

## Rethinking Nuclear Energy – Democratic Club of the Conejo 13 July 2011

I thank the organizers for this opportunity and you the audience for your interest. I think the bigger question to discuss is rethinking energy, and the roles companies, government, and us, the citizens should play in how we acquire, use, and pay for energy. We are at a paradigm shift in our history – we live in interesting (and yes, turbulent and uncertain) times.

The most profitable and powerful companies the world has ever seen sell energy. They are so profitable because they keep their cost low and the demand (and price) is relatively high. They get cheap energy to a large degree by making someone else pay for it – these are called indirect costs. Indigenous people in the Amazon paid for the environmental mess that oil companies created there. Pollution, war, torture, climate change are some of the indirect costs of energy, and they are mainly paid by other people than the beneficiaries of the energy – not a very socially just system, but social justice is not a goal of our economic system. Nuclear energy entails a risk of nearly unthinkable disaster as one of its indirect costs. All of us take some of that risk, and a lot of people in Japan just got very unlucky. Curious to consider that the tsunami victims lost all their possessions except their land, whereas the nuclear victims can take all their possessions except they must lose their land.

Consumer's awareness of indirect costs has been steadily growing, as has their impact on us. We are paying more and more for military protection of our oil import infrastructure. We are feeling global warming effects as extreme climate at our homes. Refugees and political instability are indirect results of our energy policy. And pollution is felt everywhere – and radioactive pollution is especially heinous. Within 5 years radioactive Japanese water will reach our coast (and much sooner in imported food.) So we are becoming increasingly aware that we need to rein in both the direct and indirect costs of energy, and that will cause a profound change in our economy.

Since the 1970's, we've dramatically *reduced* the rate of increase of electricity use in California. At that time new power plants were popping up all over, but then the growth effectively stopped. Yet our population growth hasn't stopped, our lifestyle hasn't reverted back to pre-industrial levels. How did this happen? History has the answer. The state of California had an energy commission that realized the future was not rosy with a new powerplant in nearly every community's back yard. So they proposed mandatory appliance efficiency standards. Industry opposed them, and so did Governor Regan, but then the OPEC oil embargo hit, energy prices shot up, and Reagan changed his mind. The government regulations worked better than expected. Refrigerators and air conditioners, TV's, and most other appliances in our homes are now many times more energy efficient than they would have been without the laws. Likewise our auto industry has opposed every mandated emission, safety, or efficiency requirement. And in hindsight we can see how these laws have been incredibly effective in reducing our air pollution, CO2 emissions, medical expenses, sick time, and other indirect (but real) costs of driving.

Government's job should be to create and enforce laws that improve our collective lives – our health, liberty, and environment. It should not favor one class over another, but clearly now the wealthy few have managed to protect their interests more effectively than the poor majority. Corporations, unlike government, have a simpler and narrower focus. Their responsibility is to maximize profit to their shareholders, and minimize liability. Energy corporations are masterful at this. BP just stopped damage payments to shrimp fishermen in the gulf, even though their harvests are less than 1/3 as large as before BP contaminated the ocean. Nuclear power companies can't even buy private insurance at any price, and have had considerable success convincing the federal government to provide them with indemnification that is counter to the public interest – the interest the federal government is supposed to represent. There is a third historical bastion of power in our society – labor unions, which were supposed to represent the rank-and-file workers interests in the inevitable conflicts between individual, company, and society. Recently we're seeing a radical shift in the balance of power between government, corporations, and unions, and the result of that shift favoring corporate power is a decrease in the wealth and quality of life of most people, commitment with vastly increased wealth of a few. History suggests that's not sustainable for long.

So what's positive about our future? The increasing excesses of the wealthy, the growing arrogance of corporations (like TEPCO, the Japanese nuclear power company), and the rapid changes we're witnessing with climate, energy prices, etc. are creating dramatic opportunities for rapid and profound changes – literally paradigm shifts in our society. We can continue to try holding onto business as usual, increase our energy resources a little more, squeeze another few billion more people onto our planet, make our stock portfolio double one more time, borrow a little more of our home equity. Or we can recognize that exponential growth cannot continue forever on a finite planet. We cannot continue savagely raiding and destroying the principle life-giving assets of our planet. We can invent a new economics with goals of sustainability and social justice, instead of growth and exploitation. We can reward behaviors that increase equity and value for our kids and grandkids rather than squander the earth's non-renewable resources. When business as usual is no longer an option, then we can entertain previously unthinkable changes. The sun and wind provide adequate – excessive energy to meet all of civilization's needs. Efficiency can cut our needs dramatically without sacrificing quality of life (and to the contrary, increasing it). We have a bright future.