



New Zoom Meeting Platform

## REGIONAL PLAN COMMITTEE

June 2, 2020, 4:00 – 5:30 pm

Remote Participation via Zoom

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<https://zoom.us/download>

pg		<u>AGENDA</u>
	4:00 <sup>1</sup>	<b>Welcome and Adjustments to the Agenda</b>
		<b>Public Comments</b>
2	4:10	<b>VELCO Draft 2021 Long Range Transmission Plan Comment Review</b> Overview of VELCO LRTP and consideration of CVRPC staff comments.
8	5:10	<b>Approval Minutes</b> Consider approval of the February 11, 2021 meeting minutes.
	5:30	<b>Adjournment</b>

*Persons with disabilities who require assistance or special arrangements to participate in programs or activities are encouraged to contact Nancy Chartrand at 802-229-0389 or [chartrand@cvregion.com](mailto:chartrand@cvregion.com) at least 3 business days prior to the meeting for which services are requested.*

<sup>1</sup> Times are approximate unless otherwise advertised.



## MEMO

Date: May 20, 2021

To: Regional Plan Committee

From: Grace Vinson, Planner

Re: Review of CVRPC staff comments on VELCO Long Range Transmission Plan (LRTP)

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**☒ ACTION REQUESTED: The Committee will be tasked with:**

- a. Review and approve CVRPC Staff comments on Draft 2021 VELCO LRTP
- b. Propose comments on the LRTP to present to CVRPC Board of Commissioners on 6/8/21

### **Plan Background and Purpose**

The Vermont transmission system is part of the ISO- New England (ISO-NE) regional electric grid. Vermont Electric Power Company (VELCO) participates with ISO-NE in planning and systems operations to meet mandatory reliability standards. As required by Vermont law and the Vermont Public Utility Commission, every 3 years VELCO produces a Long Range Transmission Plan (LRTP) that forecasts future electric demand, identifies where the State's electric transmission system may need future upgrades, and discusses how those needs may be met through transmission projects or other alternatives. The Draft 2021 LRTP uses a 20-year horizon, however, the main focus is the 10 year period through 2030.

The Draft 2021 LRTP was released for public comment on April 12, 2021. CVRPC has the opportunity to provide comments to VELCO on the Draft 2021 LRTP. The Regional Plan Committee is tasked with providing a recommendation to the Board of Commissioners to approve CVRPC LRTP comments and conformance finding.

Staff reviewed the Draft 2021 LRTP. Staff then prepared a draft memo to VELCO on the conformance of the LRTP to the Regional Plan. The LRTP can be found here: <https://www.velco.com/our-work/planning/longrangeplan2021>. Additional background on the Plan, general comments, and considerations for updating the Regional Plan are provided below.

## VELCO Draft 2021 Takeaways and Recommendations

1. Peak demand<sup>1,2</sup> is forecast to grow due to electrification of heating and transportation.

The transmission system has sufficient capacity to serve this demand for the first 10 years of the 20 year planning horizon. This increase in demand is primarily driven by the growth of the electric sector (increased adoption of electric vehicles and cold climate heat pumps).

2. The electric grid is undergoing a profound transformation.

Vermont's grid is transitioning from traditional base load<sup>3</sup> generation to more distributed<sup>4</sup>, small-scale renewable resources (primarily solar PV). Additionally, traditional power plants (oil, coal, and nuclear) are retiring. The plan notes that 400 MW of solar PV is currently installed in the State, with a forecast of 683 MW by 2032.

3. Thoughtful and careful planning of distributed generation is required.

As noted above, small-scale distributed generation (DG) is increasing, however currently DG projects are reviewed on a project by project basis without regard to transmission system impacts. A map on page 43 of the LRTP identifies regional boundaries and regional allocations (zonal limits) of solar PV to avoid transmission and sub transmission upgrades.

4. Storage, curtailment and Load Management can mitigate system constraints.

The LRTP identifies several options to mitigate these concerns including energy storage and load management. Location matters for large-scale storage ideally, storage should be sited close to the source of generation. Load management (adjusting/controlling supply of electricity) can also help to reduce demand during peak demand times. Load management is changing when electricity is used to reduce stress on the grid during peak periods- for example, using grid-connected smart appliances to use electricity when peak is lower, or charging EVs when peak is lower. Vermont can also elect to curtail generation, but financial and technical challenges need to be understood and addressed, and is the least preferred option.

5. Renewable electricity generation targets in State 2016 Comprehensive Energy Plan (CEP) and CVRPC Regional Plan exceed optimized solar distribution for CVRPC region in LRTP.

Page 43 and 44 identify the optimal distribution for distributed generation (such as solar PV) by geographic zone, and states, "Significant transmission upgrades can be avoided by installing distributed generation without exceeding zonal limits." The map on page 43 shows that

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<sup>1</sup> **Demand:** amount of electricity being used at any given moment by a single customer, or by a group of customers.

<sup>2</sup> **Peak demand:** highest demand occurring within a given span of time, usually a season or a year. Peak demand that a transmission or distribution system must carry sets the minimum requirement for its capacity.

<sup>3</sup> **Base Load:** electric generation plant that is expected to operate in most hours of the year

<sup>4</sup> **Distributed generation:** Power generation at or near the point of consumption in contrast to centralized generation that relies on transmission and distribution over longer distances to reach the load. Generally DG is smaller in scale and centralized, base load power. DG includes small-scale solar (less than 5 MW).

resources are more easily accommodated in the southern region and more difficult to accommodate in the northern regions, which are further from major transmission and closer to other large generation and energy sources.

- As shown on page 44, the CVRPC “zone” currently has **29.1 MW** of installed solar PV.
- The optimized solar PV distribution is **73.1 MW**, providing **44 MW** of additional solar PV.
- Page 212 of the CVRPC Regional Energy Plan identifies a target of **321.94 MW** (418,531 MWh) of new renewable energy by 2050 to meet the renewable energy targets identified in the Comprehensive Energy Plan, **exceeding the optimized distribution by 247.9 MW**. It is important to note that “new renewable energy” can consist of more than just solar to include small wind, methane, and biomass, and small hydroelectric.
- At the May 11 Board of Commissioners meeting, Hantz Presume from VELCO stated *“storage to absorb excess energy, manage load, curtail generation that is controllable by operators, or reinforcing the system to allow meeting these targets is necessary, and communication is needed on how to bridge the gap.”*
- GMP [has also created a map](#) to facilitate generation project siting with respect to available distribution capacity. This map shows most of the Central Vermont region has at least 20% circuit capacity. However, several towns show that “due to system limitations, interconnections on this circuit may experience higher costs and delayed interconnections.”

#### 6. Sub-system issues

The LRTP identifies 4 locations in the Montpelier area with sub-transmission potential reliability concerns (issues that cause high/low voltage, or thermal overload when equipment exceeds the rated temperature). The affected utilities (GMP/WEC) will determine what, if any, projects are required to address potential reliability issues.

#### Plan Conformance

CVRPC found that the Draft 2021 LRTP conforms to the following policies of the CVRPC Regional Energy Plan:

- The LRTP states, “Resilience is one of the consideration in the design of transmission facilities, which can include the location of facilities in relation to FEMA flood levels, equipment height, equipment design specifications, and redundancy”.
  - This is consistent with the following Regional Energy Plan policy: *“Evaluate generation from existing renewable energy generation by municipality including the identification of constraints, resource areas, and existing infrastructure by energy type.”*
- The LRTP states, “Storage is a solution category that includes devices or processes that store energy in one form during times of excessive energy production and later release that energy. If properly designed, operated and located, storage is helpful at minimizing system constraints caused by excess generation at certain times of the day.”
  - This is consistent with the following statement in the CVRPC Regional Energy

Plan: *“limitations on renewable resource technology will impact peak needs which may create a demand for storage of electrical power. These factors will need to be considered in all our future decisions if a 90% renewable energy system is to become a reality. This may require potential changes to land use regulations that will accommodate battery or other storage options.*

- The LRTP states “Careful coordinated state wide planning is required to successfully integrate future distributed generation and storage without significant grid reinforcements”
  - This is consistent with the following statement in the CVRPC Regional Energy Plan: *“current transmission infrastructure [is] another component to consider when identifying where specific generation types should be located to ensure the transmission capacity exists within the grid or to identify areas where upgrades may be needed before development of renewable energy generation can occur.”*
  - This is consistent with the following implementation actions in Policy D-1: 1) Provide regular mapping updates to municipalities regarding existing generation facilities to maintain an up-to-date inventory of locations; 2) Provide regular mapping updates to municipalities regarding known and possible constraints to ensure consistency with state guidelines on renewable energy siting.

This is consistent with the following implementation actions in Policy D-2: Update generation potential based on future land developments, changes to land uses, or updates to priority areas as identified by state, regional, or municipal actions.

### **Considerations for Regional Plan Committee/Board of Commissioners**

- Implementing Load Management strategies predominately relies upon the integration of communication technologies at the generation source. The regional plan does not speak to this component of renewable energy generation development however this could be a factor to consider in the update to the regional plan. Does the committee have any particular concerns or issues with this VELCO recommendation?
- Curtailment – (limiting production) seem like the least favorable option for the future. Do Commissioners agree with this?
- Development of storage technologies is a recommendation of the LRTP and is specifically identified in the Regional Plan as a component in the development and siting of renewable energy generation. The committee may identify this recommendation as very favorable or preferable.
- Does the Committee have feedback on the readability and format of the Plan, in light of the target audience (interested parties including energy committees, planners, and other stakeholders)
- Does the Committee have feedback on the current information on battery storage contained in the draft plan- could the plan benefit from more explanation on the technologies associated with battery storage?

**Future Considerations for Regional Plan Committee in the regional plan update process**

- Should the updated Regional Plan address the discrepancy between CVRPC'S Regional Plan targets for new renewable energy generation and VELCO's optimized distribution for the region (see previous section) and consider strategies to meet CEP targets that do not exceed VELCO projection for optimized distribution?
- Should the Regional Plan discuss GMPs generation project siting map with respect to available capacity for future generation projects?



June 2021

Vermont Electric Power Company  
Shana Louiselle, Communications and Policy Advocate  
Submitted via email to [slouiselle@velco.com](mailto:slouiselle@velco.com)

Re: CVRPC comments on VELCO Long Range Transmission Plan (LRTP)

Dear Ms. Louiselle,

The Central Vermont Regional Planning Commission (CVRPC) has reviewed the draft VELCO Long Range Transmission Plan (LRTP), dated April 12, 2021. The purpose of this letter is to analyze the relative conformance of the Draft VELCO LRTP with the relevant Goals, Strategies, and Recommended Actions of the Regional Plan.

#### Introduction

CVRPC staff completed a review of the Draft 2021 LRTP in May 2021. Staff then presented the review to CVRPC'S Regional Plan Committee on June 2, 2021 for review and comment, and to the Board of Commissioners on June 8, 2021 for review approval. Based upon this process, CVRPC presents these comments to VELCO.

#### Other comments

CVRPC offers the following general comments:

Thank you for the opportunity to review the Draft 2021 LRTP. We look forward to working with VELCO on other related projects in the future.

Sincerely,

Bonnie Waninger,  
Executive Director

**CENTRAL VERMONT REGIONAL PLANNING COMMISSION**  
**Regional Plan Committee**

**Draft Minutes**

**February 11, 2021**

**5:00 – 6:00 pm**

Via GoToMeeting, Central Vermont Regional Planning Commission  
29 Main Street, Suite 4, Montpelier, VT 05602

**Committee Members:**

<input checked="" type="checkbox"/>	Dara Torre, Chair
<input checked="" type="checkbox"/>	Julie Potter, Vice Chair
<input checked="" type="checkbox"/>	Laura Hill-Eubanks
<input type="checkbox"/>	Ron Krauth
<input checked="" type="checkbox"/>	Marcella Dent

1 Staff: Clare Rock, Bonnie Waninger

2

3 **Welcome and Adjustments to the Agenda**

4 D Torre opened the meeting at 5:03pm. The Committee agreed to approve the minutes first.

5

6 **Public Comments**

7 No public comments as no members of the public were present.

8

9 **Approval Minutes**

10

11 J Potter made a motion to approve the May 26, 2020 and February 2, 2021 both sets of minutes,  
12 seconded by L Hill-Eubanks. All in favor. Motion carried.

13

14 **Regional Review continued: Berlin New Town Center (NTC) Application**

15

16 Staff provided a summary of what happened at the last meeting, reference the contents of the meeting  
17 packet and outlined the draft letter for committee review and comment. Staff also reported that the  
18 Downtown Board would not be meeting on February 22 as expected, instead they will hear the Berlin  
19 application at the March 22 meeting.

20

21 Discussion followed about the letter, in general the committee indicated that the letter was good with  
22 respect to the topics included. The committee agreed that the Berlin proposal was generally in  
23 conformance with the regional plan and that the letter should indicate support of the project.

24

25 The Committee reviewed the Relevant Regional Plan Goals and Policies documents included in the  
26 packet and identified the following areas to highlight as demonstration of regional plan conformance  
27 and support. They are:

- 28 • Housing Related Goals and policies: line 247, line 254, policy 5 re housing in new town centers and  
29 policy 7, as proposed housing will be closest to jobs and services
- 30 • Support of the project concept: line 143, policy 3
- 31 • Economic development related policies: line 272 policy 3, line 285, line 288
- 32 • Recognize the town has already meet goal and policy on lines 221 and 6



- 1 • Energy related goals and policies on lines 184, 185, with a recognition that policy on line 187 is
- 2 challenging for many communities.
- 3 • Focusing investment in new town center: line 185
- 4 • Land use Policy on line 40
- 5 • Keep the ones which are already listed in the plan, and make the shopping related aspect a non-
- 6 policy or issue.

7  
8 The committee then discussed areas of opportunities and suggested that as the area builds out there  
9 are further opportunities for increased conformance:

- 10 • Recognize they have tried to pull away from wetlands, but current constraints have, pushed
- 11 buildings close to the wetlands. It would be beneficial to pull new development further away from
- 12 wetlands to minimize impacts.
- 13 • Increased compactness of the mixed use area, and redevelopment of the mall parking lot, rather
- 14 than development which is pushed to the edges of the parking lot, this would provide increased
- 15 opportunity for the built form to align more closely with characteristics of a traditional downtown.
- 16 • If the current housing proposal no longer includes a childcare component then suggest that
- 17 childcare is encouraged to be an integral element and use in the area. If childcare is still in the
- 18 current proposal then reference childcare policy as an area of conformance.

19  
20 Regarding designation program requirements, the committee agreed that this program should be  
21 accessible to smaller towns (compared to S. Burlington and Colchester) and include those policies which  
22 are highlighted in magenta (lines 108, 127, 187), reiterate the housing component is a critical need and  
23 the plan works toward housing goals and how the town has made the investment in the needed  
24 infrastructure which is also a critical component of new housing development. And include recognition  
25 that this is a town looking to fix sprawl, rather than building on undeveloped land. This should be  
26 recognized and Berlin commended for taking this on.

27  
28 Staff added that once the town seeks NDA designation, the RPC would have the opportunity to review  
29 and comment upon that designation application also. The committee was asked by staff what they find  
30 notable about the project – the infill to fix the sprawl problem and the housing dedication on Fox Run  
31 project and capacity for more housing.

32  
33 Regarding the signing off on the letter, the committee is representing the Board, and suggests Bonnie  
34 sign on behalf of the Board. And the letter is put in the Board packet for the March meeting. The  
35 committee would like to see the letter before its put in the packet and members should just respond to  
36 staff directly if they have comments and/or edits and staff will incorporate and finalize.

37  
38 J Potter made a motion to provide support to the application, finds application to be substantially in  
39 conformance with the regional plan and notes that as it the NTC is implemented there are opportunities  
40 strengthening alignment with the Regional Plan's policies, and direct staff to finalize the letter of  
41 support in accordance with discussion, seconded by L Hill-Eubanks. All in favor. Motion carried.

## 42 43 **Adjournment at 6:38pm**

44  
45 L Hill-Eubanks made a motion to adjourn, seconded by J Potter. All in favor. Motion carried.

46  
47 **Next meeting Date: TBD**