

Kingdom Community Wind Loss Metering Error

Summary of Metering Error

The generation from Kingdom Community Wind (KCW) is injected into VEC's Lowell Substation. This generation feeds VEC's area native loads and any excess generation feeds into VELCO at the Jay and Irasburg Substations. There are two KCW generation meters at the inlet to the VEC system: 1) the total generation meter and 2) the generation with line loss compensation. VEC has a PPA with GMP for 8/63rd of the output. Both GMP and VEC receive recognition for their pro rata share of the total generation and their Vermont Transmission Load (VTL) includes their share of the excess generation losses. Under the VELCO DU load calculation the total generation is added to VEC's VTL as Physical Generation and GMP's share of the excess losses are added to its VTL and removed from VEC's as a Sub-transmission loss adjustment (SLAL). GMP's SLAL is 55/63 of the Excess Generation Losses (EGL), which is determined using this formula:

If EG is greater than Zero:

$$EGL = (1 - (\frac{LL}{NG})^2) \times (NG - CG)$$

If EG is Zero or Negative:

$$EGL = -0-$$

Where:

Net Generation = NG

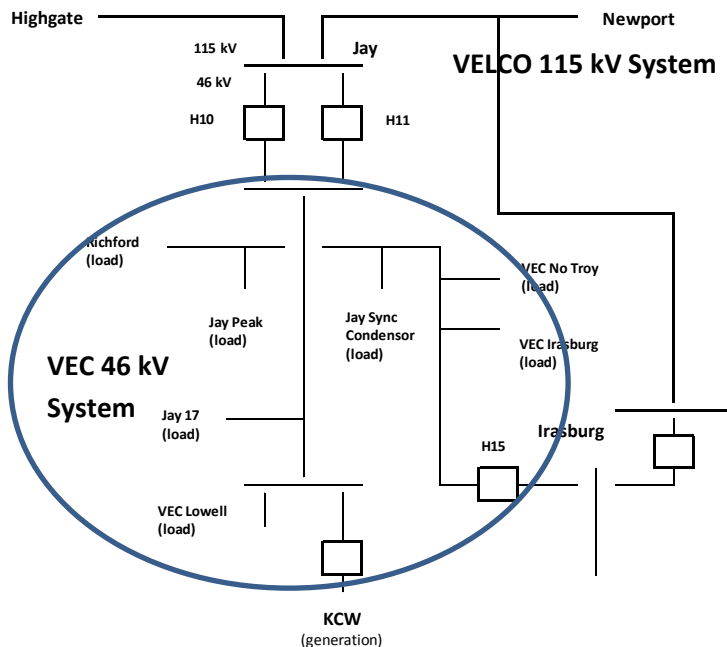
Compensated Generation = CG

Excess Generation = EG

Local Load = LL

It was discovered in June 2014 that while the meter loss compensation line impedance parameters are correct, the meter scale factor was not . As a result of the incorrect meter setting the metered losses were one-half of what they should have been. The Months of April, May, and June 2014 have been (or will be) resettled by ISO-NE. GMP and VEC have reached an agreement to resettle the periods prior to April 2014. VELCO will administer the resettlement.

VEC 46 kV KCW – Jay – Irasburg System



kWh Impact of Metering Error during the settlement period

VELCO Tie Meters	01/23/2013 - 03/31/2014 (MWh)		
	Original	Corrected	Variance
H11 VELCO to VEC	(18,985)	(18,985)	-
H11 VEC to VELCO	29,055	29,055	-
H10 VELCO to VEC	(20,282)	(20,282)	-
H10 VEC to VELCO	30,623	30,623	-
H15 VELCO to VEC	(1,255)	(1,255)	-
H15 VEC to VELCO	38,012	38,012	-
Net VEC to VELCO	57,169	57,169	-
KCW Meters			
KCW Generation w/o loss comp	154,800	154,800	-
VEC Area load and losses	97,631	97,631	-
KCW Generation w/loss comp	153,110	151,419	(1,690)
Total Generation losses	1,690	3,381	1,690
Excess Generation losses	1,424	2,847	1,424
VEC Share of Excess losses	183	362	178
GMP Share of Excess losses	1,240	2,486	1,245
Metering Error Settlement Energy to GMP		1,245	