NOTICE OF FUNDING OPPORTUNITY (NOFO)

CHIPS Incentives Program – Commercial Fabrication Facilities

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce

- **Funding Opportunity Title:** CHIPS Incentives Program – Commercial Fabrication Facilities

- **Announcement Type:** Amendment

- **Funding Opportunity Number**: 2023-NIST-CHIPS-CFF-01

- **Assistance Listing (CFDA Number):** 11.037 – CHIPS Incentives Program

- **Dates:**
    - Full applications may be submitted until 5:00pm (EDT) on Tuesday, June 18, 2024.
    - Pre-applications may be submitted until 5:00pm (EDT) on Monday, May 20, 2024. Entities that submit a pre-application after this amendment is published and before the May 20, 2024 deadline will have 45 days after receiving a feedback letter to submit a full application, notwithstanding the general June 18, 2024 full application deadline.
    - Statements of Interest may be submitted until 5:00pm (EDT) on Tuesday, June 18, 2024. Entities are no longer required to wait at least 21 days after submitting a Statement of Interest before making their next submission and may submit a pre- or full application immediately after submitting a Statement of Interest.

  The Department of Commerce may amend this NOFO at any time. Any further changes to this NOFO will be communicated via https://www.grants.gov and https://www.chips.gov.

- **Application Submission Address:** https://applications.chips.gov/

Funding Opportunity Description: The CHIPS Incentives Program aims to catalyze long-term economically sustainable growth in the domestic semiconductor industry in support of U.S. economic and national security. This is the first Notice of Funding Opportunity under this program. It seeks applications for projects for the construction, expansion, or modernization of (a) commercial facilities for the front- and back-end fabrication of leading-edge, current-generation, and mature-node semiconductors; (b) commercial facilities for wafer manufacturing;

and (c) commercial facilities for materials used to manufacture semiconductors and semiconductor manufacturing equipment, provided that the capital investment equals or exceeds $300 million.

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FULL ANNOUNCEMENT TEXT

I. Program Description

This Notice of Funding Opportunity (NOFO) seeks applications for the CHIPS Incentives Program, authorized by Title XCIX—Creating Helpful Incentives to Produce Semiconductors for America of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Pub. L. 116-283, referred to as the CHIPS Act or Act), as amended by the CHIPS Act of 2022 (Division A of Pub. L. 117-167). The CHIPS Incentives Program is administered by the CHIPS Program Office (CPO) within the National Institute of Standards and Technology (NIST) of the United States Department of Commerce (Department).

The CHIPS Incentives Program can provide direct funding (via grants, cooperative agreements, or other transactions), loans, and loan guarantees (collectively, CHIPS Incentives) for eligible projects. This NOFO seeks applications for CHIPS Incentives that will support investments in the construction, expansion, and modernization of (a) commercial facilities in the United States for the front- and back-end fabrication of leading-edge, current-generation, and mature-node semiconductors; (b) commercial facilities in the United States for wafer manufacturing; and (c) commercial facilities in the United States for materials used to manufacture semiconductors and semiconductor manufacturing equipment, provided that the capital investment, as defined in Section IV.I.7 below, equals or exceeds $300 million.

This NOFO provides detailed information about the program objectives and requirements applicants will need to meet to receive funding. It also describes the procedures the Department will use to evaluate and select applications for funding. CPO will provide further guidance on these requirements and procedures in subsequent publications and through a series of public webinars, information about which will be available at https://www.chips.gov. Interested parties should routinely check https://www.chips.gov for updates.

A. Program Objectives

The CHIPS Incentives Program aims to strengthen U.S. economic and national security, including economic resilience and competitiveness. The CHIPS Act sets forth multiple dimensions of this overriding objective:

- Strengthening the security and resilience of the semiconductor supply chain, including by mitigating gaps and vulnerabilities
- Providing a supply of secure semiconductors relevant for national security
- Strengthening the leadership of the United States in semiconductor technology
- Growing the economy of the United States and supporting job creation in the United States
- Bolstering the semiconductor and skilled technical workforces in the United States
- Promoting the inclusion of economically disadvantaged individuals and small businesses
- Improving the resilience of the semiconductor supply chains of critical manufacturing industries[1]

For the CHIPS Incentives Program to be successful on these many dimensions, it must lay the groundwork for long-term growth and economic sustainability in the domestic semiconductor industry and promote the secure and resilient supply chains on which the sector relies. The industry must produce, at scale, secure leading-edge logic and memory chips critical to the national security and future economy of the United States. It must support current-generation and mature-node technologies essential for economic and national security. The industry must have a robust and skilled workforce and a diverse base of suppliers for semiconductor production. It must support research and development (R&D) that will drive innovation in design, materials, and processes that will accelerate the industries of the future. Further, it must support the broader U.S. economy, creating good jobs accessible to all, and supporting and growing local economies and communities.

For the CHIPS Incentives Program to succeed, the Federal funds must serve as a catalyst to galvanize private, state, and local investment in the semiconductor industry. That is, the program funds are a supplement to, not a replacement for, other sources of capital.

The CHIPS Incentives Program seeks to fund applicants that demonstrate a commitment to investment in the United States for the long term and projects that maximize private sources of capital. Only private industry can marshal the resources necessary to make the sustaining investments needed in the decades that follow to maintain a resilient, economically viable, and growing U.S. semiconductor industry.

B. Program Summary

The CHIPS Incentives Program must fund a variety of projects to achieve its economic and national security objectives. Projects will vary in technology, scale, cost, location, risk, workforce needs, and other factors. To fund any project, the Department must engage in an individualized review to determine whether the project is in the economic and national security interests of the United States and whether it satisfies the many eligibility requirements of the CHIPS Act, as well as to determine the types and amounts of funding appropriate for the project.[2] Because successful projects will vary in their attributes, the CHIPS Incentives Program funding awarded to projects will also vary. There is no one-size-fits-all award. A successful applicant should expect that the amount and type of funding it receives will be individualized

[1] *See* 15 U.S.C.§ 4652(d). See Appendix for the definition of "critical manufacturing industries."
[2] *See* 15 U.S.C. §§ 4652(a)(2)(C)(i)(I)-(II), 4652(a)(3)(A).

based on the Department's analysis of the Federal funds needed to meet program and project objectives, including considerations specific to its application.

This NOFO describes considerations and procedures the Department will use to make these case-by-case determinations. This section summarizes, in a question-and-answer format, certain eligibility and procedural requirements for applications under this NOFO. It addresses what projects are eligible for funding under this NOFO and the statutory requirements for eligibility. It describes the types and amounts of funding available. It also summarizes the application process, which begins with a statement of interest and proceeds through an optional pre-application phase (recommended for current-generation, mature-node, and back-end production facility applications; wafer manufacturing facility applications; and applications for eligible semiconductor materials and manufacturing equipment facilities) and then full application, due diligence, and award preparation and issuance phases. Other sections of the NOFO provide more detailed information on these subjects.

1. What facilities are eligible for funding under this NOFO?

This NOFO seeks applications for the construction, expansion, or modernization of commercial facilities in the United States in the following categories.

Leading-Edge Facilities for logic or memory that utilize the most advanced front-end fabrication processes which achieve the highest transistor and power performance. For logic, this currently includes facilities that produce semiconductors at high volumes using extreme ultraviolet (EUV) lithography tools. For memory, this currently includes facilities capable of producing 3D NAND flash chips with 200 layers and above, and/or dynamic random-access memory (DRAM) chips with a half-pitch of 13 nm and below.

Current-Generation Facilities that produce semiconductors that are not leading edge, up to 28 nm process technologies, and include logic, analog, radio frequency, and mixed-signal devices. New and expanded current-generation front-end fabrication facilities will deliver manufacturing capacity for current-generation semiconductor technologies, as well as new and specialty technologies such as devices based on compound semiconductor materials.

Mature-Node Facilities that fabricate generations of: (a) logic and analog chips that are not based on FinFET, post-FinFET transistor architectures, or any other sub-28 nm transistor architectures; (b) discrete semiconductor devices such as diodes and transistors; (c) optoelectronics and optical semiconductors; and (d) sensors.

Back-end Production Facilities for the assembly, testing, or packaging of semiconductors that have completed the front-end fabrication process. This category includes advanced packaging of semiconductors. The Department is particularly interested in projects that ensure competitive operating costs within the United States (e.g., through automation).

Wafer Manufacturing Facilities for the high-volume production of semiconductor wafers, including wafers made from silicon, silicon carbide, and gallium nitride. These facilities are the sites of ingot production and wafer slicing, lapping, polishing, cleaning and inspection.

Semiconductor Materials Facilities for the manufacture or production, including growth or extraction, of materials used to manufacture semiconductors, which are the chemicals, gases, raw and intermediate materials, and other consumables used in semiconductor manufacturing. Specific examples include but are not limited to polysilicon; photoresists and ancillaries (developers, strippers, litho solvents, and anti-reflective and hardmask layers); sputter targets (including tantalum, titanium, and aluminum); and materials specifically used in quantum information systems (such as hafnium and niobium). Applications for the construction, expansion, or modernization of commercial semiconductor materials facilities will be eligible for this NOFO only if the capital investment, as defined in Section IV.I.7, equals or exceeds $300 million.

Semiconductor Manufacturing Equipment Facilities for the physical production of specialized equipment integral to the manufacturing of semiconductors and subsystems that enable or are incorporated into the manufacturing equipment. Specific examples of semiconductor manufacturing equipment include but are not limited to deposition equipment, including chemical vapor deposition, physical vapor deposition, and atomic layer deposition; etching equipment (wet etch, dry etch); lithography equipment (steppers, scanners, extreme ultraviolet); wafer slicing equipment, wafer dicing equipment, and wire bonders; inspection and measuring equipment, including scanning electron microscopes, atomic force microscopes, optical inspection systems, and wafer probes; certain metrology and inspection systems; and ion implantation and diffusion/oxidation furnaces. Applications for the construction, expansion, or modernization of commercial semiconductor equipment facilities will be eligible for this NOFO only if the capital investment, as defined in Section IV.I.7, equals or exceeds $300 million.

Only facilities of the types listed above are eligible for funding under this NOFO. CPO will provide future guidance regarding potential additional funding opportunities.

2. What are the eligibility requirements for funding under this NOFO?

The CHIPS Act imposes several eligibility requirements for funding.

First, funding is available only to "covered entities."[3] This term includes private entities or consortia of private and public entities that can demonstrate the ability to substantially finance, construct, expand, or modernize an eligible facility.[4] Section III.A describes this requirement in more detail.

Second, funding is available to covered entities "to incentivize investment in facilities and equipment in the United States" for the fabrication, assembly, testing, advanced packaging, or production of semiconductors, materials used to manufacture semiconductors, or semiconductor manufacturing equipment.[5] An applicant must demonstrate how the CHIPS Incentives requested will incentivize the applicant to make investments in facilities and equipment in the United States that would not occur in the absence of the CHIPS Incentives.

[3] *See* 15 U.S.C. § 4652(a)(1).
[4] *See* 15 U.S.C. § 4651(2).
[5] *See* 15 U.S.C. § 4652(a)(1).

Third, funding must be for the construction, expansion, or modernization of facilities of the kind described in Section I.B.1.[6] For the purposes of this NOFO, construction means the construction of a new facility. Expansion or modernization includes, for example, significantly enlarging an existing facility, increasing the capacity of an existing facility via a material capital investment, such as by adding a new production line, and upgrading an existing facility, such as to a new node or converting a facility from another use. Both expansions and modernizations will be evaluated on the materiality of the investment relative to existing production. Projects that involve relocating a material amount of equipment, facilities, or production from one facility in the United States to another facility, new or expanded, are disfavored. Such projects will be deemed nonresponsive to this NOFO absent a compelling economic or national security justification.

Fourth, the CHIPS Act specifies that the covered entity must have a documented interest in constructing, expanding, or modernizing an eligible facility.[7] And with respect to such construction, expansion, or modernization, the covered entity shall:

- Have been offered a covered incentive from a state or local jurisdiction (state or local incentive) where the project is located, for the purposes of attracting the construction, expansion, or modernization of the facility
- Make commitments to worker and community investment, including through training and education benefits paid by the covered entity and programs to expand employment opportunities for economically disadvantaged individuals
- Secure commitments from regional educational and training entities and institutions of higher education to provide workforce training, including programming for training and job placement of economically disadvantaged individuals
- Have an "executable plan," i.e., a plan reasonably capable of successful implementation, to sustain the facility without additional funding from the CHIPS Incentives Program
- Have documented its workforce needs and produced a strategy to meet such workforce needs as well as the aforementioned commitments to worker and community investment
- Have determined the types of semiconductor technology it will produce at the proposed facility, and the customers, or categories of customers, to whom the items will be sold
- Have developed an "executable plan" to identify and mitigate relevant semiconductor supply chain security risks, and
- Have policies and procedures to combat cloning, counterfeiting, and relabeling of semiconductors, as applicable.[8]

The Department has designed this NOFO, including the application requirements and review process, to ensure that these statutory requirements will be met for projects receiving CHIPS Incentives.

[6] *See* 15 U.S.C. § 4652(a)(4)(A).
[7] 15 U.S.C. § 4652(a)(2)(B)(i).
[8] *See* 15 U.S.C. § 4652(a)(2)(B)(ii)-(iv).

3. What types of incentives can a project receive?

There are three types of CHIPS Incentives:

- Direct Funding, which provides funding to the applicant for eligible costs and can take the form of grants, cooperative agreements, or other transactions
- Loans, which are direct loans from the Federal government to the applicant for eligible costs
- Loan Guarantees, which are Federal guarantees of third-party loans to the applicant for eligible costs

A single application can result in an award (CHIPS Incentives Award) that contains more than one type of incentive. In the application, the applicant will specify which incentive type(s) it seeks; the amount of the incentive(s); and, for any CHIPS Loans and CHIPS Loan Guarantees, the essential terms being requested. However, projects may not receive CHIPS Loans or CHIPS Loan Guarantees if the majority of the goods they produce (by value or quantity) will be contracted to be sold to the Federal government.

Guidance on how applicants should develop their requests is set forth below. Applicant requests will be subject to review, due diligence, and negotiation, as described throughout this NOFO. Ultimately, the Department will determine the appropriate amounts, funding types, and terms for each CHIPS Incentives Award.[9] During the application process, the Department may request that an applicant modify its request for CHIPS Incentives based on an assessment of the request against the considerations set forth in this NOFO.

Applicants may be eligible to receive an additional incentive in the form of the Advanced Manufacturing Investment Credit (Investment Tax Credit).[10] This separate incentive is administered by the Internal Revenue Service and provides a tax credit for qualifying capital investments in a manufacturing facility for which the primary purpose is the manufacture of semiconductors or semiconductor manufacturing equipment, subject to certain credit recapture rules. The Department expects applicants to take advantage of the Investment Tax Credit, if eligible, to the fullest extent possible. Applicants must also detail in their application the support expected from the Investment Tax Credit.

4. What constitutes a project for purposes of an application?

For purposes of an application, a "project" is a set of capital expenditures for the construction, expansion, or modernization of a single facility. A project also includes any related workforce development or operating expense costs for the facility that the applicant proposes to cover with CHIPS Incentives funds.

5. Can an application include more than one project?

Yes. If an applicant wishes to apply for funding for more than one project, covering separate facilities within a single location and under common ownership and control, the applicant should

[9] *See* 15 U.S.C. § 4652(a)(3)(A).
[10] *See* 26 U.S.C. § 48D.

include all of those projects in a single application. For example, if the applicant intends to construct, expand, or modernize three facilities at a single location, the applicant should submit one application that includes three projects, corresponding to the construction, expansion, or modernization activities associated with each facility. An application may contain projects that occur simultaneously or sequentially (although each project must be eligible for funding under this NOFO to receive funding). If an applicant wishes to propose projects involving facilities at different locations, or under different ownership and control, these projects should be included in separate applications.

See Sections IV.H.2 and IV.I.3 for information about how each project should be described within the application. The Department may choose to fund all, some, or none of the projects proposed in a single application.

6. How can CHIPS Incentives funds be used?

Funds made available under the CHIPS Incentives Program, including the guaranteed portion of a third-party loan, may only be spent on eligible uses, which include the costs to:

- finance the construction, expansion, or modernization of a facility, or equipment for that facility
- support site development and modernization for a facility
- support workforce development for a facility
- pay reasonable operating expenses for a facility, as determined by the Department.[11]

Not all of the applicant's activities within a project may be eligible to receive program funds. However, as described in Sections IV.H.2 and IV.I.3, the applicant must clearly describe any activities within its proposed project that may be eligible uses for CHIPS Incentives. In addition, activities are eligible to receive program funds only to the extent that they are consistent with the requirements of this NOFO.

Certain purposes are ineligible uses for CHIPS Incentives. See Section IV.J for more details.

7. How much support can a project receive in CHIPS Direct Funding?

In determining the CHIPS Direct Funding amount for a project, the Department will consider the project's financial model and expected cash flows, the project's estimated internal rate of return (IRR), the strategic importance of the project to U.S. economic and national security, the extent of private investment, the risks associated with the project, the amount and type of government financial assistance (including state and local incentives, and the Investment Tax Credit), the availability of program funds, and other factors.

There is no fixed amount for how much a project can receive in CHIPS Direct Funding. The Department expects that the level of support from CHIPS Direct Funding will vary based on the specific characteristics of individual projects and the factors cited above. It is generally expected that most CHIPS Direct Funding awards will range between 5-15% of project capital

[11] *See* 15 U.S.C. § 4652(a)(4).

expenditures.[12] This range accounts for the expectation that most projects will be eligible for the Investment Tax Credit. The range may be higher if a project is not eligible for the Investment Tax Credit, such as for projects related to semiconductor materials facilities.

8. How much support can a project receive in CHIPS Loans or CHIPS Loan Guarantees, and on what terms?

There is no fixed limit on the loans or guarantees that a project may receive. Applicants should request CHIPS Loans or CHIPS Loan Guarantees to provide debt financing that is not available on comparable terms on the private market. CHIPS Loans and CHIPS Loan Guarantees are meant to supplement and not substitute for private funding. All loans and guarantees will be subject to rigorous underwriting and due diligence. The Department will not make a loan or issue a guarantee unless it determines that the applicant has a reasonable prospect of repaying the principal and interest on the loan or guaranteed loan, and that the amount of the loan or guaranteed loan, when combined with amounts available to the applicant from other sources, will be sufficient to carry out the project.[13]

The Department will consider multiple factors when determining the amount and features of any CHIPS Loan or CHIPS Loan Guarantee, including a project's financial model and expected cash flows, the project's estimated IRR, the strategic importance of the project for U.S. economic and national security, the risks associated with the project, the amount and type of government financial assistance, the availability of program funds, the ability for the project to support the proposed financing from a credit underwriting perspective, and other factors detailed in this NOFO.

The specific terms of a CHIPS Loan will be based on the project's financing requirements and risk characteristics, and will be subject to negotiation. Applicants should consider the following terms as a baseline when applying for a CHIPS Loan:

- Interest Rate: The interest rate on a CHIPS Loan will generally be based on the cost of funds to the Department of the Treasury for obligations of comparable maturity plus a portion of the spread to the market rate for commercial loans or debt of similar risk, tenor, and terms.
- Tenor: Loans will generally be extended for a term that covers the construction period plus up to 15 years. The maximum tenor is 25 years.
- Structure: Loans will be available on both a corporate and project finance basis, depending on the legal structure and nature of the project.
- Amortization: Corporate finance loans will generally be bullet loans repayable at maturity. Project finance loans will generally be non-amortizing during the construction period of a project and then amortizing until maturity.

[12] Project capital expenditures refers to expenses incurred in the construction or improvement of physical assets, such as the costs of land, building and construction, equipment and installation, physical improvements, and working capital during the construction phase.
[13] See 15 U.S.C. § 4652(g)(2).

- Prepayment: CHIPS Loans may be prepaid at the election of the borrower, subject to prepayment periods, waiting periods, and other terms to be agreed upon.

The specific terms of a CHIPS Loan Guarantee will be subject to negotiation with the applicant and the third-party lender(s). While the extent of the loan guarantee will vary based on the financing requirements and risk characteristics of a transaction, loan guarantees are not expected to cover more than 80% of any third-party debt obligation. CHIPS Loan Guarantees will be subject to underwriting and diligence standards comparable to CHIPS Loans.

9. How does the application process work?

A summary of the key stages of the process is provided below and detailed further in Section V. The application process includes the following phases: 1) Statement of interest, 2) Recommended pre-application, 3) Full application, 4) Due diligence, and 5) Award preparation and issuance. Pre-applications and full applications will be reviewed on a rolling basis. CPO will provide feedback to the applicant at various stages to inform the applicant's decision regarding whether to proceed to the next step in the process and to increase the likelihood of receiving applications that can realize the goals of the CHIPS Incentives Program.

The process includes the following steps:

Statement of Interest: A potential applicant must submit a statement of interest with a brief description of the planned application. The statement of interest enables the Department to gauge interest in the program and plan for pre-application or application review.

Pre-Application (recommended): A potential applicant may submit a pre-application, which contains a more detailed description of the proposed application than the statement of interest, including summary financial information and an Environmental Questionnaire. This optional pre-application phase creates an opportunity for dialogue between the Department and the potential applicant to ensure the proposed application would meet program requirements and address program priorities. The Department strongly encourages pre-applications for potential applicants for current-generation, mature-node, or back-end production facilities; potential applicants for wafer manufacturing facilities; and potential applicants for eligible semiconductor materials and manufacturing equipment facilities.

Topics of discussion during the pre-application phase may include, but are not limited to: relevance to economic and national security goals of the proposed project(s); the scope of the proposed project(s); capital structure; long-term economic viability; CHIPS Incentives request; plans to recruit, train, and retain the necessary workforce; environmental risk; environmental impacts and potential mitigation; cybersecurity and risk management plans; long-term investment plans for capital expenditures; and R&D. Pre-application review will conclude with a written assessment of the strengths and weaknesses of the pre-application and any further recommendations for improvement, as appropriate. The written assessment will be shared with the potential applicant and will include a recommendation for next steps, e.g., to submit a revised pre-application, submit a full application, or not submit a further pre-application or full application.

The Environmental Questionnaire submitted as part of the pre-application will allow the Department to assess the likely level of review under the National Environmental Policy Act (NEPA) earlier in the process, and to work with the potential applicant to ensure that all required environmental information is available as early as possible during the full application and due diligence stages. This can help expedite the process for potentially successful applications. For more information on the NEPA process, see Section VI.C.2.

The Department anticipates that, in certain instances, potential applicants may be in earlier stages of developing the project(s) to be included in their application. Pre-applications are particularly useful in this scenario. In exceptional cases with compelling national or economic security justification, pre-application feedback may include a preliminary indication that the potential applicant is likely to receive funding for project(s) proposed in the pre-application, contingent on the eventual submission of a complete full application, successful merit review, due diligence, and the future availability of funds.

Any feedback or recommendations provided during the pre-application process are not binding on the potential applicant or the Department.

Full Application: A potential applicant must submit a full application to be officially considered for a CHIPS Incentives Award. The full application will contain extensive, detailed information on the proposed project(s) to enable evaluation of its merits. Because the full application is resource-intensive, the applicant should strongly consider any pre-application feedback when deciding whether to prepare and submit a full application. The Department will engage with the applicant to seek further information or clarifications, provide feedback, including on the scope of the proposed project(s) and the amount of CHIPS Incentives requested, and ultimately, to negotiate the preliminary terms of a potential award.

Before moving into due diligence, the Department will prepare and offer the applicant a non-binding Preliminary Memorandum of Terms.

If a potential applicant has submitted a pre-application, it should not submit a full application until after it receives written feedback on the pre-application.

Due Diligence: If the Department determines that a full application is reasonably likely to receive an award and the Department and the applicant agree, or foresee agreement, on a non-binding Preliminary Memorandum of Terms, the application will enter the comprehensive due diligence phase. In this phase, the Department will require the applicant to provide additional information on national security, financial, environmental, and other issues. The Department intends to initiate its environmental review at this time and will request that the applicant, under the supervision of the Department, prepare required documentation (e.g., a draft environmental assessment or draft environmental impact statement), technical studies and consultations, and provide other information as requested. The Department will engage outside advisors, consultants, and/or attorneys at the due diligence stage, and the applicant will be responsible for their fees and costs. During this process, the Department will be available to discuss with the applicant how such costs may be monitored and controlled.

When the due diligence phase is substantially complete, the Department and the applicant may negotiate the applicable terms of a Long-form Term Sheet for the requested CHIPS Incentives. The provisions of the Long-form Term Sheet will be more detailed than the Preliminary Memorandum of Terms and may vary from the Preliminary Memorandum of Terms based on the Department's due diligence, further analysis of the full application, and further negotiations.

Award Preparation and Issuance: If the Department decides to issue a CHIPS Incentives Award or Awards to the applicant, the final award terms are expected to be substantially consistent with the Preliminary Memorandum of Terms or Long-form Term Sheet, as applicable, subject to the final results of the Department's due diligence, analysis of the full application and any further negotiations.

The Federal investment from the CHIPS Incentives Program in an individual project may not exceed $3 billion unless it is certified to Congress that the larger investment is necessary to: (1) significantly increase the proportion of reliable domestic supply of semiconductors relevant for national security and economic competitiveness that can be met through domestic production; and (2) meet the needs of national security.[14]

10. How will CHIPS Incentives be disbursed?

Disbursements of CHIPS Direct Funding will be tied to project milestones in connection with both the capital expenditure components of the project and the workforce development and/or operational cost components of the project. The period in which these milestones occur will vary by project, depending on the size and complexity of the project and the specific activities funded. The Department will work with the applicant during the application process to determine the appropriate milestones. The rate of disbursement is generally expected to be proportional to the rate at which non-Federal dollars are expended over the course of the project. CHIPS Loans may similarly be disbursed in tranches aligned with project milestones.

C. Program Priorities

The CHIPS Incentives Program seeks to further priorities relating to economic and national security, workforce, and other matters. This section provides information about the program's priorities. Applicants should develop their applications with these priorities in mind, as they relate to various requirements and evaluative criteria that will form the basis for the Department's application review process. Applications that do not meet program priorities will not receive funding.

1. Economic and National Security Objectives

Advancing U.S. economic and national security is the principal objective of the CHIPS Incentives Program. The semiconductor industry and its supply chain are critical to the resilience of the U.S. economy. Semiconductors are an essential component in consumer electronics, automobiles, critical infrastructure, and data centers—to name just a few critical uses.

[14] 15 U.S.C. § 4652(a)(3)(B).

Semiconductors are also a critical input into modern defense systems, and their secure design and reliable availability is necessary for national security.

The Department seeks to invest in operationally secure projects employing appropriate cybersecurity practices, as well as implementing plans to promote supply chain security and risk management. Projects must be protected from internal and external risks ranging from insider threats to disaster recovery and ensure their supply chain is able to continue operations after an incident.

a. **Economic Security Objectives**

The semiconductor supply chain is global, and different elements of the supply chain are geographically concentrated in different regions of the world. This concentration means that a range of risks—from cybersecurity threats to natural disasters to pandemics—have the capacity to disrupt international semiconductor supply chains and damage the U.S. and global economy. The Department is therefore seeking to invest in projects that meaningfully increase U.S. semiconductor production and strengthen U.S. and allied supply chains, with a particular emphasis on projects that will mitigate risks from supply chain shocks associated with the geographic concentration of current semiconductor production. To best support supply chain resilience, projects should generally be capable of continued operations for a period of time without access to non-U.S. facilities and personnel.

For leading-edge facilities, the Department is seeking projects that utilize the most advanced commercial technology and produce products most critical to U.S. economic competitiveness. The Department is focused on the next wave of U.S.-based production, as well as on establishing a virtuous cycle of private-sector investment and innovation that bolsters U.S. competitiveness in the semiconductor industry. As such, the Department will evaluate the extent to which the applicant makes credible commitments of ongoing private investment in the United States. For current-generation and mature-node facilities, the Department is seeking projects that support production of semiconductors critical to U.S. economic security, including, for example, semiconductors used in automobiles, aerospace and defense, medical devices, or other U.S critical infrastructure sectors. To further advance U.S. economic security, the Department seeks to support applications with manufacturing processes that can be converted to produce different types of semiconductors in times of disruption.

The Department will generally favor applications that propose projects with sufficient scale to create long-term commercial sustainability and attract the related investments in suppliers and workforce necessary to engender a productive, efficient, and self-sustaining ecosystem. In order to increase U.S. resilience to potential supply shocks, the Department will also generally favor applications to build foundry capacity that can serve a range of logic customers. In addition, the Department will consider applications for production capacity in industry segments mostly served by integrated device manufacturers (IDMs), including but not limited to memory, analog, mixed-signal, discrete, radio frequency, and compound semiconductors.

The Department also seeks to mitigate risks associated with supply chain concentration through investments in back-end production facilities. In particular, the Department seeks to promote

U.S. competitiveness in advanced packaging, which will be critical to future deployments in leading-edge logic technology and manufacturing.

In addition, the Department aims to strengthen supply chain resilience by investing in materials and manufacturing equipment facilities that reduce vulnerabilities associated with geographic concentration, supply-chain bottlenecks, and/or production in foreign countries of concern. The Department also aims to invest in material and manufacturing equipment facilities that advance economic security by locating critical manufacturing know-how in the United States and contributing to the U.S. innovation ecosystem.

The Department recognizes the benefits of collaboration between facilities that are eligible under this NOFO and materials or manufacturing equipment facilities. The Department, accordingly, encourages applicants to take steps to attract associated supplier and other related investments, thus creating a more productive, efficient, and self-sustaining ecosystem and catalyzing future upgrades and expansions. The Department encourages applicants for facilities eligible under this NOFO to consider how their proposed project can spur broader development. Applicants can do this in various ways, such as by identifying plans for key material or manufacturing equipment suppliers to locate in the same area, identifying infrastructure that can benefit the applicant as well as material or manufacturing equipment suppliers, or by incorporating these suppliers in the applicant's workforce development or R&D commitments.

Relatedly, the Department seeks to support applications for semiconductor materials and manufacturing equipment facilities that help build productive and self-sustaining ecosystems, including by clustering with semiconductor fabrication facilities or otherwise improving the competitiveness and innovativeness of the U.S. semiconductor ecosystem.

b. **National Security Objectives**

By serving as foundational components to U.S. defense and critical infrastructure systems, semiconductors are also vital to U.S. national security. The government organizations and contractors that fulfill national security missions require stable, long-term onshore access to semiconductors. The Department is therefore committed to supporting projects that meet government agencies' need for access to safe, secure, and domestically produced chips. The Department seeks projects with the ability to adapt commercial production, testing, and packaging models for low-volume and high-mix national security components or to otherwise apply commercial technologies to support national security missions. Finally, the Department seeks applicants that are willing to supply the U.S. government with access to facilities for experimentation, transition, production, and potential integration into national security programs.[15]

The Department also acknowledges that the risk of malicious disruptions to semiconductors and their supply chains has risen in concert with increased chip complexity, process separation, and

[15] Note, however, that applications for CHIPS Loans and Loan Guarantees should not include assumptions about the Federal government serving as an off-taker or otherwise providing future funding that will support the financial viability of a project.

outsourcing.[16] The evolving threat landscape, coupled with today's digitized world, provides a large attack surface for adversaries to steal, compromise, alter, or destroy sensitive information that is critical to economic and national security.[17] The Department seeks applicants that have made themselves resilient to these attacks, such as by establishing a plan to protect intellectual property and by assuring the security of their supply chain to prevent tampering, counterfeiting, and other security issues. The Department will also prioritize projects capable of mitigating additional operational and cyber security risks, including those posed by insider threats, external influence from foreign entities of concern, dependence on foreign-owned or sourced inputs or equipment, and espionage.

Supply chain security is critical to ensure safe and continued production of semiconductors. The Department seeks projects with demonstrated resilience measures through the protection of physical infrastructure and the supplier ecosystem, and risk management strategies to avoid supply chain exploitation or the loss of intellectual property. Such measures include supply chain stress-test analyses, regular supply chain mapping into second-tier and further suppliers, third-party continuous monitoring, and mandatory supplier redundancy and agility policies.

The Department will also consider the national security risks of the location of any upstream or downstream steps in the manufacturing process, such as packaging.

c. Additional Assistance for Mature Nodes

Consistent with the CHIPS Act, the Department will dedicate at least $2 billion from the CHIPS Incentives Program to support production of mature nodes. Recent shortages in available chips at mature nodes led to widespread economic challenges. Shortages were concentrated in a few specific kinds of semiconductor inputs and applications, including legacy logic chips (used in medical devices, automobiles, and other products), analog and mixed-signal chips (used in power management, image sensors, radio frequency, and other applications), and optoelectronics chips (used in sensors and switches). The specific kinds of products with significant semiconductor supply and demand mismatches impacted a wide variety of industries and end users. The Department seeks to promote economic resilience through increased production at mature technology nodes.

The Department will give priority to applications for mature-node facilities that support the resilience of semiconductor supply chains for critical manufacturing industries (as defined in the Appendix) in the United States. Applications for mature-node facilities will otherwise be evaluated across the same priorities and criteria applicable to other projects.

2. Commercial Viability

Long-term commercial viability is an essential component of any successful application. Commercially viable projects will be grounded on a sound business case providing reliable cash

[16] *See* The White House, Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth (2021).
[17] *See* Department of Commerce and Department of Homeland Security, Assessment of the Critical Supply Chains Supporting the U.S. Information and Communications Technology Industry (2022).

flows that are sufficient to maintain continuity of operations and continued investment as necessary in the facility.

Each applicant must describe the type of semiconductor technology, material, or equipment the proposed project(s) will produce.[18] Applications should also demonstrate an awareness of a project's risks, including any risks from oversupply of the product, and the applicant's strategies for mitigating them. A strong application will present a sophisticated understanding, backed by evidence, of the demand for a project's output and other sources of existing and potential future supply. Each applicant must also identify the customers, or categories of customers, for a project's output.[19] The Department encourages proposals that have offtake commitments, attract more private capital, and induce larger-scale, private domestic investments. The Department also encourages purchase commitments and collaborations across the supply chain to clarify future demand, improve transparency and trust, and mitigate the risk of future chip shortages or oversupply.

The applicant's strategy for commercial viability should apply to the entire estimated useful life of the project facilities.[20] That means that the strategy should demonstrate a commitment to making the investments and upgrades necessary to ensure that each facility in the application remains competitive, secure, and commercially viable for its useful life. This strategy should specifically address investments necessary to address technology obsolescence risk, if relevant.

3. Financial Strength

The CHIPS Incentives Program is a crucial and significant investment in the semiconductor industry, but it does not provide enough funding on its own to create the capacity needed to meet the program's economic and national security objectives. Applicants should structure the finances of their project(s) in a way that maximizes private-sector contributions and minimizes the need for government incentives. The Department may decline to award CHIPS Incentives at the requested amount if the applicant has not demonstrated sufficient efforts to maximize the use of private-sector funds. The Department will evaluate the degree to which the applicant, through its funding request, leverages private investment, incentives provided by state and local governments, and the Investment Tax Credit to increase scale and lower the need for CHIPS Incentives. The Department will pay particular attention to the following factors in assessing the strength of the application's financial structure:

- Applicant Equity Capital: Applicants should have appropriate levels of equity capital in the proposed project(s) that are consistent with market benchmarks and market conditions. Applicants should not rely on CHIPS Incentives to displace private capital or enable outsized returns relative to commercially reasonable expectations for similar projects.
- Debt: Applicants are also expected to include prudent levels of external debt financing, either at the corporate level or the project level, to the extent necessary to reduce the need

[18] *See* 15 U.S.C. § 4652(a)(2)(B)(ii)(V)(aa).
[19] *See* 15 U.S.C. § 4652(a)(2)(B)(ii)(V)(bb).
[20] Absent unusual circumstances, the Department expects the useful life of a new fab will generally be at least 20 years.

for CHIPS Incentives. Proposed total debt levels (i.e., including loans, loan guarantees, existing debt, and any new external debt financing) should be sustainable based on the profile of a project or corporate entity, consistent with strong underwriting principles and an appropriate credit rating for the risk and financial structure of the project.

- Third-Party Equity: The Department encourages applications that bring other sources of equity capital into the overall capital structure, including innovative structures that bring in financing partners that do not typically participate in the semiconductor industry.
- Investment Tax Credit (if applicable): Projects that are eligible should maximize the impact of the Investment Tax Credit to reduce the need for CHIPS Incentives.
- Customer Financing**:** The Department encourages the use of customer financing, offtake agreements, prepayments, or other customer contributions to capital or operating expenses that can strengthen a project's finances.
- State or Local Government Incentives: Applicants must be offered a state or local government incentive to be eligible for CHIPS Incentives.[21] The Department encourages projects that include state and local incentive packages capable of creating spillover benefits that improve regional economic resilience and support a robust semiconductor ecosystem, beyond assisting a single company. Such incentives might include investments in workforce, education, site preparation, or infrastructure (including transit or utilities) that are not limited to the applicant, but designed to benefit both the applicant and the broader community. Likewise, the Department will place less weight on incentives (such as direct tax abatements) with less potential for spillover benefits.

Each applicant will be required to submit a detailed financial model for each proposed project according to the instructions set forth in Section IV.I.7. The model should reflect projected cash flows over the estimated useful life of a project facility, including capital expenditures, operating expenditures, revenues, taxes, and terminal values; the capital structure for the facility; internal rates of return and profitability metrics; scenarios under different macroeconomic, market, and operating environments to allow for sensitivity analysis and stress testing; and other information. CPO will protect confidential business information from disclosure consistent with applicable laws. See Section IV.C for more information on the use of and protections afforded confidential business information.

Each applicant should justify the assumptions in its model and the requested CHIPS Incentives based on cash flow modeling, projected rates of return for a project, historical performance of other similar projects by the applicant or others within the United States and globally, risks associated with a project, competitive returns for similar projects, sensitivity analyses of a project's performance, and other applicable analysis or evidence.

The model submitted with the full application will inform a comprehensive assessment of a project's finances, which will include analysis of the model against market data, conditions and benchmarks, the historical performance and returns of comparable projects, relevant expert analysis, and other information, as well as thorough diligence on the model for applications that

[21] *See* 15 U.S.C. § 4652(a)(2)(B)(ii)(I).

reach the due diligence phase. Throughout the review process, the Department may request additional information and/or revisions to the model in response to the analyses and diligence.

4. Project Technical Feasibility and Readiness

Timely construction and effective operation of facilities is crucial to the overall success of the CHIPS Incentives Program. Project technical feasibility includes the ability of the applicant to construct, equip, and operate the proposed project(s) in a secure manner. To demonstrate technical feasibility, applicants should provide a clear project execution plan, including major construction and operational milestones, construction rights and permits, and key contractual arrangements.

Activities funded under this NOFO will be subject to various Federal, state, and local environmental and permitting requirements. The Department intends to prioritize applications that demonstrate a clear path to meeting these requirements in a timely manner. This path could include identifying steps to reduce costs and barriers to construction, using existing infrastructure or making mitigation commitments, and securing agreements from state and local permitting authorities to ensure projects stay on schedule.

The applicant should identify the necessary environmental compliance and permitting steps for each project proposed in the application, and, as relevant, for each individual activity within each individual project.

5. Workforce Development

A highly skilled, diverse workforce is critical to meeting the goals of the CHIPS Incentives Program. This includes both the construction workforce who construct or expand facilities, and the semiconductor workforce who operate them. The applicant will need a strategy for both workforce components.

a. Facility Workers

The Department believes that a strong, long-term workforce strategy is critical to the economic and national security goals of the CHIPS Act. As such, each applicant should commit to appropriate investments to recruit, train, hire, retain, and upskill a diverse workforce in good jobs at their facility. The Good Jobs Principles[22] published by the Departments of Commerce and Labor outline the elements of a good job, including recruitment and hiring practices, pay and benefits, job security and working conditions, worker empowerment, skills and career advancement, and organizational culture.

[22] *See* U.S. Department of Commerce and U.S. Department of Labor, Good Jobs Principles (2022).

Sectoral partnerships[23] will play an integral role in the development and implementation of high-quality, equitable workforce development strategies. As such, the Department will require all applicants' workforce development strategies to reflect the following steps:

- Applicants must secure commitments from strategic partners, including partnerships with regional educational and training entities and institutions of higher-education to provide workforce training.[24] The strongest applicants will, wherever possible, engage in sectoral partnerships with a wide array of additional strategic partners so they have the broadest view of potential workforce solutions and will take a systems-level approach to these partnerships. For example, rather than partnering with only a single community college, an applicant might instead partner with a community college system to engage the full range of potential community college partners in the region. Strategic partners can include:
    - Other businesses
    - Government organizations (e.g., Federal, state, local, tribal)
    - Educational institutions (e.g., K-12, community colleges, technical colleges and universities, historically Black colleges and universities, tribal colleges and universities, and minority serving institutions, including Hispanic-serving institutions)
    - Training organizations
    - Economic development organizations
    - Workforce development organizations (e.g., state and local workforce boards)
    - Labor unions and other labor organizations
    - Industry associations
    - Community-based organizations (e.g., non-profits, faith-based organizations)
    - Career and technical education programs and career and technical student organizations for students in public secondary schools and community and technical colleges
- Applicants must describe the constitution and layout of partnerships they have formed, as well as plans to utilize these partnerships on an ongoing basis, such as through regular convening. Applicants should also describe the roles and responsibilities each partner will take on as part of their plan.
- Applicants must develop an equity strategy, in concert with their partners, to create equitable workforce pathways for economically disadvantaged individuals in their region. Recruiting, training, and retaining a diverse and skilled set of workers will necessitate building new pipelines for workers, including specific efforts to attract economically disadvantaged individuals[25] and promote diversity, equity, inclusion, and accessibility.

[23] A sectoral partnership is a systems-level approach to equitable workforce development that aligns employer demand for a skilled workforce with available workers by bringing together a range of key partners to train and place workers into high-quality jobs. See Section IV.I.10 for additional detail.

[24] *See* 15 U.S.C. § 4652(a)(2)(B)(III). Applicants are not eligible for incentives unless they have secured commitments from regional educational and training entities and institutions of higher-education to provide workforce training.

[25] *See* 15 U.S.C. § 4652(a)(2)(B)(ii); Definition of "economically disadvantaged individuals" in the Appendix.

In collaboration with its partners, each applicant must create a workforce development plan to articulate the applicant's approach to meeting their facility workforce needs. The plan should contain a detailed workforce needs assessment, and the recruitment, training, and retention strategies that address the specific workforce challenges identified in the assessment. The applicant's plan should document how the applicant will expand access for economically disadvantaged individuals, including how the applicant's recruitment, training, and retention strategies will be tailored to address the needs of these workers. The plan should also detail the applicant's engagement with strategic partners, including but not limited to labor unions, workforce development organizations, state and local workforce boards, educational institutions, and others. Strong applications will reflect an integrated, comprehensive approach to building inclusive workforce pipelines through a sectoral partnership and strategies to retain workers in good jobs. Strong applications will also demonstrate a vision for long-term sustainability. Engaging with educational institutions at all levels will be key to training the next generation of workers, including commitments to work with K-12 institutions and develop and strengthen career and technical education.

An effective workforce plan will be informed by, and demonstrate support and commitments from, a diverse set of community and public-sector entities and include evidence-informed approaches to outreach, recruiting, training, wraparound services, job placement, and advancement. See Sections IV.H.5, IV.I.10, and V.A.5 for additional detail.

In addition, the Department expects applicants to commit to working to support long-term, cross-cutting initiatives—such as competency development, curriculum design, and credentialing—that will strengthen the U.S. national semiconductor workforce. Because meeting workforce needs will require ongoing collaboration and coordination across the sector, the Department expects to engage with recipients to support workforce efforts after awards are made.

b. **Construction Workers**

With respect to the construction and expansion of facilities, each applicant will be required to submit a construction workforce plan that includes a detailed description of the steps that will be taken by the applicant and their construction partners to recruit, hire, train, and retain a diverse and skilled construction workforce. As part of this plan, applicants should describe their approach to worker recruitment and retention, including efforts to include women and other economically disadvantaged individuals in the construction industry; a strategy for creating good jobs; and engagement with community partners such as labor unions, workforce development organizations, and others.

The Department strongly encourages the use of project labor agreements (PLAs) in connection with construction projects. Applicants that commit to using best-practice project labor agreements will generally be likely to produce a construction workforce plan that meets the criteria in this NOFO. By contrast, applicants that do not commit to using a PLA will be required to submit workforce continuity plans and show that they have taken other measures to reduce the risk of delays in project delivery.

c. Child care

Child care is critical to expanding employment opportunity for economically disadvantaged individuals, including economically disadvantaged women. The Department requires that any applicant requesting CHIPS Direct Funding over $150 million provide a plan for access to child care for facility and construction workers, e.g., through on- or near-site child care, pre-arranged agreements with existing child care providers, child care subsidies, or other similar measures.

To meet families' needs and thus expand employment opportunity, child care should be:

- Affordable: costs are within reach for low- and medium-income households
- Accessible: at a convenient location with hours that meet workers' needs
- Reliable: granting workers confidence that they will not need to miss work for unexpected child care issues
- High-Quality: providing a safe and healthy environment that families can trust and that nurtures the healthy growth and development of children.

Projects that do not request CHIPS Direct Funding meeting the $150 million threshold are still strongly encouraged to provide access to child care for facility and construction workers to the greatest extent feasible.

6. Broader Impacts

The Department is committed to building strong communities that participate in the prosperity of the semiconductor industry, as well as ensuring that taxpayer investments maximize benefits for the U.S. economy. The Department also strongly supports inclusion, diversity, equity, and access, and firmly believes that the semiconductor industry cannot succeed unless all Americans have an opportunity to participate, including communities and individuals that have historically been underrepresented in the industry. In particular, the Department is interested in how projects will create broader impacts across the following dimensions:

Commitments to Future Investment in the U.S. Semiconductor Industry. Ensuring the security and resilience of the semiconductor supply chain and strengthening the leadership of the United States in semiconductor technology will require more than facilities built with the initial round of CHIPS Incentives. It will require sustained capital, research and development, and workforce investments in the U.S. semiconductor ecosystem. The Department seeks to prioritize incentives for applicants that are committed to their CHIPS Incentives-supported project as well as to future investments that grow the U.S. semiconductor industry and upstream and downstream industries necessary to promote a leading-edge ecosystem that promotes American semiconductor resilience and leadership. To demonstrate this commitment, each applicant will submit its strategy for continued reinvestment in the domestic semiconductor industry. In particular, the Department will prioritize applicants that credibly commit to investing in R&D in the United States, such as by building domestic R&D fabs or other domestic R&D facilities.

Applicants can complement their commitment to reinvestment with a commitment to refrain from stock buybacks for five years from the date of award. The Department will evaluate

applicants on the basis of their pledges to reinvest capital into the domestic semiconductor industry.

Upside Sharing. As part of their financial model, applicants must provide the Department with projected cash flows over the lifetime of the project. The Department will perform diligence on those projections, which will be used to help determine the CHIPS Direct Funding award amount, if applicable. Over time, a project may generate cash flows or returns that significantly exceed the projections that were used to determine the CHIPS Direct Funding amount. The Department welcomes such successful performance, as it contributes to the long-term viability of the domestic semiconductor industry.

Recipients receiving more than $150 million in CHIPS Direct Funding will be required to share with the U.S. government a portion of any cash flows or returns that exceed the applicant's projections (above an agreed-upon threshold specified in the award). The Department expects that upside sharing will only be material in instances where the project significantly exceeds its projected cash flows or returns, and will not exceed 75% of the recipient's direct funding award. Because successful projects will differ considerably in their key attributes, upside sharing arrangements may vary by project, and, in exceptional circumstances, may be waived.

The Department will use any upside sharing proceeds to support the purposes of the CHIPS Act and strengthen the U.S. semiconductor ecosystem.

Support for CHIPS Research and Development Programs. Strengthening the role of the United States in semiconductor technology requires a robust innovation ecosystem for research and development. Applicants for CHIPS Incentives should help ensure that this innovation ecosystem—which is critical to the semiconductor industry's long-term success—can flourish.

R&D initiatives established by the CHIPS Act include the National Semiconductor Technology Center (NSTC), which will conduct research and prototyping of advanced semiconductor technology; the National Advanced Packaging Manufacturing Program (NAPMP), which will strengthen semiconductor advanced test, assembly, and packaging capability in the domestic ecosystem; the National Network for Microelectronics Research and Development, also known as the Department of Defense Microelectronics Commons (Microelectronic Commons), to enable domestic lab-to-fab transition of microelectronics innovations; at least one new Manufacturing USA Institute focused on semiconductor manufacturing; and microelectronics research at NIST. Robust industry participation in these new initiatives, particularly the NSTC and NAPMP, will be essential for their success.

Each applicant should commit to participating in the NSTC and, if applicable, engage, support, and collaborate with NAPMP-funded projects in an appropriate manner, taking into account the nature of the applicant and the activities of these organizations. Further details will be provided as these organizations develop their operational plans and membership programs. Applicants for CHIPS Incentives should also propose commitments to support these or other CHIPS R&D efforts. The Department expects that the substance of applicant commitments to R&D will vary. For example:

- Applicants for semiconductor production facilities should reserve capacity to support shuttle runs at market rates or below in support of small businesses, academia, and potential R&D projects coordinated by the NSTC.
- Applicants for packaging facilities could reserve capacity for use by the NSTC or NAPMP.
- Applicants could rotate project technical staff to the NSTC or NAPMP, or train NSTC and NAPMP technical staff through exchanges.
- Applicants could provide process data to the NSTC to support aggregated large-scale datasets for training and manufacturing process optimization.
- Applicants could provide access to existing R&D facilities either as affiliated partners of the NSTC, the Microelectronic Commons, ongoing National Science Foundation programs, or independently.
- Applicants could provide the NSTC, NAPMP, or Microelectronic Commons with donations of or access to equipment and/or design tools.
- Applicants could increase public and industry access to mature-node process design kits, such as through open-source licenses, to foster intellectual property (IP) development and improve foundry interoperability.

Creating Inclusive Opportunities for Businesses. The CHIPS Incentives Program strives for the inclusion of minority-owned businesses, veteran-owned businesses, women-owned businesses, and small businesses as part of any funded project.[26] Applicants should explain how they will address this priority, and strong applications will outline proactive efforts to include such businesses in a project's construction and production supply chain, as well as robust outreach plans for engaging with minority-owned, veteran-owned, women-owned, and small businesses. Such steps may include, but are not limited to:

- Ensuring that small, minority-owned, veteran-owned, and women-owned businesses are solicited for construction and production supply chain opportunities, and placing them on solicitation lists.
- Dividing total requirements, when economically feasible, into smaller tasks or quantities to expand access to participation by minority-owned, veteran-owned, women-owned, and small businesses.
- Establishing delivery schedules for subcontractors that encourage participation by small, minority-owned, veteran-owned, and women-owned businesses.
- Investing in supplier diversity programs and working with supplier diversity organizations to grow a pool of diverse suppliers.
- Implementing net-15 payment periods (i.e., full payment is due in 15 days after the invoice date) or having quick payment resolution mechanisms in the event that payments to subcontractors are not rendered timely.
- Assigning dedicated staff to manage outreach and data analysis on engagements with small, minority-owned, veteran-owned, and women-owned businesses.

[26] *See* Exec. Order No. 14080, 87 Fed. Reg. 52,847 (Aug. 25, 2022).

- Using the services and assistance, as appropriate, of such organizations as the Minority Business Development Agency, Small Business Administration, NIST Hollings Manufacturing Extension Partnership Centers, and others.

Strong applications will include concrete goals for measuring performance of outreach plans. To the extent that the applicant relies on contractors, the Department expects the applicant to work with those contractors to implement supplier diversity efforts and to collect data on program performance.

Climate and Environmental Responsibility. The Department understands that semiconductor companies can both reduce their environmental impact and further their competitive advantage by helping their customers meet ambitious net-zero goals. Applicants are expected to design their projects to minimize the potential for adverse impacts on the environment and the local community, including communities with environmental justice concerns. Specifically, each applicant must submit a climate and environmental responsibility plan (see Section IV.G.11). All applicants are encouraged to make use of renewable energy to the maximum extent possible for operation of their projects. Applicants constructing a new facility for fabricating semiconductors are strongly encouraged to use 100% renewable energy for facility operations. Applicants are encouraged to achieve this goal through on-site generation, power purchase agreements, or utility green tariffs or equivalent approaches.

Applicants should demonstrate that they have sufficiently accounted for current and future weather- and climate-related risks, such as wildfires, droughts, extreme heat and cold, inland and coastal flooding, and the extreme winds produced by tornadoes, hurricanes, and other weather events. The climate and environmental responsibility plan should include how new facilities will be designed, built, and operated to account for the weather- and climate-related risks that may occur over the lifetime of the facility.

Community Investments. The CHIPS Act requires that applicants make commitments to community investment.[27] The Department aims to ensure that such investments build strong communities that participate in the prosperity of the semiconductor industry, growing the economy of the United States and supporting job creation in the United States.[28] Applicants should strive to ensure that their investments contribute to a region's long-term strategy for economic vitality.

Accordingly, ideal investments would demonstrate a clear link between CHIPS Incentives Program goals and the underlying economic characteristics of a region. For example, if transit costs are a significant barrier to attracting workers, investments that reduce those costs can help unlock a region's potential for long-term growth, while simultaneously promoting equity. Similarly, community investments could include:

- Financing or building affordable housing or providing housing vouchers, especially where housing access is a barrier to workforce participation and retention.

[27] 15 U.S.C. § 4652(a)(2)(B)(ii)(II).
[28] *See* 15 U.S.C. § 4652(d)(4).

- Financial support for a research institute or innovation campus to complement a new manufacturing facility and promote cluster-based economic growth.
- Investments in local K-12 schools and community colleges with a focus on pathways to career technical opportunities and/or college.

Applicants may wish to particularly highlight any benefits to economically disadvantaged individuals.

Because communities are best positioned to understand their own needs, the Department expects applicants to work closely with stakeholders in local communities to develop a set of investments that is responsive to local needs. Strong applications will reflect hand-in-hand collaboration with different stakeholders to ensure that community investments eliminate pressing barriers to economic participation and inclusive growth. Applicants can demonstrate community support in a variety of ways, including through community benefits agreements and letters of support from community-based organizations and local officials. Co-investments from third parties and philanthropies are strongly encouraged to achieve economies of scale. Similarly, applicants should seek to align their community investments with ongoing state and local economic development programs, such as regional or cluster-based growth efforts, or with comparable Department and/or other Federal programs, such as the Build Back Better Regional Challenge, to amplify their impact.

Domestic Manufacturing and Content. Applicants should describe whether and how they plan to utilize iron, steel, and construction materials produced in the United States as part of their projects.

II. Federal Award Information

A. Funding Instrument

CHIPS Incentives will be provided, as appropriate, through grants, cooperative agreements,[29] other transaction agreements, loans, and loan guarantees.

The final composition and structure of any financial assistance awards made under this program will be determined during the review and selection process. An application could result in one or more awards.

B. Funding Availability

The amounts available under the CHIPS Act are as follows:

- for CHIPS Direct Funding, up to $38.22 billion; and
- for CHIPS Loans and CHIPS Loan Guarantees, up to $75 billion in direct loan or guaranteed principal

[29] For cooperative agreements, the nature of the Department's "substantial involvement" will generally include collaboration with the recipient in developing and implementing the approved scope of work.

The Department does not expect to award the full amount available under this NOFO. Some funding will be awarded under future funding opportunities. The actual amounts awarded under this NOFO will depend on the quality of applications received; the allocation of CHIPS Incentives into direct funding, loans, and loan guarantees; program priorities; the issuance of other NOFOs; and the availability of funds.

Consistent with the CHIPS Act, at least $2 billion will be reserved for covered entities that agree to fabricate, assemble using packaging, or test semiconductors at mature technology nodes, or provide equipment or materials for the fabrication, assembly, testing, or packaging of semiconductors at mature technology nodes.[30] With respect to this dedicated funding, this NOFO offers funding only for covered entities that agree to fabricate, assemble using packaging, or test semiconductors at mature technology nodes. See Section I.B.1.

C. Award Amount

The total amount of a CHIPS Incentives Award, and the specific amounts of CHIPS Direct Funding, CHIPS Loans, and CHIPS Loan Guarantees will vary by project. Sections I.B, IV.I, and V.A.3 provide more information on how applicants should structure their applications for CHIPS Incentives Awards, including with respect to the size of their requests and identifying the specific activities that may be eligible uses of funds. These sections also describe how the Department will determine the size, type, and terms of CHIPS Incentives Awards. As explained in those sections, CHIPS Incentives Awards will be individually negotiated and awarded based on considerations specific to each application, as well as the availability of program funds.

For activities eligible under this NOFO, the Department generally expects that the total amount of a CHIPS Incentives Award, inclusive of CHIPS Direct Funding and the principal amount of a CHIPS Loan or CHIPS Loan Guarantee, will not exceed 35% of project capital expenditures. That percentage may be higher if a project is not eligible for the Investment Tax Credit, such as for certain projects related to semiconductor materials facilities. As noted in Section I.B.7, the Department generally expects most CHIPS Direct Funding awards will range between 5% to 15% of project capital expenditures. These percentages reflect certain assumptions about a project, including debt-to-equity ratios and the contribution of the Investment Tax Credit, which may not apply in all cases.

D. Period of Performance

The specific period of performance will depend on the size and complexity of the project(s) and the specific activities funded and will be negotiated with the applicant and reflected in the award documents. In general, the period of performance could be as short as two years or, for more complex applications, including multi-project proposals, ten years or more.

The period of performance is distinct from the tenor on CHIPS Loans or CHIPS Loan Guarantees, which may be longer than the period of performance. Further, the conclusion of an award's period of performance does not signify the end of a recipient's obligations related to a CHIPS Incentives Award.

[30] *See* CHIPS Act of 2022, § 102(a)(3).

III. Eligibility Information

A. Eligible Applicants

1. Covered Entity Requirement

An applicant must be a "covered entity" to receive CHIPS Incentives. For purposes of this NOFO, a "covered entity" means a nonprofit entity; a private-sector entity; a consortium of private-sector entities; or a consortium of nonprofit, public, and private-sector entities with a demonstrated ability to substantially finance, construct, expand, or modernize a facility relating to fabrication, assembly, testing, advanced packaging, or production of semiconductors, materials used to manufacture semiconductors, or semiconductor manufacturing equipment.[31]

As this definition makes clear, multiple entities may be involved in a single CHIPS Incentives Program application. In general, the recipient should be the single, private-sector, domestic legal entity that will receive the CHIPS Incentives directly from the Department.[32] A recipient will assume legal and financial responsibility for the CHIPS Incentives received, including any funds provided to subrecipients and contractors.

The recipient entity should be identified as early in the application process as possible to facilitate an expeditious review. However, submission of a statement of interest or pre-application while a recipient entity is still being determined is permissible so long as the eventual recipient is a member of the affiliated group of the entity submitting the statement of interest or pre-application.

The Department may require that the parent or affiliated entities of the recipient provide commitments or guarantees for the benefit of the Federal government or to advance program priorities. For example, a parent corporation's guarantee of payment may be required for a CHIPS Loan or for financial clawbacks that could be triggered by a violation of program requirements.

Consortium applications involve an umbrella entity and multiple participating entities. If the Department determines that the umbrella entity is not adequately capitalized to perform the award or protect taxpayer dollars, one or more members of the consortium may be required to assume financial responsibility for the consortium.

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[31] *See* 15 U.S.C. § 4651(2). Because projects solely for research and development are outside the scope of this NOFO, the definition above is modified from the statutory definition.

[32] Multiple recipients or a nondomestic recipient may be permitted, at the sole discretion of the Department, in exceptional cases, such as in cases of applications involving more than one member of an affiliated group, i.e. a corporate parent and one or more of its subsidiaries. Such exceptions will only be granted if consistent with applicable law and where providing for multiple recipients would further program or project objectives and would not undermine the ability of the Department to evaluate an application and monitor and enforce compliance with the terms of any resulting CHIPS Incentives Award. Multiple recipients will not be permitted where the recipients are not part of the same affiliated group. After the submission of a statement of interest, a submitter may seek guidance on whether a multiple recipient or nondomestic recipient option may be available for its potential application.

2. Foreign Entities of Concern and Foreign Capital

Foreign entities of concern[33] are not eligible to receive CHIPS Incentives. In addition, the Department will review applications for involvement of foreign entities of concern and will not approve any applications where a foreign entity of concern—through control,[34] access to information, or other mechanisms—poses an undue risk to a project or U.S. national security interests. Applicants are required to provide information via the SF-328 form at the time of full application to enable an initial assessment of these issues. Additional information, beyond the scope of the SF-328 form, may be required in due diligence, to further identify and, if necessary, mitigate potential risks to national security.

CHIPS Incentives Awards will also involve requirements to enable identification and mitigation of national security risks posed by involvement of foreign entities of concern that may arise after an application is approved.

3. Cost Sharing or Matching

Cost sharing or matching funds, as governed by 2 CFR § 200.306, are not legally required for this NOFO. However, the Department expects that selected projects will be majority funded from non-Federal sources. Each applicant must be able to demonstrate that they have sufficient resources available to complete the proposed project, when combined with the requested CHIPS Incentives.

IV. Application and Submission Information

A. How to Access an Application Package

Application forms and instructions are available on the CHIPS Incentives Program application portal. FAQs, guides and templates are available at https://www.chips.gov.

B. Submission Dates and Times

The Department is amending this Notice of Funding Opportunity to add closure dates, as follows:

Full applications may be submitted until 5:00pm (EDT) on Tuesday, June 18, 2024.

Pre-applications may be submitted until 5:00pm (EDT) on Monday, May 20, 2024. Entities that submit a pre-application after this amendment is published and before the May 20, 2024 deadline

[33] *See* 15 U.S.C. § 4651(8).

[34] The term "control" for this purpose is defined as any direct or indirect investment in a corporate entity that provides the investor with the means to influence important matters affecting the project. The term "means to influence important matters" includes membership or observer rights on, or the right to nominate an individual to a position on, the board of directors or equivalent governing body of the corporate entity; any involvement, other than through voting of shares, in substantive decision-making by the corporate entity; and consultation rights with respect to technology licensing to third parties.

will have 45 days after receiving a feedback letter to submit a full application, notwithstanding the general June 18, 2024, full application deadline.

Statements of Interest may be submitted until 5:00pm (EDT) on Tuesday, June 18, 2024. Entities are no longer required to wait at least 21 days after submitting a Statement of Interest before making their next submission and may submit a pre- or full application immediately after submitting a Statement of Interest.

The Department may amend this NOFO at any time. Any further changes to this NOFO will be communicated via https://www.grants.gov and https://www.chips.gov.

C. Confidential Information

CPO recognizes the importance of protecting confidential business information from public disclosure. CPO and the Department will follow applicable laws, including, for example, the CHIPS Act, the Trade Secrets Act, and the Freedom of Information Act (FOIA), to protect such information.

1. Statutes Applicable to Confidential Business Information

Subject to certain exceptions, Section 4652 of the CHIPS Act provides that "any information derived from records or necessary information disclosed by a covered entity to the Secretary under this section" is exempt from disclosure under FOIA and "shall not be made public."[35]

All Federal employees are also bound by the Trade Secrets Act, which makes Federal employees criminally liable for the unauthorized disclosure of "information [that] concerns or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical data, amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or association." [36] Violations of the Trade Secrets Act may result in the loss of employment, fines, or imprisonment.

Finally, FOIA requires Federal agencies, including CPO and the Department, to disclose agency records requested by a member of the public, including information received from outside parties, unless FOIA specifically exempts the information from disclosure. Information that "shall not be made public" under Section 4652 of the CHIPS Act "shall be exempt from disclosure under section 552(b)(3) of title 5,"[37] making it exempt from disclosure under FOIA.[38] In addition, FOIA exempts from disclosure information submitted by an applicant that constitutes trade secrets or is privileged or confidential commercial or financial information.[39]

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[35] 15 U.S.C. § 4652(a)(6)(G)(i). The exceptions are for information 1) relevant to any administrative or judicial action or proceeding, 2) that a covered entity has consented to be disclosed to third parties, or 3) necessary to fulfill the congressional notification requirement specified under Section 4652(a)(6)(H). "Covered entity" is defined at 15 U.S.C. § 4651(2). The Department interprets "information disclosed by a covered entity to the Secretary under this section" to include information disclosed by a covered entity as part of the application process under this NOFO.
[36] 18 U.S.C. § 1905.
[37] 15 U.S.C. § 4652(a)(6)(G)(i).
[38] *See* 5 U.S.C. § 552(b)(3).
[39] 5 U.S.C. § 552(b)(4).

The Department will apply these exemptions, in accordance with the law and the Department's FOIA regulations,[40] to FOIA requests.

2. Instructions for Marking Confidential Business Information

To assist the Department in protecting trade secrets or privileged or confidential commercial or financial information, applicants should follow these guidelines in submitting information via a statement of interest, pre-application, or full application.

First, the following legend should appear on the first page of any document containing trade secrets or privileged or confidential commercial or financial information:

> This document contains trade secrets or commercial or financial information that is privileged or confidential and is exempt from public disclosure. Such information shall be used or disclosed only in accordance with the CHIPS Incentives Program NOFO or as otherwise authorized or required by law. The information subject to these restrictions is contained on all pages of the document except for pages [insert page number or other identification of pages that contain no restricted information.]
>
> (End of Legend)

Second, the following legend should appear on each page of the document that contains information the applicant seeks to designate as trade secrets or privileged or confidential commercial or financial information:

> Use or disclosure of information contained on this sheet is subject to the restriction on the title page of this document.
>
> (End of Legend)

The use of any other legend may constitute grounds for removing the application from further consideration without assuming any liability for inadvertent disclosure. Each applicant must also use good faith when designating information as trade secrets or commercial or financial information that is privileged or confidential.

3. Use of Information

Any person or entity submitting information under this NOFO acknowledges and understands that information and data contained in or submitted in connection with statements of interest, pre-applications, full applications, or due diligence under this NOFO (together, "applicant information and data") may be accessed and used by Federal employees for the purposes of this NOFO and carrying out the government's responsibilities in connection with the CHIPS Incentives Program, or as otherwise required by law. By submitting applicant information and data, the applicant, potential applicant, or an entity submitting a statement of interest consents to

[40] *See* 15 C.F.R. Part 4.

the disclosure of such applicant information and data to consultants and contractors for these purposes, consistent with Federal law.

The Department may publish information concerning the award of incentives throughout the review, selection, and award process. By submitting a full application, the applicant consents to the disclosure of information regarding the identity of the applicant and its ultimate corporate parent, the location of the proposed project(s), the estimated total capital expenditure for the proposed project(s), the status of its application (*e.g.*, complete and pending review, approved for entry into due diligence, in due diligence, denied, or withdrawn); whether a non-binding Preliminary Memorandum of Terms has been offered to the applicant, as well as basic terms thereof; disclosures of project information and environmental impacts required under Federal environmental review requirements, such as the National Environmental Policy Act (as determined by the Department), any notifications to Congress required by law, or any other disclosures required by law.

Any accepted non-binding Preliminary Memorandum of Terms or CHIPS Incentives Award will specify additional information that the Department may make public, including, for example, the identity of the recipient, the type(s) and amount(s) of the CHIPS Incentives, and appropriate summaries of the project(s). As will be set forth in the terms and conditions of a CHIPS Incentives Award, successful applicants will be expected to support program and project reviews, audits, and evaluations, including by submitting required financial and performance information and data in an accurate and timely manner, making available documents and other records related to the award project(s) upon request, and by cooperating with Department and external program evaluators, including the Office of the Inspector General. Certain post-award progress reporting may also be made public.

The Department may also publish aggregated information from statements of interest, pre-applications, and applications.

D. False Statements

It is a crime to knowingly make false statements to a Federal agency. Misrepresentation of material facts may be the basis for denial of an application. Penalties upon conviction may include fine and imprisonment. For details, please refer to 18 U.S.C. § 1001.

E. Application Requirements

Application forms and instructions are available on the CHIPS Incentives Program application portal. FAQs, guides and templates are available at https://www.chips.gov. Applicants will provide information to the CHIPS Incentives Program application portal via web forms, the population of required templates, and the upload of narrative documents and other required or supporting attachments. The following sections describe the information that will be required as part of the submissions for statements of interest, pre-applications, and full applications.

All application materials must be submitted electronically via the CHIPS Incentives Program application portal. In addition to the requirements set forth below, during the application review process the Department may request additional records and information necessary for fulfilling the purposes of this NOFO.

F. Requirements for Attachments Submitted through the CHIPS Incentives Program Application Portal

1. Figures, graphs, images, and pictures

Should be of a size that is easily readable or viewable and may be presented in landscape orientation

2. Font

Easy-to-read font (11 point minimum). Smaller type may be used in figures and tables but must be clearly legible.

3. Line spacing

Single spacing or double spacing is permitted.

4. Margins

One inch top, bottom, left, and right

5. Page layout

Portrait orientation except for figures, graphs, images, and pictures. Paragraphs are to be clearly separated from each other by double spacing, paragraph formatting, or equivalent.

6. Page numbering

Number pages sequentially.

7. Page size

Pages must be 8½ inches by 11 inches, excluding maps or diagrams.

8. Language

English

9. Typed document

All materials, including forms, must be typed.

G. Statements of Interest

A statement of interest form available on the CHIPS Incentives Program application portal is required for each full application or pre-application submitted. Parties are encouraged to submit the statement of interest as soon as they have decided they are likely to pursue a CHIPS Incentives Program application. The statement of interest is designed to help the Department gauge interest in the program and the types of projects and applicants, and prepare to review pre-applications or full applications.

H. Content and Form of Pre-Application

The optional (and, with the exception of leading-edge facilities, recommended) pre-application serves as an opportunity for the Department to provide a preliminary assessment of the likelihood of a potential application receiving CHIPS Incentives, and to provide meaningful feedback to applicants before they prepare a full application package.

Together, the project plan and workforce development information requested below should not exceed 20 pages for narrative responses, excluding relevant attachments. Pre-applications must be submitted through https://applications.chips.gov.

Pre-applications will be reviewed upon receipt to screen for eligibility, completeness, and responsiveness to this NOFO, including the program priorities (Section I.C). Pre-applications determined to be ineligible, incomplete, or nonresponsive may be returned to the potential applicant to cure any deficiencies. However, the Department, in its sole discretion, may review a substantially complete pre-application if any gaps in information can easily be rectified during the review and feedback process.

The pre-application includes information sought via the web forms on the CHIPS Incentives Program application portal and the following information:

1. Cover Page

The cover page will be input directly via a web form on the CHIPS Incentives Program application portal.

2. Project Plan

Each potential applicant must submit a project plan that describes each project expected to be included in the future full application. The project plan should explain how each project satisfies the program description (see Section I of this NOFO) and the evaluation criteria (see Section V.A. of this NOFO). If the applicant does not have sufficient information to describe the activities associated with one or more projects in its pre-application, the applicant should provide any available information, including a conceptual project plan or qualitative description of the associated activities.

The project plan should contain the following information:

- Description of Projects: A description of the construction, expansion, or modernization activities proposed for each facility expected to be included in the application, including a description of the facility location and existing or required infrastructure. This description should include the products that each facility produces or will produce and their end market application, along with information on the scale, size, and capacity of production. Identify the top 10 customers for each major product and associated volumes (to the extent known). Identify key suppliers, e.g. names of equipment and raw material providers. If the applicant expects to include multiple projects (for work proposed at multiple facilities) in the application, the description should explain both the ways in which the individual projects are interrelated and the value provided by each project on

its own, independent of the other projects. For example, if the application will include two fabs located at a single site, the description may explain that the two projects share common workforce development strategies and will jointly improve an applicant's market share and cost efficiency, but that the proposed construction, expansion, or modernization of each fab can take place independently from the work proposed at the other fab. Similarly, if the applicant expects the application to include individual activities that may be independently useful and eligible for the CHIPS Incentives Program, separate from other activities at the same facility, the project description should explain both the ways in which the individual activities are interrelated and the value provided by each component or activity on its own.

- Consortium Description (if applicable): Potential consortium applications must identify the individual entities that are members of the consortium, the roles of each entity, the governance, management, and oversight structures for the consortium, and the method of distributing CHIPS Incentives to individual entities.
- Cluster Profile: For commercial fabrication and wafer manufacturing facilities, a description of how the project(s) will attract associated supplier, workforce, and other related investments, thus creating a more productive, efficient, and self-sustaining ecosystem and catalyzing future upgrades and expansions.
- Estimated Project Timeline: An estimated schedule for the capital expenditures and expected operations for each project in the application, including estimated timeframes for key construction milestones and production of products. This section should also indicate an estimated timeframe for when the applicant may be ready to submit a full application, assuming the Department encourages the submission of a full application based on the proposal contained in the pre-application.
- Summary Narrative Addressing the Evaluation Criteria: A summary narrative explaining how the proposed project(s) align with the evaluation criteria set forth in Section V.A. The summary should include information indicating how each of the six evaluation criteria are or are expected to be addressed. Potential applicants are encouraged to focus, in particular, on how the proposed project(s) will further the economic and national security objectives of the United States, as described in Section I.C.1.
- CHIPS Incentives Justification: A summary narrative explaining how the CHIPS Incentives requested will incentivize the applicant to make investments in facilities and equipment in the United States that would not occur in the absence of the incentives. More information should be provided in the Financial Information section of the pre-application.
- Applicant Profile: A brief description of the applicant, including identification of its headquarters, primary officers, ownership (publicly traded or privately held), main business lines, and main countries of operation. For applicants that are a subsidiary of another entity, this information should be provided for the ultimate corporate parent as well. The corporate relationship between the applicant and the ultimate parent should also be described.

3. Financial Information

Each potential applicant should submit a summary of financial information for the potential applicant and the proposed project(s), as well as detailed sources and uses of funds for each

proposed project in the pre-application. Applicant and project-level financials should be prepared in accordance with Generally Accepted Accounting Principles or comparable standards (e.g., International Financial Reporting Standards). The financial information should include the following items:

- Facility Ownership Structure: Provide formal legal entity and organizational structure for the proposed project(s) showing all relevant entities, including relationship with the ultimate corporate parent (if applicable).
- Sources and Uses of Funds: Provide the information listed below about project costs and capital sources via a descriptive narrative and via the Project Sources and Uses of Funds spreadsheet template available on the CHIPS Incentives Program application portal. If the pre-application proposes multiple projects, project costs and capital sources should be provided cumulatively for the entire set of proposed projects in the pre-application and for each project individually.
    - Project Costs: Project costs should include, but are not limited to, those noted below:
        - Capital Investment: The costs required to complete the construction, expansion, or modernization of the project and initiate operation, broken down by category such as land, construction (e.g. labor and material), equipment, infrastructure improvements (e.g. utility plants, access to infrastructure, or wastewater treatment plants), and administrative expenses directly attributable to the construction, expansion, or modernization (e.g., legal, engineering, and permitting fees).
        - Operating Losses and Other Cash Outflows until Cash Flow Breakeven: Estimated operating losses/cash outflow, including upgrade investments, maintenance, interest expenses, and working capital once project is operationalized until cash flow breakeven.
        - Workforce Development Costs**:** Spending by the applicant on workforce development activities to support the proposed project.
    - Project Capital Sources: Total project capital sources should equal the project costs described above, and should include, for example:
        - Sponsor Equity: Expected amount of equity financing from the applicant and/or its corporate parent.
        - Debt Funding: Expected amount of debt financing from the applicant, its corporate parent, or otherwise (including intercompany loans). If debt is raised on the corporate parent's balance sheet, provide details on debt allocated to this project.
        - Third-Party Equity: Amount of expected equity financing from other third parties, including an indication of amount of debt that may be raised outside of the project structure.
        - State and Local Government Incentives**:** Estimated value of benefit that the project is expected to receive from state and local government incentives.

        - Investment Tax Credit: Estimated value of the benefit that the project is expected to be eligible to receive from the Investment Tax Credit (if applicable).
        - CHIPS Incentives: Proposed dollar value of CHIPS Incentives for the project, specifying the values of CHIPS Direct Funding, Loans, and/or Loan Guarantees, as well as the third-party lender for Loan Guarantees.
        - Any Other Sources of Funds**:** Other sources of funds not captured above, such as from customers, suppliers, foreign governments, or other Federal sources (e.g., Export-Import Bank).
- Company Financials: For the applicant and, as applicable, its ultimate corporate parent and any key intermediate entities, provide audited consolidated financial statements at fiscal year-end for each of the last three years, and interim financial statements for the current fiscal year. Also provide any key performance metrics (e.g., margins, return on equity), as well as details on leverage and related debt coverage metrics and ratings, as applicable, for each financial period.
- Summary Financials for Each Project**:** Provide a high-level summary of the expected revenues (broken down by number of units sold and price per unit), costs, and cash flows for each project, including key income statement, cash flow statement, and balance sheet information. Also provide a summary narrative and supporting evidence for key assumptions underlying these projections. The financial information should be in the format of a dynamic, integrated spreadsheet in Microsoft Excel. The program should permit variable inputs to the key assumptions. The income statement, balance sheet, and statement of cash flows should be linked within the model.
- CHIPS Incentives Request
    - Provide a summary of requested dollar amounts for CHIPS Direct Funding, via a web form on the CHIPS Incentives Program application portal.
    - Provide a narrative description for how the financial information submitted for the project supports a conclusion that the CHIPS Incentives requested will incentivize the applicant to make investments in facilities and equipment in the United States that would not occur in the absence of the incentives.
    - Provide a description of how the CHIPS Incentives requested were sized based on cash flow modeling, IRR analysis, sensitivity analysis, and other applicable analyses. Explain why the request is appropriate based on expected risks and returns of the project, historical projects of similar nature, or other relevant market benchmarks. Provide a justification for why the projected IRR in the cash flow model is appropriate for a project of this type, scale, and risk profile.

4. Environmental Questionnaire

Each potential applicant must provide the requested information on the Environmental Questionnaire using the template available on the CHIPS Incentives Program application portal. See Section VI.C.2 for more information. If the potential applicant expects to propose more than one project in its application, the potential applicant must address the questions separately for each project in the Environmental Questionnaire.

The purpose of the Environmental Questionnaire is to ensure that the Department is aware, in broad terms, of relevant environmental considerations, and can work with the potential applicant to ensure that the applicant can provide all required environmental information during the full application and due diligence stages. While the potential applicant is not expected to have complete information regarding potential environmental impacts at the pre-application stage, a more complete Environmental Questionnaire will reduce the likelihood of unexpected delays at later phases, which may result if the Department determines that the project poses environmental concerns that have not been adequately disclosed, or that the information submitted is insufficient to assess the potential environmental impacts. The Department will only fund activities for which it is able to complete any necessary environmental review. The Department encourages potential applicants to consult with internal or external subject matter experts while preparing the pre-application Environmental Questionnaire.

5. Workforce Development Information

Each potential applicant must discuss its approach to recruit, train, and retain a diverse and skilled set of workers to fill the good jobs that will be created to operate its semiconductor facilities. Potential applicants should provide a description of their:

- Anticipated facility workforce needs
- Proposed strategies to meet facility workforce needs, including proposed equity strategy to promote the hiring and retention of economically disadvantaged individuals[41]
- Approach to meeting the Good Jobs Principles
- Proposed high-quality education and training programs or strategies, such as Registered Apprenticeships, pre-apprenticeship programs, career and college pathways, and wraparound supportive services
- Actions taken to engage with a broad range of potential strategic partners
- Actions taken with respect to creating or participating in a sectoral partnership, such as convening or conducting outreach to potential partner organizations, establishing the constitution and layout of the partnership, defining respective roles and responsibilities, or identifying a backbone organization to facilitate the sectoral partnership

To the extent that the potential applicant is in discussions with workforce, educational, community-based, public-sector, local housing, or other organizations on proposed collaborations that have not yet been finalized, it should describe the state and goals of those discussions.

The potential applicant may also note any planning it has done, in concert with partners, for meeting its construction workforce needs. However, a construction workforce plan is not required at the pre-application stage.

[41] *See* 15 U.S.C. § 4652(a)(2)(B)(ii)(II)(bb).

I. Content and Form of Full Application Submission

This section provides instructions and details for submission of full applications to the CHIPS Incentives Program.

The full application includes a series of sections, each described below. It includes a detailed description of all projects in the application, supplemented by narrative sections that demonstrate how the application addresses each dimension of the merit review framework. Page limits are provided where applicable. Sections should be accompanied by relevant attachments that substantiate information in the narrative section, which do not count toward the page limit. All application materials must be submitted through the CHIPS Incentives Program application portal.

Applicants should make efforts to complete the process of registering for the System for Award Management (SAM.gov), including obtaining a Unique Entity Identifier (UEI), prior to submitting a full application. Applicants are strongly encouraged to begin the process of registering for SAM.gov as early as possible. While this process ordinarily takes between three days and two weeks, in some circumstances it can take six or more months to complete due to information verification requirements. The Department is unable to issue a CHIPS Incentives Award to an entity that lacks an active SAM.gov registration.

A summary table of the application structure is provided below:

1. Cover Page
2. Covered Incentive
3. Description of Project(s)
4. Applicant Profile
5. Alignment with Economic and National Security Objectives
6. Commercial Strategy
7. Financial Information
8. Project Technical Feasibility
9. Organization Information
10. Workforce Development Plan
11. Broader Impacts
12. Standard Forms

1. Cover Page

Follow the directions in the CHIPS Incentives Program application portal to complete the cover page.

2. Covered Incentive

Each applicant must provide a letter from a state or local government entity to demonstrate that they have been offered a qualifying covered incentive, indicating the estimated size and nature of the incentive. The offer of a covered incentive may be contingent; if so, any contingencies need to clearly be specified in the letter. Further, prior to receiving a CHIPS Incentives Award, the

applicant may be required to provide additional information demonstrating to the Department's satisfaction that the covered incentive has been or will be received.

3. Description of Project(s)

The applicant must submit a detailed description of proposed project(s) in the application, which is responsive to the program description (see Section I) and the evaluation criteria (see Section V.A). There should be an overarching description of the vision for all projects (no more than 15 pages), as well as a description (no more than 15 pages long) of each project. The description should contain the following information:

- Description of Projects: A description of the construction, expansion, or modernization activities proposed for each facility included in the application, including a description of the facility location and existing or required infrastructure. This description should include the products that each facility produces or will produce and the end market application and top 10 customers for those products, along with information on the scale, size, and capacity of production. If the application includes multiple projects (for work proposed at multiple facilities), the description should explain both the ways in which the individual projects are interrelated and the value provided by each project on its own, independent of the other projects. For example, if the application includes two fabs located at a single site, the description might explain that the two projects share common workforce development strategies and will jointly improve an applicant's market share and cost efficiency, but that the proposed construction, expansion, or modernization of each fab can take place independently from the work proposed at the other fab. Similarly, if the application includes individual activities that may be independently useful and eligible for the CHIPS Incentives Program, separate from other activities at the same facility, the project description should explain both the ways in which the individual activities are interrelated and the value provided by each activity on its own. Applicants relocating a material amount of existing facility infrastructure must provide a plan detailing those efforts and rationale for doing so, including a description of the specific infrastructure being relocated, the value of that infrastructure, any changes to US capacity due to relocation, and the reason for that relocation.
- Consortium Description (if applicable): Consortium applicants should also identify the individual entities that are members of the consortium, the roles of each entity, the governance, management, and oversight structures for the consortium, and the method of distributing CHIPS Incentives to individual entities.
- Cluster Profile: For commercial fabrication and wafer manufacturing facilities, a description of how the project(s) will attract associated supplier, workforce, and other related investments, thus creating a more productive, efficient, and self-sustaining ecosystem and catalyzing future upgrades and expansions. Where relevant, applicants should elaborate on the benefits of the cluster in other components of the application and describe the existence and nature of any agreements with co-locating suppliers.
- Project Timeline: A detailed description of the overall timeline and key milestones inclusive for each project, for both the capital expenditure components of the project and the workforce development and/or operational cost components of the project. A timeline, preferably in the form of a Gantt chart, should be used to logically illustrate

timing and interrelationships of major milestones. In addition, as relevant, provide a master project timeline that illustrates how all projects will be sequenced over time.

- Summary Narrative Addressing Evaluation Criteria: A summary of how each project—as well as the application as a whole—meets each of the evaluation criteria (see Section V.A). The summary should include information indicating how each of the six evaluation criteria are addressed. An explanation of how each project—and the application as a whole—will further the economic and national security objectives of the United States should be included, as described in Section I.C.1.
- CHIPS Incentives Justification: A brief narrative explaining how the CHIPS Incentives requested will incentivize the applicant to make investments in facilities and equipment in the United States that would not occur in the absence of the incentives. More detailed analysis is required in the Financial Information section of the application.

4. Applicant Profile

Provide the following information for the applicant. If the applicant is a subsidiary, this information should be provided for the applicant, its ultimate corporate parent, and any key intermediate entities:

- Descriptive Information About the Applicant: Information related to the applicant's businesses, including but not limited to company name, corporate form, jurisdiction of formation, description of key business activities, year established, headquarters country/state/city, countries/U.S. states of operation, and number of employees. In addition, the application should include a brief description of the company's business profile, key products manufactured, end markets, and competitors, as well as any existing or planned business operations in foreign countries of concern.
- Company Financials: If available, audited consolidated financial statements at fiscal year-end for each of the last five years, and interim financial statements for the current fiscal year. If available, this should include key financial metrics including margin, free cash flow and return information, leverage, debt service coverage, and related ratios, such as interest coverage ratios; fixed-charge coverage ratios; debt-to-capital ratios; debt/ earnings before interest, taxes, depreciation, and amortization (EBITDA) ratios; asset coverage ratios; and working capital ratios. If available, applicants should also include nationally recognized statistical ratings organization (NRSRO) ratings, as well as their latest rating reports.
- Equity Capital Structure: Information on major shareholders, number of shares outstanding, share price history, and market valuation (or estimated private valuation) at year-end for the last five years, if available. In addition, provide a description of any planned equity issuances, including as related to the application, for the applicant, its ultimate corporate parent, and any key intermediate entities (as applicable).
- Outstanding Debt: Schedule listing outstanding debt, lines of credit, other material indebtedness, guarantees, or (material) off-balance sheet liabilities, along with the expected cost for those liabilities. In addition, provide a description of any planned debt issuances, including as related to the application, for the applicant, its ultimate corporate parent, and any key intermediate entities (as applicable). Also provide any cash information and net debt calculations.

5. Alignment with Economic and National Security Objectives

Describe how the project(s) meets economic and national security objectives in no more than 30 pages. The description should address the program priorities set forth in Section I.C.1, as applicable, and the merit review criteria in Section V.A.1. These include how the project(s) will, both individually and collectively:

- Enhance U.S. economic competitiveness through credible commitments to ongoing private investments in the U.S. and the creation of a long-term, sustainable ecosystem.
- Increase global supply chain resilience by mitigating the risk of potential shocks, reducing the impact of potential disruptions, serving a variety of customers, and moving production outside of countries of concern.
- Address the U.S. government's need for access to safe, secure, and domestically produced chips.

For applications for semiconductor material and equipment facilities, in particular, applicants should address how their proposed project(s) will reduce vulnerabilities associated with geographic concentration and bottlenecks; help build productive and self-sustaining semiconductor ecosystems; and/or strengthen economic security by locating critical manufacturing know-how in the United States.

In addition, all applicants should specifically discuss the following aspects of their project:

- **Cybersecurity.** Applicants should review the NIST Framework for Improving Critical Infrastructure Cybersecurity[42] and provide an initial evaluation of their current organizational and project cybersecurity practices. In this evaluation, applicants should also describe what additional resources, such as applicable laws, regulations, standards, NIST guidance or Cybersecurity & Infrastructure Security Agency (CISA) recommendations (e.g., the CISA Cross-Sector Cyber Performance Goals and CISA Cross-Sector Checklist[43]) they use as reference materials. The evaluation should assess risks, including those associated with access, availability, confidentiality, integrity, and a lack of geographic diversification. For major risks identified, the applicant should provide a brief assessment of the risk, as well as describe what risk mitigation strategies it currently implements or plans to implement (e.g., access control, network segmentation, contingency planning, disaster recovery plans, redundant capacity, cyber insurance, employee training, and continuous monitoring).

  Applicants should also detail operational security measures, and efforts to continuously assess and protect data (including, but not limited to, guarding against insider threats, supply chain threats, and threats to physical security).

[42] NIST, U.S. Dep't of Commerce, Version 1.1, Framework for Improving Critical Infrastructure Cybersecurity (2018).
[43] Cybersecurity & Infrastructure Security Agency, Cross-Sector Cybersecurity Performance Goals.

- **Supply Chain Resilience and Risk Management.** The applicant should demonstrate a feasible plan to support the supply chain security and resilience of the proposed project(s). In particular, the applicant should demonstrate its ability to continue operating when faced with supply/materials shocks, as well as the following aspects of resilience and supply chain risk management:
    - Physical Infrastructure: Access to power, water, air strips, and material transportation channels
    - Supplier Ecosystem: Raw material, equipment, and component supply chain acquisition strategies
    - Continuity of Operations: Ability to operate in the United States but without access to non-U.S. facilities and personnel
    - Risk Management: Strategy to minimize and mitigate any adversarial attempts to degrade, exploit, or otherwise compromise the end-to-end supply chain, to include the introduction of counterfeit and/or malicious items into the supply chain or the loss of intellectual property

As part of this section, the applicant should supply a mapping and analysis of its supply chain and associated risk mitigations, including a list and mapping of all key suppliers. In addition, applicants should address other techniques used to manage supply chain risk, such as supply chain stress test analyses, regular supply chain mapping into second-tier and further suppliers, third-party continuous monitoring, and supplier redundancy and agility policies.[44]

The supply chain resilience plan should include, but not be limited to, information about the following topics:

- Senior executive leadership accountability for managing supply chain risk and the associated reporting structure, including frequency of reporting to the board of directors
- Corporate approach to managing supply chain risk, resilience, and security
- Metrics, data, and methodology (e.g., stress tests) used to assess supply chain risk both upstream and downstream; for example, metrics might include the number of single points of failure, lead time for key items, and time to recover and time to survive in different scenarios
- Traceability and audit capabilities employed for managing the supply chain
- Nature of relationships with suppliers to prevent and promote agile response to unexpected situations (such as long-term contracts, mechanisms for information-sharing, and joint problem-solving exercises).

Foreign Control. Each applicant should identify any foreign entity[45] that exercises control over the applicant or a proposed project or has access to confidential information about the proposed project. The applicant should also identify any potential transactions occurring during the

[44] For information on agility, *See* Council of Economic Advisors, The White House, *2022 Economic Report of the President* (2022), 210-4.
[45] *See* 15 U.S.C. § 4651(6).

application process that could result in such control by a foreign entity or sharing of confidential information with a foreign entity.

6. Commercial Strategy

Describe the commercial strategy, including information on customer and end-market demand, volume growth, pricing dynamics, competitive positioning, and supply dynamics, for each proposed project. In no more than 15 pages, this section should discuss the following topics:

- End-Market Demand: Information on end market industries and projected growth, level of obsolescence risk, evidence of any pre-purchase commitments to demonstrate customer demand or other evidence of specific customer demand. Include explicit reference to the top 10 customers for each major product and associated volumes (to the extent known).
- Market Position and Competitor Landscape: Include an assessment of key competitors, market dynamics, supply and demand dynamics over time, pricing trends and exposure to pricing pressure during downturns and periods when there is an oversupply of semiconductors.
- Stability of Supplies and Materials: For projects for commercial fabrication and wafer manufacturing facilities, include strategies to ensure stable and predictable sources of supplies and materials required as feedstock over the long run, including potential long-term contracts with suppliers and stress testing of the supplier network.
- Improvement Plans: Describe existing plans as well as resourcing for continued investment in facility upgrades and improvements.

7. Financial Information

For each project in the application, provide a detailed description of the financial plan in no more than 20 pages overall (excluding attachments and appendices). The plan should include sources and uses of funds, cash flow projections, key equity return and debt service metrics, CHIPS Incentives request, and sensitivity analyses. The applicant should also provide supporting evidence for any key assumptions.

- Applicants should provide Microsoft Excel and PDF attachments to the greatest extent feasible to support the information below. In particular, the financial statements, project cash flows, and sensitivity analyses should be in the format of a dynamic, integrated spreadsheet in Microsoft Excel. The program should permit variable inputs to the key assumptions. Applicant and project-level financials should be prepared in accordance with Generally Accepted Accounting Principles or comparable standards (e.g., International Financial Reporting Standards). The income statement, balance sheet, and statement of cash flows should be linked, and the sensitivity analyses should be included as scenarios within the model.
- Project Sources and Uses of Funds: Provide the information listed below about project costs and capital sources via a descriptive narrative and via the Project Sources and Uses of Funds spreadsheet template available on the CHIPS Incentives Program application portal. If the application proposes multiple projects, project costs and capital sources

should be provided cumulatively for the entire set of proposed projects and for each project individually.

- Project Costs: Project costs should include, but are not limited to, those noted below:
  - Capital Investment: Costs required to complete construction of the project and initiate operation, broken down by category such as land, construction (e.g., labor and material), equipment, infrastructure improvements (e.g. utility plants, access to infrastructure, and wastewater treatment plants), and administrative expenses directly attributable to the project construction (e.g., legal, engineering, and permitting fees).
  - Operating Losses and Other Cash Outflows until Cash Flow Breakeven: Estimated operating losses/cash outflows, including upgrade investments, maintenance, interest expenses, and working capital once the project is operationalized until cash flow breakeven.
  - Workforce Development Costs: Spending by the applicant on workforce development activities to support the proposed project.
- Project Capital Sources: Total project capital sources should equal the project costs described above, and should include, for example:
  - Sponsor Equity: Amount of equity financing from the applicant or its corporate parent.
  - Debt Funding: Amount of debt financing from or raised by the applicant, its corporate parent, or otherwise (including intercompany loans) at either the project or corporate level. In case debt is raised or expected to be raised on the applicant or corporate parent's balance sheet, provide details on allocated debt to the project(s) in the application. In the descriptive narrative, provide information on the key features and terms and conditions related to these debt instruments.
  - Third-Party Equity: Amount of equity financing from third parties, including an indication of the amount of debt that may be raised outside of the project structure.
  - State and Local Government Incentives: Include the estimated value of benefits that the project is expected to receive from state and local government incentives, as well as an explanation of the potential for spillover benefits.
  - Investment Tax Credit: Include the estimated value of benefit that the project is expected to be eligible to receive from the Investment Tax Credit (if applicable).
  - CHIPS Incentives: Include the proposed dollar value of CHIPS Incentives for the project, specifying the values of direct funding, loans, and/or loan guarantees, as well as the identified third-party lender for loan guarantees.
  - Any Other Sources of Funds: Other sources of funds not captured under the above, such as from customers or suppliers.

- Project Cash Flow, Income Statement, and Balance Sheet Projections and Relevant Metrics for Each Project (to be provided in a Microsoft Excel model with formulas):

- Detailed Cash Flow Projections for the Project: Provide the cash flow projections on a levered and unlevered basis (as applicable). Provide quarterly cash flows through the first year of cash flow breakeven and then annually thereafter through the end of the facility's useful life, including:
    - Initial Project CapEx (see Capital Investment category above)
    - Additional Project CapEx (e.g., for upgrades and refurbishments and other investments to sustain operations for the useful life of the facility)
    - Working Capital
    - Project Revenue: Detailed revenue projections including breakdown by project capacity, utilization rates, assumed yield, and price. Include a justification of underlying assumptions.
    - Operating Costs: Detailed breakdown of operating expenses, including, for example, the cost of materials, labor, maintenance, administration, R&D, marketing, corporate overhead, and other expenses. Any allocated corporate overhead or any intercompany expenses to the project should also be detailed and explained.
    - Debt and Interest: Cash flows related to debt or debt-like instruments including disbursements, interest payments, and principal repayments.
    - Cash Flows To and From Third-Party Partners (if applicable)
    - Other Financial Assistance: Cash inflows from grants (e.g., state and local incentives).
    - Taxes: Breakdown of corporate taxes for income generated by the project, including the tax benefit the project is expected to be eligible to receive from the Investment Tax Credit.
    - Terminal Value: Estimated terminal value of any assets at the end of the facility's useful life.
  - Project Income Statement Projections: Quarterly income statement projections through the first year of cash flow breakeven and then annually thereafter through the lifetime of the project, including relevant cash flow items noted above as well as other items such as depreciation and amortization.
  - Project Balance Sheet Projections: Quarterly balance sheet projections through the first year of cash flow breakeven and then annually thereafter through the lifetime of the project.
  - IRR: Project IRR on a levered and unlevered basis.
  - Key Project Financial Performance Metrics: Include summary metrics such as gross margin, EBITDA margin, earnings before interest and taxes margin, return on equity, and return on assets, among other relevant metrics over time.
  - Key Project Risk and Debt Service Metrics: Include summary debt servicing related metrics such as debt/equity, debt-service coverage ratio, debt/EBITDA, interest coverage, and asset coverage ratios over time.
- Scenario Analysis: Evaluate the financial resilience of each project by illustrating project cash flows, income statements and balance sheets, key profitability metrics, IRR, and risk and debt service metrics under a plausible range of scenarios over the estimated useful life of the facility. Sensitivities should be shown in both the upside and downside cases.

Sensitivity analyses should be included as scenarios within the model(s). Examples of sensitivities include:

- Revenue Dynamics: Throughput/utilization, output prices, and loss of major customers.
- Cost: Cost overruns during project construction and equipment installation, higher costs of materials due to supply chain disruptions, and higher or lower operating expenses.
- Timing: Impact of construction delays, equipment delays, and timing differences on yield generation.
- Technology Vulnerability: Impacts of future competing technologies.

- CHIPS Incentives Request:
  - Provide a summary of requested dollar amounts for CHIPS Direct Funding, by following the instructions in the CHIPS Incentives Program application portal.
    - Dollar amount of CHIPS Direct Funding requested.
    - Dollar amount of CHIPS Loan and/or Loan Guarantees requested, including proposed terms.
  - In a narrative description:
    - Provide a rationale for the CHIPS Incentives request.
    - Provide a narrative description for how the financial information submitted for the project supports a conclusion that the CHIPS Incentives requested will incentivize the applicant to make investments in facilities and equipment in the United States that would not occur in the absence of the incentives.
    - Provide a description of how the CHIPS Incentives requested were sized based on cash flow modeling, IRR analysis, sensitivity analysis, and other applicable analyses. Explain why the request is appropriate based on expected risks and returns of the project, historical projects of similar nature, or other relevant market benchmarks. Provide a justification for why the projected IRR in the cash flow model is appropriate for a project of this type, scale, and risk profile.
    - Provide a description of specific efforts to date to bring other capital (debt, state and local incentives, other private capital) into the project and how the CHIPS Incentives request would enable and not displace those other funding sources.
- CHIPS Loan or Loan Guarantee Request: Applicants seeking CHIPS Loans or Loan Guarantees should provide the following information:
  - A full description of the proposed terms for any CHIPS Loans requested, including amount, interest rate, tenor, amortization schedule, structure (corporate finance vs. project finance), corporate support or third-party guarantees, prepayment option, or other loan features. To the extent that requested terms differ from the baseline terms in Section I.B.8, the summary should include a justification.
  - A full description of the proposed terms for any CHIPS Loan Guarantees requested, including underlying loan terms (see above), identity of third-party lenders, and amount and extent of guarantee. To the extent requested terms differ

from the baseline terms in Section I.B.8, the summary should include a justification.
- For both CHIPS Loans and Loan Guarantees, an explanation of efforts the applicant has made to attract debt financing from other sources and the rationale for seeking CHIPS Loans or Loan Guarantees beyond financing available from external providers.
- To the extent not provided in the project cash flow section above (e.g., for loans at the corporate level), cash flow analysis of the ability of the borrower to service and repay CHIPS Loans or loans subject to CHIPS Loan Guarantees, including debt service metrics (e.g., debt service coverage ratio, debt/equity, debt/EBITDA, etc.) under baseline and stress conditions. If the loan/loan guarantee is at the corporate level or any level above the project, provide cash flow, income statement, and balance sheet projections and related metrics for the borrower through the term of the loan/loan guarantee
- Financial and related credit information for any third-party lenders or entities providing credit support.

8. Project Technical Feasibility

The applicant must demonstrate the technical feasibility of each proposed project, which includes the viability and security of the underlying technology and manufacturing processes; the ability to execute required construction; and effective management of the environmental review process. The applicant should provide a detailed description of these topics in no more than 20 pages for each proposed project and include attachments to support details where relevant (which will be excluded from the page limit). At a minimum, the document should discuss the following topics:

a. Technology and Manufacturing Processes

This section must include a detailed description of the core underlying technology and manufacturing processes to be utilized in the facility or facilities for which CHIPS Incentives are sought. The applicant should include detailed information on the respective level of maturity of the technology and manufacturing processes, as well as the applicant's relevant experience and expertise to support successful execution at the scale envisioned in the application, the risks that they have identified with delivering against the goals of their projects, and the mitigating actions they are taking.

b. Construction Plan

The applicant must include a detailed construction plan that demonstrates appropriate mechanisms and contingencies to reduce construction risks. The overview should contain, but not be limited to, the following information:

- Location: Description of project facilities, site, and surrounding location (as applicable), including infrastructure (e.g., roads, utilities, and water) and any planned improvements.
- Construction Project Work Plan: Detailed description of the major engineering, construction, and site preparation activities linked to specified cost and other milestones

and performance guarantees, including a detailed accompanying budget (if not provided with financial information described in Section IV.I.7).

- Schedule**:** Integrated detailed schedule that encompasses time periods for design, procurement, construction, commissioning, and production ramp up.
- Key Partners, Contractors, and Suppliers: Profile of key partners, contractors, and suppliers.
- Construction Rights and Permits: Inventory of all Federal, state, and local permits, licenses, and approvals required to site, construct, implement, and operate the facility, including environmental authorizations or reviews necessary to commence construction. Include filing and approval dates, as available or as anticipated.

c. **Environmental Questionnaire and Information**

To allow the Department to determine the appropriate level of environmental review and ensure that an applicant is ready to begin the environmental review process, applicants that have not previously submitted a completed Environmental Questionnaire as part of a pre-application must submit one as part of their full application. The Environmental Questionnaire can be found on the CHIPS Incentives Program application portal. Applicants that previously completed a pre-application Environmental Questionnaire should update the document and submit the updated version as part of their full application.

9. Organization Information

a. **Ownership, Legal Entity, and Organizational Structure**

The applicant should provide a formal legal entity and organizational structure detailing all parent companies, subsidiaries, and affiliates and other relevant entities, including associated ownership of those entities, up to the top shareholder(s) and the ultimate corporate parent (if applicable). In addition, the applicant should outline recent and upcoming organizational changes, including mergers and acquisitions and any recent or proposed changes to corporate structure. Applicants should provide this information in the form of detailed charts and accompanying narrative explaining the legal entity and organizational structure.

b. **Managerial Capability**

The applicant should describe the approach to managerial oversight and governance of the project(s) from construction through the life of the facility. Include an organizational chart of management and other key personnel, including contractors and any other entities that will play substantial roles. List the experience and qualifications of key management personnel, including experience with projects of similar size and scope. The applicant should include one-page resumes for (a) all key management personnel and (b) all key personnel of contractors and any other entities that will play substantial roles in the project.

c. **Consortium Applications**

An applicant applying on behalf of a consortium should detail the key participants, including a description of the role each participant will play, a description of the structure of the consortium, and the benefits of applying as a consortium. The applicant should also provide documentation and evidence of the planned operating model, such as the working model, governance structure,

decision-making authority/rights, contractual obligations, financial obligations, roles and responsibilities, and any memoranda of understanding.

d. **Past Project History**

The applicant should provide summary for each of any comparable facilities commissioned by the applicant or its parent companies in the last ten years, including details on type of production and output, years in operation, location, project cost, and summary financials. Summary financials should include project IRR and other relevant risk and return metrics.

e. **Intellectual Property Security**

The applicant must identify policies and procedures to combat cloning, counterfeiting, and relabeling of semiconductors, as applicable, as well as protecting semiconductor designs and other intellectual property associated with the manufacture of semiconductors.

f. **Litigation and/or Conflicts**

The applicant should disclose any current, threatened (in writing), or pending litigation, or criminal or civil government investigations involving the applicant, its corporate parents, or, to the applicant's knowledge, any other relevant party, related to permitting, public involvement, environmental issues, construction defects, fraud, securities fraud, conflict of interest, failure to perform under a local, state, or Federal contract, or other charges which may reflect on the applicant's trustworthiness, financial position, or ability to complete the project(s).

g. **Advisors and Key Partners**

For the purpose of assisting the Department in complying with government ethics rules, the applicant should provide a list of the following:

1) advisors who will represent the applicant before the Department in connection with its application, identifying the advisory services provided.
2) any partner named elsewhere in the application (e.g. contractor, investor in the project, workforce training partner, etc.), and identify the section(s) of the application in which the entity is named.

10. Workforce Development Plan

Each applicant must document the expected workforce needs for each facility and provide a strategy to meet such needs[46] in a single workforce development plan. Applicants must also produce a workforce plan for their construction workforce. Applicants are required to identify the overall financial resources that will be committed to these efforts by the applicant and other parties across the workforce system. Applicants should also explain what those resources will be used for, although the Department understands that the level of detail may vary depending on the stage of the development of a sector partnership or other workforce development planning. The plans for construction workers and facility workers should not exceed 30 pages in total, excluding any attachments.

[46] *See* 15 U.S.C. § 4652(a)(2)(B)(ii)(VI).

a. Facility Workforce Plan

The facility workforce development plan should demonstrate appropriate investments and commitments to create good jobs and recruit, train, screen, hire, retain, and upskill a diverse workforce sufficient to meet the operating needs of the entire facility. Applicants are also required to consult, engage, and coordinate with workforce partners—including educational institutions, training providers, community-based organizations, labor unions, career and technical education organizations, and public-sector organizations—in formulating their workforce plan. The Department expects that applicants will engage with each of these groups, at a minimum, in formulating their plan, as projects are most likely to succeed in creating a high-skilled and inclusive workforce by committing to close and ongoing coordination with on-the-ground stakeholders. Applicants should also demonstrate a vision for long-term sustainability by engaging with educational institutions that will be key to training the next generation of workers, including working with K-12 institutions to develop and strengthen career and technical education programs.

The Department considers essential and strongly encourages the development of sectoral partnerships to ensure that immediate and long-term pathways are created for local workforces to operate facilities. These partnerships may include other employers with shared skills needs, education and training providers, the public workforce system, higher education institutions, labor unions, and community-based and other worker-serving organizations. A best practice for a sectoral partnership is to identify a trusted partner to serve as a backbone entity to coordinate these entities and manage the partnership. In strong applications, a sectoral partnership will drive the workforce development plan. An applicant that has not organized or participated in a sectoral partnership should explain, in its plan, why doing so was infeasible and how its workforce efforts will ensure that it has engaged partners to serve worker needs.

Workforce development plans should have five components:

(1) Workforce Needs Assessment

Assessment of the workforce needs of the project (job types, skills, and workers required over time in each job type), including the necessary workforce for facility operations, on-site supplier operations, engineering, administration, and others. The applicant and their partners should map identified workforce needs to existing resources and the existing labor market to determine gaps. The analysis should also identify other workforce risks that could adversely impact the project.

(2) Worker Recruitment and Retention

Describe the overall workforce development system approach and key stakeholders, as well as the applicant's commitments to worker and community investments through training and education benefits and identifying programs to expand employment opportunities for economically disadvantaged individuals.[47] This should include commitments of the applicant's financial resources as well as other non-CHIPS Incentives resources to fund this effort in a manner that is sustainable over the long-term. Applicants should identify spending by priority (outreach, training, wraparound services, etc.).

[47] *See* 15 U.S.C. § 4652(a)(2)(B)(ii)(II).

The Department encourages the applicant to address several well-known workplace barriers. The workforce plan should reflect commitments to ensuring that all workers have access to a safe environment that is free of harassment, discrimination, and retaliation; setting clear expectations about workplace conduct and anti-harassment policies, including consequences for violating policies; and setting clear procedures for reporting misconduct in the workplace. The Department also strongly encourages applicants to identify creative recruitment and retention strategies to increase the participation of economically disadvantaged individuals. Such strategies could include skills-based hiring and removing degree requirements, setting diverse hiring slate policies, eliminating personal and demographic information from the hiring process, and conducting structured and skills-based interviews.

(3) Good Jobs Principles Approach

The Departments of Labor and Commerce's Good Jobs Principles[48] provide a framework to ensure semiconductor facility jobs are high quality. The workforce development plan should describe the applicant's approach to meeting these principles for newly created jobs and to increase job quality for existing jobs at expanded facilities. Additional details on the dimensions of job-quality are available on Department of Commerce's website.[49]

(4) Workforce Training and Wraparound Services

The workforce development plan should include commitments to provide workforce training to address the applicant's needs. These commitments should include programming for training and job placement, including for economically disadvantaged individuals and underrepresented groups in the semiconductor industry. The Department expects applicants to develop such strategies in concert with their partners. The Department also expects that applicants may need to make additional training commitments as their efforts progress based on changing workforce needs.

Where possible, the applicant should identify existing, successful training programs that can be scaled and adapted to meet the applicant's needs, as well as their use of work-and-learn training models. To demonstrate satisfaction of the statutory requirement that the applicant secure "commitments from regional educational and training entities and institutions of higher education to provide workforce training, including programming for training and job placement of economically disadvantaged individuals," [50] the applicant must also attach letters of commitment from education and training entities and institutions that detail the specific tasks they will perform in support of the workforce plan and the resources that will be provided, including, but not limited to, programming for training and job placement of economically disadvantaged individuals.

Applicants should make commitments to hiring individuals who complete training programs, and should also strongly consider partnering with programs that train workers with the needed skills, then provide career pathways that lead to good jobs (such as Registered Apprenticeships, pre-

[48] U.S. Department of Labor, *Good Jobs Principles*, https://www.dol.gov/general/good-jobs/principles (2022).
[49] U.S. Department of Commerce, *Job Quality Toolkit*, https://www.commerce.gov/work-us/job-quality-toolkit (2022).
[50] 15 U.S.C. § 4652(a)(2)(B)(ii)(III).

apprenticeships with a strong relationship with one or more Registered Apprenticeship programs, other programs at community and technical colleges with successful track records of putting students on the path to good jobs, career pathways programs in high schools, and other paid work-based learning). Applicants may also consider how they can partner with such programs and provide real-world, hands-on work-based learning opportunities to secondary and postsecondary students interested in the semiconductor industry and to workers interested in career advancement.

Finally, as part of their description of training commitments, applicants must describe any wraparound services and other barrier reductions they or their partners will provide to support facility workers' access to and completion of training, as well as transition into and progression in a job (such as adult care, child care, transportation assistance, housing assistance, emergency cash assistance, language support, tools, uniforms, equipment, application fees, and services like mentorships that aim to help retain workers, etc.).

(5) **Metrics and Milestones**

In addition, the workforce development plan must include the core milestones the program aspires to achieve (with timing), as well as metrics and processes to measure, track, and report publicly on the goals and commitments. CHIPS Incentives awardees will be expected to collect real-time, granular data that will inform the evaluation of their workforce efforts and help track the success of their workforce commitments. Applicants will also be expected to make data publicly available in a form that protects individual worker information, including personally identifiable information. The Department will provide additional guidance on metrics at the time of award. At a minimum, applicants should be prepared to describe and subsequently report:

- Metrics and a plan to collect demographically disaggregated data on outreach, recruitment, hiring, education, and outcomes (including job placement and wages) of skills training programs and upskilling efforts
- Disaggregated data on the demographics of the workforce, including breakdowns of work hours, wages, benefits, and other measures of job quality
- How data will be collected so that it can be evaluated in real time and the means of accountability, such as any reporting to key stakeholders

b. **Construction Workforce Plan**

Applicants must also provide a detailed description of the steps that will be taken by the applicant and their construction partners to recruit, hire, train, and retain a diverse and skilled construction workforce, including any steps to expand employment opportunity for economically disadvantaged individuals. The plan should include the elements of a workforce plan discussed above: 1) Workforce needs assessment; 2) Worker recruitment and retention; 3) Good Jobs Principles approach; 4) Workforce training and wraparound services; and 5) Metrics.

Accordingly, the plan should include the identification of the number of jobs needed by craft/position type and where expected gaps may exist. The plan should also include identification of existing programs that successfully train diverse populations and that can be scaled appropriately before construction begins and as construction is ongoing, including high-quality apprenticeship readiness programs and Registered Apprenticeships. Applicants are

strongly encouraged to provide wraparound services for construction workers to complete training and be retained on the construction site (such as adult care, transportation assistance, language support, tools, uniforms, appropriately sized safety gear and equipment, and services like mentorships that aim to help retain workers, etc.). The plan should also include specific details about the percentage of labor hours expected to be performed by registered apprentices.

As part of their construction workforce plan, applicants must also provide a description of the steps that will be taken to ensure that all contractors and subcontractors on the construction project have and will continue to have a strong track record of compliance with all Federal labor laws, including but not limited to all relevant provisions, rules, and regulations of the Davis-Bacon Act, Executive Order 11246, and the Occupational Safety and Health Act, and the steps that will be taken to prevent the misclassification of workers. This description should also include the steps that will be taken to ensure that all workers have access to a safe working environment that is free of harassment, discrimination, and retaliation.

The construction workforce plan should address whether the applicant commits to having a PLA. An applicant that chooses not to use a PLA must take additional steps to ensure that a project will have the necessary construction workforce to timely deliver on its goals.

If an applicant proceeds without a PLA, the applicant must instead provide a project workforce continuity plan, detailing:

- Steps taken and to be taken to ensure the project has ready access to a sufficient supply of appropriately skilled and unskilled labor to ensure construction is completed in a competent manner throughout the life of the project, including a description of any required professional certifications and/or in-house training, Registered Apprenticeships or labor-management partnership training programs, and partnerships with entities like unions, community colleges, or community-based groups
- Steps taken and to be taken to minimize risks of labor disputes and disruptions that would jeopardize timeliness and cost-effectiveness of the project
- Steps taken and to be taken to avoid workplace illnesses, injuries, and fatalities, including descriptions of safety training, certification, and/or licensure requirements for all relevant workers (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training required of workers employed by contractors), the use of workplace safety committees, and whether the applicant commits to allowing employees to specify a worker or union representative to accompany any OSHA inspectors during inspections of the construction project
- Steps taken and to be taken to ensure that workers on the project receive wages and benefits sufficient to secure an appropriately skilled workforce in the context of the local or regional labor market.

After the project begins construction, the applicant must also report the name of any subcontracted entity performing work on the project, and disaggregated data on the total number of workers employed by each such entity.

c. Child Care Requirement

Applicants requesting CHIPS Direct Funding over $150 million are required to include information on how they will provide access to affordable, accessible, reliable, and high-quality child care for facility and construction workers. While applicants may consider on- or near-site child care, applicants may also secure other arrangements, such as subsidizing the cost of child care (i.e., providing financial assistance) or partnering with off-site providers to ensure availability for workers. Applicants that do not request CHIPS Direct Funding meeting the $150 million threshold are still very strongly encouraged to provide access to child care for facility and construction workers to the greatest extent feasible and will be evaluated on whether they provide for such benefits in their workforce plan.

The Department recognizes that there will not be a one-size-fits-all solution, as child care needs will vary across communities and employers. The Department expects applicants to devise solutions that are responsive to their workers' needs, such as access at extended hours, and regional market dynamics. In addition, the Department encourages applicants to work with community stakeholders, including state and local governments and local groups with expertise administering child care, to create effective solutions.

Applicants may also consider whether there are opportunities to leverage facilities or arrangements that would aid both facility and construction workers. However, applicants may choose to address facility and construction workers separately. Applicants that are subject to this requirement should therefore work with their contractors to determine what strategies they will use to ensure access to child care, including access at extended hours when necessary, and then describe those strategies as a separate element of their facility and construction workforce plans.

11. Broader Impacts

Each applicant must provide an overview of the broader impacts of the proposed project(s), covering each of the following topics. This section should be no longer than 30 pages, excluding any attachments. See Section I.C.6. for additional details.

- Commitments to Future Investment in the U.S. Semiconductor Industry (maximum of 15 pages): The applicant should submit a strategy for reinvesting in the domestic semiconductor industry and describe how it addresses the priorities outlined in Section I.C.6 for future capital and R&D investments. In particular, the strategy should address the applicant's commitments to investing in R&D in the United States, including a description of the nature and scale of the research and development activities that will be based in the United States and any capital investments in R&D facilities.
- Buyback Commitment: In light of the Department's commitment to prioritizing applicants that invest in the United States, the applicant should detail their intentions with respect to stock buybacks over five years, including whether they intend to refrain from or limit them, as well as details around the existence of any current or future intentions for share buybacks, dividend payments, dividend payment increases, or special dividends.
- Support for Semiconductor Research and Development: Applicants should note commitments made to support the CHIPS R&D programs including the NSTC, NAPMP, and Manufacturing USA. Efforts can include potential access to research facilities for

CHIPS R&D supported projects, support for multiproject wafer runs, workforce exchange and training, donations of equipment and tools, and other potential support mechanisms.

- Creating Inclusive Opportunities for Businesses through a Supplier Diversity Plan: The applicant should describe its supplier diversity plan, including their goals and components of their strategy to achieve them (such as outreach and data tracking). The applicant should describe how it will coordinate with small, minority-owned, veteran-owned, and women-owned businesses, as well as describe their supplier diversity programs and/or office and any internal staff dedicated to overseeing outreach to such businesses. The applicant should also describe how it will track and disclose data on supplier diversity that is demographically disaggregated (e.g., race, ethnicity, gender, veteran status), including statistics on what share of suppliers are majority-owned by different groups.[51] As part of this component, the applicant should describe other proactive commitments to supplier diversity as described in Section I.C.6 and how it will work with contractors to collect the necessary data. The applicant may also describe broader commitments to diversity and inclusion, including diversity of its existing suppliers, as well as supplier diversity commitments made as part of state and local government incentives.
- Climate and Environmental Responsibility: The applicant should submit a climate and environmental responsibility plan that addresses how the proposed project(s) will meet climate and environmental goals and describe company climate and environmental policies. Among other environmental issues, the plan should include details on the topics below (as described in Section I.C.6):
    - Energy: A description of how the applicant will use renewable energy to the maximum extent possible.. Transitioning to a clean energy supply will bring down the long-term cost of operations as the cost of using renewable energy decreases.
    - Climate Resilience: A description of design features, construction methods, and operation strategies that the applicant will employ to increase resilience from weather- and climate-related risks (e.g., increased flooding, wildfires) that may occur over the lifetime of the facility.
    - Water: For applications for commercial fabrication facilities, a description of the applicant's water conservation efforts, such as plans to fund water restoration projects, increase water reuse and recycle rates year over year, and other progressive strategies to achieve more ambitious water conservation goals over time.
    - Sustainability Transparency: A description of the metrics and processes the applicant will use to measure, track, and report publicly on its climate and environmental responsibility goals and commitments.
    - Community and Environmental Justice Impacts: A description of the applicant's strategies for minimizing the potential for adverse impacts to the local community, including communities with environmental justice concerns.

[51] For an example of disaggregated data reporting, *See* U.S. Small Business Administration, *SBA Releases FY 2020 Disaggregated Contracting Data*, SBA Blog (December 1, 2021), https://www.sba.gov/blog/sba-releases-fy-2020-disaggregated-contracting-data.

- Community Investments: The applicant should identify its set of community investments to drive regional economic resilience and broad-based growth, including a description of how it has worked with local communities and other stakeholders to design such investments and how they will unlock barriers to economic participation and benefit disadvantaged communities. See Section I.C.6.
- Domestic Content: Applicants should include a description of whether and how they intend to utilize domestically produced iron, steel, and construction materials. Applicants should also identify whether they will include domestic content specifications in their contracting terms.

12. Standard Forms

All applicants should submit standard forms as follows:

- SF-328, Certificate Pertaining to Foreign Interests
- **CD-511, Certification Regarding Lobbying. Enter "2023-NIST-CHIPS-CFF-01" in the Award** Number field. Enter the title of the application, or an abbreviation of that title, in the Project Name field
- SF-LLL, Disclosure of Lobbying Activities (if applicable)

In addition, applicants may be required to submit the following forms:

- SF-424, Application for Federal Assistance, signed by an authorized representative of the applicant organization
- For the construction component of projects, the SF-424C and SF-424D
- For the workforce development component of projects, as well as any operational activities, the SF-424A

Applicants will be informed during the application review process if these forms are required.

J. Funding Restrictions

Funds made available under the CHIPS Incentives Program, including the guaranteed portion of a third-party loan, may only be put to eligible uses. See Section I.B.6. In addition, funds made available under the CHIPS Incentives Program may not be used to:

- construct, modify, or improve a facility outside of the United States[52]
- physically relocate existing facility infrastructure to another jurisdiction in the United States, unless the project is in the interest of the United States, as determined by the Department[53]
- purchase an equity security that is listed on a national securities exchange of an award recipient or any parent company of such recipient or to pay dividends or make other capital distributions with respect to the common stock (or equivalent interest) of the recipient or any parent company of such recipient[54]

[52] 15 U.S.C. § 4562(i).
[53] 15 U.S.C. § 4652(a)(2)(C).
[54] *See* CHIPS Act of 2022, Pub. L. No. 117-167, § 102(g)(1), 136 Stat. 1366, 1378-1379 (2022).

- pay off any Federal direct or guaranteed loan or any other form of Federal debt

Project budgets may not include indirect costs. Applicants with a negotiated indirect cost rate agreement must ensure all uses of Federal funds are charged as direct costs in the categories listed in Section I.B.6.

The failure to mention a particular use of funds above does not imply that such use is either allowable or unallowable. Final determinations on the allowability of particular uses of funds is at the sole discretion of the Department.

K. Prohibition on Profit and Fees.

Recipients and subrecipients of CHIPS Incentives may not charge, as part of the project budget, profits, fees, or other incremental charges above the actual costs incurred in executing the award's approved scope of work.

This restriction does not impact an award recipient's ability to earn profits by selling products fabricated, assembled, or packaged at facilities supported by Federal financial assistance in the ordinary course of business.

V. Application Review Information

A. Evaluation Criteria

The merit review process will assess whether projects are eligible for the CHIPS Incentives Program and the strengths and weaknesses of projects against the six criteria listed below. The evaluation will be qualitative, not numerical. The first criterion below—the extent to which the application addresses the program's economic and national security objectives—is of primary importance and receives the greatest weight.[55] The remaining five criteria will receive approximately equal weight. Applications will only be recommended for award if each criterion is adequately addressed in the application materials. If an application is deficient in one or more areas, the applicant may be requested to make certain revisions in order to continue in the review and selection process.

1. Economic and National Security Objectives

This criterion addresses an application's potential impact on economic and national security objectives.

a. Economic Security Objectives

This component of the criterion assesses how an application advances economic security by building sustainable domestic capacity that reduces U.S. reliance on vulnerable or overly concentrated production. The assessment of this component of the criterion will consider:

[55] Before approving an award, the Secretary, or the Secretary's designee, must determine that a "project to which the application relates is in the economic and national security interests of the United States." 15 U.S.C. § 4652(a)(2)(C)(i)(II). This economic and national security determination is distinct from the merit review.

- The type of facility proposed to be constructed, expanded, or modernized, relative to U.S. strategic needs
- The extent to which a project increases or supports an increase to U.S. semiconductor production and the amount of current and projected domestic demand for the product or service produced at the proposed facility
- The extent to which a project creates a more resilient semiconductor supply chain, such as by addressing the risks associated with geographic concentration of current semiconductor production
- Whether the applicant plans to build foundry or other capacity that can serve many different customers
- The extent to which the CHIPS Incentives requested will incentivize the applicant to make investments in facilities and equipment in the United States that would not occur in the absence of the incentives
- The extent to which the applicant has taken steps to attract associated supplier, workforce, and other related investments, thus creating a more productive, efficient, and self-sustaining ecosystem and catalyzing future upgrades and expansions

In addition, the assessment will consider the following factors depending on facility type:

- **Leading-Edge Facilities**
    - The extent to which the proposed project will utilize the most-advanced technology and produce those products most critical to future U.S. economic security
    - The extent to which the applicant makes credible commitments of ongoing investment in the United States, supporting a virtuous cycle of private investment and innovation that reestablishes U.S. leadership
    - For memory facilities, the extent to which the application includes plans for regular upgrades in the United States
- **Current-Generation Facilities**
    - The extent to which a project supports production of semiconductors critical to U.S. economic security
    - The extent to which the proposed manufacturing processes can easily be converted to produce different types of semiconductors in times of disruption
- **Mature-Node Facilities**
    - The extent to which the project increases the number of semiconductors produced in the United States at mature nodes necessary to support economic security, including, for example, semiconductors used in automobiles, aerospace and defense, medical devices, or other U.S critical infrastructure sectors
    - The extent to which the proposed manufacturing processes can easily be converted to produce different types of semiconductors in times of disruption
- **Back-End Production Facilities**
    - The extent to which the proposed project would support U.S. leadership in advanced technologies, such as advanced packaging
    - The extent to which the proposed project would promote U.S. competitiveness by lowering the cost of conventional packaging in the United States

- **Wafer Manufacturing Facilities**
    - The extent to which the proposed project mitigates vulnerabilities associated with geographic concentration
    - The extent to which the proposed project contributes to the competitiveness and innovativeness of the U.S. semiconductor ecosystem
- **Semiconductor Materials and Manufacturing Equipment Facilities**
    - The extent to which the proposed project strengthens supply chain resilience by reducing vulnerabilities associated with geographic concentration, supply-chain bottlenecks, and/or production in foreign countries of concern
    - The extent to which the proposed project helps build productive and self-sustaining semiconductor ecosystems, including by clustering with semiconductor fabrication facilities or otherwise improving the competitiveness and innovativeness of the U.S. semiconductor ecosystem
    - The extent to which a proposed project advances economic security by locating critical manufacturing in the United States and contributing to the U.S. innovation ecosystem

b. **National Security Objectives**

This component of the criterion will assess whether applicants address national security considerations, including by securing supply chains for technologies used by government organizations and their contractors. In addition, it will assess a project's operational vulnerabilities and resilience to threats from foreign entities of concern. The assessment of this component of the criterion will consider:

- The extent to which the proposed project will produce semiconductors that are relied on or will be relied on by the U.S. Department of Defense, other government systems, or critical infrastructure
- The extent of the availability of other mechanisms to support future government national security needs, such as the ability to protect export-controlled and other information, prevent espionage, provide U.S. government access to facility output, or adapt commercial production for low-volume and high-mix national security components
- The quality of the applicant's strategy for mitigating key risks to operational security, supply chain security, and cybersecurity, including:
    - The likelihood that the applicant will protect semiconductor production and use for national security purposes from insider threats and external interference, if applicable
    - The likelihood that the applicant can effectively establish security of intellectual property (i.e., core IP and manufacturing process know-how) and government assets, particularly if serving national security, export-controlled, or critical infrastructure needs
    - The comprehensiveness and maturity of the applicant's cybersecurity and cyber-supply chain risk management plans and activities
    - The extent to which the applicant has identified and mitigated any risks or vulnerabilities associated with dependence on foreign-owned or sourced inputs, equipment, facilities, personnel, or subsequent manufacturing steps

- The quality of the applicant's supply chain resilience plan and risk management strategy, to include:
    - The quality of the applicant's supply chain resilience plan and analysis of key chokepoints, including the likelihood of obtaining supply of materials, equipment, and components as needed for successful operations under adverse scenarios
    - The sufficiency of the supply chain resilience and risk management efforts to document supply chain risks and how the applicant intends to address or mitigate those risks
- The likelihood that a foreign entity of concern will pose an undue risk to the project or U.S. national security interests, such as through control, access to information, or other means

c. **Additional Considerations for Projects Related to Mature Nodes**

For applications for additional assistance for mature nodes, the assessment will consider a project's likelihood of directly increasing the number of semiconductors produced in the United States at mature nodes and supplying those semiconductors to critical manufacturing industries.

2. Commercial Viability

This criterion addresses the project's long-term commercial viability to ensure there is a reasonable market environment and demand for the project's output. The assessment of this criterion will consider the extent to which the application adequately demonstrates:

- Robust demand for proposed project output, including differentiated use cases in end market industries
- Size and diversity of the customer base, including evidence of any large offtake (or similar) agreements with customers or other evidence of specific customer demand
- Projected existing and planned future supply and how this project impacts the overall supply/demand dynamic for the project output
- Expected volume and pricing dynamics for the output, including sensitivity to cyclical fluctuations and economic downturns
- Technology obsolescence risk during the useful life of the facility, and associated plans for maintenance and upgrades to keep the facility competitive and commercially viable for its useful life
- Stability and predictability in sourcing of key supplies, including actual and potential long-term contracts with suppliers

3. Financial Strength

This criterion addresses the project's financial strength and its ability to withstand stress in market downturn conditions. The assessment of this criterion will consider:

- Financial strength of the applicant and/or the applicant's parent company relative to the proposed project, as demonstrated by its current financial position, historical performance, and other factors, as applicable

- Comprehensiveness and reasonableness of the projected capital expenditures and other costs incurred to reach cash flow breakeven
- Likelihood that the project will generate sustainable earnings and operating cash flows, specifically considering:
    - Economic viability and profitability of the project considering key metrics like underlying volume and pricing assumptions, gross margins, cash margins, and ongoing capital expenditures
    - The impact of different stress scenarios (e.g., lower than anticipated sales volumes and prices, reduced project performance, loss of major customers, loss of key component or material suppliers, high input material prices, the impact of future competing technologies), and the extent to which contingency plans are likely to be effective
    - Ability of the project to generate sufficient cash flows to service the project's debt obligations, if any, over the life of the project, even under stress conditions, and extent to which contingency plans are likely to be effective
- Degree to which the applicant has committed private investment and/or attracted third-party private investment to increase scale and reduce the need for CHIPS Incentives, specifically considering:
    - The specificity of the overall sources of funds, including the amount of investment from the applicant and the degree to which the project leverages outside sources of capital, including prudent levels of debt and economically viable financing structures from other potential funding sources
    - The degree to which the project has already secured capital and the reasonableness of the terms of that capital
    - The extent and nature of support from state and local governments, including whether state and local incentives and investments are designed to create spillover benefits that benefit a wide set of stakeholders and improve the region's economic resilience
- Degree to which the request for CHIPS Incentives is reasonable and necessary to make the project viable in the United States, including whether the request is sized appropriately based on cash flow modeling, IRR analysis, sensitivity analysis, and other applicable analyses, and whether the projected IRR in the cash flow model is reasonable based on the expected risks and returns of the project, historical projects of similar nature, or other relevant market benchmarks
- For applicants seeking CHIPS Loans/Loan Guarantees: Creditworthiness of the applicant and its parent company or others providing credit support (as applicable); the strength of cash flows relative to debt service requirements under base case and stress conditions; and the rationale for seeking CHIPS Loans and/or CHIPS Loan Guarantees beyond financing available in private markets. In addition, for CHIPS Loan Guarantees, the creditworthiness of third-party lenders and co-lenders, and the extent of risk sharing.

4. Technical Feasibility and Readiness

This criterion addresses the feasibility of execution of the project from construction to ongoing operational execution and maintenance. The assessment of this criterion will consider:

- Organizational Readiness: The extent to which the applicant and key partners (e.g., general contractor, engineering firms, equipment installers, etc.) have the necessary experience and governance structure to complete and operate a project of this scale, including:
    - The extent to which the applicant has successfully executed similar projects and can demonstrate the economic, technical, and project management success of those similar projects
    - If the applicant is collaborating with partners, including as part of a project consortium, the extent to which the operating model is effectively structured (e.g., working model, governance, decision-making authority)
- Technology and Manufacturing Processes: Likelihood that the applicant will successfully execute the technology and manufacturing processes proposed in the project, including, for example:
    - Assessment of the competencies, strengths, and experiences of the applicant and key partners as it relates to the technology and manufacturing processes proposed
    - Feasibility of the technology and manufacturing processes outlined in the project proposal
    - Whether the project has obtained access to the intellectual property required
- Construction Plan: The extent to which the applicant has a viable construction plan and appropriate mechanisms in place to reduce construction risks and develop the necessary construction workforce. Examples include:
    - The depth and quality of the applicant's experience, including the key personnel responsible for executing the construction of the proposed project
    - Timing for completion of construction and production ramp up schedule, including ability to achieve full-scale production in a reasonable timeframe and mitigation plan for project delays and cost overruns
    - Degree to which key contractual arrangements necessary to the success of the construction have been secured or are likely to be secured
    - Competencies, strengths, and experiences of key partners (e.g., equipment suppliers and engineering, architectural, and design companies)
    - Compliance record of construction contractors and subcontractors with Federal labor laws and the extent to which steps are in place to prevent the misclassification of workers on the construction site
- Environmental Risk: Likelihood and extent to which the project could face regulatory delays, such as in a permitting or environmental review process, including the level of NEPA review that would be required for the project

5. Workforce Development

The criterion addresses the degree to which the workforce development plans set out a coherent, achievable, and equitable strategy to address talent needs and generate the workforce needed to execute on the applicant's project goals. The assessment of this criterion will consider the:

- Completeness, cohesiveness, and feasibility of the strategies and financial plan to recruit, secure, and train the skilled and diverse workforce necessary to complete the proposed projects and operate the facilities, including:

    - Workforce needs assessment
    - Worker recruitment and retention plan
    - Commitment to good jobs as defined by the Departments of Labor and Commerce's Good Jobs Principles
    - Worker training plan and wraparound services that reduce barriers to access to and completion of the training
    - Metrics for success
- Capacity, resourcing, and cohesiveness of the applicant's partnerships, including the extent of the applicant's engagement with a broad range of strategic partners; whether the applicant has formed a sectoral partnership; whether there is a clear delineation of roles and responsibilities among partners; and quality of participation commitments of community colleges and other higher education institutions, high school career and technical education programs, labor unions, and other entities
- The depth and quality of the applicant's equity strategy to recruit, hire, train, and retain a skilled and diverse facility and construction workforce, including the specific steps that will be taken to recruit, hire, train, and retain economically disadvantaged individuals and disclose data on workforce and training participant diversity, as well as the extent to which the plan draws on evidence-backed approaches
- Whether the applicant plans to use apprenticeship readiness and other programs that successfully train diverse populations
- Quality of the construction workforce plan, including the completeness, cohesiveness, and feasibility of the strategy to recruit, secure, and train the workforce necessary to complete the proposed project, including whether the applicant plans to use a project labor agreement
- For applicants requesting CHIPS Direct Funding over $150 million, the sufficiency, quality, and feasibility of the plans to provide facility and construction workers with access to affordable, accessible, reliable, and high-quality child care; for applicants requesting less than $150 million, quality of plans to provide access to child care for facility and construction workers to the greatest extent feasible

6. Broader Impacts

This criterion addresses the degree to which the proposed project will provide broader public impacts. The assessment of this criterion will consider:

- Strength of commitment to invest in ongoing capital programs in the United States and complementary commitments; e.g., the extent of the applicant's commitments to refrain from stock buybacks
- Explicit evidence of real and credible commitments to building domestic R&D facilities (and in participating in other major R&D efforts in the United States) to ensure process technology innovation is occurring in the United States and a sustainable ecosystem is being built
- Strength of the applicant's commitment to support CHIPS R&D programs such as the NSTC and NAPMP and other programs that strengthen and advance U.S. leadership in R&D, including participation in networks of universities, colleges, and employers that foster innovation in the U.S. semiconductor ecosystem

- Quality and comprehensiveness of the applicant's strategy for engaging with small, minority-owned, veteran-owned, and women-owned businesses as strategic partners, suppliers, or contractors or subcontractors, and commitment to tracking and disclosing disaggregated data on supplier diversity and contractor/subcontractor diversity
- Quality of the applicant's climate and environmental responsibility plan, including renewable energy use, climate resilience, water conservation, sustainability transparency, and addressing environmental justice concerns
- Quality and comprehensiveness of the applicant's plans to develop local community investments that will drive regional equity and inclusion and broad-based growth, especially through regional economic clusters, as well as the degree of demonstrated community support and alignment of investments with local needs
- Strength of intent to use domestically produced iron, steel, and construction materials

B. Prioritization and Selection Factors

The prioritization and selection factors for selecting applications for funding are below. The Department will give significant primary weight to the first factor in prioritizing applications in the review and selection process.

- Contribution to economic and national security, consistent with strategic goals described in Section I.C.1 and the evaluation criteria described in Section V.A.1
- Efficient use of taxpayer dollars, as described in Section I.C.3 and the evaluation criteria in Section V.A.3
- Creation of broader impacts, consistent with the description in Section I.C.6 and the evaluation criteria in Section V.A.6
- Extent to which the applicant is prepared to proceed to execution
- Whether the project will produce chips for critical infrastructure
- Whether the applicant, or a corporate affiliate of the applicant, has previously received financial assistance in this program
- Whether the project duplicates other projects funded by the Department or other Federal agencies
- Diversity of awards in the program, including based on geographic location of facilities receiving support and the size of awards

C. Review and Selection Process

For eligible, complete, and responsive applications, the Department will convene an Investment Committee to conduct a merit review and consider whether to advance applications through the process or deny applications. If the Investment Committee determines that an application is sufficiently meritorious to be eligible to receive a CHIPS Incentives Award, it may make a recommendation to a Transaction Review Committee composed of senior Department of Commerce leadership. The Transaction Review Committee must approve an application prior to issuance of a CHIPS Incentives Award. The following sections describe this process in greater detail.

1. Full Application Review

Full applications will be reviewed upon receipt to determine eligibility, completeness, and responsiveness to this NOFO, including the program priorities (see Section I.C). Full applications determined to be ineligible, incomplete, or nonresponsive will be returned to the applicant. The Department may, at its discretion, review a substantially complete application if any gaps in information can be rectified easily during the review process.

An Investment Committee will conduct an individual, qualitative merit assessment of each eligible, complete, and responsive full application against the evaluation criteria in Section V.A. The Department may contact applicants at any point during the process to obtain additional or clarifying information. The review process may include interviews with applicants and consultation with outside contractors or experts if deemed necessary to assist in the merit assessment.

The Investment Committee will make a written determination, based on the qualitative assessment, the program requirements, the evaluation criteria (Section V.A) and one or more of the prioritization and selection factors (Section V.B), that:

- The application, or one or more projects in it,[56] is eligible for an award and should advance to the due diligence phase
- The application should be held for later consideration pending review of other applications, or
- The application should be denied, which shall be a final and non-appealable decision[57]

For projects advancing from the full application phase to the due diligence phase, the Department will prepare a non-binding Preliminary Memorandum of Terms, subject to Investment Committee approval, that will include recommendations for the amount and form of any CHIPS Incentives and key terms that should be considered for inclusion in an award. These recommendations may deviate from what the applicant requested. The Department will provide the Preliminary Memorandum of Terms to the applicant for review and negotiation prior to or upon entering the due diligence phase.

After approving an application for entry into the due diligence phase, the Investment Committee may recommend an application to a Transaction Review Committee, which is the selecting official and must approve any applications for funding under this NOFO. The Transaction Review Committee may accept, modify, or reject a recommendation of the Investment Committee, or return the recommendation for further evaluation, negotiation, or due diligence. In considering a recommendation, the Transaction Review Committee may consider any information available to it. The Transaction Review Committee may compare multiple full

[56] As noted above, see Section I.B.5, an application may contain more than one project. The Department may choose to advance through the review process and select for funding less than all of the projects proposed in an application.
[57] Further submissions by the same applicant for the project(s) proposed in a denied application will not be reviewed or considered.

applications and use one or more of the prioritization and selection factors to choose which full applications(s) to select.

The Department may work with applicants throughout the process to maximize the chance of achieving the program's economic and national security objectives, including, for example, through discussing changes to application scope or CHIPS Incentives requests. Such discussions are not themselves part of the merit review, and the merit review will be completed on the application as submitted or revised.

2. Due Diligence

Before selecting a full application for funding, the Department will conduct due diligence of the full application for—including, but not limited to—national security risks, financial and commercial information, environmental impacts, and other issues, to inform a final determination on whether to make a CHIPS Incentives Award and on what terms.

An invitation to the due diligence phase is not an assurance of funding. Negotiation of the key terms of the CHIPS Incentives Award will continue at this stage, and even if funding is ultimately awarded, the terms may end up differing from the non-binding Preliminary Memorandum of Terms depending on the negotiation, information uncovered during due diligence, program priorities, and the availability of funds. During the diligence phase, the Department will work directly with applicants to obtain all information required at this stage. Due diligence may also include obtaining information from sources other than the applicant. The Investment Committee and the Transaction Review Committee may receive updates throughout this process. The Department may use the services of financial, commercial, technical, environmental, or other consultants or contractors and outside legal counsel in the due diligence phase. Applicants will be required to pay for these services. Information about the services and their costs will be provided to applicants upon or before entering the due diligence phase. Applicants may withdraw their application if they do not agree to pay for these services.

When the due diligence phase is substantially complete, the Department and the applicant may negotiate the applicable terms of a Long-form Term Sheet for the requested CHIPS Incentives. The provisions of the Long-form Term Sheet will be more detailed than the Preliminary Memorandum of Terms and may vary from the Preliminary Memorandum of Terms based on the Department's due diligence, further analysis of the full application, and further negotiations.

3. Award Preparation and Issuance

If the Transaction Review Committee approves a full application, the Department will prepare and negotiate final award documents in accordance with the terms of the Transaction Review Committee's approval. If the Department decides to issue a CHIPS Incentives Award or Awards to the applicant, the final award terms are expected to be substantially consistent with the Preliminary Memorandum of Terms or Long-form Term Sheet, as applicable, subject to the final results of the Department's due diligence, analysis of the full application, and any further negotiations. An application may be returned to the Transaction Review Committee if a deviation from the terms of its approval is required in the final award documents. Prior to the

execution of the final award documents, the Department will provide any notice to Congress required under the CHIPS Act.[58]

The awarding of the CHIPS Incentives Award occurs upon the issuance of Form CD-450 or comparable award form by a NIST authorizing officer. The award decisions of the NIST authorizing officer are final and may not be appealed.

D. Responsibility / Qualification Records on SAM.gov

In considering applications, the Department will consider the record of the applicant, as well as of its corporate parent, in executing programs or activities under Federal grants, cooperative agreements, procurement awards, other transactions, as well as its integrity and business ethics. As part of this consideration, prior to making a CHIPS Incentives Award, the Department will review and consider the non-publicly available information about that applicant in the designated integrity and performance system accessible through Responsibility / Qualification Records on SAM.gov (formally the Federal Awardee Performance and Integrity Information System (FAPIIS)). This review may also include the applicant's corporate parent or affiliates that are under common ownership and control. Each applicant, at its option, may review information in the designated integrity and performance system accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM. The Department will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards.

E. Additional Information

Any decision by the Department to deny an application shall be final and non-appealable. Unsuccessful applicants will be notified of a denial by e-mail and will have the opportunity to receive a debriefing. Unsuccessful applications will be retained in accordance with Department of Commerce recordkeeping requirements.

VI. Federal Award Administration Information

A. Federal Award Notices

Successful applicants will receive an award package from an authorized NIST official.

B. Third-Party Expenses and Fees

1. Third-Party Expenses

The Department may utilize independent technical, financial, environmental, or other consultants or contractors and outside legal counsel during the due diligence process. Each applicant, as applicable, shall be responsible for the payment of all expenses charged by the independent consultants or contractors and outside legal counsel in connection with an application.

[58] *E.g.*, 15 U.S.C. § 4652(a)(2)(C)(i)(III).

Notwithstanding payment by the applicant, all services rendered by an independent consultant, or contractor or outside legal counsel to the Department in connection with an application shall be solely for the benefit of the Department. The Department may require the payment of an advance retainer to such independent consultants or contractors or outside legal counsel as security for the collection of the fees and expenses charged by the independent consultants or contractors and outside legal counsel. In the event an applicant fails to comply with the provisions of such payment agreement, the Department, in its discretion, may stop work on or terminate an application, or may take such other remedial measures as it deems appropriate.

2. Maintenance Fee

An applicant receiving a CHIPS Loan or CHIPS Loan Guarantee must pay a non-refundable annual maintenance fee to cover the Department's administrative expenses, other than extraordinary expenses, incurred in servicing and monitoring the loan or loan guarantee. The maintenance fee shall accrue from the date of execution of the award through the date of payment-in-full of the related obligations. The maintenance fee shall be paid each year in advance, in the amount specified in the award, commencing with payment of a pro-rated annual payment prior to the financial closing date of the award, on or prior to the date and in the amount specified in the award.

C. Administrative and National Policy Requirements

1. Administrative Requirements

CHIPS Direct Funding, CHIPS Loans, and CHIPS Loan Guarantees will be subject to administrative requirements set forth in the terms of the CHIPS Incentives Award. These may include, but not be limited to, terms to ensure the appropriate use of Federal funds, compliance with programmatic requirements and commitments made by the applicant in the application, and conditions to mitigate project or applicant specific risks identified in the review process; remedies for noncompliance, including, but not limited to, temporarily withholding or suspending payments, disallowing costs, suspension or termination of the award, the return of funds made available under the award, the initiation of suspension or debarment proceedings in accordance with law; and other terms to ensure the efficient and effective execution of the project.

2. National Environmental Policy Act and other Federal Environmental Authorizations

Applicants must assist the Department with compliance with NEPA (42 U.S.C. § 4321 et seq.), and other applicable Federal environmental laws and authorities such as the National Historic Preservation Act, Endangered Species Act, Clean Water Act, and related Executive Orders. The Department may request that an applicant prepare draft environmental analyses, which it will analyze to determine the potential environmental impacts and consultation needs of projects receiving CHIPS Incentives Program funding. The Department expects applicants to design their projects so that they avoid, minimize, and mitigate the potential for significant effects on the human environment, as detailed in Section IV.I.11. The applicant will be responsible for obtaining and complying with applicable Federal, state, and local permits such as those required under the Clean Water Act, Clean Air Act, and Resource Conservation and Recovery Act. The

Department expects that each applicant invited to enter due diligence (see Section V.C.2) will be ready to begin the environmental review process and may request the applicant demonstrate such readiness before the Department invites the applicant to proceed to this phase. The Department encourages applicants to begin preparing for the environmental review process as early as possible so that the applicant can demonstrate its readiness to commence the project(s). Applicants should therefore prepare for the environmental review, including gathering data and analysis, engaging experts or outside contractors, etc., as early as possible. While actions taken by the applicant to demonstrate readiness do not guarantee selection for the due diligence phase, such actions will facilitate an expeditious environmental review process if selected for due diligence.

3. Davis-Bacon Requirements

All laborers and mechanics employed by the applicant, subrecipients, or contractors or subcontractors in the performance of construction, alteration, or repair work funded in whole or in part under this NOFO shall be paid wages at rates not less than those prevailing on similar projects in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code, commonly referred to as the "Davis-Bacon Act." Recipients of funding under this NOFO may also be required to undergo Davis-Bacon Act compliance training and to maintain competency in Davis-Bacon Act compliance.[59]

4. Compliance with Federal Employment and Labor Law

All applicants must comply with all applicable Federal labor and employment laws, including but not limited to Title VII of the Civil Rights Act of 1964, the Fair Labor Standards Act, the Occupational Safety and Health Act, and the National Labor Relations Act, which protects employees' right to bargain collectively and engage in concerted activities for the purpose of workers' mutual aid or protection.

5. Mega Construction Project Program

The Department will require a small number of recipients with costs above $35 million that receive awards under this funding opportunity to partner with the Department of Labor's Office of Federal Contract Compliance Programs (OFCCP) in the Mega Construction Project Program, if selected by OFCCP, as a condition of their award. Under this program, the Department will require recipients to make clear to prime contractors in the pre-bid phase that the recipient's award terms will require their participation in the Mega Construction Project Program.

6. Construction Clawback

The CHIPS Act requires the Department to determine target dates by which each project shall commence and complete.[60] If a project does not commence and complete by the target dates

[59] The U.S. Department of Labor offers free prevailing wage seminars several times a year that meet this requirement at https://www.dol.gov/agencies/whd/government-contracts/construction/seminars. For additional guidance on how to comply with the Davis-Bacon provisions and clauses, see https://www.dol.gov/agencies/whd/government-contracts/construction and https://www.dol.gov/agencies/whd/government-contracts/protections-for-workers-in-construction.
[60] 15 U.S.C. § 4652(a)(5)(A)

specified in an award, the Department shall progressively recover up to the full amount of an award provided to a covered entity.[61]

As part of the application process, applicants will be required to provide detailed information about project timelines (see Section IV.I.7). The Department will determine the specific target dates for each award based on information provided in the application and negotiations that occur during the review and selection process.

The Department may waive elements of the clawback requirements if circumstances beyond the ability of the covered entity to foresee or control are responsible for the delay.

7. Technology Clawback

Under the CHIPS Act, the Department shall recover the full amount of an award provided to a successful applicant if, during the applicable term with respect to the award, the applicant knowingly engages in any joint research or technology licensing effort (i) with a foreign entity of concern; and (ii) that relates to a technology or product that raises national security concerns, as determined by the Department and communicated to the applicant before engaging in such joint research or technology licensing.[62] Additional information on the implementation of this provision will be provided to applicants prior to award.

8. Foreign Country of Concern Expansion Clawback

Under the CHIPS Act, a successful applicant must enter into an agreement specifying that during the 10-year period beginning on the date of the award, it may not engage in any significant transaction involving the material expansion of semiconductor manufacturing capacity any foreign country of concern, except under certain limited conditions.[63] Additional information on the implementation of this provision will be provided to applicants prior to award.

9. Prohibition on Certain Telecommunication and Video Surveillance Services or Equipment

Recipients, as well as contractors and subrecipients, may not use funds received in a CHIPS Incentives Award for certain telecommunication and video surveillance services or equipment, as set forth in section 889 of the National Defense Authorization Act of 2019 (Pub. L. No. 115-232).

10. Fraud, Waste, and Abuse

The U.S. Department of Commerce Office of Inspector General (OIG) seeks to improve the efficiency and effectiveness of the Department's programs, including deterring and detecting fraud, waste, abuse, and mismanagement. The OIG accomplishes this mission primarily through investigations, audits, and inspections of Department activities, including grants, cooperative agreements, loans, and contracts.

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[61] 15 U.S.C. § 4652(a)(5)(B).
[62] 15 U.S.C. § 4652(a)(5)(C)
[63] *See* 15 U.S.C. § 4652(a)(6)(C)

Disclosures. Recipients of financial assistance from the Department shall timely disclose, in writing, to the OIG and Department, whenever, in connection with the award, performance, or closeout of an award under this NOFO, the recipient suspects that a principal, employee, agent, or subrecipient has committed: (a) A violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the United States Code; or (b) A violation of the Civil False Claims Act (31 U.S.C. §§ 3729-3733).

Reporting. The OIG maintains a hotline to receive allegations of fraud, waste, or abuse. To report such allegations, please visit https://www.oig.doc.gov/Pages/Hotline.aspx. Upon request, the OIG will take appropriate measures to protect the identity of any individual who reports misconduct, as authorized by the Inspector General Act of 1978, as amended. Reports to the OIG may also be made anonymously.

D. Funding Availability and Limitation of Liability

Funding for the program listed in this NOFO is contingent upon the availability of appropriations. In no event will the Department be responsible for application preparation costs. Publication of this NOFO does not oblige the Department to award any specific project or to obligate any available funds. The NOFO also is not intended to and does not create any rights enforceable by any alleged third-party beneficiaries.

If an applicant receives a CHIPS Incentives Award, the Department is not under any obligation to provide any additional future funding in connection with that award or to make any future award(s). Amendment or renewal of an award to increase funding or to extend the period of performance is at the sole discretion of the Department.

E. Reporting

The Department understands the importance of undertaking systematic data collection and other rigorous evaluative activities to assess the outcomes related to funds given under this NOFO. The Department is committed to this goal, and all applicants should expect this will be a requirement of all awards. The Department intends to collect a range of data from recipients, which include, but are not limited to information on: domestic production capacity; workforce pipeline expansion, particularly among underserved communities; environmental impacts, and implementation and effectiveness of environmental mitigation; and increased economic opportunity in communities. These data will be instrumental in understanding the effects of individual funded projects and will enable the Department to assess the extent to which the strategic objectives have been achieved.

All award recipients will be expected to comply with any reporting requirements, as well as any program evaluation activities undertaken by the Department. More detail regarding reporting requirements will be included in the non-binding Preliminary Memorandum of Terms. Applicants that progress to this phase will then be required to plan accordingly such that they can fulfill these requirements with fidelity.

1. CHIPS Incentives Financial and Programmatic Reports

The Department will track the performance of each CHIPS Incentives Award via financial and programmatic reports, in accordance with the award terms and conditions. Reports will generally

be required no less than semi-annually and must be submitted in an electronic format to be specified at the time of award.

2. Integrity and Performance Matters

If the total value of a covered entity's currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds $10 million for any period of time during the period of performance of a CHIPS Incentives Award made under this NOFO, then the covered entity shall be subject to the requirements specified in Appendix XII to 2 C.F.R. Part 200 for maintaining the currency of information reported to SAM that is made available in FAPIIS about certain civil, criminal, or administrative proceedings involving the recipient.

F. Federal Awarding Agency Contacts

Please direct programmatic inquiries to:

Michael Schmidt

Director, CHIPS Program Office
CHIPS Program Office
National Institute of Standards and Technology
Herbert C. Hoover Building
1401 Constitution Ave, NW
Washington, D.C. 20230
Phone: (301) 975-2000
Email: AskChips@chips.gov

Please direct grant management inquiries to:

Gilberto Castillo
Group Leader/Grants Management Officer
Grants Management Division
National Institute of Standards and Technology
100 Bureau Drive
Gaithersburg, MD 20899
Phone: (202) 281-8505
Email: gilberto.castillo@nist.gov

Please direct media inquiries to:

Maddy Broas
Press Secretary
CHIPS Program Office
Herbert C. Hoover Building
1401 Constitution Ave, NW
Washington, D.C. 20230

Phone: (301) 520-7407
Email: madeline.broas@chips.gov

VII. Appendix

A. Definitions

- advanced packaging – a subset of packaging technologies that uses novel techniques and materials to increase the performance, power, modularity, and/or durability of an integrated circuit. Advanced packaging technologies include flip-chip, 2D, 2.5D, and 3D integration, fan-out and fan-in, and embedded die/system-in-package (SiP).
- back-end semiconductor manufacturing – the fabrication processes after all the features/circuits have been created on the wafer, including assembly, testing, and packaging.
- covered entity – a nonprofit entity; a private entity; a consortium of private entities; or a consortium of nonprofit, public, and private entities with a demonstrated ability to substantially finance, construct, expand, or modernize a facility relating to fabrication, assembly, testing, advanced packaging, or production of semiconductors, materials used to manufacture semiconductors, or semiconductor manufacturing equipment.
- covered incentive – an incentive offered by a governmental entity to (A) a covered entity, for the purposes of constructing within the jurisdiction of the governmental entity, or expanding an existing facility within that jurisdiction, a facility described under "covered entity;" and (B) a workforce-related incentive (including a grant agreement relating to workforce training or vocational education), any concession with respect to real property, funding for research and development with respect to semiconductors, and any other incentive determined appropriate by the Secretary, in consultation with the Secretary of State.
- critical infrastructure – the 16 infrastructure sectors,[64] as defined by Presidential Policy Directive 21,[65] whose assets, systems, and networks, whether physical or virtual, are considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof.
- critical manufacturing industry – one of the industries in the table below, or any other manufacturing industry designated by the Secretary based on the relevance of the manufacturing industry to the national and economic security of the United States, including the impacts of job losses.

Industry	Associated NAICS Codes
Machinery manufacturing	333 (all)
Motor vehicle manufacturing	3361-3363

[64] *See* Cybersecurity and Infrastructure Security Agency, U.S. Dep't of Homeland Security, *Critical Infrastructure Sectors* (Oct. 21, 2020), https://www.cisa.gov/critical-infrastructure-sectors.
[65] *See* The White House, Presidential Policy Directive /PPD-21, Critical Infrastructure Security and Resilience (2013).

Computer and electronics manufacturing	334 (all)
Transportation equipment manufacturing (e.g., aerospace products and parts)	336 (all)
Chemical products manufacturing	325 (all)
Food manufacturing	311-312
Fabricated metals manufacturing	332 (all)
Medical equipment and supplies manufacturing	3391
Navigational, measuring, electromedical, and control instruments manufacturing	3345
Electrical equipment, appliance, and component manufacturing	335 (all)
Primary metals manufacturing	331 (all)

- economically disadvantaged individuals – individuals whose ability or opportunity to compete in the economy has been impaired due to an individual's (1) membership in a group that has been subjected to racial or ethnic prejudice or cultural bias within American society; (2) gender; (3) veteran status; (4) limited English proficiency; (5) disability status; (6) long-term residence in an environment isolated from the mainstream of American society; (7) membership in a Federally or state-recognized Indian Tribe; (8) long-term residence in a rural community; (9) residence in a U.S. territory; (10) residence in a community undergoing economic transitions (including communities impacted by the shift toward a net-zero economy or deindustrialization); (11) individuals without a college degree; or (12) membership in another "underserved community," as defined in Executive Order 13985.
- front-end semiconductor fabrication – the process of forming devices like transistors, poly capacitors, non-metal resistors, and diodes on a wafer of semiconductor material.
- materials used to manufacture semiconductors – the chemicals, gases, raw and intermediate materials, and other consumables used in semiconductor manufacturing. Specific examples include but are not limited to polysilicon; photoresists and ancillaries (developers, strippers, litho solvents, and anti-reflective and hardmask layers); sputter targets (including tantalum, titanium, and aluminum); and materials specifically used in quantum information systems (such as hafnium and niobium).
- mature technology node – generations of logic and analog chips that are not based on fin field-effect transistor (finFET) or post-finFET transistor architectures, or any sub-28 nanometer (nm) transistor architectures.
- minority-owned business – a business where not less than 51 percent of the ownership or control of which is held, directly or indirectly, by one or more minority individuals; and not less than 51 percent of the net profit or loss of which accrues to one or more minority individuals.
- Secretary – the Secretary of Commerce.

- semiconductor – an integrated electronic device or system, most commonly manufactured using materials such as, but not limited to, silicon, silicon carbide, or III-V compounds, and processes such as, but not limited to, lithography, deposition, and etching. Such devices and systems include but are not limited to analog and digital electronics, power electronics, and photonics, for memory, processing, sensing, actuation, and communications applications.
- semiconductor manufacturing equipment – specialized equipment integral to the manufacturing of semiconductors and subsystems that enable or are incorporated into the manufacturing equipment. Specific examples of semiconductor manufacturing equipment include but are not limited to: (1) deposition equipment, including Chemical Vapor Deposition, Physical Vapor Deposition, and Atomic Layer Deposition; (2) etching equipment (wet etch, dry etch); (3) lithography equipment (steppers, scanners, extreme ultraviolet); (4) wafer slicing equipment, wafer dicing equipment, and wire bonders; (5) inspection and measuring equipment, including scanning electron microscopes, atomic force microscopes, optical inspection systems, and wafer probes; (6) certain metrology and inspection systems; and (7) ion implantation and diffusion/oxidation furnaces.
- supply chain – a system of organizations, people, activities, information, and resources, possibly international in scope, that provides products or services to consumers in the private and public sectors. For the purposes of this NOFO, the scope of this definition encompasses any organization that directly contributes to the lifecycle of a semiconductor, especially focusing on the design, manufacturing, and packaging processes.
- veteran-owned business – a business where not less than 51 percent of which is owned by one or more veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans and the management and daily business operations of which are controlled by one or more veterans.
- wafer manufacturing – the high-volume production of semiconductor wafers, including wafers made from silicon, silicon carbide, and gallium nitride. Wafer manufacturing includes ingot production and wafer slicing, lapping, polishing, cleaning, and inspection.
- women-owned business – a business where not less than 51 percent of the ownership or control of which is held, directly or indirectly, by one or more women; and not less than 51 percent of the net profit or loss of which accrues to one or more women.