



VELCO VERMONT'S TRANSMISSION RELIABILITY RESOURCE

VELCO Subtransmission Database

September 18, 2014

9/11/2014

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



- **Why?**
- To maintain a subtransmission database in Excel and validate the load flow model in Power System Simulator for Engineering (PSS/E) used in Long Range Plan at VELCO and in ISO-NE MOD library.
- **Information needed from each DU:**
- **Line:** Status, PU impedances (R,X,B), lengths, summer and winter Normal, LTE, STE ratings, limiting elements
- **Transformer:** Status, MVA base, PU impedances (R, X), summer and winter Normal, LTE and STE ratings, # of taps, tap settings, metered voltage on hi or low side, Nominal voltage of primary and secondary winding and ratio.
 - If have LTC capability, voltage set point and acceptable voltage bandwidth.
 - If the xfmr doesn't control voltage but paired with a regulator on the low side, voltage set point and acceptable voltage bandwidth of the regulator.
- **Shunt Subtransmission capacitors:** Status, total MW & MVAR output, step size & # steps, control mode: Fixed or switched by SCADA, voltage set point and bandwidth for capacitors on subtransmission lines or in subtransmission substations.
- **Generators:** Status, real and reactive Summer & Winter capacity, controlled voltage scheduled, acceptable bandwidth
- **Loads:** Summer & Winter Peak, Spring Light Net MW & MVAR load by bus & how much PV connected generation (nameplate) on the distribution system at that bus

- Who?
- GMP, VEC, BED, Swanton, WEC, Stowe, VPPSA
- When?
- Due one month from when request is sent out.
- Continue sending updates, such as to DU-SYSTEM-DATA@VELCO.COM

- Questions?