Columbia Generating Station Refueling Outage 25



As an essential energy service provider to the region, Columbia achieved nearly 10 million megawatt-hours of carbon-free electricity in 2020.

R-25 nuts & bolts

Columbia Generating Station's 25th refueling outage (R-25) begins May 8, 2021, and is scheduled for 40 days. About 1,450 skilled workers, hired locally and from across the country, will join Energy Northwest's workforce of about 1,000 employees to support refueling and maintenance projects. The work conducted during the refueling outage ensures high levels of equipment reliability is maintained.

Workers will replace 260 of 764 nuclear fuel assemblies in Columbia's core with new fuel. Fuel that has been in the reactor core for six years will be placed in the used fuel pool, which removes residual heat from the assemblies. After a minimum of five years in the pool, the assemblies are moved to Columbia's on-site dry cask storage, where they are stored securely in above-ground, 185-ton, concrete and steel, dry-storage casks. There are currently 45 casks on site, containing most of Columbia's 36 years of used fuel.



Fuel assembly being moved underwater from Columbia's core.

R-25 maintenance projects: replace a low pressure turbine rotor; replace reactor water cleanup heat exchangers and piping; refurbish a condensate pump and motor; replace a service water pump and motor; and clean and inspect the circulating water basin and piping.



The 1,000 workers that make the Tri-Cities their temporary home during the refueling outage often stay at our local hotels, shop the stores and eat at local restaurants – it's a boost to our local economy.

- Karl Dye, TRIDEC

During R-25, we'll complete critical work activities to ensure Columbia continues to operate reliably, 24/7, producing carbon-free power for the region.



- Grover Hettel, Energy Northwest chief nuclear officer



Low pressure rotor being delivered to the turbine building.

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COVID-19 preparation

The U.S. nuclear industry has successfully refueled numerous nuclear plants during COVID-19, while maintaining the health and safety of their workforce. Energy Northwest has a designated team leading our R-25 pandemic preparation and has incorporated industry best practices in our planning.

- Daily health screenings
- Self-scanning temperature stations
- Facility barriers and signage
- Staggered work times
- Reinforcement of expected behaviors
- Personal protective equipment
- Additional janitorial staff
- Outdoor break areas

Frequently Asked Questions

Q: Why refuel during a pandemic? Why not wait?

A: Similar to driving a car, we have to stop and fuel up. For Columbia, that's every two years. Energy Northwest and Bonneville Power Administration time the biennial refueling outage to coincide with spring snow melt and runoff that maximizes power output from the region's hydroelectric system and minimizes the impact of taking Columbia offline.

Our focus is performing the work safely and getting Columbia back online to continue providing electricity that we're all counting on. Postponing refueling would mean Columbia would not be able to operate at full power during the summer months, a time when it's needed most to meet energy demands.

Q: Why do you need to hire so many temporary workers?

A: We hire additional skilled workers to accomplish the 10,000+ work tasks and planned maintenance projects that can only be done when the reactor is offline, similar to other plants in the industry. The additional workers help us complete work for a timely return to power.

Q: When will the skilled workers arrive at Columbia?

A: Workers are scheduled to arrive in April for in-processing, training and badging.

Q: What steps are you taking to reduce COVID-19 exposure?

A: We are following all Centers for Disease Control and Prevention guidelines and taking every precaution to reduce the spread of COVID-19. Our team is communicating with our skilled workers prior to their arrival at Columbia, and reinforcing on-site, off-site and state guidance regarding healthy behaviors. All workers will arrive at staggered times and perform daily health screenings and temperature scanning before going to their work location. We're also increasing sanitation and reinforcing social distancing and mask-wearing policies. Additionally we are in regular communication with local, state and federal health authorities.

Q: Are you requiring all workers get vaccinations?

A: No, but Energy Northwest leaders continue to work with the Washington State Department of Health and industry partners to prioritize vaccines for our essential workers.

About Energy Northwest

Energy Northwest develops, owns and operates a diverse mix of electricity generating resources, including hydro, solar, battery storage and wind projects – and the Northwest's only nuclear power facility. These projects provide carbon-free electricity at the cost of generation – enough clean, cost-effective and reliable energy to power more than a million homes each year. As an independent joint operating agency of Washington state, Energy Northwest comprises 27 public power member utilities from across the state serving more than 1.5 million customers. The agency continually explores new generation projects to meet its members' needs.

