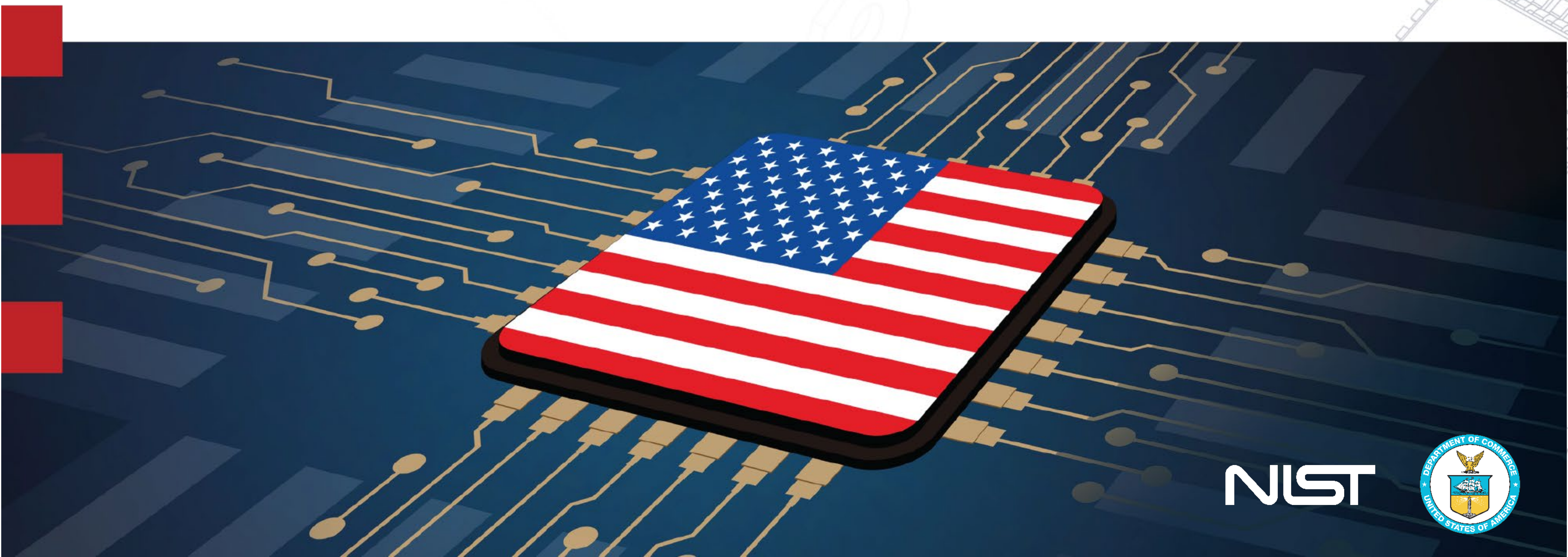
CHIPS for America How to Complete a CHIPS Incentives Program Pre-Application

April 11, 2023



Today's CHIPS Program Office Speakers

Todd Fisher
Chief Investment Officer

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

Dan Kim
Chief Economist and Director of Strategic Planning and Industry Analysis

Komie Jain
Director of the Environmental Division

Rachel Lipson
Senior Policy Advisor

AGENDA & OBJECTIVES FOR TODAY

Agenda

- Reminder of CHIPS for America Vision – 5 mins
- Reminder of Application Process – 5 mins
- Deep Dives into Pre-Application Sections and Relevant Priorities – 45 mins
- Next Steps and Additional Resources – 5 mins

By the end, attendees should understand

- Why should applicants submit a pre-application
- What is required for a pre-application
- What we're looking for in a pre-application
- How to submit a pre-application

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 ensure that the U.S. can manufacture advanced technologies, including secure chips for the U.S. military.

Future Innovation

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

Vision for Success

By the end of the decade…

Leading-Edge Logic

- ✓ The U.S. will have at least **two new large-scale clusters of leading-edge logic fabs**
- ✓ **U.S.-based engineers** will develop the process technologies underlying the **next gen of logic chips**

Memory

- ✓ U.S.-based fabs will **produce high-volume memory chips on economically competitive terms**
- ✓ **R&D for next-generation memory** technologies critical to supercomputing and other advanced computing applications will be **conducted in the U.S.**

Advanced Packaging

- ✓ The U.S. will be home to **multiple high-volume advanced packaging facilities**
- ✓ The U.S. will be a **global leader in commercial-scale advanced packaging technology**

Current-Generation and Mature

- ✓ The U.S. will have **strategically increased its production capacity** for current-gen and mature chips
- ✓ Chipmakers will also be able to **respond more nimbly** to supply and demand shocks

Funding Opportunities

February 28, 2023

1st Notice of Funding Opportunity

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

Focus of today's webinar

Late Spring 2023

2nd Notice of Funding Opportunity

For material suppliers and equipment manufacturers

Fall 2023

3rd Notice of Funding Opportunity

To support the construction of **semiconductor R&D facilities**

Pre-Application submission is only available for applicants eligible for NOFO 1

Eligible Commercial Fabrication Facilities

Leading-Edge Logic & Memory	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	Produce semiconductors that are up to 28 nm process technologies, and include logic, analog, radio frequency, and mixed-signal devices
Mature- Node	Fabricate generations of - Logic and analog chips that are not based on FinFET, post-FinFET transistor architectures, or any other sub-28 nm transistor architectures - Discrete semiconductor devices such as diodes and transistors - Optoelectronics and optical semiconductors - Sensors
Back-End Production	Assembly, testing, or packaging of semiconductors that have completed the front-end fabrication process including advanced packaging

Application Process

1. Statement of interest (*open to all*)
2. Pre-application (optional) **Feedback**
3. Full application
4. Due diligence
5. Award preparation

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 *Focus for today*
March 31, 2023	June 26, 2023

WHY SUBMIT A PRE-APPLICATION?

Objective

Create an opportunity for dialogue between CPO and the potential applicant and enable the applicant to receive feedback on its submission – to ensure applications meet program priorities

Who should submit?

Optional but Highly Recommended	*Current-Generation Facility*
	Mature-Node Facility
	Back-End Production Facility
Optional	*Leading-Edge Facility*

Outcome

*At the conclusion of a pre-application review, CPO will provide a **written assessment** of*

- ☐ Strengths and weaknesses of the pre-application
- ☐ Recommendations for next steps

PRE-APPLICATION REQUIREMENTS

	Web Form	PDF Upload	Excel Upload
A Cover Page	✓		
B Project Plan	✓	✓	
C Financial Information	✓	✓	✓
D Environmental Questionnaire		✓	
E Workforce Development	✓	✓	
F Attestation & Submission	✓		

How will the CHIPS Program Office protect confidential business information throughout the application process?

- We are instituting robust protocols, technology solutions, and organizational practices to keep all data safe, secure, confidential, and limited in distribution. Application data will be housed in a secure environment, upholding NIST’s FIPS 199 high impact requirements for cybersecurity and data protection.
- In general, applicant information will be accessible only to federal employees, consultants, and contractors who have a need to know, including application reviewers and key investment decision-makers, to carry out the government’s responsibilities in connection with the CHIPS Incentives Program, or as otherwise required by law.

Frequently Asked Questions

? Does CPO plan to review pre-applications and full applications in order of receipt?

Initial eligibility review will be performed in order of receipt, subsequent deeper reviews will be prioritized based on program priorities laid out in NOFO.

Frequently Asked Questions

What constitutes a "covered incentive" from a state and local government?

- The CHIPS Act specifies that an applicant must have been offered a covered incentive from a state or local jurisdiction where the project is located for the purposes of attracting the construction, expansion, or modernization of the facility.
- Each applicant must provide a letter from a state or local government entity to demonstrate they have been offered a qualifying covered incentive.
- A “covered incentive” may take many forms, including a tax incentive, a workforce-related incentive, any concession with respect to real property, funding for research and development with respect to semiconductors, or any other incentive determined appropriate by the CHIPS Program Office.

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A COVER PAGE

Name of Application	Descriptive name for application / project(s)
Applicant Organization Information	Contact information for the applicant organization or consortium, SAM.gov account registration, UEI # (optional)
Applicant point of contact	Contact information of applicant's point of contact
Partnership information	Information on potential partnerships with other entities

UEI is required for award

This should be an Authorized Representative who can make commitments on behalf of the applicant

Pre-populated fields based on the SOI submission must be updated and verified for accuracy

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B PROJECT PLAN

🟥	*Project(s) Plan Narrative*	Summary description of the project(s) that is responsive to the program description and the Evaluation Criteria
🟦	*Project(s) Information*	Description of Project(s), Product End Market Application, Site location, Facility Type(s), Expected Total Capital Expenditures and estimated peak monthly unit production capacity for all proposed projects
	Facilities Information	Number of facilities that will be within the scope of the application including name, brief description, technology type and expected construction and production start dates

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Pre-populated fields based on the SOI submission must be updated and verified for accuracy

Program Priorities

Economic and national security objectives

Commercial viability

Financial strength

Technical feasibility and readiness

Workforce development

Broader impacts

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
- Attract supplier, workforce, and other investments
- Contribute to a self-sustaining ecosystem and catalyze future upgrades

Leading-edge

- Use the most advanced tech and produce products that are most critical to enhancing U.S. competitiveness
- Commit to ongoing investment in U.S.

Current-generation and mature-node

- Support production of chips vital to automobiles, aerospace and defense, and other critical infrastructure
- Use processes that convert to make other types of chips in times of disruption

Back-end production

- Advanced packaging

National Security

SEEKING PROJECTS THAT

- Produce semiconductors that are relied upon by the Department of Defense, other government systems, or by critical infrastructure
- Support U.S. government national security needs, such as by providing U.S. government access to facility output, or adapting commercial production for low-volume and high-mix national security components
- Mitigate operational and cybersecurity risks
- Strengthen supply chain resilience by analyzing and managing risks to their own supply chains
- Ensure that foreign entities of concern will not pose undue risks
- Produce mature-node semiconductors that are then supplied to critical manufacturing industries

Commercial 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

Stability and predictability of key supplies

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

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C FINANCIAL INFORMATION (1/2)

Financial Information Narrative	Summary narrative of financial information for the applicant and the project(s)
Facility Ownership Structure	Formal legal entity and organizational structure for the project
Sources and Uses of Funds *Template* *Web form* *Deep Dive included*	Information on project costs and capital sources via a descriptive narrative and via the spreadsheet template *For discussion in this Thursday's webinar*
Company Financials	Audited consolidated financial statements at fiscal year-end and any key performance metrics

Submission of supporting documents or more detailed information on facility ownership structure is optional

Continue on the next page…

C FINANCIAL INFORMATION (2/2)

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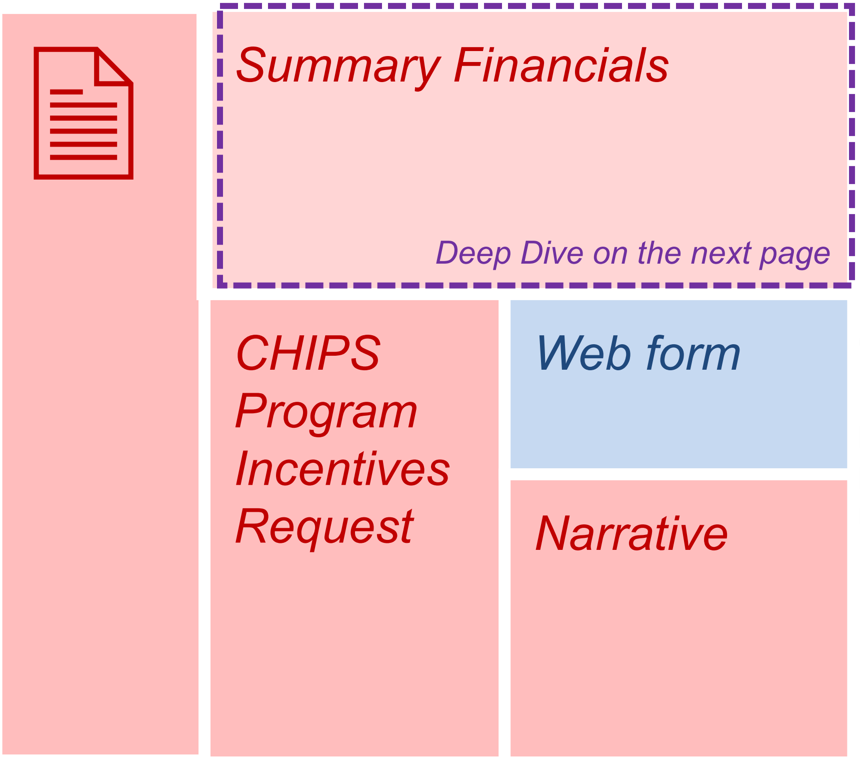


Summary Financials

Deep Dive on the next page

CHIPS Program Incentives Request

Web form

Narrative

Summary Financials includes both a summary narrative in Word and an Excel

Summary of the expected revenues, costs, and cash flows for the project, including key income statement, cash flow statement, and balance sheet information via a narrative and spreadsheet format

For discussion in this Thursday's webinar

Summary of the type and amount of funding request and available credit ratings from borrowing entity and its corporate parent / sponsor

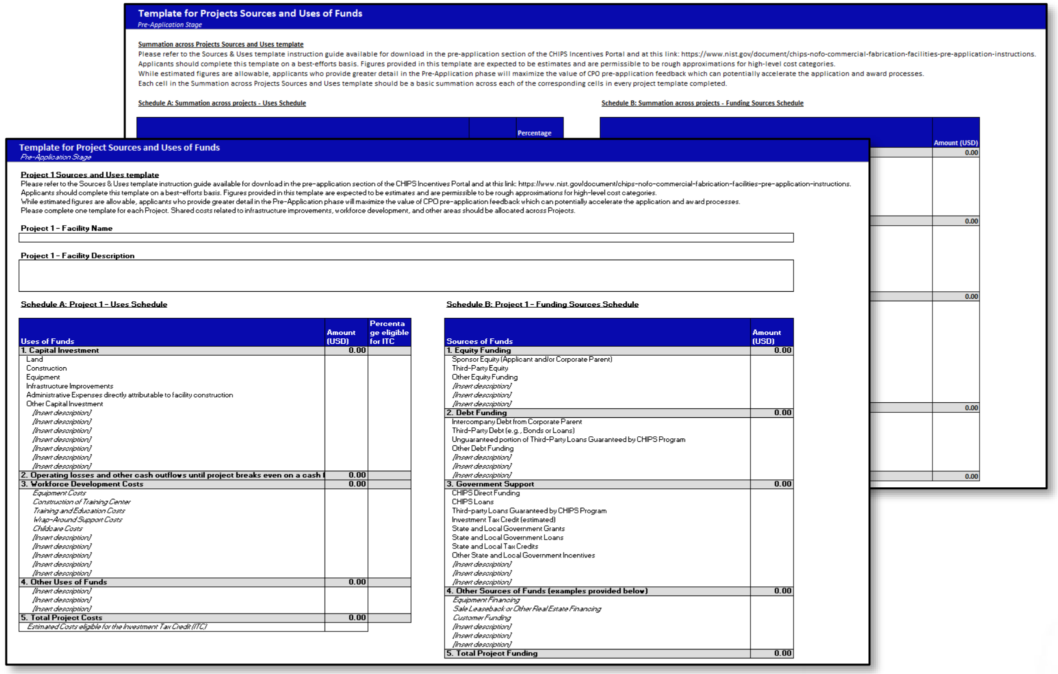
- Narrative description for how the financial information submitted for the project(s) support program priorities
- Description of how the incentives requested were sized based on applicable analyses

C FINANCIAL INFORMATION

Sources and Uses of Funds
Template

Summary Financials
Financial Model Tool

Financial Model Tool is provided as an aid; usage of this specific tool is not a requirement for the pre-application submission



Template for Projects Sources and Uses of Funds
Pre-Application Stage

Summation across Projects Sources and Uses template
Please refer to the Sources & Uses template instruction guide available for download in the pre-application section of the CHIPS Incentives Portal and at this link: https://www.nist.gov/document/chips-nofo-commercial-fabrication-facilities-pre-application-instructions.
Applicants should complete this template on a best-efforts basis. Figures provided in this template are expected to be estimates and are permissible to be rough approximations for high-level cost categories.
While estimated figures are allowable, applicants who provide greater detail in the Pre-Application phase will maximize the value of CPO pre-application feedback which can potentially accelerate the application and award processes.
Each cell in the Summation across Projects Sources and Uses template should be a basic summation across each of the corresponding cells in every project template completed.

Schedule A: Summation across projects - Uses Schedule

Schedule B: Summation across projects - Funding Sources Schedule

Template for Project Sources and Uses of Funds
Pre-Application Stage

Project 1 Sources and Uses template
Please refer to the Sources & Uses template instruction guide available for download in the pre-application section of the CHIPS Incentives Portal and at this link: https://www.nist.gov/document/chips-nofo-commercial-fabrication-facilities-pre-application-instructions.
Applicants should complete this template on a best-efforts basis. Figures provided in this template are expected to be estimates and are permissible to be rough approximations for high-level cost categories.
While estimated figures are allowable, applicants who provide greater detail in the Pre-Application phase will maximize the value of CPO pre-application feedback which can potentially accelerate the application and award processes.
Please complete one template for each Project. Shared costs related to infrastructure improvements, workforce development, and other areas should be allocated across Projects.

Project 1 – Facility Name

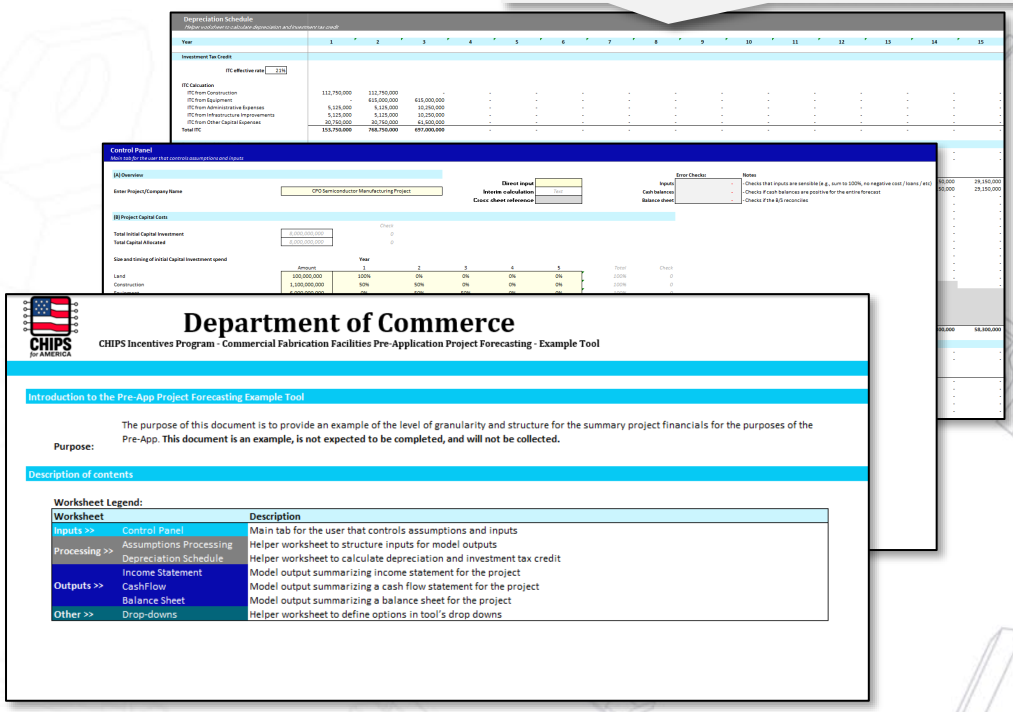
Project 1 – Facility Description

Schedule A: Project 1 – Uses Schedule

Uses of Funds	Amount (USD)	Percentage eligible for ITC
1. Capital Investment	**0.00**	
Land		
Construction		
Equipment		
Infrastructure Improvements		
Administrative Expenses directly attributable to facility construction		
Other Capital Investment		
[Insert description]		
[Insert description]		
[Insert description]		
[Insert description]		
[Insert description]		
[Insert description]		
[Insert description]		
2. Operating losses and other cash outflows until project breaks even on a cash f	**0.00**	
3. Workforce Development Costs	**0.00**	
Equipment Costs		
Construction of Training Center		
Training and Education Costs		
Wrap-Around Support Costs		
Childcare Costs		
[Insert description]		
[Insert description]		
[Insert description]		
[Insert description]		
[Insert description]		
4. Other Uses of Funds	**0.00**	
[Insert description]		
[Insert description]		
[Insert description]		
5. Total Project Costs	**0.00**	
Estimated Costs eligible for the Investment Tax Credit (ITC)		

Schedule B: Project 1 – Funding Sources Schedule

Sources of Funds	Amount (USD)
1. Equity Funding	**0.00**
Sponsor Equity (Applicant and/or Corporate Parent)	
Third-Party Equity	
Other Equity Funding	
[Insert description]	
[Insert description]	
[Insert description]	
2. Debt Funding	**0.00**
Intercompany Debt from Corporate Parent	
Third-Party Debt (e.g., Bonds or Loans)	
Unguaranteed portion of Third-Party Loans Guaranteed by CHIPS Program	
Other Debt Funding	
[Insert description]	
[Insert description]	
[Insert description]	
3. Government Support	**0.00**
CHIPS Direct Funding	
CHIPS Loans	
Third-party Loans Guaranteed by CHIPS Program	
Investment Tax Credit (estimated)	
State and Local Government Grants	
State and Local Government Loans	
State and Local Tax Credits	
Other State and Local Government Incentives	
[Insert description]	
[Insert description]	
[Insert description]	
4. Other Sources of Funds (examples provided below)	**0.00**
Equipment Financing	
Sale Leaseback or Other Real Estate Financing	
Customer Funding	
[Insert description]	
[Insert description]	
[Insert description]	
5. Total Project Funding	**0.00**



Depreciation Schedule
Helper worksheet to calculate depreciation and investment tax credit

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Investment Tax Credit															
ITC effective rate 21%															
ITC Calcuation															
ITC from Construction	112,750,000	112,750,000	-	-	-	-	-	-	-	-	-	-	-	-	-
ITC from Equipment	-	615,000,000	615,000,000	-	-	-	-	-	-	-	-	-	-	-	-
ITC from Administrative Expenses	5,125,000	5,125,000	10,250,000	-	-	-	-	-	-	-	-	-	-	-	-
ITC from Infrastructure Improvements	5,125,000	5,125,000	10,250,000	-	-	-	-	-	-	-	-	-	-	-	-
ITC from Other Capital Expenses	30,750,000	30,750,000	61,500,000	-	-	-	-	-	-	-	-	-	-	-	-
Total ITC	**153,750,000**	**768,750,000**	**697,000,000**	-	-	-	-	-	-	-	-	-	-	-	-

Control Panel
Main tab for the user that controls assumptions and inputs

(A) Overview

Enter Project/Company Name CPO Semiconductor Manufacturing Project

Direct input	
Interim calculation	Text
Cross sheet reference	

Error Checks:		Notes
Inputs	-	-Checks that inputs are sensible (e.g., sum to 100%, no negative cost / loans / etc)
Cash balances	-	-Checks if cash balances are positive for the entire forecast
Balance sheet	-	-Checks if the B/S reconciles

(B) Project Capital Costs

		Check
Total Initial Capital Investment	8,000,000,000	0
Total Capital Allocated	8,000,000,000	0

Size and timing of initial Capital Investment spend

	Amount	Year 1	2	3	4	5	Total	Check
Land	100,000,000	100%	0%	0%	0%	0%	100%	0
Construction	1,100,000,000	50%	50%	0%	0%	0%	100%	0

Department of Commerce
CHIPS Incentives Program - Commercial Fabrication Facilities Pre-Application Project Forecasting - Example Tool

Introduction to the Pre-App Project Forecasting Example Tool

Purpose: The purpose of this document is to provide an example of the level of granularity and structure for the summary project financials for the purposes of the Pre-App. **This document is an example, is not expected to be completed, and will not be collected.**

Description of contents

Worksheet Legend:

Worksheet		Description
Inputs >>	Control Panel	Main tab for the user that controls assumptions and inputs
Processing >>	Assumptions Processing	Helper worksheet to structure inputs for model outputs
	Depreciation Schedule	Helper worksheet to calculate depreciation and investment tax credit
Outputs >>	Income Statement	Model output summarizing income statement for the project
	CashFlow	Model output summarizing a cash flow statement for the project
	Balance Sheet	Model output summarizing a balance sheet for the project
Other >>	Drop-downs	Helper worksheet to define options in tool's drop downs

The Financial Information sections above will be covered in detail in Thursday's webinar

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D ENVIRONMENTAL QUESTIONNAIRE

Environmental Questionnaire	Provide the requested information on the Environmental Questionnaire using the template available on the CHIPS Incentives Program application portal

If an applicant chooses to submit a pre-application, the Environmental Questionnaire is a required portion of the submission; however, it can be preliminary and partially complete at this stage

Frequently Asked Questions

How should applicants prepare for environmental review under National Environmental Policy Act (NEPA)?

The first step for potential applicants is to submit an environmental questionnaire as part of a pre- or full application. The environmental questionnaire will assist the CHIPS Program Office's Environmental Division in assessing the likely level of NEPA review that will be required for the proposed project and allows the team to work with the applicant to ensure that all required environmental information is available as early as possible, which can help expedite the NEPA review process for potentially successful applications.

Will the CHIPS Program Office support applicants in the environmental review process?

Yes. The CHIPS Program Office's Environmental Division will work with applicants and their third-party contractors in an iterative process to help ensure smooth and expeditious completion of the NEPA review process.

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E WORKFORCE DEVELOPMENT INFORMATION

🟥	*Workforce Development Narrative*	Summary with information on the three topics below regarding workforce development • Approach to recruit, train, and retain a diverse and skilled set of workers • The status and goals of discussions with relevant policy stakeholders • Details on any conversations or planning done in concert with partners
🟦	*Additional questions*	Explanation and estimate of the number of jobs that will be created during the construction and production phases of the project(s)

Includes jobs that are both directly and indirectly involved in the construction activities for the construction, expansion, or modernization of a facility

CHIPS
for AMERICA

Workforce Development Vision

Delivering on our **national and economic security objectives** demands **major investments in the semiconductor workforce** that will support **good-paying jobs across the industry.**

America's diversity is a comparative advantage; we must make significant investments to create opportunities for **Americans from historically underserved communities**.

Effective workforce solutions **enable key stakeholders to work together.**

Strong Partnerships Critical to Project Success

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

Partners can help applicants:

- Attract new sources of talent
- Increase awareness of opportunities
- Provide wraparound supports
- Retain and grow the workforce

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

HOW TO SUBMIT

Earliest submission for
leading edge applicants
March 31, 2023

Earliest submission for
current-generation, mature-node or back-end production facilities
May 1, 2023

May be submitted a minimum of 21 days following the submission of a Statement of Interest (SOI)

Submit the pre-application through applications.chips.gov

After Pre-Application Submission

The CHIPS Program Office will

- ✓ Send a confirmation email once the pre-application is submitted
- ✓ Review submission and may reach out for additional information or clarification
- ✓ Provide a written assessment with suggested next steps

Next Steps

- Submit a Pre-Application - *resources listed in the next page*
- Visit CHIPS.gov for additional resources
- Join our mailing list
- Contact us: apply@chips.gov – application-related inquiries
- Upcoming webinars:
  - Overview of the Financial Information Required for Pre-App and Full App – Thur., April 13, 2023
  - Environmental Review – TBD Date
  - Partnerships – TBD Date

Additional Resources Available

General

- Pre-Application Instructions

Sources & Uses of Funds

- Pre-Application Sources and Uses Template

Summary Financials

- Pre-Application Example Financial Model White Paper
- Pre-Application Example Financial Model

Environmental Questionnaire

- Pre-Application Environmental Questionnaire

Thank you