

Vermont Public Utility Commission on S.57

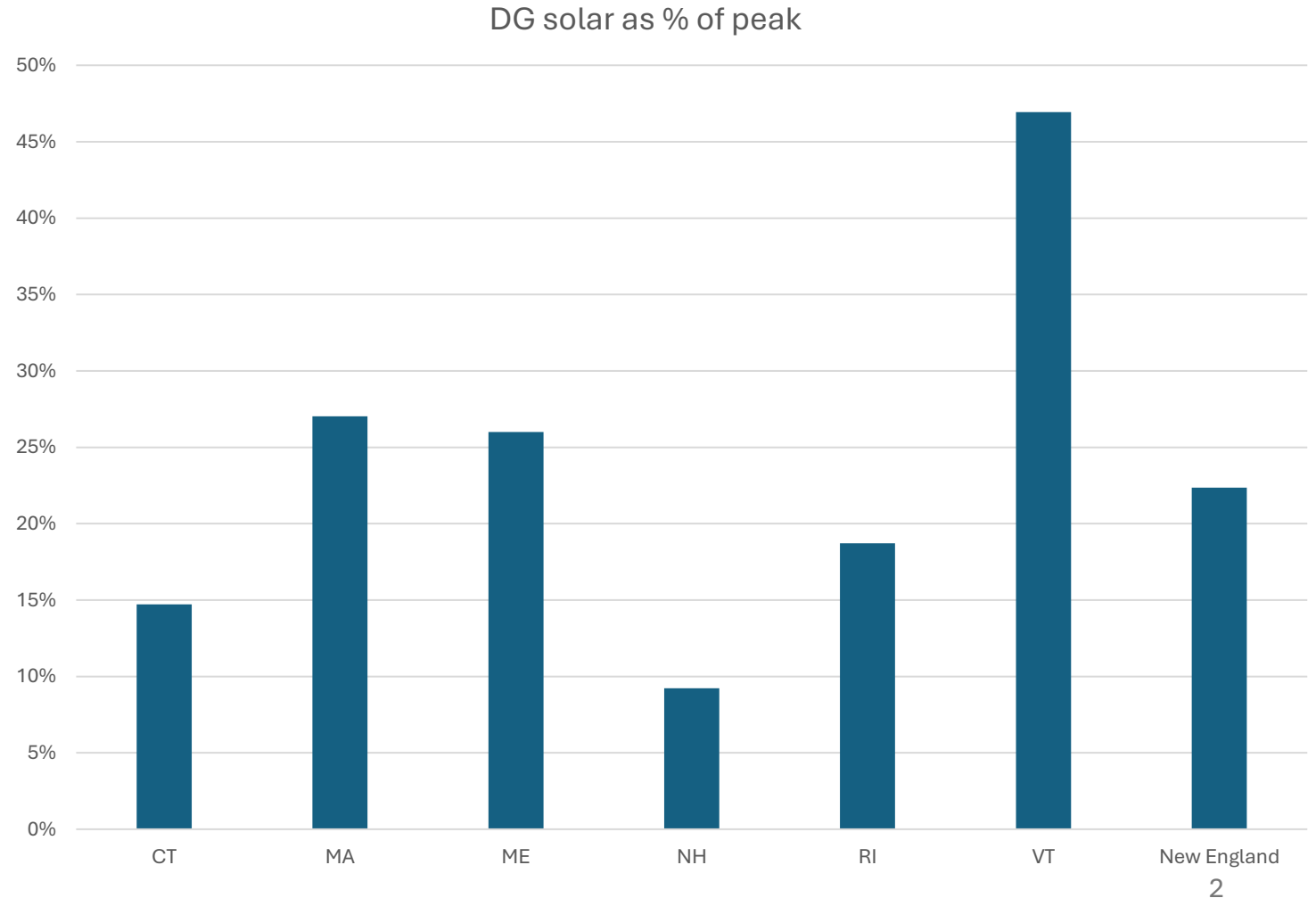
Senate Natural Resources & Energy

February 25, 2025

Ed McNamara, Chair, VT PUC

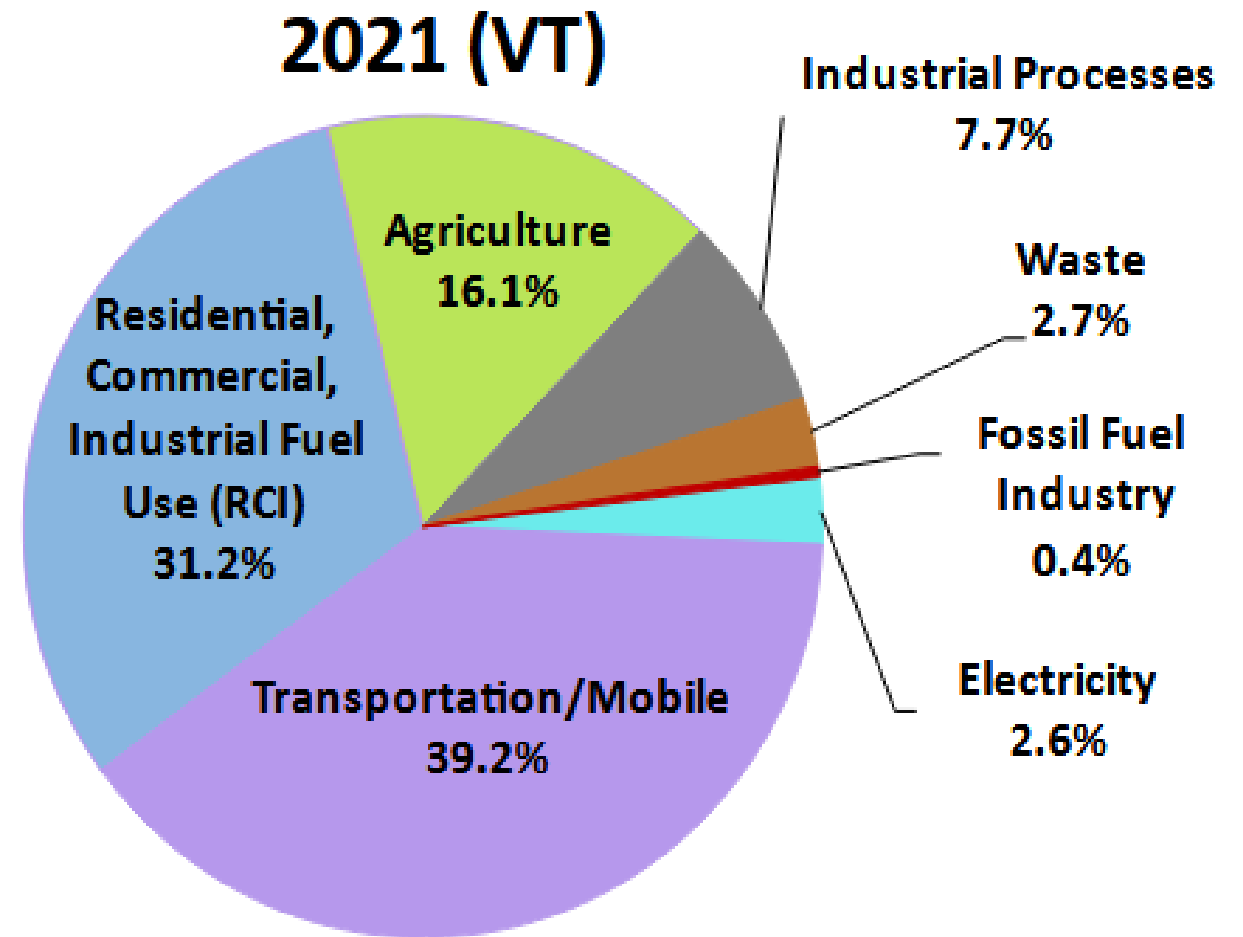
Vermont solar – regional context

Vermont has significantly greater percentage of distributed solar than any other New England state



Electric Sector – GHG context

The electric sector contributes less than 3% of Vermont's GHG emissions



Standard Offer and GHG emissions

- With 100% Renewable Energy Standard, Standard Offer is no longer a climate mitigation program
 - RES Tier 2 requires 20% of electricity come from in-state renewables
- Standard offer is about how renewable generators get paid, not whether they get built

Overview of Standard Offer Program

- 2.2 MW cap on individual project size
- PUC conducts procurement
 - Sets price cap
 - Reverse auction mechanism – projects selected based on lowest price
 - Certain portion of procurement set aside for non-solar resources
- Energy and RECs are transferred to utilities, along with costs
- Three utilities not subject to Standard Offer: Burlington Electric Dept., Washington Electric Cooperative, Swanton Electric Dept.

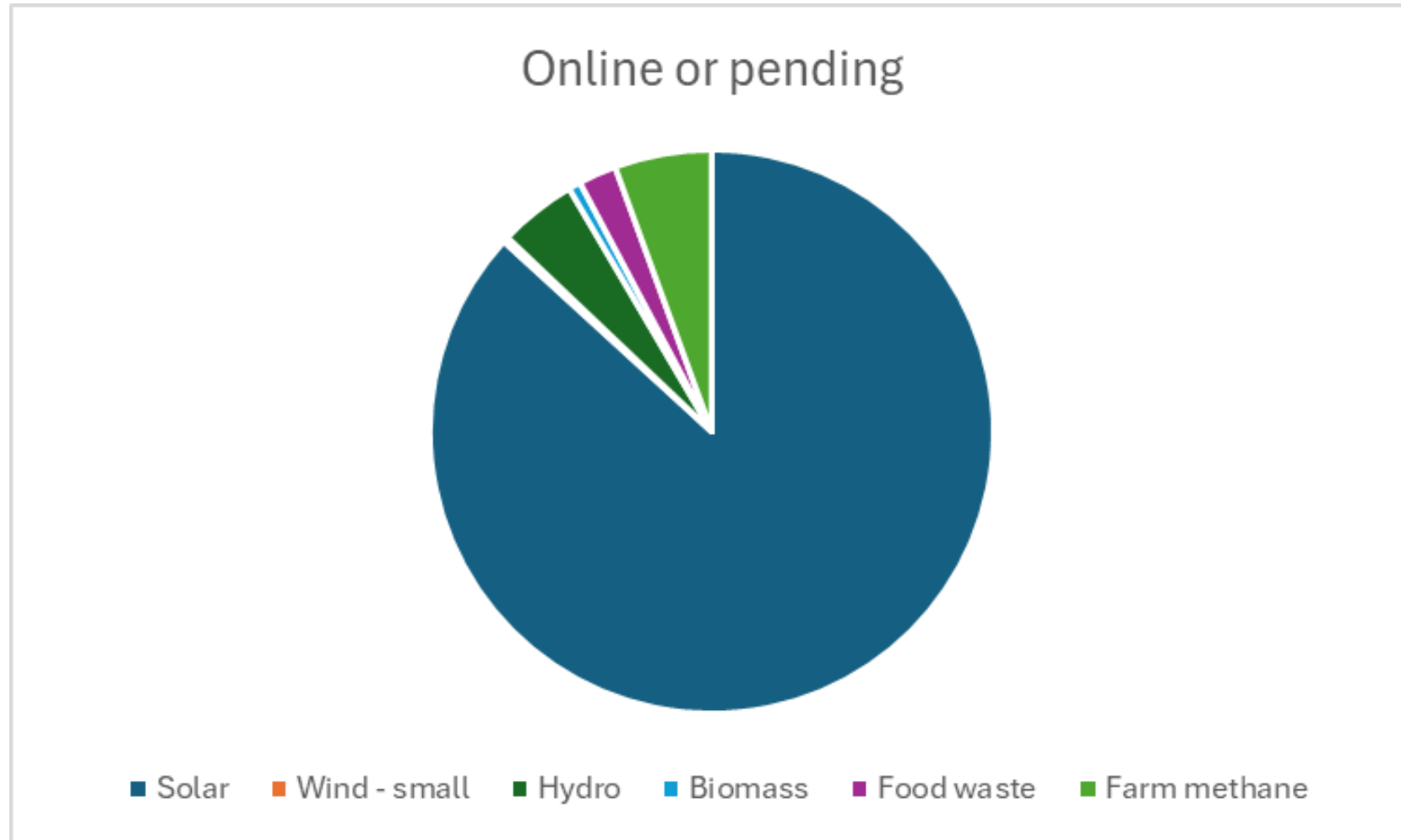
History of Standard Offer Program

- 2009 – Standard Offer program created
 - 50 MW program cap
 - Administratively set prices
- 2012 – Program cap expanded to 127.5 MW
 - Required use of market-based mechanism to set prices
- 2017 Renewable Energy Standard goes into effect
 - Sets in-state distributed generation requirement
 - Active decision not to cause confusion by deleting standard offer at same time

Diversity of Resource Types

SO program requires technology diversity:

- Solar
- Large wind
- Small wind
- Farm Methane
- Hydro
- Biomass
- Landfill methane
- Food waste



Prices under the Standard Offer program

- RFP processes provide competition and result in lower prices
- Solar prices nationally have dropped significantly in last 15 years
- Average price for solar in 2010 = \$0.30/kWh
- Average price for solar in 2022 = \$0.0819/kWh
- Small wind (less than 100 kW) = \$0.254/kWh

Locational Issues

- When Standard Offer was put in place, assumption was that distributed generation would reduce transmission costs.
- 500 MW of solar later, it's clear that inappropriately sited distributed generation could increase costs for Vermonters.

“If solar PV continues to be developed in the same way as it has in the past, the analysis suggests that solar PV growth will introduce system operating concerns that may require load and generation management, energy storage, and reinforcements to Vermont’s transmission, subtransmission, and distribution systems.” VELCO 2024 Long Range Plan at 71

- Utilities that best understand their electric systems are the most appropriate entities to determine where to procure new generation

Purported Benefits of Standard Offer

- Ensures that projects get built
 - If a utility fails to meet Renewable Energy Standard it must pay an Alternative Compliance Payment
 - Typically, utilities can not recover penalties in rates
- Provides transparency on prices
 - There is a significant amount of contract price information available without the Standard Offer program
 - Utilities are required to report and justify contract prices in rate cases
 - PUC has significant authority to require utilities to produce information and open investigations

Standard Offer Reduces Regulatory Oversight

- Public Utility Commission is responsible for reviewing utilities' rates, including the reasonableness of power supply contracts
- Under Standard Offer program, Public Utility Commission is responsible for entering into power supply contracts
- This bill would require PUC to enter into contracts totaling over \$300 million
- Vermont ratepayers must pay this dollar amount
- No external review of this procurement

Standard Offer Litigation

- Standard Offer is not a typical procurement program
 - Generally, utilities are directed to procure specific resource types
 - Standard Offer requires State government to select resources and set the price paid to those resources
- Over 20 legal proceedings related to Standard Offer program since 2014
 - VT Supreme Court, Federal Energy Regulatory Commission, VT Federal District Court, Second Circuit Court of Appeals
- Attorney General represents the State, but PUC staff heavily involved with litigation

Alternative to Standard Offer

- RES Tier II obviates the need for the Standard Offer Program – no alternative necessary
- If the Legislature wants information on competitive prices for renewable procurement, the PUC or PSD can routinely provide that information
- If the Legislature wants technological diversity (non-solar), it can require the utilities to conduct regular procurements for those resources.

Community Solar Requirements

- S.57 has cursory definition of “community solar”
 - “a solar plant owned by its members or an entity controlled by its members”
 - It’s not clear how this category would differ from other standard offer projects with respect to price
- If intent is for community solar to replace group net metering, the bill should be explicit
 - Should hear testimony on the move away from affordable housing directive in Act 179

Sources

Slide 2: Data from ISO-NE 2024 DG Forecast (https://www.iso-ne.com/static-assets/documents/100009/2_2024_pv_forecast_final.pdf) and 2024 CELT Report (<https://www.iso-ne.com/system-planning/system-plans-studies/celt>)

Slide 3: Pie Chart from Vermont 2024 Greenhouse Gas Inventory (<https://climatechange.vermont.gov/climateactionoffice/greenhouse-gas-inventory>)

Slide 7: Data from Standard Offer Facilitator (<https://vermontstandardoffer.com/standard-offer/technologies/>)

Slide 8: Lawrence Berkely National Lab, 2024 Tracking the Sun at 30 (https://emp.lbl.gov/sites/default/files/2024-10/Tracking%20the%20Sun%202024_Report.pdf)

Slide 9: VELCO Long Range Plan (https://www.velco.com/sites/default/files/2024-09/101252_Velco_CC24_singles.pdf)

Slide 11: \$350 million = 8760 hours * 20% capacity factor * \$80/MWh * 25 years