

VSPC Forecasting Subcommittee Draft Charter

Purpose

The Forecasting Subcommittee is intended to be a forum for discussion and action regarding load forecasts developed by Vermont System Planning Committee (VSPC) members, ISO-New England (ISO-NE), and others. In particular, the Subcommittee will review and provide direction regarding forecasts that are developed and utilized in the VELCO Long Range Transmission Plan (LRTP) and Non-Transmission Alternative (NTA) Studies, and other areas as appropriate. The Subcommittee will also act as forum for disseminating ISO-NE forecasts, and understanding differences between Vermont utility, VELCO, and ISO-NE forecasts.

The objective of the subcommittee is to enhance the forecasting entity's ability to provide robust, well-vetted, valid forecasts that are well understood by stakeholders, and appropriately shared with other relevant stakeholders and the general public.

This subcommittee will provide direction, feedback and suggested data sources to forecasting utilities with regard to the following issues:

1. The development of baseline forecasts (before load reductions derived from future energy efficiency, future additions of demand response, and Advanced Metering Infrastructure (AMI)-enabled rates and load management not already in effect) of area-specific and/or statewide load.
2. The integration of future or planned demand-side management activities into area-specific or statewide load forecasts.
3. Methods to be used for incorporating energy efficiency and distributed generation into forecasts.
4. Identification of appropriate methods for sharing information among VSPC subcommittees, Vermont utilities, state government and other entities, in regard to the relevant constrained areas, the relevant loads and the impacts of DSM and DR programs on the constrained areas.

This subcommittee will also:

1. Review in detail ISO-NE or other forecasts relevant to Vermont, providing a venue for thorough understanding of the differences between forecasts and recommending any action steps to minimize those differences; and
2. Coordinate with the Geotargeting Subcommittee to provide feedback and direction with regard to development of forecasts for potential areas to be targeted with energy efficiency, standard offer, or other resources.
3. Communicate when appropriate with relevant outside organizations such as Efficiency Vermont and GMP's Energy Innovation Center.

This subcommittee will not actually generate forecasts, but it may offer its recommendations on specific forecasts by VSPC members. Forecasting will be the work of the project area subgroups, individual utilities, VELCO and the EEU (for DSM forecasts), informed and guided by this subcommittee's recommendations. In short, the responsibility of this subcommittee is to provide guidance and direction for developing robust, valid forecasts.

Public Participation

This subcommittee welcomes public participation at any meeting. The public is invited to join the discussion and raise issues related to topics meeting subcommittee objectives.

Protocol and Operating Procedures

This subcommittee will accomplish its objective through the collective efforts of participating members with expertise in forecasting, energy efficiency, and electric transmission and planning, as well as the general public. It is expected that all members will meet regularly, and at a minimum in accordance with the below schedule. The subcommittee will also meet as determined by the VSPC, or upon reasonable requests from other subcommittees or study groups.

All subcommittee meetings will be noticed at least one week in advance and all agendas, materials, and minutes will be posted to the VSPC website.

The Chair will take responsibility for organizing, operating and documenting the meetings of this subcommittee, consistent with the expectations and procedural requirements of the VSPC. At a minimum, the subcommittee will require a Chairperson and Assistant Chairperson (who will run meetings in the Chair's absence and document the meetings).

The subcommittee recognizes that every member has a contribution to make. Therefore, the subcommittee will operate its meetings in an open, free-exchange atmosphere. Any member is free to introduce and discuss whatever topic he/she deems is appropriate to fulfilling the aforementioned feedback and direction, provided that: (1) best efforts are made to provide notice of the topic prior to the meeting, and (2) time permits. The Chair, or a subcommittee appointee, will represent the subcommittee before the VSPC or other groups. However, this should in no way restrict or limit the participation of any subcommittee member from contributing to the deliberations on subcommittee matters before the VSPC or any other committee or subgroup. The acceptance of all recommendations to the VSPC concerning guidelines will be subject to a majority vote of the attending members, although best efforts will be made to establish a consensus.

Schedule

The Subcommittee will meet on an ad hoc basis when tasked to address NTA study group or other forecast issues. Quarterly meetings, and meetings prior to development of a VELCO Vermont Long-Range Transmission Plan, will occur according to the schedule in Attachment 1.

The intent is to have a meeting schedule cycle whereupon the subcommittee will meet regularly, such as once per quarter, in a year when there is no LRTP and more frequently in a year when an LRTP is being developed as shown in Attachment 2.

Attachment 1	
Illustrative time line in relation to three-year cycle of Long-Range Transmission Plan update. <i>Schedule may be modified as needed by Chair.</i>	
Key inputs into forecast; identify data sources, key metrics that should be considered	May of year prior to publication
Review methodology to reflect the effects of future committed energy efficiency, net metering, distributed generation, and other committed small scale resources	July of year prior to publication
State economic outlook and results of the most recent saturation survey	August of year prior to publication
Review draft forecast	November of year prior to publication
Review final forecast	December of year prior to publication
Focus Areas in Years Without a Long-Range Plan Update	
State economic outlook Review ISO-NE forecast Review annual peak, performance of VELCO and/or area-specific forecasts Review any updates to forecast	

Vermont System Planning Committee Forecast Subcommittee Charter Attachment 2

The purpose of this attachment is to provide additional detail on scope of topics to be considered in the Subcommittee's approach to advising on the development of utility load forecasts. The scope should include but not be limited to the list below.

Key forecasting metrics and data sources:

1. Vermont system loads (annual, monthly, or other time increment such as hourly).
2. Prevailing and forecasted economic conditions in the state, including Gross State Product, income, employment, and other key indicators.
3. Demographic data, such as population, housing units, building permits, etc.
4. Fuel prices.
5. Weather data.
6. Appliance saturation and efficiency trends.
7. Historic and forecasted demand response.
8. Integration of expected renewable energy or distributed generation installations connected to the utility. Integration of expected renewable energy or distributed generation installations connected on the customer side of the meter.
9. Impact of electric vehicles, heat pumps, or other "electro-technologies" that may switch Vermont's energy consumption to electricity from other fuels.
10. Impact of new technologies, programs, or fuel availability that may encourage fuel switching *away* from electricity (for example, increased use of natural gas for heating and drying processes).

Factors related to the integration of future or planned demand-side management activities into area-specific or statewide load forecasts, including:

1. Energy efficiency.
2. Demand response.
3. Rate design and load management programs or technologies that may be enabled by AMI deployment or by other means.
4. Interactive effects of the above listed activities.

Methodological input regarding the following:

1. Incorporation of Board ordered long-term forecasts of efficiency acquisition by Energy Efficiency Utilities as provided pursuant to Paragraph 61 of the Docket 7081 MOU, including explicit understanding of the amount of energy efficiency assumed to be embedded in the forecast, if any.
2. Estimation of energy efficiency potential for area-specific forecasts.
3. Appropriate treatment of measure decay or the end of installed efficiency measure life.
4. Appropriate treatment of a rebound effect or "snap-back."
5. Appropriate treatment of free-riders, spillovers, and other potential market effects.
6. Identification of appropriate methods for sharing information among VSPC subcommittees, Vermont utilities, state government and other entities, in regard to the relevant constrained areas, the relevant loads and the impacts of DSM and DR programs on the constrained areas.