

North Tahoe Citizen Action Alliance

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Scale and Character

The scale and character of a community includes the following characteristics: Land Use, Transportation, Urban Design, Public Facilities and Services, Natural and Cultural Resources, and Economic Development. Community historical patterns of development, where over time, common land use issues and themes have arisen. Those issues and themes, in conjunction with natural topographic and human-made barriers, have developed. This cannot be better illustrated than a comparison between Stateline (on the Lake Tahoe South Shore) and Kings Beach.



Of particular importance to community character are Gateways, or the intersection of a major corridor with the community's edge that serves as the community's front door and provides a first impression. Corridors or high-profile high-traffic



roadways are where large numbers of residents and visitors are exposed to an image of the community. Focal Points and Activity Centers are locations within the community that are defined by a large amount of activity, and that serve as major points of communal exchange. Landmarks may be one of the above focal points, but they also serve as site-specific reference points for the community, promoting an image reflecting the community at large. Civic or public space, such as parks and common public are also important focal points. Finally, the community's edge is where the built environment meets undeveloped land and is an important transition area.

Therefore, community scale and character is the sum of all the attributes and assets that make a community unique, and that establish a "sense of place" that has been chosen by its residents. It is important to listen to the residents and members of the community, to hear what is most important to them. There should be no confusion in the definition of scale and character. It only requires the ability to see, hear, and smell.

Kings Beach Biomass Plant Facts

The Placer County proposed biomass-fueled power-generating plant in Kings Beach should not be routinely accepted by North Lake Tahoe residents, and specifically Kings Beach community members, but be carefully reviewed and commented upon. Here are some facts to consider.

Proposed size of plant: One to three Megawatts or 1000-3000 kilowatts generated every hour. (If you look at your power bill the kilowatt hours consumed is stated).

Fuel consumption: At One Megawatt the plant burns 1 Bone Dry Ton (BDT) per hour. (A Bone Dry Ton is an industry standard of measurement that assumes the fuel contains 8500 BTU/lb or a total heat content of 17,000,000 BTU/BDT). This is the same heat content as a full cord (128 cubic feet) of Lodge Pole Pine firewood.

At this rate of combustion a One Megawatt plant burns the equivalent of 24 cords of firewood per day. A Three Megawatt plant would burn the equivalent of 72 cords of firewood every day.



Use of the Waste Heat: The question of utilizing the waste heat was asked of Jim Turner of Sierra Pacific Industries who operates the Biomass Plant (rated at 20 MW) located in Loyalton (just north of Sierraville). Why is the waste heat not utilized to heat the town? He responded that after about one half mile the heat losses are so great that it is not economical. Some claim the waste heat can be used to heat the Kings Beach Elementary School, a proposed County Administrative Center, and melt the snow from the commercial core sidewalks. Except for the elementary school, these other uses are more than a mile from the generating plant.

Conversion of hazardous fuels removal (thinning) into biomass feedstock: This is by far the most expensive part of the chain of feedstock production. In a recent interview Dave Fournier of the Forest Service explained how open burning was the least expensive method of removing forest debris with costs as low as \$700 per acre. But the widespread practice of pile burning in the Tahoe Basin is not a sustainable method for hazardous fuels reduction due to air emissions, public health, visibility, and risk of losing control. According to the Forest Service, prescribed open burns must still be done in areas where the slope exceeds 30% or are otherwise inaccessible to mechanical equipment. Some open burning for ecological purposes is also necessary to sustain a healthy forest. Open burning will occur in the foreseeable future.

The impediment to converting forest material into usable biomass fuel is the cost high cost of retrieving and transporting the material for further processing. According to Fournier the costs can range from \$1700 to \$3000 per acre, and even higher, with an average range of material production of 15-20 tons per acre.

If the forest material is chipped on site it is mostly green with high-moisture (water) content. A standard chipper trailer hauls a 26 ton load of green chips but produces only about 13.5 Bone Dry Tons. At the Loyalton Plant the market rate paid for green chips is about \$22 per ton, whereas for dry chips as much as \$40 per ton depending on quality.

The importance of feedstock quality on plant efficiencies and emissions is critical to understand. Each technology and plant design is based on specific fuel specifications. If the feedstock fails “to meet the specification” there are performance and air quality issues. At Loyalton’s Biomass Plant “the best fuel

can give us 89% efficiency, and the worst fuel will drop that efficiency by a third to 59%.” The drop in efficiency also increases emissions of the plant beyond design levels.

Generating Plant in Kings Beach or Processing Plant at Cabin Creek: These are different stages of the process of full utilization of biomass as a fuel. The assumption that a biomass plant in Kings Beach is built, a prerequisite for hazardous fuels reduction at Tahoe does not connect that any biomass plant pays the going market rate for the feedstock but it cost several times more to do the work of processing the feedstock. A processing facility to produce quality feedstock for the market’s waste stream is a prerequisite for any sustainable fuels reduction. Cabin Creek already supplies 20% of the feedstock for the Loyalton Biomass facility, which operates at half its rated generating output (20MW) for lack of fuel.

The following article reviews many aspects of biomass fueled power generation. Realizing that the proposed Kings Beach plant will only be powered by forest slash, and is not considered as a coal replacement but an alternative to open burning of forest debris, the pollution and health effects are still pertinent for Lake Tahoe. The article is reprinted in its entirety for completeness.

Net Benefits of Biomass Power Under Scrutiny, by Tom Zeller Jr., for the New York Times, published June 18, 2010

GREENFIELD, Mass. — Matthew Wolfe, an energy developer with plans to turn tree branches and other woody debris into electric power, sees himself as a positive force in the effort to wean his state off of planet-warming fossil fuels. “It’s way better than coal,” Mr. Wolfe said, “if you look at it over its life cycle.” Not everyone agrees, as evidenced by lawn signs in this northwestern Massachusetts town reading “Biomass? No Thanks.”

In fact, power generated by burning wood, plants and other organic material, which makes up 50 percent of all renewable energy produced in the United States (and 1.4% of all electricity generated), according to federal statistics, is facing increased scrutiny and opposition. That, critics say, is because it is not as climate-friendly as once thought, and the pollution it causes in the short run may outweigh its long-term benefits.

The opposition to biomass power threatens its viability as a renewable energy source when the country is looking to diversify its energy portfolio, urged on by [President Obama](#) in an address to the nation. It also underscores the difficult and complex choices state and local governments face in pursuing clean-energy goals.

Biomass proponents say it is a simple and proved renewable technology based on natural cycles. They acknowledge that burning wood and other organic matter releases carbon dioxide into the atmosphere just as coal does, but point out that trees and plants also absorb the gas. If done carefully, and without overharvesting, they say, the damage to the climate can be offset.

But opponents say achieving that sort of balance is almost impossible, and carbon-absorbing forests will ultimately be destroyed to feed a voracious biomass industry fueled inappropriately by clean-energy subsidies. They also argue that, like any incinerating operation, biomass plants generate all sorts of other pollution, including particulate matter. State and federal regulators are now puzzling over these arguments.



Last month, in outlining its plans to regulate greenhouse gases, the [Environmental Protection Agency](#) declined to exempt emissions from “biogenic” sources like biomass power plants. That dismayed the biomass and forest products industries, which typically describe biomass as “carbon neutral.” The agency said more deliberation was needed.

Meanwhile, plans for several biomass plants around the country have been dropped because of stiff community opposition.

In March, a \$250 million biomass power project planned for Gretna, Fla., was abandoned after residents complained that it threatened air quality. Two planned plants in Indiana have faced similar grass-roots opposition.

In April, an association of family physicians in North Carolina told state regulators that biomass power plant there, like other plants and factories that pollute the air, could “increase the risk of premature death, asthma, chronic bronchitis and heart disease.”

In Massachusetts, fierce opposition to a handful of projects in the western part of the state, including Mr. Wolfe’s, prompted officials to order a moratorium on new permits last December, and to commission a scientific review of the environmental credentials of biomass power.

That study, [released last week](#), concluded that, at least in Massachusetts, power plants using woody material as fuel would probably prove worse for the climate than existing coal plants over the next several decades. Plants that generate both heat and power, displacing not just coal but also oil and gas, could yield dividends faster, the report said. But in every case, the study found, much depends on what is burned, how it is burned, how forests are managed and how the industry is regulated.

Ian A. Bowles, the secretary of the Massachusetts Office of Energy and Environmental Affairs, said that biomass power and sustainable forest management were not mutually exclusive. But he also said that the logical conclusion from the study was that biomass plants that generated electricity alone probably should not be eligible for incentives for renewable energy.

“That would represent a significant change in policy,” Mr. Bowles said. The biomass industry argues that studies like the one in Massachusetts do not make a clear distinction between wood harvested specifically for energy production and the more common, and desirable, practice of burning wood and plant scraps left from agriculture and logging operations. The Biomass Power Association, a trade group based in Maine, said in a statement last week that it was “not aware of any facilities that use whole trees for energy.”

During a recent visit to an old gravel pit outside of town where he hopes to build his 47-megawatt Pioneer Renewable Energy project, Mr. Wolfe said the plant would be capable of generating heat and power, and would use only woody residues as a feedstock. “It’s really frustrating,” he said. “There’s a tremendous deficit of trust that is really inhibiting things.”

In the United States, biomass power plants burn a variety of feedstocks, including rice hulls in Louisiana and sugar cane residues, called bagasse, in parts of Florida and Hawaii. A vast majority, though, some 90 percent, use woody residue as a feedstock, according to the Biomass Power Association. About 75 percent of biomass electricity comes from the paper and pulp companies, which collect their residues and burn them to generate power for themselves.

But more than 80 operations in 20 states are grid-connected and generate power for sale to local utilities and distribution to residential and commercial customers, a \$1 billion industry, according to the association. The increasing availability of subsidies and tax incentives has put dozens of new projects in the development pipeline.

The problem with all this biomass, critics argue, is that wood can actually churn out more greenhouse gases than coal. New trees might well cancel that out, but they do not grow overnight. That means the low-carbon attributes of biomass are often realized too slowly to be particularly useful for combating [climate change](#).

Supporters of the technology say those limitations can be overcome with tight regulation of what materials are burned and how they are harvested. “The key question is the rate of use,” said Ben Larson of the [Union of Concerned Scientists](#), an environmental group based in Cambridge, Mass., that supports the sensible use of biomass power. “We need to consider which sources are used, and how the land is taken care of over the long haul.”

But critics maintain that “sustainable” biomass power is an oxymoron and that nowhere near enough residual material exists to feed a large-scale industry. Plant owners, they say, will inevitably be forced to seek out less beneficial fuels, including whole trees harvested from tracts of land that never would have been logged otherwise. Those trees, critics say, would do far more to absorb planet-warming gases if they were simply left alone.

“The fact is, you might get six or seven megawatts of power from residues in Massachusetts,” said Chris Matera, the founder of Massachusetts Forest Watch. “They’re planning on building about 200 megawatts. So it’s a red herring. It’s not about burning waste wood. This is about burning trees.”

Whether or not that is true, biomass power is also coming under attack simply for the ordinary air pollution it produces. Web sites like [No Biomass Burn](#), based in the Pacific Northwest, liken biomass emissions to cigarette smoke. Duff Badgley, the coordinator of the site, says a proposed plant in Mason County, Washington, would “rain toxic pollutants” on residents there. And the American Lung Association has asked Congress to exclude subsidies for biomass from any new energy bill, citing potentially “severe impacts” on health.

Nathaniel Greene, the director of renewable energy policy for the [Natural Resources Defense Council](#), said that while such concerns were not unfounded, air pollution could be controlled. “It involves technology that we’re really good at,” Mr. Greene said. For opponents like Mr. Matera, the tradeoffs are not worth it. “We’ve got huge problems,” Mr. Matera said. “And there’s no easy answer. But biomass doesn’t do it. It’s a false solution that has enormous impacts.”

Mr. Wolfe says that is shortsighted. [Wind power](#) and [solar power](#) are not ready to scale up technologically and economically, he said, particularly in this corner of Massachusetts. Biomass, by contrast, is proven and available, and while it is far from perfect, he argued, it can play a small part in reducing reliance on fossil fuels. “Is it carbon-neutral? Is it low-carbon? There’s some variety of opinion,” Mr. Wolfe said. “But that’s missing the forest for the trees. The question I ask is what the alternative is?”

Did You Know...?

- An affordable housing project in Placer County's portion of Lake Tahoe cleared a final hurdle on Wednesday when the California Tax Credit Allocation Committee awarded \$2,292,167 per year for ten years (\$22,921,670 total) in low income housing tax credits to the project. This last piece

of a complex funding plan will complete the financing for the Kings Beach Housing Now (Domus) Project.

- The Placer County Department of Public Works Tahoe Engineering Division has begun the second phase of a large stream environment zone (SEZ) restoration project in the Lake Forest area of North Lake Tahoe. The project will reconstruct historic stream channels that were modified around 1960. In all, 35 acres will be restored.

Upcoming Events/Key Dates

Agendas for TRPA Governing Board and APC, and also Placer County BOS are not available until a few days before the meeting. Therefore, it is difficult to provide a meaningful emphasis to the meetings. Other meetings/events not shown here, or changes, will be announced by email.

July 7, Wednesday	NLTRA Board Meeting	8:30 am, TCPUD Board Room
July 8, Thursday	NTRAC Meeting	6 pm, NTEC, Kings Beach
July 13, Tuesday	NTPUD Board Meeting	10 am, NTEC, Kings Beach
July 13, Tuesday	Placer County BOS Mtg.	8:30 am, Auburn
July 14, Wednesday	TRPA APC Meeting	9:30 am, TRPA Stateline Office
July 16, Friday	TCPUD Board Meeting	8:30 am, TCPUD Board Room
July 21, Wednesday	NTPFD Board Meeting	6 pm, TCPUD Board Room
July 27, Tuesday	Placer County BOS Mtg.	8:30 am, Auburn
July 28, Wednesday	TRPA Governing Board	9:30 am, NTEC, Kings Beach

TRPA – Tahoe Regional Planning Agency
 NLTRA – North Lake Tahoe Resort Association
 TCPUD – Tahoe City Public Utility District
 NTEC – North Tahoe Event Center (NTCC)
 BOS – Placer County Board of Supervisors

APC – Advisory Planning Commission
 NTPUD – North Tahoe Public Utility District
 NTPFD – North Tahoe Fire Protection District
 NTRAC- North Tahoe Regional Advisory Council

“We are not afraid to follow truth wherever it may lead, not to tolerate any error so long as reason is left free to combat it.” Thomas Jefferson

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