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Ms. Selting –

We have had the opportunity to review the Commentary Report *“The Race for Green: How Renewable Portfolio Standards Could Affect U.S. Utility Credit Quality”* and would like to provide comments. We welcome the opportunity to discuss our comments in more detail and offer AWEA as an ongoing resource regarding the wind industry to ensure a well-balanced position on related issues.

We are concerned because we found that this report 1) does not take a balanced approach toward evaluating the utility impacts of state RPS programs, and 2) incorporates some information that misrepresents wind energy, particularly the ERCOT event. Given the important role of Standard & Poor's (S&P) in the utility market, it is critical that S&P provide the market with well-informed and balanced information.

There are several benefits to utilities, as well as their shareholders and ratepayers, from pursuing renewable energy development through state RPS policies that are not adequately discussed or considered in this report, such as:

- ◆ Providing both utilities and ratepayers with a stable and flat price of electricity for the life of the wind project;
- ◆ Reducing utility exposure to fuel price volatility;
- ◆ Reducing utility exposure to the risk and cost of uncertain future regulations, particularly climate change;
- ◆ Reducing utility exposure to uncertain compliance cost for existing regulations for conventional pollutants (such as SO₂ and NO_x).

State RPS programs create increased demand for renewable energy, and there is often upfront cost associated with aggressively pursuing renewable energy. However, this must be considered in the context of the shareholder and ratepayer benefits discussed above.

As noted in the report and in press articles, several states have increased their RPS targets recently, with 7 states making major revisions in 2007 alone. It is unlikely that states, such as Texas, Minnesota and Colorado, would be able to increase RPS programs without the broad support of legislators, utilities, ratepayers, consumer advocates and other stakeholders. Colorado doubled their state RPS in 2007 from 10% to 20% as they were able to exceed the requirements to meet 10% and realized significant ratepayer benefits to increasing renewable generation. In a

2006 presentation, Xcel Energy noted that wind energy saved their Colorado consumers \$4.2 million in 2004 and \$9.75 million in 2005.¹

The statement that renewables such as wind are “often above market” does not square with the experiences of utilities such as Xcel, MidAmerican, Puget Sound Energy and many others. While you highlight the Xcel requirement as the “most ambitious,” it should also be noted that they regard wind it as one of the least cost and most viable option moving forward.

Responding to some of the specific items in the report:

“A Long and Possibly Hard Road Ahead” (page 4)

While wind may meet only 1% of the U.S. electricity needs today, wind energy is the second largest new energy source for 3 years in a row, as 28% of all new energy capacity in 2007, up from 2% only 4 years ago. Expectations that any energy source can shift from 1% of electricity supply to a significant percentage in a short period of time is not consistent with historic growth rates of new technologies. Even with stable and strong federal support, it took nuclear energy 23 years to move from 1% of our electricity supply in 1969 to 20% in 1992. With the appropriate policy support, accommodation in the electricity system, and transmission expansion, wind energy could provide an equivalent amount of electricity to the U.S. system.

Estimates vary regarding incremental generation from renewable energy required to meet the existing 25 state RPS programs plus the District of Columbia. The Union of Concerned Scientists estimates that approximately an additional 122,000 billion kWh will be required between 2006 and 2015 to meet mandatory RPS requirement. Using the estimates provided in the S&P report, this translates into approximately 39,000 MW of renewables by 2015 with 31,700 MW of wind, or 3,200 MW of wind per year; far below the 5,244 MW of wind installed in 2007. With stable policy, annual wind installations are expected to meet or exceed the level installed in 2007. One look at the number of wind projects included in interconnection queues in organized markets – 147,000 MW – demonstrates an enormous amount of development, especially since the organized electric markets exclude most of the west where wind development is very active. While all proposed projects in the queues will not move forward, the interconnection queue does provide a perspective for magnitude of interest in wind development.

“Transmission has proven to be an obstacle”(page 8)

Aging and inadequate transmission infrastructure plagues the electric industry, renewable and conventional energy alike. According to the Edison Electric Institute, approximately \$8 billion per year is invested in transmission by investor owned utilities. We agree transmission is an integral part of expanding renewable energy and meeting state RPS requirements. In response, some of the strongest RPS programs account for this challenge by integrating transmission planning into the RPS program, such as Colorado and Texas. However, with the broad, national need for transmission, assigning the full cost of transmission needs to RPS programs fails to recognize that transmission will be required regardless of RPS requirements and can provide network benefits to all ratepayers.

¹ <http://www.interwest.org/documents/documents/2006-08-21.pdf>. page 5.

“Without Carbon Regulation, the Cost Gap Between Renewables and Conventional Resources Continues” (page 9)

In addition to diversifying state generation portfolios and moving toward more domestic energy resources, one role of RPS programs is commonly to hedge against the future cost risk of carbon regulations. It is likely that ratepayers will bear some or all of the cost of carbon regulations, and that utilities will bear some risk and may not be allowed to pass through costs. Ignoring the hedging benefit that renewable energy and RPS programs provide is inconsistent with the current treatment of carbon risk by utilities. In a recent analysis of the integrated resource plans (IRP) for 15 investor- and publicly-owned utilities, all but one utility included some cost of carbon in their resource planning. With the inclusion of carbon, more than half of the utilities choose energy efficiency and renewable energy for at least 50% of their new energy resources.²

While the capital cost of wind energy has increased in recent years, the cause for the cost increases, including increased steel and other raw material prices and increased labor and construction costs, have plagued all new energy sources. However, wind energy is immune to the additional cost increases and risk created by the rising fuel costs for all conventional sources.

Even after removing the value of the PTC, your cost comparison with other technologies has wind in the competitive range with gas and IGCC, and wind’s costs over the last few years have in fact increased less dramatically than the costs of either new gas-fired or coal-fired generation.

The fact that wind provided more than a quarter of all new generating capacity in 2007 demonstrates that as long as the wind production tax credit is extended, wind will compete well in many parts of the country with the costs of new fossil or nuclear generation.

“Cost Must Consider Transmission and Integration” (page 11)

It is unfortunate the reference to the ERCOT incident on February 26 misstates the facts and does not provide the accurate story. **I recommend reviewing the attached summary for a full description of the event.**

In summary, the event on February 26 did not involve “*unexpected deviations in wind output*”, “*a near blackout*”, or “*an unexpected cold front*” as stated.

ERCOT employs demand response on a regular basis due to a loss of generating capacity, and no customers involuntary lost power in the February 26th event. ERCOT is a leader in the use of paid voluntary interruptible loads (demand response) to accommodate significant variations in load, the sudden loss of conventional generation plants, and to avoid subjecting customers to involuntary power outages.

While wind can die off over a period of time requiring demand response, fossil and nuclear power plants can and frequently do trip offline *instantaneously*, as the power outage Tuesday February 26 in Florida demonstrated. In ERCOT, 13 conventional generating plants instantaneously tripped offline during the week following February 26th. In the largest of these

² <http://eetd.lbl.gov/EA/EMP/reports/lbnl-44e.pdf>.

incidents, 420 MW, 500 MW, 540 MW, 582 MW, and 650 MW were instantaneously lost because a conventional generating unit tripped offline.

Wind forecasting accurately predicted ERCOT's February 26 decrease in wind generation. This event illustrates that wind forecasting is an important tool for the successful management of large amounts of wind generation on a grid. ERCOT's wind forecasting system is under development and they plan to accelerate its implementation.

“Will Electric Customers Understand the Price Tag?”(page 13)

Both the CRS and Texas studies, cited in the report, that result in a cost decrease from state RPS programs are questioned in your report partly due to unknown natural gas prices, which is a common challenge for any future analysis of the electric sector. However, the Kansas Corporation Commission (KCC) study that concluded that wind is uneconomic should be questioned for the same reasons since it uses natural gas prices from DOE's EIA, which consistently underestimate natural gas prices, most recently documented in the Lawrence Berkeley Laboratory memo³. The KCC report conclusion also does not include any estimate of carbon regulations in most of the analysis, but does report that at a price of approximately \$17 per ton of CO₂, wind energy becomes an economic choice. Recent estimates of the price of carbon allowances under Federal regulations far exceed this level.⁴

Electric customers undoubtedly face higher costs from the next generation of electric power technologies, but wind will be a bargain compared to the higher costs consumer will face due to increased fuel costs or the dramatic increases in capital costs related to advanced nuclear or CCS. At a minimum, this report should have put the costs of wind in context and offered a clearer picture of the pros and cons provided by a more diverse utility generation portfolio.

We hope you will take our views into consideration for this report, as well as future reports, and are happy to discuss these issues further. Please feel free to contact me at 202-383-2517.

Sincerely,



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³ http://eetd.lbl.gov/ea/emp/reports/53587_memo.pdf.

⁴ http://www.epa.gov/climatechange/downloads/s2191_EPA_Analysis.pdf