MESSAGE FROM THE RADER CO-CHAIRS
Kim Diamond and Roger Stark

Summertime is often associated with relaxation, downtime, and a chance to “take a break” from the everyday grind. Not so for our Renewable, Alternative, and Distributed Energy Resources (RADER) Committee. We launched the summer with an action-packed breadth of activities in which our members participated, and plan on continuing to offer interesting and engaging events to our members throughout the summer.

For instance, in May, just on the cusp of law students around the country departing for their summer vacations, our RADER Committee served as the lead sponsoring committee, along with both the Energy and Environmental Markets and Finance (EEMF) Committee and the Government and Private Sector Innovation (GPSI) Committee as co-sponsors of the 2014 Energy Law Student Writing Competition. Students enrolled in accredited law schools from across the country participated in this national competition, and members of the RADER, EEMF, and GPSI Committees, among others, served as competition judges during a blind review process. As the topic for their written submissions, students could select any issue related to energy law, such that they could advocate a position, educate an audience on an issue, analyze a case, etc. The first-, second-, and third-place winners are to receive a $700, $500, and $250 cash prize, and will have their respective winning entries published in an upcoming special edition of the RADER Committee Newsletter. Those winners and the names of their winning submissions are as follows: First Place—Walker Stanovsky, University of Washington School of Law (“Standing in the Greenhouse—A Scientific Approach to a Constitutional Problem”); Second Place—Michael Disotell, Ohio State University Law School (“Sidestepping the Sleeping Giant—Crafting Renewable Portfolio Standards to Avoid Triggering Dormant Commerce Clause Scrutiny”); and Third Place—Keith Richard, New England Law School (“Don’t Cut the Net: Ensuring We Effectively Harness Solar Energy”). A special thanks to our RADER Vice Chair, Communications and Outreach, K. K. DuVivier, and RADER Assistant Vice Chair, Communications and Outreach, Nadia Luhr, for organizing and running this competition.

Having produced three monthly webinars during April, May, and June, respectively, with the American Council on Renewable Energy (ACORE) and Bloomberg New Energy Finance, we entered the third quarter with our final program of the 2013–2014 Renewable Energy Webinar & Teleconference Series, “One Step Forward, Two Steps Backwards: USEPA’s Carbon Reduction Strategy for Power Plants and Transportation Fuels” on Wednesday, July 16, 2014, wherein leading experts discussed the potential effects of USEPA’s Clean Power Rule and the proposed 2014 renewable volume obligations (RVOs) for both the renewable electricity and the

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August 13, 2014
Hot Topics in Superfund and RCRA Live CLE Webinar

August 21-22, 2014
9th Annual Homeland Security Law Institute
Washington, DC
Primary Sponsor: Section of Administrative Law & Regulatory Practice

August 27, 2014
Environmental Compliance Certifications: What Your Clients Need to Know Before They Sign Live CLE Webinar

September 12, 2014
Science and Environmental Law Seminar
American Bar Association
Washington, DC

September 16, 2014
Environmental Considerations in Business Transactions Live CLE Webinar

October 8-11, 2014
22nd Fall Conference
Trump National Doral Miami
Miami, FL

For full details, please visit www.ambar.org/EnvironCalendar
renewable liquid transportation fuel sectors. Todd Foley, ACORE’s senior vice president, Policy & Government Relations, provided a legislative update and moderated this program. Speakers included Christopher Flavin, president emeritus of Worldwatch Institute; Salim Morsy, advanced transport analyst, Bloomberg New Energy Finance; Ernie Shea, project coordinator, 25x’25; and Douglas W. Smith, partner, Van Ness Feldman LLP. A very special thank-you to our Vice Chair, ABA/ACORE Renewable Energy Webinar & Teleconference Series Vice Chair, Sarah A. W. Fitts, for her dedication and undaunted efforts throughout the ABA year in making this series a success.

As an attestation to keeping our momentum going over the summer, our Vice Chair, Newsletters, Jonathan Skinner-Thompson, has once again assembled a quality RADER Committee Newsletter for our interest—the third RADER Committee Newsletter to be published this ABA year. This edition of the newsletter contains articles on a variety of subjects. The article “Race to Become America’s First Offshore Wind Farm May Be Nearing the Finish Line” by Thomas D. Goslin addresses the quest by Cape Wind, Fishermen’s Energy, and the Lake Erie Energy Development Corporation (LEEDCo) to be the first U.S. offshore wind farm projects in the United States, as well as some of the current hurdles each are facing. It also discusses the progress that other offshore wind projects, including the Virginia Offshore Wind Technology Advancement Project (VOWTAP) in the Atlantic Ocean and Principle Power’s project off the coast of Coos Bay, Oregon, are making in terms of bringing their respective projects to fruition. Dustin T. Till’s article, “Washington Supreme Court Upholds Environmental Review for Biomass Cogeneration Project,” discussed the debate as to whether the benefits of biomass replacing volumes of fossil fuel outweigh the impact of increased generation of greenhouse gas emissions, and how a state law’s definition of “greenhouse gases” can influence the outcome of such a debate. The third article, “Determining the Value of Distributed Generation and the Future Role of Net Metering in Arizona,” by Jason D. Gellman provides background about steps that have been taken to inform the Arizona Corporation Commission with respect to formulating policy with respect to rooftop solar systems on residential and commercial structures, particularly with respect to the role of net metering and the determination of future rates to customers based on factors impacting distributed generation. The fourth article, “ESCOs: Business Models and Hard Lessons Learned,” by Mike Zimmer discusses the difference between the energy performance contracting model and the energy supply contracting model that energy service companies (ESCOs) use, the benefits of using integrated energy service contracting, and lessons learned for successful ESCO development. The final article, “A Renewable Military: Changing the Energy Paradigm in the Armed Forces,” by Eric Wilber explores the development and use of renewable energy in the U.S. military in locations throughout the country, and the challenges currently faced in terms of streamlining the development process and deriving uniform standards for such process with respect to project installations. We hope you enjoy these articles as part of your summer reading.

A special thanks to Jonathan Skinner-Thompson for making this edition of the newsletter possible. Sourcing articles, editing content, coordinating with authors, and producing a five-article newsletter is no easy task—Jonathan, you are to be commended for your efforts. For those of you interested in submitting an article for publication in the RADER Committee Newsletter, please contact Jonathan directly.

Best wishes for a great summer.

Kim Diamond
On behalf of
Kim Diamond and Roger Stark,
Co-Chairs, RADER Committee
It has been 23 years since Denmark constructed the world’s first offshore wind farm, a five megawatt (MW) project located a little more than one mile off the coast of Vindeby in the Baltic Sea. Since that time, 14 countries have developed wind farms in their waters, and offshore wind electric-generating capacity has grown to more than 6500 MW, or enough to power more than five million homes. Just last year, a total of 418 offshore turbines came online in Europe, adding 1567 MW of new capacity. Yet in the United States, with more coastline than any country save Canada, there is only one installed offshore wind turbine: a one-eighth scale model deployed in 2013 in Penobscot Bay in Maine. This, despite U.S. Department of Energy (DOE) estimates that there is enough offshore wind energy potential to generate more than four million MW and that the United States realistically could obtain 20 percent of its electricity from offshore wind.

Given the growing demand for electricity in the United States, the significant resource potential and the existence of proven technology to realize that potential, it is surprising to many that the United States has yet to construct a single commercial offshore wind turbine. Considering that nearly 40 percent of the nation’s population lives in counties directly on the coastline, and that electricity is delivered far more efficiently when generation is located close to demand centers, the lack of offshore wind generation in the United States seems to defy understanding. But as those who follow the industry closely know, the lack of offshore wind generation in the United States certainly is not the result of a lack of trying.

In states up and down the East Coast and along the Great Lakes, there are many projects under way seeking to lay claim to America’s first offshore wind farm. In fact, DOE recently reported that there were 11 commercial projects in an advanced stage of development in 2013, which DOE defines as those that have at least signed a power purchase agreement, received approval for an interim or commercial lease in state or federal waters, or conducted baseline or geophysical studies at the proposed site. Combined, these 11 projects have the capacity to generate more than 3800 MW of power. But before even a single watt can be generated, several industry-wide and project-specific hurdles need to be overcome.

Has Cape Wind Finally Reached the Homestretch?

Cape Wind, America’s first fully permitted offshore wind project, is perhaps closest to commencing construction. It also perfectly illustrates the challenges faced by offshore project developers in the United States. Cape Wind was first proposed in 2001, and its backers have spent more than a decade navigating complex federal and state permitting processes that involved numerous studies assessing the project’s potential impact on the environment, endangered and protected species, ocean shipping, and aviation and historic preservation, among others. In addition, the Cape Wind project, which is to be built in Nantucket Sound, has been the target of more than a dozen lawsuits alleging everything from potential disruption of whale and bird migrations to interference with airplane and shipping traffic, damaging commercial fishing grounds, and the desecration of sacred Native American sites. While the Cape Wind project completed its permitting process in early 2011, litigation has until very recently continued to plague the project. Three recent court decisions, however, appear to have resolved all outstanding litigation.

In Public Employees for Environmental Responsibility v. Beaudreau (D.D.C. Case Nos. 10-1073, 10-1079, 10-1238), a case brought in the U.S. District Court for the District of Columbia and combined with three related cases, plaintiffs alleged that various federal agencies failed to meet the requirements of nearly a dozen laws governing review and permitting of the Cape Wind project. In a decision handed down on March 14, 2014, however, Judge Reggie Walton dismissed nearly all of the plaintiffs’ claims, though he remanded two determinations back to the respective agencies for additional review.
The first determination sent back on remand concerns a U.S. Fish and Wildlife Service (FWS) determination on how to minimize the project’s impact on migratory birds. FWS determined that requiring the turbines to stop rotating at certain times would minimize bird kills, but it decided against requiring those measures because Cape Wind and the federal Bureau of Ocean Energy Management (BOEM) determined that they were not reasonable because doing so would render the project financially unviable. Judge Walton held that, by relying on BOEM and Cape Wind without reaching its own independent conclusion, FWS violated the Endangered Species Act (ESA), which requires FWS to make an independent determination on whether mitigation measures are reasonable.

The second agency determination sent back on remand concerns a biological opinion issued by the National Marine Fisheries Service (NMFS) that the Cape Wind project was unlikely to harm endangered North Atlantic right whales. Judge Walton did not disagree with this opinion, but he held that NMFS should have issued an “incidental take” statement outlining possible impacts to the species that could occur, and that its failure to do so constituted a violation of the ESA. Both remands concern procedural deficiencies in the respective agencies’ actions and it appears likely that the agencies will be able to correct these deficiencies with relative ease.

In the second case, Town of Barnstable v. FAA, 740 F.3d 681 (D.C. Cir. 2014), the U.S. Court of Appeals for the District of Columbia affirmed earlier this year a determination by the U.S. Federal Aviation Administration (FAA) that the Cape Wind project would not be a hazard to air navigation. At issue was whether the proposed 440-foot turbines would pose a threat to air travel in the vicinity of the proposed wind farm. FAA ruled in 2010 that they would not pose a hazard to air travel, but petitioners challenged the FAA determination. In 2011, the D.C. Circuit remanded the FAA’s “no hazard” determination because it found that FAA failed to follow its own procedures in making such a determination. Town of Barnstable v. FAA, 659 F.3d 28 (D.C. Cir. 2011). Subsequently, FAA conducted additional analyses, reached the same decision that it had reached in 2010, and issued a second “no hazard” determination in 2012, which promptly was challenged by the same petitioners. It appears that the D.C. Circuit’s decision earlier this year finally has resolved this string of litigation.

In the third case, brought against the Massachusetts Department of Public Utilities in January 2014 by many of the same parties behind the FAA, FWS, and NMFS challenges mentioned above, the plaintiffs alleged that Massachusetts illegally required NSTar Electric Company, a Massachusetts utility, to enter into a power purchase agreement with Cape Wind before the state would approve a merger between NSTar and a Connecticut-based utility. The power purchase agreement committed NSTar to purchase 27.5 percent of Cape Wind’s project output. Plaintiffs alleged that by forcing NSTar to purchase power from Cape Wind as a condition precedent to the merger, Massachusetts interfered in wholesale electricity sales in violation of the Federal Power Act of 1935 and steered business to a favored in-state electricity provider at the expense of competing out-of-state power generators in violation of the Commerce Clause of the U.S. Constitution. A ruling against the Commonwealth could have terminated a lucrative source of funding for the Cape Wind project; however, in an order handed down on May 2, 2014, Judge Richard Stearns of the U.S. District Court for the District of Massachusetts dismissed the case on Eleventh Amendment grounds, which generally provides that a citizen cannot sue a state absent state consent, which consent the Judge found did not exist. Judge Stearns’ ruling appears to have cleared away all remaining legal hurdles for the Cape Wind project, though given the tenacity of the project’s opponents to date, an appeal of any of these three recent decisions cannot be ruled out.

In addition to legal barriers, project developers also face significant financial hurdles in constructing offshore wind farms in the United States, and Cape Wind has been no exception. This is because offshore wind projects are expensive, unproven in U.S. waters, and subject to unpredictable regulatory processes and legal challenges. The Cape Wind project, expected to cost approximately $2.6 billion, has made recent headway, however, in overcoming these financing challenges. In March 2013, Cape Wind signed a term sheet with
Bank of Tokyo-Mitsubishi as the lead arranger for the commercial bank portion of the debt financing to pay for development and construction costs. In June, Cape Wind reached agreement with Copenhagen Infrastructure Partners to secure $200 million in funding from the Danish pension company PensionDenmark, which has made several investments in offshore wind projects in Europe. Then, in February 2014, Cape Wind arranged for a $600 million loan guarantee from EKF, Denmark’s official export credit agency. In total, Cape Wind has raised around $1.3 billion to date, approximately half of the project’s estimated costs, but expects to complete financing in the third quarter of 2014.

To help make up the gap, Cape Wind is attempting to qualify for the federal investment tax credit (ITC), which could provide for reimbursement of up to 30 percent of project costs. There were two ways to qualify for the credit: by beginning physical construction of the project or by making expenditures worth 5 percent or more of the project’s total cost, both before the credit expired at the end of 2013. While Cape Wind did not begin physical construction before the ITC expired, it did sign a contract in December 2013 with Siemens whereby Siemens agreed to supply Cape Wind with its 3.6 MW offshore wind turbines and service those turbines for the first 15 years of commercial operations. The terms of this contract were not made public; however, it is almost certain that Cape Wind’s expenditures under the contract will exceed 5 percent of the project’s total cost, thus qualifying the project for the ITC.

With the legal challenges largely resolved and the financial challenges apparently under control, Cape Wind hopes to start construction this year. While project uncertainty remains, Cape Wind’s backers plan to begin laying transmission lines before the end of the year, and complete project development by August 2016, nearly 15 years after the original project announcement.

Fishermen’s Energy Project Hits a Hurdle

While the Cape Wind project remains in the running to claim the title of America’s first offshore wind farm, one of its chief competitors recently hit an unexpected hurdle that it might not overcome. About 300 miles down the coast from Nantucket Sound, Fishermen’s Energy had been in the advanced stages of planning its proposed 25 MW demonstration project to be constructed three miles off the Atlantic City, N.J., coast; that was until a recent decision in March 2014 by the New Jersey Board of Public Utilities (BPU) rejected the plan.

The BPU rejected Fishermen’s plan over concerns regarding the projected cost to New Jersey ratepayers if the wind farm is constructed and whether government incentives will be available to help defray these costs. Fishermen’s Energy had estimated that the cost to construct the project will total approximately $188 million, which assumed that the project would be awarded up to $47 million in grant money from DOE and will be able to receive financial benefit from the generation and sale of renewable energy credits under the state’s 2010 Offshore Wind Economic Development Act (OWEDA). In rejecting the plan, the BPU questioned Fishermen’s cost estimates given what had been uncertainty in Fishermen’s receiving the DOE grant; however, in an interesting twist of fate, DOE announced on May 7 that the Fishermen’s project was selected as one of three grant award winners. What impact this may have on the BPU’s decision is unclear at this time.

The BPU also questioned Fishermen’s reliance on proceeds from renewable energy credits, an argument tinged with irony, since that uncertainty is largely the result of the BPU failing to develop the regulations necessary (and required under OWEDA) for Fishermen’s or any other offshore wind developer in New Jersey to take advantage of the credits. Fishermen’s sought BPU reconsideration of its decision, which was denied on April 24, and now the parties appear to be heading to court. Whether Fishermen’s selection as a DOE grant recipient will cause the BPU or a court to allow the project to proceed remains to be seen, but this matter underscores the uncertain regulatory environment that developers of even fully permitted projects face in the United States.
Can Cleveland Lead the Way?  

Perched 400 miles inland from the Atlantic Ocean, Cleveland, Ohio, might strike some as a strange place to be developing offshore wind. Yet the Lake Erie Energy Development Corporation (LEEDCo), a nonprofit regional corporation founded to build wind turbines in Lake Erie, continues to make strides toward harnessing Lake Erie’s seemingly persistent wind by developing what it hopes will be America’s first offshore wind farm in fresh water. LEEDCo recently completed research into turbine tower designs that would break up large ice sheets, a challenge unique to freshwater projects, and in February 2014, LEEDCo submitted an application to the Ohio Power Siting Board (siting board) for a certificate of environmental compatibility for its proposed 18 MW, seven-turbine demonstration project. But as a reminder that, even in the friendly Midwest, offshore wind projects are not immune to regulatory drama, on April 4, two bird conservation groups filed a letter with the siting board challenging the project, claiming that Ohio is among “the worst possible locations for a wind power project” due to the presence of many species of migrating birds. LEEDCo previously had released a study finding that the proposed project would have no biologically significant impact on the birds and bats that frequent the proposed site; however, it is notable that the two groups challenging the LEEDCo project successfully halted development of a single turbine project on an Ohio National Guard base after threatening litigation and collecting thousands of signatures. In what is likely to be an even greater challenge for LEEDCo, however, DOE on May 7 elected to pass over the project in awarding its $47 million grants. While DOE pledged additional financial support for LEEDCo to continue its research and development of turbine tower design to reduce ice loading, the failure to obtain the larger grant could be a significant setback for the project and underscores the extent to which this nascent industry relies on governmental incentives.

Or Is It Better to Bet the Field?  

While the Cape Wind, Fishermen’s Energy, and LEEDCo projects highlight the many challenges that exist for offshore wind farm developers in the United States, there are others that have enjoyed smooth sailing, at least to date. The proposed Block Island Wind Farm, a 30 MW project being developed by Deepwater Wind off the coast of Rhode Island, has attracted relatively little opposition, and recently won the approval of a subcommittee of the Rhode Island Coasing Resources Management Council (CRMC), which is the project’s lead state permitting agency. While subcommittee approval does not guarantee full CRMC approval, the unanimous recommendation of the subcommittee members, which include the chairwoman of the full CRMC, suggests the project will soon have the regulatory approvals it needs to move forward. Construction currently is scheduled to commence next year, meaning that the Block Island project is a strong competitor to become the nation’s first offshore wind farm.

Further down the coast, in Virginia, the commonwealth has teamed up with its largest utility, Dominion Virginia Power on the Virginia Offshore Wind Technology Advancement Project (VOWTAP), a research and development project supporting offshore wind generation. VOWTAP was selected as the second of the three recipients of the $47 million DOE grants, which it plans to use to help fund a grid-connected, 12 MW offshore wind facility consisting of two 6 MW turbines mounted on innovative foundations. Dominion’s project schedule has the VOWTAP project becoming operational in 2017, subject to obtaining applicable regulatory approval, which as we have seen is by no means certain. That said, the VOWTAP project has lacked much of the controversy of some other projects and appears likely to be the first offshore wind farm in the Mid-Atlantic, if not in the United States. It is worth noting that Dominion also won the 2013 BOEM wind lease auction for nearly 113,000 acres located 24 miles off the coast of Virginia, though this project is in the very early stages.

It is also worth pointing out that offshore wind activity is not limited to the eastern half of the United States. The third recipient of the $47 million DOE grants was Principle Power, based in Seattle, which is seeking to develop a 30 MW offshore wind farm in federal waters approximately 16 miles off the coast of Coos
Bay, Oregon, using floating platforms that would be tethered 1400 feet above the ocean floor. Principle’s use of floating platforms—the first project of its type proposed for U.S. waters—has the potential to open access to the vast Pacific offshore wind resources that have been difficult to harness given the deep waters. Floating platforms also have the potential to reduce the time required to install turbines, which could be constructed onshore and towed out to sea, and also could reduce the potential disruption to sea life, given the lack of any piling or the need to conduct any extensive subsurface construction activities.

In addition to those projects mentioned above, there are at least 28 other offshore wind projects in various stages of planning and development, and there are panels or task forces in place in at least 13 states to engage stakeholders to identify constraints and sites for offshore wind. At some point before the end of the decade, we almost certainly will see turbines spinning in what will be America’s first offshore wind farm. The lessons learned in getting there hopefully will smooth the way for future projects, as regulators and project developers gain familiarity with applicable regulatory requirements and financial institutions come to better understand the risks associated with offshore wind projects. Until then, the race to become America’s first wind farm remains a competitive event that promises much more excitement and drama before it is settled.

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WASHINGTON SUPREME COURT UPHELD ENVIRONMENTAL REVIEW FOR BIOMASS COGENERATION PROJECT

Dustin T. Till

On February 27, 2014, the Washington Supreme Court paved the way for the construction of a biomass cogeneration project at a pulp and paper mill in Washington State. *PT Airwatchers v. Port Townsend Paper Corp.*, 319 P.3d 23 (2014). The project was one of a series of controversial biomass cogeneration projects proposed for Washington’s Olympic Peninsula. The debate around these projects has focused in large part on the extent to which the replacement of fossil fuels with biomass results in a net decrease of atmospheric greenhouse gas concentration. Put another way, the project proponent argued that its biomass cogeneration project is “carbon neutral” because significant volumes of fossil fuel would be replaced by biomass, while environmental groups contended that the project would increase greenhouse gas emissions and have deleterious impacts on forest resources.

The court sided with the project developer, holding that an environmental impact statement was not required for the project. In reaching this conclusion, the court (like the Department of Ecology) relied heavily on a Washington statute that provides that carbon dioxide emissions from combusting biomass do not qualify as “greenhouse gases” under Washington’s greenhouse gas emission reduction program (except for reporting requirements). The court ultimately agreed with Ecology’s conclusion that the replacement of geologic carbon (fossil fuels) with biogenic carbon (biomass) did not result in significant impacts that required further evaluation in an environmental impact statement.

The court’s decision turns on a provision of law that is peculiar to Washington and recognizes the importance of state’s forest-based economy. It nonetheless highlights the debate around biomass and greenhouse gases and the extent to which greenhouse gases must be evaluated in Washington environmental review documents.
I. Background

Port Townsend Paper owns and operates a kraft pulp and paper mill in Port Townsend, Washington. In 2010, Port Townsend Paper proposed to (1) upgrade two existing steam generating units—power boiler 10 and the recovery furnace; and (2) install a new steam turbine generator. Steam from the upgraded units would continue to support pulp production, while excess steam would be used to generate electricity from the new turbine. The project would generate less than 25 megawatts of electricity that could be marketed as renewable energy under Washington’s renewable portfolio standard.

The recovery furnace was constructed in 1968, and power boiler 10 was constructed in 1976. Both units were continuously operated since their construction, and burned a variety of fuels including reprocessed fuel oil (RFO), mill residuals, and wastewater treatment sludge. After the cogeneration project was complete, nearly all of the RFO fuel (i.e., fossil fuel) would be replaced with woody biomass (i.e., hog fuel) and urban wood (i.e., clean construction debris).

The project also involved the installation of new, updated emission controls for power boiler 10, including a new dry electrostatic precipitator to control particulate matter emissions, and a new selective non-catalytic reduction system to control nitrogen oxides emissions.

The Washington Department of Ecology reviewed Port Townsend Paper’s application under Washington’s environmental review statute—the State Environmental Policy Act (SEPA). The agency issued a determination of nonsignificance (DNS), which concluded that an environmental impact statement (EIS) was not needed because the project was unlikely to have significant environmental impacts.

A coalition of environmental groups (collectively, PT Airwatchers) challenged Ecology’s determination that the project would not have significant impacts, alleging that the agency inadequately considered the effects of increased carbon dioxide emissions and failed to evaluate the impact on Northwest forests that may result from the increased demand for woody biomass.

II. Analysis

A. Is Carbon Dioxide from Biomass a “Greenhouse Gas” Under Washington Law?

The first issue the court considered was whether Ecology properly evaluated the project’s greenhouse gas emissions. Central to that issue is the debate surrounding whether carbon dioxide emissions associated with biomass combustion are carbon neutral. On one hand, parties contend that biomass combustion that displaces fossil fuel combustion decreases (or does not increase) atmospheric concentrations of carbon dioxide because the carbon dioxide associated with biomass would be emitted regardless of whether the biomass is burned (for example, as the result of forest practices like slash burning or natural decay). On the other hand, parties argue that biomass combustion that displaces fossil fuel combustion decreases (or does not increase) atmospheric concentrations of carbon dioxide because the carbon dioxide associated with biomass would be emitted regardless of whether the biomass is burned (for example, as the result of forest practices like slash burning or natural decay). On the other hand, parties argue that biomass combustion is not carbon neutral, increases atmospheric greenhouse gas emissions, and can have significant environmental impacts.

Ecology took the position that the debate around biomass carbon neutrality was resolved in Washington. Ecology specifically pointed to RCW 70.235.020(3), which exempts carbon dioxide from biomass combustion from the definition of “greenhouse gases” for purposes of Washington’s greenhouse gas emission reduction targets. Ecology’s Department of Natural Resources observed that while the project would increase carbon dioxide emissions from biomass, those emissions did not qualify as “greenhouse gases” under RCW 70.235.020(3). And since Port Townsend Paper would reduce its combustion of fossil fuels by over 1.8 million gallons per year, there would be no net
increase in atmospheric concentrations of greenhouse gases and no significant impact necessitating an EIS.

The court agreed with Ecology and held that the agency properly relied on RCW 70.235.020(3) when it concluded that the project’s greenhouse gas emissions would not have significant impacts. According to the court, the statute “demonstrates the legislature’s preference for the burning of woody biomass over the burning of other fuels.” The court also held that it would defer to Ecology’s interpretation of law since the agency had specialized experience in the field.

And in response to PT Airwatchers’ argument that Ecology and Port Townsend Paper failed to quantify the facility’s greenhouse gas emissions, the court held that “SEPA does not require a statement of the exact amount of carbon dioxide that would be released as a result of the project.” After observing that the parties had the opportunity to present conflicting, project-specific scientific evidence, the court stated that it would likely have reached a different conclusion if greenhouse gas emissions were entirely ignored. This holding suggests that courts, at least in Washington, will defer to agency assessments of greenhouse gas emissions even when they do not perform exacting emission inventories.

B. Was an EIS Required Under RCW 70.95.700?
The court next addressed the issue of whether an EIS was required under RCW 70.95.700. That statute states that “[n]o solid waste incinerator or energy recovery facility shall be operated prior to the completion of an [EIS]. . . .” The requirement does not apply to facilities operated prior to January 1, 1989. “Energy recovery,” in turn, is a “process . . . for converting solid waste into useful energy and for reducing the volume of solid waste.” RCW 70.95.030(7). Thus, the question the board, and eventually the court, faced was whether power boiler 10 burned solid waste and qualified as an “energy recovery” facility. The court deferred to Ecology’s interpretation that biomass and other wood fuels were not “solid waste.” While the court did not elaborate, the board pointed out that the Washington legislature had given forest biomass commodity status via tax incentives related to the development of renewable energy. The board also noted that the Department of Natural Resources had developed a contract program for forest biomass that facilitates a bid process similar to that used for timber sales. According to the board, while hog fuel, urban wood, and burnable rejects from the mill might be waste at the time they are discarded but are no longer solid waste once they have been rendered into a form suitable for industrial combustion. Ultimately, the issue of whether or not biomass qualified as “solid waste” was irrelevant because there was no dispute that power boiler 10 had historically burned, and would continue to burn, solid waste—namely, wastewater treatment sludge. The issue of whether an EIS was required under RCW 70.95.700 turned then on whether power boiler 10 was an “energy recovery” facility prior to January 1, 1989; if so, it would be exempt from an EIS. The court found that it was, since wastewater treatment residuals had been burned in power boiler 10 since it was constructed in 1976. The court dismissed PT Airwatchers’ argument that modifications to an existing energy recovery facility triggered the EIS requirements, finding that it would render the exemption meaningless.

C. Did Ecology Adequately Assess Forest Practice Issues?
Finally, the court addressed the issue of whether Ecology adequately considered the project’s impact on forest practices. PT Airwatchers argued that Ecology failed to consider the impacts of removing biomass from Northwest forests and did not explain the effects of increased competition for forest wood waste and how that could affect forest health. The court held that Ecology properly relied on the fact that the project would have to comply with myriad state and federal regulations that ensure that the removal of biomass from forests does not adversely affect forest lands or endangered species. The court also rejected PT Airwatchers’ argument that trees would be cut down solely for the purpose of providing fuel for the project because such practices were expressly prohibited by
the air quality permit approving project construction. Thus, Ecology “does not have to consider every conceivable environmental impact when making its threshold SEPA determinations,” particularly those that are prohibited by permit conditions.

III. Conclusion

In sum, the court’s decision was a victory for Port Townsend Paper and will provide guidance for other companies that are seeking to develop biomass cogeneration projects in Washington. And the decision may have impacts beyond biomass projects as the court held that project proponents need not prepare a detailed greenhouse gas emission inventory as part of the SEPA process so long as such emissions are fully evaluated. Other project developers will likely look to that holding as they prepare SEPA documents, and environmental nongovernmental organizations are certain to try to limit its applicability.

Dustin T. Till is a senior attorney at PacifiCorp in Portland, Oregon. The views expressed in this article are solely those of the author, and do not necessarily represent the views of, and should not be attributed to, PacifiCorp.

DETERMINING THE VALUE OF DISTRIBUTED GENERATION AND THE FUTURE ROLE OF NET METERING IN ARIZONA

Jason D. Gellman

In January 2014, the Arizona Corporation Commission (commission) opened up a new docket for the specific purpose of informing future commission policy on the value of distributed renewable generation (namely, photovoltaic systems on residential and commercial rooftops) and developing a method to value this resource. Implicated in that docket is the role of net metering and whether it undervalues or overvalues distributed generation’s (DG) contribution as an adequate and reliable resource that does not add undue stress to the larger transmission and distribution grid.

This article summarizes the first chapter in what will be a continuing examination of DG and renewable energy policy in Arizona by the commission. This examination will now likely proliferate among multiple dockets, including rate cases and resource planning. But the heart of the matter lies with determining a reasonable way to value DG—factoring in all relevant costs and benefits from a ratemaking perspective—in designing future rates to assess customers that are “just and reasonable.” In short, the commission adopted a temporary measure that only slightly calmed the tempestuousness of this debate that has attracted national attention.

The commission’s decision is one of the first of its kind, recognizing the intersection between a utility commission’s obligation to set “just and reasonable” rates and the broader policy implications of renewable resources and distributed solar energy in particular. On the one hand is evaluating costs for purposes of determining rates based on traditional and well-established methods; on the other hand is the desire to promote renewable energy and the deployment of DG (and residential and non-residential photovoltaic systems in particular). Ultimately, the question of how to value solar must be addressed within the confines of designing just and reasonable rates to relevant customer classes.
Background

In January 2013, the Arizona Corporation Commission ordered that technical conferences commence to evaluate the costs and benefits of distributed renewable generation (primarily residential rooftop photovoltaic generation) and net metering. This was at the suggestion of Arizona Public Service Company (APS) during deliberation of its then-current renewable energy implementation plan proposal. APS had or was about to reach compliance with the requirements contained within Arizona’s renewable energy standard. Further, renewable energy incentives (the rebates to residential and commercial customers) had rapidly declined over the past few years and were approaching zero. APS had emphasized that DG does not represent the least-cost means to achieve future annual renewable energy requirements, and noted the significant costs of DG. Per the commission’s order, APS was to hold the technical conferences.

In total, APS convened six sessions from February 21, 2013, through May 28, 2013. The range of participants varied widely from utilities to nonprofits to representatives from the distributed solar industry (including both photovoltaics and solar hot water heaters). But little, if any, consensus was reached on how to model the value of solar, what inputs to use, and how to quantify those values. APS updated its 2009 study, however, and soon filed an application to address the cost-shifting problem it noted with net metering several times in those technical conferences.

Specifically, APS highlighted that customers with distributed solar generation, such as photovoltaic systems on their rooftops, are not paying the fixed costs of the wires and infrastructure associated with providing service (including the transmission of excess energy from those systems back onto the electric grid). The solar industry made several filings objecting to APS’s filing. Nevertheless, the commission was able to parse through the noise and approve a temporary measure by a majority vote.

The Decision in Arizona: A Brief and Tentative Compromise

Decision No. 74202 essentially approved a “stopgap” measure to deal with the cost shift between those customers with distributed solar generation (DG customers) and those without it (non-DG customers). See http://images.edocket.azcc.gov/docketpdf/0000149849.pdf. That measure was to approve a $0.70 per kilowatt charge for all residential DG installations after December 31, 2013. This equals approximately $5 extra per month for a DG customer with an average-sized solar facility.

The commission indicated in its decision that it viewed two proposals as “especially helpful” in weighing the various views expressed—in determining what was in the public interest. These two proposals included one from the Utilities Division staff (UD staff) and one from the state consumer advocate (the Residential Utility Consumer Office or RUCO). UD staff’s proposal became known as the DG premium proposal. UD staff determined that DG customers should pay a premium based on the difference between acquiring solar capacity from a DG customer (i.e., at the customer retail rate) and acquiring the same capacity through a wholesale purchase power agreement (PPA) with a small one-to-five megawatt photovoltaic system interconnected at the sub-transmission level. Using the numbers provided largely by APS, UD staff determined that DG customers should pay a premium of $3.42 per kW.

RUCO’s proposal was described as establishing a market-based adjustor mechanism that links the value of DG to a defined set of market metrics. RUCO recognized a “value gap” between the benefits of DG and the cost shift to non-DG customers. As a result, it proposed a modest per-kW charge that could gradually increase over time to account for the gap. RUCO proposed tying its gradual phase-in proposal to market demand so as not to damage the number of DG installations. RUCO found that a cost shift exists but is mitigated by the benefits that DG provides. APS and other investor-owned utilities disagreed with the magnitude of the benefits.

The solar industry had significant concerns with both proposals. For instance, the magnitude of the charges, it proclaimed, would put an end to the solar industry (at least that is what they argued). Further, the solar industry disputed the assumption that the same benefits could be acquired by a one-to-five MW system interconnected at the sub-transmission level.
The solar industry expressed these concerns throughout the two-day open meeting that took place on November 13–14, 2013. That was the time when the commission took public comment, asked questions of the parties, and considered amendments to the proposed order issued by UD staff. In fact, the commission open meeting on this item lasted the full two days (public comment took one full day by itself). There, parties representing the solar industry first objected to any per-kW charge for DG customers going forward. Eventually, and despite their concerns regarding any per-kW charge, they negotiated with RUCO to jointly propose a $0.70 per-kW charge to the commission as a compromise. The commission approved the compromise charge that was the result of these negotiations and despite opposition from the regulated utilities that the charge was too low. Decision No. 74202 was formally issued December 3, 2013. The time to request rehearing elapsed with no party making that request. Thus, the decision is now a final order no longer subject to appeal. Even so, the decision marks only a temporary respite from the larger debate about net metering, as the commission opened a docket in January 2014 to further examine the value of DG and the role of net metering in establishing that value.

**Dissenting Opinions**
The commission decision was not unanimous. In fact, the resolution narrowly passed by a three-to-two margin. Two commissioners provided written dissents—a rare occurrence. Commissioner Gary Pierce indicated that the resolution addresses less than 10 percent of the cost-shift problem (adding less than $5 to what is closer to a $50-per-month cost shift). Commissioner Pierce highlighted his concern that the decision is merely “kicking the can down the road” instead of addressing the issue in a meaningful manner. Commissioner Brenda Burns echoed these sentiments, and noted that most of the analyses acknowledged that a fair price (the least expensive way to obtain rooftop solar benefits) justified approximately $21 per month for the DG customer with the typical 6.4 kW system. She also pointed out that “forcing” the utility to buy excess generation at a retail rate is not a “competitive way of doing business.”

**The Ratemaking Argument Addressed**
Several solar industry groups argued that imposing any charge in this proceeding violated Arizona law—specifically *Scates v. Ariz. Corp. Comm’n*, 118 Ariz. 531, 578 P.2d 612 (App. 1978). In that decision, the Arizona Court of Appeals held that rates must be based on fair value of the utility’s rate base, the utility’s overall operating costs, and produce a reasonable rate of return. The decision also outlined requirements for when an automatic adjustment clause (such as a fuel adjustor) is appropriate.

The industry argued that a full rate case was needed to determine APS’s revenue requirements and the cost to serve DG customers before imposing any per-kW charge or switching DG customers to a demand-based rate tariff. But the commission made specific findings to the contrary. In particular, the commission stated that *Scates* did not require a full rate case every time it changes rates, especially when the commission is merely adjusting the allocation of cost responsibility between DG customers and non-DG customers. In other words, the commission found the $0.70 per-kW charge to be a revenue neutral adjustment. The commission also stated that its adjustments were interim and subject to true-up in APS’s next full general rate case, which will likely be filed in 2015.

**Conclusion**
The debate over the value of distributed solar generation and whether and how net metering should continue is a complex, sometimes convoluted, and always a technical issue that implicates rate design and ratemaking. Arizona will not be the only jurisdiction dealing with this issue for years to come. Colorado and California are two other states where assessing the true value of distributed solar generation is ripe. Minnesota recently issued its “value of solar” decision on April 1, 2014, that tackles many of the same issues the Arizona Corporation Commission has and will be grappling with (a copy of that order is available at https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={FC0357B5-FBE2-4E99-9E3B-5CCFCF48F822}&documentTitle=2014-97879-01.)
The bottom line appears to be this: if DG customers are avoiding paying their fair share of the costs to serve them, including the necessary infrastructure to allow net metering to occur, then the cost shift is real and must be addressed. Even so, distributed renewable energy proponents will argue that the long-term benefits reduce the costs to serve and should be factored into the ratemaking process. Ultimately, the question of how to value solar is an issue that combines aspects of utility and energy law, economics, ratemaking, and rate design in particular.

In the meantime, Arizona Corporation Commission staff will hold additional workshops to “help inform commission policy on the value that DG installations bring to the grid”—including developing a means to assign DG values and non-monetized benefits of DG. It appears that much of what was discussed and argued during APS’s technical conferences in the first half of 2013 will likely be discussed and argued again in these proceedings. The first workshop has been scheduled for May 7, 2014, and has already occurred as of the writing of this article.

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**ESCOS: BUSINESS MODELS AND HARD LESSONS LEARNED**

**Michael J. Zimmer**

Energy service companies (ESCOs) were spawned in the United States during the 1980s and have assumed a worldwide market position in energy services using third-party financing. ESCOs use an army of fuels, technologies and IT, energy efficiency, renewables, and demand management to fashion a customer energy performance and management solution. Usually there are two basic business models built around energy performance contracting and energy supply contracting. Each business model has separate risk management, structuring, financing, regulatory, and tax consequences for the legal practitioner. Each model also offers different market attributes and limitations, risk management, and customer benefits for consideration.

Performance contracting and supply contracting are increasing with the shift from shared savings and a decline in bank lending in the United States since 2008. Increased market development of distributed solar power, new expectations for more public-private partnering in the military, university, hospital, and school (MUSH) markets, and the decline of leasing because of market and accounting reasons have also appeared. The U.S. General Services Administration is also advancing a case for federal buildings in the national capital region surrounding Washington, D.C., for example, construction has started with a third-party ESCO, under a $45 million contract with savings forecast at $3 million per year.

The energy supply contract has proven to be a robust business model for renewables (especially solar), combined heat and power (CHP), or waste heat recovery, but it is limited to supply-side efficiency and price savings. A new business model is emerging called integrated energy contracting that offers to combine performance savings with renewable energy supplies, providing more value to the purchasing customer.

The MUSH markets have been critical users of ESCO services reaching over 80 percent of the U.S. market demand for several decades. Private sector market...
acceptance has lagged but this is starting to change because of climate change mandates, increasing energy and power costs, demand reductions to avoid retail rates and rising interest in power quality, and resilience and infrastructure modernization. Energy supply contracting focuses on supplying useful energy in heat, steam, and electricity (preferably from renewables), cooling, and also energy storage strategies.

Measurement and verification centers on MWh delivered (or their equivalents) as you pay for outputs and not just fuel. This strategy offers a sound business model for renewables, CHP, or heat recovery, but is limited to supply-side efficiency.

Integrated energy service contracting (ESC) seeks to increase the savings potential of the ESC model by focusing on conservation first—as the best rate for an end-use customer to be paying is the avoidance of the customer’s own retail rate. ESCOs and project developers also are hoping conservation offers an opportunity to build on success in the ESC model to reach additional end-use customer markets. History has shown limited ESCO acceptance by private customers. Energy efficiency and renewables can be united into an integrated product that can be leveraged further with smart grids, microgrids, or energy storage in a more dynamic pricing market. Properly structured ESCs using effective contracting can decrease transaction, measurement, verification (MV), and operating costs. Finally, performance-based ESCOs can serve smaller projects more effectively in the marketplace and give them better energy management tools.

Smaller projects are being missed in the marketplace, and underserved or underfinanced where substantial market and energy savings potential exists. Individual project level financing does not exist for smaller residential, commercial, and small business retrofits for energy efficiency, resilience, or operating improvements. Contractor or vendor financing is not offered. Utility financing or on-billing payment is generally not authorized. Finally, institutional investors and lenders seek to avoid smaller projects with uncertain or difficult-to-measure revenue streams. This market failure misses major energy savings opportunities, does a disservice to small businesses, and fails to support the larger corporate supply chain.

In order to succeed, the ESC model needs to build on simplifying the business case and standardizing the form of contract used to one that is no different than a heat pump, furnace, or HVAC purchase order or a retail power marketing agreement. Look at the Con Ed Energy Solutions agreements for market guidance and a vision of the future for contract formation. The scope of savings in a complete building should be expanded to cover HVAC, user motivations, and also operating behaviors. Building core and shell measurement and verification savings calculations need to be simplified with quality assurance, as complexity only adds confusion, risk transfers, and lack of transparency in a newer and growing market. An accurate and transparent baseline is essential for a viable form of agreement. These requirements can all be addressed in exhibits attached to the core form of agreement by the practitioner.

Energy performance contracting and its business model are often driven by market requests for proposals from customers in requests for proposals (RFPs) or quotations (RFQs). Support is coming from energy engineers but more developers and facilitators are needed. The performance baseline becomes critical, needing accuracy, transparency, and real world performance data. The business model evolves for the ESCOs much like an engineering-procurement-construct (EPC) agreement for a contractor. All product and system costs are bid and a 20–25 percent markup is added for the interoperative wrap of risks and the one-stop performance benefit of dealing with a single contracting party for system and integrated operations performance shortfalls.

Facilitators are useful to match customers with ESCOs in all markets. These intermediary developers can undertake feasibility studies, structuring for capital acquisition, and procurement; tender documents; and assume responsibility for project and proposal escalators, vendor negotiations, and warranty coverage; form of ESCO agreements, MV, and quality assurance. Financing, risk management, and proper
legal documentation with experience support the developer.

In our work for decades in law practice, project development, project financing, and in federal/state regulatory policy review, the following lessons are shared with practitioners for successful ESCO development:

**Project Must Be Demand Driven.** Successful market development is demand driven for energy service contracting. Studies are not sufficient for market demands as thoughtfully crafted goals in RFPs and RFQs are more effective to initiate a contracting process. This market-demand focus ensures a commercial outcome, not an aspiring or academic goal moved solely by nongovernmental organizations or sponsors merely “studying a project to death.”

**Independent Developers Offer Value.** Best outcomes between ESCOs and the end-use customers occur if independent developers act as mediators. This helps secure better results for agencies and owners, and the costs can be recovered with clearer cost controls, objectivity, and transparency benefits in the financing for the project.

**Technical Assistance Helps.** Efficiency and renewables markets need technical assistance to foster smarter customers as consumers of ESCO services. Financing in the United States tends to favor certain technologies. Deeper risk profiles are assessed and covered through technical support to analyze increased equity, efficacy insurance, or vendor/contractor guarantees for systems performance.

**Customers Must Support the ESCO Process to Succeed.** For ESCOs to support and achieve their full potential, customers’ practices must improve their procurement practices and their reliance on standard contracting, and seek better coordination with operational, financial, and legal capacities with engineering, long-term financing, and budget outcomes. Collaboration rather than risk transfer led by an owner will foster better outcomes and a commercial partnering that supports a solutions orientation.

**Customer Leadership.** Voluntary or compliance-led interest fostered by the project/building owner contributes better focus and use of ESCO resources than merely cutting corners. Phasing of a project can satisfy challenging compliance and capital requirements and ensure that risk management is shared by the customer working with the ESCO.

**Energy Efficiency Opens the Door but Is Not the End Game.** Efficiency is not the driving force of the ESCO deal. It is a door opener, but the real needs of the customer are often deeper and can be discovered under probing inquiry. Shaving peak demand, modernization of aged infrastructure or equipment, waste heat, reliability, and power quality are issues that often exist and efforts to resolve will ensure fuller performance to serve the customer better in the calculus of the deal.

**ESCO Advantages and Value.** Focus on real projects, buildings that optimize investment decisions with project life-cycle costs to seek results and outcomes for the long term. ESCOs have substantial advantages when adding credit enhancement, performance guarantees or efficacy performance, and business interruption protection to manage risk and complete capital sourcing.

**Pick the ESCO for the Right Reasons.** The ESCOs’ core business is not financing. They really focus on technology performance and economics of a delivered energy service through a product or system governed by a proper form of contracting. ESCOs are not financiers, but payments to ESCOs must be secured.

**Flexibility Must Exist.** Energy contracting can be a flexible and modular energy package. The customer may blend that service with its own staff and outsourcing. That can add complexity, risk (if labor contracting at the project site exists), and performance, indemnification, and MV challenges in the contracting for a project. Contract provisions should allocate those risks created by flexibility to the requestor and the party in the best position to manage those challenges.

In conclusion, ESCOs offer integrated solutions with life-cycle benefits to achieve a guaranteed performance...
and result. They can add complexity but offer solutions that single-source approaches may not provide the owner. Standard business-as-usual cases may not work best in markets driven by mission, capital constraints and with applications, or needs for modernization. These customers require problem solving and more unique solutions in commercial and small businesses, and smaller industrials in the supply chain. Without ESCOs these markets may not access the technologies and capital to compete in U.S. and global markets.

Municipal ESCOs powered by system benefits charges imposed by electric utilities and state clean tech banks may be a separate future solution for socioeconomic, public sector and multifamily housing, and welfare health and hospital facilities. These public and social impact projects access capital less efficiently, and their nontaxable status limits project outcomes. Movement to public-private partnerships in the face of escalating public budget deficits and limitations may augur well for the municipal ESCO model in the future to internalize expertise, control capital costs, and lower operating costs.

New markets for ESCO services are also appearing for microgrids, demand management, ancillary services, and energy storage. These offer a bright future for ESCOs, international companies, and technology and IT companies seeking to contribute to the modernization of U.S. infrastructure and services to meet the markets of the 21st century.

**Michael J. Zimmer** has been a successful legal practitioner for almost 40 years and is past chair of the ABA RADER and Energy and Environmental Markets Committees from 2008 to 2012. He authored an article for the SEER Section newsletter in 2010 on ESCO. He is retired chair of Sphere-E, Inc., an energy solutions software company and is currently serving as Executive in Residence and Senior Fellow at the Voinovich School of Leadership and Public Affairs and the Russ College of Engineering at Ohio University. Since 2013 he has also served as Washington counsel to the Microgrid Institute.

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**A RENEWABLE MILITARY: CHANGING THE ENERGY PARADIGM IN THE ARMED FORCES**

**Eric Wilber**

Army Strong . . . and green? Slowly and quietly, the U.S. Armed Forces have positioned themselves at the forefront of adoption of renewable energy by developing systems on military bases across the country, thanks in part to working with private industry and ambitious targets set by Congress and President Obama. But, this widespread adoption of renewables is far from a liberalization of the military; it is designed to strategically place all of the military services on solid energy footing, while reducing their reliance on foreign fossil fuels and insuring themselves against attacks on the energy grid. Most military installations have buffer property to protect vital functions from outside intrusion, which can be perfect for solar and biomass system installation on land that would otherwise have no use.

That is not to say that there are not challenges ahead for the Department of Defense (DoD) as it strives to meet its goals. This adoption has come slowly due to procurement and financing issues, and in a fiscally constrained post-war defense budget, the challenges will continue. However, recently, the American Council on Renewable Energy (ACORE) published a report highlighting the efforts of the services in renewable energy and suggesting ways to move forward in a challenging budget environment. *Renewable Energy for Military Installations: 2014 Industry Review*, ACORE (Feb. 2014) (hereinafter ACORE Review), available at http://acore.org/files/pdfs/Renewable-Energy-for-Military-Installations.pdf. Having worked for the Air Force on renewable energy development myself, I have seen up close both the challenges and opportunities that the armed forces can create for a greener tomorrow.

**Why Renewable Energy?**

For a military hardened by over a decade of war, it seems strange to some that the military would be making investments in green energy. However, it comes down to a strategic choice made by Congress, the
The military also has large swaths of land set aside here at home for self-defense and training purposes, but those installations themselves can be vulnerable to an attack due to their reliance on the commercial electricity grid. In the event of a power outage caused by a natural disaster, a cyber attack, or grid overload, mission critical operations could be impeded or destroyed. Therefore, the military has realized it is critical to look at renewable energy as not only good for the environment, but also because it “improves resilience and thus mission readiness.” Id.

Congress recognized this vulnerability in the Energy Policy Act of 2005 and subsequent National Defense Authorization bills. Perhaps the most important legal prod that Congress gave to the military to develop renewable energy came in 2011, creating a mandate that DoD submit energy performance goals for installations across the country and the world and develop a master plan for how to meet ambitious energy goals. 10 U.S.C. § 2911. This law set a target of 25 percent of the total quantity of electricity consumed by its facilities to use renewable energy sources by 2025, and to procure energy from renewable sources whenever possible. Id. § 2911(e). Additionally, in 2012, President Obama set an additional goal for the military to deploy at least three gigawatts of renewable energy from wind, solar, biomass, and geothermal on Army, Air Force, and Navy installations by 2025. ADMINISTRATION OF BARACK OBAMA, FACT SHEET: OBAMA ADMINISTRATION ANNOUNCES ADDITIONAL STEPS TO INCREASE ENERGY SECURITY (Apr. 11, 2012), available at http://www.whitehouse.gov/the-press-office/2012/04/11/fact-sheet-obama-administration-announces-additional-steps-increase-ener. Since then, the Air Force has committed to the 25 percent of total energy use to be from renewable sources and has pledged to deploy one gigawatt of on-site capacity by 2016, and the Army has pledged to deploy one gigawatt by 2025. ACORE Review, at 5.

How Does the Military Develop Renewable Energy?

Even though DoD has technically had authority to enter into energy contracts for energy production facilities for a number of years, it was not until 2011 that the practice became widespread. See id. at 6. The law allows the military services to enter into contracts for the “provision and operation of energy production facilities on real property” under their jurisdiction for up to 30 years, as long as it is approved by the Secretary of Defense. 10 U.S.C. § 2922a. It is under this provision that DoD and the military services have been able to begin to meet the goals set forth by Congress and the president, since it allows the services to use a power purchase agreement to buy the power from these on-installation renewable systems.

The Army believes this authority is adequate assurance to contractors and their financers to promote development. Robert Tritt, The Army’s $7 Billion Renewable Energy Contracts, ALTERNATIVE ENERGY EMAGAZINE (June 2012), available at http://www.altenergymag.com/emagazine/2012/06/the-armys-7-billion-renewable-energy-contracts/1901. However, the Air Force is not convinced, as all federal contracts must have a clause allowing for termination at the government’s convenience and the removal of the system from government property, and these utility contracts are no exception. See 48 C.F.R. § 49.101. Therefore, the Air Force is increasingly using separate statutory authority to provide leases to renewable energy developers, which do not depend on the continuing utility contract in order to better protect developers. These outgrants, or leases for the use of military property that are commonly referred to as “enhanced use leases,” can be done with approval of each service on property not currently needed; any
lease for more than five years must be approved by the Secretary after determining it is in the public interest. 10 U.S.C. § 2667. Used in conjunction with utility contracts, these leases can provide much needed stability so that developers can get financing for the projects, and ensures the continuing private operability of the systems even if the utility contract is terminated.

However, this is far from a simple process, which requires immense coordination within the service, with DoD, and with Congress if the lease has an estimated annual rental value of more than $750,000 under 10 U.S.C. § 2662. Obviously, DoD wants to ensure that its land will be used properly, and therefore it carefully considers these contracts/leases under their coordination authority. This is especially true due to controlling access to the military installations since one of the main reasons for on-site production is the vulnerability to attack. This coordination process can lead to long delays, especially if the lease and contract have different provisions, which often happens due to the standard form nature of these documents. These delays can hamper development because per DoD policy, approval by the Secretary can only come between when a contract has been agreed to, but before it is actually awarded. Memorandum from Deputy Undersecretary of Defense, Financing of Renewable Energy Projects Policy 5 (Nov. 9, 2012), available at http://www.acq.osd.mil/ie/energy/library/Policy_Financing%20of%20Energy%20Projects%209Nov2012.pdf. This means that many times contractors must wait impatiently while the package is being considered. Therefore, the Air Force has been carefully crafting these documents to speak to each other, especially in the case of the utility contract terminating while the lease of the property itself is still in effect.

Even with several projects in the pipeline, development is not keeping up to meet the ambitious goals that are quickly coming due. It is crucial that DoD and services work together to come up with standard language to address these issues of base access. Additionally, the current process of patchwork statutes that are being used to develop these systems creates delays because of incongruent requirements, with some authority being given to the service’s Secretary, while others to the Secretary of Defense. If Congress is serious about the development of on-site renewables on military installations, it should take a look at the realities of how the services are using the statutory authority and aligning 10 U.S.C. §§ 2662, 2667, and 2922 for consideration and approval. This is not to say that the process should be overly rushed to develop renewables, since national security and the security of our service members are at stake; however, a thoughtful yet consistent approach is key to delivering on the goals already set out by Congress and the president.

Conclusion

The development of renewable systems on military installations across the country is vital to the continued ability of our military to protect our country and ensure continued operations in case of an attack or natural disaster. The services are doing all they can to meet the goals given to them, but more needs to be done to streamline the process for development and create uniformity for all involved in the development process.

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