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The Case for Cabin Creek

The Best Location for a North Tahoe Area Biomass Power Plant

Introduction

Placer County's Biomass Utilization Program has focused on constructing a biomass combustion power plant in the Lake Tahoe Basin (LTB). Cabin Creek has always been the collection and processing facility (drying, grinding to biomass feedstock specifications, and storage) serving the region. For sixteen years the processed forest material was delivered to the Loyalton Power Plant which is now offline due to a contracted rate dispute between Sierra Pacific Industries and NV Energy. Due to the uncertainty of resolution the next best site for a small biomass cogeneration plant serving the LTB and Truckee areas is the processing facility called Cabin Creek.

Location

Cabin Creek is the name of the road off Highway 89 three miles south of Truckee where a growing number of Placer County facilities are located. While first used as a regional landfill for solid waste disposal, it became a Transfer Station coupled with a Materials Recovery Center (recycling). More recently the Tahoe Area Rapid Transit (TART) Center was established for transit vehicles, and Cabin Creek will soon house the Department of Public Works Road Division's vehicles and equipment now at Burton Creek, near Tahoe City.

It is strategically located to serve Truckee and all eastern Placer County communities. Highway 89 provides level roadway access to Lake Tahoe along the Truckee River outlet. Highway 267 provides another direct access to the north and east shores of the Lake over Brockway summit.

Issues as a Power Plant Site

Cabin Creek is an expanding industrial site miles from residential subdivisions or schools. It houses numerous buildings with office and maintenance functions needing

electricity and heat. Noise and odors are an accepted nature of solid waste collection and processing. Demand for power increases the more Placer County's vehicles and equipment are maintained for service, such as plugging in TART buses and DPW snowplows during the winter.

Cabin Creek is the **only** collection and processing facility for woody biomass serving the Lake Tahoe Basin (LTB) and greater Truckee area. The infrastructure for processing forest material is already in place, including a diesel powered grinder and plenty of land area to treat, store, and dry a variety of woody biomass products. Enhancements to biomass processing in conjunction with a power plant is a logical and sensible investment of public funds. An economic cluster is developing at Cabin Creek for public industrial and utility functions.

It is commonly understood that the transporting of forest waste is expensive so it is logical to consider combustion at the same site as collection/processing and eliminate any further transportation. An appropriately sized cogeneration plant could supply all Cabin Creek facilities with 24/7 power and heat. By displacing retail rates of energy currently consumed at Cabin Creek, the economics are more favorable than for a standalone incinerator/generator at either Loyalton or Kings Beach which produce electricity at wholesale rates.

A savings in diesel fuel and emissions could also occur by replacing the diesel grinder with an electric grinder. This could help offset air emissions of a small biomass power plant. And, overall environmental impacts of biomass utilization at Cabin Creek are negligible in relation to the processes already in place.

A power plant at Cabin Creek will facilitate at a reduced cost the charging of current and future battery operated and hybrid vehicles. Moreover, since the technology for producing biodiesel from woody biomass is improving, Cabin Creek may produce *biodiesel* for the urban waste (garbage) collection vehicles, TART buses, and DPW road maintenance equipment. Other rapidly evolving technologies such as *biocoal* offer promise as well. The US Forest Service Lake Tahoe Basin Management Unit is closely following the torrefaction of woody biomass into biocoal successfully demonstrated recently at a California power plant.

Placer County's Misguided Focus on the LTB

Unfortunately, Placer County has become sidetracked by a misguided focus on a combustion power plant in the Lake Tahoe Basin. Ostensibly and ironically chosen to more easily obtain air quality permits, this plan is short sighted in that it miscalculates the significance of other environmental thresholds in the LTB and overlooks the infrastructure at Cabin Creek. The permitting and construction of a small combined

heat and power plant would actually be easier at Cabin Creek than in the LTB.

Highlighted Advantages to a Cabin Creek Power Plant

Placer County's proposal to construct a biomass plant in Kings Beach fails on several accounts to meet the objectives of their Biomass Utilization Program when compared to a biomass plant at Cabin Creek.

- 1) The biomass material processed at Cabin Creek would need be loaded and transported unnecessarily to Kings Beach (back into the Lake Tahoe Basin over Brockway Summit on Highway 267). The trucking and plant emissions in the LTB would degrade scenic thresholds for Highway 267 which is designated as a "Scenic Corridor."
- 2) *Green raw material from forest fuels reduction activity in the LTB cannot be directly combusted in a power plant in Kings Beach and meet the strict fuel specifications of modern power plants. Nor can it be adequately processed into biomass feedstock at the site where it is gathered. The raw biomass must be adequately prepared (processed) and stored for winter use at Cabin Creek. Nevada's Department of Corrections (in Carson City) biomass plant failure (2007 to 2010) was attributable in large part to this technical detail.*
- 3) There is insufficient "economically recoverable" forest material sourced from the north and west shores of the LTB to ensure an adequate feedstock supply for the plant proposed for Kings Beach. Cabin Creek collects woody biomass (from fuels reduction and urban wood waste) from a larger region, thereby producing sufficient quantities. It is environmentally unsound to transport forest waste sourced outside the LTB into the Tahoe Basin for combustion in a different Air Basin.
- 4) *The LTB is a federally designated Outstanding National Resource Water governed by uniquely strict environmental thresholds. The topographical setting is subject to air inversions that magnify air and water quality pollutants. The LTB receives millions of federal dollars every year to preserve this national treasure.*
- 5) There is no compelling need or reason to incinerate biomass in the LTB adjacent to residential neighborhoods and schools when Cabin Creek is where the forest waste material is regionally collected, processed, and stored. The integration of a biomass plant with the existing industrial/utility functions to displace retail power and heat costs at Cabin Creek offer a win-win situation for Placer County taxpayers and Lake Tahoe.
- 6) Opposition to constructing a biomass power plant in the LTB by the Friends of Lake

Tahoe, the North Tahoe Citizen Action Alliance, the League to Save Lake Tahoe, the Sierra Club, and the public at large would evaporate with the decision to locate the plant at Cabin Creek. Indeed, it would be supported. Federal level efforts to curtail earmark funding of a LTB biomass plant would be opposed in favor of a mutually supportive role to enhance the infrastructure at Cabin Creek.

7) **The two primary reasons given by Placer County for a power plant in the LTB are to reduce open burning and to facilitate forest fuels reduction activity (minimizing wildfires). Neither of these objectives is achieved by locating an incinerator/generator in the LTB.** Open burning is reduced to the extent funds or subsidies are available to remove and deliver the material to Cabin Creek for processing. Funding such as the \$136 million (over ten years) currently proposed in the Lake Tahoe Restoration Act, for example, will enable the reductions of open burning and fuels reduction activity. Biomass plants do not cause reductions in open burning and do not produce the extra revenue to pay for fuel reduction activities.

8) Fuels reduction activity would be encouraged if Placer County paid for delivering forest material to Cabin Creek. The current practice of charging a tipping or “dump fee” for delivering forest waste, *as if it were ordinary solid waste and not a fuel source*, deters contractors and government agencies from even covering delivery costs. The Cabin Creek infrastructure has scales and skilled personnel skilled to assess, weigh, and be credited for the different qualities of biomass as a fuel resource.

9) It is for these and other reasons that the North Tahoe Citizen Action Alliance included the Cabin Creek location as an alternative to King Beach site in their comments on the Notice of Preparation (NOP) issued by Placer County and TRPA for the proposed biomass power plant. (Their entire document is located under “Relevant Documents” on the Home Page of this website.) Page 11:

*This would logically lead to a plant at the Cabin Creek site where all processing must occur. What are the barriers to a clean plant, demonstrating the latest technology that minimizes pollutants, located at Cabin Creek? The economics would favor this site for a sustainable power plant due to many factors. **The EIS/EIR should include an economic analysis for a plant at Cabin Creek.** What steps exactly would be required for approvals in that air basin which today is in non-compliance? This economic analysis could be the basis of political support*

to secure necessary exemptions as a demonstration project and aid the fuels reduction imperative for the Tahoe Basin.

10) Lastly, in the opinion of Placer County's expert regarding this issue, while a permit for a Cabin Creek power plant may be cumbersome, it can be done:

According to Tom Christofk, Placer County's Air Pollution Control Officer, Cabin Creek's lack of attainment for federal ozone standards does not entirely preclude the site from consideration: "You have to look at the different requirements of each air basin. If a basin is in extreme non-attainment, there is a different threshold of permitting, which would require better control technologies and off-setting procedures," he said. Christofk used an example is Los Angeles, which has long exceeded federal air quality standards, but is able to erect electricity facilities if enough air quality mitigation occurs.

(Mathew Renda, *Sierra Sun*, September 16, 2010)

Conclusion

There are overwhelming technical and practical reasons for a biomass incinerator /generator to be located at the Cabin Creek processing facility where the fuel resource is collected region wide, processed into fuel grade material, and stored for year round supply.

Why Placer County continues to promote unnecessary transport and incineration into the LTB raises suspicion of an ulterior political motive. The facts on the ground pertaining to logistics and processing of local biomass do not correspond to the conceptual narrative developed by Placer County. The facts of environmental and economic realities for a small power plant (Carson City) in the Tahoe Basin also do not square with Placer County's assumptions.

Cabin Creek is an evolving solid waste and materials recycling center serving Placer County and the Truckee area. With the addition of TART and DPW vehicles and equipment maintenance and storage functions the site is becoming the area's industrial/utility cluster. Future opportunities exist for other uses of biomass which dovetail with the Cabin Creek site.