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**Sent:** Friday, July 09, 2010 1:50 AM  
**To:** CalvertCliffsCOLAEIS Resource  
**Cc:** William Biggley; phamm001@earthlink.net; Paulette Hammond; Ken Lewis  
**Subject:** Comments on COL dEIS for Calvert Cliffs Unit 3  
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## Maryland Conservation Council

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### Comment and requests from the Maryland Conservation Council on the draft EIS for the COL for the Calvert Cliffs Nuclear Power Plant Unit 3 - 7/9/10

The Maryland Conservation Council strongly agrees with the conclusion that the reactor should be built. We spoke at the meetings on May 25 and would now like to add one comment and make several requests for inclusions in the final EIS.

Our comment is that the study by Jablon, et al., cited by the authors of the dEIS, offers substantive evidence that nuclear power reactors and other DOE facilities have not affected the health of members of the public living near the facilities. This study, although somewhat weakened by the fact that it measured death from cancer and not the incidence of cancer, included an extremely large population, 52 million, and tabulated 2.6 million cancer deaths. It seems very unlikely that the putative inaccuracies in death certificates and/or other confounding factors would have precisely negated increases in cancer incidence around all of the 62 nuclear facilities, which included some of the most criticized DOE facilities.

Our requests (in **bold**) for additional statements in the final EIS follow; they fall into three categories:

1) The first relates to cumulative impacts. There are two key sections of every EIS: The first is an analysis of the cumulative impacts of the proposed action, and the second is an analysis of alternatives to the proposed action. Thus, the dEIS states: "Cumulative impacts result when the effects of an action are added to or interact with other past, present, and reasonable foreseeable future effects on the same resources." And further: "These combined impacts...include individually minor but collectively potentially significant actions taking place over a period of time."

To many environmental groups renewable energy is a preferable alternative to reactors. To those concerned with the conservation of biological diversity, however, the *cumulative* ecological impacts of large-scale renewable projects *will be their most detrimental effect*. A report from the National Research Council, "The Environmental Impacts of Wind-Energy Projects<sup>1</sup>," states repeatedly that the current state of ecological knowledge makes it impossible to forecast what the cumulative impacts of wind installations will be on many creatures, particularly those that are rare. The report's strongest statement is on page 68: "The construction and maintenance of wind-energy facilities alter ecosystem

structure through vegetation clearing, soil disruption, and potential for erosion, and this is particularly problematic in areas that are difficult to reclaim such as desert, shrub-steppe, and forested areas."

We believe that concern for cumulative ecological impacts of industrial wind installations **should be included in the final EIS as a reason for rejecting them as an alternative** (as they are for wood waste in section 9.2.3.6) because thousands of turbines will be required to equal the output of the proposed reactor, and these turbines will disturb the ecology of many thousands of acres of forest, if built on land, or even larger marine areas, if built offshore. This would make cumulative impacts of wind installations a key factor in the decision to build the reactor. **The report from the National Research Council should be cited in the bibliography of the EIS.**

The use of forest products for the generation of electricity will be the most land intensive of all the renewable technologies. The authors of the dEIS cited ecological concerns in the section on Wood Waste (9.2.3.6) when referring to large-scale timber cutting. The growth of short rotation forest crops (or switchgrass) to fire a 1600 MW boiler for a year would require well over a million acres of land. Slash from forest clear-cuttings has already been proposed as a fuel for electricity generation by the Maryland Governor's Commission on Climate Change<sup>2</sup>, a practice which will deny important soil nutrients to land that is already heavily affected by the timber removal. **We request that the ecological impact (large area of habitat required) of growing short-rotation forest crops be added to section 9.2.3.6). The title of this section should be changed from "Wood Waste" (a misleading term) to "Forest Products." Additionally we request that the ecological impacts (from the large area of habitat required) of growing and burning crops, e.g. switchgrass, be added to section 9/2/3/8).**

The ecological impacts of extensive solar installations on open land are also of potential significance. The dEIS states that as much as 16,000 acres of PV arrays would be needed to equal the capacity of the reactor. If a significant portion of this area does not become available on rooftops, then open land *will* be used because the Maryland RPS mandates the generation of a certain amount of electricity from sunlight by 2020. If the ecological impacts to this land are added to those from building large numbers of wind turbines, the effects will become even more serious. **We therefore request a statement in section 9.2.4 that the alternative of a combination of renewable energy sources (wind, biomass (as specified above) and solar (if not on rooftops) will have detrimental environmental cumulative impacts and, again, cite the National Research Council's report as documentation.**

2) Land-based wind generation potential throughout the entire Mid-Atlantic Highlands (VA, WV, MD, PA) is estimated by the National Renewable Energy Laboratory to be 8015 MW of "total technical capacity." Using the generally recognized annual capacity factor of 30% for land-based wind in this region, the effective generation capacity of the entire four-state region is therefore 2,400 MW, just 1.5 times the capacity of the single proposed reactor. This means that offshore wind would have to be the major source of wind energy in this region.

The Maryland Department of Natural Resources held two "Ocean Planning & Offshore Renewable Energy" presentations, at which it was stated that the "development and commissioning time" for offshore wind projects of greater than 350 MW capacity was from 4 to 7 years (this does not include the time required to gain approval of the projects)<sup>3</sup>. A 350 MW offshore wind installation will have an annual capacity factor of about 40%, so its effective capacity will be 140 MW, just one-tenth that of the reactor, but taking a comparable length of time to construct. **This should be mentioned as another of the reasons for rejecting wind power as an alternative to the reactor.**

3) Turning to the economic impacts of the proposed reactor, we note that the authors of the dEIS

have overlooked a major economic benefit to the Maryland ratepayer. The authors cite (see section 9.5, reference MPSC 2008b: *Final Report Under Senate Bill 400*) the findings of a Maryland Public Service Commission report that wind (section 9.2.3.2) and solar (section 9.2.3.3) power will have from small to negative economic impacts on the Maryland ratepayer. In 2007, however, the MPSC issued what it termed an “interim report” (*Interim Report of the Public Service Commission of Maryland to the Maryland General Assembly*, Dec. 3, 2007); this report was poorly named because *it was not replaced by the final report*, it, in fact, contained information and conclusions *that were not repeated in the final report*. Importantly, the MPSC concluded in the interim report (p. 39) that “...the nuclear case provides the highest cumulative EVA [Economic Value Added], ...[offering] a rapid, substantial and sustained benefit to Maryland ratepayers unmatched over the 20-year horizon by any other option....” The MPSC estimated that the third reactor at Calvert Cliffs would benefit the Maryland ratepayer \$2.9 billion (p. 38). **This conclusion should be cited somewhere in section 10, perhaps in 10.6.3, which now states that “...no specific monetary values could reasonably be assigned...”** If they have not already done so, we suggest that the NRC staff read the source documents for the MPSC’s reports, which are the reports produced by Levitan and Associates and are found on their web site ([www.levitan.com](http://www.levitan.com) ).

<sup>1</sup> National Research Council. *Environmental Impacts of Wind-Energy Projects*. 2007. The National Academies Press, Washington, DC.

<sup>2</sup> Maryland Commission on Climate Change. *Comprehensive Greenhouse Gas and Carbon Footprint Reduction Strategy*. 2008, pp. 31, 44, 51.  
<http://www.mde.state.md.us/assets/document/Air/ClimateChange/Chapter4.pdf>

<sup>3</sup> Chris Cortina, Chesapeake & Coastal Program, MD Department of Natural Resources, Tawes State Office Building, E-2, 580 Taylor Avenue, Annapolis, MD 21401, Phone: (410) 260-8774, [ccortina@dnr.state.md.us](mailto:ccortina@dnr.state.md.us), <http://www.dnr.state.md.us/ccp>

Respectfully submitted,

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