



Langley Gulch Power Plant

Frequently Asked Questions

I. About the Langley Gulch Power Plant

Why is Idaho Power building a new power plant?

The new power plant was identified as a need in Idaho Power's 2004 and 2006 Integrated Resource Plans (IRP), and as a committed resource in the 2009 IRP. The project is supported by the Idaho Public Utilities Commission (IPUC), and is being added to our diversified portfolio of resources which also includes energy efficiency measures and alternative energy resources such as wind, solar, geothermal and biomass.

Even with considerable conservation and energy efficiency efforts, Langley Gulch generation is needed by 2012. Idaho Power is committed to ensuring its customers have the electricity they need today on-demand and that future generations enjoy the same lifestyles we enjoy today. Our ability to do so requires the addition of this generation capacity.

What kind of power plant is being built?

The clean, highly efficient Langley Gulch Power Plant will be a combined-cycle combustion turbine (CCCT), which means it will have two turbines to generate electricity—one using natural gas and the other steam. The exhaust heat from the combustion of natural gas is used to make steam, which drives the steam turbine.

This flexible resource will have the features of a baseload plant, in that it is economical and will run a great deal of the time. It also has the flexibility to vary output quickly to integrate intermittent resources from area wind and future solar projects.

Where is the power plant located?

The site consists of 137 acres of undeveloped range land located in rural Payette County, adjacent to Interstate 84 and immediately southwest of Exit 9. The actual footprint of the power plant is about 10 acres. The site is bordered by Interstate 84 to the north and east, and by Bureau of Land Management lands to the south and west.

Although the site is remote, it will be visible from a couple locations on Interstate 84 near Exit 9. The construction and placement of the power plant will leverage the natural contour of the property to position the facility with minimal impacts to the surrounding area, including view shed.

How was the site selected?

The Langley Gulch site was selected by an Idaho Power project team that performed a thorough evaluation of 13 potential sites from Ontario, Oregon to Hammett, Idaho. Attributes considered included: transmission and gas line access, rail and site access, environmental considerations, geotechnical and land characteristics, zoning, air quality, water availability and benefits to neighboring communities.

The site in Payette County provides the best combination of these attributes, including performance, reliability, constructability and economic factors.

II. Economic Considerations

How will this power plant affect the New Plymouth area?

The Langley Gulch Power Plant will create both short- and long-term job opportunities. The construction requires a labor force of approximately 120 workers for as long as two years, including qualified local electricians, pipefitters, steelworkers, excavators, carpenters, concrete workers, and laborers. Once the power plant is complete, it will employ 18 personnel and will be placed permanently in the tax base, with Idaho Power paying property taxes.

The addition of this generation facility will help many communities in our service area and across the region prosper through new jobs, local procurement of supplies and additional tax dollars, as well as the electricity now available to provide service now and into the future.

What is the cost of construction?

The Langley Gulch Power Plant will be built for approximately \$427 million, including expected transmission costs to connect the facility to the grid. For this capital expenditure, we intend to pursue a combination of financing options and equity.

III. Power Plant Operation

Will the power plant make noise?

Noise enclosures will be installed around the turbines to minimize and control loud sound. Similar to our Mountain Home natural gas facility, the noise generated would not prevent the ability to maintain a conversation standing outside next to the power plant.

What is the height of the power plant exhaust stack?

The height of the exhaust stack is 160 feet, which is lower than most cellular towers, which range from 150 to 300 feet.

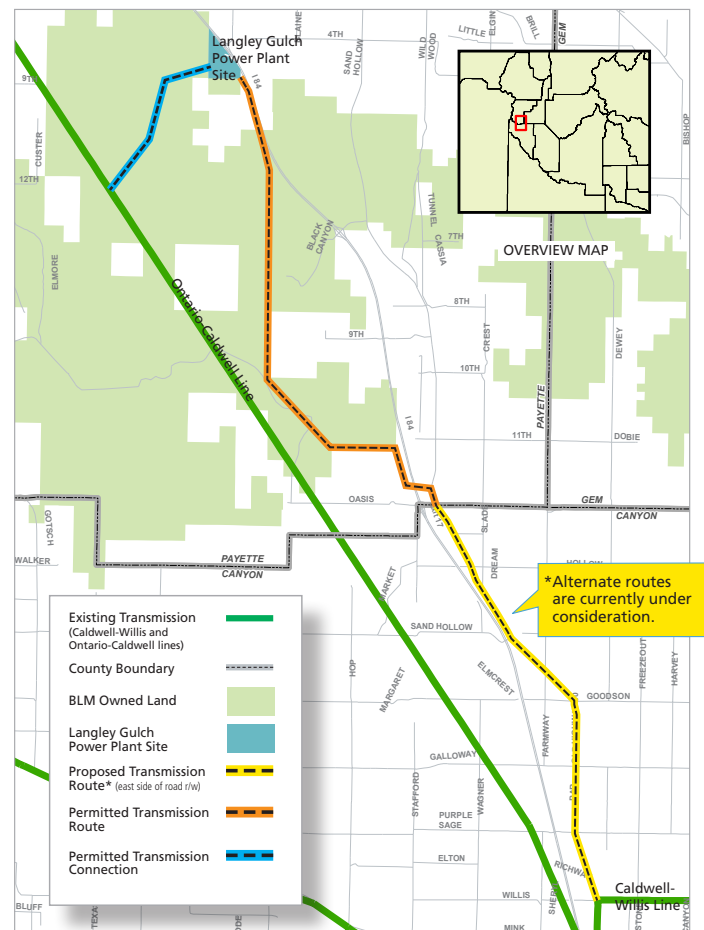
Where will Idaho Power connect the existing gas line and will there be a need to build an additional gas line in the future?

The existing Northwest Pipeline is approximately one mile from the site. We have submitted an interconnection request to connect with the existing line at Highway 30. The size of the line will be determined once we go through the siting process, but it likely will be 10 or 12 inches in diameter. The existing gas line has the capacity for this project.

How will the Langley Gulch Power Plant connect to the electrical grid?

Two new transmission lines will be built to connect the Langley Gulch power plant to the existing 230 kilovolt (kV) Ontario-Caldwell and 138-kV Caldwell-Willis transmission lines. The primary proposed line will cross 2.5 miles on Bureau of Land Management (BLM) property and consist of two 230-kV circuits.

The additional proposed line is approximately 18-miles, located on BLM property, private property and within the road right-of-way. The right-of-way will be 100 to 150 feet wide depending on the location. The line will be energized at 138-kV but will be built to 230-kV standards to accommodate future capacity needs.



What will the transmission line structures look like?

The primary, 2.5-mile line will use 110- to 120-foot single steel poles, double circuit (three lines on each side). The structures will span approximately 750 to 900 feet. Construction is planned for September 2010 to February 2011.

The additional 18-mile proposed line will use both H-frame and single-pole construction. Construction for this line is planned for September 2011 to May 2012.

Specific structures, dimensions and spacing may vary depending on the final line route.

IV. Water Use and Emission Control Measures

How will Idaho Power get water to the plant site?

Idaho Power has entered into an engineering contract for the design of the pump station and water pipeline from the Snake River to the project site. We evaluated different types of water collection systems for the pump station, including a traditional screen design and a well-field design. It appears the well-field option will result in reduced maintenance and cleaning issues compared to a traditional screen system. The well-field option will consist of three to four shallow wells aligned along the river bank to collect water and deliver to a common pump station prior to pumping to the site.

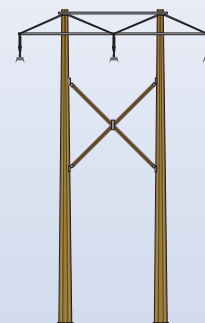
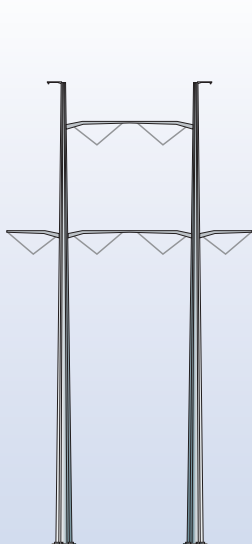
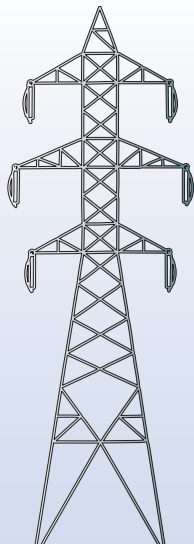
How much water will be used in the cooling water tower? Will it impact my drinking water?

Approximately three cubic feet per second (cfs) of water from the Snake River will be used for cooling purposes in the summer and two cfs of water in the winter. We estimate over three-quarters of this water will evaporate as a result of the cooling and condensing process. The spent water will be discharged to an on-site, lined evaporation pond, meeting all state and federal water quality requirements and will not impact drinking water.

How will Idaho Power discharge spent cooling water?

We engaged a consultant to evaluate and design a discharge plan with options including installing injection wells, land applying or discharging to neighboring waste ditches. Originally, a series of injection wells were planned for disposal of spent cooling water. We have since evaluated and selected a better method of spent cooling water disposal.

After field evaluations of the groundwater and aquifer conditions and state agency permitting process changes, it was determined that permitting of injection wells, infiltration ponds, or land application would not be feasible options for disposal of spent cooling water. Idaho Power has entered into an agreement with the EPC Contractor to install a zero liquid discharge plan which includes a series of water treatment clarifiers, reverse osmosis systems, and other treatment equipment to reduce the total cooling water discharge flow as much as possible prior to sending it to an on-site, lined evaporation pond, and also allows for re-use of water into the cooling water system.



230-kV Structure Types

138-kV Structure Types

Will the power plant impact Treasure Valley air quality?

This power plant will be built to have a minimal impact on air quality as it is required to meet the National Ambient Air Quality Standards set by the Environmental Protection Agency. The power plant will have the best available control technology (BACT) for air emission controls.

As a comparison, the air emissions from the power plant are the same type of emissions that come from a typical home or business gas furnace. On a per unit basis, this power plant will be cleaner with the following equipment installations: low nitrogen oxide burners, selective catalytic reduction system and a catalyst to reduce carbon monoxide. Through the air permitting process, detailed air quality studies will be completed that analyze the impacts this power plant may have on air quality. Based on the location of the power plant, emissions technology and preliminary models, the impacts will be minimal.

A combined cycle power plant emits about half the carbon emission of a coal-fired power plant per megawatt of energy produced.

Fossil Fuel Emission Levels (pounds per billion Btu of energy input)			
Emission	Natural Gas	Oil	Coal
Carbon Dioxide	117,000	164,000	208,000
Carbon Monoxide	40	33	208
Nitrogen Oxides	92	448	457
Sulfur Dioxide	1	1,122	2,591
Particulates	7	84	2,744
Mercury	0.000	0.007	0.016

Source: EIA – Natural Gas Issues and Trends 1998

Project Contact Information

Idaho Power appreciates your interest in and support of this project. Please contact us with your comments, concerns or feedback.

Langley Gulch Power Plant

Ryan Adelman, Project Manager
208-388-2546
radelman@idahopower.com

Transmission Connection

Tim Phillips, Project Manager
208-388-2744
tphillips@idahopower.com

Community Relations

Mike Ybarguen
208-388-8653
mybarguen@idahopower.com

Media Contact

Echo Chadwick, Director
Corporate Communication
208-388-6654
echadwick@idahopower.com

Idaho Power
P.O. Box 70
Boise, ID 83707
ourenergyfuture@idahopower.com

Learn more about the Langley Gulch project at www.idahopower.com/langleygulch, and Idaho Power's ongoing efforts to ensure reliable, fair-priced electricity for future generations at: www.idahopower.com/ourfuture.



200/06-10
© 2010 Idaho Power

