

Comments on Draft Environmental Impact Statement for the proposed Cricket Valley Energy Project

My name is Robert M. Herzog. My family has had a house in the Town of Dover for 56 years, roughly 1.5 miles east of the proposed site. In addition, I founded and was the former Director of the Energy Office of the City of New York. In that capacity, I managed the City's representation regarding several proposed power plant sitings, as well as in rate hearings and other regulatory matters. I also managed the City's \$150 million energy conservation program, and was responsible for the construction of several alternative energy, small hydro and cogeneration facilities.

Based on that experience, analysis indicates there are several significant issues regarding the proposed Cricket Valley Energy Plant, which I would like to address in these comments.

I. NEED

A. New York State Independent Service Operator finds there is no need

Since the plant is not being built to serve local or Dutchess County needs, but rather contribute to the state and region's capacity infrastructure, the first question that must be asked is -- is it needed? Is it required to fulfill reasonable system capacity requirements in the near future. The answer to that is simple, and based on independent assessment from the people who know best, the New York Independent Service Operator, the organization responsible for planning and overseeing New York State's electricity operations.

Their answer is... no. Based on their expert analysis, NYISO stated in its 2009 Power Trends Evaluation, "Based on current NYISO projections, the state's wholesale electric power system will continue to meet accepted reliability standards through 2018."

The NYISO 2010 report extends the period of reliability even further, to 2020. It might be more, but that is as far as their forecast period extends. The New York Control Area baseline summer peak demand forecast developed for the 2010 report shows a baseline energy forecast growth rate of 0.41% for the years 2011 through 2021. The 2009 report forecasted growth rate for annual energy in that period was 0.78%. That represents a 47% decrease in one year! The energy growth rate in the 2011 forecast is lower than in 2010 due to a lower econometric forecast and an increase in the projected amount of energy efficiency impacts.

Thus the period when it might be reasonable to consider construction for Cricket Valley would not be until 2018 at the earliest, given the two year construction cycle for building the plant

B. Consideration if Indian Point nuclear plants shut down

The NYISO 2010 report does state that that if the Indian Point nuclear plants were both closed, that the State could fall below accepted standards of reliability (the LOLE, or Level of Load Expectation) by 2016. New York City has taken a strong stand on keeping Indian Point open, based a report issued on July 6, 2011. That report concluded that should the plants be closed the city and state would experience 10-15% increases in major air pollutants such as carbon emissions and nitrogen oxides, while adding at least \$1.5 billion dollars to wholesale electricity costs in the city and state. Based on those impacts, it would seem highly unlikely that the plants will actually be closed in the foreseeable future.

There are three projects are under way that could replace some of the power that would be lost if Indian Point closed. These projects — power plants in Astoria, Queens, and Bayonne, N.J., and a transmission cable from New Jersey to Manhattan — total roughly 1700MW, or 85% of the total Indian Point Capacity. While there would still be a shortfall of power to meet the standards for reliability required in the city, it would only be 300 MW, and there are many ways to produce that capacity.

Needless to say, if Indian Point is not closed, than the additional New York City area projects totaling 1700 MW completely obviate the need for Cricket Valley or any other facility to provide any further capacity in New York State. Should IP be closed, however, it is not accurate to think that Cricket Valley would address any power shortfall, since there is a well-documented bottleneck of transmission capacity in Westchester that would preclude any power generated in the Hudson Valley from reaching New York City.

Other, better alternatives exist or are being proposed in the event they are needed. The Champlain Hudson Power Express Project would carry 1,000 megawatts of wind and hydropower from Quebec to metropolitan New York and Connecticut. Cleaner, cheaper power than what Cricket Valley could provide, and addressing the only potential -- and highly unlikely -- energy capacity shortfall in New York State. Further, more viable alternatives are discussed below.

C. The displacement argument is specious

The DEIS shows its biases within its first paragraphs, stating the plant will supply “needed electricity to the new York State bulk power grid,” despite the ISO conclusions. Cricket Valley tries to makes an argument for displacement -- building a new plant burning natural gas would displace other, less efficient plants. The major displacement that will take place will be to move point sources of pollution from other locations to the Town of Dover.

The attempt to circumvent the NYISO’s finding that there is no need to build new capacity by citing the benefits of displacing other more polluting plants is specious. The DEIS states: “Due to the project’s superior efficiency it will be dispatched ahead of higher emitting generators, causing those units to operate less frequently, thereby yielding a net air quality benefit across the region.”

The ISO in fact dispatches based on price, not pollution, choosing the lowest marginal cost production at any given moment. As the New York Energy Consumers' Council states, "Generators bid in prices for their capacity based on their marginal costs (e.g. fuel), and the NYISO accepts bids to fill its projected demand requirements in each zone. This is called the Locational-based Marginal Pricing (LBMP) Day Ahead Market (DAM). In an effort to arrive at the most efficient market price, lowest bids are considered highest merit and those generators are dispatched first (i.e. base loaded); highest bids are considered lowest merit. This is called the merit order bid stack."

That process means that hydro, coal and nuclear plants will always be first in line. While older plants may be less efficient, they have also been partially or fully amortized in rate bases, meaning they may also be competitive on price with a newer facility built at, and requiring a return on, current construction costs. Furthermore, oil is already the lowest merit source of generation for the State, supplying only about 1,200 hours during highest peak demand periods in the year. By contrast, nuclear and hydro are highest merit, supplying base load all 8,760 hours in the year. So the most polluting and expensive plants are already being displaced by existing capacity and load management.

The DEIS's own findings regarding greenhouse gas (GHG) emissions indicate how spurious the displacement argument is. According to the DEIS, the introduction of the Cricket Valley plant actually increases the production of one of the most serious of GHG, CO₂, by around 2% annually for the New York State power pool. The total impact on CO₂ production with Cricket Valley online is a decrease of .1% -- one tenth of one percent. And that is based on the assumptions that the Cricket Valley-hired consultants are projecting, which would be a best case scenario. In short, local GHG will increase, along with other air pollutants, noise and water impact, while the best case projected for this plant is a negligible positive environmental impact.

D. Numerous better alternatives exist

But if the system wants displacement, then there are still better alternatives.

1. Currently Proposed Generating and Transmission Capacity

As stated above, a total of 1660 of new transmission capacity and 1060 MW of new generating capacity are currently proposed and in the queue ahead of Cricket Valley. These increases would directly alleviate any potential stress on the one area of the State that could have reliability issues, New York City, and that only in the event Indian Point is shut down.

2. Alternative Energy Sources

A recent extensive study of the solar generating potential for New York City found it was 5,847 megawatts. The study concluded that given current costs and incentives, building solar power units would be cost effective. Over five thousand

megawatts! If even a tenth of that potential was realized, there would never be a reason to build a plant in Cricket Valley. Solar power cost effectiveness will only increase as technology improves and demand lowers the price of the systems.

If Dover Plains and Dutchess County decided for some reason they wanted to be major contributors to regional energy needs, imagine the solar potential for the county. NYC is 305 square miles, Dutchess County is 825. The cost of construction would be a lot cheaper on the open flat land here than it would be on the rooftops of New York City. Furthermore, the construction and operation of solar energy farms would produce many more construction and permanent jobs, especially for local residents, than would the 25 niche skill jobs that would be the remnant of the Cricket Hill operation.

Wind power is also playing an increasing role in meeting power requirements for the State. Should anyone claim that projections based on increases in wind power capacity are not realistic, it should be noted that there were 48 MW of installed wind capacity in New York State in 2005, and 1,348 MW of installed wind capacity in 2011, as documented in the NYISO Load and Capacity Report 2011.

3. Special Case Resources

Special Case Resources (SCR) include distributed generation capacity and interruptible load customers. In 2010, an additional 198 MW was added to the NYISO projections. That follows on an increase in 2009 of 167 MW, a total of 365 MW in just two years. SCR alone could exceed the proposed Cricket Valley 1000 MW of capacity in the next 10 years.

E. There is no foreseeable need for this plant, and time will only produce more superior alternatives

Over the next five years enormous strides will no doubt be made in producing energy from sources other than fossil fuel burning plants such as Cricket Valley. These new sources will not have enormous local impact, on water, air, noise and the environment.

DEC as lead agency with the mandate to protect our environment has the legal responsibility to consider the NYISO's findings and the likelihood of far better alternatives available during the time frame when they will actually be needed. Circumventing or ignoring such findings would be a violation of DEC's mission, which is to "conserve, improve and protect New York State's natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being." - Environmental Conservation Law, Article 1

DEC states its goal is to "achieve this mission by embracing the elements of sustainability - the simultaneous pursuit of environmental quality, public health, economic prosperity and social well-being, including environmental justice and the

empowerment of individuals to participate in environmental decisions that affect their lives.” Approving a fossil fuel plant that is not needed and consumes a non-renewable, more polluting fuel is clearly not consistent with DEC’s mission. Any decision to site this plant now would have to be considered arbitrary and capricious, and open to challenges on those grounds.

II. NOISE

A. Noise is a serious pollutant

Noise is a particularly invidious pollutant. It can permeate landscapes, has different impacts depending on area topography, and once a source is permitted, nearly impossible to regulate. A local business not far from the Cricket Valley site, JTR Bus Company, must work on its buses inside its garage; when it doesn’t, the noise can be heard for miles around.

Noise has the potential to devastate the character of the environment which the plant wants to inhabit. Noise is a constant irritant. The plant has described the sound coming from it as that of a light rain. That’s also the sound of constant traffic. That noise will be heard constantly for substantial distances around the plant. A study by Cornell University environmental psychologists, published in the Journal of the Acoustical Society of America (Vol. 109, March 2001), found that “even the low-level but chronic noise of everyday local traffic can cause stress in children and raise blood pressure, heart rates and levels of stress hormones.”

B. The noise levels projected for the plant will have a devastating local impact

Initially, the plant’s developers claimed they would produce an average no louder than 50db -- meaning that it will frequently be higher than that level. A study for the European Commission (known as RANCH) investigated road traffic and aircraft noise exposure and children's cognition and health. It found that children exposed to noise levels over 55dB(A) achieved lower scores in reading tests and the affected children will be disadvantaged in their development of speech and reading abilities as well as more general communication skills. Noise may also have effects on fetal development due to (stress) effects on expectant mothers. Environmental noise also has cognitive effects in older children and adults, due to hindering communication, as shown by studies of aggression, mental health and anxiety.

The World Health Organization (WHO) “recognizes community noise, including traffic noise, as a serious public health problem.” There is a general consensus about the noise levels which cause health impacts:

- Environmental noise above 40-50dBA Leq is likely to lead to significant annoyance.
- Outdoor noise levels of 40-60 dBA Leq may disturb sleep.

Based on their own numbers, the Cricket Valley plant will continuously exceed these levels.

Other studies have shown that sound greater than 30db can disturb sleep, and exposing students to a constant hum in that range has been demonstrated to interfere with learning, yet it now seems clear that that is precisely the impact the Cricket Valley plant will have.. The Dover High School is around 1000 yards from the plant. There is no reason why the students of that school should be subject in perpetuity to the constant noise emanating from the plant, which will infiltrate their classrooms and study halls. The Town of Dover is being asked to sacrifice the learning environment of its most precious resource, its children and students, for the dubious distinction of building an unnecessary power plant for a system that doesn't need it.

C. The plant developers admit they cannot meet existing standards

The noise section of the DEIS begins with a reassertion of the nature and reason for noise regulations, and that the facility's design "goals" (not operational commitments) have been established based on state and local regulations. Only later do we learn that in fact the facility will not be able to meet local regulations, and requires a waiver to override the noise regulations that are in effect to protect local residents.

The DEIS states:

"Despite the incorporation of state-of-the-art design and engineering components to mitigate facility sound, there are locations along two property lines where noise mitigation measures will not mitigate so as to be totally compliant with the performance standards set forth in Section 145-40. While the project is expected to comply with the most restrictive night time sound level limit (50 dB(A)) of the Town of Dover Zoning Code at the north and east property lines, the west property line abutting the Metro-North rail line and the southern proposed property line abutting other industrial zoned property are expected to be non-compliant (> 50 dB(A)). However, these properties are not occupied by noise sensitive uses. To the contrary, the non-compliant property lines abut a railroad track and a proposed industrial facility."

CVE is admitting they will be unable to meet existing sound regulations, and proposed to get around this otherwise fatal flaw not by changing their equipment, but by petitioning for a change in the standard, as if the standard need not apply to them. They seek to get around the regulations by trying to make a case that sounds emanating from the plant will be uni-directional, magically being confined to the rail line. In reality, the sounds made by various equipment in the plant will radiate broadly, ending up in the homes of residences and other uses in the area who will have no effective protection from levels that exceed existing regulations.

That is literally intolerable -- noise regulations were designed to protect local environments and residents. It is precisely when an entity cannot meet such regulations that they are not to be discarded, for that is when they are most needed. CVE

acknowledging they cannot and will not meet these standards, will violate them, and too bad for the locals.

The levels of 59db the plant will be emitting, well in excess of the 50db limit, are not trivial. The EPA reports that outdoor noises in the 60db range historically generate widespread complaints and individual threats of legal action. The Town of Dover does not want to and does not need to impose this burden on its residents for years to come.

D. The Town of Dover has the authority and good reasons to deny any noise pollution waiver

The town has ample authority to deny the plant on the grounds of noise, as captured in the Town Code Chapter 107:

noise shall be prohibited when it is of such character, intensity and duration or of any type or volume that a reasonable person would not tolerate under the circumstances and that is detrimental to the life, health or welfare of any individual or would cause or create a risk of public inconvenience, annoyance or alarm.

Indeed, a standard must be used that doesn't violate these guidelines. For that, the plant must meet a standard at all times of sound that will not impinge on local residents, and students, well-being. That standard is 30db, as it has been demonstrated that sound above that level can disturb sleep.

Chapter 145 of the Town Code allows for higher sound levels during the day, and lower at night. The Code was clearly designed with residents in mind; since the local high school students are in effect daytime residents, in a sensitive learning environment, the most stringent sections of the code should apply during the day as well as at night for the plant.

E. Construction noise will have terrible local impacts

For three years construction noise levels will be substantially in excess of both regulations and generally recognized safe levels. It will occur primarily during school hours. As the DEIS states in Appendix 6, "Construction producing significant noise levels will occur during daylight hours, where possible." And later, "Controlled blasting will only occur during daylight hours, when background sounds are significantly higher. Sounds produced by blasts are not expected to be disruptive at any of the nearby occupied properties."

Clearly the consultants paid by CVE to write the DEIS have their own self-serving definitions as to what is expected to be disruptive, and to whom.

Construction noise will approach 90db. Studies show that noise in excess of 65 db precludes a conversation. Allowing this plant to be built effectively means sacrificing

several high school class years. This noise will decimate the high school learning environment. For what? For a plant that will never provide them or any other local resident any lasting benefit, and that has at best questionable benefits for the region. And what kind of a message will it send to the students in Dover, as to the town's priorities?

As the DEIS states, "Prior to initial steam turbine powering, steam blows are used to clear debris and surface scale from steam piping that could potentially damage steam turbine blades. The sound generated during this process can be significant if it is not properly controlled. Mitigation for this sound will include the use of temporary steam blow silencers which be selected to limit sound impacts to less than 70 dBA at the nearest residences. This process is brief in duration, typically lasting 2–3 minutes per blow. Approximately 30-50 blows are required to clean the lines, which occurs over a 2–3 week period. This type of event will be limited to weekday daytime hours only.

F. Once the plant is open, the Town will have little recourse to address noise issues

The plant operators can make whatever claims they want regarding noise, but the practical fact is, once the plant is open, there will be few ways to measure and no ways to mitigate should they exceed their noise standards. No one would close the plant down for a noise violation, the local inhabitants can complain repeatedly and nothing will ever be done. That's the way the system works.

III. DEIS Alternatives

A. The DEIS does not conduct a serious study of alternatives

The Analysis of alternatives is best summed up by one of the four principal reasons for rejecting other sites:

"None of the other sites are owned or controlled by CVE."

Their theory would thus seem to be that once CVE acquired this property, that becomes a determinative factor in allowing the plant to proceed to construction. To state the obvious, the bet that CVE made on land acquisition, and finding what it evidently assumed to be a complacent locality in which to build a plant with major local disruption and few local benefits, should play no role in this siting decision.

Other elements of the Alternatives section are equally spurious. Solar and wind alternatives are rejected because they would require more acreage than is on the CVE site. Again, the characteristics of this one site should play no role in determining an optimum energy future for New York and the region.

B. The No Action alternative is the only responsible choice at this time

The No Action alternative is of course not accepted, since the purpose of the DEIS is to support the proposed action. But the No Action plan, in the context of no need

for the plant, the likelihood of more viable alternatives being available by the time the regional grid requires additional capacity, and the serious negative local impact the construction and operation of this plant will have on the quality of life around it, is clearly the best alternative at this time.

CVE and the state can reconsider this application in 2018 with ample time to meet whatever projected capacity needs the state might have at that time, and what are the then best alternatives, from conventional to alternative, to meet those needs. CVE and its parent should explore other alternatives before imposing the burden of their prior purchase on the town of Dover.

C. The economic benefits are minimal systemically, and non-existent locally

As to the purported economic benefits, the DEIS's own findings are that only half of the benefit of reduced costs that they themselves project will benefit New York State; the remainder will benefit PJM, a regional transmission system that benefits Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. The New England power pool will also reap gains. The reasons for the town of Dover to have to supply benefits to all these other states, primarily to serve as a source of profits for CVE, are not equitable, rational or compelling.

D. Additional studies must be done by unbiased sources

It is worth noting that the energy cost and environmental impact studies were prepared by General Electric. GE will also be selling to CVE major pieces of equipment for the facility, for hundreds of millions of dollars. Their findings in support of the plant are hardly a surprise, and an alternate study performed by a truly independent and unbiased organization, selected by the community, should be conducted for this and all other major findings of the DEIS that were derived from interested parties. As the DEC's mission includes supporting environmental justice, it should mandate that CVE provides funds for such studies, since the community is hard pressed to do so

IV. Reliance on Cheap Natural Gas is Questionable

The dependence on the assumption of low natural gas prices maintaining Cricket Valley's competitiveness is questionable. Recent articles in the New York Times, such as on June 26th ("Behind Veneer, Doubt on Future of Natural Gas") discussed the growing concern that natural gas prices will rise despite the hopes of new investment in production. And should the forces of reason prevail and the noxious practice of fracking be prohibited or limited, that will further put pressure on gas prices to rise.

Plants all over the country are being built to take advantage of the relatively low prices of natural gas. That in and of itself will increase demand and prices. No one can predict commodity prices, except to say they fluctuate, and that limited resources will ultimately rise in price.

There seems little doubt that over the life of this plant natural gas prices will become relatively higher. All this adds up to the residents of Dover being forced to endure increased local point source air pollution, noise pollution, impingement on water and destruction of the character of the area, for a plant whose output could have been far better supplied through cleaner, more sustainable long term sources that brings no local benefits and questionable regional ones.

Why?

V. Developer's History is Problematic

Cricket Valley Energy exists only to develop the Cricket Valley project. It is owned by a parent company, Advanced Power AG, a Swiss-based, privately-owned company. How many projects is Advanced Power currently operating? None. That company has only built only two plants, both considerably smaller, and both outside the United States, subject to different regulations.

Further, Advance Power rapidly sold both plants once they were up and running, so they do not have to live with any consequences of operating them. What this means is that it doesn't matter with whom our community has been dealing, or what commitments they make. Within a short time after construction is completed, we can expect Cricket Valley to flip the plant, selling it to new players who may have little or no regard for the operating commitments that Cricket Valley made. The residents of the Town of Dover should not be forced to be pawns in this scheme.