

[This was actually sent to a VT State legislator, lightly edited here]

Dear Rep. So-and-so:

You wrote: "Do you have specific ideas about what we can do at the state level?"

I'm glad you asked. Here are some preliminary ideas. There are many people within the state working on these issues, and more communications among them, and between them and public officials, is an important project. I'll be glad to get you in touch with other concerned people, including at least one other state legislator.

A response to what's coming is needed at all levels, from individual to global. Some things are best done at the state level. Given that the federal level is in full war-for-oil mode (with false pretenses), we need to work on our own response without any help from the federal level, and perhaps in opposition to what they do or want.

The first thing I would like to see happen in the public sphere is an open debate on the real issues. I know that telling people the bad news is not usually done by politicians, but the alternative is much worse. We cannot confront major issues that require massive changes in our lifestyle without acknowledging the enormity of the issues. Some worry that talking about the real issues will incite public panic. That is a valid concern. But the public will certainly panic sooner or later, it is better if it is somewhat prepared. Anyway, democracy is about the people being informed and making the decisions.

Energy is only part of the problem. The whole economy depends on energy, and our wellbeing depends on the economy. That means everything from food and health care to public safety to education. We've set up an economic system that depends on endless growth, and when growth is stopped by force of nature, the financial system will be in crisis.

Vermont is in some ways more vulnerable to an energy famine than some states: we are spread out and in a cold climate zone, and have little in the way of local energy sources. On the other hand, Vermont has many assets: a low population density that means we may be able to grow our own food, and forests that can supply us with a fair bit of energy (firewood -- although we must be careful to do that sparingly, on a sustainable basis). Most importantly, we have a culture within the state that is more tolerant, peaceful, generous and community-minded than most states, and we'll need those attributes.

So now for some actual state-level ideas for action:

Energy Demand

We must learn to live with less energy. The state should provide incentives, both carrots and sticks. People who make the effort to drive less (even if they have an inefficient car) should be encouraged, not just those who can afford a Prius. The obvious mechanism is to increase the gas tax. I know that is hard on low-income rural people. But things will get hard for them even without the tax -- might as well prepare. There are many things

that can be done to help them out, and in general the money raised via additional gas tax should be returned to the people anyway, but in targeted ways. This could include a reduction in regressive taxes (property and sales), and could also include things that directly help people save energy and thus save money. E.g., public transport, even in rural areas, although of course you can't have it go from everywhere to everywhere all the time. Our current public transport system is extremely limited, and is built on the assumption that only the old and infirm would want to use it. Even between the two largest towns in the state there is as yet no viable bus for commuters. Part of the reason is the funding mechanism: by town, via property tax. The proposed regional transit authority was a good idea; it could even be done on the state level, and should be funded by a gas tax. Should encourage rail for cargo transport. I doubt that we have enough population density to justify major spending on commuter rail, although it wouldn't hurt to have some passenger trains on existing tracks, e.g., Essex to Montpelier. Also, instead of helping people a bit with their heating bills (which doesn't go far), should spend money on helping people add insulation or buy efficient furnaces (or compact fluorescent light bulbs). That can help them save more money than they'd pay in the gas tax. Also, many lower income people rent their residence, and if the landlord refuses to invest in insulation and such, the tenants are stuck paying high heating bills. I think that just like there are regulations on rental properties regarding sanitation and such, there should be energy efficiency regulations, and the state could also help landlords finance the needed investments. The state can also take the lead in setting better energy efficiency standards for new housing and for appliances, along with more efficiency rebates.

Energy Sources

I mentioned energy demand first, before energy supply, because looking for more energy is not by itself a solution -- we'll have less and less regardless. But we do need to look for alternatives to sources that will dry up or get too expensive. I am unhappy that the state lost the opportunity to buy the hydroelectric dams. Yes they were a big chunk of money, but there is a reason why somebody was willing to bid so high on them! We'll all pay that money eventually, and then some. What we can still do: need to encourage small-scale alternative energy. Many small installations add up. Also, small-scale projects are less controversial - 50 foot windmills instead of 400 foot ones, for example. Yes they are less "commercially viable" at the moment, but as fossil fuel prices rise, and wind power technology improves, the small systems will be worthwhile. To encourage all small alternative energy projects, the state needs to legislate true "net-metering". The current law is such that any credit left over at the end of the year reverts to the utility. The utility never actually pays any money to the small power producer, only reduces their bill (but not even the fixed monthly fee). This needs to change. Excess power should be paid for. Perhaps not at the retail rate, but rather at a rate that is fairer to the utility, closer to wholesale rates. Perhaps half the retail rate would be good. Perhaps the state can share the payment with the utility to make it more attractive to the producer, e.g., the utility would pay a half of the retail rate and the state would pay the other half, or a quarter, for a limited time. Another solution is to allow groups of customers to share a net-metering arrangement based on one generating device, but that is really the same as true net metering at the retail rate, from the utility's point of view.

Note that all I mentioned in the paragraph above relates to electrical power. But liquid fuels, used for transportation and heating, are the key problem in the short term. We can't really make them in Vermont, other than biofuels. Some people are enthusiastic about growing biodiesel. Personally I am not in support of subsidizing that, because there are doubts as to whether it is a net energy gain, once one factors in all the energy inputs required to grow, harvest and process the crop. Academic studies have shown both biodiesel (from soybeans) and ethanol (from corn) to be net energy losses. But people can experiment; perhaps organic growing of some crops may be an energy source after all, although they would compete (for limited land) with the growing of firewood and of food (see below).

Preparing for Economic Downturn

As energy prices balloon, plus the other present triggers (debt bubble, housing bubble...) I expect major economic troubles ahead. The state should plan for that possibility. In the last "recession" Vermont did well because Howard Dean promoted fiscal sanity. The next "recession" is likely to be far deeper. My suggestions:

(1) Stay out of debt - at all levels, but in this case I am talking about the state level. "GARVEE funds" are fiscal suicide: the feds are driving themselves bankrupt, don't count on them.

(2) Don't count on luxury spending. There will be a lot less tourism and ski money going around, we'd better learn to make our living in other ways.

(3) Husky ain't sustainable. They make machines that are used in the production of plastic products. Plastic will be used less. We should encourage truly sustainable ventures instead. Example: there are at least two manufacturers of wood stoves in Vermont. But one assembles stoves from parts made in Spain and Brazil, and the other, Vermont Castings, is now owned by a Canadian company. We could do better than that.

(4) Health care costs are ballooning. Add a declining economy, and we will have to ration care, like it or not. That could mean only doing without some of the hi-tech. Or it could mean full care for the rich and none for the poor. Unemployed people cannot get health insurance. We need to fix the way health care is organized, ASAP.

(5) Education - same as health care. We need to plan how to get decent basic education with scarce resources. And how to shift away from the property tax. How will the Act 60 construct stand up when property values fall (this year or next) and more and more people use the income sensitivity? What about the collision course between the teachers' union and towns? Perhaps a statewide teacher's contract will be necessary.

(6) Roads are expensive to maintain, and the costs rise with fuel costs. And like I said above, don't count on the feds. So we need a plan, which roads to maintain and how. More people will use bicycles, the state could fund more bike paths, they are a lot cheaper than roads. Keeping the roads passable in the winter is energy intensive, and salt corrodes the cars. Staying home during snowstorms may save more than enough to

balance the lost productivity.

(7) Finally, in case things get really bad, we need a plan to feed many unemployed hungry people. In the Great Depression communities struggled to do it locally based on charity, but were overwhelmed, and the New Deal was crucial to keep people alive. Unless we get a new FDR in the White House, we need to do this on the state level. See below for more on where the food may come from.

Local Economy

As transportation gets expensive and financial stagnation hits megacorporations, globalization will grind to a halt. We need to develop a more local economy where the money stays within the state as we trade with each other. There is a whole "relocalization" movement that sets out to do that. I can point you to relevant people and publications. The state can favor such activity.

Food Security

This is an issue that is more important than fuel for cars. Industrial agriculture has been described as a way of converting lots of oil into a little bit of food - about 10 calories of oil for 1 calorie of food. That is due to the energy used to make fertilizers and pesticides, in addition to the direct energy costs of farm machinery and post-harvest processing and packaging and transportation. As energy prices rise so will food prices. Food from far away will be especially expensive. We need to encourage local food production. We need to encourage organic agriculture because, among other advantages, it is less reliant on oil and gas and their products. The state needs strict rules to protect farmland (present and past/potential) from development. Local efforts for this have proven ineffectual, despite the lip service paid to it in the Town Plans. We need to protect farmers around the state from the property tax issue. The "current use" mechanism is a good start, can strengthen it. We need to promote the teaching of techniques for organic growing, winter food storage, familiarize locally-growable crops, and so on. This is an area where small state training grants could go a long ways towards helping the public. Finally, we'll need a way to prevent the outbidding of Vermonters by richer people in Boston and New York who will be seeking food too. I don't know how to arrange that, but we can't assume that Vermont will be isolated from the happenings elsewhere. (On the other hand, if we can grow a surplus, sustainably, so much the better for both buyers and sellers.)

Stay the Course

If and when a deep economic downturn occurs, demand for energy will decline somewhat, and prices will drop. Eventually economic growth will resume, and after a while energy prices will soar again. We can expect such oscillations to continue and be rather strong. In the face of that, we must stay the course. It is easier to get people to listen now, when energy prices are high, than several years back when they were low. But these events were predicted back then, and temporary pauses do not contradict the theory. Being open about the real issues can help prevent a premature "crisis is over" response. The real issues are finite resources, and the impossibility of endless "growth".

Culture Change

Eventually, we will not solve our problems without a change in the way we view our goals as a society. As long as the way we define "success" is by how fast we "consume" resources, and worse yet, by the rate at which we increase this consumption, we will run into one natural limit after the other, and are doomed to failure. To quote the (conservative Republican) congressman Roscoe Bartlett (from Maryland), we need to define "success" by how much energy we save, not use. By how much wellbeing we manage to extract from a fixed amount of resources. That means limiting inequality, and putting limits on individuals' freedom to be wasteful. That means re-inventing our culture, and will not be easy.

There are a lot of related happenings going on in the state, check out www.vtpeakoil.net.

Sincerely,
Dr. Gloom.