

Taking Credit: How Congress Is Reshaping Renewable Energy Investment Incentives

INTRODUCTION

Tax law plays an important role in shaping decisions about energy investment and production in the United States.¹ Energy tax credits further two large policy aims. First, they increase investment in renewables and diversify the nation's renewable energy portfolio.² Second, they encourage domestic production of conventional energy sources, which strengthens national energy security.³

In the mid-2000s, nearly 40 percent of energy subsidies went to renewable energy producers.⁴ These subsidies led to substantial growth in both solar and wind energy in the United States: since 2009, solar installations grew from a little over one gigawatt to twenty-five gigawatts, and wind installations grew from thirty-one gigawatts to seventy-five gigawatts.⁵

Substantial and hasty changes to tax law in the 2017 Tax Cuts and Jobs Act (TCJA) and the 2018 Bipartisan Budget Act (BBA) reflect a discrepancy between decades-long policy goals and current energy policy goals. These changes resulted in the largest overhaul of the Internal Revenue Code in half a century.⁶ As I will explain, the TCJA amendments, in conjunction with the explicit changes to the energy credit system enacted by the BBA, are likely to shift the landscape of renewable energy technology investment. While the BBA alterations disincentivize investment in renewable energy, the simultaneous

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1. Curtis Carlson & Gilbert E. Metcalf, *Energy Tax Incentives and the Alternative Minimum Tax*, 61 NAT'L. TAX J. 477, 477 (2008).

2. *Id.* at 478.

3. *Id.*

4. Gilbert E. Metcalf, *Investment in Energy Infrastructure and the Tax Code*, 1 (Nat'l Bureau of Econ. Research, Working Paper No. 15429, 2009).

5. It is generally agreed upon that the tax subsidies were the major factor behind this remarkable uptick in renewable development. Dorian Hunt & Christine Spratley, *The Renewable Energy Industry Must Adapt*, AREA DEVELOPMENT (Q1 2018), <https://www.areadevelopment.com/energy/Q1-2018/renewable-energy-industry-must-adapt-to-US-tax-reform.shtml>.

6. *Start Ups Stalling? The Tax Code as a Barrier to Entrepreneurship: Hearing Before the Comm. on Small Bus.*, 115th Cong. 16, 42–43 (2017).

changes to the TCJA and lingering ambiguity in both Acts may allow large corporations to invest creatively in renewable energy resources.

This In Brief begins with a short discussion of two major legislative acts to change tax law: the 2017 TCJA and the 2018 BBA. It then discusses the production tax credit (PTC) and the investment tax credit (ITC), the two energy tax provisions that the BBA changed and eliminated, respectively. Finally, it discusses the creation of the base erosion anti-abuse tax (BEAT) and the elimination of the corporate alternative minimum tax (AMT): two sweeping changes in the TJCA that complicate the incentive structure for corporations to claim energy tax credits. Ultimately, it concludes that this new incentive structure undermines historic policy goals for energy tax legislation despite the loopholes available for creative investing.

I. RECENT TAX LEGISLATION

In December 2017, President Trump signed the TCJA, the largest revision to the Internal Revenue Code in three decades.⁷ The TCJA's main purpose was to increase gross domestic product (GDP) and federal revenue.⁸ It accomplished this by reducing the corporate tax rate, lowering individual tax rates and brackets, and providing further deductions for businesses.⁹ The TCJA included two significant amendments that may indirectly affect renewable energy usage and development.

The first amendment, the base erosion and anti-abuse tax (BEAT), was created to address strategic behavior by large corporations to avoid paying the minimum tax.¹⁰ BEAT taxes only apply to multinational U.S. corporations with gross receipts of over \$500 million and thus affect only a small percentage of corporations.¹¹

The second change eliminated the corporate alternative minimum tax (AMT).¹² The corporate AMT was intended to curb strategizing by limiting or eliminating the ability of corporations to factor those provisions into their final tax calculation.¹³ The AMT ran parallel to the regular corporate income tax.¹⁴ The previous tax system allowed corporations to calculate tax rates based on both the AMT and the regular corporate income tax and pay the higher of the two values. While less than 1 percent of firms were actually affected by the AMT,

7. BNA Picks, BLOOMBERG LAW: TAX, <https://www.bloomberglaw.com/product/tax/search/results/0e1cd14909110a12f0516145f1014e47?bc=W10-27454fc992cc3b0548731555b1daed545c19a695>.

8. *Start Ups Stalling? The Tax Code as a Barrier to Entrepreneurship*, *supra* note 6, at 42–43.

9. BNA Picks, *supra* note 7.

10. Tax Cuts and Jobs Act, Pub. L. No. 115-97, § 14401 (2017).

11. JANE G. GRAVELLE & DONALD J. MARPLES, CONG. RES. SERV., R45186, ISSUES IN INTERNATIONAL CORPORATE TAXATION: THE 2017 REVISION (P.L. 115-97) (Feb. 20, 2020), 8–9.

12. Tax Cuts and Jobs Act, Pub. L. No. 115-97, § 12001 (2017).

13. H.R. Rep. No. 115-409 pt. 13 at 173 (2017). Gregory S. Dowell, *Understanding the Corporate AMT (Alternative Minimum Tax)*, DOWELL GROUP, <https://dowellcpa.com/understanding-the-corporate-amt-alternative-minimum-tax/>.

14. *Id.*

those firms accounted for almost a quarter of total national corporate assets.¹⁵ The AMT affected the insurance, finance, and mining sectors most heavily.¹⁶ However, the AMT rate was lower than the general minimum tax rate (GMT) and comprised of a different tax base; this resulted in qualifying corporations often opting for the AMT instead of the GMT.¹⁷ As this In Brief explores in later Subparts, both of these amendments could increase corporate incentives to invest in renewable energy development and production.¹⁸

Congress enacted the Bipartisan Budget Act (BBA) in early 2018, further modifying the Internal Revenue Code.¹⁹ The BBA reduces or totally eliminates tax credits on renewable energy project development and production.²⁰ Congress removed energy credits from the IRC because they believed the credits overcomplicated the tax code and put small businesses at a disadvantage.²¹ Depending on the energy project type and the date the project began construction, tax credits may no longer be available under the new tax code.²² The tax credit simply expired at the end of fiscal year 2018 for some forms of energy.²³ Other forms of energy are subject to a credit phase-out where, starting in 2018, the credit value will gradually decrease until it also expires in 2021.²⁴ As these credits are phased out of existence, complications such as bottlenecks in construction projects and lingering confusion over unaddressed aspects of energy production development are likely to plague renewable energy investors.²⁵ By eliminating certain technologies from qualifying for energy tax credits and by shortening the eligibility window, the BBA may curb investment in solar and wind. However, the loopholes in the legislation leave room for innovation and investment in renewable energy storage infrastructure.²⁶

15. Curtis Carlson & Gilbert E. Metcalf, *Energy Tax Incentives and the Alternative Minimum Tax*, 61 NAT'L. TAX J. 477 (2008).

16. Chenxi Lu & Joseph Rosenberg, *How the Corporate AMT Affects Different Industries*, TAX POL'Y. CTR. (2017).

17. *Id.*

18. Sean Moran et al., *2018 in Retrospect: The Renewable Energy Industry in a Post-TCJA World*, POWER AND TAXES, Feb. 11, 2019, at 644.

19. Bipartisan Budget Act, Pub. L. 115-123 (2018).

20. Bipartisan Budget Act Pub. L. 115-123, §§ 40411, 40409 (2018).

21. *Start Ups Stalling? The Tax Code as a Barrier to Entrepreneurship: Hearing Before the Comm. on Small Bus.*, 115th Cong. 16 (2017).

22. *Id.*

23. *Id.*

24. *Id.*

25. As investors rush to claim credits, some have speculated that front-end infrastructural burdens, such as wind turbine production, will increase. Meanwhile, the lack of clarity regarding battery storage and wind farm repowering (two important aspects of energy project development) may stymie projects in the late-end stage. See Moran et al., *supra* note 18, at 659–60; see also Jason Deign, *US Wind Player Warns of Impending Supply Bottlenecks as PTC Disappears*, GREEN TECH MEDIA (Feb. 1, 2019), <https://www.greentechmedia.com/articles/read/us-wind-player-warns-of-impending-supply-bottlenecks-as-ptc-disappears>.

26. Moran, *supra* note 18, at 664.

II. THE EVOLUTION OF ENERGY TAX CREDITS

Both the PTC and the ITC were forecasted to reduce federal revenue and increase tax expenditures in the long-term.²⁷ For the majority of its existence, the ITC cost the government less than \$50 million per year in lost revenue²⁸ but due to increases in renewable energy project development in the 2010s, estimates increased to well over \$2 billion. The Congressional Budget Office estimated that the PTC alone would reduce revenue by \$6.8 billion from 2018 to 2027.²⁹ These projections may have prompted Congress to reconsider the PTC's substantial 30 percent credit for renewable energy technology.³⁰

A. *Business Energy Investment Tax Credit*

The ITC subsidizes renewable energy development and construction projects based on initial capital expenditure.³¹ The ITC began in 1978 as part of the Energy Tax Act³² as a 10 percent credit set to last for five years.³³ Prior to the enactment of the TCJA, the ITC was a 30 percent credit that applied to solar, fiber-optic solar, fuel cells, and small wind technologies.³⁴ In 2008, Congress extended the credit's lifetime and added new qualifying technologies beyond the foundational geothermal and solar technologies (credits for which were made permanent by the Energy Policy Act of 1992).³⁵ Congress continued to relax limitations on the ITC until 2017; the TCJA imposed a 2021 termination deadline for all forms of energy technology except solar and geothermal,³⁶ with a phase-out beginning in 2019 that will decrease the credit rate until 2021.³⁷

The current ITC states that “the energy credit for any taxable year is the energy percentage of the basis of each energy property placed in service during

27. MOLLY SHERLOCK, CONG. RES. SERV., R44852, THE VALUE OF ENERGY TAX INCENTIVES FOR DIFFERENT TYPES OF ENERGY RESOURCES 11 (Mar. 19, 2019); JOINT COMMITTEE ON TAXATION, ESTIMATES OF FEDERAL TAX EXPENDITURES FOR FISCAL YEARS 2017-2021 33-34 (May 25, 2018).

28. JOINT COMMITTEE ON TAXATION, ESTIMATES OF FEDERAL TAX EXPENDITURES FOR FISCAL YEARS 2017-2021 2 (May 25, 2018).

29. CONG. BUDGET OFF., UPDATE TO BUDGET AND ECONOMIC OUTLOOK: 2017 TO 2027, (June 29, 2017).

30. However, the energy credits do not come close to the level of other tax breaks. For instance, the reduced tax rate on active foreign corporate income—the largest tax expenditure in 2017—was 1800 percent higher than that of wind and solar energy credits combined. JOINT COMMITTEE ON TAXATION, ESTIMATES OF FEDERAL TAX EXPENDITURES FOR FISCAL YEARS 2017-2021 33-34 (May 25, 2018).

31. Elizabeth Noll & David Hart, *Less Certain than Death: Using Tax Incentives to Drive Clean Energy Innovation*, INFORMATION TECHNOLOGY & INNOVATION FOUNDATION, Tax Notes (Dec. 2, 2019), <https://itif.org/publications/2019/12/02/less-certain-death-using-tax-incentives-drive-clean-energy-innovation>.

32. Energy Tax Act, Pub. L. No. 95-618, 92 Stat. 3174 (1978).

33. MOLLY SHERLOCK, CONG. RES. SERV., THE ENERGY CREDIT: AN INVESTMENT TAX CREDIT FOR RENEWABLE ENERGY 1 (Nov. 2, 2018).

34. A 10 percent credit was also extended to microturbines, combined heat and power, and geothermal. *Id.*

35. *Id.* at 2.

36. *Id.* at 2.

37. *Id.* at 1.

such taxable year.”³⁸ Notably, neither the TCJA nor the BBA provided any further guidance on the definition of energy storage property for the purposes of qualifying for an energy tax credit.³⁹ Thus, strategic investors may be able to exploit the legislative loophole by building or purchasing storage facilities (most commonly batteries) for renewables that have been phased out of the qualifying ITC technologies.⁴⁰ Since the ITC applies to storage facilities that are powered by renewables, it may be possible for investors to claim credits for the expansion of energy storage projects that are powered by technologies no longer covered by the ITC.⁴¹ Though many acknowledge that the energy tax credit system leaves little room for innovation, the ambiguity concerning storage facilities coupled with the decrease in credit for solar technology may prompt some investors to think creatively about building storage facility infrastructure.⁴²

B. Renewable Electricity Production Tax Credit

The PTC subsidizes power that is generated by commercial and industrial energy producers using qualifying technologies on a per kilowatt-hour (kWh) basis for the first ten years of production.⁴³ The PTC was originally enacted as part of the Energy Policy Act of 1992.⁴⁴ Since then it has been extended eleven times, with modifications to the time period of credit and to which production methods qualify.⁴⁵ Prior to 2017, the energy sources that qualified for the PTC included wind, biomass, hydroelectric, geothermal, and solid waste. The PTC expired in December 2017 for all technologies except for wind power; the credit for wind projects extended through the end of fiscal year 2019.⁴⁶ Thus, only wind

38. I.R.C. § 48.

39. Moran et al., *supra* note 18, at 659. The uncertainty in whether storage such as batteries meet the definition of “qualified solar electric property expenditure” under § 25D(d)(2) of the IRC caused one couple to correspond directly with the IRS. In their reply, the IRS said that batteries met the 30 percent credit if can be “effectively ensured” that “all energy that is used to charge the Battery . . . come[s] from [a] Solar Energy System.” (PLR-118431-17, 4, <https://www.irs.gov/pub/irs-wd/201809003.pdf>). However, the House of Representatives introduced the Energy Storage Tax Incentive and Deployment Act in April of 2019, which sought to clarify the relationship between energy storage technology and the energy tax credits. Thus, it is possible that this issue will be addressed in future legislation. Jeff St. John, *U.S. House Introduces Energy Storage Tax Credit Bill*, GREEN TECH MEDIA (Apr. 4, 2019), <https://www.greentechmedia.com/articles/read/congress-introduces-energy-storage-tax-credit-bill>.

40. *Id.*

41. See Moran et al., *supra* note 18, at 659.

42. Elizabeth Noll & David Hart, *Less Certain than Death: Using Tax Incentives to Drive Clean Energy Innovation*, INFORMATION TECHNOLOGY & INNOVATION FOUNDATION, Tax Notes (Dec. 2, 2019), <https://itif.org/publications/2019/12/02/less-certain-death-using-tax-incentives-drive-clean-energy-innovation>.

43. 26 I.R.C. § 45.

44. MOLLY SHERLOCK, CONG. RES. SERV., R. 43453, THE RENEWABLE ELECTRICITY PRODUCTION TAX CREDIT: IN BRIEF 3 (Apr. 29, 2020).

45. The eleven modifications following the PTC’s initial creation occurred in P.L. 106-170, P.L. 107-147, P.L. 108-311, P.L. 109-58, P.L. 109-432, P.L. 110-343, P.L. 111-5, P.L. 112-240, P.L. 113-295, P.L. 114-113, and finally P.L. 115-123 (the Bipartisan Budget Act of 2018). *Id.* at 4.

46. However, the BBA lowered the rate for wind projects constructed after 2018 from 2.3 cents to 1.44 cents per kWh. Bipartisan Budget Act, Pub. L. 115-23.

projects that had begun construction prior to the termination deadline were eligible for the tax credit.⁴⁷ However, the PTC contains a “safe harbor” provision which effectively relaxes the construction start date stipulation to receive the tax credit.⁴⁸ For a project under construction to qualify for the safe harbor provision, a wind project facility must spend 5 percent of their total project construction budget and receive the paid-for products by the termination deadline.⁴⁹

Onshore wind developers typically favored the PTC because the up-front tax benefits helped offset the capital-intensive nature of wind farm energy development projects.⁵⁰ The elimination of the PTC is likely to substantially change the trajectory of wind investment.⁵¹ Indeed, history indicates wind technology investments are significantly influenced by changes to tax policy.⁵² Since 2006, the consistent renewal of the PTC helped to expand wind power capacity from 1 percent to 8 percent of total national capacity.⁵³ As fiscal year 2019 closed, investors across the United States seized their final opportunity to begin construction to qualify for the safe harbor provision. As a result, wind farm development “rose to a new high” in the second fiscal quarter of 2019.⁵⁴ South Dakota alone saw a \$3.26 billion investment in eight wind farms that would triple the amount of wind energy produced in the state.⁵⁵ Trends from years where the PTC lapsed indicate a similar upsurge in last-minute project development.⁵⁶ This could create a supply bottleneck and ultimately stymie some efforts to obtain the PTC since some investors may fail to have the products in hand by the close of the fiscal year.

47. SHERLOCK, *supra* note 44, at 11.

48. 26 U.S.C. § 45.

49. Michele J. Alexander et al., *From Sunrise to Sunset: Phasing Out the Renewable Energy Tax Credits*, JD SUPRA (Mar. 19, 2019), <https://www.jdsupra.com/legalnews/from-sunrise-to-sunset-phasing-out-the-35439/>.

50. Noll & Hart, *supra* note 42, at 8.

51. *Id.* at 7.

52. Gilbert E. Metcalf, *Investment in Energy Infrastructure and the Tax Code*, 24 TAX POL'Y & ECON. 1, 1 (2010).

53. Noll & Hart, *supra* note 42, at 10.

54. American Wind Energy Ass'n, *Record U.S. Wind Farm Development Activity in 2Q Driven by Fortune 500 Brands, Utilities, and State Calls for Offshore Projects*, EE ONLINE (Aug. 1, 2019), <https://electricenergyonline.com/article/organization/19011/782581/Record-US-wind-farm-development-activity-in-2Q-driven-by-Fortune-500-brands-utilities-and-state-calls-for-offshore-projects.htm>.

55. Bart Pfankuch, *\$3.3 Billion Wind Investment Will Add 2,500 MW of Clean Energy in South Dakota*, ENERGY NEWS NETWORK (Sept. 5, 2019), <https://energynews.us/2019/09/05/midwest/3-3-billion-wind-investment-will-add-2500-mw-of-clean-energy-in-south-dakota/>.

56. Noll & Hart, *supra* note 42, at 7.

III. IMPACTS OF NEW TAX PROVISIONS ON CLAIMING ENERGY CREDITS

A. *Base Erosion Anti-Abuse Tax (BEAT)*

BEAT taxes change the corporate tax landscape and could make claiming energy ITCs a more enticing option than claiming PTCs.⁵⁷ To avoid increasing their base erosion minimum tax amount, the BEAT provision strictly limits the number and type of tax credits that a corporation can claim.⁵⁸ In fact, the only specific credits allowed to reduce base erosion liability are the low-income housing credit, the research credit, and both the ITC and the PTC.⁵⁹ Despite the overall devaluation of these credits under the BBA amendments, the BEAT provision may create an “influx” of investment in renewable energy projects because the renewable energy tax credits are some of the very few that have the potential to reduce a corporation’s base erosion tax liability.⁶⁰ Though both ITCs and PTCs appear in the BEAT provision, some tax experts have noted that the confusing language of the BEAT provision and the uncertainty in long-term PTC valuation may prompt some investors who have multiple energy tax credit options to claim solar-project ITCs instead of wind-project PTCs.⁶¹

B. *Corporate Alternative Minimum Tax (AMT)*

The AMT elimination may make energy tax credits appealing by: (1) decreasing the uncertainty around claiming those credits, and (2) increasing the value of credits as a way to shield corporations from tax liability. Projections indicate that AMT elimination may allow corporations to harbor up to 75 percent of their tax liability in credits.⁶² It is possible that restrictions on energy tax credits may have factored into some large corporate investment choices while the AMT was in place. Research in the early 2000s indicated that firms were increasingly unable to take the PTC when they were also subject to the AMT.⁶³ Moreover, the AMT added uncertainty to energy project cost calculations and may have disincentivized investment due to projected increased costs.⁶⁴ Finally, the elimination of the AMT coupled with the drastic reduction of the general corporate tax rate means that corporations will be able to capitalize on increased

57. See Moran et al., *supra* note 18 at 662.

58. Joint Comm. on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2017-2021* (JCX-34-18), 403 (2018).

59. Pub. L. No. 115-97, § 14401(a)(1)(B).

60. Base erosion liability can only be reduced by 80 percent at maximum. However, there is no cap on the amount that the PTC and ITC could contribute to this total reduction. See Sean Moran et al., *supra* note 18, at 662. Joint Comm. on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2017-2021* (JCX-34-18), 404 (2018).

61. See MATT SHANAHAN ET AL., MARATHON CAPITAL, TAX CUTS AND JOBS ACT: IMPACT ON U.S. RENEWABLE ENERGY FINANCING 55 (Apr. 27, 2018).

62. The authors speculate that this could be an overstated figure that incorporates credits that will become more difficult to shelter but does not include the energy credits among them. *Id.* at 20.

63. Metcalf, *supra* note 52, at 18–19.

64. See *id.* at 25.

profits from renewable projects, perhaps making up for the loss of some tax credit incentives.⁶⁵

CONCLUSION

The TJCA and the BBA led to the largest overhaul of the Internal Revenue Code in nearly half a century.⁶⁶ It is clear that Congress spent minimal time considering how the amended provisions would impact the renewable energy sector, and when it did, it aimed to curb investment.⁶⁷ Hasty drafting complicated the incentives to invest in renewable energy project development for tax credit. Some changes to the tax incentive structure, like the change in the tax base and the elimination of certain credit claiming restrictions, could in theory incentivize corporate investment in renewable energy projects.

However, in reality, it is unlikely that large corporations will invest heavily in classic renewable technology like solar and wind in the coming fiscal years because the legislation stifled the energy tax credit system. Corporations that have previously invested in renewables may be able to benefit from loopholes in the legislation by retroactively claiming credits for renovations to wind facilities or by tacking on storage facilities to solar projects under construction before the deadline at the start of fiscal year 2021.⁶⁸ On balance, the recent changes to the Internal Revenue Code implicate a shift away from clean energy and a diverse national energy portfolio, undermining the policy goals the energy tax credits were supposed to protect.

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65. See Sean Moran et al., *supra* note 18, at 660.

66. *Start Ups Stalling? The Tax Code as a Barrier to Entrepreneurship*, *supra* note 6, at 42–43.

67. *Id.* at 4.

68. See Sean Moran et al., *supra* note 18, at 659–60.

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