

## Claiming Tech-Neutral Clean Electricity Production and Investment Tax Credits Under the Inflation Reduction Act

### I. Executive Summary

On May 29, 2024, the U.S. Department of the Treasury (Treasury) and the Internal Revenue Service (IRS) released long anticipated Proposed Regulations regarding clean electricity production tax credits and clean electricity investment tax credits under Sections 45Y (“Tech-Neutral PTC”) and 48E (the “Tech-Neutral ITC” and collectively, the “Tech-Neutral Credits”) of the Internal Revenue Code of 1986, as amended (the Code). The Tech-Neutral Credits represent the centerpiece of the Biden Administration’s energy incentives in the Inflation Reduction Act of 2022 (the IRA) and will be critical to continued development of clean renewable energy resources in the United States during the next decade. This white paper discusses the rules and requirements related to claiming the Tech-Neutral Credits which will replace the legacy production tax credits (PTC) and investment tax credits (ITC) under Code Sections 45 and 48 that will sunset beginning in 2025.

The Tech-Neutral Credits will be familiar to most renewable energy veterans, but with a few important distinctions compared to the legacy PTC and ITC. The principal difference between the Tech-Neutral Credits and the existing PTC and ITC is with respect to the method used to determine whether a technology qualifies for a tax credit. The existing PTC and ITC apply to specified categories of technology (e.g., wind generation facilities, solar generation facilities, biogas property, energy storage, etc.). By contrast, the Tech-Neutral Credits take a functional approach and apply to energy generating facilities with respect to which the anticipated greenhouse gas (GHG) emissions rate is not greater than zero plus, in the case of the Tech-Neutral ITC, energy storage technology. The IRS is required to make this functional assessment and to publish an annual list of the technologies that satisfy the zero GHG emissions requirement.

Another potentially significant difference between the existing PTC and ITC and the Tech-Neutral Credits is that the former uses certain aggregation principles to aggregate related energy properties into a single energy project, whereas the latter contains no such express aggregation principle, as described more fully below. Otherwise, the Tech-Neutral Credits are substantially similar to the existing PTC and ITC, including existing bonus credits for 1) meeting applicable prevailing wage and apprenticeship (PWA) requirements; 2) meeting certain “domestic content” requirements; 3) placing a qualified facility or energy property in service in an “energy community”; and 4) placing certain solar and wind facilities in service in a “low-income community” and receiving an allocation of environmental justice solar and wind capacity limitation (for ITC and Tech-Neutral ITC projects only).

We provide this white paper as a guide for understanding how the Proposed Regulations generally function for purposes of implementing the Tech-Neutral Credits. This white paper

does not provide specific determinations for renewable energy projects, as each project will require a detailed analysis of qualifying requirements.

## II. General Requirements for Claiming Tech-Neutral Credits

The Tech-Neutral Credits generally apply to both facilities and projects that are placed in service after December 31, 2024. Because the existing PTC and ITC apply to facilities that “begin construction” before January 1, 2025, facilities that begin construction before 2025, but are placed in service after 2024, can elect to claim either the existing PTC or ITC or one of the Tech-Neutral Credits (but not both). As such, developers of certain types of renewable energy projects may need to begin construction on facilities before 2025 to avoid the sunset of existing tax credits and transition to the Tech-Neutral Credits. For example, certain types of facilities (e.g., biogas property, fuel cells, and microgrid controllers) qualify for the existing ITC, but generally would not qualify for the Tech-Neutral ITC due to their inability to meet the zero GHG emissions requirement. Taxpayers developing projects that may not meet the zero GHG emissions requirement should carefully consult existing safe harbor guidance (e.g., IRS Notice 2018-59) for purposes of determining when beginning of construction has occurred for a particular facility.

The Tech-Neutral Credits will begin to phase out in the year following that in which Treasury determines that GHG from the production of electricity in the United States are no more than 25 percent of reported 2022 levels or 2033, whichever is later. The phase-out schedule and percentage of Tech-Neutral Credits allowed (assuming phase out begins in 2033) are as follows:

- 100 percent for facilities and projects beginning construction in 2033;
- 75 percent for facilities and projects beginning construction in 2034;
- 50 percent for facilities and projects beginning in 2035; and
- 0 percent for facilities and projects beginning construction after 2035.

For example, a qualified energy facility could begin construction prior to December 31, 2033, be placed in service in 2037 and thus be eligible for 100 percent of the applicable Tech-Neutral Credit for such facility (assuming satisfaction of the four-year safe harbor for continuity of construction or otherwise demonstrating a continuous program of construction (or continuous efforts) until the placed-in-service date).

For purposes of evaluating the zero GHG emissions requirement, the Proposed Regulations generally divide projects into a combustion or gasification facility (a C&G facility) or a Non-C&G facility (as discussed further below). The Proposed Regulations list eight types of Non-C&G Facilities that satisfy the zero GHG emissions requirement for purposes of the Tech-Neutral Credits:

1. Wind
2. Hydropower
3. Marine and hydrokinetic
4. Solar
5. Geothermal

6. Nuclear fission
7. Nuclear fusion
8. Waste energy recovery property that derives energy from one of the sources listed above

As provided in the Proposed Regulations, the above-listed technologies will be treated as automatically satisfying the zero GHG emissions rate requirement until the IRS publishes its first annual table (discussed below), which will not occur until after final regulations are released.

A. *Tech-Neutral PTC Basic Requirements and Credit Amount*

A taxpayer may claim a Tech-Neutral PTC for eligible electricity generated at a facility owned by such taxpayer and placed in service after December 31, 2024, that satisfies the zero GHG emissions rate requirement (a “Qualified Facility”). The Tech-Neutral PTC amount is the product of the kilowatt hours (kWh) of eligible electricity produced by the taxpayer at a Qualified Facility, multiplied by the “applicable amount” with respect to such Qualified Facility. The “applicable amount” for a Qualified Facility is calculated as either a base amount of 0.3 cents per kWh or, if the Qualified Facility meets applicable PWA requirements, an increased rate of 1.5 cents per kWh (plus any available bonus credits). These dollar figures are based on 1992 dollars and will be adjusted annually for inflation, akin to the existing PTC.

For Qualified Facilities that are owned by more than one taxpayer, excluding facilities owned through an unincorporated organization for which a valid election under Code Section 761(a) has been made, the Tech-Neutral PTC amount is allocated proportionally to each owner’s share of gross sales of electricity produced by such Qualified Facility for a taxable year. If a Qualified Facility is owned through an unincorporated organization that has made a valid election under Code Section 761(a) not to be treated as a partnership for U.S. federal income tax purposes, each member’s undivided ownership share in the Qualified Facility will be treated as a separate Qualified Facility owned directly by such member.

B. *Tech-Neutral ITC Basic Requirements and Credit Amount*

A taxpayer may claim a Tech-Neutral ITC for a qualified investment in any Qualified Facility or energy storage technology (EST). The Tech-Neutral ITC amount for the taxable year equals the “applicable percentage” of the qualified investment for such taxable year with respect to any Qualified Facility or EST. The “applicable percentage” is a base rate of six percent of the eligible basis in such Qualified Facility or EST or, if applicable PWA requirements are met, 30 percent of eligible basis (plus any available bonus credits).

Similar to the existing ITC, the Tech-Neutral ITC is subject to a five-year recapture period beginning on the date the Qualified Facility is placed-in-service. The taxpayer must make a recapture determination for each taxable year that includes any portion of the recapture period, beginning with the taxable year ending after the Qualified Facility is placed in service. Generally, a Qualified Facility that previously received a Tech-Neutral ITC will be subject to recapture of tax credits if such facility has a GHG emission rate greater than 10 grams of CO<sub>2e</sub> per kWh. If a recapture event occurs, the applicable taxpayer recognizes an increase in tax liability in the year of the recapture event in an amount equal to the applicable recapture percentage multiplied by the tax credit amount previously claimed by the taxpayer. The applicable recapture percentage is modulated by the amount of time since the property was placed in service. For recapture events that occur within a year after the applicable property is placed in service, the recapture

percentage is 100 percent. Thereafter the recapture percentage decreases by 20 percent for each subsequent year within the five-year recapture period. General recapture provisions under Code Section 50(a) also apply to the Tech-Neutral ITC.

### III. Certain Definitions Relevant to Tech-Neutral Credits

The Proposed Regulations provide certain definitions and guidance on critical terms and rules to assist taxpayers navigating the new Tech-Neutral Credits under Code Sections 45Y and 48E. We expect that aspects of the new Tech-Neutral Credits guidance will be familiar and consistent with past IRS guidance but there remain unresolved issues as noted below.

#### A. *Qualified Facility*

As noted above, a Qualified Facility is a facility used for generation of electricity that is placed in service after December 31, 2024, and maintains compliance with zero GHG emissions standards. A Qualified Facility includes both a unit of Qualified Facility and any components that are integral parts of a Qualified Facility owned by the taxpayer, regardless of where such components are located. A taxpayer is not allowed to claim a credit for property that is not a unit or integral component of a Qualified Facility.

The requirements for a Qualified Facility for purposes of Tech-Neutral Credits are substantially similar to the requirements for a qualifying facility for existing PTCs and ITCs. Accordingly, Proposed Regulations Sections 1.45Y-2 and 1.48E-2 adopt rules that are generally consistent with existing guidance, including:

- A unit of Qualified Facility includes all functionally interdependent components of property. Components of property are functionally interdependent if the placing in service of each of the components is dependent upon the placing in service of each of the other components to produce electricity.
- A component is an integral part of a Qualified Facility if it is used directly in the intended function of the Quality Facility and is essential to the completeness of such function. Proposed Regulations Sections 1.45Y-2(b) and 1.48E-2(b) identify certain components as either integral or not integral parts of a Qualified Facility with respect to both credit amounts, as identified in the table on the following page:

Integral Parts of Qualified Facility	Non-Integral Parts of Qualified Facility
Integral power conditioning equipment and transfer equipment, including equipment that modifies the characteristics of electricity into a form suitable for use, transmission, or distribution; parts related to the functioning or protection of power conditioning equipment are also treated as power conditioning equipment and include, but are not limited to, switches, circuit breakers, arrestors, and hardware and software used to monitor, operate, and protect power conditioning equipment. Transfer equipment includes components of property that allow for the aggregation of electricity generated by a qualified facility and components of property that alter voltage to permit electricity to be transferred to a transmission or distribution line	Equipment that does not modify the characteristics of electricity into a form suitable for use, transmission, or distribution, including transmission and distribution lines.
Roads to the extent they are integral to the function of the Qualified Facility such as roads used to operate and maintain a Qualified Facility	Roads used primarily for access to a site or roads used primarily for employee or visitor vehicles that are not integral to the intended function of the Qualified Facility
Buildings that are essentially an item of machinery or equipment and structures that house components of integral property that are so closely related to the use of the housed components that the structures can be expected to be replaced if the components they initially house are replaced	Buildings that are not essentially an item of machinery or equipment or which are not so closely related to the use of the housed components
	Fencing

Consistent with existing rules, a Qualified Facility is treated as placed in service in the earlier of i) the taxable year depreciation begins with respect to such Qualified Facility, or ii) the taxable year in which the Qualified Facility is placed in a condition or state of readiness and availability to produce electricity, whether in a trade or business or in the production of income.

Generally, equipment that is an addition or modification to an existing facility will not comprise a Qualified Facility. However, a Qualified Facility may include either a new unit or addition of capacity if such a new unit or addition of capacity is placed in service after December 31, 2024. Such new unit or an addition of capacity will be treated as a separate Qualified Facility and requires the addition or replacement of components of property, including any new or replacement integral property added to a Qualified Facility necessary to increase capacity. For

purposes of determining the One-Megawatt Exception, the capacity is the sum of the nameplate capacity of the added Qualified Facility and the nameplate capacity of the facility to which the Qualified Facility was added.

The Proposed Regulations also address the relative amount of clean electricity related to modifications to Qualified Facilities. For Qualified Facilities that add a new unit or more electrical production capacity, the taxpayer determines the increased amount of electricity produced by a facility by multiplying the amount of electricity that the facility produces during a taxable year (after the new unit or addition of capacity is placed in service) by a fraction, the numerator of which is the added nameplate capacity that results from the new unit or addition of capacity, and the denominator of which is the total nameplate capacity of the facility inclusive of the new unit or addition of capacity. Only the increased amount of electricity as a result of the modification would be eligible for the Tech-Neutral PTC.

A retrofitted Qualified Facility may qualify as placed in service even if there are used components of property in such Qualified Facility, provided that the fair market value of the used components is not more than 20 percent of the total value of the unit of the Qualified Facility (the “80/20 Rule”). If the 80/20 Rule is met, the retrofitted Qualified Facility is considered to be placed in service on the date the new components of property are placed in service. For purposes of this 80/20 Rule, the cost of new components of the unit of Qualified Facility includes all costs properly included in the depreciable basis of such new components.

The Proposed Regulations also provide special guidance for decommissioned facilities that add new electrical capacity. If a facility is decommissioned or is in the process of decommissioning, it may be treated as having increased capacity if: i) the existing facility ceased operations; ii) the existing facility has a shutdown period of at least one calendar year during which it is without a valid operating license from its respective U.S. federal regulatory authority (e.g., the Federal Energy Regulatory Commission (FERC) or the Nuclear Regulatory Commission (NRC), and iii) the increased capacity of the restarted facility has a new, reinstated, or renewed operating license issued by either FERC or NRC.

As noted above, one significant difference between the existing PTC and ITC and the Tech-Neutral Credits is that there appears to be no express aggregation principle for the Tech-Neutral Credits. Whereas the existing ITC is determined with respect to an “energy project,” which includes all closely related generation and storage assets, the Tech-Neutral ITC appears to be determined with respect to each Qualified Facility and EST separately. For example, a solar facility and energy storage system might have been aggregated for purposes of the ITC, but the Proposed Regulations (consistent with Code Section 48E) treat an electricity generation facility and an EST as separate facilities throughout. This approach has the unfortunate result of property being defined as “integral” to either a Qualified Facility (electricity generating) or a qualified EST each being defined on the basis of function. Thus, it seems that in the absence of further IRS guidance it would be difficult to claim the domestic content bonus credit, for example, on a full solar and energy storage system based solely on the energy storage system portion of the facility. The IRS and Treasury reserved on this point in the Proposed Regulations, which indicates that aggregation principles may be made applicable to the Tech-Neutral ITC in future guidance.

Finally, unlike the existing PTC, which generally requires that electricity produced by a facility be sold to an unrelated party in order to be eligible for the credit, the Tech-Neutral PTC is available for electricity consumed or stored by the taxpayer or sold to a related party, provided

that the facility is equipped with a metering device that is owned and operated by an unrelated person.

#### B. *Qualified Investments*

For purposes of calculating the Tech-Neutral ITC, the qualified investment amount for a taxable year is the aggregate basis of all qualified property placed in service by the taxpayer that is a part of a Qualified Facility. Qualified property generally means tangible personal property, except land and improvements, or other tangible property that is used as an integral part of furnishing electricity by a person engaged in a trade or business of furnishing any such service. The Proposed Regulations provide that qualified property must be:

- acquired by transfer of legal title and physical possession or control of such property; and
- put to original use by the taxpayer, unless the 80/20 rule applies to retrofitted qualified facilities acquired by the taxpayer.

The Tech-Neutral ITC qualified investment amount also includes expenditures paid or incurred by the taxpayer for certain qualified interconnection property. Such qualified interconnection property is tangible property that is part of the transmission or distribution system that is not required for anything other than for the distribution of electricity. Inclusion in the qualified investment amount is limited to expenditures for qualified interconnection property in connection with a Qualified Facility with a maximum net output of not greater than 5 MW (as measured in alternating current) (the “Five-MW Limitation”).

The Proposed Regulations provide three other guidelines for purposes of the Five-MW Limitation and qualified interconnection property. The first is that the Five-MW Limitation is measured at the Qualified Facility level. Second, the Five-MW Limitation is measured only by the nameplate generating capacity of the unit of the Qualified Facility, with does not include the nameplate capacity of any integral property at the time the Qualified Facility is placed in service. Third, the nameplate generating capacity of the unit of Qualified Facility is measured independently from any other Qualified Facilities that share the same integral property.

The Proposed Regulations regarding eligible interconnection costs of a Qualified Facility are generally consistent with prior ITC guidance in this regard and include examples of application of the Five-MW Limitation to interconnection agreements for Qualified Facilities owned by a single taxpayer as well as separate taxpayers. The examples in the Proposed Regulations also incorporate prior interconnection property examples, except that one of the more flexible examples regarding separate solar energy properties subject to a common power purchase agreement has been omitted by the IRS. The IRS has requested comments regarding the proper treatment of reimbursements as well as applicable documentation of interconnection costs, so we expect to see additional guidance with any final Regulations regarding interconnection property.

In addition, the Proposed Regulations clarify (consistent with guidance with respect to the current ITC) that qualified interconnection property is not part of a Qualified Facility. As such, qualified interconnection property is not considered when determining whether a Qualified Facility satisfies the requirements for claiming either the energy community bonus credit or the domestic content bonus credit.

#### IV. Technology Specific Requirements

Both Code Sections 45Y and 48E reference specific renewable energy technologies for purposes of the Tech-Neutral Credits. The Proposed Regulations provide specific guidance for these technologies, including Combined Heat and Power (CHP) systems and certain ESTs, which must meet specific operational and efficiency standards to qualify for the Tech-Neutral Credits.

##### A. *CHP Property*

CHP property comprises a system that uses the same energy source for the simultaneous or sequential generation of electrical power, mechanical shaft power, or both, in combination with the generation of steam or other forms of useful thermal energy (including for heating and cooling applications). CHP property does not include property used to transport energy to the generating facility or to distribute energy produced by the facility. CHP property must produce at least 20 percent of its total useful energy in the form of useful thermal energy that is not used to produce electrical or mechanical power (or combination thereof), and at least 20 percent of its total useful energy in the form of electrical or mechanical power (or combination thereof). The energy efficiency percentage of CHP property must exceed 60 percent. Qualification of CHP property for Tech-Neutral Credits will ultimately depend on how the IRS applies the lifecycle analysis (LCA), as discussed further below, for purposes of determining GHG emissions from such property. The Proposed Regulations do not provide specific guidance on this point.

##### B. *EST*

EST comprises property that is either: 1) property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) that receives, stores, and delivers energy for conversion to electricity (or, in the case of hydrogen, which stores energy), and has a nameplate capacity of not less than 5 kWh or 2) thermal energy storage property. The Proposed Regulations provide rules and definitions for ESTs with respect to the Tech-Neutral ITC, including: i) ownership of ESTs by multiple taxpayers, ii) qualified forms of ESTs, and iii) modifications of ESTs.

(i) *Ownership.* If multiple taxpayers directly own qualified investments in a single Qualified Facility or EST, and such arrangement is not treated as a partnership for U.S. federal income tax purposes, each taxpayer determines its eligible investment based on its fractional ownership interest in the Qualified Facility or EST. However, no Tech-Neutral ITC is available with respect to a taxpayer's ownership of one or more separate components of a Qualified Facility or an EST if the components do not constitute a unit of Qualified Facility or unit of EST. If a Qualified Facility or EST is owned through an unincorporated organization that has made a valid election under Code Section 761(a), each member's undivided ownership share in the Qualified Facility or EST is treated as a separate Qualified Facility or EST owned by such member. Finally, related taxpayers (i.e., members of a group of trades or businesses that are under common control) are treated as one taxpayer in determining whether a particular taxpayer has invested in a Qualified Facility or EST with respect to which a Tech-Neutral ITC may be determined.

(ii) *Qualified Forms.* The Proposed Regulations identify the following types of ESTs as eligible for the Tech-Neutral ITC.



- Electrical energy storage property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) that receives, stores, and delivers energy for conversion to electricity, and has a nameplate capacity of not less than 5 kWh. For example (subject to the exclusion for property primarily used in the transportation of goods or individuals), electrical energy storage property includes, but is not limited to, rechargeable electrochemical batteries of all types (such as lithium-ion, vanadium redox flow, sodium-sulfur, and lead-acid); ultracapacitors; physical storage such as pumped storage hydropower, compressed air storage, flywheels; and reversible fuel cells.
- Thermal energy storage property comprising a system that is directly connected to a heating, ventilation, or air conditioning (HVAC) system; removes heat from, or adds heat to, a storage medium for subsequent use; and provides energy for the heating or cooling of the interior of a residential or commercial building. Thermal energy storage property includes equipment and materials, and parts related to the functioning of such equipment to store thermal energy for later use to heat or cool or to provide hot water for use in heating a residential or commercial building. It does not include a swimming pool, CHP property, or a building or its structural components. As an example, thermal energy storage includes, but is not limited to, thermal ice storage systems that use electricity to run a refrigeration cycle to produce ice that is later connected to the HVAC system as an exchange medium for air conditioning a building, heat pump systems that store thermal energy in an underground tank or borehole field to be extracted for later use for heating and/or cooling, and electric furnaces that use electricity to heat bricks to high temperatures and later use this stored energy to heat a building through the HVAC system.
- Hydrogen energy storage property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) that stores hydrogen and has a nameplate capacity of not less than 5 kWh, equivalent to 0.127 kg of hydrogen or 52.7 standard cubic feet (SCF) of hydrogen. Hydrogen energy storage property must store hydrogen that is solely used as energy and not for other purposes, such as for the production of end products such as fertilizer. For example, hydrogen energy storage property includes, but is not limited to, a hydrogen compressor and associated storage tank and an underground storage facility and associated compressors.

(iii) *Modifications.* With respect to an electrical energy storage property or a hydrogen energy storage property, the basis of any electrical energy storage property or hydrogen energy storage property that exists prior to a modification of such property to meet all of the requirements of Section 48E is not taken into account for purposes of the Tech-Neutral ITC. Specifically, any electrical energy storage property and hydrogen energy storage property that i) a) was placed in service before August 16, 2022, and would be described in Code Section 48(c)(6)(A)(i); b) had a capacity of less than 5 kWh when placed in service; and c) is modified in a manner that such property (after such modification) has a nameplate capacity of at least 5 kWh; or ii) a) is described in Code Section 48(c)(6)(A)(i) and b) is modified in a manner that such property (after such modification) has a nameplate capacity of at least 5 kWh, is not eligible for the Tech-Neutral ITC, and only the modification qualifies for the Tech-Neutral ITC.

## V. Emission Rate Determination

Pursuant to the IRA's goals of furthering the clean energy transition in the United States, the Proposed Regulations provide detailed rules for determining emission rates for purposes of meeting the zero GHG rate requirement. Special rules apply to any C&G facility, i.e., a facility that produces electricity through combustion or uses an input energy source to produce electricity if the input energy source was produced through a fundamental transformation, or multiple transformations, of one energy source into another using combustion or gasification. This excludes emissions from electricity production from a backup generator, infrastructure associated with the facility, road construction, and distribution of electricity to consumers. Different rules, discussed below, apply to Non-C&G facilities.

### A. *Non-Combustion and Gasification Facilities Producing Electricity*

The GHG emissions relevant to qualification for Tech-Neutral Credits are limited to those that directly occur from the process that transforms the input energy source into electricity and excludes emissions from backup generators, maintenance activities, step-up transformers, construction or manufacturing of the facility or related infrastructure, or distribution of electricity to customers. For Non-C&G facilities, GHG emitted into the atmosphere excludes emissions of GHG that are not directly produced by the fundamental transformation of the input energy source into electricity, including:

- emissions from hydropower reservoirs due to anoxic conditions;
- ebullition, diffuse, and degassing emissions from hydropower operations;
- emissions of non-condensable gases from underground reservoirs during geothermal operations; and
- emissions occurring due to activities and operations occurring off-site, including but not limited to the production and transportation of fuels used by the facility, or land use change from siting or changes in demand.

The determination of whether the technology employed by a Non-C&G facility satisfies the zero GHG emissions requirement must be made through a technical and engineering assessment of the fundamental energy transformation into electricity that considers all input and output energy carriers and chemical reactions of chemical processes taking place at the facility in the production of electricity. As described above, the Proposed Regulations identify eight types of Non-C&G facilities that satisfy the zero GHG requirement.

### B. *Combustion and Gasification Facilities Proposed Regulations*

Under Code Sections 45Y and 48E, C&G facilities are eligible for Tech-Neutral Credits, contingent upon maintaining zero GHG emissions, as verified through an LCA. The LCA measures GHG emissions starting from feedstock generation or extraction, which includes any processes necessary to produce and collect or extract any raw materials used to produce electricity from combustion or gasification technologies (including those used as energy inputs to electricity production) and covers all processes up to the ending point of electricity transmittal (i.e., the meter at the point of production of the C&G facility). The key components of the LCA include:

- The LCA must be based on a future anticipated baseline, which projects the future status quo in the absence of the availability of Tech-Neutral Credits (considering anticipated changes in technology, policies, practices, and environmental and other socioeconomic conditions).
- Offsets and offsetting activities that are unrelated to the production of electricity by the C&G facility, including the production and distribution of any input fuel, may not be taken into account in the LCA.
- Both direct emissions (e.g., emissions from feedstock generation, production, and extraction) and significant indirect emissions (e.g., emissions from indirect use of the land and induced emissions associated with increased use of feedstock for energy production) must be included in the LCA.
- Certain types of emissions, such as those from facility construction, maintenance, and decommissioning, and from distribution of electricity to consumers, are categorically excluded from the LCA.

A GHG emissions rate for either a Non-C&G facility or a C&G Facility must exclude any qualified carbon dioxide (as defined in Code Section 45Y(c)(3)) that is produced in such facility's production of electricity captured by the taxpayer, and pursuant to any regulations established under Code Section 45Q(f)(2), disposed of by the taxpayer in secure geological storage, or utilized by the taxpayer in a manner described under Code Section 45Q(f)(5).

Finally, the Secretary of the Treasury will publish an annual table that provides the GHG emission rates for specified types or categories of facilities, which project owners must use (if applicable) for purposes of Section 45Y and Section 48E. To determine GHG emissions rates, taxpayers may rely on the annual table that is in effect as of the first date a facility began construction or the provisional emissions rate (as described below) for the project owner's taxable year in which the Section 45Y credit or Section 48E credit is determined. The Secretary of the Treasury will also publish an accompanying expert analysis that addresses any types or categories of facilities added or removed from the annual table since the last publication. This analysis will be based a technical assessment of how the type or category of facility transforms energy into electricity and must be prepared by a National Laboratory.

## VI. The Provisional Emissions Rate Process

In the case of any Qualified Facility that does not have an established GHG emissions rate, the Proposed Regulations clarify that a taxpayer that owns such a Qualified Facility may file a petition (a "PER") with the Treasury to determine such facility's respective emissions rate. An emissions rate has not been established by the Secretary of the Treasury for a facility if such facility is not described in the annual table to be published by the IRS. If a taxpayer's request for an emissions value is pending at the time such facility is or becomes described in the annual table, the taxpayer's request for an emissions value will be automatically denied.

Taxpayers must file a PER by attaching the PER to the taxpayer's U.S. federal income tax return or other applicable federal return, as appropriate, for the first taxable year in which the taxpayer is claiming Tech-Neutral Credits for the Qualified Facility to which the PER applies. The PER must contain an "emissions value," (and, if applicable, associated letter) which an applicant may request from the Department of Energy (DOE) only after completing a front-end engineering and design (FEED) study or similar indication of project maturity, as determined by DOE, such as completion of a project specification and cost estimation sufficient to inform a final

investment decision for the facility. An emissions value obtained from DOE will be based on an analytical assessment of the emissions rate associated with the facility, performed by one or more National Laboratories, in consultation with other agency experts, as appropriate.

Taxpayers utilizing the PER process must comply with all substantiation requirements and retain a copy of the application and correspondence to and from DOE, including a copy of the taxpayer's request to DOE for an emissions value, and any information provided by the taxpayer to DOE pursuant to the emissions value request process. Alternatively, a taxpayer can determine an emissions value for a facility using the most recent version of an LCA model designated by the Secretary of the Treasury for such use, as of the time the PER is filed.

By itself, a PER determination does not signify that the IRS has determined that the requirements of Section 45Y or 48E have been satisfied for any taxable year. Accordingly, a taxpayer must still meet all other applicable requirements under Section 45Y or 48E, as applicable, and the IRS is not precluded from later examining any tax returns or inspecting books and records with respect to any taxable year in which the taxpayer claims any Tech-Neutral Credits.

## VII. Conclusion

The Tech-Neutral Credits are a crucial continuation of the legacy PTC and ITC. Taxpayers who have previously claimed PTCs and ITCs should carefully consider the changes provided in the Proposed Regulations when considering future projects under the Tech-Neutral Credits. In particular, taxpayers should consider the scheduled credit phase-out and the zero GHG emissions rate guidelines for purposes of determining whether Qualified Facilities meet the requirements to claim the Tech-Neutral Credits. Further rules, including final regulations, are expected to be released in late 2024.

## Attorney Contacts

Our team would be pleased to assist you in your strategic planning. For more information on issues pertaining to [tax](#) and [energy and climate solutions](#), please contact Wilson Sonsini attorneys [Elina Coss](#), [Peter Mostow](#), [Nicole Gambino](#), [Andrew Bryant](#), [Brandon King](#), or [Jaron Goddard](#).