

TERRESTRIAL ENERGY USA

July 26, 2023

Project Number: 99902076
TEUSA Letter: #230726

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Submittal of Revision 1 of Technical Report on Uncertainty Quantification Methodology for Calculation of IMSR® Off-Gas Source Term and Withdrawal of Revision 0

The purpose of this letter is to withdraw the letter from Simon Irish to the U.S. Nuclear Regulatory Commission dated 12 May 2023 with the subject "Technical Report on Uncertainty Quantification Methodology for Calculation of IMSR® Off-Gas Source Term," and its associated attachments (ML23139A186). The technical report being withdrawn is replaced by Revision 1, which is attached to this letter.

The contents of the report were prepared for Terrestrial Energy USA by Oak Ridge National Laboratory as part of a cost-shared project funded by Terrestrial Energy USA and the US Department of Energy under Funding Opportunity Number DE-FOA-1817 – "U.S. Industry Opportunities for Advanced Nuclear Technology Development." The project is led by Terrestrial Energy USA with Oak Ridge National Laboratory participating as a collaborator. For reference, the DOE award number for this project is DE-NE0009228.

Portions of the enclosed technical report are proprietary, and TEUSA requests that it be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390. Enclosure 1 provides the proprietary version of the technical report and Enclosure 2 provides the non-proprietary version. An affidavit supporting the withholding request is provided in Enclosure 3.

If you have any questions or need any additional information, please contact Robin Rickman by email at rrickman@terrestrialusa.com or by phone at 646-687-8212 ext. 531.

Sincerely,



David Hill
Chief Technology Officer
Terrestrial Energy USA

D120
NR R

Enclosures:

Enclosure 1: "Uncertainty Quantification Methodology for Calculation of IMSR® Off-Gas Source Term – Revision 1" (Proprietary)

Enclosure 2: "Uncertainty Quantification Methodology for Calculation of IMSR® Off-Gas Source Term – Revision 1" (Non-Proprietary)

Enclosure 3: Affidavit Supporting Request for Withholding from Public Disclosure

CCs

Mo Shams, Director - Division of Advanced Reactors and Non-Power Production and Utilization Facilities (DANU) – Office of Nuclear Reactor Regulation (NRR)

Michael Wentzel, Branch Chief - Advanced Reactor Licensing Branch 2 - DANU–NRR

Lucieann Vechioli Feliciano, Project Manager - Advanced Reactor Licensing Branch 2 – DANU-NRR

AFFIDAVIT

I, David Hill, state as follows:

- (1) I am the Chief Technology Officer of Terrestrial Energy USA ("TEUSA") and have reviewed the information described in paragraph (2) which is sought to be withheld, and I am the authorizing official for TEUSA to apply for its withholding.
- (2) The information sought to be withheld is contained in Enclosure 1 of TEUSA Letter #230726, "*Uncertainty Quantification Methodology for Calculation of IMSR[®] Off-Gas Source Term – Revision 1.*" The disclaimer included in the footer of each page of the technical report refers to paragraph (3) of this affidavit, which provides the basis for the commercially sensitive determination.
- (3) In making this application for withholding of commercially sensitive information of which it is the owner or licensee, TEUSA relies upon the exemption from disclosure set forth in the *Freedom of Information Act* ("FOIA"), 5 U.S.C. Sec. 552(b)(4), and the *Trade Secrets Act*, 18 U.S.C. Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.390(a)(4) for trade secrets (Exemption 4). The material for which exemption from disclosure is here sought also qualifies under the narrower definition of trade secret, within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, *Critical Mass Energy Project v. Nuclear Regulatory Commission*, 975 F.2d 871 (D.C. Cir. 1992), and *Public Citizen Health Research Group v. FDA*, 704 F.2d 1280 (D.C. Cir. 1983).
- (4) The information sought to be withheld is considered commercially sensitive for the reasons set forth in paragraphs (4)b and (4)c shown below. Some examples of categories of information that fit into the definition of commercially sensitive information are:
 - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by TEUSA's competitors without license from TEUSA constitutes a competitive economic advantage over other companies;
 - b. Information that, if used by a competitor, would reduce their expenditure of resources or improve their competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;
 - c. Information that reveals aspects of past, present, or future TEUSA development plans and programs, resulting in potential products to TEUSA;
 - d. Information that discloses trade secrets or potentially patentable subject matter, or both, for which it may be desirable to obtain patent protection.
- (5) To address 10 CFR 2.390(b)(4), the information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by TEUSA, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by TEUSA, not been disclosed publicly, and not been made available in public sources. All disclosures to third parties, including any required transmittals to the NRC, have been made, or must be made, pursuant to regulatory provisions, or to proprietary or confidentiality agreements that provide for maintaining the information in confidence. The initial designation of this

information as commercially sensitive, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in the following paragraphs (6) and (7).

- (6) Initial approval of commercially sensitive treatment of a document is made by the manager of the originating component, who is the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge, or who is the person most likely to be subject to the terms under which it was licensed to TEUSA. Access to such documents within TEUSA is limited to a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by a vice president for technical content, competitive effect, and determination of the accuracy of the commercially sensitive designation. Disclosures outside TEUSA are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary or confidentiality agreements, or both.
- (8) The information identified in paragraph (2), above, is classified as commercially sensitive because it contains detailed information regarding TEUSA's licensing plans.
- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to TEUSA's competitive position and foreclose or reduce the availability of profitmaking opportunities. The information is part of TEUSA's licensing strategy. The development of TEUSA's chosen licensing path comprises a substantial investment of time and money by TEUSA. The precise value of the expertise to use in devising this licensing path is difficult to quantify, but it clearly is substantial. TEUSA's competitive advantage will be lost if its competitors are able to use the results of the TEUSA's experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions. The value of this information to TEUSA would be lost if the information were disclosed to the public. Making such information available to competitors without them having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive TEUSA of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing its licensing strategy.

I, David Hill, affirm that I am the Chief Technology Officer of Terrestrial Energy USA, Inc. (TEUSA), that I am authorized by TEUSA to sign and file with the Nuclear Regulatory Commission the technical report on *Uncertainty Quantification Methodology for Calculation of IMSR® Off-Gas Source Term – Revision 1*, described in TEUSA Letter #230726, that I am familiar with the contents thereof, and that the statements made and matters set forth therein, and in this affidavit, are true and correct to the best of my knowledge, information, and belief.

Executed on the July 26, 2023



David Hill
Chief Technology Officer
Terrestrial Energy USA, Inc.

Notary

Subscribed and sworn to before me this 26th day
of July 2023
MO
Notary Public for Idaho
Residing at BOISE, ID
Comm Exp 3/29/2029

