

Folks:

I may have told you about my ideas of making Napa County a net producer of clean energy and an eco-restoration destination.

On a few occasions earlier this year, when the Napa County General Plan was open for public comment, I presented these ideas. I sent Ms. Hillary Gitelman, Napa County's Planning Director, **general** comments about my plan in an email (see next section). And in response to her request that I propose **how** we should achieve these objectives, I sent her my **specific** suggestions (see last section). Ms. Gitelman has more questions for me, but she has generally been receptive to the ideas proposed here.

I have also sent this information to Napa County's Board of Supervisors. If you are a Napa County resident and think there is some merit to the ideas presented here, please contact the Board of Supervisors, Napa County's Planning Commission, and other elected officials, and let them know that you too **want** to achieve these objectives in Napa County. Please share this email with others so they can weigh in with their opinions too. Developing the **political will** to implement these suggestions will require more effort than developing technical and financial solutions.

Napa County's Board of Supervisors can be reached at:

1195 Third Street, Suite 310
Napa, CA 94559
Phone: 707-253-4386
Fax: 707-253-4176

Brad Wagenknecht (bwagenkn@co.napa.ca.us)
Mark Luce (mlyce@co.napa.ca.us)
Diane Dillon (ddillon@co.napa.ca.us)
Bill Dodd (bdodd@co.napa.ca.us)
Harold Moskowitz (hmoskowitz@co.napa.ca.us)

Napa County Planning Director: Hilary Gitelman (hgitelman@co.napa.ca.us)

If you don't live in Napa County, but think there is some merit to these ideas, please encourage us in our efforts. Better yet, please apply these ideas where you live, so you can accompany us on our journey. Thanks.

Sincerely,

Gopal Shanker
President
Récolte Energy
3901 Lake County Highway
Calistoga, CA 94515

Phone: (707) 480-1960

Fax: (866) 561-9002

www.recolteenergy.com

From: Gopal Shanker [mailto:gopal@recolteenergy.com]

Sent: Monday, June 18, 2007 4:20 PM

To: Hillary E. Gitelman (hgitelman@co.napa.ca.us)

Subject: Comment on General Plan

Dear Ms. Gitelman:

I am requesting that Napa County's General Plan either have energy as a separate topic area or that each of the topic areas' energy impacts be estimated, with the ultimate objective of making Napa County "fossil-fuel free" in five years. This means producing enough clean energy (or energy from renewable resources such as solar, wind, small-scale hydro, geothermal, and biomass, and waste gases) first to offset 100% of our own energy requirements, and second, for export.

This is an achievable, yet bold, goal. Many other regions have taken tentative measures to promote renewable energy, but none have taken the action being proposed here.

The benefits of Napa County becoming a net producer of clean energy are that it can:

- 1) establish a precedent in the U.S. for others to follow
- 2) make the transition from non-renewable to renewable resources early and relatively painlessly
- 3) strengthen its agricultural industry and attract clean energy businesses
- 4) develop into an eco-tourism and eco-restoration destination
- 5) mitigate the impacts of continued fossil fuel use, including climate change, peak oil, and other environmental and social issues
- 6) generate tremendous amounts of wealth

The Case for Renewable Energy

There are many reasons to shift from using fossil-fuel based sources of energy to clean energies.

1. demand –U.S. demand for energy continues unabated, while the developing economies of nations like India and China, where more than a billion people are emerging from poverty, and are competing for the same global resources
2. supply – the maximum amount of petroleum that can be extracted from oil wells is expected to occur within our lifetimes.

Just these two factors acting together are putting an upward pressure on the cost of fossil fuels

3. climate change – emissions from the burning of fossil fuels is affecting global climate

The issue of whether or not one believes that climate change is real or caused by humans becomes irrelevant, because governments, including California through AB32, are imposing measures to regulate (tax?) greenhouse gas (GHG) emissions. These regulations will make fossil fuel use more expensive.

4. health – air quality is affected by the extraction and use of fossil fuels

5. agriculture – U.S. agriculture is highly dependent on petroleum-based fertilizer (over) use, which causes water and ecological pollution
6. water – More than 50% of the water used in the U.S. is used to produce energy from fossil fuels and 20% of the energy used in the state of California is used to move water.
7. Security – current sources of petroleum are concentrated in a few politically unstable parts of the world and the economic and human costs of securing these resources are high. Moreover, generation from multiple, rather than single sources, will make our energy supplies more secure against security threats and, for electricity generation, grid failures.
8. Wealth Creation – There will be a tremendous amount of wealth created / redistributed as the world makes the shift from its current fossil fuel base.

Because fossil fuel energy has been so integrated into our lives, the problems associated with fossil fuel use have been considered piecemeal and the solutions to deal with these problems have been myopic and even more problematic. We still do not include the true costs of producing and using fossil fuels in the cost of energy.

Items 1 through 7 listed above are **converging**, and are resulting in the costs of fossil fuels increasing and the costs of *using* fossil fuels also increasing. We are finally recognizing that the problem is continued use of fossil fuels and that the **only** viable alternative is clean energy. Because these events are converging, they are compressing the time we have available to find and adopt clean energy solutions.

It would be a tremendous accomplishment for Napa County to become independent of fossil fuels in **five years** and demonstrate that we and others can make the transition from the dying fossil fuel era to the emerging era based on clean sources of energy.

The Dangers of Inaction

Napa County is currently dependent on two industries: wine and tourism.

Napa wineries, which depend in part on the local microclimate for their success, are vulnerable to climate change. If the growing conditions in the Napa Valley change substantially, Napa may not be able to maintain its position as a producer of premium wines.

Napa's wine and tourism based economies may also find it difficult to thrive if the cost of energy increases dramatically. Costs of production will increase and commuters and tourists may not be able to afford travel into the County.

Not planning now on **how** to meet the County's future energy needs will limit our options when we do need to act.

My (unverified) calculations show that Napa County's emissions based on 2003 baseline electricity, natural gas, and petroleum usage is 1,147,717 tons of carbon dioxide. At "tax" estimates of \$4 and \$40 per ton of carbon dioxide, Napa County's annual "exposure" ranges between \$4.6 million and \$46 million, or between \$35 and \$350 per capita.

Clearly Napa County will benefit from a solution that mitigates the risk of doing business here, that brings in higher paying jobs, that enables more people who work here to also live here, that improves the environment and people's lives, and that preserves Napa County's agricultural heritage.

There is no reason not to act. Napa County has already developed innovative and replicable solutions

Becoming an Agricultural Preserve in 1968.

Producing world class wines. Stag's Leap Wine Cellars and Chateau Montelena won the 1976 Paris Tasting competition. The *people* of these and other Napa wineries demonstrated that they had the vision, skills, and determination to develop a world class industry within a few short years. The example they set has inspired people from many regions that traditionally have not produced wine to develop their own wine industries.

Establishing the New Technology High School (NTHS). This school is one of four models nationwide that The Gates Foundation chose and funded in 2000 for replication. The New Technology Foundation has established 28 schools in the U.S. based on the NTHS model. There will be 35 by year end 2007.

Preserving land in Napa County. The Land Trust of Napa County has preserved 25,000 acres of land by negotiating conservation easements with willing landowners.

Restoring a five-mile stretch of the Napa River. In 2002, the Rutherford Dust Society (RDS) initiated a plan to manage and restore a four-mile reach of the Napa River. The group intend to extend the project up the tributaries to include the entire watershed.

Establishing a living river. The Napa River Flood Management Plan was developed by an unprecedented countywide coalition of political and community leaders, private industry, natural resource agencies, non-profit groups, and private citizens. The plan provides flood protection by reconnecting the Napa River to its historical floodplain and restoring over 600 acres of tidal wetlands. The County is paying for the plan through a dedicated sales tax. For this accomplishment, Napa was recognized in a report to Congress for showing "the courage to break with convention" ... and ... inspiring "new thinking in other communities, and within government agencies."

Many people in and beyond the county have benefited from these and other solutions developed in Napa County. There will be generations of new beneficiaries when this proposal is implemented.

Getting Started

Achieving the objective of producing more than 100% of our energy from renewable resources requires a multi-pronged strategy, including: benchmarking current energy consumption and production, estimating future energy requirements, gathering resources and partners, implementing energy conservation and efficiency strategies, generating electricity from renewable resources, and restructuring our community to be based on renewable, rather than non-renewable, resources.

To be successful, the transition has to involve both top-down and bottom-up actions. Many actions are being taken and developed by various individuals and groups in the county.

Napa County's General Plan should actively support the implementation of these actions that promote these renewable energy initiatives as they are proposed.

The consequences of successful adoption and implementation of this plan will be a release of creativity, and increased prosperity for our county, our neighbors, California, and the rest of the world.

Thank you.

Sincerely,

Gopal Shanker
President
Récolte Energy
3901 Lake County Highway
Calistoga, CA 94515
Phone: (707) 480-1960
Fax: (866) 561-9002
Email: gopal@recolteenergy.com

Policy Objective

- Develop and implement an **integrated** plan to make Napa County a net producer of clean energy and an eco-restoration destination in five years

Process – County-Wide

- Establish **milestones** to achieve objectives
- Adopt/adapt already developed best practices from
 - the general plans of Marin, Sonoma, Mendocino, and San Mateo counties for **policy**
 - Smart Growth, Ecocities, New Urbanism, Montgomery County, Maryland and Curitiba, Brazil for **smart growth principles and integrated solutions**
 - the Cascadia chapter of the U.S. green building council for **building standards**
 - Navarre, Spain for **transitioning to a renewable energy** based society
- Establish **partnerships** with experts, trade associations, non-governmental organizations, community activists, businesses, academic institutions, financial institutions, utilities, regional, state and federal government agencies, other jurisdictions to achieve objectives, etc.
 - Examples of partners: cities within Napa County, NCTPA, USEPA, CALEPA, ARB, DOE, National Laboratories, PG&E, Napa Valley College, schools, local banks, ICLEI, Climate Registry, ABAG, Local Power, SER, Solar Schools, Green Schools, Gasser Foundation, Napa Green, Napa Vintners, sister cities in the U.S. and overseas ...
- Coordinate with PG&E to upgrade distribution and, if necessary, transmission infrastructure
- Map Napa County's biomass, wind, geothermal, solar photovoltaic, solar thermal, hydro, waste, tidal, biofuel, and other renewable energy resource potential
- Attract investors to develop these resources and implement projects
- Develop local incentives that supplement federal, state, and utility incentives to develop and promote use of energy from these sources
- Develop and promote financial solutions to achieve objectives
 - Engage local banks looking to comply with Community Reinvestment Act
 - Procure equipment in bulk
 - Promote investment by Napa County residents in community renewable energy projects
 - **Community Choice Aggregation**
- Develop local expertise to implement solutions by training students, workers, and professionals
- Attract or develop clean energy related jobs: research centers, green technology venture capital firms, renewable energy installers, eco-restoration and environmental remediation

specialists, environmental economists, accountants, and financiers, renewable energy trade associations and policy organizations, REC traders, alternate currency (such as the enviro) marketers, alternative fuel stations, and so on.

- Publicize benefits of renewable energy using case studies of wineries, Napa Valley College, and the city of Napa who have already installed renewable energy systems.

Steps – All Individuals and Entities

- Encourage individual, businesses, and the public sector to
 - benchmark current energy consumption, production, and emission levels
 - estimate future energy requirements
 - implement energy conservation and efficiency strategies
 - match energy source with energy use
 - generate electricity from renewable resources
 - reorganize lives/communities around renewable resources
- Measure output of renewable energy projects
- Become self-sufficient in energy production
- Export excess clean energy production

Additional Steps – Wineries / Agriculture

- Plan for future sequestration of CO₂ emitted during fermentation to grow algae for biodiesel
- Promote local food and wine production and consumption
- Reduce importation of foods that can be grown locally
- Promote agriculture that doesn't use petroleum based inputs
- Promote fuel crop production on land that cannot be used for any higher purpose
- Promote biodiversity and mitigate the risk of monoculture
- Promote uses for by-products of agriculture and winemaking
- Use alternative packaging materials
- Require suppliers to be more sustainable

Additional Steps -- Tourism

- Promote Napa County as a destination for eco-tourism, sustainability, and eco-restoration
- Promote Napa County as a place for making friends, sharing knowledge, and getting inspired
- Promote longer term visitors over day trippers
 - Remove moratorium on B&Bs; permit wineries to also be B&Bs
- Promote Napa County as a carbon neutral destination
 - Encourage local businesses to offer alternative fuel vehicles, hybrids, plug-in hybrids, and electric cars to visitors
- Encourage the development of best practices to educate visitors and for export
 - Examples: Clean energy exporting plan, Agricultural Preserve, Wine Industry, New Technology High School, Napa County Land Trust, Rutherford Dust Society River Restoration, Living River Project, St. Helena Hospital smoking cessation

Additional Steps -- Land Use / New Construction / Zoning / Transportation

- Examine regional climate models to determine which areas might be under water with sea level rises, and discourage development in those areas
- Promote projects that meet economic, environmental, and social sustainability criteria
 - Restorative Design – County issues project developer a large check (\$Y), approves project immediately

- Living Building (<http://www.cascadiagbc.org/lbc/Lb-challenge-v1-2>) – County issues project developer a check (\$Y-), approves project immediately
- LEED Platinum – County charges \$X, approves project immediately
- LEED Gold – County charges \$X+, approves project within a week
- LEED Silver – County charges \$X++, approves project within a week
- LEED Certified – County charges \$X+++ , approves project within two weeks
- Construction based on current building standards – County charges its usual \$X+++++, approves project within usual period
- Create a multi-disciplinary, multi-agency team that can evaluate cutting edge but proven technologies / methodologies that have been adopted elsewhere to facilitate fast track approval
- Modify zoning laws and redesign communities so people can work and shop locally
- Invest heavily in communication infrastructure to promote telecommuting
- Develop incentives to promote people and non-motorized transportation over motorized transportation, and alternative fuel vehicles over fossil fuel based vehicles
 - Provide incentives to encourage individuals to get rid of their second vehicles
 - Reduce width of roads for motor vehicles and create a separate bike / pedestrian path
 - permit electric golf carts on city streets
 - provide charging outlets for electric cars and bicycle parking in public spaces