



INSTITUTE FOR ENERGY AND ENVIRONMENTAL RESEARCH

6935 Laurel Avenue, Suite 201
Takoma Park, MD 20912
Phone: (301) 270-5500
FAX: (301) 270-3029
e-mail: info@ieer.org
<http://www.ieer.org>

Presentation of Arjun Makhijani to the Maryland Public Service Commission

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In the Matter of Transforming Maryland's Electric Distribution Systems to Ensure that Electric Service is Customer-Centered, Affordable, Reliable and Environmentally Sustainable in Maryland, Public Conference No. 44 (PC44). The Grid Transformation Proceedings

Mr. Chairman and Commissioners:

I deeply appreciate that you have extended the agenda today to accommodate these comments. My name is Arjun Makhijani; I am president of the Institute for Energy and Environmental Research. I want to make four points:

1. First: Nuclear energy is not renewable. The Intergovernmental Panel on Climate Change (Fifth Assessment) defines Renewable Energy as:

Any form of energy from solar, geophysical, or biological sources that is replenished by natural processes at a rate that equals or exceeds its rate of use.

Uranium and thorium are the natural resources for nuclear energy; they are primordial materials and are not renewed by natural processes. I want to recommend that the Commission adopt the IPCC5 definition as the working definition for the proceedings to prevent unnecessary argumentation.

2. Second: Regarding baseload and the future grid: I think the view of a member of the Board of Governors of the California ISO, David Olsen, should be carefully considered in this proceeding. He has been quoted as follows:

Having a 24/7 nuclear plant, from a grid operator's standpoint - that is a real problem. Dealing with 2,200 MW coming in at every minute - we have to design our grid around that inflexibility. 'Baseload' refers to an old paradigm that has to go away. (As quoted in *Renewable Energy World*, October 2016.)

This issue is discussed further in an IEER report, *Prosperous, Renewable Maryland*, which I would like to submit for the record.

3. Third: I appreciate and endorse the excellent reasoning behind the PSC's order last year to include non-energy benefits in the EmPOWER program.

The principle is generally applicable. The non-energy benefits of an affordable energy program should be included in the present proceeding, especially given that they are huge. The non-energy benefits of

reducing homelessness and associated medical costs to taxpayers was estimated in a report prepared by IEER, *Energy Justice in Maryland's Residential and Renewable Energy Sectors*; I would like to offer it for the record.

4. Fourth: I suggest that the principle of limiting low-income households' energy bills to a percentage of income be adopted early in the proceeding (6 percent was adopted in the NY REV process); this will open the entire process to a wider array of reforms for everyone because the issue of preventing harm to low-income households will have been addressed integrally and early.

Thank you again for your kind consideration. I'd be happy to answer any questions.