

CARES money and the Vermont Pole Harvest

Why \$1.4 to \$3 million
of CARES Act money
is needed to collect Vermont
pole data this autumn

Assumptions

1. New CUDs can build some of their networks during the 2021 construction season
2. No existing pole data is adequate for the design of Fiber-To-The-Home (FTTH) networks
3. No construction can take place, no materials can be ordered, no design can be done, without adequate pole data.
4. Pole data collection is a legitimate use of CARES \$ - small grants already made

Assumptions

5. CARES \$ for pole data collection can be appropriated to DPS by Joint Fiscal Committee this week
6. DPS can issue an RFP this week and make awards next week
7. Pole data collection for all CUD areas to be designed during the winter of 2021 can be collected in 8 weeks
8. As temperatures fall below freezing pole data collection cannot continue due to tech limits

It's Harvest Time

When it comes to pole data collection, Vermont is staring down a harvest crisis:

- A. If the harvest is not conducted, we will miss the next construction season.
- B. If the harvest is incomplete, some areas will have no chance of seeing progress next construction season
- C. Pole Harvest season ends in mid-November

Reaping Poles the Modern Way

Using the same tech VTRANS uses to map road features, a large amount of pole data can be collected and processed for roadside poles.

Note: It is not economical to deploy the expensive mobile data collection equipment on short notice, with a short window of good weather, unless at least 50,000 poles are targeted for collection.

Field Collectors who walk “easement” areas (typically through woods) can collect the rest.

What Poles will be collected?

The Vermont Communication Union Districts Association (VCUDA) has made a preliminary determination of first-priority towns for pole data collection.

- i. 60 towns with about 63,000 roadside poles and about 34,000 easement poles
- ii. To bring about 53,000 premises to 100/100, which includes more than 23,000 unserved + underserved premises

See draft RFP for details

The Ask

The Executive Branch recommend the Joint Fiscal Committee approve an emergency allocation of \$1.5 million in CARES funds for the pole harvest of 2020

DPS issue a short-term RFP immediately thereafter

FAQs

Q. Who will own the data?

- A. The state will own all data it receives from the vendor(s), and CUDs will own all data they receive from the state.
- B. The vendor may have additional data they have collected but not extracted and delivered. This data would be available to the state at additional cost.
- C. Contract between state and vendor should be clear about ability of third parties to purchase data sets based on the harvested data from vendor without going through the state.

FAQs

Q. What technology is being used for mobile mapping?

A. A Trimble MX9 – state of the art mobile mapping, LIDAR, and photography system.



Massive amounts of data are collected for processing in a GIS system. Here's a 1 minute YouTube video showing a simple example of extracting pole data: [Automated Pole Detection](#)

Team that we have been talking to includes one of the USA's experts in configuring the unit, executing the collection, and extracting the required data.

FAQs

How will the work be prioritized?

Each CUD has indicated its top priority areas. The prioritization for collection will generally follow this pattern:

1. ECFiber towns so that ECFiber can do data quality and accuracy checks and affirm that the data being delivered meets requirements. ECFiber is still the only CUD that has construction experience. It will help DPS establish data evaluation and approval methods.
2. CVFiber towns because CVFiber is nearest to be ready to build next spring
3. Towns going from north to south. Mobile data collection equipment is temperature sensitive and not likely to work effectively by mid to late November. Manual collection in easements will be easier as foliage drops. Both factors suggest a geographically driven prioritization makes sense.

Sample from table developed for draft RFP suggested to DPS:

Towns by CUD Priority	Miles	Premises	Under 25/3	Roadside	Easement	Poles
Top Priority total	3,097	52,738	23,289	63,175	34,389	97,564
<i>CVFiber totals</i>	547	8,366	3,535	10,445	5,719	16,164
BERLIN	63	1,389	259	1,479	1,086	2,565
CABOT	62	873	490	1,214	598	1,812
CALAIS	78	896	539	1,513	745	2,258
EAST MONTPELIER	73	1,172	309	1,417	698	2,115
MARSHFIELD	56	769	396	908	463	1,371
MIDDLESEX	56	849	384	1,089	536	1,625
MORETOWN	47	855	198	659	526	1,185
PLAINFIELD	41	588	295	791	390	1,181
ROXBURY	42	505	432	823	405	1,228
WORCESTER	28	470	233	552	272	824

Vermont's Communication Union Districts

*Laying the infrastructure
for a world
that is coming
faster than we expected*

Questions?

Prepared by: F. X. Flinn, Chair, VCUDA and
Chair, East Central Vermont
Telecommunications District Governing Board
Chair@ECFiber.net