

# Regional Transmission Initiative Technical Meeting

October 7, 2022

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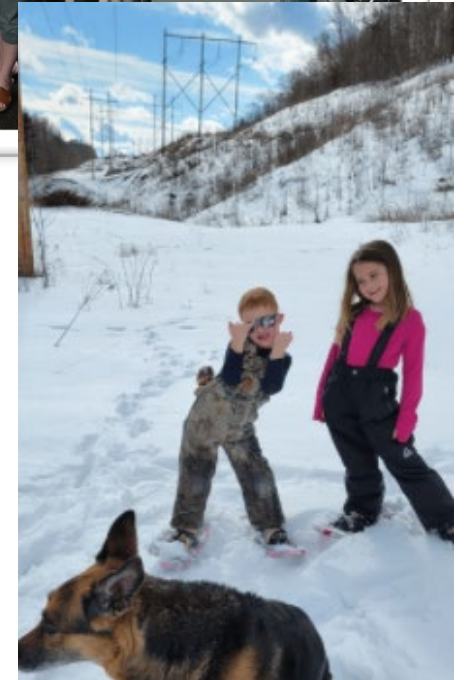


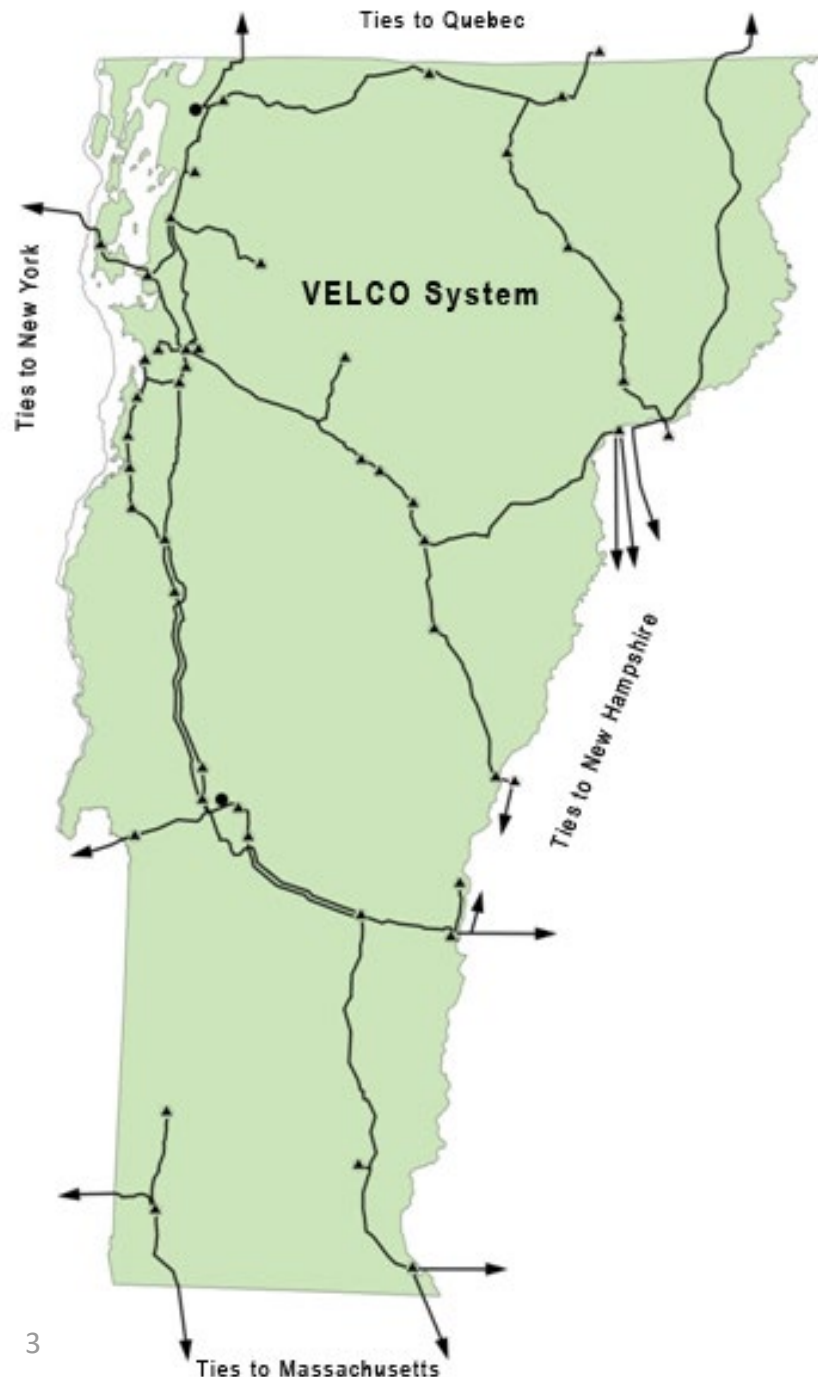
**VELCO's vision** - create a sustainable Vermont through our people, assets, relationships and operating model.

**VELCO's role** - ensure transmission system reliability by planning, constructing and maintaining the state's high-voltage electric grid.

### **Related responsibilities**

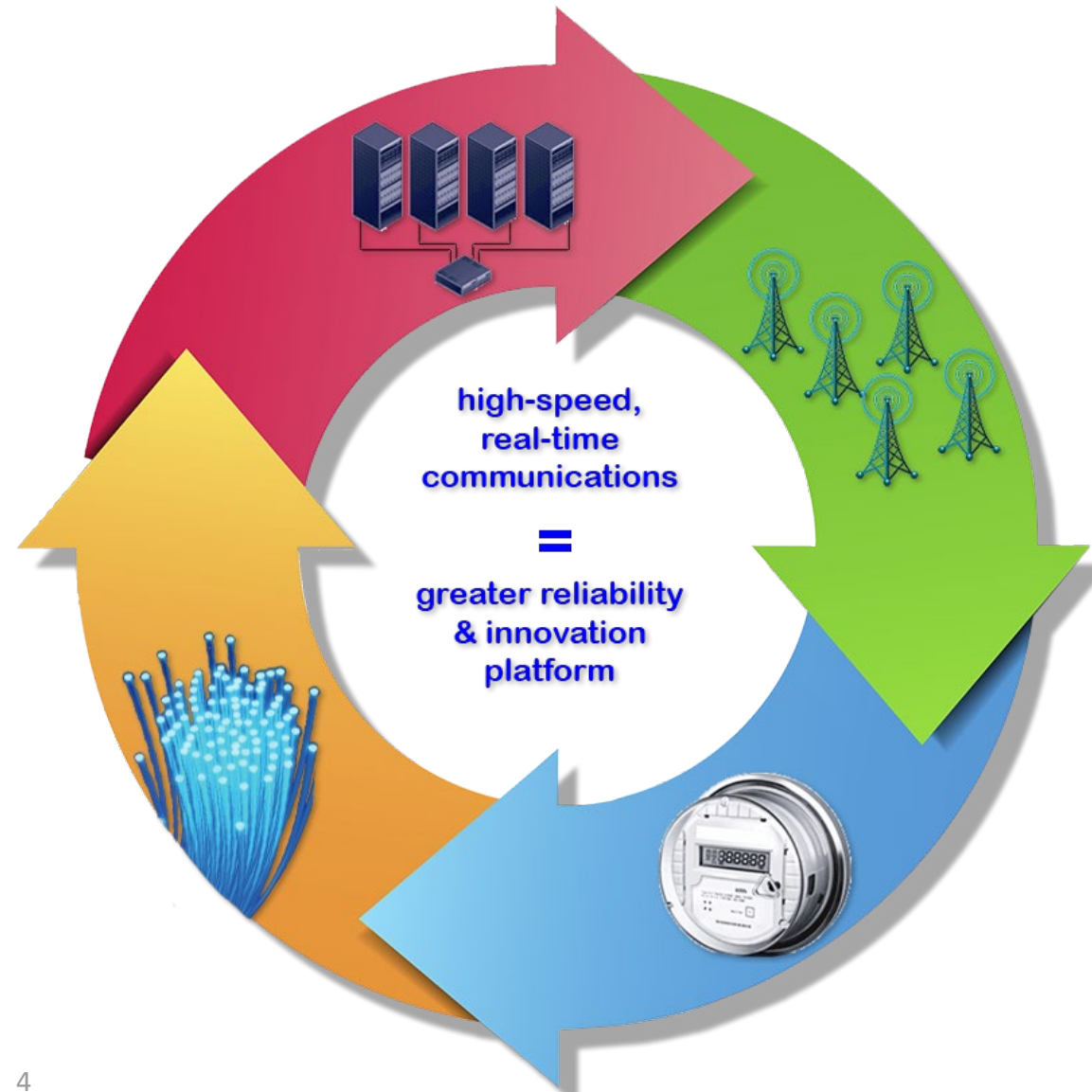
- Serve as Local Control Center for Vermont grid operations
- Manage the Vermont System Planning Committee
- Develop Vermont's Long-Range Transmission Plan





- ▶ Formed in 1956 as nation's first statewide, "transmission-only" company
- ▶ **Owned by 17 local electric utilities and a public benefits corporation**
- ▶ **For-profit company with cooperative revenue structure**
- ▶ **Operates in NE's only vertically integrated state**
- ▶ Assets managed include \$1.2 billion electric transmission grid:
  - ▶ 738 miles of transmission lines
  - ▶ Statewide Radio System
  - ▶ 1,600 miles of fiber optic communications network

# Innovation workbench



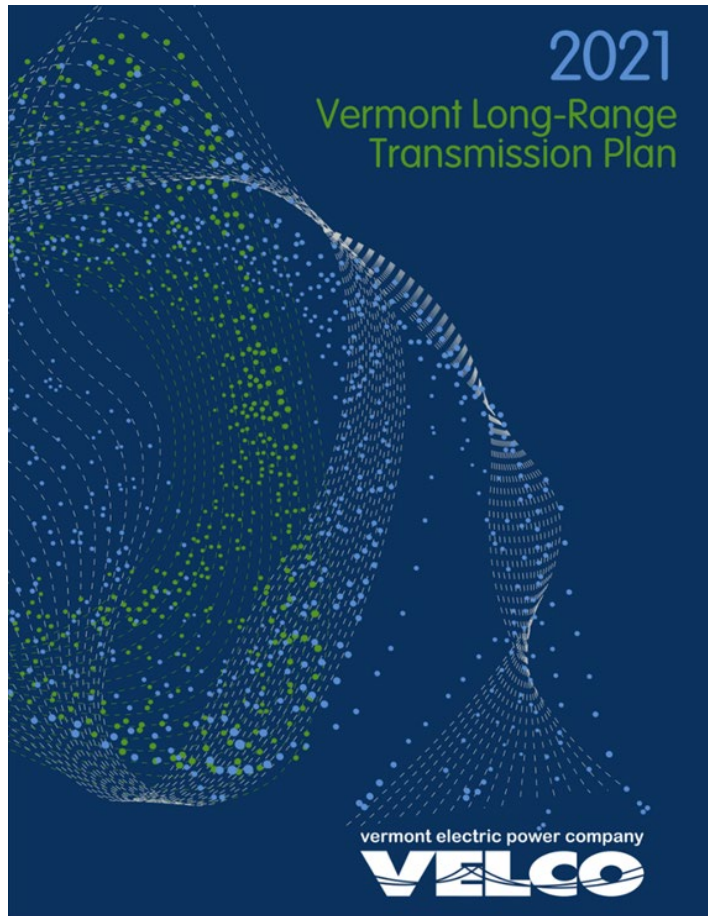
## Statewide elements/results

- eEnergy VT smart grid
  - 92-94% smart meters
- High-performance computing cluster—HPCC
- EMP-protected data center
- Successful sale of energy analytics startup launched by IBM, Boston Consulting and VELCO
- Ongoing National Lab partnerships w/ PNNL, ORNL

# Successful Regional Collaboration

- Day-ahead solar prediction
- Adoption of project cost estimation and reporting methodology
- Successful non-transmission alternative identification and implementation
- Host to jointly owned Phase II line since 1986
- Negotiated agreement with owners of New England Clean Power Link
- Right-sizing project approach (K42-Franklin County Line Upgrade Project)

# VELCO Transmission Reliability Need Forecast



- ▶ Vermont remains a transmission-dependent state
- ▶ Significant load growth expected – winter peaking
- ▶ No *major Tx upgrades* needed to serve load within 10-year horizon, ***provided:***
  - ▶ Improved location of additional generation
  - ▶ **Flexible load management achieved at scale**
  - ▶ **Storage installed and managed at scale**

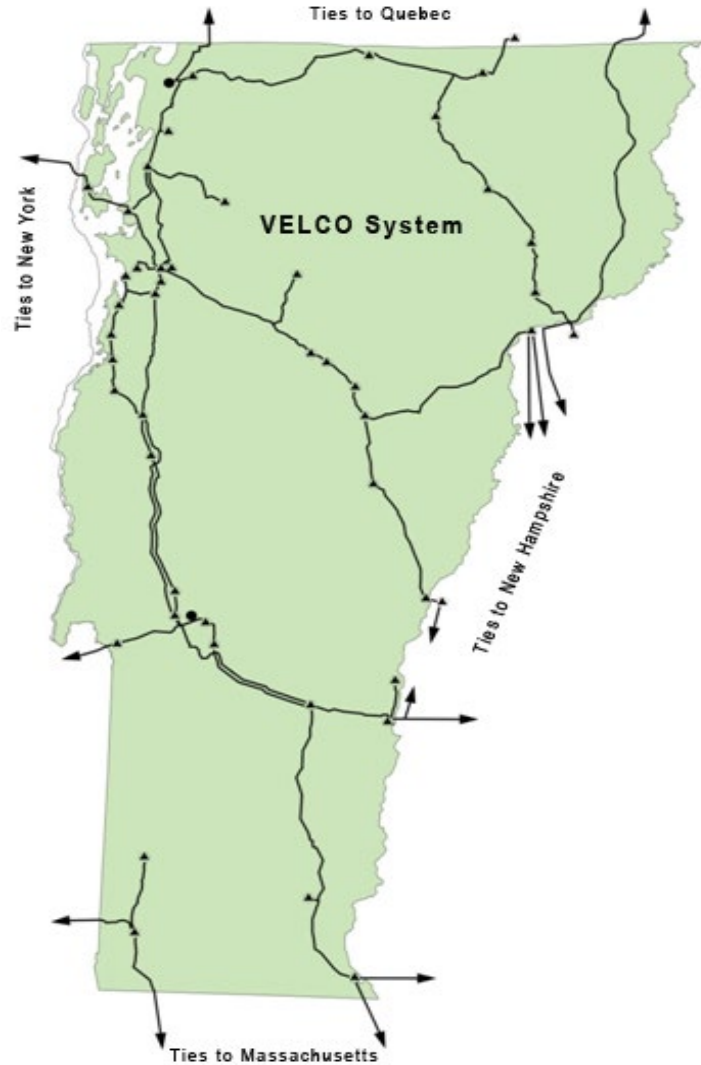
*(\*Does not resolve all distribution-level concerns)*
- ▶ *Further collaboration and innovation needed to achieve renewable and climate-driven requirements*

[LINK](#) to 90-second video explainer of the VT LRTP

6 [LINK](#) to 2021 VT Long-Range Transmission Plan



# VELCO supports the RTI; will continue engagement



## Why

- Geography
- Clean energy requirements
- Financial structure
- MVV/Culture

## How

- Existing ROWs
- Bi-directional
- Portfolio approach