Notice of Intent and Request for Information regarding establishment of a Program to Use Defense Production Act to Support Electric Heat Pump Manufacturing and Deployment

DATE: November 2, 2022

ACTION: Notice of Intent (NOI); Request for Information (RFI).

DESCRIPTION: The U.S. Department of Energy (DOE) and the Office of Manufacturing and Energy Supply Chains (MESC) is issuing this NOI to notify interested parties of its intent to support domestic manufacturing of electric heat pumps using Title III of the Defense Production Act (DPA) and to describe the proposed funding approach for participation by eligible entities in the electric heat pumps industry. DOE also seeks comment from all stakeholders through this RFI regarding the application process, examples of eligible projects, potential funding sizes required, and criteria for qualification and selection of eligible projects to participate in the electric heat pumps DPA program. The Inflation Reduction Act (IRA) appropriated $500 million to carry out DPA activities, which will remain available until September 2024. DOE will use $250 million of the appropriated DPA funds to support manufacturing and deployment of electric heat pumps. Electric heat pumps are one of the technologies for which the President issued a determination under the DPA on June 6, 2022.

DATES: Responses will be reviewed and considered on a rolling basis but are due no later than 5:00 p.m. (ET) on December 2nd, 2022.

ADDRESSES: Interested parties may submit comments electronically to: dpaheatpump@energy.gov and include "NOI/RFI: Heat Pump Defense Production Act" in the subject line. Email attachments can be provided as a Microsoft Word (.docx) file or an Adobe PDF (.pdf) file, prepared in accordance with the instructions in the document. Attachments with file sizes exceeding 25MB should be compressed (i.e., zipped) to ensure message delivery; however, no email shall exceed a total of 45MB, including all attachments. Please refer to the Confidential Business Information section at the end of this document on how to submit business sensitive and/or confidential information.

FOR FURTHER INFORMATION CONTACT: Requests for additional information and questions about the NOI and the RFI may be addressed to Tsisilile Igogo at 240-278-5471 or dpaheatpump@energy.gov.

I. Background

In June 2022, President Biden issued five determinations under the Defense Production Act (DPA), including a presidential determination to allow DOE to use its delegated DPA authorities to expand the domestic production capability for electric heat pumps.[1] In early October 2022, DOE issued a Request for Information (RFI) to determine how best to leverage the authority invoked by President Biden to accelerate domestic production of four of the five technologies that received Presidential Determinations under Title III of DPA.[2] This joint notice of intent

[1] https://www.whitehouse.gov/briefing-room/presidential-actions/2022/06/06/memorandum-on-presidential-determination-pursuant-to-section-303-of-the-defense-production-act-of-1950-as-amended-on-electric-heat-pumps/
[2] https://www.energy.gov/mesc/defense-production-act-request-information

(NOI) and RFI focuses on electric heat pumps, the fifth technology that received a Presidential Determination.

U.S. manufacturing output of electric heat pumps, which include ground-source and air-source heat pumps as well as both space heating and water heating equipment, is not yet at the rate or volume needed to fully achieve U.S. climate and energy security goals. Buildings, homes, offices, schools, hospitals, military bases, and other critical facilities drive more than 40% of all U.S. energy consumption. U.S. energy supplies are largely dependent on fossil fuels, and fossil fuels remain susceptible to geopolitical impacts from nations that are not U.S. strategic partners or allies.

Electric heat pumps are industrial resources, materials, or critical technology items essential to the national defense. Increased usage of electric heat pumps, especially where they replace fuel oil for air and water heating, will allow the United States to reduce its reliance on fossil fuels, including from adversaries, and thus strengthen U.S. energy security and national defense. Electric heat pumps also allow consumers and businesses to slash energy use and costs and reduce climate risks. Recognizing this need, both the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL), and the Inflation Reduction Act (IRA) included incentives that will help increase demand for heat pumps in the new building and retrofit markets. Some of the relevant BIL[3] and IRA[4] provisions include:

- IRA §50122 includes $4.5 billion for high-efficiency electric home rebates of up to $8,000 – administered by states.

[3] https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf
[4] https://www.congress.gov/117/bills/hr5376/BILLS-117hr5376enr.pdf

- IRA §13301 includes residential tax credits (Section 25C) of 30% for efficient heat pumps, up to $2,000 in value.
- IRA §50131 includes $1.2 billion while BIL §309) include $225 million, in a total of 1.2 billion for new building code support, including Zero Energy Codes, which will drive heat pump demand in new construction.
- IRA §50123 includes $200 million for home retrofit workforce training.
- IRA §50161 includes $5.8 billion for deployment of emissions reduction technologies at industrial facilities.
- Funding/incentives for domestic manufacturing of clean energy technologies, such as the advanced energy manufacturing and recycling grant program (BIL §40209) and 48C tax credit program (IRA §13501), though these are not tech-specific (i.e., heat pump manufacturing would not be guaranteed direct support).

The IRA also appropriated $500 million to carry out the DPA, and $250 million of that amount was allocated to the Department of Energy for Title III of the DPA to support the increased manufacturing needed to meet the anticipated growing demand for electric heat pumps. DPA resources could help scale up U.S. heating, ventilation, and air conditioning (HVAC) and water heating (WH) manufacturing; accelerate installation of high-efficiency electric heat pumps in homes, qualified buildings, and industrial settings; and complement investment coming through other BIL and IRA provisions described earlier.

BIL includes the Build America, Buy America Act (BABA), which establishes a domestic preference for infrastructure projects for applicable entities.[5] BABA requires that all manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation. In keeping with the Administration's goals to maximize the use of products produced in the United States, domestic heat pumps that meet or exceed the component standard are encouraged.

Community engagement will be an integral part of the electric heat pump DPA program's design and implementation, consistent with the Administration's commitments to ensure that overburdened, underserved, and underrepresented individuals and communities have access to federal resources, and that no one is left behind in the energy transition.[6] Thus, projects funded through DOE's DPA authority will include equity, labor, environmental, and energy justice principles and priorities. In keeping with the Administration's goals to create economic prosperity, DOE intends to use this program to support the creation of good-paying jobs, to lower energy costs for American families and businesses, and to support workforce development

[5] The new Buy American requirements are in Division G – Other Authorizations; Title IX – Build America, Buy America of the IIJA, sections 70901-70952. For more information regarding the implementation of the Buy America preference see M-22-11, Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure.

[6] *See* EO 13985, Advancing Racial Equity and Support for Underserved Communities; EO 14020, Establishment of the White House Gender Policy Council; and EO 14008, Tackling the Climate Crisis at Home and Abroad.

needed to enable the manufacturing of electric heat pumps, especially registered apprenticeship and quality pre-apprenticeship opportunities.

II. Purpose of NOI and RFI

DOE is seeking opportunities to maximize the use of the resources provided by the IRA to strengthen the supply chain for electric heat pumps needed to meet anticipated growing demand of electric heat pumps and national objectives. The NOI describes the proposed funding approach to eligible entities in the electric heat pump industry, while the RFI seeks public information regarding the application process, examples of eligible projects, potential funding sizes required, and criteria for qualification and selection of eligible projects to participate in the electric heat pump DPA program. The RFI includes questions based on DOE's proposed approach, as well as other matters relevant to the program design and implementation of the electric heat pump DPA program. **This NOI and RFI is a general solicitation for public input.** DOE may issue a funding opportunity announcement (FOA) as described herein, may issue a FOA that is significantly different than what is described herein, or may not issue a FOA at all.

III. DPA Authorities to Support Electric Heat Pumps

Under Section 303 of the DPA,[7] DOE has been delegated the authority to use the following DPA tools to support domestic manufacturing of electric heat pumps:

i. **Purchases:** This would entail using DPA funds to support purchase of manufacturing equipment at domestic industrial facilities, or materials or final products produced by

[7] https://uscode.house.gov/view.xhtml?path=/prelim@title50/chapter55&edition=prelim

manufacturers. This would allow manufacturers to expand their productive capacity or increase production efficiency. For example, DOE could purchase equipment to help HVAC or water heating manufacturers more rapidly expand electric heat pump production lines.

ii. **Purchase Commitments**: This would entail a commitment from the DOE to purchase critical materials from the manufacturing company, including components and final products. These products or materials could then be used in government projects, stockpiled, or could be resold. The purchase commitment would provide demand certainty to U.S. producers once production commences. For example, DOE could use DPA funding to commit to buy electric heat pumps and heat pump water heaters that can be installed through weatherization programs.

iii. **Financial Assistance:** DPA funds could be used to provide direct capital or to cover material costs that would support domestic producers in expanding or building new capacity. This would enable manufacturers to restart idled capacity, expand production lines, build new facilities, retool production lines, or buy materials needed for production. For example, DOE could provide assistance to a manufacturer to develop, expand or retool a production line for electric heat pumps. These upfront capital grants are different than ongoing operating subsidies, which are described under (iv) below.

iv. **Making subsidy payments:** Subsidy authority would require the President or, pursuant to Executive Order 13603, the Secretary of Energy to make certain findings regarding the supply of materials from high-cost sources and the cost of transportation. If those findings are made, this could involve making subsidy payments for domestically produced materials, thus lowering the cost of manufacturing, which can be passed along

to the consumer. In this context, subsidies are different from the financial assistance described under (iii) above; subsidies would provide an ongoing operating incentive to reduce costs. For example, DOE could provide per-unit subsidies of U.S.-manufactured geothermal and air-source heat pumps, and heat pump water heating equipment to offset first-cost barriers to adoption.

IV. Notice of Intent

In this section, DOE identifies the proposed funding approach for the $250 million DPA investment, accounting for the anticipated need and the clean energy investments already provided by the BIL and the IRA.

A. Proposed Electric Heat Pump Solicitation Process

DOE proposes to conduct a competitive solicitation for eligible projects as detailed herein. The solicitation will target domestic Original Equipment Manufacturers (OEMs) of electric heat pumps and/or heat pump system components.

i. **Solicitation Announcement**: Following review and consideration of comments received in response to the RFI issued herewith, DOE proposes to issue an open solicitation seeking applications for eligible projects. The solicitation will include detailed requirements for applications, merit review considerations, and application forms to be submitted to DOE.

ii. **Electric Heat Pump Solicitation:** DOE currently intends to issue a solicitation that would be limited to applicants seeking financial assistance for up to 50% of the cost (award size of up to $50 million) of creating or expanding domestic capacity for electric

heat pump production including both ground-source and air-source heat pumps and their associated equipment (as well as workforce capacity) as well as heat pump water heaters. Eligible projects would have to commence production no later than December 31, 2025.

iii. **Timeline**: DOE expects its first solicitation will be issued in early 2023. The solicitation will include a deadline for applications and will provide an approximate timeline for DOE's selection process.

B. Program Structure and Criteria

The electric heat pump program will focus on provision of up to $250 million in financial assistance to support manufacturing of electric heat pumps and heat pump components. The program will be coordinated and administered by MESC.

Award

Pursuant to Section 30001 of the IRA, DOE must obligate funds by September 30, 2024. The electric heat pump program is expected to offer financial assistance for up to 50% of the cost (with anticipated Federal award size of up to $50 million) for activities to **create or expand** domestic industrial capabilities for electric heat pumps. These levels are conceptual and may be informed further by the public comments received in response to the RFI herein as described in the later sections of this document.

Award Instrument

DOE intends to establish an electric heat pump grant program under which awards will be made on a competitive basis to eligible entities that satisfy the project criteria, as described herein but subject to change based on public comments received from this RFI.

Eligible Projects

Eligible projects would include new manufacturing facilities or production lines, retooling or upgrades of old production lines, and workforce development. The list of eligible projects include the following focus areas:

i. **New domestic production facilities projects** for heat pumps (air- or ground-source), heat pump water heaters, or heat pump system components where domestic production would address a clear supply-chain vulnerability. This focus area includes **investment in workforce needed to support manufacturing** through partnerships with labor unions and other workforce groups, apprenticeship programs, and pre-apprenticeship programs.

ii. **Renovation of existing production facilities projects** to transition from manufacture of other HVAC systems or water heating equipment that use fossil energy to produce electric heat pumps, heat pump water heaters, or heat pump system components. This focus area includes **investment in workforce that can transition to support manufacturing of electric heat pumps** through partnerships with labor unions and other workforce groups, apprenticeship programs, and pre-apprenticeship programs.

The list of eligible projects may be further informed by and altered in response to comments received in response to the RFI described in the later sections of this document.

Project Selection criteria

The selection criteria include:

1. Feasibility of beginning manufacturing no later than December 31, 2025.

2. Extent and reasonableness of the potential market for the manufactured product.

3. Strength of the supply chain to support production of the projected market share, as supported through supply chain analysis and supporting mitigation strategies for supply chain vulnerabilities, risks, or issues revealed.

4. The degree to which manufactured products can meet Build America, Buy America Act requirements with the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States being greater than 55 percent of the total cost of all components of the manufactured product.

5. Projected contribution to energy security, including consideration of:

    a. Proposed applications (e.g., residential, commercial, district heating, or industrial use)

    b. Extent of reduction in energy use, cost, fossil fuels, and greenhouse gas emissions, including projected equipment performance in regions reliant on propane/heating oil (especially cold climates)

    c. The use of refrigerants with low global warming potential (GWP)

    d. Extent to which equipment produced will help meet demand for IRA tax credits, rebate programs (Sections 50121 and 50122), and other federal, state and utility incentives for efficient equipment

    e. The ratio of manufacturing capacity added relative to federal funding

6. Speed of facility construction/retooling to first production

7. Presence of a Community Benefits Plan that addresses community and stakeholder outreach; community benefits and, in particular, benefits to disadvantaged communities and underrepresented groups through the Justice40 Initiative[8]; labor and workforce commitments; and diversity equity, inclusion, and accessibility (DEIA).

8. Extent of positive project impacts to the local economy, including high-quality job-creation potential and benefits for low or moderate-income households. Relevant information could include:

    a. Wages and fringe benefits offered to workers.

    b. Existence of a labor neutrality agreement, or other indication that workers will have a free and fair chance to join a union.

    c. The number of new workers (if any) that the applicant would plan to hire if funding was awarded, as well as starting wages and fringe benefits for those workers.

    d. Information on any local hiring goals, including DEIA strategies, and goals for hiring displaced workers or workers from historically underserved population groups and communities.

    e. Approaches to implement Justice40 priorities with disadvantaged communities.

    f. Information on training that would be provided to new or incumbent workers if funding were awarded.

[8] https://www.energy.gov/diversity/justice40-initiative

9. Ability to anticipate and mitigate any negative social and environmental impacts related to the development, operation, and supply chain on local communities, particularly disadvantaged communities, as demonstrated through a Community Benefits Plan.

10. Participation in a registered apprenticeship program, quality pre-apprenticeship program, and/or labor-management training partnership.

11. Sufficiency of the plan to engage labor and community stakeholders, including leadership in historically underserved communities, underrepresented groups, racial minorities, women, and relevant labor unions and Tribal organizations to enable training and employment opportunities.

12. Presence of or commitment to an enforceable negotiated agreement to provide these benefits to communities, labor, and/or Tribes.

13. Extent of outreach and accessibility of training or career development to groups and communities who are traditionally underserved.

The list of selection criteria may be further informed by comments received in response to the RFI as described in the later sections of this document.

V. Request for Information

DOE seeks comments to best understand the needs, concerns, and challenges related to supply chains of electric heat pumps and how DOE can best use its DPA authorities to support the private sector, workers, and communities to secure and strengthen manufacturing and deployment of electric heat pumps to ensure current and future energy and national security. Particularly, DOE

seeks comments on the application process, examples of eligible projects, potential funding sizes required, and criteria for qualification and selection of eligible projects to participate in the electric heat pumps DPA program.

Specifically, DOE is interested in gathering relevant information in the following areas, with the first area focused on IRA funding and the other areas focusing on collecting general public input on how DOE can use DPA authority provided by the President[9] to accelerate manufacturing of electric heat pumps:

i. Open Solicitation

ii. Domestic Manufacturing, Including Small and Medium-Sized Scale

iii. American Workforce Investment

iv. Energy Equity, Community Access, and Economic Benefit

Comments are encouraged from, but not limited to, industry, researchers, academia, federal agencies, state and local governments, Tribes, utilities, labor unions, environmental organizations, environmental and energy justice organizations, and other interested members of the public. Respondents may provide input regarding one, some, or all the topic areas below. It is fine to skip questions.

[9] https://www.whitehouse.gov/briefing-room/presidential-actions/2022/06/06/memorandum-on-presidential-determination-pursuant-to-section-303-of-the-defense-production-act-of-1950-as-amended-on-electric-heat-pumps/

A. Open Solicitation

1. **Solicitation Announcement**: Based on what is described in the NOI, are there additional specific issues that the solicitation announcement should include?
2. **Electric Heat Pump DPA Solicitation:** Based on what is described in the NOI, what are the potential positive and negative impacts of limiting the solicitation to projects that can commence production or manufacturing no later than December 31, 2025? What is the ideal length of time needed to get your project to first production?
3. **Timeline**: Based on what is described in the NOI, is there an ideal length of time that you believe will be required to prepare a proposal to DOE from the date the solicitation is announced?
4. **Award:** Based on what is described in the NOI, do you believe award sizes of up to $50 million of Federal funds (matched by the recipient) for activities to **create or expand** domestic industrial capabilities for electric heat pumps is sufficient? If not, what should be the appropriate maximum, and why? Should award maximums be different for each focus area for eligible project?
5. **Award instrument:** Based on what is described in the NOI, do you think financial assistance is the right DPA tool needed to support manufacturing of electric heat pumps? If not, please answer Question 12 below.
6. **Eligible projects:** Based on what is described in the NOI, do you agree with the list of proposed projects that could be supported by DPA funding? If not, please provide reasons why for each of the proposed projects listed below. Please answer Question 13 below for additional projects that you believe will be more relevant. The current list includes:
    a. New domestic production facilities projects including workforce investment; and

b. Renovation of existing production facilities projects, including workforce investment;

7. **Project Selection criteria:** Based on what is described in the NOI, do you agree with the list of selection criteria that would be used to qualify projects for electric heat pump DPA funding? Please list selection criteria that you believe may limit the expansion of electric heat pump manufacturing and why. What additional criteria/requirements/procedures should the government consider for selecting qualifying projects, and why?
8. **Project Selection criteria:** When considering selection criteria, how should DOE evaluate eligible projects that meet several criteria? What additional information should DOE seek from applicants and include in evaluation to help simplify this evaluation process? What metrics and methods are available for conducting such evaluations?
9. **Program structure:** Is there anything else to be aware of as DOE designs potential implementation of electric heat pump DPA funding to support U.S manufacturers, developers, and installers?

B. Domestic Manufacturing, Including Small and Medium Sized Manufacturers (SMM)

10. How do you anticipate the U.S. market for heat pumps will grow in the coming years? In what segment (commercial, residential, industrial) do you anticipate the greatest challenges to meeting new demand?
11. How much new/retooled capacity is needed to ensure domestic production meets new domestic demand expected from new Inflation Reduction Act funding? Please account for the impacts of the Inflation Reduction Act.

12. List the greatest barriers (e.g., financing or market constraints) that DPA tools described in the background can help address in the following areas:
    a. U.S. manufacturing of electric heat pumps:
    b. Deployment of electric heat pumps:
13. Which DPA tool(s) and contracting vehicles would best help address the barriers identified in Question 12 above, to strengthen U.S supply chains: purchases, purchase commitments, financial assistance, subsidy payments, or other (e.g., use of Other Transactions Authority or a Partnership Intermediary Agreement)?
14. Building on answers to Question 6 above, which electric heat pump project type(s) do you think will have the greatest social and economic impacts to the United States, including strengthening supply chains? If possible, identify specific DPA authorities that you think may be more favorable to support proposed project type(s), and, where possible, please indicate the level of investment needed. Please add rows for multiple entries as needed.

Project	**DPA tool(s)**	**Project impact**	**Level of investment (total cost of the project in U.S. dollars)**	**Other policy tools needed to support selected DPA tools**
Identify a project type that can be supported by DPA tools (e.g., manufacturing of X material or component for electric heat pump)	*Identify possible DPA tool(s) that could be applied to this project (e.g., purchases; purchase commitment; financial assistance)*	*Identify the impact this project will have (e.g., add X production capacity, create X jobs, lower cost of energy by X dollar amount etc.)*	*Identify the ideal investment level needed for this project*	*Identify complementary policies or programs (e.g., provision in Bipartisan Infrastructure Law, CHIPS Act, and Inflation Reduction Act) that would support selected DPA tool(s)*

15. Which project type(s) do you think DOE can leverage DPA authorities to **attract foreign companies and foreign direct investment** to the United States? Please fill out the chart below and add rows for multiple entries as needed.

Project	**DPA tool(s)**	**Project impact**	**Level of investment (total cost of the project in U.S. dollars)**	**Other policy tools needed to support selected DPA tools**
Identify a project type that can be supported by DPA tools (e.g., manufacturing of X material or component for electric heat pump)	*Identify possible DPA tool(s) that could be applied to this project (e.g., purchases; purchase commitment; financial assistance)*	*Identify the impact this project will have (e.g., add X production capacity, create X jobs, lower cost of energy by X dollar amount etc.)*	*Identify the ideal investment level needed for this project*	*Identify complementary policies or programs (e.g., Bipartisan Infrastructure Law, CHIPS Act, and Inflation Reduction Act) that would support selected DPA tool(s)*

16. Which project types should electric heat pump DPA funding prioritize in supporting U.S manufacturers? Where possible, please identify the level of investment needed. What criteria should DOE use to select these projects? Please fill out the chart below and add rows for multiple entries as needed.

Project	**Manufacturing project impact**	**DPA tool (s)**	**Level of investment (total cost of the project in U.S. dollars)**	**Selection criteria**
Identify a project that can be	*Identify possible DPA tool(s) that*	*Identify the impact this project will*	*Identify the ideal*	*Identify the criteria that*

Project	**Manufacturing project impact**	**DPA tool (s)**	**Level of investment (total cost of the project in U.S. dollars)**	**Selection criteria**
supported by DPA tools (e.g., manufacturing of X material or component for electric heat pump)	*could be applied to this project (e.g., purchases; purchase commitment; financial assistance)*	*have (e.g., add X production capacity, create X jobs, lower cost of energy by X dollar amount etc.)*	*investment level needed for this project*	*DOE should consider in selecting this type of project*

17. Which project type(s) do Small & Medium Sized Manufacturers (SMMs) have capabilities or the most potential to grow their impact if supported by DPA funding? Please fill out the chart below, add multiple rows per project type as needed.

Project type	**SMM capability**	**Status of SMM capability**	**DPA tool(s)**	**Other policy tools needed to support selected DPA tools**
Identify a project relevant to SMM that can be supported by DPA tools (e.g., manufacturing of X material or component for electric heat pump)	*List SMM capability(ies) needed for this project*	*Specify whether this capability is "existing" or "needs to be built"*	*Identify possible DPA tool(s) to support SMM capability(ies) (e.g., purchase; purchase commitment; financial assistance)*	*Identify complementary policies or programs (e.g., Bipartisan Infrastructure Law, CHIPS Act, and Inflation Reduction Act) that would support selected DPA tool(s)*

18. What are the top three barriers that U.S. Small & Medium Manufacturers (SMM) face that DPA tools combined with other government policy tools can help address? Please fill out the chart below for technology(ies) for which you are providing input, and add rows as needed.

Project type	**SMM Barriers**	**DPA tool(s)**	**Other policy tools needed to support selected DPA tools**
Identify a project relevant to SMM that can be supported by DPA tools (e.g., manufacturing of X material or component for electric heat pump)	*Name one or more barriers inhibiting SMM participation growth in identified electric heat pump manufacturing project*	*Identify possible DPA tool(s) that could be applied to address barrier(s) (e.g., purchase; purchase commitment; financial assistance)*	*Identify complementary policies or programs (e.g., Bipartisan Infrastructure Law, CHIPS Act, and Inflation Reduction Act) that would support selected DPA tool(s)*

19. Historically, what barriers have U.S manufacturers of electric heat pumps faced in accessing federal support? What technical assistance or other support can DOE provide to overcome these barriers?
20. What are barriers to designing, manufacturing, and using refrigerants with low global warming potential (GWP) in electric heat pumps? What are potential interactions with new equipment efficiency standards and Inflation Reduction Act incentives?
21. Is there anything else to be aware of as DOE designs implementation of DPA tools to support U.S. electric heat pump manufacturers?

C. American Workforce Investment

22. What workforce training programs or partnerships (for instance, employer/community college/labor consortia, on-the-job training, private sector training providers, sector strategies) do you think will be useful to support creation of workforce need for electric heat pump manufacturing and installation? What unions, worker groups, economic development centers, professional societies, community-based organizations, (post)secondary education facilities, and other stakeholders could be valuable partners in these training activities? Please fill out the chart below and add rows as needed.

Electric heat pump Project	**Labor skills need**	**Training programs/ partnerships to address need**	**Key Partners**
Identify a project that can be supported by DPA tools (e.g., manufacturing of X material or component for electric heat pump)	*List the labor skills needed to support manufacturing or installation of electric heat pumps*	*Identify training programs and type of partnerships needed to address these labor skills e.g., apprenticeship training program*	*Identify the key partners needed*

23. What specific labor standards and project selection criteria should guide the federal government in deciding which manufacturing firms benefit from electric heat pump DPA funding? These might include worker wages and benefits, access to unions, training opportunities, labor-management training programs, health and safety committees, or recruitment programs. What kinds of programs or partnerships do you participate in (or would you recommend) to support worker recruitment and retention in electric heat pumps?

24. Is there anything else to be aware of as DOE designs implementation of the electric heat pumps DPA program to support the creation of high-quality jobs and high-road workforce development needed for electric heat pump industry?

D. Energy and Environmental Justice, and Economic Benefit

25. Which project types should electric heat pump DPA funding prioritize to assist underserved and underrepresented individuals and communities around the United States in obtaining the benefits of electric heat pumps? What criteria should DOE use to select these projects? Please fill out the chart below and add rows for multiple entries as needed.

Project	**Manufacturing project impact**	**DPA tool (s)**	**Level of investment (in U.S. dollars)**	**Selection criteria**
Identify a project that can be supported by DPA tools (e.g., manufacturing of X material or component for electric heat pump)	*Identify possible DPA tool(s) that could be applied to this project (e.g., purchases; purchase commitment; financial assistance)*	*Identify the impact this project will have (e.g., add X production capacity, create X jobs, lower cost of energy by X dollar amount etc.)*	*Identify the ideal investment level needed for this project*	*Identify the criteria that DOE should consider in selecting this type of project*

26. How can electric heat pump DPA funding provide the greatest opportunity to create broad regional economic benefits including economic diversification, tax revenues, and economic cluster effects?
27. How can electric heat pump DPA funding encourage reuse/leverage existing industrial infrastructure?

28. How can electric heat pump DPA funding support creation of "regional clusters" of electric heat pump manufacturing in underserved communities and communities where the economy is currently highly dependent on fossil fuel production (such as coal communities) to transform their economy in the next 5 to 10 years? If possible, please include information explaining your answer.
29. How could securing the national supply chain and increasing manufacturing and deployment of electric heat pump impact underserved, overburdened, and frontline communities ("disadvantaged communities")?
    a. What could be the positive impacts of electric heat pump manufacturing projects supported by DPA authority? (For example: jobs, community enrichment development, research opportunities).
    b. What could be the negative impacts of electric heat pump manufacturing projects supported by DPA authority, and how can DOE alleviate these negative impacts? (For example: pollution, potential exacerbation of existing harms to communities hosting these industries).
    c. Are there any legal, policy, economic, or environmental barriers that would prevent disadvantaged communities from benefiting from DPA activities?
30. What equity goals based on Justice40 DOE priorities should DOE prioritize in carrying out DPA projects for electric heat pumps and how can potential projects best help meet these goals? (For example: reducing energy cost and burden; minimizing environmental impacts; diversity, equity, inclusion, and accessibility in workforce and supply chains; stakeholder engagement; and implementation of President Biden's goal that 40% of the benefits of

investments in climate and clean energy flow to disadvantaged communities (the Justice40 Initiative)).

31. Is there anything else that government should be aware of as DOE designs implementation of electric heat pump DPA program to ensure projects benefits the American public, support underserved communities, and do not cause unintended harm to the environment or communities?

VI. Response Preparation and Transmittal Instructions

RFI/NOI responses shall include:

- RFI/NOI title and reference number;
- Name(s), phone number(s), and email address(es) for the principal point(s) of contact;
- Institution or organization affiliation and postal address; and
- Clear indication of the specific question(s) to which you are responding.

Comments and documents submitted through dpaheatpump@energy.gov will not be posted publicly but will be subject to public review upon request. Please identify your answers by responding to a specific question or topic, if applicable. Please clearly state the specific question to which you are responding. All assumptions, including any assumed government support, shall be clearly identified. Respondents shall clearly mark all proprietary and restricted information. For information on submitting Confidential Business Information, see the Confidential Business Information section. Respondents may answer as many or as few questions as they wish. DOE will not respond to individual submissions. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

VII. Confidential Business Information

Pursuant to 10 CFR 1004.11, any person submitting information that they believe to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Submit these documents via email. DOE will make its own

determination about the confidential status of the information and treat it according to its determination.