

# VELCO STRATEGIC PLAN 2012-2016

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## VELCO MISSION

VELCO manages the safe, reliable, cost-effective transmission of electrical energy throughout Vermont. Our goal is to provide an optimal system of electric transmission facilities as part of an integrated regional network designed to meet both current and future energy needs.

## VELCO VALUES

We produce high-quality work and provide honest, accurate judgment and advice.

We are good stewards of ratepayer dollars, and our environment and historic resources.

We strive to achieve cost-effective solutions—transmission or non-transmission—to ensure system reliability.

We create value for our owners, customers, regulators, the public and the region.

We nurture our associates' professional and personal growth, and foster a culture of safety, integrity, open communication, teamwork and the ability to embrace change.

***VELCO: TRUSTED PARTNER IN GRID SOLUTIONS.***

## STRATEGIC INITIATIVES—Critical work we must get right to thrive in the next five years.

- 1** **PROCESS IMPROVEMENT**  
Develop and implement a comprehensive set of defined, sustainable internal business processes that fill existing gaps.
- 2** **SAFETY**  
Achieve an injury-free work environment based on a culture of commitment to protecting ourselves, each other, our partners, our contractors, and the public.
- 3** **MERGER-RELATED OPPORTUNITIES**  
Maximize opportunities presented by the merger for increased efficiencies and performance.
- 4** **QUALITY ASSURANCE**  
Improve grid reliability through quality assurance and quality control in the construction and maintenance of all systems.
- 5** **COMMUNICATIONS INFRASTRUCTURE**  
Successfully execute smart grid/fiber communication projects and the statewide radio project, and reliably maintain and operate the systems once they are in place.
- 6** **RELIABILITY SOLUTIONS**  
Successfully execute transmission projects and help shape non-transmission alternatives to resolve identified reliability deficiencies.

**AREAS OF CORE BUSINESS FOCUS—Essential, ongoing work we must get right every day.**

**RELIABILITY STANDARDS**

Ensure continued compliance with FERC and NERC requirements.

**COST CONSCIOUSNESS**

Develop a more cost-conscious culture.

- Secure effective, region-wide implementation of VELCO's cost estimation methodology.
- Communicate effectively with owners and other stakeholders to ensure understanding of transmission cost drivers.
- Demonstrate a shared commitment to cost containment from planning to budgeting to spending.

**FINANCIAL STABILITY**

Maintain VELCO's ability to fund future transmission projects.

**SKILLED WORKFORCE**

Improve VELCO's results in recruiting, retaining, and developing key talent in strategic areas.

**POSITIVE STAKEHOLDER  
RELATIONS**

Maintain and build effective relationships with owners, regional and state regulators, state legislative and executive branches, and other external stakeholders.

# STRATEGIC INITIATIVE NARRATIVES

Brief descriptions of the work to be accomplished in the five-year time frame.

## 1 **Develop and implement a comprehensive set of defined, sustainable internal business processes that fill existing gaps.**

LEAD: PAUL RENAUD

**Background.** VELCO's assets have grown by a factor of 10 since 2000 through major capital construction. Such rapid growth was achieved by building an organization focused on the tactical requirements to deliver projects on time and on budget. While this approach has been successful in carrying out large, individual projects, VELCO has not produced a comprehensive set of defined, sustainable internal processes and procedures needed for the long-term effectiveness of the larger, mature organization.

**Why?** Lack of effective processes and documentation hinders employees' work efficiency, effectiveness and quality.

**This year's work.** Build upon enterprise-wide work begun in 2011 to document and improve work processes. Ensure that employees can rely on well-designed and documented procedures for accomplishing projects and day-to-day work. Enhance the organization's change management and process analysis skills needed to create and sustain a culture that embraces process improvement. Reinforce the cultural change through tangible process improvements.

## 2 **Achieve an injury-free work environment based on a culture of commitment to protecting ourselves, each other, our partners, our contractors, and the public.**

LEAD: DAVE HAAS

**Background.** Electric transmission infrastructure is literally a life-and-death business. Utilities must and do take very seriously the risks of our work—from design to construction to operation and maintenance. In recent years, two factors have increased the risk associated with our work: the significant increase in construction activity since 2000, and the higher degree of required interaction with contractors, utility partners and the public that this work today entails.

**Why?** Several accidents have occurred recently among Vermont utilities involving serious injury or death, or significant property damage. Such events are intolerable from a human perspective and damaging to the reputation of everyone involved.

**This year's work.** Through shared learning from industry best practices, the support of executive leadership, and an engaged workforce, strengthen the quality of safety training, accountability and outcomes. The result is a common commitment to an effective safety culture.

### **3 Maximize opportunities presented by the merger for increased efficiencies and performance.**

LEAD: TOM DUNN

**Background.** Green Mountain Power and Central Vermont Public Service's post-merger integration has involved teams of talented, thoughtful people from both companies deliberating for months over how to realize synergies in this historic opportunity. VELCO should be able to capitalize and build on the merged companies' analytical effort and the post-merger period of change to improve coordination with GMP and other distribution utilities, and to achieve efficiencies in planning, building, operating and maintaining the transmission system to benefit all of its owners. The merger will also result in changes to VELCO governance that present opportunities to further enhance the company's effectiveness at pursuing its mission.

**Why?** Structural and operational change to the utilities serving more than 75 percent of Vermont's load inevitably means change for VELCO's operation of the transmission system. This period of transition provides the best opportunity to shape that change in a way that improves VELCO's effectiveness and produces additional efficiencies and savings for all Vermont customers.

**This year's work.** Successfully transition the VELCO Board to its new governance structure and, through effective collaboration, lay the foundation for efficiencies and improvements in processes and service to our customers that arise as a result of GMP and CVPS's merged operations.

### **4 Improve grid reliability through quality assurance and quality control in the construction and maintenance of all systems.**

LEAD: RICK TWIGG

**Background.** The ten-fold increase in VELCO's asset base since 2000 has involved complex challenges in design and construction, met largely through extensive use of contractors overseen by in-house staff. As these new assets have come into service, we have experienced an unacceptable number of system design and construction errors, some of which affected customers, and others of which were detected and corrected before system impacts. These failures highlight the need for a systematic program of quality assurance and quality control to identify defects in our existing system and to fail-proof systems we build going forward.

**Why?** Critical system failures harm customers, waste resources that must be devoted to diagnosis and correction, and damage the reputation and pride of VELCO.

**This year's work.** Assess the current program of QA/QC, distill best practices information, and execute the first steps toward establishing VELCO's state-of-the-art approach for transmission utilities of our size.

**5 Successfully execute smart grid/fiber communication projects and the statewide radio project, and reliably maintain and operate the systems once they are in place.** LEAD: TOM DUNN

**Background.** VELCO is now in the third year of a project that will enhance Vermont utilities' communications infrastructure by completing a statewide radio network and a commercial-grade fiber optic network. The result will better support reliability and smart grid technology, and will provide future capacity to meet needs that have not yet been imagined.

**Why?** Successful completion of these projects will better serve Vermont utilities and Vermonters. Our reputation for delivering a high-quality product on time and on budget rests on our success. As the largest per-capita recipient of American Recovery & Reinvestment Act (ARRA) smart grid funding, Vermont has a high profile in all aspects of our smart grid effort.

**This year's work.** Complete the fiber network build out and radio project on time and on budget. Support and maintain the new infrastructure, in collaboration with distribution utilities where appropriate. Continue to fulfill eEnergy Vermont's contractual obligations to the US Department of Energy under the ARRA grant.

**6 Successfully execute transmission projects and help shape non-transmission alternatives to resolve identified reliability deficiencies.** LEAD: TOM DUNN

**Background.** The ISO-NE Vermont/New Hampshire Needs Assessment and the 2012 Vermont Long-Range Transmission Plan have identified transmission reliability deficiencies that must be addressed in the coming five to ten years. ISO's analysis and VELCO's further study indicate that some of these issues may be resolvable with non-transmission alternatives. The cost of emerging transmission solutions needed in the next five to six years is estimated at \$250 million. The \$157 million Central Vermont transmission solution appears likely to be resolvable with some combination of restoring the past planning assumption that power will flow post-contingency over the PV-20 and an achievable combination of generation and demand reduction. These solutions depend, however, on resolving significant funding and implementation barriers to the potential non-transmission alternatives. The situation is further clouded by load forecasting uncertainties and emerging understanding of the impact of increased small-scale renewables, through SPEED, net metering and other programs, on future load.

**Why:** Maintaining grid reliability, as defined by NERC and ISO standards, is central to VELCO's mission. This obligation requires that we timely plan, permit and construct those projects that are needed to resolve the deficiencies identified by ISO's and our own analyses. The significant increase in transmission's share of consumer electric bills, and projections for the continuation of this trend, make it ever more essential to avoid transmission where there is a cost-effective non-transmission alternative.

**This year's work:** Proceed with execution of the Connecticut River Valley transmission solution identified in the 2012 VT Long-Range Transmission Plan, since this issue cannot be resolved by an NTA in Vermont. Continue to collaborate with Vermont distribution utilities on completion of the NTA study associated with the Central and Northwest Vermont deficiencies and on resolution of the barriers to assuming power flow over the PV-20. Continue to advocate for parity regional funding of cost-effective non-transmission alternatives. Monitor and adapt to the influence of increased distributed generation and demand resources.

# SWOT ANALYSIS

## Strengths

1. Demonstrated project management expertise for large, complex transmission projects.
2. Ability to adjust workforce to address fluctuations in project workload.
3. Strong technical capability.
4. Diverse management team with complementary skill sets.
5. Motivated, skilled and dedicated workforce with an active problem-solving orientation.
6. Effective business model.
7. Favorable debt-to-equity ratio with strong credit rating and revenue generation, and proven access to capital markets.
8. Effective working relationship with regional control entities, state regulators and legislators, and other key stakeholders.
9. Telecommunications and transmission asset base recently expanded.

## Opportunities

1. Increased interest by DUs and other Vermont stakeholders in development of in-state renewables and other generating resources.
2. Increase in effectively sited distributed generation may serve as a non-transmission alternative, potentially avoiding the need for some reliability upgrades.
3. Vermont is strategically positioned between New York and Canadian renewable resources and load centers to import power that meets both reliability and market needs.
4. Creation of Vermont smart grid/telecommunications backbone.
5. Developing smart grid partnerships (e.g., Sandia, UVM, Norwich) to provide professional development opportunities for VELCO.
6. Smart grid may improve demand response, operations, efficiency and reliability.

## Weaknesses

1. Under-performance of processes, including lack of process discipline.
2. Weak execution of company-wide projects and processes.
3. Incomplete or obsolete corporate policies.
4. Inadequate document retention and retrieval capability.
5. Internal communication is hampered by “silos.”
6. Lack of a prioritization strategy.
7. Inadequate attention to professional development and the currency of knowledge and skills.
8. Lack of broad input, benchmark data and other information from other transmission companies and other industries.

## Threats

1. Rate pressures due to increasing cost associated with ISO-NE reliability projects.
2. Challenge to coordinate advocacy with DUs and regulators at ISO-NE and NEPOOL.
3. Fluctuations in regional revenue due to load volatility in New England present challenges to financial planning and may adversely affect Vermont utilities.
4. Growth of distributed generation, demand response and energy efficiency increase the complexity of planning to maintain system reliability.
5. The impact of a trend toward utility by-pass on cost of service.
6. Increased focus and priority by federal agencies on reliability compliance.



## Opportunities, continued

7. Massive increase in available data from smart grid can translate into greatly increased planning intelligence.
8. Standardized methodology for regional transmission projects and cost control. Gaz Metro acquisition of CVPS offers potential benefits for all systems and stakeholders.
9. Impact of changes to the VELCO Board following CVPS-GMP merger.
10. Potential to hire experienced technical people who may be available as a result of merger-related consolidation.
11. Access to owner companies' and board members' experience with process improvement and technology.
12. ISO-NE strategic initiative on alignment of markets and planning may enable greater financial support for NTAs in the region.
13. FERC-approved rate-of-return for new transmission reliability projects.
14. The ability to raise capital at low cost may enable purchase of sub-transmission assets, and/or ability to provide capital to DUs at lower cost.
15. FERC ROE case may enhance full region-wide implementation of project cost methodology.
16. VELCO can serve a credible information resource for policy development.

## Threats, continued

7. Competition from other parts of the country to acquire skilled, technically proficient work force.
8. Multiple planning processes within the state and region. Aging infrastructure of VELCO and DUs' power delivery systems.
9. State's interest in complete or partial ownership of VELCO.
10. Process of achieving consensus with owners requires significant time and other resources.
11. Insufficient communication and consensus regarding the scope of VELCO projects and costs.
12. Potential owner disagreement over NTA solution cost allocation.
13. Potential federal legislative changes, and federal and regional regulatory changes, including potential loss of the right of first refusal for new projects.
14. The NU/NStar merger may negatively affect the dynamics of ISO-NE and NEPOOL.
15. Climate change and resulting weather instability may negatively affect transmission operations.
16. Physical and cyber threats to the grid from terrorism and other vulnerabilities.
17. Increased collaboration among utilities, telecommunications providers and contractors raises new safety challenges.
18. Costs and customer impacts of solar magnetic disturbances.
19. Regulatory staffing turnover creates uncertainty in permitting process.
20. Potential regulatory changes that significantly raise project costs and impair system reliability through delay.
21. Potential failure of smart grid to reach critical mass due to public backlash.