

**Data Methodology for Determining Energy Community Statistical Area  
and Coal Closure Eligibility for Inflation Reduction Act of 2022 Bonus  
for the §§ 45, 48, 45Y, and 48E Tax Credits**

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## **Acronyms**

BLS – Bureau of Labor Statistics

CBP – County Business Patterns

EIA – Energy Information Administration

FFE – Fossil Fuel Employment

FIPS – Federal Information Processing Standards

IRA – Inflation Reduction Act of 2022

IRS – Internal Revenue Service

LAUS – Local Area Unemployment Statistics

MSA – Metropolitan Statistical Area

MSHA – Mine Safety and Health Administration

NAICS – North American Industry Classification System

NECTA – New England City and Town Area

OEWS – Occupation Employment and Wage Statistics

OMB – Office of Management and Budget

PWA – Prevailing Wage and Apprenticeship

## 1. Overview of the energy community bonus credit

### 1.1 *Background*

The [Inflation Reduction Act of 2022](#) allows for an increased tax credit if the project qualifying for the tax credit is located in an "energy community." This document describes the methodology used to characterize certain types of energy communities for purpose of IRA implementation.

### 1.2 *Tax credits with the energy community bonus*

The following tax credits allow for a bonus credit amount if the project is located in an energy community:

**Table 1: Tax credits in the Inflation Reduction Act of 2022 that include an "energy community" bonus credit amount**

Internal Revenue Code (IRC) section	Title	IRC section on energy community bonus	Increase in credit rate
45	Electricity produced from Certain renewable resources, etc. (PTC)	<a href="#">45(b)(11)</a>	10%
48	Energy credit (ITC)	<a href="#">48(a)(14)</a>	Either 2 or 10 percentage points based on satisfying prevailing wage and apprenticeship requirements
45Y	Clean electricity production tax credit (PTC)	<a href="#">45Y(g)(7)</a>	10%
48E	Clean electricity investment credit (ITC)	<a href="#">48E(a)(3)</a>	Either 2 or 10 percentage points based on satisfying prevailing wage and apprenticeship requirements

Additionally, the qualifying advanced energy project credit under § [48C](#) provides a special allocation for projects located in census tracts described in [IRC 45\(b\)\(11\)\(B\)\(iii\)](#) (coal-related closures) and did not have any projects that received a certification and allocation of credits under § 48C prior to enactment of the Inflation Reduction Act of 2022.

### 1.3 *Definition of "energy community" for purposes of the §§ 45, 48, 45Y, and 48E credits*

Generally, for purposes of the §§ 45, 48, 45Y, and 48E credits the IRA defines an energy community as one of the following types of locations:

<b>Brownfield site</b> (as defined in 42 U.S.C. 9601(39) (A), (B), and (D)(ii)(III))	or	<b>Statistical Area Category:</b> Metropolitan statistical area or non-metropolitan statistical area (MSA or non-MSA) with...			or	<b>Coal Closure Category:</b> Census tract in which...		
		0.17% or greater direct employment related to the extraction, processing, transport, or storage of coal, oil, or natural gas at any time after Dec. 31, 2009	and	Unemployment rate at or above the national average unemployment rate for the previous year		A coal mine has closed after Dec. 31, 1999, or	or	A coal-fired electric generating unit has been retired after Dec. 31, 2009,
		or						
25% or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas at any time after Dec. 31, 2009								

This document details the methods and data used to determine the Statistical Area Category and the Coal Closure Category of energy communities defined in [IRS Notice 2023-29](#).

## **2. Defining metropolitan statistical areas (MSAs) and non-metropolitan statistical areas (non-MSAs) eligible for the energy community bonus**

### ***2.1 Metropolitan statistical areas in initial Treasury/IRS guidance on energy community bonus***

Metropolitan statistical areas (MSAs) are counties or county-equivalents grouped according to standards determined by the Office of Management and Budget (OMB). These standards are updated every 10 years with the decennial census of the U.S. For initial guidance on the energy community bonus,<sup>1</sup> IRS use the MSA delineations provided by OMB in its April 18, 2018 bulletin ([Bulletin No. 18-03](#)). These delineations reflect the OMB Standards for Delineating Core Based Statistical Areas published in [75 FR 37245](#) for the 2010 Decennial Census. To be consistent with the delineations of non-metropolitan statistical areas described below, OMB Bulletin No. 18-03 delineations were chosen rather than a later update. This listing provides 390 MSAs, including 7 in Puerto Rico.

### ***2.2 Non-metropolitan statistical areas in initial guidance on energy community bonus***

To determine boundaries of non-metropolitan statistical areas (non-MSAs), initial guidance on the energy community bonus primarily follows the May 2021 Metropolitan and Nonmetropolitan Area Definitions ([OEWS Metropolitan and Nonmetropolitan Area Definitions \(bls.gov\)](#)) published by the Occupational Employment and Wages Statistics division of the Bureau of Labor Statistics (BLS). The BLS works in conjunction with individual states to determine non-MSA definitions. MSAs are first delineated, and then counties and county equivalents outside of MSAs are grouped together as non-MSAs.

For each of the Island Territories of American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands, the whole territory is grouped as one non-MSA. This listing provides 138 non-MSAs, including five for the Island Territories including Puerto Rico.

### ***2.3 Adjustments to MSAs/non-MSAs for New England states in initial guidance on the energy community bonus***

The May 2021 Metropolitan and Nonmetropolitan Area Definitions from BLS depart from using county boundaries to determine area boundaries in the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. For these states BLS uses New England City and Town Areas (NECTAs), which follow the boundaries of cities and towns, rather than counties. This may result in part of a county being located in one NECTA and another part being located in a different NECTA or non-MSA.

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<sup>1</sup> [IRS Notice 2023-29](#), [IRS Notice 2023-47](#), [IRS Notice 2024-30](#), and [IRS Notice 2024-48](#) (referred to collectively as “initial guidance on the energy community bonus”).

In initial guidance on the energy community bonus, non-MSA delineations differ from the BLS provided definitions in the New England states by strictly following county boundaries for MSA and non-MSA boundaries. For MSAs, these boundaries directly follow OMB Bulletin No. 18-03. The non-MSAs in the New England states delineated in [IRS Notice 2023-29](#) include the counties in a BLS defined non-MSA that have no portion in an MSA.

Because of these differences in non-MSAs in the New England states, Treasury/IRS released its own set of non-MSAs for the New England states, see [IRS Notice 2023-29 Appendix A](#).

## **2.4 County boundaries for MSA/non-MSAs**

In initial guidance on the energy community bonus, IRS uses the 2020 county boundaries in determining whether a specific location is within an MSA/non-MSA. These shape files are the 2020 county-level [TIGER/Line Geodatabases](#) as defined by the U.S. Census Bureau.

## **2.5 Changes to county boundaries between 2009 and 2020**

As noted above, MSAs and non-MSAs are generally groups of counties or county-equivalents. While county boundaries are generally stable, occasionally they change. Because the statutory text requires examination of FFE in MSAs or non-MSAs after December 31, 2009, Treasury/IRS must consider any changes in county boundaries during that time period to generate consistent MSA/non-MSAs over time.

## **2.6 Fossil-fuel related employment (FFE) for the energy community bonus**

Direct employment related to the extraction, processing, transport, or storage of coal, oil, or natural gas, termed FFE, will be defined as employment in the following industries, with their [2017 North American Industry Classification System \(NAICS\)](#) codes:

**Table 2: NAICS codes included in FFE**

<b>NAICS code</b>	<b>Description</b>
211	Oil and Gas Extraction
2121	Coal Mining
213111	Drilling Oil and Gas Wells
213112	Support Activities for Oil and Gas Operations
213113	Support Activities for Coal Mining
2212	Natural Gas Distribution
23712	Oil and Gas Pipeline and Related Structures Construction
32411	Petroleum Refineries
4861	Pipeline Transportation of Crude Oil
4862	Pipeline Transportation of Natural Gas



The FFE rate is determined as the number of people employed in activities associated with the above NAICS codes as listed in the County File of the [County Business Patterns](#) (CBP) published by the Census Bureau, divided by the total number of people employed in that area. CBP data include information on Puerto Rico and the other U.S. territories. Total employment and FFE for each county are summed across all counties within an MSA/non-MSA to determine total employment and FFE for the MSA/non-MSA. The FFE rate is calculated by dividing FFE by total employment within the MSA/non-MSA, multiplying by 100, and then truncating to the hundredths place. Treasury/IRS calculates the FFE rate for each year the CBP dataset is available beginning with data for 2010. If a MSA or non-MSA meets the 0.17 percent threshold in 2010 or later years, it retains this status.

When looking at years prior to 2022, the groupings of counties into MSAs and non-MSAs are held fixed to those described in [Appendix A](#) of IRS Notice 2023-29. For example, Callahan, Jones, and Taylor counties are listed in IRS Notice 2023-29 Appendix A as comprising MSA 10180. Therefore, when calculating the FFE rate for MSA 10180 for each year from 2010 to 2021, it is always considered to be comprised of Callahan, Jones, and Taylor counties.

The list of NAICS codes was updated from the original list provided in [IRS Notice 2023-29](#) to include NAICS codes 2212 and 23712 in the release of [IRS Notice 2024-30](#).

For [IRS Notice 2023-29 Appendix B](#), the latest available CBP data was for calendar year 2020 (released in April 2022). For IRS Notice 2023-47 [Appendix 1](#) and [Appendix 2](#), IRS Notice 2024-30 [Appendix 1](#) and [Appendix 2](#), and IRS Notice 2024-48 [Appendix 1](#), the latest available CBP data is calendar year 2021 (released in April 2023).

## **2.7 Adjustments for data suppression in County Business Pattern data used in calculating FFE**

For the 2010-2017 CBP data, the Census Bureau provided a range of employment values when the point value of the cell was not provided out of confidentiality or data quality concerns. A cell in this case is the employment level for a county and industry sector pairing. Treasury/IRS used a value for the suppressed cell within the range of values provided in the CBP documentation. Generally, this value was chosen to be the midpoint between the lower bound and the midpoint of the lower and upper bounds of employment values for a cell for which a point value is not available. Details are provided in Appendix A of this document. The midpoint between the lower and upper bounds was not used because that generally led to aggregated industry employment in the county file above the employment reported for those same industries in the national CBP file.

An adjustment for the total level of employment for the county is made when the total employment level provided in the CBP data (as indicated by a null NAICS code) was suppressed for a particular county and a range of values was provided. The same adjustment procedure of using the midpoint between the lower bound and the midpoint of the lower and upper bound was used for these cases as well.

## **2.8 Unemployment rates for MSA/non-MSAs**

The unemployment rate for MSAs/non-MSAs is determined using the calendar year Local Area Unemployment Statistics (LAUS) for counties published by the Bureau of Labor Statistics ([Tables and Maps: U.S. Bureau of Labor Statistics \(bls.gov\)](#)). The LAUS reports the total number of individuals in the labor force and the total number unemployed by county. These amounts are then summed across counties within an MSA/non-MSA to determine the total labor force and number of unemployed individuals for the MSA/non-MSA. The unemployment rate is calculated by dividing the number of unemployed individuals within the MSA/non-MSA by the total labor force, multiplying by 100, and then truncating<sup>2</sup> to the hundredths place.

The national unemployment rate for determining energy community bonus eligibility is calculated using the same data as the unemployment rate for each MSA and non-MSA (the LAUS). The number of individuals in the labor force and unemployed are summed across all counties in every state and the District of Columbia to determine the national labor force and national number of unemployed individuals. The numbers of unemployed individuals and labor force participants for the U.S. territories are not included in the calculation of the national unemployment rate. The number of unemployed individuals is divided by the number of individuals in the labor force, multiplied by 100, and then truncated to the hundredths place.

The unemployment rate for each MSA/non-MSA that met the FFE threshold is then compared to the national unemployment rate. Those MSAs/non-MSAs that met the FFE threshold and have an unemployment rate for the previous year that is at or above the national average unemployment rate are listed as energy communities.

Note that the method for calculating the national employment rate for the energy community bonus may differ from other calculations of the national unemployment rate. Other methods rely on different data sources and different methodologies. Treasury/IRS utilize the method described above to apply a consistent method using the same underlying data to calculate both the MSA/non-MSA and the national unemployment rates.

LAUS data for the prior year are generally released in April of the next calendar year (e.g., the 2023 annual data was released in April 2024). When the unemployment rates are released for future years, Treasury/IRS will then update the listing of MSA/non-MSAs that have passed both the 0.17 percent FFE threshold and the higher-than-the-national-average unemployment rate threshold.

## **2.9 Unemployment rates for U.S. territories other than Puerto Rico**

Local Area Unemployment Statistics (LAUS) provides unemployment data for all counties (and county equivalents) in the 50 states, the District of Columbia, and Puerto Rico, but not for the island territories of American Samoa, Guam, Northern Mariana Islands, and the U.S. Virgin Islands. The only federal data source for these four territories is the Census Bureau's [Island Area Censuses](#), which are conducted decennially, not annually. This decennial update period prevents using a federal data source to estimate

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<sup>2</sup> Truncation at the hundredths place means removing all digits after the second decimal place. For example, 3.468 is truncated at the hundredths place to 3.46.

these territories' prior year unemployment rate (aside from 2020 and 2030). Some territorial governments provide territory-wide unemployment rate estimates annually and these data sources are used when the federal data is not available for that year.

**Table 3: Information sources for U.S. territory unemployment data (outside of Puerto Rico)**

<b>Territory</b>	<b>Government Entity or Data Source</b>
American Samoa	<a href="#">DECIA</a>
Guam	<a href="#">Unemployment Situation on Guam – Bureau of Labor Statistics</a>
Northern Mariana Islands	<a href="#">DECIA</a>
U.S. Virgin Islands	<a href="#">U.S. Virgin Islands Bureau of Labor Statistics</a>

### **3. Defining census tracts eligible for the energy community bonus**

#### **3.1 *Census tract boundary vintage***

Census tracts are those delineated in the 2020 Census, as described in [83 FR 56277](#). The shapefiles used to characterize census tracts and therefore place mines within them are 2020 [TIGER/Line Geodatabases](#) as defined by the U.S. Census Bureau.

#### **3.2 *Coal mines that have closed since December 31, 1999***

A coal mine is identified for purposes of the Coal Closure census tracts if it is or has been in the Department of Labor’s Mine Safety and Health Administration’s (MSHA’s) “[Mines](#)” data set after December 31, 1999.

Mines relevant for the energy community bonus are those with a type of “Surface” or “Underground.” Treasury/IRS identify a mine as “closed” if after December 31, 1999, it has ever been listed in MSHA’s Mines dataset as having a status of “Abandoned” or “Abandoned and Sealed” or “AbandonedSealed.” The definition of “mine status” can be found on pages 3-4 of the [Instructions for Completing the Mine Information Form \(MSHA 2000-209\)](#).

#### **3.3 *Locating closed coal mines in census tracts***

Closed coal mines listed in the MSHA Mines dataset are excluded from conferring eligibility for the “energy community” designation if they have irregular location information. Coal mines will be placed in census tracts according to their latitude and longitude as listed in the MSHA’s Mines dataset unless that latitude (dataset variable name “LATITUDE”) and longitude (dataset variable name “LONGITUDE”) does not place the mine in the county (dataset variable name “FIPS\_CNTY\_CD”) and state (dataset variable name “STATE”) of the mine as listed in the MSHA Mines dataset. Additionally, if the latitude or longitude coordinates only go to the tenths decimal place, the mine is not placed in the supposed census tract due to precision concerns. Both sets of mines will not be placed in census tracts, and thus the census tracts where the mines exist (or existed) will not be qualified as energy communities. Additionally, the census tracts that are adjacent to these potential census tracts will also not be qualified as energy communities.

The relevant appendices ([IRS Notice 2023-29 Appendix C](#), [IRS Notice 2023-47 Appendix 3](#), and [IRS Notice 2024-48 Appendix 2](#)) show the census tracts that have had coal mine closures since 1999 (with accurate location information) and census tracts directly adjoining such census tracts. IRS Notice 2023-29 Appendix C reflects MSHA Mines data as of January 26, 2023. For this original listing of Coal Closure census tracts, prior versions of MSHA’s Mines dataset were also used. IRS Notice 2023-47 Appendix 3 reflects MSHA Mines data as of May 1, 2023. IRS Notice 2024-48 Appendix 2 reflects MSHA’s Mines as of April 1, 2024. Note that the “Tract Type” in these appendices may change over time with the addition of new data.

### **3.4 Coal-fired electric generating units that have been retired after December 31, 2009**

Retired coal-fired electric generating units are identified using data from Department of Energy's (DOE's) U.S. Energy Information Administration (EIA) Annual Electric Generator Inventory ([Form EIA-860](#)) or the Monthly Electric Generator Inventory ([Form EIA-860M](#)).

Data from Forms EIA-860 and EIA-860M provide listings of retirements. An electric generating unit is considered a retired coal-fired electric generating unit if it is classified as retired at any time since December 31, 2009, and at retirement is characterized as a coal-fired electric generating unit.

To be considered a retired coal-fired electric generating unit, an electric generating unit must be listed as coal-fired when it is retired. An electric generating unit is a retired coal-fired electric generating unit if it (1) appears in the retirements listing of any monthly release of the dataset from Form-860M since December 31, 2009, or any annual release of the dataset from Form-860 since December 31, 2009, (2) the month and year of retirement listed are after December 31, 2009, and (3) for years 2015 through the most recent monthly listing, the electric generating unit is listed as having a "Technology" of "Conventional Steam Coal" or "Coal Integrated Gasification Combined Cycle" in the retirement listing, or for years 2010 through 2015, the electric generating unit is listed as having one of the following as a primary fuel in the retirement listing: anthracite coal, bituminous coal, lignite coal, coal-derived synthesis gas, subbituminous coal, waste/other coal (including anthracite culm, bituminous gob, fine coal, lignite waste, and waste coal), or refined coal.

### **3.5 Locating retired coal-fired electric generating units in census tracts**

Retired coal-fired electric generating units listed in Forms EIA-860 and EIA-860M are excluded from conferring eligibility for the "energy community" designation if they have irregular location information.

Coal-fired electric generating units will be placed in census tracts according to their latitude and longitude as listed in the Form EIA-860M and Form EIA-860 data unless that latitude (dataset variable name "Latitude") and longitude (dataset variable name "Longitude") does not place the generating unit in the county (dataset variable name "County") and state (dataset variable name "State" or "Plant State") of the generating unit as listed in the Form EIA-860M or Form EIA-860 data. Additionally, if the latitude or longitude coordinates only goes to the tenths decimal place, the mine is not placed in the supposed census tract due to precision concerns. Both sets of generating units will not be placed in census tracts, and thus the census tracts where the generating units exist (or existed) will not be qualified as energy communities. Additionally, the census tracts that are adjacent to these potential census tracts will also not be qualified as energy communities.

Missing location information for 2010 and 2011 is corrected by first using the EIA 860M file and if unsuccessful, consulting the 2012 EIA 860 file.

The relevant appendices ([IRS Notice 2023-29 Appendix C](#), [IRS Notice 2023-47 Appendix 3](#), and [IRS Notice 2024-48 Appendix 2](#)) show designated Coal Closure census tracts, informed by data from Forms EIA-860 and EIA-860M with accurate location information. IRS Notice 2023-29 Appendix C reflect data available as of December 26, 2023. IRS Notice 2023-47 Appendix 3 reflects data available as of May 1, 2023. IRS

Notice 2024-48 Appendix 2 reflects data available as of April 1, 2024. Note that the “Tract Type” in these appendices may change over time with the addition of new data.

### **3.6 *Coal mines and coal-fired generating units in the U.S. territories***

The MSHA Mines dataset does not contain information about mines in U.S. territories. However, information from the Department of Energy’s Energy Information Administration (EIA) suggests that the territories have no known coal reserves.<sup>3</sup>

Puerto Rico only began to be included in EIA Form 860 and EIA Form 860M reporting in March 2018. Prior to March 2018, information for Puerto Rico and the other territories is not available in the EIA reporting. However, EIA analysts track the energy use in the U.S. territories. Information provided by EIA suggests that there have been no coal-fired generating unit retirements in the U.S. territories as of July 2024.

### **3.7 *Identifying census tracts adjacent to census tracts with closed coal mines or retired coal-fired electric generating units***

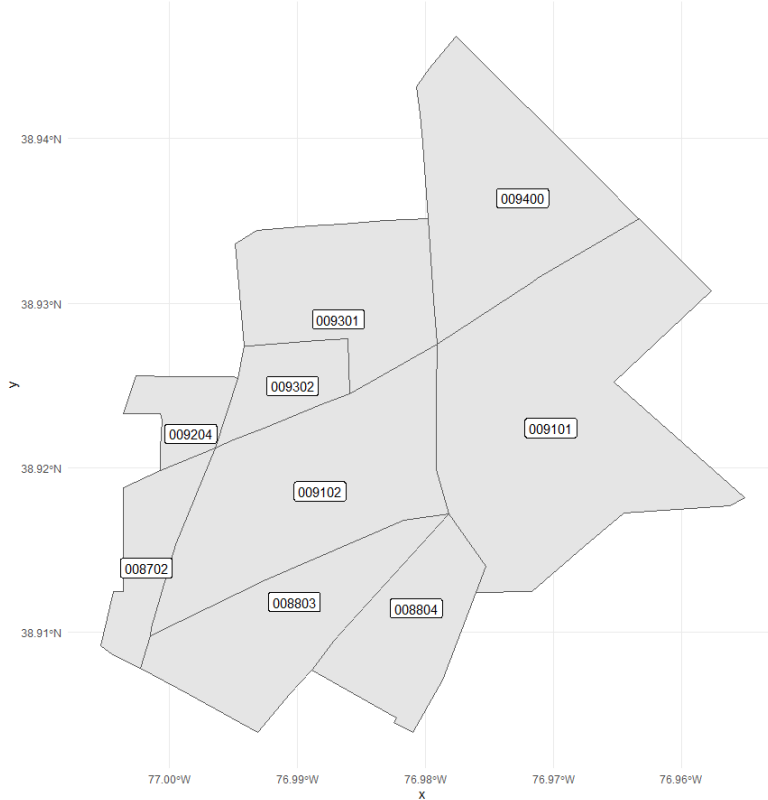
Census tract shapefiles from the U.S. Census Bureau are used to identify adjoining census tracts. Census tracts are considered directly adjoining if their boundaries touch at any single point. There are many cases where multiple census tracts meet at a single point. If a closure occurred in one of the census tracts, the other census tracts sharing the single point would be considered directly adjoining.

Figure 1 shows an example of census tracts with 6-digit identifiers. All of these census tracts are considered directly adjoining to census tract 009102.

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<sup>3</sup> [Northern Mariana Islands Profile Analysis](#) (2023); [Guam Profile Analysis](#) (2023); [Puerto Rico Profile Analysis](#) (2023); [US Virgin Islands Profile Analysis](#) (2023); [American Samoa Profile Analysis](#) (2023).

**Fig. 1: Example of adjoining census tracts**



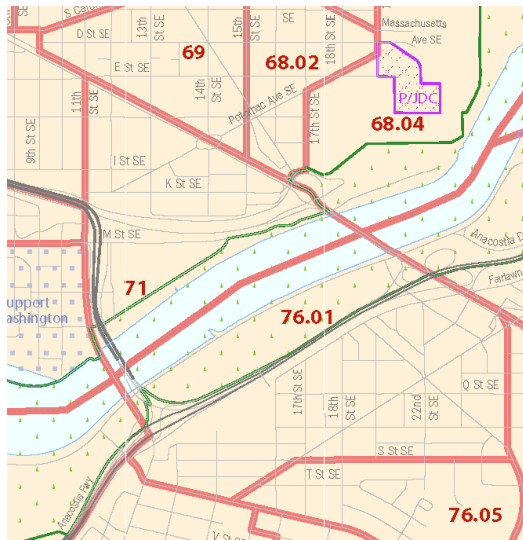
Source: Treasury, Office of Tax Analysis.

### ***3.8 Adjacency of census tracts with rivers or water bodies in between***

Census tract boundaries may follow rivers or other waterways. However, these waterways do not prevent census tracts from directly adjoining. Census tract boundaries may incorporate waterways by either extending into waterways or by wholly covering a waterway within a census tract.

Figure 2 shows one example of how a waterway may interact with census tracts. This shows census tract 007100 (denoted without the floating zeroes as “71”) having a border in the river. Census tract 007601 (denoted here as 76.01) also has a border in the river. Census tracts 007100 and 007601 are directly adjoining to each other. Additionally, Census tracts 006804 (denoted 68.04) and 007601 are also directly adjoining to each other.

**Fig. 2: Waterways in census tracts**



Source: <https://www.census.gov/geographies/reference-maps/2020/geo/2020pl-maps/2020-census-tract.html>



## 4. Applying the location information for eligibility

### 4.1 *Determination of project location eligibility for the energy community bonus*

To determine eligibility, taxpayers locate the county within a metropolitan statistical area (MSA)/non-metropolitan statistical area (non-MSA) and/or census tract of their project and compare the Federal Information Processing Standard ([FIPS](#)) codes of one or both of these pieces of location information to the listings in guidance published by Treasury/IRS.

Each unique county or county-equivalent is identified with a 2-digit state FIPS code (which may include a leading zero), and a 3-digit county FIPS code (which may include up to two leading zeros); these are grouped into one 5-digit state-county FIPS code. Standard state-county census tracts are identified with a 2-digit state FIPS code, a 3-digit county FIPS code, and a 6-digit tract code tract (which may include leading zeros, as well as two “trailing” zeros in the many cases in which the basic tract code has no suffix). Together, these codes form an 11-digit FIPS code unique to each census tract.

Determination is based on location of a project on its placed-in-service date. However, [IRS Notice 2023-29](#) also provides a special rule for projects to base their eligibility for the energy community bonus on when construction begins.

**Table 4: Relevant appendices to identify counties and census tracts that confer eligibility for the energy community bonus**

<b>If the taxpayer placed their energy community project in service...</b>	<b>Eligible FFE counties that may or may not also meet the unemployment rate threshold are listed in...</b>	<b>Eligible FFE counties that also meet the unemployment rate threshold are listed in...</b>	<b>Eligible Coal Closure census tracts are listed in...</b>
After Dec. 31, 2022, and before June 7, 2024	<a href="#">IRS Notice 2023-29 Appendix B</a> <a href="#">IRS Notice 2023-47 Appendix 1</a> <a href="#">IRS Notice 2024-30 Appendix 1</a>	<a href="#">IRS Notice 2023-47 Appendix 2</a> <a href="#">IRS Notice 2024-30 Appendix 2</a>	<a href="#">IRS Notice 2023-29 Appendix C</a> <a href="#">IRS Notice 2023-47 Appendix 3</a> <a href="#">IRS Notice 2024-48 Appendix 2</a>
After Jun 6, 2024, and before release of the 2025 Annual Statistical Area Category and Coal Closure Category Updates*	<a href="#">IRS Notice 2023-29 Appendix B</a> <a href="#">IRS Notice 2023-47 Appendix 1</a> <a href="#">IRS Notice 2024-30 Appendix 1</a>	<a href="#">IRS Notice 2024-48 Appendix 1</a>	<a href="#">IRS Notice 2023-29 Appendix C</a> <a href="#">IRS Notice 2023-47 Appendix 3</a> <a href="#">IRS Notice 2024-48 Appendix 2</a>

\*Annual Statistical Area Category and Coal Closure Category Updates generally are released by the IRS in approximately May of each year.

As noted, brownfield sites (as defined in 42 U.S.C. 9601(39) (A), (B), and (D)(ii)(III)) also qualify as energy communities.

In general, a taxpayer may establish the beginning of construction of a project by starting physical work of a significant nature or by paying or incurring five percent or more of the total cost of the facility. The IRS has issued notices that provide guidance for determining the beginning of construction for purposes of the tax credits. See [Notice 2013-29](#), [Notice 2013-60](#), [Notice 2014-46](#), [Notice 2015-25](#), [Notice 2016-31](#), [Notice 2017-04](#), [Notice 2018-59](#), [Notice 2020-41](#), [Notice 2021-5](#), and [Notice 2021-41](#), and [Notice 2022-61](#) (in the context of the prevailing wage and apprenticeship (PWA) rules).

In general, a taxpayer's facility is placed in service when the facility is ready and available for its specified use. The IRS has provided general guidance for taxpayers to determine when a facility is placed in service in [Publication 946 \(How to Depreciate Property\)](#).

#### **4.2 Differences in location eligibility for the energy community bonus that applies to the §§ 45, 48, 45Y, and 48E credits versus the § 48C(e) energy community census tracts**

The § 48C(e) energy community census tracts are a subset of the areas eligible for the energy community bonus that applies to the §§ 45, 48, 45Y, and 48E credits. Section 48C(e) energy community census tracts are census tracts that did not have a project that received a certification and allocation of credits under § 48C prior to enactment of the Inflation Reduction Act of 2022, and --

- in which a coal mine has closed after 1999; or
- in which a coal-fired electric generating unit has been retired after 2009; or
- that directly adjoin one of the above two types of tracts.

For listings of census tracts eligible as § 48C(e) energy community census tracts for the two rounds of applications that have been announced as of July 2024, see [IRS Notice 2023-44 Appendix C](#) and [IRS Notice 2024-36 Appendix C](#).

#### **4.3 Eligibility of projects in U.S. territories**

Areas in all U.S. territories may qualify as energy communities, and the areas in U.S. territories that qualify as energy communities based on the Statistical Area and Coal Closure categories are included in the relevant county (MSA/non-MSA) and census tracts listings. The U.S. territories include American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands.

## **Appendix A: County Business Pattern data suppression documentation detail**

County Business Pattern data are annual files with a unit of observation of the county/industry. Industry is defined by the NAICS code, with individual observations for each of the 2- through 6-digit NAICS codes. Variables for these county/industry observations include the number of employees (variable name "EMP"), a "noise flag" for the estimate of employees (variable name "EMP\_NF"), and for years prior to 2018, a data suppression flag. The noise flag provides information on how certain the estimate is, as well as whether the estimate has not been reported due to disclosure concerns. The data suppression flag provides a code to indicate into which of the 12 ranges of employment the suppressed cell fell.

For 2017 and years after, the employment value is only included in the publicly released data if it includes employment numbers from three or more business establishments. The data suppression flag (with an associated range) is no longer provided after 2017.

For the 2010-2017 CBP data, when the employment value of the cell was not provided, Treasury/IRS used "EMP\_NF" and "EMPFLAG" to assign a value to the cell:

For 2010-14, noise flag definitions for EMP\_NF are:

- G 0 to < 2% noise (low noise)
- H 2 to < 5% noise (medium noise)
- D Withheld to avoid disclosing data for individual companies; data are included in higher level totals. Employment or payroll field set to zero.
- S Withheld because estimate did not meet publication standards. Employment or payroll field set to zero.

For 2015-16, noise flag definitions for EMP\_NF are:

- G 0 to < 2% noise (low noise)
- H 2 to < 5% noise (medium noise)
- J Withheld to avoid disclosing data for individual companies; data are included in higher level totals. Employment or payroll field set to zero.
- D Withheld because estimate did not meet publication standards. Employment or payroll field set to zero.

For 2017, noise flag definitions for EMP\_NF are:

- G 0 to < 2% noise (low noise)
- H 2 to < 5% noise (medium noise)
- J >= 5% noise (high noise)
- S Withheld because estimate did not meet publication standards. Employment or payroll field set to zero.

“EMPFLAG”, the data suppression flag, takes the following values:

A	0-19
B	20-99
C	100-249
E	250-499
F	500-999
G	1,000-2,499
H	2,500-4,999
I	5,000-9,999
J	10,000-24,999
K	25,000-49,999
L	50,000-99,999
M	100,000 or More

Treasury/IRS assigned the below values to the county/industry according to suppression flag code. For the largest category, M, the top-range was assumed to be 199,999 for purposes of determining point estimate. More precisely, if “EMP\_NF” is equal to either D or S, then “EMP” is set to the following values for the following employment bins given by “EMPFLAG.”

A	5
B	40
C	137
E	312
F	625
G	1,375
H	3,125
I	6,250
J	13,750
K	31,250
L	62,500
M	125,000

**Appendix B: Datasets and other information used for Statistical Area and Coal Closure energy community designations**

Type of geographic grouping	Data set or other information	Years of data
MSAs and non-MSAs	<a href="#">County Business Patterns</a>	2010 - end of credits
	<a href="#">Local Area Unemployment Statistics</a>	2022 - end of credits
	<a href="#">2020 TIGER/Line Geodatabases</a> for counties	2020
	Initial MSA/non-MSA delineations: <ul style="list-style-type: none"> <li>• MSA delineations from OMB <a href="#">Bulletin No. 18-03</a>.</li> <li>• BLS delineations for nonmetropolitan areas not in New England states (<a href="#">OEWS Metropolitan and Nonmetropolitan Area Definitions (bls.gov)</a>)</li> <li>• Treasury/IRS delineations for non-MSAs in New England states</li> </ul>	2018
	Unemployment data for U.S. territories outside of Puerto Rico: <ul style="list-style-type: none"> <li>• <a href="#">DECIA</a></li> <li>• <a href="#">Unemployment Situation on Guam – Bureau of Labor Statistics</a></li> <li>• <a href="#">U.S. Virgin Islands Bureau of Labor Statistics</a></li> </ul>	2022 - end of credits
Coal closure census tracts	<a href="#">Mines</a> data from MSHA	2023 – end of credits
	Historical mines data from MSHA	2000 - end of credit
	<a href="#">EIA-860M</a>	2016 – end of credit
	<a href="#">EIA-860</a>	2010-2015
	<a href="#">2020 TIGER/Line Geodatabases</a> for census tracts	2020