Agenda

Introduction & Overview

Clean Energy Workforce Report

Workforce Development Initiatives

> Department of Labor

> Governor's Energy Office

Innovation & Business Support
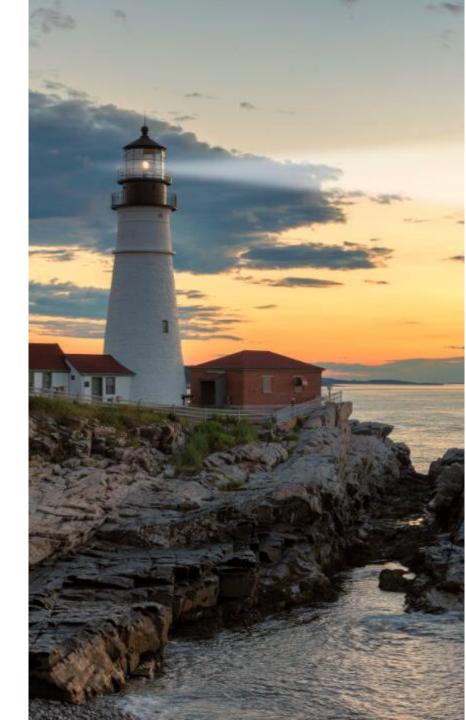
> Maine Technology Institute

Next Steps
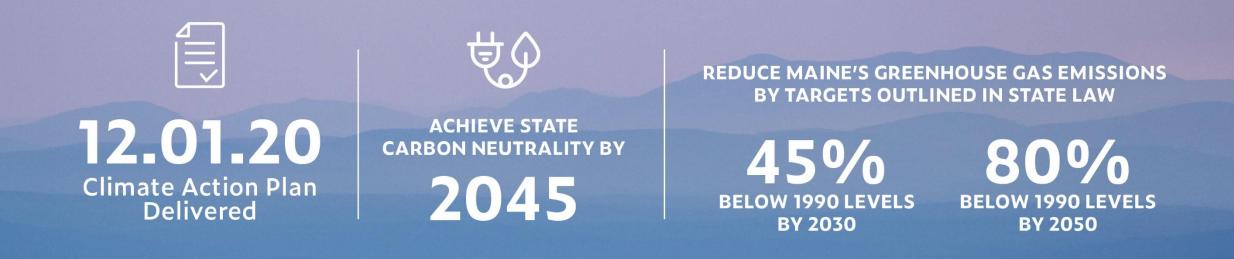
Clean Energy Partnership

Maine's Clean Energy Partnership (CEP) is established to advance Maine's clean energy, economic development, and workforce goals.

The GEO will convene an Advisory Group experts to promote collaboration to address emerging needs, build new and expand existing supply chains, and support opportunities for Maine in these fast-growing fields.

CLIMATE COUNCIL GOALS

12.01.20
Climate Action Plan
Delivered

**ACHIEVE STATE
CARBON NEUTRALITY BY**
2045

**REDUCE MAINE'S GREENHOUSE GAS EMISSIONS
BY TARGETS OUTLINED IN STATE LAW**

45%
BELOW 1990 LEVELS
BY 2030

80%
BELOW 1990 LEVELS
BY 2050

**ENSURE MAINE PEOPLE, INDUSTRIES, AND COMMUNITIES
ARE RESILIENT TO THE IMPACTS OF CLIMATE CHANGE.**

A FOUR-YEAR PLAN FOR CLIMATE ACTION

MAINE
WON'T WAIT

DECEMBER 2020

MAINE CLIMATE COUNCIL

Maine Energy Related Greenhouse Gas Emissions in 2017

54%

19%

11%

9%

7%

TRANSPORTATION • RESIDENTIAL • COMMERCIAL • INDUSTRIAL • ELECTRIC POWER

Data source: Maine Department of Environmental Protection 8th Biennial Greenhouse Gas Emissions Report

MAINE WON'T WAIT TRACKING DASHBOARD

Tracking numerical progress toward *Maine Won't Wait* goals is critical for informing the public about whether our climate policies are having the intended effects, and for evaluating whether evidence-based adjustments, enhancements or replacements to policies are needed in pursuit of near-term and long-term climate objectives.

This dashboard tracks 9 initial numerical targets, based on an outline included in *Maine Won't Wait*. It will expand to include other key *Maine Won't Wait* metrics as updated data becomes available, new programs are established, and state and federal climate investments are realized. The dashboard will be updated regularly, with an online version coming in 2022.

5,577
Electric & Hybrid Vehicles

+47% since 2019
Goal: 219,000 by 2030

265
Public EV Charging Stations

+46% since 2019

$11.55
Per Capita on Public Transit

Updated Figure for 2021

40,000
New Heat Pumps since 2019

Goal: 100,000 new by 2025

2,043
Homes Weatherized in 2021

Goal: 17,500 by 2025

NEW
Community Climate Resilience Plans

Goal: 100 Communities by 2023

Path to 80%
Clean Energy by 2030

Maine will Reach 45% in 2021

30,000
Clean Energy Jobs by 2030

Maine had 14,000 in 2019

30%
Land Conservation by 2030

State at 20.1% in 2021

Greenhouse Gas Emissions

The Maine Department of Environmental Protection is preparing the next biennial greenhouse gas emissions inventory update for release in early 2022. This inventory will include gross and net emissions estimates for the first time. Emissions data will be added to this dashboard in the future to track Maine's goal of achieving carbon neutrality by 2045 and progress toward statutory targets of reducing emissions by 45% by 2030 and 80% by 2050.

Maine's 8 Climate Action Strategies

A. Embrace the Future of Transportation in Maine

B. Modernize Maine's Buildings

C. Reduce Carbon Emissions the Energy and Industrial Sectors through Clean Energy Innovation

D. Grow Maine's Clean Energy Economy and Good Jobs

E. Protect Maine's Environment and Working Lands and Waters, Increase Carbon Sequestration

F. Build Healthy and Resilient Communities

G. Invest in Climate-Ready Infrastructure

H. Engage People and Communities in Climate Impacts and Program Opportunities

A FOUR-YEAR PLAN FOR CLIMATE ACTION

MAINE
WON'T WAIT

DECEMBER 2020

MAINE CLIMATE COUNCIL

Strengthening Maine's Clean Energy Economy

In November of 2020, the GEO and GOPIF released a detailed analysis of the momentum within Maine's clean energy economy, and how the sector is emerging as a source of economic growth and workforce opportunities to help the state's recovery from the economic disruption of COVID-19.

In December of 2020, Governor Mills welcomed Maine's climate action plan, Maine Won't Wait, and established a target of **more than doubling Maine's clean energy jobs to 30,000 by 2030.**

Clean Energy Partnership

- **Maine's Clean Energy Partnership (CEP)** was established to advance Maine's clean energy, economic development, and workforce goals.

- Preparing and expanding Maine's clean energy workforce as well as supporting innovation of clean tech products and services.

- Supported by the **Maine Jobs and Recovery Plan** to GEO.

Workforce Development ($3.7m)

- $2.9m to support workforce development

- $800k to develop workforce clearinghouse – centralized location with information related to education, training and employment opportunities and resources

Innovation ($2.5m)

- Clean energy business support

2021 Maine
Clean Energy
Industry Report

2021 MAINE CLEAN
ENERGY INDUSTRY REPORT

PRODUCED FOR THE STATE OF MAINE GOVERNOR'S ENERGY OFFICE

May 2022

Developing the Clean Energy Industry Report

Project Methodology

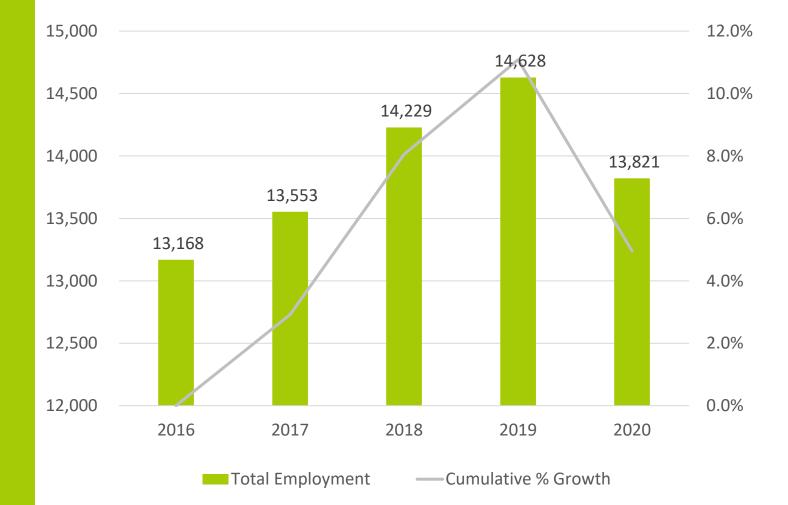**Data from the 2021 US Energy and Employment Report**

3,200 calls and 800 emails; 280 business responses

Survey Fielded During Q4 of 2020

Clean Energy Employment Includes

- **Renewable Electric Power Generation** (Solar, Wind, Geothermal, Hydroelectric)
- **Grid Modernization & Energy Storage** (Electric Power Transmission and Distribution, etc.)
- **Energy Efficiency** (HE HVAC, ENERGY STAR, Building Retrofits
- **Renewable Fuels** (Woody Biomass & Other Ethanol)
- **Alternative Transportation** (EVs, PHEVs, HEVs, Hydrogen Fuel Cell, etc.)
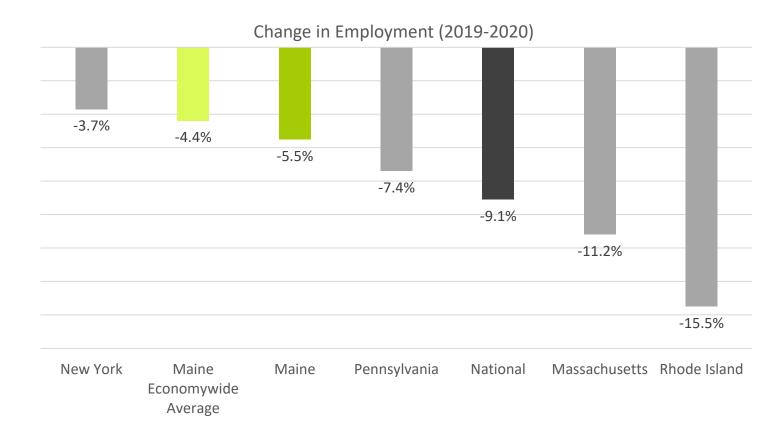
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Maine's clean energy economy grew faster than the overall economy between 2016 and 2019.

Chart legend: Total Employment, Cumulative % Growth

Data labels: 2016: 13,168; 2017: 13,553; 2018: 14,229; 2019: 14,628; 2020: 13,821

- **Clean energy workers are workers who spend any time directly on clean energy-related work**

- **Clean energy employment (2016-2019) +11%**

- **Economywide Employment Growth (2016-2019) +3%**

- **+1,500 clean energy jobs accounted for 8% of all jobs added in Maine between 2016-2019**
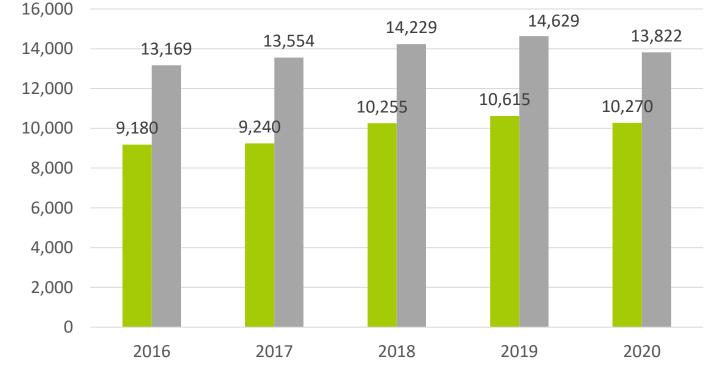
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Maine's clean energy jobs were more resilient to the pandemic-driven economic downturn than the national average and neighboring states.

Change in Employment (2019-2020)

State	Change
New York	-3.7%
Maine Economywide Average	-4.4%
Maine	-5.5%
Pennsylvania	-7.4%
National	-9.1%
Massachusetts	-11.2%
Rhode Island	-15.5%

- **By Q2 2021 CE employment had returned to within -2.6% pre-pandemic rates**

- **July release of 2022 data will provide a clearer picture of the recovery among CE jobs**

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Maine's clean energy workforce is adding workers, and these workers are spending a greater share of their time on clean energy activities.

Chart: Intensity Adjusted Employment (green) vs Total CE Employment (gray), 2016–2020

- 2016: 9,180 / 13,169
- 2017: 9,240 / 13,554
- 2018: 10,255 / 14,229
- 2019: 10,615 / 14,629
- 2020: 10,270 / 13,822

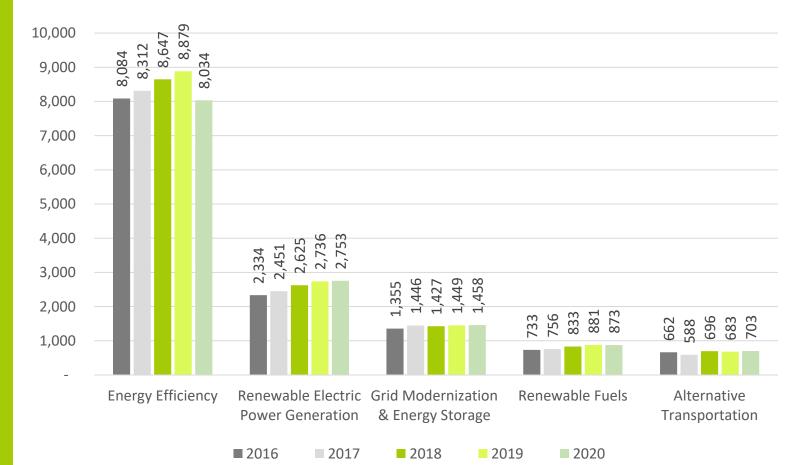Legend: ■ Intensity Adjusted Employment ■ Total CE Employment

- **Intensity-Adjusted CE employment grew 16% between 2016-2019 (compared to 11% unadjusted)**

- **Intensity-Adjusted CE employment grew 12% between 2016-2020 (compared to 5% unadjusted)**
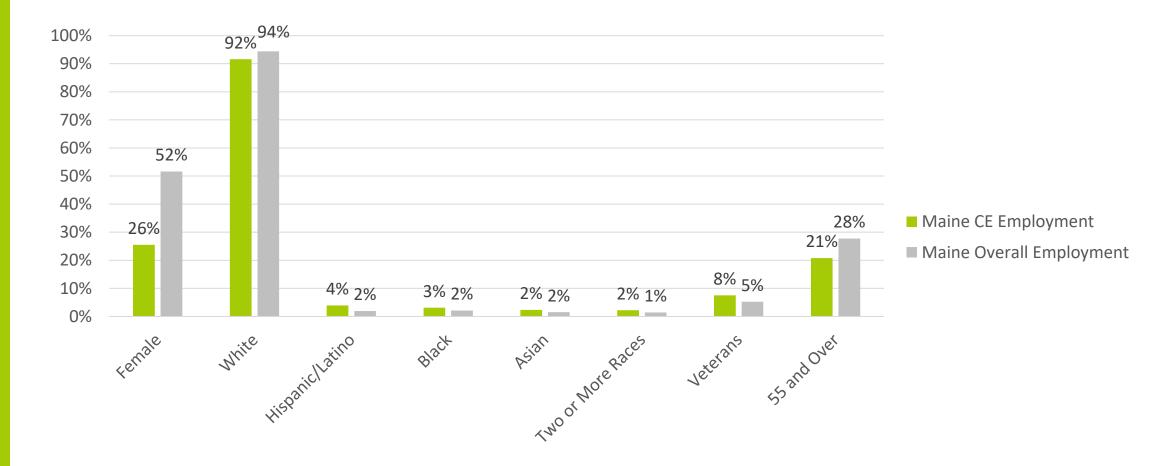
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Energy efficiency is the technology sector with the greatest number of clean energy workers.

- **Energy Efficiency workers account for 58% of Maine's CE workforce**

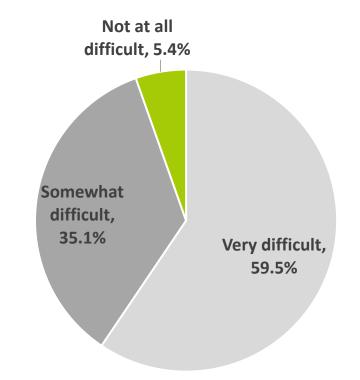- **Renewable Electric Power Generation saw continued growth despite the pandemic**

Chart data:

	Energy Efficiency	Renewable Electric Power Generation	Grid Modernization & Energy Storage	Renewable Fuels	Alternative Transportation
2016	8,084	2,334	1,355	733	662
2017	8,312	2,451	1,446	756	588
2018	8,647	2,625	1,427	833	696
2019	8,879	2,736	1,449	881	683
2020	8,034	2,753	1,458	873	703

Maine's clean energy workforce is largely representative of Maine's broader workforce, though women are underrepresented.

Legend: Maine CE Employment, Maine Overall Employment

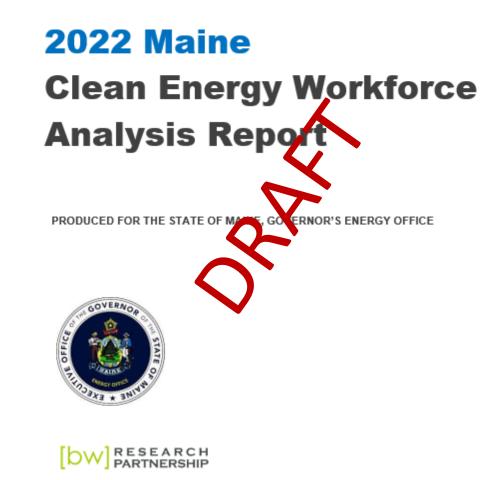| Category	Maine CE Employment	Maine Overall Employment
Female	26%	52%
White	92%	94%
Hispanic/Latino	4%	2%
Black	3%	2%
Asian	2%	2%
Two or More Races	2%	1%
Veterans	8%	5%
55 and Over	21%	28%

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Most clean energy employers (69%) reported they had an adequate number of qualified clean energy, but those who were hiring faced staffing challenges.

Not at all difficult, 5.4%

Somewhat difficult, 35.1%

Very difficult, 59.5%

- **Roughly 2/3 of CE employers who were hiring reported having enough workers to meet current needs (2020Q4)**

- **A majority of employers who were hiring said finding qualified workers was "very difficult"**

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Research Objectives

1. **Identify workforce needs & hiring challenges, incl. skill requirements**

2. **Profile landscape of training opportunities, business assets, and resources**

3. **Understand awareness, priorities, preferences, and interests for potential workers**

4. **Identify program needs and partnership opportunities**

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Project Components

Stakeholder Outreach:

1. Business owners/employers
2. Clean energy workers
3. General population/potential workers
4. Utilities
5. Union representatives
6. Business associations

1. **Clean Energy Occupational Supply**

2. **Career/Worker Profile:** *Education, Compensation, & Satisfaction*

3. **Employer Workforce Needs & Challenges**

4. **Clean Energy Talent Pipeline:** *Perceptions, Awareness, & Interests*

5. **Training Landscape & Business Assets/Resources**

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Key Findings

1. **High concentration of construction jobs**

2. **Work experience is key to landing a job**

3. **Career satisfaction is high – opportunities for career/wage mobility & benefits**

4. **Significant hiring difficulties due to small applicant pool and insufficient industry experience/knowledge**

5. **Low awareness of clean energy job opportunities in general population**

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Next Steps

1. **Develop conclusions & strategic recommendations**

2. **Stakeholder engagement, pilots, & partnerships**

3. **Finalize report –** *anticipated June publication date*

Contact Information

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- 🌐 https://bwresearch.com

[bw] RESEARCH PARTNERSHIP

Workforce Development RFP

RFP will be offered by the GEO
- Anticipated publication is early- to mid-June

Seeking proposals for programs and services that will increase the number of individuals in the clean energy and energy efficiency fields
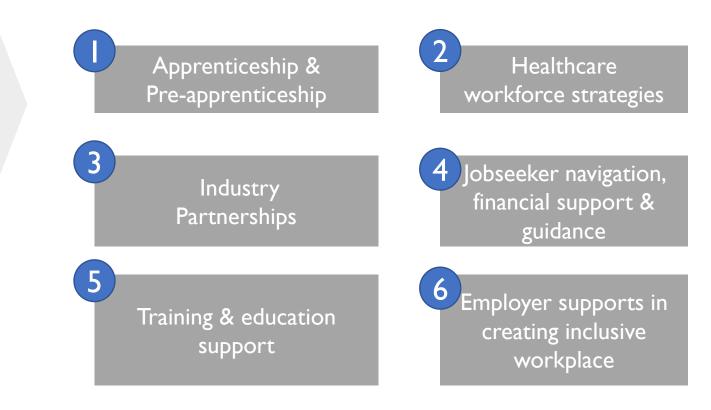- Programs and services can be as varied

Total offering is $2,900,000
- Multiple awards
- Award cap of $300,000

MJRP DOL initiative priorities

- Goal 1: Increased **size of Maine's talent pool** by 75,000 workers

- Goal 2: Increased % with **credential of value** (from 44% to 60%) by 2025

- Goal 3: Increase **average annual wages** by 10% by 2030

To advance these goals, this overarching strategy will be implemented via ARPA through the following primary lenses:

1 Apprenticeship & Pre-apprenticeship

2 Healthcare workforce strategies

3 Industry Partnerships

4 Jobseeker navigation, financial support & guidance

5 Training & education support

6 Employer supports in creating inclusive workplace

MJRP DOL initiative priorities

1 Apprenticeship & Pre-apprenticeship

- Pre-apprenticeship & apprenticeship program development
- Healthcare, clean energy, manufacturing, and other affected industries & focus on priority communities
- *RFA closed; grantees announced in mid May*

2 Healthcare workforce strategies

- Healthcare navigators
- Tuition remission for stackable credentials —*Training For ME launched*
- Healthcare career ladder & recruitment campaigns—*Caring For ME campaign live*

3 Industry Partnerships

- Funding to support sector / employer collaborations' training, networking, recruitment and industry awareness efforts—*RFA to be released in May*

4 Jobseeker navigation, financial support & guidance

- Financial assistance to overcome barriers
- Expansion of career outreach workers & navigators
- Integrated workforce portal; *RFP in developme*nt
- Progressive employment; *implementation summer '22*

5 Training & education support

- Funding to expand Competitive Skills Scholarship
- Tuition remission & navigation for healthcare—*Training For ME launched*
- Work closely with MCCS, UMaine & CTE initiatives

6 Employer supports in creating inclusive workplace

- Worker Opportunity Tax Credit program
- Progressive employment
- Work closely with DECD to support DEI hiring & retention efforts

Clean Energy Innovation

Clean Energy Innovation Challenge

-   Announced on Earth Day 2021 by Governor Mills, the Maine Clean Energy Innovation Challenge was created to support companies with products or technologies that reduce carbon emissions, increase renewable energy, and grow Maine's clean energy economy.

-   A joint initiative of the Maine Technology Institute (MTI) and the GEO, innovative Maine companies in Biddeford and Wiscasset engaged in developing clean energy technology were each awarded $250,000 in 2021.

Clean Tech Open

-   E2Tech, Maine Technology Institute and GEO have encouraged more Maine firms to participate in national cleantech accelerator, Cleantech Open.
    -   Scholarships via MTI

NOWRDC

-   Maine is a member of the National Offshore Wind Research and Development Consortium (NOWRDC) a non-profit public-private alliance that is dedicated to responsible, cost-effective offshore wind energy and technology research in the United States.

MTI PRIME Fund

Pandemic Recovery for an Innovative Maine Economy

OVERVIEW, TIPS, Q&A SESSION

MAY 2022

ARPA Background

▶ American Rescue Plan Act of 2021

  ▶ Passed by Congress in March 2021

  ▶ Funds for Testing, vaccines and COVID protection equipment

  ▶ Large amounts of discretionary and non-discretionary funds made available to states

▶ LD1733 passed by ME State Legislators July 2021

  ▶ 112 separate allocations totaling $4.5B of support- $1B discretionary

  ▶ Maine Jobs and Recovery Plan (MJRP)

▶ Funding started to flow late 2021/early 2022

  ▶ Funding for Agriculture, Forestry, Seafood Processors, Small Business, homeowners and others

  ▶ https://www.maine.gov/jobsplan/

PRIME Overview

▶ Federal recovery funds from American Rescue Plan Act (ARPA)

▶ Must address negative economic impacts of the pandemic

▶ Investments in research, development, and innovation to help Maine businesses increase revenues, creating and preserving quality jobs

▶ PRIME Fund Round One: $25M available

▶ Application Deadline: May 24th

▶ Awards announced by end of June

▶ Additional rounds of PRIME Fund in FY23 - $14M (July 2022 – June 2023)

Eligibility

- Operational as of October 1, 2021.

- Significant presence in Maine: 50% of employees in Maine.

- Less than 250 full-time employees.

- Cash or other resources available to match your requested funds.

- Able and willing to comply with reporting required by State and Federal law.

- Clear plan to utilize PRIME funds to directly address the negative economic impacts of the Covid-19 pandemic suffered by your business.

- Connection to Maine's technology sectors.

- Registered with the Maine Secretary of State's corporate registry.

- To receive any federal recovery funds, you must also register a Unique Entity identifier (UEI) number at www.SAM.gov

Application Tips- *This is a 2-part application*

1. STEP 1: Download the Application Word document from MTI website
2. Read Application Instructions, FAQs, and ***Sample Application***
3. Complete all five sections of the Application Word document
   - Be as specific as possible in your Application responses
   - Sample application exemplifies desired length & detail
4. Compile all your required financial documents (see application checklist)
5. Download and sign Agreement on use of funds
6. Proceed to Online Application Portal
7. Once you have all the required application documents, then log on to the Online Application Portal using the link in the Application Word document
   7. Compete all required data fields
   8. Proceed to the "Upload Documents" section
8. On the "Upload Documents" Tab, select your files by the "Choose File" icon and then be sure to click "Upload" (this can take up to 1 minute for each document upload)
   - Upload Application Word, W-9, Balance Sheet, P&L (or Tax returns), Signed Agreement

Estimated Grant Ranges (Subject to change – based on total number of applicants)

Company Size (FTEs)	Grant Award Ranges	Maximum Amount of In- Kind Match Allowed
1-5	up to $49k	85%
6-10	up to $200k	25%
11-25	up to $300k	0%
25-100+	up to $400k	0%

PRIME Application Resources Available

- Sample Application on the PRIME page "What if I need Help?" page
- Email address is ARPAGRANTS@MaineTechnology.org
- Zoom Meetings – live, recorded ("What if I need Help" page)
- Language translation widget on each PRIME page
- Extensive FAQs ("What of I need Help?" page) "Application How-To Instructions (You Tube Video) ("How do I apply for funding" page)
- Recorded PRIME Zoom call from April 19th ("PRIME Zoom Session Page"
- "How to Navigate SAM.gov site for the UEI number ("PRIME Zoom session Page")

Next Steps

Feedback

Next Meeting

www.maine.gov/energy/initiatives/cep

Clean Energy Careers

https://www.youtube.com/watch?v=MqYO_oX8wkc