

# SUN DAY CAMPAIGN

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September 10, 2013

Adam Sieminski, Administrator  
U.S. Energy Information Administration  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

Dear Mr. Sieminski:

We are writing with regard to the development of EIA's "Annual Energy Outlook 2014," the "early release" of which is presently slated for December 2013.

We believe that EIA's estimates in past issues of the "Annual Energy Outlook" for future electrical generation from renewable energy sources in the near- and mid-term have been unreasonably low and have not been borne out by actual experience.

Inasmuch as policy makers in both the public and private sectors rely heavily upon EIA data when making legislative, regulatory, investment, and other decisions, we believe underestimation can have multiple adverse impacts on the renewable energy industry and, more broadly, on the nation's environmental and energy future.

Accordingly, we request that EIA re-evaluate the underlying assumptions and methodology being used in developing its renewable energy forecasts and provide projections that more closely reflect the current status and recent, real-world, growth rates of renewables. This may mean considering and seeking to quantify factors, in addition to price, that are driving the growth of renewables, such as grid reliability, environmental externalities, and consumer preferences.

More specifically, as you may recall, the "Annual Energy Outlook 2013" issued earlier this year offered the following projections regarding net electrical generation by renewable energy sources (i.e., biomass, geothermal, hydropower, solar, and wind):

*"The share of U.S. electricity generation from renewable energy grows from 13 percent in 2011 to 16 percent in 2040 in the Reference case. ... If future natural gas prices are lower than projected in the Reference case, as illustrated in the High Oil and Gas Resource case, the share of renewable generation would grow more slowly, to only 14 percent in 2040. Alternatively, if broad-based policies to reduce GHG emissions were enacted, renewable generation would be expected to grow more rapidly. In three cases that assume GHG emissions fees that range from \$10 to \$25 per metric ton in 2014 and rise by 5 percent per year through 2040 (GHG10, GHG15, and GHG25), the renewable share of total U.S. electricity generation in 2040 ranges from 23 percent to 31 percent."*

We believe this analysis is flawed. For example, data in EIA's most recent "Electric Power Monthly" released on August 22, 2013, indicates that renewables accounted for 14.2% of net generation during the first six months of 2013. (And this number is likely on the low side since it does not fully capture the contribution from distributed renewables that are not grid-connected.)

That is, renewable energy sources have already exceeded EIA's lower Reference case projection for 2040 (i.e., 14%) and in 18 months, have expanded from 13% to 14.2% (i.e., nearly half-way to EIA's higher estimate of 16% by 2040 in its Reference case). It seems highly implausible that it will now take another 27 years to grow from 14.2% to 16%.

Further, while hydropower has remained relatively static over the past decade, EIA data reveal that geothermal grew by more than 16% between 2003 and 2012 and EIA's most recent "Short-Term Energy Outlook" (released on August 6, 2013) anticipates modest growth for biomass in the near-term. Meanwhile wind and solar have been experiencing double and sometimes triple-digit annual growth rates in recent years. Between 2003 and 2012, wind expanded from 11,187 thousand megawatt-hours to 140,089 thousand megawatt-hours while net generation by solar thermal and photovoltaic has risen from 534 thousand megawatt-hours to 4,342 megawatt-hours.

If only the same amount of new additional generation comes on line from wind, solar, and geothermal during each of the next two or three decades as was experienced during the past decade, then even without new policies to address GHG, renewables would approach and probably surpass the EIA's lower GHG scenario (i.e., GHG10) estimate of 23%.

However, it is far more reasonable - in light of the rapidly dropping costs for solar and wind and the mix of new technologies coming on line to more broadly tap all renewable energy sources - that future contributions from those sources will be significantly higher in coming years than was added during the last ten years, even if the policy environment remains essentially unchanged.

Even EIA seems to have recognized this in its "Short-Term Energy Outlook" which projects that "wind power generation is expected to grow by 19% this year" while "robust growth" is foreseen for solar power generation.

While EIA's projections for renewables in 2040 are more expansive if one assumes there will be broad-based carbon-fee policies to reduce GHG emissions, we believe these are also unduly modest. If aggressive federal GHG policies should be adopted, coupled with already-existing and expanding state-level initiatives, the contribution from all renewable sources, including geothermal, hydropower, and biomass, would almost certainly expand far more rapidly than has been the case in recent years and likely exceed EIA's higher estimate of 31% by 2040.

Thus, we reiterate our request that you re-evaluate the assumptions and methodology being used to develop the renewable energy forecasts for the "Annual Energy Outlook" and, at the least, provide projections that more closely reflect the real-world growth rates of recent years.

We appreciate your consideration of these concerns and would be happy to meet with you to discuss them further.

Sincerely,

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