

## A Shift in the Wind: The Siting of Wind Power Projects on Public Lands in the Obama Era

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Wind energy production in the United States skyrocketed in the first decade of the twenty-first century. Capacity for wind-generated electricity in the United States increased by a factor of *fourteen*—from just under 2500 megawatts (MW) at the turn of the millennium to over 35,000 MW at the beginning of 2010.<sup>1</sup> The United States propelled past Germany as the world's leading wind-harnessing nation in 2008,<sup>2</sup> and more capacity was added in this country from wind energy in 2009 than from any other source except natural gas.<sup>3</sup> American wind turbines currently supply enough electricity to meet the demands of roughly eight to eleven million American households.<sup>4</sup> As the American Wind Energy Association (AWEA) touts, “[w]ind energy is no longer a boutique energy source. It is

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1. See AM. WIND ENERGY ASS'N, AWEA YEAR END 2009 MARKET REPORT 1–2 (2010) [hereinafter 2009 MARKET REPORT], available at <http://www.awea.org/learnabout/publications/reports.cfm>; U.S. Cumulative Installed Wind Power Capacity and Annual Addition, 1980–2009, EARTH POLICY INST., [http://www.earth-policy.org/datacenter/xls/indicator10\\_2010\\_4.xls](http://www.earth-policy.org/datacenter/xls/indicator10_2010_4.xls); U.S. Installed Wind Capacity and Wind Project Locations, U.S. DEP'T OF ENERGY, [http://www.windpoweringamerica.gov/wind\\_installed\\_capacity.asp](http://www.windpoweringamerica.gov/wind_installed_capacity.asp) [hereinafter U.S. Installed Wind Capacity]. This tremendous growth in wind energy is unparalleled in American history: total installed wind capacity in the United States did not even double in the decade leading up to 2000. See EARTH POLICY INST., *supra*.

2. AM. WIND ENERGY ASS'N, ENERGY BASICS (Feb. 2009), [http://archive.awea.org/newsroom/pdf/wind\\_energy\\_basics.pdf](http://archive.awea.org/newsroom/pdf/wind_energy_basics.pdf) [hereinafter ENERGY BASICS]. Just a few years earlier, Germany—a country with less than 5% the land mass of the United States and a “fraction of its wind resource”—had enjoyed more than twice the wind capacity of the United States. See Wilson Rickerson, *German Renewable Energy Feed in Tariffs Policy Overview*, WIND-WORKS.ORG (July 2002), <http://www.wind-works.org/FeedLaws/Germany/GermanyRickerson.html>.

3. The amount of wind energy installed in 2009 fell just short of the amount of new natural gas installations. Press Release, Am. Wind Energy Ass'n, U.S. Wind Energy Industry Breaks All Records, Installs Nearly 10,000 MW in 2009 (Jan. 26, 2010), [hereinafter Press Release, Am. Wind Energy Ass'n] available at [http://www.awea.org/newsroom/pressreleases/Release\\_012610.cfm](http://www.awea.org/newsroom/pressreleases/Release_012610.cfm).

4. According to industry figures, one MW of installed wind energy can generate between 2.4 and 3 million kilowatt-hours each year, enough to power 225 to 300 homes. Resources: *Wind Energy Basics*, AM. WIND ENERGY ASS'N, [http://archive.awea.org/faq/wwt\\_basics.html](http://archive.awea.org/faq/wwt_basics.html). The estimated figures were reached by dividing the current wind energy capacity by both 225 and 300. Note that, following a sluggish first half of 2010, total wind capacity increased by 1239 MW to 36,339 MW. See Press Release, Am. Wind Energy Ass'n, Wind Power Sinks Back to 2007 Levels with Only 700 MW Installed in Second Quarter (July 27, 2010), [http://archive.awea.org/newsroom/releases/07-27-10\\_AWEA\\_Market\\_Report.html](http://archive.awea.org/newsroom/releases/07-27-10_AWEA_Market_Report.html) [hereinafter Press Release, Wind Power Sinks Back to 2007 Levels].

mainstream and deployable immediately on a wide scale. We do not need to wait for a new energy future. It is here.”<sup>5</sup>

While overall production of wind energy has ballooned, the amount of electricity produced on the vast swaths of wind-rich public lands<sup>6</sup> in the American West has barely budged. By early 2000, the U.S. Department of the Interior’s Bureau of Land Management had approved right-of-ways (ROW) for the development of 278 MW of wind energy on public lands.<sup>7</sup> In the decade that followed, the total amount of wind energy approved by the BLM barely doubled, to 576 MW, and a significant portion of that total (139 MW) still has not yet been constructed.<sup>8</sup> As a percentage of total installations nationwide, the amount of wind energy on public lands plummeted from 11.2% at the turn of the millenium to 1.2% at the start of 2010.<sup>9</sup> The public lands managed by the BLM account for one-fifth

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5. *Energy Development on Public Lands and the Outer Continental Shelf: Hearing Before the S. Comm. on Energy and Natural Resources*, 111th Cong. 99 (2009) [hereinafter *Hearing*] (statement of the American Wind Energy Association).

6. Unless otherwise noted, “public lands” will be used throughout this Note to describe the federal public lands managed by the Bureau of Land Management (BLM).

7. Bureau of Land Mgmt., BLM Existing Wind Energy Development Projects [hereinafter BLM Existing Wind] (on file with author). This source provides information (acreage, location, date of ROW, amount of MWs) on every wind project approved by the BLM. Apparently, this table was mistakenly omitted from the transcript of a recent committee hearing. See *Hearing*, *supra* note 5, at 86 (written testimony of Ken Salazar, Secretary of the Interior) (referring to an “attached table” that is not included in the publicly released transcript). Because this information does not appear to be otherwise available, I sought out and received the table in PDF format from David Quick, a public liaison at the BLM. The figures in the table match Secretary Salazar’s written testimony at the hearing regarding the number, location, and production capacity of wind projects approved by the BLM. See *id.* The figures also match the installed capacity total provided by a fact sheet on the BLM website and were confirmed to be up-to-date as of September 29, 2010 by a public affairs official at the BLM. See E-mail from David Quick, BLM Pub. Affairs, to Eric S. Spengler (Sept. 29, 2010, 3:30 EST) (on file with author) [hereinafter E-Mail from David Quick]; *Renewable Energy and the BLM*, BUREAU OF LAND MGMT., [http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS\\_REALTY\\_AND\\_RESOURCE\\_PROTECTION\\_/energy/renewable\\_references.Par.95879.File.dat/2010RenewableEnergyheaded.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION_/energy/renewable_references.Par.95879.File.dat/2010RenewableEnergyheaded.pdf) [hereinafter *Renewable Energy and the BLM*].

8. See BLM Existing Wind, *supra* note 7; see also *Renewable Energy and the BLM*, *supra* note 7 (accounting for only 437 MW of installed wind energy capacity on BLM lands). The 139 MW of uninstalled capacity can be traced to the Cotterel Wind Power Project. The BLM granted an ROW on August 15, 2006 for the 4545-acre proposed wind farm near Burley, Idaho. See BLM Existing Wind, *supra* note 7. The project has been delayed by the inability of the developer to secure a power purchase agreement from Idaho Power after the company’s initial bid was rejected. E-mail from Twinkle Thompson-Seitts, Designated Fed. Officer, Bureau of Land Mgmt., to Eric S. Spengler (Dec. 2, 2009, 12:27 EST) (on file with author). As of September 2010, the wind developer’s website suggested that a power purchase agreement had not yet been reached, nor had construction commenced. *Projects: Cotterel Mountains*, WINDLAND, [http://www.windland.com/Projects\\_Cotterel\\_Mountain.aspx](http://www.windland.com/Projects_Cotterel_Mountain.aspx) (“The power generated from the project could be sold to a number of off takers, the most likely of which is Idaho Power.”).

9. The 278 MW of wind energy approved by the BLM by the end of 1999 is equivalent

of the country's landmass<sup>10</sup> but now support a paltry fraction of wind energy supply.

This Note will discuss the legal hurdles that stand in the way of wind energy development on public lands in the American West, focusing both on public land-use policies and on the incentive structures created by tax credits. In short, lengthy delays in the BLM permitting process—in conjunction with ineffectual and haphazard tax credits—have created a perfect storm for lackluster wind energy development on public lands. Given these barriers, it should come as little surprise that the potential to build a green energy economy on public lands has not yet been fully realized.

The discussion on land-use policies in this Note centers on the siting of wind turbines, one of a handful of critical issues to the widespread deployment of wind energy. Indeed, a recent report issued by the Department of Energy identifies siting as one of four major challenges to achieving 20% wind energy by 2030.<sup>11</sup> By providing an account of recent developments,<sup>12</sup> this Note should serve as a useful

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to 11.2% of total domestic capacity at that time (2472 MW). *See* BLM Existing Wind, *supra* note 7; *U.S. Installed Wind Capacity*, *supra* note 1. By the end of 2009, the amount of wind energy approved and installed (or under construction) on public lands increased to 437 MW, or 1.2% of the 35,159 MW total installed wind capacity in the United States. *See* 2009 MARKET REPORT, *supra* note 1; BLM Existing Wind, *supra* note 7. For comparison purposes, the amount of oil produced on public lands accounts for approximately 8% of total domestic onshore oil production: the federal government received royalties for 108.8 million barrels of federal onshore oil produced in fiscal year 2008, equal to roughly 8% of the total domestic onshore production of 1.366 billion barrels in 2008. *See Federal Onshore Reported Royalty Revenues: Fiscal Year 2008*, MINERAL MGMT. SERVS., [http://www.onrr.gov/ONRRWebStats/Disbursements\\_Royalties.aspx?report=FederalOnshoreReportedRoyaltyRevenues&yeartype=FY&year=2008&datatype=AY](http://www.onrr.gov/ONRRWebStats/Disbursements_Royalties.aspx?report=FederalOnshoreReportedRoyaltyRevenues&yeartype=FY&year=2008&datatype=AY); *Crude Oil Production*, U.S. ENERGY INFO. ADMIN., [http://tonto.eia.doe.gov/dnav/pet/pet\\_crd\\_crpdn\\_adc\\_mbbbl\\_a.htm](http://tonto.eia.doe.gov/dnav/pet/pet_crd_crpdn_adc_mbbbl_a.htm) (figures calculated by the author by subtracting federal and state off-shore production from total domestic production).

10. *See, e.g., First Order of Business: Interior Secretary Makes Renewables a Priority*, WIND ENERGY WKLY., AM. WIND ENERGY ASS'N (Mar. 13, 2009) [hereinafter *First Order of Business*], available at [http://archive.awea.org/newsroom/pdf/Secretary\\_First\\_Order\\_13Mar09.pdf](http://archive.awea.org/newsroom/pdf/Secretary_First_Order_13Mar09.pdf).

11. U.S. DEP'T OF ENERGY, 20% WIND ENERGY BY 2030: INCREASING WIND ENERGY'S CONTRIBUTION TO U.S. ELECTRICITY SUPPLY 20 (2008) [hereinafter 20% WIND ENERGY BY 2030], available at <http://www.nrel.gov/docs/fy08osti/41869.pdf> (“[E]fficient, streamlined procedures” for siting will be needed to “enable installation rates in the range of [16,000 MW] per year.”). The other three challenges cited in the report are (1) transmission systems to deliver wind energy to urban centers, (2) larger electric load balancing to address the intermittency of wind, and (3) technological advancements to reduce costs and improve turbine performance. *Id.* at 14. Of these issues, transmission is particularly important: “We have to connect the sun of the deserts and the wind of the plains with the places where people live.” *Hearing*, *supra* note 5, at 93 (written testimony of Ken Salazar, Secretary of the Interior).

12. All assertions in this Note should be accurate as of January 1, 2011. Accordingly, the Note does not include a discussion of the initiatives announced by Secretary Salazar in February 2011 designed to facilitate the efficient siting of wind energy projects on public lands. *See* Press Release, Dep't of the Interior, Salazar Announces Additional Steps Toward Smarter Development of Renewable Energy on U.S. Public Lands (Feb. 8, 2011), available

guide to the future of wind energy on public lands under the Obama Administration.

Part I makes the case for wind energy and, more specifically, wind energy on public lands. Part II explores the historical underperformance of public lands in wind energy production. Parts III and IV document the challenges to wind development on BLM lands, addressing public land-use policies and federal tax incentives, respectively. Part V discusses the “shift in the wind” occasioned by the Obama Administration. The Note closes in Part VI with policy proposals for additional reforms, recognizing that land-use and tax policies must work in concert to achieve widespread deployment of wind energy on public lands.

### I. THE NEED FOR WIND ENERGY AND THE ROLE OF PUBLIC LANDS

In an era of mounting concern for global climate change, the United States government should pursue policies that encourage the sustained growth of wind and other renewable energy systems. Achieving 20% wind energy by 2030 would displace almost a billion tons of greenhouse gas emissions.<sup>13</sup> Such an accomplishment also has the potential to provide a stable domestic energy source immune from wide fluctuations in price; create a new source of income for rural landowners and communities; rejuvenate the American manufacturing base; and reduce water use in the electricity sector, an issue of particular importance in the arid West where almost all BLM lands are located.<sup>14</sup> Megawatt-for-megawatt, the amount of land disturbed by wind turbines is “minimal” when compared to traditional energy sources,<sup>15</sup> and wind energy is the most cost competitive of the renewables—cheaper than solar, biomass, and hydroelectric power.<sup>16</sup> The gains already achieved by the relatively small amount of wind energy in the United States are both tangible and astounding: displacing the more than 35,000 MW of current wind energy capacity with fossil fuels would require over fifty million tons of coal each year—equal to a line of trucks stretching more than 19,000 miles.<sup>17</sup>

The vast resource potential of public lands will be critical to the transition of the United States toward a green energy economy. The BLM manages 174.9 million acres of land in the contiguous United States, 99.8% of which are located in eleven

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at <http://www.doi.gov/news/pressreleases/Salazar-Announces-Additional-Steps-toward-Smarter-Development-of-Renewable-Energy-on-US-Public-Lands.cfm>.

13. See 20% WIND ENERGY BY 2030, *supra* note 11, at 13. For a comprehensive discussion of the benefits (and drawbacks) of wind power, see Ronald H. Rosenberg, *Diversifying America's Energy Future: The Future of Renewable Wind Power*, 26 VA. ENVTL. L.J. 505, 522–32 (2008).

14. 20% WIND ENERGY BY 2030, *supra* note 11, at 13; see also *infra* note 18 and accompanying text.

15. U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., FINAL PROGRAMMATIC IMPACT STATEMENT ON WIND ENERGY DEVELOPMENT ON BLM-ADMINISTERED LANDS IN THE WESTERN UNITED STATES 6-21 (2005) [hereinafter WIND PEIS], available at <http://windeis.anl.gov/documents/fpeis/index.cfm>. Similarly, wind power production disturbs less land than solar and geothermal energy. *Id.* at 6-22 tbl.6.4.2-1.

16. Christopher E. Cotter, Comment, *Wind Power and the Renewable Portfolio Standard: An Ohio Analysis*, 32 U. DAYTON L. REV. 405, 408 (2007).

17. Cf. ENERGY BASICS, *supra* note 2 (providing analogous figures for when wind capacity was at 21,000 MW).

Western states.<sup>18</sup> BLM lands encompass “prime wind locations”<sup>19</sup> and boast some of the “highest renewable energy potential in the nation.”<sup>20</sup> The importance of public lands to wind development extends beyond the millions of acres of BLM land; it is common for wind energy projects sited on public lands to incorporate nearby private lands.<sup>21</sup>

The attractiveness of public lands for wind development can be attributed to “resource characteristics uniquely available on the federal public lands.”<sup>22</sup> As environmental lawyer David Lazerwitz aptly notes, utility-scale wind energy projects typically require, among other things, “large, open, and generally level, undeveloped tracts” of land up to 50,000 acres in size.<sup>23</sup> This requirement and others can be found “in abundance on the federal public lands in the West, lands that remain largely undeveloped, crossed with major utility transmission lines, and recognized as containing the highest density of . . . wind resources in the United States.”<sup>24</sup>

Experts and policymakers have started recognizing the important role of public lands in a green energy economy. Shortly after President Barack Obama’s inauguration, the Senate Committee on Energy and Natural Resources held a hearing dedicated largely to renewable energy development on public lands.<sup>25</sup> As the Director of the National Renewable Energy Laboratory testified, it has become “increasingly clear that Federal lands are one of the keys to realizing the true potential of the vast resources of renewable energy.”<sup>26</sup> The same position has been articulated in more dramatic terms by Secretary of the Interior Ken Salazar, who concluded that the answer to “repower[ing] America” lies “where no one before has thought to look: in the vast deserts, plains, forests and oceans that belong to

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18. The eleven Western states house all but 388,056 of the 174,884,240 acres of BLM land in the contiguous United States. See U.S. DEP’T OF THE INTERIOR, BUREAU OF LAND MGMT., LAND RESOURCES AND INFORMATION tbl.1-4 (2009) [hereinafter LAND RESOURCES AND INFORMATION], available at [http://www.blm.gov/public\\_land\\_statistics/resources.htm](http://www.blm.gov/public_land_statistics/resources.htm). Hereinafter, “eleven Western states” will be used in this Note to refer to Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

19. Rosenberg, *supra* note 13, at 534.

20. *First Order of Business*, *supra* note 10.

21. The list of such public-private partnerships includes, among others: the Wyoming Wind Project and the wind energy projects near Palm Springs, California, WIND PEIS, *supra* note 15, at 2-28 to -29; the Milford Wind Project in Utah, see BLM Existing Wind, *supra* note 7; the Chokecherry and Sierra Madre Wind Energy Project in Wyoming, see *infra* note 114 and accompanying text; and the China Mountain Wind Project in Idaho, Notice of Intent to Prepare an Environmental Impact Statement for the Proposed China Mountain Wind Project, 73 Fed. Reg. 21,362 (Apr. 21, 2008).

22. David J. Lazerwitz, *Renewable Energy Development on the Federal Public Lands: Catching Up with the New Land Rush*, 55 ROCKY MTN. MIN. L. INST. § 13.01, § 13.02(1)(c) (2009).

23. *Id.*

24. *Id.*

25. *Hearing*, *supra* note 5.

26. *Id.* at 43 (statement of Dan Arvizu).

every American but which, until now, have largely been unexplored for their vast renewable energy potential.”<sup>27</sup>

Although not a “silver bullet,” federal land management policies that facilitate the responsible siting of wind farms will be necessary to achieve 20% wind by 2030.<sup>28</sup> The path to 20% wind calls for an “ambitious” growth scenario in which annual wind installations increase steadily to a peak rate of 16,000 MW in 2018—over 6000 MW more than was installed even in the record-setting year of 2009.<sup>29</sup> The United States must shed its previous indifference to accommodate this huge amount of growth. Achieving 20% wind will depend, in no small part, on the production of clean, renewable wind energy on public lands.

## II. THE HISTORICAL UNDERPERFORMANCE OF PUBLIC LANDS

Wind energy production on public lands has inched along at a lethargic pace since the first development permit was granted in December 1982.<sup>30</sup> Although the BLM has approved a total of twenty-eight wind projects in five states,<sup>31</sup> these figures are potentially misleading, as many of the ROWs approved wind farms that were small in size, constructed decades ago, or geographically concentrated. More specifically, of the twenty-eight ROWs issued by the BLM for wind projects, nineteen authorized wind farms smaller than fifteen MW; seven of the remaining nine ROWs went to projects of forty MW or less.<sup>32</sup> Half of the ROWs were issued between 1982 and 1987, and almost all wind power on public lands—twenty-four of the twenty-eight ROWs—has been installed on land managed by two isolated BLM field offices in California.<sup>33</sup> Stated otherwise, there are 8.3 million acres and 16.1 million acres of BLM land in Colorado and Oregon, respectively,<sup>34</sup> but *not one* of the 1246 MW and 1758 MW of wind energy produced in either state comes from public lands.<sup>35</sup>

Public lands underperform their private counterparts no matter how one dissects the data. For instance, BLM lands come up short even if the analysis is restricted to the eleven Western states in which almost all BLM land is located: the BLM

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27. Ken Salazar, Secretary, Dep’t of the Interior, Remarks to the American Wind Energy Association (May 5, 2009), *available at* [http://www.doi.gov/news/speeches/2009\\_05\\_05\\_speech.cfm](http://www.doi.gov/news/speeches/2009_05_05_speech.cfm).

28. *Hearing*, *supra* note 5, at 99 (statement of the American Wind Energy Association).

29. 20% WIND ENERGY BY 2030, *supra* note 11, at 7 fig.1-4 (future targets); Press Release, Am. Wind Energy Ass’n, *supra* note 3 (2009 figures). Twenty percent of electricity supply in 2030 is estimated to equal 300,000 MW. 20% WIND ENERGY BY 2030, *supra* note 11, at 2.

30. *See* BLM Existing Wind, *supra* note 7.

31. *Hearing*, *supra* note 5, at 86 (written testimony of Secretary Salazar). The five states are Arizona, California, Idaho, Utah, and Wyoming. *Id.*

32. BLM Existing Wind, *supra* note 7.

33. *Id.*

34. LAND RESOURCES AND INFORMATION, *supra* note 18, at tbl.1-4.

35. *Compare* 2009 MARKET REPORT, *supra* note 1, at 4 (providing state-by-state wind installation totals), *with* BLM Existing Wind, *supra* note 7 (listing all wind projects approved by the BLM by location).

manages 23.2% of the land mass of the eleven Western states,<sup>36</sup> but only 4.2% of the corresponding wind energy is harnessed on said public lands.<sup>37</sup> The numbers are even less favorable when United States Forest Service (USFS) lands are added to the equation: the USFS manages 21.2% of the eleven Western states but oversees the production of no wind energy.<sup>38</sup> In essence, the BLM and USFS together manage nearly half (44.4%) of the land but contribute only 4.2% of the wind energy in the eleven Western states.

Any limited wind energy development that was occurring on public lands seems to have stalled in the 2000s. In fact, the BLM under President Bill Clinton issued more ROWs for wind energy development than did the BLM under President George W. Bush, even though overall demand and technology for wind energy increased at a much faster pace during the Bush years.<sup>39</sup> In essence, the rate at which the BLM issued ROWs for wind energy on public lands *decreased* from President Clinton to President Bush at the same time that overall wind production *increased* exponentially. Only three ROWs were issued by the BLM under the Bush Administration after 2002,<sup>40</sup> suggesting that processing times for wind development applications were exceedingly long. Note that the Bush Administration did not oppose *all* energy production on public lands: new oil and gas wells were drilled on BLM lands under the Bush Administration at nearly twice

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36. The BLM manages 272,635 square miles (174.5 million acres) of land in the eleven Western states, LAND RESOURCES AND INFORMATION, *supra* note 18, at tbl.1-4, equal to 23.2% of the 1,174,578 total square miles of land in these states, *see State and County Quick Facts*, U.S. CENSUS BUREAU, <http://quickfacts.census.gov/qfd/index.html>.

37. All of the 437 MW of installed wind energy capacity on public lands are found in the eleven Western states. *See* BLM Existing Wind, *supra* note 7. At the end of 2009, the total wind energy capacity of the eleven Western states equaled 10,284 MW. *See* 2009 MARKET REPORT, *supra* note 1 (providing state-by-state totals).

38. *See* *Hearing*, *supra* note 5, at 86 (written testimony of Secretary Salazar) (explaining that no wind development projects exist on USFS lands); *Areas by State*, U.S. FOREST SERV. (Nov. 18, 2008), [http://www.fs.fed.us/land/staff/lar/2008/TABLE\\_4.htm](http://www.fs.fed.us/land/staff/lar/2008/TABLE_4.htm) (showing land distribution of USFS by state). The lack of any wind projects on USFS lands has been attributed to agency regulations that are viewed as critically flawed. *See* *Hearing*, *supra* note 5, at 100 (statement of American Wind Energy Association). The activities of the USFS lie outside the scope of this Note, which will focus exclusively on the actions of the Department of the Interior and, more specifically, the BLM.

39. The BLM under the Clinton Administration issued eight ROWs totaling 97 MW; the BLM under the Bush Administration approved only five ROWs totaling 149 MW of installed wind (and another 139 MW that still has not been constructed three years after it was approved). *See* BLM Existing Wind, *supra* note 7. Because wind energy technology has improved dramatically during this period, *see* ENERGY BASICS, *supra* note 2 (stating that new wind turbines generate 120 times as much electricity as wind turbines from the 1980s at one-fourth the cost), it is unremarkable that total MWs installed on public lands increased more under the Bush Administration.

40. *See* BLM Existing Wind, *supra* note 7. Judging by the typical length of National Environmental Policy Act (NEPA) review, *see* *infra* notes 76–81 and accompanying text, the applications approved before 2002 were likely initiated under the Clinton Administration.

the rate as under the Clinton Administration, even as total domestic oil production on all American land decreased by almost a third over the same period.<sup>41</sup>

The BLM now finds itself behind schedule to meet the goal of 10,000 MW of nonhydropower renewable energy projects on public lands by 2015, as established in the Energy Policy Act of 2005.<sup>42</sup> Secretary Salazar estimated in May 2009 that almost 1400 MW of new wind capacity would be approved and ready for construction on public lands by the end of 2010.<sup>43</sup> The BLM later identified seven “wind fast-track projects” totaling 800 MW “that could be approved by the end of 2010,” but even this downward revised projection turned out to be overly optimistic.<sup>44</sup> Clearly, the Department of the Interior will have to redouble its efforts in the coming years if it is to reach the target set by Congress.<sup>45</sup>

It is important to note that the disappointing figures for public lands stand in sharp contrast to the overall pace of wind production. Believe it or not, the United States was *ahead of schedule* to achieve 20% wind energy by the year 2030: the nearly 10,000 MW of wind energy installed in 2009 far exceeds the goal of around 4000 MW for that year and more closely approximates the target for the year 2013.<sup>46</sup> Although figures for new wind installations in the first half of 2010 lagged far behind the historic levels of 2009,<sup>47</sup> the gap in the outlook for wind energy on private versus public lands remains substantial. The lack of large-scale wind development on public lands reflects impediments *unique to public lands*.

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41. See MICHELLE HAEFELE, PETE MORTON & NADA CULVER, *THE WILDERNESS SOCIETY, NATURAL DIVIDENDS: WILDLAND PROTECTION AND THE CHANGING ECONOMY OF THE ROCKY MOUNTAIN WEST* 5–6 (2007), available at <http://wilderness.org/files/Natural-Dividends-Wildland-Protection.pdf> (calculating that fewer than 9500 wells were drilled on BLM lands in the Rockies between 1995 and 2000 compared to 17,000 wells between 2001 and 2006). Total onshore domestic oil production decreased by 32.5% during the same time period—from 1.838 billion barrels in 1995 to 1.241 billion barrels in 2006. See *Crude Oil Production*, *supra* note 9 (figures calculated by the author by subtracting federal and state off-shore production from total domestic production). The increase in oil and gas leases on public lands under President Bush has been criticized by some environmentalists as “hyper-aggressive.” Robert B. Keiter, *Breaking Faith with Nature: The Bush Administration and Public Land Policy*, 27 J. LAND RESOURCES & ENVTL. L. 195, 202 (2007) (going so far as to call the increase in oil and gas production a “lease blitzkrieg”).

42. Pub. L. No. 109-58, 119 Stat. 594 (codified in scattered sections of 26 U.S.C. and 42 U.S.C.).

43. Salazar, *supra* note 27.

44. *Renewable Energy and the BLM*, *supra* note 7; see also *infra* notes 168–75 and accompanying text (discussing the fast-tracked projects in greater detail).

45. Note that public lands currently do not support any solar energy projects that would supplement the meager wind energy totals, see *Hearing*, *supra* note 5, at 86 (written testimony of Secretary Salazar), although several large-scale solar farms are nearing the start of construction on public lands. The final environmental impact statements (EISs) were recently released for three solar farm projects. See *Fast-Track Renewable Energy Projects*, U.S. DEP’T OF THE INTERIOR, BUREAU OF LAND MGMT. (Sept. 20, 2010), [http://www.blm.gov/wo/st/en/prog/energy/renewable\\_energy/fast-track\\_renewable.html](http://www.blm.gov/wo/st/en/prog/energy/renewable_energy/fast-track_renewable.html).

46. 20% WIND ENERGY BY 2030, *supra* note 11, at 7 fig.1-4.

47. The recent economic downturn has led to a steep drop in wind capacity installation in 2010, down 71% after the second quarter from 2009 levels. See Press Release, Wind Power Sinks Back to 2007 Levels, *supra* note 4.



## III. LAND-USE POLICY: BLM PERMITTING FOR WIND PROJECTS

The lack of wide-scale wind power on public lands is not for a lack of interest by developers. Rather, applications for wind projects before the economic downturn presented “virtually unprecedented demand.”<sup>48</sup> The inability to translate interest by investors into tangible results implicates the lengthy permitting process for access to BLM lands. This Part will discuss, in turn, the three land-use policies most pertinent to wind development on public lands: the Federal Land Policy and Management Act, the National Environmental Policy Act (NEPA), and the Programmatic Environmental Impact Statement (PEIS) for wind development released by the BLM in 2005.

*A. Federal Land Policy and Management Act*

Under the Federal Land Policy and Management Act,<sup>49</sup> the BLM is authorized to grant ROW permits for the construction of wind power projects on public lands.<sup>50</sup> From a conceptual standpoint, the use of ROWs as a vehicle to authorize wind development seems strange because, historically, the ROW system has been used to address “inherently noncompetitive” projects related to “access issues,” such as roads and transmission power lines.<sup>51</sup> Utility-scale power plants do not appear to belong in this category but, somewhat nonsensically, the BLM considers ROWs for wind energy “non-linear right-of-way grants.”<sup>52</sup>

By declining to allocate ROWs to the highest bidder, the permitting structure for wind ROWs does not promote competition. Instead, the BLM encourages competing wind companies to cooperate when they share an interest in the same piece of land.<sup>53</sup> In fact, the BLM explicitly denounces competitive bidding procedures for wind energy development even though it already uses such procedures for other types of ROWs.<sup>54</sup> The BLM initiates a bidding process for a

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48. Lazerwitz, *supra* note 22, § 13.02(2); *see also infra* note 163 (discussing backlog of wind permit applications).

49. Pub. L. No. 94-579, 90 Stat. 2743 (1976) (codified at 43 U.S.C. §§ 1701–87 (2006)).

50. *Id.* § 501(a)(4) (“The Secretary . . . [is] authorized to grant [ROWs] . . . for systems for generation, transmission, and distribution of electric energy . . .”).

51. Lazerwitz, *supra* note 22, § 13.03(2)(c); *see also* 43 C.F.R. § 2801.6(a)(1), .9 (2009).

52. Instruction Memorandum No. 2009-043, Dep’t of the Interior, Bureau of Land Mgmt. 4 (Dec. 19, 2008) [hereinafter BLM IM No. 2009-043], *available at* [http://www.blm.gov/wo/st/en/info/regulations/Instruction\\_Memos\\_and\\_Bulletins/national\\_instruction/2009/IM\\_2009-043.html](http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2009/IM_2009-043.html).

53. *Id.* at 9 (encouraging a “partnership or cooperative agreement that establishes compatible use of the site among the applicants”). Although the proposition of urging cooperation sounds dubious, there is at least one wind project on public land for which wind companies joined forces. *See* BLM Existing Wind, *supra* note 7 (documenting that ownership of Foote Creek Rim I Wind Project in Wyoming is divided among three companies). It is uncertain to what degree this partnership was the result of the BLM’s prodding or an independently reached agreement.

54. BLM IM No. 2009-043, *supra* note 52, at 9 (exempting wind energy ROW

wind energy project only if a resource management plan specifically identifies an area for competitive wind energy leasing;<sup>55</sup> in all other cases, the BLM processes wind energy applications on a first-come, first-served basis.<sup>56</sup> Wind developers pay a flat annual rent fee of \$4155 per MW of installed capacity under the ROW system.<sup>57</sup>

The shortcomings of an ROW permitting system are fairly conspicuous. The first-come, first-served process adds yet another level of uncertainty to an industry already riddled with unknowns.<sup>58</sup> Wind Company X has no guarantee that, even after sinking a substantial amount of time and money into an ROW application,<sup>59</sup> the BLM will not issue the ROW to Wind Company Y, if the second company edges out the first to the finish line of the application process. (Indeed, the BLM policies seem to call for such an outcome.) Similarly, Wind Company Y could theoretically engage in speculative activity by locking up lands with a three-year preliminary site-testing grant. Such a maneuver would temporarily preclude Wind Company X and others from filing an ROW application for the area.<sup>60</sup> Perhaps of most consequence, the first-come, first-served process puts the BLM in a reactive position, restricting its discretion to merely approving or declining specific proposed projects. This posture does not allow the BLM to implement a comprehensive approach for the development of wind energy on public lands.

#### B. National Environmental Policy Act

Wind energy developers must comply with NEPA<sup>61</sup> to construct wind farms on public lands. Called the “Magna Carta of environmental law” by some,<sup>62</sup> NEPA

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applications from the competitive bidding procedures outlined in 43 C.F.R. § 2804.23(c)).

55. *Id.* No known land-use plan has implemented competitive procedures to date, although two BLM field offices are at least “interested” in competitive measures. *See infra* note 194 and accompanying text.

56. BLM IM No. 2009-043, *supra* note 52, at 9.

57. *Id.* at 8.

58. Wind energy development on public lands presents the unique variable of the length of NEPA review. *See infra* notes 76–81 and accompanying text. Other significant variables facing all wind energy development include (1) the ability to secure power purchase agreements, *see* Press Release, Wind Power Sinks Back to 2007 Levels, *supra* note 4; (2) the durability of production tax credits, *see infra* Part IV; and (3) volatility in the price of competing energy sources. It was ultimately an error in accounting for this last variable that sunk T. Boone Pickens’s ambitious plan for a \$2 billion wind project in Texas. As *Forbes Magazine* declared, “The great irony is that Pickens, a lifelong oil man and geologist, failed not because he misunderstood the price of wind, but of oil. His plan required oil to stay above \$80 a barrel, but this assumption was way off.” David Serchuk, *The Pickens Plan: What Went Wrong*, FORBES.COM (Oct. 16, 2009), <http://www.forbes.com/2009/10/16/pickens-revisited-wind-intelligent-investing-forbes.html>.

59. For a list of the extensive and time-consuming requirements for a wind energy ROW application, see 43 C.F.R. § 2804.12. For a processing fee schedule, see *id.* § 2804.14.

60. *See* Lazerwitz, *supra* note 22, § 13.03(2)(f).

61. Pub. L. No. 91-190, 83 Stat. 852 (1969) (codified at 42 U.S.C. §§ 4321–70).

62. Megan J. Anderson, Note, *The Energy Policy Act and Its Categorical Exclusions: What Happened to the Extraordinary Circumstance Exception?*, 28 J. LAND RESOURCES & ENVTL. L. 119, 120 (2008).

seeks to ensure that decisions taken by public officials are “based on understanding of environmental consequences” and that “environmental information is available to . . . citizens before decisions are made and before actions are taken.”<sup>63</sup> The Supreme Court has confirmed NEPA “does not mandate particular results, but simply prescribes the necessary process.”<sup>64</sup>

The key distinction in the NEPA regulatory scheme is found between an Environmental Impact Statement (EIS) and an Environmental Assessment (EA). An EIS is an “action-forcing device”<sup>65</sup> required for all “major Federal actions significantly affecting the quality of the human environment.”<sup>66</sup> NEPA mandates that an EIS include a “full and fair discussion” of the environmental impacts of the proposed action and available alternatives.<sup>67</sup> A draft copy of the EIS must be released publicly and a comment period allowed before a final EIS is announced.<sup>68</sup>

In lieu of an EIS, a federal agency may prepare an EA<sup>69</sup>—a “concise public document” that “[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS] or a finding of no significant impact.”<sup>70</sup> If the EA results in a “finding of no significant impact” (FONSI), the federal agency must articulate why the proposed action will not significantly impact the environment.<sup>71</sup> No further NEPA compliance is then required.<sup>72</sup> No matter the outcome of the review, the wind developer incurs the cost of NEPA compliance; an EIS for a wind energy project can exceed \$1 million.<sup>73</sup>

NEPA is written such that it focuses attention on one of the shortcomings of wind energy development: the aesthetic impact of wind turbines. The text of NEPA itself, otherwise short on details, stresses the importance of visual beauty by charging the federal government with “assur[ing] for all Americans safe, healthful, productive, and *esthetically* and culturally pleasing surroundings.”<sup>74</sup> This challenge for wind power development is not shared equally by other energy sources—as one NEPA expert said, developers of natural gas on public lands are “lucky” because they get to “bury their mistakes.”<sup>75</sup>

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63. 40 C.F.R. § 1500.1(b)–(c).

64. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

65. 40 C.F.R. § 1502.1.

66. 42 U.S.C. § 4332(c).

67. 40 C.F.R. § 1502.1; *see also* 42 U.S.C. § 4332(2)(c).

68. *See* 40 C.F.R. § 1502.9.

69. *Id.* § 1501.4(b).

70. *Id.* § 1508.9(a).

71. *Id.*

72. *Id.* § 1508.13. The third option, a Categorical Exclusion (CE), exempts a federal agency from performing either an EA or EIS. CEs are issued only for projects that “do not individually or cumulatively have a significant effect on the human environment.” *Id.* § 1508.4.

73. *Hearing, supra* note 5, at 47 (written statement of Dan Arvizu, Director, National Renewable Energy Laboratory).

74. 42 U.S.C. § 4331(b)(2) (2006) (emphasis added).

75. Dialogue, Expedited NEPA Review for Alternative Energy Projects (Mar. 10, 2009), in 39 ENVTL. L. REP. 10581, 10591 (2009) (meaning the environmental impact of drilling for natural gas is not as visually apparent as for wind turbines). Whereas the negative aesthetic impacts of wind energy are localized, the environmental *benefits* of wind energy

In any event, the “most significant near-term issue” facing wind project development on public lands does not concern aesthetics but rather the timing and uncertainty of NEPA compliance.<sup>76</sup> The BLM is one of many federal agencies that continues to struggle to conduct timely NEPA review. A 2008 study found that the average time for all federal agencies to prepare an EIS was 3.4 years;<sup>77</sup> an EA, by comparison, usually takes half the time or less.<sup>78</sup> Figures from the same data set show NEPA review at the BLM takes slightly longer: the average EIS conducted by the BLM between 1998 and 2008 took 3.67 years.<sup>79</sup> Wind projects appear to be no different, as the EIS for one recent wind project took the BLM 3.28 years to complete.<sup>80</sup> And although there is precedent for scaling back NEPA review for natural resource development—the Energy Policy Act of 2005 provided five

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are largely dispersed. For fossil fuels, the inverse is largely true—many of the *negative* “life-cycle” environmental impacts, such as carbon dioxide emissions and acid rain, are geographically dispersed. The practical effect of this distinction is that no single federal agency considers all the *negative* environmental impacts of fossil fuel projects nor does any single federal agency consider all the *positive* environmental impacts of wind projects. *See* 20% WIND ENERGY BY 2030, *supra* note 11, at 106; Frederick R. Anderson & Geraldine E. Edens, *Alternative Energy and the Rebirth of NEPA*, 23 NAT. RESOURCES & ENV'T 22, 23 (2009). Thus, NEPA review simultaneously absolves those who drill for oil on public land from accounting for the effects of the resulting greenhouse gas emissions while giving no credit to those who construct wind turbines for the greenhouse gas emissions displaced by their clean energy projects. It seems fair to conclude that the current NEPA framework fails to take the big picture into account.

76. Lazerwitz, *supra* note 22, § 13.04(2) (noting that long delays have created an “application pipeline” at the BLM and that few large-scale wind projects have advanced passed the “Notice of Intent to Prepare an EIS” stage).

77. Piet deWitt & Carole A. deWitt, *How Long Does It Take to Prepare an Environmental Impact Statement?*, 10 ENVTL. PRAC. 164, 165–67 (2008) (measuring the duration between the “Notice of Intent to Prepare an EIS” and “Notice of Availability of Final EIS” in the Federal Register for 2095 EISs between 1998 and 2006). The only other recent study on this issue reached a similar result. *See id.* at 172 (discussing a study conducted by the Federal Highway Administration in 2000).

78. PILLSBURY WINTHROP SHAW PITTMAN LLP, ADVISORY, ENVIRONMENTAL REVIEWS COULD DELAY PROJECTS SEEKING DOE LOAN GUARANTEES 4 (June 29, 2009), *available at* <http://www.pillsburylaw.com/siteFiles/Publications/A13F4875A0BBBA1D00EA7677376F4F7B.pdf> (reporting an average EA time of 13.5 months compared to an average EIS time of 28.9 months at the Department of Energy).

79. E-mail from Piet deWitt, Salisbury University, to Eric S. Spengler (Nov. 15, 2009, 12:03 EST) (on file with author) [hereinafter E-mail from Piet deWitt] (analyzing a sample size of 204 EISs). It should be noted, however, that long delays in NEPA processes do not always reflect slowness by the federal agencies—a lack of project funding and other factors also represent major causes of delay. Sharon Buccino, *NEPA Under Assault: Congressional and Administrative Proposals Would Weaken Environmental Review and Public Participation*, 12 N.Y.U. ENVTL. L.J. 50, 53 (2003).

80. The Notice of Intent to Prepare an EIS for the 4545-acre, 139-MW Cotterel Wind Power Project in Idaho was filed in December 2002, and the final EIS was released in March 2006. E-mail from Piet deWitt, *supra* note 79. This was the last wind project approved under the pre-Wind PEIS framework. *See* BLM Existing Wind, *supra* note 7.

categorical exclusions for oil and gas drilling on public lands<sup>81</sup>—wind energy has not yet received such favorable treatment.

### C. The Wind Programmatic Environmental Impact Statement

Motivated in part by a desire to speed up NEPA review for wind power projects, the BLM initiated a Programmatic Environmental Impact Statement (PEIS) in October 2003.<sup>82</sup> The resulting “Wind PEIS” was completed in 2005 and amended fifty-two land-use plans in an effort to systematically address wind energy development in the eleven Western states.<sup>83</sup>

#### 1. Provisions of the Wind PEIS

The Wind PEIS sought to achieve three goals: (1) incorporate programmatic policies and best management practices for the development of wind power on public lands; (2) identify public lands *not* compatible with wind power development; and (3) enable the “tiering” of project-specific NEPA analyses (an EA) to the Wind PEIS.<sup>84</sup>

The BLM predicted the tiering process would reduce delays for ROW applications by limiting the focus to only “*site-specific* concerns during the project-level environmental analyses.”<sup>85</sup> As defined by the Council on Environmental Quality, “tiering refers to the coverage of general matters in broader environmental impact statements . . . with subsequent narrower statements or environmental analyses . . . incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.”<sup>86</sup> Tiering an EA to the Wind PEIS is the “preferred approach” of the BLM “when appropriate”—or, in other words, “as long as the remaining effects of the individual action [after those covered by the PEIS] are not significant.”<sup>87</sup>

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81. See Anderson, *supra* note 62, at 125–26, 133–34 (criticizing the loss of environmental safeguards resulting from the categorical exclusions).

82. See U.S. DEP’T OF THE INTERIOR, BUREAU OF LAND MGMT., RECORD OF DECISION, IMPLEMENTATION OF A WIND ENERGY DEVELOPMENT PROGRAM AND ASSOCIATED LAND USE PLAN AMENDMENTS 4 (2005) [hereinafter WIND ROD], available at <http://windeis.anl.gov/documents/docs/WindPEISROD.pdf> (maintaining that the opportunity to tier future NEPA analyses is “expected to minimize some of the delays that currently occur for wind energy development projects”).

83. *Id.* at B-2. A PEIS can be a useful tool to address the environmental impact of a certain federal action on a wide scale (in more than one location). Note that no resource management plans (RMPs) in Arizona or California were amended because of other ongoing land-use plan amendments addressing wind energy development in those states. *Id.*

84. See WIND PEIS, *supra* note 15, at 2-25. The Wind PEIS excluded all “areas of critical environmental concern” from wind development, but this policy has been subsequently relaxed in favor of a site-specific consideration. See BLM IM No. 2009-043, *supra* note 52, at 3.

85. WIND ROD, *supra* note 82, at 4 (emphasis added).

86. 40 C.F.R. § 1508.28 (2009) (italics omitted).

87. BLM IM No. 2009-043, *supra* note 52, at 11. Note that, per the Wind PEIS, public involvement would be retained for wind projects regardless of whether an EA or EIS is

In accordance with NEPA directives, the Wind PEIS considered several alternatives before settling on the proposed action.<sup>88</sup> The three alternatives considered by the BLM varied considerably in scope. The “limited wind energy development” alternative would have barred *any* additional BLM land from wind energy development.<sup>89</sup> The “no action” alternative, not quite so draconian, would have allowed for continued wind energy development on a project-by-project basis.<sup>90</sup> The BLM settled for the third alternative, a Wind Energy Development Program, focused on the “maximum potential development scenario.”<sup>91</sup>

In adopting this approach, the Wind PEIS discussed extensively two models that predicted the environmental impact of this level of wind energy development on public lands.<sup>92</sup> The Maximum Potential Development Scenario model served as an “upper bound” of development.<sup>93</sup> This model segregated public lands based on wind development potential and land-use status, identifying BLM lands with Class 3 or higher winds and excluding those lands dedicated to other conflicting purposes (such as wilderness).<sup>94</sup> In the final analysis, the Maximum Potential Development Scenario found 20,634,000 acres of economically viable land “not already restricted from development.”<sup>95</sup> The second model, the Wind Deployment System (WinDS), restricted this figure by emphasizing economic factors. This model predicted only 160,100 acres of public land would be developed for wind energy production in the next twenty years.<sup>96</sup>

Although the BLM accepted the WinDS figures for the purpose of forecasting development on public lands, it appears that neither the WinDS nor the Maximum Potential Development Scenario model had a direct bearing in determining which land-use plans would be modified by the Wind PEIS.<sup>97</sup> Because the WinDS Model did not identify specific areas where economically developable wind resources are located (beyond the state level),<sup>98</sup> this model could not have been used to determine which resource management plans to amend. The Wind PEIS does not provide much guidance on this front, stating only that “[a]nalyzes conducted in this PEIS

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conducted. WIND PEIS, *supra* note 15, at 2-8.

88. WIND PEIS, *supra* note 15, at 2-1.

89. *Id.* at 2-28.

90. *Id.* at 2-25.

91. *Id.* at 2-1 to -2.

92. Both models were constructed by the National Renewable Energy Laboratory. *Id.* at 2-2 to -3.

93. *Id.* at 2-2.

94. *Id.* at 2-3. The Instruction Memo from December 19, 2008 subsequently clarified the Wind PEIS, indicating that areas of critical environmental concern would “not universally be excluded” from wind energy development but would rather be “managed consistent with the management prescriptions for the individual [area].” BLM IM No. 2009-043, *supra* note 52, at 3.

95. Gregory M. Adams, *Bringing Green Power to the Public Lands: The Bureau of Land Management’s Authority and Discretion to Regulate Wind-Energy Developments*, 21 J. ENVTL. L. & LITIG. 445, 459 (2006); see WIND PEIS, *supra* note 15, at 2-5 tbl.2.2.1-1.

96. WIND PEIS, *supra* note 15, at 2-5 tbl.2.2.1-1.

97. *Id.* at 2-3.

98. *Id.* at 2-5.

support the amendment of specific land-use plans for land where potentially developable wind resources are located.”<sup>99</sup>

Of importance, the land-use amendments proffered by the Wind PEIS do not affirmatively identify *any one piece* of public land as suitable for wind development. Even after the implementation of the Wind PEIS, routine modifications of individual resource management plans during the Bush Administration did not focus on classifying zones appropriate for wind energy development.<sup>100</sup>

## 2. Results of the Wind PEIS

Although the best management practices have indeed resulted in a “more uniform set of industry-wide terms and conditions” for wind development on public lands,<sup>101</sup> the results on shortening NEPA review have been less promising. Wind energy development on public lands after the Wind PEIS remains inefficient and riddled with uncertainty.

Based on the available data, the Wind PEIS appears to have shortened the NEPA approval process for at least one of the wind projects approved under the Wind PEIS framework. It is clear that the permitting process for the 4452 acre, 30 MW Dry Lake Wind Project in Arizona<sup>102</sup>—which, importantly, tiered an EA to the PEIS—took substantially less time than the average EIS conducted by the BLM. At roughly seventeen months, the EA for the Dry Lake Wind Project represents less than half the amount of time it took for the EIS for the aforementioned Cotterel Wind Power Project, the last wind development project approved under the pre-PEIS framework.<sup>103</sup> Even more, the *entire life cycle* of the Dry Lake Wind Project—from the testing of wind resources to the completion of construction—was roughly equivalent to the amount of time consumed by NEPA

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99. *Id.* at 2-25.

100. In fact, six RMPs in Utah were amended toward the end of the Bush Administration, and not one addressed renewable resource potential. Dialogue, Expedited NEPA Review for Alternative Energy Projects, *supra* note 75, at 10,592 (comment by Sharon Buccino from the Natural Resource Defense Council).

101. Lazerwitz, *supra* note 22, § 13.03(2)(e).

102. BLM Existing Wind, *supra* note 7.

103. *See supra* note 8. Seventeen months represents the duration of time between the start of “scoping” activities on May 15, 2007, to the issuance of a FONSI on October 23, 2008. *See* SAFFORD FIELD OFFICE, BUREAU OF LAND MGMT., DRY LAKE WIND PROJECT: ENVIRONMENTAL ASSESSMENT 4-2 (2008), available at [http://www.blm.gov/pgdata/etc/medialib/blm/az/pdfs/nepa/projects/sfo/08\\_proj/dry\\_lake\\_final.Par.44095.File.dat/Dry\\_Lake\\_EA\\_10-08.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/az/pdfs/nepa/projects/sfo/08_proj/dry_lake_final.Par.44095.File.dat/Dry_Lake_EA_10-08.pdf); SAFFORD FIELD OFFICE, BUREAU OF LAND MGMT., DRY LAKE WIND PROJECT: FINDING OF NO SIGNIFICANT IMPACT, available at [http://www.blm.gov/az/st/en/info/nepa/08\\_project\\_log/dry\\_lake\\_final.html](http://www.blm.gov/az/st/en/info/nepa/08_project_log/dry_lake_final.html). Compare the figures for the Dry Lake Wind Project with those for the Cotterel Wind Power Project. *See supra* note 80 and accompanying text (reporting 3.28 years for the EIS alone). Note that it is difficult to make apples-to-apples comparisons between the length of time for EAs and EISs because there is no foolproof way to determine from the public record the effective “start date” for projects that require only an EA. The Environmental Protection Agency requires a “notice of intent” to be published in the Federal Register only for EISs. *See* 40 C.F.R. § 1501.7 (2009).

review alone for the Cotterel Wind Power Project.<sup>104</sup> Interestingly, the 30 MW Dry Lake Wind Project was nowhere to be found in the models used in the Wind PEIS, which predicted that total wind installations on public lands in Arizona would not exceed 2 MW by the year 2015.<sup>105</sup> The increased efficiency in the permitting process for the Dry Lake Wind Project tells only half the story: while data is scarce, it appears that the permitting process for the only other wind energy project approved under the PEIS framework—the 7800-acre, 80-MW Milford Wind Project in Utah<sup>106</sup>—did not go nearly as smoothly as it did for the Dry Wind Lake Project.<sup>107</sup>

And although the Wind PEIS has shortened NEPA review for at least one project (the Dry Lake Wind Project), several large-scale projects clearly have been unable to take advantage of the tiering process. One such project is the proposed 30,700 acre, 425 MW China Mountain Wind Project in Idaho, for which the BLM determined an EIS would be required.<sup>108</sup> The EIS for the project formally began on April 21, 2008,<sup>109</sup> and the BLM reports that the Final EIS is expected in the summer of 2011.<sup>110</sup> The completed EIS for this project will thus take over three

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104. Preliminary testing began at the site in March 2006, and construction was completed only three and a half years later, in September 2009. See *Dry Lake Wind Energy Project*, BUREAU OF LAND MGMT., <http://www.blm.gov/az/st/en/prog/energy/wind/dry-lake.html>. The length of time for the BLM to complete an EA for the Dry Lake Wind Project is consistent with the duration of EAs in other federal agencies. See PILLSBURY WINTHROP SHAW PITTMAN LLP, *supra* note 78, at 4 (reporting an average EA time of 13.5 months compared to an average EIS time of 28.9 months at the Department of Energy).

105. WIND PEIS, *supra* note 15, at 5-109.

106. BLM Existing Wind, *supra* note 7. Note that figures provided for acreage and megawatts of wind projects reflect only those wind turbines sited on public lands, unless otherwise noted. The data do not reflect the portion of the wind project, if any, on private lands.

107. A search of the Federal Register and Internet sources provides little data on the timeline for the Milford Wind Project in Utah. The available data suggest the process was lengthier than that for the Dry Lake Wind Project. For instance, an outdated Utah BLM website indicates the BLM was planning on *completing* an EIS in December 2007. *Wind Farm and Transmission Line Proposal in Central Utah*, BUREAU OF LAND MGMT., [http://www.blm.gov/ut/st/en/prog/energy/wind\\_energy/wind\\_energy\\_application.html](http://www.blm.gov/ut/st/en/prog/energy/wind_energy/wind_energy_application.html). An EA (not an EIS) was eventually completed for the project in October 2008. Press Release, First Wind, First Wind Begins Construction on Milford Wind Corridor Project (Nov. 14, 2008), *available at* <http://www.milfordwind.com/milford/news.cfm?ID=a0557122%2D9ddd%2D4084%2D82f8%2Df1edc802a343&test>. Construction on Phase I finished about a year later. Press Release, First Wind, Milford Wind Corridor Project Is Complete; Largest Wind Facility in Utah and One of the Largest in the West (Nov. 10, 2009), *available at* <http://www.milfordwind.com/milford/news.cfm?ID=44f4cd7e%2D6326%2D49fe%2Db2de%2D6ce748468ad6&test>. The effective start date of NEPA review for the project is not clear. The outdated information on the BLM website—and the time lag between the expected EIS date and the actual completion of an EA—suggests NEPA review was not timely.

108. See Notice of Intent to Prepare an Environmental Impact Statement for the Proposed China Mountain Wind Project, *supra* note 21.

109. See *id.*

110. BUREAU OF LAND MGMT., CHINA MOUNTAIN WIND POWER PROJECT EIS:



years—no different from the Cotterel Wind Power Project approved under the pre-Wind PEIS framework. The BLM also announced recently it would require an EIS for the proposed 41,900 acre, 500 MW Mohave County Wind Farm in Arizona.<sup>111</sup> Experience shows that the process for tiering an EA to the Wind PEIS “remains far from certain in practice” in the Wind PEIS period.<sup>112</sup> The ability to tier to the Wind PEIS has become even less certain after guidance recently issued by the Fish and Wildlife Service implementing provisions of the Bald and Golden Eagle Protection Act.<sup>113</sup>

The shortcomings of the Wind PEIS are perhaps best illustrated by the proposed 98,500 acre, 2000 MW Chokecherry and Sierra Madre Wind Energy Project in Wyoming. About half of the project would be located on BLM lands; the remainder would be sited on adjacent private lands and lands owned by the state of Wyoming.<sup>114</sup> Oddly enough, the Wind PEIS did not amend the resource management plan that corresponds with the project,<sup>115</sup> even though the Class 6 and 7 winds in the area represent the “best winds in the country.”<sup>116</sup> Still more difficult to comprehend, the WinDS model used by the BLM in preparing the Wind PEIS indicated there are only 3700 acres of economically developable wind resources on BLM lands in all of Wyoming,<sup>117</sup> a tiny fraction of the roughly 50,000 acres of BLM lands encompassed by the proposed Chokecherry and Sierra Madre Project. In 2008, the BLM was forced to delay consideration of the application until after a revision of the relevant resource management plan could be completed.<sup>118</sup>

Simply put, it is difficult to find much value in the Wind PEIS when a massive proposed wind project—a project so large that it would more than *triple* the amount of wind energy installed on all public lands<sup>119</sup>—was neither facilitated nor foreseen

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NEWSLETTER 3 (Dec. 2009), available at [http://www.blm.gov/pgdata/etc/medialib/blm/id/nepa/jarbidge\\_fo/china\\_mountain\\_wind0.Par.6436.File.dat/China\\_Mountain\\_Single\\_Page\\_508\\_NL\\_3.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/id/nepa/jarbidge_fo/china_mountain_wind0.Par.6436.File.dat/China_Mountain_Single_Page_508_NL_3.pdf).

111. 74 Fed. Reg. 60,289 (Nov. 20, 2009) (Notice of Intent to Prepare an EIS).

112. Lazerwitz, *supra* note 22, § 13.03(3)(a) (referring to the process in the abstract).

113. See *infra* notes 173–75 and accompanying text (discussing guidance issued in July 2010 by Fish and Wildlife Service). But see *supra* note 12 (referencing two draft documents issued by Fish and Wildlife Service in February 2011, beyond the scope of this Note).

114. RAWLINS FIELD OFFICE, BUREAU OF LAND MGMT., PUBLIC SCOPING STATEMENT: CHOKECHERRY AND SIERRA MADRE ENERGY PROJECT 1, available at <http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/rfdocs/chokecherry.Par.26113.File.dat/scoping.pdf>. About 675 2-MW wind turbines would be installed on the Chokecherry portion of the project; the remaining 325 2-MW wind turbines would be installed on the Sierra Madre tract. *Id.*

115. See WIND ROD, *supra* note 82, at B-1 to -13 (omitting from coverage the Great Divide Resource Management Plan in Wyoming).

116. *Putting Wind to Work for Carbon County: By the Numbers*, POWER CO. OF WYO., <http://www.powercompanyofwyoming.com>. The Class 6 to 7 winds of the Chokecherry and Sierra Madre Wind Project are far superior to the Class 4 (or better) wind ratings “now preferred” for utility-scale wind farms. See *Wind Energy FAQ: Basic Principles of Wind Resource Evaluation*, AM. WIND ENERGY ASS’N, <http://97.74.195.121/faq/basicwr.html>.

117. WIND PEIS, *supra* note 15, at 6-14 tbl.6.4.1-1.

118. See RAWLINS FIELD OFFICE, *supra* note 114.

119. Roughly half of the 2000 MW Chokecherry and Sierra Madre Wind Energy Project is located on BLM land. *Id.* An addition of 1000 MW to the 437 MW of wind currently

by the Wind PEIS. The viability of a project like the Chokecherry and Sierra Madre Project was never contemplated by the Wind PEIS. In fact, the WinDS Model—representing the so-called “maximum potential development scenario”—envisioned only 100 MW of wind energy development on public lands in Wyoming *in the year 2025*.<sup>120</sup> The very existence of a proposal for a project like the Chokecherry and Sierra Madre Project undercuts the notion that the BLM pursued a forward-looking, comprehensive approach in the Wind PEIS.<sup>121</sup> The Wind PEIS does not provide a specific explanation for the omission from the Wind PEIS of the corresponding resource management plan for the Chokecherry and Sierra Madre Project. According to the Wind PEIS, decisions to omit resource management plans from coverage can result from one of three stated reasons, or for merely “some other reason[.]”<sup>122</sup>

More consequential than what the Wind PEIS *has covered* is what the Wind PEIS has *failed to cover*. Because the Wind PEIS did not affirmatively identify any BLM land as suitable for wind development, the terms of wind development for wide swaths of wind-rich public land remain uncertain. The very limited scope of the Wind PEIS has meant that, in practice, utility-scale wind projects proposed for public lands continue to be bogged down in the pre-PEIS framework. Significant delays remain not only for wind development permits, but for wind testing permits as well.<sup>123</sup> In the final analysis, only those two wind projects that have been able to tier an EA to the Wind PEIS—the Dry Lake Wind Project in Arizona and the Milford Wind Project in Utah, and none of the wind projects relegated to

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installed on public lands would increase the amount of wind energy installed on public lands to 1437 MW. *See supra* notes 7–8 and accompanying text.

120. *See* WIND PEIS, *supra* note 15, at 5-105 fig.5.13.1-1 (showing predicted wind installation on public lands of less than 100 MW for Wyoming in the year 2025). Similarly, the BLM severely underestimated the potential for wind development of public lands in Arizona. *See supra* text accompanying note 105.

121. The outstanding ROW applications for wind projects on over 950,000 acres of public lands in *California alone* provide further evidence of the insufficiency of the scope of the BLM’s efforts to date. BUREAU OF LAND MGMT., THE BLM PERSPECTIVE: RENEWABLE ENERGY DEVELOPMENT ON PUBLIC LANDS (2009), *available at* [www.ivedc.com/CMS/Media/3.-IID-Energy-Summit-Miller.ppt](http://www.ivedc.com/CMS/Media/3.-IID-Energy-Summit-Miller.ppt). This figure dwarfs the 160,100 acres of public lands with wind development by 2025 as predicted by the WinDS. *See supra* text accompanying note 96.

122. WIND PEIS, *supra* note 15, at 2-25. The three enumerated reasons are (1) the wind resources in the area are not developable; (2) the resource management plan was previously amended to address wind energy development; and (3) the BLM was contemporaneously amending the resource management plan to address wind energy development at the time of the Wind PEIS. *Id.* None of these stated reasons appear applicable to the RMPs for the Chokecherry and Sierra Madre Project.

123. The American Wind Energy Association reported in March 2009 that site *testing* permits for wind energy still take eighteen months or more, compared to a mere six to seven months for *development* permits for oil and gas drilling. *Hearing, supra* note 5, at 100 (statement of American Wind Energy Association); *see also* AM. WIND ENERGY ASS’N, WIND ENERGY FOR A NEW ERA: AN AGENDA FOR THE NEW PRESIDENT AND CONGRESS 16 (2008) (concluding that testing permits for wind that ordinarily took thirty to ninety days are now taking a year or longer due to the fact that the BLM is “overwhelmed by the sheer number of wind energy projects proposed”).

conducting a full EIS—have been approved since 2005.<sup>124</sup> Five years after its release, it seems fair to conclude that the Wind PEIS has achieved very modest results in expanding wind energy programs on public lands.<sup>125</sup> The BLM will almost certainly need to expand the Wind PEIS in order to achieve 20% wind energy by 2030.

#### IV. FINANCIAL INCENTIVES: THE PRODUCTION TAX CREDIT

The use of the tax code to encourage domestic energy development is not a novel concept.<sup>126</sup> The Energy Tax Act of 1978<sup>127</sup> provided the first federal tax

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124. BLM Existing Wind, *supra* note 7 (listing approved wind projects); *see also infra* notes 168–75 and accompanying text (discussing “fast-tracked” projects under the Obama Administration). The BLM was also able to tier an EA to the Wind PEIS for a third wind power project, the Spring Valley Wind Project in Nevada. After issuing a FONSI, the BLM was waiting (at the time of publication) for a few final items from the developer before issuing a final Notice to Proceed for the project. *See infra* note 173. None of the six other wind projects “fast-tracked” by the BLM in 2009 were able to tier an EA to the Wind PEIS, and thus they required the completion of an EIS. *See Fast-Track Renewable Energy Projects*, BUREAU OF LAND MGMT., (last updated Jan. 6, 2011) [hereinafter *Fast-Track Renewable Energy Projects*], available at [http://www.blm.gov/wo/st/en/prog/energy/renewable\\_energy/fast-track\\_renewable.html](http://www.blm.gov/wo/st/en/prog/energy/renewable_energy/fast-track_renewable.html). Note too that the duration of NEPA review for the Spring Valley Wind Project was longer than would otherwise be expected for an EA. As one local newspaper wrote, “It might seem like federal regulators are fast-tracking the development of Nevada’s first commercial wind farm. But the 160-megawatt Spring Valley Wind project has actually been in the works for over four years, as the developer gathered additional information sought by the U.S. Bureau of Land Management (BLM).” Rudy Herndon, *After Four Years, Spring Valley Wind Project Nears EA Review*, ELYNEWS.COM (Nov. 4, 2009), <http://www.elynews.com/articles/2009/11/04/news/news01.txt>.

125. This conclusion suggests earlier scholars may have been overly optimistic about the results of the Wind PEIS. *See, e.g.,* Adams, *supra* note 95, at 458–59 (arguing the fact that the Wind PEIS “contemplate[s] wind] development virtually wherever it is economically feasible” provides “insight into the extent of wind-energy development that can be expected on public lands in the West”); Rosenberg, *supra* note 13, at 534 (“The comprehensive approach taken in the BLM policy suggests that federal lands will increasingly be available to private firms wishing to develop wind energy resources.”).

126. Indeed, “[t]he federal government has used tax incentives to effect social, economic, and political goals since the inception of the income tax.” Mona Hymel, *The United States’ Experience with Energy-Based Tax Incentives: The Evidence Supporting Tax Incentives for Renewable Energy*, 38 LOY. U. CHI. L.J. 43, 46 (2006). As long as the tax code is used in such a manner, scholars will continue to debate—largely along ideological lines—whether tax policy has tilted too far in favor of traditional fossil fuels or, conversely, too far to the benefit of emerging renewable energy technologies. *Compare id.* at 43 (arguing that tax incentives have unjustly “targeted only the fossil fuel industries—oil, gas, and coal” for much of the last ninety years), with Drew Thornley, *Texas Wind Energy: Past, Present, and Future*, 4 ENV’T L. & ENERGY L. & POL’Y J. 69, 103–04 (2009) (arguing that wind power producers undeservedly received over twenty-three dollars in federal subsidies per megawatt hour produced compared to less than a dollar per megawatt hour for coal and natural gas). Assuming the encouragement of wind production on public lands is a worthy government

incentives for renewable energy, giving a 10% investment tax credit for material investments in renewable energy facilities (above and beyond the standard 10% given to all business investments).<sup>128</sup> The original investment tax credit was criticized for its inefficiency: by linking tax credits to dollars spent rather than megawatts produced, the tax credit “encouraged abusive tax planning rather than wise business planning.”<sup>129</sup> Congress and President Ronald Reagan allowed the investment tax credit to expire in 1985,<sup>130</sup> bringing the American wind industry to an “abrupt halt.”<sup>131</sup>

Tax credits for wind energy reemerged in 1992 in new form: the production tax credit (PTC). The Energy Policy Act of 1992<sup>132</sup> granted qualifying taxpayers 1.5 cents (now 2.1 cents) per kilowatt-hour of electricity produced and sold to an unrelated person.<sup>133</sup> The structure of the PTC tied tax credits to the actual production of wind energy and thus solved many of the problems posed by the investment tax credit.<sup>134</sup> But due to comparatively low natural gas prices and the preoccupation of utilities with industry restructuring, the PTC did not incentivize growth in the wind energy sector until just before its expiration in 1999.<sup>135</sup>

The history of the PTC since 1999 has been riddled with lapses and short-term extensions of one to three years.<sup>136</sup> Congress has allowed the PTC to expire three times since 1999 and, invariably, the installation of new wind power has declined sharply as a result. When the PTC first expired in 1999, wind project installations dropped by 93% in the following year.<sup>137</sup> Wind installations similarly fell 73% from 2001 to 2002 and 77% from 2003 to 2004.<sup>138</sup> Even in Texas, the “most

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objective, *see supra* notes 13–17 and accompanying text, the relevant question becomes whether existing tax subsidies serve as effective incentives for the production of these resources on public lands.

127. Pub. L. No. 95-618, 92 Stat. 3174.

128. *See* Jeffrey S. Hinman, *The Green Economic Recovery: Wind Energy Tax Policy After Financial Crisis and the American Recovery and Reinvestment Tax Act of 2009*, 24 J. ENVTL. L. & LITIG. 35, 49 (2009). Interestingly, the state of California added another generous investment tax credit on top of the federal investment tax credit and, as a result, became home to almost 90% of worldwide capacity (1200 MW) in 1986. *See* 20% WIND ENERGY BY 2030, *supra* note 11, at 6.

129. Hinman, *supra* note 128, at 52, 54 (“[M]any projects were built primarily for the tax credits and without concern for how successful the project would be.”).

130. *Id.* at 53.

131. 20% WIND ENERGY BY 2030, *supra* note 11, at 6.

132. Pub. L. No. 102-486, 106 Stat. 2776.

133. *See* Hinman, *supra* note 128, at 55 & n.125; *Legislative Affairs*, AM. WIND ENERGY ASS’N, <http://97.74.195.121/legislative>.

134. *See* Hinman, *supra* note 128, at 56 (noting that a “wind farm that is inefficient or nonfunctional creates little or no tax benefit to the taxpayer” under the PTC).

135. 20% WIND ENERGY BY 2030, *supra* note 11, at 6.

136. *See* Hinman, *supra* note 128, at 57–58 & n.137 (outlining the various pieces of legislation, such as the Working Families Tax Relief Act of 2004, that have extended the PTC); Corey Stephen Shook, Note, *Blowing in the Wind: How a Two-Tiered National Renewable Portfolio Standard, a Systems Benefits Fund, and Other Programs Will Reshape American Energy Investment and Reduce Fossil Fuel Externalities*, 12 FORDHAM J. CORP. & FIN. L. 1011, 1044–45 (2007) (same).

137. *See* Hinman, *supra* note 128, at 61.

138. *See id.* For an excellent visual representation of the effect of the lapses in the PTC

attractive wind development market in the country,” no wind power was installed in each of the three years following lapses in the PTC.<sup>139</sup>

Given these striking figures, renewable energy experts have concluded that it is “difficult to overstate the importance of the PTC to the wind industry.”<sup>140</sup> The PTC undoubtedly represents the “primary federal incentive for wind energy and has been essential to the industry’s growth.”<sup>141</sup> According to one estimate, the PTC reduces by one-third the cost of wind energy production.<sup>142</sup> Even the BLM, a land management agency typically unconcerned in tax policy, has acknowledged that the future of the PTC will have an impact on wind energy development on public lands.<sup>143</sup>

The stop-and-go nature of Congress’s approach to the PTC has impacted more than just a few isolated years when the tax incentive lapsed. Rather, the “inconsistent governmental stance on wind energy and the lack of a coherent long-term alternative energy strategy” has represented “one of the starkest impediments to U.S. wind development.”<sup>144</sup> The intermittent support for the PTC creates “uncertainty among wind power developers, financiers, and states regarding the extent of long term federal support for wind-generated electricity.”<sup>145</sup> In turn, this uncertainty has “stunted the industry’s growth, slowed its ability to become competitive with traditional fuels, and prevented the big players in the energy industry from taking seriously the need to reform their business models to include more renewable energy.”<sup>146</sup>

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on the growth of wind power, see AM. WIND ENERGY ASS’N, *supra* note 123, at 8.

139. Thornley, *supra* note 126, at 107 (quoting Mike Sloan, Managing Consultant, The Wind Coalition).

140. *Clean Energy: From the Margins to the Mainstream: Hearing Before the Sen. Finance Comm.*, 110th Cong. 5 (2007) (written statement of Dr. Ryan Wiser, Scientist, Lawrence Berkeley National Laboratory) [hereinafter *Clean Energy Hearing*], available at <http://eetd.lbl.gov/ea/emp/reports/wiser-senate-test-4-07.pdf>.

141. *Policy, Transmission, and Regulation: Production Tax Credit*, AM. WIND ENERGY ASS’N, <http://97.74.195.121/policy/ptc.html>. Other government policies, including renewable portfolio standards—adopted by twenty-nine states and the District of Columbia—have also played an important role in driving the growth of the wind energy sector. See U.S. DEP’T OF ENERGY, 2008 WIND TECHNOLOGIES MARKET REPORT 44 (2009), available at [http://www.nrel.gov/applying\\_technologies/pdfs/46026.pdf](http://www.nrel.gov/applying_technologies/pdfs/46026.pdf). Indeed, the BLM expects the renewable portfolio standards in Western states will increase the demand for renewable energy development, including wind, on public lands. See U.S. DEP’T OF THE INTERIOR, BUREAU OF LAND MGMT., RENEWABLE ENERGY AND THE BLM: WIND (SECTION 211 OF ENERGY POLICY ACT), available at [http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS\\_REALTY\\_AND\\_RESOURCE\\_PROTECTION\\_/energy.Par.58306.File.dat/09factsheetmap\\_Wind.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION_/energy.Par.58306.File.dat/09factsheetmap_Wind.pdf). But given the preeminence of the PTC, its unique problems related to public lands, and the focus of this Note on federal policies, only the PTC will be addressed in detail.

142. *Clean Energy Hearing*, *supra* note 140, at 5 (written statement of Dr. Ryan Wiser, Scientist, Lawrence Berkeley National Laboratory).

143. WIND PEIS, *supra* note 15, at 6-2 n.1. Because tax measures fall outside the purview of the agency, the BLM did not address the PTC. *Id.*

144. Christopher W. Fry, *Harvesting the Sky: An Analysis of National and International Wind Power*, 19 COLO. J. INT’L ENVTL. L. & POL’Y 427, 446 (2008).

145. Rosenberg, *supra* note 13, at 532–33.

146. Hinman, *supra* note 128, at 69.

Particularly relevant to public lands, the inconsistent treatment of the PTC by Congress means that investors generally “shy away from ambitious, large-scale wind projects that would take several years to develop.”<sup>147</sup> Wind projects on public lands become particularly disfavored in an uncertain market: when NEPA review takes up to three years or more and Congress renews the PTC (if at all) in intervals as short as one or two years, one cannot begin the NEPA review process with the assurance that the PTC will remain available when the project becomes eligible for the tax credit. (This analysis does not even take into consideration the time it takes to conduct site testing and construction.) In essence, undertaking wind projects on public lands requires investors to place an all-in bet on Congress deciding to extend the PTC—a wager that many investors have been willing to make, but a risky one nonetheless. If the wind energy project is even a single day late, the investor will be left much more than a dollar short.<sup>148</sup>

Furthermore, the PTC could possibly discontinue unexpectedly. As concerns about the mounting federal deficit rise, the government might cease renewing the PTC or, worse yet, cancel an existing PTC before its scheduled sunset date.<sup>149</sup> As previously mentioned, the former has already occurred: a shift in political tides in the 1980s led to the abandonment of federal tax incentives for renewable energy and effectively turned off the “spigot” of capital for such projects.<sup>150</sup> A similar shift in political winds could result today, especially given the notion that wind energy has reached, or is nearing, parity with traditional fossil fuels.<sup>151</sup> As for the latter, the possibility of repealing existing tax incentives before their sunset date recently played out in Oregon, where the governor vetoed a bill that would have scaled back tax subsidies for large-scale wind energy projects enacted only three years prior.<sup>152</sup>

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147. *Id.* at 70.

148. Stated otherwise, if an investor moves forward on a wind project on public lands—and Congress declines to extend the PTC (as it did in 1999, 2001, and 2003)—the wind developer must race to complete the project before the PTC expires. The wind developer would receive no federal tax credit if the project is placed in service just one day after the PTC expires.

149. Due to the rule against legislative entrenchment—a constitutional principle that prevents one legislature from enacting statutes that bind subsequent legislatures, *see* Eric A. Posner & Adrian Vermeule, *Legislative Entrenchment: A Reappraisal*, 111 YALE L.J. 1665, 1665 (2002)—wind developers can have no assurance that tax incentives will extend even to the end of their stated duration.

150. Hinman, *supra* note 128, at 53–54 (“Government tax incentives dried up before the industry had evolved to a point where it was profitable without government support, cutting off the flow of investors.”); *see also supra* notes 130–31 and accompanying text.

151. *See, e.g., Hearing, supra* note 5, at 69 (testimony of Joanna Prukop, Secretary of New Mexico Energy, Minerals and Natural Resources Department).

152. *See* Editorial, *The Sun, the Wind and Your Tax Dollars*, OREGONIAN, Nov. 3, 2009 (advocating for the legislature to override the governor’s veto). By one newspaper’s calculation the tax incentives for renewable energy ended up costing forty times as much as lawmakers originally expected. Harry Esteve, *State Lowballed Green Tax Breaks’ Cost*, OREGONIAN, Nov. 1, 2009. Such a reversal in government policy is not unique to the United States: Spain recently capped the amount of solar power that could qualify for government subsidies, a move that was “very disruptive” to the renewable energy sector in Spain. *See* Kate Galbraith, *A Funding Roadblock Ahead for Clean Energy*, NYTIMES.COM (June 28,

In short, virtually nothing is a given under the current PTC regime, and the problems with tax incentives for wind energy are only magnified in the context of public lands. Lengthy NEPA review creates a situation in which developers rely on the intermittent PTC at their own risk.

#### V. THE OBAMA ADMINISTRATION AND A SHIFT IN WIND POLICY

Secretary of the Interior Ken Salazar has endorsed the benchmark of 20% wind,<sup>153</sup> and the Obama Administration has taken several positive steps toward eliminating the obstacles to the siting of wind turbines on public lands. The following sections will discuss recently adopted measures regarding land-use policy and tax incentives.

##### A. Land-Use Policy

Recent steps taken by the Department of the Interior suggest that wind energy proponents will have an ally in the Obama Administration. As a matter of general approach, the Obama Administration has adopted what may be called a “both-and” attitude—favoring both the development of wind energy on public lands *and* the preservation of environmental safeguards. Speaking in terms strikingly similar to President Obama, Secretary Salazar recently argued that:

[W]ith wise renewable energy development we can . . . move beyond the old divisions that defined our management of public lands for the last century: beyond extraction against protection; beyond energy versus the environment.

In harnessing renewable resources we act as stewards of our lands—like farmers who harvest abundant supplies but protect the resources that will sustain us for generations.<sup>154</sup>

The development of wind energy on public lands appears to be an important objective for the Obama Administration, as the first Secretarial Order issued by Secretary Salazar declared that “[e]ncouraging the production, development, and delivery of renewable energy is one of the Department’s highest priorities.”<sup>155</sup>

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2009), [http://www.nytimes/2009/06/29/business/energy-environment/29iht-green29.html?\\_r=1&scp=1&sq=a funding roadblock ahead for clean energy&st=cse](http://www.nytimes/2009/06/29/business/energy-environment/29iht-green29.html?_r=1&scp=1&sq=a funding roadblock ahead for clean energy&st=cse).

153. See Press Release, Dep’t of the Interior, Secretary Salazar Pledges to Open Four Renewable Energy Permitting Offices, Create Renewable Energy Teams (May 5, 2009), available at [http://www.blm.gov/ca/st/en/info/newsroom/2009/may/DOI\\_Reweable\\_permitting\\_offices.html](http://www.blm.gov/ca/st/en/info/newsroom/2009/may/DOI_Reweable_permitting_offices.html).

154. Salazar, *supra* note 27. Other environmentalists are reticent to go so far, focusing instead on the disconnect “between the promise of clean, endlessly renewable energy and the perils of imposing giant man-made structures on nature.” Katharine Q. Seelye, *Windmills Sow Dissent for Environmentalists*, N.Y. TIMES, June 5, 2003, at A28.

155. Ken Salazar, Secretary of the Interior, Order No. 3285: Renewable Energy Development by the Department of the Interior § 4 (issued Mar. 11, 2009), available at [http://www.doi.gov/news/09\\_News\\_Releases/SOenergy.pdf](http://www.doi.gov/news/09_News_Releases/SOenergy.pdf). It is worth noting that Secretary Salazar also helped resolve a long-standing jurisdictional dispute between the Mineral Management Service and the Federal Energy Regulatory Commission to cut the red tape for

Secretary Salazar—who has called the green energy potential of public lands “staggering”<sup>156</sup>—traveled with President Obama to Copenhagen in December 2009 to participate in the United Nations Climate Change Conference, delivering a speech titled “New Energy Future: The Role of Public Lands in Clean Energy Production and Carbon Capture.”<sup>157</sup>

The Obama Administration has substantiated its proclivity for wind energy development on public lands with some initial action. The Secretarial Order from March 2009 empowered a Departmental Task Force on Energy and Climate to “develop a strategy to increase the development and transmission of renewable energy from appropriate areas on public lands.”<sup>158</sup> Particularly relevant to the siting of wind power projects, the Order directs the Task Force to (a) identify and prioritize specific locations best suited for large-scale production of wind energy (“renewable energy zones”), (b) identify and resolve obstacles to the siting of renewable energy (while tracking BLM’s progress on this front), and (c) identify needed revisions to existing policies, including possible amendments to the Wind PEIS.<sup>159</sup> The Order also makes the Assistant Secretaries responsible for “establishing joint, single-point-of-contact offices that consolidate expertise to ensure a coordinated, efficient, and expeditious permitting process” for wind energy projects.<sup>160</sup>

The Department of the Interior reinforced its newly conceived to-do list with increased funding and dedicated staff. Secretary Salazar revealed in May 2009 that \$41 million from the American Recovery and Reinvestment Act of 2009<sup>161</sup> (ARRA or “stimulus bill”) would be directed toward “facilitat[ing] a rapid and responsible move to large-scale production of renewables on Bureau of Land Management lands.”<sup>162</sup> In making the announcement, Secretary Salazar indicated the money would be aimed at reducing the backlog of applications for wind development at the BLM.<sup>163</sup>

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the permitting of off-shore wind projects. *See* Press Release, *supra* note 153; Salazar, *supra* note 27 (arguing that “establish[ing] rules of the road for offshore wind development” is something that “should have been completed years ago”). This Note focuses only on federal lands and, as such, will not include a discussion of off-shore wind energy development.

156. Salazar, *supra* note 27.

157. Press Release, The White House, Office of the Press Sec’y, President to Attend Copenhagen Climate Talks (Nov. 25, 2009), *available at* <http://www.whitehouse.gov/the-press-office/president-attend-copenhagen-climate-talks>.

158. Salazar, *supra* note 155, § 5a.

159. *See id.* In addition to the Departmental Task Force stationed in the Department of the Interior, President Obama has created a cabinet-level working group to identify areas to site renewable generation facilities and transmission lines. *See Hearing, supra* note 5, at 4 (testimony of Secretary Salazar).

160. Salazar, *supra* note 155, § 6a(1).

161. Pub. L. 111–5, 123 Stat. 115.

162. Press Release, *supra* note 153. Presumably, the \$41 million originated in the \$125 million allocated to the BLM for “Management of Lands and Resources” (out of a total of \$320 million allocated to the BLM). American Recovery and Reinvestment Act of 2009 Title VII.

163. Press Release, *supra* note 153 (identifying a backlog of twenty-five applications for wind energy development). When testing permits are added to the count, the number increases to over two hundred. *Hearing, supra* note 5, at 100 (written testimony of Secretary



Accordingly, the Department established four Renewable Energy Coordination Offices (RECO) designed to expedite the processing of renewable energy applications, in much the same way as the Energy Policy Act of 2005 authorized pilot offices for oil and gas permitting.<sup>164</sup> The Department announced the opening of the first RECO office in Nevada in June 2009; the remaining offices opened in California, Arizona, and Wyoming.<sup>165</sup> The creation of the RECO offices helped blunt criticism from the American Wind Energy Association (AWEA) that renewable energy development was the only “major activity” on BLM lands for which there was “neither revenue nor staff dedicated solely to ensuring the timely processing of permit applications.”<sup>166</sup> The sixty-two BLM employees at the RECO offices will now be dedicated to processing renewable energy applications, and the thirty-five additional “renewable energy support staff” members will form “BLM renewable permitting teams” in six of the other Western states without RECO offices.<sup>167</sup> This means that all of the eleven Western states except Washington will feature BLM staff dedicated to processing renewable energy applications, either in a RECO office or otherwise.

Recognizing the importance of timely NEPA review to the financial viability of wind energy projects, the BLM selected seven wind-energy projects (in addition to fourteen solar, three geothermal, and seven transmission projects) for “fast-tracked” environmental review in late 2009.<sup>168</sup> The BLM initially deemed the projects to be “advanced enough in the permitting process that they could

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Salazar) (calculating 215 pending applications in November 2008, up from 150 in January 2008); *see also Recovery Investments: Bureau of Land Management—Renewable Energy Authorization*, DEP’T OF THE INTERIOR, <http://recovery.doi.gov/press/bureaus/bureau-of-land-management/bureau-of-land-management-renewable-energy-authorization> (counting 241 total wind applications).

164. *See Hearing, supra* note 5, at 93–94 (written testimony of Secretary Salazar); Press Release, *supra* note 153.

165. *See* Press Release, U.S. Dep’t of the Interior, Bureau of Land Mgmt., Secretary Salazar, Senator Reid Announce ‘Fast Track’ Initiatives for Solar Energy Development on Western Lands (June 29, 2009), *available at* [http://www.blm.gov/wo/st/en/info/newsroom/2009/june/NR\\_0629\\_2009.html](http://www.blm.gov/wo/st/en/info/newsroom/2009/june/NR_0629_2009.html) [hereinafter Press Release, ‘Fast Track’ Initiatives]; *see also* Press Release, Bureau of Land Mgmt., BLM Concentrating on Renewable Energy Projects That Could Meet Stimulus Funding Deadline (Dec. 29, 2009) [hereinafter Press Release, Stimulus Funding Deadline], *available at* <http://www.blm.gov/wo/st/en/info/newsroom/2009/december/0.html> (documenting the opening of the last three offices).

166. *Hearing, supra* note 5, at 100 (written statement of the AWEA). The AWEA is also pushing for the creation of a dedicated revenue stream for processing wind applications, which would mimic the dedicated revenue stream from royalties of oil and gas permitting. *See id.* The Obama Administration, however, has indicated its opposition to dedicated revenue streams for the permitting of *both* renewable and traditional energy sources, advocating instead for the annual appropriations process. *See id.* at 85 (written testimony of Secretary Salazar).

167. *See* Press Release, U.S. Dep’t of the Interior, Bureau of Land Mgmt., Secretary Salazar, Director Abbey Open Renewable Energy Coordination Office in California to Speed Project Processing (Oct. 9, 2009), *available at* [http://www.doi.gov/news/pressreleases/2009\\_10\\_09\\_releaseC.cfm/index.cfm](http://www.doi.gov/news/pressreleases/2009_10_09_releaseC.cfm/index.cfm). The six other states include Colorado, Idaho, Montana, New Mexico, Oregon, and Utah. *See id.*

168. Press Release, Stimulus Funding Deadline, *supra* note 165.

potentially be cleared for approval by December 2010, thus making them eligible for economic stimulus funding under the American Recovery and Reinvestment Act.<sup>169</sup> Director of the BLM Bob Abbey “reaffirmed” the agency’s commitment to completing expedited NEPA review for the projects as part of a “green energy future” in the United States.<sup>170</sup>

Although past experience suggests that the involvement of high-level officials in NEPA review expedites the process,<sup>171</sup> Director Abbey’s efforts did not result in final clearance from the BLM by January 1, 2011 for any of the seven wind projects: at the time of this writing, neither of the two most promising projects had been granted a notice to proceed, and none of the other five projects had proceeded past the draft EIS stage.<sup>172</sup> Recent guidance issued by the Fish and Wildlife Service on mitigating the impact of wind energy on eagles<sup>173</sup> has caused schedules for the

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169. *Id.*; see also *infra* text accompanying notes 181–84 (detailing the specific provisions of the investment tax credit in the stimulus bill).

170. Press Release, Stimulus Funding Deadline, *supra* note 165.

171. *Cf.* Dialogue, *supra* note 75, at 10,582 (statement of Horst Greczmiel from the Council on Environmental Quality) (“A lot of times, NEPA slows down because it doesn’t have the attention of senior leadership to ensure that it stays on course, and consequently, the agency doesn’t dedicate the resources to the NEPA analysis and documentation that are necessary.”).

172. See *Fast-Track Renewable Energy Projects*, *supra* note 124 (showing that five of the seven projects had not proceeded past the draft EIS stage). The two most promising projects (in terms of proximity of the anticipated date of final BLM approval) appeared to be the West Butte Wind Project in Oregon and the Spring Valley Wind Project in Nevada.

The West Butte Wind Project in Oregon does not actually involve the construction of wind turbines on public lands but instead seeks to “construct 3.9 miles of road and an adjacent power transmission line on public land to support renewable energy production on private land.” Notice of Availability of the Draft Environmental Impact Statement for the Proposed West Butte Wind Power Right-of-Way, Crook and Deschutes Counties, OR, 75 Fed. Reg. 16,828 (Apr. 2, 2010). After initially failing to reach a finding of no significant impact, the final EIS was released on October 1, 2010. BUREAU OF LAND MGMT., WEST BUTTE WIND POWER ROW, FINAL EIS, available at [http://www.blm.gov/or/districts/prineville/plans/wbw\\_power\\_row/files/wbw\\_power\\_row\\_final\\_EIS.pdf](http://www.blm.gov/or/districts/prineville/plans/wbw_power_row/files/wbw_power_row_final_EIS.pdf). A record of decision (ROD) was expected in early November 2010 (after a thirty-day comment period), but the BLM has delayed the release of a final decision until the developer secures an aviation protection plan from the Fish and Wildlife Service that addresses effects on golden eagles. Telephone Interview with Steve Storo, BLM Geologist, Prineville (Or.) Field Office (Jan. 10, 2011). The BLM now expects to issue a record of decision by June 2011. *Id.*

As for the Spring Valley Wind Project in Nevada, the BLM reached a FONSI and issued an ROD on October 15, 2010. SCHELL FIELD OFFICE, BUREAU OF LAND MGMT., SPRING VALLEY WIND ENERGY FACILITY: FINDING OF NO SIGNIFICANT IMPACT (2010), available at [http://www.blm.gov/nv/st/en/fo/ely\\_field\\_office/blm\\_programs/energy/spring\\_valley\\_wind/spring\\_valley\\_wind.html](http://www.blm.gov/nv/st/en/fo/ely_field_office/blm_programs/energy/spring_valley_wind/spring_valley_wind.html). The BLM will issue a notice to proceed after the developer fulfills the requirements in the ROD (such as the posting of a bond). Telephone Interview with Gina Jones, BLM Ely District NEPA Coordinator (Jan. 12, 2010).

173. The Fish and Wildlife Service’s guidance (effective through September 2011) provides that “the BLM authorized officer will not issue a Notice to Proceed” on a wind power project until a “letter of concurrence” is issued by the Fish and Wildlife Service that confirms compliance with the Bald and Golden Eagle Protection Act. Instruction

seven wind projects to “slip[.]”<sup>174</sup> Indeed, concern for golden eagles delayed the issuance of a Record of Decision for at least one wind project and led another developer to temporarily delay plans to move forward.<sup>175</sup>

Fortunately for wind power developers, the deadline for receiving the tax credit under the stimulus bill was extended at the last hour: on December 17, 2010, President Obama signed into law a tax compromise bill brokered with congressional Republicans that prolonged the availability of the renewable energy tax credit to projects on which construction begins before the end of 2011.<sup>176</sup>

### B. Tax Policy

The recent economic downturn created an extra problem for the PTC: tax credits do not provide much incentive when corporate profits are lagging.<sup>177</sup> Indeed, the collapse of the U.S. economy had a “disproportionately negative effective” on the wind energy sector. The mixture of “tightening credit markets, huge losses in the financial sector, and plunging energy prices . . . exposed the shortcomings of using tax credits to spur development in renewable energy and . . . brought the emerging multi-billion dollar wind energy industry to a standstill.”<sup>178</sup>

The stimulus bill signed into law by President Obama in February 2009 included three distinct provisions aimed at reviving the wind energy industry. First, in recognition of the shortcomings of a PTC in a recession, the stimulus bill reinstated a modified form of an investment tax credit for wind energy. Under

Memorandum No. 2010-156, Dep’t of the Interior, Bureau of Land Mgmt. (July 9, 2010) [hereinafter BLM IM No. 2010-156], *available at* [http://www.blm.gov/wo/st/en/info/regulations/Instruction\\_Memos\\_and\\_Bulletins/national\\_instruction/2010/IM\\_2010-156.html](http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2010/IM_2010-156.html). The memo concludes, “The BLM hereby notifies the applicant that compliance with the Eagle Act is a dynamic and adaptable process which may require the applicant to conduct further analysis and mitigation following assessment of operational impacts.” *Id.*

174. E-mail from David Quick, *supra* note 7.

175. Both referenced projects were among the seven identified for fast-track NEPA review by the BLM. The BLM delayed the release of a record of decision for the West Butte Wind Power Project in Oregon until an aviation protection plan was received from the Fish and Wildlife Service addressing golden eagles. *See supra* note 172. And AES Wind Generation requested a three-month delay in September 2010 to review the impact of the proposed 1957-acre, 82.5-MW Daggett Ridge Wind Farm on golden eagles. *See* Letter from Michael Azeka, Vice President of AES Wind Generation, to Jim Abbott, State Director of BLM (Sept. 2, 2010), *available at* <http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/Barstow.Par.98843.File.dat/AESDaggettRequestforDelay9.2.10.pdf>; *see also* Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Daggett Ridge Wind Farm, San Bernardino County, CA, and Possible Land Use Plan Amendment, 74 Fed. Reg. 61,166 (Nov. 23, 2009) (providing figures on size of proposed wind farm).

176. Helene Cooper, *It’s Law: Obama Signs Compromise Tax Plan*, N.Y. TIMES: CAUCUS BLOG (Dec. 17, 2010), <http://thecaucus.blogs.nytimes.com/2010/12/17/its-law-obama-signs-compromise-tax-plan/>; *infra* note 183 (detailing specific provisions of the tax bill).

177. *See* Press Release, Am. Wind Energy Ass’n, Wind Industry Welcomes Guidance on Grant Program for Renewables Projects (July 10, 2009), *available at* [http://archive.awea.org/newsroom/wind\\_energy\\_news/pdf/Wind\\_Industry\\_Welcomes\\_Guidance\\_10July09.pdf](http://archive.awea.org/newsroom/wind_energy_news/pdf/Wind_Industry_Welcomes_Guidance_10July09.pdf) (“The recession and the freeze in the credit markets . . . rendered the PTC much less useful as an investment incentive.”).

178. Hinman, *supra* note 128, at 37.

section 1102 of ARRA, wind developers have the option of electing a 30% investment tax credit in lieu of the PTC.<sup>179</sup> Those wind developers who elect the investment tax credit may then, under section 1603, choose to receive the credit in the form of an upfront grant.<sup>180</sup> Construction must have begun before the end of 2010 (later amended to 2011) to be eligible for the credit.<sup>181</sup> Second, section 1705 greatly expanded an existing loan guarantee program for renewable energy projects. Under this provision, the Department of Energy is authorized to award an additional \$6 billion to renewable energy projects,<sup>182</sup> a significant incentive to the capital-intensive wind energy sector. Construction must begin by the end of September 2011 in order to be eligible for the loans.<sup>183</sup> Third, section 1101 extended the PTC to cover projects “placed in service” before the end of 2012.<sup>184</sup>

As generous as the tax provisions of ARRA may be, their limited duration makes it unlikely that the stimulus bill will incentivize new wind projects on public lands. Rather, it was predicted that ARRA would “serve to jump start languishing projects, help unfinanced projects find investors, and convince developers to dust off old projects that had been shelved.”<sup>185</sup> ARRA was successful in achieving at least this much for wind projects on private lands, as 2009 broke all records for wind energy installation.<sup>186</sup>

Projects on public lands, however, have not profited equally from the stimulus bill. In September 2009, the Department of the Treasury announced that nearly \$500 million in grants had been issued to ten wind energy projects under section 1603 of ARRA, none of which will be sited on public lands.<sup>187</sup> And, as previously

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179. American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, § 1102, 123 Stat. 115, 319-20 (codified at 26 U.S.C. § 45(d)(1)).

180. *Id.* § 1603.

181. ARRA originally required wind energy projects to be either placed in service before the end of 2010 or, if construction began by the end of 2010, before the end of 2012 to be eligible for the tax credit. *Id.* § 1603(a). The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 extended the deadline for placing a wind energy project in service to the end of 2011 (or the end of 2012, if construction begins before the end of 2011). Pub. L. 111-312, § 707, 124 Stat. 3296, 3312.

182. American Recovery and Reinvestment Act of 2009 § 1705.

183. *Id.* § 1705(a).

184. *Id.* § 1101.

185. Hinman, *supra* note 128, at 68.

186. See Press Release, *supra* note 3; see also Donna Howell, *Government Stimulus Fanning Growth for Wind Energy Producers*, INVESTOR'S BUS. DAILY, Nov. 11, 2009, at A04 (showing that the “prognosis for wind is pretty decent” after the stimulus bill (internal quotation marks omitted)). *But cf.* Press Release, *Wind Power Sinks Back to 2007 Levels*, *supra* note 4 (noting that initial figures for 2010 show a steep drop in wind capacity installation, down 71% after the second quarter from 2009 levels).

187. Seven of the ten projects receiving grants are located in states with insignificant amounts of BLM land: Maine, Minnesota, New York, Pennsylvania, and Texas. See *Wind Industry Starts Receiving Grants in Lieu of PTC*, WIND ENERGY WKLY., AM. WIND ENERGY ASS'N, Sept. 4, 2009, [http://97.74.195.121/newsroom/wind\\_energy\\_news/pdf/Wind\\_Industry\\_Starts\\_Receiving\\_Grants\\_in\\_Lieu\\_of\\_PTC\\_04Sept09.pdf](http://97.74.195.121/newsroom/wind_energy_news/pdf/Wind_Industry_Starts_Receiving_Grants_in_Lieu_of_PTC_04Sept09.pdf). The remaining three projects, located in Oregon, also do not appear to be located on BLM land. See Eric Mortenson, *Three Oregon Wind Farms Win \$140 Million in Federal Stimulus Grants*,

discussed, it remained unclear at the time of publication whether any of the seven “fast-tracked” wind energy projects will become eligible for section 1603 grants before their expiration on December 31, 2010.<sup>188</sup>

Generally speaking, the stimulus bill appears to have responded well to the unique dilemma posed by the economic downturn to the tax incentives for wind power. At the same time, by only extending the PTC for three years—and by structuring the investment tax credit and loan guarantees to expire before then—the provisions of ARRA do not provide developers with confidence that tax incentives will remain in effect long enough to undertake long-term wind energy projects on public lands. Accordingly, the fundamental problems underlying the PTC’s applicability to wind projects on public lands continue unabated.

## VI. POLICY PROPOSAL AND CONCLUSION

Looking forward, comprehensive reform should seek to inject more efficiency and certainty into the process for wind energy development on public lands by integrating an overhaul of BLM permitting policies (“efficiency”) with a modification of the broader financial incentives that takes into account the unique challenges presented by development on public lands (“certainty”). Accordingly, I propose three measures to accomplish these goals.

First, the BLM should conduct an expedited review of every resource management plan to affirmatively and publicly identify areas suitable for wind energy development. The effort to identify zones suitable for renewable energy development has already begun on BLM lands—but more so for solar energy than wind energy. More specifically, the BLM extended the release date for a draft Solar PEIS in order to take account of Secretary Salazar’s directive to identify and prioritize areas of land suited for large-scale development of renewable energy.<sup>189</sup> When released, the revised Draft Solar PEIS will solicit public comment on twenty-four areas identified as suitable for solar development.<sup>190</sup> No similar undertaking has yet taken place with respect to wind energy.

Second, those sites that demonstrate both high wind-energy potential and suitability for development—based on available wind resources, access to transmission, and environmental concerns—should be made available for

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OREGONIAN, Sept. 2, 2009. A public liaison at the BLM confirmed that the number of ROWs issued for wind projects remains unchanged at twenty-eight. See E-mail from David Quick, *supra* note 7.

188. See *supra* notes 168–75 and accompanying text.

189. See *Solar Energy Development Programmatic EIS Information Center*, DEP’T OF ENERGY, <http://solareis.anl.gov/eis/schedule/index.cfm> [hereinafter *Solar PEIS*]. It should be noted that the memorandum issued in December 2008 by the Director of the BLM required that land-use planning address the potential for renewable energy projects. BLM IM No. 2009-043, *supra* note 52, at 1. Technically speaking, the memorandum expired within two years of its issuance, as is customary for this form of temporary guidance. See *id.*; *National Instruction Memoranda: What Are Instruction Memoranda?*, BUREAU OF LAND MGMT., [http://www.blm.gov/wo/st/en/info/regulations/Instruction\\_Memos\\_and\\_Bulletins/national\\_instruction.html](http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction.html) (“Generally these Directives represent current policy with a lifespan of 2 years (unless otherwise extended).”).

190. *Solar PEIS*, *supra* note 189.

development. This could be accomplished in one of two ways: the BLM could either continue its first-come, first-served approach of issuing ROW permits after conducting NEPA review; or, preferably, the agency could take a more proactive approach by implementing a competitive leasing system under which the BLM would auction permits to the highest bidder (pending successful completion of NEPA review). The Solar PEIS would retain the ROW system<sup>191</sup> and thus misses an opportunity to address the shortcomings associated with this noncompetitive system. The lack of a price mechanism makes it difficult to allocate permits when two or more developers share interest in a tract of land,<sup>192</sup> and the ROW system presumably generates less revenue for the federal government than would the royalties under a competitive leasing system.

Instituting the proposed leasing process would not represent radical change. Public land managers have long been accustomed to granting leases in the context of oil and gas production; indeed, the Mining Lands Leasing Act of 1920<sup>193</sup> has instructed this process for almost a century. Defenders of the status quo would be hard pressed to explain why the permitting process for wind energy resources should be conducted differently than that for fossil fuels.<sup>194</sup> The Mining Lands Leasing Act requires that “[l]ands known to be within a geological structure of a producing oil or gas field” must be leased, if at all, to the “highest responsible qualified bidder by competitive bidding under general regulations.”<sup>195</sup> By extension, it makes sense that once land has been identified as suitable for large-scale wind development that the parcel should be leased, if at all, to the highest bidder. If the federal government were to implement a leasing program, it would be following the lead of states like New Mexico where royalties are collected from wind energy leases on state lands.<sup>196</sup> Secretary Salazar has stated his openness to the idea of leasing public lands for wind development, saying that the creation of a leasing program for wind energy “may be among several options that we could further evaluate in order to increase the revenue of the Federal government and

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191. See Press Release, ‘Fast Track’ Initiatives, *supra* note 165.

192. See *supra* notes 58–60 and accompanying text.

193. Pub. L. No. 66–146, 41 Stat. 437.

194. It bears mentioning that a competitive leasing system was explicitly considered by the Wind PEIS but ultimately rejected. See Notice of Intent to Prepare Environmental Impact Statement (EIS) to Evaluate Wind Energy Development on Western Public Lands Administered by the Bureau of Land Management, 68 Fed. Reg. 59,815 (Oct. 17, 2003); WIND PEIS, *supra* note 15, at 2–25. Although the Wind PEIS did not itself amend any of the fifty-two covered RMPs to allow for competitive processes, it left this matter to the discretion of individual field offices. Interest in a competitive ROW system (similar to competitive leasing) was reportedly limited to two BLM field offices in California. WIND PEIS, *supra* note 15, at 2–25. The two field offices identified as interested in a competitive ROW process, the Palm Springs Field Office and the Ridgecrest Field Office, are the same as those responsible for twenty-four of the twenty-eight ROWs granted by the BLM to date for wind development. See *supra* notes 32–33 and accompanying text.

195. 38 AM. JUR. 2D *Gas and Oil* § 250 (2009) (citing to 30 U.S.C. § 226(b)).

196. See *Hearing*, *supra* note 5, at 62–63 (testimony of Joanna Prukop, Secretary of New Mexico Energy, Minerals and Natural Resources Department, recommending the federal government adopt the system used in New Mexico).

stimulate production of these renewable energy sources.”<sup>197</sup> Irrespective of whether the current system or a leasing system prevails, it is critical that the BLM continue to implement “priority” or “fast-track” processing in an effort to expedite NEPA review for wind energy projects.

Lastly, tax incentives should be restructured so that wind projects awarded a permit for development on public lands can be certain of their continued availability. In other words, wind energy developers should have a better idea, at the time of bidding on a lease from the BLM, whether the proposed wind energy project will be eligible for the PTC. Although such a guarantee would likely require legislative action, it could be easily accomplished by amending the language of “placed in service” to include the issuance of a lease for wind energy development by the BLM after completion of NEPA review.<sup>198</sup> This modification would help level the playing field between private and public lands by effectively reducing the lag time between project initiation and eligibility for the PTC for wind farms proposed on public lands. Practically speaking, redefining “placed in service” to include leases issued by the BLM (but not yet constructed) would mean more wind energy projects would be eligible for the PTC if it were ever to lapse again unexpectedly. In order to prevent abuse of tax incentives and speculative land grabs, the leases should include a use-it-or-lose-it provision that requires construction to begin on leased sites within a specified amount of time.<sup>199</sup>

One way to avoid altogether the problems created by the boom-and-bust cycle created by the PTC is to enact broader incentive policies. Accordingly, the modest proposals in this Note for competitive leasing and tax modifications could be enacted alongside other renewable energy initiatives to multiply the positive effect of reforms.

Though beyond the scope of this Note, it is worth acknowledging other related proposals on the table. By creating a market for carbon, a cap-and-trade system would force fossil fuel energy to internalize the cost of greenhouse gases and make wind energy more competitive across the board. Such a system would benefit wind development equally on private and public lands because the increased demand for wind energy would attach irrespective of *when* or *how long* a project takes to be approved. A national renewable portfolio standard, advocated by the wind energy lobby,<sup>200</sup> could achieve similar results by mandating utilities to buy a portion of their electricity from renewable energy sources. Lastly, some have floated the idea of creating a government-backed “clean energy bank” modeled after the Export-Import Bank that would institutionalize the provision of loan guarantees and direct loans to clean energy projects.<sup>201</sup> Such a bank could help free credit for the capital-

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197. *Id.* at 85.

198. *See supra* note 184 and accompanying text.

199. The proposed use-it-or-lose-it provision, like several aspects of my proposal, draws on other BLM policies already in place. In this case, an analogue exists in the current ROW permitting system. *See* BLM IM No. 2009-043, *supra* note 52, at 10 (explaining that after two years the ROW must provide “good cause as to the nature of any delay” in construction or face potential revocation of permit).

200. AM. WIND ENERGY ASS’N, *supra* note 123, at 6–7.

201. *See* Galbraith, *supra* note 152.

intensive nature of wind energy production, in which almost all costs accrue before construction (with no fuel costs whatsoever).

Any of these broader reforms would drastically help increase wind production on public lands. Perhaps more important than the technical differences between the various options is that the federal government takes *some* decisive action. Without reform, the Wind PEIS will remain unchanged, and the BLM will continue to evaluate individual applications for wind projects without a comprehensive approach for identifying lands suitable for development. Wind projects may continue to be bogged down by multi-year NEPA review; the BLM would remain in a reactive posture; and the antiquated, noncompetitive ROW system would prevail.<sup>202</sup> And, until the unique problems of the PTC are tackled, investment for wind energy development on public lands will continue to be deflated even further, relative to private lands.

Admittedly, it is easy to fall prey to the notion that the United States will remain dependent on fossil fuels to produce electricity for the foreseeable future. Even after the real progress made in the last decade, wind energy accounts for but a small fraction of all domestic electricity production, 2.3% to be exact.<sup>203</sup> Building a green energy economy will require tremendous leadership by public officials—an ability to move in concert toward a common goal that seems missing in today’s political culture. The same country that once cleared the way for a transcontinental railroad, built a cutting-edge interstate highway system, and sent a man to the moon now seems paralyzed to take decisive action.<sup>204</sup> At times it seems that the gears of government have so worn that even the uncontroversial and the routine cannot move through Congress without lengthy delay<sup>205</sup>—and all the while other countries

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202. That said, there are some steps that private developers can take (irrespective of government action) that will help reduce the length of NEPA review. One such step is a robust “scoping” procedure, defined as “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.” NEPA and Agency Planning, 40 C.F.R. § 1501.7 (2009). See Dialogue, *supra* note 75, at 10,585 (statement of Horst Greczmiel) (“[O]ne point that I want to drive home is scoping, scoping, scoping.”).

203. Through the first six months of 2010, wind-generated power accounted for 45,424 gigawatt hours of electricity—2.3% of the total 1,983,559 gigawatt hours produced in the United States. See *Net Generation by Energy Source*, U.S. ENERGY INFO. ADMIN. (Oct. 14, 2010), [http://www.eia.doe.gov/cneaf/electricity/epm/table1\\_1.html](http://www.eia.doe.gov/cneaf/electricity/epm/table1_1.html); *Net Generation of Other Renewables*, U.S. ENERGY INFO. ADMIN. (Oct. 14, 2010), [http://www.eia.doe.gov/cneaf/electricity/epm/table1\\_1\\_a.html](http://www.eia.doe.gov/cneaf/electricity/epm/table1_1_a.html).

204. See Salazar, *supra* note 27.

205. See, e.g., Gail Collins, Op-Ed, *Unhold Us, Senators*, N.Y. TIMES, Sept. 24, 2010, at 21 (decrying the “holds” placed by two senators on the National Women’s History Museum bill—an act that costs no money and “always has been uncontroversial”); Eric H. Holder, Jr., Op-Ed, *Crisis in Our Courts*, WASH. POST, Sept. 28, 2010, at A25 (illustrating the “emergency” of vacant judicial positions with the case of Jane Stranch who “enjoyed the support of both of her Republican home-state senators and bipartisan support in the Senate Judiciary Committee” but “was forced to wait almost 300 days for an up-or-down vote by the full Senate”).



step into the void of showing the world that the improbable is still very much possible.<sup>206</sup>

But, at the end of the day, the stakes remain too high for pessimism. The prospects of developing clean, renewable energy sources on America's public lands give this country an opportunity to dream big again—to conquer one of the great challenges of our time. The Obama Administration has already taken several significant steps to incentivize wind energy on public lands, but more work remains to be done if the United States is to achieve 20% wind by 2030. Federal land-use policies and financial incentives must be reformed to harness the vast potential of public lands to produce clean, homegrown wind energy. As Secretary Salazar put it, “[a]t no time in our history has the need for a new energy policy been so urgent.”<sup>207</sup>

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206. For example, trains in China will travel at 215 miles per hour on forty-two rail lines covering 5000 miles by the year 2012. Keith Bradsher, *China Sees Growth Engine in a Web of Fast Trains*, N.Y. TIMES, Feb. 13, 2010, at B1 [hereinafter Bradsher, *China Sees Growth*]. Over 1200 miles of high-speed rail will have been installed in China in the year 2010 alone. Keith Bradsher, *China Is Eager to Bring High-Speed Rail Expertise to the U.S.*, N.Y. TIMES, Apr. 8, 2010, at B1. The United States, by comparison, is scheduled to have no more than seventy-four miles of high-speed rail by the year 2014. Bradsher, *China Sees Growth*, *supra*. For an expanded discussion on the contrast between China and the United States in regards to emerging growth sectors of a 21st century green economy, see Thomas Friedman, *Their Moon Shot and Ours*, N.Y. TIMES, Sept. 26, 2010, at WK12 (comparing China's “big, multibillion-dollar, 25-year-horizon, game-changing investments” with the United States’ lagging development); Thomas Friedman, Op-Ed, *Too Many Hamburgers*, N.Y. TIMES, Sept. 24, 2010, at 18 (warning that the “very retro notion that we are undisputedly still No. 1” is “extremely dangerous”).

207. Press Release, *supra* note 153, at 1.

