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Federal Income Tax Structures for Business Entities: A Comparison of the Oil and Gas Industry and the Solar Energy Industry

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ONE J

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FEDERAL INCOME TAX STRUCTURES FOR BUSINESS ENTITIES: A COMPARISON OF THE OIL AND GAS INDUSTRY AND THE SOLAR ENERGY INDUSTRY

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ROADMAP

This paper will discuss the new federal income tax structure in the United States as applied to oil and gas and solar energy industry business entities. It will also compare the different deductions and credits that are available to both industries. It will demonstrate how the oil and gas industry is favored, some say subsidized, over the solar energy industry under the current federal income tax scheme in the United States. Additionally, this paper will discuss a recent decision by the United Tax Court that states that some refundable state income tax credits can be included in gross income for federal income tax purposes. Finally, this paper will discuss why and how the federal income tax scheme should be amended in order to equalize the benefits to each industry and increase competition between the two industries.

This paper will not discuss the tax consequences to individuals and the royalties associated with leasing mineral rights. Further, this paper will not discuss the newly added, and recently amended in March of 2018, § 199A deduction for qualified business income. I was unable to fully understand this new deduction enough to accurately describe and convey the consequences to the solar energy or the oil and gas industry. Additionally, this paper will not discuss any federal excise or severance taxes imposed on oil and gas business entities. This paper will focus strictly on the federal

income tax structure and the consequences to the oil and gas industry as compared to the solar energy industry. Finally, this paper will not discuss any specific state taxes imposed on either industry nor any deductions or credits offered to either industry. While all these topics play a vital role in analyzing the subsidizing effect that the tax structure in the United States gives to the oil and gas industry, there was not enough time or space to include them all in this paper.

INTRODUCTION

The solar energy industry has been on a rapid growth since 2010. In 2010, the United States had an 851-megawatt capacity combined from residential, nonresidential, and utility units.¹ The capacity jumped up about 126 percent in 2011 to 1,925 megawatts.² The growth rate steadily decreased down to only about a 20 percent growth from 6,251 megawatts to 7,493 megawatts.³ Then in 2016, the United States saw a huge growth of about 95 percent to 14,626 megawatts.⁴

Solar energy jobs in the United States have increased by 168 percent since 2010, from only 93,502 in 2010 to 250,271 in 2017.⁵ However, there was a slight decrease in solar energy jobs from 2016 to 2017 of about 4 percent.⁶ While 21 of the states had a job decrease, the other 29 states saw

1. Mike Munsell, *US Solar Market Grows 95% in 2016, Smashes Records*, GREENTECH MEDIA (Feb. 17, 2017) <https://www.greentechmedia.com/articles/read/us-solar-market-grows-95-in-2016-smashes-records#gs.dis38=g>. Greentech Media (GTM) is a media company that delivers renewable energy news, market analysis, and conferences that are intended to inform and educate users and producers in the global clean tech energy market.

2. *Id.*

3. *Id.*

4. *Id.*

5. 2017 National Solar Jobs Census, THE SOLAR FOUNDATION, available at <https://www.thesolarfoundation.org/national/>. The Solar Foundation is a non-profit organization dedicated to increasing the understanding and knowledge of solar energy through research and education. The Solar Foundation currently serves as the Technical Assistance Provider (TAP) for communities pursuing the Solar Powering America by Recognizing Communities (SPARC) designation. Project Profile: The Solar Foundation, U.S. DEPARTMENT OF ENERGY, available at <https://energy.gov/eere/solar/project-profile-solar-foundation>. Every year since 2010, The Solar Foundation conducts a census titled The National Solar Jobs Census. Access to the full report costs money; therefore, I used the free sources available from the website, which include the infographic and solar jobs map.

6. *Id.*

job growth in 2017.⁷ Much of the job loss came from the biggest producers in solar energy, such as Texas, California, and Nevada.⁸ Much of the job growth is coming from states that are emerging in the solar energy industry that previously had job loss in 2016; including Delaware, Tennessee, New Jersey, and New York.⁹

Currently, solar energy makes up about 2 percent of the total United States energy generation.¹⁰ However, the solar energy industry currently “employs twice as many workers as the coal industry, almost five times as many as nuclear power, and nearly as many workers as the natural gas industry.”¹¹ Additionally, the solar energy industry employs many minorities with 27 percent being Women, 17 percent being Latino or Hispanic, 8 percent being Asian, and 7 percent being African American.¹²

Even though there was a decrease in jobs in the solar energy industry between 2016 and 2017, the solar energy industry is still considered to be on the rise. This leads to the potential of paying more in income taxes, which leads to people wanted to find a way to save money on taxes. One way to save money on income taxes is from tax credits. Tax credits are subtracted, dollar-for-dollar, directly from one’s income tax liability on either a federal or state level.¹³ Another way to save money is through tax deductions. A tax deduction is subtracted from either gross income to find adjusted gross income (commonly called above-the-line deductions) or adjusted gross income to find taxable income (commonly called below-the-line deductions).¹⁴ Neither of these types of deductions are considered dollar-for-dollar deductions from one’s tax liability because these deductions are taken before a taxpayer’s tax liability is calculated.

TAX BASICS IN THE ENERGY INDUSTRY

In December of 2017, tax reform hit the United States in the form of an adjusted tax code. The federal income tax structure in the United States is split between individuals and corporations. Both have specific rules that apply to each type; however, the general structure is basically the same. A taxpayer starts with gross income and takes certain deductions to arrive at

7. *Id.*

8. *Id.*

9. *Id.*

10. *Id.*

11. *Id.*

12. *Id.*

13. *Tax Credit*, BLACK’S LAW DICTIONARY (10th ed. 2014).

14. *Deduction*, BLACK’S LAW DICTIONARY (10th ed. 2014).

taxable income.¹⁵ However, individuals calculate adjusted gross income, while corporations do not calculate adjusted gross income.¹⁶

First, an individual begins by calculating gross income under § 61, then deducting certain applicable above-the-line deductions to find adjusted gross income.¹⁷ After calculating adjusted gross income, an individual takes any applicable below-the-line deductions to find taxable income.¹⁸ Taxable income is then used to find the applicable tax bracket relevant to the taxpayer.¹⁹ An individual uses the tax bracket to then calculate the tax owed, also known as the tax liability.²⁰ An individual then subtracts any applicable tax credits from the tax liability to calculate taxes owed or a refund of taxes.²¹ For a corporation, gross income is still calculated under § 61, but any deductions are taken to find taxable income under § 63.²²

The United States has several federal income tax deductions or tax credits for the different sectors of the energy industry. The common deductions are depreciation, intangible drilling costs, and energy credits. However, the tax treatment between the different energy sectors is vastly different. Generally speaking, the oil and gas industry has a larger amount of tax deductions and credits compared to the renewable energy sectors. Additionally, the solar energy credit is due to expire, and it is uncertain whether it will be renewed or extended.²³

One major difference between the oil and gas tax benefits and the solar tax benefits is that the oil and gas benefits are mostly tax deductions while the solar benefits are mostly tax credits. On the surface, it appears that the solar industry is better off because tax credits reduce tax liability dollar-for-

15. I.R.C. § 63(a).

16. I.R.C. § 62(a).

17. See generally BORIS I. BITTKER ET AL, *FEDERAL INCOME TAXATION OF INDIVIDUALS* ¶ 2.01 (3rd ed. 2017); BORIS I. BITTKER AND JAMES S. EUSTICE, *FEDERAL INCOME TAXATION OF CORPS AND SHAREHOLDERS*, ¶¶ 5.01-5.02 (7th ed. 2017).

18. *Id.*

19. *Id.*

20. *Id.*

21. *Id.*

22. I.R.C. §§ 61(a), 63(a).

23. See I.R.C. § 48(a)(6). Section 48(a)(6) requires that the taxpayer begin construction before January 1, 2022 in order to be eligible for the credit. A taxpayer may claim the credit after January 1, 2022; however, two different percentages for credits are applicable. If the taxpayer begins construction before January 1, 2022 and the property is placed in service before January 1, 2024, then the taxpayer is allowed a 22 percent credit. If the taxpayer begins construction before January 1, 2022 and the property is not placed in service before January 1, 2024, then the taxpayer is only entitled to a 10 percent credit.

dollar; however, the oil and gas industry benefits overpower the solar benefits by the sheer number of deductions the oil and gas industry receive.

The oil and gas industry does not have it easy though. Almost every state has either an ad valorem tax or a severance tax or both. An ad valorem tax is a “tax imposed proportionally on the value of something, rather than on its quantity or some other measure.”²⁴ A severance tax, on the other hand, is a “tax imposed on the value of oil, gas, timber, or other natural resources extracted from the earth.”²⁵ Currently, there is not a specific tax for the solar energy industry, but that does not mean one will not come into existence in the future.

ANALYSIS

I. Comparison of Solar Energy Tax Credits and Deduction to Oil and Gas Tax Credits and Deductions.

Generally, the federal income tax structure in the United States is separated into multiple parts: gross income, adjusted gross income, taxable income, tax liability, tax credits, and tax owed/refunded. Under § 61 of the Internal Revenue Code, gross income is defined as “all income from whatever source derived” and includes a non-exhaustive list of items, including interest, royalties, income from business, and compensation for services.²⁶ Under § 62, adjusted gross income is defined as gross income minus specifically annotated deductions.²⁷ Those deductions include trade and business expenses, certain trade and business deductions of employees, losses from sale or exchange of property, and deductions attributable to rents and royalties.²⁸ Under § 63, taxable income is defined as adjusted gross income minus certain deductions.²⁹ In the case of individuals, those deductions include either the applicable standard deduction or itemized deductions.³⁰ A standard deduction is a specified dollar amount that can be deducted from adjusted gross income instead of itemized deductions.³¹ Itemized deductions are deductions that may be deducted from adjusted

24. *Tax*, BLACK’S LAW DICTIONARY (10th ed. 2014).

25. *Id.*

26. I.R.C. § 61(a).

27. I.R.C. § 62(a).

28. *Id.*

29. I.R.C. § 63(a).

30. I.R.C. § 63(b).

31. *Deduction*, BLACK’S LAW DICTIONARY (10th ed. 2014).

gross income to calculate taxable income.³² Itemized deductions include deductions for medical expenses, home-mortgage interest payments, and charitable contributions.³³ Once taxable income is computed, the tax liability is then computed by using the rates and tables applicable to the taxable income.³⁴ Tax credits are then subtracted, dollar-for-dollar, from one's total tax liability.³⁵ One common type of tax credit is investment tax credits, which are used to stimulate economic growth by allowing businesses and individuals to deduct a certain percentage of the purchase price of capital goods.³⁶ After subtracting the applicable tax credits, the remaining amount is either considered tax owed or tax refunded.³⁷

For purposes of the Internal Revenue Code, the oil and gas production industry is separated into three types of companies: independent producers, integrated companies, and major integrated companies. An independent producer is a company which is neither an integrated company nor a major integrated company.³⁸

An integrated company is considered any producer of oil "to whom subsection (c) of section 613A does not apply by reason of paragraph (2) or (4) of section 613A(d)."³⁹ Paragraph (2) of § 613A(d) describes retailers, whether an outlet or a person, where the gross receipts from the sale of oil, or any derivative product, exceeds \$5 million.⁴⁰ Gross receipts are defined as the total amount of money received for goods sold, before any deductions.⁴¹ Paragraph (4) of § 613A(d) describes refiners with an average daily refinery run of more than 75,000 barrels for the taxable year.⁴² Additionally, § 613A(d)(4) applies not only to the taxpayer company, but also any related persons of the taxpayer.⁴³ "[An entity] is a related person with respect to the taxpayer if a significant ownership interest in either the taxpayer or such [entity] is held by the other, or if a third [entity] has a

32. *Id.*; see also I.R.C. § 63(d).

33. *Id.*

34. See I.R.C. § 1(a)-(d) (for individuals); I.R.C. § 11(a)-(b) (for corporations).

35. *Tax Credit*, BLACK'S LAW DICTIONARY (10th ed. 2014).

36. *Id.*

37. See IRS Form 1040 (Rev. Feb. 22, 2018); IRS Form 1120 (Rev. Apr. 12, 2018); see also I.R.C. § 1 and I.R.C. § 11.

38. See I.R.C. § 57(a)(2)(E)(i); see also I.R.C. § 167(h)(5)(B).

39. I.R.C. § 291(b)(4).

40. I.R.C. § 613A(d)(2).

41. *Gross Receipts*, BLACK'S LAW DICTIONARY (10th ed. 2014).

42. I.R.C. § 613A(d)(4).

43. *Id.*

significant ownership interest in both the taxpayer and such [entity].”⁴⁴ Significant ownership interest is generally defined, for purposes of § 613A, as being at least a 5 percent owner.⁴⁵

A major integrated company is defined as a producer of oil that has an average daily production of at least 500,000 barrels and has gross receipts that exceed \$1 billion.⁴⁶ Additionally, the producer is considered a refiner under § 613A(d)(4).⁴⁷ For purposes of § 167(h), related persons are defined the same as an integrated company, substituting “15 percent” for “5 percent” in § 613A(d)(3).⁴⁸

A. Passive Activity Income and Losses

A passive activity is defined as “a business activity in which the taxpayer does not materially participate and therefore does not have immediate control over the income.”⁴⁹ Material participation of a taxpayer is defined as conduct that is “regular, continuous, and substantial.”⁵⁰ A common example of a passive activity is when a taxpayer, who is not in the business of dealing with real property, rents real property.⁵¹ Passive income or loss is then defined as any profit or loss from a passive activity.⁵²

Under § 469 of the Internal Revenue Code, passive losses can be deducted to the extent of passive income.⁵³ This means that a taxpayer can deduct passive losses up to the same amount as passive income, but not in excess of passive income.⁵⁴ Additionally, if a taxpayer does not have passive income, but has passive losses, then the taxpayer is disallowed from making any passive loss deductions.⁵⁵ Therefore, a taxpayer may not use

44. I.R.C. § 613A(d)(3).

45. *Id.*

46. I.R.C. § 167(h)(5)(B).

47. *Id.* I.R.C. § 613A(d)(4).

48. I.R.C. § 167(h)(5)(B).

49. *Passive Activity*, BLACK’S LAW DICTIONARY (10th ed. 2014). *See also* I.R.C. § 469(c).

50. I.R.C. § 469(h)(1).

51. *Id.* *See also* I.R.C. § 469(c)(2).

52. *See Income*, BLACK’S LAW DICTIONARY (10th ed. 2014); *see also Loss*, BLACK’S LAW DICTIONARY (10th ed. 2014).

53. I.R.C. § 469(a); *see* Bittker, *supra* note 17, at ¶ 19.05. Section 469(a) states that one cannot have a passive activity loss or passive activity credit for the taxable year. This just means that the taxpayer cannot report a loss or a credit as a total for passive activities. The total amount reported on a taxpayer’s tax return will either be passive income, if passive income exceeds passive losses, or zero, if passive losses exceed passive income.

54. Bittker, *supra* note 17, at ¶ 19.05.

55. *Id.*

passive losses to offset or reduce active income earned by the taxpayer.⁵⁶ However, the Internal Revenue Code does allow a loss to be carried forward to the next taxable year for the same passive activity.⁵⁷

One common activity that could qualify as a passive activity in the oil and gas industry is working interests in oil and gas property. A working interest in oil and gas property is where one acquires the “rights to the mineral interest granted by an oil-and-gas lease.”⁵⁸ Under the general rules of § 469, a taxpayer would be unable to deduct passive losses from active income for workings interests in oil and gas properties.⁵⁹ However, under § 469(c)(3), working interests in oil and gas properties are not treated as a passive activity.⁶⁰ The working interests include those owned by the taxpayer directly or those owed by the taxpayer indirectly “through an entity which does not limit the liability of the taxpayer with respect to such interest.”⁶¹ Hence, any income or loss from working interests in oil and gas properties is included as active income or deducted as active losses.⁶² Additionally, any tax credits that are associated with the property and are allowable under §§ 27 – 30D and §§ 38 – 45R are treated as credits from active income to the extent that the amount of credit does not exceed the regular tax liability of the taxpayer.⁶³

Currently, there is not a special rule for solar energy passive activities.⁶⁴ Thus, any activity in the solar energy industry is deemed to be a passive activity, then the losses from that activity can only be deducted from passive income and not active income.⁶⁵ Consequently, any credits earned from a solar energy passive activity, such as the production tax credit or the investment tax credit, can only be used to offset passive income tax liability.⁶⁶ The taxpayers that are subject to the passive activity loss rule are individuals, estates, trusts, closely held C corporations, and personal service corporations.⁶⁷ Therefore, while the passive activity loss rule does not apply

56. *Id.*

57. I.R.C. § 469(b).

58. *Working Interest*, BLACK’S LAW DICTIONARY (10th ed. 2014).

59. I.R.C. § 469(d)(1).

60. I.R.C. § 469(c)(3)(A).

61. *Id.*

62. I.R.C. § 469(c)(3)(B).

63. *Id.*

64. *See generally* I.R.C. § 469.

65. I.R.C. § 469(a), (d)(1).

66. I.R.C. § 469(a), (d)(2).

67. I.R.C. § 469(a)(2).

to partnerships and limited liability companies, it does apply to the individual partners and members.⁶⁸

B. Allowance for Depreciation

Depreciation is the reduction in the value of something because of exhaustion, use, wear and tear, obsolescence, or age.⁶⁹ Generally, there is allowed a depreciation deduction for “property used in the trade or business, or [] property held for the production of income.”⁷⁰ For purposes of depreciation, the basis on which the deduction is allowed is based on the adjusted basis of the property as defined in § 1011.⁷¹ Section 1011 states that the adjusted basis in a property is computed as the basis determined by § 1012 adjusted by the items in § 1016.⁷² Section 1012 states that the beginning basis in a piece of property is the cost of the property to the purchaser, unless otherwise stated in subchapters C (dealing with corporations) or K (dealing with partnerships).⁷³ Section 1016 generally states that any amount that would be considered a capital expenditure under § 263 would increase basis and depreciation or depletion would decrease basis.⁷⁴

1. Intangible Drilling and Development Costs

Section 263 contains one of the largest, if not the biggest, deductions allowed to the oil and gas industry: intangible drilling costs deduction.⁷⁵ Section 263 gives oil and gas companies the option to either capitalize any intangible drilling and development costs for oil and gas wells, or expense the entire amount.⁷⁶ Intangible drilling and development costs are considered “all expenditures made by an operator for wages, fuel, repairs, hauling, supplies, etc., incident to and necessary for the drilling of wells and the preparation of wells for the production of oil or gas.”⁷⁷ This also includes any amount paid to contractors, unless the payments are payable

68. *Id.*

69. *Depreciation*, BLACK’S LAW DICTIONARY (10th ed. 2014); *see* I.R.C. § 167.

70. I.R.C. § 167(a).

71. I.R.C. § 167(c)(1).

72. I.R.C. § 1011(a).

73. I.R.C. § 1012(a).

74. *See* I.R.C. §§ 1016(a)(1), 263(a).

75. I.R.C. § 263(c).

76. *Id.*; *see also* Treas. Reg. § 1.612-4(a).

77. Treas. Reg. § 1.612-4(a).

from the gross or net proceeds from production.⁷⁸ An oil and gas company can expense these items if they are used:

(1) [i]n the drilling, shooting, and cleaning of wells, (2) [i]n such clearing of ground, draining, road making, surveying, and geological works as are necessary in preparation for the drilling of wells, and (3) [i]n the construction of such derricks, tanks, pipelines, and other physical structures as are necessary for the drilling of wells and the preparation of wells for the production of oil or gas.⁷⁹

Additionally, the company can expense those costs whether the well is a productive well or a nonproductive well.⁸⁰ However, if the company opted to capitalize the costs instead of expensing them and the well is nonproductive, then the company is given a further option.⁸¹ The company can continue as is or the company may deduct those costs as an ordinary loss, following the proper election.⁸² This new election, however, will be binding on the company for all subsequent taxable years.⁸³

Generally, the option to expense costs applies only to those items that do not have a salvage value.⁸⁴ “For the purpose of this option, labor, fuel, repairs, hauling, supplies, etc., are not considered as having a salvage value, even though used in connection with the installation of physical property which has a salvage value.”⁸⁵ Additionally, the costs also include amounts incurred prior to or subsequent to the formal grant or assignment of operating rights.⁸⁶ The only limitation is for fractional operating interests.⁸⁷ This limitation states that only the costs that are “attributable to [the] fractional interest” may be expensed.⁸⁸ As a result, if a company only has 50 percent of the operating rights, then the company can only deduct 50 percent of the costs. If the taxpayer opts to expense those costs, then those amounts would not be capitalized into the asset(s) adjusted basis.⁸⁹

78. *Id.*

79. Treas. Reg. § 1.612-4(a)(1)-(3).

80. Treas. Reg. § 1.612-4(a).

81. Treas. Reg. § 1.612-4(b)(4).

82. *Id.*

83. Treas. Reg. § 1.612-4(e).

84. Treas. Reg. § 1.612-4(a) (flush language).

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.*

89. I.R.C. § 263(c).

However, the expensing option only applies to intangible drilling and development costs incurred inside the United States.⁹⁰ Section 263 provides a different option for those costs that are incurred outside the United States.⁹¹ The taxpayer's options are to either include those costs in the amount of adjusted basis for purposes of calculating depletion or to ratably deduct those costs over a 10-taxable year period beginning in the year the costs were paid or incurred.⁹² Additionally, this option is not available for nonproductive wells.⁹³

Once the taxpayer calculates the adjusted basis of the property, then the taxpayer may calculate the depreciation deduction allowed under § 167. To calculate depreciation, the taxpayer has to determine three things: the applicable depreciation method, the applicable recovery period, and the applicable convention.⁹⁴

2. *Applicable Depreciation Method*

The applicable depreciation method refers to how property will be "exhausted" over time.⁹⁵ Commonly, there are two broad types of depreciation: accelerated depreciation and straight-line depreciation.⁹⁶ Accelerated depreciation yields larger depreciation deductions in the earlier years of a piece of property and smaller depreciation deductions in the later years.⁹⁷ The Internal Revenue Code allows two methods of accelerated depreciation, depending on the type of property the taxpayer has: 200 percent declining balance and 150 percent declining balance.⁹⁸ Straight-line depreciation yields the same amount of depreciation deduction each year.⁹⁹

The Internal Revenue Code specifies which depreciation method is applicable for each type or "class" of property.¹⁰⁰ Most types of property will use the 200 percent declining balance method because it is the "catch all" method.¹⁰¹ The straight-line method is used by nonresidential real

90. I.R.C. § 263(i).

91. I.R.C. § 263(i)(1).

92. I.R.C. § 263(i)(2).

93. I.R.C. § 263(i) (2018) (flush language).

94. I.R.C. § 168(a).

95. *See* I.R.C. § 168(b).

96. *See id.*

97. *Depreciation Method*, BLACK'S LAW DICTIONARY (10th ed. 2014).

98. I.R.C. § 168(b)(1)-(2).

99. *Depreciation Method*, BLACK'S LAW DICTIONARY (10th ed. 2014).

100. *See* I.R.C. § 168(b)(1)-(2).

101. I.R.C. § 168(b)(1).

property, water utility property, and other types discussed in § 168(b)(3).¹⁰² The 150 percent declining balance is only used in a few specified types of property discussed in § 168(b)(2).¹⁰³

3. Applicable Recovery Period

The applicable recovery period depends on the class of property.¹⁰⁴ Section 168(e) describes how to classify each class of property.¹⁰⁵ The following table, which is found in § 168(e)(1), shows the general rule for classifying property.¹⁰⁶

<i>Property class:</i>	<i>If such property has a useful life (UL) of:</i>
3-year property	UL ≤ 4 years
5-year property	4 years < UL < 10 years
7-year property	10 years ≤ UL < 16 years
10-year property	16 years ≤ UL < 20 years
15-year property	20 years ≤ UL < 25 years
20-year property	25 years ≤ UL

The class is determined by the useful life of the property.¹⁰⁷ Useful life is defined as the estimated duration that the property will generate income.¹⁰⁸

However, § 168 then goes on to classify specific types of property.¹⁰⁹ The major classification for solar energy is found in §168(e)(3)(B)(vi).¹¹⁰ It states that any property which is classified as energy property under § 48(a)(3) is considered 5-year property.¹¹¹ For oil and gas, the typical classification is 7-year property.¹¹² As a result, solar energy property will usually have larger deductions than oil and gas property, but oil and gas property can be depreciated over a longer period of time.¹¹³

102. I.R.C. § 168(b)(3).

103. I.R.C. § 168(b)(2).

104. I.R.C. § 168(c), (e).

105. I.R.C. § 168(e).

106. I.R.C. § 168(e)(1).

107. *Id.*

108. *Useful Life*, BLACK'S LAW DICTIONARY (10th ed. 2014).

109. I.R.C. § 168(e)(2)-(6).

110. I.R.C. § 168(e)(3)(B)(vi)(I).

111. *Id.*

112. See I.R.C. § 168(e)(3)(C)(iii)-(v). See also Fed. Tax Coordinator ¶ L-8206 (2d ed.).

113. *Id.*

4. *Applicable Convention*

There are three different conventions allowed under the Internal Revenue Code: half-year, mid-month, and mid-quarter.¹¹⁴ The half-year convention treats all property as placed in service (or disposed of) as placed in service (or disposed of) on the mid-point of the year, which is July 1st for calendar year taxpayers.¹¹⁵ The mid-month convention is similar to the half-year convention except that the property is treated as being placed in service (or disposed of) on the mid-point of the year.¹¹⁶ The mid-quarter follows the same logic, but is placed in service (or disposed of) on the mid-point of the quarter of the year.¹¹⁷

The general rule is that all depreciable property uses the half-year convention for depreciation calculations.¹¹⁸ However, in the case of nonresidential real property, the applicable convention is mid-month convention.¹¹⁹ The mid-quarter convention is used in only limited circumstances that are specified in § 168(d)(3).¹²⁰

5. *Calculating Depreciation*

For calculating depreciation under 200 percent declining balance, the calculation for the year placed in service is [adjusted basis \times (1 \div recovery period) \times 200 percent \times .5].¹²¹ The remaining years are calculated as [adjusted basis \times (1 \div recovery period) \times 200 percent].¹²² However, once the taxpayer reaches the last year of the recovery period, then the taxpayer takes the remaining amount as depreciation.¹²³

For straight-line depreciation, the taxpayer calculates the depreciation amount as [Original Basis \div Recovery Period].¹²⁴ Then, the taxpayer must multiply that amount by [(full number of months remaining in the first year + .5) \div (12 months)] in the first year.¹²⁵ The remaining years use [Original Basis \div Recovery Period] until the taxpayer comes to the last year

114. I.R.C. § 168(d)(4).

115. I.R.C. § 168(d)(4)(A).

116. I.R.C. § 168(d)(4)(B).

117. I.R.C. § 168(d)(4)(C).

118. I.R.C. § 168(d)(1).

119. I.R.C. § 168(d)(2).

120. I.R.C. § 168(d)(3).

121. How to Depreciate Property, IRS Pub. 946 (Rev. Feb. 28, 2018), at 43-45.

122. *Id.*

123. *Id.*

124. *Id.* at 44.

125. *Id.*

remaining for depreciation.¹²⁶ For the last year of depreciation, the calculation is $[(\text{Original Basis} \div \text{Recovery Period}) \times ((12 - (\text{full number of months remaining in the first year} + .5)) \div (12 \text{ months}))]$.¹²⁷

Calculating depreciation can seem like a difficult ordeal if a taxpayer is trying to interpret the Code and keep track of the adjusted basis of the depreciable property; however, the Internal Revenue Service made the calculations easier for the taxpayer.¹²⁸ The IRS determined the percentages that are associated with each of the calculations and placed them in tables in Appendix A of Publication 946.¹²⁹ When using the tables, the taxpayer only has to multiply the original basis of the property by the percentage associated with the class of property.¹³⁰ For straight-line depreciation, the taxpayer locates the correct table to use based on the applicable depreciation method, applicable recovery period, and applicable convention.¹³¹ Next, the taxpayer locates the number associated with the month placed in service and multiplies the original basis by that percentage; then the taxpayer continues to use that month's column in the table each year for the calculations.¹³²

6. Bonus Depreciation

There are two provisions that allow for a taxpayer to deduction bonus depreciation. The first provision is found in § 179.¹³³ While this provision is not technically dealing with depreciation, it has a close relationship to depreciation because this provision is taken before a taxpayer may calculate bonus depreciation or regular depreciation.¹³⁴ This provision allows the taxpayer to expense a portion of the amount paid for the property immediately instead of charging it all into the taxpayer's capital account.¹³⁵ This expense is taken in the year that the property is placed into service.¹³⁶

126. *Id.*

127. *Id.*

128. *Id.* at 40.

129. *Id.*

130. *Id.*

131. *Id.*

132. *Id.* at 40, 75-86.

133. *See generally* I.R.C. § 179.

134. *See* How to Depreciate Property, IRS Pub. 946 (Rev. Feb. 28, 2018), at 19; *see also* IRS Form 4562 (Rev. Feb. 22, 2018).

135. *Id.* at 15.

136. *Id.*

To qualify for this provision, the property must be considered § 179 property.¹³⁷ To qualify as § 179 property, the property must be tangible property to which § 168 applies or computer software, as defined in § 197, to which § 167 applies.¹³⁸ Tangible property includes machinery and equipment, property contained in or attached to a building, and gasoline storage tanks and pumps.¹³⁹ Additionally, the property must be considered § 1245 property and must be acquired for the use in a trade or business.¹⁴⁰ Section 1245 property is defined as:

[A]ny property which is or has been property of a character subject to the allowance for depreciation provided in section 167 and is either – (A) personal property[;] (B) other property (not including a building or its structural components) but only if such other property is tangible and has an adjusted basis in which there are reflected adjustments described in paragraph (2) for a period in which such property (or other property) — (i) was used as an integral part of manufacturing, production, or extraction or of furnishing transportation, communications, electrical energy, gas, water, or sewage disposal services, (ii) constituted a research facility used in connection with any of the activities referred to in clause (i), or (iii) constituted a facility used in connection with any of the activities referred to in clause (i) for the bulk storage of fungible commodities (including commodities in a liquid or gaseous state)[;] . . . [; or] (E) a storage facility (not including a building or its structural components) used in connection with the distribution of petroleum or any primary product of petroleum¹⁴¹

However, § 179 property shall not include property used outside the United States, used for lodging, used by certain tax-exempt organization, or used by governmental units or foreign person or entities.¹⁴²

The IRS has stated that, in general, a taxpayer cannot claim a § 179 deduction for property that is used to furnish lodging or is in connection

137. *Id.*; see also I.R.C. § 179(a).

138. See I.R.C. § 179(d)(1)(A); How to Depreciate Property, IRS Pub. 946 (Rev. Feb. 28, 2018), at 16-17.

139. How to Depreciate Property, IRS Pub. 946 (Rev. Feb. 28, 2018), at 16.

140. I.R.C. § 179(d)(1)(B).

141. I.R.C. § 1245(a)(3).

142. See I.R.C. § 179(d)(1)(flush language); I.R.C. § 50(b).

with the furnishing of lodging.¹⁴³ However, this restriction does not apply to “any energy property.”¹⁴⁴ “Energy property” must be one of the following types of property:

- a. [e]quipment that uses solar energy to generate electricity, to heat or cool a structure, to provide hot water for use in a structure, or to provide solar process heat, except for equipment used to general energy to heat a swimming pool[;] . . . c. [e]quipment used to produce, distribute, or use energy derived from a geothermal deposit. For electricity generated by geothermal power, this includes equipment up to (but not including) the electrical transmission stage¹⁴⁵

For energy property that is acquired by the taxpayer, the original use of the property must begin with the taxpayer.¹⁴⁶ Additionally, “[t]he property must meet the performance and quality standards, if any, prescribed by Income Tax Regulations in effect at the time [the taxpayer acquires] the property.”¹⁴⁷

Section 179 does have a limitation. As of 2018, the amount which can be expensed immediately shall not exceed \$1,000,000.¹⁴⁸ Additionally, the \$1,000,000 limitation is reduced, dollar for dollar, by any amount of the total cost of the § 179 property that exceeds \$2,500,000, but not below zero.¹⁴⁹ Thus, if the cost of the property is below \$1,000,000, the taxpayer can elect to expense the entire cost of the property. If the cost of the property is between \$1,000,000 and \$2,500,000, then the taxpayer can elect to expense \$1,000,000 of the cost of that property. However, the \$1,000,000 limitation begins to phase out for any property that costs more than \$2,500,000; the expense is completely phased out for any property that costs \$3,500,000 or more, but the limitation cannot fall below zero. Because this provision allows a taxpayer to expense a portion of a cost that would normally be capitalized, a taxpayer must take this election first before calculating any depreciation or bonus depreciation.¹⁵⁰

143. How to Depreciate Property, IRS Pub. 946 (Rev. Feb. 28, 2018), at 18.

144. *Id.*

145. *Id.*

146. *Id.*

147. *Id.*

148. I.R.C. § 179(b)(1).

149. I.R.C. § 179(b)(2).

150. See How to Depreciate Property, IRS Pub. 946 (Rev. Feb. 28, 2018), at 15; see also IRS Form 4562 (Rev. Feb. 28, 2018).

Additionally, there will be an adjustment for inflation. The \$1,000,000 cap in § 179(b)(1) and the \$2,500,000 beginning point for phase-out calculations will be adjusted each year for inflation using the cost-of-living adjustment found in § 1(f)(3), substituting “calendar year 2017” for “calendar year 2016.”¹⁵¹ This adjustment will be “rounded to the nearest multiple of \$10,000.”¹⁵²

Section 179 also has another limitation. This limitation is based on the income of the trade or business.¹⁵³ This limitation states that the deduction allowed cannot exceed the taxable income from active conduct of any trade or business during the taxable year.¹⁵⁴ The words “active conduct” prevents someone with merely a “passive conduct” from deducting any § 179 expenses.¹⁵⁵ “Active conduct” is defined as a meaningful participation in the management or operations of the trade or business.¹⁵⁶

Section 179 allows the taxpayer to carryover any disallowed deduction.¹⁵⁷ The taxpayer may carry forward any disallowed deduction for an unlimited number of years.¹⁵⁸ Therefore, the amount allowable under § 179(a) as a deduction is increased by the lesser of: (1) the amount disallowed because it exceeded the taxable income of the trade or business for all prior taxable years or (2) the amount of any unused § 179 deduction for the current taxable year.¹⁵⁹ The unused § 179 deduction is defined as the maximum deduction that the taxpayer could have taken in the current taxable year, after application of any limitations, over the amount that the taxpayer actually elected to deduct in the current taxable year.¹⁶⁰

The second provision is found in § 168(k).¹⁶¹ This provision is a special allowance for certain qualified property that is placed in service before January 1, 2027.¹⁶² This provision states that any depreciation deduction provided by § 167(a) that is considered qualified property under § 168(k) will include an additional allowance equal to the applicable percentage, as defined in § 168(k)(6), of the adjusted basis of the qualified property for the

151. I.R.C. § 179(b)(6)(A)(i)-(ii).

152. I.R.C. § 179(b)(6)(B).

153. I.R.C. § 179(b)(3).

154. I.R.C. § 179(b)(3)(A).

155. Treas. Reg. § 1.179-2(c)(6)(ii).

156. *Id.*

157. I.R.C. § 179(b)(3)(B).

158. Treas. Reg. § 1.179-3(a).

159. Treas. Reg. § 1.179-3(b).

160. Treas. Reg. § 1.179-3(c).

161. *See generally* I.R.C. § 168(k).

162. I.R.C. § 168(k)(2)(A).

taxable year placed in service.¹⁶³ Additionally, this deduction will reduce the adjusted basis of the qualified property prior to computing any other depreciation deductions allowed.¹⁶⁴

Paragraph (2) of Subsection (k) defines the term “qualified property.”¹⁶⁵ There are three parts to the definition of qualified property: the type of property, the use of the property, and when the property is placed into service.¹⁶⁶ The type of property is any type of property: “(I) to which this section applies which has a recovery period of 20 years or less, (II) which is computer software . . . for which a deduction is allowable under section 167(a) without regard to this subsection, [or] (III) which is water utility property[.]”¹⁶⁷ The original use of the property must commence with the taxpayer and the property must be placed in service by the taxpayer before January 1, 2027.¹⁶⁸

The type of property that is most applicable to both the oil and gas industry and the solar energy industry is the first type of property. This is because almost all of the property used by either industry has a recovery period of 20 years or less.¹⁶⁹ The only property that this would not apply to would be any nonresidential real property (such as buildings), which has a recovery period of 39 years.¹⁷⁰ Therefore, any machinery or equipment with a recovery period of 20 year or less, where the original use commences with the taxpayer, and the property is placed in service by the taxpayer before January 1, 2027 would qualify for § 168(k) bonus depreciation.¹⁷¹

7. Limitations on Depreciation

There is also an added limitation on depreciation in the case of individuals. In § 67, there is a two percent floor on miscellaneous itemized deductions.¹⁷² The general rule states that if the taxpayer is an individual, then the miscellaneous itemized deductions shall be allowed only if the aggregate amount of all the miscellaneous itemized deductions exceeds two percent of adjusted gross income.¹⁷³ Section 67 defines miscellaneous

163. I.R.C. § 168(k)(1)(A), (6).

164. I.R.C. § 168(k)(1)(B).

165. I.R.C. § 168(k)(2).

166. I.R.C. § 168(k)(2)(A).

167. I.R.C. § 168(k)(2)(A)(i).

168. I.R.C. § 168(k)(2)(A)(ii)-(iii).

169. *See* I.R.C. § 168(e)(3)(B)-(C).

170. I.R.C. § 168(c), (e)(2)(B).

171. I.R.C. § 168(k)(2)(A).

172. I.R.C. § 67(a).

173. *Id.*

itemized deductions as any itemized deduction other than those listed in subsection (b).¹⁷⁴ The list does not include Section 167, 168, or 179.¹⁷⁵ Therefore, any deduction for depreciation or bonus depreciation is further limited to the amount greater than two percent of AGI.¹⁷⁶

The following is an example to help convey the complexities of depreciation and how it all works together. Let's say there are two taxpayers: one that is in the oil and gas industry and one that is in the solar energy industry. Each taxpayer purchases machinery and equipment for their respective business at a cost of \$1,010,000. Let's assume that the requirements for a § 179 election are met as well as that each property qualifies for § 168(k) bonus depreciation. Thus, each taxpayer would first deduct \$510,000 as a § 179 election to reduce the amount capitalized to \$500,000.

Next, each taxpayer would take the 50 percent bonus depreciation allowed by § 168(k). This would reduce the basis of the property down to \$250,000. Now, each taxpayer would calculate regular depreciation on the property based on an adjusted basis of \$250,000. This is the point where the two taxpayers' deductions will diverge because solar energy property is generally considered to be 5-year property while oil and gas property is generally considered to be 7-year property.

We will assume that both types of property use the half-year convention. Therefore, we can use Table A-1 found in IRS Publication 946.¹⁷⁷ Each taxpayer would multiply the percentage found in the table for the applicable year by the \$250,000 original adjusted basis. This is because the IRS has done all the calculations to allow taxpayers to just keep track of their original adjusted basis instead of recalculating the adjusted basis each year. As a result, the solar energy taxpayer would deduct a total of \$810,000 in year 1, \$80,000 in year 2, \$48,000 in year 3, \$28,800 in years 4 – 5, and \$14,400 in year 6. On the other hand, the oil and gas taxpayer would deduct \$795,725 in year 1, \$61,225 in year 2, \$43,725 in year 3, \$31,225 in year 4, \$22,325 in year 5, \$22,300 in year 6, \$22,325 in year 7, and \$11,150 in year 8.

Now let's assume that each taxpayer has an AGI of \$1,000,000. Under this assumption, the floor limitation for § 67 would be \$20,000. This means that each year the deductions would be reduced by \$20,000, assuming that no other itemized deductions are applicable. Therefore, year 7 for the solar

174. I.R.C. § 67(b).

175. *Id.*

176. I.R.C. § 67(a).

177. How to Depreciate Property, IRS Pub. 946 (Rev. Feb. 28, 2018), at 72.

energy taxpayer and year 9 for the oil and gas taxpayer would not be greater than the two percent floor and there would not be any depreciation allowed for those years.

There are advantages for both industries when dealing with depreciation. For the solar energy industry, it is able to depreciate the cost of property faster and the depreciation deductions are generally higher. However, the oil and gas industry can take deductions over a longer period of time and after year 3, generally, the oil and gas industry takes higher depreciation deductions than the solar energy industry.

The real difference between these two industries when it comes to depreciation and bonus depreciation comes from the sheer cost of the machinery and equipment.

C. Amortization of Geological and Geophysical Expenditures

The tax code provides for the amortization of any geological and geophysical (“G&G”) expenses paid or incurred with the exploration or development of oil or gas within the United States.¹⁷⁸ G&G expenses are costs that are incurred by an oil and gas company to obtain, accumulate, and evaluate data” to assist in the acquisition and retention of oil and gas properties.¹⁷⁹ The expenses are usually associated with seismic, magnetic, or gravity surveys, but can also include acquiring well logs and core data.¹⁸⁰

For independent producers and integrated companies, the expenses are deducted ratably (“amortized”) over a 24-month period.¹⁸¹ However, the deductions are not amortized starting the month that they are incurred.¹⁸² Instead, the code provides for the entities to use what is called a “half-year” convention.¹⁸³ Consequently, no matter when the expenses are incurred during a taxable year, an entity will only be able to deduction six months’ worth of amortization during the current year, 12 months the next year, and the last six months the following year.¹⁸⁴

For major integrated companies, the amortization period is 7 years instead of 24 months.¹⁸⁵ Major integrated companies still use the half-year

178. I.R.C. § 167(h)(1).

179. Geological and Geophysical Expenditures, I.R.M. 4.41.1.2.2.3.2(1) (Dec. 3, 2013).

180. *Id.*

181. I.R.C. § 167(h)(1).

182. I.R.C. § 167(h)(2).

183. *Id.*

184. *Id.*

185. I.R.C. § 167(h)(5)(A).

convention as well.¹⁸⁶ Therefore, if an independent producer or an integrated company incurs \$168,000 for G&G expenses, then it can deduct \$42,000 in Year 1, \$84,000 in Year 2, and \$42,000 in Year 3. If a major integrated company incurs \$168,000 in G&G expenses, then it can deduct \$12,000 in Year 1, \$24,000 for Years 2 – 7, and \$12,000 for year 8.

D. Allowance for Depletion

Depletion is the “emptying, exhausting, or wasting of an asset, esp[ecially] of a finite natural resource such as oil.”¹⁸⁷ Section 611 of the Internal Revenue Code allows a deduction for depletion of “mines, oil and gas wells, other natural deposits, and timber.”¹⁸⁸ The Internal Revenue Code generally allows two methods of computing depletion and the taxpayer may choose the method that produces the larger allowance for the taxable year.¹⁸⁹ The two methods are cost depletion, as defined in § 612, and percentage depletion, as defined in § 613.¹⁹⁰

1. Cost Depletion

Cost depletion is the deduction of a producing wells basis proportionally over the producing life of the well.¹⁹¹ Under § 612, it states that the basis in which a taxpayer uses to determine cost depletion is the adjusted basis as defined in § 1011.¹⁹² Therefore, calculating basis for depletion is exactly like calculating basis for depreciation.¹⁹³

Once the adjusted basis in the property has been determined, a taxpayer may now calculate the cost depletion amount.¹⁹⁴ The cost depletion amount is calculated by “dividing [the adjusted basis] by the number of units of mineral remaining as of the taxable year . . . and [] multiply[that] . . . by the number of units of mineral sold within the taxable year.”¹⁹⁵ The “number of mineral units remaining” is defined as the number of mineral units remaining at the end of the year that are yet to be extracted or sold plus the number of units sold.¹⁹⁶ The “number of units sold” is defined

186. I.R.C. § 167(h)(2), (5)(A).

187. *Depletion*, BLACK’S LAW DICTIONARY (10th ed. 2014).

188. I.R.C. § 611(a).

189. Bittker, *supra* note 17, at ¶ 15.01.

190. *Id.*

191. *Cost Depletion*, BLACK’S LAW DICTIONARY (10th ed. 2014).

192. I.R.C. § 612.

193. *See generally* I.R.C. §§ 612, 167(c)(1).

194. *See generally* Treas. Reg. § 1.611-2.

195. Treas. Reg. § 1.611-2(a)(1).

196. Treas. Reg. § 1.611-2(a)(3).

based on the method of accounting used by the taxpayer.¹⁹⁷ Under the cash method of accounting, the number of units sold only includes the amounts paid for by the customer and excludes amounts sold on credit that have yet to be paid.¹⁹⁸ Under the accrual method of accounting, the number of units sold is determined from the taxpayer's inventories.¹⁹⁹ Generally, when using accrual accounting, the amount sold is computed as beginning inventory amount plus any additions to the inventory amount throughout the year minus the ending inventory.²⁰⁰

2. Percentage Depletion

Percentage depletion, on the other hand, allows the taxpayer to deduct a specified percentage as depletion.²⁰¹ However, percentage depletion is only available for independent producers.²⁰² For mines, wells, and other natural deposits, the allowance for depletion is the "percentage, specified in [§ 613] subsection (b), of the gross income from the property excluding . . . amount[s] equal to any rents or royalties paid or incurred by the taxpayer in respect of the property."²⁰³

However, there is a limitation on the amount of depletion a taxpayer may deduct. The allowance for depletion may not exceed 100 percent of the taxpayer's taxable income from oil and gas properties or 65 percent of the taxpayer's taxable income for the taxable year.²⁰⁴ Taxable income, in this section, is calculated without deducting depletion and without deducting the allowance for a deduction for domestic production activities under § 199A.²⁰⁵

Independent producers can deduct 15 percent multiplied by the gross income from oil and gas properties as depletion expense.²⁰⁶ However, this amount has a limitation as well.²⁰⁷ The deduction is only computed for the amount of gross income from the taxpayer's average daily production of oil

197. Treas. Reg. § 1.611-2(a)(2).

198. Treas. Reg. § 1.611-2(a)(2)(i).

199. Treas. Reg. § 1.611-2(a)(2)(ii).

200. Bittker, *supra* note 17, at ¶ 39.06.

201. *Percentage Depletion*, Black's Law Dictionary (10th ed. 2014).

202. *See generally* Treas. Reg. § 1.613A-3; *see also* Business Expenses, IRS Pub. 535 (Rev. Mar. 16, 2018), at 35-36.

203. I.R.C. § 613(a).

204. I.R.C. §§ 613(a), 613A(d)(1).

205. I.R.C. 613A(d)(1)(A)-(B).

206. I.R.C. § 613A(c)(1) (flush language).

207. I.R.C. § 613A(c)(1).

that does not exceed the taxpayer's depletable oil quantity.²⁰⁸ Average daily production is defined as the aggregate production of domestic oil divided by the number of days in the taxable year.²⁰⁹ Depletable oil quantity is defined as 1,000 barrels minus the taxpayer's average daily marginal production for the taxable year.²¹⁰ Average daily marginal production is defined as the aggregate amount of domestic oil produced from stripper well property or property that substantially all of the production is heavy oil, divided by the number of days in the taxable year.²¹¹

E. Tertiary Injectant Deduction

Section 193 of the tax code allows a taxpayer to deduct any qualified tertiary injectant expenses incurred throughout the taxable year.²¹² A qualified tertiary injectant expense is any cost paid or incurred for any tertiary injectant, not including hydrocarbon injectants, used as part of a tertiary recovery method.²¹³ Hydrocarbon injectants are any injectant that "is comprised of more than an insignificant amount of natural gas or crude oil."²¹⁴ "[A]n injectant contains more than an insignificant amount of recoverable hydrocarbons if the fair market value of the recoverable hydrocarbon component of the injectant . . . equals or exceeds 25 percent of the cost of the injectant."²¹⁵

F. Tax Credits

Tax credits are an amount that is subtracted, dollar for dollar, from a taxpayer's tax liability in order to determine taxes owed or a tax refund.²¹⁶ As discussed previously, tax credits can either be refundable or nonrefundable.²¹⁷ While there may be more solar energy tax credits than oil and gas tax credits currently, some of the solar energy tax credits are due to expire.²¹⁸

208. I.R.C. § 613A(c)(1)(A).

209. I.R.C. § 613A(c)(2)(A).

210. I.R.C. § 613A(c)(3).

211. I.R.C. § 613A(c)(6)(G)(i).

212. I.R.C. § 193(a).

213. I.R.C. § 193(b)(1).

214. I.R.C. § 193(b)(2).

215. I.R.C. § 193(c)(3) (2018); *see also* Treas. Reg. § 1.193-1(c)(3).

216. *Tax Credit*, BLACK'S LAW DICTIONARY (10th ed. 2014).

217. Bittker, *supra* note 17, at ¶ 27.01.

218. I.R.C. § 48(a)(6).

1. Section 38 – General Business Credit and Other Applicable Code Sections

Section 38 applies to both the solar energy industry and the oil and gas industry. Section 38 states that a tax credit is allowed as a general business tax credit.²¹⁹ The amount is equal to the sum of any business credit carryforwards, current year business credits, and any business credit carrybacks.²²⁰ Subsection (b) then states what code provisions are considered to be business tax credits.²²¹

Additionally, § 38 only applies to business entities such as corporations, limited liability companies, partnerships, and sole proprietors.²²² However, because limited liability companies, partnerships, and sole proprietorships are considered pass-through entities, the credits are effectively given to each member, partner, or sole proprietor.²²³

Section 38 has a limitation that is based on the amount of tax.²²⁴ The limitation states that the credit allowed shall not exceed “the excess (if any) of the taxpayer’s net income tax over the greater of (A) the tentative minimum tax for the taxable year, or (B) 25 percent of so much of the taxpayer’s net regular tax liability as exceeds \$25,000.”²²⁵ However, the amount of unused credit after the limitation is imposed can generally be carried back to apply as a general business tax credit to the preceding taxable year and carried forward twenty taxable years.²²⁶ Thus, if the amount of business tax credit before the limitation is \$10,000, but the limitation only allows a credit of \$7,000, the \$3,000 left over would be the amount carried back or carried forward. In the event that the carried back or carry forward is further limited or expanded under § 39, the order in which the credit applies will be the order annotated in § 38(b).²²⁷

However, there are two exceptions to the general carry back and carry forward rule.²²⁸ The relevant exception which applies to the oil and gas industry is found in § 39(a)(3).²²⁹ This exception applies to the marginal oil

219. *See generally* I.R.C. § 38.

220. I.R.C. § 38(a).

221. I.R.C. § 38(b).

222. *See generally* I.R.C. § 38.

223. *Taxation*, BLACK’S LAW DICTIONARY (10th ed. 2014).

224. I.R.C. § 38(c).

225. I.R.C. § 38(c)(1).

226. I.R.C. § 39(a)(1).

227. I.R.C. § 38(d)(1).

228. I.R.C. § 39(a)(3)-(4).

229. I.R.C. § 39(a)(3).

and gas well production credit found in § 45I.²³⁰ It states that the credit can be carried back to the previous five taxable years and carried forward to the next twenty-four taxable years.²³¹

a) Oil and gas industry business tax credits

The first general business tax credit list in § 38(b) is the investment credit in § 46.²³² The investment credit is the sum of six separate credits.²³³ The credit that is potentially applicable to oil and gas companies is the qualifying gasification project credit as defined in § 48B.²³⁴ This credit is equal to 20 percent of the qualifying investment for the taxable year.²³⁵ A qualified investment is:

the basis of eligible property placed in service by the taxpayer . . . which is part of a qualifying gasification project (A)(i) the construction, reconstruction, or erection of which is completed by the taxpayer, or (ii) which is acquired by the taxpayer if the original use of such property commences with the taxpayer, and (B) with respect to which depreciation is allowable.²³⁶

A qualifying gasification project is a project that uses gasification technology, will be carried out by an eligible entity, and is a project that is certified by the Secretary of Treasury.²³⁷ Gasification technology is any process that converts, in the case of the oil and gas industry, petroleum residue into a synthetic gas.²³⁸ An eligible entity is one that the gasification technology is “principally intended for used in a domestic project”²³⁹

The next general business credit that applies to the oil and gas industry is the enhanced oil recovery credit found in § 43.²⁴⁰ Section 43 allows for a credit of 15 percent of the taxpayer’s qualified enhanced oil recovery costs.²⁴¹ Qualified enhanced oil recovery costs in the oil industry are

230. *Id.*

231. I.R.C. § 39(a)(3)(B)-(C).

232. I.R.C. § 38(b)(1).

233. *See generally* I.R.C. § 46.

234. I.R.C. § 46(4).

235. I.R.C. § 48B(a).

236. I.R.C. § 48B(b)(1).

237. I.R.C. § 48B(c)(1).

238. I.R.C. § 48B(c)(2).

239. I.R.C. § 48B(c)(7).

240. I.R.C. § 38(b)(6).

241. I.R.C. § 43(a).

considered any expenditures for depreciable tangible property, intangible drilling and development, and tertiary injectants.²⁴² The term “qualified enhanced oil recovery project” is defined as any project that uses tertiary recovery methods that are reasonably expected to result in more than an insignificant increase in crude oil recovered, that is located in the United States, and commences after December 31, 1990.²⁴³

However, § 43 does contain a phaseout of the credit if crude oil prices rise.²⁴⁴ The phaseout states that the credit allowed for the current taxable year will be reduced by one-sixth for every dollar that the crude oil reference price of the previous taxable year exceeds \$47.6224, after the inflation adjustment for the 2018 taxable year.²⁴⁵ Accordingly, once the crude oil reference price equals or exceeds \$53.6224, the entire credit will be phased-out.²⁴⁶ The reference price for 2017, which will be used for 2018 phaseout calculations, was \$48.05, which exceeds the inflation adjustment of \$47.6224 by \$0.4276.²⁴⁷ Thus, the credit is phased-out by \$0.4276 divided by \$6, or 7 percent, multiplied by the total potential credit available of 15 percent.²⁴⁸ As a result, the credit is phased out by 1.069 percent and the total credit available for 2018 is 15 percent minus the 1.069 percent phase out, or 13.931 percent.²⁴⁹

The final general business tax credit that applies to the oil and gas industry is § 45I.²⁵⁰ The credit is for producing oil and gas from marginal wells.²⁵¹ The credit for any taxable year is equal to the credit amount multiplied by the qualified crude oil production and the qualified natural gas production.²⁵² However, the credit for crude oil production is currently phased out.²⁵³ The credit amount for natural gas is \$0.63 for every 1,000 cubic feet of qualified natural gas production, after inflation adjustments.²⁵⁴

242. I.R.C. § 43(c)(1)(A)-(C).

243. I.R.C. § 43(c)(2)(A).

244. I.R.C. § 43(b).

245. See I.R.C. § 43(b)(1); IRS Notice 2018-49, 2018-22 I.R.B. 624. The inflation adjustment factor for 2018 is 1.7008. Therefore, the \$28 amount in § 43(b)(1)(a) is equal to \$28 multiplied by 1.7008, or \$47.6224. See also I.R.C. § 45K(d)(2)(A)-(C).

246. See I.R.C. § 43(b)(1); IRS Notice 2018-49, 2018-22 I.R.B. 624.

247. IRS Notice 2018-32, 2018-17 I.R.B. 507.

248. IRS Notice 2018-49, 2018-22 I.R.B. 624. See also I.R.C. § 45K(d)(2)(A)-(C).

249. *Id.*

250. I.R.C. § 38(b)(19).

251. See generally I.R.C. § 45I.

252. I.R.C. § 45I(a).

253. I.R.C. § 45I(b)(2); see also IRS Instructions for Form 8904 (Rev. Dec. 7, 2017).

254. IRS Notice 2018-52, 2018-22 I.R.B. 629. The inflation rate for 2018 is 1.2518.

However, this amount is reduced by any amount which bears the same ratio as the excess of the reference price over \$2.06 (after inflation adjustments) bears to \$0.41 (after inflation adjustments).²⁵⁵ The reference price is determined as the “Secretary’s estimate of the annual average wellhead price per 1,000 cubic feet for all domestic natural gas.”²⁵⁶ Currently, the reference price is \$2.17, which makes the ratio for the amount reduced is $(\$2.17 - \$2.06)/\$0.41$, or about 78 percent.²⁵⁷ Therefore, \$0.63 is reduced by 19.51 percent, or \$0.12.²⁵⁸ Thus, the effective credit amount is \$0.51 for every 1,000 cubic feet of natural gas produced.²⁵⁹

b) Solar energy industry business tax credits

The solar energy industry has only one general business credit that applies.²⁶⁰ There was another general business credit called the “renewable electricity production credit” that was available for the solar energy industry.²⁶¹ This credit was available only during the “10-year period beginning on the date the [qualified] facility was originally placed in service.”²⁶² However, the term “qualified facility” for a solar energy facility is defined as any facility owned by the taxpayer that was placed in service before January 1, 2006.²⁶³ Therefore, this credit is no longer available.

The tax credit that currently applies to the solar energy industry is the investment credit found in § 46.²⁶⁴ The solar energy industry has two different investment tax credits that apply: the energy credit found in § 48 and the qualifying advanced energy project credit found in § 48C.²⁶⁵

Section 48 allows for a percentage of the basis of each energy property placed in service during the taxable year.²⁶⁶ Energy property that is related to solar energy is any equipment that uses solar energy to generate electricity or to heat or cool a structure.²⁶⁷ Additionally, the taxpayer must either construct the equipment themselves or acquire the equipment in

255. *Id.*

256. *Id.*

257. *Id.*

258. *Id.*

259. *Id.*

260. I.R.C. § 38(b)(1).

261. *See* I.R.C. § 38(b)(8).

262. I.R.C. § 45(a)(2)(A)(ii).

263. I.R.C. § 45(d)(4)(A).

264. I.R.C. § 38(b)(1).

265. I.R.C. § 46(2), (5); *see generally* I.R.C. §§ 48, 48C.

266. I.R.C. § 48(a)(1).

267. I.R.C. § 48(a)(3)(A)(i).

which the original use begins with the taxpayer.²⁶⁸ Furthermore, the equipment must be a kind in which depreciation is allowed and which meets any performance and quality standards that may apply.²⁶⁹

However, § 48 does have a phaseout provision and is set to expire.²⁷⁰ In order to qualify, this credit requires that construction or acquisition of any solar energy property must occur before January 1, 2022.²⁷¹ Currently, the applicable percentage for any solar energy property placed in service before January 1, 2020 is 30 percent.²⁷² This amount decreases to 26 percent for any solar energy property in which construction begins after December 31, 2019 and before January 1, 2021 and 22 percent for any solar energy property in which construction begins after December 31, 2020 and before January 1, 2022.²⁷³ However, the credit is lowered to 10 percent for any solar energy property in which construction begins before January 1, 2022 and which is not placed in service before January 1, 2024.²⁷⁴

While § 48 applies to the solar energy property that a taxpayer constructs or purchases to power or heat or cool a facility, § 48C applies to a manufacturing facility that manufactures solar equipment.²⁷⁵ Section 48C allows a credit of 30 percent of the basis of any eligible property placed in service during the taxable year which is part of a qualifying advanced energy project.²⁷⁶ A qualifying advanced energy project is any project that “re-equips, expands, or establishes a manufacturing facility for the production of” any property that is designed to produce solar energy or electric grids used to transmit solar energy.²⁷⁷ Eligible property is defined as any tangible personal property or other tangible property, excluding buildings and structural components of buildings, that is an integral part of the facility and which depreciation is allowed.²⁷⁸ Additionally, the property must be “necessary for the production of property.”²⁷⁹ This credit is not allowed for any investment in which a credit under § 48 is allowed.²⁸⁰

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268. I.R.C. § 48(a)(3)(B).
269. I.R.C. § 48(a)(3)(C)-(D).
270. I.R.C. § 48(a)(6)(B).
271. I.R.C. § 48(a)(6)(A)-(B).
272. I.R.C. § 48(a)(2)(A)(i)(II)-(III).
273. I.R.C. § 48(a)(6)(A)(i)-(ii).
274. I.R.C. § 48(a)(6)(B).
275. *See generally* I.R.C. § 48C.
276. I.R.C. § 48C(a).
277. I.R.C. § 48C(c)(a)(i).
278. I.R.C. § 48C(c)(2)(B)-(C).
279. I.R.C. § 48C(c)(2)(A).
280. I.R.C. § 48C(e).

II. Refundable State Income Tax Credits are Includable in Federal Gross Income for the Year a Refund is Received.

In March of 2015, the United States Tax Court ruled that excess state refundable tax credits received as a refund are includable in gross income for income tax purposes.²⁸¹ The refund is included in gross income if it is “constructively received” and does not constitute a refund of actual taxes paid.²⁸² To further understand the impact of this decision on the solar energy industry, a definition of refundable tax credit and construct receipt.

A. Refundable vs. Nonrefundable Tax Credits

A tax credit is an amount that is subtracted directly from one’s income tax liability.²⁸³ This is in contrast to an amount deducted from gross income to calculate adjusted gross income, also called above-the-line deduction, or an amount deducted from adjusted gross income to calculate taxable income, also called below-the-line deduction.²⁸⁴ The difference between a refundable tax credit and a nonrefundable tax credit is whether one is able to receive a refund from that credit. A nonrefundable credit can only be used to reduce one’s income tax liability and cannot exceed one’s tax liability.²⁸⁵ Therefore, if nonrefundable tax credits exceed one’s income tax liability, then the amount of tax owed is reduced to zero and the rest of the credit is unused.²⁸⁶ In contrast, a refundable tax credit is a credit that reduces income tax liability, but can exceed one’s tax liability. Therefore, if a refundable tax credits exceed one’s income tax liability, then one can receive a refund from the government for the excess amount over the tax liability.²⁸⁷

B. Construct receipt

Generally, any item that constitutes gross income under § 61 of the Internal Revenue Code is included in the taxable year in which they were actually or constructively received.²⁸⁸ Income is constructively received when it is “credited to [the taxpayer’s] account, set apart for [the taxpayer], or otherwise made available so that [the taxpayer] may draw upon it at any

281. *Maines v. Comm’r*, 144 T.C. 123, 136 (2015).

282. *Id.*

283. *Tax Credit*, BLACK’S LAW DICTIONARY (10th ed. 2014).

284. *Deduction*, BLACK’S LAW DICTIONARY (10th ed. 2014).

285. Bittker, *supra* note 17, at ¶ 27.01.

286. *Id.*

287. *Id.*

288. Treas. Reg. § 1.446-1(c).

time, or so that [the taxpayer] could have drawn upon it during the taxable year if notice of intention to withdraw had been given.”²⁸⁹ In other words, the doctrine of constructive receipt treats any income that is in the unqualified control of the taxpayer as taxable.²⁹⁰

Income is constructively received only when it is subject to the “unfettered command” of the taxpayer.²⁹¹ However, income is not constructively received if the receipt is subject to “substantial limitations or restrictions.”²⁹² One common example of constructively received income is interest coupons that have matured and are payable, but have not been paid.²⁹³ An example where income is not constructively received is bonus stock.²⁹⁴ When a corporation gives employees bonus stock but the stock is not available until a future date or subject to other substantial limitations, then income is not constructively received until those limitations are no longer in place and the taxpayer has full control of the stock.²⁹⁵

C. *Maines v. Commissioner*

1. Background

In *Maines v. Comm’r*, New York offered state-tax credits in order to provide an incentive for certified Empire Zone businesses to operate there and well as to try to create jobs in the area.²⁹⁶ The three credits at issue in this instance were the QEZE Credit for Real Property Taxes, the EZ Investment Credit, and the EZ Wage Credit.²⁹⁷ Eligibility for these specific credits depended on a business meeting specified requirements and criteria.²⁹⁸ If the businesses were corporations, then the credits were applied to its’ income tax liability.²⁹⁹ However, if the business was a partnership, an S corporation, or an LLC (if taxed as a partnership), then the credits were applied to the partners or the members.³⁰⁰ This is because these

289. Treas. Reg. § 1.451-2(a).

290. *Ross v. Comm’r*, 169 F.2d 483, 490 (1st Cir. 1948).

291. *Corliss v. Bowers*, 281 U.S. 376, 378 (1930).

292. Treas. Reg. § 1.451-2(a).

293. Treas. Reg. § 1.451-2(b).

294. Treas. Reg. § 1.451-2(a).

295. *Id.*

296. *Maines v. Comm’r*, 144 T.C. 123, 124 (2015).

297. *Id.* at 125.

298. *Id.*

299. *Id.*

300. *Id.*

organizations are considered pass-through entities.³⁰¹ A pass-through entity is any entity where the entity itself is not taxed but the income and losses are “passed-through” to the owners of the entity.³⁰²

The taxpayers, David and Tami Maines, owned two businesses: Endicott Interconnect Technologies, Inc. (“Endicott”), an S corporation, and Huron Real Estate Associates (“Huron”), an LLC taxed as a partnership.³⁰³ Since the eligibility for the credits depended on the business meeting certain requirements, the credit amount was computed at the entity level, even for pass-through entities.³⁰⁴ This amount of credit was then divided up among the owners of pass-through entities to be reported on each taxpayer’s state income tax return.³⁰⁵

The QEZE Real Property Tax Credit was computed using the amount of real-property taxes paid by Endicott and Huron.³⁰⁶ The credit amount, however, could not exceed the actual amount of real-property taxes paid by the entities.³⁰⁷ Any amount of the taxpayer’s distributive share of the credit that exceeds the amount of state income tax liability is treated as an overpayment of state income tax.³⁰⁸ New York would then pay that excess amount back to the taxpayer as a refund.³⁰⁹

The EZ Investment Credit is a credit that is computed as eight percent of the cost or other basis of tangible property acquired or built in the Empire Zones for federal income tax purposes.³¹⁰ The tangible property must meet several requirements, including being located in an Empire Zone and have a depreciable useful life of four or more years.³¹¹ The credit claimed by the taxpayer first reduces their state income tax liability or in the franchise tax of a corporation.³¹² Any excess amount over the state income tax liability may then be carried forward to be used in future years or the taxpayer may receive fifty percent of the excess as a refund if the taxpayer is a qualified

301. *Id.*

302. *Taxation*, BLACK’S LAW DICTIONARY (10th ed. 2014).

303. *Maines*, 144 T.C. at 125.

304. *Id.*

305. *Id.* at 125-26.

306. *Id.*

307. *Id.*

308. *Id.* at 126-27.

309. *Id.* at 127.

310. *Id.*

311. *Id.*

312. *Id.*

new business owner.³¹³ Any refund paid because of this credit is considered an overpayment of tax under New York Tax Law.³¹⁴

The EZ Wage Credit applies if the jobs, employees, and employment terms of the entities meet certain requirements.³¹⁵ The credit is used to reduce the corporation's franchise tax or the owner's state income tax liability.³¹⁶ Any excess credit that remains may either be carried forward or the taxpayer may receive fifty percent of the excess as a refund if the taxpayer is a qualified new business owner.³¹⁷ Any refund paid as a result of the credit is deemed as a refund of an overpayment of tax under New York Tax Law.³¹⁸

Huron qualified for all three of the contested tax credits, while Endicott qualified for the EZ Investment and the EZ Wage Credits.³¹⁹ For tax years 2005 through 2007, the taxpayers paid not state income taxes.³²⁰ In fact, the taxpayers had little to no state income tax liability for those years.³²¹ Therefore, the credits that the taxpayers claimed led to large "refund" payments from New York.³²²

2. Discussion

The issue in this case is whether the excess refundable state income tax credits are considered taxable income under federal tax laws.³²³ The court first looked at the "tax benefit rule" as defined in *Hillsboro National Bank v. Commissioner*.³²⁴ This rule "tells us to look at the subsequent event and ask: If that event had occurred within the same taxable year, would it 'have foreclosed the deduction?'"³²⁵ If the answer is yes, then the subsequent event is taxable.³²⁶ Said alternatively, the tax benefit rule states that "where an item deducted in one year is subsequently recovered, that recovery must be

313. *Id.*

314. N.Y. Tax Law § 606(j)(4) (McKinney 1960).

315. *Maines*, 144 T.C. at 127.

316. *Id.*

317. N.Y. Tax Law § 606(k)(5) (McKinney 1960).

318. *Id.*

319. *Maines*, 144 T.C. at 128.

320. *Id.*

321. *Id.*

322. *Id.*

323. *Id.*

324. *Id.* at 129.

325. *Id.*

326. *Id.*

included in income except to the extent that no tax benefit resulted from the prior deduction.³²⁷

As for state income tax refunds, federal taxpayers who itemize their deductions must include the state income tax refund in one's federal taxable income if the taxpayer took a deduction for state income tax payments for the preceding year.³²⁸ This means that if a taxpayer deducts state income taxes paid in year one and receives a refund in year two for state income taxes paid in year one, then the taxpayer must include that refund in their federal taxable income in year two. However, if a taxpayer uses the standard deduction instead of itemized deductions, then the taxpayer does not have to include the state income tax refund in federal taxable income in the year received.³²⁹

In the present case, the Maineses stated that they did not take a deduction for state income taxes paid in the preceding year on their federal income tax returns for the years at issue.³³⁰ The Maineses argue that under New York Tax Law, the excess amount of the credits over state income tax liability received as a refund are defined as "overpayments" of state income tax.³³¹ The taxpayers argue that this is similar to one taking the standard deduction and receiving a state tax refund for excess taxes paid.³³² The court agreed that New York does define the refunds for these credits as "overpayments;"³³³ however, the amounts do not actually constitute state income taxes paid.³³³ The court states that "a particular label given to a legal relationship or transaction under state law is not necessarily controlling for federal tax purposes."³³⁴ Federal tax law looks at the substance of the legal interests established under state law, rather than looking at the form.³³⁵ The court looks at the economic reality of the payments, regardless of state-law labels.³³⁶

The court concluded that the QEZE Real Property Tax Credit refund is excludable from the taxpayer's taxable income.³³⁷ This is because the credit

327. STEPHEN F. GERTZMAN, *FEDERAL TAX ACCOUNTING* ¶ 12.05 (2d ed. 1993 & Supp. Sept. 2017).

328. *Maines*, 144 T.C. at 130.

329. *Id.* (citing *Tempel v. Comm'r*, 136 T.C. 341, 351 n. 19 (2011)).

330. *Id.* at 131.

331. *Id.*

332. *Id.*

333. *Id.*

334. *Id.* at 132 (citing *Morgan v. Comm'r*, 309 U.S. 78, 81 (1940)).

335. *Id.* (citing *United States v. Irvine*, 511 U.S. 224, 238-40 (1994)).

336. *Id.* at 133 (citing *Buffalo Wire Works Co. v. Comm'r*, 74 T.C. 925, 936-37 (1980)).

337. *Id.* at 134.

is based on real-property taxes actually paid by the entities.³³⁸ Additionally, the credit cannot exceed the amount of real-property taxes actually paid.³³⁹ Therefore, the refunded portion is actually a refund from taxes already paid.³⁴⁰

Alternatively, the court concluded that neither the EZ Investment Credit nor the EZ Wage Credit were a refund of previously paid state taxes deducted under federal law.³⁴¹ The court likened these tax credits to taxpayer-subsidies given to the taxpayer by New York.³⁴² The court held that the excess portion that remained after reducing taxpayer's state income tax liability and that may be refunded is a clear accession of wealth under *Glenshaw Glass*.³⁴³ "There is [] no federal exclusion simply because an amount takes the form of a tax refund for state purposes."³⁴⁴

The court distinguished this case from *Tempel v. Commissioner*. *Tempel* was a case that involved the sale of transferable state tax credits and the tax treatment thereof.³⁴⁵ The court held that the mere receipt of the state tax credits was not an accession of wealth, but a mere potential for a refund.³⁴⁶ The reason that the state tax credit was only a mere potential for a refund is because Colorado made it impossible for the transferee to receive a refund in the year received.³⁴⁷ The court clarified saying that there would be taxable income, if in a following year, the transferee used the state tax credits and received a refund.³⁴⁸

The court then clarified that only the potentially refundable excess amount must be included in gross income.³⁴⁹ Additionally, under the doctrine of constructive receipt, this amount is included whether the taxpayer elects to receive the percentage amount of the excess or carry forward the excess.³⁵⁰ This is because "the taxpayer has an unqualified, vested right to receive [those] payments."³⁵¹ The Maineses had a vested

338. *Id.* at 138.

339. *Id.* at 134.

340. *Id.*

341. *Id.*

342. *Id.*

343. *Id.* at 136; *Comm'r v. Glenshaw Glass Co.*, 348 U.S. 426, 431 (1955).

344. *Id.* at 136.

345. *Id.* at 135 (citing *Tempel* 136 T.C. at 342-43).

346. *Id.* (citing *Tempel* 136 T.C. at 349-52).

347. *Id.* (citing *Tempel* 136 T.C. at 349-50).

348. *Id.*

349. *Id.*

350. *Id.*

351. *Martin v. Comm'r*, 96 T.C. 814, 823 (1991).

right to receive the percentage of the excess as a refund and there were no limits on receipt.³⁵² All the Maineses had had to do was elect to receive the refund because they had already met all the necessary requirements to receive the credit.³⁵³

3. *Impact*

Many states offer tax credits for solar energy equipment and buildings.³⁵⁴ These can either be corporate or personal income tax credits.³⁵⁵ Currently, only five states offer refundable tax credits, while the rest offer nonrefundable tax credits.³⁵⁶ The states that offer refundable tax credits presently are Hawaii, Louisiana, Nebraska, New Mexico, and Utah.³⁵⁷

However, Nebraska's refundable credit would fall under the same analysis as the QEZE Real Property Tax Credit in *Maines*. The producer is able to obtain a refund if the credit is in excess of income tax liability, however, the refund would be out of state sale and use taxes paid by the producer.³⁵⁸ Therefore, since the refund would constitute taxes actually paid, a producer would not have to the refund from this credit in their gross income for federal income tax purposes under *Maines*.

Additionally, Utah actually has both a refundable and a nonrefundable tax credit. For residential systems, the credit is nonrefundable.³⁵⁹ Alternatively, for commercial energy systems, the credit is refundable.³⁶⁰ That means that a corporation or an LLC taxed as a corporation would have to include the refund in its corporate income tax return because it is not a flow-through entity. However, if the company is a partnership, an S corporation, or an LLC taxed as a partnership, then the refund would flow-through to the owners or members to include on their personal income tax

352. *Maines*, 144 T.C. at 135 (citing *Tempel* 136 T.C. at 349-50).

353. *Id.*

354. DSIRE, available at <http://www.dsireusa.org>. DSIRE is the Database of State Incentives for Renewables & Efficiency. DSIRE was established in 1995 and is operated by the N.C. Clean Energy Technology Center at N.C. State University. DSIRE is currently funded by the U.S. Department of Energy. When researching, I filtered by financial incentive and any type of solar energy technology.

355. *Id.* After my filtered search of DSIRE's database, I found 72 program results. I then looked at each credit to determine whether it is refundable or nonrefundable.

356. *Id.*

357. *Id.*

358. NEB. REV. STAT. § 77-27, 235(3) (2015).

359. UTAH CODE ANN. § 59-10-1014 (amended by Ch. 426 S.B. 141, 2018 Gen. Sess. (Ut. 2018)).

360. Utah Code Ann. § 59-10-1106 (West 2018).

returns. Both statutes include specified requirements in order to claim these credits.³⁶¹

As the solar energy industry increases, more states may begin to offer solar energy tax credits. If this happens, taxpayers will have to be cautious because they may be refundable and have to be included in gross income on a federal income tax level if a refund is received.

CHANGES THAT SHOULD BE MADE

The oil and gas industry is highly favored in our current federal income tax scheme. The oil and gas industry has more advantageous deductions and tax credit. This is amplified by the fact that the oil and gas industry can expense all intangible drilling costs and that the major tax credit in place to encourage solar energy production is set to expire.

The current scheme does not allow for adequate competition between the oil and gas industry and the solar energy industry. From a federal income tax standpoint, more companies are going to enter the oil and gas industry because it is more feasible from a tax perspective. Companies are able to more effectively operate their business whenever they do not have to worry about paying a large federal income tax bill after the taxable year.

Additionally, oil and gas companies are more equipped to further invest in their company because of the extra funds received or retained from federal income tax refunds or less federal income taxes owed. This then leads to more innovation and increased efficiency within the industry itself. Furthermore, because of increased funds and innovation, the oil and gas industry is able to offer the same product as the solar energy industry, but at a cheaper cost. This leads to more consumers to purchase the products from oil and gas companies instead of solar energy companies. Thus, there is a competition disparity between the oil and gas industry and the solar energy industry.

There are three ways in which this competition disparity can be fixed: the government can increase solar energy deductions and credits, the government can decrease oil and gas deductions and credits, or the government can do away with all deductions and credits for both industries. To increase solar energy deductions and credits, the government could extend the solar energy credit that is set to expire or completely remove the expiration date and just have a flat percentage credit. Additionally, the government could allow solar energy companies to expense certain costs;

361. Utah Code Ann. § 59-10-1014, 1016 (West 2018).

similar to how oil and gas companies can expense intangible drilling costs. These expenses could be the cost of researching different areas to set up a solar panel farm to find the best area or a percentage of the costs to acquire land for a solar energy farm. This way the solar energy industry can expense certain costs to the same effect that the oil and gas industry is able to.

The government could also decrease or limit certain deductions and credits for the oil and gas industry. One example of a solution would be to limit the amount that companies can expense from intangible drilling costs. This could be with a dollar limitation or with a percentage limitation. Additionally, the government could make the depreciation periods the same for both industries or limit any additional credits that oil and gas companies can take advantage of.

Finally, the government could just remove all or substantially all of the extra deductions and credits for both industries. This is, by far, the hardest option to complete; however, this option could be the best option. This would put both industries on equal footing going forward. The only deduction that would remain for both industries would be depreciation and/or depletion. However, the applicable depreciation period would be the same in order to not give either industry an advantage.

Any of these options would be better for the economy than the current federal income tax scheme. This is because if neither industry is favored by the federal government, then more diverse companies would come into existence. This would then lead to more competition. The higher competition would then lead to a higher supply of products. The higher supply would then lower the price of the products themselves. With lower prices, more consumers would be able to afford the products, which would lead to more purchases. Each industry would then try to innovate and become more efficient in order to try to get a leg up. The innovations would then increase competition, and the cycle would, theoretically, start again..