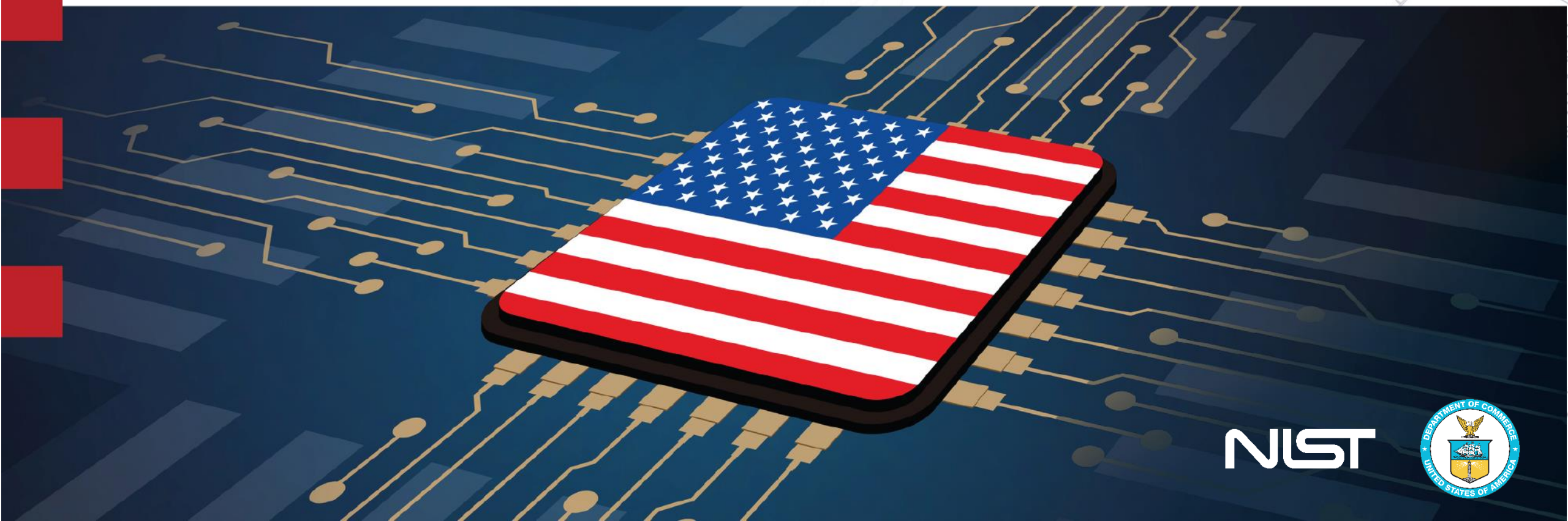
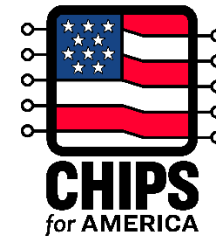


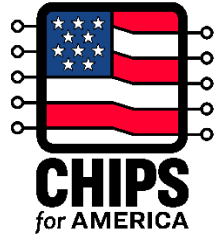
# CHIPS for America How to Complete a CHIPS Incentives Program Full Application

June 21, 2023



NIST





# TODAY'S CHIPS PROGRAM OFFICE SPEAKERS



**Jesse Stoneman**  
Public Engagement



**Sara O'Rourke**  
Investments Office Chief of  
Staff and Head of Operations



**Ben Schwartz**  
Director of National Security



**Hassan Khan**  
Economic Security



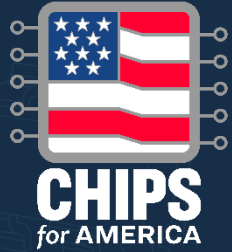
**Kent Twardock**  
Investment Director



**Hoshing Chang**  
Supervisory NEPA Coordinator



**Reginald Hicks**  
Head of Facilities Workforce



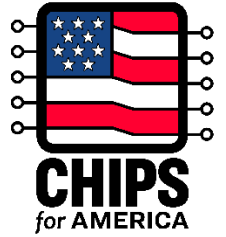
# AGENDA & OBJECTIVES FOR TODAY

## Agenda

- Reminder of CHIPS for America Vision – 5 mins
- Reminder of Application Process – 5 mins
- Overview of Full Application Requirements – 5 mins
- Deep Dives into Full Application Sections and Relevant Priorities – 60 mins
- Next Steps and Additional Resources – 5 mins
- Q&A – 10 min

## By the end, attendees should understand

- What is required for a full application
- What we're looking for in a successful full application
- How to submit a full application



# COMMERCIAL FABRICATION FACILITIES NOFO

*The CHIPS Incentives Program - Commercial Fabrication Facilities NOFO is the official funding announcement document. Nothing in this presentation or the accompanying materials is intended to contradict or supersede information in the NOFO. The NOFO controls in the event of any conflicts*

# CHIPS FOR AMERICA VISION



## Economic Security

The CHIPS Act will strengthen supply chain security and increase economic resilience in critical sectors.



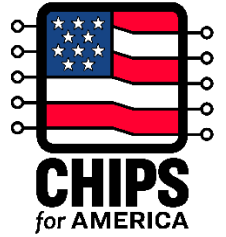
## National Security

The CHIPS Act will support U.S. manufacture of high-quality and secure chips for defense and other critical infrastructure applications.



## Future Innovation

The CHIPS Act will spur innovation, increase competitiveness, and ensure long-term U.S. leadership in the sector.



# FUNDING OPPORTUNITIES

February 28, 2023

## 1<sup>st</sup> Notice of Funding Opportunity

For commercial leading-edge, current, mature node fabrication and back-end facilities

*Focus of today's webinar*

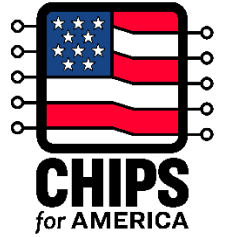
## 2<sup>nd</sup> Notice of Funding Opportunity

For material suppliers and equipment manufacturers

## 3<sup>rd</sup> Notice of Funding Opportunity

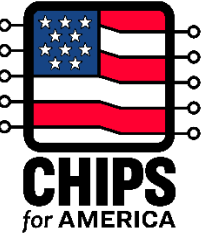
To support the construction of semiconductor R&D facilities

Full Application submission will be available for NOFO 1 eligible applicants



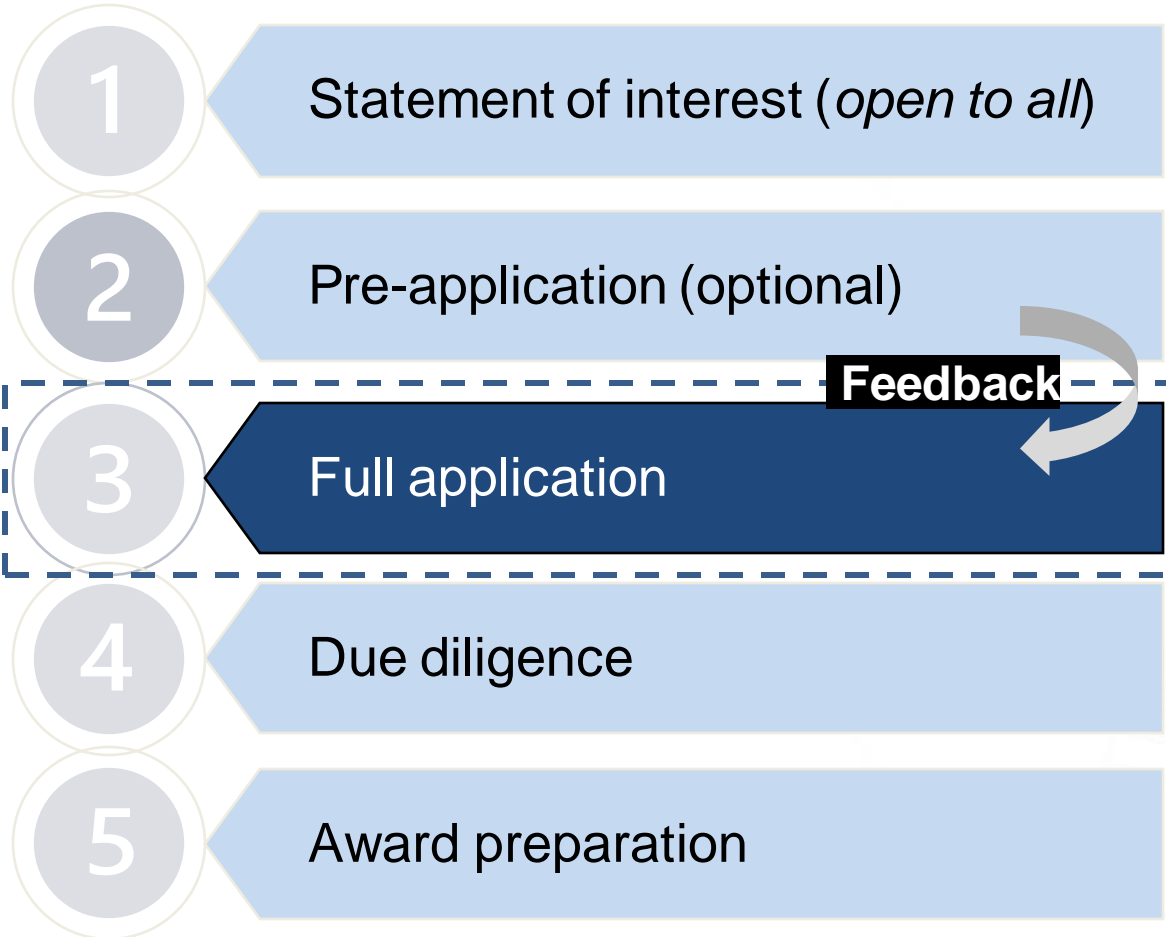
# ELIGIBLE COMMERCIAL FABRICATION FACILITIES

<b>Leading-Edge Logic &amp; Memory</b>	<ul style="list-style-type: none"><li>- <b>Logic:</b> high-volume facilities capable of producing semiconductors using extreme ultraviolet (EUV) lithography tools</li><li>- <b>Memory:</b> 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.</li></ul>
<b>Current-Generation</b>	Facilities capable of producing semiconductors that are up to 28 nm process technologies, and include logic, analog, radio frequency, and mixed-signal devices
<b>Mature- Node</b>	Facilities capable of fabricating generations of <ul style="list-style-type: none"><li>- Logic and analog chips that are not based on FinFET, post-FinFET transistor architectures, or any other sub-28 nm transistor architectures</li><li>- Discrete semiconductor devices such as diodes and transistors</li><li>- Optoelectronics and optical semiconductors</li><li>- Sensors</li></ul>
<b>Back-End Production</b>	Facilities for assembly, testing, or packaging of semiconductors that have completed the front-end fabrication process including advanced packaging



# APPLICATION PROCESS

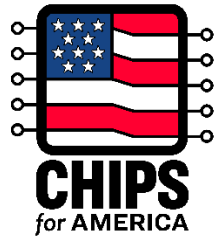
## Submissions accepted as of....



Leading-edge	Current-gen, mature-node, and back-end
February 28, 2023	February 28, 2023
March 31, 2023	May 1, 2023
March 31, 2023	June 26, 2023

*Focus for today*

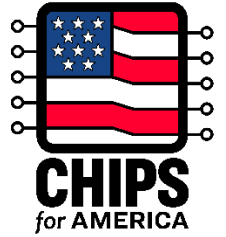




## APPLICATION PROCESS – FULL APPLICATION

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**.... 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**.

*- CFF NOFO Section 1. B.*



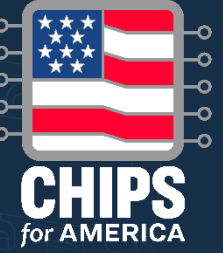
# FULL APPLICATION OBJECTIVE

## Objectives

- Create opportunity to be considered for CHIPS Incentives Awards
- Enable evaluation of proposed project(s)
- If selected, negotiate preliminary terms of potential award

**The applicant will not be considered for award until a complete full application is submitted**

# EVALUATION CRITERIA



Economic  
and national  
security  
objectives



Commercial  
viability



Financial  
strength



Technical  
feasibility  
and  
readiness






Workforce  
development

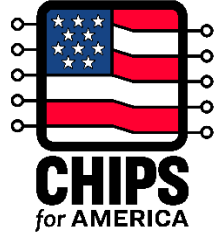




Broader  
impacts

# CHECKLIST OF FULL APPLICATION REQUIREMENTS

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

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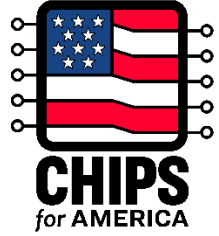



Section	Description	Submission Type
<b>A</b> Cover Page	Basic applicant, application, and contact information	
<b>B</b> Covered Incentive	Letter from state or local gov't. demonstrating covered incentive agreement	
<b>C</b> Description of Project(s)	Detailed project description	 
<b>D</b> Applicant Profile	Detailed applicant information, financial statements, equity capital structure, and outstanding debt	 
<b>E</b> Alignment with Economic and National Security Objectives	Description of how the project(s) meet economic and national security objectives	
<b>F</b> Commercial Strategy	Overview of end-markets, market position, competitors, and supply chain	
<b>G</b> Financial Information	Sources & uses, financial models, scenarios, & incentives/ loan requests	  
<b>H</b> Project Technical Feasibility	Technology viability, construction plan, and environmental questionnaire	
<b>I</b> Organization Information	Detailed org., management, and consortium information (if applicable)	 
<b>J</b> Workforce Development Plan	Facility & construction workforce needs and strategy	 
<b>K</b> Broader Impacts	Impacts on industry, local, and national communities	
<b>L</b> Standard Forms	Additional forms relating to lobbying, foreign interests, and other development information	

# A COVER PAGE

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-  Web Form



	<i>Name of Application</i>
	<i>Applicant Organization Information</i>
	<i>Applicant Point of Contact</i>
	<i>Partnership Information</i>

## ★ *Application organization information*

- As part of applicant org. info, Unique Entity Identifier (UEI) from SAM.gov is an optional field, however, it is required to receive an award
- We recommend starting the SAM.gov registration process as early as possible, as it may take 6 months or more

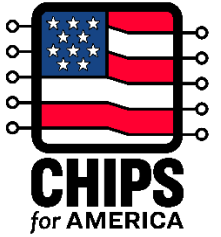
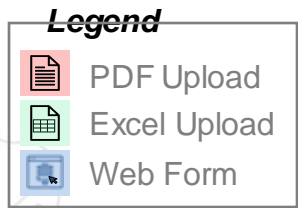
## ★ *Partnership information*

- List all entities you anticipate partnering with in a meaningful way
- Partnerships are important in demonstrating potential to engender a productive, efficient, and self-sustaining ecosystem (e.g., with suppliers, customers, third-party financing, and workforce)

## B COVERED INCENTIVE






*Covered Incentive Letter  
from State or Local  
Governments*

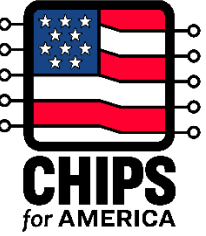


### ★ Covered Incentive Letter













- A covered incentive letter is required for a full application
- A “covered incentive” may take many forms, including a **tax incentive for the purposes of constructing, expanding, or modernizing a facility within that jurisdiction, a workforce-related incentive, or any concession with respect to real property, funding for semiconductor R&D, or any other incentive determined appropriate by the CPO**
- Workforce or community investment and covered incentives **prior to the release** of the funding opportunity **will be accepted**

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# C DESCRIPTION OF PROJECT(S)

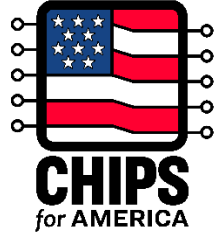
 	<i>Description of Projects</i>
 	<i>Consortium Description (if applicable)</i>
 	<i>Cluster Profile</i>
 	<i>Project Timeline</i>
 	<i>Summary Narrative Addressing Evaluation Criteria</i>
 	<i>CHIPS Incentives Justification</i>








- ★ *Cluster Profile*
  - Describe how the project will attract supplier, workforce, and other related investments, thus creating a more productive, efficient, and self-sustaining ecosystem and catalysing future upgrades and expansions
  - The CHIPS program office vision for success includes at least two new large-scale clusters of leading-edge logic fabs
- ★ *Summary Narrative Addressing Evaluation Criteria*
  - Summarize how the project supports the six evaluation criteria (ECs) laid out in the NOFO
- ★ *CHIPS Incentives Justification*
  - Explain 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

# D APPLICANT PROFILE

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	<i>Descriptive Applicant Information</i>
 	<i>Company Financials</i>
 	<i>Equity Capital Structure</i>
 	<i>Outstanding Debt</i>

★ *All Subsections*

- If the applicant is a subsidiary, the applicant should provide information for themselves, their ultimate corporate parent, and any key intermediate entities




★ *Company Financials*

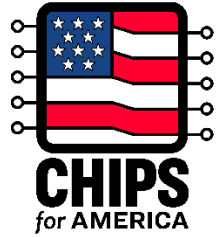
- Submit audited consolidated financial statements at fiscal year-end for each of the last 5 years
- If available, submit interim financial statements for the current fiscal year
- Include key financial metrics laid out in NOFO section IV.I.4



# E ALIGNMENT WITH ECONOMIC AND NATIONAL SECURITY OBJECTIVES

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-  Web Form




## ★ *Narrative Description*

Description of how project(s) meet Economic and National Security objectives laid out in Section I.C.1 of the NOFO

## ★ *Supporting Uploads*

- Cybersecurity - evaluation vs. cybersecurity framework<sup>1</sup>, security risk assessment
- Supply chain resilience and risk management plan
- Foreign ownership, control or influence risk self-identification

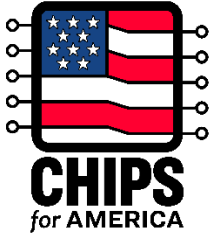


*Narrative Description of how project meets Economic and National Security objectives*



*Supporting Uploads (optional)*

# National Security

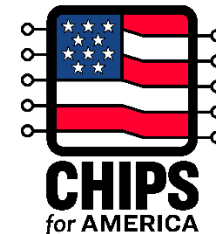


Improve the safety and security by supporting U.S. manufacture of a dependable supply of trustworthy products, and protecting the data and technologies critical to the security of the U.S.



Products	<ul style="list-style-type: none"><li>• Useable in Defense and Critical Infrastructure</li><li>• Secure by design (e.g. anti-tamper / anti-counterfeit)</li></ul>
Facilities	<ul style="list-style-type: none"><li>• Ability to detect and mitigate variety of security risks</li><li>• Robust security plan and milestones that identifies applied regulations, certifications, standards, etc.</li></ul>
Supply Chains	<ul style="list-style-type: none"><li>• Level of visibility and control of the supply chain</li><li>• Supply Chain Risk Management Plan that addresses foreign entities of concern, chokepoints, and counterfeits.</li></ul>

# Economic Security



## SEEKING PROJECTS THAT

- Increase U.S. semiconductor production and align with U.S. strategic needs
- Create a more resilient semiconductor supply chain
- Build foundry or other capacity to serve many different customers
- Will not happen in the absence of incentives
- Attract supplier, workforce, and other investments
- Contribute to a self-sustaining ecosystem and catalyze future upgrades

### Leading-edge

- Utilize the most advanced production technology and produce advances chips most critical to enhancing U.S. competitiveness
- Commit to ongoing investment and regular updates in U.S. facilities

### Current-generation and mature-node




- Support production of chips vital to manufacturing, healthcare, defense industrial base, and other critical economic infrastructure
- Resilient supply chain that withstands and adapts to disruptions

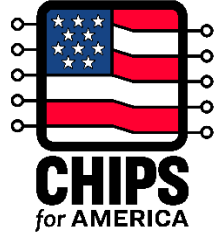
### Back-end production

- Establish U.S. technology leadership in advanced packaging for both logic and memory
- Support U.S. competitiveness by lowering the cost of conventional packaging in the U.S.

# F COMMERCIAL STRATEGY

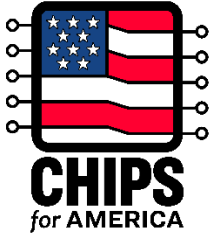
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	<i>End-market Demand Information</i>	 <i>End-market Demand Information</i> <ul style="list-style-type: none"><li>• Demonstrate customer demand (examples might include evidence of pre-purchase commitments, list of top 10 customers)</li></ul>
	<i>Market Position and Competitor Landscape</i>	 <i>Market Position and Competitor Landscape</i> <ul style="list-style-type: none"><li>• Assess key competitors, market dynamics, and market exposures</li></ul>
	<i>Stability of Supplies and Materials</i>	 <i>Stability of Supplies and Materials</i> <ul style="list-style-type: none"><li>• Describe strategies to ensure long-term existence of stable and predictable sources of materials</li></ul>
	<i>Improvement Plans</i>	 <i>Improvement Plans</i> <ul style="list-style-type: none"><li>• Describe existing plans and resourcing for continued investment</li></ul>

# Commerical Viability



Demand for the product

Size / diversity of customer base

Existing and planned supply




Expected volume and pricing dynamics

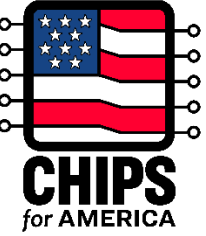
Ability to counter potential technological obsolescence of the facility



Domestic content preferences

# G FINANCIAL INFORMATION

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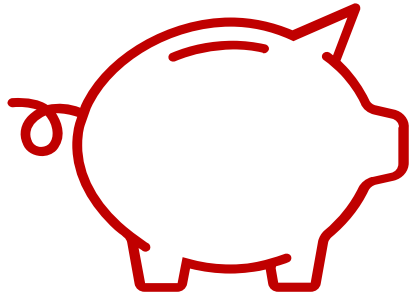
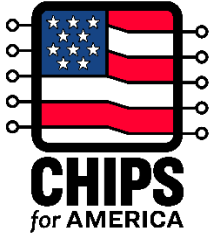
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  	<i>Project Sources and Uses of Funds</i>
	<i>Project Financial Statements and Metrics</i>
	<i>Scenario Analysis</i>
 	<i>Incentives Request</i>
 	<i>Loan or Loan Guarantee Request (optional)</i>

- ★ *Project Sources and Uses of Funds*
  - Include CHIPS incentives request and ITC as sources
- ★ *Project Financial Statements and Metrics*
  - Applicants are not required to use the provided financial model template
  - The pre-application model template is not suitable for full application submissions
- ★ *Loan or Loan Guarantee Request*
  - Applicants are not required to apply for CHIPS loans or loan guarantees, however, they are encouraged to maximize alternative financing sources

# Financial Strength



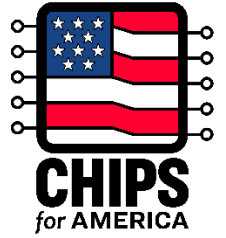
Financial strength of the applicant/parent

Financial strength of the project

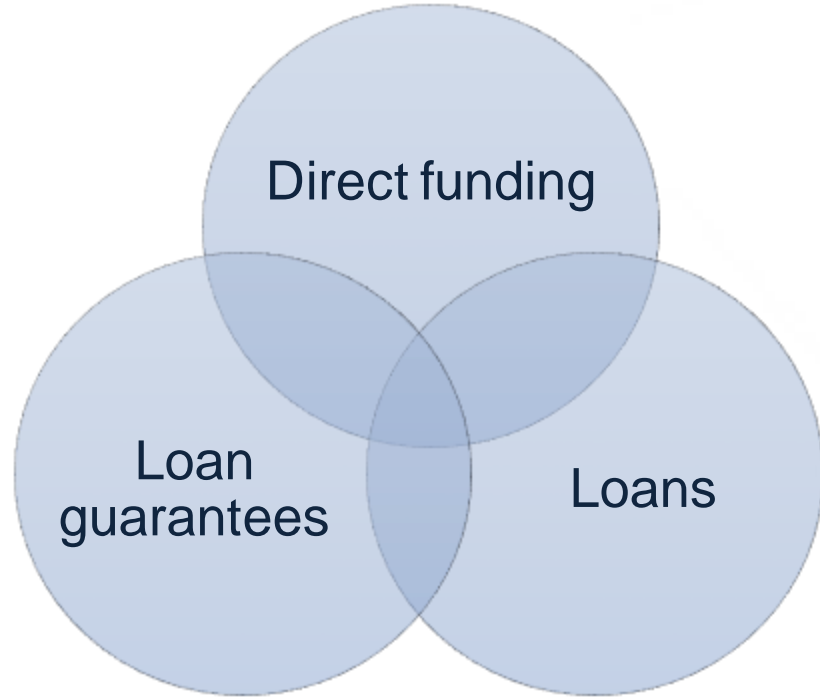
Commitment of private / third party investment

Reasonableness / suitability of CHIPS funding request

# Funding Instruments & Allocation



## Funding Availability



### Alternate funding sources:

- Private Investments
- Investment Tax Credit (26 U.S.C. § 48D)
- State & Local Incentives

## Total funding

For CHIPS **Direct Funding**, up to **\$38.2B** available in total

For CHIPS **Loans** and **Loan Guarantees**, up to **\$75B** in total in direct loan or guaranteed principal

## Funding by project




Direct funding expected to be **5-15% of project capital expenditures**

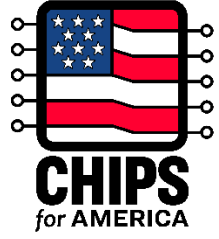
Expected total amount of a CHIPS Incentives Award expected not to exceed **35% of project capital expenditures**




# H PROJECT TECHNICAL FEASIBILITY

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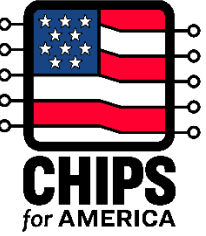


	<i>Technology and Manufacturing Processes</i>
	<i>Construction Plan</i>
	<i>Environmental Questionnaire</i>

- ★ *Technology and Manufacturing Processes*
  - Detailed description of the core underlying technologie(s) and manufacturing processes, their respective level of maturity and the applicant's relevant experience and expertise
- ★ *Construction Plan*
  - As part of the construction plan, submit an inventory of all Federal, state, and local permits, licenses, and approvals, including environmental authorizations
- ★ *Environmental Questionnaire*
  - If applicable, update previously submitted questionnaire and resubmit
  - The environmental team will work closely with you after submission of the questionnaire

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# I ORGANIZATION INFORMATION

	<i>Ownership, Legal Entity, and Organizational Structure</i>
	<i>Managerial Capacity</i>
 	<i>Consortium Applications</i>
	<i>Past Project History</i>
	<i>Intellectual Property Security</i>
	<i>Litigation and / or Conflicts</i>
 	<i>Advisors and Key Partners</i>

## ★ *Ownership, Legal Entity, and Organizational Structure*

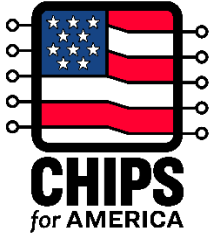
- Submit a chart showing parent companies, subsidiaries, affiliates and other relevant entities, including associated ownership of those entities
- Disclose any future mergers or changes to corporate structure

## ★ *Managerial Capability*

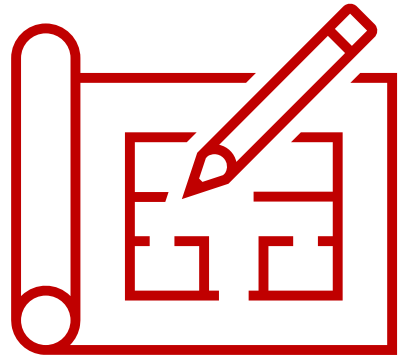
- Submit one-page resumes for all key management personnel, key personnel of contractors and other entities that will play substantial roles in the project.

## ★ *Past Project History*

- IRRs reported as part of past project history should reflect both projected and realized IRRs



# Technical Feasibility and Readiness

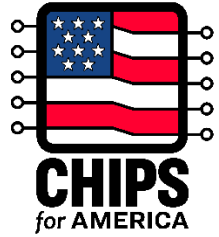


Organizational  
Readiness

Technology and  
Manufacturing  
Processes

Construction  
Plan

Environmental  
Risk



# ENVIRONMENTAL REVIEW: PERMITTING AND NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

1

Submit an environmental questionnaire (EQ) with app  
(see "Overview of the EQ", May 11 webinar)

2




CHIPS environmental review team will use the EQ to ensure required information is provided for our environmental review

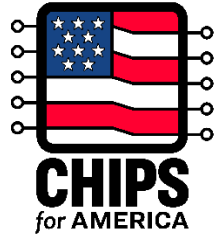
3


CHIPS environmental team will engage in an iterative process with applicants

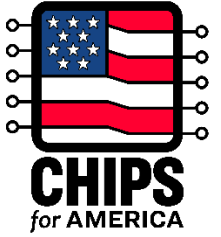
# J WORKFORCE DEVELOPMENT PLAN OVERVIEW

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-  Excel Upload
-  Web Form



 	<p><i>Facility Workforce Plan</i></p>	<p>★ <i>Facility Workforce Plan</i></p> <ul style="list-style-type: none"><li>• Describe strategic partnerships with workforce organizations</li><li>• Describe strategies to retain a diverse and skilled workforce</li></ul>
 	<p><i>Construction Workforce Plan</i></p>	<p>★ <i>Construction Workforce Plan</i></p> <ul style="list-style-type: none"><li>• Disclose any planned Project Labor Agreement (PLA's)</li><li>• Demonstrate history of compliance with Federal labor laws and safe workplaces</li></ul>
 	<p><i>Child Care Requirement</i></p>	<p>★ <i>Child Care Requirements</i></p> <ul style="list-style-type: none"><li>• Required only for projects requesting &gt;\$150MM in direct funding</li><li>• Identify Partners &amp; Operating Models, and any wraparound services plans</li></ul>



# Workforce Development

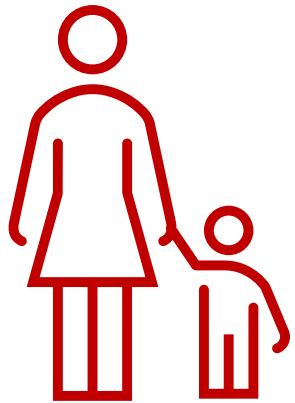
Recruit, hire, train, and retain a diverse and skilled construction and manufacturing workforce

Create & Identify good jobs by type, required skills, & numbers of workers

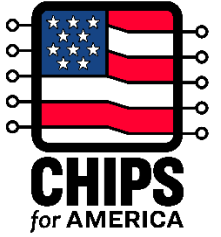
Include DEI Metrics that include women, people of color, veterans, and inclusive leadership models

Align the metrics and data to the hiring needs / gaps and link to strategic partnership

Provide milestones that create line of site to Good Job Principles



# Strong Partnerships Critical to Project Success



## Partners can help applicants:

Effective workforce investments rely on successful strategic partnerships, and partnerships will be critical to achieve CHIPS program goals.

Provide Letters of Commitment

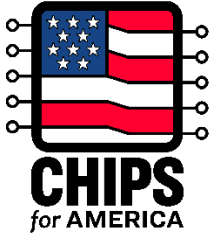
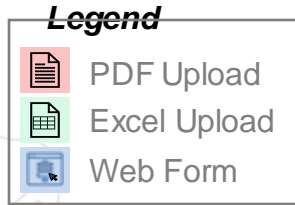
Identify financial resources to fund workforce development

Provide workforce development plans to meet the facility requirements

Retain and grow the workforce through Registered Apprenticeship programs

Applicants **must secure commitments** from strategic partners and are expected to engage with these partners on an **ongoing basis**.

# K BROADER IMPACTS

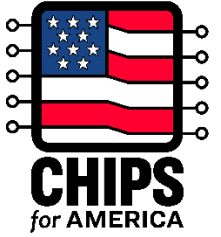


## *Overview of Broader Impacts*

## ★ *Overview of Broader Impacts Narrative*

- Commitments to future investment in the US semiconductor industry
- Buyback commitment
- Support for semiconductor research and development, including NSTC, NAPMP, and Manufacturing USA
- Supplier diversity plan
- Climate and environmental responsibility plan
- Community investments
- Plan to utilize domestically produced iron, steel, and construction materials





# Broader Impacts



Commitments  
to future  
investment

Support for  
semiconductor  
R&D

Inclusive  
opportunities  
for businesses




Climate and  
environmental  
responsibility

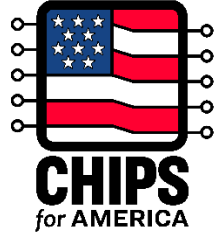
Community  
investments







Domestic  
content  
preferences

# L STANDARD FORMS

**Legend**

-  PDF Upload
-  Excel Upload
-  Web Form



	SF-328	★ SF-328	<ul style="list-style-type: none"> <li>• Certificate Pertaining to Foreign Interests</li> </ul>
	CD-511	★ CD-511	<ul style="list-style-type: none"> <li>• Certification Regarding Lobbying</li> </ul>
	SF-LLL (if applicable)	★ SF-LLL (if applicable)	<ul style="list-style-type: none"> <li>• Disclosure of Lobbying Activities</li> </ul>
	SF-424 (if applicable)	★ SF-424 (if applicable)	<ul style="list-style-type: none"> <li>• Application for Federal Assistance</li> </ul>
	S-424C and SF-424D (if applicable)	★ SF-424C and SF-424D (if applicable)	<ul style="list-style-type: none"> <li>• For the construction component of projects</li> </ul>
	SF-424A (if applicable)	★ SF-424A (if applicable)	<ul style="list-style-type: none"> <li>• For the construction component of projects</li> </ul>

# HOW TO SUBMIT



**Earliest submission for  
leading edge applicants  
March 31, 2023**

**Earliest submission for  
current-generation, mature-  
node or back-end production  
facilities  
June 26, 2023**

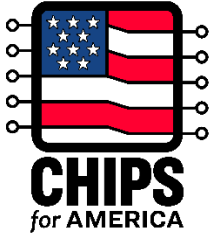


**Submit the full application  
through  
[applications.chips.gov](https://applications.chips.gov)**

## **After Full Application Submission**

The CHIPS Program Office may engage to

- ✓ Provide automatic confirmation of receipt
- ✓ Seek further information or clarification
- ✓ Provide feedback on scope of the proposed project and the amount of CHIPS Incentives requested
- ✓ If applicable, negotiate the preliminary terms of a potential award



# Next Steps and Additional Resources

## *Next Steps*

- Submit a Full Application
- Visit [CHIPS.gov](https://chips.gov) for additional resources
- Join our mailing list
- Contact us: [apply@chips.gov](mailto:apply@chips.gov) – application-related inquiries
- Upcoming webinars: Overview of the Financial Information Required for Full App

## *Additional Resources Available*

### *Instruction Guide*

- [Full Application Instructions](#)

### *Cover Page*

- [Cover Page Instructions](#)

### *Incentives Request*

- [Incentives Request Instructions](#)
- [Incentives Request Offline Template](#)

### *Financial Model*

- [Guiding Principles for Full Application Financial Model](#)

### *Sources and Uses*

- [Sources and Uses of Funds Instructions](#)
- [Sources and Uses Offline Template](#)

### *Environmental Review*

- [Environmental Questionnaire](#)

### *Workforce Development*

- [Workforce Development Planning Guide](#)

## FREQUENTLY ASKED QUESTIONS – PART 1



**I submitted a pre-application but haven't heard back yet. Can I submit a full application?**

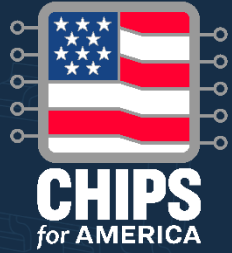
- We strongly encourage applicants to consider any pre-application feedback when deciding whether to prepare and submit a full application.
- This does not mean that applicants must wait, however, waiting for feedback is highly encouraged given the amount of effort required to prepare the full application

## FREQUENTLY ASKED QUESTIONS – PART 2



**I have most of my application materials prepared, but don't yet have my covered incentive letter. Can I still submit?**

- A covered incentive letter is required for a full application.
- This letter must include the estimated size and nature of the incentive and any contingencies, if applicable.
- 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.



## FREQUENTLY ASKED QUESTIONS – PART 3



**How soon should I expect to hear a final decision after I submit my full app?**

The timing for full application review and due diligence will vary from project to project and will depend on the nature and quality of each application.

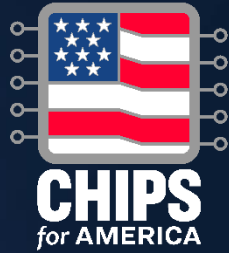
## FREQUENTLY ASKED QUESTIONS – PART 4



**I didn't submit an SOI or a pre-application, am I able to submit a full application?**

- Potential applicants must submit a statement of interest with a brief description of the planned application. Statements of interest must be submitted a minimum of 21 days before submission of a pre-application or a full application.
- Potential applicants are highly encouraged, although not required, to submit a pre-application prior to submitting a full application. 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.





NIST

