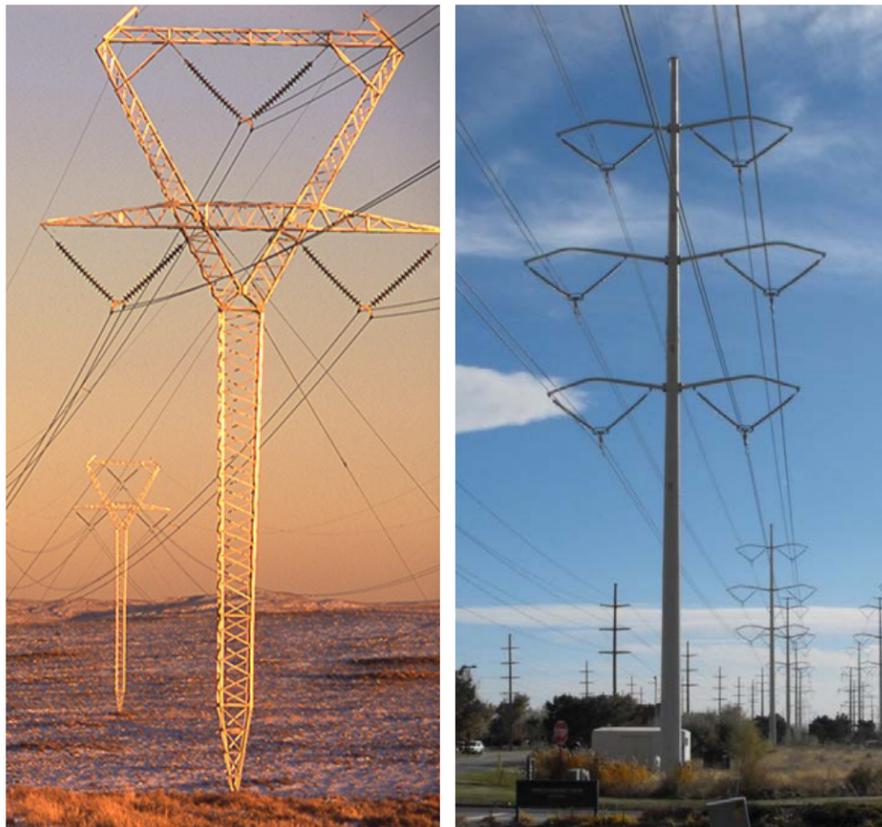


Conductor sag caused by extreme weather conditions

MAIN GRID

Main Grid lines typically operate at 230 kV and 345 kV

Energy is transmitted via high voltage lines (230kV, 345kV) from the power plants to major substations.



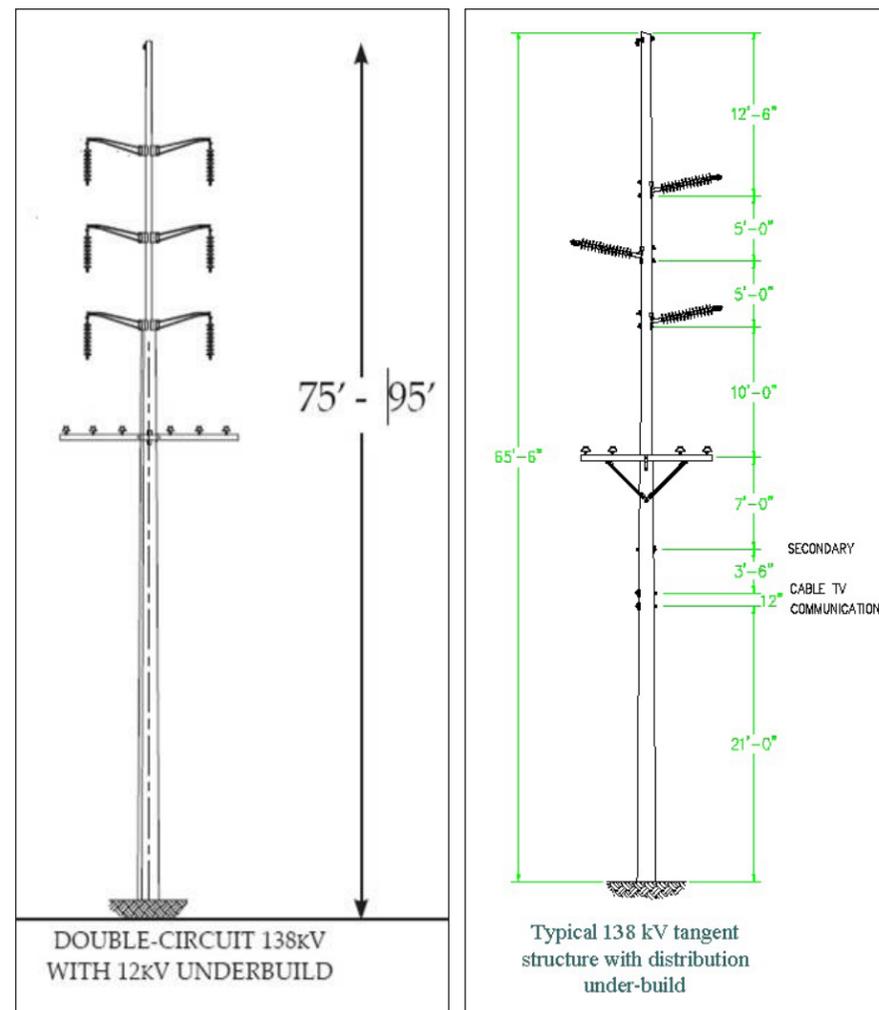
Left: Double circuit 345 kV line in a power line corridor with other lines. Monopole structure is the current typical design. Right: Single circuit 345 kV line in a power corridor with other lines.

Sub-transmission Lines (Local Transmission)

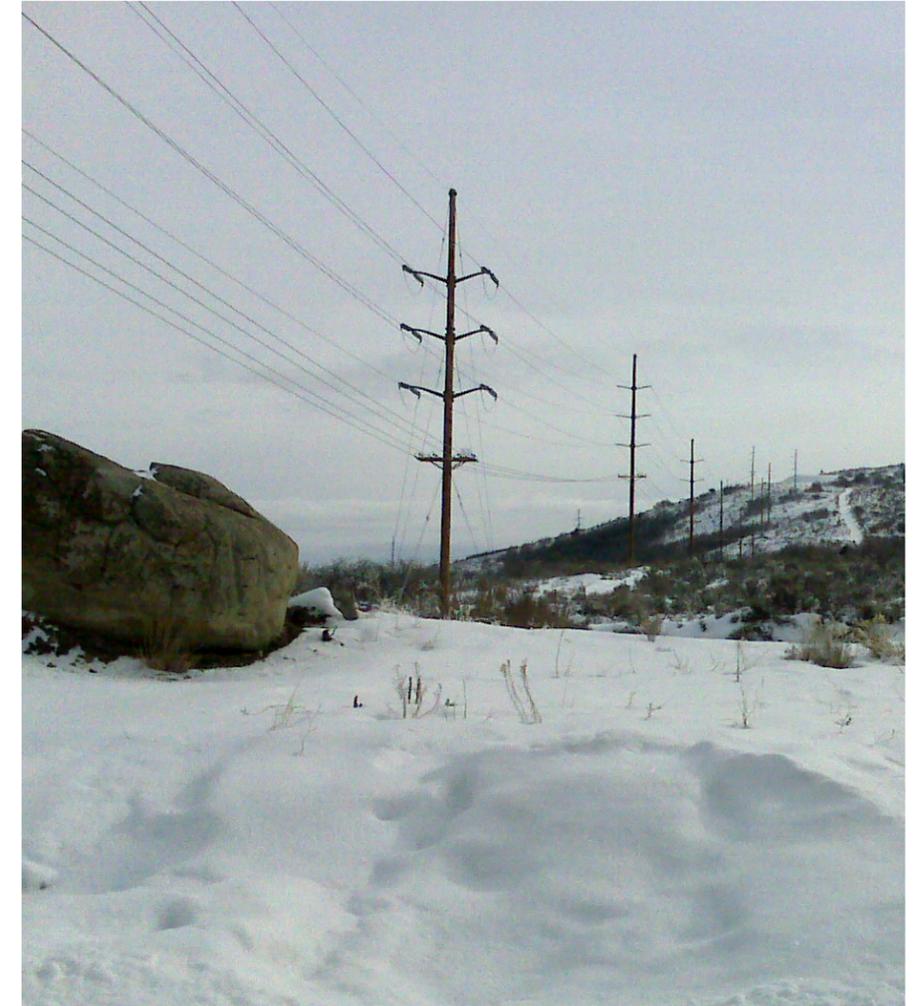
46 kV and 138 kV – Used to transmit energy from main grid substations to regional and local substations.

Double Circuit and Single Circuit 138 kV

Right-of-way is typically around 60 ft. with distances between structures around 300 ft.



138 kV line with 12.5 kV distribution underbuild. Monopole structures.



Double circuit 138 kV line in Summit county

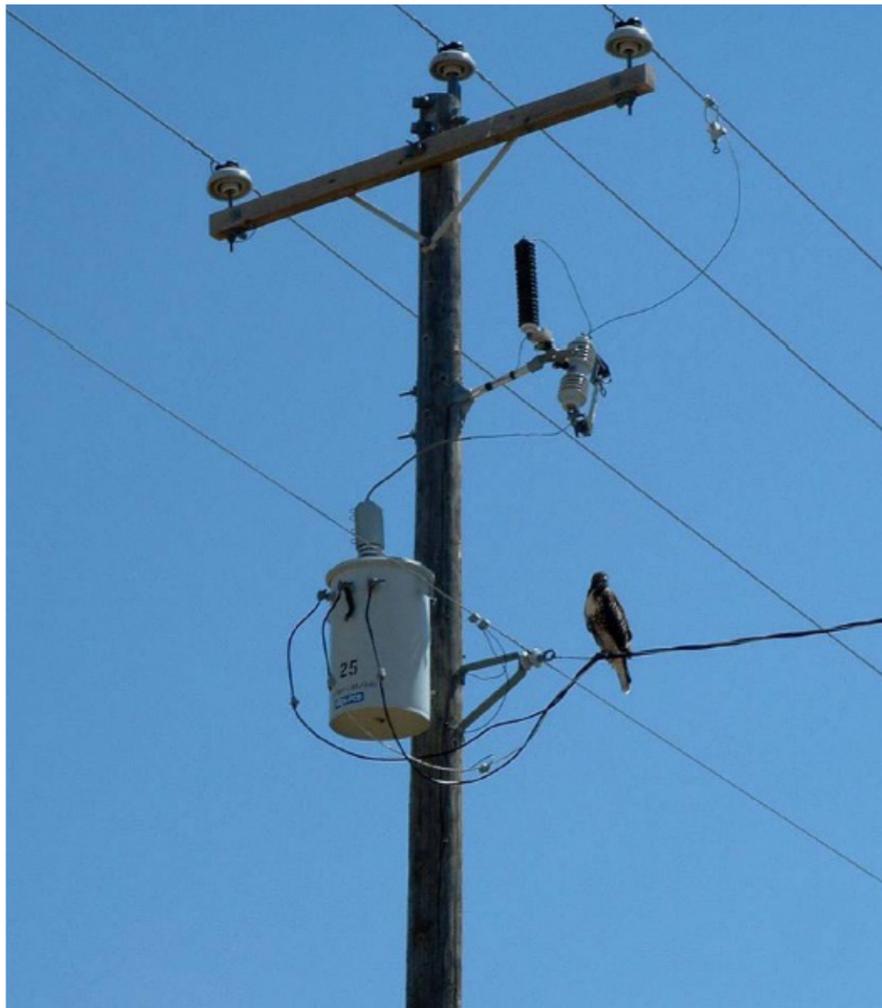
Double Circuit and Single Circuit 46 kV

46 kV lines are similar to 138 kV lines. Older 46 kV lines are usually shorter, however, the current practice is to replace failing 46 kV structures with structures designed to accommodate future 138 kV conversion.

SUBSTATIONS

Distribution

4.16 kV to 12.47 kV



Typical distribution pole

A substation is used to transform or change voltage levels and contain equipment to protect power lines and substation equipment. Substations can contain the following: transformers, switches, capacitors, reactors, and circuit breakers. Generally power flows from a high voltage substation to a regional substation; then to a distribution substation.

Main Grid Transmission

Major substations (main grid): Convert power from high voltage transmission lines (230 kV, 345 kV) to sub-transmission voltages (46 kV, 138 kV)



Midvalley Substation. 345 kV to 138 kV

Main Grid collocated with Sub-Transmission and Distribution

Major substations (main grid): Convert power from high voltage transmission lines (230 kV, 345 kV) to sub-transmission voltages (46 kV, 138 kV) and distribution voltages (12.5 kV, 25 kV).



Above: Camp Williams Substation. 345 kV to 138 kV, 138 kV to 12.5 kV. Below: 90th South Substation 345 kV to 138 kV, 138 kV to 46 kV, 138 kV to 12.5 kV.

Regional Transmission collocated with Distribution

Regional substations (sub-transmission): Convert power from sub-transmission lines (46 kV, 138 kV) to other sub-transmission voltages and distribution voltages (12.5 kV, 25 kV)



Above: Southeast Substation Regional with Distribution. 138 kV to 12.5 kV Below: Silver Creek Substation 138 kV to 46 kV, 138 kV to 12.5 kV.

Distribution

Local substations convert power from sub-transmission lines (46 kV, 138 kV) to distribution voltages (12.5 kV, 25 kV).

Ultimately serves up to 80 MW of load or:

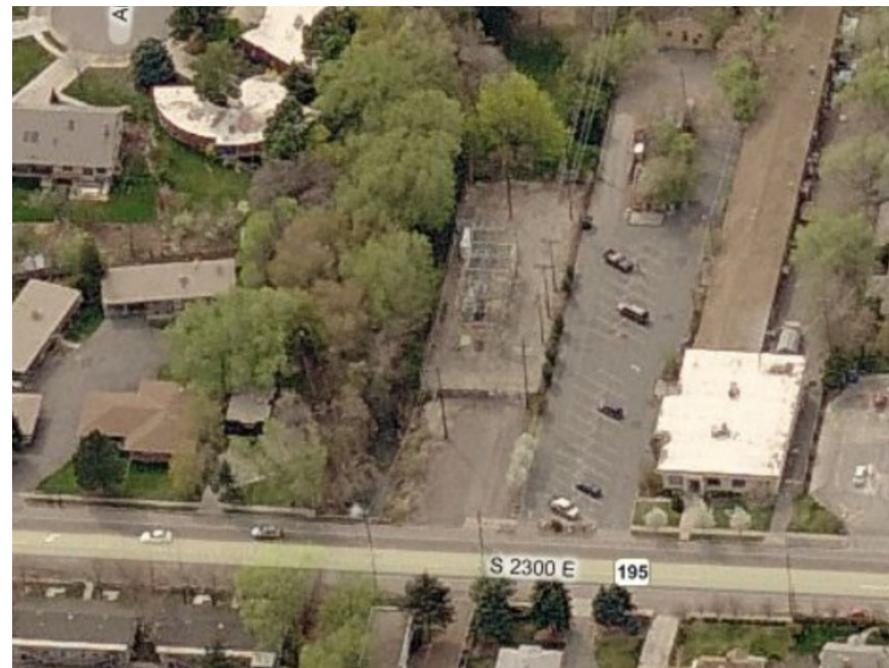
- 1-3 square miles for industrial load
- 2-5 square miles for commercial load
- 6-8 square miles for typical urban residential load (8000 homes)



Above: Meadowbrook Substation aerial view. Below: Meadowbrook Substation street view. 138 kV to 12.5 kV.



Above: Hammer Substation. 138 kV to 12.5 kV Below: Jordanelle Substation. 138 kV to 12.5 kV.



Above: Snyderville Substation aerial view. Below: Snyderville Substation street view. 138 kV to 12.5 kV.

Above: Capitol Substation 46kV to 12.5 kV. Below: East Millcreek Substation street view. 46 kV to 12.5 kV.

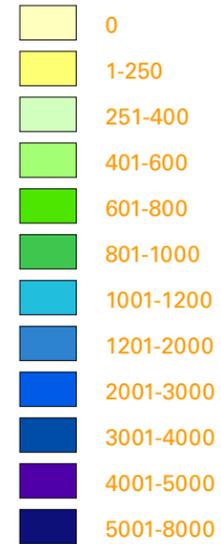
Above: Rose Park Substation 46 kV to 12.5 kV. Below: Park City Substation. 46 kV to 12.5 kV.

Appendix C: Growth assumptions

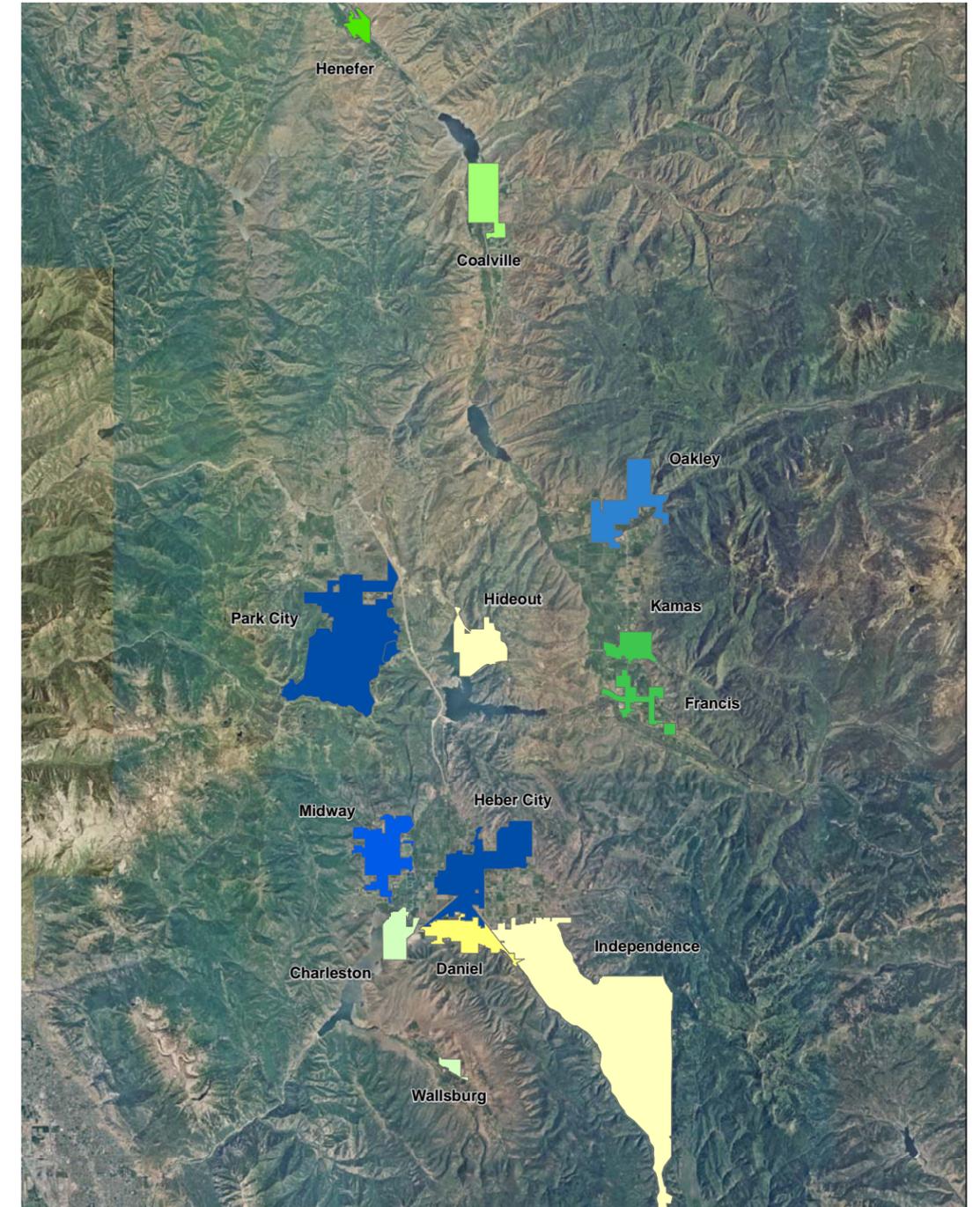
In order to establish a planning horizon year the task force was provided population projection by municipality at 2020 and 2030. The source data was provided by Mountainland Association of Governments.

POPULATION GROWTH LEGEND

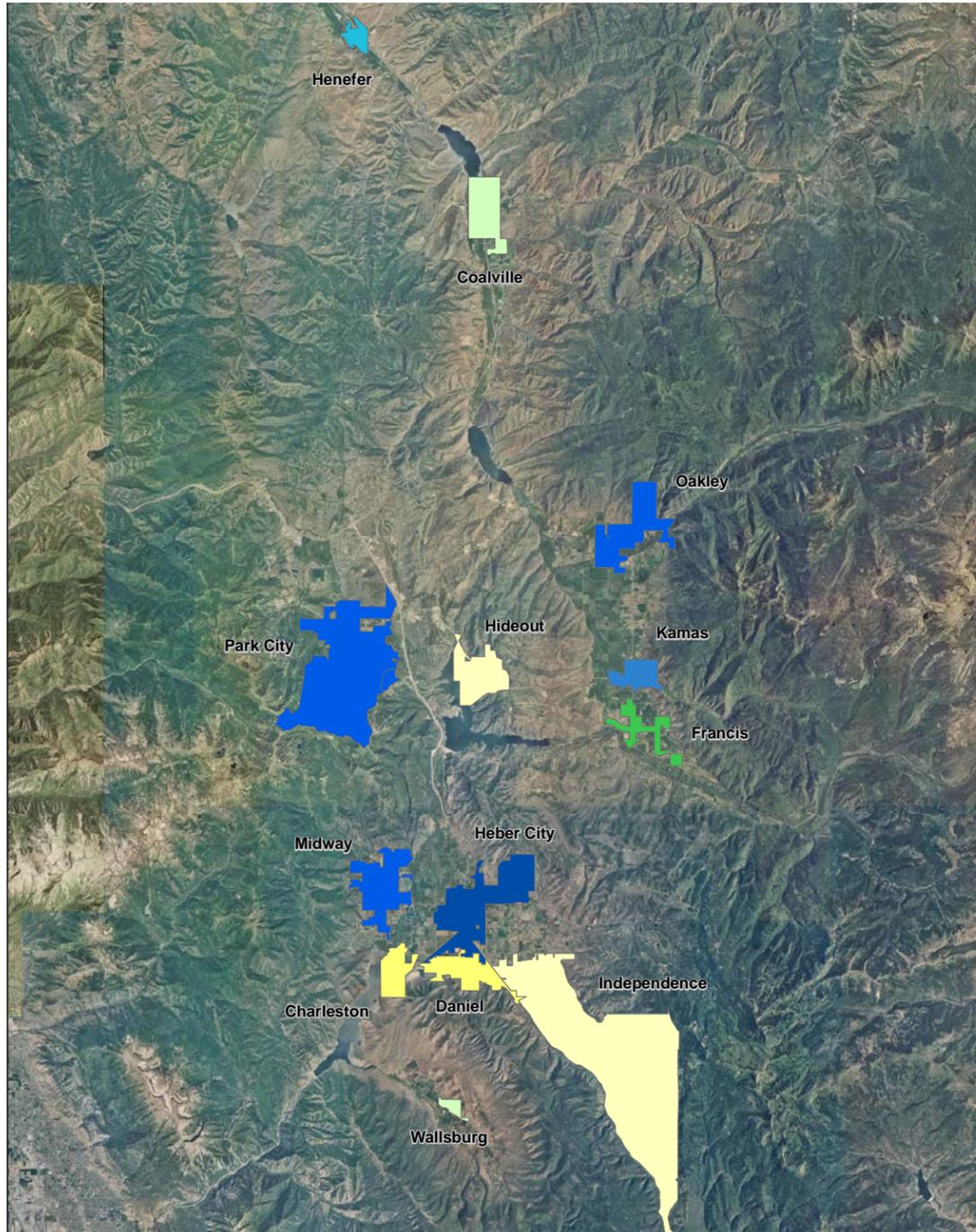
New Population by Municipality



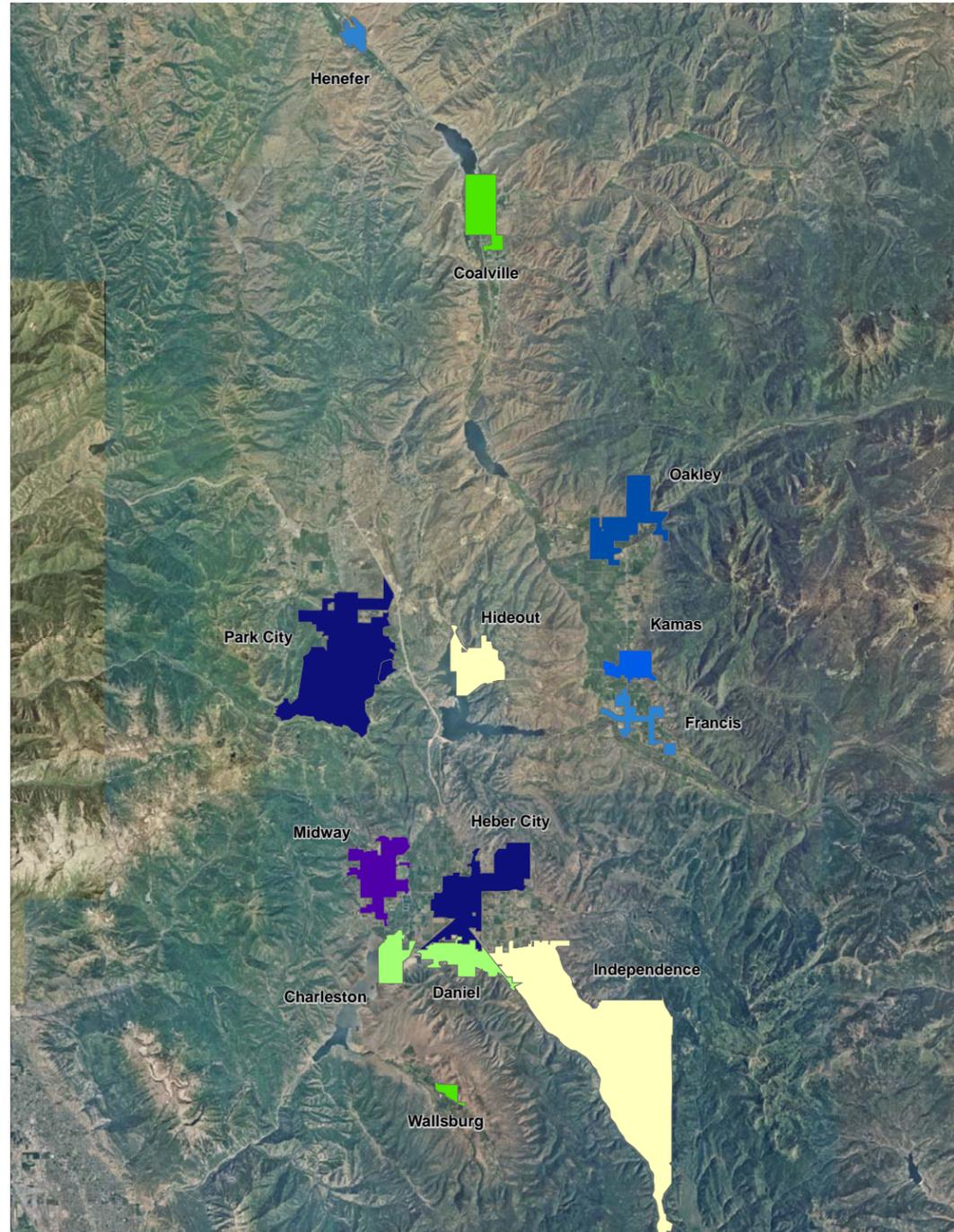
POPULATION GROWTH 2010-2020



POPULATION GROWTH 2020-2030



TOTAL POPULATION R 2010-2030



Appendix D: Scorecard

A scorecard was developed as a tool for local jurisdictions and Rocky Mountain Power to use in evaluating alternative locations for new facilities. It provides a means to compare specific locations in terms of how well each site meets the siting criteria established by the task force. It is not intended to replace careful consideration and debate about the relative benefits or impacts of specific locations. Rather, it is a tool to be used in combination with other information to facilitate comparative evaluation.

INSTRUCTIONS FOR USE

The scorecard is separated into two sections, one for substations and one for transmission lines. To score the potential site, ask yourself how well the location meets each criterion and enter an x in the corresponding line. Then multiply the score for each criterion by the corresponding criterion weight to produce a total score for that criterion. The weight assigned to each criterion corresponds to the priority it was given by the task force and shown in the Siting Criteria section of this document. Finally, sum the points in the last column to obtain a total score for the potential infrastructure location.

The scorecard spreadsheet can also be found at:

www.rockymountainpower.net/planning

Summit Wasatch Electrical Plan SAMPLE Scorecard

SUBSTATIONS				
Location Criteria	SCORE how well the criterion is met	Enter X where appropriate	Criterion WEIGHT	Criterion TOTAL = score X weight
2A Maximize use of existing facilities and adjacent properties before building new facilities	Substantially (2 points)		3	3
	Partially (1 point)	x		
	Poorly (0 points)			
2B Use topography to reduce visual impacts	Substantially (2 points)	x	3	6
	Partially (1 point)			
	Poorly (0 points)			
2C Protect significant viewsheds	Substantially (2 points)		3	3
	Partially (1 point)	x		
	Poorly (0 points)			
2D Build aesthetically pleasing facilities	Substantially (2 points)	x	3	6
	Partially (1 point)			
	Poorly (0 points)			
2E Avoid dedicated open space and parks	Substantially (2 points)		2	0
	Partially (1 point)			
	Poorly (0 points)	x		
2F Use areas with high development potential	Substantially (2 points)		2	2
	Partially (1 point)	x		
	Poorly (0 points)			
2G Avoid residential neighborhoods	Substantially (2 points)	x	2	4
	Partially (1 point)			
	Poorly (0 points)			
2H Avoid adverse aesthetic impacts on development	Substantially (2 points)		2	2
	Partially (1 point)	x		
	Poorly (0 points)			
2I Avoid discrimination based on income or ethnicity	Substantially (2 points)	x	1	2
	Partially (1 point)			
	Poorly (0 points)			
2J Utilize land adjacent to other infrastructure	Substantially (2 points)		1	1
	Partially (1 point)	x		
	Poorly (0 points)			
2K Protect critical habitat, wetlands, rivers and stream corridors	Substantially (2 points)		1	0
	Partially (1 point)			
	Poorly (0 points)	x		
SUBSTATION TOTAL				29

Summit Wasatch Electrical Plan Scorecard

SUBSTATIONS				
Location Criteria	SCORE how well the criterion is met	Enter X where appropriate	Criterion WEIGHT	Criterion TOTAL = score X weight
2A Maximize use of existing facilities and adjacent properties before building new facilities	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
2B Use topography to reduce visual impacts	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
2C Protect significant viewsheds	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
2D Build aesthetically pleasing facilities	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
2E Avoid dedicated open space and parks	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
2F Use areas with high development potential	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
2G Avoid residential neighborhoods	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
2H Avoid adverse aesthetic impacts on development	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
2I Avoid discrimination based on income or ethnicity	Substantially (2 points)		1	
	Partially (1 point)			
	Poorly (0 points)			
2J Utilize land adjacent to other infrastructure	Substantially (2 points)		1	
	Partially (1 point)			
	Poorly (0 points)			
2K Protect critical habitat, wetlands, rivers and stream corridors	Substantially (2 points)		1	
	Partially (1 point)			
	Poorly (0 points)			
SUBSTATION TOTAL				0

Summit Wasatch Electrical Plan Scorecard

TRANSMISSION LINES				
Location Criteria	SCORE how well the criterion is met	Enter X where appropriate	Criterion WEIGHT	Criterion TOTAL = score X weight
3A Protect significant viewsheds	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
3B Upgrade existing facilities before building new facilities	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
3C Avoid dedicated open space and parks	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
3D Build aesthetically pleasing facilities	Substantially (2 points)		3	
	Partially (1 point)			
	Poorly (0 points)			
3E Share rights-of-way with utilities, trails, railroads, canals, roads, etc.	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
3F Avoid residential neighborhoods	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
3G Use areas with high development potential	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
3H Avoid discrimination based on income or ethnicity	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
3I Avoid adverse aesthetic impacts on development	Substantially (2 points)		2	
	Partially (1 point)			
	Poorly (0 points)			
3J Protect critical habitat, river and stream corridors	Substantially (2 points)		1	
	Partially (1 point)			
	Poorly (0 points)			
3K Avoid existing trails	Substantially (2 points)		1	
	Partially (1 point)			
	Poorly (0 points)			
3L Select sites that allow operations and maintenance access	Substantially (2 points)		1	
	Partially (1 point)			
	Poorly (0 points)			
3M Utilize large format (big-box) retail	Substantially (2 points)		1	
	Partially (1 point)			
	Poorly (0 points)			
TRANSMISSION TOTAL				0



Exhibit CBA-2

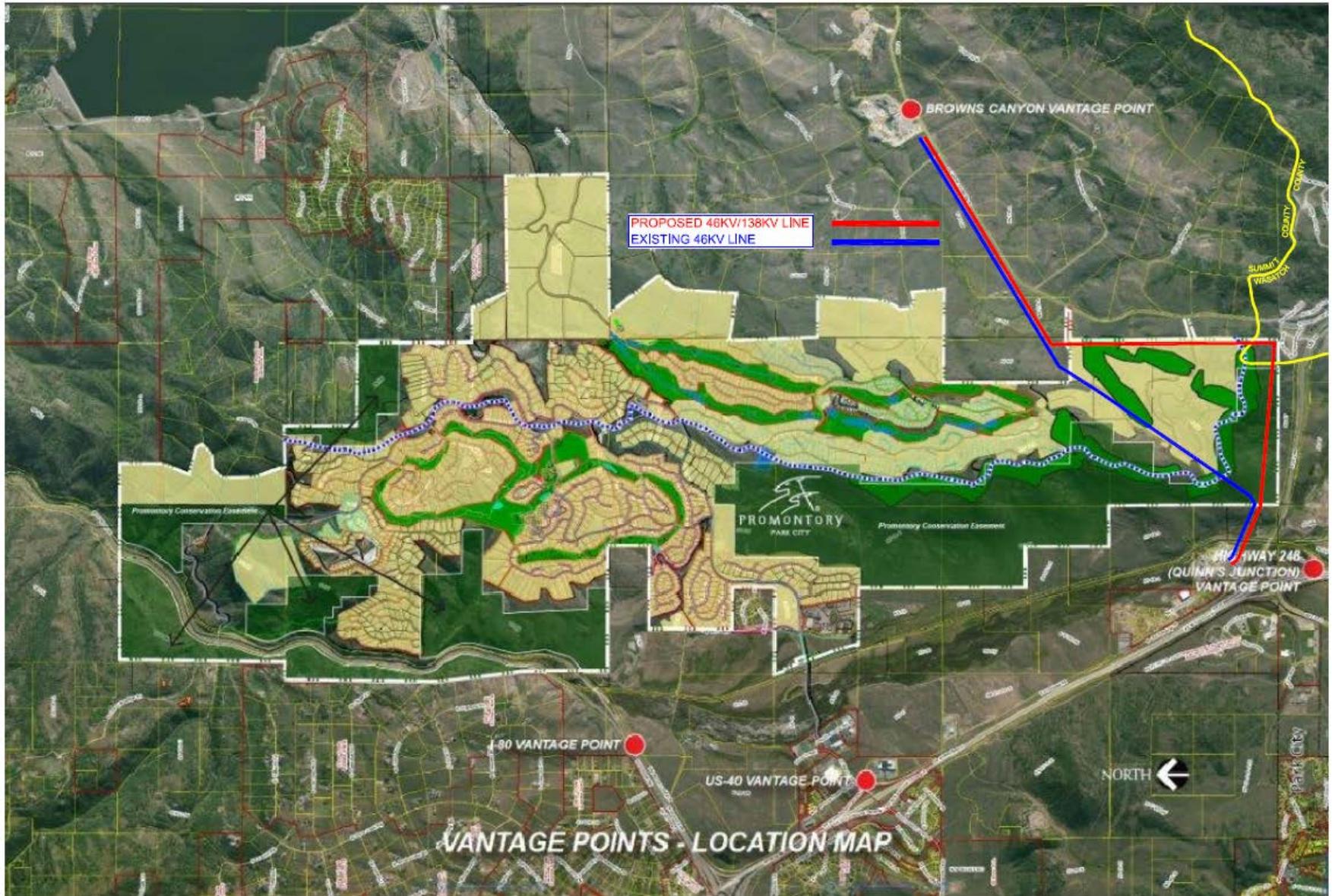


Exhibit CBA-3

Promontory Development Southwest Wyoming to Silver Creek Transmission Project

<u>Route</u>	<u>Route Name & Note</u>	(Millions)		<u>Pole Type</u>	<u>Length of Route (Miles)</u>	<u>RMP Acquired Right of Way</u>
		<u>Block Costs (a)</u>	<u>+/-50% Pole Count</u>			
A	Existing ROW (1)	\$1.39	20	18 Single Wood/2 Steel	1.4	
	Construction costs	1.35				
	Right of Way (ROW)	0.04				10'
B (1)	RMP Proposed (2)	\$1.39	20	17 Single Wood/3 Wood Guyed	1.4	
	Construction costs	1.39				
	Right of Way (ROW)	0.00				60' provided by Promontory
B(2)	RMP Proposed (3)	2.07	20	17 Single Wood/3 Steel	1.4	
	Construction costs	2.07				
	Right of Way (ROW)	0.00				60' provided by Promontory
C(1)	Promontory Boundary (4)	\$2.90	35	30 Single Wood/5 Steel(non-guyed)	2.4	
	Construction costs	2.9				
	Right of Way (ROW)	0.00				60' provided by Promontory
C(2)	Promontory Boundary (4)	\$2.35	35	30 Single Wood/5 Steel(guyed)	2.4	
	Construction costs	2.35				
	Right of Way (ROW)	0.00				60' provided by Promontory

Notes:

1- Preferred RMP Route, RMP Covers all costs and will build pole for pole where possible, RMP pays value of incremental ROW at appraised value.

2-RMP Accomodation Route (B1), All ROW will need to be provided by Promontory to RMP and construct road RMP will pay the incremental cost over the Route A.

3- RMP Accomodation Route (B2) Same location as B1 but uses 3 steel self supporting structures costing almost 3/4's of million \$ more This incremental difference would need to be paid by Promontory along with road construction and all easements.

4- If Promontory chooses this route, Promontory will be responsible for the construction cost differential between A and C routes and will need to sign a line relocation agreement, will need to pay for reengineering of this route in order to come up with detailed cost estimates used for an agreement, and must provide access.

Promontory would also need to get the easement from the landowner to the north as discussed.

IMPORTANT-- These costs are for comparison only. Alternative designs are available that will lower the costs of all alternatives. Route comparison costs will be between similar designs.

a- April 27, 2010

** This route has not yet been block estimated rather these figures should be very similar to Route A.

Exhibit CBA-4

**CONSTRUCTION AGREEMENT FOR RELOCATION WORK
BETWEEN
ROCKY MOUNTAIN POWER
AND
PROMONTORY DEVELOPMENT, LLC
AND PROMONTORY INVESTMENTS, LLC**

This CONSTRUCTION AGREEMENT FOR RELOCATION WORK (“Agreement”), is entered into on this 30th day of December 2010, by and between PacifiCorp, an Oregon corporation doing business in Utah as Rocky Mountain Power (“Rocky Mountain Power”), and Promontory Investments, LLC, an Arizona limited liability company, together with Promontory Development, LLC, an Arizona limited liability company (herein collectively referred to as “Promontory”), for work to be performed in relation to the removal and replacement of certain Rocky Mountain Power facilities (referred to respectively as the “Existing Facilities” and the “Replacement Facilities”) located in Summit County, Utah. Rocky Mountain Power and Promontory are each sometimes referred to herein as “Party” or collectively as “Parties.”

RECITALS

A. Rocky Mountain Power is constructing a new double-circuit 138 kV transmission line to replace an existing 46 kV line from Wyoming to a certain electrical substation in Summit County referred to as the Silver Creek Substation. The transmission line project is referred to as the Silver Creek Transmission Line Project or the “Project.”

B. The Project involves replacing a segment of the existing 46 kV transmission line (“Existing Facilities”) located within land owned by Promontory with the new double-circuit 138 kV transmission line (the “Replacement Facilities”).

C. For the benefit of existing and future development of the Promontory lands, Promontory has requested that the Project be located within an alternative alignment (the “Alternative Alignment”) on Promontory lands that will route the transmission line around the boundary of the property and away from areas that are or will be developed. Rocky Mountain Power shall construct the Replacement Facilities within the Alternative Alignment provided that Promontory pays the sum certain recited herein below and grants an easement on the boundary of its property to accommodate the Replacement Facilities in approximately the location indicated on attached Exhibit A.

D. Rocky Mountain Power shall perform the work necessary to remove the Existing Facilities, release and abandon the underlying easement, and install the Replacement Facilities, constructed in accordance with Rocky Mountain Power standards, in consideration of the covenants herein, and Promontory agrees to forego all its rights to just compensation and to grant a new easement, subject to all the terms and conditions of this Agreement provided all conditions specified herein are satisfied and this Agreement is not terminated by either party.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which the Parties acknowledge, the Parties agree to the following terms and conditions.

SECTION 1: DESCRIPTION OF WORK

1.1 Scope of Work. Subject to the conditions precedent set forth in Section 1.4, Rocky Mountain Power agrees to remove that certain segment of the Existing Facilities located on the lands owned by Promontory as more particularly shown on the map attached hereto as Exhibit "A" and incorporated herein by this reference. Rocky Mountain Power shall construct the Replacement Facilities within the Alternative Alignment also as shown on Exhibit "A." Rocky Mountain Power shall commence actual construction of the segment of the Project on Promontory property no sooner than February 2012, in order to achieve settlement of legal issues related to the relocation provided for herein.

1.2 Project Easement. Promontory shall execute the transmission line easement agreement attached hereto as Exhibit "B" for the Replacement Facilities. The easement shall be executed and submitted with the Initial Payment, as described in Paragraph 2.1, on March 1, 2011. Consideration for the easement shall be Rocky Mountain Power's relocation of the Replacement Facilities and release of the easement for the Existing Facilities. The transmission line easement shall not be effective, and Rocky Mountain Power agrees not to record the same until the Conditions Precedent set forth in Section 1.4 below are satisfied. Recordation of the transmission line easement for the Replacement Facilities shall constitute acknowledgement by Rocky Mountain Power that such Conditions Precedent have been satisfied.

1.3 Removal of Existing Facilities and Easement. Rocky Mountain Power shall remove the Existing Facilities, including all poles, wires, stakes, guy wires, conduit, concrete bases, if any exist, two feet below grade, and other appurtenances, and to fill all excavations and otherwise restore any damage to the underlying ground and natural vegetation caused by such removal (including drainage control where necessary) within 90 days after the completion and energization of the Replacement Facilities, weather permitting. If removal cannot be completed due to weather conditions, Rocky Mountain Power shall remove the Existing Facilities as soon as reasonably practical. Within 30 days of completion of the removal of the Existing Facilities, and after Promontory has paid the entire amount for the project, Rocky Mountain Power agrees to execute and deliver to Promontory a release in recordable format of all of its right, title, and interest in and to the existing easement underlying the Existing Facilities.

1.4 Conditions Precedent.

(a) A certain segment of the Alternative Alignment requires that the Project is constructed within a new alignment on property not owned or controlled by Promontory (the "Rogers Property") and for which Rocky Mountain Power

will need to obtain additional replacement rights. The terms set forth herein and the agreement to construct the Relocated Facilities within the Alternative Alignment shall be conditioned upon Rocky Mountain Power obtaining an easement for that portion of the project within the new alignment on the Rogers Property, approximately as shown on Exhibit "A" or otherwise in order to provide a connection to the Alternative alignment, on terms acceptable to Rocky Mountain Power. If Rocky Mountain Power is unable to obtain the necessary easement rights for the Project on the Rogers Property by March 1, 2011, either Rocky Mountain Power or Promontory shall have the right to terminate this Agreement by written notice to the other delivered within 30 days of such date.

(b) Rocky Mountain Power has entered into this Agreement without having completed the necessary environmental work and analysis to determine whether Rocky Mountain Power can obtain permits necessary to build the Relocated Facilities within the Alternative Alignment. Such environmental and permitting work will be conducted by Rocky Mountain Power using commercially reasonable efforts and at its expense prior to construction. In the event environmental issues or restrictions are discovered that preclude the construction of the Relocated Facilities within the Alternative Alignment, materially increase Project costs, or cause a material delay to the Project, Rocky Mountain Power may at any time prior to commencement of construction terminate this Agreement by giving notice to Promontory and refunding the Initial Payment and Final Payment (to the extent such payments may have been already made by Promontory) and returning the unrecorded transmission line easement to Promontory or, if the easement has been recorded, recording the release of the transmission line easement provided by Promontory as required in Section 2.1 hereinbelow.

1.5 Access to and Ownership of Rocky Mountain Power Facilities. The Existing Facilities and the Replacement Facilities shall at all times be and remain the property of Rocky Mountain Power. Rocky Mountain Power shall design, construct, install, and operate the Replacement Facilities in accordance with Rocky Mountain Power standards.

1.6 No Dedication of Facilities. The undertakings of Rocky Mountain Power under this Agreement are rendered strictly as an accommodation for consideration and do not constitute the provision of a public utility service, or the dedication of all or any portion of the Rocky Mountain Power electric system to Promontory, the public, or any third party.

1.7 Term of Agreement. This Agreement shall, unless terminated by either party as provided for herein, be effective upon the date executed by both Parties, and shall remain in effect until the Replacement Facilities have been completed, the Existing Facilities have been removed, and until each Party has satisfied its obligations hereunder to the other, including without limitation any payment obligations and, shall continue in effect to the extent necessary to provide for final billings, billing adjustments, and the

determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect.

SECTION 2: PAYMENT FOR CONSTRUCTION COSTS

2.1 Relocation Costs. Promontory agrees to pay the sum of \$275,000 for its share of the cost to build the Replacement Facilities in the Alternative Alignment. An initial payment ("Initial Payment") in the amount of \$75,000 shall be paid to Rocky Mountain Power on March 1, 2011 for Rocky Mountain Power's cost for the design and other preliminary work on the Replacement Facilities. The Initial Payment shall be nonrefundable except as provided in Paragraph 1.4(b). The obligation to pay the remaining balance in the amount of \$200,000 (the "Final Payment") shall be paid to Rocky Mountain Power on or before January 1, 2012. Rocky Mountain Power shall have the right to record a trust deed or other similar security interest against a Promontory residential custom lot with as assessed taxable value of no less than \$200,000, which lot shall be mutually agreeable to Rocky Mountain Power and Promontory and must be identified prior to March 1, 2011, as security for Promontory's obligation for full and complete payment of the \$200,000 Final Payment. If the Parties cannot agree on the lot to be used as security for Promontory's obligation for Final Payment by March 1, 2011, this Agreement shall be terminated. The trust deed may be recorded March 1, 2011 and shall be released of record promptly upon Promontory's making its Final Payment as required hereunder. Promontory and Rocky Mountain Power shall mutually agree on the form of Deed of Trust and form of Release for recording by Rocky Mountain Power as provided in this Section 2.1.

2.2 Payments. Relocation payments shall be made to the following address:

Attention: Contract Administrator
C&I Account Management
825 NE Multnomah, Suite 800
Portland, OR 97232

SECTION 3: LIMITATIONS ON LIABILITY; WARRANTIES; INDEMNIFICATION

In the event of a material breach of this Agreement, under no circumstances shall either Party be liable to the other Party for any lost or prospective profits or any other special, punitive, exemplary, consequential, incidental or indirect losses or damages (in tort, contract or otherwise) under or in respect of this Agreement or for any failure of performance related hereto howsoever caused, whether or not arising from sole, joint or concurrent negligence; and without affecting any other limitations of this Agreement, each Party's liability to each other shall in every event be limited to the payment or refund of amounts due hereunder. This paragraph shall have no application to any rights relating to condemnation or condemnation proceedings in the event of this Agreement's termination, and Promontory's rights to compensation in any such proceedings shall be completely unaffected by anything herein.

Rocky Mountain Power warrants that its work shall be consistent with prudent utility practices. ROCKY MOUNTAIN POWER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND SIMILAR WARRANTIES.

The parties hereto each agree to indemnify, defend and hold harmless the other and their officers, directors, agents, and employees and successors and assigns from any and all claims, demands, suits, losses, costs, and damages of any nature whatsoever, including attorney's fees and other costs of litigation brought or made against or incurred by a party hereto and resulting from, arising out of, or in any way connected with any act, omission, fault or negligence of a party hereto, its employees or any officer, director, or employee or agent of the same and related to the subject matter of this Agreement. This indemnity obligation shall include, but not be limited to, loss of or damage to property, bodily or personal injury to, or the death of any person. The parties' obligation under this provision of the Agreement shall not extend to liability caused by the sole negligence or intentional or willful misconduct of the other party.

SECTION 4: FORCE MAJEURE

Neither Party shall be subject to any liability or damages for failure to perform their respective obligations hereunder to the extent that such failure shall be due to causes beyond the control of the Party claiming force majeure protection, including but not limited to the following: (a) the operation and effect of any rules, regulations and orders promulgated by any commission, municipality, or governmental agency of the United States, or subdivision thereof; (b) restraining order, injunction or similar decree of any court; (c) war; (d) flood; (e) earthquake; (f) act of God; (g) sabotage; or (h) strikes or boycotts. The Party claiming Force Majeure under this provision shall make every reasonable attempt to remedy the cause thereof as diligently and expeditiously as possible.

SECTION 5: MISCELLANEOUS PROVISIONS

5.1 Attorney's Fees. In any suit or action, arising out of or related to this Agreement involving a claim, counterclaim or cross-claim made by any Party against any other Party, the substantially prevailing Party shall be entitled to recover the costs and fees (including, without limitation, reasonable attorneys' fees, the fees and costs of experts and consultants, copying, courier and telecommunication costs, and deposition costs and all other costs of discovery) incurred by such substantially prevailing Party in such suit or action, including, without limitation, any post-trial or appellate proceeding, or in the collection or enforcement of any judgment or award entered or made in such suit or action.

5.2 Governing Law. All provisions of this Agreement and the rights and obligations of the Parties shall in all cases be governed by and construed in accordance

with the laws of the state of Utah applicable to contracts executed in and to be wholly performed in Utah by persons domiciled in the state of Utah. Each Party hereto agrees that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby or thereby, may only be brought before the federal courts located within Salt Lake County in the state of Utah, or state courts of the state of Utah located in Summit County, and each Party hereby consents to the exclusive jurisdiction of such forums (and of the appellate courts therefrom) in any such suit, action or proceeding. Furthermore, each Party hereto waives, to the extent permitted by law, any objection which it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such forum or that any such suit, action or proceeding which is brought in any such forum has been brought in any inconvenient forum. If for any reason, service of process cannot be found in the state of Utah, process in any such suit, action or proceeding may be served on a Party anywhere in the world, whether within or without the jurisdiction of any such forum.

5.3 Binding Effect. The provisions of this Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective heirs, executors, administrators, successors and assigns; provided, Promontory shall not assign this Agreement to any successor without the prior written consent of Rocky Mountain Power, which consent shall not be unreasonably withheld.

5.4 No Third-party Beneficiaries. Nothing contained in this Agreement shall be construed to create an agency relationship, association, joint venture, trust, or partnership, or impose a trust or partnership covenant, obligation, or liability on or with regard to either of the Parties. Each Party shall be individually responsible for its own covenants, obligations, and liabilities under this Agreement. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability or inference of liability to any third party.

5.5 Waiver. Failure of any Party at any time to require performance of any provision of this Agreement shall not limit such Party's right to enforce such provision, nor shall any waiver of any breach of any provision of this Agreement constitute a waiver of any succeeding breach of such provision or a waiver of such provision itself.

5.6 Amendment. This Agreement may not be modified or amended except by the written agreement of the Parties. No modification to this Agreement shall be deemed to be a waiver and binding unless in writing and signed by the party to be bound.

5.7 Severability. If any term or provision of this Agreement or the application thereof to any person or circumstance shall to any extent be held invalid or unenforceable, the remainder of this Agreement and the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable shall not be affected thereby, and each term or provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

free to assert any and all rights, claims, and defenses that were otherwise available to them notwithstanding entering into this Agreement.

SECTION 6: INTEGRATION

This Agreement replaces and supersedes in the entirety all prior agreements among the Parties related to the same subject matter.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized officers as of the date first herein written.

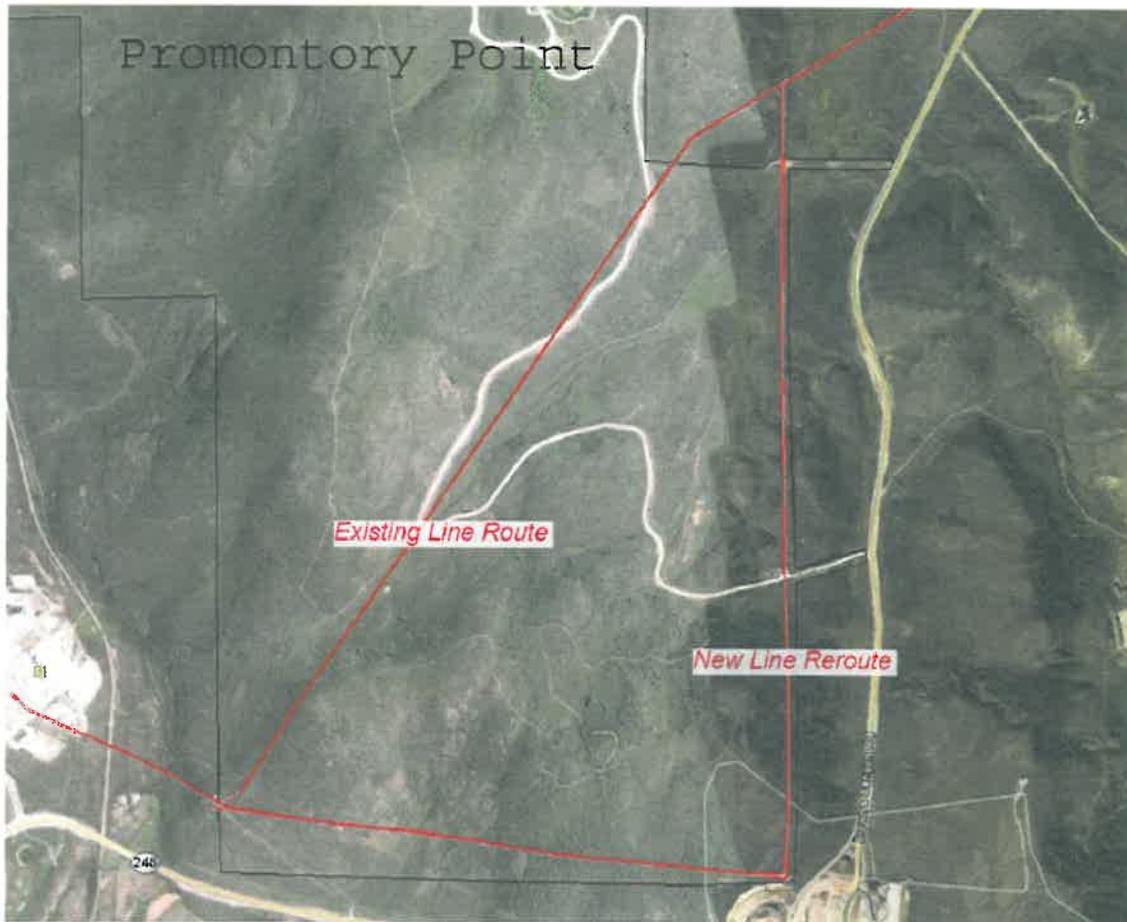
PROMONTORY

By: 
Name: Richard A. Smitsky
Title: Managing Director

ROCKY MOUNTAIN POWER

By: 
Name: PAUL RADAKOVICH
Title: VP, OPERATIONS

EXHIBIT A
(Map of Existing Easement and Alternative Alignment)



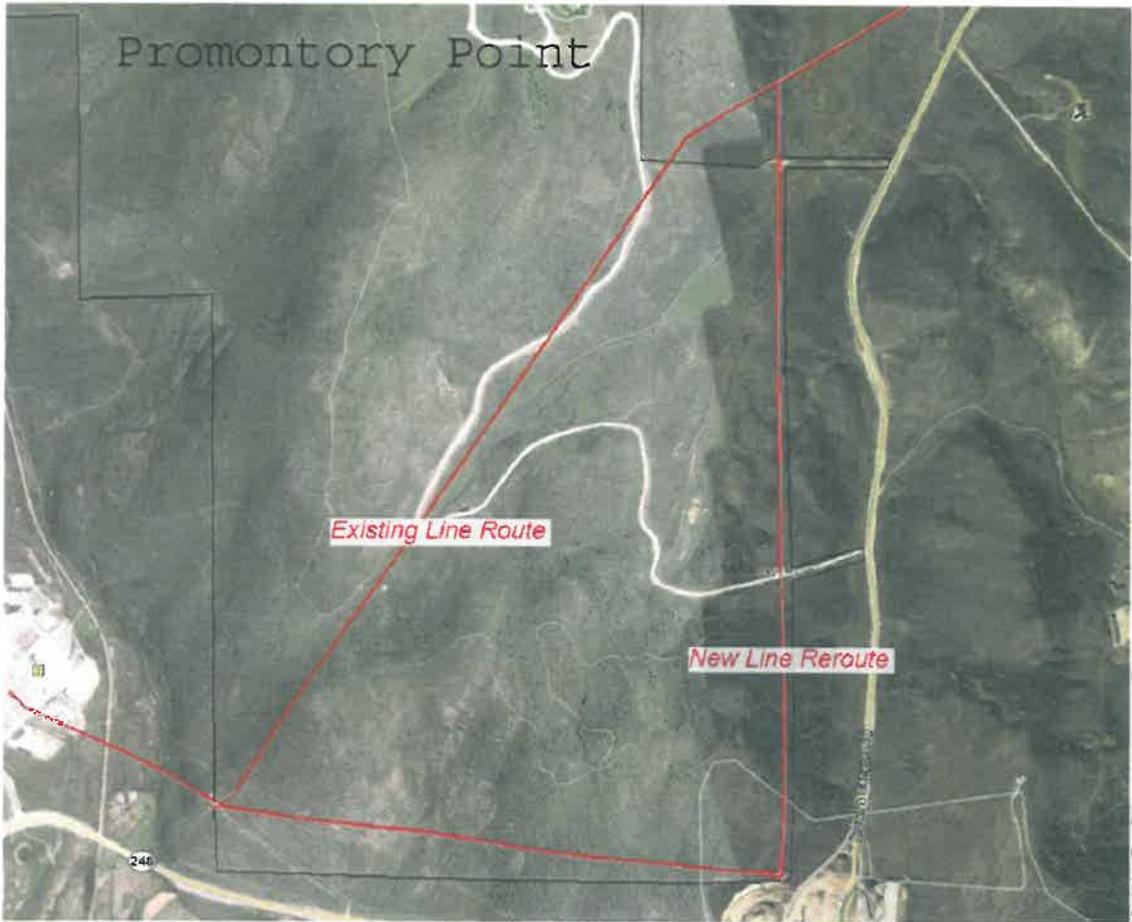


EXHIBIT B
(Transmission Line Easement)

When recorded return to:
Rocky Mountain Power
Lisa Louder/ Debbie Mounter
1407 West North Temple Ste. 110
Salt Lake City, UT 84116

Project Name: SW Wyoming Silvercreek
Tract Number: SWSC-UT-SU
WO#: 10034244
RW#: 20080010

RIGHT OF WAY EASEMENT

For value received, **Promontory Investments, LLC (to be verified by deed)** (“Grantor”), hereby grants to PacifiCorp, an Oregon Corporation, d/b/a Rocky Mountain Power its successors and assigns, (“Grantee”), an easement sixty (60) feet in width, solely for a right of way for the construction, operation, maintenance, repair, and removal only of a 138 kV transmission line consisting of six (6) conductors and ____ poles and all other necessary accessories and appurtenances thereto, including without limitation: supporting towers, poles, props, guys and anchors; and pads, transformers, static wires, switches, vaults and cabinets, along the general course on, over, or under the surface of the real property of Grantor in **Summit** County, State of **Utah** more particularly described as follows and as more particularly described and/or shown on Exhibit A attached hereto and by this reference made a part hereof:

Legal Description: **(Insert legal description of easement here)**

Located within Assessor Parcels No. **SS-54-A and SS-66**

Together with the right of access to the right of way from adjacent lands of Grantor for all activities in connection with the purposes for which this easement has been granted; and together with the present and (without payment therefor) the future right to keep the right of way clear of all brush, trees, timber, structures, buildings and other hazards which might endanger Grantee’s facilities or impede Grantee’s activities.

At no time shall Grantor place, use or permit any equipment or material of any kind that exceeds twelve (12) feet in height, light any fires, place or store any flammable materials (other than agricultural crops), on or within the boundaries of the right of way. Subject to the foregoing limitations, the surface of the right of way may be used for agricultural crops, trails and recreational open space uses and other purposes not inconsistent, as reasonably determined by Grantee, with the purposes for which this easement has been granted.

The rights and obligations of the parties hereto shall be binding upon and shall benefit their respective heirs, successors and assigns.

Dated this _____ day of _____, 200__.

(Insert Grantor Name Here) GRANTOR

(Insert Grantor Name Here) GRANTOR

.....
REPRESENTATIVE ACKNOWLEDGEMENT

State of _____ }
County of _____ } SS.

This instrument was acknowledged before me on this _____ day of _____,
_____, by _____, as _____,
Year Name of Representative Title of Representative

of _____.
Name of Entity on behalf of whom instrument was executed

[Seal]

Notary Public
My commission expires: _____



INTERNAL CORRESPONDENCE

DATE: December 5, 2011
TO: Records Management
FROM: Jim Hermann
SUBJECT: **PROMONTORY DEVELOPMENT LLC- RELO AND
CONSTRUCTION AGREEMENT**

WORK ORDER NUMBER: 10033655 / 10040276
CONTRACT NUMBER: NA

Enclosed is one original of the RELO AND CONSTRUCTION AGREEMENT between PacifiCorp and PROMONTORY DEVELOPMENT LLC. The agreement is dated 11/13/2011.

After Processing into the P8 system, please forward the original to Central Files for Storage.

If you have any questions, please contact me at (503) 331-4448. Thanks for your assistance.

A handwritten signature in black ink, appearing to read "Jim".

CC#:

Order#:

**FIRST AMENDMENT TO
CONSTRUCTION AGREEMENT FOR RELOCATION WORK
BETWEEN
ROCKY MOUNTAIN POWER
AND
PROMONTORY DEVELOPMENT, LLC
AND PROMONTORY INVESTMENTS, LLC**

This FIRST AMENDMENT TO CONSTRUCTION AGREEMENT FOR RELOCATION WORK ("Agreement"), entered into on this 13th day of November, 2011, is by and between is by and between PacifiCorp, an Oregon corporation doing business in Utah as Rocky Mountain Power ("Rocky Mountain Power"), and Promontory LLC, an Arizona limited liability company, together with Promontory Development, LLC (herein collectively referred to as "Promontory", for work to be performed in relation to the removal and replacement of certain Rocky Mountain Power facilities (the "Existing Facilities" and the "Replacement Facilities") located in Summit County Utah. Rocky Mountain Power and Promontory are each sometimes referred to herein as "Party or collectively as "Parties".

WHEREAS, the Parties entered into that certain Construction Agreement for Relocation Work on December 30, 2010.

WHEREAS, the Parties desire to enter into this First Amendment to revise certain terms and conditions relating to Payment for Construction costs;

NOW, THEREFORE, the Parties hereto agree to the as following:

IN SECTION 2: PAYMENT FOR CONSTRUCTION COSTS shall be amended as follows:

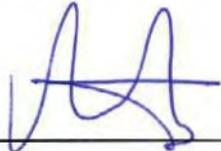
2.1 Relocation Costs. Promontory agrees to pay the sum of \$275,000 for its share of the cost to build the Replacement Facilities in the Alternative Alignment. An initial payment ("Initial Payment") in the amount of \$75,000 shall be paid to Rocky Mountain Power on March 1, 2011 for Rocky Mountain Power's cost for the design and other preliminary work on the Replacement Facilities. The Initial Payment shall be nonrefundable except as provided in Paragraph 1.4(b). The obligation to pay the remaining balance in the amount of \$200,000 (the "Final Payment") shall be paid to Rocky Mountain Power on January 1, 2013 or, in the event completion of phase two of the transmission line upgrade is deferred to a later year, to January 1 of such later year.

Rocky Mountain Power shall have the right to record a trust deed or other similar security interest against a Promontory residential custom lot with as assessed taxable value of no less than \$200,000, which lot shall be mutually agreeable to Rocky Mountain Power and Promontory and must be identified prior to March 1, 2011, as security for Promontory's obligation for full and complete payment of the \$200,000 Final Payment. If the Parties cannot agree on the lot to be used as security for Promontory's obligation for Final Payment by March 1, 2011, this Agreement shall be terminated. The trust deed may be recorded March 1, 2011 and shall be released of record promptly upon Promontory's making its Final Payment as required hereunder. Promontory and Rocky Mountain Power shall mutually agree on the form of Deed of Trust and form of Release for recording by Rocky Mountain Power as provided in this Section 2.1.

All other terms and conditions in the Construction Agreement for Relocation Work shall remain unchanged.

IN WITNESS WHEREOF, the Parties hereto have caused this First Amendment to be executed by persons duly authorized as of the date first above written.

PROMONTORY

By: 
Name: Richard H. Santay
Title: Managing Director

ROCKY MOUNTAIN POWER

By: 
Name: PAUL RADAKOVICH
Title: VP, OPERATIONS

APPENDIX A
DESCRIPTION OF THE EXISTING FACILITIES

APPENDIX B

DESCRIPTION OF THE REPLACEMENT FACILITIES

PLACEHOLDER FOR MAP

Rich Sonntag

From: Ambrose, Chad [Chad.Ambrose@PacifiCorp.com]
Sent: Monday, November 14, 2011 10:57 AM
To: Rich Sonntag
Cc: Richards, Jeff; Mounteer, Debbie; Myers, Darin; Dettorre, Allen; Hermann, James
Subject: FW: Promontory first amendment to Relocation Construction Agreement 11.11.2011.pdf - Adobe Acrobat Standard
Attachments: Promontory first amendment to Relocation Construction Agreement 11.11.2011.pdf

Hi Rich- Here is the amendment. Please ink 2 copies and you can send them attention to:

James Hermann
Contract Administrator
825 NE Multnomah Suite 800
Portland, OR. 97232

Thanks!

Chad Ambrose Customer & Community Management
Rocky Mountain Power o.801.565.6365 www.rockymtnpower.net

From: Hermann, James
Sent: Friday, November 11, 2011 11:32 AM
To: Ambrose, Chad
Subject: Promontory first amendment to Relocation Construction Agreement 11.11.2011.pdf - Adobe Acrobat Standard

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2012.0.1869 / Virus Database: 2092/4616 - Release Date: 11/14/11

**SECOND AMENDMENT TO
CONSTRUCTION AGREEMENT FOR RELOCATION WORK
BETWEEN
ROCKY MOUNTAIN POWER
AND
PROMONTORY DEVELOPMENT, LLC
AND PROMONTORY INVESTMENTS, LLC**

This Second Amendment to Construction Agreement For Relocation Work (“Agreement”), is entered into on this 2nd day of August 2013, by and between PacifiCorp, an Oregon corporation doing business in Utah as Rocky Mountain Power (“Rocky Mountain Power”), and Promontory, LLC, an Arizona limited liability company, together with Promontory Development, LLC, an Arizona limited liability company (herein collectively referred to as “Promontory”), for work to be performed in relation to the removal and replacement of certain Rocky Mountain Power facilities (referred to respectively as the “Existing Facilities” and the “Replacement Facilities”) located in Summit County, Utah. Rocky Mountain Power and Promontory are each sometimes referred to herein as “Party” or collectively as “Parties.”

RECITALS

A. The Parties entered into that certain Construction Agreement for Relocation Work dated the December 30, 2010, wherein the Rocky Mountain Power agreed to realign an existing transmission line to a location through the Promontory development that Promontory determined provides greater compatibility with its residential development as part of Rocky Mountain Power’s project to upgrade the transmission line.

B. Rocky Mountain Power agreed to relocate the upgraded transmission line to the preferred alignment in exchange for Promontory’s 1) payment of \$275,000, which reflects a portion of the incremental cost difference for constructing the transmission line in Promontory’s preferred location; and 2) the conveyance of an easement from Promontory to Rocky Mountain Power in the preferred alignment.

C. Promontory paid an initial payment in the amount of \$75,000 to Rocky Mountain Power. The Parties agreed that the balance of the funds (\$200,000) would be paid on January 1, 2013, or in the event the project was deferred to a later year, January 1 of the year in which the project was constructed.

D. In order to secure Promontory’s payment of the balance of funds, Promontory executed a deed of trust with Rocky Mountain Power as Trustee dated March 31, 2011. Because the project has been delayed longer than originally anticipated, Promontory has requested and Rocky Mountain Power has agreed, to release the deed of trust, subject to the terms and conditions set forth herein.

NOW, THEREFORE, in exchange of the mutual promises herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree to the following terms and conditions.

1. Rocky Mountain Power agrees to execute a deed of reconveyance in substantially the same form as the Deed of Reconveyance attached hereto as Exhibit "A." Rocky Mountain Power will file the Deed of Reconveyance with the Summit County Recorder's Office for recording upon execution of this Agreement by both Parties

2. Promontory will have a continued obligation to pay Rocky Mountain Power \$200,000 for the incremental cost to realign the transmission line in the agreed upon location according to Recital C. Rocky Mountain Power shall have no obligation to remove the existing transmission line or release the existing easement for the existing power line unless and until such payment is made by Promontory, and Rocky Mountain Power shall have a continued right to exercise its rights under the existing easement as well as the easement that was conveyed to Rocky Mountain Power for the transmission line in the preferred alignment.

3. To the fullest extent permitted by law, each of the Parties hereto waives any right it may have to a trial by jury in respect of litigation directly or indirectly arising out of, under or in connection with this agreement. Each Party further waives any right to consolidate any action in which a jury trial has been waived with any other action in which a jury trial cannot be or has not been waived.

All other terms and conditions set forth in the Construction Agreement for Relocation Work shall remain in full force and effect.

PROMONTORY DEVELOPMENT, LLC
an Arizona limited liability company

By: _____

Name: Rich Somberg

Title: Managing Director

PACIFICORP, an Oregon corporation, d/b/a
Rocky Mountain Power

By: Paul Radakovich

Name: PAUL RADAKOVICH

Title: VP, OPERATIONS