

Creating a Sustainable Path to 911 and Cell Service Expansion

The Vision: CoverageCo is a company solving the challenge of rural cell phone coverage in Vermont, bringing cell service and 911 calling access to thousands of Vermonters. CoverageCo hopes to continue this rollout to significant areas of the state still without cell or 911 coverage.

The Technology:

- Small cell service devices, called “radios,” mounted on poles or buildings
- Requires only access to broadband and the same amount of energy as a 60 watt bulb
- Delivers a half mile radius of good cell service
- Is the most energy efficient option on the market (which means it would be economically very difficult for any other carrier to provide a similar service)
- Provides cell service and 911 calling in locations not covered by large service providers
- Doesn't require the building of massive, unsightly towers
- Earns revenue from traditional cell service providers only when one of their customers uses the CoverageCo network
- 145 units have been installed to date. Visit www.CoverageCo.com for a map of current coverage
- Units cover a total of 370 square miles where there was no coverage before
- There were **918 completed calls to E911** (non-test and non-hang-up calls) made through the CoverageCo network in the last 12 months

CoverageCo locations provide complete service to T-Mobile and Sprint customers, and voice-only service to most Verizon and US Cellular customers. Verizon customers with data cards that do not support voice service and do not support CDMA can receive data services. To date, AT&T has chosen not to allow their customers to use the CoverageCo service. Mobile virtual network operators (MVNOs) like TracFone, Republic, AARP, etc. generally cannot utilize the CoverageCo network due to their arrangements with their host carriers.

The Problem: CoverageCo's revenue model and device placement strategy was originally based on national averages for cell phone use while driving. However, Vermonters use the phone on the road at much lower rate than national average. The result is that the current average revenue per installation is \$56/month/site, and because current operational costs are \$135/month/site, this has lead to a \$79/month/site deficit.

3 Steps to a Sustainable Path Forward:

- Use the Vermont Universal Service Fund to reimburse the monthly E911 cost for *any* network provider enabling outdoor 911 calling in a location without current coverage
- Work with Green Mountain Power to propose a tariff that would no longer require a unique meter for each and every micro cell, a change that would cut the energy cost in half and save ratepayers money as well
- Use new models for placement of units to target stationary cell phone usage rather than usage in transit

Monthly Operational Costs: CoverageCo was able to negotiate the contract rate for 911 service down to \$28 per site per month for current 2G service, starting July 1. As such, the itemized current monthly operational costs versus the target monthly operational costs are:

	Current	Target
Backhaul	\$53	\$53
Power	\$30	\$15
Pole Attachment	\$2	\$2
E911	\$28	\$0
Total	\$113	\$70

Benefits from the Sustainable Path Forward:

- Continue to greatly increase needed 911 coverage
- Economic development benefits that come from making more locations attractive for businesses
- Avoid construction of massive, controversial towers
- Increased revenue back to the Universal Service Fund resulting from more cell usage
- Increased cell coverage across the state by **an additional 957 square miles**

Cost to the State:

- Current cost of 2G 911 service for 145 sites at \$50/mo is **\$7,250/month**
- Cost of 2G 911 service for all 357 planned sites at \$28/mo is **\$9,996/month**
- Annual cost of 2G 911 service, once all 357 sites are running, would be **\$119,952**

Note: In the event that CoverageCo adds LTE service, that would be an additional \$50 a month for 911 coverage per unit. In that case, the total annual cost would be **\$334,152**. (\$119,952/year for 2G + \$214,200/year for LTE)

The bottom line: Changes are needed regardless of the provider.

The funding of 911 service is necessary not just for the CoverageCo project to succeed, but for any hope of getting 911 cell service from any provider to these more remote parts of the state in the near future. That’s why the reimbursement policy should be available to any provider willing to take on this challenge.