

Introductory Webinar: Incentives for Commercial Fabrication Facilities (NIST NOFO)

May 9, 2023 @ 12:00PM

Presented by:

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Introductions



Matt Francis
Founder/CEO
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Director of Arkansas CHIPS+
Working Group



Katie Thompson
Executive Director
Science Venture Studios
Winrock International



Jennifer Fowler
Director & PI
Arkansas NSF EPSCoR
Arkansas Economic
Development Commission

Introductions



Walter Burgess
Co-CEO
Power
Technology
Member of
Arkansas CHIPS+
Working Group



Rudy Ortiz
SBS
(Formerly AEDC)
Member of Arkansas
CHIPS+ Working Group

Additional Collaborators:

Secretary Hugh McDonald (Commerce)

Clint O'Neal (AEDC)

Justin Majors (AEDC)

Keith Gammill (AEDC)

Bob Kucheravy (AEDC)

Caleb Talley (Startup Junkie)

Jeff Amerine (Startup Junkie)

Mike Malone (UARK)

David Snow (UA-TVF)

Hugh Churchill (UARK)

Others...

Jargon & Lingo

CHIPS: CHIPS+ and Science Act.

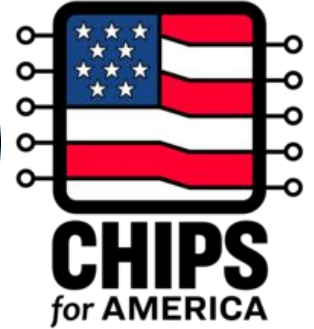
Enacted as law August 2022. AEDC recently published a short [blog](#) and 20-page [summary](#).

NOFO: Notice of Funding Opportunity

This is the NIST term for a Request for Proposals (RFP) or bid solicitation.

NIST: National Institute of Standards and Technology

NIST promotes U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security.



Jargon & Lingo

AEDC: Arkansas Economic Development Commission

State economic development agency that houses AMS, EPSCoR, incentives, rural services, community development, and other business units.

AMS: Arkansas Manufacturing Solutions

State manufacturing extension partnership (MEP) leads and service providers to manufacturers.

OSD: Office of Skills Development

Department within the Division of Workforce Services that administers workforce training grants and works with employers across the state.

EPSCoR: Established Program to Stimulate Competitive Research

Research funding program at multiple Federal agencies implemented to address the disparities in Federal R&D investments throughout the country.



CHIPS+ & Science Act



The bipartisan CHIPS and Science Act of 2022 provides \$52.7 billion in federal funding to revitalize the U.S. semiconductor industry

- \$39 billion in semiconductor incentives
- \$13.2 billion in R&D and workforce development
- \$500 million to strengthen global supply chains

The CHIPS Program Office within the U.S. Department of Commerce is responsible for administering the \$39 billion in incentives between FY23 - FY27.

The CHIPS Program Office will offer a different RFP for semiconductor materials and manufacturing equipment facilities in late spring 2023, and one for R&D facilities in fall 2023

NIST Incentives Program – Commercial Fabrication Facilities

The Program aims to catalyze long-term economically sustainable growth in the domestic semiconductor industry in support of U.S. economic and national security. The Program can provide direct funding via 'CHIPS Incentives' for eligible projects.

Applicants may request up to 35% of capital investment (with a limit of 5-15% direct)

- Grants, cooperative agreements, or other transactions (5-15%)
- Loans, and loan guarantees (remainder, up to 35%)
- Requires demonstrated state and local support as part of the review criteria.
- Incentives eligible for cost-share include:

Funding for
semiconductor R&D

Concessions related
to real property

Workforce pipeline
and technical training
investments

Infrastructure investments like:

....shared utilities, logistics, and production capacity that may support broader ecosystem development.

NIST Incentives Program – Commercial Fabrication Facilities

Who can apply? Companies eligible must be operate in the fabrication of leading-edge, current-generation, and mature-node semiconductor supply chain – Specifically, companies that do one or more of the following:

- **Perform Front End Wafer fabrication and processing that produces finished wafers**
- **Perform Back-end assembly of the fabricated wafers/chips**
- **Perform Testing of the fabricated wafers/chips**
- **Perform Packaging of the fabricated wafers/chips**

Program Specific Requirements:

- **No funds to, export to, or collaborations with ‘foreign entities of concern’ for 10 years after award**
- **CPO environmental questionnaires & NEPA compliance mandatory for all applicants**

NIST Incentives Program – Commercial Fabrication Facilities

Eligible projects are limited to the:

construction, expansion, or modernization of commercial facilities for the fabrication of leading-edge, current-generation, and mature-node semiconductors, including front-end wafer fabrication, back-end assembly, testing, and packaging.

Examples:

- 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
- Upgrading an existing facility, such as to a new node or converting a facility from another use

<https://www.nist.gov/chips/notice-funding-opportunity-commercial-fabrication-facilities>

Categories of Desirable Projects

- Produce semiconductors that are critical to defense and infrastructure
- Support domestic security needs by providing US 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 fab supply chains
- Produce mature-node semiconductors for critical manufacturing industry supply chains

Eligible:

- Expansion, or modernization of eligible facilities;
- Site development for like facilities
- Workforce development for like facilities (facility workers, construction workers, childcare)
- Reasonable operating expenses for like facilities as approved by NIST

NOT Eligible:

- Relocation of existing facility/equipment to US
- Facilities outside of US
- Stock buybacks or dividend payments
- Charging above actual costs incurred
- R&D or Equipment Manufacturing (later RFPs)

Competitive Landscape

- Global Foundries- [investing \\$1B](#) in New York to add 150,000 wafers annually at existing fab, and build new fab with 1,000 jobs
- Wolfspeed [investing \\$2B in North Carolina](#), 1,800 jobs
- EMP Shield [investing \\$1.9B](#), 1,200 jobs in Kansas
- Integra Technologies [investing \\$1.8B](#) + 2,000 jobs in Kansas fab
- Texas Instruments investing [\\$11B in Utah](#), 800 jobs; and [\\$30B in Texas](#)
- Samsung [investing \\$17B in Texas](#) for new fab
- SkyWater [investing \\$1.8B in Indiana](#), near Purdue who announced new degree offerings
- TSMC [\\$40B to Arizona](#) , Intel [investing up to \\$100B in Ohio](#)

Timeline for FY23

- Full proposals accepted beginning 6/26
- Funds awarded as proposals are received until exhausted
- Statement of Interest due at least 21 days prior
- **LOIs due to AEDC May 19 for incentive package development**

<u>May 19</u> Letter of Intent due to AEDC	<u>June 1</u> Incentive Packages Complete	<u>June 1</u> Submit Statement of Interest	<u>June 26</u> Submit Proposal
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Existing Arkansas Incentives (state level)

Discretionary Infrastructure grants: AEDC may offer grants to offset cost share of projects based on a number of factors at the state's discretion.

OSD Workforce Development Grants: Reimbursement up to \$300,000 annually per location in AR for professional training of employees. Company chooses the training partner.

Advantage Arkansas: Income tax credit based on % of payroll of new employees hired. Credit is earned annually for 5 years and can be carried forward for 9 years. Recipient can offset 50% of income tax liability. Average hourly wages must be \$14.94+

Tax Back: Refund of sales and use tax on qualified expenses (city, county, and state taxes less 1%).

Create Rebate: Cash Payments based on % of company's payroll for new employees.

ArkPlus: income tax credit for 10% of total investment. Recipient can offset 50% of income tax liability.

Bond Guaranty: AEDC and ADFA can "guarantee" timely payment of principal and interest of up to \$11M, providing a more attractive bond rating which lowers the effective interest rate to the company.

Target Process

- AEDC will submit application on behalf of interested companies and will combine NIST incentives with state and local incentives to meet as much cost share as possible
- AEDC/AMS/OSD team will work with companies to prepare and submit the application
- AEDC will administer NIST award and distribute to participating applicants with other incentives
- Current site selection options:
<https://arkansassiteselection.com/aedc/Search>
- Businesses at high readiness can apply in FY23, others for FY24 - FY27.

Hypothetical Scenarios

Examples	Company A: Modernization of Existing Facility	Company B: Expansion of Existing Facility	Company C: New location
Total Project Cost	\$ 1,000,000.00	\$ 5,000,000.00	\$ 10,000,000.00
Direct funds from NIST (15% max)	\$ 100,000.00 (10%)	\$ 600,000.00 (12%)	\$ 1,000,000.00 (10%)
Loans/guarantees from NIST (Up to 35% max)	\$ 250,000.00 (25%)	\$ 1,150,000.00 (23%)	\$ 2,500,000.00 (25%)
OSD Training Grant	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00
Additional state/local incentives	\$ 50,000.00	\$ 100,000.00	\$ 400,000.00
Additional state discretionary funds	\$ 0.00	\$ 50,000.00	\$ 250,000.00
Total investment from company	\$ 300,000.00	\$ 2,800,000.00	\$ 5,550,000.00

Related News

<https://iwrc.ieeeusa.org/>



Innovation, Workforce, and Research Conference (IWRC)

13-15 September 2023 @ Little Rock, AR

Stakeholders from academia, government, and industry are invited to attend and explore strategies to support the U.S. innovation economy and 21st century workforce. Featuring panel discussions focused on CHIPS+ Act and tracks for leaders from industry, researchers, and tech transfer professionals.



IEEE★USA



TECH HUBS PROGRAM FACT SHEET

FUNDING OPPORTUNITIES TO EXPAND ECONOMIC OPPORTUNITY ACROSS AMERICA

https://www.eda.gov/sites/default/files/2023-04/EDA_TECH_HUBS_Fact_Sheet.pdf



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Technology, Innovation and Partnerships

A new directorate at the U.S. National Science Foundation

<https://new.nsf.gov/tip/latest>

Summary

Interested companies please complete this short contact form:

<https://forms.gle/qAJSf2Vhohf7nCFk7>

Contact via Email: chipsact@arkansasedc.com

Follow these social accounts to see updates regarding the new CHIPS organization.

Twitter: @arkansasedc, @arepscor

LinkedIn: [Matt](#), [Jennifer](#), [Walter](#), [Katie](#), [Rudy](#)