

## **Credit for Renewable Electricity Production and Refined Coal Production, and Publication of Inflation Adjustment Factor and Reference Prices for Calendar Year 2016**

### **Notice 2016-34**

This notice publishes the inflation adjustment factor and reference prices for calendar year 2016 for the renewable electricity production and refined coal production and Indian coal production credit under section 45 of the Internal Revenue Code. The 2016 inflation adjustment factor and reference prices are used in determining the availability of the credits. The 2016 inflation adjustment factor and reference prices apply to calendar year 2016 sales of kilowatt hours of electricity produced in the United States or a possession thereof from qualified energy resources and to calendar year 2016 sales of refined coal and Indian coal produced in the United States or a possession thereof.

### **BACKGROUND**

Section 45(a) provides that the renewable electricity production credit for any tax year is an amount equal to the product of 1.5 cents multiplied by the kilowatt hours of specified electricity produced by the taxpayer and sold to an unrelated person during the tax year. This electricity must be produced from qualified energy resources and at a qualified facility during the 10-year period beginning on the date the facility was originally placed in service.

Section 45(b)(1) provides that the amount of the credit determined under section 45(a) is reduced by an amount which bears the same ratio to the amount of the credit as (A) the amount by which the reference price for the calendar year in which the sale occurs exceeds 8 cents, bears to (B) 3 cents. Under section 45(b)(2), the 1.5 cent amount in section 45(a), the 8 cent amount in section 45(b)(1), the \$4.375 amount in section 45(e)(8)(A), and, in section 45(e)(8)(B)(i), the reference price of fuel used as feedstock (within the meaning of section 45(c)(7)(A)) in 2002 are each adjusted by multiplying the amount by the inflation adjustment factor for the calendar year in which the sale occurs. If any amount as increased under the preceding sentence is not a multiple of 0.1 cent, the amount is rounded to the nearest multiple of 0.1 cent. In the case of electricity produced in open-loop biomass facilities, small irrigation power facilities, landfill gas facilities, trash facilities, qualified hydropower facilities, and marine and hydrokinetic renewable energy facilities, section 45(b)(4)(A) requires the amount in effect under section 45(a)(1) (before rounding to the nearest 0.1 cent) to be reduced by one-half.

Section 45(c)(1) defines qualified energy resources as wind, closed-loop biomass, open-loop biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste, qualified hydropower production, and marine and hydrokinetic renewable energy.

Section 45(d)(1) defines a qualified facility using wind to produce electricity as any facility owned by the taxpayer that is originally placed in service after

December 31, 1993, and the construction of which begins before January 1, 2020 See section 45(e)(7) for rules relating to the inapplicability of the credit to electricity sold to utilities under certain contracts.

Section 45(d)(2)(A) defines a qualified facility using closed-loop biomass to produce electricity as any facility (i) owned by the taxpayer that is originally placed in service after December 31, 1992, and the construction of which begins before January 1, 2017, or (ii) owned by the taxpayer which before January 1, 2017, is originally placed in service and modified to use closed-loop biomass to co-fire with coal, with other biomass, or with both, but only if the modification is approved under the Biomass Power for Rural Development Programs or is part of a pilot project of the Commodity Credit Corporation as described in 65 Fed. Reg. 63052. For purposes of section 45(d)(2)(A)(ii), a facility shall be treated as modified before January 1, 2017, if the construction of such modification begins before such date. Section 45(d)(2)(C) provides that in the case of a qualified facility described in section 45(d)(2)(A)(ii), (i) the 10-year period referred to in section 45(a) is treated as beginning no earlier than the date of enactment of section 45(d)(2)(C)(i) (October 22, 2004), and (ii) if the owner of the facility is not the producer of the electricity, the person eligible for the credit allowable under section 45(a) is the lessee or the operator of the facility.

Section 45(d)(3)(A) defines a qualified facility using open-loop biomass to produce electricity as any facility owned by the taxpayer which (i) in the case of a facility using agricultural livestock waste nutrients, (I) is originally placed in service after the

date of enactment of section 45(d)(3)(A)(i)(I) (October 22, 2004) and the construction of which begins before January 1, 2017, and (II) the nameplate capacity rating of which is not less than 150 kilowatts, and (ii) in the case of any other facility, the construction of which begins before January 1, 2017. In the case of any facility described in section 45(d)(3)(A), if the owner of the facility is not the producer of the electricity, section 45(d)(3)(C) provides that the person eligible for the credit allowable under section 45(a) is the lessee or the operator of the facility.

Section 45(d)(4) defines a qualified facility using geothermal or solar energy to produce electricity as any facility owned by the taxpayer which is originally placed in service after the date of enactment of section 45(d)(4) (October 22, 2004) and which, (A) in the case of a facility using solar energy, is placed in service before January 1, 2006, or (B) in the case of a facility using geothermal energy, the construction of which begins before January 1, 2017. A qualified facility using geothermal or solar energy does not include any property described in section 48(a)(3) the basis of which is taken into account by the taxpayer for purposes of determining the energy credit under section 48.

Section 45(d)(5) defines a qualified facility using small irrigation power to produce electricity as any facility owned by the taxpayer which is originally placed in service after the date of enactment of section 45(d)(5) (October 22, 2004) and before October 3, 2008.

Section 45(d)(6) defines a qualified facility using gas derived from the

biodegradation of municipal solid waste to produce electricity as any facility owned by the taxpayer which is originally placed in service after the date of enactment of section 45(d)(6) (October 22, 2004) and the construction of which begins before January 1, 2017.

Section 45(d)(7) defines a qualified facility (other than a facility described in section 45(d)(6)) that burns municipal solid waste to produce electricity as any facility owned by the taxpayer which is originally placed in service after the date of enactment of section 45(d)(7) (October 22, 2004) and the construction of which begins before January 1, 2017. A qualified facility burning municipal solid waste includes a new unit placed in service in connection with a facility placed in service on or before the date of enactment of section 45(d)(7), but only to the extent of the increased amount of electricity produced at the facility by reason of such new unit.

Section 45(d)(8) provides, in the case of a facility that produces refined coal (other than a facility producing steel industry fuel), the term “refined coal production facility” means any facility producing refined coal placed in service after the date of the enactment of the American Jobs Creation Act of 2004 (October 22, 2004) and before January 1, 2012.

Section 45(d)(9) defines a qualified facility producing qualified hydroelectric production described in section 45(c)(8) as (i) any facility producing incremental hydropower production, but only to the extent of its incremental hydropower production attributable to efficiency improvements or additions to capacity described in

section 45(c)(8)(B) placed in service after the date of enactment of section 45(d)(9)(A)(i) (August 8, 2005) and before January 1, 2017, and (ii) any other facility placed in service after the date of enactment of section 45(d)(9)(A)(ii) (August 8, 2005) and the construction of which begins before January 1, 2017. Section 45(d)(9)(B) provides that, in the case of a qualified facility described in section 45(d)(9)(A), the 10-year period referred to in section 45(a) is treated as beginning on the date the efficiency improvements or additions to capacity are placed in service. Section 45(d)(9)(C) provides that for purposes of section 45(d)(9)(A)(i), an efficiency improvement or addition to capacity is treated as placed in service before January 1, 2017, if the construction of such improvement or addition begins before such date.

Section 45(d)(10) provides that the term “Indian Coal Production Facility” means a facility that produces Indian coal.

Section 45(d)(11) provides in the case of a facility producing electricity from marine and hydrokinetic renewable energy, the term “qualified facility” means any facility owned by the taxpayer which (A) has a nameplate capacity rating of at least 150 kilowatts, and (B) which is originally placed in service on or after the date of the enactment of section 45(d)(11)(B) (October 3, 2008) and the construction of which begins before January 1, 2017.

Section 45(e)(8)(A) provides that the refined coal production credit is an amount equal to \$4.375 per ton of qualified refined coal (i) produced by the taxpayer at a refined coal production facility during the 10-year period beginning on the date the facility was

originally placed in service, and (ii) sold by the taxpayer (I) to an unrelated person and (II) during the 10-year period and the tax year. Section 45(e)(8)(B) provides that the amount of credit determined under section 45(e)(8)(A) is reduced by an amount which bears the same ratio to the amount of the increase as (i) the amount by which the reference price of fuel used as feedstock (within the meaning of section 45(c)(7)(A)) for the calendar year in which the sale occurs exceeds an amount equal to 1.7 multiplied by the reference price for such fuel in 2002, bears to (ii) \$8.75.

Section 45(e)(2)(A) requires the Secretary to determine and publish in the Federal Register each calendar year the inflation adjustment factor and the reference price for the calendar year. The inflation adjustment factor and the reference prices for the 2016 calendar year were published in the Federal Register on April 29, 2016.

Section 45(e)(2)(B) defines the inflation adjustment factor for a calendar year as the fraction the numerator of which is the GDP implicit price deflator for the preceding calendar year and the denominator of which is the GDP implicit price deflator for the calendar year 1992. The term "GDP implicit price deflator" means the most recent revision of the implicit price deflator for the gross domestic product as computed and published by the Department of Commerce before March 15 of the calendar year.

Section 45(e)(2)(C) provides that the reference price is the Secretary's determination of the annual average contract price per kilowatt hour of electricity generated from the same qualified energy resource and sold in the previous year in the United States. Only contracts entered into after December 31, 1989, are taken into

account.

Under section 45(e)(8)(C), the determination of the reference price for fuel used as feedstock within the meaning of section 45(c)(7)(A) is made according to rules similar to the rules under section 45(e)(2)(C).

## **INFLATION ADJUSTMENT FACTOR AND REFERENCE PRICES**

The inflation adjustment factor for calendar year 2016 for qualified energy resources and refined coal is 1.5556. The inflation adjustment factor for Indian coal is 1.1934.

The reference price for calendar year 2016 for facilities producing electricity from wind (based upon information provided by the Department of Energy) is 4.50 cents per kilowatt hour. The reference prices for fuel used as feedstock within the meaning of section 45(c)(7)(A), relating to refined coal production (based upon information provided by the Department of Energy) are \$31.90 per ton for calendar year 2002 and \$53.74 per ton for calendar year 2016. The reference prices for facilities producing electricity from closed-loop biomass, open-loop biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste, qualified hydropower production, and marine and hydrokinetic energy have not been determined for calendar year 2016.

## **PHASEOUT CALCULATION**

Because the 2016 reference price for electricity produced from wind (4.50 cents per kilowatt hour) does not exceed 8 cents multiplied by the inflation adjustment factor (1.5336), the phaseout of the credit provided in section 45(b)(1) does not apply to such



electricity sold during calendar year 2015. Because the 2016 reference price of fuel used as feedstock for refined coal (\$53.74) does not exceed \$84.38 (which is the \$31.90 reference price of such fuel in 2002 multiplied by the inflation adjustment factor (1.5556) and 1.7), the phaseout of the credit provided in section 45(e)(8)(B) does not apply to refined coal sold during calendar year 2016. Further, for electricity produced from closed-loop biomass, open-loop biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste, qualified hydropower production, and marine and hydrokinetic energy, the phaseout of the credit provided in section 45(b)(1) does not apply to such electricity sold during calendar year 2016.

#### **CREDIT AMOUNT BY QUALIFIED ENERGY RESOURCE AND FACILITY AND REFINED COAL AND INDIAN COAL**

As required by section 45(b)(2), the 1.5 cent amount in section 45(a)(1), the 8 cent amount in section 45(b)(1), and the \$4.375 amount in section 45(e)(8)(A) and the \$2.00 amount in section 45(e)(10)(B) are each adjusted by multiplying such amount by the inflation adjustment factor for the calendar year in which the sale occurs. If any amount as increased under the preceding sentence is not a multiple of 0.1 cent, such amount is rounded to the nearest multiple of 0.1 cent. In the case of electricity produced in open-loop biomass facilities, small irrigation power facilities, landfill gas facilities, trash facilities, qualified hydropower facilities, and marine and hydrokinetic renewable energy facilities, section 45(b)(4)(A) requires the amount in effect under section 45(a)(1) (before rounding to the nearest 0.1 cent) to be reduced by one-half. Under the calculation required by section 45(b)(2), the credit for renewable electricity

production for calendar year 2016 under section 45(a) is 2.3 cents per kilowatt hour on the sale of electricity produced from the qualified energy resources of wind, closed-loop biomass, geothermal energy, and solar energy, and 1.2 cents per kilowatt hour on the sale of electricity produced in open-loop biomass facilities, small irrigation power facilities, landfill gas facilities, trash facilities, qualified hydropower facilities, and marine and hydrokinetic energy facilities. Under the calculation required by section 45(b)(2), the credit for refined coal production for calendar year 2015 under section 45(e)(8)(A) is \$6.810 per ton on the sale of qualified refined coal. The credit for the production of Indian coal is \$2.387 per ton.

#### **DRAFTING AND CONTACT INFORMATION**

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