November 4, 2022

Submitted electronically via the Federal eRulemaking Portal

Re: Request for Meeting and Preliminary Comments of Wärtsilä North America, Inc. on Multiple Treasury and Internal Revenue Service (IRS) Notices Requesting Public Comment on Implementing Key Provisions of the Inflation Reduction Act (IRA) of 2022

To Whom It May Concern:

Wärtsilä North America, Inc. (Wärtsilä) respectfully submits comments on the following Notices:

- Notice 2022-47 – Energy Security Tax Credits for Manufacturing under Sections 48C and 45X
- Notice 2022-49 – Certain Energy Generation Incentives
- Notice 2022-51 – Prevailing Wage, Apprenticeship, Domestic Content, and Energy Communities Requirements under the Act Commonly Known as the Inflation Reduction Act of 2022

Wärtsilä is a global leader in innovative technologies and lifecycle solutions for the marine and energy markets. Wärtsilä emphasizes innovation in sustainable technology and services to help its customers continuously improve their environmental and economic performance. Wärtsilä's dedicated and passionate team of 17,000 professionals in more than 200 locations across 68 countries shapes the decarbonization transformation of industries across the globe. In 2021, Wärtsilä's net sales totaled more than $5 billion. Wärtsilä established its US operations in 1979 through its subsidiary Wärtsilä North America, Inc. and employs more than 900 professionals in 11 regional locations across the United States. In the US, Wärtsilä has an operating portfolio of over 4 GW of reciprocating internal combustion engine (RICE) power plants and 1 GWh of battery energy storage systems (BESS).

If you or your staff would like to discuss the contents of these comments, please contact Karl Meeusen, Director – Markets, Legislative, and Regulatory Policy at karl.meeusen@wartsila.com and David Hebert, Director – Storage Business Development at david.hebert@wartsila.com.

I. Comments on Notice 2022-47 – Energy Security Tax Credits for Manufacturing under Sections 48C and 45X

A. Clarify Advanced Energy Production Credit eligibility of investments applied to existing electricity generation facilities for combusting renewable, low-carbon, and low-emission fuels.

Section 48C(c)(1)(A) states that investments applied to industrial or manufacturing facilities that "…blend any renewable or low-carbon and low-emission fuel, chemical, or product" or "…reduce greenhouse gas emissions by at least 20% through the use of...any other technology designed to reduce greenhouse gas emissions" would be eligible for the Advanced Energy Production Credit. Wärtsilä seeks clarification regarding whether upgrades to electricity generation facilities that enable such facilities to combust blends of up to 100% clean fuels would be eligible for the 48C credit. Currently, numerous electricity providers are faced with investment decisions regarding how to meet demand affordably, reliably, and sustainably. In many cases, fossil-fueled generation resources are the only option to reliably serve demand. However, associated stranded asset risks jeopardize the viability of these investments and consequently compromise reliability when such resources cannot be built. Nevertheless, continued development and deployment of clean fuels, such as hydrogen and its derivatives, and associated combustion technologies mitigate stranded asset risks by enabling existing electricity generation facilities to utilize increasing blends of clean fuels. For example, many equipment manufacturers, including Wärtsilä, have publicly stated 100% hydrogen combustion technologies will be available by 2025. In alignment with the objectives of the IRA, electricity generation facilities should be encouraged to integrate such technologies once available. Classifying investments that convert operations of electricity generation facilities from fossil fuels to clean fuels as eligible for the 48C credit would promote decarbonization, reliability, and affordability through greater adoption of clean fuels.

II. Comments on Notice 2022-49 – Certain Energy Generation Incentives

A. Clarify Clean Electricity Product Credit and Clean Electricity Investment Credit eligibility of electricity generation facilities utilizing clean fuel blends.

Sections 45Y(b)(1)(A)(iii) and (2)(B), 48E state that to be eligible for the Clean Electricity Production Credits and Clean Electricity Investment Credits, qualified facilities must have a greenhouse gas emissions rate that is not greater than zero. Clean, low-carbon fuels such as hydrogen and its derivatives, namely synthetic natural gas, ammonia, and methanol, are emerging technologies that require further demonstration and testing before reaching utility-scale deployment levels. As a result, electricity generation facilities utilizing these clean fuel sources are likely to adopt these fuels incrementally, via blending with existing fossil fuels, such as natural gas or diesel. Whereas current language of the IRA suggests electricity generation facilities that will operate on 100% clean fuels upon commencement of commercial operations would be eligible for either the Clean Electricity Production Credits or the Clean Electricity Investment Credits, the eligibility of facilities utilizing clean fuel blends remains unclear. To maximize the adoption of clean fuels and

promote diversity in electricity generation technologies, Wärtsilä suggests Treasury Department and the IRS clarify the 45Y and 48E credit eligibility for facilities utilizing clean fuel blends. Wärtsilä recommends that facilities utilizing clean fuel blends be eligible for partial Clean Electricity Production Credits and Investment Credits commensurate with the level of decarbonization achieved. For example, an electricity generation facility utilizing 20% hydrogen / 80% natural gas by volume blend decreases carbon dioxide emissions by approximately 7% and would therefore be eligible for 7% of the total Clean Electricity Production Credit.[1] Providing clean fuel blending incentives will facilitate incremental decarbonization of existing fossil fuel powered generation.

Moreover, Section 45Y(b)(2)(C)(i) requires the Secretary to annually publish a table that sets forth the greenhouse gas emissions rates for types or categories of facilities. Following the recommendation to provide incentives for facilities utilizing clean fuel blends, Wärtsilä requests the Treasury Department and IRS detail the emissions rates for hydrogen, as well as its derivatives. Specifically, the published tables should include emissions rates for hydrogen, ammonia, methanol, and synthetic natural gas. In accordance with the above comments that suggest partial Clean Electricity Production Credits for facilities utilizing clean fuel blends, these tables should detail emissions rates at various volumetric or energy blends with fossil fuels. For example, emissions rates for hydrogen / natural gas blends in 10% increments between 10% and 100% hydrogen by volume.

III. Comments on Notice 2022-51 – Prevailing Wage, Apprenticeship, Domestic Content, and Energy Community Requirements under the Act Commonly Known as the Inflation Reduction Act of 2022

A. Clarify the eligibility for domestic content exemptions by publishing an official list of eligible components.

The IRA states that steel, iron, and manufactured products incorporated into a qualified facility must be 100% produced in the United States, with exceptions if: 1) the inclusion of steel, iron, or manufactured products that are produced in the United States increases the overall costs of construction of qualified facilities by more than 25 percent, or 2) relevant steel, iron, or manufactured products are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality. Preliminary market estimates suggest that the existing domestic supply of battery cells and inverters, for example, would qualify for such exceptions. However, to avoid ambiguity, Wärtsilä recommends that Treasury and the IRS publish an official list of common components that would qualify for domestic content exceptions.

B. Clarify: 1) the domestic content calculation methodology for specific manufactured products used as components of a facility, and 2) how the domestic

[1] Noussan, Michel, et al. "The role of green and blue hydrogen in the energy transition—A technological and geopolitical perspective." *Sustainability* 13.1 (2020): 298.

content determination for an individual component factors into the determination of whether at least the adjusted percentage of the total costs across all manufactured products of a facility are attributable to the United States.

It is unclear whether domestic content requirements are based on the weighted cost of the components and subcomponents and their country of origin or an "all-or-nothing" determination. Additionally, further clarification is necessary regarding which components or subcomponents would be considered in the domestic content calculation. For example, Wärtsilä's reciprocating engine and battery storage technologies contain various subcomponents which are sourced abroad but are transported and assembled into a final product at their destination. However, engines and batteries are just one component of electricity generation/storage facilities that include many other balance of plant or balance of system components, including generators, inverters, transformers, and other ancillary equipment. Furthermore, Treasury and IRS should clarify whether labor is a component in domestic content calculations. Labor costs constitute a significant portion of total project costs, and if domestic labor is used, it would be reasonable to assume those costs should be included in the calculation for the manufacturing or assembly process for different components as well as the facility as a whole.

IV. Conclusion

Wärtsilä thanks the Treasury Department and IRS for the opportunity to provide these comments on the implementation of the IRA's Clean Energy Tax Incentives and looks forward to collaborating with the Treasury Department and IRS in successfully implementing the various provisions of the IRA.

Respectfully submitted,

/s/ David Hebert

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