



# Vermont System Planning Committee

*Ensuring full, fair and timely consideration of non-transmission alternatives to address Vermont electric system reliability challenges.*



**QUARTERLY MEETING  
DECEMBER 12, 2012  
9:30 A.M. – 4:00 P.M.  
DOUBLETREE HOTEL  
SOUTH BURLINGTON, VERMONT**

# Agenda



## 1 & 2. Introductions/approval of minutes

## 5. Regional/ISO-NE updates:

- Scope for updated VT/NH needs assessment
- ISO-NE energy efficiency forecast
- Status of NESCOE NTA analysis proposal
- Other current issues

## 3. Subcommittee reports

- NTA Study Group
  - Study update
  - Report on meeting w/ ISO-NE, 11/27/2012
- Energy Efficiency & Forecasting: GT update; GT funding mechanism
- Ad Hoc Process Improvement
  - Discontinuation of Transmission Subcomm
  - Check-in on structure changes
- Technical Coordinating: term expirations

## 6. Project Updates

- Screened in for NTA analysis
  - Hartford/Ascutney
  - Rutland
  - Central Vermont—See section 3 above
- Other projects
  - SE VT –VELCO
  - CT River Valley—VELCO
  - Colchester—GMP
  - St. Albans/E. Fairfax—GMP
  - Northern Area—VELCO/VEC
  - IBM area—VELCO/GMP
  - Vernon Rd—GMP
  - Highgate Project—VELCO

## 4. Old business

- Update on Docket 7873 (standard offer program changes)
- 2012 annual report to PSB/PSD

# Energy Efficiency & Forecasting



# EE&F Action Items Requested



- **VSPC recommendations to the Public Service Board:**
  - Discontinue Geotargeting the “St. Albans” area\*\*
  - Continue to Geotarget “Susie Wilson” area
- **VSPC authority for the EE&F to:**
  - Make any revisions to area specific justifications
  - Draft memo to PSB
  - Following provision of memo to VSPC via email and 1 week comment period, if no objection then file recommendations with PSB
- **\*\*Certain assumptions in analysis undergoing additional review as of 12/5/12. Update to be provided as soon as feasible – prior to 12/12.**

# St. Albans GT - Refresher



- **Summer reliability constraint from the loss of one of the area's 34.5/12.47 kV substations in the event of a planned or unplanned transformer outage.**
- **Solution: Construction of a new 34.5/12.47 kV substation to maintain existing backup capability (\$1.5million = \$250k/yr deferral value)**
- **\$4 million of GT EE approved in order to delay project, allow for other resources to come online, avoid project entirely**

# St. Albans - 2011 analysis



CVPS ST. ALBANS FORECAST							
Critical Load level=28							
Year	50/50 forecast (MW)	90/10 forecast (MW)	Ability to serve letters 1.5MW * 90%; 0.5MW ancillary growth	Total Estimated Load	Est. EE embedded in forecast	EE or other resources needed	Available EE (baseline plus incremental)
2012	25.45	26.4		26.4	0.5	-1.1	
2013	25.45	26.4	1.35	27.75	0.5	0.75	1.8
2014	25.45	26.4	1.85	28.25	0.5	1.75	
2015	25.45	26.4	1.85	28.25	0.5	2.25	
2016	25.45	26.4	1.85	28.25	0.5	2.75	
2017	25.45	26.4	1.85	28.25	0.25	3	
2018	25.45	26.4	1.85	28.25	0	3	
2019	25.45	26.4	1.85	28.25	0	3	
2020	25.45	26.4	1.85	28.25	0	3	

# St. Albans – New circumstances



- **Load remained constant**
- **Unexpected industrial load 4+MW load**
  - Facility under construction
  - High load factor
  - No interest in Demand Response or higher voltage network connection
- **1.5MW retail store anticipated previously is also under construction**
- **Energizer plant closure has no effect (since fed off 34.5kV)**

# St. Albans Considerations



- **Duration of exposure**
  - 2011 – 117 hours
  - 2012 – 224 hours
- **2012 peak 5pm; 2011 peak 3pm**
- **Is deferral value greater than re-allocating statewide? Analysis continuing.**
- **Impacts of AMI, Volt/VAR Distribution Automation Systems, new standard offer**
  - Qualitative consideration of additional costs or benefits



# St. Albans 2012 analysis

St. Albans Forecast										
									Critical Load level	28
Year	50/50 forecast (MW)	90/10 forecast (MW)	Ability to serve letters * .75 coincidence (MW)	Total Estimated 90/10 Load (MW)	Est. EE embedded in forecast (MW)	EE or other resources needed (MW)	DG or other offsetting generation cumulative MW	Available EE MW (baseline plus incremental)	Remaining Resource Need (MW)	
<b>2012</b>	25.45	26.35		26.35	0.50	<b>-1.15</b>	1.1			
<b>2013</b>	25.45	26.35	5.80	32.15	0.50	5.15	1.1			
<b>2014</b>	25.45	26.35	5.80	32.15	0.50	5.65	1.1	1.583	2.97	
<b>2015</b>	25.45	26.35	5.80	32.15	0.50	6.15	1.1	0.233	3.00	
<b>2016</b>	25.45	26.35	5.80	32.15	0.23	6.39	1.1	0.233		
<b>2017</b>	25.45	26.35	5.80	32.15	0.00	6.39	1.1	0.233		
<b>2018</b>	25.45	26.35	5.80	32.15	0.00	6.39	1.1	0.233	2.30	
<b>2019</b>	25.45	26.35	5.80	32.15	0.00	6.39	1.1	0.233		
<b>2020</b>	25.45	26.35	5.80	32.15	0.00	6.39	1.1	0.233		

# New Assumptions – Under Further Analysis\*



- **EE Embedded in Forecast –**
  - 0.5MW 2012-2015
  - 0.233 MW 2016
  - 0 MW thereafter
- **Available EE 2012-2014 is 1.8 minus that achieved in Q1-Q3 2012 (217kW)**
- **Baseline EE that continues to be available after 2014 is 233kW**

# St. Albans (Preliminary) Recommendations



- **Cease Geotargeting in St. Albans via a ramp down of services that does not adversely affect customers**
- **EE&F makes no recommendation as to re-distribution of remaining GT funds**

## Susie Wilson area - refresher



- Area served by GMP's Ethan Allen, Essex and Gorge substations is constrained by both feeder capability and substation transformer capacity.
- 3 percent annual load growth over the previous five years
- Absent GT, a new 115 kV/12.47 kV substation would be needed by 2017 at a cost of \$8 million.
- \$2.5 million incremental EE approved – deferral value for one year \$1.4million

# Susie Wilson – 2011 Analysis



Original 12-1-11 included impact of renewables				
Critical Load Level				53
Year	50/50 forecast (MW) [N2]	90/10 forecast (MW) [N1]	"High Scenario" (MW)	Incremental GT EE needed [N3]
2012	41.5	43.0		(10.0)
2013	44.7	46.2		(6.8)
2014	46.3	48.2		(4.8)
2015	47.9	49.9		(3.1)
2016	49.5	51.0		(2.0)
2017	51.1	53.1		0.08
2018	52.6	54.5		1.46
2019	54.2	56.3		3.3
2020	55.7	57.9		4.9
2021	57.3	59.4		6.4
2022	58.8	61.0		8.0
2023	60.3	62.6		9.6
2024	61.8	64.1		11.1
2025	63.3	65.7		12.7
2026	64.8	67.2		14.2
2027	66.3	68.8		15.8
2028	67.7	70.3		17.3
2029	69.2	71.8		18.8
2030	70.6	73.3		20.3
2031	72.1	74.8		21.8

## Susie Wilson - new circumstances



- Corrupt SCADA data inflated 2011 loads by 3MW
- Load Growth in area less than expected
- Large industrial load online later than expected
- Greater EE potential than originally expected (200kW/yr added to baseline acquired)

# Susie Wilson – 2012 Analysis



Susie Wilson Load Forecast as of 11-27-12				
Critical Load Level				52.7
Year	50/50 forecast (MW) [N2]	90/10 forecast (MW) [N1]	"High Scenario" (MW)	Incremental GT EE needed [N3]
2012	35.8	35.8		(16.9)
2013	40.1	41.4		(11.3)
2014	41.4	43.1		(9.6)
2015	42.3	44.0		(8.7)
2016	43.2	44.6		(8.1)
2017	44.1	45.9		(6.8)
2018	45.0	46.6		(6.1)
2019	45.9	47.7		(5.0)
2020	46.8	48.6		(4.1)
2021	47.6	49.5		(3.2)
2022	48.5	50.3		(2.4)
2023	49.3	51.2		(1.5)
2024	50.1	52.0		(0.7)
2025	50.9	52.8		0.14
2026	51.7	53.6		0.95
2027	52.5	54.4		1.7
2028	53.2	55.2		2.5
2029	53.9	56.0		3.3
2030	54.6	56.7		4.0
2031	55.3	57.4		4.7

# Susie Wilson Considerations



- **New need date – 2025**
- **Industrial load not fully online and true impact of load uncertain**
- **Economy not fully recovered – forecasted growth could change**
- **Program delivery considerations**
- **Adjustments in acquisition rate**



# Susie Wilson Recommendations



- **Continue Geotargeting & reassess in 2013**
- **Do not increase acquisition rate of EE or the GT budget for this area**

# Process Improvement



**RESOLUTION TO DISCONTINUE THE  
TRANSMISSION SUBCOMMITTEE  
SEE [HTTP://GOO.GL/S7YME](http://goo.gl/S7YME)**

**CHECK-IN ON COMMITTEE STRUCTURE  
CHANGES**

# Old Business



**UPDATE ON DOCKET 7873 STANDARD  
OFFER PROGRAM CHANGES**

**VSPC ANNUAL REPORT**

# Docket 7873/7874: standard offer changes



- Docket 7873 addressing programmatic changes including exemption from cap for “sufficient benefit” to electric grid
  - Working Group A
    - ✦ Identifying reliability issues, defining equivalence and quantifying reliability gaps
    - ✦ Utilizing analysis by NTA study group (bulk) and GMP (predominantly bulk)
    - ✦ Facilitated by VELCO
  - Working Group B
    - ✦ Defining “sufficient benefit”
    - ✦ Addressing characteristics of renewable technologies
- Docket 7874 addressing pricing and market mechanisms
- Deadlines: rules by March 1, 2013; project selection begins April 1, 2013
- For more info: <http://goo.gl/nOVr7> and <http://goo.gl/s7YME>

# VSPC Annual Report to PSB/PSD



## **Proposed work plan for 2/15/2013 due date**

<b>1/11/2013</b>	<b>Project-specific action plans for issues screened in and project updates on issues screened out to VSPC</b>
<b>1/18/2013</b>	<b>Draft annual report to VSPC</b>
<b>1/25/2013</b>	<b>Comments on first draft</b>
<b>2/1/2013</b>	<b>Second draft to VSPC</b>
<b>2/6/2013</b>	<b>Meeting by phone (if needed)</b>
<b>2/11/2013</b>	<b>Final draft to VSPC</b>
<b>2/15/2013</b>	<b>Final report filed</b>

# Regional Update



- **SCOPE OF VT/NH NEEDS ASSESSMENT UPDATE**
- **LONG-TERM ENERGY EFFICIENCY IN ISO-NE LOAD FORECAST**
- **STATUS OF NESCOE NTA ANALYSIS PROPOSAL**
- **OTHER CURRENT ISSUES**
  - Staff changes at regulatory agencies
  - PV-20 update

## Next Steps

From NESCOE presentation to NARUC 11/11/2012  
For more info: [www.nescoe.com](http://www.nescoe.com)

### Each State:

- Modify NTA Framework template, if and as needed, to comply with specific state requirements and/or preferences
- Identify appropriate process to implement NTA Framework, including stakeholder input opportunities
- Work with other states to develop common threshold criteria for project that require NTA analyses
- Send NESCOE a description of state's enabling rules and statutes for NESCOE to compile in order to help all states understand the threshold differences between states that may need to be addressed

### NESCOE:

- Assist states in sharing information on implementation and consistency across the region
- Monitor development and implementation of ISO New England MRA Analysis and associated market rule changes to determine whether modifications to the NTA Framework analysis are warranted

# Future Meeting Dates



**MARCH 13, 2013 – RANDOLPH**  
**JUNE 12, 2013 – MONTPELIER**  
**SEPTEMBER 11, 2013 – RUTLAND**  
**DECEMBER 11, 2013 – BURLINGTON**