



Council Meeting Staff Report

September 19, 2018

Agenda No.:	7.D
Indexes (Council Goals):	BCC - N/A
Presenters:	Steve Cummins
Legislative File:	10947-18

Title

Update on Using Low Flow Hydro on Some of the In-town Systems

Recommended Action

Discussion only

Staff Recommendation

Discussion only

Body

At the recommendation of a citizen *ad hoc* committee and the direction of the Board of Public Utilities, the Department of Public Utilities (DPU) was tasked to explore the feasibility and estimate the costs of pumped hydro storage within LA County. There are several sites within the county that have the necessary changes in elevation to accommodate a low flow high head turbine generator.

In 2010 staff took a close look at pumped hydro using the existing LA Reservoir and the snow making pond at the top of Pajarito Mountain. This assumed the County and the Los Alamos Ski Club would permit the use of these reservoirs for power generation. There were several disadvantages with these two reservoirs. The snow making ponds primary purpose limits the use of the water for the period between June and November. The primary purpose of the LA Reservoir is a recreation site for the community. Cycling the reservoir on a daily basis would not make a sustainable fish habitat nor make it safe as a community recreation area. For these reasons staff did not pursue this as an option any further.

This current effort looked at small scale possibilities, specifically looking at using the existing potable water infrastructure. Using existing potable water tanks and pipelines provides a lower limit on the capital costs for a small-scale pumped storage system. It thus serves as a best-case scenario for the economic analysis of such a system and at first glance it does not interfere with the primary purpose of the infrastructure, which is a domestic water supply and for fighting fires.

Staff recommends that small-scale pumped storage is financially infeasible for LA County and does not merit further consideration as an energy storage approach.

Alternatives

DPU will continue to look at other energy storage alternatives to meet the County's goal of being a carbon neutral electrical energy provider by 2040 in a financially sound manner and will present their findings to the Board at a later date.

Fiscal and Staff Impact

None

Attachments

A - Small Pumped Hydroelectric Storage