October 31, 2022

Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-47 and Notice 2022-51)
Room 5203
P.O. Box 7604, Ben Franklin Station
Washington, DC 20044

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Submitted electronically via the Federal eRulemaking Portal

Re: Request for Meeting and Comments on Regulatory Implementation of the Inflation Reduction Act and Sections 45X, 45, 48, and 48E of the Code Pursuant to Notice 2022-47 and Notice 2022-51

Dear Sirs and Madams:

ESS Tech, Inc. (NYSE: GWH) ("ESS") respectfully submits these comments in response to a request from the Department of the Treasury ("Treasury Department") and the Internal Revenue Service ("IRS") in Notice 2022-47 and Notice 2022-51, which solicit comments on certain energy tax provisions in Public Law 117-169, commonly known as the Inflation Reduction Act of 2022 ("IRA").

The IRA represents a historic and groundbreaking investment in U.S. clean energy infrastructure. The IRA provides strong incentives for companies, like ESS, to invest in energy security and climate change solutions while also keeping good-paying energy and manufacturing jobs in America. ESS designs, builds, and deploys American-made environmentally sustainable, low-cost, iron flow batteries for long-duration commercial and utility-scale energy storage applications requiring flexible energy capacity. ESS products are designed for a 25-year operating life without performance degradation, and with minimal annual operational and maintenance requirements. ESS is committed to deploying advanced

American energy storage technology, built by American workers, to support the transition to a clean, decarbonized energy future.

As one of the leaders in American-made flow-state battery technology, ESS provides these comments about the Section 45X Advanced Manufacturing Production Credit, the Section 48 Investment Tax Credit and Clean Electricity Section 48E Credit for Energy Storage Technology, and the additional bonus credit for the Section 48 and Section 48E Credit related to the domestic content provision ("Domestic Content Bonus"). We greatly appreciate the opportunity to comment on these issues through this comment letter.

I. Domestic Content Bonus

a. The Domestic Content Bonus was meant to incentivize American-made products, not products that were made with a de minimis amount of manufacturing in the U.S.

The Domestic Content Bonus presents a unique opportunity for taxpayers to obtain an additional tax credit for sourcing certain American-made products. For energy property placed in service after December 31, 2022, taxpayers that satisfy the Domestic Content Bonus are eligible for up to a 10% increase to certain tax credits (including the Section 48 Credit and the Section 48E Credit) as long as 100% of steel, 100% of iron, and a certain percentage of manufactured products for the project are produced in the U.S. ESS lauds the policy goals of the Domestic Content Bonus and believes that the Treasury Department and the IRS need to issue specific clarifications to ensure that qualifying products are truly American made.

Unfortunately, there is an inherent risk with the Domestic Content Bonus that some taxpayers will try to game the system by performing a de minimis amount of manufacturing or transformation in America in order to qualify for the tax benefit. The risk of companies producing nominally transformative products in America using non-American components is especially acute in the context of Energy Storage Technology. Many batteries, including virtually all lithium-ion batteries and their subcomponents, are made, mined, and produced outside of the U.S. Battery companies may try to perform a de minimis level of manufacturing in the hopes that such manufacturing will transform the battery into being an "American-made" product eligible for the Domestic Content Bonus. ESS strongly believes that the Domestic Content Bonus should only apply to batteries that use materials that are meaningfully sourced, manufactured, and otherwise transformed in the U.S.

b. Components and subcomponents should be manufactured in the U.S.

For purposes of the Domestic Content Bonus, the adjusted percentage of manufactured products depends on the costs "of all such manufactured products of such facility" that "are attributable to manufactured products (including components) which are mined, produced, or manufactured in the United States." Section 45(b)(9)(B)(iii). ESS strongly believes that future guidance needs to clarify that each component and subcomponent must satisfy the "mined, produced, or manufactured in the United States" requirement in the statute. For example, if Product A consists of subcomponent B (which is not mined, produced, or manufactured in the U.S.) and subcomponent C (which is mined, produced, or manufactured in the U.S.), then only the costs associated with subcomponent C should be considered to be mined, produced, or manufactured in the U.S.

In drafting rules as to what a "component" and "subcomponent" means, we encourage the Treasury Department and IRS to look to how a component was defined in the now repealed Section 199 regulations, which generally took an "item-by-item" approach as to what qualified for domestic production gross receipts. Treas. Reg. § 1.199-3(d)(1)(ii) provided that "any component of the property" would in certain cases be treated as an "item," which meant that each component would have needed to separately meet the requirements under the Section 199 regulations. Treas. Reg. § 1.199-3(d)(4), example 10 illustrates this point in the case of a company that manufactures sunroofs, stereos, and tires within the U.S., providing that each component that the company manufactures must be treated as a separate item under those regulations.

ESS encourages a "component-by-component" rule that is similar to the component rule in Treas. Reg. § 1.199-3(d)(1)(ii). This rule would require that each subcomponent and component be mined, produced, or manufactured in the U.S. To the extent that any subcomponent or component is not mined, produced, or manufactured in the U.S., then the costs of such subcomponent or component cannot be combined with the costs of subcomponents that are mined, produced, or manufactured in the U.S.

Additionally, as discussed in greater detail below in Section II, ESS strongly believes that the terms mined, produced, or manufactured in the U.S. should be given a narrow interpretation. If these terms are given a broad interpretation, then companies may attempt to unjustly benefit themselves or their customers by performing a de minimis amount of manufacturing in the U.S. to qualify for the Domestic Content Bonus. The clear legislative intent in the IRA to bring domestic manufacturing back to the United States will only be carried out if the terms mined, produced, or manufactured are given a narrow interpretation.

c. Specific guidance is needed in the context of Energy Storage Technology

Given the high risk of abuse as it relates to tax incentives in the context of Energy Storage Technology, ESS strongly believes that the Treasury Department and the IRS need to clarify that battery cells are separate components from the battery module. For example, even if a battery module was assembled in the U.S., the costs associated with the battery cell should *not* be considered as being mined, produced, or manufactured in the U.S. if the battery cell was mined, produced, or manufactured outside of the U.S. Because the vast majority of battery cells are not mined, produced, or manufactured in the U.S. and the IRS is specifically directed to support American manufacturing investment through the IRA tax credits, ESS strongly believes that guidance is necessary to clarify this point.

Additionally, the proposed regulations should also clarify that if a component is manufactured in the U.S., but a subcomponent is mined or manufactured in a foreign country, that the costs associated with getting the subcomponent to the facility in the U.S. (including transportation and administrative costs of procuring the subcomponent) should be associated with the costs of the subcomponent and not the costs of the component. We recommend that the proposed regulations explicitly provide that such costs must be allocated to the subcomponent that is mined, produced, or manufactured outside of the U.S.

To illustrate these rules, we encourage the Treasury Department and IRS to provide two examples in the context of Energy Storage Technology:

> *Example 1*: X takes a Section 48 Credit for Energy Storage Technology which consists of a battery cell which is mined and produced in the U.S. The battery cell is a subcomponent of a battery module that is manufactured in the U.S. For purposes of determining whether the domestic content activity is satisfied, all costs associated with the Energy Storage Technology will be considered to be mined, produced, or manufactured in the United States.
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> *Example 2*: Same facts as Example 1 except that the battery cell is mined, produced, and manufactured outside of the U.S. For purposes of determining whether the domestic content activity is satisfied, the costs associated with the battery cell (including all transportation and administrative costs of procuring the battery cell to the U.S.) will not be considered to be mined, produced, or manufactured in the United States.

II. Section 45X Credit

a. The Section 45X Credit was meant to incentivize real American manufacturing

The Section 45X Credit is designed to incentivize companies that make American-made clean energy products. A taxpayer can take a Section 45X Credit if it produces an eligible component, the sale of that eligible component is to an unrelated party, the production and sale are in the taxpayer's trade or business, and the production of the eligible component is within the U.S. or a possession of the U.S. As relevant to ESS, the term eligible component includes a qualifying battery component, including a battery cell and a battery module.

Similar to the discussion above about the Domestic Content Bonus, ESS believes there is an inherent risk with this Section 45X Credit that some taxpayers will try to game the credit by performing a de minimis amount of manufacturing and transformation in America. As is the case in the context of the Domestic Content Bonus, the risk of companies producing nominally transformative products in America for purposes of this Section 45X Credit is especially acute in the context of battery cells and battery modules.

b. The terms producer and production should be defined narrowly

The IRA does not provide a statutory definition of what "producer" or "production" means for purposes of the Section 45X Credit. Nevertheless, it is clear from legislative intent that Congress intended to bring back manufacturing jobs to the U.S. while also growing the U.S. energy manufacturing industry more broadly. The IRA was not intended to allow companies to nominally package foreign-made products in a way that satisfies a very broad definition of manufacturing.

ESS is a manufacturer of iron flow batteries in the U.S. – both cells and modules – that utilizes an American supply chain. Manufacturing of battery cells and modules in the United States can and should be accomplished. Without a specific rule that prevents gamesmanship or unjust benefit as it relates to what it means to be a producer or engage in production in the U.S., companies that Congress did not intend to get the Section 45X Credit may otherwise qualify for the credit. ESS encourages the Treasury Department and the IRS to publish rules that drive companies to bring real manufacturing back to the U.S. and prevent companies from nominally manufacturing foreign sourced products in an attempt to get the Section 45X Credit.

The Treasury Department and the IRS should not rely on past guidance to determine what it means to be a "producer" because those other code sections had different policy objectives that contradict the policy goals enumerated in Section 45X. For example, it made inherent sense for the regulations under Section 263A, which requires taxpayers to capitalize direct costs and an allocable share of indirect costs to property they produce, to use a broad definition to encompass as many types of "production" as possible. A broad definition of production in Section 263A was necessary to implement the Congressional policy goals in the statute. The Ninth Circuit, for example, explained that a broad construction of the term "produce" is "necessary" for purposes of Section 263A because "Congress intended a single comprehensive set of rules to govern determination of whether costs should be capitalized, from the moment of acquisition through production and disposition of property." *Suzy's Zoo v. Commissioner*, 273 F.3d 875, 879 (9th Cir. 2001).

The same policy goal here cuts the other way and would encourage a *narrow* construction of the term production for purposes of the Section 45X Credit. Using the definition of production as found in Section 263A (which created a burden on taxpayers who would otherwise expense costs) would be inappropriate for Section 45X (which provides a benefit to taxpayers) because Congress intended for companies to receive the Section 45X credit when they bring back real and substantive manufacturing to the U.S. Simply put, ESS believes the only way to implement the legislative intent of Section 45X is to use a narrow interpretation of the terms producer and production.

As it relates to terms “producer” and “production,” ESS also encourages the Treasury Department and IRS *not* to use terminology that was used in regulations under the repealed Section 199. As relevant here, those regulations provided situations where property that would be manufactured, produced, grown, or extracted by the taxpayer in whole or in significant part within the United States would receive a benefit under Section 199. Courts interpreting these regulations took a very broad view of what would qualify for this deduction, including one district court which held that a taxpayer qualified for the deduction when it assembled gift baskets from goods that it purchased (including chocolate, cookies, candy, wine, or alcohol). *See United States v. Dean,* 945 F. Supp. 2d 1110 (C.D. Ca. 2013). Such an expansive view of the term “producer” and “production”, as used in the Section 199 case law and regulations, is not consistent with the policy goals of the IRA. ESS strongly encourages the Treasury Department and the IRS to use narrower rules than those utilized in other code sections that have defined production in other contexts.

c. The rules for Battery Cells and Battery Modules should explicitly incorporate new technologies like iron flow battery technology

As mentioned above, ESS manufacturers a battery with one-of-a-kind iron flow battery technology. Using raw ingredients of iron, salt, and water (all of which are domestically and responsibly sourced, earth-abundant, and easy to recycle), ESS makes low-cost technology that is also the most environmentally sustainable battery option available today. While we believe that ESS satisfies the statutory definition of “qualifying battery component,” we encourage the Treasury Department and the IRS to consider our unique technology when drafting regulations regarding qualifying battery components of battery cells and battery modules. In particular, ESS hopes that the Treasury Department and IRS will draft rules which include and consider emerging technologies (like iron flow batteries) and which do not focus solely on now-prevailing technologies (like lithium-ion batteries). These differing battery technologies also service different storage duration needs, and the Treasury Department and the IRS should draft rules that support a variety of technologies that support a diverse U.S. energy supply.

d. The term “capacity-to-power” ratio is a commonly used industry term

The Section 45X Credit for battery cells and battery modules is equal to a credit amount *times* the capacity of the battery cell or battery module, not to exceed a “capacity to power” ratio of 100:1. For purposes of this Section 45X Credit, the term “capacity-to-power” ratio is defined as “the ratio of the capacity of such cell or module to the maximum discharge amount of such cell or module.” Section 45X(b)(4)(A). Although the terms capacity-to-power and KWh are well understood within the battery industry, ESS encourages the proposed rules to explicitly measure and track the Section 45X Credit. For example, there is potential for parties to game and unjust benefit from those calculations by submitting an over-reaching claim under this provision.

A few simple, non-burdensome clarifications could address such issues, including a requirement to substantiate the total KWh capacity of a cell or module or a verification to provide capacity to power ratio with testing data performed using generally accepted scientific principles. The proposed regulations should also provide a rule that taxpayers will be subject to an accurate-related penalty if the taxpayer uses a capacity to power ratio that is not supported by generally accepted scientific principles.

e. Guidance is needed to clarify that the term "related person" does not mean certain minority shareholders in the manufacturer

As discussed above, the Section 45X credit is only available if an eligible component is sold to an "unrelated person." ESS strongly believes that the term "unrelated person" should not be overbroad, especially in the context of a sale to a minority shareholder of a public company in the normal course of business. ESS believes the manufacturer should not be excluded from selling to a shareholder if that shareholder has a minority interest and does not effectively control the company. As an extreme example, it would not make sense to preclude a public company like ESS from claiming the Section 45X credit when it sells a battery to a third party that owns one share in the public company.

ESS encourages the Treasury Department and the IRS to look to rules in Section 267(b)(2) for determining when a shareholder and a corporation are related. Similar rules under Section 707(b)(1) should apply in the case of a partnership. We encourage a rule that references Section 267(b)(2) and (3) and provides that an individual shareholder is related only if it owns more than 50% of the value of the outstanding stock of that company or a corporate shareholder if it is in the same controlled group as the company. While line drawing is necessary, ESS encourages the Treasury Department and IRS to utilize Section 267 to clarify the definition of related and unrelated persons.

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Thank you for the opportunity to submit these comments. We welcome the opportunity to meet with Treasury and the IRS to discuss these issues in greater detail and to answer any questions that may arise. If you or your staff would like to discuss the contents of these comments, please contact Aram B. Zamgochian, Senior Director of Strategic Partnerships, at aram.zamgochian@essinc.com.

Respectfully Submitted,

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