# SPECIAL REPORT

# tax notes

# Alternative Energy Gets A Second Wind

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The author would like to thank Katherine M. Breaks, Sam Chen, and Hannah B. Hawkins for their assistance in preparing this report, but zealously reserves all criticism regarding it (or anything else) for herself. She can be reached at vhammer@kpmg.com.

The alternative energy industry relies heavily on federal tax incentives for viability, particularly the section 45 production tax credit (PTC). The IRS stymied alternative energy development when it published Rev. Proc. 2007-65, which was intended to provide reassurance to wind energy partnerships claiming the PTC. After receiving comments from members of the alternative energy industry, the IRS relaxed several stringent requirements in the revenue procedure to be more consistent with standard industry practices. This report discusses the history of the PTC, the IRS's initial attempt at creating a safe harbor for wind energy partnerships in Rev. Proc. 2007-65, and revisions to the safe harbor in Announcement 2009-65, which addressed the concerns of the wind energy industry. It also looks at the future of wind energy and what steps are needed to promote its growth.

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# I. Introduction

# A. Recent Guidance Provides Relief

Chief among the federal government's supports for the alternative energy industry is the section 45 production tax credit (PTC). Alone, the PTC is not sufficient to spur the production of wind energy, but partnerships between wind energy producers and financial institutions have transformed the tax credit into the major catalyst for growth in wind energy production.

Because partnerships between financiers and wind energy producers are so critical to effective use of the PTC, the wind energy industry considers IRS guidance on the permissible parameters for those partnerships with great seriousness. Rev. Proc. 2007-65<sup>1</sup> purportedly created a safe harbor for partner allocations of PTCs and associated income and loss. Although clothed as a comfort to taxpayers structuring partnerships to build wind farms, the revenue procedure was so restrictive that it was considered contrary to long-standing authority on partnership allocations. After the industry communicated at length with Treasury and the IRS, Announcement 2009-692 was published, revising Rev. Proc. 2007-65. In loosening the restrictions of the revenue procedure, Announcement 2009-69 recognized the vulnerabilities of the industry as it develops long-term, uncertain, capital-intensive wind energy projects. This report will focus on Rev. Proc. 2007-65 and its subsequent revision in Announcement 2009-69, considering the peculiarities of the wind industry, and the indispensable role of the PTC in its incubation.

# B. Emergence of Wind Energy

Wind energy provides only about 2 percent of the total electricity production in the United States, but it provides more than half the total production from renewable sources and almost 40 percent of the total new energy generating capacity in the country.<sup>3</sup> By

<sup>&</sup>lt;sup>1</sup>2007-45 IRB 967, Doc 2007-23470, 2007 TNT 204-14.

<sup>&</sup>lt;sup>2</sup>2009-40 IRB 475, Doc 2009-20970, 2009 TNT 181-8.

<sup>&</sup>lt;sup>3</sup>Corina Rivera, "AWEA: US Installed More Than 10,000 MW of New Capacity In '09," SNL FERC Power Report (Apr. 14, 2010).

the end of 2008, the United States had added enough new wind energy capacity to make it the world leader in wind energy production.4 In 2008 alone, U.S. wind energy capacity increased by 50 percent.<sup>5</sup> In 2009 more than 10,000 megawatts (MW) of new wind energy capacity was added, and as of the first quarter of 2010, more than 35,600 MW of wind energy capacity was operating in the United States, enough to power almost 10 million homes.<sup>6</sup> None of this blossoming of activity would have been possible without the federal government's careful tending in the form of the PTC.<sup>7</sup>

Wind energy projects are less costly than other types of renewable energy projects because of lower installation costs and operating efficiency.8 Nevertheless, they require large initial financial outlays and many fallow years before turning a profit. The largest costs associated with developing a wind energy project are the costs of building a facility and connecting it to an electricity grid. 10 In a cost

<sup>4</sup>Global Wind Energy Council, "U.S. and China in Race to the Top of Global Wind Industry," Feb. 2, 2009, available at http://www.gwec.net/index.php?id=30&tx\_ttnews%5Bt\_news%5D=

<sup>9</sup>See Sidney A. Shapiro and Joseph P. Tomain, "Řethinking Reform of Electricity Markets," 40 Wake Forest L. Rev. 497 (2005): "The electric industry, like other network industries, has high front-end capital costs. Significant investment must be made in plants and equipment before production can begin." See also Hinman, supra note 8, at 37, 43: "New wind capacity is capital intensive and requires a significant portion of that money up front."

For a comparison of wind energy projects with other renewable energy projects, see Energy Information Administration, "2016 Levelized Cost of New Generation Resources From the Annual Energy Outlook 2010," Jan. 12, 2010, available at http:// www.eia.doe.gov/oiaf/aeo/electricity\_generation.html (for example, wind facilities have capital costs of \$130.5/megawatt hour (MWh) and operating costs of \$10.4/MWh, while solar photovoltaics facilities have capital costs of \$376.8/MWh and operating costs of \$6.4/MWh. Solar thermal facilities have capital costs of \$224.4/MWh and operating costs of \$21.8/

<sup>10</sup>See Hinman, supra note 8, at 43, citing International Energy Agency, World Energy Outlook 2004, at 195 (2004): "As with most renewables, the biggest cost per MW of wind energy installed is the initial investment in building and connecting new capacity to the grid because, once established, a wind farm has few maintenance costs and absolutely no fuel costs."

comparison performed by the federal government's Energy Information Administration, a wind facility's capital cost is estimated to be \$130.5/megawatt hour (MWh), while a coal plant's capital cost is \$69.2/MWh and a natural gas plant's capital cost is \$22.9/MWh.<sup>11</sup> However, a wind facility requires only \$10.4/MWh to operate and manage, while a coal plant requires \$27.7/MWh and a natural gas plant requires \$56.6/MWh.<sup>12</sup>

Despite the high start-up costs for wind energy projects, there has been significant growth in the industry. Thirty-six states have utility-scale wind projects, and 14 of those states have more than 1,000 MW of installed capacity.<sup>13</sup> In May 2010, approximately 85,000 people were employed in the wind industry, in areas such as turbine component manufacturing, construction and installation of wind turbines, wind turbine maintenance, legal and marketing services, and transportation and logistical services.14

Analysts, industry participants, and the federal government predict more long-term growth in the wind industry. Cumulative wind capacity additions from 2009 to 2012 are predicted to exceed 35,000 MW. According to a report compiled by the Department of Energy and wind trade associations, the United States is on track to meet 20 percent of the nation's energy demand with wind power by 2030.15

Despite eloquent skeptics and a difficult gestation, wind energy has attained a secure position in the nation's energy future, and the PTC deserves a great part of the credit for this.

# C. History of the PTC

A central motif in the history of U.S. energy policy is the high cost of building an energy facility.16 In addition to the expenses of land purchase and the construction of complex, idiosyncratic energy facilities, is the burden of navigating several complicated regulatory systems.<sup>17</sup> These costs must be incurred well before the facility begins producing energy, and the facility may be in operation for a long time before the investors recoup the initial costs and realize a profit. But because operating costs are low relative to initial development costs, an energy facility can produce and sell large amounts of energy at a relatively low additional

<sup>&</sup>lt;sup>6</sup>American Wind Energy Association (AWEA), "Market Update: Record 2009 Leads to Slow Start in 2010," available at http://www.awea.org/pubs/factsheets/Market\_Update\_Fact sheet.pdf.

<sup>&</sup>lt;sup>7</sup>Global Wind Energy Council, *supra* note 4. <sup>8</sup>See Jeffry S. Hinman, "The Green Economic Recovery: Wind Energy Tax Policy After Financial Crisis and the American Recovery and Reinvestment Act of 2009," 24 J. Envtl. L. & Litig. 35 (2009): "With technological advances lowering the price of installation and improving the efficiency of wind machines, wind energy is currently the closest of all renewables to being cost competitive with traditional sources of electricity.'

<sup>&</sup>lt;sup>11</sup>Hinman, supra note 8, at 43.

<sup>&</sup>lt;sup>12</sup>Energy Information Administration, supra note 9.

<sup>&</sup>lt;sup>13</sup>AWEA, supra note 6.

<sup>&</sup>lt;sup>15</sup>Department of Energy, "2008 Wind Technologies Market Report," July 2009, available at http://eetd.lbl.gov/ea/ems/ reports/2008-wind-technologies.pdf.

<sup>&</sup>lt;sup>16</sup>See Shapiro and Tomain, supra note 9, at 505.

cost.<sup>18</sup> In economic parlance, an energy facility experiences significant economies of scale.

Because of the economies of scale, energy firms are natural monopolies. If "a single firm can realize economies of scale throughout a range of production, [and] thus continually lower product cost . . . [then it] is wasteful for a firm to make large capital investments in facilities that will duplicate another firm's facilities."19 For most of the 20th century, the U.S. government applied this theory by granting electric utilities franchises and regulating them as natural monopolies.20 As protected monopolies with guaranteed profit returns, the old-line electric utilities had incentives to continually invest capital into energy production and delivery infrastructure.<sup>21</sup> But the government's protection of the monopolies discouraged new entrants into the energy industry.<sup>22</sup>

Until the 1970s, the energy monopolies relied mostly on fossil fuels for the production of electricity. The U.S. government encouraged this reliance through a tax policy promoting domestic oil and gas reserves and production.<sup>23</sup> The policies contributed to the relatively low price of oil- and gasderived energy and the prevalent usage of oil and gas throughout the United States.<sup>24</sup> By 1970, energy from oil and gas accounted for 71.1 percent of total U.S. energy production.<sup>25</sup>

The government's revenue losses from subsidizing the oil and gas industries made the subsidy more difficult to justify as the federal budget deficit soared in the 1970s.<sup>26</sup> The added stimulus of a new environmental awareness and the energy crisis resulted in the examination of the possibility for alternative energy sources.<sup>27</sup> At the time, U.S. elec-

(Footnote continued in next column.)

tric utilities held a monopoly over the production and transmission of electricity, and there was no natural market for alternative energy production.<sup>28</sup> Even if investors and developers built alternative energy facilities, they could not be sure that they could sell the energy produced at those facilities.<sup>29</sup> Recognizing the need for government intervention, Congress passed legislation to shift the market incentives associated with energy production. The Energy Tax Act of 1978<sup>30</sup> (ETA) reduced the tax preferences for the oil industry and imposed excise taxes on the use of fossil fuels to discourage their use. It also provided incentives for energy conservation and the development of alternative fuels.<sup>31</sup> In particular, the ETA provided an additional 10 percent investment tax credit for investments in certain renewable energy facilities, including wind facilities.32

Congress also passed a piece of non-tax-related legislation ensuring a market for renewable energy. The Public Utility Regulatory Policies Act of 1978<sup>33</sup> required electric utilities to purchase the energy created by renewable energy facilities at the price the utilities would have paid to create the same amount of energy. The new laws alleviated the extreme market imbalance tipped against alternative energy, but residual biases continued.<sup>34</sup>

The momentum in favor of alternative energy slowed in the 1980s with the implementation of President Reagan's free-market philosophy. His theory and that of his advisers was that the government should minimize its intervention in the energy markets and that high fuel prices would motivate renewable energy investments sufficiently to ensure optimal energy production.<sup>35</sup> That attitude was

 $<sup>^{18}</sup>Id.$ 

<sup>&</sup>lt;sup>19</sup>Id. at 506: "There is no need to have multiple sets of telephone lines, electric lines, or natural gas pipelines serving the same geographic area because the duplicate sets are inefficient and will go to waste."

<sup>&</sup>lt;sup>20</sup>*Id.* at 507.

<sup>&</sup>lt;sup>21</sup>*Id.* at 512.

<sup>&</sup>lt;sup>22</sup>*Id.* at 509.

<sup>&</sup>lt;sup>23</sup>Salvatore Lazzari, "Energy Tax Policy: History and Current Issues," Congressional Research Service Report RL33578, at 2-3 (Oct. 30, 2008), *Doc* 2008-23617, 2008 TNT 217-21.

<sup>&</sup>lt;sup>24</sup>*Id*. at 3.

 $<sup>^{25}</sup>Id.$ 

 $<sup>^{26}</sup>Id.$ 

<sup>&</sup>lt;sup>27</sup>Id.; see also Hinman, supra note 8, at 47:

The debate over renewable energy first became a part of the national political discussion after the OPEC Embargo of 1973 and the Iranian Revolution in 1979 showed Americans the vulnerability created by reliance on foreign oil for much of their energy needs. This new awareness, coupled with the spike in fossil fuel prices and the economic turmoil that followed, sparked the federal government to deploy tax incentives and open up energy

markets dominated by utilities to encourage investment in renewable energy production.

<sup>&</sup>lt;sup>28</sup>See Hinman, supra note 8, at 49.

<sup>&</sup>lt;sup>29</sup>Id.

<sup>&</sup>lt;sup>30</sup>P.L. 95-618 (codified as amended in scattered sections of 26 LLSC)

<sup>&</sup>lt;sup>31</sup>Lazzari, *supra* note 23, at 4; *see also* P.L. 95-618 (the federal "gas guzzler" tax imposes an excise tax on automobiles with low fuel economy ratings) and Molly F. Sherlock, "Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures," CRS Report R41227 (May 7, 2010), *Doc* 2010-10310, 2010 TNT 89-79.

<sup>&</sup>lt;sup>32</sup>P.L. 95-618; see also Hinman, supra note 8, at 49.

<sup>&</sup>lt;sup>33</sup>P.L. 95-617.

<sup>&</sup>lt;sup>34</sup>The system did not work perfectly. According to the Federal Energy Regulatory Commission's regulations, the actual price paid to the renewable energy facilities depended largely on the cost of fuels that the utilities used to produce energy. Thus, when fuel prices were low, the amount paid to the renewable energy facility was not high enough to make production profitable. Even under the new legislation, renewable energy was a profitable industry only when the prices of traditional fuels were high. *See* Hinman, *supra* note 8, at 49-50.

<sup>&</sup>lt;sup>35</sup>See Lazzari, supra note 23, at 6; Hinman, supra note 8, at 53.

encouraged further because of the use by some of renewable energy facilities as abusive tax shelters. Because the size of the tax credits was tied to investment rather than energy production, investors could receive the benefit of the tax credits even when their investments did not contribute to a supply of renewable energy.<sup>36</sup> The combination of these two factors resulted in the expiration of the energy credits and excise taxes that had been created in the 1970s.37

Tax incentives to promote energy conservation and the development of alternative fuels were revived after the Reagan years.<sup>38</sup> The shift in policy was motivated by concerns not only about energy security and the high price of energy but also about the environment.<sup>39</sup> Congress passed the Energy Policy Act of 1992,40 the purpose of which was to promote increases in the production and use of energy from renewable energy resources, further advance renewable energy technologies, and encourage exports of U.S. renewable energy technologies and services.<sup>41</sup> The Energy Policy Act created the PTC, which at that point applied to renewable energy projects such as wind.42 Unlike the investment-based tax credits of the ETA, the PTC was tied to the actual production of electricity "in order to reward efficient operators and prevent tax shelter abuses with equipment that does not work."43 Under the ancien tax Régime, taxpayers seeking to claim investment-based tax credits

would quickly develop wind projects solely for the purpose of obtaining the credit, even though little or no actual electricity was generated by the projects.44 Under the PTC regime, a wind project must actually work and produce electricity before the credit can be claimed; indeed, the more electricity produced, the more credits can be claimed. Further, the PTC is spread over 10 years, encouraging developers to build long-lasting wind facilities. 45 The legislative history to section 45 states that in enacting the PTC, Congress aimed to subsidize alternative energy producers that would otherwise have difficulty finding an economically attractive market for their product because of the high cost of their technology.46 Specifically, the PTC was intended to provide "a larger subsidy for those producers who utilize renewable energy in a more intensive manner."47 The legislative history also suggests that a wider goal of the PTC was to promote the substitution of renewable energy sources for fossil fuels in the generation of electricity, thereby reducing atmospheric pollutants and enhancing U.S. energy independence.<sup>48</sup> Congress was concerned with both environmental and energy security issues and intended for the PTC to "close the gap between the cost [of] conventional sources and the cost of renewable energy powerplants."49

Congress has continued to add incentives for the production of renewable energy since enacting the PTC. In 1999, the Tax Relief Extension Act<sup>50</sup> extended the PTC to facilities placed in service before January 1, 2004. In 2004 the Working Families Tax Relief Act of 2004<sup>51</sup> extended the PTC to facilities placed in service before January 1, 2006. The American Jobs Creation Act of 2004<sup>52</sup> (AJCA) extended the PTC to other renewable resources, including openloop biomass, geothermal power, solar power, small irrigation systems, landfill gas, and trash combustion. The legislative history to AJCA notes that the PTC has been a successful tool in the development of wind power as an alternative source of electricity generation, and therefore Congress believed the country would benefit from the expansion of the

<sup>&</sup>lt;sup>36</sup>See Hinman, supra note 8, at 52, 54.

<sup>&</sup>lt;sup>37</sup>Lazzari, supra note 23, at 6.

<sup>&</sup>lt;sup>39</sup>Id.; see also Hinman, supra note 8, at 37, discussing how the high price of fossil fuels created incentives for the production of renewable energy, including wind energy. <sup>40</sup>P.L. 102-486.

<sup>&</sup>lt;sup>41</sup>Section 1201 of the Energy Policy Act of 1992 (H.R. 776).

<sup>&</sup>lt;sup>42</sup>The current PTC applies to wind, solar, geothermal, openand closed-loop biomass, small irrigation power, municipal solid waste, qualified hydropower production, and marine and hydrokinetic renewable energy. The original PTC as enacted by the Energy Policy Act of 1992, however, applied only to wind and closed-loop biomass, and it is unclear why. In the original bill introduced in Congress, the credit applied to other renewable energy sources, such as solar and geothermal sources. See 137 Cong. Rec. S2146. See also Joint Committee on Taxation, "Description of Proposals Relating to Renewable Energy and Energy Conservation Tax Incentives," JCS-8-91 (June 1991), Doc 91-4850, 91 TNT 126-1.

<sup>&</sup>lt;sup>43</sup>See 137 Cong. Rec. E389, statement of Hon. Philip R. Sharp introducing the Renewable Energy and Energy Efficiency Tax Act of 1991, a precursor to the Energy Policy Act of 1992. *See also* Hinman, *supra* note 8, at 55-56: "The production and sales requirements encourage investment in successful wind projects because a wind farm that is inefficient or nonfunctional creates little or no tax benefit to the taxpayer.'

 $<sup>^{44}</sup>Id.$ 

<sup>&</sup>lt;sup>45</sup>Hinman, supra note 8, at 56.

<sup>&</sup>lt;sup>46</sup>JCS-8-91, *supra* note 42, at 14.

<sup>&</sup>lt;sup>47</sup>Id.

<sup>&</sup>lt;sup>48</sup>Id. at 14-15.

<sup>&</sup>lt;sup>49</sup>See Sharp, supra note 43.

<sup>&</sup>lt;sup>50</sup>Enacted as Title V of the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170).

<sup>&</sup>lt;sup>51</sup>P.L. 108-311.

<sup>&</sup>lt;sup>52</sup>P.L. 108-357.

PTC to other "environmentally friendly" sources of electricity generation.<sup>53</sup> Congress's increasing interest in alternative energy, added to the effects of increasing fossil fuel costs, resulted in alternatives becoming a viable component of the energy industry.

Comprehensive energy legislation was enacted in 2005 in the Energy Policy Act.<sup>54</sup> As part of that act, Congress renewed the PTC for the third time. The PTC was extended again by the Energy Improvement and Extension Act of 2008,<sup>55</sup> and most recently was renewed as part of the American Recovery and Reinvestment Act of 2009<sup>56</sup> (ARRA). Currently, the PTC is available for wind facilities placed in service by December 31, 2012.<sup>57</sup>

# D. Mechanics of Section 45

Section 45 provides a production tax credit for each kilowatt-hour of electricity produced by the taxpayer from a "qualified energy resource" at a "qualified facility" that is sold to an unrelated person during a tax year.<sup>58</sup> The PTC, which is 2.2 cents per kilowatt-hour for wind energy,<sup>59</sup> is available for a 10-year period beginning on the date on which the facility is placed in service.<sup>60</sup> Wind is a qualified energy resource,<sup>61</sup> and a facility using wind to produce electricity is a qualified facility as long as it was placed in service after December 31, 1993, and before January 1, 2013.<sup>62</sup> Also, in Rev. Rul. 94-31, the IRS ruled that for wind energy, each wind turbine together with its tower and supporting pad is a separate qualified facility.<sup>63</sup>

The PTC is tied to production, rather than investment, to ensure that only facilities actually contrib-

<sup>53</sup>JCT, "General Explanation of Tax Legislation Enacted in the 108th Congress," JCS-5-05 (May 2005), *Doc 2005-11832*, 2005

uting energy to the grid will benefit from the tax credit. The PTC also requires that the electricity produced by a qualified facility be "sold by the taxpayer to an unrelated person during the taxable year." A facility that generates electricity from wind that is not sold, is sold to a related person, or is used for the producer's own electrical needs, will not qualify for the PTC. The rationale for this requirement is not explicitly stated but likely was included to address sales of electricity between related parties made solely in order to claim the PTC, because of Congress's concern with the abuse of tax credits under the previous investment tax credit regime. 66

Another requirement of the PTC is that the energy be "produced by the taxpayer."67 Thus, a person must own the energy facility in some capacity in order to claim the tax credits. 68 Section 45(e)(3) provides that, "in the case of a facility in which more than 1 person has an ownership interest, except to the extent provided in regulations prescribed by the Secretary, production from the facility shall be allocated among such persons in proportion to their respective ownership interests in the gross sales from such facility." In the case of a wind farm owned by a limited liability company that has more than one member and is taxed as a partnership for federal income tax purposes, the project is considered owned by the partnership.<sup>69</sup> The net income from the sale of the electricity is allocated to the partners in accordance with the partnership tax rules. The requirement that the taxpayer own the energy facility precludes the use of sale-leasebacks or inverted lease structures, structures available to recipients of the section 48 ITC, for example, because they are not limited by this ownership requirement.

Interestingly, under a provision enacted in ARRA, a wind energy developer can elect to claim a 30 percent ITC in lieu of the PTC beginning in 2009. A developer that makes such an election can engage in a sale-leaseback or inverted lease structure. In light of Congress's concern with tax shelter abuse under the original 10 percent ITC for wind, it

<sup>&</sup>lt;sup>54</sup>P.L. 109-58. The Energy Policy Act also amended the Public Utility Regulatory Policies Act so that utilities are not required to purchase renewable energy if the renewable energy facility has access to sell its energy independent of the utility. *See* 16 U.S.C. section 824a-3(m)(1)(B)(ii). *See also* Hinman, *supra* note 8, at 54

<sup>&</sup>lt;sup>55</sup>P.L. 110-343.

<sup>&</sup>lt;sup>56</sup>P.L. 111-5, section 1101(a) (including in the definition of a qualified wind facility any facility put in place before Jan. 1, 2013).

<sup>&</sup>lt;sup>57</sup>Section 45(d)(1).

<sup>&</sup>lt;sup>58</sup>Section 45(a).

<sup>&</sup>lt;sup>59</sup>Notice 2010-37, 2010-18 IRB 654, *Doc 2010-9662*, 2010 TNT 84-12, published the inflation adjustment factors and reference prices for calendar-year 2010 for the PTC.

<sup>&</sup>lt;sup>60</sup>Section 45(a).

<sup>&</sup>lt;sup>61</sup>Section 45(c)(1)(A).

 $<sup>^{62}</sup>$ Section 45(d)(1). Qualified wind facilities do not include "any facility with respect to which any qualified small wind energy property expenditure (as defined in subsection (d)(4) of section 25D) is taken into account in determining the credit under such section."

<sup>&</sup>lt;sup>63</sup>Rev. Rul. 94-31, 1994-1 C.B. 16, 94 TNT 99-6.

<sup>&</sup>lt;sup>64</sup>Section 45(a)(2)(B).

<sup>&</sup>lt;sup>65</sup>Note, however, that "small wind" facilities (defined under section 48 generally as facilities with nameplate capacity of not more than 100 kilowatts) are eligible for an ITC the requirements of which do not include sale to third party. Also, as discussed later in this report, the ITC and Treasury grant made available to wind producers provided under ARRA do not require sales to third parties.

<sup>&</sup>lt;sup>66</sup>See Sharp, supra note 43; see also Hinman, supra note 8, at 55. <sup>67</sup>Section 45(a)(2)(A).

<sup>&</sup>lt;sup>68</sup>See Hinman, supra note 8, at 59 (citing section 45(e)(3)). <sup>69</sup>See Gregory F. Jenner, et al., The Law of Wind: A Guide to Business and Legal Issues (2010).

appears that Congress has overcome (or forgotten) that worry by providing a bigger ITC benefit than that available under prior law.

# E. Wind Partnership Structure

The PTC provides an investment incentive to a taxpayer with taxable income sufficient to use the tax credit. It can take a wind energy project several years to generate taxable income, however, particularly because the projects are eligible for accelerated tax depreciation.<sup>70</sup> In the period during which the project is not generating federal income tax liability, the PTC has limited value to a developer unless it has unrelated taxable income with which to offset the PTC.<sup>71</sup>

The PTC may attract interest from outside investors that anticipate consistent streams of taxable income, however. An entity with ongoing federal tax obligations can invest in a partnership that owns a wind energy facility. As a partner, the investor will have an ownership interest in the wind energy facility and will be able to claim the PTC.<sup>72</sup> Initially, the facility itself will not give rise to any taxable income, so the credits are available to offset the investor's other income, reducing the investor's tax liability. Because a wind energy partnership generally produces significant losses in its early years of operation, it also provides an attractive investment opportunity for an investor looking to offset tax liabilities from other sources of income.<sup>73</sup> Thus, the possible benefits to a wind farm investor are twofold: (1) being able to take advantage of the partnership's losses to offset the investor's other liabilities, and (2) being able to use the PTC. The financial investor's interest in the partnership complements the interest of a developer that is generally more concerned with long-term profit.

The PTC expires 10 years after the wind energy facility is placed in service; subsequently, the investor's return is limited to its distributive share of

<sup>70</sup>See section 168(e)(3)(B): A wind energy facility can be depreciated on a 200 percent declining balance basis over five years

income or loss.<sup>74</sup> The investor's interest in the wind energy partnership typically ends when the ability to claim the PTC ends.

A partnership "flip" structure addresses these complementary interests and the benefits that shift over time in a wind energy project. A simple partnership flip structure involves a project developer and an equity investor. The developer and investor enter into a partnership whose purpose is to own and operate a wind energy facility. The project developer constructs and manages the wind energy facility using funds supplied by the equity investor. In return, the equity investor is allocated a very large part of the income, gains, deductions, losses, and credits from the partnership. This allocation continues until the equity investor achieves a particular return on its investment, which could be projected to occur shortly after the expiration of the 10-year PTC period. At that point, the allocation "flips" and a much smaller proportion of income, gains, deductions, losses, and credits are allocated to the investor, with the remaining allocated to the developer. Cash distributions are allocated 100 percent to the developer until the developer's capital account is reduced to zero, at which point 100 percent of the cash distributions is allocated to the investor until the investor's internal rate of return is reached. After the flip, cash distributions follow income allocations. The typical flip structure provides the developer with a call option to purchase the investor's interest after the flip point has been reached. The call option is usually set at a predetermined price at the time the partnership is formed so that the developer and investor can plan an exit strategy.<sup>75</sup>

The partnership flip structure could raise several concerns about the partners' relative tax positions. The investor runs the risk that it will not be respected as an equity partner but rather a purchaser of the PTCs.<sup>76</sup> Also, even if the investor is respected as an equity partner, the IRS may not respect the allocation of the PTC in the partnership

years.

71 See Ajay Gupta, "Wind Energy Safe Harbor — but Debtors Twist in the Wind," Tax Notes, Mar. 10, 2008, p. 1111, Doc 2008-3526, or 2008 TNT 48-41; see also a related comment letter from FPL Energy LLC, Doc 2008-3619, 2008 TNT 36-22.

<sup>&</sup>lt;sup>72</sup>See FPL Energy letter, supra note 71, at 59.

<sup>&</sup>lt;sup>73</sup>A wind energy facility produces large losses because it can be depreciated on a 200 percent declining balance basis over five years. Thus, an investor receives not only its allocation of the PTC but also large depreciation losses to offset its income from other sources. *See* section 168(e)(3)(B).

<sup>&</sup>lt;sup>74</sup>See Todd Reinstein and Timothy Leska, "Tax Certainty Available to Developers and Investors in Wind Energy Partnerships" (Nov. 13, 2007), available at http://www.pepperlaw.com/publications\_update.aspx?ArticleKey=1020.

<sup>&</sup>lt;sup>75</sup>See a related comment letter from FPL Energy, *Doc* 2008-19783, 2008 TNT 181-22.

<sup>&</sup>lt;sup>76</sup>See Katherine M. Breaks and Richard Blumenreich, "New Guidance on Partner Allocations of Wind Energy Production Tax Credits," 108 J. Tax'n 95, 97 (2008).

agreement.<sup>77</sup> Finally, the structure is costly to implement — both at inception and throughout its life because of the complex partnership tax compliance work associated with maintaining the structure for up to a decade.

A fundamental characteristic of the partnership structure is that the partnership may allocate, through its partnership agreement, each partner's distributive share of every tax item incurred by the partnership.<sup>78</sup> These items include income, gain, loss, deductions, and credits.<sup>79</sup> To prevent tax avoidance, the law requires that the distribution of tax items in a partnership agreement have substantial economic effect.80 If the allocation of tax items to a partner under the partnership agreement does not have substantial economic effect, then the agreement's distribution scheme will not be respected and the partner's distributive share of the tax items is determined in accordance with the partner's interest in the partnership.81

An allocation generally will be deemed to have substantial economic effect if it is consistent with the partners' economic arrangement. If there is an economic benefit or burden associated with the tax allocation, the taxpayer that receives the tax allocation must also receive the corresponding economic benefit or burden.82 Generally, this can be accomplished if the partnership agreement requires that: (1) capital accounts be created and maintained in the manner set forth in the partnership regulations; (2) liquidating distributions be made in accordance with the partners' positive capital account balances; and (3) any partner with a deficit capital account following a liquidation of its interest be unconditionally obligated by the end of the tax year of liquidation to restore the amount of that deficit to the partnership to be paid to creditors, or distributed to other partners in accordance with their positive capital account balances.83

Under the regulations, an allocation of credits is not reflected in a partner's capital account.84 Therefore, allocations of tax credits cannot have economic effect under reg. section 1.704-1(b)(2)(ii)(b) and must be allocated according to the partner's interest

in the partnership.85 A credit must be allocated in the same proportion as any corresponding loss, deduction, or receipt.86 For a wind energy partnership, every kilowatt of electricity that it sells gives rise to gross receipts, which results in a corresponding PTC. Because the gross receipts and the PTC both arise from the sale of the same unit of electricity, the income and PTC must be allocated in the same manner in order to be respected under the regulations.

In 2006, the IRS released three private letter rulings involving partnership flip structures with features similar to the flip structure described above.87 In each ruling, the taxpayer and an investor formed a partnership that acquired a wind farm. The rulings state that the partnership issued class A membership interest to the investor and class B membership interest to the taxpayer. The rulings further provide that based on expected distributions of cash to the investor and taxpayer, the taxpayer would receive a cash-on-cash return, but the investor would not. However, if the PTC had been taken into account as if it were cash, the investor would have been expected to receive a positive economic return on its investment. After the occurrence of certain events, including an anniversary date of the investment, the taxpayer had the option to purchase the investor's class A membership interest at its then-appraised fair market value. The IRS concluded in the rulings that the PTC attributable to the partnership could be passed through to, and allocated between, the taxpayer and investor under the principles of section 702(a)(7) and in accordance with each member's interest in the partnership at the time the PTC arose. In so concluding, the rulings suggest that an investor in a wind farm partnership need not demonstrate a pretax profit in order to be treated as a partner in a partnership, and that an investor that enters into a partnership flip transaction can be treated as a true equity investor and not merely a purchaser of the PTC. However, the rulings explicitly refrain from concluding whether or not the allocations of the PTC were valid.

After the three letter rulings were issued, the IRS declared in Notice 2006-8888 that it would not rule on issues relating to partnerships claiming the PTC. Investors had to accept the risk that their partnership allocation arrangements might not be respected by the IRS. In such a case, there could be a

<sup>&</sup>lt;sup>78</sup>Section 704(a): "A partner's distributive share of income, gain, loss, deduction or credit shall, except as otherwise provided in this chapter, be determined by the partnership agreement."
<sup>79</sup>Id.

<sup>&</sup>lt;sup>80</sup>Section 704(b)(2).

<sup>81</sup>Section 704(b).

<sup>&</sup>lt;sup>82</sup>Reg. section 1.704-1(b)(2)(ii)(a).

<sup>&</sup>lt;sup>83</sup>Reg. section 1.704-1(b)(2)(ii)(b)(1)-(3).

<sup>&</sup>lt;sup>84</sup>Reg. section 1.704-1(b)(4)(ii). But note there is an exception for adjustments to the basis of section 38 property.

<sup>&</sup>lt;sup>85</sup>Id.

<sup>&</sup>lt;sup>87</sup>See LTR 200609001, Doc 2006-4166, 2006 TNT 43-27; LTR 200609002, Doc 2006-4167, 2006 TNT 43-28; LTR 200620004, Doc 2006-9744, 2006 TNT 98-21.

<sup>882006-2</sup> C.B. 686, Doc 2006-20109, 2006 TNT 187-10.

reallocation of the PTC to the developer, which would result in an increase in the investor's tax liability. Without concrete guidance from the IRS or the ability to obtain a private letter ruling, the tax treatment of a partnership flip transaction was uncertain.

#### II. Rev. Proc. 2007-65

More than a year after the release of Notice 2006-88, the IRS issued Rev. Proc. 2007-65.89 In the latter, the IRS provided that it would treat allocations in a partnership flip transaction as having substantial economic effect as long as the arrangement was structured in the manner provided for in the revenue procedure.

### A. Safe Harbor

Rev. Proc. 2007-65 established a safe harbor for partnership allocations of the PTC with respect to wind energy. The revenue procedure also stated that any allocations of the PTC that did not meet the safe harbor requirements would be "closely scrutinized" by the IRS. The safe harbor requirements as set forth in the revenue procedure are as follows:

- The project developer must maintain a minimum 1 percent interest in "each material item of partnership income, gain, loss, deduction and credit" during the life of the development project. An investor must maintain, at all times during which it holds a partnership interest, an interest in each material item of the partnership's income and gain that is at least 5 percent of the investor's percentage interest in the partnership's income and gain in the year that the investor held its largest percentage interest.
- An investor must make a minimum unconditional investment by the time the wind energy production facility is placed in service equal to "at least 20 percent of the sum of the fixed capital contributions plus reasonably anticipated contingent capital contributions required to be made by the investor under the partnership agreement." Although the investor must maintain the minimum unconditional investment as long as it is a partner in the partnership, the amount may be reduced in some circumstances. The minimum investment amount does not take into account future required investments until the investments actually are made. The safe harbor prohibits an investor from arranging with the developer or

another party related to the wind energy project for protection against the loss of any portion of its minimum investment.

- At least 75 percent of the sum of an investor's fixed capital contributions and reasonably anticipated contingent capital contributions must be fixed and determinable and not contingent in amount or certainty of payment.
- None of the developers, investors, or any related parties may have a contractual right to purchase any assets of the wind energy development project or an interest in the partnership "at a price less than its fair market value determined at the time of exercise of the contractual right to purchase." Moreover, the project developer is prohibited from purchasing the production facility or an interest in the partnership until five years after the facility has been placed in service.
- The partnership is prohibited from having a contractual right to cause any party to purchase the wind energy production facility or any assets of the partnership, excluding electricity, from the partnership. Further, an investor is prohibited from having a contractual right to cause any party to purchase its partnership interest.
- No guarantee or insurance of an investor's right to a PTC allocation is permitted. Thus, the partnership and the investors are required to bear the risk that the wind energy production facility would fail to generate any PTC. However, a guarantee regarding wind resource availability may be provided by an unrelated third party if the partnership or the investor directly pays the cost of or premium for that guarantee.
- The allocation of the PTC must be in accordance with the partners' interests in the partnership, as provided by reg. section 1.704-1(b)(4)(ii).

In addition to providing the safe harbor, Rev. Proc. 2007-65 also restated the IRS's position in Notice 2006-88, providing that it would not rule on any issues relating to partnerships claiming the PTC.

# **B.** Industry Reaction

The purpose of Rev. Proc. 2007-65 was to ensure that a partner in a wind energy partnership would be treated as a partner and not as a mere purchaser of PTCs. The safe harbor provided by Rev. Proc. 2007-65 was intended to "simplify the application"

<sup>892007-45</sup> IRB 967, Doc 2007-23470, 2007 TNT 204-14.

<sup>&</sup>lt;sup>90</sup>Interestingly, Rev. Proc. 2007-65 specifies that it applies only to partners and partnerships with PTCs from wind energy and not to any PTCs from other renewable resources. No reason was provided for this limitation.

of [section 45] to partners and partnerships that own and produced electricity from qualified wind energy facilities."91

While some commentators welcomed the certainty provided by Rev. Proc. 2007-65,92 many in the wind industry were concerned about the rigid guidelines that had to be met in order to qualify for the safe harbor. Two particular concerns were raised. First, the prohibition on fixed price purchase options was inconsistent with industry practice. Second, practitioners questioned the IRS's promised "close scrutiny" of transactions that did not conform to the safe harbor limited flexibility in negotiating the terms of partnership flip transactions.

Several industry participants submitted comment letters, arguing that the "close scrutiny" lan-guage rendered the safe harbor completely inflexible and therefore contrary to the purpose and spirit of a revenue procedure.93 In the comment letters, commentators pointed out that the safe harbor in Rev. Proc. 2007-65 sharply contrasted the approaches taken in other safe harbors provided by Treasury and the IRS because they do not normally define matters of law and are not designed to be tools for tax enforcement. One letter even suggested that because the revenue procedure was more akin to a regulation project in its tone and purpose, it should be subject to revision after public comment.94 The commentators concluded that the revenue procedure would not provide comfort and encouragement to the industry and that its strenuous requirements instead would hinder wind energy farm development.

Many writers also expressed concern about the restriction on the use of buyout options in a wind energy partnership. The safe harbor requires that if one partner has a buyout option, the purchase price cannot be lower than the fair market value "determined at the time of exercise." Although the IRS's rationale for this restriction was not stated,95 it seems the agency was concerned about an investor divesting itself of the risk of holding an interest in a wind energy partnership by arranging an exit at a predetermined price.96 This theory is consistent with the prohibition in the safe harbor against the

<sup>91</sup>Supra note 90.

<sup>92</sup>See Reinstein and Leska, supra note 74.

investor having the ability to put its interest to another party. However, unlike the investor's put option, the investor's buyout option does not give the investor direct control over whether the option is exercised. Rather, that power rests with the option holder, and whether the buyout option is exercised depends on the value of the investor's interest at the expiration of the option. Thus, the investor still bears the risk of loss of its capital contributions and the investor's return is subject to the performance of the wind energy project.<sup>97</sup> In fact, a buyout option in favor of the developer or a related party guarantees the investor nothing.

In their letters, commentators argued that parties in a partnership flip structure need to be able to determine their potential risks and returns at the time the transaction is entered into. Thus, the buyout price must be set at the closing of the transaction, not when the buyout option is exercised. 98 On this point, commentators noted that in the typical wind energy partnership, the cash flows are determined by independent appraisal before the parties' entry into the agreement, so setting a buyout price when the transaction is entered into is reasonable and generally based on reliable and mutually agreed on information. 99

In one letter, an energy company claimed that the buyout option limits the ability of partners in a wind energy partnership to efficiently plan an exit strategy and would therefore discourage investment in new renewable energy projects. 100 The company laid out a detailed argument against the buyout option restriction, contending that the IRS has never issued a similar restriction on other partnerships — even in the context of tax credits and that the restriction is inconsistent with many areas of tax law in which a taxpayer maintains a valid equity interest even though it enters into financial arrangements to reduce risk. In fact, both the IRS and the courts have confirmed the validity of partnerships in which one partner has the option to purchase another partner's interest at a price below FMV.<sup>101</sup> For example, in a sale-leaseback, in

<sup>&</sup>lt;sup>93</sup>See comment letters from McDermott Will & Emery, Doc 2008-8002, 2008 TNT 71-25; Terra-Gen Power LLC, Doc 2008-20931, 2008 TNT 191-9; Capstar Partners Capital LLC, Doc 2008-8345, 2008 TNT 74-20; and Foley & Lardner LLP, Doc 2008-3186, 2008 TNT 32-17.

<sup>&</sup>lt;sup>94</sup>See Foley & Lardner letter, supra note 93.

<sup>&</sup>lt;sup>95</sup>See Terra-Gen Power letter, supra note 93.

<sup>&</sup>lt;sup>96</sup>See Gupta, supra note 71, at 1116.

<sup>&</sup>lt;sup>97</sup>See Treasury Inspector General for Tax Administration, "The Internal Revenue Service and Contractors Are Generally Following Procedures Established for the Private Debt Collection Program, but Improvements Are Needed" (Sept. 2008), Doc 2008-20509, 2008 TNT 188-22.

<sup>&</sup>lt;sup>98</sup>See McDermott Will & Emery and Terra-Gen Power letters, supra note 93; see also FPL Energy letter, supra note 71. <sup>99</sup>Id.

<sup>&</sup>lt;sup>100</sup>See FPL Energy letter, supra note 71.

<sup>&</sup>lt;sup>101</sup>Id. See also LTR 8702006 (right of general partner to purchase, at a specified price, all of the limited partners' interests at any time within a three-year window); Estate of True, 390 F.3d 1210 (10th Cir. 2004) (right of other partners to purchase for book value the interest of a partner who failed to work in

<sup>(</sup>Footnote continued on next page.)

which the seller transfers property to a buyer who has income with which to offset tax credits and deductions and then leases back the property, courts have held that the buyer owned the leased property even though the seller held a fixed-price call option.<sup>102</sup>

### III. The IRS Listens: Announcement 2009-69

# A. Revisions to Rev. Proc. 2007-65

The IRS heard the cries of taxpayers and published Announcement 2009-69 to make three significant revisions to Rev. Proc. 2007-65. First, the announcement removes the "closely scrutinized" language from the revenue procedure. The revised language merely states that "returns claiming wind energy tax credits under [section] 45 are subject to examination by the Service." (A corresponding change is made to the example in the revenue procedure to clarify that effect on transactions that do not satisfy the safe harbor.)

Second, the announcement removes the requirement that the price of the call option must be set at the project's FMV at the time the option is exercised. According to the revised language, the contractual right to purchase must satisfy the requirements of section 4.05 of Rev. Proc. 2007-65,<sup>103</sup> and the right

business, attempted to transfer his interest, died, or became disabled); Fiorito v. Commissioner, 33 T.C. 440 (1959) (right of surviving partners to purchase interest of deceased partner at book value); Allison v. United States, 379 F. Supp. 490 (M.D. Pa. 1974) (right of one partner to purchase other partner's interest at book value, which was below FMV at time of exercise); United States v. Land, 303 F.2d 170 (5th Cir. 1962) (right of continuing partners to purchase withdrawing partner's interest for two-thirds of its value).

102 See Frank Lyon Co. v. United States, 435 U.S. 561 (1978); Sacks v. Commissioner, 69 F.3d 982 (9th Cir. 1995). See also LTR 8814006.

103Section 4.05 states that the developer, investor, or any related party may only have a contractual right to purchase the wind energy facility, any property included in the facility, or the wind energy partnership if the contractual right satisfies the requirements of the section. In addition to the requirements of section 4.05 that were modified by the announcement, the developer or any party related to the developer may not have a contractual right to purchase any property earlier than five years after the qualified wind energy facility is first placed in service. Further, section 4.05 provides that any determination of FMV may take into account (i) contracts or other arrangements creating rights or obligations only if those contracts or other arrangements are entered into in the ordinary course of the wind energy facility's business and are negotiated at arm's length with parties not related to the wind energy partnership or the investors, and (ii) any power purchase contract only if the contract is entered into with parties not related to the wind energy partnership.

must be "negotiated for valid non-tax business reasons at arm's length by parties with material adverse interests." Also, the purchase price may be determined before the exercise of the right, but must be "a price that the parties reasonably believe, based on all the facts and circumstances at the time the price is determined, will not be less than the fair market value of the property at the time the right may be exercised." Thus, the announcement allows parties to a partnership flip transaction to use a purchase price determined at the time the partnership was created, but the price must reflect a reasonable determination of the FMV of the investor's partnership interest at the time of exercise. As discussed, a buyout option that could be exercised at less than FMV has passed muster with the courts and the IRS, so it would appear the current pricing requirement is unnecessary for the safe harbor. However, the current language was suggested by comment letters, and pricing in this manner is consistent with industry practice. 104

Third, the announcement changes the rules pertaining to investors that are subject to the passive activity laws. Under the original language in Rev. Proc. 2007-65, only entities not subject to the passive activity laws under section 469 could offset nonproject income with the PTC. Under Announcement 2009-69, a taxpayer subject to section 469 may use the PTC to offset regular tax liabilities associated with passive investments. Specifically, passive investors can claim PTCs "only to the extent of their tax liability allocable to the passive activities, whether from qualified wind facilities or other sources." In other words, taxpayers subject to section 469 are not limited to using PTCs to offset wind project passive activity income; those taxpayers can also offset income from other passive activities with the PTC.105

Although Rev. Proc. 2007-65 does not explicitly cover renewable energy projects other than wind farms, tax advisers are looking to the principles in the revenue procedure in evaluating partnership flip transactions involving projects that use other forms of renewable energy (for example, biomass, geothermal, and solar). The IRS is expected to issue guidance that would extend the revenue procedure

 $^{105}$ Interestingly, the comment letters did not address this issue.

<sup>&</sup>lt;sup>104</sup>See McDermott Will & Emory letter, supra note 93; see also FPL Energy letter, supra note 71.

and the revisions in the announcement to other renewable energy sources.<sup>106</sup>

# IV. Epilogue: Congress Fills the Sails

# A. Federal Stimulus

Fiscal stimulus provided a forum for Congress to press ahead with its agenda for encouraging energy independence, improving the environmental profile of America's energy production, and creating jobs at home. ARRA, enacted in February 2009, included several energy incentives.

Under ARRA, a wind energy developer can make an irrevocable election to claim a 30 percent ITC under section 48 in lieu of the PTC. The election can be made for facilities placed in service from 2009 through 2013 (2012 for wind). Taxpayers electing the ITC over the PTC can receive the entire benefit of the incentive in the year in which the qualified facility is placed in service instead of accruing the tax benefit over 10 years.

ARRA also includes a temporary program that permits wind developers to forgo the PTC or 30 percent ITC in favor of a direct cash grant from Treasury. 107 The grant generally is equal to 30 percent of the adjusted tax basis of five-year modified accelerated cost recovery system property located at the site. The grant is excluded from gross income, and the basis of the qualified facility is reduced by half of the grant amount received. 108 To qualify for the grant, projects must be placed in service (that is, ready and available for their specific use) after 2008 and before 2013 (for wind specifically), and construction must begin by December 31, 2010.

Property eligible for the grant must not be property predominantly used outside the United States, and the original use of the property must begin with the grant applicant, although used parts may account for up to 20 percent of the cost of the property. Property eligible to receive a grant includes only tangible property that is both used as an integral part of the activity performed by the qualified facility and located at the site of the qualified facility. For electricity generation, qualified property includes storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items but does not include any electrical transmission equipment or any equipment beyond the electrical transmission stage. 109 The grant program is designed to help revive investment in renewable energy projects by furnishing a federal subsidy that is not limited to investors that are paying federal income tax on a current basis.

The grant program has been popular with wind energy developers and has done much to vitalize the industry by providing easy and inexpensive access to funding. As of August 26, 2010, \$5.21 billion in grant money had been distributed to 1,112 renewable energy projects. 110 Of those 1,112 projects, 103 (9 percent) were wind projects (excluding small wind projects).111 Interestingly, a total of \$4.45 billion in grant funds has been distributed to wind projects. 112 Thus, although 9 percent of the total successful grant applicants have been wind projects, wind projects have received 85 percent of the total funding distributed to date. The high dollar amount awarded to wind developers is due to the high cost to construct utility-scale wind

Given the three choices available, developers typically will perform a financial analysis to determine which subsidy is most beneficial. The PTC is more valuable for wind projects with a higher projected capacity and lower installation costs (that is, the PTC is based on the amount of electricity generated, while the ITC and Treasury grant are based on installation costs).<sup>113</sup> Project developers also have the option of claiming a mix of incentives at each wind farm. The developer can elect the incentive on a turbine-by-turbine basis. For example, a wind farm project could receive an upfront grant to cover part of the installation costs for the project and still receive the PTC for a portion of the electricity production from the project over 10 vears.114

ARRA also includes a provision that provides a 30 percent ITC for the cost of qualifying investments in a qualifying advanced energy project. Qualifying advanced energy projects include

<sup>&</sup>lt;sup>106</sup>See the 2009-2010 Priority Guidance Plan at 25 (Mar. 16, 2010), Doc 2009-25928, 2009 TNT 225-28.

<sup>&</sup>lt;sup>107</sup>Doc 2010-6538, 2010 TNT 58-23.

 $<sup>^{108}\</sup>mbox{This}$  basis reduction is for 50 percent of the value of the grant because the grant is treated like an energy credit, which also reduces the basis of the property for which the credit was given by 50 percent of the value of the credit. See section 50(c)(3).

<sup>&</sup>lt;sup>109</sup>Doc 2009-15586, 2009 TNT 130-16.

<sup>&</sup>lt;sup>110</sup>See spreadsheet of awards under ARRA's Treasury grant program, available at http://www.ustreas.gov/recovery/docs/ Web%20Posting.xls (updated weekly — data cited reflect the spreadsheet as of Aug. 26, 2010).

 $<sup>^{112}</sup>Id.$ 

<sup>&</sup>lt;sup>113</sup>Mark Bollinger, et al., "PTC, ITC, or Cash Grant? An Analysis of the Choices Facing Renewable Power Projects in the United States" (Mar. 2009) (report produced for the Department

<sup>114</sup>For a discussion of the advantages and disadvantages of one of these incentives over the others, see Howard A. Cooper, "Tax Credit for Electricity From Renewables — Updated," Notes, Oct. 12, 2009, p. 221, Doc 2009-20608, or 2009 TNT 196-5.

projects that reequip, expand, or establish a manufacturing facility for the production of property designed to be used to produce energy from wind, among other things. The credits were allocated by Treasury and applicants had to submit an application to receive an allocation. The amount of credit available for allocation under section 48C was capped at \$2.3 billion; the program was oversubscribed and the entire \$2.3 billion was allocated. Of the 183 successful applications, 35 were submitted by manufacturers of wind turbines or the components thereof (for example, blades and towers).

# B. Future of Wind

Based on Congress's practice for nearly 10 years, presumably the PTC will continue to be extended, although it may undergo changes. For example, a present-value cap of 35 percent of cost on the PTC was proposed in the House version of the Emergency Economic Stabilization Act of 2008. The cap was not included in the final version of that act, but such a cap could become part of future legislation.

Another factor that already has affected the wind industry and further emphasizes the need for more creative federal incentives is state-level Renewable Portfolio Standards (RPSs). An RPS generally obligates electricity supply companies to produce a specified fraction of their electricity from renewable energy sources and provides mechanisms that are permitted to achieve compliance, such as renewable energy credits. Currently, 29 states and the District of Columbia have an RPS.

Federal incentives, such as the PTC, have helped the renewable energy industry and especially the wind industry grow and prosper. The PTC's chief deficiency is that it fails to stimulate use of alternative energy when fossil fuel prices fall below a certain level. 116 The wind industry has pressed for legislation on federal RPS, which would decrease the wind industry's dependence on high electricity and fossil fuel prices by requiring a specified amount of energy to be produced from renewable sources.<sup>117</sup> The House has passed legislation that includes a federal RPS,118 but the Senate has not put the issue to vote. The wind industry sees the enactment of a federal RPS as crucial to its longterm future, and indeed to the future of the renewable industry as a whole.119 That legislation would further secure the status of the wind industry as an indispensable part of America's energy future.

<sup>&</sup>lt;sup>115</sup>P.L. 110-343.

<sup>&</sup>lt;sup>116</sup>See Hinman, supra note 8, at 49-50.

<sup>117</sup> See Andrew Engblom, "AWEA: US Wind Power Installations Fell to 700 Mw in Q2'10; Situation 'Dismal'," SNL FERC Power Report (Aug. 4, 2010) (AWEA report): With low power and fossil fuel prices, the limited demand for new capacity is being picked up by natural gas and coal generation. See also Engblom, "GE Executive: Wind Outlook Stormy, Uncertain; Installations Could Drop 50%," SNL FERC Power Report (June 2, 2010).

<sup>&</sup>lt;sup>118</sup>American Clean Energy and Security Act of 2009 (H.R. 2454), *Doc* 2009-14300, 2009 TNT 119-25.

<sup>&</sup>lt;sup>119</sup>See AWEA report, supra note 118; American Wind Energy Association CEO Denise Bode, noting that utilities are going to be wary of making long-term decisions to purchase wind when the current prices of natural gas and fossil fuels are favorable, believes it is essential that a federal RPS is passed this year because tax credits are not long-term policy.