Testimony Submitted in Support of the Humboldt County General Plan, Energy Element
By John Schaefer*
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Although nobody likes to think about change, it is coming. Especially with regard to energy, the **next 20 years will see much more change than the past 20.** The General Plan should address the county's use of energy, with concrete measures rather than vague recommendations and calls for more study. We know already what needs to be done, and the time for more study has passed.

Energy usage will change markedly over the next two decades; **energy prices will be markedly higher and as a result we will have to use much less.** Otherwise even more money will flow out of the county to outside entities. Energy prices have risen by 10 to 20 percent per year over the past several years, and we should expect that trend to continue. Any analysis of energy-related options should take those price rises into account.

Although the details of our future are uncertain, our **first planning priority should be to adopt "no-regrets"** policies, those which make sense regardless what the future brings. Moreover, we should **avoid "certain-regrets"** policies, those that are counterproductive regardless of what the future brings.

One **no-regrets energy policy is for the county to adopt General Plan Alternative A** as its planning guideline, as all others commit us to greater energy usage rather than less.

Some will say that planning regulations have no place in a market economy, but regulations such as building codes have long served to enhance public value. Abrogating responsibility for land-use development decisions to short-term profit makers has proven unwise in the past, and will be even more unwise given the economic changes expected for the future. Therefore, **one "certain-regrets" policy is to permit the kind of sprawl that covers Santa Clara and Los Angeles Counties**, for example; Alternatives C and D are "certain-regrets" options.

Two major policy areas affect our energy usage, buildings and transportation. The suggestions I offer are all no-regrets strategies. I'll have a few words about funding, as well.

Suggestions will refer to sections in Chapter 5 of the Energy Element. Chapter 5 is a table showing four columns: Strategies, Responsible Party, Measurable Outcome and Time Frame. But the **strategies suggested are in many cases vague and too general** for specific actions to be taken; **and no time frame is suggested** in the table at all. Without a time frame to accomplish anything, a measurable outcome is meaningless.

"Encourage" is a word that appears often in Table 5, but without specifics; stronger terminology than "encourage" should be employed, such as "require".

Buildings

Buildings use a sizable fraction of the county's energy consumption. Older buildings are challenging because of the difficulty and cost of rebuilding them, but new ones can be built much better than they are now. My observation is that most builders, developers, architects and city planners ignore energy efficiency, except as required by Title 24, and are oblivious to the effective use of solar. Buildings can and should be designed to be more efficient than Title 24 requires, and housing design and construction can include more widespread use of new technologies.

Section 5.1.5 should include greater specificity in "Site design standards and incentives" and "Street layout and design". The following requirements should be included:

- Effective a year from now, require new real estate developments to **lay out streets** so that lots take greatest advantage of solar energy, or demonstrate why it is in homeowners' economic interest over the next 50 years not to do so. (A casual examination of recent real estate developments reveals that this has not been done.)
- For permits issued beginning 2 years from now, require all **new buildings to supply at least half of their electricity and heating** needs from renewable sources, or else demonstrate why it is in homeowners' economic interest over the next 50 years not to do so.
- Effective immediately, require **all new buildings to maximize south facing roof area**, or else demonstrate why it is in homeowners' economic interest over the next 50 years not to do so.
- Effective immediately, for all remodeling or new construction where possible, **require electrical conduit and insulated plumbing connections** for potential future solar electric and hot water systems (this is "encouraged" in the efficiency Section 5.5.2, for some reason.).

Section 5.2.2 "Energy Audit Program" and "Energy Efficient Retrofits" should **require energy audits for new projects and for all sales of buildings** in the county. This can begin within 6 months. For new construction, the audit should include efficiency measures at least one step beyond Title 24, which in fact is not very efficient. And for new construction, this audit program should require that developers adopt standards beyond Title 24, or else demonstrate why it is not economic to go beyond Title 24, using 10 and 20 per cent growth rates for energy prices.

While they are mentioned in the Energy Element's appendix, no suggestion is made in Section 5 that heat pumps be included as possible options like better insulation, energy efficient windows and more use of solar power. Heat pumps offer advantages that should at least be considered among other options.

In Section 5.3.1, "Countywide Renewable Energy, Distributed Generation & Cogeneration", under "Support Wave and Tidal Energy Demonstration Projects", the plan should **require the county to be the permit holder for such projects** and for offshore wind projects, rather than private entities. This should be undertaken immediately, as PG&E is already filing to acquire those rights, just as it did hydro rights early in the last century.

In Section 5.4.2, the recommendation limits feasibility studies for "Community Choice Aggregation" to one specific consulting company; this is imprudent and should be struck from the text.

When energy prices rise as they will over the foreseeable future, many homes in Humboldt County will resort to wood heating. This is a good idea for the county, except that old wood stoves create so much pollution that their usage will be dangerous. (It would also be a good idea for the county to adopt policies that encourage more wood growth.) Therefore, I strongly recommend that the county adopt regulations that limit such dangerous emissions. The gold standard for wood heating will be wood pellets, and I suggest that a **standard based on wood pellets be adopted** within a year, and enforced for all wood burning over the next ten years.

The other area where energy usage can be more efficient is transportation.

Transportation

Transportation offers a much greater opportunity to reduce energy usage even than buildings because vehicle turnover is more rapid than housing turnover. Section 5.1.4 is sprinkled with the word "encourage" but as noted above offers no concrete requirements.

The section "Alternative Transportation Infrastructure" should require facilities and infrastructure, specifically:

- The county shall **initiate passenger rail service** between Arcata and Eureka within the next 5 years.
- The county shall also, within 3 years, **install between Arcata and Eureka a safe bike path** that is separated from the highway by a barrier or by at least ten feet of space.
- A bike path shall also be extended to McKinleyville when the new Mad River Bridge is built and that bridge should have a bike path separated from automotive traffic.
- A bike path should extend under the mad River bridge to that section of McKinleyville west of the freeway.
- In Eureka, the bike path should follow the waterfront and extend at least to the mall.
- Within 5 years the bike path shall extend to College of the Redwoods.
- The county should insist that CalTrans always include safe bike paths in its projects.

Funding

The funding of all these suggestions is obviously a challenge, as neither the county nor any of its cities is blessed with a budget surplus.

We should recall what the storms of 2 years ago did to the rail right-of-way along the freeway, and realize that the county will need to invest in dikes over the next 50 years as storm intensity increases. The Dutch responded to a sea level challenge in the last several centuries and we can do it in this one.

The only way for the county to respond to climate change and to provide the right incentives for the projects described herein is to find new funding sources; I fear that little funding can be expected from the federal or state governments over the next decade.

The local **source for such funding is a carbon pollution fee**, based on the carbon content of all fossil fuels. It would be easy to collect, because there are only a few entities that supply fossil fuels in the county. The political difficulties in implementing such a fee (some opposed to it might call it a tax), but it is a no-regrets policy because it reduces the amount of money that flows out of the county and makes all the strategies described in the Energy Element feasible and more economic.

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