

# Governor's Office of Policy Innovation and the Future

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## Maine Climate Council & Infrastructure Rebuilding & Resilience Commission

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Briefing to the Committee  
on Energy, Utilities and  
Technology



GOVERNOR'S OFFICE OF  
Policy Innovation  
and the Future

# Governor's Office of Policy Innovation and the Future (GOPIF)



GOPIF serves as a key coordinator, working collaboratively with other State agencies and stakeholders to address critical long-term issues facing the State of Maine. We support planning and implementation by providing research, data, and innovative policy solutions.

# GOPIF Focus Areas & Projects

- The Maine Climate Council
- *Infrastructure Rebuilding & Resilience Commission*
- Community Resilience Partnership
- Lead-By-Example in State Government
- Maine Jobs & Recovery Plan
- Bipartisan Infrastructure Law & Infrastructure Coordinating Committee
- The Forest Bioproducts Tech Hub
- Housing Policy
- Opioid Response and Prevention
- The Children's Cabinet
- Cabinet on Aging
- Ending Hunger by 2030 Plan
- Office of New Americans
- State AI Task Force
- Support for the Maine Office of Community Affairs

# State-wide Storm Damage

December 18, 2023  
January 11-13, 2024



Photo credit: Island Institute



# Significant Infrastructure Damage

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Route 26  
Newry, ME



*Photo credit: MaineDOT*

# Maine is already seeing impacts from climate change.

## Warmer temperatures

The past four years in Maine have ranked among the ten warmest on record



## More precipitation

1-2 additional days per year with 2+ inches of precipitation



## More intense storms

Most climate models predict more intense storms (especially in winter)



## Rising sea levels

Sea levels are 8 inches higher than a century ago



Source: Maine Climate Council Scientific and Technical Subcommittee, *Scientific Assessment of Climate Change and Its Effects in Maine - 2024 Update*

# CLIMATE COUNCIL GOALS



**12.01.24**

Updated Climate Action  
Plan Due



Achieve State Carbon  
Neutrality by  
**2045**

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

**45%**

BELOW 1990 LEVELS  
BY 2030

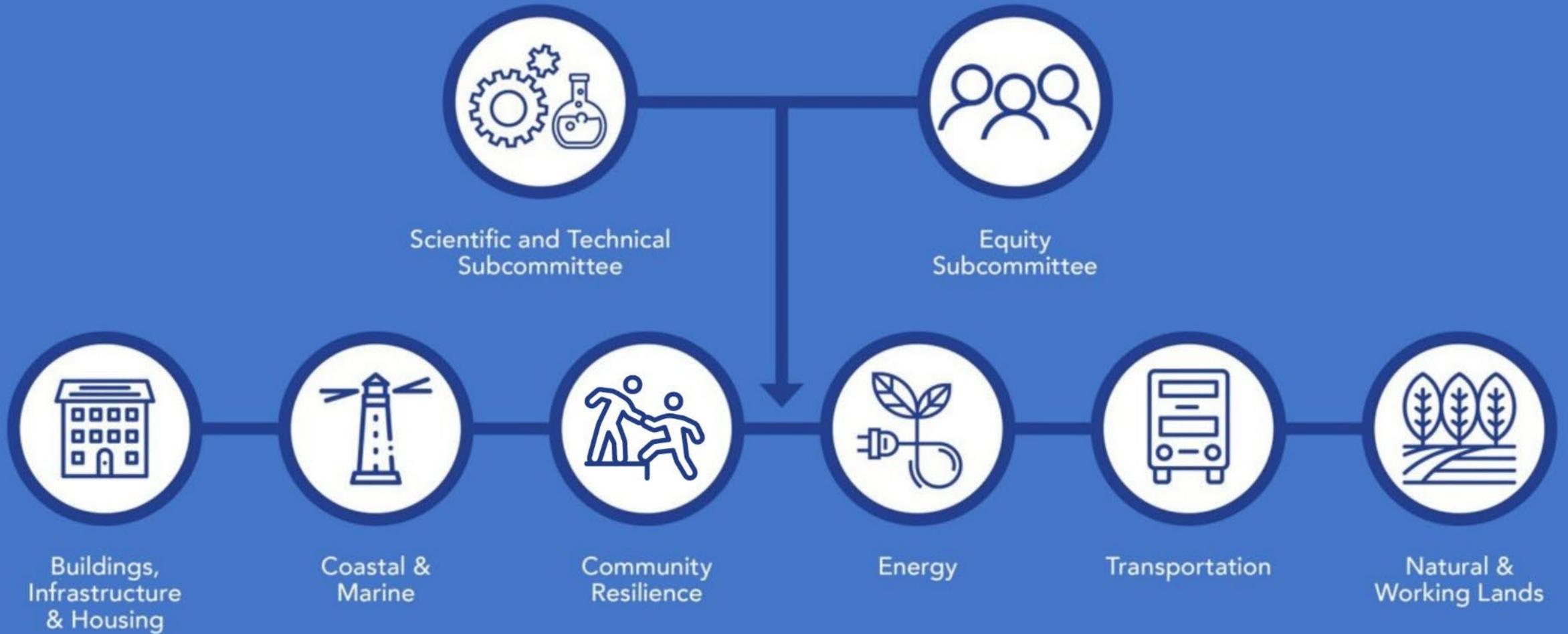
**80%**

BELOW 1990 LEVELS  
BY 2050

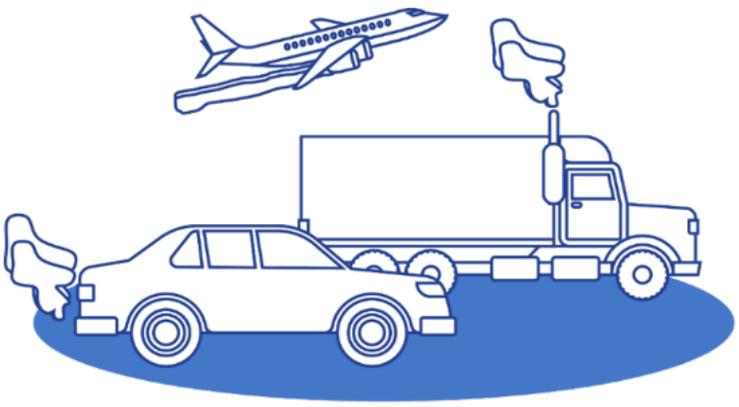


ENSURE MAINE PEOPLE, INDUSTRIES, AND COMMUNITIES ARE RESILIENT  
TO THE IMPACTS OF CLIMATE CHANGE.

# Maine Climate Council



# 80% of Maine's carbon dioxide emissions from fossil fuels come from transportation and buildings.



**49%**  
Transportation



**19%**  
Residential



**12%**  
Commercial



**10%**  
Industrial



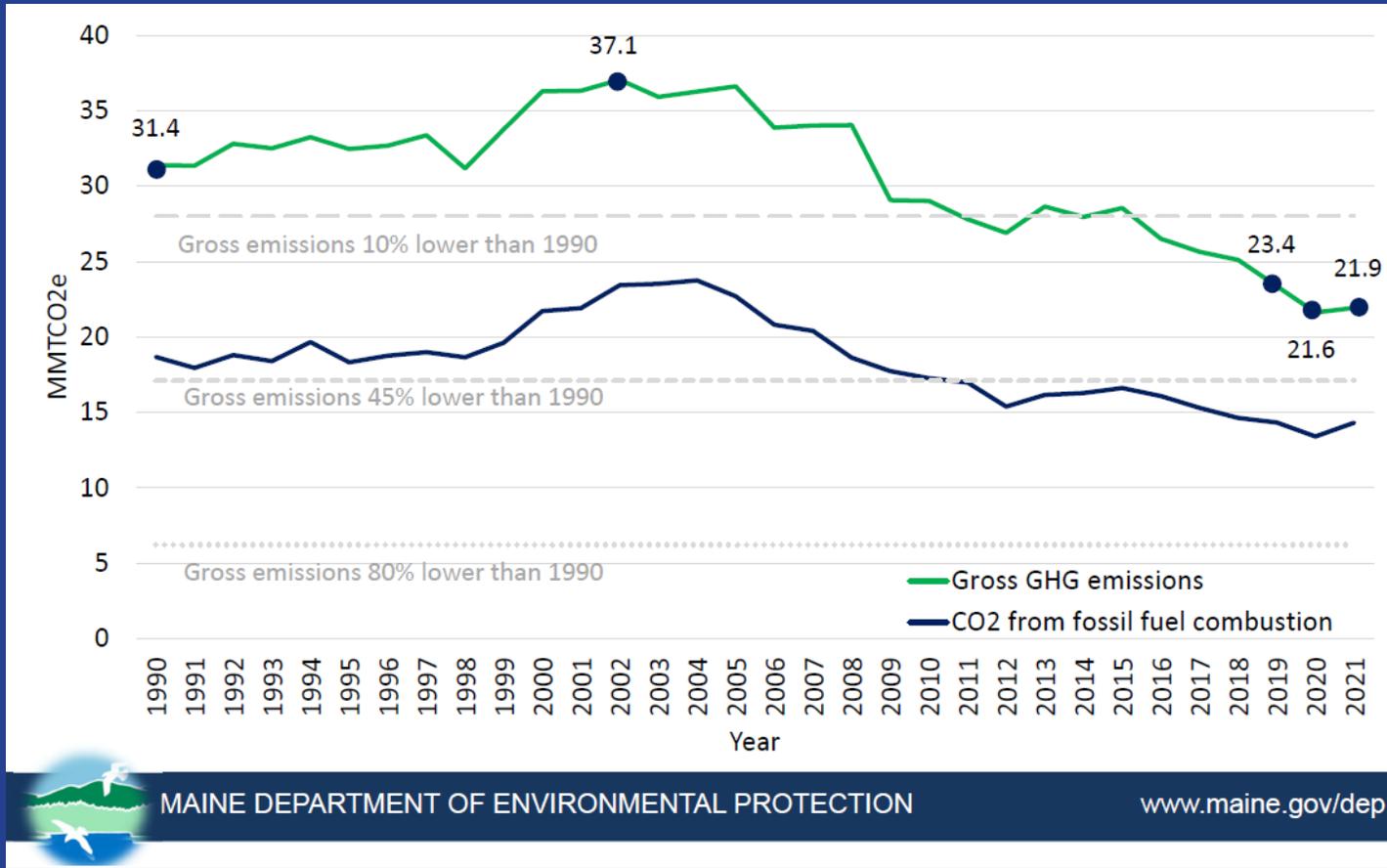
**9%**  
Electric Power

Source: Maine Department of Environmental Protection 10th Biennial Greenhouse Gas Emissions Report



# Emissions Reduction Progress:

Gross greenhouse gas emissions in 2021 were 30% lower than in 1990.



# Maine Won't Wait Goals:



1. Reduce Maine's **greenhouse gas emissions**
2. Strengthen **resilience** to climate impacts
3. Create **jobs** and **economic prosperity**
4. Bring climate action to **all Maine people**

# Maine Won't Wait Strategies:

**A** \_\_\_\_\_

Embrace the future of transportation in Maine



**B** \_\_\_\_\_

Modernize Maine's buildings: energy-efficient, smart, and cost-effective homes and businesses



**C** \_\_\_\_\_

Transition to clean energy



**D** \_\_\_\_\_

Create jobs and grow Maine's economy through climate action



**E** \_\_\_\_\_

Protect the environment and natural and working lands and waters in Maine



**F** \_\_\_\_\_

Build healthy and resilient communities



**G** \_\_\_\_\_

Engage with Maine people on climate action





# Embrace the Future of Transportation in Maine

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# Accelerate Maine's Transition to **Battery Electric** and **Plug-in** **Hybrid Electric** **Vehicles.**



## Actions:

- **Targets for EVs**, including for **low- and moderate-income** drivers
- Expand **EV charging stations** statewide
- **Lower the cost of new and used EVs** for low- and moderate-income drivers
- **EV education** for drivers, dealers, and employers
- **Support EV adoption** through **policy**

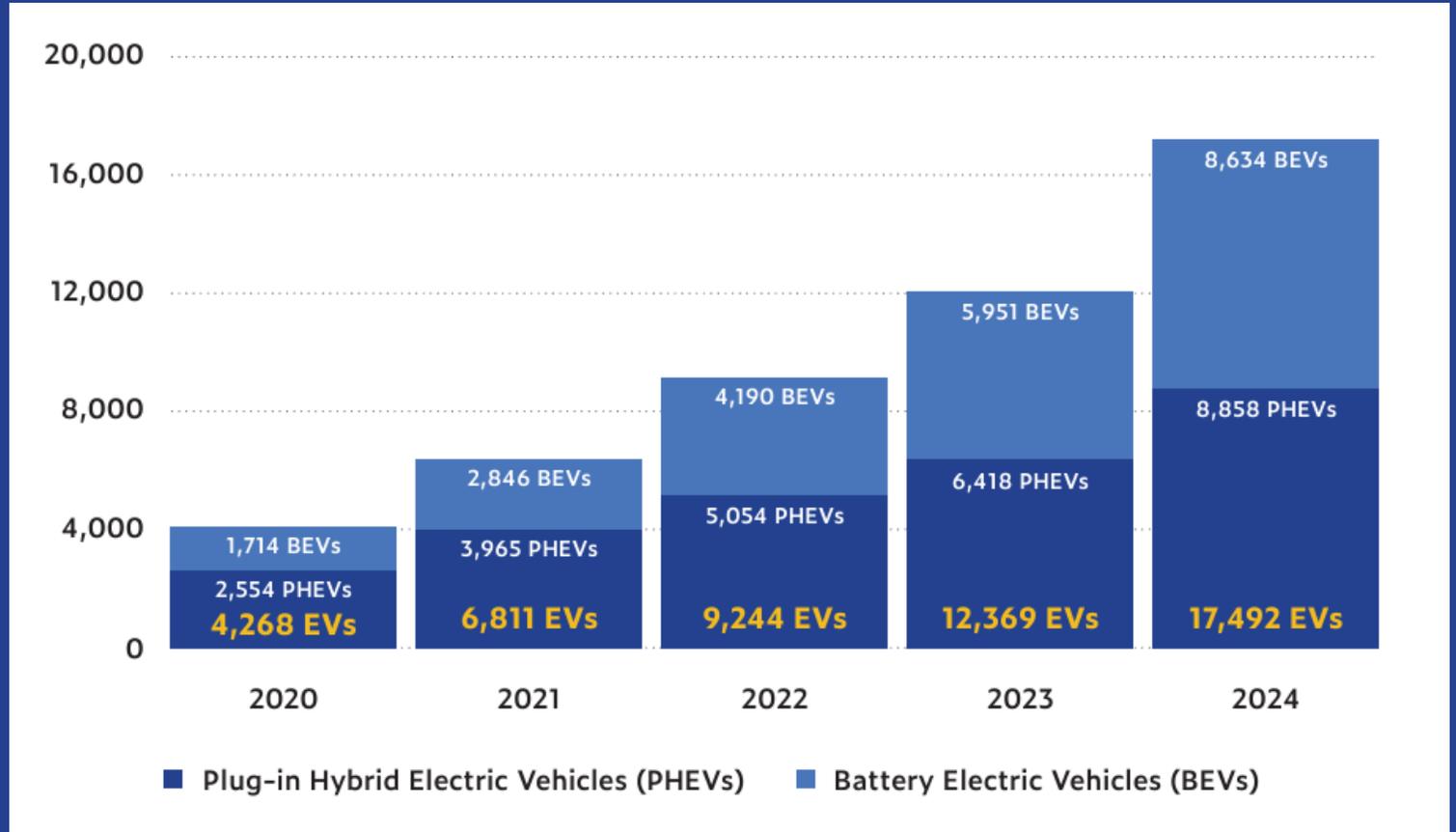




More than **17,000** EVs are registered in Maine.

Goal: **150,000** EVs on the road by **2030**

## Electric Vehicles on the Road in Maine



Source: Maine Department of Environmental Protection and Atlas Public Policy



# Expanding Maine's EV Charging Network



Goal: **700** state-supported EV charging ports by **2028**



# Accelerate Maine's Adoption of **Zero-Emission Medium- and Heavy-Duty Vehicles.**



## Actions:

- Pilot projects for **electric** and **hybrid buses** and **ferries**
- Launch **fleet advisory services** to help medium- and heavy-duty fleets adopt clean vehicles
- Develop an incentive program for **electric vans, trucks, and buses**
- Support **zero-emission medium- and heavy-duty vehicles** through **policy** and **regulatory** options
- Implement the **Clean Transportation Roadmap** for medium- and heavy-duty vehicles (2024)

# Reducing the need for driving through **shared, public, and active transportation**



Electric and hybrid **buses** and **ferries**

Improved **coordination** between transit agencies

Expand **bike** and **pedestrian** infrastructure

Transportation **pilot projects**

**Education** and **awareness**





## Invest in Resilient Infrastructure:

More than **\$46 million** invested in critical transportation infrastructure through the **Maine Infrastructure Adaptation Fund**



# Modernize Maine's Buildings

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Continue the progress on making homes and businesses more **energy efficient** by investing in **weatherization and heating systems.**



## Actions:

- Targets for **heat pumps** and **weatherization**, including in **low-income households**
- Extend **funding and financing** for weatherization and electric heating and water heating systems **beyond 2030**
- Increase participation by **renters, low-income households**, and **rural residents**
- **Education and outreach** on the benefits of energy efficient appliances, clean energy, and weatherization
- **Fair sales taxes** for **electric heat**
- Continue to explore state **emissions standards** for heating appliances



More than  
**143,000** heat  
pumps are  
installed in Maine.



Goal: **130,000** partial  
homes and **116,000** whole-  
home heat pumps by 2030

Goal: **40,000** heat pumps  
in low-income households  
by 2030



**Weatherization** is saving money and improving **comfort** and **health**.



**Goal: Weatherize 35,000 homes by 2030, including 10,000 low-income households**



Establish strong systems and processes to support rapid **adoption** and **compliance** with **climate-friendly building codes and standards**.



## Actions:

- Commit to adopt **net-zero emissions building codes by 2035**
- **Strengthen building code adoption, compliance and training** through the Maine Office of Community Affairs
- Increase **technical assistance and contractor training**
- Support the purchase of **Zero-Energy Ready manufactured homes**



Promote the manufacture and use of **climate-friendly building products**.



## Actions:

- Encourage **cross-laminated timber** (CLT) and other **bio-based materials manufacturing** in Maine
- Increase **awareness** and **education** about **embodied carbon**
- Use demonstration projects and incentives to lower the cost of **climate-friendly building materials**
- Design buildings for **deconstruction**
- Encourage **salvage** and **reuse** of building materials



# Maine's Forest Bioproducts Advanced Manufacturing Tech Hub

*Changing how the world builds homes, packages products, and more while writing the next great chapter of Maine's storied forest products industry*

- **Deploying \$23+ million for scaling Maine-based technologies, firms, and talent**
- **70+ member public-private consortium backed by investors with more than \$4.25 billion in assets**
- **Led by Maine Technology Institute, with GOPIF & DECD**



**First 100% bio-based 3D-printed home**

Visit <http://MaineTechHub.us>

Support measures that both **reduce carbon** and **improve resilience**.



## Actions:

- Help Mainers to **prepare** their homes and businesses for **climate impacts**
- Increase **funding and financing** options for **solar and storage** for homes and businesses
- Expand **education and outreach** about solar and storage incentives and benefits
- Manage the impact of **building loads** on the **grid**
- Fund the cleanup of **residential oil tank** spills



# Accelerate decarbonization technologies in industrial processes.



## Actions:

- Promote **emerging technologies** such as industrial heat pumps and membrane filtration
- Continue **energy efficiency** upgrades at **small and mid-sized facilities**
- **Maximize federal grant-funding** opportunities
- Incentivize **demand management**, including behind-the-meter **batteries** and **thermal energy storage**



Maine needs more **affordable housing** that is clean and energy efficient.



Goal: Build or renovate **1,500** energy efficient, **affordable** housing units per year



Photo credit: AVESTA Housing



Lead by Example  
in **schools,**  
**municipalities,** and  
**state buildings.**



Goal: Reduce  
emissions from  
state buildings by  
**50% by 2034**



Photo Credit: © Darren Setlow Photography  
Architect/Engineer: WSP Buildings  
Envelope Consultant: LeMessurier





# Transition to Clean Energy

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# Focus on power **affordability** and **reliability** for **Mainers**



Better understand **energy burden** across all energy costs

Plan for future grid needs and **storm resilience**

Launch an **energy coach** program

Reduce barriers to **clean energy** and **energy efficiency**



**Decrease energy burdens while transitioning to clean energy.**



## Actions:

- **Better understand energy burden** across all energy costs
- **Reduce capital and financial barriers** through expanded financing options and ownership models
- Launch an **energy navigator** program
- Ensure adequate funding for **energy assistance programs**



# Plan and build the infrastructure needed to achieve **100% clean electricity by 2040.**



## Actions:

- Establish a **regular cadence of clean energy procurements** at least every two years
- Maximize use of **federal funds**
- **Develop community-informed resources** to assist Maine towns in supporting clean energy
- **Improve state policies** for permitting, siting and procurement of clean energy and transmission projects
- **Plan for future grid needs** in transmission and distribution
- Improve and **modernize the process of connecting clean energy projects to the grid**
- Invest in a sustainable, Maine-based **offshore wind industry**

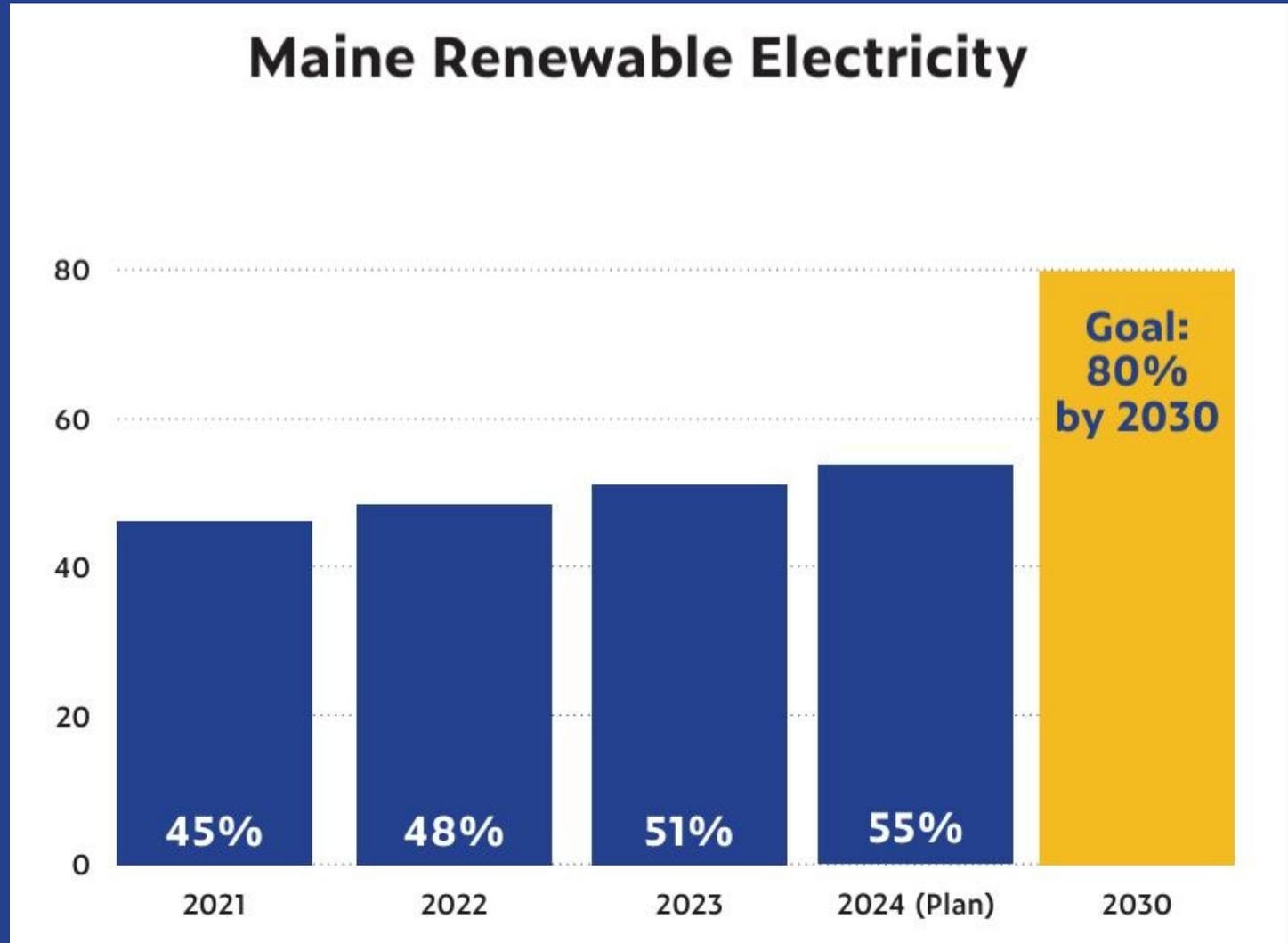


**55%** of Maine's electricity comes from **renewable sources**.



**Requirement: 80% renewable energy by 2030**

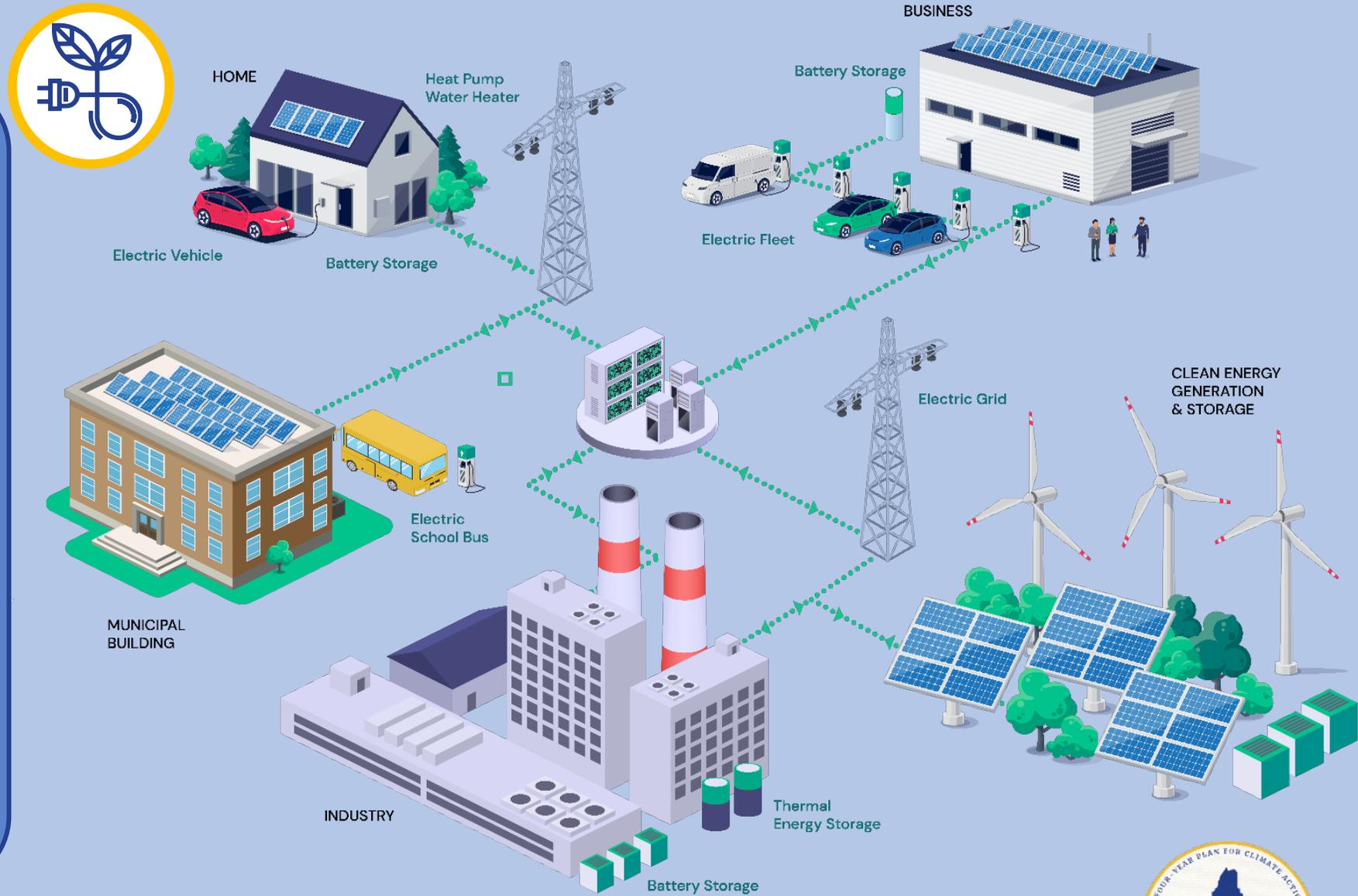
**Goal: 100% clean electricity by 2040**



Source: Maine Governor's Energy Office



Manage the impact of **buildings, vehicles, and industry** on the grid with innovative and cost-effective **demand management and load flexibility strategies.**



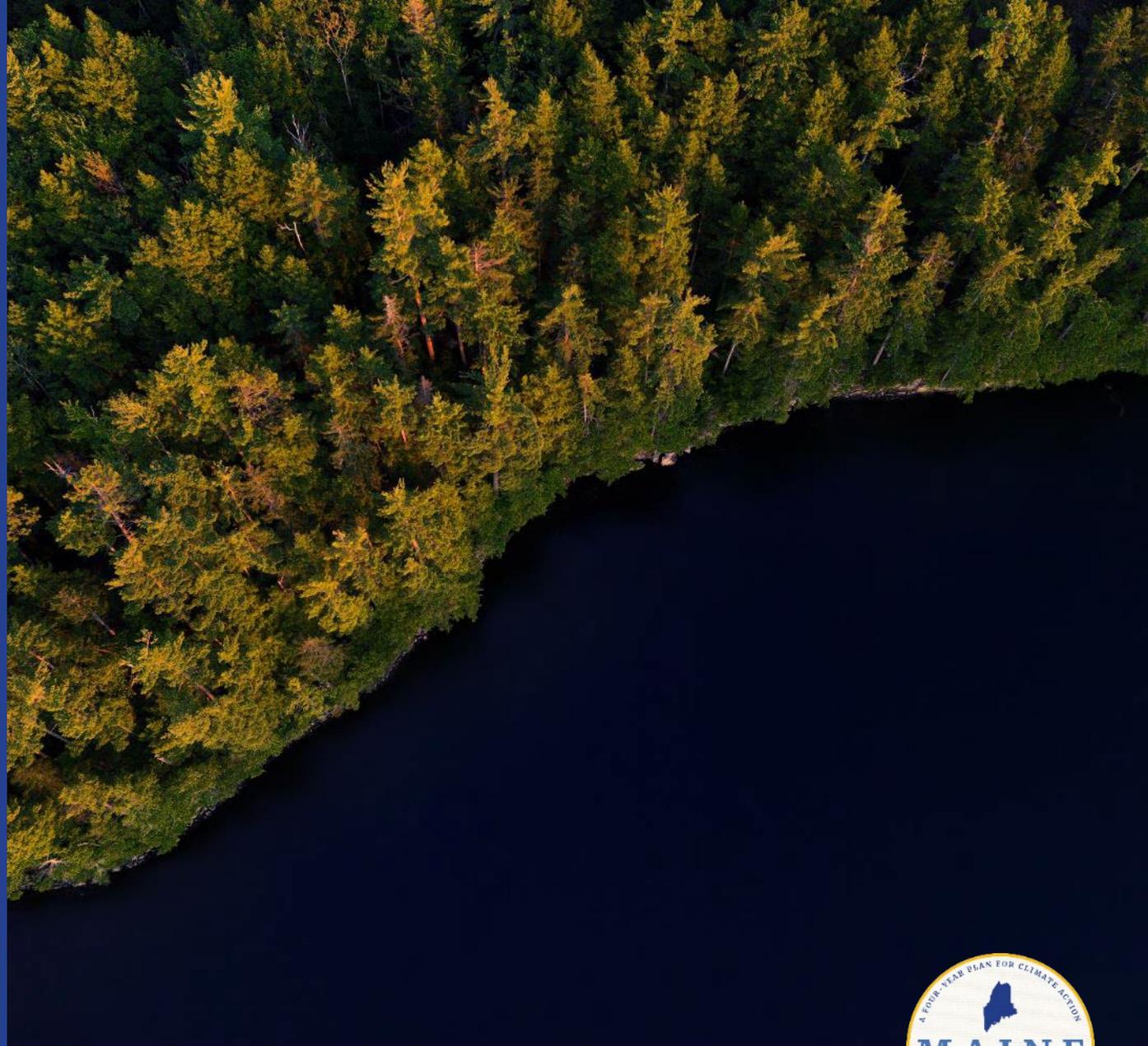
Goal: **30,000** clean energy jobs and **7,000** new Registered Apprentices by **2030**





# Protect the Environment and Natural and Working Lands and Waters in Maine

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**22%** of land in  
Maine is conserved.



**Goal: Protect 30%** of  
natural and working lands  
in the state by **2030**

**Goal: Double** permanently  
protected farmland by  
**2030**



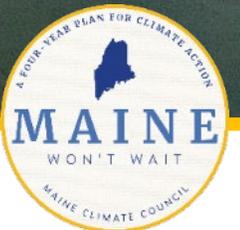
# Support **farming,** **forestry,** and **fisheries** industries in Maine in **adapting** to climate change





# Build Healthy and Resilient Communities

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# Expand access to **funding and financing** for climate adaptation and emissions reduction.



## Actions:

- Establish a “**resilience bank**” to fund and finance climate-ready infrastructure and adaptation projects
- **Simplify state grant application processes**
- Develop a **long-term funding plan** and investment strategy to support *Maine Won't Wait* goals



Promote **smart growth** to reduce emissions, prevent natural and working land conversion, and create affordable housing.



## Actions:

- Promote **compact development**
- Integrate **housing** and **climate goals**
- Promote **clean energy investments** that minimize land impacts
- Avoid growth in **vulnerable areas**

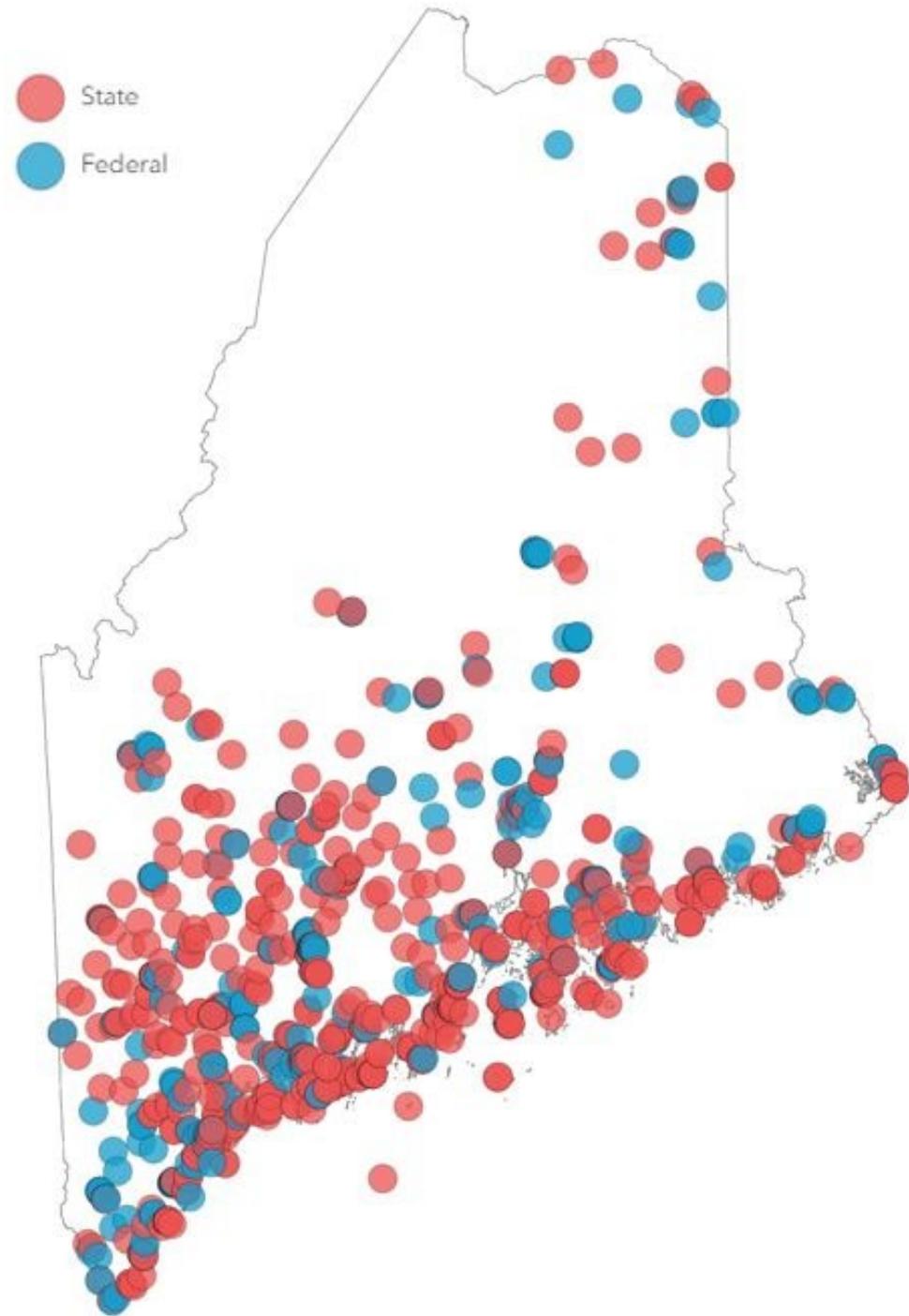


Over **\$600 million** invested in resilience in Maine communities

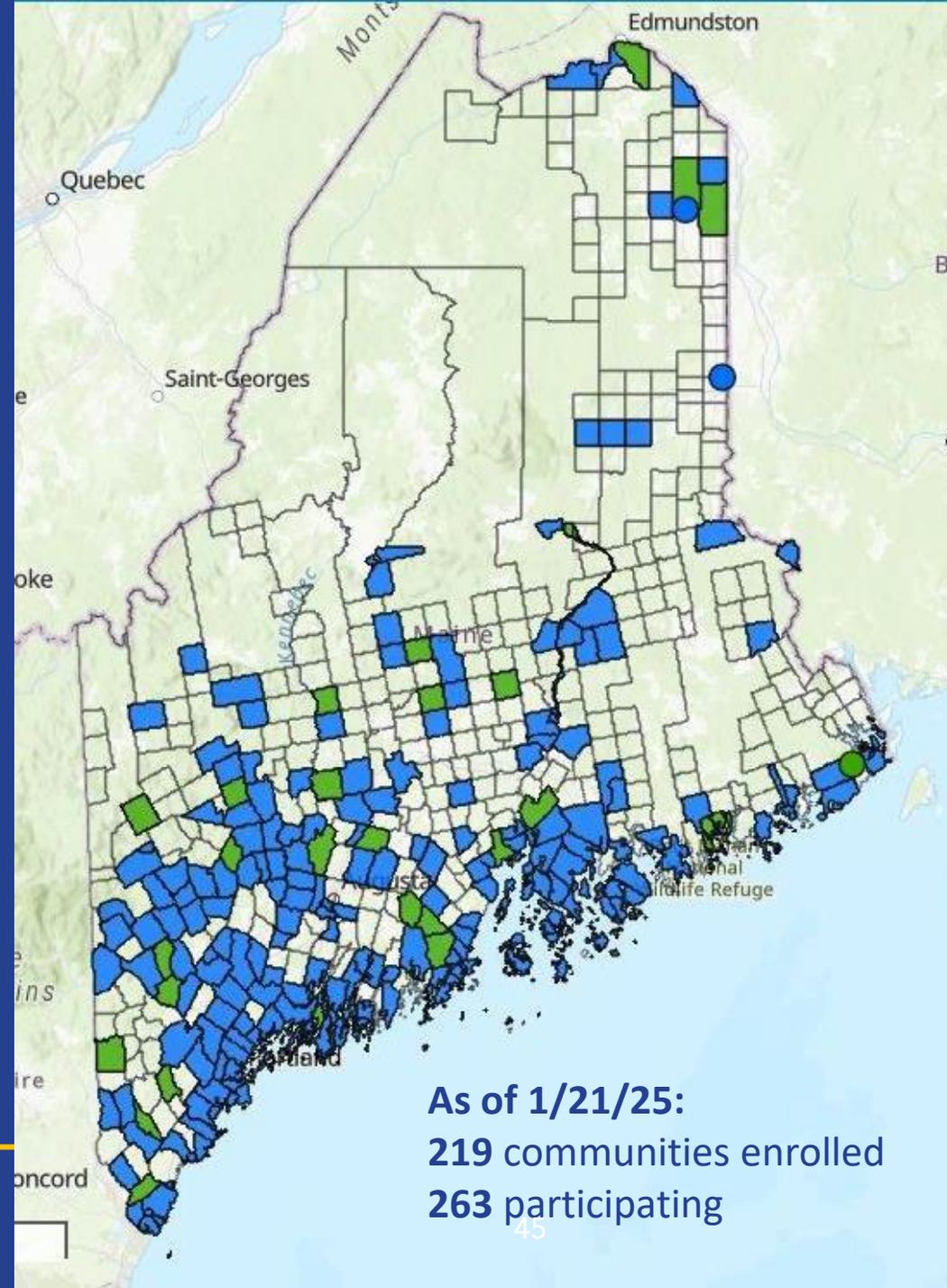


**39%** of investments to date in underserved communities

Goal: **40%** of climate infrastructure and resilience investments in underserved communities



**Community Resilience Partnership: over \$9.1 million awarded to municipal and tribal governments to support *Maine Won't Wait* goals**



**As of 1/21/25:  
219 communities enrolled  
263 participating**

# Community Resilience Partnership

## Purpose

Through **grants and technical assistance**, the Community Resilience Partnership assists communities to:

- **reduce carbon emissions**,
- **transition to clean energy**, and
- **become more resilient** to climate change effects such as to extreme weather, flooding, rising sea levels, public health impacts, and more.



Town and state leaders in Norway, Maine

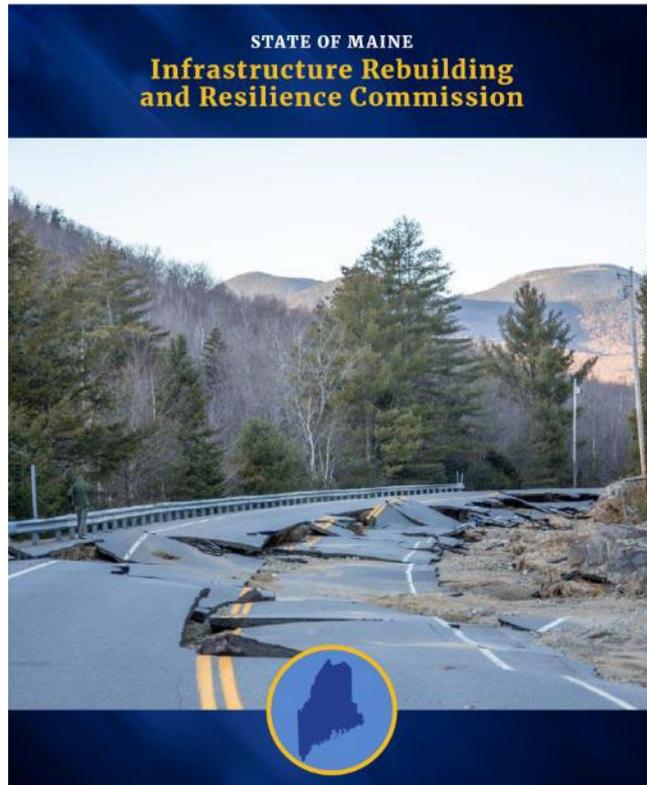


# Engage with Maine People and Communities

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# Infrastructure Rebuilding and Resilience Commission



## Focus areas

- Strengthen infrastructure resilience at the state, regional, and local levels
- Improve disaster preparation, recovery, and response
- Protect energy systems and critical community infrastructure

## Deliverables

- Infrastructure plan and recommendations for Governor and Legislature

## Timeline

- ✓ November 15, 2024 - Interim report and recommendations
- May 15, 2025 - Final report

# LD 1: An Act to Increase Storm Preparedness for Maine's Communities, Homes, and Infrastructure

## Home Resiliency Program at the Bureau of Insurance \$15 million

- Grant program for homeowners to strengthen primary residences against severe weather damage and reduce insurance losses (\$15m)
  - For example, roof strengthening, basement floodproofing.

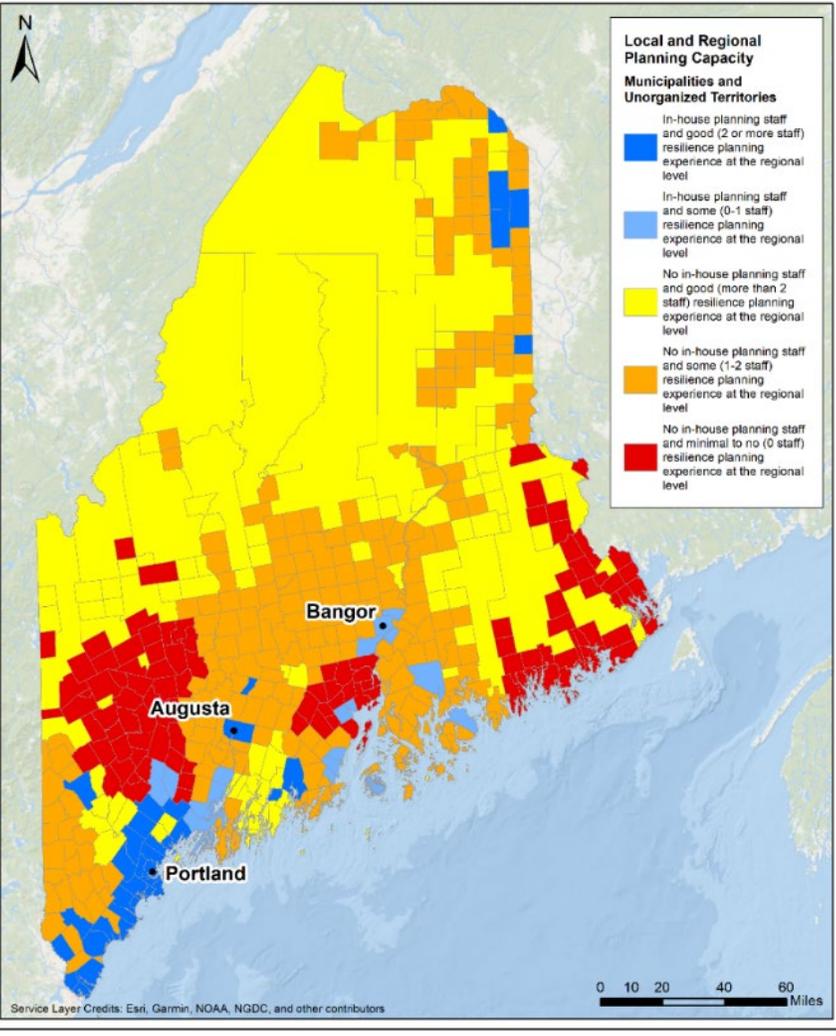
**Funding Note:** LD 1 is funded by existing Other Special Revenues and leverages federal funding. General Funds are not required.

## Maine Emergency Management Agency \$12 million

- One-time funding for Disaster Recovery Fund as match for FEMA recovery funds (\$10m)
- Establish a Safeguarding Tomorrow Revolving Loan Fund (\$750k + 2yr contract/grant specialist)
- Update communications technology and early warning systems (\$800k + 2yr communications system manager)

## State Resilience Office and Flood-Ready Maine Initiative \$9.6 million

- Establish the State Resilience Office at MOCA (four 5yr positions, federally funded)
- Flood-Ready Maine initiative to improve flood models and maps and develop an online data hub (\$5.75m + geospatial data manager)
- Regional Certified Floodplain Manager initiative to increase NFIP participation (\$1.6m + program coordinator)



# Maine Office of Community Affairs (MOCA)

Because Maine communities face complex challenges and need a state partner to support planning and implementation capacity to address those challenges.



**MOCA will work in partnership with communities and regional organizations to navigate these complex challenges and pursue comprehensive solutions.**

- **Climate Resilience:** Community Resilience Partnership, Maine Coastal Program, Maine Floodplain Program, NEW State Resilience Office
- **Land Use Planning:** Municipal Planning Assistance Program
- **Housing Planning:** Housing Opportunity Program, MUBEC/Code Enforcement
- **Volunteer Maine**

