

Comments to the New Jersey Board of Public Utilities (NJBPU) on the Draft Energy Master Plan (EMP)¹

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I previously commented as a citizen on the earlier draft of the EMP. I also sent in two sets of comments over the past two semesters done by the students in my “Energy and Society” course at Ramapo College. I recently contributed to Jonathan Cloud’s comments, both on the Clean Power Choice program, and the prospects for small hydro power, as part of my role as a Research Fellow at FDU’s Business School’s Institute for Sustainable Enterprise (ISE).

I’ll try not to repeat myself, and return here to providing comments at a citizen, who happens to be the longest-serving sustainability change-agent in the State of New Jersey, which included being part of the small group of low-ranking rebels at the NJDEP who first decided in the late 1980s that New Jersey needed to deal with global warming. Therefore, in part, I provide a historical perspective, which I believe offers insights to both the present and the future. Recognizing the similarities between the EMP and NJDEP’s development of a Global Warming Action Plan, some of my comments relate to that subject, too.

I note that at least once, the EMP cites the “goal of a sustainable future.” This further raises the bar in evaluating the EMP, including furthering the need to question conventional wisdoms, and extends and deepens the factors that must be considered.

Finally, I note briefly some considerations for the BPU’s subsequent development of a plan to cover energy related to transportation, which is not a part of the current EMP.

While certain gaps are discussed below, many suggestions offered, and some criticisms made, the EMP has several strengths and shows many improvements compared to where we have been. Among these are: use of a greater range of policy tools; a better sense of and willingness to consider new ideas in the field, including some from outside New Jersey;² a much better recognition of the urgency of meeting our ambitious policy goals; a willingness to call a spade a spade (see below); improved coordination with the NJDEP.

¹ New Jersey Board of Public Utilities. Draft New Jersey Energy Master Plan. April 2008.

² At the beginning of the first post-EMP meeting of the BPU’s Energy Education Joint Venture Partnership (EEJVP), a recent article was mentioned and briefly discussed about a number of smart meters installed in old homes in a town in Great Britain. These meters give residents real time information on how much electricity each appliance is using and **what it is costing** them. The result was in some cases a halving of residents’ carbon footprint. The article quotes David Cameron, the head of the U.K.’s Conservative Party, as saying: “Smart meters have the power to revolutionize peoples’ relationship with the energy they use.” (Rosenthal, Elisabeth. Trying to build a greener Britain: Home by home. The New York Times. July 20, 2008.)

I accept the **basic framework** of the logical argument that leads to the EMP strongly implying that New Jersey will need one or two new centralized power plants, possibly nuclear-- projected demand growth; the existing and aging supply; growth in efficiency, renewables, “low-carbon” sources; still leading to a supply gap. However, I urge greater attention to whether some of these elements can be more greatly exploited, thus making the lurking “big decision” perhaps less tortuous to make.

I can not predict the outcome, but suggest a new round of modeling will be necessary after the possibilities for innovation are seriously re-considered. It may be that the supply gap isn't nearly as large as it currently appears.

Costs

Costs are, of course, fundamental to informing decisions. The EMP often invokes costs, using phrases such as “cost-effective,” and “cost-competitive.” However, these are all market costs. Externalities are completely left out of these discussions and apparently the R/econ modeling behind them. We all learn about this in our basic economics courses, but then we seem to forget about it and slip into common habits.

At one time, the BPU did consider externalities to a degree. It is time to re-gear our thinking and compare options based on the best assessments of various options’ “full or total costs.”

Had we done this earlier and sought to correct prices with carbon taxes, we might not have to be so dependent on a complicated REC system working out well.

The RPS

Without commenting directly on what the RPS should be, I do note Vice-President Gore's very recent call that we should seek all of our energy needs from renewable supplies within 10 years. While some think that is unrealistic, Gore notes “When did we become a ‘can't-do’ nation?”

Efficiency, Demand and its Projection

The projection of electricity demand is at the heart of the EMP. It affects everything and therefore deserves a huge amount of attention.

The 20% efficiency improvement policy goal is a good place to start, but the BPU needs to consider whether we can do better (as well as, to be fair, factors that will increase demand that are not mentioned. See below.)

The author has previously criticized the State's lack of interest in considering new ideas from outside of the state. The EMP, by contrast, does considerably better, although it's not clear that there is a systemic way to monitor promising external ideas from such

In the several hundred State Government forums the author has attended, an innovation-creating framework provided by an article such as this was never utilized, except when the author did it.

groups as the Rocky Mountain Institute, or whether we're just getting better at doing it on an ad hoc basis.

There is an explicit reference to "monitoring and evaluating of new technologies," There are sections on decoupling, real time pricing, inverted tariffs, smart grids. However, it is not clear if the smart meters discussed above are being considered, either separately or as part of a smart grid. The British government is considering requiring them in private homes.

Further, the demand response ideas appear to bypass or de-emphasize the residential sector. It is not clear why this is. If the reason is the capital expense of technologies would be prohibitive if paid for by homeowners, then this should be formulated into a challenge and creative approaches sought, such as through the involvement of outside sources of capital, as seen in other policy areas.

However, if applied at the residential level, care should be taken to avoid "Big Brother" implications; that is, loss of control of the use of appliances to an outside entity would guarantee significant opposition.³ However, if "Big Brother" connotations could be avoided, or perhaps negotiated, the technology can be effective.⁴

While there is no explicit section on the benefits of partnerships, a number of specific ones are mentioned, although certainly more are possible, particularly in some tough policy areas. For example, while mentioned, the pioneering nature of, and possible value of replicating and adapting "The Carbon Principles" initiative is not discussed. This initiative successfully developed consensus between financial institutions, a few utilities, and a couple of environmental groups on the need for, and shape of global warming legislation.

The target to improve the efficiency of 300,000 existing buildings a year can't be faulted for ambition, but this initiative needs to be carefully thought out and implemented. It would be a major coup for New Jersey if it could be successfully implemented.

It is not clear what the qualifications of the organization, NEEP, are to advise the BPU on energy efficiency.

The plan to develop Best Practice Manuals for 10 industry sectors is a good idea, but a search for best practice should not be limited to New Jersey. In particular, California is developing initiatives to define the state of the art.

Green buildings are not emphasized in the EMP, although an improvement of 30% in the building code is discussed. There should be some relationship between raising the minimum level of a state standard and higher levels of performance. The latter shows what is doable, and how it evolves should also be reflected in a changing floor. California recently enacted a code that is "expected to become mandatory," which would

³ Barringer, Felicity. California seeks thermostat control. [The New York Times](#). January 11, 2008.

⁴ Lohr, Steve. Digital tools help users save energy, study finds. [The New York Times](#). January 10, 2008.

eventually align these two levels of performance at equivalent to the LEED “Silver” rating.⁵ But in the meantime, there should be some discussion of how increasing the number and levels of green buildings can be encouraged, including the next generation of green, such as passive solar delivery systems.

Similarly, the product efficiency standards will set a new minimum level for certain product categories, but do not encourage the identification and purchase of the highest performing products. As the author once wrote in a policy paper many years ago,⁶ when a respected third party environmental label exists for a product category, it could be taken advantage of by a state labeling or education program.

Product design is considered the key development phase for innovation to reduce environmental impact. It is far from clear that New Jersey has very many resources in the design-for-environment area, or that we even readily utilize what we do have. If so, the BPU should consider what organizations to work with to stimulate greater attention to the design or re-design of the range of products conceived in New Jersey.

There are also social developments and possibilities that should be explored, even though in some cases it might not be appropriate for government to be the initiator. These include the growing interest in regional and even urban agriculture, and the resulting energy savings. More radical would be a return to drying clothes on backyard clothes lines, and a challenge to “bigness” as a positive social value (e.g. big cars as a symbol of power or status, big houses as a symbol of “having made it” economically).

However, there are at least two areas not discussed where demand could increase. These should also be factored into future modeling.

It is possible that the to-be-developed Transportation EMP will discuss and perhaps favor much greater uses of electric vehicles and/or plug-ins. If so, this will likely increase demand.

Second is the backlash effect.⁷ The EMP states: “Reducing energy consumption at least 20% would yield electricity savings...reduction in energy consumption will result in significant cost savings...”

However, to some unknown degree, if greater efficiency saves them money, some electricity users will react by increasing their demand; either for the same use by buying a bigger appliance, or an additional type of appliance or energy usage.

⁵ Guevarra, Leslie. California adopts green building code for all new construction. Greenbiz (<http://greenbiz.com/print/26258>).

⁶ Polsky, Matt. Environmental labeling of consumer products & packaging in New Jersey: An extension of pollution prevention: A policy paper. NJDEP Division of Science & Research. December 1992.

⁷ Inhaber, Henry & Harry Saunders. Road to nowhere: Energy conservation often backfires and leads to increased consumption. The Sciences. November/December 1994.

A number of other sections below also deal with related questions of possible additional efficiency gains and therefore reduction of projected demand.

Wind

The greater attention to wind compared to earlier Master Plans and policy goals is welcome. However, there seems to be a surety that while 200MW of on-shore wind are called for, the wind resource there is “limited.” There does not appear to be consideration of whether some of the new technologies we’re seeing, like the vertical axis turbine or the stacked multi-wing design, have possibilities at small scales even in suburban and urban areas to take greater advantage of the wind levels that actually occur.

Similarly, it is not clear how small is “small” for the “Small Wind Working Group.”

Biomass

While the call for a greater use of New Jersey’s biomass resource is also welcome, and there is one mention that the use of biomass must be “sustainable,” there is no attention to either New Jersey’s relevant history or current world events.

There is a non-nuanced call for more incinerators, showing no attention to the wars in New Jersey in the 1980’s about resource recovery plants, and what reasons, if any, we wouldn’t experience them again. Or, if we do experience them again, how we would manage or negotiate the resulting conflicts better than we once did.

While corn, sugar, or soy-based ethanol are not strong components of a potential surge in the use of New Jersey inputs to make ethanol, the basic message seems lost that a very careful look at the **full** environmental consequences must be given before policy options are chosen and investments made. In particular, it is not an automatic that the use of any particular input to make biomass has a net, or a significant net, global warming benefit, and/or does not have other serious environmental liabilities. This is particularly important if a 2% biomass input to fuel oil is considered.

The bar for what is “sustainable” biomass has to be raised. However, if New Jersey-generated biomass can meet this tougher test, with all that is happening to biomass globally, and with the caveat above, the State may have a competitive advantage with its product.

Nuclear Power

As mentioned in the introduction, these comments do not take a stand regarding a new nuclear power plant, urging instead that this momentous decision be informed by a more creative re-look at the factors that led to the EMP’s implied conclusion that we will need one.

However, while waste issues are mentioned, the **full** environmental, social, and even economic dimensions of nuclear power need to be considered. Nuclear power is not “carbon-free.” Subsidies that support nuclear power should be factored in.

Regulatory Relief

In a potentially dangerous section, the EMP talks about the need to “facilitate siting of clean energy sources,” “streamline permitting,” “smooth regulatory and legal burdens” (for cogeneration); with no discussion about whether the public would, or could, support this energy source.

The performance metrics for this area include “number of permits for new generation facilities,” showing the thinking about what a success is.

This strongly resembles the “Open for Business” political era of the last decade; not the tone or direction we need to take.

There’s streamlining and there’s streamlining; in other words, it is preferable to try to develop a multi-stakeholder process that seeks to agree on what regulatory components can be eliminated or what processes made more efficient—**without reducing** environmental safety, versus giving away the store for a new energy source that while purportedly “clean,” may still have negative environmental qualities that deserve identification and minimization.

A better metric would be number of permits for new generation facilities that did not raise public opposition; or, if it did raise it, the opposition’s fears were alleviated.

Less on-point to evaluating strategies, but relevant to showing the dangers of a “regulation is bad” mentality, the EMP comes very close in places to saying the era of electric utility deregulation was a mistake, in part for environmental reasons. If so, we should be careful about repeating it with other forms of deregulation without apparent environmental safeguards.

Education, Communications, & The Clean Power Choice Program

As my students noted in their comments, the education section is murky and undeveloped. Education has to be based on more than the objective of “improving the information that is provided to students and adults.” Lack of information is usually not the problem; and providing it is usually not the factor that turns behavior around. Education is too important to be almost a throw-in part of the policy tool kit.⁸

Further regarding communications, it can be frustrating trying to understand the REC system. While I have noted improvements in the graphics used to explain these critical concepts to audiences, as so much depends on RECs, communications needs to be guided

⁸ It should be noted that subsequent to the publication of the Draft EMP, the first meeting of the EEJVP was suitably bold and began to overcome the above criticism. For instance, there was a clear understanding that we must seek to “change **behavior**”—in the past, there has been a reluctance to link “government” and “behavioral change.” This was the “spade” mentioned above. As also mentioned, a key article was discussed. Urgency was expressed. The need to learn from both successful and unsuccessful environmental educational efforts of the past was suggested. Market segments were used as a way to understand that **the public** is actually many publics. Even social science came up. The issue of wrapping energy education around the concept of sustainability was debated. A partnership with the retail sector was suggested. These made for a promising initiative if the level of thought can be kept at this high a level.

by the “Dummy” books school of education. I, for one, would not be embarrassed to be caught reading “The BPU Dummies Guide to RECs I & II” should these ever be issued.

There is no mention of social science informing any policy or program choices except some planning documents the CPC program distributed has a brief mention of Sterling Planet’s research that people prefer 100% renewables as opposed to partial renewable choices. At least years ago, some utilities used social science research to guide their programs, and, in one case we studied in my class, very successfully.⁹ In recent years, the concept of “social marketing” has emerged with the tenets to understand the barriers to behavioral change first, including peoples’ initial perceptions of the issue; combine educational and economic approaches; try to create a social “buzz,” that is, make it something people talk to each other about over their fences;¹⁰ and continue to evaluate how the program is doing in order to make adjustments.

A recent article showed one example of a sophisticated approach. It discussed how a non-profit interested in changing behavior (i.e. more and deeper hand washing using soap) called in Madison Avenue for advice. The advice was to understand the cues, conscious or otherwise, associated with habit formation. The situation in the target market was studied and barriers understood. New cues were promoted that led to the desired behavior change.¹¹

There needs to be a more detailed analysis of why programs similar to the Clean Power Choice-program in other states have done much better. It was said in the planning documents that New Jersey should only compare itself to states that have similarly structured programs, but this is not persuasive.

For instance, the materials provided mention—and the candidness is welcome and appreciated--that Palo Alto has a 20% participation rate, but it is said that they are “a unique situation,” with no further discussion. It is said there are “excellent demographics in the northwest. This is not the situation in New Jersey.” Exactly how is the richest or second richest state, one that is regularly cited and thinks of itself as an environmental leader, at a disadvantage?

There are a number of reasons people might sign on to the CPC, but it is not clear that we know what the main reason really is, and therefore which one to emphasize.

But is even 2% the best we could aim to do? Why not, despite whatever the problems might be, aim even higher, particularly if others have done so much better?

Their promotion appears to rely heavily on bill inserts, although I have now seen the BPU or their program managers at the trade booth area of environmental conferences talking about the program. This is an improvement. However, my Ramapo College Energy &

⁹ Gardener, Gerald & Paul Stern. Environmental Problems & Human Behavior. Second Edition. Boston. Pearson Publishing. 2002.

¹⁰ The current concept of “going viral” seems similar.

¹¹ Duhigg, Charles. Warning: Habits may be good for you. The New York Times. July 13, 2008.

Society students couldn't recall their parents ever seeing a bill insert, and said that they had never heard of the program.

The program seems overly bound by conventional media choices and the perceived disadvantages of being located between two major markets. My students, in their comments, suggested they explore the new media. I'm still making up my mind about some of the new media and the social networking craze I'm hearing so much about; the Twitters, Flickrers, Facebooks, virtual worlds; but many seem drawn to them and are convinced that these are the future.

Educational materials should make clear whether signing up for green power directly or indirectly supports the achievement of the RPS goals. Themes might include the program is an alternative way for a consumer to make a contribution; or is an attractive choice for those who would like a solar or other renewable system on their house, but can't afford the capital expense. In any event, the distinction, as well as the relationship between, the CPC and other clean energy programs and goals should be clarified.

Similarly, the program that promotes the use of compact fluorescent lights (CFLs) needs to come up with a better answer on mercury releases and how to dispose of the bulbs. At a recent public fair, it was a frequent question from the public.

It appears that the only "low-carbon" sources the EMP discusses are cogeneration or CHP. If indeed only one technology makes up this category, then it is simpler to drop the name of the category.

It is not clear to us energy dabblers what some of the terms used mean. They are not defined. For instance, what is community-based solar (and exactly how will that decrease the price of solar)? Is community-based solar similar to the micro-grid concept? A graphic might help.

Conversely, sometimes the BPU uses a term in an unaccustomed way, such as "carbon-neutral" when referring to the state's overall goal or a particular energy technology. These adaptations of the term might not be communicating the basic points intended.

A short course could be offered to bring people up to speed on the energy challenges, policies, terms and concepts.

A Historical Perspective on What Can Be Discussed

The author has witnessed, and continues to, germane concepts that while discussed in certain circles outside of government, can not be considered in public policy formulation and communications. However, what is impermissible evolves over time, like George Carlin's "7 Dirty Words." This phenomenon needs to be recognized because, to some degree, newly acceptable concepts show that the original reluctance was artificial, unnecessary, and discouraged innovation to deal with the problem. Perhaps, we could speed up this acceptability gradient.

Concepts that formerly could not be discussed, or could be but only in a constrained way, that are now almost “ho hum” include: having to call global warming “sea level rise” or “climate change;” solar power as limited to remote locations and to power highway signs; global warming targets limited to meeting 1990 emission levels; global warming strategies as voluntary only; global warming as, originally, not relevant, and then not urgent; and very recently the now-ambitious global warming targets as easy to meet, fun, image-enhancing, and always money-saving. We are now totally or at least partially past each one of these constraints to action and creativity.

However, some serious ones remain. For instance, we still can not talk about sacrifice or discomfort. We remain queasy about lifestyle change; criticizing “the American way of life;” challenging “bigness” and over consumption, and other cultural determinants of energy usage. We can not discuss the possible long term implications of global warming on suburbs.

It may very well be that government can not lead in some of these areas. In that case, it falls upon other sectors to address these areas; get conversations going, including in public policy forums; and seek to accelerate change in their mainstream acceptability. Government should be alert to when these changes begin to occur, and then begin to participate, including with their education bureaus.

A big concept that must be challenged now, unfortunately, is the price of energy.

It is a very high ranking goal of the EMP that energy prices must be competitive to that of neighboring states. There are many good, obvious reasons to argue for this goal and very few against it. However, as painful as it might be, maintaining this goal makes the already very-difficult-to-achieve energy goals probably impossible.

It has taken \$4+ per gallon gasoline to—**finally**—change behavior. We are seeing less driving, more use of mass transportation, a willingness to relook at where we live in relationship to our job locations—and greater interest in higher mileage vehicles. Why would we want to go back?

Thomas Friedman, the foreign policy columnist, writing about the related area of oil, says, “We don’t have a ‘gasoline price problem.’ We have an addiction problem. We are addicted to dirty fossil fuels...”

Analogizing this to being on crack, he adds “the cure is not cheaper crack, which would only perpetuate the addiction and all the problems it is creating. The cure is to break the addiction.”

Further, “...the key to building that (a clean energy system) is to keep the price of gasoline and coal—our crack—higher, not lower, so consumers are moved to break their addiction to these dirty fuels and inventors are moved to create clean alternatives.”¹²

¹² Friedman, Thomas. 9/11 and 4/11. [The New York Times](#). July 20, 2008.

Of course, measures need to be taken to reduce the resulting economic pain of significantly softening the above goal, but there seems no realistic alternative, particularly if all the measures to improve efficiency, even if successful in saving energy, do not necessarily keep a lid on price.

If this provides 101.5 FM with its theme for the next six months, so be it.

Green Jobs

The green collar jobs area has been getting a lot of buzz over the past year. However, as is common, it is narrowly conceptualized as a potential jobs area limited to such roles as installer (of energy efficient equipment or renewables), contractor, sales, equipment manufacturer, as well as designer. Only the latter is really innovative.

The revolution we're seeing in the conversion of some companies' thinking of their environmental obligations from a "burden" they must undertake to avoid fines, to that of a strategic competitive advantage is missing¹³—**and the jobs that will be created that can help many, many more companies figure out how to do this!** This is discussed in my article below.¹⁴

We have seen a number of companies, including a few in New Jersey (but **just** a few), commit to green power (e.g. Whole Foods); significantly increase the sale of CFLs, pressure their supplier base to improve the latter's environmental performance, and begin to turn around a dreadful image (Wal-Mart); support progressive public policy against the mainstream of their industry, and make efforts to improve their InnoVest sustainability ratings (PSEG); agree to accept used CFLs (Home Depot). A number of companies (but apparently, again, **few** from New Jersey) have agreed to a goal of carbon neutrality; one company set a goal of "Zero Pollution" by 2020, and then amended it saying they have to "do better than Zero," that is seek restoration of the environment as their goal (Interface).

This is **not the same thing**, although not unrelated, to clean tech. It is possible for clean tech companies to be totally uninterested in the above "corporate greening" concepts beyond the apparently green products they're bringing to the marketplace.¹⁵

Thus far, New Jersey policy makers and others, such as the local sustainable community initiatives, for the most part do not seem to see the potential to encourage a great deal more of this.¹⁶ Even the Governor, who addressed a sustainable business forum when he was a Senator, when I asked about it at the Land Rally, did not accept the premise.

¹³ This field has been called sustainable business, corporate social responsibility, and strategic environmental management.

¹⁴ Polsky, Matt. Strategic Thinking: New Jersey's Garden-Variety Environmentalism. Greenbiz.com. December 2006.

¹⁵ In contrast, FDU's Sustainable Business Incubator, a part of ISE, has a triple bottom line criteria (environmental, economic, and social) for companies to be considered as clients.

¹⁶ The DEP's restoration of the Environmental Stewardship initiative is a small step in this direction.

It would certainly help a lot if these ideas become accepted by State Government for the contributions that could be forthcoming to the energy goals, as well as the gain to economic competitiveness. However, until then, planning for New Jersey's green jobs initiatives should still consider the types of skills that internal change-makers within companies will need to catalyze more of the above type of actions by their future employers. They will not find this written down anywhere, but will require an unusual range of knowledge and experiences not traditional in a business or engineering education.

The Department of Labor's Industry Workforce Advisory Council's first work product after its public advisory meeting showed some of the necessary new thinking.

The performance metrics in this area, however, need to reflect more than jobs created, such as carbon emissions avoided, number of companies competing on their energy performance.

And even in the absence of the acceptance of most of the concepts in this section, New Jersey can do much better in encouraging its companies to commit to green power. The World Resources Institute has an initiative to do this. The partnership with the business trade associations to help improve their members' energy efficiency should be extended to also encourage their purchase of green power.

Research & Development

While there is a brief mention of this subject, including the participation of the New Jersey Science & Technology Commission and the utilization of an expanded Edison Innovation Fund, it is very unclear what the role of R&D will be in meeting our energy challenges. What types of technologies will they seek to support, how will they choose them, how will the public be involved? Will there be pilots?

Relatedly, what happened to the buzz about hydrogen and fuel cells of about four years ago. Did the collegium that was developing hydrogen peter out, or is its work still going on quietly? Progress or lack of it needs to be better communicated.

There also needs to be a known group that can perform the function of identifying which technical innovations and concepts will work as claimed, and which will not. This group will not always make perfect decisions, but should go into it trying to balance an open mind along with a moderate degree of skepticism. In addition, an understanding of sustainability is needed to complement conventional engineering skills.

Innovation

Innovation is not rarely invoked in economic and management circles as a major ingredient in overcoming difficult challenges. The EMP cites New Jersey's "culture of innovation."

However, not a lot of thought is given, except by innovation theorists, on the actual conditions that foster it, or conversely can kill it. Business-as-usual assumptions do not necessarily foster a favorable climate for innovation.

Now that the sheer challenges of meeting New Jersey's energy goals are becoming recognized, the BPU might want to sponsor or tap into an innovation contest, such as by specifying a clear problem (for instance, how to improve the design of a stubbornly high energy demanding appliance or sector), and offering a challenge to anyone, including to those outside the state, who can solve it, such as is done by the organization, InnoCentive.¹⁷ Some type of prize would have to be offered, even if it is just recognition or perhaps an introduction and paid expenses to visit the State's venture capital community.

It also wouldn't hurt if BPU's award program, as well as DEP's for that matter, would specifically encourage innovation, "de-categorize" its thinking that applicants' contributions have to match up to a conventional box, and that activities that lead to quantitative gains are necessarily much more important (and deserve very high weights) than those that are qualitative and category-bending. The Governor's Volunteer Awards very recently did this. The latter actually has a new category for "most innovative."

The Social Leg of Sustainability

As the EMP is framed around sustainability, some attention to the social implications of the impacts and strategies is needed. For instance, environmental justice issues, the possibility of disproportionate impacts, who gets the green jobs should be discussed.

Management

As my last op-ed was somewhat critical about some management issues involving the BPU and DEP,¹⁸ let me note some additional improvements in this area beyond the above. The reason is that given the extreme, but necessary, policy goals, if we have any chance of reaching them, management's performance must match the vision of the policy goals.

I've seen some levels of improvement in communications with the public, including opportunity to comment and support of others' forums; what appears as very smooth cooperation between the BPU and DEP (more than I remember in my day); DEP's recognition of the importance of innovation, including the restoration of its environmental stewardship initiative for business, its use of a sector agreement, and willingness to think more holistically about brownfields redevelopment, including in ways that involve energy.

Of course, things can't stop there; improvements must be continuous. As the currency of the day is measurement, perhaps there should be customer satisfaction tracking of the public's interactions with State Government.

¹⁷ Dean, Cornelia. If you have a problem, ask everyone. [The New York Times](#). July 22, 2008.

¹⁸ Polsky, Matt. Emission goals will need creative solutions. [Courier News](#). November 26, 2007.

While these and two other agency heads I occasionally talk with are always receptive, a fifth recently told me basically to sit down and shut up at a public hearing, as did a former agency head at another public hearing. Obviously, the ideas I was trying to get across went no where. In a democracy, especially with so much at stake, all departments involved in energy, including the Governor's Office, from the top to the lower ranks, should seek to bat 1,000 when it comes to something as basic as consistently and courteously responding to citizens. Responses that involve disagreement can be acceptable (and should be distinguished from the above responsiveness ratings). However, arrogance is never appropriate.

BPU should better publicize its working groups, encourage people to participate, and provide a way for new members to get up to speed. This is also important since it seems to be among the only ways for volunteers to contribute.

The Transportation EMP

The supplement to the EMP should follow some of the same guidelines above where applicable. The "Communications" section should be sensitive to common confusion about types of vehicles, such as the differences between fully electric cars, hybrids, plug-ins, and hydrogen-powered vehicles.

Since it will have to get into land use, it should seek to describe exactly what "density" means; and when it's a good thing and when it's not.

If it goes deeper into the planning field, it should try to distinguish between good and bad forms of "clustering" and "smart growth."

This may help to forestall some unnecessary conflicts.

There should be a vision of a "biking society," and what it would take, including different street lay-outs. Some of the new ideas like moratoriums on cars on certain streets and times should be considered; carless developments; smart phone-provided real time information about available parking spots; extended plazas; labeling of new cars for their global warming contribution as California is doing; even lowering of speed limits. Telecommuting, long talked about, needs to come into its own.

I hope these comments prove useful.