

Why we need the I-5 Corridor Reinforcement Project

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The clock is ticking toward serious power outages in the Longview/Vancouver/Portland area. Analysis of the Bonneville Power Administration's transmission network suggests that by 2016 the existing transmission capacity in the project area will be exhausted, forcing BPA to reduce power deliveries. The result could be blackouts.

Growing power demands in this metropolitan area are driving the need for this line. Since BPA built the last major high-voltage line in the I-5 Corridor area, the population in the area has swelled from approximately 1 million to more than 2.1 million. Because few generating resources are near larger cities, local utilities rely on distant generation sources for about two-thirds of their electricity. Transmission lines are vital to delivering that electricity. Over 80 percent of the power flowing through the proposed line would serve local energy needs.

The proposed line would address a local problem that is most severe in summer. The Northwest was once a winter peaking region in terms of energy use. But the emergence of new homes, most of which have air conditioning, has increased demand for energy in the summer. The problem arises because power flows in a different pattern in winter than it does in summer, using different transmission paths with different capacities.

In winter, power use is most intense in the Northwest and Canada. This demand causes power to flow primarily from generation sources in the east to where it's needed in the west. In summer, however, power use is concentrated in the Northwest and California, which causes power to primarily flow from north to south. Unfortunately, the north-to-south capacity in summer on the BPA transmission system is only 3,000 megawatts, as compared to 7,000 megawatts of winter's east-to-west system capacity.

If the line becomes overloaded, BPA's emergency option is to shut down generation at the very time when power

demand is highest. BPA and other utilities must then instantaneously find hundreds of megawatts of replacement generation that can reach the metro area over alternate transmission paths. This replacement generation is typically far more expensive, if it is even available. As the local economy and population grow, these interim fixes will soon be exhausted, and the area will face an increasing risk of blackouts.

