

EXECUTIVE SUMMARY

The purpose of the project was to support the creation and development of the Tahoe Green Power Program (TGPP). The idea behind the TGPP was to sell green power that was generated using biomass produced from fuels reduction and forest restoration efforts in the Lake Tahoe Basin. The power would be marketed and sold as “Tahoe Green Power” at a premium to customers in California. Wheelabrator Martell and Go-Green.com were the original partners on the project.

The overall goal of the effort was to assist Go-Green.com with the development and marketing of the Tahoe Green Power Program. The original tasks were to:

1. Develop a revised and expanded marketing plan for Tahoe Green Power to increase awareness of forest health issues and the benefits of biomass power.
2. Obtain the support of environmental groups and the public via outreach and education.
3. Devise and pursue cross-marketing promotions for businesses in the Lake Tahoe region.
4. Update the program website.
5. Assist with marketing the Tahoe Green Power to federal agencies, residential utility customers, non-profit groups and businesses.

The partners conducted a significant amount of work on the original tasks. In December of 2000, Go-Green was forced into bankruptcy due to the California energy crisis. In March of 2001, Tenderland Power Company (Tenderland) became the new marketing partner on the project. In September of 2001, the California PUC suspended retail access in California and all customers who had switched their utility providers were returned to their traditional utility. This meant that there was no longer an opportunity for independent energy service providers such as Tenderland to sell green power to retail customers.

All work was suspended on the project and WRBEP re-defined the tasks as noted above. Efforts on all tasks except the website were suspended. The website (Task 4) would become a general bioenergy website to support information exchange on biomass related activities in the Tahoe Basin and surrounding region. Three new Tasks were added:

1. Research and report on the potential for Tahoe Green Power to be sold through Green Tags.
2. Explore and document the potential to sell Tahoe Green Power to Nevada under the state’s Renewable Portfolio Standard.
3. As appropriate, facilitate the supply of biomass from the Basin, and contact at least one forest thinning contractor to document their experiences working in the Lake Tahoe Basin.

Results

This project documents the complex issues surrounding biomass power markets, thinning on public lands, the link between improved forest health and biomass power, biomass fuel supply logistics, economics of biomass power production and the potential for Green Tags.

The problem of excess vegetation on Basin lands has not gone away since this project started in August of 2000. The authors believe that the underlying rationale for developing the Tahoe Green Power Program still exists. The main barriers to using Basin biomass for energy now are:

- Retail access in California has been suspended;
- Wholesale electricity prices are lower than the costs of production of biopower;
- Biomass from the Lake Tahoe Basin is more expensive than biomass from other regions due to environmental regulations;
- Green Tags are a newly developing market mechanism, but forest thinnings are not included as an eligible resource from which tradable renewable certificates (TRCs) can be produced; and,
- The Wheelabrator Martell plant has been shut down so there are not any current biomass generators located within a reasonable haul distance of the Basin.

The barriers are mitigated somewhat by the Renewable Portfolio Standards that have been passed in both California and Nevada. The RPS legislation will provide some incentives for project development in each state, but the projects must still be economic.

There is potential in both states to develop new infrastructure that can use biomass as the fuel supply if the economics can be supported. Before investing in this infrastructure, investors and government need to be sure that raw material will be available for the period of time required to recover the capital. The USFS has recently obtained approval to develop and implement stewardship contracting mechanisms, which should help meet this requirement.

For biomass projects to succeed, investors must also be ensured that there is a set of project economics that will support the investment of this capital with a fair return and relatively low risk. If biomass energy is to serve as a potential outlet for forest biomass, it is clear that there is a need for some kind of market credit to help overcome the price disparity between the costs of production and the potential revenue from sales of electricity. The costs of biomass power are in the range of 1 to 4 cents/kWh over current wholesale market rates.

Potential credits include Green Tags, a production tax credit, or a biomass fuel credit. Biomass Green Tags could offer some incentives, but by themselves will not be sufficient to improve the economics. The market for green tags is just developing, and wholesale average prices are about 1 cent/kWh. If power could be produced using Basin biomass, selling the tags should be possible.

A production tax credit could be accomplished by expanding the Section 45 tax credit to include all biomass resources instead of only biomass grown exclusively for energy production (closed loop biomass). The credit would provide for an inflation-adjusted 1.5 cents/kWh for electricity generated from biomass. This is the same credit that the wind generators now receive. Congress is considering expanding this credit to biomass through the current energy bill.

Another potential credit, contained in the President's Healthy Forest Initiative, would provide a \$20/green ton credit to generators who convert forest biomass to electricity or fuel.