

Agriculture/Forestry/Waste/Industry Sector Subcommittee

*(Paul Costello, Marie Audet, Robert Turner, Tom Donahue, and Peter Walke)*

*Thursday, 10/26/2017*

*Present: Costello, Audet, Turner, Walke*

*Notes by Alex DePillis, Vermont Agency of Agriculture*

CONTEXT / BACKGROUND

Looking for three ideas, distilled from each subcommittee.

Some ideas bigger than what would become a recommendation for gov’t action; some ideas non-governmental.

IDEA: Digesters

State money (e.g. WLEB) as a seed that can grow.

A technology that serves multiple policy goals

* Destroys a greenhouse gas (beyond the renewable electricity)
* Provides a place for food waste, especially as re-draft of solid-waste rule will recognize processed food scraps as not requiring a SW permit for the farm’s digester.
* Tends to enable practices that improve water quality
	+ E.g. drag-line injection of a thinner slurry, and extraction technologies work better on digested manure.

Pilot for advanced digester (water quality, low air emissions, high efficiency and impact)

* Water quality aspects:
	+ Analysis of how advanced digesters and nutrient extraction help Vermont meet the TMDL
	+ Field trials (Test for soil phosphorus levels? Soil carbon?)
	+ Adder or subtractor for water quality equipment in critical watersheds.
		- Akin to adders and subtractors now used in net metering
		- *Need: determine the incremental cost to extract phosphorus, beyond what a farmer saves in phosphorus purchases, and estimates of what it costs to prevent a pound of phosphorus from reaching Lake Champlain. With this, determine the level of a “bounty” payment for phosphorus extracted.*
* High efficiency (show high utilization of heat, and/or heat-only digester)
* …and/or make renewable natural gas to displace petroleum in transportation or as heating fuel.
* Housed in ANR Clean Water Fund?
* Access to capital and possible use of tariff with adders and subtractors:
	+ Convene
		- Ed Delhagen (financing) the Public Service Department
		- Riley Allen, Deputy Commissioner, Public Service Department
		- Treasurer’s Office ([tax-exempt bonds](http://www.treasurer.ca.gov/cpcfa/tax_exempt.asp)); Sam Winship and perhaps Tim Lueders-Dumont (Policy director)

IDEA: Soil-related GHG reductions and carbon sequestration

How to measure?

* Last conversation said there was potential, and ability to quantify and monitor is uncertain.
* NEED: Marie e-mailed UVM (Joshua Faulkner and Chris \_\_\_\_\_\_) for potential sequestration of various practices.
* NEED: enterprise budget for cover cropping – what is the cost penalty, if any?
	+ *Done: Alex included this in e-mail mentioned below.*

Options/Pathways

* American Carbon Registry did [rice cultivation carbon credits](http://americancarbonregistry.org/news-events/news/u-s-farmers-earn-world2019s-first-carbon-credits-from-rice-cultivation-conservation-practices-result-in-credible-sustainability-benefits-including-reduced-greenhouse-gas-emissions-and-savings-in-water-and-energy-use)[[1]](#footnote-1)
	+ Ask Patrick Wood, Joshua Faulkner, and Brian Kilkelly, after getting a contact at ACR to talk with. ACR: what is status, what might be next steps for Vermont soils and practices?
		- *Done: Alex instead e-mailed Wood, Kilkelly, and Faulker about ACR and possible next steps toward how it could be done in Vermont.*
* Other soil-related pathways? *Requested in above e-mail.*
* Forest carbon: Not much additional sequestration to be had. Robert says:
	+ Working on an initiative to help small landowners reduce costs through aggregation.
	+ No single, individual barriers that lend themselves to a legislative or administrative fix
	+ Market-based needs: in order for the carbon market to thrive, voluntary buyers must step up.

DO: Ask Patrick what efforts are underway to reduce transaction costs? Share with group. *Also part of above e-mail.*

IDEA: Cleaner fleet of wood-fired heating

* 1/3 of wood harvested in VT goes to residential fuel
* Pair a wood-related recommendation with weatherization
* Change-out program
	+ Low-interest loans can be very effective in this market. Add something on financing (low-interest loans) via Access to Capital cross-cutting subcommittee.
	+ May make sense to target areas for change-out where air quality is of special concern.

*AFTER-MEETING NOTES by Alex*

Proposals would need to be in format appended?

# Summary

Include a 2-3 brief summary of the proposal.

# Background

Discuss pertinent information to provide context. Examples could include brief history, purpose, case study, organizations involved, stakeholder groups, etc..

# Current Condition

What does the current system look like?

Why is a change needed?

Could also include things like: metrics, laws & regulations, existing processes, etc..

# Proposed Change Process/Mechanism

Is this a legislative change, re-allocation of existing resources, leveraging existing programs?

# Barriers to Implementation

What are desired outcomes of creating a change?

What will be the results of this change [use metrics, if possible]?

# Action Plan

What the specific next steps? Who, What and When

Can include – target dates for implementation, re-allocation of existing resources, addressing data gaps, solutions for ongoing implementation support.

# Subcommittee

# Members

1. <http://americancarbonregistry.org/news-events/news/u-s-farmers-earn-world2019s-first-carbon-credits-from-rice-cultivation-conservation-practices-result-in-credible-sustainability-benefits-including-reduced-greenhouse-gas-emissions-and-savings-in-water-and-energy-use>

Snippets: managed by Terra Global and funded by the USDA Natural Resources Conservation Service under the Conservation Innovation Grant program and Entergy Corporation, an integrated energy company […] Mike Sullivan, State Conservationist for NRCS in Arkansas […] 2,000 acres of farmland and were implemented by two farmers in California and five farmers in Arkansas and Mississippi […] sale of the credits, managed by Terra Global, was transacted with Natural Capital Partners on behalf of its client Microsoft […] [PRESTO (Producer's Environmental Sustainability Tool)](http://www.terraglobalcapital.com/presto) developed by Terra that was used to capture data directly from the field, perform automated quantification and deliver information to buyers of emission reductions. [↑](#footnote-ref-1)