

INTRODUCTION

The utilities element has been developed in accordance with Section 36.70A.070 of the Growth Management Act (GMA) to address utility services in Pacific County for the next twenty years. The GMA defines electricity, gas, telecommunications, and cable TV as "utilities." It defines water and sewer systems separately as "public facilities." As used in this comprehensive plan, "utility" and "public facility" are not interchangeable terms. Plans for transportation and circulation-related facilities are addressed in Section 5, the transportation element, and water supply and sewage treatment are addressed in Section 6, the capital facilities element.

Pacific County understands that providers of electricity, telephone, and telecommunication services are regional or inter-regional entities, and that provision of utility services must be well coordinated. In devising a utility plan for Pacific County, the County has consulted providers, other jurisdictions, and regional coordinating groups to ensure that this plan is consistent with other plans.

Virtually all land uses require one or more of the utilities discussed in this element. Local land use decisions drive the need for new or expanded utility facilities. In other words, private utilities follow growth. Expansion of the utility systems is a function of the demand for reliable service that people, their land uses, and activities place on the systems.

7.2 RELATIONSHIP OF UTILITIES ELEMENT TO OTHER PLANS

7.2.1 Growth Management Act

This utilities element must be consistent with the Growth Management Act (GMA). RCW 36.70A.070 states that this element must consist of:

- a description of the general location, proposed location, and capacity of all existing and proposed utilities, including, but not limited to, electrical lines, telecommunication lines, and natural gas lines.

7.2.2 County-Wide Planning Policies

In addition to the GMA, comprehensive plans should be consistent with adopted county-wide policies. This element has been developed to be consistent with the County-Wide Planning Policies.

7.3 ELECTRICAL POWER SUPPLY

7.3.1 Existing Facilities

The largest power supplier in the County is the Public Utility District No. 2 of Pacific County (PUD). Formed in 1937, the PUD serves all of Pacific County with the exception of small areas in the northwest and east portions of the County. Grays Harbor PUD serves the Grayland, North Cove and Tokeland areas while the Lewis County PUD serves a small east county area. As of this

plan date, the PUD is a full requirements customer and purchases all of its power from the Bonneville Power Administration (BPA).

In accordance with state law, electric power providers have an obligation to provide electricity upon demand. In other words, the power companies must provide service to customers within their service territory as it is requested. This is known as a utility's duty to serve. Consistent with this duty, the electric power providers follow growth and will provide electrical service to development both within and outside of urban growth areas. Electrical facilities are therefore not a distinguishing factor in delineating "urban" from "rural" areas. An increased demand for electricity is expected as development occurs.

System Inventory

This inventory includes only the major features of the electrical transmission and distribution systems. A full discussion and inventory of the distribution feeder systems throughout the County is not included in this element because the level of detail required to do so is prohibitive. The design and location of future additions to the distribution system is not presented here because the exact design of the system is driven by new development as it occurs.

The Pacific County PUD No. 2 has eight delivery points from the Bonneville Power Administration within Pacific County. Those eight sites along with PUD substation and service areas are described below.

Valley Substation

A 115 kV BPA tap, located just east of Oxbow County Road along SR 6, is the delivery point serving PUD's Valley Substation (intersection of Oxbow County Road and SR 6). This substation, with a capacity of 5/6.25 Mva, has two feeder lines that provide electricity to customers in the east service area of Pacific County. The service area extends from Menlo east through Frances. Facilities are located both overhead and underground.

Henkle Substation

A three mile 115 kV transmission line runs south from BPA's Raymond Substation, on the east side of SR101 just north of Butte Creek Road, across the Willapa River to a location known as the Raymond Tideflats where a PUD transmission line makes connection. This line continues south along Eighth Street, terminating at the PUD's Henkle Street Substation. The Henkle Street Substation is located along the south side of SR 6 just east of the intersection of SR 101 and SR 6. This substation, with a 15/20/25 Mva capacity and a 12/16/20 Mva backup, has seven distribution lines that provide power to the City of Raymond and the surrounding area. Facilities are located both overhead and underground.

Willapa River/Skidmore Substations

The PUD's Willapa River Substation is located along the old South Bend/Raymond Road just east of Harrison Avenue in South Bend and is the power supply for the PUD's Skidmore Substation. The transmission voltage is reduced in the Willapa River substation from 115 kV to 12.47 kV. The two substations, located near the easterly boundary of the South Bend City limits, are separated only by approximately 250 feet of 12.47 kV line. The Skidmore Substation, with a 15/20/25 Mva capacity from the Willapa River Substation, has six feeder lines that provide power

to the City of South Bend and the surrounding area, traveling as far west and south as the Nemah Valley Area. Facilities are located both overhead and underground.

Naselle Substation

The Naselle area is served by BPA's Naselle Substation. This facility is located along SR 4, just west of the SR 4/SR 401 intersection, and provides a transmission voltage of 115kV through a short line to the PUD's Naselle substation for conversion to a distribution voltage of 12.47 kV. A 10/12.5 Mva transformer with three feeders supplies electricity to the Naselle area. Facilities are located both overhead and underground.

Hagen Substation

A 115 kV BPA tap is located at the top of Bear River Hill along the south side of SR 101. This delivery point serves the PUD's Hagen Substation located east of the SR 101/Alternate 101 intersection. This substation, with a capacity of 15/20/25 Mva, has three feeder lines that provide electricity to customers in Chinook, the City of Ilwaco, Seaview and other surrounding areas. Facilities are located both overhead and underground.

Tarlett/Long Beach Substation

The PUD's Tarlett Substation is located east of Sandridge Road on the north side of 95th Street and is the power source for their Long Beach Substation. At Tarlett Substation, the transmission voltage of 115 kV is reduced to 12.47 kV and sent over two spans to the Long Beach substation. The PUD's Long Beach substation, with a capacity of 12/16/20 Mva from the Tarlett Substation, has five feeder lines that provide power to the City of Long Beach, portions of Sandridge Road, Klipsan, Loomis, and other surrounding areas. Facilities are located both overhead and underground.

Ocean Park Substation

A 115 kV BPA tap is located at the PUD's Long Beach Substation. From this point, a PUD 115 kV transmission line continues north along the east side of Sandridge Road for nine miles to the PUD's Ocean Park Substation. The transmission voltage is stepped down to 12.47 kV through a power transformer with a capacity of 15/20/25 Mva. Electricity is distributed via four feeders to customers north of 227th Street, including the communities of Ocean Park and Nahcotta, as well as other surrounding areas. Facilities are located both overhead and underground.

Oysterville Substation

A PUD 115 kV transmission line runs north from the Ocean Park Substation for two and one-half miles to the PUD's Oysterville Substation. The transmission voltage is stepped down at that location through a 12/16/20 Mva power transformer to a 12.47 kV distribution level. Two main feeder lines provide electricity to customers in Oysterville and Surfside Estates. Facilities are located both overhead and underground.

Tokeland Substation

PUD No. 1 of Grays Harbor currently provides electrical service to customers in Tokeland, North Cove, and Grayland in northwest Pacific County. PUD No. 2 of Pacific County is designing a 115 kV transmission line and substation to serve that area. This conversion is planned for 2010.

7.3.2 Condition and Capacity Analysis

According to PUD No. 2 of Pacific County, the 2008 total winter peak load within their Pacific County service area was 80,112 Kilowatts (kW). For each of the PUD's eight delivery points, winter peak loads for 2008, and projected loads for the year 2015 are shown in Table 7-1. The 2008 figures are actual demand amounts whereas the projected 2015 values are weather adjusted and do not approximate actual amounts.

TABLE 7-1
PUD NO. 2 OF PACIFIC COUNTY PEAK LOADS

Delivery Point	Winter Peak 2008	Weather Adjusted 2015
Valley	3,626	2,574
Henkle Street 115 kV	18,643	19,771
Willapa River 115 kV	9,312	13,244
Naselle 115 kV	4,866	4,803
Hagen 115 kV	12,605	20,624
Tarlett 115 kV	14,321	13,483
Ocean Park 115 kV	12,634	18,402
Oysterville	4,105	6,240
Total	80,112	99,141

Source: Doug Miller, General Manager, PUD No. 2 of Pacific County

7.3.3 Needs Assessment

While PUD No. 2 of Pacific County does not anticipate any problems meeting future demands throughout their service areas in the County, it is continually working to provide the most reliable, cost effective system possible. Proposed electrical distribution and transmission facility improvements intended to serve local and regional needs as well as descriptions, maps, and inventories of existing and in-progress projects, are presented the Pacific County PUD No. 2, Capital Improvement Plan.

7.3.4 Energy Demand Management

The per capita consumption of electricity in Pacific County is low relative to averages from other utility service areas. This is due in part to the large number of summer only customers (vacation homes) as well as the significant number of homes that rely on wood burners as the primary heating source. Even so, the County promotes a number of community programs aimed at conserving electricity by decreasing demand.

The Housing Rehabilitation Program, funded by a Community Development Block Grant, provides loans to low-income families in order to rehabilitate deteriorated housing units. Many of

the improvements that are funded through this program (such as restoration of foundations, walls, windows, or ceilings) improve energy efficiency in the home. Precise data on energy savings resulting from the program are not available because the program does not collect such data. Other programs available through the power companies include providing home weatherization assistance.

7.3.5 Emerging Trends in Energy Production

Recent trends in energy production in Pacific County include both wind energy and wave energy. Currently, a wind energy project is under construction in North Cove along the Pacific County/Grays Harbor County Line. The total project includes four wind turbines, two in Pacific County and two in Grays Harbor County, and is capable of producing 6 MW of energy. Another wind project is planned for the Naselle ridge area with 32 wind turbines producing up to 82 MW of energy. A third project is proposed near the Lewis County, Grays Harbor County and Pacific County lines containing a total of 44 wind turbines, three of which are in Pacific County and are capable of producing up to 120 MW of energy. The feasibility of developing wave or tidal energy production is currently being explored in Willapa Bay, the Columbia River and in the Pacific Ocean. The use of Biomass to create energy is also currently being explored in the Northwest; however, nothing specific is being proposed in Pacific County at this time. These alternative types of energy production facilities will continue to gain importance over the next 20 years.

7.4 TELEPHONE AND WIRELESS COMMUNICATIONS

7.4.1 Existing Facilities

The majority of telephone service in Pacific County is provided by CenturyLink (formerly CenturyTel) Telephone. CenturyLink Telephone provides telephone service in 33 states, with 207,500 access lines in the State of Washington. Their local coverage includes all of Pacific County with the exception of Naselle which is served by Wahkiakum West Telephone, and Tokeland and North Cove which are served by Verizon. Comcast also provide telephone service throughout portions of the County.

Like providers of electricity, providers of basic telephone service have a duty to provide service as it is requested within their service areas. All providers, CenturyLink, Verizon, Comcast, and Wahkiakum West, are proactive in making certain that adequate facilities are in place when and where service is requested.

Wireless communication facilities have expanded in the County since the 1998 plan was prepared. A majority of the wireless service/coverage is provided through U.S. Cellular, Verizon and AT&T networks. Several new cell towers have been constructed while several more are in the planning/permitting stages which will continually improve service coverage.

7.4.2 Condition and Capacity Analysis

Exchange telephone services are currently provided to 11,120 customers in Pacific County. CenturyLink provides all local switching and connects the equipment of a subscriber to the

transmission facilities of long distance carriers such as AT&T, Sprint, Verizon, CenturyLink and Qwest. The number of customers reflects an overall decline in exchange telephone services since the 1998 Comprehensive Plan by approximately 3,000 customers and is due primarily to an expansion in cell phone use and competition from cable providers.

CenturyLink Telephone maintains central offices in seven locations throughout the county. The typical capacity of an office location is approximately 10,000 exchange service connections, with the exception of the Long Beach office that will accommodate up to 100,000 connections. Verizon's central office for the Grayland area is in Westport and has been upgraded with additional lines and features since 1996. In general, all provider's central offices and telephone access lines are in satisfactory condition. No difficulties are expected in continuing to provide services to future residents over the next 20 years; however, the industry representatives interviewed for this plan update have reported that the overall trend in telephone service is towards cellular service and away from land lines, especially as cell coverage improves in Pacific County.

7.4.3 Needs Assessment

CenturyLink Telephone acquired the telephone system throughout the Pacific County area in September 1995. Since that time, numerous system upgrades have occurred, namely the lead cable lines were replaced, fiber optic lines have been installed and CenturyLinks broadband service has been fully deployed. Both Verizon and Wahkiakum West have completed their fiber optic line replacement and installation programs throughout their service territories. Verizon has also upgraded their facilities to provide CLASS features to their customer base.

7.5 TELECOMMUNICATIONS

Internet service is available throughout most of Pacific County. CenturyLink, Wahkiakum West and Comcast have stated they are able to provide DSL internet services to 100% of their customers.

7.6 CABLE & SATELLITE TELEVISION

Several cable companies provide cable television service in Pacific County. The primary cable television providers are Charter Cable, Comcast and Wahkiakum West. Charter and Comcast serve the majority of the County while Wahkiakum West serves the Naselle area. Cable reception is via satellite with residential service provided via below ground cables. There are currently a variety of channel packages offered to this area. Other cable providers in Pacific County currently include Chinook Cable which offers services in the Chinook area. Satellite television has expanded dramatically in the past ten years as technology has improved and demand has increased. A variety of satellite providers are available to County residents including DirectTV, Comcast and Dish Network.

7.7 MAJOR ISSUES

Pacific County needs to coordinate with private utility companies and other regional jurisdictions so that utilities may provide high-quality and reliable services to their customers and to plan for future development and expansion of utility facilities. The siting of utility facilities requires

coordination with Pacific County's land use plan so that they will be sited in a manner reasonably compatible with adjacent land uses. In order to site utility facilities in a reasonably compatible manner, the county may investigate development standards that require some utilities to be located underground, in accordance with any rates and tariffs, as well as with the public service obligations applicable to the servicing utility.

7.8 GOALS AND POLICIES

The goals and policies of the Pacific County Comprehensive Plan are intended to provide guidance for decision-making processes subject to this plan. These goals and policies were initially developed by separate groups of citizens across the various regions of the County, and by the incorporated cities within the County. To reflect the desired direction of the County as a whole, the work of the individual areas and the four cities has been combined as presented below. Goals and policies do not apply to the incorporated cities, but rather, only to unincorporated areas of the County.

Goal U-1: Necessary energy and communication facilities/services should be available to support current and future development.

- Policy U-1.1:*** The County will not provide commercial energy or communication services. Energy and communication services are currently provided by private companies. To facilitate the coordination of these services, the County should discuss and exchange population forecasts, development plans, and technical data with the agencies and utilities identified in this plan.
- Policy U-1.2:*** The County should provide timely and effective notification to interested utilities of road construction and of maintenance and upgrades of existing roads to facilitate coordination of public and private utility trenching activities.
- Policy U-1.3:*** The County should encourage the location of necessary utility facilities within existing and planned transportation and utility corridors.
- Policy U-1.4:*** The County's land use planning should be coordinated with the planning activities of electrical, telephone, and cable providers, to ensure that providers of public services and private utilities use the land use element of this plan when planning for future facilities.
- Policy U-1.5:*** City utilities should not extend beyond their associated UGA, except to correct existing sewage or water supply problems in already developed areas, to address significant public health and safety problems outside the UGA, or to effectuate purposes mutually agreed upon by the city and County.
- Policy U-1.6:*** The County should encourage energy conservation by informing citizens of

available BPA conservation programs.

Goal U-2: Negative impacts associated with the siting, development, and operation of utility services and facilities on adjacent properties and the natural environment should be minimized.

- Policy U-2.1:*** Electric power substations should be sited, designed, and buffered to mitigate for potential deleterious impacts to the surrounding neighborhood.
- Policy U-2.2:*** Within active flood control zone districts, the County should encourage or require implementation of resource conservation practices and best management practices according to Pacific County's Surface Water and Erosion Control Manual during the construction, operation, and maintenance of utility systems.
- Policy U-2.3:*** The County should work cooperatively with surrounding municipalities in the planning and development of multi-jurisdictional utility facility additions and improvements.
- Policy U-2.4:*** Where practical, utilities should be encouraged to place facilities underground and encourage the reasonable screening of utility meter cabinets, terminal boxes, pedestals, and transformers in a manner reasonably compatible with the surrounding environment.
- Policy U-2.5:*** The joint use of transportation rights-of-way and utility corridors should be encouraged, provided that such joint use is consistent with limitations as may be prescribed by applicable law and prudent utility practice.
- Policy U-2.6:*** The County should revise existing County ordinances regulating use of rights-of-way by utilities to be in compliance with the Federal Telecommunications Act of 1996.
- Policy U-2.7:*** Mechanisms should be developed to notify interested utilities of road maintenance, upgrades, and new construction to facilitate coordination of public and private utility trenching activities.