

Summary of the Mendocino Energy Working Group Final Report

Rev. 06/20/07, bsc

In the fall of 2006, the Mendocino Board of Supervisors authorized the creation of an Energy Task Force to help develop a set of energy policies for the county's General Plan. The Task Force was created from citizens throughout the local area that had previously shown a role in energy within the county. The group became known as the Energy Working Group (or EWG) and first met in November 2006.

One of the first tasks of the EWG was to undertake a survey of energy use here in the county. This inventory, completed in January of 2007, included not only the energy used but also the Greenhouse Gas emissions we create through our activities.

The inventory showed us that, as a county, **we spent over \$156 million on energy in 2002, which works out to roughly 19% of the after-tax median household income** for Mendocino residents. With the increases in energy costs since 2002, **this has grown to over 31% of after-tax median household income in 2007**. The largest component of this energy use, **59%, goes towards transportation**, while the second largest, **over 20%, goes to electricity**.

In terms of Greenhouse Gas emissions by in-county activities, it was determined that over **1 million tons of CO₂ equivalents are released**, working out to **over 30 tons per household annually**. The major sources of these emissions were, in order, **transportation fuels (51%), electricity (17%) and heating fuels (13%)**.

Following the completion of the county inventory, the group turned towards assessing the future trends in energy availability and the looming state and federal mandates over greenhouse gas emissions that will most certainly impact us individually.

Investigating these trends pointed out troubling facts.

Current discussions at the Federal level, as well as throughout the rest of the world, are pushing for carbon taxes and a greatly reduced use of polluting technologies. These will drive up the costs of energy, impacting basic household goods and personal transportation. At the same time, **Climate Change will potentially reduce food production and seriously threaten water availability**.

The truth is, in the coming decade, through either declining petroleum or Climate Change mandates, **we may very well see gasoline reaching \$10 per gallon** and this will impact not only our individual capability to get to work or go shopping, it will also drive up our food costs dramatically.

American food production and distribution have become highly dependent on fossil fuels, **accounting for 17 percent of U.S. energy consumption**. Because of this, higher oil and natural gas prices are expected to lead to a decline in the amount and variety of food produced.

Electricity is another area of economic impact. **Most of the new generating capacity in California is fueled by natural gas but 87% of the fuel used is imported from outside the state.**

Translating these concerns into policy areas resulted in 6 primary areas of focus: **1) transportation, including public transit, 2) development practices, 3) energy conservation, 4) local energy production, 5) agricultural and local food production and 6) local, in-community employment.**

The **biggest issue (and consumer of energy) presently is transportation.** By creating policies that encourage in-fill of existing communities, mixed-use buildings (businesses on the ground floor, apartments above), and co-locating industry so that heating, cooling and waste streams are shared, we will have made a marked first step. Add to this the leasing of rail access to allow electric trolleys to run between the major commuting centers allows us to provide non-trivial alternatives to our status quo.

Through the creation of a county-wide agency to provide energy audits to homes and businesses, conservation can be affected easily; and **conservation is one of the most effective means of reducing energy costs**, including electricity and heating.

Taking this a step further, the county could promote the transition to a ‘community-owned’ utility. Basically this means that we become the utility instead of PG&E, purchasing power in blocks, at discount.

If Mendocino County were to begin to develop its own power generation capabilities (and there is high potential in solar, wind, wave and biomass power generation here), groups such as Northern California Power Authority (NCPA), are interested in funding new power sources or at least purchasing excess power. **If that energy is purchased from a local provider, the funds that are expended remain in Mendocino County**, strengthening our local economy.

Examining the issue of agriculture, the average food reaching your plate today travels nearly 1500 miles. In addition, it takes more than 10 calories of energy to produce every calorie of food you consume; and **the average town has no more than a 3-day supply of food in store stocks.** Local, **small-scale agriculture generally is less energy intensive**, in terms of machinery, fertilizers, pesticides, and the distance it needs to travel to market. By examining land use and planning policies (i.e. minimum parcel sizes, agricultural incentives and the possibility of ‘intentional farming communities’), we could make it affordable for small-scale farming and have local foods at greatly reduced costs (and increased nutritional value)

In recommending policy shifts through this report, **our goal is not to change lifestyles** but rather to suggest policy that will mitigate or reduce the economic impacts from impending legislation and the direct impacts of declining petroleum and climate change. The economics of spiraling energy prices and climate change mitigation measures are

already affecting each of us. In this respect, the **EWG identified policies that will keep the money we spend on energy, transportation and food circulating in our local economy**. These policies will also reduce CO₂ emissions and foreign oil dependence while increasing our national security and the quality of the resources we depend on like the air, water and soil.

This report incorporates the group's energy and emissions inventory for the county, the future of energy and impacts of climate change, as well as the policy recommendations. It was written primarily to distribute to the Board of Supervisors, the Planning Commissioners and to the Planning Department itself. However, with the scant attention paid so far by these groups, it was felt that a distribution of this report throughout the county was important in order to let folks know what was happening and what we could do.

Essentially the bottom line is this: **we are facing two crises – upward-spiraling energy costs and climate change. The solutions to each are essentially the same:** we need to cut oil and natural gas consumption in half within the next 10 to 20 years; transforming how energy is used in transportation, food supply, buildings and manufacturing. If we do not begin to address these issues, the economic impact will severely reduce the discretionary income of our fellow citizens while resulting in declining revenues or operating funds for our county government, including social and emergency services.

The Energy Working Group hopes that this report's recommendations will be embraced by the county and the community; and that policies can begin to be adopted that reflect our county's personality and needs. If this is successful, it will move us towards a stronger county and prepare us for the looming crises.

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