

---

## National Capital Area Chapter

United States Association for  
Energy Economics

March 2005

[www.ncac-usaee.org](http://www.ncac-usaee.org)

---

# news

## *(L)earning from Wind*

*Presented by: Mike Jacobs, Acting Director of Policy  
American Wind Energy Association (AWEA)*

### Our Next Luncheon at the Library of Congress

---

**WHEN:** Noon, Friday, March 25 (Note: 4<sup>th</sup> Friday, not 3<sup>rd</sup> as usual)

**WHERE:** 6<sup>th</sup> Floor, Madison Building—Montpelier Dining Room  
Library of Congress (enter from Independence Avenue)  
1<sup>st</sup> Street & Independence Avenue, SE  
Washington, DC

The U.S. wind energy industry added 389 megawatts (MW) of new capacity in 2004, enough to serve more than 100,000 average homes. Total new additions were down sharply from the boom years of 2001 (1,696 MW) and 2003 (1,687 MW). According to AWEA, over 2,000 MW of new wind power capacity is likely to be added during the coming year, or enough to power more than 540,000 homes.

A discussion of wind energy as a competing energy supply in the future requires a look at electric power transmission. Transmission access was at the heart of deregulation; now, the call is for building more transmission. The wind industry is working to first make efficient use of the transmission system already built. The wind industry proposed reliability standards for wind interconnections, advanced forecasting of wind output, and new transmission service to make use of off-peak capacity. These innovations are moving through the regulatory process, and are supported by state sponsored studies.

Our speaker this month is Mike Jacobs who, in his position as Acting Policy Director for AWEA, deals with transmission access for wind development. Before joining AWEA, Mike worked as ISO Coordinator for TransEnergieUS, a merchant transmission development company. He has also held positions at 1) Second Wind Inc. manufacturer of data systems for wind and utility applications, and 2) the Massachusetts PUC and Energy Facilities Siting Council.

*Join us on Friday, March 25 at noon for networking with the lunch-line forming promptly at 12:30 and the presentation beginning at 1 pm so we are done by 2 pm.*

**COST:** \$20.00 for members and their guests (\$5.00 for student members) and \$25.00 for non-members and their guests. Make checks payable to NCAC-USAE. **RSVP:** By COB Wednesday, March 23 to Leslie Coleman by phone (202/463-9780) or email (lcoleman@nma.org). Cancellations will be billed.

## Highlights of the February Lunch

---

SPEAKERS: Joy Dunkerly and Joe Dukert, Independent Consultants

### *World Energy Policy Revisited: Ten Lessons from the Past 30 Years*

A 2004 meeting of the Energy Policy Editorial Board raised the question—what have we learned from the experience of the last thirty years of energy policy? Joy Dunkerly prepared a paper, which she presented at the February NCAC luncheon group, to address this question. The following is a summation of her observations:

1. Energy and GDP Growth do not necessarily proceed in lock step. Up to the early 1970's, it was generally assumed that energy consumption grew at more or less the same rate as GDP. However, with the rise in oil and other energy prices in the 1970's, long-neglected price elasticities came into play, and the rising consumption associated with economic growth was dampened by lower consumption due to higher prices.
2. Fears of physical shortages of oil have not materialized. At the time of the first OPEC price rise, physical shortages were widely anticipated. The concept of physical shortage, however, is misleading. In any market-oriented system a shortage of a fungible commodity like oil is manifested by higher prices rather than physical shortages. Since the 1970's, there have been other developments, including a large increase in non-OPEC production, build-up of strategic stockpiles, and the increasing ability of refineries to handle a wide range of crude oil, that add to oil's "fungibility."
3. Oil markets have worked. Before the OPEC crisis of the 1970's, it was generally believed that energy—and oil in particular—was too important a commodity to be left to markets. But the development of the oil market has shown this to be a misconception. A central condition of market operation is the responsiveness, over time, of both supply and demand to price changes. Other energy markets, notably electricity, are not as developed as oil, and are more prone to "shortages" manifested in sudden price spikes. However, the world LNG market is becoming increasingly connected and homogenous, and in time it may come to resemble the oil market.
4. Energy policies are slow to change. Over the last 30 years there have been changes in both directions. In the early 1970's several countries nationalized their oil and gas resources, thus expanding the role of governments. In the OECD world, on the other hand, there has been a move towards more market-oriented policies affecting both energy supply and demand, particularly in the power sector. Future liberalization, however, may be more difficult to achieve.
5. Deregulation and privatization of the power sector has proved to be more difficult than anticipated. There have been some successes (in the UK and with Independent Power Projects in Asia) but also problems. These problems are usually attributed to poor design of deregulation, but it is difficult to design optimal programs in the presence of strong political pressures to protect certain groups.

6. Market obstacles to the introduction of renewables and energy efficiency continue to be strong. Despite great progress in performance, cost, and mainstreaming, diffusion of renewable and efficiency technologies are still limited. Costs of renewables are still high and their intermittency still make them difficult to fit into existing systems.
7. Technology alters the fundamentals. Economists need to study technology to better predict markets. There has been stunning progress in nearly all industries, from 50% cuts in finding costs for oil and gas, to dramatic increases in efficiency in turbine technology. But the anticipated big ticket items of the era—including synfuels and nuclear power—never emerged as market leaders.
8. The developing countries are a force to be reckoned with in world energy markets. Even a few years ago it was not obvious how important Chinese oil consumption would play in the world market. Third World countries now consume 30% of the world's energy supply, and by 2030 they will be consuming as much as all OECD countries.
9. It is extremely difficult to bring energy services to the poor. Efforts to address the need for energy services to poor populations have fallen short of hopes, with over one billion still without electricity. Subsidies have been used to promote modern energy but they have major consequences (Indonesia as a prime example). And once instituted, they are difficult to withdraw. This is evident in Latin America, where presidents fall when they try to reduce subsidies to the poor.
10. Finally, unforeseen developments happen, and they happen frequently. In the 1970's no one saw the price spikes coming. In the 1980's and 1990's the growth of a well-organized, well-financed environmental movement had major impacts on government policy, including concerns about global warming. The destruction of the World Trade Center and its aftermath, with the Afghan and Iraq Wars, offer an even more dramatic example of unforeseen developments that will continue to have major impacts on oil markets and therefore, one way or another, on all energy. All we can be certain of is that the unforeseen will strike, although we do not know when, or in what way.

Joe Dukert offered his perspective on these lessons learned. When Moses came down from the mountain nobody turned to Aaron to ask if he had anything to add; so Joe affirmed Joy's list as an excellent one and merely offered four "corollaries," aimed at U.S. policy in particular.

1. The planet is not governed by computers but by people (who are ruled by perception rather than facts). This means that projections based solely on economic analysis and logic are often wrong. Legislators tend to focus on regional interests, and promising "silver bullets" is sometimes easier than balancing policy goals and taking time to chip away at problems that require short-term, medium-term and long-term programs.
2. Ignorance of the fundamentals of energy technology and economics is widespread.
3. It all costs money. Risk capital should be placed where it will be optimally used, but the

private sector becomes more risk averse in the face of political risk. “Opportunity cost” becomes a key factor, explaining why integrated oil companies have devoted a smaller percentage of spending to exploration. Half of their cash outlays in 2004 went either into reducing debt, buying back their own stock, or distributing dividends.

4. Oil is the core of our vulnerability, with two-thirds of consumption tied to the transportation sector. This means that lifestyle changes (which may result from new attitudes or new technology), can be more significant in the long run than simple fuel substitution, although they are more difficult to foster or predict.