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Installation of a Low-Flow Turbine/Generator at the Abiquiu Hydroelectric Facility

Frequently Asked Questions (FAQs)

Q: What is the Low-Flow Turbine/ Generation project at the Abiquiu Hydroelectric Facility?

A: Los Alamos Department of Public Utilities (DPU) will be adding a 3 megawatt turbine-generator to the existing 13.8 megawatt hydroelectric facility located at the foot of the Abiquiu dam on the Rio Chama.

Construction of a cofferdam will occur during the first year of the project to displace water around the area where the powerhouse will be constructed to house the turbine. Neither the dam releases nor the flow of the river will be impacted by this activity. The contractor will then build a powerhouse approximately 980 square feet that will attach to the side of the existing hydroelectric facility. Upon completion, the low-flow turbine/generator will be installed into the powerhouse.

Q: Who owns the hydroelectric facility?

A: The hydroelectric facility is owned and operated by the Los Alamos DPU. The U.S. Army Corps of Engineers owns and operates the Abiquiu Dam.

Q: Will the Rio Chama's water flows be affected?

A: No. The US Army Corps of Engineers controls releases from the Abiquiu Reservoir. The same amount of water is released whether it flows through the DPU's hydroelectric turbines or flows around the facility. Rio Chama's water flows will not be affected.

Q: Is there room to add another powerhouse at the hydroelectric facility?

A: Yes. When the hydroelectric facility was designed and built in 1989, room was intentionally left for the construction of a second powerhouse to hold additional turbines at some future date.

Construction for the current project will take place in a previously disturbed area. The existing powerhouse systems will be shared with the new powerhouse, which will minimize the facility size and require no offsite infrastructure.

Q: *When is the project beginning and when will it be completed?*

A: Construction will begin November 1, 2009 and DPU's contractor will focus primarily on the construction of a cofferdam the first year. The following year the contractor will build the powerhouse and install the low-flow turbine/generator. The new turbine is anticipated to be operational in May 2011 and will increase clean, renewable energy generation in New Mexico.

Q: *How much will the project cost and who is paying for this project?*

A: Los Alamos Department of Public Utilities has budgeted more than \$8 million for the project and will pay for it through the issuance of municipal bonds and rates from Los Alamos customers.

Q: *Is this project considered clean energy?*

A: Yes. Running water drives the turbines of a hydroelectric facility to generate electricity with no direct waste. Consequently, power generated from a hydroelectric facility emits no greenhouse gasses. The addition of the 3 MW turbine at Abiquiu's hydroelectric facility will increase its clean energy generation by 22 percent.

Further, according to the Energy Policy Act of 2005, energy generated from new hydroelectric units (such as the 3 MW turbine) qualify for renewable energy credits that will assist other organizations in meeting renewable portfolio standards as required by regulation.

Q: *Have the impacts on the environment been considered for this project?*

A: Impacts associated with the construction have been carefully evaluated with the U.S. Army Corps of Engineers, the Federal Energy Regulating Commission, the New Mexico Fish and Game Department, New Mexico Historical Preservation Office, and New Mexico Environment Department. Construction has been planned in a manner to ensure that aquatic life is preserved, and river flows are not impacted.

As mentioned above, hydroelectric facilities are clean, renewable energy that don't emit any greenhouse gasses. This project is good for New Mexico and will assist Governor Richardson's goal to make New Mexico the first clean energy state.

Q: *Will this project impact recreational activities at Abiquiu Lake?*

A: In order to execute the project, it will be necessary to bring heavy equipment and machinery to the construction site. Most of this equipment will be on the downstream side of the dam and should have no adverse effect on recreational activities at the Lake. Patrons of the Lake will not see or hear any of the construction, other than occasional trucks driving to the construction site.

Q: *What will this project do for Abiquiu and surrounding communities?*

A: The rural communities of Abiquiu and Espanola will benefit from revenues in lodging, meals, fuel and equipment generated by the project. Construction will take place in Rio Arriba County, therefore gross receipts tax will be realized by the Rio Arriba County government.