

**PUBLICLY TRADED PARTNERSHIPS FOR  
ELECTRICITY GENERATORS: WHY  
AMENDING I.R.C. SECTION 7704 IS GOOD FOR  
THE POWER INDUSTRY**

*Comment*

INTRODUCTION.....	255
I. MLP AND REIT BASICS.....	260
A. <i>Defining REITs, MLPs, and Qualifying Income</i> .....	260
B. <i>MLP Structure and Governance</i> .....	262
C. <i>Tax Benefits and Bankruptcy Disadvantages</i> .....	263
D. <i>Raising Capital</i> .....	264
II. THE POWER INDUSTRY: MARKET SHIFTS AND THE REGULATORY LANDSCAPE.....	265
A. <i>Market Shift: Natural Gas v. Coal</i> .....	265
B. <i>The Regulatory Landscape: MATS and the CPP</i> .....	268
C. <i>Renewable Capacity Growth and Tax Credits</i> .....	273
D. <i>Capital Costs</i> .....	276
III. 2013 AND 2015 MLP PARITY ACTS .....	278
IV. FREE MARKET SOLUTION: PTPS FOR ALL ELECTRICITY GENERATORS .....	280
A. <i>Proposed MLP Parity Act Revisions</i> .....	280
B. <i>Eliminating the Tax Equity Investor: Capital Raising         and Tax Credit Utilization Efficiencies</i> .....	281
C. <i>Investor Appeal and Market Transparency</i> .....	283
D. <i>Promoting Mixed Generation Portfolios to Lower         Electricity Prices</i> .....	284
E. <i>Social Benefits</i> .....	286
CONCLUSION.....	286

## INTRODUCTION

Since 1987, the Internal Revenue Code (I.R.C.) has allowed pass-through taxation for natural resource companies organized as publicly traded partnerships (PTPs) under Section 7704 of the I.R.C.<sup>1</sup> Although prior to 1987 master limited partnerships (MLPs) could sell partnership units on public stock exchanges, the addition of section 7704 to the I.R.C. in 1987 drastically restricted the types of businesses MLPs could operate.<sup>2</sup> Today, over 140 MLPs, fifty-seven MLP funds, fifteen exchange traded note instruments, eleven MLP exchange traded funds, and eleven MLP indexes are available to the investing public.<sup>3</sup> However, due to the restrictions on “qualifying income” set out in Section 7704, many other energy-related activities, including natural resource powered electricity generation, renewable electricity generation, and electricity storage, do not qualify for special PTP tax treatment.<sup>4</sup>

In 2013, Democrat Senator Chris Coons of Delaware introduced the Master Limited Partnership Parity Act (2013 MLP Act) in the Senate.<sup>5</sup> The 2013 MLP Act sought to expand Section 7704’s qualifying income definition to include the operation of: renewable electricity generation units, electricity storage devices, combined heat and power generation units, renewable thermal energy generation units, waste heat to power generation units, renewable fuel infrastructure facilities, renewable chemical production processes, energy efficient building development, gasification with sequestration, and carbon capture activities.<sup>6</sup> The 2013 MLP Act quickly died in committee.<sup>7</sup> But in 2015, Senator Coons again introduced a nearly identical MLP Parity Act (2015 MLP Act) that listed all of the renewable qualifying income

---

1. Omnibus Budget Reconciliation Act of 1987, I.R.C. § 7704 (2016).

2. Latham & Watkins LLP, Master Limited Partnerships – 101, <https://www.lw.com/MLP-Portal/101#earlyhistory> (last visited on Dec. 31, 2016) [<http://perma.cc/FF9W-P6H2>].

3. Master Limited Partnership Association, Publicly Traded Partnerships Trading on U.S. Exchanges (Dec. 13, 2016), <https://www.mlpassociation.org/wp-content/uploads/2015/08/MLP-LIST.pdf> [<http://perma.cc/4ULV-GYE7>]; Master Limited Partnership Association, MLP Funds and MLP-Related Funds (Dec. 13, 2016), <https://www.mlpassociation.org/wp-content/uploads/2017/02/Funds-List.pdf> [<http://perma.cc/SCK8-WN68>].

4. I.R.C. § 7704 (2012).

5. Master Limited Partnerships Parity Act, S. 795, 113th Cong. (2013).

6. *Id.*

7. CONGRESS.GOV, S.795 – MASTER LIMITED PARTNERSHIPS PARITY ACT, <https://www.congress.gov/bill/113th-congress/senate-bill/795> (last visited Jan. 1, 2017) (showing the latest action on the bill as “04/24/2013 Read twice and referred to the Committee on Finance”) [<http://perma.cc/25AH-UHPL>].

sources that the 2013 MLP Act included, and only added more specific definitions as to which carbon sequestration activities are included and what constitutes a qualifying renewable chemical.<sup>8</sup> However, just like its 2013 predecessor, the 2015 MLP Act died before gaining much traction.<sup>9</sup>

Thereafter, green energy proponents, investment gurus, and legal scholars debated the propriety of extending PTP status to cover renewable energy activities.<sup>10</sup> Notably, the first reactions in legal scholarship began in January of 2014, when Andrew Fink published his stance on offering PTP status to green energy producers.<sup>11</sup> In his article, Fink theorized that creating “green” asset-backed securities, real estate investment trusts (REITs), and MLPs could lower financing costs for renewable energy project developers whose lack of net income leads them to rely on tax equity investors that swallow most of the developer’s non-refundable tax credits.<sup>12</sup> Later in 2014, Professor Felix Mormann reiterated that granting PTP status to renewable energy producers may alleviate some of the pressure on tax equity investors who often demand premiums or special repayment terms for their investments.<sup>13</sup> Most importantly, Mormann drilled down on the effects of the Production and Investment Tax Credits offered by the government and specifically how these credits are used to draw powerful investors rather than defray the cost of development.<sup>14</sup> Since 2014, other authors corroborated Fink’s and Mormann’s concerns about the dangerously close ties between

---

8. See Master Limited Partnerships Parity Act, S. 1656, 114th Cong. (2015).

9. CONGRESS.GOV, S.1656 – MASTER LIMITED PARTNERSHIPS PARITY ACT, <https://www.congress.gov/bill/114th-congress/senate-bill/1656> (last visited on Jan. 1, 2017) (showing the latest action on the bill as “06/24/2015 Read twice and referred to the Committee on Finance”) [<http://perma.cc/A2Y4-VE8R>].

10. See Andrew C. Fink, *Securitize Me: Stimulating Renewable Energy Financing by Embracing the Capital Markets*, 12 U. N.H. L. REV. 109 (2014); Felix Mormann, *Beyond Tax Credits: Smarter Tax Policy for A Cleaner, More Democratic Energy Future*, 31 YALE J. ON REG. 303 (2014); Kevin M. Walsh, *Renewable Energy: Where We Are Now and How Renewable Energy Investment and Development Can Be Expanded*, 23 U. MIAMI BUS. L. REV. 69, 70–71 (2014); Blake Harrison, *Expanding the Renewable Energy Industry Through Tax Subsidies Using the Structure and Rationale of Traditional Energy Tax Subsidies*, 48 U. MICH. J. L. REFORM 845 (2015); Tracey M. Roberts, *Picking Winners and Losers: A Structural Examination of Tax Subsidies to the Energy Industry*, 41 COLUM. J. ENVTL. L. 63, 65 (2016); E. Cabell Massey, *Master Limited Partnerships: A Pipeline to Renewable Energy Development*, 87 U. COLO. L. REV. 1009 (2016).

11. Fink, *supra* note 10, at 109.

12. *Id.* at 134.

13. Mormann, *supra* note 10, at 324.

14. *Id.* at 318–24. The Investment Tax Credit for solar projects included in I.R.C. section 48(a)(2)(A)(i) was recently extended by Congress for projects beginning before January 1, 2022, with a percentage phase-out beginning on January 1, 2020. Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, § 303, 129 Stat. 3039 (2015).

sporadic renewable energy development, tax credit availability, and tax equity investor liquidity.<sup>15</sup>

Nevertheless, Mormann and others only proposed extending PTP status to renewable electricity producers.<sup>16</sup> Furthermore, these articles were published before the Clean Power Plan (CPP) came and went,<sup>17</sup> before the Mercury and Air Toxics Standards (MATS) rule was remanded to the Environmental Protection Agency (EPA) consistent with the Supreme Court's opinion in *Michigan v. E.P.A.*,<sup>18</sup> and before President-elect Donald Trump vowed to eliminate all business hindering regulations.<sup>19</sup> While many of Mr. Trump's pre-election promises remain highly questionable, two of his objectives are quite clear: (1) he plans to

---

15. Walsh, *supra* note 10, at 73–78; Harrison, *supra* note 10, at 857–61; Roberts, *supra* note 10, at 93–100; Massey, *supra* note 10, at 1027–29; see Robert C. Campbell et al., *Recent Developments in Texas, United States, and International Energy Law*, 7 TEX. J. OIL, GAS & ENERGY L. 383, 420–23 (2012); Michelle D. Laysner, *Improving Tax Incentives for Wind Energy Production: The Case for a Refundable Production Tax Credit*, 81 MO. L. REV. 453, 456 (2016).

16. See Mormann, *supra* note 10, at 346.

17. See Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units, 40 C.F.R. pt. 60, Sub pt. TTTT (2015) [hereinafter CPP]. In October of 2015, the EPA promulgated the CPP, which required electricity producers to comply with strict air toxics standards by 2022. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,667 (proposed Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60) [hereinafter CPP Final Rule]. On February 9, 2016, the Supreme Court stayed the CPP until the rule's fate could be decided by the D.C. Circuit. *West Virginia v. E.P.A.*, 136 S. Ct. 1000 (2016) (mem.). At the time the author finalized this article, the D.C. Circuit has not reached its final decision on the CPP.

18. National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, 77 Fed. Reg. 9,304 (Feb. 16, 2012) (codified at 40 C.F.R. §§ 60, 63) [hereinafter MATS Final Rule]; *Michigan v. E.P.A.*, 135 S. Ct. 2699, 2712 (2015) (reversing the judgment of the D.C. Circuit and remanding for further proceedings consistent with its holding that the EPA's interpretation of 42 U.S.C. § 7412(n)(1)(A)'s requirement that the agency promulgate mercury emissions standards was unreasonable "when it deemed cost irrelevant to the decision to regulate power plants"); *White Stallion Energy Center, LLC v. E.P.A.*, 2015 WL 11051103, at \*1 (D.C. Cir. Dec. 15, 2015) (ordering that the MATS proceeding be remanded to the EPA without vacatur).

19. Nick Timiraos, *Donald Trump Election Upset Could Undo Regulation on Commerce*, WALL ST. J. (Nov. 9, 2016, 8:00 AM), <http://www.wsj.com/articles/donald-trump-election-upset-could-undo-regulation-on-commerce-1478696404> [<http://perma.cc/B8ZD-FV58>]. Amid the regulatory trials, President-elect Donald Trump prepared to take office and "eliminate every unnecessary job-killing regulation." *Id.* Some experts predict that the Trump Administration will either repeal the CPP and MATS, or will not defend future constitutional challenges to either or both. Stephen J. Humes & Beth A. Viola, *Federal Electricity Policy Under the Trump Administration*, Holland & Knight LLP (Dec. 7, 2016), <https://www.hklaw.com/publications/Federal-Electricity-Policy-Under-the-Trump-Administration-12-07-2016/> [<http://perma.cc/NGA6-729Q>].

overhaul the tax system;<sup>20</sup> and (2) he plans to boost infrastructure spending by incentivizing public-private partnerships.<sup>21</sup> Although both of these initiatives could lead to differing taxation schemes and governmental spending structures by the time the 2020 election occurs, corporate America can only brace for more changes after eight years of increased regulation.

Accordingly, now is the time for innovative solutions like the 2015 MLP Act to be placed in the crosshairs of domestic congressional debates. While Fink, Mormann, and many others promoted the MLP Parity Act's grant of PTP status to renewable energy activities, they did so in the shadow of the MATS and CPP despite never mentioning the regulations in their articles.<sup>22</sup> Although the purpose of the MATS and CPP were to diminish or eliminate our country's carbon footprint from coal burning electricity generation activities by the year 2022, each regulation placed hefty financial burdens on electricity producers who faced the choice of paying billions to implement new scrubbing technology in coal-fired plants or closing them altogether.<sup>23</sup> However, at the behest of troubled coal companies' and worrisome electricity producers' undying challenges to each regulation, the MATS rule has been reviewed and amended by the EPA, and the CPP is stayed until the D.C. Circuit decides whether it may stand in mid-2017.<sup>24</sup> Nonetheless, regulatory uncertainty is not the only cause of coal's decline as an electrical generation fuel; lower natural gas prices accelerated electricity producers' switch from

---

20. See generally Donald J. Trump for President, Inc., *Tax Plan*, Trump-Pence Make America Great Again!, <https://www.donaldjtrump.com/policies/tax-plan/> (last visited January 1, 2017) [<http://perma.cc/U98J-3YJ6>].

21. See Donald J. Trump for President, Inc., *Infrastructure*, Trump-Pence Make America Great Again!, <https://www.donaldjtrump.com/policies/an-americas-infrastructure-first-plan/> (last visited on January 1, 2017) [<http://perma.cc/J9HG-4JSV>].

22. Fink published his article, "*Securitize Me*" in January of 2014, while Mormann published his article, "*Beyond Tax Credits*" in the summer of 2014. Fink, *supra* note 10, at 109; Mormann, *supra* note 10, at 303. Although the CPP was not finalized at the time Fink and Mormann published their articles, the comment period for the MATS had long since closed and the CPP proposal was imminent. See MATS Final Rule, 77 Fed. Reg. at 9,304; CPP Final Rule, 80 Fed. Reg. at 64,665.

23. See MATS Final Rule, 77 Fed. Reg. at 9,305–06; CPP Final Rule, 80 Fed. Reg. at 64,662, 64,679.

24. Michigan, 135 S. Ct. at 2712 (holding the EPA's interpretation of 42 U.S.C. § 7412(n)(1)(A)'s requirement that the agency promulgate mercury emissions standards was unreasonable "when it deemed cost irrelevant to the decision to regulate power plants"); White Stallion Energy, 2015 WL 11051103, at \*1 (ordering that the MATS proceeding be remanded to the EPA without vacatur); West Virginia v. E.P.A., 136 S. Ct. 1000 (2016) (granting order staying the CPP).

coal to natural gas as the primary fuel for U.S. electricity generation.<sup>25</sup>

Even if Mr. Trump eliminates the MATS or CPP altogether, the damage to electricity producers' generation portfolios may already be done. For many years, coal was the country's preferred fuel for electricity generation, but as producers retire significant coal-fired capacity, they must also build new facilities to ensure that America meets its power needs.<sup>26</sup> While natural gas plants are the new favorite for producers who favor fossil-fuel burning EGUs, tax credits for renewable energy investment and production make green methods an attractive alternative.<sup>27</sup> Despite the 2015 MLP Act's goal to provide business and financing benefits to renewable energy developers and producers, it left out a relatively clean, abundant and safe alternative—natural gas-fired electricity generation activities. Thus, the thrust of this article is to show why a new bill, which would amend Section 7704's "Qualifying Income" definition to include the renewable electricity portions of the 2015 MLP Act and natural gas electricity generation activities, is an easy way to lower electricity prices, ensure infrastructure stability and transparency in electricity markets, and get the everyday investor involved in America's energy future.<sup>28</sup>

To begin, Part I of this article will inform the reader of the ins and outs of PTPs, with the primary focus being on the advantages of MLPs. Part II provides background on the regulatory landscape and market shifts that drive the electricity generation sector, and Part III discusses the 2015 MLP Act and the changes it would have made to IRC section 7704. Finally, Part IV discusses the necessity of an expansion of Section 7704 to cover electricity generation activities and the benefits of including natural gas-fired electrical generation activities as well as renewable energy activities.

---

25. See U.S. ENERGY INFORMATION ADMINISTRATION, ANNUAL ENERGY OUTLOOK 2016 WITH PROJECTIONS TO 2040, MT-16 (August 2016), [http://www.eia.gov/outlooks/aeo/pdf/0383\(2016\).pdf](http://www.eia.gov/outlooks/aeo/pdf/0383(2016).pdf) [hereinafter ANNUAL ENERGY OUTLOOK 2016] [<http://perma.cc/ASL6-UARZ>].

26. See *id.* The EIA estimates that "[r]etirements of coal-fired generators by 2030, increase from 60 gigawatts in the No CPP case to 92 [gigawatts] in the Reference case, or about one-third of current capacity." *Id.* The Reference case includes the EPA's CPP, and is the baseline for most of the EIA's electricity projections through 2040. *Id.* at II. Whenever possible, the EIA provides information under the "No CPP" scenario to provide accurate data if the CPP is invalidated by the D.C. Circuit. *Id.*

27. See I.R.C. §§ 45, 48 (2012).

28. See I.R.C. § 7704 (2012).

## I. MLP AND REIT BASICS

### A. Defining REITs, MLPs, and Qualifying Income

Publicly traded partnerships come in the form of both MLPs, to which I.R.C. section 7704 applies, and REITs, to which sections 856–858 pertain.<sup>29</sup> For both types of PTPs, the tax code offers pass-through taxation treatment as long as certain percentages of the entity's income are derived from specified activities.<sup>30</sup> However, the nature of the entity's qualifying income is what sets the two types apart. To be considered a REIT, an entity must derive at least 95% of its gross income from certain investments and real property, and at least 75% of its gross income from rents on real property, interest on obligations secured by mortgages or other interests in real property, or gains and losses from real property sales.<sup>31</sup> In addition, a minimum of 75% of a REIT's total assets must be real estate, cash and cash items, and government securities; and it must distribute at least 90% of its yearly taxable income to its shareholders.<sup>32</sup> In contrast, a MLP has no asset holding requirements, but must derive greater than or equal to 90% of total gross income from "qualifying income" sources like the production, refining, and transportation of mineral resources and timber, or gains from commodities or commodity futures, forwards, and options.<sup>33</sup> Thus, the limited number of qualifying income producing activities prevents most business, including electricity generation businesses, from becoming PTPs. For the purposes of this article only MLPs will be discussed because electricity production activities best fit into the income generating activities listed in section 7704, versus the real estate activities listed in section 856.<sup>34</sup>

---

29. *See id.*; I.R.C. §§ 856–58 (2012) (section 856 provides the definition for "real estate investment trust"; section 857 describes the taxation of REITs and their beneficiaries; and section 858 pertains to dividends paid by the REIT after close of taxable year).

30. I.R.C. §§ 856(c)(2)–(3), 7704(c)(2) (2012).

31. I.R.C. § 856(c)(2)–(3) (2012).

32. *Id.*; I.R.C. § 857(a)(1)(A)–(B) (2012) (disallowing favorable partnership taxation treatment for entities that do not meet section 856(c)'s requirements and that do not deduct dividends that equal or exceed the sum of 90% of the REIT's taxable income for the taxable year ((A)(i)), and 90% of the excess of the net income from foreclosure property over the tax imposed on such income ((A)(ii)), minus any excess noncash income (B)).

33. I.R.C. § 7704(d) (2012).

34. *Compare* I.R.C. § 856(c)(2)–(3) (2012) (including only some of the qualifying investment activities found in section 7704), *with* I.R.C. § 7704(d) (2012) (including additional non-investment type qualifying income activities like mineral extraction and transportation of hydrocarbon fuels and biofuels, marketing timber, and harnessing industrial source carbon dioxide).

In most instances, MLPs derive the lion's share of the qualifying income requirement from activities listed in Section 7704(d)(1)(E), which includes:

[I]ncome and gains derived from the exploration, development, mining or production, processing, refining, transportation (including pipelines transporting gas, oil, or products thereof), or the marketing of any mineral or natural resource (including fertilizer, geothermal energy, and timber), industrial source carbon dioxide, or the transportation or storage of any fuel described in subsection (b), (c), (d), or (e) of section 6426, or any alcohol fuel defined in section 6426(b)(4)(A) or any biodiesel fuel as defined in section 40A(d)(1).<sup>35</sup>

Although this subsection is specific as to what constitutes qualifying income from natural resource activities, the IRS issues more than thirty private letter rulings each year on whether the income of support services businesses engaged in section 7704(d)(1)(E) activities is qualifying income.<sup>36</sup> In May of 2015, the Internal Revenue Service (IRS) proposed a rule that attempted to define the bounds of qualifying income more clearly and provide guidance on which exploration, development, processing or refining, transportation, marketing, and intrinsic support activities create qualifying income.<sup>37</sup> Despite the Trump Administration's freeze on the publications of regulations in the Federal Register, the Trump Administration published the final rule in January of 2017.<sup>38</sup>

---

35. I.R.C. § 7704(d)(1)(E) (2012).

36. See *Qualifying Income From Activities of Publicly Traded Partnerships With Respect to Minerals or Natural Resources*, 80 Fed. Reg. 25970, 25971 (proposed May 6, 2015) (to be codified at 26 C.F.R. § 1.7704-4).

37. See *id.* at 25971–76. In response to issuing an increasing number of qualifying income opinions each year, the IRS and Department of the Treasury created an “Intrinsic Activities” test to determine which support activities fall within the bounds of section 7704(d)(1)(E). *Id.* at 25971. A support activity will be considered “intrinsic” if the activity: (1) is specialized to support the section 7704(d)(1)(E) activity, (2) is essential to the completion of the section 7704(d)(1)(E) activity, and (3) requires the provision of significant services to support the section 7704(d)(1)(E) activity. *Id.* at 25973. Examples of activities that fall under the scope of section 7704(d)(1)(E)'s intrinsic activities test include, among others, certain methods of water delivery directly related to oil or gas production and recovery of water flowback related to oil or gas production. *Id.* at 25976–77.

38. See AKIN GUMP STRAUSS HAUER & FELD LLP, *Final Regulations on MLP Qualifying Income Provide Clarification, AG Deal Diary*, (Feb. 2, 2017) <https://www.akingump.com/en/experience/practices/corporate/ag-deal-diary/final-regulations-on-mlp-qualifying-income-provide-clarification-1.html> [http://perma.cc/F8L9-7GLL]; see also *Qualifying Income From Activities of Publicly Traded Partnerships With Respect to Minerals or Natural Resources*, 82 Fed. Reg. 8,318 (Jan. 24, 2017).



### B. MLP Structure and Governance

Before delving into the beneficial tax treatment and capital raising advantages of MLPs, it is important to understand the relative advantages of MLPs from a business standpoint. MLPs are state-law limited partnerships that have one or more general partners and any number of limited partners.<sup>39</sup> Generally, MLPs are founded by one or more general partners who contribute existing assets to the partnership or raise capital to initially fund the purchase of property.<sup>40</sup> Upon going public, investors purchase limited partnership interests which trade as units on national stock exchanges.<sup>41</sup> When general partners sell units in the market, they retain incentive distribution rights in the form of a periodic, preferred payments of the partnership's total cash distributions.<sup>42</sup> Moreover, in exchange for management of the partnership's business affairs, general partners may receive extra "subordinated units" that can include special economic and distribution rights that lead to slightly higher returns than limited partners receive.<sup>43</sup>

While the general partners run the business, limited partner-investors are divorced from the day-to-day decision making of the partnership, and, just like corporate shareholders, elect a board of directors.<sup>44</sup> Akin to corporations, limited partners have no personal liability as partners beyond their investment in the unit, and the tradability of units on national stock exchanges allows investors to pick winners and losers efficiently.<sup>45</sup> But unlike corporate boards, which authorize dividends when and as declared, MLP agreements often contain contractual minimum cash distribution requirements. These minimum distribution obligations allow the PTP to first retain a minimum level of cash in reserve, but require the PTP to pay excess cash to partner each quarter.<sup>46</sup> However, the true advantages of a MLP from an investor's standpoint come from pass-through income tax benefits.

---

39. See generally Fields et al., *Triangles in a World of Squares: A Primer on Significant U.S. Federal Income Tax Issues for Natural Resources Publicly Traded Partnerships (Part I)*, TAXES-THE TAX MAGAZINE 21, 33 n.1,3 (December 2009).

40. *Id.* at 28.

41. *Id.*

42. *Id.*

43. *Id.* at 28-29.

44. *Id.* at 32.

45. See *id.* at 31 ("While the Code Sec. 752 liability allocation rules are extremely complex, as a very general matter, a partner is allocated the portion of any liability for which he or she (or a related person) bears the economic risk of loss.").

46. See *id.* at 29-30. As Fields explains, minimum quarterly distributions do not draw the partnership's total cash reserves down to zero each quarter. *Id.* Boards of MLPs often set minimum cash reserve requirements to (1) provide enough working capital to fund the business; (2) retain cash in accordance with applicable laws or debt covenants; and

### C. Tax Benefits and Bankruptcy Disadvantages

Unlike corporations, the net income of a MLP is not taxed at the entity level, but is instead passed through to the individual unitholder.<sup>47</sup> Each year, the individual unitholder reports distributions from the MLP as income on its personal tax return.<sup>48</sup> Unlike net distributable income or dividends declared by corporations, which are subject to a 39.1% tax rate at the corporate level and then a capital gains rate of 15 or 20% once in the shareholder's hands, distributions from MLPs are taxed only once at the taxpayer's marginal income tax rate.<sup>49</sup> Hypothetically, if a corporation declares a cash dividend that covers every dollar of profit earned, a high net-worth investor could owe the federal government \$0.52 of every dollar distributed.<sup>50</sup> However, if a MLP distributes in cash every dollar of profit earned in a given year, the same high net-worth investor would pay a maximum of \$0.40 of each dollar in taxes.<sup>51</sup> As a result, the double taxation of corporate distributions makes MLP distributions taxed at the shareholder's marginal income tax rate more attractive by default under current capital gains tax rates.

Prior to the sharp drop in oil prices that started in late 2014, MLPs were a tax effective way to invest in assets like pipelines that often provide steady streams of income.<sup>52</sup> However, after oil prices fell, new bankruptcy problems created tax headaches for

---

(3) provide funds for distributions to unitholders or the general partner in future quarters. *Id.* While Fields mentions that PTPs often distribute between 70% and 100% of net operating cash flow each year, PTP contract rights vary. *See id.*

47. See I.R.C. § 11(b) (2012) (prescribing taxes on corporations of "35 percent of so much of the taxable income as exceeds \$10,000,000"). *See also* Daniel Tinkelman et al., *Sub S Valuation: To Tax Effect, or Not to Tax Effect, Is Not Really the Question*, 65 TAX L. 555, 577 (2012) (describing combined federal and state taxes as equaling 40% as a maximum base case); Mormann, *supra* note 10, at 341.

48. See Mormann, *supra* note 10, at 341.

49. *See id.*

50. See I.R.C. § 1(h)(1)(D) (2012). Assuming the high net worth investor held the asset long-term and assuming the maximum corporate rate being 40% and the maximum capital gains rate for an individual investor being 20%, multiplication of tax rates shows 52% may be paid to the government upon sale of a long-term asset. *Id.*

51. See I.R.C. § 1(a)–(e) (2012). Regardless of whether the high net worth investor held the MLP unit long-term, 39.6% is the maximum federal tax rate applicable to (a) married individuals filing jointly, (b) heads of households, (c) unmarried individuals, (d) married individuals filing separate returns, and (e) estates and trusts. *Id.* However, additional state taxes may be assessed on any income earned by the investor.

52. Fields, *supra* note 39, at 21; *see* LATHAM & WATKINS LLP, *supra* note 2 (stating that the MLP investor base likely excludes institutions and non-US persons due to certain tax rules that make the tax efficiency less advantageous and other U.S. laws that prohibit investment).

investors.<sup>53</sup> Although partnership accounting has important caveats beyond the scope of this article, it is important to note that any distributions made in excess of the partnership's annual net income are returns of capital that require a downward adjustment of the unit's tax basis.<sup>54</sup> Thus, this accounting treatment may trigger significant tax obligations on any gains from the sale of partnership units.<sup>55</sup> At the same time, however, limited partners may also have significant tax bills even if their investments go awry and the MLP either restructures its debt or discharges obligations in bankruptcy.<sup>56</sup> In either case, MLP investors may realize significant retirement of indebtedness income, which triggers tax liability despite no associated cash distribution upon retirement.<sup>57</sup> As a result, sentiment toward MLPs may be shifting as oil and gas companies continue to restructure in- and out-of-court, but undoubtedly, the MLP model may be beneficial for other industries that are less sensitive to boom and bust, like electricity generation.<sup>58</sup>

#### D. Raising Capital

Renewable electricity producers often encounter difficulty in raising funds, and thus, rely on scarce, expensive investments from tax equity investors to fund projects.<sup>59</sup> Since most renewable electricity projects take ten years or longer to break even, and since tax credits that would make the project profitable more quickly are non-refundable, renewable energy projects rely on only

---

53. See LATHAM & WATKINS LLP, *Restructuring Oil and Gas Partnership Debt? Tax Planning is Key, Client Alert Commentary, Number 1926* (Feb. 16, 2016), <https://www.lw.com/thoughtLeadership/LW-restructuring-oil-and-gas-partnership-debt>. [<http://perma.cc/AW6U-YZTM>]; see also KAYE SCHOLER, *The Price of Oil & the Potential for Master Limited Partnership Restructuring and Insolvencies, Bankruptcy & Restructuring Alert* (Apr. 2, 2015), [http://www.kayescholer.com/in-the-market/publications/client\\_alerts/20150402-bankruptcy-and-restructuring-alert-the-price-of-oil-and-the-potential-for-master-limited-partnership-restructuring-and-insolvencies/\\_res/id=File1/2015-bankruptcy-and-restructuring-alert-the-price-of-oil-and-the-potential-for-master-limited-partnership-restructuring-and-insolvencies.pdf](http://www.kayescholer.com/in-the-market/publications/client_alerts/20150402-bankruptcy-and-restructuring-alert-the-price-of-oil-and-the-potential-for-master-limited-partnership-restructuring-and-insolvencies/_res/id=File1/2015-bankruptcy-and-restructuring-alert-the-price-of-oil-and-the-potential-for-master-limited-partnership-restructuring-and-insolvencies.pdf) [<http://perma.cc/VV35-5FT4>].

54. Mary S. Lyman, *Making Sense of Master Limited Partnership Tax Rules*, AM. ASS'N OF INDIVIDUAL INV'R J., NOV. 2012, at 30, <http://www.kinnearfamilywealth.wfadv.com/files/60140/making-sense-of-master-limited-partnership-tax-rules.pdf> [<http://perma.cc/HNM6-LQJ3>].

55. *Id.*

56. See LATHAM & WATKINS LLP, *supra* note 53, at 1–2 (explaining that cancellation of debt income recognized in a taxable period that is passed through to investors may trigger tax bills for the investor even if the investor does not receive any cash distributions from the MLP during the taxable year).

57. *See id.*

58. See Mormann, *supra* note 10, at 308–09.

59. *Id.* at 309.

a few large and profitable tax equity investors to fund projects.<sup>60</sup> However, if renewable electricity producers could raise money less expensively while ensuring that investors will receive favorable tax treatment for their investments, more public money could flow into the renewable electricity sector and potentially eliminate the need for tax equity investors.<sup>61</sup>

MLPs realize lower costs of capital because they can issue publicly traded partnership units whose distributions are passed through to individual investors without being taxed at the entity level first.<sup>62</sup> Aside from the MLP tax advantages that pass through a greater percentage of every dollar to unitholders, the public aspect of MLP unit tradability gives the MLP more options when raising capital.<sup>63</sup> In addition, the liquidity of MLP units traded on public markets allows individual and institutional investors to diversify their portfolios by buying investments that may otherwise have been out of reach as general partnership shares.<sup>64</sup> Thus, the public tradability feature of MLP units could lower the cost of equity financing for renewable electricity developers and producers who may otherwise be held hostage by tax equity investors.

## II. THE POWER INDUSTRY: MARKET SHIFTS AND THE REGULATORY LANDSCAPE

### *A. Market Shift: Natural Gas v. Coal*

To understand the meaningful role of renewable electricity production in the United States and why other methods of electricity production should be afforded similar treatment, the reader must understand the state of the power industry today. Unlike other energy inputs Americans use each day, such as gasoline to power cars or natural gas to heat homes, vast amounts of electricity cannot be easily stored for later use. Grid-ready electricity can be generated by many different fuels, including coal, natural gas, uranium, biomass, wind, solar, geothermal, municipal solid waste, and hydroelectric.<sup>65</sup> However, aside from homeowners who have small solar panels installed on roofs,

---

60. *See id.* at 344, 347.

61. *See id.* at 346.

62. *See id.* at 346–47.

63. *Id.* at 349–50.

64. *Id.*

65. *See* U.S. ENERGY INFORMATION ADMINISTRATION, UPDATED CAPITAL COST ESTIMATES FOR UTILITY SCALE ELECTRICITY GENERATING PLANTS, at 6 (April 2013), [http://www.eia.gov/forecasts/capitalcost/pdf/updated\\_capcost.pdf](http://www.eia.gov/forecasts/capitalcost/pdf/updated_capcost.pdf) [<http://perma.cc/24WT-83DZ>].

windmills in the back yard, or expensive home generators, the majority of American consumers draw electricity from the common grid.<sup>66</sup> The EIA estimates that total electricity demand will increase by 27% (1.0% per year) from 2015–2040 absent the CPP.<sup>67</sup> While overall demand will grow 27% over the next 25 years, residential electricity demand will only grow 23% (0.8% per year), commercial sector demand will grow 26%, and industrial sector demand will grow 32%. Accordingly, the EIA predicts that, despite an increase in efficiencies on the consumption side, total electricity demand will grow at a significantly higher rate from 2015–2040 than the 0.5% per year average from 2000–2015.<sup>68</sup>

Since electricity cannot be efficiently or economically stored, electricity supply closely tracks power consumption.<sup>69</sup> While one might think that overcapacity equals waste, in electricity production, overcapacity prevents supply side disruption and stabilizes electricity prices.<sup>70</sup> In 2015, the EIA estimated that the aggregate capacity of all electricity generating plants in the United States was 1,064 gigawatts.<sup>71</sup> By far, the most capacity by fuel type is from natural gas, which accounts for 43% of total capacity, while conventional coal to steam generation (26%), nuclear (9%), renewables (18%), and other sources (combined 4%) lag behind.<sup>72</sup>

The total net capacity of coal and natural gas-fired plants accounted for 73% of total capacity in 2015, but only about 66% of

---

66. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at MT-15. The EIA estimates that these methods of residential self-generation will lead to overall electricity sales that significantly lower absent increased self-generation. *Id.*

67. *Id.*

68. *Id.* The EIA predicts that despite population shifts to warmer climates, which increase cooling requirements, increases in the efficiency of residential appliances and consumer electronics will offset growth in electricity demand from increased usage of other electronic devices. *Id.* In addition, the EIA predicts that the commercial sector demand will grow at a below average rate despite electricity demand for electrical devices and equipment rising. *Id.* However, while the demand of the residential and commercial sectors will grow at a slower than average pace, industrial sector consumption will grow more quickly due to increasing sales of bulk chemicals, food items, and growth of the development and metal-based durables industries. *Id.*

69. *Id.* Also, electricity demand growth closely tracks gross domestic product increases and population increases. *Id.* at MT-5. Despite predicting steady population growth through 2040, the EIA expects that energy efficiency initiatives and residential sectors self-generation will result in a residential sector demand lag behind that of the commercial and industrial sectors. See *id.*

70. Capacity is merely the ability to produce, not electricity that is produced and never consumed.

71. U.S. ENERGY INFORMATION ADMINISTRATION, TABLE 4.3 EXISTING CAPACITY BY ENERGY SOURCE, 2015 (MEGAWATTS) (Nov. 21, 2016), [https://www.eia.gov/electricity/annual/html/epa\\_04\\_03.html](https://www.eia.gov/electricity/annual/html/epa_04_03.html) [<http://perma.cc/5FXV-4M2V>].

72. See *id.*

the nation's electricity generated came from those sources.<sup>73</sup> In recent years, shifts in electricity production ebbed and flowed with commodity fuel costs and regulatory changes.<sup>74</sup> While industry experts and economic forecasters continue to debate which cause had a greater impact on shifts away from coal as the most popular electricity generation fuel, undoubtedly lower natural gas prices due to booming shale gas production since the late 2000s drastically changed the nation's generation mix.<sup>75</sup> For instance, the EIA reports that one million Btu of domestic natural gas cost \$13.05 in December of 2005, versus \$4.25 in December of 2010, \$3.34 in December of 2012, and \$1.93 in December of 2015.<sup>76</sup> Despite the availability of historically inexpensive coal, the production mix in 2015 shows that electricity producers can quickly alter the generation mix when economics slide in favor of a different fuel.<sup>77</sup> While the electric utility sector has shown its ability to shift production any time the economics make sense, the EIA predicts that natural gas will continue to be the favorite fuel for producers through 2040 based on natural gas price forecasts.<sup>78</sup>

While overcapacity in the short term lends itself to supreme flexibility, overcapacity in the long term costs producers billions. As economics speed the decline of coal as the favored fuel,

---

73. See *id.*; see also U.S. ENERGY INFORMATION ADMINISTRATION, ELECTRIC POWER MONTHLY WITH DATA FOR OCTOBER 2016, at 15 (December 2016) [hereinafter ELECTRIC POWER MONTHLY] (refer to Table 1.1 for generation data).

74. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at MT-16 (stating that “[t]he decline in natural gas prices since 2009 has threatened the cost competitiveness of existing U.S. coal-fired generators, resulting in a 25% reduction in coal-fired generation in 2015 from its level in the mid-2000s”).

75. *Id.*

76. See Henry Hub Natural Gas Spot Price (Dollars per Million Btu), HENRY HUB NATURAL GAS SPOT PRICE (DOLLARS PER MILLION BTU) (2017), <https://www.eia.gov/dnav/ng/hist/rngwhhdW.htm> (last visited Feb 22, 2017) [<http://perma.cc/EJ2S-ZG8A>]. The steady decline in the price of natural gas since 2005 is a direct result of shale gas production in the United States. ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at MT-25. In September of 2016, the EIA reported that “[t]otal dry natural gas production in the United States increased by 35% from 2005 to 2013, with the natural gas share of total U.S. energy consumption rising from 23% to 28%. Production growth resulted largely from the development of shale gas resources in the lower 48 states (including natural gas from tight oil formations), which more than offset declines in lower 48 onshore production. In the AEO2015 Reference case, more than half of the total increase in shale gas production over the projection period comes from the Haynesville and Marcellus formations. Lower 48 shale gas production (including natural gas from tight oil formations) increases by 73% in the Reference case, from 11.3 Tcf in 2013 to 19.6 Tcf in 2040, leading to a 45% increase in total U.S. dry natural gas production, from 24.4 Tcf in 2013 to 35.5 Tcf in 2040.” U.S. ENERGY INFORMATION ADMINISTRATION, ANNUAL ENERGY OUTLOOK 2016, ENERGY PRODUCTION, IMPORTS AND EXPORTS, 1, 5–6 (Sep. 15, 2016).

77. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at MT-16.

78. *Id.* (stating that “the natural gas share increases steadily in the No CPP case, overtaking the coal share in 2029 as the predominant fuel for electricity generation. In 2040, the natural gas share of total generation is 34% in the No CPP case.”).

electricity producers continue to retire coal plants at historically high rates and replace them with new natural gas plants.<sup>79</sup> In 2015, nearly 4.6% of total coal burning capacity in the United States was permanently retired and none was added.<sup>80</sup> At the same time however, tremendous natural gas-fired and renewable capacity was added.<sup>81</sup> Thus, even though the EIA predicts that coal electricity generation will fall only slightly through 2040 absent the CPP, producers seem to be planning significant capacity retirements over that period. For producers of natural gas and renewable electricity, this translates into hefty coal plant closing costs and mountainous development costs for new facilities.<sup>82</sup>

### B. *The Regulatory Landscape: MATS and the CPP*

While the economics of the electricity production shifted away from dirtier coal burning power plants toward relatively cleaner natural gas power plants starting in 2005, constitutionally questionable air quality regulatory schemes that targeted greenhouse gas (GHG) emitting electricity generation plants were a hallmark of the Barack Obama Administration.<sup>83</sup> During his stay in the White House, President Obama oversaw the EPA's creation of the MATS in 2012<sup>84</sup> and the CPP in 2015,<sup>85</sup> and also

---

79. U.S. ENERGY INFORMATION ADMINISTRATION, *Coal Made Up More Than 80% of Retired Electricity Generating Capacity in 2015*, TODAY IN ENERGY (March 8, 2016)[hereinafter TODAY IN ENERGY MARCH 2016].

80. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-5 to -6. The EIA forecasts that even if the CPP is not upheld by the D.C. Circuit in 2017, coal generation capacity will fall between 24% and 28% by 2030, while natural gas's share will increase from 33% in 2015 to 37% in 2030, and renewable's share will grow from 14% in 2015 to 24% in 2030. *Id.*

81. See Electric Power Monthly with Data for October 2016, *supra* note 73, at 140–43 (Table 6.3 New Utility Scale Generating Units by Operating Company, Plant, and Month, 2016).

82. Updated Capital Cost Estimates, *supra* note 65, at 6–7 (showing that development costs per kilowatt of capacity can cost between \$676 (advanced combustion turbine natural gas) and \$8,312 (municipal solid waste). New coal capacity costs between \$2,934 to \$6,599 per kilowatt; natural gas ranges from \$676 to \$2,096; and renewable wind, solar and hydroelectric from \$2,213 (onshore wind) to \$6,230 (offshore wind). *Id.*

83. See MATS Final Rule, 77 Fed. Reg. at 9,304 (invalidated by the Supreme Court and sent back to the agency on remand in *Michigan v. EPA*, 135 S. Ct. 2699 (2015)); CPP Final Rule, 80 Fed. Reg. at 64,667. Aside from pumping up regulations on the biggest contributors of GHGs, coal-fired EGUs, the Obama Administration also pushed new GHG emissions standards for vehicles with lofty goals for drastic fuel efficiency improvements by 2025. See Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, 80 Fed. Reg. 73,748 (Oct. 25, 2016) (implementing a comprehensive GHG emissions reduction mandate which requires certain vehicles to meet fuel consumption standards by 17% prior to 2020).

84. MATS Final Rule, 77 Fed. Reg. at 9,304.

85. CPP Final Rule, 80 Fed. Reg. 64,667.

helped negotiate the Paris Agreement in 2016.<sup>86</sup> Although both domestic regulations aim to improve air quality by decreasing GHG emissions, to electricity producers, each rule acted as an economic restraint on producing electricity from coal plants.<sup>87</sup> Thus, while lower natural gas prices made gas turbine generation more economical, hefty price tags to install new scrubbing technologies, purchase emissions credits, and idle coal burning power plants accelerated the decline of coal.<sup>88</sup>

In 2012, the EPA published the final MATS rule, which revised the new source performance standards and national emissions standards for hazardous air pollutants for mercury and other pollutants emitted by coal- and oil-fired electric utility plants.<sup>89</sup> While the specific technical demands of the MATS are beyond the scope of this article, the rule requires that coal- and oil-burning electric utility plants reduce the levels of specific pollutants, in particular mercury, particle pollution, and sulfur dioxide.<sup>90</sup> In effect, the MATS requires operators of existing electric utility plants to implement costly maximum achievable control technology capable of controlling emissions on par with or better than the best performing 12 percent of existing plants.<sup>91</sup> The EPA estimated that MATS would yield annual net benefits of between \$27 to \$80 billion.<sup>92</sup> However, the Supreme Court relied on the EPA's estimate that the MATS would cost electric utilities \$9.6 billion per year while producing only \$4 to \$6 million in quantifiable benefits from reducing hazardous air pollutants.<sup>93</sup> Thus, the Supreme Court found that the EPA's development of the

---

86. Tanya Somanader, PRESIDENT OBAMA: THE UNITED STATES FORMALLY ENTERS THE PARIS AGREEMENT NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (Sept. 3, 2016), <https://obamawhitehouse.archives.gov/blog/2016/09/03/president-obama-united-states-formally-enters-paris-agreement> (last visited Feb. 4, 2017). The Paris Agreement is the result of the 2015 United Nations Climate Change Conference in Paris, where leaders from around the world created a global climate change resolution that "aims to strengthen the global response to the threat of climate change . . . including by: (a) Holding the increase in the global average temperature to well below 2 [degrees Celsius] above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 [degrees Celsius] above pre-industrial levels." *Id.* at 3.

87. See MATS Final Rule, 77 Fed. Reg. at 9,305-06; CPP Final Rule, 80 Fed. Reg. at 64,679.

88. See CPP Final Rule, 80 Fed. Reg. at 64,750; ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-5 to -6.

89. MATS Final Rule, 77 Fed. Reg. at 9,304.

90. *Id.* at 9,305.

91. *Id.* at 9,307.

92. *Id.* at 9,305.

93. *Michigan v. E.P.A.*, 135 S. Ct. 2699, 2705-06 (2015). The late Justice Antonin Scalia, writing for the majority, stated that "[t]he costs to power plants were thus between 1,600 and 2,400 times as great as the quantifiable benefits from reduced emissions of hazardous air pollutants." *Id.* at 2706.



Clean Air Act's hazardous pollutants provision that "refused to consider whether the costs of its decision outweighed the benefits" and "gave cost no thought at all," were impermissible.<sup>94</sup> Accordingly, the Supreme Court reversed the reasonability judgment of the D.C. Circuit and remanded for further proceedings.<sup>95</sup> On remand, the D.C. Circuit ordered that the final MATS rule be remanded back to the EPA without vacatur.<sup>96</sup> To date, the rule's mandates still remain in effect for electric utilities after a thorough reconsideration of costs and benefits released in April of 2016.<sup>97</sup>

While the MATS rule remains in effect until further notice, the fate of the CPP is less certain. In 2015, the EPA finalized the CPP, which established final emissions guidelines for states to follow in developing plans to reduce GHG's from existing coal- and oil-fired electric utility plants.<sup>98</sup> Akin to the MATS, the CPP is a technology forcing statute which creates a "best system of emission reduction (BSER)" to reduce GHG and carbon dioxide emissions from existing power plants.<sup>99</sup> While the MATS had the effect of forcing operators of coal- and oil-fired power plants to implement scrubbers to separate flue-gas emissions of mercury, particle pollution, and sulfur dioxide, the CPP sets carbon dioxide emissions levels at extreme lows initially, with downward adjustment mandates over time.<sup>100</sup>

The CPP's BSER has three building blocks that lower electric utility emissions over time.<sup>101</sup> Building block one calls for lowering emissions from coal-fired electricity generation units, while building block two requires substituting increased generation from lower-emitting existing natural gas cycle units for generation from higher-emitting coal-fired generation units.<sup>102</sup> Finally, building block three, the final phase of the BSER plan, calls for substituting increased generation from new zero-emitting

---

94. *Id.* at 2706. The EPA interpreted 42 U.S.C. § 7412(n)(1)(A)'s demand to regulate emissions from electric utility steam generating units to disregard costs. However, the Court found such a development unpersuasive under step 2 of *Chevron* analysis. *Id.* at 2707-08.

95. *Id.* at 2712.

96. *White Stallion Energy v. E.P.A.*, No. 12-1100, 2015 WL 11051103, at \*1 (D.C. Cir. Sept. 2015).

97. *See id.* (without vacatur); *see also* Supplemental Finding That It Is Appropriate and Necessary To Regulate Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units, 81 Fed. Reg. 24,420, 24,425-27.

98. CPP Final Rule, 80 Fed. Reg. at 64,662.

99. *Id.* at 64,663-64.

100. *Id.* at 64,664; MATS Final Rule, 77 Fed. Reg. at 9,305.

101. CPP Final Rule, 80 Fed. Reg. at 64,666-67.

102. *Id.* at 64,667.

renewable electricity generation capacity for generation from coal- and oil-fired generating units.<sup>103</sup> Therefore, the EPA envisions a gradual emissions reduction scheme where coal-fired power plants are completely eliminated.

Unlike the MATS, which requires the EPA to set emissions levels based on sections 111 and 112 of the Clean Air Act's explicit mandates to regulate "hazardous air pollutants,"<sup>104</sup> the CPP requires states to develop and implement emissions standards for affected electricity generation units.<sup>105</sup> The constitutionality of the CPP's mandates on the states is currently being refuted in the D.C. Circuit by 24 states and numerous electric utility and mineral resource industry players.<sup>106</sup> Although we will not know the final fate of the CPP until the D.C. Circuit issues a final ruling in 2017, the Supreme Court saw it fit to stay the CPP on February 9, 2016.<sup>107</sup> Until the D.C. Circuit speaks, however, states and industry players are still assessing scenarios that include the CPP.<sup>108</sup>

In its 2016 Energy Outlook, the EIA created various electricity forecasts that include a No CPP case, 2016 Reference case, CPP Rate case, CPP Interregional Trading case, CPP Extended case, CPP Hybrid case, and CPP Allocation to Generators case.<sup>109</sup> For the purposes of our analysis, the two pertinent cases are the 2016 Reference case and No CPP case.<sup>110</sup> While the 2016 Reference case assumes that the CPP proceeds as currently promulgated on a mass-based approach, the No CPP case assumes that the final CPP rule is permanently voided and is not replaced by other controls on power sector carbon dioxide emissions.<sup>111</sup> In the No CPP case, the EIA estimates that cumulative coal-fired capacity retirements will total about 55 gigawatts by 2030 with no new capacity additions,<sup>112</sup> and that the percentage of electricity generated from coal inputs will stay

---

103. *Id.*

104. MATS Final Rule, 77 Fed. Reg. at 9,304 (specifically, 42 U.S.C. § 7412(n)(1)(A)); *see generally* 42 U.S.C. §§ 7411–12 (2016) (sections 111 and 112 of the Clean Air Act).

105. CPP Final Rule, 80 Fed. Reg. at 64,664.

106. *See West Virginia v. E.P.A.*, 136 S. Ct. 1000 (2016) (order granting application for stay).

107. *Id.*

108. *See e.g.* ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-2 to -4.

109. *Id.* at IF-3 to -4.

110. *See id.* at IF-2 to -4.

111. *Id.* at IF-3.

112. *See id.* at IF-5.

relatively stable through 2030.<sup>113</sup> The 2016 Reference case, however, shows that cumulative coal-fired capacity retirements will total approximately 75 gigawatts by 2030 with no new capacity additions, and that electricity produced from coal inputs will fall about 25% by 2030.<sup>114</sup> To replace the coal asset retirements, the EIA estimates that in the 2016 Reference case about 100 gigawatts of natural gas-fired and 120 gigawatts of renewable additions will occur by 2030.<sup>115</sup> If the 2016 Reference case additions hold true, 37% of the nation's electricity will be generated from natural gas-fired units and 24% from renewable sources by 2040.<sup>116</sup> In the No CPP case, natural gas's share of electricity generation increases only moderately.<sup>117</sup>

Moreover, the 2016 Reference case will result in higher electricity prices.<sup>118</sup> While some regions may experience steeper increases than others by 2030, electricity prices in the 2016 Reference case will be 1% higher than current levels by 2025, 6% higher by 2030, 9% higher by 2035 and 11.4% higher by 2040. This is due to higher fuel and capital costs resulting from compliance with the CPP, the shift to natural-gas fired generation, and development of new renewable capacity.<sup>119</sup>

Furthermore, the EIA's predictions show that the CPP will accomplish its goals of drastically reducing energy consumption and carbon dioxide emissions by 2030 through renewable generation capacity additions.<sup>120</sup> Between 2015 and 2020, coal

---

113. *See id.* at IF-6. The EIA estimates that increases in natural gas prices under the No CPP case will make the economics of coal-fired electricity production more favorable through 2040. *Id.*

114. *Id.* at IF-5 to -6. While the 2016 Reference case predicts that around 90 gigawatts of coal burning capacity and 90 gigawatts of natural gas-fired capacity will be retired by 2040, total natural gas-fired additions will top 150 gigawatts, solar additions will top 200 gigawatts, and wind additions will be around 70 gigawatts. *See id.* at IF-5.

115. *See id.* at IF-5.

116. *Id.* at IF-6.

117. *See id.* The EIA analyzes generation mixes by region, and predicts that under the 2016 Reference case, the Texas, Southwest/Rockies, California and Northern Plains regions will generate over 20% of salable electricity from wind and solar power. *See id.* at IF-9 to -10. However, under the No CPP case, only the Southern Plains, Southwest/Rockies, California and Northern Plains regions will generate over 15% of salable electricity from wind and solar power. *See id.* However, under the 2016 Reference case, no region increases coal burning electricity generation, and in the No CPP case, only the Southeast and Texas regions see increases in coal burning electricity generation. *See id.*

118. *Id.* at IF-7.

119. *Id.* at IF-7, IF-12.

120. *Id.* at IF-4. The 2016 Reference case results in carbon dioxide emission from the power sector in 2030 being 35% below their 2005 level, while energy consumption falls by about 33% by 2030. *Id.* Meanwhile, the EIA does not explicitly state its prediction on carbon dioxide emissions under the No CPP case, but predicts that energy consumption will stay relatively constant through 2030 as compared to 2015 levels. *Id.*

capacity retirements of over 50 gigawatts across all cases will be replaced with significant natural gas-fired and renewable generation assets.<sup>121</sup> In 2015 alone, the EIA reported that utilities retired 18 gigawatts or 4.6% of the nation's coal capacity.<sup>122</sup> While the majority of the coal capacity retired in 2015 represented plants constructed between 1950 and 1970 having an average age of 54 years,<sup>123</sup> the remaining operating coal fleet has a much lower average age of 38 years.<sup>124</sup> Despite significant retirements in 2015 and further retirements in 2016, the net summer capacity of the average retired coal unit was 133 megawatts, while the remaining coal fleet averaged 278 megawatts.<sup>125</sup> Thus, while coal-unit retirements occurred at historical highs in 2015, producers are strategically retiring older, lower capacity units ahead of CPP implementation.<sup>126</sup>

### C. Renewable Capacity Growth and Tax Credits

Significant retirements of coal-fired power plants have been offset by increases in new natural gas-fired and renewable asset development.<sup>127</sup> In October of 2016, an EIA monthly report showed that in 2016, the vast majority of new capacity added by number of projects came from solar photovoltaic, onshore and offshore wind turbines, and hydroelectric generation.<sup>128</sup> However, natural gas-fired capacity additions kept pace with total renewable capacity additions despite there being far fewer projects.<sup>129</sup> The EIA predicts that this trend toward natural gas as the primary fuel for distributable electricity generation will continue through 2040.<sup>130</sup>

The majority of renewable additions, however, are spawned by hefty tax credits, while natural gas capacity additions are truly a function of economics.<sup>131</sup> Currently, companies can take

---

121. *Id.* at IF-5.

122. TODAY IN ENERGY MARCH 2016, *supra* note 79, at 2.

123. *Id.* at 1.

124. *Id.*

125. Electric Power Monthly October 2016, *supra* note 73, at 140–44. Table 6.3 on pages 140–43 show all of the new generation unit additions through October of 2016, while Table 6.4 on page 144 describes all retirements through October of 2016. *Id.*

126. TODAY IN ENERGY MARCH 2016, *supra* note 79, at 1.

127. See ELECTRIC POWER MONTHLY OCTOBER 2016, *supra* note 73, at 140–144.

128. *See id.*

129. *See id.*

130. ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-2 to -4.

131. *See supra* Part II(a).

advantage of the Investment Tax Credit (ITC)<sup>132</sup> and Production Tax Credit (PTC).<sup>133</sup> While the ITC rewards those who construct solar assets with a non-refundable tax credit equal to 30% of total investment costs, the PTC rewards those who produce electricity from “qualified energy resources” for 10 years from the date the facility was originally placed in service.<sup>134</sup> Recently, Congress renewed the PTC to extend to all wind facilities whose development begins before January 1, 2020, subject to phase-out reductions from the beginning of 2016 to the end of 2017, the end of 2018, and the end of 2019 of 20%, 40%, and 60% respectively.<sup>135</sup> In addition, Congress renewed the PTC for solar energy property whose development begins before 2022, subject to phase-out reductions in 2020 and 2021 of 26% and 22% respectively.<sup>136</sup>

In recent years, Mormann and others debated whether the tax credits set out in I.R.C. sections 45 and 48, which will provide estimated aggregate tax benefits of around \$24.1 billion for the renewable electricity sector from 2015–2019, are worth the cost to taxpayers.<sup>137</sup> The general consensus among all authors is that tax credits effectively incentivize the development and operation of renewable electricity assets, but create a system where renewable electricity producers must seek investments from tax equity investors.<sup>138</sup> However, from July 2009 until October 2012, the section 1603 American Recovery and Reinvestment Tax Act (section 1603 cash grant) program provided cash credits in lieu of non-refundable tax credits.<sup>139</sup> The section 1603 cash grant was

---

132. I.R.C. § 48 (2012) (showing investment tax credit for business-owned solar systems and wind facilities); I.R.C. § 25D (2012) (showing investment tax credit for individually-owned solar systems).

133. I.R.C. § 45 (2012).

134. *Id.* at (a); I.R.C. §§ 48(a)(2)(A), (a)(5)(E), (a)(6), (c) (2012).

135. I.R.C. §§ 48(a)(2)(A), (a)(5)(E), (a)(6), (c) (2012).

136. *Id.*

137. *See generally* Mormann, *supra* note 10, at 319; *see generally* Roberts, *supra* note 10, at 93–99; I.R.C. §§ 45, 48 (2012); *see* Joint Comm. on Taxation, 114th Cong., Estimates of Federal Tax Expenditures for Fiscal Years 2015–2019, 29–30 (2015). In 2013, the House and Senate Joint Committee on Taxation estimated that of the \$24.1 billion in tax credits that would be expended on section 45 and section 48 activities over the five-year period from 2015–2019, \$8.3 billion is allocated to credits for activities in section 48 while \$15.8 billion is allocated for activities in section 45. *Id.* Of the \$8.3 billion in section 48 energy credits that will be paid out over that span, \$7.7 billion, or nearly 93% of the total allocation will go to solar activities. *Id.* Of the \$15.8 billion allocated for production activities in section 45, the government only provided estimates for open-loop biomass related electricity, with allocations for wind, hydropower, and other methods to be allocated as earned. *Id.*

138. Mormann, *supra* note 10, at 309, 319–24; Fink, *supra* note 10, at 111.

139. Mormann, *supra* note 10, at 320–23; U.S. DEPT OF THE TREASURY, RECOVERY ACT – 1603 PROGRAM: PAYMENTS FOR SPECIFIED ENERGY PROPERTY IN LIEU OF TAX CREDITS, <https://www.treasury.gov/initiatives/recovery/Pages/1603.aspx> (last visited on Jan. 1, 2017)

effective in aiding the buildout of renewable electricity assets during the recession that followed the collapse of the financial system in 2008.<sup>140</sup> The purpose of the section 1603 cash grant program was to give renewable electricity producers an option to receive tax credits in cash upon development of new renewable electricity assets.<sup>141</sup> Critics and proponents of the 1603 cash grant agree that the nearly \$24.9 billion in funding provided to \$90.2 billion of projects since July of 2009 was an effective way to incentivize renewable electricity development and put more cash in the pockets of producers.<sup>142</sup>

Unsurprisingly, wind held the largest share of total capacity additions by fuel type in 2015 (41%), followed by natural gas (30%), and solar (26%).<sup>143</sup> Although wind capacity additions steadily increased in both 2014 and 2015, the EIA reported in March of 2016 that,

Uncertainty surrounding the extensions and modifications of the federal production tax credit (PTC) over the past several years led to large fluctuations in annual wind additions. The record amount of additions in 2012 was followed by a precipitous drop-off in 2013 and a subsequent rebound in 2014 and 2015—a pattern also visible with previous years' PTC expiration and renewal cycles.<sup>144</sup>

The pattern the EIA described shows wind capacity additions boom in years in which tax credits are set to expire and lag in the interim years.<sup>145</sup> According to historical and forecasted EIA data,

---

[<http://perma.cc/LY7A-HY28>]; U.S. DEPT OF THE TREASURY, OVERVIEW AND STATUS UPDATE OF THE § 1603 PROGRAM (2016), <https://www.treasury.gov/initiatives/recovery/Documents/STATUS%20OVERVIEW.pdf> [<http://perma.cc/6AZ7-XFF3>].

140. OVERVIEW AND STATUS UPDATE OF THE § 1603 PROGRAM, *supra* note 139, at 1–4.

141. Mormann, *supra* note 10, at 316. *See generally* U.S. DEPT OF TREASURY, PAYMENTS FOR SPECIFIED ENERGY PROPERTY IN LIEU OF TAX CREDITS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (2009), <http://www.treasury.gov/initiatives/recovery/Documents/GUIDANCE.pdf> [<http://perma.cc/HV5X-T3FW>].

142. U.S. DEPT OF THE TREASURY, OVERVIEW AND STATUS UPDATE OF THE § 1603 PROGRAM (2016), <https://www.treasury.gov/initiatives/recovery/Documents/STATUS%20OVERVIEW.pdf> [<http://perma.cc/6AZ7-XFF3>].

143. U.S. ENERGY INFORMATION ADMINISTRATION, *Wind Adds the Most Electric Generation Capacity in 2015, Followed by Natural Gas and Solar*, TODAY IN ENERGY (Mar. 23, 2016) [hereinafter TODAY IN ENERGY WIND], <https://www.eia.gov/todayinenergy/detail.php?id=25492> [<http://perma.cc/QRX6-R7MT>].

144. *Id.*

145. *See* U.S. ENERGY INFORMATION ADMINISTRATION, TODAY IN ENERGY - WIND ENERGY TAX CREDIT SET TO EXPIRE AT THE END OF 2012 (2012) [hereinafter TODAY IN ENERGY NOVEMBER 2012], <http://www.eia.gov/todayinenergy/detail.php?id=8870> (stating that the PTC was mostly responsible for increasing total renewable generation capacity from 1.5 gigawatts in 1992 to 45 gigawatts in 2011) [<http://perma.cc/2S5D-MT5D>].

solar capacity additions track similar trends.<sup>146</sup> Thus, tax credits rather than input economics have been the driver of renewable energy development in the United States to date.

#### D. Capital Costs

While tax laws incentivize development of new renewable assets, the companies that operate such renewable assets rarely get to utilize such credits absent tax equity investments.<sup>147</sup> As stated previously, development of utility-grade electricity generation facilities is expensive regardless of the type of asset put into service.<sup>148</sup> With the growing number of coal plant retirements and the likelihood that private sector electricity generators will continue to retire coal plants and construct renewable and natural gas-fired plants at least through 2020, questions remain about whether the new development in the power sector will result in higher electricity prices.<sup>149</sup> While the costs associated with closing higher carbon dioxide emitting coal burning power plants and constructing new natural gas-fired and renewable plants are quantifiable, the benefits to consumers in economic and social benefits are much harder to quantify, as shown by the unending fights over the EPA's cost benefit analyses in the MATS and CPP.<sup>150</sup> As a result, this subsection focuses on the facts set forth in the EIA's forecasts and draws inferences from the EPA's cost-benefit analyses in the MATS and CPP to allow the reader to grasp why expanding the definition of publicly traded partnership to include electricity generation activities may provide significant economic and social benefits for investors and the country.

While the cost per kilowatt to construct a given type of electric utility asset varies significantly, it costs far less on average to construct a natural gas-fired asset on a per-kilowatt basis versus

---

146. See U.S. ENERGY INFORMATION ADMINISTRATION, HIGHER RENEWABLE CAPACITY ADDITIONS IN AEO2016 REFLECT POLICY CHANGES AND COST REDUCTIONS (2016), <http://www.eia.gov/todayinenergy/detail.php?id=26492> (forecasting that the ITC extension for solar energy projects will sustain strong investment in both the 2016 Reference case and No CPP case) [<http://perma.cc/CE2C-WZFY>].

147. Mormann, *supra* note 10, at 316.

148. UPDATED CAPITAL COST ESTIMATES, *supra* note 65, at 6–7. Table 1 on page 6 shows overnight capital costs and fixed operating and maintenance costs by fuel input and electrical generation asset type. *Id.* at 6. Table 2 on page 7 displays the change in overnight capital costs for each fuel input and electrical generation asset type in 2010 and 2013. *Id.* at 7. Overnight capital costs include civil and structural development costs, mechanical equipment supply and installation, electrical instrumentation and control, project indirect costs, and the owner's costs for new electricity generating assets. *Id.* at 1–2.

149. ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-5, IF-7.

150. See *Michigan v. E.P.A.*, 135 S. Ct. at 2706 (“The Agency could not fully quantify the benefits of reducing power plants’ emissions of hazardous air pollutants; to the extent it could, it estimated that these benefits were worth \$4 to \$6 million per year.”).

a renewable asset.<sup>151</sup> In addition, natural gas assets also cost far less to operate and maintain on a per kilowatt basis versus other renewable assets like wind and solar.<sup>152</sup> Undoubtedly, given forecasts showing that renewable assets will be constructed more quickly than natural gas-fired assets through 2040, new development costs will be passed on to consumers via higher electricity prices.<sup>153</sup> In 2016, the EPA estimated that the electric utility industry spent about \$200.9 billion in combined capital and production expenditures for fiscal year 2011, of which \$79.6 billion represented capital expenditures.<sup>154</sup> Moreover, MATS compliance alone will cost the electric utility industry an additional \$9.6 billion each year through 2030, and will fall disproportionately on producers that use coal and natural gas fuels to produce electricity.<sup>155</sup> In addition, the CPP will also impose additional costs on electricity generators by about \$2.5 billion per year by 2020, \$1 billion per year by 2025, and \$8.4 billion per year by 2030.<sup>156</sup> Regardless of the CPP's fate, constructing new natural gas and renewable assets will come with hefty price tags regardless of whether commodity economics or regulatory fears fuel the power generation shift.<sup>157</sup> But how will increased capital expenditures affect electricity prices for consumers? The EIA estimates that in its 2016 Reference Case, electricity prices will be about 3% higher than in the No CPP case by 2040, with some regions experiencing

---

151. Compare UPDATED CAPITAL COST ESTIMATES, *supra* note 65, at 6 (explaining that natural gas-fired electric generation units, costs per kilowatt range from \$2,095 for advanced combined cycle generators with carbon capture systems to \$676 for advanced combustion turbine generators), and *id.* (explaining that for wind electric generation units, costs per kilowatt range from \$6,230 for offshore wind assets to \$2,215 for onshore wind assets), and *id.* (explaining that solar electric generation units cost between \$5,067 per kilowatt of capacity (solar thermal) to \$4,183 per kilowatt of capacity (photovoltaic)), with *id.* (explaining that development costs for hydroelectric assets are about \$2,936 per kilowatt and for nuclear assets are about \$5,530 per kilowatt of capacity).

152. UPDATED CAPITAL COST ESTIMATES, *supra* note 65, at 6.

153. ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-7.

154. MATS Final Cost Benefit Findings, 81 Fed. Reg. 24,420, 24,426 (2016). The MATS cost-benefit findings were ordered by the D.C. Circuit after the MATS rule was remanded in *Michigan v. E.P.A.* White Stallion Energy Center, LLC, 2015 WL 11051103, at \*1. The EPA published its final cost-benefit findings in the Federal Register on April 25, 2016, and reaffirmed that the MATS rule would only produce capital and compliance costs of around \$9.6 billion while still maintaining substantial social and health benefits for citizens. MATS Final Cost Benefit Findings, 81 Fed. Reg. at 24,426-27. Since 2000, capital expenditures for the electric power sector tended to increase over time, with the lowest amount of capital expenditure over that time span being \$40.4 billion in 2004 and the highest being \$79.6 billion in 2011. *Id.* at 24,426.

155. MATS Final Cost Benefit Findings, 81 Fed. Reg. at 24,426.

156. CPP Final Rule, 80 Fed. Reg. at 64,679.

157. See UPDATED CAPITAL COST ESTIMATES, *supra* note 65, at 6.



significantly higher electricity prices in the interim.<sup>158</sup> The EIA is unclear in its 2016 Annual Energy Outlook as to how quickly or at what rate electricity prices will rise in the No CPP case, but it predicts that slightly higher natural gas prices would inevitably slow the decline of coal as a fuel.<sup>159</sup>

### III. 2013 AND 2015 MLP PARITY ACTS

While the propriety of tax credits for renewable electricity asset development has been widely debated, there is no doubt that tax credits are an effective way to incentivize the development of wind, solar, and hydroelectric assets if there is enough income with which to offset the cost.<sup>160</sup> Most of the time, however, the non-refundable tax credits granted in sections 45 and 48 of the tax code are utilized by powerful tax equity investors, not the renewable electricity generator itself.<sup>161</sup> As a potential remedy to the income problem that prevents renewable producers from fully utilizing tax credits, Democrat Senator Chris Coons of Delaware introduced the 2013 MLP Act in the Senate in 2013.<sup>162</sup> The 2013 MLP Act sought to amend Section 7704 of the tax code by expanding the definition of qualifying income to activities including: renewable electricity generation units, electricity storage devices, combined heat and power generation units, renewable thermal energy generation units, waste heat to power generation units, renewable fuel infrastructure facilities, renewable chemical production

---

158. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-7. The EIA reports that by 2030 under the 2016 Reference case, electricity will rise 7% in the Northeast, 6% in the Midwest/Mid-Atlantic, and Southeast, and 5% in the Southwest/Rockies. *Id.* at 12. No direct correlation between increases in electricity prices and increases in natural gas-fired or wind/solar generation by region can be drawn from the EIA's data. See *id.* at 10–12.

159. See *generally id.* at IF-6.

160. See Fink, *supra* note 10, at 117 (“Renewable energy’s reliance on tax credits has been accurately described as ‘handcuffing’ the entire industry. The government’s reliance on the tax code to promote renewable energy projects is poorly constructed, limits the potential investor pool, drives up financing costs, and subsequently restricts renewable energy growth.”); see also Harrison, *supra* note 10, at 867 (“Therefore, those seeking to produce renewable energy must identify and partner with parties earning a high enough income to benefit from tax credits, accelerated depreciation, and similar policies to make the investment worthwhile. However, the number of potential investors that qualify as tax equity investors is limited due to the amount of income required to take advantage of the tax credits.”).

161. See Mormann, *supra* note 10, at 303 (“Tax credits may work well for mature industries that generate steady flows of taxable income to offset. But they are a poor fit for the emerging renewables industry whose high up-front capital intensity prevents projects from generating taxable profits for the first ten or more years of operation. In the absence of taxable income to offset, renewable energy project developers are unable to reap the immediate benefit of their projects’ tax credits without the help of a tax equity investor who can monetize the credits by offsetting tax liabilities from other sources.”).

162. See Master Limited Partnerships Parity Act (2013), *supra* note 5.

processes, energy efficient building development, gasification with sequestration and carbon capture activities.<sup>163</sup> However, the bill died quickly after being referred to the Committee on Finance.<sup>164</sup> On June 24, 2015, Senator Coons reintroduced the most current version of the MLP Parity Act.<sup>165</sup> Again, the bill died after being read before the Committee on Finance with no further action.<sup>166</sup> Like the 2013 MLP Act, the 2015 MLP Act purported to expand the definition of qualifying income to include renewable energy sources that generate electric power, electricity storage devices, renewable fuel infrastructure, renewable fuels, and broader facilities engaging in carbon capture and sequestration.<sup>167</sup> The purpose of the act was to level the playing field and give all sources of domestic energy—renewable and non-renewable alike—a fair shot a success in the marketplace.<sup>168</sup> Senator Coons, critical of the advantageous business structure reserved only for the mineral resource industry, crafted a bill that attempted to prevent the federal government from picking winners and losers in the energy market by giving renewable electricity producers more access to cheaper capital provided by private investors in public markets.<sup>169</sup> Accordingly, the categories of qualifying income that the 2015 MLP Act attempted to add mirror some of those found in I.R.C. sections 45 and 48 I.R.C., which provide tax credits for the development and operation of certain energy property, including solar, geothermal and wind assets.<sup>170</sup>

---

163. *Id.*

164. *See generally* CONGRESS.GOV, S. 795, *supra* note 7 and accompanying text.

165. *See* Master Limited Partnerships Parity Act (2015), *supra* note 8.

166. *See generally* CONGRESS.GOV, S. 1656, *supra* note 9 and accompanying text.

167. *See* Master Limited Partnerships Parity Act (2015), *supra* note 8.

168. Chris Coons, *The Master Limited Partnerships Parity Act*, U.S. SENATOR CHRISTOPHER COONS OF DELAWARE (last visited February 20, 2016), <https://www.coons.senate.gov/newsroom/press-releases/bipartisan-support-for-master-limited-partnerships-parity-act-grows> [<http://perma.cc/T3LF-A6XP>].

169. *Id.*

170. *See* Master Limited Partnerships Parity Act (2015), *supra* note 8; I.R.C. §§ 48, 179(d), 6426 (2015). The 2015 MLP Act also includes references to waste heat to power portions in section 371(5) of the Energy Policy and Conservation Act, renewable fuel infrastructure under section 6426 of the I.R.C., renewable fuels under section 211 of the Clean Air Act, energy efficient buildings falling under section 179D of the I.R.C., and a special new provision for “Qualifying Renewable Chemical” which is largely based on section 9001 of the Agriculture Act of 2014. *See* Energy Policy Conservation Act, Pub. L. No. 93-163, § 371(5), 89 Stat. 871 (1975); 42 U.S.C. § 7545 (2015); Agricultural Act of 2014, Pub. L. 113-79, 128 Stat. 649 (2014).

#### IV. FREE MARKET SOLUTION: PTPS FOR ALL ELECTRICITY GENERATORS

##### A. Proposed MLP Parity Act Revisions

In light of recent electricity generation shifts in the United States, now is the time for a revised MLP Parity Act that puts natural gas-fired and renewable electricity generators on equal footing. Although the EIA does not foresee a sharp increase in electricity prices in either the No CPP or 2016 Reference case, undoubtedly extra tax help for renewable and mixed generation companies could help lower electricity prices for the public.<sup>171</sup> Industry data shows that renewable asset development and utilization are highest in years before tax credits expire, and given the role of tax equity investors that swallow non-refundable renewable energy tax credits, more can be done to foster free-market growth in the power business.<sup>172</sup>

The 2015 MLP Parity Act only expanded section 7704 of the tax code to include renewable electricity generation activities and made no mention of natural gas-fired generation activities.<sup>173</sup> While the shift from coal burning to natural gas-fired plants may be driven by commodity prices, the shift from fossil-fuel generation to renewable generation is a product of recent, restrictive environmental regulations and strong tax credits.<sup>174</sup> But, as Professor Mormann and others pointed out, the tax credits for renewable energy asset development and electricity production are not used as efficiently as they could be.<sup>175</sup> Moreover, if the CPP is upheld, who will pay for the extra capital costs incurred to construct new natural gas-fired plants? Undoubtedly the EIA is right—ratepayers will shoulder the costs.<sup>176</sup>

Nevertheless, even if the CPP is invalidated, the economics of natural gas-fired generation support a significant buildout of new assets and the closing of older, dirtier coal burning plants by 2040.<sup>177</sup> While climate change is on the mind of citizens and

---

171. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-7 to -12 and text accompanying 118–19.

172. See TODAY IN ENERGY NOVEMBER 2012, *supra* note 145, at 1.

173. See *supra* notes 163, 167 and accompanying text.

174. See I.R.C. §§ 45, 48 (2012).

175. Mormann, *supra* note 10, at 319–25.

176. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at IF-7. The EIA stated that “[r]etail electricity prices are higher when the CPP is in place than when it is not, as the fuel and capital costs of complying with the rule by shifting to natural gas-fired generation, or by building new renewable capacity, are passed through to retail prices.” *Id.*

177. See ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at MT-16 and text accompanying 74–75, 113.

lawmakers, public support may be available for a bill that includes natural gas-fired electricity generation activities alongside renewable activities. Such a bill may be in the public's best interests, because it promotes electricity market transparency while allowing investors to pick winners and losers in the industry, lowers electricity prices, and creates a variety of social benefits, including cleaner air. Moreover, a revised MLP Parity Act may also garner more support from the energy industry, because it puts natural gas generation activities on par with renewable activities, extends capital raising benefits to renewable projects which were not available before, leads to more efficient tax credit utilization and the elimination of tax equity investments, and provides other mixed generation portfolio benefits. Thus, a revised MLP Parity Act, which allows natural gas-fired and renewable electricity generation activities to count as qualifying income for PTP status is good for industry stability and consumers alike.

*B. Eliminating the Tax Equity Investor: Capital Raising and Tax Credit Utilization Efficiencies*

Without doubt, allowing electricity generators to claim PTP status would enhance capital raising opportunities and overall tax efficiency. While the tax equity investors may fund the development of private renewable electricity generating assets that may otherwise go unfunded, other authors have pointed out that only a handful of powerful tax equity investors exist, and those few players often require highly favorable investment terms, including the right to sweep away non-refundable tax credits from the generation company.<sup>178</sup> Moreover, scholars mostly agree that the section 1603 cash grant made renewable energy credits more effective and that its expiration led to enhanced tax equity investment in the years since.<sup>179</sup> Although including only renewable electricity generation activities as PTP qualifying income would decrease the cost of capital and limit the power of tax equity investors, it may not lead to efficient tax credit utilization, because it is the rare case that renewable generators have sufficient net income with which to offset non-refundable credits.<sup>180</sup> Therefore, for the extension of PTP status to renewable energy developers and producers to work to the fullest extent possible, renewable energy PTPs need offsetting taxable net

---

178. Mormann, *supra* note 10, at 326–28; Harrison, *supra* note 10, at 867; Walsh, *supra* note 10, at 75–76.

179. Mormann, *supra* note 10, at 324; TODAY IN ENERGY NOVEMBER 2012, *supra* note 144, at 1.

180. Mormann, *supra* note 10, at 309.

income. One way to ensure that renewable PTPs have offsetting income is to allow more profitable natural gas-fired generation activities to also be included in section 7704's qualifying income definition.

Since the passing of the Public Utility Regulatory Policies Act of 1978 (PURPA), electric utilities have been required to meet renewable portfolio standards.<sup>181</sup> In this respect, PURPA forces electricity generators to either produce or purchase a percentage of their total grid contributions from renewable sources.<sup>182</sup> Looking forward, low natural gas prices for years to come will ensure that "mixed generation" PTPs will remain profitable for the indefinite future.<sup>183</sup> But in the interim, there is a glaring need for an efficient entity structure that promotes the development of renewable generating assets alongside natural gas fired-assets to ensure that ITCs and PTCs are fully utilized.

Finally, access to lower cost funding provided by public markets and the attractive tax benefits for investor-unitholders make organizing a mixed generation company as a PTP somewhat more attractive than other entity structures.<sup>184</sup> While corporations already possess the capital raising advantages and public tradability that state-law partnerships and limited liability companies do not, corporate profits are taxed once at the entity level and again at the capital gains rate of the individual taxpayer upon distribution.<sup>185</sup> However, if traditional electricity producers are allowed to spin off natural gas-fired and renewable generation assets into a separate PTP, the new partnership will retain most of the key public market capital raising advantages that it previously had as a corporation, while almost eliminating the need for expensive tax equity investments.<sup>186</sup> Even in the absence of advantageous renewable energy credits, extending PTP advantages to renewable and mixed asset generators would be an effective way to incentivize a green energy buildout while minimizing the effects of higher capital costs on everyday ratepayers.<sup>187</sup>

---

181. Public Utility Regulatory Policies Act of 1978 (PURPA) – Cogeneration and Small Power Production, 16 U.S.C. § 824a-3 (2016).

182. James W. Moeller, *Of Credits and Quotas: Federal Tax Incentives for Renewable Resources, State Renewable Portfolio Standards, and the Evolution of Proposals for a Federal Renewable Portfolio Standard*, 15 FORDHAM ENVTL. L. REV. 69, 72–73 (2004).

183. See *supra* notes 75–78 and accompanying text.

184. See *supra* notes 59–64 and accompanying text.

185. Mormann, *supra* note 10, at 341 and text accompanying note 49.

186. *Id.*

187. See *infra* Part IV.d. (discussing the positive benefits of new PTPs in relation to renewable and clean energy).

### C. Investor Appeal and Market Transparency

The creation of electricity PTPs may change the face of electricity financing by allowing the investing public to purchase units of renewable electricity partnerships that may have been off-limits before. Often, the public cannot invest in new utility-grade renewable electricity projects because of the mere size of the projects, which often require millions of dollars from hedge fund, private equity, or institutional investors that are in a better position to take risky positions.<sup>188</sup> However, more risk leads these savvy investors to demand higher returns.

While everyday investors may not have the stomach to invest in risky renewable energy development projects, if mixed generation PTPs were sanctioned, the everyday investor may be more inclined to invest if it knows that tax credits from renewable generating activities would be adequately offset by steady net income from natural gas-fired generation assets. Although investments in mature electric utilities are often viewed as relatively safe by the investing public, the corporate entity structure leaves these companies amenable to double taxation, where the federal government takes up to \$0.52 of every dollar the company returns to investors.<sup>189</sup> If mixed generation electricity producers had the opportunity to organize as PTPs, public investors could experience returns upwards of 12% higher than those of similar corporations due to the tax advantages provided by section 7704.<sup>190</sup> Undoubtedly, the substantial tax advantages associated with PTPs would make investment in renewable energy more attractive for investors while lowering the PTP's cost of capital for future projects.

However, PTPs are not without flaws and inherent risks that could potentially harm investors. One complaint about the oil and gas activities currently included in section 7704 is that they are subject to bust when commodity markets turn sour.<sup>191</sup> In 2016, bankruptcies and out-of-court restructurings plagued ailing oil

---

188. Mormann, *supra* note 10, at 347; Roberts, *supra* note 10, at 106.

189. See *supra* notes 47–50 and accompanying text. This scenario assumes that both the corporation and investors have the highest taxable incomes allowed under federal tax laws, and that the electric utility distributes dividends regularly.

190. *Id.*

191. See Tyler Crowe, *The Master Limited Partnership Model Isn't Flawed, We're Using It Wrong*, THE MOTLEY FOOL (2015), <http://www.fool.com/investing/general/2015/12/12/the-master-limited-partnership-model-isnt-flawed-w.aspx> (suggesting that market pressures weigh on MLP boards when cash flows decrease and can lead to serious disappointment for investments during prolonged periods of cash flow decline) [<http://perma.cc/6QAK-Y993>].

and gas MLPs.<sup>192</sup> When investing in corporations, investors know that their downside is limited to total loss of investment if a bankruptcy arises.<sup>193</sup> In contrast, MLP investors, as limited partners, may incur significant tax bills from cancellation of debt income if a troubled MLP declares bankruptcy or completes an out-of-court restructuring.<sup>194</sup> But unlike volatile oil and gas companies, electricity generators tend not to experience violent swings in profitability due to fuel input diversification and excess generation capacity.<sup>195</sup> Although electricity is a publicly traded commodity just like oil and natural gas, the structural features of the electricity industry produce steadier cash flows over time and reduce the likelihood that the partnership liability and taxation rules will result in surprises for electricity PTP investors.<sup>196</sup>

#### D. Promoting Mixed Generation Portfolios to Lower Electricity Prices

Despite significant new environmental regulations, economics largely determine the electricity generation mix in the United States.<sup>197</sup> In addition, federal law mandates that fossil-fuel electricity producers generate or purchase a portion of their electricity sold from renewable sources.<sup>198</sup> While the profitability

---

192. See e.g. Liz Hoffman, Matt Jarzemsky, & Laura Saunders, *MLP Investors Face Tax Hit On Top of Big Losses*, WALL ST. J. (Mar. 9, 2016), <http://www.wsj.com/articles/linn-energy-looks-to-ease-tax-hit-on-investors-1457554295> [<http://perma.cc/3FP7-357G>].

193. See *In re Quicksilver Res. Inc.*, 544 B.R. 781 (D. Del. 2016); *In re Sabine Oil & Gas Corp.*, 547 B.R. 66 (S.D.N.Y. 2016).

194. See *supra* note 53 and accompanying text.

195. See Todd Shriber, *The Risks in Electric Utility Stocks*, ZACKS INVESTMENT RESEARCH (last visited on January 1, 2017), <http://finance.zacks.com/risks-electric-utility-stocks-8245.html> (“Utilities stocks have been favorite destinations for conservative, income-minded investors for decades. The sector is known for several things that risk-averse investors like. First, many large-cap utilities pay above-average dividends. Second, the sector is predictable; investors are exposed to severe earnings misses only rarely. Additionally, as part of a slow-moving, low-beta sector, utilities stocks historically fall less than the broader market during downturns.”); see ANNUAL ENERGY OUTLOOK 2016, *supra* note 25, at MT-18 (recognizing that this shift has made some electricity producers less profitable than competitors because some generation portfolios are heavily weighted toward coal burning plants, the amount of excess and unused capacity available shows that the power industry is amenable to profit equilibrium in various generation mix scenarios). See *id.*

196. See Massey, *supra* note 10, at 1036–38. Massey discussed the use of “yieldcos,” which are “set up to achieve a stable cash flow and generate large tax losses to offset revenue.” *Id.* at 1036–37. While yieldcos may be effective if enough income exists to set off non-refundable tax credits, Massey recognizes that they are not perfect substitutes and that balancing yieldcos requires special conditions and significant expertise. *Id.* at 1037–38. Nonetheless, the income steadiness of yieldcos could be duplicated in MLPs more easily due to the stable cash flows of other electricity generating assets.

197. *Supra* Part II.a.

198. See *supra* notes 181–82 and accompanying text.

of natural gas-fired electricity generation since the late 2000s resulted in natural gas becoming the favorite fuel of electricity generators, a 2013 EIA report showed that the cost to construct renewable electricity assets is decreasing as the scale of new renewable projects continues to increase.<sup>199</sup> Moreover, operating and maintenance costs for renewable assets are significantly lower than those for fossil-fuel fired generation assets, due partly to the absence of fuel costs.<sup>200</sup> Thus, there may come a time when the economics of electricity generation require significantly more production from currently underutilized renewable capacity to maintain competitive electricity prices. In addition, having excess capacity across various fuel types is important to ensure that electricity service is uninterrupted nationwide.

Perhaps one reason why the EIA does not foresee significant electricity price increases in the 2016 Reference case is due to the economic forces that keep electricity prices in check.<sup>201</sup> While commodity economics will always play a significant part in determining the electricity generation mix in the United States, lawmakers should be open to methods for reducing the overall cost of electricity. Undoubtedly, mixed generation PTPs could further alleviate future electricity price hikes thanks to low-cost public market capital raising options, more efficient tax credit utilization, and the resulting development of generating asset mixes that allow generators to quickly increase output from more economical sources when commodity prices change. Despite presenting various advantages, the key to the mixed generation PTP argument is more efficient tax credit utilization. If lawmakers authorize mixed asset PTPs, renewable producers, whose lack of taxable income essentially leads to tax credit forfeiture to expensive tax equity investors, may finally produce enough taxable income with which to offset credits. Thus, offsetting existing taxable income with ITCs during renewable asset construction will lower the entity's effective cost of construction, and offsetting taxable income with future PTCs will lower the variable costs of producing electricity. In both cases, effective utilization of ITCs and PTCs will lower the entity's electricity production costs and may allow for more competitive electricity prices.

---

199. See *supra* note 82 and accompanying text.

200. See *supra* note 151 and accompanying text.

201. See *supra* notes 75–78 and accompanying text.



### E. Social Benefits

Finally, investors may be more attracted to renewable electricity PTPs or mixed generation PTPs due to the social benefits derived from lower emissions power plants.<sup>202</sup> Aside from PTP tax benefits that result in higher returns for investors, socially responsible investment is a new theme in markets.<sup>203</sup> While some investors may be staunchly opposed to fossil fuel-fired electricity generation, others who feel less strongly may see mixed generation PTPs as an effective way to support environmental goals in an economically sensible way. In addition, capital market competitive characteristics may force operators to undertake larger or riskier renewable projects that accelerate capacity additions and lower per kilowatt development costs.<sup>204</sup> Aside from environmental benefits, however, investors may value more transparency in electricity markets.<sup>205</sup> As Professor Mormann pointed out, “[t]he trading prices for renewable energy [PTP] shares may help investors better assess a project’s technological reliability, resource quality, off-take risk, and other critical characteristics.”<sup>206</sup> Finally, Accordingly, these benefits, among others, may increase investor demand for PTP units and further decrease the cost of capital for renewable and mixed generation PTPs.

### CONCLUSION

The electricity generation industry is in the middle of a significant transition that will shape power generation for the rest of the century. Despite the recent introduction of restrictive air quality regulations like the MATS rule and CPP, economics have driven coal out of favor as America’s favorite fuel for electricity generation. While the fate of the CPP rests in the hands of the D.C. Circuit and Trump Administration, electricity producers are retiring older coal burning capacity and constructing renewable and natural gas-fired generation assets at record rates. Furthermore, the promise of inexpensive natural gas for years to come makes the hefty costs of constructing clean and efficient natural gas-fired generation units more economically feasible,

---

202. The EPA mentioned that significant social benefits would inure from lower power plant emissions in the MATS and CPP Final Rules. MATS Final Rule, 77 Fed. Reg. at 9,305–06 (Feb. 12, 2012); CPP Final Rule, 80 Fed. Reg. at 64,665, 64,670 (Oct. 23, 2015).

203. See Sophia Vakhidova, *Sustainability Impact of Socially Responsible Investment*, CORP. FIN. REV., 2012 WL 10235076, at \*1 (2012).

204. See *id.* at 349–50.

205. Mormann, *supra* note 10, at 350.

206. *Id.* at 349.

while tax credits for renewable asset construction and operation make mixed generation portfolios more attractive. However, the ITC and PTC may soon expire, which would leave worthy renewable projects without adequate funding from deep pocketed tax equity investors.

Now is the time for a revised MLP Parity Act that expands the qualifying income definition in I.R.C. section 7704 to include renewable and natural gas-fired electricity generation income. While the 2013 and 2015 versions of the proposed MLP Parity Act included renewable electricity generation activities, tax credits for renewable energy development and operation may not be efficiently utilized due to lack of profits from renewable electricity generation. Regardless of whether future Congresses extend vital renewable energy tax credits, allowing renewable and mixed generation electricity producers to organize as PTPs will: (1) lower the cost of capital for projects by reducing dependency on tax equity investors; (2) increase the effectiveness of renewable energy tax credits; (3) create incentives for public investment in steady, profitable electricity generation initiatives; (4) potentially lower electricity prices for consumers; and (5) indirectly improve air quality by accelerating shifts in the electricity generation mix toward cleaner natural gas-fired and renewable generation assets.

*Oliver Fankhauser*

