

## CLIMATE ACTION TOOLKIT #8

# Strengthening the Green Trades Pipeline



**PENOBSCOT**  
CLIMATE ACTION



**MODERATE POTENTIAL**  
to achieve greenhouse gas  
emissions reductions



**HIGH POTENTIAL**  
to build community  
resilience

### Description of the Action

This action supports the Penobscot Action Region to grow the region's green trades and workforce development in ways that simultaneously support economic development, greenhouse gas emissions reductions, and climate resilience goals. The objective of the action is to build on existing programs for green workforce development, identify opportunities to fill gaps or for growth, and to strengthen direct links between these programs and local businesses or employers. The results of this initiative may include developing a new program or curriculum, adapting an existing program to include new skill sets or practices, or developing new partnerships to connect training opportunities to other Penobscot Climate Action goals and programs (such as housing retrofits or supporting climate-ready businesses).

Green trades include those affiliated with **Maine's clean energy sector** – such as renewable energy installation, energy efficient building construction, installation of efficient heating and cooling systems, and technicians for electric vehicles and charging infrastructure. They can also include industries in sustainable building materials (e.g., Maine's cross-laminated timber industry), waste management (e.g., composting, recycling, or material reuse industries), or ecosystem services (e.g., green infrastructure installation, adaptive forest management), among other fields. Ultimately, this action can create new career opportunities for individuals pursuing the trades or currently in the trades, while simultaneously supporting the region's transition to a resilient, low-carbon economy.

### Steps for Implementation

#### PHASE 1

#### Foundation and Strategy

**Identify a lead implementation partner(s)** – The Climate Action Committee would identify a lead implementation partner or group of partners who will spearhead the implementation of this toolkit. The implementation partner(s) may be a regional organization and/or educational partner that focuses on economic development or workforce development and training goals, and that has the capacity to lead toolkit implementation. The Climate Action Committee would work with the lead implementation partner(s) to discuss the toolkit vision, define a formal collaboration process, and identify pathways for funding. The partner(s) would not necessarily be responsible for implementing all actions of this toolkit, but would ensure that they are being carried forward. The lead implementation partner(s) may be the same as the lead implementation partner(s) for Toolkit #7; if not, coordination would be beneficial.

**Conduct outreach to understand opportunities for green trades workforce development** – Conduct interviews, focus groups, and/or surveys to assess challenges, gaps, and opportunities to strengthen workforce development in green trades. This step would include talking with 1) businesses and service providers about workforce shortages or skill gaps in specific sectors; 2) industry professionals about opportunities to adapt practices and facilitate

### How This Action Supports the Goals of Penobscot Climate Action

- ★ **Equity and Environmental Justice.** This action expands access to economic and workforce opportunities in growing sustainability industries, particularly in more rural areas with more limited access to jobs. It likewise creates pathways for Mainers from a range of backgrounds to lead the transition to a resilient, low-carbon economy. This action can be designed to target and benefit communities that face cumulative barriers to economic and workforce opportunities, such as residents with disabilities, low-income residents, new Mainers, and/or veterans.
- ★ **Environmental Health.** This action supports the development of a skilled workforce that can grow industries, technologies, and practices that support environmental health and a low-carbon economy, whether through renewable energy installation, high-performance building practices, or climate-adaptive forest management, for example.
- ★ **Community Resilience.** A diverse and talented workforce is the basis for a resilient economy—one that can adapt, innovate, and withstand downturns or climate hazards. This action can build resilience by expanding access to economic opportunity, strengthening the workforce, and supporting the growth of sectors that support climate resilience.
- ★ **Regional Collaboration.** This action prompts collaboration across the region between training programs, local businesses and employers, economic development organizations, and municipalities to strengthen a regional workforce and regional economy.

growth of sustainable industries; 3) education, training, and workforce development partners to discuss existing programs, plans for new programs or program growth, and existing challenges; 4) students who have gone through training programs about experience and outcomes; and 5) individuals seeking to enter various green trades. This step could be paired with research initiatives in Toolkit #7.

#### **Identify local training providers to lead or partner with**

– Drawing on the findings from the outreach, coordinate conversations with local training providers that have experience with workforce development programs, or have existing programs that can be built on to strengthen the green trades pipeline in the region. Discuss outreach findings and explore the potential for those training providers to lead or participate as partners in this action.

#### **KEY PARTNERS**

- **Local training providers** (e.g., Eastern Maine Community College, Eastern Maine Development Corporation, United Technologies Center, UMaine)
- **Contractors and service providers in the region**
- **Educational institutions** (e.g., UMaine, Husson University, Eastern Maine Community College)
- **State partners** (e.g., Maine Governor's Energy Office, Clean Energy Partnership)
- **Businesses and industry experts in selected green trade(s)**
- **Municipalities**
- **Regional organizations** supporting economic development (e.g., Eastern Maine Development Corporation)
- **Individuals interested in growing their green trade skills**

#### **PHASE 2**

#### **Program Design and Development**

**Program design and planning** – The lead implementation partner(s) in collaboration with training provider partner(s) will identify a primary approach (or set of approaches) for strengthening green trades workforce development in the region. Pathways may include developing a new program; adapting an existing program to include new curricula; expanding the reach of the program or who has access to the program; developing new approaches to connect students to the program; creating new partnerships to connect students to future employers or job opportunities, or other approaches. The lead implementation partner(s) would outline the details of the initiative, including goals, target trades, target students, training delivery approaches, and partners and potential participating employers, as relevant.

**Conduct a skills assessment and research existing industry standards** – For the development of any new curricula or program, research key technical skills, knowledge, abilities, and competencies needed for green trade(s) of focus. Explore industry standards, certifications for selected trade(s), and existing training programs, and identify opportunities to learn from or leverage pre-existing

**Consider ways that training programs could simultaneously provide hands-on experience for students, while supporting other Penobscot Action Goals – for example, supporting building retrofits for landlords or homeowners, energy efficient equipment installations for businesses, or providing services for municipal contracts or programs.**

#### **Connections Across Existing Work and Other Climate Action Strategies**

The State and partners across the State have launched a number of initiatives in the last three years that focus on strengthening Maine's workforce, specifically in clean energy jobs. In 2020, Maine's climate plan, *Maine Won't Wait*, set targets for doubling Maine's clean energy jobs by 2030, and in 2022 the Governor's Energy Office awarded \$2.5 million in grants to clean energy employers, industry associations, educational institutions, and nonprofits to support curricula development, training programs, job placement services, and other activities related to workforce development.

A large number of high schools, community colleges, universities, and nonprofits in the Greater Bangor region currently support workforce development and training programs, some with existing or emerging programs in green trades (e.g., Eastern Maine Community College's programs in solar installation, HVAC systems, and energy efficient building construction). Organizations such as Efficiency Maine and passivhausMAINE provide online and statewide trainings on topics such as solar PV design and installation, heat pump training, and building and energy code workshops.

This action will build off these initiatives, focusing on targeted efforts to strengthen workforce development within the Greater Bangor region, expanding on current successes or filling gaps, and considering green trades beyond clean energy sectors. This action will play a key role in supporting the success of other toolkits, and is especially intended to complement the implementation of Toolkit #7 - Develop a Climate-Ready Business Resource. Together, Toolkit #7 and Toolkit #8 provide knowledge and resources for local businesses to implement investments and practices that reduce greenhouse gas emissions and build climate resilience.

resources. Consider ways that training programs can help students meet requirements for existing certifications or provider networks (e.g., Efficiency Maine registered vendors or qualified partners). Consult industry experts to understand industry and emerging trends and technologies. This step may be more or less necessary depending on training provider partners and the pre-existing programs that are being built on.

**Identify and apply for funding for implementation** – In collaboration between the Climate Action Committee, lead

#### RESOURCES TO GET STARTED

- **Maine Clean Energy Workforce Analysis Report (2022)** – This report assesses the workforce and hiring landscape for clean energy jobs in Maine, including employer needs and challenges, awareness and perceptions of residents seeking jobs, and the clean energy training landscape. See the Appendix for an inventory of Maine Clean Energy Training Programs by county. Also see affiliated reports: [2021 Maine Clean Energy Industry Report](#) and [2022 Maine Offshore Wind Talent Analysis](#).
- **Expanding Pathways to Quality Jobs in Austin's Growing Green Economy Report** – This report provides a high-level overview of the green economy landscape in Austin. The report answers questions such as: What defines green activity and jobs? What public and private sector institutions are engaged in the green economy? What is the current status of the local workforce development system? What are the opportunities for green job growth in the region? This report could provide a useful framework for thinking about the local green economy ecosystem.
- **Efficiency Vermont- Weatherization Workforce Plan** – This is a state-level workforce plan that details the results from a survey of the weatherization workforce landscape in Vermont. This can be useful for brainstorming approaches for conducting the skills assessment and research into industry standards.

implementation partner(s), and training partner(s), identify funding mechanisms to support the development, rollout, and ongoing operation of the workforce development initiative identified. Different funding mechanisms may be required for different components.

#### PHASE 3

#### Program Implementation

**Launch the workforce development initiative** – Roll out the initiative. For initiatives that involve a new, adapted, or expanded program, establish connections with interested contractors, service providers, educational institutions, nonprofits, and others who may be interested in benefiting from or supporting this workforce development initiative. Together, launch a recruitment and enrollment campaign to attract individuals interested in joining the green trades or further developing their skills and certifications.

#### PRECEDENTS

- **Greenfield Community College HVAC Workforce Development Program** – A state grant funded heating, ventilation, air conditioning (HVAC) training program housed with the Greenfield Community College in Massachusetts. Its intention is to improve equity in the green workforce.
- **NySERDA Workforce Development and Training Programs in clean energy** – A state-level program, directed towards meeting the state's clean energy future goals, that connects people, businesses, service providers, and training providers with opportunities that support green and clean-energy workforce development.
- **Building Greener Futures: Green Jobs Training and Bioswales in New Haven, CT** – A partnership between city, nonprofit, and academic stakeholders to train high school students from underserved communities and recently incarcerated individuals with the skills to install green infrastructure and plant trees in the community.

**Gather feedback for evaluation and improvement** – Seek feedback from training providers, participants in the program, and businesses or employers affiliated with the program. Make necessary adjustments based on stakeholder feedback. As relevant, develop a plan for scaling up the initiative or expanding to additional skill sets based on lessons learned and successful outcomes. Plan for long-term sustainability of the action.

#### COST CONSIDERATIONS

- The cost for Phase 1 will depend on the capacity of the implementation partner(s), the amount of funding that the partner(s) would be needed to lead this work, and/or whether a consultant is brought on to help facilitate.
- Costs for Phase 2 would be dependent on the initiative identified. The grants listed below may be able to support specific initiatives.

#### POTENTIAL SOURCES FOR FUNDING

- **CDBG Workforce Development Grant Program** - Provides funding for creating a new or enhancing an existing training program in Maine to address skills shortages.
- **Federal BIL and IRA funding earmarked for workforce development** - The Maine Governor's Energy Office is tracking federal funding opportunities designed to support contractor training, energy auditor training, and skills training.
- **Maine Jobs and Recovery Plan** - Funding administered through the Maine Department of Education to support a range of workforce development efforts.
- **Community Change Grants** - EPA funding for community-based organizations (in partnership with Tribes, local governments, and/or higher education) for climate justice activities, including workforce development.