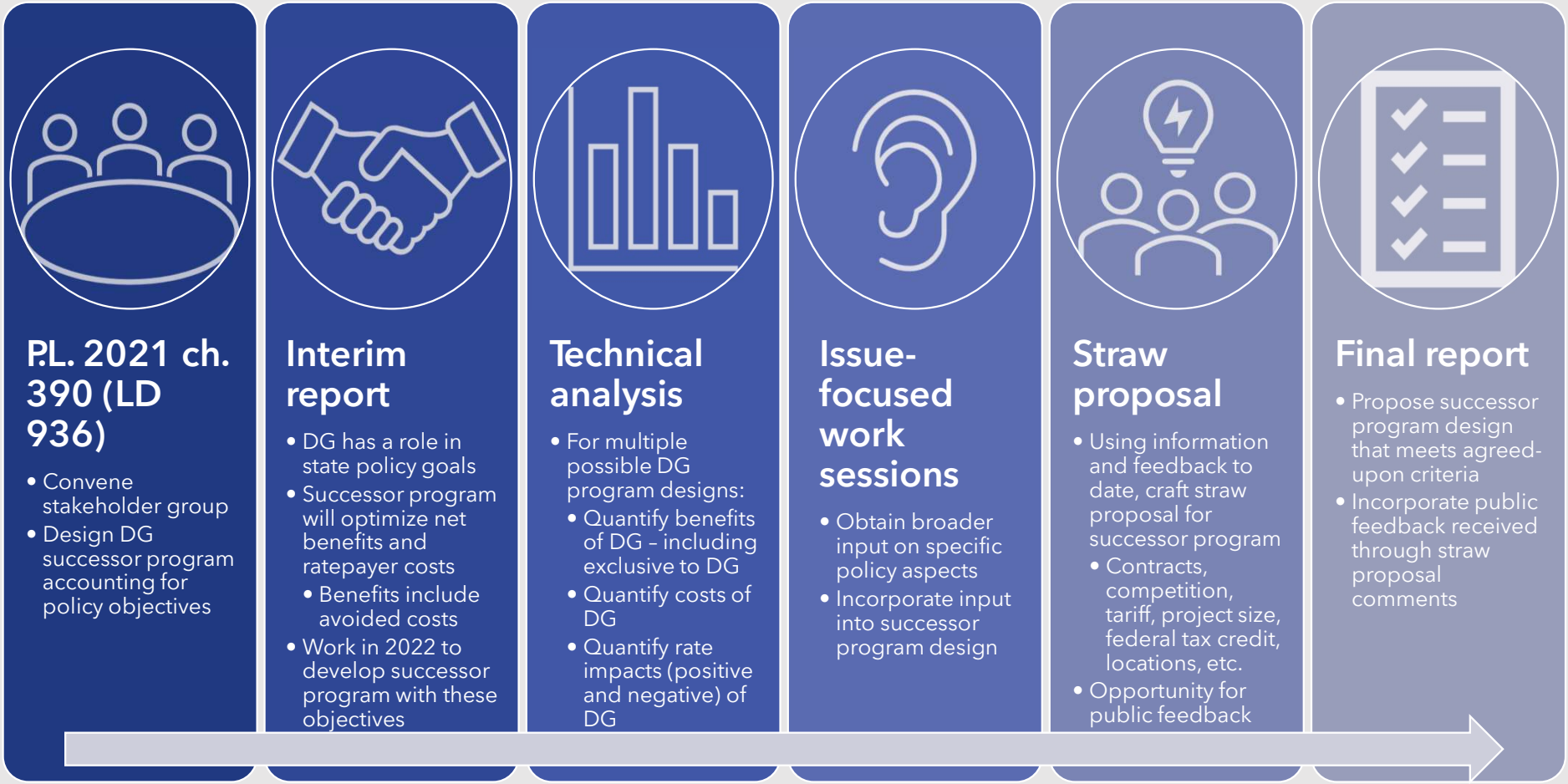
Today's agenda

- *2:00 – 2:05* Welcome, introductions, and meeting logistics
- *2:05 – 2:40* Overview of progress to date and areas of agreement – Governor's Energy Office
- *2:40 – 3:00* Overview of the Inflation Reduction Act and implications for distributed generation – Solar Energy Industries Association
- *3:00 – 3:05* Break
- *3:05 – 4:45* Successor program modeling choices and feedback – Synapse Energy Economics and Sustainable Energy Advantage
- *4:45 – 4:55* Public comment
- *4:55 – 5:00* Next steps and adjourn

Where we are in the process



An Act To Amend State Laws Relating to Net Energy Billing and the Procurement of Distributed Generation

P.L. 2021 ch. 390

- Directs the GEO to convene the Distributed Generation Stakeholder Group with specified membership
  - Objectives: "consider various distributed generation project programs to be implemented between 2024 and 2028 and the need for improved grid planning"
- Directs submission of an interim report to the Legislature
  - Delivered December 31, 2021
  - Established areas of consensus and outline of process for 2022
- Directs submission of a final report to the Legislature by January 2023
  - Recommended design for net energy billing successor program
  - Evaluation of existing net energy billing program

GOVERNOR'S
Energy Office

An Act To Amend State Laws Relating to Net Energy Billing and the Procurement of Distributed Generation

P.L. 2021 ch. 390 section 4 excerpts

- GEO, in coordination with the PUC, shall convene a stakeholder group to consider various distributed generation project programs to be implemented between 2024 and 2028 and the need for improved grid planning.
- The stakeholder group shall assist in the development and production of the interim and final reports.
- For the purposes of this section, "distributed generation project" means a renewable energy project with a nameplate capacity of no more than 5 megawatts that has identified residential, commercial and institutional customers and includes, but is not limited to, net energy billing arrangement projects.

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An Act To Amend State Laws Relating to Net Energy Billing and the Procurement of Distributed Generation

P.L. 2021 ch. 390 sections 5 and 6 excerpts

- The optimum total amount of distributed generation for the program period calculated using 7% of total load, net of NEB incremental to 750 MW goal
- How to cost-effectively incentivize project diversity by:
  - Considering energy storage
  - Limit impacts by being located on previously developed or impacted land, including areas covered by impervious surfaces, reclaimed gravel pits, capped landfills or brownfield sites;
  - Serve load within a low-income to moderate-income community
  - Optimize grid performance or serve a nonwires alternative function
  - Directly serve customer load
- How information from a holistic grid planning process can be included to improve a distributed generation project program
- Support the successful development of distributed generation by small companies based in the State

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Energy Office

An Act To Amend State Laws Relating to Net Energy Billing and the Procurement of Distributed Generation

P.L. 2021 ch. 390 sections 5 and 6 excerpts continued

- Identification of the recommended optimum total amount of distributed generation for the program period represented as a percentage of total load;
- An estimation of the net ratepayer impacts, including all on-bill benefits and costs, expected as a result of the development of distributed generation resources… accounting for projects that have reached or are expected to reach full maturity and load growth trends;
- Identification of a method or methods that can be used to balance the impact of the development of distributed generation resources with load growth to mitigate potential electricity rate increases;
- Updates to the finance enabling policies in the "Maine Distributed Solar Valuation Study" prepared for the Public Utilities Commission by Clean Power Research, including the costs and benefits of on-bill and off-bill financing;
- Consideration of the feasibility of implementing innovations to increase the net ratepayer value of distributed generation, including, but not limited to, time-differentiated rates and 2-way energy flows;
- Consideration of the use of declining bill credit rates;
- Consideration of the feasibility of standardizing the classification of distributed generation as load reducers, regardless of whether the bill credit is in the form of kilowatt-hour credits or monetary credits.

GOVERNOR'S
Energy Office

Stakeholder Group Interim Report

Areas of consensus

- Distributed generation resources will play an important role in the state's achievement of greenhouse gas reduction requirements, renewable energy requirements, and goals for continued growth of the clean energy sector.
- Distributed generation resources have the potential to produce benefits to the electric system, as well as to the state, through avoided costs as well as resilience, environmental, public health, and economic benefits. The extent to which these benefits should be incorporated as objectives of a successor program requires additional analysis and discussion.
- Any program to promote distributed generation resources should be designed in a manner that optimizes net benefits and ratepayer cost-effectiveness and considers resources developed through existing net energy billing programs – as well as considers input from a broad range of stakeholders, and specifically accounts for barriers faced by low- and moderate-income, fixed-income, and historically marginalized communities.
- The Stakeholder Group intends to continue working in 2022 to refine the approach for optimizing cost-effectiveness and the manner by which a successor program should pursue these objectives.

Interim Report of the Distributed Generation Stakeholder Group.
December 31, 2021.

GOVERNOR'S
Energy Office

Technical analysis

Rate impact modeling assumptions

Utilities
- We will model CMP & Versant together, to provide average results
- Results will be generally applicable to each utility

Customer types
- We will model all customer types combined, to provide average res
- Results will provide suff

Load forecast
- ISO-NE CELT Report?
- Synapse load forecast f

Electricity rate forecast
- Start with current rates
- Generation rates increa
- Transmission, distributi

Synapse Energy Economics & Sustainable Energy Ac

BCA Modeling Assumptions

Utilities
- We will model CMP & Versant together, to provide average results
- Results will be generally applicable to each utility

Study period
- DG to be installed during 2024-2028
- Study period to include 25 years (DG operating life) after 2028

Discount rate

, adjusted for

Slide 10

BCA relative to rate impact analysis

	Benefit-Cost Analysis	Rate Impact Analysis
Purpose	To identify which distributed energy resources (DERs) utilities should invest in or otherwise support on behalf of their customers	To identify how DERs will affect rates, in order to assess customer equity concerns
Questions Answered	What are the future costs and benefits of DERs?	Will customer rates increase or decrease, and by how much?
Results Presented	• Cumulative costs (present value $) • Cumulative benefits (present value $) • Cumulative net benefits (present value $) • Benefit-cost ratios (present value $)	• Rate impacts (c/kWh, %) • Bill impacts ($/month, %) • Participation rates (#, %)

Synapse Energy Economics & Sustainable Energy Advantage

Slide 8

Primary Design Elements and Options

Compensation Mechanism	• Net metering/billing • Buy all, sell all
Attribute Offtaker	• EDC • Public entity
Purchased Attributes	• Energy • Capacity • RECs
Credit Offtaker Enrollment	• Project owner • EDC • Opt-out enrollment
Price-Setting Mechanism	• Competitive Procurement • Competitive Procurement/ Administratively-Set Pricing Hybrid
Project Diversity Dimensions	• Technology, project size • Siting & interconnection • Customer/credit offtaker type
Project Diversity Mechanism	• Carve-out • Differentiated incentive level
Storage Incentive Type	• Up-front • Performance-based • RE production incentive adder
Storage Dispatch Strategy	• Defined periods • Event-based • EDC control
Contract/Tariff	• 10 years

quirements

ts

Slide 8

Example NEB Successor Program Designs For Evaluation/Modeling Purposes (1)

Policy Option	Option 1	Option 2	Option 3	Option 4
Project Size Range	1-5 MW	1-5 MW	1-5 MW	1-5 MW
Attribute Offtaker	EDC	EDC	EDC	EDC
Attributes Monetized on Behalf of Ratepayers	Energy	Energy + RECs	Energy + Capacity + RECs + all other market products	Energy + Capacity + RECs + all other market products
Cost/Risk to Ratepayers	Higher cost and risk (fewer attributes monetized on ratepayers' behalf)	Moderate cost/risk (add'l value from REC resales offsets program cost, esp. if prices rise)	Lower cost/risk (add'l value from REC resales offsets program cost, esp. if prices rise)	Same as Option 3
Cost/Risk to Project Owners	Higher cost and risk (fewer certain revenue streams & higher financing costs)	Moderate cost and risk (add'l certain REC revenue = reduced financing costs)	Moderate cost and risk (Certain revenue for all attributes = lowest relative financing costs)	Same as Option 3
Fixed/Variable Payment to Project Owners	Could be fixed or variable, but note that fixed values reduce risk/enhance financeability under any of the above options			
Customer/Credit Offtaker(s) and Enrollment	EDC customers	EDC customers	EDC customers (with some or all customers enrolled by EDC)	None (EDC is sole offtaker)
Capacity Allocation for Eligible Projects	No defined limit (functionally, project capacity is first come, first served)	Possible to utilize annual capacity allocations, potentially with prices determined annually or set by clearing/as-bid price, or to use capacity tranches that adjust downwards (or upwards, if need be to respond to market conditions) with successive blocks.		More likely than not to be a competitive procurement, but could also be administratively-set
Compensation Mechanism	Mix of volumetric (residential accounts) and monetary (C&I accounts) crediting	Monetary crediting or volumetric crediting (in general, cost to ratepayers tends to be most sensitive to cash-out and carry-forward terms)		Payment made directly to project owner; no bill credits

DISCLAIMER: It is unclear at this time if Option #4 is compliant with LD 936's requirement for the DGSG's evaluation of different program types that any eligible "distributed generation project" have "identified residential, commercial and institutional customers"

Illustrative slides from recent meetings. These and all other materials available here: https://www.maine.gov/energy/studies-reports-working-groups/current-studies-working-groups/dg-stakeholder-group

Issue-focused work sessions

Land use

While attendees are welcome to share their own feedback, broad discussion themes are expected to include:

- What priorities should the future distributed generation program incorporate with regard to land use?
- What creative mechanisms could be used to encourage siting projects on preferred types of land?

Session will include presentations, a panel, and discussion breakout groups. Feedback will be incorporated into the successor program straw proposal.

Wednesday, October 19 – 9 a.m. – 12 p.m.
Zoom registration will be available here.

Equity and access

While attendees are welcome to share their own feedback, broad discussion themes are expected to include:

- How should the future distributed generation program ensure benefits are accessible to everyone?
- How should the future distributed generation program ensure costs are distributed equitably?
- How should the future distributed generation program contribute to lowering the disproportionate energy burden faced by low- and moderate-income households?

Session will include presentations, a panel, and discussion breakout groups. Feedback will be incorporated into the successor program straw proposal.

Tuesday, October 18 – 9 a.m. – 12 p.m.
Zoom registration will be available here.