

Department of Public Service

Comments on S.267

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Overview

- DPS supports 100% Renewable Energy Standard
 - Including 20% new renewable requirement
- Policies should be informed by analysis
- Additional ratepayer costs should further climate goals rather than benefit for-profit entities

100% Renewable Energy Standard

- Many different design alternatives
 - Existing vs. new
 - Regional vs. in-state
 - Costs of design options can vary significantly
- No version of the bill would preclude the ability to analyze design options
- Better to make informed decision first than hope someone else fixes problems later

DPS Proposal

- DPS proposal would commit to 100% RES and allow for informed decision
- Study design options and provide report on costs and benefits by December 1, 2020
- Allows legislature to be transparent about the costs they are imposing on electric customers

DPS Study Proposal

- Examine costs and benefits of alternative design options
- Quantify benefits of in-state generation
- Quantify connection between electric rates and electrification necessary to achieve climate goals
- Explain interaction between existing programs
- Review whether existing Tier 2 exemptions should remain

Impact of doubling down on solar

- Carveout for specific resource type means the resource cannot compete on its own
 - Shifts risks of competition from for-profit companies to ratepayers
- Significant costs associated with power supply and T&D
- Adding storage requirement = mandating further unnecessary costs to fix problem rather than avoid problem in the first place

Power Supply Costs

- Utilities selling committed resources at low prices in early summer and buying non-solar at high prices during winter
 - Utilities have hundreds of MW of in-state and other renewable resources that could not be used when solar is producing more than utility load
- Net metering is tied to the Tier 2 requirements
 - Over \$35 Million in unnecessary costs in 2018 compared to other new renewable resources

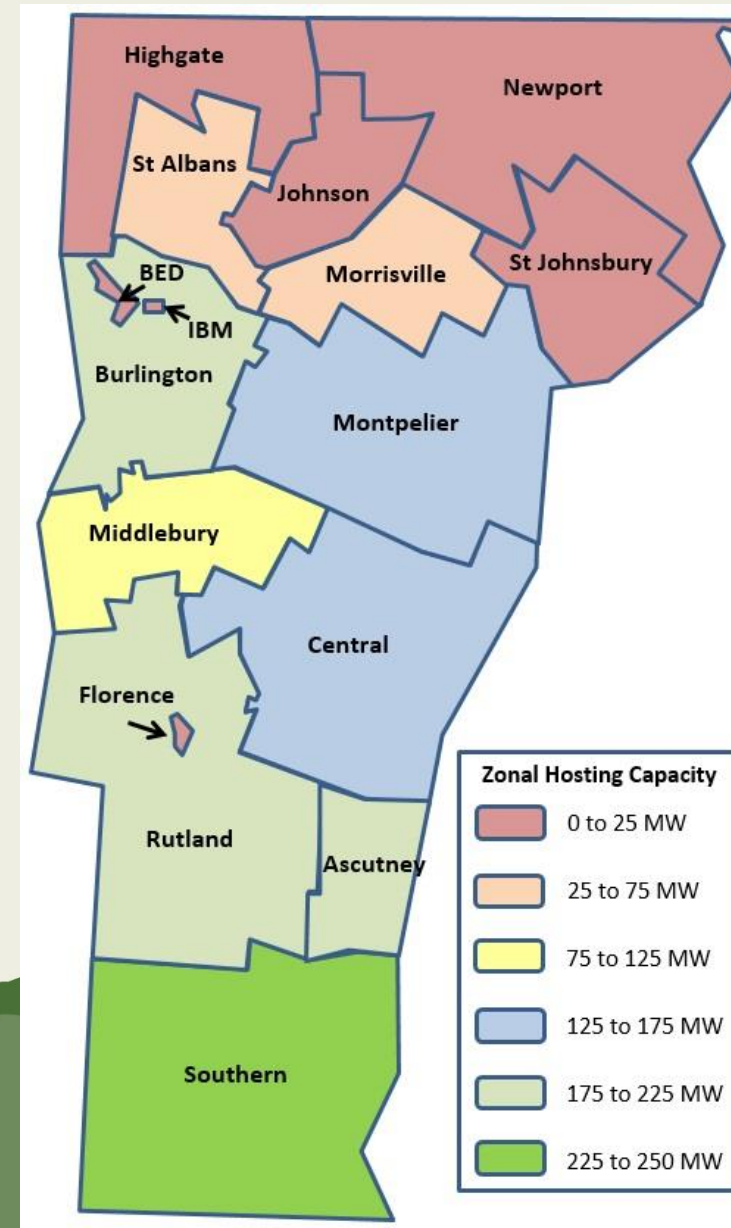
Transmission Costs

- Battery costs = \$900 Million, or
- Transmission costs = \$150 - \$500 Million
 - borne entirely by Vermonters
- Better siting means “only” \$150 Million
- Bill does not provide PUC with any tools for directing solar to lower impact areas
 - E.g., deny all net metering in northern Vermont

“Perfect world” - Transmission system’s in-state generation hosting capacity

“All-optimistic” assumption scenario

Zone names	Gross MW loads	MW AC solar PV capacity	Net MW loads
Newport	19.8	10.3	9.5
Highgate	23.8	15.5	8.3
St Albans	39.7	42.9	-3.2
Johnson	6.6	16.4	-9.8
Morrisville	24.3	50.7	-26.4
Montpelier	48.6	104.9	-56.3
St Johnsbury	14.7	12.1	2.6
BED	39.8	5.6	34.2
IBM	60.6	20.0	40.6
Burlington	94.1	107.4	-13.3
Middlebury	19.7	57.7	-38.0
Central	37.6	91.2	-53.6
Florence	22.6	21.2	1.4
Rutland	61.7	164.6	-102.9
Ascutney	39.5	112.8	-73.3
Southern	65.6	224.9	-159.3
Total	618.7	1058.2	-439.5
Losses	33.6	N/A	53.4



Generation homogeneity ≠ resilience

- Resource and geographic diversity = resilience
 - Similar to ecological diversity: larger area and greater diversity is more resilient than a cornfield
- Vast majority of outages are result of distribution circuits, not transmission
- Solar + storage can add backup power for targeted emergency shelters and those who can afford it

“Ratepayer protections” in bill are inadequate

- Supposed “safety valve” provision requires that maximum compliance costs are reached before triggering
- Expectation seems to be that if there are significant costs and problems, they can be fixed after the fact
- Relies on future legislature fixing problems, rather than developing an informed and thoughtful design
- How often does a subsidy get withdrawn?