November 4, 2022

From: Controlled Thermal Resources Holdings, Inc.
124 West Ninth Street, Suite 101
Imperial, California 92251

To: Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-46; Notice 2022-47; Notice 2022-49; Notice 2022-50)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, DC 2004

Re: Comments to IRS Notices (Requests for Information Related to the Inflation Reduction Act)

Controlled Thermal Resources Holdings, Inc. ("Taxpayer") appreciates the opportunity to comment on the recent Requests for Information contained in Notices 2022-46, 2022-47, 2022-49, and 2022-50 released on October 5, 2022 (the "Notices") related to Sections 30D, 45X, 48, and 6418 of the Internal Revenue Code of 1986, as amended (the "Code"). Taxpayer, through its project companies, provides lithium products and renewable energy (including geothermal energy). For example, taxpayer currently has a project situated within the heart of one of the largest known geothermal resources in the world. Taxpayer also has a geothermal power project in the Salton Sea Geothermal Field in Imperial Valley, California, that represents a proven and defined geothermal power and mineralized brine resource. Taxpayer is committed to delivering sustainable, low-cost lithium products and renewable power to support clean energy initiatives and to ensure a secure and responsible lithium product chain.

Taxpayer and others in the renewable energy industry are supportive of the provisions in and policies behind these sections and believe that with additional clarifying guidance these sections can have a significant impact on and foster rapid growth and expansion in the related areas. Below are comments and questions Taxpayer respectfully submits related to the following sections referenced in the Notices: (1) Section 45X (Advanced Manufacturing Production Tax Credit); (2) Section 48 (Energy Investment Tax Credit); (3) Section 6418 (Transfers of Tax Credits); and (4) Section 30D (Consumer Clean Vehicle Credit).

I. SECTION 45X (ADVANCED MANUFACTURING PRODUCTION TAX CREDIT).

A. Section 45X(d)(2) requires that "production" of components eligible for the advanced manufacturing production tax credit occur within the United States. The precise meaning of this term is not defined in Section 45X. Guidance relating to the meaning of "production" in the United States would add much needed clarity to a fundamental concept in Section 45X. For example, if a project uses some (essentially raw) materials that are not sourced from the United States, will that cause the project to fail this requirement? Such a stringent requirement would seem contrary to the policy goals of Section 45X.

1. We would urge the IRS to use a policy-centric approach that focuses on whether the final production of the component occurs in the United States. For example, the closely-related energy production tax credit described in Section 45 allows for an additional bonus tax credit for qualifying facilities that meet certain requirements related to the amount of steel, iron, or manufactured products produced in the United States and used in the facility.[1] Section 45, governing electricity produced from certain renewable resources, cross references the Buy America rules of the Federal Transit Administration at 49 CFR Part 661 as the basis for determining whether requirements for a domestic content bonus credit amount have been satisfied by sufficient production in the United States. These regulations generally provide that for a product to be considered produced in the United States (i) all of the manufacturing processes for the product must take place in the United States; and (ii) all of the components of the product must be of U.S. origin.[2] In the case of manufactured products that are components of a qualified facility, Section 45 specifically provides that such products are considered to have been produced in the United States if not less than 40% of the total costs of all such manufactured products are attributable to manufactured products (including components) that are mined, produced, or manufactured in the United States.[3] It would be helpful to taxpayers if the IRS provides rules or guidance on Section 45X that are similar to this concept in Section 45. For example, Section 45X could provide that rules similar to those of Section 45(b)(9) should be applied to determine if production of an eligible component has occurred in the United States. We would also suggest that any similar requirements utilize a percentage less than 40% (perhaps 20%) given the nature of the various components involved in certain projects that may try to qualify for this tax credit.

B. Section 45X(b)(1)(M) provides that the amount of the credit for critical minerals is equal to 10% of the "costs incurred by the taxpayer with respect to the production of such mineral." Section 45X does not provide guidance on how such costs should be determined. The lack of guidance creates various uncertainties for taxpayers that could make taxpayers hesitant to utilize Section 45X and limit its effectiveness. For example, can upfront costs to build the related facility (i.e., depreciable costs) qualify as a cost? If so, does that cost need to be spread out in the costs as sales are made or can it be recovered earlier? Can allocated overhead costs (such as the cost of financial and human resources support) from the parent company be considered yearly production costs? Similarly, are the costs of obtaining and maintaining financial capital included in production costs? Are there any other limitations on costs such as certain costs that do not qualify?

1. It would be useful and add certainty to the application of Section 45X if the IRS could provide guidance on the precise meaning of costs. For taxpayers, guidance that allows for the inclusion of the costs of the facility (such as allowing it specifically to be something that can be included in some amount in the cost of the critical minerals sold each year) would be the most beneficial and provide the most benefit to taxpayers. Another and additional option would be to allow for costs of goods sold, return on capital deployed, and depreciation to be include in costs.

[1] Section 45(b)(9)(A) and (B).

[2] These FTA Buy America regulations also provide that a component is considered of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents. A component for these purposes means any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into the end-product at the final assembly location.

[3] Section 45(b)(9)(B)(iii).

C. Notice 2022-47 in section 3.01 question (7) raises the issue of how the IRS will monitor or justify the purity of critical minerals, and how should purity percentages be determined. It also suggests that an independent third party could be required to verify the purity and asks for guidance as to what qualifications should be required of an independent third-party providing such verification.

1. It would be beneficial and have the least burden on taxpayers to allow for self-certification instead of requiring an additional burden of obtaining an independent third-party certification. Specifically, it would be beneficial if any guidance followed industry battery grade standards for determining purity.

2. We also note that in the case of some minerals, such as manganese, the standard purities may be difficult or costly to achieve, and, perhaps, an alternative definition of "mass" could be utilized. In the case of manganese, the industry standard for purity is generally viewed as 99.5%. To achieve 99.7% purity requires additional costs and procedures that do not ultimately add to the usefulness of the manganese or meaningfully advance the underlying policies.

D. Notice 2022-47 in section 3.01 question (1) asks, how should "unrelated person" and "related person" be defined or clarified for purposes of Section 45X(a)(3)(B)(i)?

1. It is not precisely clear what this question is meant to address. Additional clarity related to the substance of this question would be useful for taxpayers. We note that (i) Section 45X(a)(3)(B)(i) allows a taxpayer to make an election to treat a sale of components by such taxpayer to a related person as made to an unrelated person; and (ii) Section 45X(d)(1) provides that for purposes of Section 45X related and unrelated should be determined under the rules of Section 52(b). Is the IRS interpreting Section 45X(d)(1) to not be applicable to Section 45X(a)(3)(B)(i)?

a. It is also not clear whether a sale to a related party (under the special rule of Section 45X(a)(3)(B)(i)), who then might sell the item on to another unrelated person would cause the special rule not to apply. There is nothing specifically in the statute addressing this issue or prohibiting it. Confirmation that such a sale should not be prohibited by Section 45X would be welcome guidance to taxpayers.

2. Guidance would be helpful regarding how taxpayers should navigate and apply the multiple related party limitations of Section 45, Section 45X, Section 707(b), and Section 267 (related to limitation of losses among related parties) in cases in which different related party standards may be applicable.

3. It would also be beneficial for taxpayers if the requirements and form of any election under Section 45X(a)(3)(B) were straightforward and not overly burdensome on taxpayers. For example, a basic form or template for the election that included the pertinent information the IRS requires would be consistent with other elections, such as the pass-through election for historic tax credits and sample FIRPTA certifications (both of which are included in regulations), and useful for taxpayers. Such general information could include public information such as names and addresses of the parties, their EINS, their relationship, the amount of the credit,

any basic transaction details, and a general description of the relevant project or facility. Providing any such information or election after the closing of any related transaction would also limit the burden and any related uncertainty for taxpayers. Any process that requires duplicative information and is time consuming or repetitive on taxpayers may impede the use of this election and the policy goals behind it.

E. Notice 2022-47 in section 3.01 question (2) notes that Section 45X(d)(4) provides that for purposes of Section 45X, a person is treated as having sold an eligible component to an unrelated person if such component is integrated, incorporated, or assembled into another eligible component which is sold to an unrelated person, and asks how should "integrated, incorporated, or assembled" be determined? Further clarification on the meaning of these terms would assist taxpayers in interpreting this provision. For example, these terms could look to how necessary the particular component is to the other component(s) into which it is integrated, incorporated, or assembled. Critical minerals are necessary to create modules, and modules are necessary to create battery packs. Thus, all of these components logically should be considered eligible to be sold as integrated components.

II. SECTION 48 (ENERGY INVESTMENT TAX CREDIT).

A. Notice 2022-49 in section 3.02 question (2)(a) asks if guidance is needed to determine whether an investment credit facility that elects to claim the Section 48 investment tax credit in lieu of the Section 45 production tax credit is subject to all of the requirements of Section 45, including the requirement that electricity generated by the investment credit facility be sold to an unrelated person, and, if so, what factors should the Treasury Department and the IRS consider regarding such guidance?

1. Section 48(a)(5)(C)(ii) provides that a "qualified investment credit facility" in part means any facility which is a qualified facility (within the meaning of Section 45) described in paragraph (1), (2), (3), (4), (6), (7), (9), or (11) of Section 45(d). A general reading of Section 48(a)(5)(C)(ii) indicates that the section is only cross-referencing specific provisions of Section 45(d) and not all of Section 45(d) nor all of Section 45. We believe such a reading would be the most straightforward approach and would not read into Section 48 additional provisions of Section 45 that may not be applicable. As such, we urge the IRS to consider such an approach in any future guidance.

2. In particular, because Section 48 is an investment tax credit (i.e., a credit that should be and is meant to be available if the proper investment is made) we do not believe imposing requirements such as Section 45(a)(2)(B)'s requirement that sales of energy from an investment tax credit facility must be to unrelated persons. We believe reading such a requirement into Section 48 based solely on the language of Section 48(a)(5)(C)(ii) would be improper. It could also limit the ability of certain taxpayers to utilize the incentive. Further, it would seem contrary to projects in which, for example, a taxpayer builds an investment tax credit facility and uses the power or other benefits for itself. Allowing these types of structures and prohibiting others that might involve sales or transfers of power to related parties would appear contrary to the goals of the statute. Specific language in any guidance indicating the requirement of Section 45(a)(2)(B)

does not apply to qualified investment tax credit facilities would go a long way toward adding certainty to the application of Section 48.

III. SECTION 6418 (TRANSFERS OF TAX CREDITS).

A. Notice 2022-50 section 3.02 in question (8) asks, for purposes of preventing duplication, fraud, improper payments, or excessive credit transfers under Section 6418, what information, including any documentation created in or out of the ordinary course of business, or registration, should be required by the IRS as a condition of, prior to, or after any transfer of any portion of an eligible credit pursuant to Section 6418(a)? Suggestions are also requested related to the factors the Treasury Department and the IRS should consider as to when documentation or registration should be required; the documentation or registration the IRS should require for various eligible credits; and any other processes that could be implemented by the IRS to prevent duplication, fraud, improper payments, or excessive credit transfers under Section 6418.

1. It would be beneficial for taxpayers to have limited burdens with respect to the documentation that the IRS may require. Documents such as purchase agreements would be reasonable candidates for the IRS to be able to request as such documents are likely to be part of the ordinary course of business for taxpayers to document these types of transactions. Providing such documentation after the transaction is concluded would also allow taxpayers to be able to consummate such transactions without having to submit anything to the IRS before the transaction closes.

2. Reasonable items of information that could be required to be included in any such documents and/or provided to the IRS via a form or election could include: party names, EINs; applicable tax credits involved; and the amount of the consideration involved (if any).

3. A uniform system of documentation would be preferrable for all credits. This type of process would allow for simplification and standardization for interested taxpayers. Further, the IRS and applicable tax returns do not typically request project level detail be provided.

B. Notice 2022-50 section 3.02 in question (9) asks, what, if any, guidance is needed to clarify the application of the excessive credit transfer provisions of Section 6418? What factors should be taken into account in determining whether reasonable cause exists for purposes of Section 6418(g)(2)(B)?

1. Guidance is needed to calculate the excessive credit transfer amount.

2. Reasonable factors that could be taken into account could include: whether the taxpayer obtained advice from any third party (e.g., attorneys or accountants); whether the taxpayer obtained any valuations of the credit transfer such as an appraisal or cost study; and whether the parties involved were unrelated or otherwise acting in an arm's-length manner.

3. Section 6418(g)(2)(C)(i) says, "the amount of the eligible credit claimed by the transferee taxpayer with respect to such facility or property of such taxable year" when explaining the calculation of the amount of an excessive credit transfer. This language provides

little guidance on how this amount should be determined. Absent additional guidance, taxpayers will find it difficult to interpret or apply this section.

4. Taxpayers would benefit from being provided with specific examples of excessive transfers.

C. It is possible that taxpayers may be interested in transferring multiple different types of tax credits and/or multiple years of tax credits that could be available for a single project.

1. Guidance providing for the bundling of multiple applicable credits into one transfer under Section 6418 with a single set of documentation and elections would provide welcome assurances to taxpayers. Any requirements of multiple sets of documentation and elections for each available tax credit could result in undue additional costs and burdens on taxpayers and projects.

2. Similarly, it may be desirable to taxpayers to structure transfers of multiple years' worth of tax credits in the year of initial transfer. For example, a taxpayer may desire to sell a future year's tax credit prior to the year that the credit is available. Section 6418 does not specifically describe whether bundling multiple years of a credit stream is allowable. Guidance confirming such bundling is allowable and that there is not a limitation on the amount of years' worth of tax credits that can be bundled (other than any overall limitations in the applicable statutory language) would be useful and would align with certain transactions being considered. Guidance relating to how such a transaction should be treated for federal income tax purposes would also be welcome and helpful to taxpayers, noting that Section 6418(b)(2) provides that consideration in such transfers is not included in gross income. For example, should some type of bifurcated or spread out method be used to account for any upfront consideration that may relate to multiple future years of tax credits, or should the full amount of the consideration or some other perhaps present value amount be taken into account in the initial year?

IV. SECTION 30D (CLEAN VEHICLE CREDIT):

A. Section 30D(e)(1)(A) provides that the critical minerals percentage requirement is based on the percentage of the value of the applicable critical minerals.

1. Guidance on how "value" would be calculated is needed for consistency across the industry. For example, does the value of each critical mineral consist only of the purchase price of that mineral? Can it include the price of any processing done by the cell manufacturer at the site of manufacture?

a. Further, any value determination that does allow for the inclusion of all project related costs, not just production, would be preferrable to the industry and allow for maximization of the program.

2. Critical minerals can vary in "value" considerably, based on quality of the material, supplier, date of purchase, quantity purchased, and other factors. What value should be used for the individual critical minerals?

a. Critical minerals can often vary based on the quality of the production, mineral, and producer. Therefore, they are not a standardized commodity that has a uniform price across all markets and applications. Any determination of "value" should take into account these variations and allow "value" to be determined based on the full market price paid for the critical mineral.

B. Section 30D(e) provides, "The requirement described in this subparagraph with respect to a vehicle is that, with respect to the battery from which the electric motor of such vehicle draws electricity, the percentage of the value of the applicable critical minerals (as defined in section 45X(c)(6)) contained in such battery that were 30D(e)(1)(A)(i) — extracted or processed— 30D(e)(1)(A)(i)(I) — in the United States, or 30D(e)(1)(A)(i)(II) — in any country with which the United States has a free trade agreement in effect, or 30D(e)(1)(A)(ii)— recycled in North America, is equal to or greater than the applicable percentage (as certified by the qualified manufacturer, in such form or manner as prescribed by the Secretary)." Section 30D does not define "processed." Guidance would be helpful for taxpayers on the meaning of "process" in this context.

1. Any guidance could look to guidance in the environmental context for a potential definition. For example, in *Envtl. Def. Fund v. Envtl. Prot. Agency*, 852 F.2d 1316, 1327 (D.C. Cir. 1988), the court noted that the EPA concluded that the term "processing" had no standard definition or plain meaning. The court stated, "the statutory term 'processing' does not on its face admit of a standard definition, and because the precise meaning of that term is not fully apparent from the structure of the statute, we must turn to the legislative history of the Bevill exclusion for more precise guidance on Congressional intent." Ultimately, the court held that Congress intended the term "processing" to "include only those wastes from processing ores or minerals that meet the 'special waste' criteria, that is, 'high volume, low hazard' wastes."

2. Following this case, the EPA issued NPRM, 53 FR 41288. In this NPRM the EPA proposed definitional criteria to identify mineral "processing" operations. The EPA interpreted the term "solid waste from the * * * processing of ores and minerals" as referring to "solid wastes, including pollution control residuals, that are uniquely associated with mineral industry operations and that possess the following attributes: (1) Follow beneficiation of an ore or mineral (if applicable); (2) Serve to remove the desired product from an ore or mineral, or beneficiated ore or mineral; (3) Use feedstock that is comprised of less than 50 percent scrap materials (i.e., at least 50 percent of the feedstock is an ore or mineral, or beneficiated ore or mineral); (4) Produce either a final mineral product or an intermediate to the final mineral product; and (5) Do not include operations that combine the product with another material that is not an ore or mineral, or beneficiated ore or mineral (e.g., alloying); fabrication (any sort of shaping that does not cause a change in chemical composition), except for casting or metal anodes and cathodes; or other manufacturing activities."

3. A similar definition in this context would provide a workable definition and context for taxpayers.

V. ADDITIONAL CONSIDERATIONS.

A. Various provisions in the pre- and post-Inflation Reduction Act Sections of the Code reference the concept of when construction on a particular project begins. See, for example, Section 45(b)(6)(B), Section 45(b)(8)(A), Section 45(d), Section 48(a), and Section 48(c). Traditionally when construction begins can be determined based on two methods the so-called "physical work test" and the "5 percent safe harbor."[4]

1. It would add certainty to these programs if the IRS confirmed that these traditional tests for determining if construction has begun still apply to both pre- and post-Inflation Reduction Act transactions where this concept is applicable. Guidance providing safe harbors related to continuing construction after construction begins (e.g., deemed compliance if a project is completed in a certain number of years) and related to including certain offsite activities that can be considered having begun construction would be beneficial and add certainty to the related programs.

2. In the specific case of geothermal projects, there is less guidance and fewer examples of activities that can be considered to have begun construction. Any examples that can be provided of beginning construction through starting physical work of a significant nature related to geothermal projects would aid taxpayers in developing these projects. Potential examples could include construction and installation of pads for the project, foundations, well components, and special fabrication of specialized items necessary for the project (such as tanks, turbines, valves, and structural frames), including any such specialized items the construction of which begins offsite.

B. Are taxpayers prohibited from acquiring a tax credit through Section 6418 in connection with the acquisition of an eligible component or critical mineral and then utilizing that eligible component or critical mineral in their own process to create a separate tax credit eligible property or project? For example, could a taxpayer acquire lithium and the related credit under Section 45X for critical minerals from a producer, and then take that lithium and use it to create cathodes, which could generate a separate tax credit for the taxpayer? Sections 6418 and Section 45X do not contain language explicitly prohibiting or addressing this scenario. Guidance from the IRS confirming such a transaction that otherwise qualifies for Section 6418 and Section 45X is not prohibited from utilizing Section 6418 and/or Section 45X would be welcome and helpful for taxpayers.

C. It is possible that an investment tax credit facility might generate energy that qualifies for a tax credit and then sell such energy to a facility that uses the energy to separately engage in an activity for which a separate production tax credit could apply. Guidance confirming this scenario is allowable would provide comfort to the industry as well as promote the policy goals behind both credit regimes without discouraging one at the expense of promoting another.

* * * *

[4] See, e.g., Notice 2013-29; Notice 2013-60; Notice 2016-31; Notice 2018-59; Notice 2021-41.