

Update

I-5 CORRIDOR
REINFORCEMENT
PROJECT
April 2015



The Bonneville Power Administration is proposing to build a 500-kilovolt transmission line to reinforce the high-voltage power grid in southwest Washington and northwest Oregon as part of the I-5 Corridor Reinforcement Project. The line would be approximately 79 miles long, running between a new substation near Castle Rock, Wash., and a new substation near Troutdale, Ore. In November 2012, BPA completed a draft environmental impact statement (EIS) for the proposed project. The draft EIS identified BPA's preferred alternative as Central Alternative using Central Option 1.

When will we need the transmission line and what we plan to do until then

BPA expects to release our final EIS in late 2015, followed by a record of decision (ROD) in 2016. If we decide to build the project, we would then focus on negotiating acquisition of the required easements from property owners and obtaining permits.

When the draft EIS was published in November 2012, BPA's analysis, using the current forecasts for load growth at the time (up to 2 percent per year), estimated that by spring 2016 the existing transmission system's capacity would likely be reached. Since then, some components of that analysis have changed. Forecasted load growth is lower and BPA is installing equipment upgrades at its existing Pearl Substation in Wilsonville, Ore. These upgrades and reduced load growth will help maintain power deliveries and reliability of the transmission system to serve loads.

Every year, our planners review and analyze the expected demand for transmission capacity. This analysis is based on studying transmission conditions which can vary depending on many factors, including new electricity generation connecting to the transmission system, local growth in demand for power, energy conservation efforts, etc. BPA's latest studies include reduced load growth and the substation upgrades mentioned above, and show that this line will be needed by spring 2021. BPA will continue to review the transmission conditions and project timing annually, based on the latest information available.

Since the need date can vary due to changing conditions, and since the actual completion date of a multi-year construction process is still being developed and also can depend on changing conditions, there could be a gap between the two dates. Our priority is meeting demand and keeping the lights on. To ensure the short-term needs of the region, we are developing non-wires measures to bridge the gap in case the need date occurs before construction could be completed. Although these non-wires measures cannot replace the need for the project, they can provide short-term congestion relief before a long-term solution is in place.



Project schedule — updated April 2015

NOVEMBER 2012	Released draft environmental impact statement
MARCH 25, 2013	Closed draft EIS extended comment period
2013–2015	Evaluate comments, meet with landowners, counties, cities and other agencies, refine project design, complete environmental analysis
2015	Release final EIS
2016	Announce agency decision
ONGOING 2016	If BPA decides to build: Negotiate with affected property owners and others
2021	Expected need date. BPA will review each year as work continues on project

Non-wires measures provide temporary relief

In our June 2014 project update, we referenced short-term measures to maintain transmission system reliability that do not require a new transmission line or new substations; we call these “non-wires” measures. BPA has determined that non-wires measures cannot eliminate the need for the I-5 project, but they may help bridge any potential short-term gap between the date we would need the line and the date we could have the proposed I-5 project built and energized.

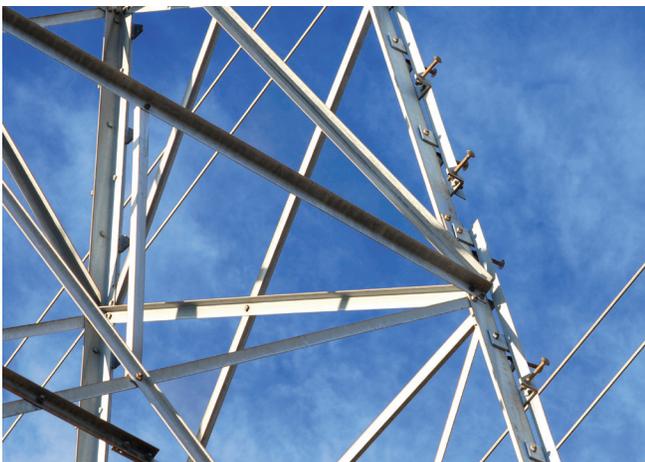
This was originally discussed in a report made by a consultant BPA hired, and referenced in the draft EIS: http://www.bpa.gov/Projects/Initiatives/NonWires/I-5_Phase2_Non-Wires_Analysis_Feasibility_Study_December2011.pdf.

This team has been exploring non-wires measures that may be necessary if the line cannot be completed by the time it is needed. In February, BPA entered into a contract with EnerNOC for a two-year demonstration project. EnerNOC is a leading national firm that implements demand response programs. Part of the demonstration project

will be done in the geographic and system area where the I-5 project is designed to relieve congestion and increase reliability.

Our first demonstration project to test the effectiveness and reliability of one of these non-wires measures will begin in summer 2015.

The project will test demand response, which involves managing electricity use by consumers to modify their normal consumption patterns in response to utility or power system needs. Demand response measures can help level out the spikes of energy consumption during times of peak use and balance the system to retain reliability.



What we're working on

Streams and wetlands

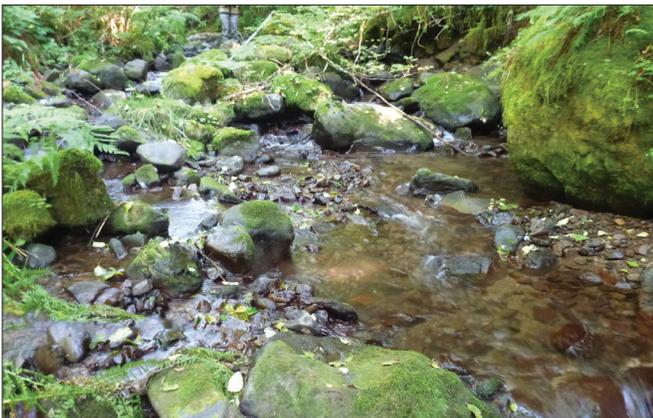
Biologists with Environmental Science Associates, Inc. (ESA), a BPA contractor, continue to map streams and wetlands within the I-5 Corridor Reinforcement Project area. Approximately 50 percent of the stream and wetlands field work has been completed. These surveys are needed to protect and minimize impacts to these areas, and support environmental permitting for the project. Field surveys will continue through early summer of 2015.

Access roads and stream crossings

An existing road that crosses Knowlton Creek is one of eight stream crossings that would be improved for migratory fish if BPA decides to build the new transmission line. The old road crossing at Knowlton Creek isn't used anymore, but the culvert underneath it is not fish-friendly, so BPA would install a new passage for fish at this location. Prior surveys tell us this creek (pictured below) could be used by steelhead. We survey spawning and rearing habitat quality to assess its potential for use by steelhead and other fish.

I-5 Non-Wires Contingency Planning Team

In 2013, BPA formed a team to identify a specific set of cost-effective, short term non-wires measures that could be implemented if the proposed transmission line cannot be energized in time to maintain system reliability. BPA is exploring whether pairing generation redispatch (turning off generation north of the constrained path) with other non-wires measures (reducing load or turning on generators south of the constrained path) could provide temporary measureable and reliable relief at the sources of congestion. BPA is also pursuing other non-wires measures including but not limited to generation dispatch, distributed standby generation, and energy efficiency that would meet short response-time needed and would target the vulnerable areas identified by BPA's Transmission Planning and Operations.



Upstream Knowlton Creek and downstream Knowlton Creek



Photos courtesy of Cramer Fish Sciences

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