CCNPP3COLA PEmails

From: Quinn, Laura
Sent: Thursday, July 14, 2011 8:37 AM
To: Norman Meadow
Subject: Calvert Internvors contention on Energy alternatives
Attachments: Intervenors Contention 10 CCNPP.pdf

Dr. Meadow,
Here is the submittal by the intervenors on energy alternatives on the DEIS per your request.
Thanks
Laura

Hearing Identifier: CalvertCliffs_Unit3Cola_Public_EX
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"Norman Meadow" <meadownd@jhu.edu>
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of Docket No. 52-016

Calvert Cliffs-3 Nuclear Power Plant
Combined Construction and License Application

SUBMISSION OF CONTENTION 10 BY JOINT INTERVENORS

Joint Intervenors hereby submit Contention 10, which challenges the adequacy of the NRC's Draft Environmental Impact Statement (DEIS) for the proposed Calvert Cliffs Unit 3 with respect to its analysis of need for power, energy alternatives, and the relative costs and benefits of the proposed reactor . Contention 10 is admissible under 10 CFR § 2.309(f)(i)-(vii). It is also timely under 10 C.F.R. 2.309(f) because (a) it is based on data in the DEIS that differs significantly from data presented in the Applicants' Environmental Report and (b) it is being submitted within 60 days of the issuance of the Draft EIS on April 26, 2010.

I. CONTENTION 10

Contention 10. The Draft Environmental Impact Statement (DEIS) is inadequate to meet the requirements of 10 CFR 51.71(d) or provide reasonable support for the NRC's decision on issuance of a construction/operating license for the proposed Calvert Cliffs-3 nuclear reactor because its analyses of Need for Power, Energy Alternatives and Cost/Benefit analysis (Chapters 8, 9 and 10) are flawed and based on inaccurate, irrelevant and/or outdated information.

A. The DEIS' Analysis of Need for Power in Inadequate and Based on Faulty and Outdated Information.

In Chapter 8, the DEIS presents the NRC Staff's analysis of the need for the proposed Calvert Cliffs Unit 3 reactor. While Chapter 8 reaches the same conclusion as the Environmental Report that Unit 3 is needed, it is based on a completely different set of data that are more recent than the data presented in the Environmental Report. For example, it cites a 2009 Maryland Public Service Commission decision authorizing a Certificate of Public Convenience and Necessity for Calvert Cliffs-3, a January 2010 PJM[1] load forecast report, a 2010 Maryland Department of Natural Resources report, and other documents much more recent than those cited by Applicants in their Environmental Report. The DEIS cites these various reports and studies to show that Maryland currently suffers from an imbalance in its electrical demand and supply, with demand considerably outstripping available generation.

Despite the fact that the information relied on by the DEIS analysis is updated in relation to the Environmental Report, it is still outdated. And the NRC Staff's analysis of need for power is not reliable because it focuses on the State of Maryland rather than the broader area that would be served by Calvert Cliffs Unit 3, the PJM grid (1).

Most importantly, the DEIS fails to reflect the reality that since 2006, electricity demand has actually plummeted in Maryland and throughout the PJM grid, primarily due to the recession, but also due to demand-side management programs in the region which

[1] PJM manages the high-voltage electric grid and the wholesale electricity market in all or part of 13 states, including Maryland, and the District of Columbia. Electricity from power plants in the PJM service area is distributed throughout this grid and electricity from a power plant in one state in the grid is indistinguishable from electricity from a power plant in any other state in the grid. States in the PJM grid do not have separate in-state grids. Thus, any discussion of electrical demand and supply in a specific state must consider the demand and supply issues in the entire PJM grid, not just in an individual state. For more information on the PJM grid: http://www.pjm.com/about-pjm/who-we-are.aspx

exist to reduce electrical usage. Electrical demand has not yet reached pre-recession levels,[2] calling into question even the January 2010 PJM demand forecast cited by the DEIS that projects very modest growth (1.4-1.8%/year through 2020) in the PJM region. The DEIS makes no effort to provide or cite new projections of future demand that are based on the fact that demand has dropped substantially over the past three years, and appears on its way to dropping again in 2010. In fact, one of the principal studies on which the DEIS relies – the Maryland Public Service Commission's Ten-Year Plan for 2008-2018 – expresses uncertainty about the validity of the energy demand forecasts published in the same report:

> The declining economic conditions of 2008 are not fully captured in the utility load forecasts included in this report. Utility provided forecasts were prepared in the fall of 2008 and, for the most part, assumed a traditional economic recession. *A longer, deeper recession is now predicted by most economists.*[3]

The Draft DEIS also fails to account for the excess capacity of the PJM service area, which currently has 162,903 MW of electric power available[4], a comfortable reserve margin of about 28,000 MW (or about 17 reactors the size of Calvert Cliffs-3) over PJM's peak summer 2010 demand forecast of 135,750 MW. We note that on June 24, 2010—the hottest day of the year so far, when temperatures reached 100 degrees throughout much of the PJM service area—electrical demand in the PJM grid was only 122,361 MW at 1:10 pm; and was projected to reach a top demand figure for the day of

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[2] For example, demand in the PJM service area peaked in the summer of 2006, with a one-day record of 144,644 MW of electricity. PJM projections for the summer of 2010 are for peak demand of 135,750 MW, or nearly 11,000 MW (or about 7 nuclear reactors the size of Calvert Cliffs-3) less than the peak experienced in 2006. http://www.pjm.com/documents/~/media/documents/reports/2010-load-forecast-report.ashx

[3] Maryland Public Service Commission, *Ten-year Plan (2008-2017) of Electric Companies in Maryland*. 2009 . at 3 (emphasis added).

[4] http://www.pennenergy.com/index/power/display/9884367632/articles/electric-light-power/energy-efficiency/2010/05/PJM_using_demand_response_to_meet_summer_peak_electricity_use.html

124,102 MW[5] —11,000 MW, or about 7 Calvert Cliffs-3 reactors less than the peak forecast. This was a record-setting heat day and the hottest day in the region since August 8, 2007.[6] This is an extremely important indicator because hot weather is the most significant determinant of peak electrical demand in the PJM service area.[7]

Today, June 25, 2010, with temperatures still around 90 degrees, demand is far less: at 2:15 pm it is 114,061 MW[8].

By contrast, peak demand in the summer of 2009 was 126,805 MW, according to the Federal Energy Regulatory Commission.[9] Less demand than 2009 on a record-setting heat day (the hottest since 2007), and considerably less demand on a more normal hot day indicates that PJM's January 2010 forecast document may significantly overstate electrical demand and that the decline in electrical demand from 2006 through 2009 is continuing.

Based on these numbers, there appears to be no need at all for a new reactor in the PJM service area. Without a meaningful projection of future demand based on the declining demand of recent years, it is impossible at this point to find a need for power in the PJM service area.

The DEIS also attempts to justify the need for a new reactor at Calvert Cliffs by arguing that Maryland is an electricity importer and that the state's electrical supply is considerably below its current demand. While this may be true, it is irrelevant to the question of whether a new reactor is needed, for two reasons:

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[5] http://www.pjm.com/, viewed at 1:21 pm, Thursday, June 24, 2010.
[6] http://www.nbcwashington.com/weather/stories/Record-Setting-Heat-Thursday-97120084.html
[7] DEIS at 8-3.

[8] http://www.pjm.com/, viewed at 2:30 pm, Friday, June 25, 2010
[9] http://www.ferc.gov/market-oversight/mkt-electric/pjm.asp

1) Few, if any, states are balanced in their generation and demand. That is because – as the DEIS recognizes -- the states are joined together in multi-state grids such as PJM, which supplies power to Maryland and several other states.[10] What is important is that the grid has sufficient power to meet demand, not necessarily individual states. Thus, to the extent that the DEIS attempts to justify the need for Calvert Cliffs Unit 3 based on projections of demand, generation capacity and projections for the State of Maryland, the DEIS will inevitably reach faulty conclusions.

2) There is no assurance that any electricity from Calvert Cliffs-3, as a merchant power plant, will be sold or used in Maryland. Applicants have no electricity sales contracts in the state and no commitment to sell power in the state. Thus, electricity generated by Calvert Cliffs-3 cannot be simply assumed to address Maryland's own electricity needs, as the DEIS does assume. Its power may end up being sold in Virginia or New Jersey or elsewhere. The Applicants' ER acknowledges this on page 9-25: "CCNPP Unit 3 will operate as a baseload, merchant independent power producer. The power produced will be sold on the wholesale market without specific consideration to supplying a traditional service area or satisfying a reserve margin objective."

Also lacking in the DEIS is a meaningful discussion of demand-side programs, that could and almost certainly will reduce future electrical demand in Maryland and the PJM service area. The most glaring flaw in the DEIS analysis of demand-side programs is that its discussion is limited to the actions of the utility BGE. In fact, there are 13 electric utilities in the state of Maryland, and demand-side actions taken by the other 12

[10] DEIS at 8-2.

(as required by Maryland law[11]) will also act to reduce electrical demand in the state with a goal of an overall 15% per capita reduction in electricity consumption by 2015. Similarly, demand-side programs in utilities outside Maryland will act to reduce demand throughout the PJM grid. Given that the discussions of need for power are based on statewide electrical generating capacity and demand, focusing solely on actions of a single utility underestimates — perhaps greatly -- the effect of demand-side programs, and causes a loss of confidence in any of the demand projections stated in the DEIS.

B. The DEIS Discussion of Energy Alternatives is Inadequate, Faulty and Misleading

The DEIS' discussion of alternative energy sources and their environmental impact relies on misleading, irrelevant and flawed data and analysis.

The most egregiously inaccurate and illogical analysis is the discussion of wind power in Section 9.2.3.2 of the DEIS. Here, the NRC cites a 2008 Maryland Department of Natural Resources (DNR) report which estimates Maryland's onshore wind power potential as between 627 and 1078 MW (which itself would provide a significant alternative to Calvert Cliffs-3) and concluded that onshore wind "yields net economic benefits, albeit on a small scale." But this report, according to the DEIS, found that "as modeled in the report," offshore wind "does not yield economic benefits."

[11] The EmPower Maryland Energy Efficiency Act of 2008 passed in April 2008 and set a statewide goal of achieving a 15% reduction in per capita electricity consumption and peak demand by the end of 2015. Maryland utilities are required to provide cost-effective energy efficiency and conservation programs that are designed to achieve at least 5% per capita electricity savings by the end of 2011 and 10% savings by the end of 2015. The Maryland Energy Administration (MEA) is responsible for an additional 5% savings by 2015. The programs must also achieve a reduction in per capita peak demand of at least 5% by end of 2011, 10% by 2013, and 15% by 2015. Description taken from American Council for an Energy Efficient Economy, http://www.aceee.org/energy/state/maryland/md_utility.htm

Apparently this DNR report was based on outdated or faulty information, because this would probably come as news to Bluewater Wind (owned by the utility NRG), which has proposed a 600 MW wind power project offshore of Maryland,[12] as well as a similarly-sized offshore wind project offshore of Delaware and a 350 MW offshore wind project in New Jersey. Both the Delaware and New Jersey projects are in the PJM service area and have obtained state approval. Clearly, the NRC did not research Maryland's offshore wind potential in any meaningful manner, nor did it investigate the offshore wind potential of the rest of the mid-Atlantic coast, even though it would feed into the PJM grid.

The NRC exacerbates its failure to consider relevant and up-to-date information by citing a 2007 study by Southern Company and the Georgia Institute of Technology of wind potential off the coast of Georgia as evidence that Maryland's offshore wind potential is trivial.[13] The DEIS states, "The review team believes that the preceding conclusions would generally apply to a wind farm located offshore of Maryland based on similarities in the physical and regulatory environments."[14]

Not only does the DEIS fail to explain how it reached a conclusion that a study of Georgia's offshore wind potential offers relevance to Maryland, but even a cursory review of the relevant literature would have demonstrated the gross incorrectness of the DEIS' conclusion. The U.S. Department of Energy's assessment of offshore wind gives Maryland's offshore potential its highest ratings—as outstanding or superb.[15] Indeed,

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[12] http://www.bluewaterwind.com/maryland.htm
[13] DEIS, Section 9.2.3.2, pages 9-21 and 9-22
[14] DEIS, Section 9.2.3.2, page 9-22
[15] A copy of a wind power potential map produced by DOE's National Renewable Energy Laboratory is attached. As is quickly evident, the entire mid-Atlantic coast is among the highest-rated areas for wind power in the entire United States.

such ratings are applied to the entire coastal region of the PJM service area: Virginia, Maryland, Delaware and New Jersey. Georgia's offshore wind potential, by contrast, is rated only as fair to good.[16]

In an April, 2009 report, the U.S. Department of the Interior states that there are 1,000 Gigawatts of wind power potential off the Atlantic Coast alone.[17] We note that the current capacity of the entire fleet of U.S. nuclear reactors is on the order of 85-90 Gigawatts.

Thus, not only does the DEIS cite a misleading and irrelevant study, it does not even acknowledge the reality that there is enormous offshore wind power potential off Maryland's coast and the PJM region generally, and it also ignores actual offshore wind projects that have been both proposed and approved that will feed directly into Maryland and the PJM service area.

The DEIS also fails in its discussion of solar power. The DEIS primarily addresses possible solar power plants and dismisses them as not particularly effective in Maryland and argues they take up too much acreage. While this may be true with present solar technology for Maryland, the DEIS acknowledges that "…for flat-plate photovoltaic collectors, DOE states that Maryland has a good, useful solar resource throughout most of the state."[18] However, the DEIS then fails to even attempt to quantify the possible contribution solar PV could make for Maryland (or seek a source which could quantify this potential), which would be primarily above-ground (rooftops, parking lots, etc.) and would take up essentially zero acreage. Nor is solar power potential of any kind analyzed anywhere else in the PJM service area besides Maryland. The DEIS thus

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[16] Ibid
[17] See, for example, http://articles.latimes.com/2009/apr/03/nation/na-energy3
[18] DEIS, page 9-22

makes it impossible to assess the possible solar PV contribution to Maryland's (and the PJM's) electrical supply.

C. The DEIS Discussion of a Combination of Alternatives is Inadequate and Faulty

In Section 9.2.4 of the DEIS, the NRC considers a combination of alternatives to the proposed Calvert Cliffs-3 reactor. Because of the NRC's failure to adequately understand wind power potential for Maryland, or to quantify solar power potential, or to correctly examine the impact of demand-side programs, this section is fatally flawed.

While the DEIS is correct in stating that "it would not be reasonable to examine every possible combination of energy alternatives in an EIS," it is reasonable to examine the DIES will examine a feasible combination of alternatives. In this case, the EIS arbitrarily examines only an alternative of combining a 1200 MW natural gas combined-cycle plant with 25 MW of hydropower, 75 MW of solar power, 100 MW of biomass power and 100 MW of wind power, along with demand-side programs mandated by the State of Maryland being implemented by BGE (Baltimore Gas and Electric).

We have pointed out that 600 MW of offshore wind power already have been proposed (and are likely to be in operation before construction of Calvert Cliffs-3 could be completed) for Maryland (and more will be produced off the nearby coasts of Delaware and New Jersey, feeding into the same PJM grid). Thus, the wind power potential in this combination is grossly underestimated in the DEIS' arbitrary formulation.

Similarly, by failing to account for the drop in electricity demand in Maryland and the PJM service area over recent years, and failing to consider state-mandated demand-

side programs by Maryland's 12 utilities other than BGE (as well as those of other utilities in the PJM service area), the DEIS likely overestimates future demand while grossly underestimating the impact of state-mandated demand-side programs.

By failing to even attempt to quantify potential power from solar photovoltaics, the DEIS has no basis whatsoever for assuming a 75 MW contribution from solar power. Indeed, the possible contribution could be lower, or it could easily be much higher.

Thus, a feasible combination of alternatives might well include a considerably smaller natural gas plant than contemplated in the DEIS, along with a much larger contribution from renewable sources of power and demand-side programs. With proper load management, such a combination could produce reliable electricity (the goal of "baseload" power) with lower environmental consequence and quite likely at reduced economic cost. At the very least, the DEIS must not simply ignore the potential contributions of offshore wind—which, after all, is actually in the development phase; solar power, and demand–side programs.

The DEIS discussion of a combination of alternatives is inadequate to serve as a decision document. It must be re-prepared and include a discussion of a viable combination of alternatives that are based in reality, not speculative underestimation.

The DEIS discussion of a combination of alternatives is significantly different, and presents a substantially different analysis, than that found in the Applicants' ER. In addition, as noted below, the Applicants' ER is contradicted by the DEIS on the critical issue of cost of electricity from a nuclear reactor versus the cost of other alternatives.

D. The DEIS Discussion of Costs Both Understates Likely Costs and Disputes Cost Estimates in the Applicants' ER, Calling into Question the ER's discussion of Calvert Cliffs-3 vs. Alternatives

The DEIS discussion of costs of Calvert Cliffs-3 (Section 10.6.2) correctly acknowledges "…there is a significant amount of uncertainty regarding the true costs of constructing a new unit."[19]

Instead of attempting to address that uncertainty however, the DEIS simply accepts recent UniStar "overnight" cost estimates[20] for Calvert Cliffs of "roughly $7.2 billion to $9.6 billion"[21] or $4500/kw to $6000/kw. This is in line with 2008 testimony provided by UniStar CEO George Vanderheyden to the Maryland Public Service Commission, who stated cost estimates for Calvert Cliffs-3 are on "the upper end" of that range.

The DEIS goes on to say that because this estimate included both construction and preconstruction activities, it overestimates the cost of the proposed action (granting of a construction/operating license) and provides a "conservative estimate of the costs of the benefit-cost analysis."[22]

This reasoning fails to hold water. The DEIS admits that "the most substantial monetary cost associated with nuclear energy is the cost of capital,"[23] but excludes these capital costs from the "overnight" $7.2-$9.6 billion cost estimate. This is hardly a conservative approach. And, indeed, estimated costs for an identical Areva EPR reactor

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[19] DEIS, Section 10.6.2.1, page 10-24
[20] "Overnight" costs refer to the cost of a construction project if it could be built literally overnight, and thus not incur any financing costs.
[21] DEIS, Section 10.6.2.1, page 10-25
[22] Ibid.
[23] DEIS, Section 10.6.2.1, page 10-24

proposed by PPL just north of Maryland are $13-15 billion when these costs are factored in.[24]

Additionally, the bulk of the preconstruction activities related to building a nuclear power plant presumably are unlikely to occur if a license to build the reactor is denied. Thus, including these costs does not represent an overestimate of the costs of the NRC's proposed action, nor a conservative approach to the cost-benefit analysis.

The DEIS fails to acknowledge a fundamental reality of the nuclear power program in the United States: every reactor ever built, to the best of our knowledge, has gone over-budget. It would seem that since the NRC has now licensed 120+ reactors, this fundamental fact would be known to the agency and considered in agency documents. Indeed, the average cost overrun of the first 75 reactors built in the U.S. was 207%, meaning the final construction cost was more than triple the original cost estimates.[25] Reactors completed after January 1, 1986, when the Department of Energy's Energy Information Administration first released this study, generally experienced even higher cost overruns.

More recently, Areva—the reactor manufacturer of the Calvert Cliffs-3 EPR reactor--has been building the first EPR ever in Finland. That reactor was initially budgeted at 3.2 billion Euros, and indeed, Areva signed a fixed-price contract to build the reactor for that amount. Construction of that reactor began in 2005. On June 23, 2010, Areva took an additional 400 million Euro loss on the plant, bringing the total cost at this

[24] http://www.bellbend.com/faqs.htm
[25] Congressional Budget Office, *Nuclear Power's Role in Generating Electricity*, at page 17. May 2008. Based on Energy Information Administration Technical Report DOE/EIA-0485, *An Analysis of Nuclear Power Plant Construction Costs,* January 1, 1986.

point to 5.7 billion Euros, or currently more than 80% over-budget.[26] Because construction is not expected to be completed until late 2012 at the earliest, further cost overruns are possible.

While this is not necessarily evidence that the Calvert Cliffs-3 project would experience a cost overrun of 200+%, or even 80%, it does suggest that the NRC, in its DEIS cost-benefit analysis, must add some sort of defensible cost escalation component, as there is no history whatsoever to suggest that the Calvert Cliffs-3 project would be built at its estimated cost. Failure to do so would lead to an underestimate of costs and a consequent overstatement of benefits. In addition, while Applicants hope to receive a low-interest loan from the Federal Financing Bank to finance this project (which has not at this writing been granted), even a low-interest loan on a multi-billion dollar construction project causes substantial additional costs.

Even at the lower, inadequate cost estimate used by the NRC in the DEIS, however, the document conflicts with the Applicants' Environmental Report and calls into serious question the Applicants' entire discussion of alternatives to the proposed Calvert Cliffs project.

Applicants' ER repeatedly states, in comparing costs of nuclear to costs of alternatives, that nuclear plants—by reference including Calvert Cliffs-3—are expected to produce power in the range of $0.031 to $0.046 per kWh.[27]

In support of this estimate, Applicants cite two studies on the Department of Energy's website from 2002 and 2004. But these studies are outdated and do not reflect current cost construction estimates, nor the "overnight" $7.2-$9.6 billion estimate the

[26] http://www.greenpeace.org/international/en/news/Blogs/nuclear-reaction/areva-covers-up-extent-massive-nuclear-reacto/blog/12548
[27] See Applicants' Environmental Report, pages 9-14, 9-16, 9-17, 9-21, 9-22, 9-24, 9-28, 9-29.

NRC cites—from UniStar itself—in the DEIS. The 2004 study, for example, projects "overnight" construction costs for a new reactor at $1200 to $1800/kw[28]—some 300-500% below the $4500-$6000/kw overnight costs projected in the DEIS—which themselves are almost certainly too low and nonconservative.

Substantially higher construction costs means substantially higher electricity rates; thus the DEIS cost estimates undercut the Applicants' arguments of a positive cost-benefit for construction of Calvert-Cliffs-3 versus the alternatives. Adding even a modest cost escalation factor to more properly reflect the history of nuclear construction economics would undercut the Applicants' arguments further.

In summary, the DEIS understates the costs expected for the Calvert Cliffs-3 project and is thus inadequate to serve as a decision document. At the same time, the DEIS undercuts Applicants' cost-benefit analyses, and demonstrates that Chapters Nine and Ten of the Applicants' Environmental Report are wrong and misleading, and may not serve as the basis for licensing action.

II. TIMELINESS OF CONTENTION 10

A. The Contention is Based on Information in the DEIS Which Differs Significantly From the Environmental Report.

10 C.F.R. 2.309(f)(2) requires that contentions must be based on information that was available at the time a petition to intervene is to be filed. With respect to all of the issues addressed by Contention 10, the DEIS relies on data that were not included in the Environmental Report submitted with the Applicants' COL application. Therefore they could not be addressed in Intervenors' original hearing request.

[28] http://www.nuclear.energy.gov/np2010/reports/NuclIndustryStudy-Summary.pdf

The principal difference between the data presented in the Environmental Report and the data presented in the DEIS is that the DEIS is significantly more up-to-date. For instance, in the Need for Power discussion in the Environmental Report, no documents from 2009 or 2010 are cited. A single document from 2008 is cited, and all of the other documents are from 2007 or earlier. Obviously these documents do not reflect the significant and long-lasting downturn in the U.S. economy that started during 2007, which has greatly affected electricity demand, nor the effects of Maryland's 2008 energy efficiency law and continuing improvement in demand-side management programs. Nonetheless, as discussed in Contention 10, the data presented in the DEIS are still inadequate to provide an adequate basis for a licensing decision with respect to environmental issues.

Similarly, the Applicants' Environmental Report discussion on Alternatives cites only documents dated 2007 or earlier; the DEIS cites numerous documents from 2008 and 2009. In addition, the DEIS cites the 2007 study on offshore wind power potential in Georgia not cited in the Environmental Report.

The Applicants' Environmental Report does at least acknowledge that "Maryland has wind resources consistent with utility-scale production,"[29] which is inconsistent with the DEIS. However, the Applicants' report is dismissive of offshore wind power and, unlike the DEIS, did not even consider it as an alternative to Calvert Cliffs-3, despite the fact that large offshore wind power plants are being proposed by Applicants' competitors. This may be due to the outdated nature of the documents cited in the ER.

The Environmental Report's discussion on costs as part of its cost-benefit analysis is even more dated, relying primarily on a generic 2004 report (*The Economic Future of*

[29] Applicants Environmental Report, Revision 6, Page 9-9

Nuclear Power) for its estimate of "levelized" or per-kilowatt/hour costs (the ER uses this same study in its discussion of costs of nuclear vs. alternatives throughout Chapter 9), and, in its public version, does not actually provide an overnight cost estimate for Calvert Cliffs-3. The DEIS does supply an overnight cost estimate for Calvert Cliffs-3, and in doing so directly contradicts the Applicants' Environmental Report's cost estimates derived from the 2004 report.

B. Timeliness in Relation to Issuance of DEIS

The DEIS was issued publicly on April 26, 2010. While normally there is a 30-day requirement for filing of new contentions based on a DEIS, Applicants and Joint Intervenors have previously agreed that a 60-day period would be allowed for new contentions based on the Draft EIS and Draft SER.[30]

The parties reached this agreement after Applicants requested a 60-day extension to fulfill document disclosure requirements for documents related to Contention 1 (foreign ownership), which moved the deadline for providing those documents from May 1, 2009, to July 1, 2009. Intervenors' representative has consulted counsel for the Applicants, who stated that they do not intend to oppose Contention 10 on the ground that a 30-day deadline should be imposed. Counsel for NRC staff indicated that they would reserve judgment on timeliness, but believe a 60-period should begin on April 20. Apparently NRC staff submitted a notice through the EIE system on April 20 announcing the availability of the DEIS at that time. However, that message (received by Joint Intervenors at 1:30 pm on April 21), was quickly followed by two other messages from NRC staff (at 5:30 pm and 7:30 pm, April 21) announcing public availability of the DEIS

[30] However, the parties agreed not to change the 30-day period for new contentions based on the Final EIS and Final SER.

would be on April 26, 2010. Thus, Joint Intervenors were under the impression the DEIS was not available to us until that date. For the reason below, Joint Intervenor's Designated Representative did not even see the DEIS until much later in May.

Even if the ASLB determines that Intervenors should have submitted Contention 10 by May 21 or May 26, 2010, Intervenors respectfully submit that an extension of the deadline is warranted by unusual circumstances. On April 25, 2010 (the day before the public issuance of the DEIS) Michael Mariotte, the designated representative of Joint Intervenors, went on paternity leave for the birth of his daughter Zoryana that morning. In order to care for his daughter, he remained on paternity leave until May 17, 2010, and then returned to work only half-time until June 1. While Mr. Mariotte was able to attend a portion of the May 25 public meeting on the DEIS (and noted in brief oral testimony on May 25 that he had only begun to review the document at that time), he was not able to fully review the document until after June 1.

Respectfully submitted,

This 25th day of June 2010
_____Signed Electronically by_____

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CERTIFICATE OF SERVICE

It is our understanding that all on the Calvert Cliffs-3 service list are receiving this motion through the submission I am making on June 25, 2010 via the EIE system.

Joint Intervenors Contention 10, June 25, 2010

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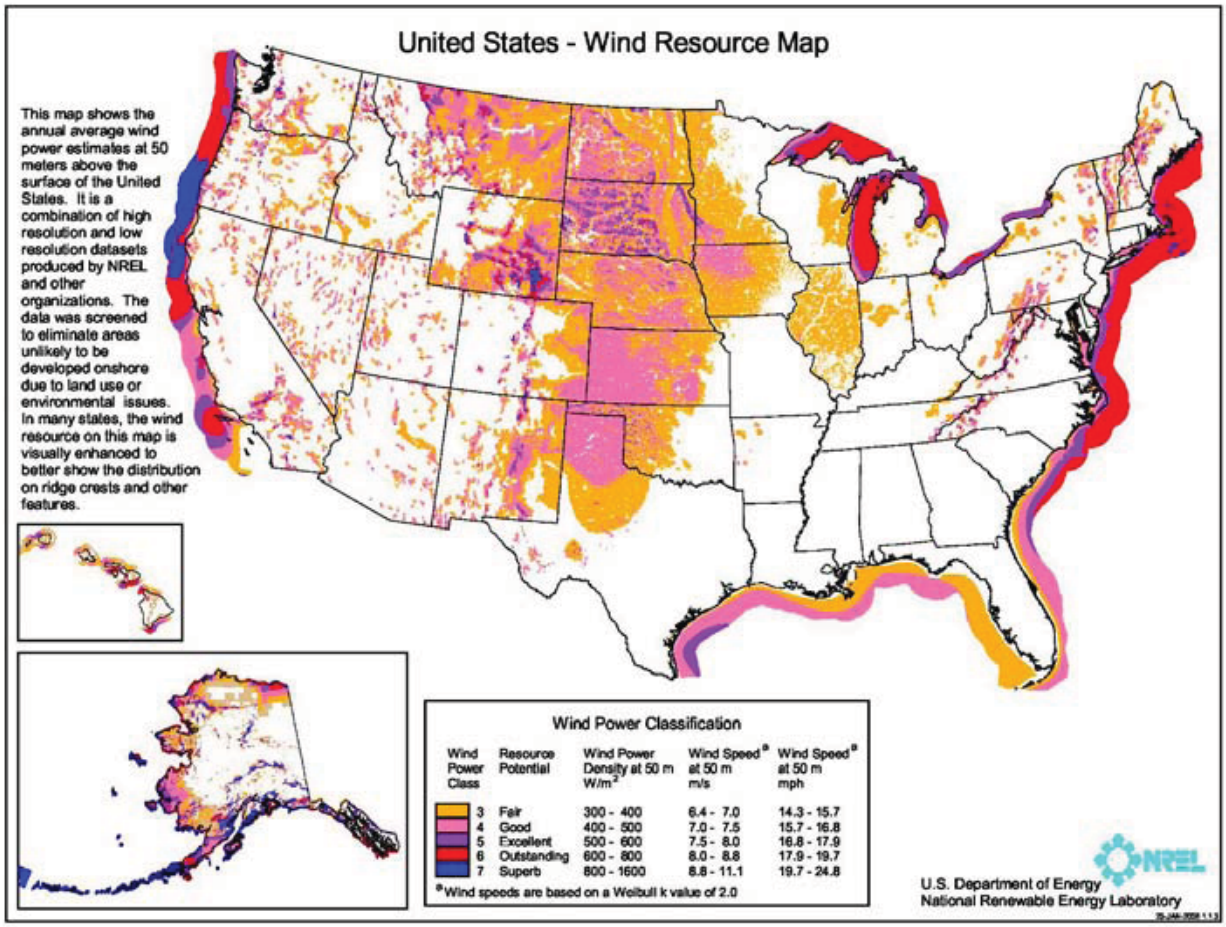
Appendix A


United States - Wind Resource Map
This map shows the annual average wind power estimates at 50 meters above the surface of the United States. It is a combination of high resolution and low resolution datasets produced by NREL and other organizations. The data was screened to eliminate areas unlikely to be developed onshore due to land use or environmental issues. In many states, the wind resource on this map is visually enhanced to better show the distribution on ridge crests and other features.
Wind Power Classification
Wind Power Class
Resource Potential
Wind Power Density at 50 m W/m²
Wind Speed[a] at 50 m m/s
Wind Speed[a] at 50 m mph
3 Fair 300 - 400 6.4 - 7.0 14.3 - 15.7
4 Good 400 - 500 7.0 - 7.5 15.7 - 16.8
5 Excellent 500 - 600 7.5 - 8.0 16.8 - 17.9
6 Outstanding 600 - 800 8.0 - 8.8 17.9 - 19.7
7 Superb 800 - 1600 8.8 - 11.1 19.7 - 24.8
[a]Wind speeds are based on a Weibull k value of 2.0
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