

Appendix A: Stakeholder comments on REIP wind program changes:

Small Wind Program Change Request for Comments Summary:

The Small Wind Working Group met on Thursday, April 14, 2011 from 11:00am to 1:30pm. Discussions centered on developing program changes that will restore confidence in the program and better address safety and performances concerns. During the meeting the BPU staff requested that installers, manufacturers and other industry stakeholders share their comments and thoughts regarding program changes as well as what currently is in place in the industry regarding customer protection in the event of a failure. The BPU staff and the market managers will be developing a straw proposal for public comment incorporating stakeholder program changes that will be addressed to the Board for approval as part of the compliance filing prior to opening the wind program. Please e-mail your suggestions to OCE@bpu.state.nj.us <<mailto:OCE@bpu.state.nj.us>> by Friday May 13, 2011. The notice was sent to both the small wind working group and the RE committee e-mail list service on May 4, 2011.

The comments received were summarized into the following categories:

- 1. Wind Performance Calculator**
- 2. Rebates, Incentives and Turbine eligibility**
- 3. Certification/Safety**
- 4. Insurance and Bonding**
- 5. General Concerns**

Wind Performance Calculator:

Kevin Schulte, Sustainable Energy Developments, Inc. and Distributed Wind Energy Association

Concerns:

Seventh Generation Energy Systems, Seventh Wind performance calculator currently used to estimate performance in NJ has documented inaccuracies relating to the modeled power curves with results in distorted price signals.

Recommendations:

I feel there are three components to obtaining a more realistic performance prediction for a wind turbine. 1. Accurate power curve 2. A “bins method” calculator with appropriate inputs 3. A realistic long-term average wind speed at the top of the customer’s tower:

4. Accurate Power Curves: The program should move towards requiring power curves tested per AWEA 9.1-2009 and certified by the Small Wind Certification Council (SWCC_ or a Nationally Recognized Testing Laboratory (NRTK) for turbines with rotors up to 200m2 in area (the scope of the AWEA standard). For larger turbines the appropriate standard is IEC 61400-12. This will ensure a level playing field and provide the most accurate representations to consumers. Until there are sufficient numbers of small wind turbines in AWEA or IEC certifications we recommend requiring third-party verified power curves to AWEA or IEC standards.
5. A “Bins Method” calculator: BPU should contract with a company that can provide both in an integrated package NYSEDA, for example, requires the use of the AWS/Truepower Small Wind Explorer (www.nyswe.awstruepower.com). The industry is generally pleased with the accuracy and ease of use of

the Small Wind Explorer tool. Another possible vendor is New Roots Energy, with their “Wind Report” www.newrootsenergy.com, which integrated with a 3Tier wind database. Several small wind manufacturers subscribe to Wind Report and provide access to it for their dealers and customers. Alternatively you can allow manufactures to provide performance predictions using their own “method of bins” spreadsheet or a generic one generated by BPU.

6. Average Wind speed determination: The state to provide an integrated package that has everyone drawing wind resource data from the same database.

DWEA believes that doing the performance predictions and rebate calculations right is critically important and we encourage the BPU to make the investments necessary to restore the faith in this aspect of the program.

Joe Crecca, JBS Solar and Wind, LLC

Recommendations

Suggest that the BPU allow who they believe is qualified or by justification in proofs, installers to derate in the Seventh Wind performance calculator either by the alpha coefficient, turbulence intensity or both which is specific to the site project.

Mike Bergey, Bergey Windpower Co.

Recommendations

Stop purchasing Seventh Wind performance calculator or any other companies wind turbine performance calculator. Instead utilize the free generic version of the WindCAD spreadsheet small wind performance calculator written in 1984.

Update Seventh Generation’s 10kW power curves in the Seventh Wind model because they are out of date and 25% low for Bergey and overly generous for at least one competitive model

James H. Fry, NJSWWG Charter Member Wind Advocate

Recommendations

Should continue using the Seventh Wind performance calculator as this was researched by the NJSWWF and it does use both objective and subjective information.

Roger Dixon, Skylands Renewable Energy, LLC

Recommendations

The Seventh Wind performance calculator is the estimated performance calculator that is used to calculate the NJ BPU REIP funding payments for wind turbine installations in NJ.

It is a calculator and as such has a few inherent facets that need to be understood.

- Certain variables are under the control of the individual filling in the blanks. These variables include:
 - Annual energy use in kWh’s
 - Annual energy use in kWh’s is derived from the customer’s electric bill. This number is easily obtainable and verifiable.

- Site wind speed from map
 - Site wind speed is derived from wind data mapping sources. Wind speed numbers vary depending on the source of the data and when that data was last updated. In the past, NJ has used the average of the data from AWS Truewinds, 3 Tier/Firstlook and NASA. All three of these data sources were free when the initial decision to use them was made. However, not only are AWS and 3 Tier no longer available as free reports, but they also have not been formally replaced with any other data sources. These are variable numbers that change as data is updated.
- Map wind speed height (m)
 - Wind speed height will vary with the map being used. The NJ REIP program uses a 50 meter height from wind maps. Not all wind mapping data has a 50 m height. These are variable numbers.
- Recommended tower height (ft)
 - Recommended tower height is determined by using the industry standard for small wind turbine siting, adopted by the NJ REIP program, which is to have the bottom arc of the blades at their lowest point a minimum of 30' above the tallest obstruction within a 500' radius of the tower location. This is a variable number. It should also be changed to include "or the neighboring tree line, whichever is higher".
- Site altitude
 - Site altitude comes from topographical maps or Google Earth type programs. These numbers are easily obtainable and verifiable.
- Wind shear
 - Wind shear is a judgment call by the person inputting the data, and as such is a highly variable number. Additionally, the industry standards for calculating wind shear have been rapidly changing over the last 3-5 years due to the collection of actual recorded field data. More aggressive standards are now the norm.
- Weibull K
 - Weibull K is typically left at "2.00", but is a number that is variable in more sophisticated wind modeling and performance programs. This can potentially be another judgment call by the person supplying the input.
- Turbulence intensity
 - The applied turbulence intensity number is based on the interpretation of the person inputting the data and as such is a highly variable number. Like wind shear, the industry standards for turbulence intensity have been rapidly changing over the last 3-5 years due to the collection of actual recorded field data. More aggressive standards are now the norm.
- For illustrative purposes, I have attached three versions of the Seventh Wind performance calculator for your review.
 - The first attachment is Version 10.5, the first version adopted by NJ for wind turbine estimated performance calculations. I include it here in order to demonstrate its use by me for site assessments in the summer of 2008, which in part, led to subsequent wind turbine installations in Dec. of 2009.
 - The second attachment is Version 10.81 of the Seventh Wind performance calculator, which was updated in March of 2010. In this update, the turbines that had just been installed 3 months earlier were de-rated resulting in a 26% decrease in the estimated performance of the turbine (see red highlighted areas in attachments).
 - The last attachment is Version 10.81, using the more recent industry standards for de-rate calculations (instead of those in place in July 2008.) Using updated de-rate inputs, the overall difference in productivity estimates for these particular installations is 48% less than the original calculations. All of this due to different internal changes and external inputs in the Seventh Wind performance calculator. While the span is not as large for all the turbines listed in the Seventh Wind performance calculator, this particular span of variability is substantial.

- A point of note is that this is the same wind turbine (WTIC/Jacobs) that I believe represents the majority of the small wind installations in NJ. It follows that the actual data from these installations and the customer's performance expectations will be disparate, especially when viewed against site calculations done 3-4 years ago.
- The industry is constantly refining and updating its data and site assessment tools. Changes and adjustments need to be viewed, understood and incorporated correctly. This doesn't imply that the current system is broken or that the current calculator is inadequate, but perhaps in need of a tune up instead.
- To my knowledge we have not had an update to the Seventh Wind performance calculator since March 2010, thirteen months ago. NJ previously received updates every 6 months. When I had inquired this past fall about the lack of recent updates to the calculator, I was told that there was "no budget" to incorporate these updates.

Other calculators are currently available -- some fairly simple and others fairly complex. Here are a few of them:

- NY Small Wind Explorer (AWS True Power)
- New Roots Energy
- RETScreen
- WI version of Seventh Wind
- Wind Products, Inc.

Some of these other calculator options were discussed with the Market Managers during the spring/summer of 2010, but "no budget" was available to make any of needed changes.

Contrary to statements made during the 4/14/11 meeting, as I understand the current REIP program requirements, it does not require an individual to be an "MREA Certified Site Assessor" in order to make an adjustment to the estimated wind turbine performance that is calculated using the Seventh Wind performance calculator. The program stipulates that only a "*Certified Site Assessor or an engineer*" are authorized to override the NJ BPU Market Manager's estimated performance calculations. This criteria was specifically put in place to target and prevent performance estimates that *exceed* the Market Manager's estimated performance calculations. Hence only a Certified Site Assessor or an engineer can calculate a higher amount and they would need to be able to justify that calculation to the Market Managers. It was purposefully and thoughtfully set up this way to protect the rate payers and the SBC (Societal Benefits Charge) that is paid to fund the REIP program. A *downward* adjustment to estimated performance would not require a Certified Site Assessor or an engineer. No rate payer protection would be warranted for calculations that were de-rated further than the Market Managers calculation, since a further de-rate results in a lesser REIP payment.

Additionally, the REIP program did not, at any time, stipulate the "MREA" specifically as the only legitimate source of certification (as was repeatedly stated by the same meeting attendee who misunderstood the certification requirements for the override feature of the program). It is important to note here that in addition to serving as the former and current chair of the NJSWWG Siting and Zoning Committee, I also currently serve on the JTA (Job Task Analysis) Committee for the NABCEP (North American Board of Certified Energy Practitioners) Wind Site Assessor Certification. The NABCEP Wind Site Assessor certification was already being developed at the time of the implementation of the NJ REIP estimated performance based funding program. The NJSWWG Siting and Zoning Committee concluded that the REIP program should include the broader language of "*Certified*" Site Assessor, rather than limiting the program by naming a certification from a specific entity. This broader language would allow the NABCEP certification and/or *any other valid industry certification* to be accepted without requiring a re-write of the program.

The NABCEP Site Assessor Certification process has now moved out of the completed Task Analysis phase and into the commencement of work on the Resource Guide. Upon completion of the Resource Guide, the Exam Committee will develop and write the exam questions, and the test will be formulated and launched. Successful completion of the test would enable a candidate to achieve NABCEP Certified Site Assessor status, thereby meeting the criteria to be considered a Certified Site Assessor under the NJ REIP program. It is notable that the requirements to sit for the NABCEP exam are stringent and include classroom training, field experience and practice site assessments. The NABCEP Wind Site Assessor Certification will be a welcome addition to the current wind site assessor curriculum that is currently available within the industry -- and to be perfectly clear, the new certification is expected to meet the NJ REIP program requirements.

The current MREA Wind Site Assessor certification requires 40 hours of instructional class room and field activity, two practice site assessments that are graded pass or fail and a 5 or 6 hour

(+ or –) exam with a minimum passing grade. For more details about this certification, please visit www.mreacsa.org.

Rebates, Incentives and Turbine Eligibility

Robert Olivio, current wind system customer and installer

Recommendations

Financial values for the wind RECs to be similar to the SRECS and Off-shore wind incentives.

Larry Sherwood, Small Wind Certification Council

Recommendations

Base the incentive levels on the power performance curve certified by the SWCC or other independent certification body.

For funding designed to support inventions or new, unproven wind turbine designs, continue basing payments on actual kWh production, and require evidence that a power performance test conforming to AWEA 9.12009 – IEC Standard 61400-2 has been certified by an independent certification body such as the SWCC.

Rebate applications based on a substantially inflated performance or reliability claim should not be awarded.

Kevin Schulte, Sustainable Energy Developments, Inc. and DWEA

Recommendations

Rebate should be enhanced to promote more wind energy development.

Proposed incentives for Wind Systems

<u>Production</u>	<u>Rebate Amount</u>
1-16,000 kWh	\$3.20/kWh
16,000-250,000 kWh	\$1.25/kWh

250,001-1,000,000 kWh \$0.50/kWh

Mateo Chaskel. Urban Green Energy

Recommendations

A portion of the incentive (50%) should be paid up-front based on nameplate power, with the remainder to be paid after verified one year energy output.

James H. Fry, NJSWWG Charter Member Wind Advocate

Recommendations

One of the agreed ways for being added to the NJ approved list is if the turbine is already on the Wisconsin or the New York Approved Lists, The NY list is what NYSERDA has qualified.

Filipe Goncalves, Infinite Wind Energy

Recommendations

As a recent start-up and manufacturer of wind turbines in NJ, we are strongly opposed to limiting the REIP to turbines with proven track records. The wind turbine industry is growing rapidly, and a great number of advancements in the field are being made by small businesses, with limited resources, and no prior track record. Such a rule would prevent small manufacturers from competing with larger corporations. The market needs more wind turbines and more competition in order to bring the prices down and make this technology more assessable. Therefore we strongly suggest the REIP and the IWTI do not adopt a proven track record clause as it would be devastating for innovation, competition, local jobs and ratepayers.

Certification/Safety

Larry Sherwood, Small Wind Certification Council

Recommendations

SWCC recommends the following eligibility language for the BPU to replace the existing eligible list and transition to certification requirements.

To be eligible for incentives, a wind turbine manufacturer or authorized designee must provide technical information and specifications of the wind turbine model for BPU review and provide acceptable evidence demonstrating its safety, functionality and reliability through one of the following methods:

- For small turbines with a swept area of 200 square meters or less and within the scope of IEC-61400-2 or the American Wind Energy Association Small Wind Turbine Performance and Safety Standard (AWEA 9.1 – 2009), submission of:
 - Evidence of certification to IEC 61400-2 or AWEA 9.1-2009 by the Small Wind Certification Council (SWCC) or other independent certification body; OR
 - For time-limited eligibility through December 31, 2011, evidence that a power performance test conforming to AWEA 9.1-2009 or IEC 61400-12-1 has been certified by the SWCC or other independent certification body.
- For turbines with a swept area of more than 200 square meters and therefore outside the scope of IEC 61400-2 or AWEA 9.1-2009, submission of:

- Evidence of type certification by a certification body that is accredited to provide product conformity certification to IEC Standard 61400-1, IEC Standard 61400-11 and IEC Standard 61400-12-1; OR
- For time-limited eligibility through December 31, 2011, evidence that a power performance test conforming to IEC 61400-12-1 has been certified by an independent certification body.

BPU may require additional documentation of performance, safety and durability, including reported production from a retail installation in North America where an owner/operator is available for interview. Listed turbines may also be removed for safety, durability, performance, acoustic or other concerns at BPU staff discretion.

Section N.5 of SWCC's Certification Policy describes grounds for sanction and corrective action. If a deficiency or violation is found, the SWCC Certification Commission has a list of possible actions it can take ranging from private or public reprimand to certification revocation.

Likewise the BPU staff should be authorized to rescind eligibility for products experiencing failures or poor operational performance, reliability, or warranty support.

The following optional provisions could be considered for small turbines that fall under the scope of AWEA 9.1-2009 to allow flexibility during a limited transition period.

- Alternative interim requirements for the remainder of 2011 include submission of:
 - Evidence of certification under the UK's Microgeneration Certification Scheme (www.microgenerationcertification.org/mcs-consumer/product-search.php)
 - Evidence of type of certification by a certification body that is accredited to provide product conformity certification to IEC Standard 61400-2, IEC Standard 61400-ii, and IEC Standard 61400-12-1
 - Evidence of designation as eligible for incentives by the New York State Energy Research and Development Authority
 - Evidence of designation as SWCC "Under Test" status level and one year of reliable operation (12 months of wind speed data coupled with monthly energy production information maintaining operational availability of at least 96% of the model of equipment at retail installation in North American with wind speeds of at least 12 mph at hub height and owner/operator is available for interview)
- Base incentive levels on the power performance curve certified by the SWCC or other independent certification body
- For funding designed to support inventions or new, unproven wind turbine designs, continue basing payments on actual kWh production, and require evidence that a power performance test conforming to AWEA 9.12009 – IEC Standard 61400-2 has been certified by an independent certification body such as the SWCC.

Rebate applications based on a substantially inflated performance or reliability claim should not be awarded.

Kevin Schulte, CEO of Sustainable Energy Developments, Inc. and DWEA

Recommendations:

Safety – Setbacks:

DWEA recommends that setback requirements be set prudently and in line with actual risks. Our recommendation is for no setback restrictions beyond what is in place for other structures on the property such as a setback in reference to the nearest neighboring occupied dwelling rather than the neighboring property

line. No matter how many small wind turbines are installed, they will never equal the magnitude of the risk posed by trees, which have no set back restriction.

Turbine Certification:

To increase the likelihood of safe and reliable distributed wind turbine systems in NJ, DWEA recommends the following for system certification to qualify for a rebate:

- 1) For Turbines with rotors up to 200m² in area, require SWCC certification to AWEA 9-1-2009 after either January 1st or July 1, 2012.
- 2) Allow “Provisional Eligibility” in the interim if:
 - a. Turbine is UK MCS or IEC 61400-2 certified or
 - b. Turbine in under contract with SWCC, under field test with an accredited or SWCC-audited (specific to turbine set-up)
 - c. The “Provision Eligibility” would expire based on the dates noted above in #1.
- 3) For larger turbines, require a power curve NRTL certified to IEC 61400-12.

Installer Eligibility:

DWEA strongly supports safeguards for NJCEP that regulate companies who wish to install quality distributed wind energy systems. The following recommendations are meant to assist the NJ BPU in establishing standard industry guidelines.

Institute a Code of Conduct for Installers. At a minimum, the Code of Conduct needs to contain:

- 1) Installer eligibility based on a specific size-range of wind generator systems, depending on the types of wind generators systems the installer has experience installing, which also may include generators or towers depending on the training and experience demonstrated. Past performance under BPU programs should be critical criteria for determining eligibility and the conditions of eligibility under this solicitation.
- 2) The right of NJBPU to refuse to grant eligibility for any reason, such as inadequate training, inadequate experience, poor references, failure to act professionally, fairly and in good faith with NJ BPU or customers, providing false information to NJ BPU or customers, poor performance in previous BPU programs and committing actions that would be subject to disciplinary actions by the State.
- 3) Include eligibility determination on factors such as acceptance of all program terms and conditions, training, extent and type of installation experience, customer references, and meeting the insurance requirements of the program.
- 4) Include eligibility standards that apply to all installer employees and subcontractors
- 5) Installers must meet and maintain all insurance requirements, both commercial general liability and commercial automobile liability insurance. Proof of insurance must be provided before rebates are paid.
- 6) Installers must demonstrate adequate competency installing wind energy conversion systems, for example – provide proof of installing three wind energy conversion systems or participated in hands –on training and /or manufacture’s training for the installation of a wind energy conversion system within the previous two years. Customer references that verify competence on installing at least three wind systems must be provided. Site assessment skills, wind resource and energy estimation skills, and professionalism will also be evaluated.
- 7) Unless the installer can demonstrate sufficient wind installation experience in addition to the classroom and hands-on-training, their eligibility will be contingent on having an Eligible Installer present for the pouring of the foundation, wind energy conversion system assembly and erection. This condition will be removed once the installer demonstrates competence through references and inspections.

- 8) Rebates will not be paid before eligibility of any installer has been approved and stated in writing by the NJ BPU
- 9) Such eligibility of NJ BPU will not in any way mean endorsement of or guarantee, warrant, or in any way represent or assume liability for any work proposed or carried out by an Eligible Installer. Additionally, the NJ BPU is not responsible for assuring that the design, engineering and construction of the project or installation of any wind generator system is proper or complies with any particular laws, regulations, codes, licensing, certification, and permit requirements or industry standards. The NJ BPU does not make any representations of any kind regarding the results to be achieved by the wind generator systems or the adequacy or safety of such measures.

James H. Fry, NJSWWG Charter Member Wind Advocate

Recommendations

The wind industry has developed certification for small wind turbines which will help with the safety and reliability of the units. Talking with some tower manufacturers, I have been told that they also now have certification criteria for towers. These certification criteria for towers should be considered and invoked in the NJCEP to further ensure the safety of small wind installations. Towers and Foundations are a critical part of the systems.

Mateo Chaskel, Urban Green Energy

Recommendations

Safety should be addressed by testing up to the standard safety and standard guideline, IEC 61400-2. This is the widely accepted standard for wind turbine safety, and is also what the SWCC will use to ensure safety.

Filipe Goncalves, Infinite Wind Energy

Recommendations

Public safety and health are of the utmost concern to our organization, and we support rulemaking that protects the consumer and makes them whole in the event of a turbine failure, as a result of manufacturer or installer negligence. However, when the end user has tampered with the equipment any protections should be void, provided the proper disclosures and warning signs were used. Furthermore, we would like to emphasize that the word "failure: needs to be clearly defined and limited. For example we believe that regular maintenance and other related services should not be considered "failures"

Insurance and Bonding

James H. Fry, NJSWWG Charter Member Wind Advocate

Recommendations

At the SWWG meeting in April, some comments made by the attendees were not as accurate as they could be. The insurance issue was one of them. The costs quoted were exaggerated by a large factor. The insurance costs should be pro-rated over all the work that the contractor accomplishes not just a wind installation.

Kevin Schulte, CEO of Sustainable Energy Developments, Inc. and DWEA

Recommendations

DWEA recommends the standard company insurance for any eligible wind energy installer. While DWEA supports requiring adequate insurance, it does not support any action by the BPU that would dissuade small businesses from not entering the market or will cause the small business to close its doors. An example of suitable insurance coverage is:

Commercial General Liability insurance for bodily injury liability, including death, and property damage liability, incurred in connection with the performance of contract, with minimum limits of \$1,000,000 in respect of claims arising out of personal injury or sickness or death of any one person, \$1,000,000 in respect of claims arising out of property damage in any once accident or disaster and Commercial automobile liability insurance in respect of motor vehicles owned, licensed or hired by the installation company for bodily injury liability including death and property damage, incurred in connection with the performance of this contract with minimum limits of \$500,00 in respect of claims arising out of personal injury, sickness or death in any one accident or disaster and \$500,00 in respect of claims arising out of property damage in any once accident or disaster.

Joe Crecca, JBS Solar and Wind, LLC

Recommendations

My company is an offshoot of a general contracting firm whose primary business is general construction. We appreciate first hand the necessity for appropriate insurance coverage.

Bonding: While bonding is used in the construction business its general use is in the form of a performance bond. This type of bond by definition is for the completion of a construction project only, that the contractor will built out the project. I do not think this is a matter of concern from the standpoint of the NJCEP nor do I think this type of bonding is the answer.

Insurance:

General Liability, Product Liability and Completed Operations are what I think the BPU should focus. It was discussed at the meeting that Product Liability and Completed Operations insurance are not available to small wind turbine installers. Atleast for us this is not the case we have all three. We are limited at this point to turbines at a hub height of no more than 200 feet and the name plate generation turbines of less than 100kW. We can by the job pay for additional insurance should we exceed the parameters. This not only protects our clients but us as well should an incident occur.

Roger Dixon, Skylands Renewable Energy, LLC

Recommendations

Bonds

I contacted the South Bay Risk Management & Insurance Services company and I sent in a letter from them stating that Performance Bonds do not cover a product mishap, performance bonds are used to assure the project owners that if a contractor defaults on completion of the project that the Surety Company will step in and hire a new contractor to complete the project.

Insurance:

Contrary to what was stated during the April 14th SWWG, it is not necessary to pay \$20,000-\$25,000/year for this coverage, nor would it be appropriate to mandate that this particular program and its related cost be incurred by small wind installers in NJ. The coverage my company, Skylands Renewable Energy, currently has is adequate under the HIC mandates in NJ ((Home Improvement Contractor licensing is required to install wind turbines in NJ) and also meets the requirements of the NYSERDA wind turbine funding program in NY. Skylands has also installed turbines in PA, MD and will be in NC in a couple of weeks installing a wind turbine. My existing insurance coverage meets or exceeds the requirements in these states as well.

Typically, there aren't any differing "standards" that would affect insurance coverage and underwriting between the states, except for periodic regional issues that occur when a State's Legislature enacts broadened laws that make it difficult for carriers to operate profitably. NJ, NY & CA have been, and still are, more restrictive than most states in their requirements for carriers to be admitted to write coverage in these states. According to my broker, Colorado presents as a recent example of this and the insurance marketplace reacted, as is typical, by cutting off new business.

The cost for the type of insurance coverage in question always depends on the level of exposure and the claims history of the individual company applying for coverage. Historical industry data can also be a factor. I want to be clear that I have no knowledge of the company referencing the \$20,000-\$25,000/year premium, but it is possible that their exposure and/or claim history is a factor in their unusually high premiums. Or perhaps it is that high because they are also a general construction company and that small wind turbine installations is not their only "exposure".

Coverage for my company, which specifically notes liability coverage for wind turbine installations, as well as professional liability for wind site assessments, seminar and teaching venues, etc., is approximately 20% of the cost stated in the room, and is more in line with expected coverage and premiums for the small wind industry. The coverage and premium is affordable for my company, as well as for many other small wind installers in the US. Mandating an expensive insurance program would limit the available wind turbine installer base, dissuade future companies from entering the market, benefit larger companies with deeper pockets (or a willingness to blindly pay exorbitant premiums), and would likely cause many highly skilled & experienced small wind installation companies to close their doors.

My broker and the insurance carrier I use currently insure 14 small wind turbine installers in nine states; CA, CO, IA, NJ, NY, PA, TX, WI and MD. The coverage that is afforded meets or exceeds those state requirements for installing wind turbines. It also meets or exceeds the insurance requirements for the 18 or so wind turbine manufacturers that I have dealer/installer relationships with. If you would like my broker's contact info to further discuss the details or to entertain a state "wind installer insurance program", as was noted during the NJSWWG meeting, I would be happy to provide you with his info.

General Concerns with changing the program

James H. Fry, NJSWWG Charter Member Wind Advocate

Concern

In NJ both the tower and foundation require a Professional Engineer to certify their design and integrity. Even though you work with stamped certified designs, accidents can still happen. I would hope the OCE would not hold up or discontinue the REIP based on just this one incident. The small wind marketplace has just started to

catch on in NJ and it would be a shame that this one incident to stall many years of effort by many dedicated people to get us to where we are today. Wind turbines in general have been a very safe scenario and most of the failures have been caused by human error.

Kevin Schulte, Sustainable Energy Developments, Inc. and Distributed Wind Energy Association

Concerns:

There are no documented instances of small wind turbine-related injury or death of a “civilian” in the US in the past 33 years. Well documented practices that can be followed to help ensure the safety of small wind turbines. When proper practices are not followed during construction or when regular maintenance is neglected, any inherently safe technology can become unsafe. DWEA understands the importance of proper installation and maintenance of small wind turbines and supports the reasonable requirements to follow building and electrical codes consistent with other construction projects. DWEA also supports the inclusion of a reasonable decommissioning clause in the zoning ordinance or conditional use permit should the small wind turbine fall into disrepair. Turbine systems that pose legitimate safety hazards should be promptly repaired or removed, just as any other public hazard.