BERMAN ECONOMICS
The Berman Group

July 22, 2010



California Energy Commission
Dockets Office, MS4
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Docket # 11-IEP-I
IPER Draft Scoping Order Comments

Dear Chairman Douglas and Commissioner Byron:

Berman Economics is an economic consulting firm specializing in energy, environmental, and natural resource issues; and has substantial experience with electric utilities. Berman Economics is pleased to provide comments on the CEC's 2011 IPER Draft Scoping Order. Our comments are based on analyses of the potential for substantial energy savings resulting from efficiency improvements on distribution systems generally, and on distribution systems of California utilities in particular.

Berman Economics is concerned that CEC's Draft Committee Scoping order for the 2011 Integrated Energy Policy Report once again appears not to address the efficiency on the distribution systems of California utilities. The CEC explained that the 2009 IPER did not address distribution system efficiency because, "The 2007 IEPR dedicated a chapter to California's electric distribution system. The information covered and recommendations provided are still relevant and are not repeated in the 2009 IEPR." (2009 IEPR, page 204). However, although 2007 IEPR acknowledged that, "The distribution system accounts for a higher share of delivery losses than transmission, and may offer a significant opportunity for improvements in efficiency." (2007 IEPR, page 157), there was no further discussion of distribution system delivery losses or policies or programs to address those losses. Rather, the distribution system chapter in the 2007 IEPR dealt largely with new technology meters.

Although the Federal standards effective in 2010 limit state regulatory authority over distribution transformers due to the primacy of Federal regulations, the regulatory authorities of both Maryland and the District of Columbia have promulgated rules that require jurisdictional utilities purchase liquid-immersed distribution transformers using the life-cycle cost methodology specified in Section 2, Efficiency Evaluation for Electric Utilities of NEMA Standards Publication TP I-2002. Vermont also requires the NEMA TP I-2002 life-cycle cost methodology. Other states such as New York have established dockets specifically to inquire into the nature and extent of T&D losses and how to reduce them. That the Federal standards are inadequate to California's need is underscored by the California Attorney General's 2008 filing in *PEOPLE OF THE STATE OF CALIFORNIA, ex rel, v. U.S. DEPARTMENT OF ENERGY, United States Court of Appeals for the Ninth Circuit, Case Nos., 07-74819, 07-74836, 08-70807.*

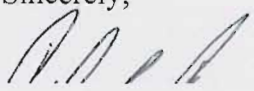
1915 Grand Court
Vienna, VA 22182

Perhaps more importantly, AB 2061 (Carter), currently pending in the California Assembly, would require measurement and assessment of T&D losses. According to the bill's author, the intent is to encourage investments that improve the efficiency and reliability of electricity T&D systems in California, reducing energy consumption, greenhouse gas emissions, and costs. This legislation underscores the need for technical and policy guidance to measure, evaluate and reduce losses on California T&D systems.

Transformers are also the weak-link in development of many wind farms. Step-up transformers, unlike distribution transformers, are not subject to any Federal efficiency regulations and there are no constraints on state action. Moreover, because they operate intermittently, commercial wind turbines actually draw energy from the grid to power the transformers when the turbines are not generating the power. They are similar to "wall warts" in this regard, although on a much larger scale. As an example, the 246 mW Manzana wind project, as currently proposed by Iberdrola and PG&E, could provide between 2 and 5 gWh more energy annually, power 300 to 800 more households, and save 1,200 to 3,200 *more* tons of carbon annually if proper attention were paid to transformer efficiency standards. A more exact estimate of the benefit of a transformer efficiency standard depends upon whether Manzana is using transformers similar to the distribution transformers acceptable under Federal regulation (lower bound) or the least-cost transformer currently available (upper bound). Inefficient step-up transformers waste California's scarce wind energy resource.

In summary, Berman Economics strongly encourages the CEC to broaden its scoping order for the 2011 IEPR to include distribution system losses, and transformers on California distribution systems as well as those used as step-up transformers on California wind farms. Policies in these areas are important to providing guidance to California utilities as well as to provide standards for wind generation development where no standards currently exist.

Sincerely,



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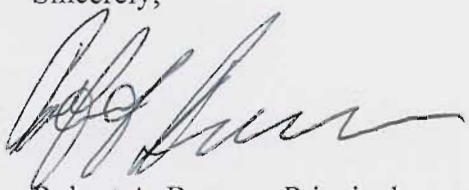

Robert A. Berman, Principal