



# GOVERNOR'S Energy Office

Celina Cunningham, Deputy Director  
Ethan Tremblay, Solar and Storage Analyst





# Overview of Maine solar energy policy and industry landscape

Presentation to Agricultural Solar Stakeholder Group

*June 3, 2021*



GOVERNOR'S  
Energy Office

# 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

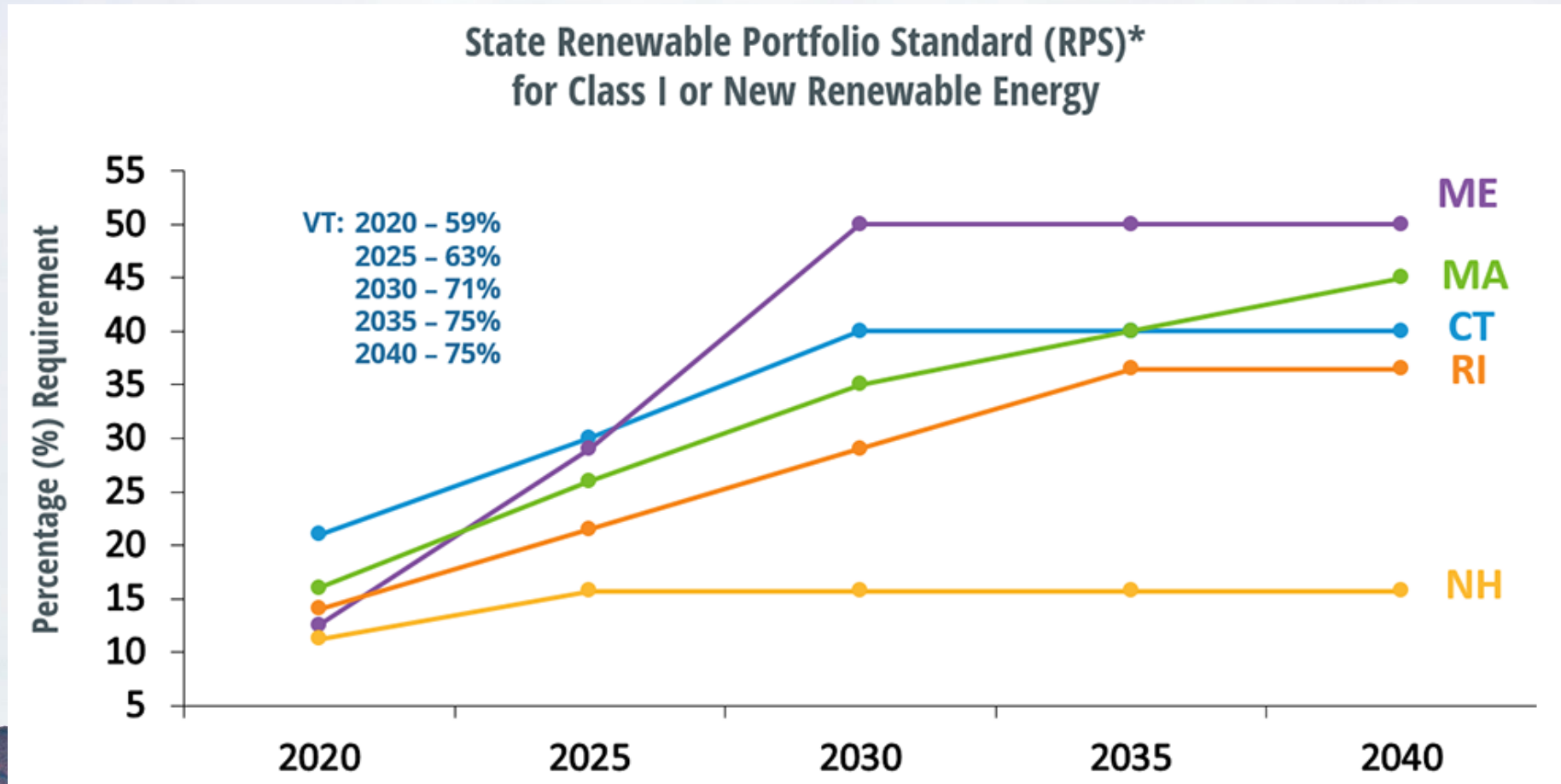
**80%**  
BELOW 1990 LEVELS  
BY 2050



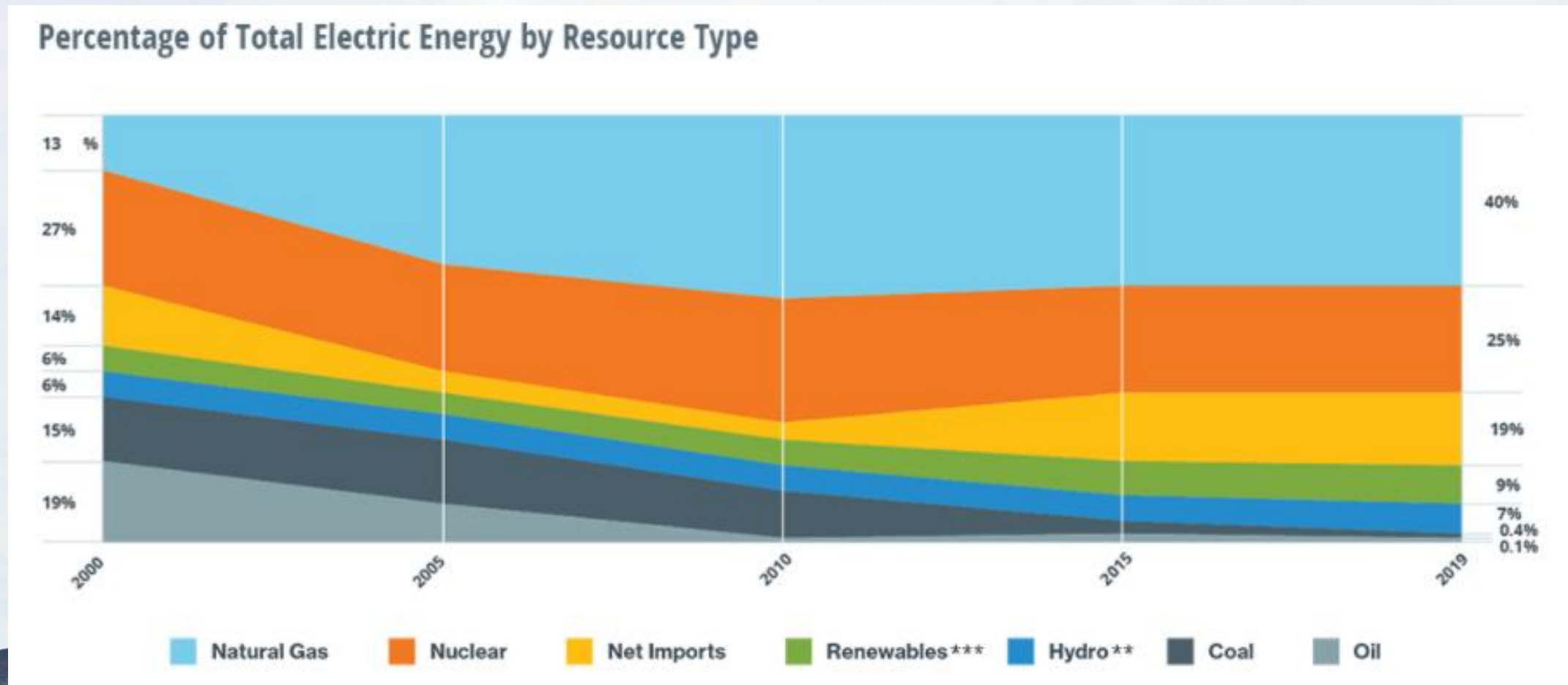
ENSURE MAINE PEOPLE, INDUSTRIES, AND COMMUNITIES  
ARE RESILIENT TO THE IMPACTS OF CLIMATE CHANGE.



# Maine and the other New England states have ambitious renewable energy goals



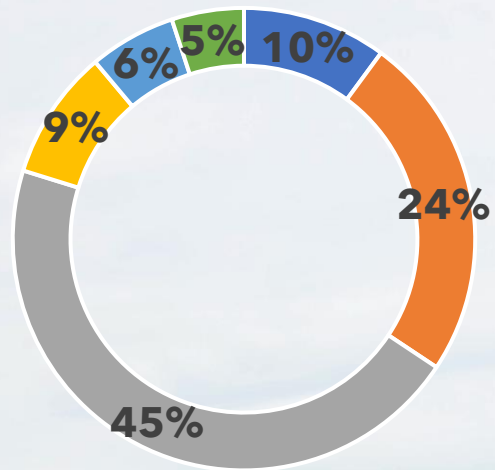
# Maine participates in a regional electricity market



Source: ISO New England. *Resource Mix*. Accessed May 2021.

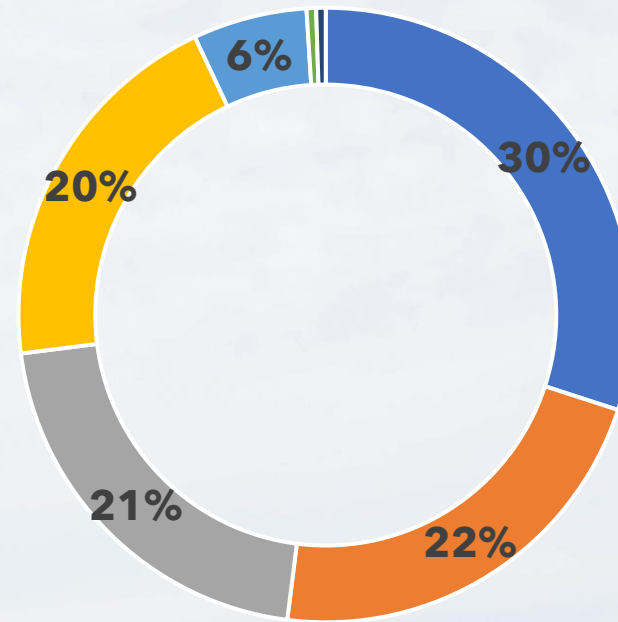
# Share of Electricity Consumption (Retail Sales), 2017

- Maine
- Connecticut
- Massachusetts
- New Hampshire
- Rhode Island
- Vermont



# Maine Electricity Generation, 2017

- Hydroelectric
- Wood & wood-derived fuels
- Wind
- Natural gas
- Other biomass
- Petroleum
- Coal





# Maine Greenhouse Gas Emissions by Sector



54%



19%



11%



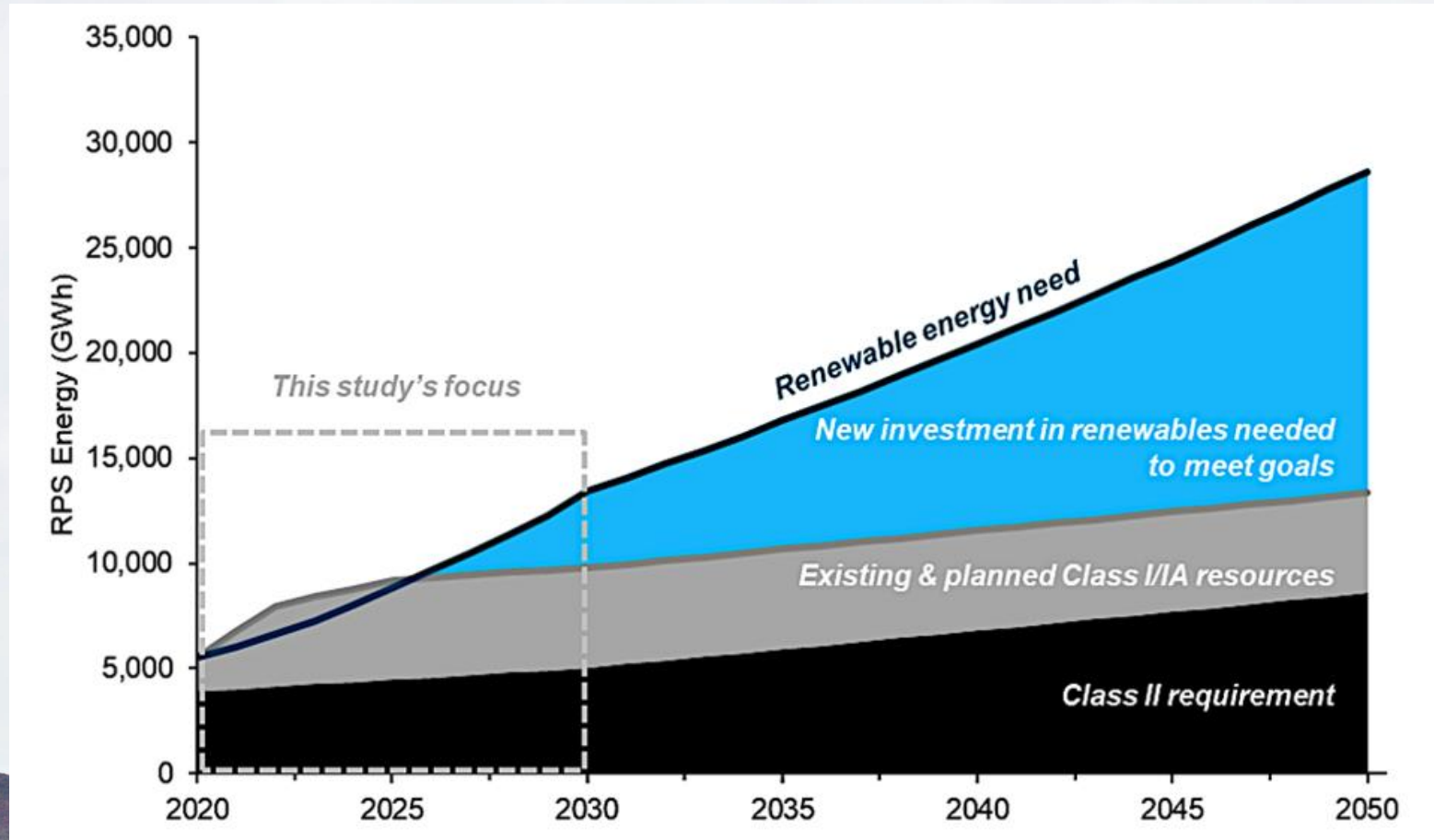
9%



7%

TRANSPORTATION • RESIDENTIAL • COMMERCIAL • INDUSTRIAL • ELECTRIC POWER

# Additional renewable capacity will be needed to meet Maine's goals





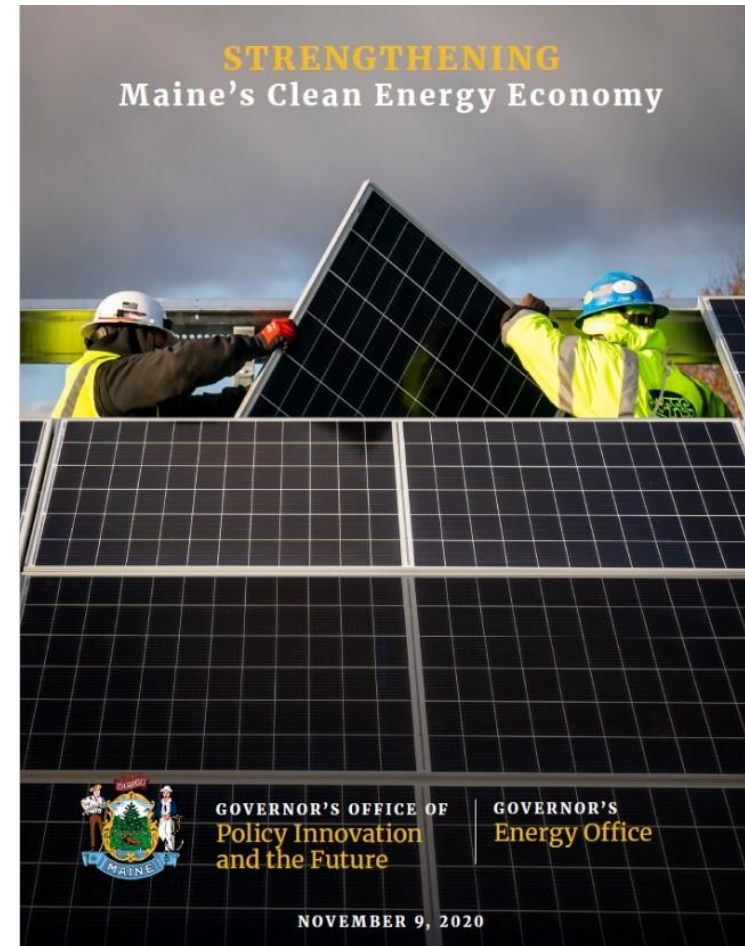
# Grow Maine's Clean Energy Economy and Good Jobs

## *Strengthening Maine's Clean Energy Economy*

**Governor Mills' goal:  
30,000 clean energy  
jobs by 2030**

**What is the clean energy economy?**

**"Economic development, operations and supply chains in renewable energy and energy efficiency, that generate economic benefits, create high-quality jobs, and fight climate change."**



# Solar-related policy summary

80% of Maine's electricity must come from renewable resources by 2030, with a goal of 100% by 2050.

*Public Law 2019, Chapter 477 (An Act To Reform Maine's Renewable Portfolio Standard)*

Procurements for renewable resources to supply 14% of Maine's electricity needs (1.715 million MWh).

*Public Law 2019, Chapter 477 (An Act To Reform Maine's Renewable Portfolio Standard)*

Targeted procurements for up to 375 MW of distributed generation.

*Public Law 2019, Chapter 478 (An Act To Promote Solar Energy Projects and Distributed Generation Resources in Maine)*

Net energy billing for projects under 5 MW, including shared facilities and C&I tariff program.

*Public Law 2019, Chapter 478 (An Act To Promote Solar Energy Projects and Distributed Generation Resources in Maine)*



# Renewable Portfolio Standard procurements

## Tranche 1 Procurement

- Completed in 2020
- 17 renewable projects, ~9.5% of electric load, competitive prices
  - Includes 14 solar projects totaling 482.5 MW
- Reduce GHG emissions by approximately 500,000 tons per year, create hundreds of jobs and contribute millions of dollars to Maine's economy

## Tranche 2 Procurement

- Issued January 15, 2021, results expected this summer
- Roughly 4.5% of State electric load



# Distributed Generation procurement

- Procurement created in 2019
- C&I and community shared projects for a total of 375 MW
- Declared first round unsuccessful last August
- Included siting considerations
- Legislature actively reviewing





# Current Net Energy Billing Program

- Renewable generators less than 5 MW are eligible
- Participants can offset electricity bills with credits from renewable generators
- Non-residential customers can choose between energy (kWh) credits or dollar credits (tariff)
  - kWh credits are 1-to-1
  - Dollar credit rate set annually by MPUC
- Net energy billing customers can use their own generator or share in a project with other customers
- Legislature reviewing program

# Solar - Looking Ahead

Legislature reviewing Net Energy Billing

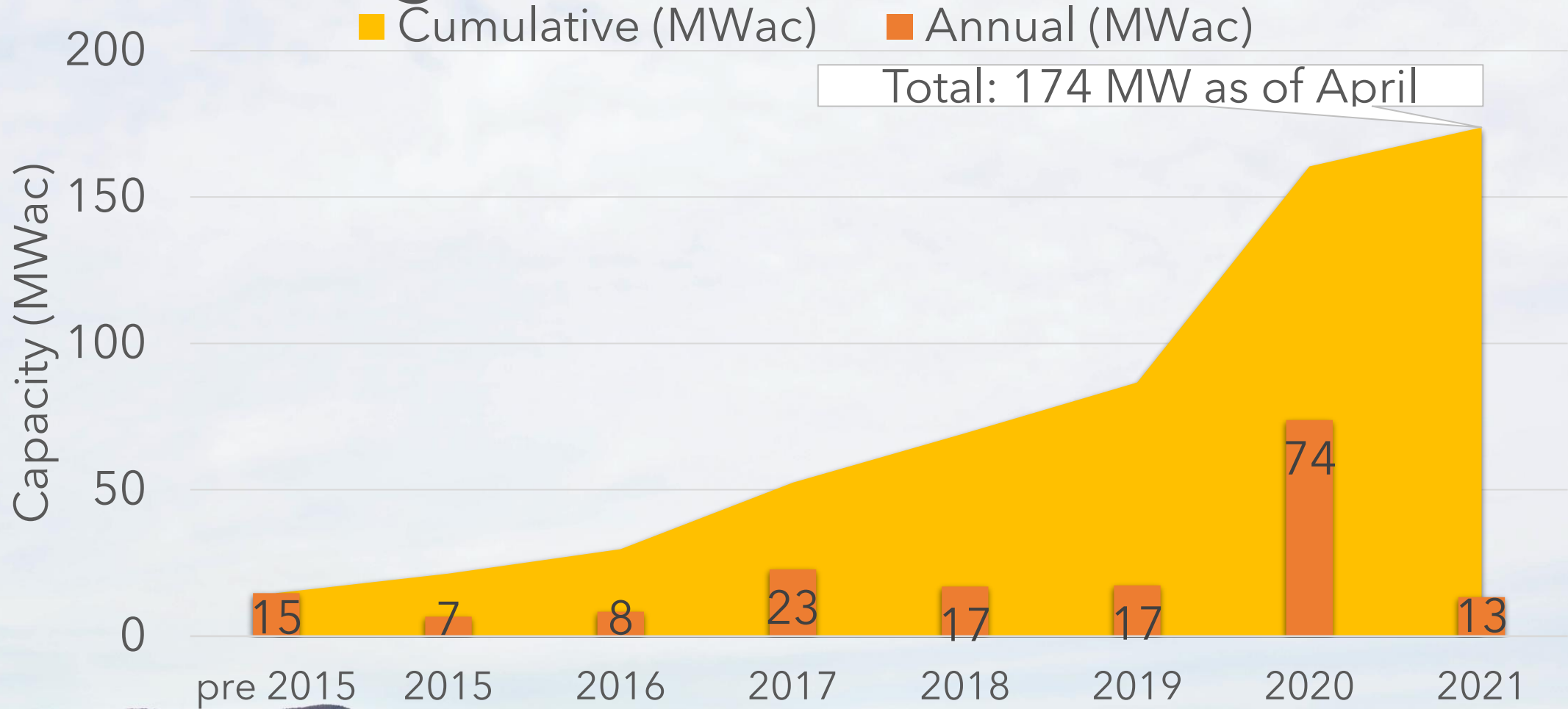
RPS procurement tranche 2 - results summer/fall 2021

Periodic PUC Procurements

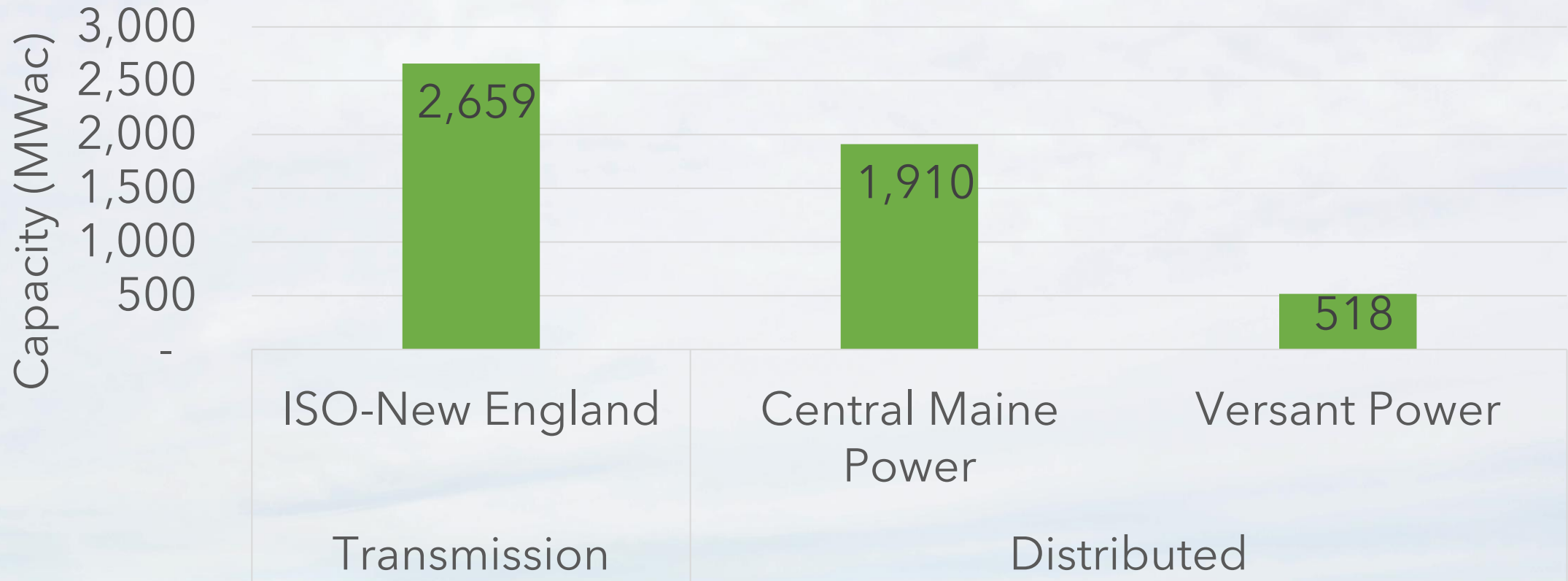




# Solar generation installed in Maine



# Solar capacity in interconnection queues, May 2021



Source: ISO-New England queue, Central Maine Power and Versant Power level 4 interconnection queues. Distributed projects typically between 2 and 5 MW. Many proposed projects are never built - e.g. ISO-New England estimates 70% of proposed MW will not be built.



# Thank You

[celina.cunningham@maine.gov](mailto:celina.cunningham@maine.gov)

[ethan.tremblay@maine.gov](mailto:ethan.tremblay@maine.gov)

[www.maine.gov/energy](http://www.maine.gov/energy)



GOVERNOR'S  
Energy Office