



# PV20 Cable Replacement Project

Operating Committee  
Update

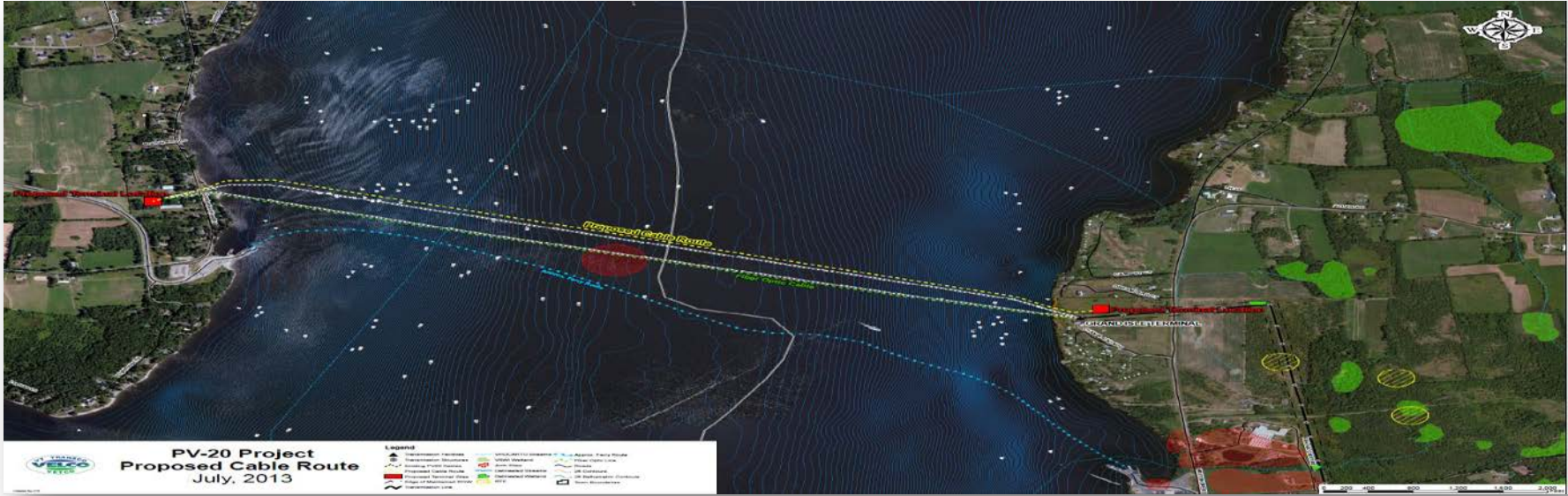
September 17, 2015



# Project Review

## Need

- Existing cables are aged and degraded
  - Past 50 yr. lifespan; anode and armor damage, unprotected in some vulnerable areas, poor dissolved gas results
  - No spare cable available: expected 6-12 months to complete a repair
  - One 500 MCM cable failed in 1969; likely thermal overloading and damaging one other cable
- Gravity fed oil cooling system is obsolete; time consuming and costly to repair/replace
- Addresses prior need to refurbish terminal station
- Desire to eliminate environmental consequences of potential oil leaks



Existing and proposed crossing



# Project Update

- NYPA and VELCO team is focused on following areas:

## Project Development

- NY land acquisition and assessments underway
- Cable installation and removal EPC bid reviews
  - Review is complete and contractors selected
- NYPA Trustee approval of project expected in September
- VELCO BOD approval of EPC award expected in October

## Engineering/Regulatory

- NY project is largely exempt, with little permitting necessary
- Vermont CPG Petition submitted on 9/9/15
- ACOE permit application development underway (will extend state boundary)
- VT ANR permit applications under development
- Stakeholder outreach continues

# Cost Structure

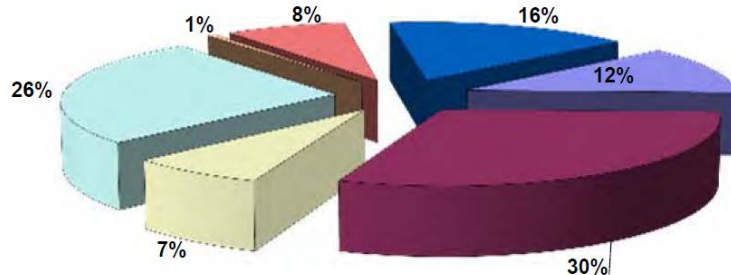
- Project team and financial structure, responsibilities and cost sharing documented in 2013 MOU
  - NYPA and VELCO agreed to share the following costs on 50/50 basis
    - Engineering
    - Permitting
    - Cable manufacturing, installation and terminal construction
    - Removal of existing cables and terminal stations
- NYPA serves as the contracting and billing entity for the project
  - Required as part of NYPA governance (state agency)
  - NYPA has assumed labor costs
  - VELCO remains a party to contracts and has equal review & approval authority



# Cost Summary

- Total Project Costs: \$91.6M
- PTF: \$41.5M
- Non-PTF (Spare Cable): \$3.5M
- Removal: \$8.3M (\$4.6M VT Share)

Project Cost Summary		
Material	\$	10,653,307
Labor	\$	27,622,543
Equipment	\$	6,744,316
Indirects	\$	24,042,715
Escalation	\$	474,786
AFUDC	\$	7,261,476
Contingency	\$	14,825,301
<b>Total Project Cost</b>	<b>\$</b>	<b>91,624,444</b>



■ Material ■ Labor ■ Equipment ■ Indirects ■ Escalation ■ AFUDC ■ Contingency

**Note:** Assumes commissioning Q3 2017

**Note:** Percentages are of Total Project Cost