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December 3, 2022

Internal Revenue Service  
CC:PA:LPD:PR (Notice 2022-58)  
Room 5203  
P.O. Box 7604  
Ben Franklin Station  
Washington, D.C. 20044

Via Federal eRulemaking Portal: <http://www.regulations.gov>

Subject: bp America Inc. Comments on Notice 2022-58

Office of Associate Chief Counsel:

Pursuant to the request for comments on provisions contained in §§ 45V and 45Z of the Internal Revenue Code ("Code") as enacted in the Inflation Reduction Act of 2022 ("IRA"), we are seeking confirmation and/or clarification in this letter pursuant to Section 3.01 and 3.02 of IRS Notice 2022-58.

bp is a global integrated energy company with a significant footprint in the US. In the US, bp employs more than 12,000 people and supports about 245,000 jobs. Between 2005 and 2021, bp invested more than \$130 billion in the US; and in 2021 alone, our operations contributed about \$60 billion to the US economy. We have a larger economic footprint in the US than anywhere else in the world.

We seek to provide the world with secure, affordable, and lower carbon energy. Our ambition is to be a net zero company by 2050 or sooner, and to help the world get to net zero. We believe hydrogen and transportation fuels, such as sustainable aviation fuel, will play a critical role in helping to achieve net zero. Both are complementary to electrification and will be pivotal in decarbonizing hard-to abate transportation and industrial sectors where electrification is too expensive or not feasible. bp is collaborating on hydrogen produced both through renewable electricity (green hydrogen) and natural gas paired with carbon capture and storage (blue hydrogen), and Air bp, bp's specialized

aviation division, supplies sustainable aviation fuel at over 20 locations across three continents.

### **Section 3.01**

#### **(1)(b)(ii) - How should emissions be allocated to the co-products (for example, system expansion, energy-based approach, mass-based approach)?**

We recommend that the IRS and Treasury issue guidance to provide that system expansion (i.e., expanding the product system to include additional functions related to the co-products from the production process) is the default approach, following the allocation hierarchy described in ISO 14044<sup>1</sup> on the use of life cycle assessment in environmental management. In situations where system expansion is not possible, allocation methods such as energy-based (which is applicable in energy product systems), mass-based or even economic value-based may be used subject to applicability and with clear justification provided for the choice.

We request that the IRS and Treasury consider the carbon emissions of potential uses of certain co-products, and ensure these emissions are correctly accounted for purposes of determining the applicable percentage pursuant to § 45V(b)(2). Specifically, elemental carbon<sup>2</sup> is a potential co-product. Elemental carbon may be combusted and, therefore, may release carbon dioxide in a downstream process. Taxpayers who intend to co-produce elemental carbon should provide certification of its end use and correctly account for consequential carbon emissions that may result.

#### **(1)(e) - How should qualified clean hydrogen production processes be required to verify the delivery of energy inputs that would be required to meet the estimated lifecycle greenhouse gas emissions rate as determined using the GREET model or other tools if used to supplement GREET?**

Verification of a range of energy inputs, and the delivery of those inputs, should be allowed through the use of contractual agreements or market-based mechanisms and emission data that has been reported to and verified by the US Environmental Protection Agency (“EPA”), such as data reported to the Greenhouse Gas Reporting Program (“GHGRP”) (40 CFR part 98). As a critical component of any program, verification should provide credibility, but the process should not impede production.

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<sup>1</sup> ISO 14044 specifies requirements and provides guidelines for life cycle assessments.

<sup>2</sup> Elemental carbon is a solid co-product, typically produced when hydrogen is manufactured from natural gas pyrolysis processes. One possible use for this carbon is a substitute for “carbon black”, which is used in the manufacture of tires. It may also be combusted for heating purposes.

We encourage the IRS and Treasury to adopt flexible criteria on “additionality” especially at this nascent stage. Strict additionality rules requiring electrolytic hydrogen to be powered by new renewable energy is not practical, especially in the early years, and will severely limit development of hydrogen projects. A transition phase is needed as the industry builds and scales over time. Diversification of power supply is an important mechanism to ensure stable input to increase the load factor of electrolyzers, which in turn will help to reduce costs. Our preliminary analysis based on draft EU proposals suggests that increasing the load factor by 10% can reduce the cost of hydrogen by about 20%. Similarly, flexibility in allowing for longer temporal correlation also helps to increase the load factor and reduce costs.

**(1)(e)(ii) - What granularity of time matching (that is, annual, hourly, or other) of energy inputs used in the qualified clean hydrogen production process should be required?**

Annually – not hourly:

We recommend that to leverage the potential for green hydrogen, especially in these early stages, the rule should allow for flexibility to help jump start this nascent industry. The ability to match renewable energy production to the hydrogen production demand over an annual basis would provide the most flexibility. Annual matching between renewable energy production and its consumption by the clean hydrogen production systems ensures that every electron used has a corresponding electron produced from a zero-emissions source in every tax year. The procurement of energy and renewable energy credits (“RECs”) to a clean hydrogen production system promotes accountability, traceability, and investment in renewable energy, thus ensuring that clean energy is serving the hydrogen facility.

Stringent requirements such as hourly zero-emission matching have the potential to devastate the economics of clean hydrogen production. Moreover, such restrictive requirements are likely not practical or feasible in these early stages. If a green hydrogen production facility can only produce during hours when wind and solar are available, the low utilization rate will dramatically increase the price of the hydrogen produced. Implementing hourly matching would lead to less investment in new green hydrogen infrastructure, significantly slowing the pace of large-scale decarbonization. Annual time matching will help to accelerate the pace and development of the green hydrogen industry.

**(3) - Provisional Emissions Rate. For hydrogen production processes for which a lifecycle greenhouse gas emissions rate has not been determined for purposes of § 45V, a taxpayer may file a petition with the Secretary for determination of the lifecycle greenhouse gas emissions rate of the hydrogen the taxpayer produces.**

**(a) At what stage in the production process should a taxpayer be able to file such a petition for a provisional emissions rate?**

The taxpayer should be able to file a petition for a provisional emissions rate as soon as it has sufficient engineering definition to produce a Class 4 estimate.<sup>3</sup> Developing a project through to final investment decision may be dependent on the ability to gain a provisional rate based on a novel facility design. As currently developed, the GREET model only allows for one thermal production pathway – steam methane reformation. As investors recognize the value of lower emission production methods, they may wish to design facilities that are not addressed by the GREET model.

Taxpayers should also have the option to re-petition for an updated provisional emissions rate one more time before construction starts based on more detailed project design if necessary.

Further, a timely response is important so that project developers can lock in project schedules. Ideally, provisional emissions rates would be confirmed by the IRS within 90 days of a taxpayer submitting a petition. The provisional rates established should be released to the public.

Once provisional emissions rates are confirmed by the IRS, the methodology used to determine such emissions rates should not change, regardless of any changes or updates to the GREET model, or any other model used in the determination. This will provide project developers with the necessary certainty to proceed. For the avoidance of doubt, if a project developer is unable to achieve the carbon intensity for any other reason (e.g., technical performance of the project does not meet design specifications), then the emissions rate should be appropriately modified.

**(b) What criteria should be considered by the Secretary in making a determination regarding the provisional emissions rate?**

§ 45V(c)(2)(C) allows taxpayers the right to petition the Secretary of Treasury for a determination of the lifecycle greenhouse gas emissions rate in the case of any hydrogen for which a lifecycle greenhouse gas emissions rate cannot be determined using the GREET model or if the IRS has not already determined the rate for the particular production process. We request the IRS and Treasury also provide the taxpayer discretion to request a provisional rate where the taxpayer believes both 1) the standard GREET model is not providing a reasonable

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<sup>3</sup> Cost estimate classification per AACE International Recommended Practice No. 18R-97. A Class 4 cost estimate typically requires a project to have completed a feasibility study, and therefore likely have developed sufficient technical detail to generate a bone fide petition. This would reduce the risk of speculative filings creating an unnecessary backlog and delays.

lifecycle carbon emissions assessment and 2) there will be an impact to the value of potential tax credits that may be claimed.

Additionally, we request that the IRS and Treasury create streamlined means by which to petition the IRS to use a provisional lifecycle greenhouse gas emissions rate. It should not be burdensome to petition. Finally, in the case where the IRS and Treasury have not provided a provisional rate within a reasonable amount of time (i.e. 90 days), we would request the IRS and Treasury to allow taxpayers to unilaterally apply a lifecycle greenhouse gas emissions rate, so long as taxpayers use a life-cycle analysis that is based on a version of the GREET model that is prepared and performed by a qualified third party.

**(4)(f) and (g)**

**(f) - Should indirect book accounting factors that reduce a taxpayer's effective greenhouse gas emissions (also known as a book and claim system), including, but not limited to, renewable energy credits, power purchase agreements, renewable thermal credits, or biogas credits be considered when calculating the § 45V credit?**

Market-based mechanisms, or book-and-claim systems, should be allowed to demonstrate a taxpayer's effective greenhouse gas emissions. This should include RECs, power purchase agreements ("PPAs"), emissions certificates (including natural gas certificates) and carbon tags.<sup>4</sup>

For each tax year, the taxpayer should reconcile its total consumption of inputs to the hydrogen production process with any indirect book accounting factors used to determine an annual average carbon intensity. This should be used to demonstrate continued compliance with the declared lifecycle carbon emissions intensity and should cause an adjustment of the tax credit amount (either upwards or downwards) if necessary.

**(g) - If indirect book accounting factors that reduce a taxpayer's effective greenhouse gas emissions, such as zero-emission credits or power purchase agreements for clean energy, are considered in calculating the § 45V credit, what considerations (such as time, location, and vintage) should be included in determining the greenhouse gas emissions rate of these book accounting factors?**

We recommend that the IRS and Treasury issue guidance confirming that third party verification allows for use of RECs and virtual power purchase agreements

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<sup>4</sup> RECs are the accepted legal instrument through which renewable energy generation and use claims are substantiated in the US renewable electricity market. RECs are supported by several different levels of government, regional electricity transmission authorities, nongovernmental organizations (NGOs), and trade associations, as well as in US case law. See: <https://www.epa.gov/green-power-markets/renewable-energy-certificates-recs#three>

("VPPAs")<sup>5</sup> within the geographic footprints of the six North American Electric Reliability Corporation ("NERC") defined Regional Entities.<sup>6</sup> That is, the Northeast Power Coordinating Council ("NPCC"), Reliability First ("RF"), Southeast Electric Reliability Corporation ("SERC"), Texas Reliability Entity ("TRE"), Midwest Reliability Organization ("MRO") and Western Electric Coordinating Council ("WECC").

The footprints of the NERC Regional Entities ("NERC RE") are well-aligned with the footprints of 1) the existing renewable energy certificate-based tracking systems, 2) the NERC Reliability Coordinators ("RC"), and 3) the Independent System Operators ("ISO")/Regional Transmission Owners ("RTO"). See maps referenced in the footnotes below.

In contrast, use of "balancing areas," also known as NERC Balancing Authorities ("NERC BA"), would not be consistent with the current methodology for tracking and accounting for RECs as detailed below. Additionally, there are in excess of 100 NERC BAs across the US<sup>7</sup>, and for several reasons use of NERC BAs would create physical and financial barriers to the use of renewables to support hydrogen production.

Alignment with the existing certificate-based tracking systems is critical. According to the US EPA the existing certificate-based tracking systems account for and "ensure that RECs are only held by one organization. These tracking systems are typically electronic databases that register basic information about each megawatt-hour ("MWh") of renewable generation in a specific US geographical region." The tracking systems issue RECs to the suppliers, typically the generators, signifying that a MWh of renewable electricity has been delivered to the grid. "Electronic tracking systems allow RECs to be transferred among account holders, similar to how currency is transferred within our online banking system. Tracking systems assign a unique identification number to each REC to ensure that only one REC is issued for each MWh of generation reported, to avoid ownership disputes and minimize double issuance. As such, a uniquely identified REC can only be in one tracking system account (i.e., owned by one account holder) at a time. Each REC issued by the tracking system includes specific information on the renewable energy attributes that it represents."<sup>8</sup>

In the case of blue hydrogen, renewable natural gas (RNG) may be used to reduce the lifecycle carbon emissions of the hydrogen produced. We encourage

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<sup>5</sup> We define and view a VPPA as follows: a financial contract between a buyer and seller of power that can include one or more individual or bundled power products, such as energy, capacity, ancillary services and RECs. In contrast, traditional PPAs can be physical or financial in nature. Physical PPAs require the co-location or direct connection of the seller and buyer; for example, a co-generation site. The vast majority of power contracts in the competitive wholesale regions across the US are VPPAs, as those contracts are primarily financial in nature.

<sup>6</sup> The six NERC Regional Entities are listed here:

<https://www.nerc.com/AboutNERC/keyplayers/Pages/default.aspx>

<sup>7</sup>

[https://www.nerc.com/comm/OC/BAL0031\\_Supporting\\_Documents\\_2017\\_DL/NERC%20Balancing%20and%20Frequency%20Control%20040520111.pdf](https://www.nerc.com/comm/OC/BAL0031_Supporting_Documents_2017_DL/NERC%20Balancing%20and%20Frequency%20Control%20040520111.pdf)

<sup>8</sup> <https://www.epa.gov/green-power-markets/renewable-energy-tracking-systems>

the IRS to allow a similar approach to existing EPA Renewable Fuel Standard guidelines that enable the book-and-claim accounting of RNG environmental attributes for the purpose of conformance with § 45V hydrogen lifecycle carbon intensity determination. Under these guidelines, RNG that is injected into a natural gas pipeline system is deemed to “displace” fossil natural gas consumption. This displacement generates paper traded products which may be purchased by a hydrogen producer elsewhere. For each tax year, a taxpayer should be required to demonstrate the average carbon intensity of the feedstock consumed in its hydrogen production using an approach similar to the established EPA displacement guidelines. This approach will drive the maximum possible emission reduction by maximizing flexibility on how each hydrogen producer procures its feedstock.

**(6)(c) - Coordination with § 45Q. Are there any circumstances in which a single facility with multiple unrelated process trains could qualify for both the § 45V credit and the § 45Q credit notwithstanding the prohibition in § 45V(d)(2) preventing any § 45V credit with respect to any qualified clean hydrogen produced at a facility that includes carbon capture equipment for which a § 45Q credit has been allowed to any taxpayer?**

§ 45V(d)(2) prohibits a taxpayer from claiming a tax credit for clean hydrogen produced at a “facility” which includes carbon capture equipment for which a credit is allowed under § 45Q. The statutory language indicates that Congress was concerned with preventing taxpayers from “stacking” these two tax credits in respect of a production process that combines carbon capture technology in service of the production of qualified clean hydrogen (e.g., a “blue” hydrogen production facility). However, companies may invest in projects that produce clean hydrogen and capture carbon in distinct and separate units that are co-located at a single site. Each such unit should be treated for purposes of the § 45V(d)(2) coordination rule as distinct facilities if the taxpayer can demonstrate that they are not functionally integrated (i.e., there is no integrated equipment that is both attached to and forming part of the same clean fuel production personal property, nor are there other overlapping processes).

Prior IRS guidance suggests that a circumspect view of what constitutes a distinct “facility” for purposes of § 45 is appropriate and aligned with underlying statutory intent (see, e.g., Notice 2020-12). We believe taxpayers owning distinct clean hydrogen production units and carbon capture equipment should be able to claim both the § 45V and the § 45Q tax credits so long as such taxpayer can demonstrate that the units are indeed distinct with separate and unique components not attached to each other and that perform unique and different processes. We believe a means to test whether facilities are integrated is to create a rule that treats facilities as being distinct if taxpayers can demonstrate that the carbon dioxide subject to capture and sequestration is not similarly being used to drive a lower emission rate for purposes of calculating the § 45V clean hydrogen credit.

For instance, a taxpayer owning a refinery could install carbon capture on its fluidized catalytic cracking (“FCC”) process unit, which is entirely unrelated to hydrogen production. Such a taxpayer would desire to claim § 45Q tax credits on the quantity of carbon dioxide captured and stored from this FCC. The same refinery and same taxpayer may also wish to produce green or blue hydrogen in an unrelated process. Such a taxpayer would desire to claim § 45V tax credits on this lower carbon intensity hydrogen production. In this example, the § 45V clean hydrogen credit would not be calculated or derived based on the carbon captured and sequestered at the FCC.

We believe that incentivizing these two distinct projects via the distinct § 45V and § 45Q credits is aligned with the intent of the IRA. Indeed, under the preceding example, there will be no risk of double dipping on the calculation or generation of either §§ 45V or 45Q credits because the inputs used to calculate the former will not be enhanced by the latter. As such, we urge the IRS and Treasury to provide guidance that for any facility in which there are multiple unrelated process trains that taxpayers should be able to qualify for both the § 45V credit and the § 45Q credit if the credits are applied to unrelated processes.

### **Section 3.02**

**2) Establishment of Emissions Rate for Sustainable Aviation Fuel. Section 45Z(b)(1)(B)(iii) provides that the lifecycle greenhouse gas emissions of sustainable aviation fuel shall be determined in accordance with the Carbon Offsetting and Reduction Scheme for International Aviation (“CORISA”) or “any similar methodology which satisfies the criteria under § 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on the date of enactment of this section.”**

**What methodologies should the Treasury Department and IRS consider for the lifecycle greenhouse gas emissions of sustainable aviation fuel for the purposes of § 45Z(b)(1)(B)(iii)(II)**

The GREET model meets the criteria of § 211(o)(1)(H) of the Clean Air Act and is one of the main models used in establishing CORSIA emission rates. Further, GREET is a model which can be updated to consider new fuel production processes and feedstocks as they emerge, while CORSIA is more of a static analysis that will be updated on an occasional basis. Finally, keeping aviation and non-aviation fuels evaluated on the same basis will help avoid unintended dislocations in value and simplify the administration of the rule. As such, we believe utilizing GREET to establish emissions rates for sustainable aviation fuel is the best approach.

**3) Provisional Emissions Rates. Section 45Z(b)(1)(D) allows the taxpayer to file a petition with the Secretary for determination of the emissions rate for a transportation fuel which has not been established.**



**(a) At what stage in the production process should a taxpayer be able to file a petition for a provisional emissions rate?**

**(b) What criteria should be considered by the Secretary to determine the provisional emissions rate?**

§ 45Z(b)(1)(D) allows taxpayers the right to petition the Secretary of the Treasury to utilize an emissions factor for any transportation fuel or categories of transportation fuels not listed on the annual table to be published by the Secretary. We ask that the IRS and Treasury clarify the facts and circumstances that justify formally petitioning for an alternative emissions rate (e.g., the taxpayer has a transportation fuel that either is not listed or potentially falls within one or more qualifying transportation fuels).

Additionally, we request that the IRS and Treasury create a streamlined means to receive permission to use as the emissions factor for a transportation fuel not contained in the annual table the same applications or approved pathways that have already been approved for use in other state and/or federal low carbon fuel programs. Finally, we request that the IRS and Treasury allow taxpayers to unilaterally apply emissions factors for transportation fuels not listed on the annual table while petitions are being considered so long as taxpayers use lifecycle analyses that are based on the GREET model and are prepared, performed, reviewed and/or certified by qualified third parties that regularly perform or review lifecycle analysis models.

**7) Please provide comments on any other topics related to § 45Z credit that may require guidance.**

**Gallon Equivalency Definition:**

§ 45Z(a)(1)(A) states that the amount of credit allowable under this statute is equal to the product of the applicable amount per gallon (or gallon equivalent) of transportation fuel. For purposes of determining the appropriate “gallon equivalent,” we believe the IRS and Treasury should clarify that such equivalent is a gasoline gallon equivalent as determined under § 6426(d). That section treats it as a quantity of fuel with an energy content of 124,800 Btus. We believe use of this definition will provide simplicity and consistency for taxpayers that produce non-liquid based transportation fuels.

**Emissions Factor:**

§ 45Z(b)(1)(A) suggests that if the emissions rate for a transportation fuel is below zero, then the emissions factor can ultimately yield a § 45Z tax credit greater than the “applicable amount” (see § 45Z(b)(1)(A)(i)(I)). The summary of the IRA that the Senate Finance Committee released shortly after President Biden signed the bill confirms this via the following statement:

The base incentive amounts are increased to the extent a fuel's lifecycle emissions are below zero and reduced to the extent they are above zero, phasing out rateably between zero and the baseline emissions rate.<sup>9</sup>

While we believe both Congressional intent and the statute are clear, we request that the IRS confirm this result should the IRS publish tables that include transportation fuels with negative lifecycle emissions.

**Establishment of Emissions Rates:**

§ 45Z(b)(1)(B)(i) requires the IRS to publish a table, and update it annually, with the emissions rates for similar types or categories of transportation fuels based on the amount of lifecycle greenhouse gas emissions for such fuels. Because the types of transportation fuels (including the feedstocks and production methods for transportation fuels) continue to evolve, we ask that the IRS and Treasury annually seek taxpayers' input on any new fuels that should be added to the table and their emissions rates as well as any changes that should be made in rates for fuels that are already listed. If the IRS and Treasury are amenable to seeking taxpayer input into the annual list, we ask that requests from taxpayers to revise the annual list be put in the public docket.

Moreover, we ask that the IRS and Treasury be open to adopting a broad list of qualifying transportation fuels from the start given the evolving nature of such fuels. For example, by looking at common types of feedstocks, production processes, avoided emissions and end usage we believe the IRS and Treasury can create a broad list of emission rates for various types of transportation fuels. In addition, we request that the IRS and Treasury include emission factors for certain intermediary transportation fuel components such as Fisher-Tropsch wax that are subsequently co-processed with non-"Applicable Materials" (as that term is defined in § 45Z(d)(5)(B)) to create products like Sustainable Aviation Fuel. While such intermediary products are not necessarily suitable for use as a fuel in a highway vehicle or aircraft without further processing, we believe it was Congress's intent to include such materials based on the acknowledgement in the statute that co-processing may be needed to create transportation fuel.

To that end, we will provide a list of indicative transportation fuels and intermediary components that we believe merit unique emission factor analysis and will endeavour to provide such a list via a separate submission of information to Treasury and the IRS in the next few weeks.

Finally, we request that the table of emissions rates consider several factors, which have a material impact on lifecycle greenhouse gas emissions including:

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<https://www.finance.senate.gov/imo/media/doc/Clean%20Energy%20for%20America%20Act%20-%20Section%20by%20Section.pdf>

- Conversion process technology
- Energy efficiency, heat integration, etc.
- Feedstocks from agriculture cover crops, waste, etc.
- Co products (some of which may be recycled in the facility)
- Energy inputs (heat, power, natural gas) and hydrogen – all of which may be from conventional sources or low carbon alternatives
- Carbon sequestration of process emissions
- Avoided emission analysis to ensure that avoided emissions count in the emission factor analysis (for example, manure handling in a manner that removes ambient air-methane emissions)
- Regenerative agriculture and other low GHG farming practices

Different combinations of these factors deserve recognition in the table of emissions rates, which could be recorded as distinct entries or as incremental benefits vs. a baseline entry for a particular process technology.

#### **Qualified Facility:**

§ 45Z(d)(4)(B)(i) prohibits a taxpayer from claiming the § 45Z, § 45Q and § 45V tax credit on production or sequestration occurring from the same facility. Similar to our request as to how to interpret the term “facility” for purposes of § 45V, we request that Treasury and the IRS to distinguish facilities as being separate and distinct so long as the clean hydrogen and/or carbon capture facilities are not driving a lower emission rate for the transportation fuel claiming the § 45Z clean fuel production credit (that is, that such clean hydrogen and/or carbon capture facilities are not fully integrated with the clean transportation fuel facility).

Alternatively, if the integration of a qualified clean hydrogen production facility with a separate qualified clean fuel production facility prevents taxpayers from obtaining all of the § 45V production tax credits associated with qualified clean hydrogen production, we request that Treasury and the IRS adopt a framework that the § 45V credit can still be claimed for any qualified clean hydrogen produced by a taxpayer that is not used by the same taxpayer as a feedstock to make qualified clean transportation fuels and is utilized for other commercial purposes. This is important as companies may construct clean hydrogen facilities that will be used to partially source feedstocks to produce qualified clean transportation fuels (produced in separate, distinct facilities) but also use such qualified clean hydrogen for other non-transportation fuel commercial activity (for example, to sell qualified clean hydrogen to third party manufacturers of things like fertilizers). We believe such interpretation is warranted because the portion of clean hydrogen that is not being used to produce § 45Z transportation fuel will not or should not influence the emission rate for the clean fuel.

If Treasury and the IRS accept a pro rata means to access Section 45Q, 45V or 45Z , we believe the use of an annual weighted average volumetric calculation to identify sources of qualified clean hydrogen that are not used as a feedstock in the further manufacture of qualified clean transportation fuels can be utilized to properly calculate the amount of § 45V production tax credits, and request that the IRS and Treasury adopt such a simplified approach for such calculation. For example, on a weighted average kilogram basis if 40% of a facility's clean hydrogen is used for purposes other than as a feedstock for transportation fuel then 40% of the credit allowable under § 45V(a) can be claimed by the taxpayer owning both clean hydrogen and clean transportation production facilities.

Finally, we request that Treasury and the IRS clarify the appropriate interpretation of the term “any facility” in § 45Z(d)(4)(B). The statutory language is arguably capable of being interpreted to refer to: (i) one and the same “facility” as referred to in subsection § 45Z(d)(4)(A) (i.e., the facility that is used for the production of the qualifying transportation fuels); (ii) one or more facilities that are owned by the same taxpayer claiming value under the enumerated credit regimes (i.e., §§ 45V or 45Q) or; (iii) any facility in operation that claims value under the enumerated credit regimes (i.e., §§ 45V or 45Q) , irrespective of whether that facility is under common ownership with the taxpayer seeking to claim § 45Z credits (and accounting for the relevant related party rules as set forth in § 45Z(f)(3)). This clarification is needed given our expectation that the clean energy economy will likely result in highly interrelated supply chains and production processes.

**Transportation Fuel:**

§ 45Z(d)(5)(A)(ii) defines “transportation fuel” to include a fuel which is “suitable” for use as a fuel in a highway vehicle or aircraft. The Senate Finance Committee explanation of this sentence states the following:

Fuels must be at least transportation grade – suitable for use in a highway vehicle or aircraft – but may be used for any business purpose, including as transportation fuel, industrial fuel, or for residential or commercial heat.<sup>10</sup>

We note that the definition of “sale” within § 45Z similarly provides that transportation fuel does not need to be used solely for use as a transportation fuel but also for use as a fuel mixture or for use in any trade or business (see § 45Z(a)(4)(A) & (B)).

We therefore request that Treasury and the IRS acknowledge that § 45Z credits can be claimed on “transportation fuel” sold to unrelated persons that is not used or consumed as a transportation fuel. This can be done potentially through

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<https://www.finance.senate.gov/imo/media/doc/Clean%20Energy%20for%20America%20Act%20-%20Section%20by%20Section.pdf>

inclusion of an example wherein a taxpayer is able to claim § 45Z credits via the sale to an unrelated person of a “transportation fuel” used as a power generation source or as a feedstock for the manufacturer of other products (essentially mirroring the language contained in the Senate Finance Committee explanation).

Additionally, we believe it was the intent of Congress to enable certain types of co-processing, for example Fisher-Tropsch wax co-processed into Sustainable Aviation Fuel as explicitly allowed in § 45Z(a)(3)(B)(i)(II), as well as transportation fuels derived from feedstocks, which are not excluded by the list of “Applicable Materials” in § 45Z(d)(5)(B). Several of the emerging technologies in this space involve multi-step processes where raw biomass or waste materials are first converted into a bio intermediate (Fisher-Tropsch wax, pyrolysis oil, etc.), which then requires finishing using units such as those that already exist in refineries today (hydrotreaters, hydrocrackers, fluid catalytic crackers, etc.). While new standalone units can be built for this finishing, it is far more efficient to benefit from the economies of scale at an existing refinery by co-processing those bio intermediates with fossil intermediates. We recommend that in these situations, taxpayers be allowed to calculate the § 45Z credit on a standalone basis for the intermediary product, which is thereafter co-processed to make things like Sustainable Aviation Fuel. We believe this was the intent of Congress and more importantly will accelerate the deployment of clean fuels.

#### **United States:**

§ 45Z(f)(1)(A)Z(ii) requires that the clean fuel production tax credit be limited to transportation fuel produced in the United States (including the “possession” of the United States). See § 45(f)(1)(B). While we believe the statute is clear on this point, we seek confirmation that transportation fuels produced in the United States may contain transportation feedstocks that are produced in a foreign country, imported into the United States and ultimately used to produce a qualifying transportation fuel in the United States.

Moreover, we seek clarification that “producing” in the US does not include blending and/or distillation processes because such activities do not require the fundamental alteration of the fuels produced. Our concern is that taxpayers may undertake substantive transportation fuel “production” in a foreign country, import the transportation fuel into the US wherein they simply undertake blending and/or distillation and unfairly claim § 45Z production tax credits. We similarly seek confirmation that producing in the US does include chemical alteration of feedstocks or intermediates of any origin because such alteration requires meaningful manufacturing and/or refining activity.

#### **Conclusion**

We appreciate the opportunity to submit comments and the opportunity to meet with Treasury and the IRS to discuss these issues further as proposed and

final rules are promulgated. Please reach out to Craig Boals or Andy Porter at [craig.boals@bp.com](mailto:craig.boals@bp.com) and [andrew.porter2@bp.com](mailto:andrew.porter2@bp.com) to discuss.

Respectfully submitted,

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