

ORIGINAL TEXT OF COMPILATION OF COMMENTS
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Westwood Center, Wausau, Wisconsin

Comments: Citizens Energy Forum

Ideas and problems with current systems

- We need more conservation. We need education, both public and at primary and secondary schools about conservation. A key way to implement conservation is to show people how to reduce their electric bills. Conservation needs to be focused on items such as billboard lighting, parking lots, large office buildings. Air conditioners in stores are set for a temperature that is too low. Fossil fuel economy should be changed to a conservation economy. California 20-20 model should be followed, 20% less usage equals a 20% savings on your electricity bill. Behavioral changes are what make conservation work, education can bring about these changes. Rewards and incentives must stay in place. More "shared savings" programs for industrial efficiency. Once goals are established they must be implemented within a predetermined time frame. Re-institute conservation programs that were popular a decade ago, and shown to be effective for DSM.
- We need more efficiency. Energy efficiency is the best solution. Renewables are fine but resources are still wasted if the lights are left on. Net-metering could contribute to efficiency. Example of efficiency is the Bemis company who cut electric lighting charges in half by installing new fixtures using metal halide-fuel spectrum lights. Appliances should all be energy efficient, with labels such as the energy star to determine usage. Buildings should additionally be rated with an energy star. No non self-defrosting refrigerators are available, these continually use a constant low voltage energy. Motion sensors should be standard lighting in parking areas thus averting the need for lights on all night. All cities and towns should incorporate the use of more efficient street lights that avoid sending light into space.
- Programs such as Focus on Energy could recycle older refrigerators supplying customer with a cash bond, offsetting the cost of a higher efficiency refrigerator. All products should additionally be labeled with how to recycle them. A greater recycling program throughout the US could additionally be helpful to reduce both waste and energy usage, such as burning waste tires, corn (ethanol), garbage should be encouraged to create energy. Less cost for transportation and delivery of garbage. Each product should be created

with the expressed idea of how to dispose and reuse.

- We need energy self sufficiency in state. A more sustainable energy economy would be less mobile, more locally oriented, and consider a net reduction in global trade.
- Current system susceptible to terrorist activity, system should include more locally produced energy. Need a citizen watch along transmission lines, people need to be trained. Educate movement to be centralized and move further down along the line. After 9-11 new infrastructure decisions make better sense, such as a heavier reliance on distributed generation. Concerns about terrorism have renewed concerns about our heavy reliance on fossil fuels. Our reliance on the grid is seen as a vulnerability should we have an attack that so decimates either the transmission or distribution system as to leave us without energy for weeks. Move to local distributed generation seen as important throughout this new age of terror.
- Siting of generation should be industrial parks with subsidies to the communities so they can build generation. More encouragement for local generation. Site generation as close to demand as possible. Cumberland is an example of all electricity produced locally.
- Hydrogen—need education on how it works. UW Madison breakthrough, hydrogen made from glucose, plant matter, corn. Technology advances for furthering a hydrogen economy should get out to the small producers rather than the large producers. Move away from fossil fuels to a hydrogen based economy.
- All Midwest Governors should do a combined regional energy policy. It was noted that California did not create its new policies alone.
- Rate structures could be rewarded on size of homes, with larger, less efficient homes costing more to service electrically.
- Solar and wind are important resources. Education, especially for future generations at the primary and secondary school level is important. Solar energy should be installed in homes to be made use of during peak days (done in Florida). There was some concern about wind generators killing birds and bats. Additional concerns about materials employed in the creation of solar panels, toxic metals, like germanium and cadmium, and the effect that large scale manufacturing of these products could have on the environment. To enhance both wind and solar installation energy credit incentives and education of installers are seen as necessary.

- Groups such as SOUL should get proactive, introducing lighting opportunities to businesses and companies. This would allow them the voice to discuss how they are reducing the need for new transmission.
- Re-evaluation for the use of eminent domain. Rural electrification created a fight for farmers off the distribution line, at a high cost to individuals, in the 1930's. Projects such as the current controversy over the Arrowhead-Weston Transmission Line are seen as only producing a profit for the utilities, at the expense of both land owners and environmental justice for the Pimicikamak Cree Nation.
- Real time pricing would be a good incentive to use less. Pay higher rates during peak times which would encourage less usage. Possibly a mandate time on business and corporate customers.
- Utilities which utilize renewables should receive tax credits.
- Fuel usage cuts: eliminate mail delivery on Saturday cutting car fuel use. Fuel and material usage could be cut by customer purchase incentives, such as high efficiency brake pads.
- Ethanol may not be the best product environmentally or from an energy standpoint. Some do not think promotion of ethanol is a good idea.
- It appears to take more energy to produce ethanol than we get out of it. Dr. Pimentel's work and others, including other engineers, support this. The claim of lowering auto emissions is questionable at best. While ethanol laced fuel does lower it in some areas, other emissions go up. Finally, the pollution from the production of ethanol may in fact be greater than what we save in burning it in our cars and trucks. In effect, it is more of a "pollution displacement" than a "pollution reduction" given what these plants do to the area they are located in. We are just moving pollution from cities like Milwaukee and Minneapolis to lesser populated, and less politically strong areas, like Menomonie, Stanley, Utica, Elba and other small towns. This pollution displacement is clearly shown by the fact that all 12 dry mill ethanol plants in Minnesota are currently being investigated for exceeding EPA pollution limits by millions of pounds per year. All are facing possible fines and all must correct their operation. The environment in those towns is NOT better because of ethanol and the idea promoted by supporters that we should be happy to do this for the good of others does not hold up to those that are being forced to live with these plants everyday.
- There are numerous other issues related to the production of ethanol:
 - a.. The social implications of turning significant amounts of food into fuel are troubling to many.

b. If all gas sold in the US was 10% ethanol, approximately 20% of the World's corn would be converted from food to fuel diverting funds from alternative energy and research.

c.. Listing corn as a renewable energy source is then to accept that intensive row crop

farming as had no impact on our soils and water. This, as we all know, is completely untrue. The discussion should not be "renewable" but rather center around "sustainable" energy sources. Corn does not fit in this category.

d. Ethanol production is not really about energy, pollution, jobs, environment or any the other issues the ethanol lobbyist talk about. It is about corporate welfare and these large companies like ADM bellying up to the welfare trough to line their pockets with our tax dollars. Dollars that could be used for "real" energy solutions.

- Delta Systems should be used to enforce Kerchoff's Law in regards to elimination of "stray voltage". This "dirty power" phenomena needs to be recognized and removed by the utilities and the PSC.
- Implementation of a "day-off" policy for all businesses and workers during severe weather/ice storms. This would save energy and prevent costly accidents.
- Ground water protection should be a key concern in all siting of electrical end users, siting of transmission and natural gas, and in usage of fuels used and stored that create energy.
- No groups were in favor of changing Wisconsin's current law to allow construction of nuclear facilities. Concerned was voiced with transportation of waste on highways, and at the current dry cask storage system that is in place at all nuclear facilities.

WAYS TO IMPLEMENT THESE IDEAS:

ENERGY CONSERVATION:

- Population needs to have an "attitude change" which could result from education, and some mandates, such as government demanding higher CAFE standards for vehicles. Many vehicles that are now produced that get 50 miles to the gallon look no different than other vehicles with less MPG.

- Reducing the greed factor for utilities and energy producers.
- Reducing mismanagement of funds, such as the recent government diverting weatherization monies for low income residents to paying fuel bills for the UW. This happens frequently, especially in a climate of budget shortfalls at whatever level of government.
- Following a European model, towns are darker at night (lights out), solar panels on the noise barriers along the road. Price of gas actually reflects the price of the total product at \$3-\$4 per gallon, US gas is seen as less precious due to various subsidies. Some other European ideas are smaller homes, communal living. Bottom line is that energy usage per capita is 25% less than US usage.
- Energy efficient new homes, with remodeled homes being energy efficient.
- County Boards need to be educated about conservation.
- Media Coverage could also promote smart energy usage as a positive issue, making it a popular thing to do. Also, exploring new up and coming technologies from local producers that may be available for purchase. A good media campaign would connect patriotism with the efficient and or responsible use of energy.

EFFECIANCY MANDATES

- Real Time Pricing
- Conservation (behavior based)
- Demand Side Management
- Interruptible Rates
- Deregulation should not be part of our future. Elimination of merchant plants, returning to utility owned generation. Deregulation encourages the serving of "easy and cheap" customers, rather than those who may be harder to provide for. It is an unknown that is unpredictable, but there is concern that it will pull itself out of the political "hole" it is currently in. It was noted that REA's exist because in an unregulated market atmosphere, the larger utilities were not interested in serving all customers. Lower pricing does not come with deregulation.

DECISIONS TO CONSTRUCT FACILITIES

- Utility need to be based on plan for upgrades, compatible with the community in which it is proposed. All parties need to be treated as stakeholders.
- The electrical system currently has no means in place to establish responsibility of the end user. Questions should be asked by utility to ensure the energy efficiency of the end user.
- Limits, or ultra efficiency need to be placed on our demands for energy.
- Energy development needs to move away from the crash course of collision with both the environment and the economy.
- Wisconsin is rich in materials for biomass generation facilities, making use of what we have that promotes the health of the environment makes more sense than further dependence on coal or oil. There was concern about digesters creating a compost that was not as good as aerobic compost for the soil.
- Further development of methane burning to reduce land fill problems, and promote electricity production.
- Development of microturbine energy could be furthered by sharing costs of installation and service by a larger citizens group or businesses seeking their own power source.
- Power development within our state and local communities is important. For instance, keeping local generation provides not only for a local base of energy, but also provides local jobs and taxes.
- Citizens need to be involved in the choice of a trade-off between future large scale power generation and the possible environmental effects. The cheapest energy is not always the best choice for future power, all costs need to be weighed.
- Dealing with production and distribution must be developed to support long term options, in other words, considering what the decisions we make today will mean twenty years from now.
- If electrical power isn't brought in to location where needed other sources of fuel must be.

- Future usage of energy should be in units like fuel cells, to serve electrical needs, but not to place more demands on the future systems.
- Equal regulations should apply to all plants producing power in Wisconsin.
- Any energy system, generation, transmission, distribution must account for social and environmental costs.
- Environmental justice issues.
- There must be a full accounting for known harms associated with coal, hydropower. With these costs amortized, it is believed that this would provide a level playing field for trolley green renewable resources.
- Wisconsin should have local energy systems such as distributed generation resources. While it is perceived that this development could be a challenge, it is felt that the promotion of local vendors, and the better use of natural resources could be enhanced. It is also noted that projects could be constructed more on time, with more cost directed to the project, and less litigation expense.
- Our current energy system is not innovative.
- Traditional adversaries have co-operated in the Minneapolis/St. Paul area with good results. Two coal burning plants are to be converted to cleaner burning natural gas plants. There is also a co-generation plant that burns waste wood from construction projects, with a natural gas backup.
- Payment of landowners for eminent domain issues needs to change. Compensation for cell towers is a good example of how the payments per transmission tower, or incentives for a rural area that's now changed due to a generation plant, or ethanol facility makes sense, again avoiding costly litigation. If industry, citizens, activists, environmentalists and regulators could agree on this concept, and work together as a coalition for Wisconsin, all would be co-operating for the public good. Additionally this would call for a strict set of ground rules, and the daring ability to make changes. Currently there is no perception of fair compensation for most of the projects that are approved for construction.
- Grid seen as necessary, but if local distributed generation was enhanced, the grid would move to be a backup for distributed generation.

- Usage of buried transmission lines not seen as the improvement that distributed generation and renewables offered.
- Clear definition needs to be made on what is or is not renewable.
- While one group did not oppose ethanol production, they opposed the siting of plants in residential/populated areas and the construction of plants that do not protect the quality of life of citizens. After two years of extensive research by area citizens and a team of engineers, they had no question what so ever that plants can be built in a safe and friendly manner. It does cost more and take more time, but those are costs that must be factored into the project.
- If ethanol plants are to be built, we feel they must meet certain requirements:
 - a. They must not lower the quality of life of residents force to live with them.
 - b. They must protect our ground water and air.
 - c. They must be self-supporting and not rely on corporate welfare. This allows us to invest in truly renewable and sustainable energy solutions.
 - d. They must control their harmful pollution to levels that are acceptable to the public and levels stricter then the current levels allowed by the DNR
 - e. They must control/limit odors to stay within the boundaries of their site.
 - f. They must control their wastewater and limit the chemical being emitted.

EDUCATION

- Education of all age groups in responsible usage of energy. Make environmental education an important school and social topic.
- Education of elected officials would be a positive step.
- Information disseminated to public needs to be good, accurate, trustworthy. The information needs to deal with the issue at hand, and determining the possible use of the future development, i.e., is this for "pass through" energy, local load serving. These will all help in regards to issues regarding demand, supply, capacity, and end usage.

- In order for citizens to be vocal about any concerns, they need to be empowered with the facts.
- To set up true facts about projects, and avoid rhetoric would take an independent panel, composed of both utilities, business, end users, environmental groups.

GUIDELINES FOR FORMATION OF AN ENERGY COMMISSION:

Frustration was indicated that there has been no “real” energy policy since 1997, and even before that this integrated goal had not specifically been sent. It was also felt that we should look into what other states and countries are doing in regards to accomplishment of this goal. Power of the current three person commission should be limited, some suggestions follow:

- Long term planning should be set in increments, 5 year, 10 year, and 20 year. Looking at all available energy sources to implement plan.
- State government—need energy commission to involve citizens.-Blue Ribbon panel would include, (for example) local government, SOUL, Renewable people, real people to work on reform of energy in state. A citizen group that could advise the PSC working like a shadow commission. Both citizens and utilities would have to be involved. Involve people, not just business as usual. Energy reform legislation comes out of commission and panel. Mandate these plans, someone has to tell utilities this is the standard to conform to, this is how they will have to operate. Reform Public Service Commission, would be a first job of the Citizens Commission. Gathering folks together with ideas for the commission to vote on, with initiatives and referendums for this state. Commission would set efficiency standards, building codes. Some of the background information used would be information from the Union of Concerned Scientists report for Wisconsin. Advance Plans should be reintroduced.
- Government mandates should require only efficient appliances be available for public use.
- More mandates on building codes. Mandates can result in a positive change such as were made with the California Vehicle Emission Standards, this is a way government can mandate changes in the electrical industry. Targets are set, they allow industry to reach the target , and free enterprise will develop the plan to reach the target. Energy Commission could encourage mandates.

- Less encouragement for FERC to make decisions that should be a product of local planning. This idea should be suggested to the new governor. Energy planning should be connected to a target rate of usage. Goals for renewables and conservation should be foremost.
- Individual caps should be placed on how much power can be created and sold in the state yearly.
- Energy assessment to auditors needed to identify usage of energy should be promoted in communities, possibly at the county level, with recommendations to the county boards. These auditors were used in the 1980's with the utilities allowed to recover costs for their services.
- Prior to making these changes there needs to be broader based coalition building. Additional mandates such as smart growth will help build focus our energy future, allowing local citizen planning that should be respected. Coal and petroleum industries are major players in politics, thus possibly slowing down the incentives to change. It was not felt this alone would be enough to set state wide policy.