

The VELCO logo is displayed in a bold, white, sans-serif font. It is positioned in the upper left corner of the slide, set against a background image of a landscape with rolling hills and power lines under a warm, sunset sky.

VERMONT'S TRANSMISSION RELIABILITY RESOURCE

New England Governors' Infrastructure Initiative

*The multi-billion dollar strategy intended to solve
the region's energy market flaw*

MOVING **POWER**. MOVING **FORWARD**.



Regional Infrastructure Initiative

Presentation Overview

1. Initiative drivers

- Reliability, cost stability and policy
- Political consensus

2. Electric transmission RFP/Gas transmission RFI

- Emerging profile for electric and gas requests
- RFP/RFI Process timeline
- Unanswered questions

3. Update

- GII status
- VELCO Position
- Work going forward

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Drivers – reliability, price stability and state energy goals

- **Risks to Reliability**

- FERC *2012 State of the Market Report* identifies New England “as a market particularly at risk for service disruption due to limited pipeline capacity into the region.”
- ISO-NE Strategic Planning Initiative in 2012 warns “[P]otential gas unavailability threatens the reliability of the electric system due to the limited-capacity pipelines used to transport gas, potential gas supply interruptions, and the ‘just- in-time’ nature of the resource.”
- NESCOE’s 2013 Black & Veatch study concludes “New England could face significant reliability issues when natural gas-fired power generators are not able to dispatch as a result of the gas pipeline capacity constraints.”
- ISO-NE in 2014 describes grid reliability as in a “precarious position”
- NESCOE in 2014 declares situation to be “acute and unsustainable” in need of “urgent action”

- **Costs to Customers**

- ISO-NE launches 2013-14 Winter Reliability Program to procure 2.4 million MWh of electricity or 4.2 million barrels of oil at a cost of \$78.8 million.
- ISO-NE estimates \$3 billion in additional electricity costs for 2013-2014 heating season in New England
- Average January 2014 natural gas prices up 137%; wholesale electricity prices up 94% from January 2013 averages
- New England continues to pay the highest natural gas prices in the nation and remains subject to price spikes

- **New England States’ Energy Quid Pro Quo**

- MA seeks significant amounts of new low-carbon, renewable energy resources (1.89 terawatt hours annually)
- ME, NH, RI and CT seek access to natural gas
- CT seeks additional renewable energy supplies

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Drivers – Political genesis of proposal to fix “market flaw”

- **2012 – New England Governors seek to cooperate more on energy policy**
 - Adopt resolution in support of coordinated procurement of renewable energy
- **2013 – Congress gets involved and New England Governors announce infrastructure initiative**
 - New England’s U.S. Senate delegation articulates concerns about impacts of gas delivery constraints in joint letter to DOE Secretary Moniz
 - New England Governors issue statement of their intent “to advance a regional energy infrastructure initiative that diversifies our energy supply portfolio while ensuring that the benefits and costs of transmission and pipeline investments are shared appropriately among the New England States. . . .”
- **2014 – Current political/stakeholder bias for action seemingly in place to address “market flaw”**
 - NESCOE, regulators convening weekly teleconferences and in-person meetings every two or three weeks seeking agreement on the cost allocation and structure of a Request for Proposals to build electric and gas transmission
 - NESCOE provides outline of emerging infrastructure initiative to NEPOOL stakeholders
 - Stakeholder proposals to date offer alternative implementation strategies and financial prerequisites for supportive participation – no major challenges, with one key exception
 - New England Power Generators Association pledges to litigate in opposition to initiative
- **2014 – Massachusetts legislation is the key**
 - If Clean Energy Resources bill HB3968 fails to pass by end of July 2014, then initiative likely dissolves

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Emerging profile of electric and gas transmission requests

Electric transmission Request for Proposals

- Amount – 2.4 to 3.6 gigawatts total for region, with 150 MW de minimis transmission-line requirement
- Deliverability – Firm delivery of energy with 80%-90% of hours-per-month performance requirement
- Configuration – Underground/underwater (most likely) line that utilizes HVDC technology
- Bid Structure – Separate but linked transmission and energy component costs
- Bid Pricing – fixed price to include ancillary upgrades
- Timing – RFP issued in late October

Gas transmission Request for Information

- Amount – Increments of 200 mmcf/day to allow evaluation of the cost of adding capacity necessary to achieve at least 1bcf/day above 2013 levels, or about a 30% expansion of current capacity
- Structure – Won't be an RFP but regulators are undecided as to exact implementation mechanism
- Timing – RFI issued in late October

Combined Electricity/Gas Requests

- Bid selection criteria – Cost per MWh, regional LMP suppression and project constructability
- Benefits/Cost – The combined minimum benefit-to-cost ratio is to be 1.4-1.6:1
- VT's Allocated Infrastructure Cost – 2.32 % (equals about half of the state's Real-Time Load Obligation, i.e. energy) of the total gas/electric infrastructure costs
- VT's Allocated Energy Supply Cost – power costs associated with new transmission infrastructure paid by those states/utilities that elect to enter into such power contracts
- Total Cost – \$8 to \$10 billion dollars with a 50% contingency

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Implementing the RFP/RFI – first secure FERC approval

Tariff amendment timeline – securing cost recovery for gas/electric transmission infrastructure investment requires that the TOs and ISO-NE jointly submit a proposed new amendment of the ISO-NE tariff to FERC for its approval. The timeline for seeking concurrence on a proposed amendment is as follows:

- June 6th – Participants Committee discussion (if proposal developed)
- Week of June 16th – States submit proposed tariff amendment language to NEPOOL
- June 20th – Transmission Committee considers proposal
- June 16th- 18th – NECPUC discussions of proposal
- June 24th-26th – NEPOOL Summer Participants Committee discussions
- July 22nd – Transmission Committee considers proposal
- August 11th - 13th - Transmission Committee summer meeting
- September 12th – Participants Committee vote on proposal
- September 13th – Submit proposed tariff amendment to FERC with expedited approval request

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Implementing the RFP/RFI – unanswered questions

Threshold

- What other alternatives have been considered and what are their costs?
- What is the total estimated cost of this initiative?

Electric transmission Request for Proposals

- Who issues the transmission/energy supply RFP?
- Who selects the successful proposal(s)?
- What are the selection criteria?
- What does “fixed price” mean, i.e. construction cost or revenue requirement over 20 years?
- What is the cost premium of soliciting fixed-price bids?
- What analyses will be conducted and by whom to enable selection?

Gas transmission Request for Information

- By what means will expansion proposals be solicited?
- Who will negotiate an agreement?
- Will an ISO-NE tariff suffice or are other credit-worthy backstop parties required?
- If credit-worthy backstop parties are required, how will they be selected?
- How will new gas pipeline capacity be allocated to ensure winter generation needs are met?
- How can electric ratepayers’ investment in incremental pipeline capacity be protected from diversion for uses other than generation, i.e. thermal uses by customers

Combined Electricity/Gas Requests

- How will concurrent processes be coordinated to ensure overall delivery of 1.4:1 cost benefit ratio?
- How will the RFP/RFI responses be handled given almost certain delays due to litigation?
- If the gas RFI fails does the electric transmission RFP dissolve?

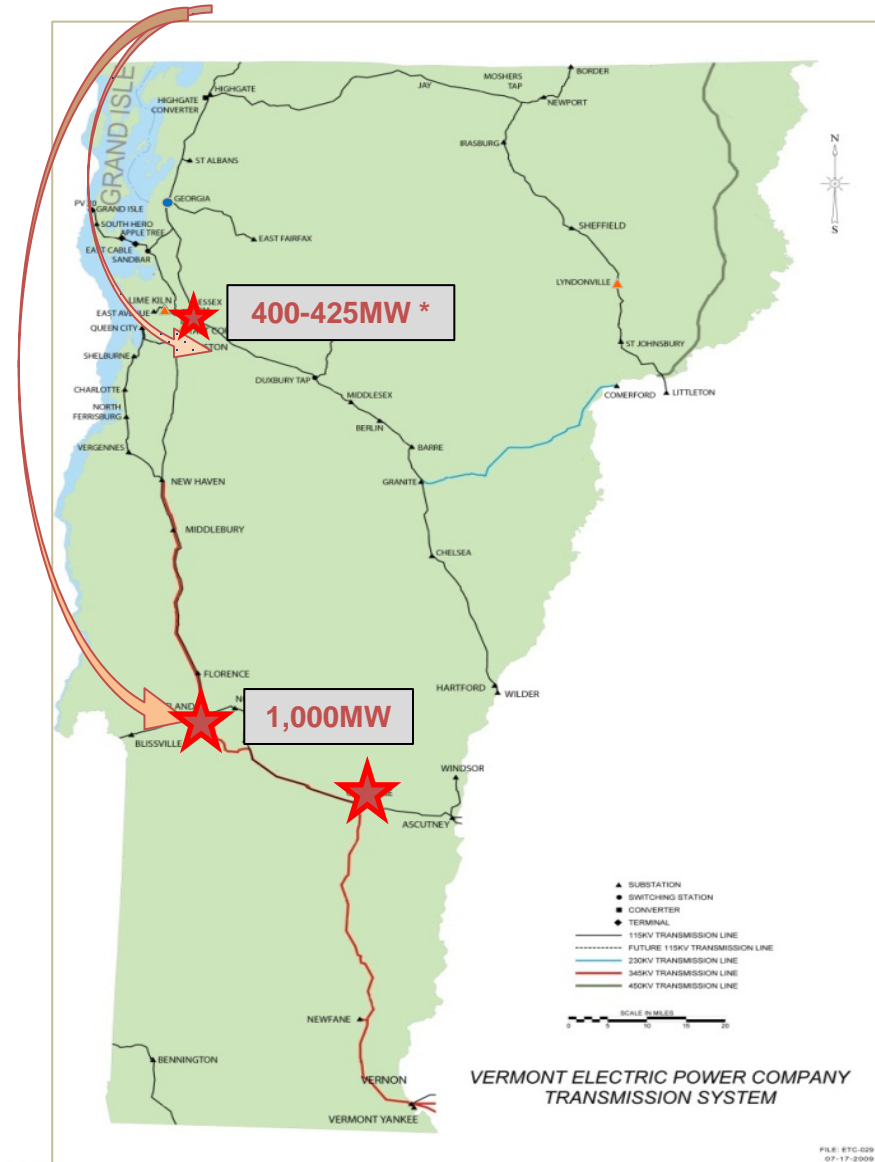
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Proposed Interconnections – Eight requests totaling 3,525 MW

- VELCO has evaluated multiple import areas including into:
 - **Burlington Area and North:** Proposed delivery to a new Champlain substation near Essex at 400MW and 425MW
 - **Central Vermont:** From Quebec to W. Rutland or Coolidge at 1,000MW
 - Current Interconnection requests are as follow:

Entity	Size (MW)	Point of Delivery	COD *
Anbaric Transmission	400	Champlain (115kV)	2017
TDI	1,000	Prim. Coolidge Alt. W. Rutland Alt. New Haven (345kV)	2018
NU Transmission Ventures	500	Prim. Georgia Alt. Essex (115kV)	2017
NU Transmission Ventures	1,200	Prim. Coolidge Alt. W. Rutland (345kV)	2017
HQ Energy Services (US)	425	Williston (115kV)	2018

* Proposed Commercial Operation Date



* Significant ancillary system reinforcements required

Governors' Infrastructure Initiative

- **Current status – consideration delayed but forward momentum continues**
 - Securing agreement on cost allocation put off until end of July to correlate with fate of MA legislation which remains unclear
 - Governor, Commissioner and other parties, e.g. CLF, Environment Northeast (ENE) publicly weighed in with concerns
 - NE regulator discussions on GII now on hold but late October RFP/RFI issuance still planned
- **Communication**
 - Position: *VELCO supports a regional grid and power supply portfolio that's reliable, clean and affordable. The GII's ability to deliver on the first two goals is much clearer than is its current ability to also meet the third goal, affordability. We remain engaged but question whether the analysis conducted to date matches the initiative's pace, scope and likely impacts. We have pressing questions that have no answers as yet, nor a clear path to obtaining those answers. VELCO does not currently support the initiative.*
 - Alerted regulators, administration, project developers and media
 - Position advocated at NECPUC conference with FERC Commissioner LaFleur, ISO-NE leadership, etc.
- **Going forward – maintain credible, flexible participation**
 - Do work necessary to preserve options for both response to the GII's Q3-Q4 2014 RFP and TDI's Q4 2014 §248 CPG filing
 - Complete study of costs/benefits to Vermont of the GII's contemplated electric and gas infrastructure investments
 - Regulator assistance – continue to provide technical expertise to regulators, e.g. fixed-price bid structure, GII cost impact on VT customers, etc.
 - Project developer communications – continue to maintain direct, consistent communication with all project developers