THE BIG DEBATE

For many, 2012 will go be defined as a watershed year for the wind industry in North America – and yet we’ve still got a couple of months to go! With that in mind, we’ve brought together a roster of some of the finest minds in the industry, and pitched them a selection of challenging questions. Their answers are in equal parts engaging, illuminating, educating – and sometimes surprising.

PES: Welcome to the magazine. Before we head into the main subjects of the day, can you tell us a little about your organization and how it serves the industry?

Vincent DeVito: Yes, thank you for the opportunity. I am a partner at the law firm of Bowditch & Dewey, LLP with an international energy practice based in Boston. I also spearhead the Institute for Energy and Sustainability based in Worcester, Massachusetts. The bulk of my corporate law work focuses on energy project development and I have had the opportunity to analyse such projects as Cape Wind and other developments across the United States from a business and legal perspective. At the Institute for Energy and Sustainability, we focus on the economic benefits of clean technology in Central Massachusetts. We have uniquely development and astonishing partnership with our academic institution, such as Worcester Polytechnic Institute, Clark University, and Quinsigamond Community College, corporations, such as National grid, USA, and a full portfolio of local companies and non-government organization. In short, IES is central New England’s green business zone. It mission is to attract clean energy technology and renewable energy companies to the region. Each day, we build on the region’s assets and reputation as an incubator of innovation. Our priority is to create an environment for those seeking economic opportunity and advantage in this sector and to support the growth of jobs establishing a zone of world-class clean technology companies.

Shawn Lamb: Ecotech Institute is the first and only school with the primary focus on clean energy technology. Our goal is to prepare students for direct entry into the job market and enhance their opportunities for growth and advancement. Our students receive an Associate of Applied Science degree. We teach the skills that industry leaders and employers have said are missing when they search for employees. Those skills combine solid theory with a significant amount of hands-on training. Combining those factors makes our graduates highly marketable.

One of our keys to success is our commitment to the industries we serve. We work very closely with business and industry leaders to keep our curricula current and relevant to industry needs. We assist employers by providing qualified workers who are educated in the professional and technical skills they need. We are very customer oriented and recognize that our customers include our students, our employers, and our community.

Rocky Sease: IOS intensification is a leading provider of training and consulting services to the power industry. We deliver a full suite of services across all areas of power utilities from generation to transmission to distribution. SOS offers classroom, online and custom courses, accompanied by sophisticated computer simulation – all designed using the latest systematic approach to training and adult learning theory. We incorporate the latest practices in Human Performance Improvement and Human Error Prevention in our training as we have for years. Our training focuses on taking a new utility employee and creating an experienced worker as quickly as possible. Our compliance consulting services help entities manage risk and ensure reliability for the bulk electric system. Our clients encompass the full range of power fuel sources from the traditional sources such as coal and gas to renewables such as wind, water and solar.

Timothy Kemper: Reznick Group is a top 20 national accounting firm that includes an established renewable energy practice. We provide audit, tax consulting, capital markets, technical consulting and valuation services to the wind industry. Reznick has also been very involved in the 1603 grant program and has helped a number of wind developers qualify for the program. Edward W. Zaelke: I am Co-Chair of the Global Project Finance Practice at the law firm of Akin, Gump, Strauss, Hauer & Feld. Mr. Zaelke is also a founding board member of the American Wind Energy Foundation and the Chair of the AWEA Conference and Education Committee.
or almost exclusively on renewable energy. Years ago, I decided to immerse myself in the wind industry, not just the legal issues, but the financial, technology and policy issues as well. This has carried over to our entire group. We believe that, by becoming part of the industry on a broad scale, not just lawyers looking in, we understand our clients’ problems better and can help develop more creative solutions – beyond just legal solutions. Further, through our understanding and knowledge of the market, we are in a better position to “help deals happen” through introduction of our clients and contacts and by becoming involved in the structuring of complex financial transactions at an early stage.

Trey Goeds: Affinity Wind, LLC is privately held wind energy development company, focused on developing wind projects throughout the Midwest (United States). Affinity formed a joint venture in 2011 with Suzlon Wind Energy for co-development purposes.

PES: And what’s your on-the-ground assessment of the state of the sector at the moment?

Shawn Lamb: Natural gas is cheap right now. We currently have more natural gas than we can use or store and the reduced cost certainly helps certain projects throughout the Midwest. The average consumer, in the current economic environment, may be asking “How much of their paycheck has to be allocated to electricity rather than wind?”

The state of the sector is directly impacted by the state of the economy.

Trey Goeds: There are challenges to be addressed. One is the uncertainty surrounding the extension of the Renewable Electricity Production Tax Credit which expires at the end of 2012. Development has slowed substantially as potential investors and potential wind companies are slow to develop long-term plans due to this financial uncertainty.

Another challenge is getting the power from the wind generation locations to the power grid. The best locations for wind generation – off-shore, mountains, desert – are those where a high need for power exists. Because of the effort, equipment and wires needed to get the power to the grid and to the end user, the price of wind-generated power is higher than that of the traditional fossil-based fuels. And there is the challenge of maintaining a skilled workforce due to the magnitude of retirements predicted in coming years. According to Gridwise Alliance, by 2015, approximately 50 percent of the engineering workforce and 46 percent of skilled technician positions will need to be replaced in the energy sector because of retirement or attrition.

Trey Goeds: There are these trying times, make no mistake about it. Specifically in the United States, it is not widely known that the wind industry is on its way to losing half of its work force at a very critical time.

Additionally, it is a little known fact that all forms of energy have been and continue to be subsidized, including coal, oil, gas, nuclear, etc. However, the wind energy Production Tax Credit, which has been a cornerstone of the Energy Policy Act of 1992, is being left to expire at the end of this calendar year-2012.

Rusty Sease: There is a challenge with the potential wind generation, but the financial, technology and policy issues, will be the key drivers for the industry...the future of wind will again pick up. That is often the first signs of an uptick in the industry.

Trey Goeds: I believe growth will continue, but maybe not at the same pace. Currently, 29 states have renewable energy standards that commit to replacing fossil fuel energy with renewable energy, and there are more states that will implement standards in the future. The only way to meet these standards is to grow the industry with future projects or expansion of existing ones. You may see a current wind farm grow from 200 turbines to 500 turbines. I also see growth of research and development to make future turbines more efficient with greater output.

Rusty Sease: I hope the substance is there. We need to utilize all forms of energy available to us in order to meet the vision of energy independence for the country.

Trey Goeds: Politically, wind is a hot topic right now. Do you believe that there is stability behind the promises for growth?

Vincent DeVito: Recently I was able to participate in two roundtables - one in New York, and the other in Washington, DC. In addition, there was a clear consensus in both sessions that there is room for growth in all sectors of energy.

Most notably, folks did not view the development of wind as the negative of the United States as a hindrance to renewable energy development. In fact, it is considered a nice component of domestic energy supply.

Domestic supply also address the national security concerns raised by an over-reliance on imported energy. While the boom bust cycle of the production tax credits and the investment tax credit may have been widely documented, it has not been sun-setted in an era when there was so many state and other federal incentives available.

For instance, the federal government is pursuing a report of an environmental assessment for commercial wind leases and site assessment activities on the Outer Continental Shelf off Rhode Island and Massachusetts. Further, in places like Massachusetts, the states are rolling out a significant increase in other opportunities, expanded renewable portfolio standards, and attempts to meet financing gaps by innovative state involvement via public-private partnerships.

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state captial buildings. Members of both parties seek input from associations into their hearings and staff are very adept at going back to the best and brightest. It can be highly effective to invest in associations, such as the Clean Energy Alliance.

Shawn Lamb: I don’t have much experience with the European Wind Energy Association, but I do know that the American Wind Energy Association (AWEA) has been an amazing voice for our entire industry. AWEA has really taken the reins on promoting wind energy. It is important that the United States get behind renewable energy.

Timothy Kemper: Credible, yes, coherent, not as much. I do believe the industry has differing agendas but it is natural to have these agendas. What may be good for the manufacturers may not be good for the investors. What is beneficial for the utilities may not be beneficial for the consumer. It is natural to have conflicting goals. Hopefully, the common goal of expanding the industry will create cooperation among the participants and no single stakeholder will drown out the rest.

PESt: What impact has the uncertainty surrounding the Production Tax Credit (PTC) had on the industry?

Shawn Lamb: The uncertainty of the Production Tax Credit’s extension has caused many investors to wait, and hold on to their money. Since this lack of “new orders” may not be beneficial for the capital providers. It is natural to have conflicting goals. Hopefully, the common goal of expanding the industry will create cooperation among the participants and no single stakeholder will drown out the rest.

“Probably the biggest impact is the uncertainty injected into development projects in the sector. Investors are nervous as financial and regulatory uncertainty makes it more difficult to determine the value of an investment in wind power.”

Roky Sease: CEO, SGS Int.

“From a perspective of raising capital for wind energy projects, 2012 may end up being the best year ever. There has been an abundance of both traditional bank financing as well as tax equity and private equity financing for projects.”

Timothy Kemper: CPA, Head of Renewable Energy Practice, Reznick Group

Edward W. Zaelke: From a perspective of raising capital for wind energy projects, 2012 may end up being the best year ever. There has been an abundance of both traditional bank financing as well as tax equity and private equity financing for projects. 2013 will be extremely challenging and we are starting to see the effects of a gradual shutdown as capital is moving out of the market into other renewable technologies. Clearly, with the benefit of strong PPAs supporting projects being built in 2012, any good project found financing and at very attractive rates in 2012, 2013 will be especially challenging. Not only are PPA prices exceptionally low but the “long term” is now both a financial and a regulatory uncertainly. Companies need a subsidy that competes against conventional energy sources.

Edward W. Zaelke: Except for the period of the financial crisis starting in late 2008, I don’t think the wind industry has ever seen such a large percentage of available debt or equity for good projects. What is clear is that the availability of debt from most European banks, which in the past have been willing to take some risk for a good project, has been significantly reduced and companies are looking for new sources of capital.

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two pieces. There will be a very “safe” piece held by banks and institutional investors looking for a safe yield. In some cases there will also be a second piece held by a set of mezzanine lenders who may take more risk to fill small gaps in available equity. Tax equity will be a smaller piece by comparison. It will remain a significant cost for those developer or owners who cannot use the tax benefits themselves. Project equity continues to be a challenge. It may be filled to some degree by private equity fund who sponsor some of the larger independent developers. Private equity needed to support the smaller developers continues to be a difficult need to fill.

Timothy Kemper: Permanent extension of the PTC AND IT. Certainty of legislative action is key. We need to pass a law that gives developers assurance that we will hold the line on tax credits. For the future of the industry we need a permanent extension of the credits, tax equity is a longstanding practice. Given a permanent extension of the credits, tax equity will consistently flow into the marketplace and drive development costs down. This would ensure the long term viability of the industry including the manufacturing participants.

Edward W. Zaelke: I speak often about the wind industry to law students and other people just starting their careers. I tell them that I have the best job in the world. I am doing challenging work in a new and changing area that I see as having a solid foundation of electrical knowledge and hands-on training because of industry support. That gap in electrical skills is true for all industrial and energy applications was a big challenge facing the sector today. The first challenge is related to planning. I think a RES of 20 per cent - 25 per cent is quite a few of our students come in with their level of experience and ability enabled them to quickly get projects up and running. Now, as the sector has gotten more established, opportunities for leadership, whereas Minnesota would opt for wind. I think a RES of 20 per cent - 25 per cent is perfectly reasonable within the next 15 years.

Robert Sease: Early on, when winds were first put into place, there was an effort to bring in skilled utility workers because their level of experience and ability enabled them to quickly get projects up and running. Now, as the sector has gotten more established, opportunities for leadership, whereas Minnesota would opt for wind. I think a RES of 20 per cent - 25 per cent is perfectly reasonable within the next 15 years.

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Fortunately, there is a lot of momentum as people support alternate energy in theory, but don’t want to see the generation structures on their horizon.

Timothy Kemper: Clearly, the rapidly decreasing cost of natural gas has put a freeze on reasonable PPA prices - and that is good for the consumer. I think the requirement to have the same levelized cost of energy as traditional sources is unrealistic. Conventional sources have been subsidized for decades allowing their costs to decrease over time. The country needs a broad array of energy sources. Too much dependence on one source can have unforeseen consequences; Japan’s energy challenges after the tsunami-related nuclear tragedy is a case in point.

Also, the industry needs to address the need for an efficient battery storage solution in order to provide for a constant stream of electricity. Being able to provide uninterrupted affordable energy 24 hours a day needs to be a goal. Transmission needs to be improved as well, enabling low cost production to be able to be delivered efficiently to higher cost markets.

Edward W. Zaelke: The wind industry faces many very real and important challenges, so it is hard to focus on just one. However, the challenge that we have faced the longest is the lack of a true long term federal energy policy! More importantly, a policy that gets us off of this two year cycle of the PTC and properly designs an energy mix for the country that helps create a long term clean and sustainable energy future for generations to come. There are a number of separate economic interests that are pulling and tugging at what that policy might be and, frankly, many interests that are quite satisfied with the status quo. I think that the status quo of an energy non-policy has already taken us down a path of irreversibility to both our current population and future generations. Our greatest challenge as an industry may be finding and supporting the leadership the country needs in order to balance and, in some cases overcome, the various interests and secure the country’s energy future.

PES: One of the conundrums of wind energy is that the wind doesn’t blow constantly. Are we doing enough to help balance shifting power production?

Rocky Sease: Fortunately, there is a lot being done with the technology we currently have to help balance production. For instance, combining wind generation with hydro generation is a good way to smooth out the production peaks and valleys associated with a variable resource like wind. Water acts as a storage resource allowing a steadier stream of wind power. There is also a lot of research being done around different types of storage including compressed air and batteries to see if we can store energy in large enough quantities to be useful. These capabilities are still evolving, so we don’t know the answer yet. The other way we can help balance the production is through policies such as the recent FERC proposal to reform its rules for integrating the rapid growth of variable energy resources into the bulk electric system. According to a recent press release, the proposed rule would “reform the Open Access Transmission Tariffs (OATT) and the Large Generator Interconnection Agreements file by public utility transmission providers to require them to offer services that will allow for a more efficient integration of variable energy resources.”

PES: We’re interested in the role of ancillary businesses (such as logistics, etc.) and how they impact upon the wind industry. Do you feel they could do more to drive future growth?

Timothy Kemper: Clearly, any time you make the logistics more efficient, it will positively impact the business. Production and delivery being closely integrated has driven costs down recently. The closer the supply chain and development chain are tied together, the more efficiencies you can drive.

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