

# VT Energy & Climate

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## HIGH IMPACT POLICIES

SHARED BY JARED DUVAL AND LEIGH SEDDON, ENERGY ACTION NETWORK  
HOUSE ENERGY & TECHNOLOGY COMMITTEE, 2018

# VT Energy & Climate Summit – Nov 2017

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## 200 Energy & Climate leaders

- Utilities, Businesses, State Agencies, Non-profits

## Focus on Policy Pitches

- Call for submissions
- 50 received
- 13 selected to “pitch” in person Nov 8

## Intended Audience

- Governor’s Climate Action Commission
- Legislature




## Criteria for selection

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- Impact on meeting Vermont's energy & climate goals

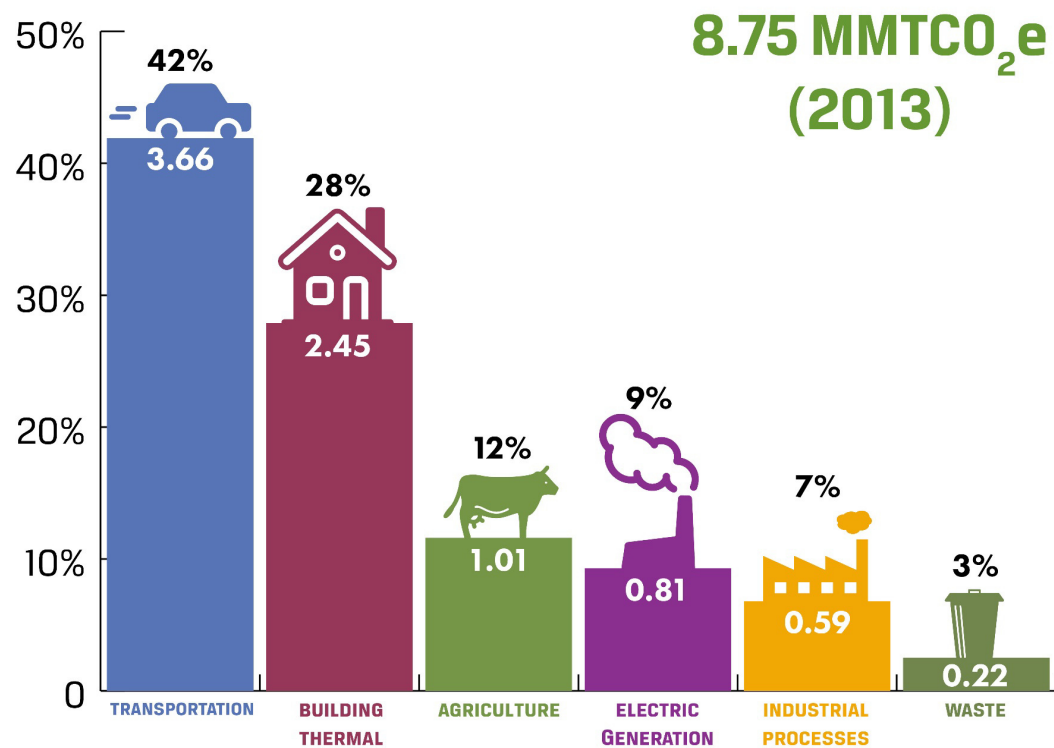
### ***Degree to which it:***

- Spurs economic activity and grows Vermont businesses
  - Puts Vermonters on a path to affordability
  - Leaves no group unduly burdened
- 

# Where do Vermont's emissions come from?

- How we travel
- How we stay warm
- What we eat
- How we generate electricity

## Vermont Greenhouse Gas Contributors





# What are highest impact drivers in Vermont?

Transportation

Heat

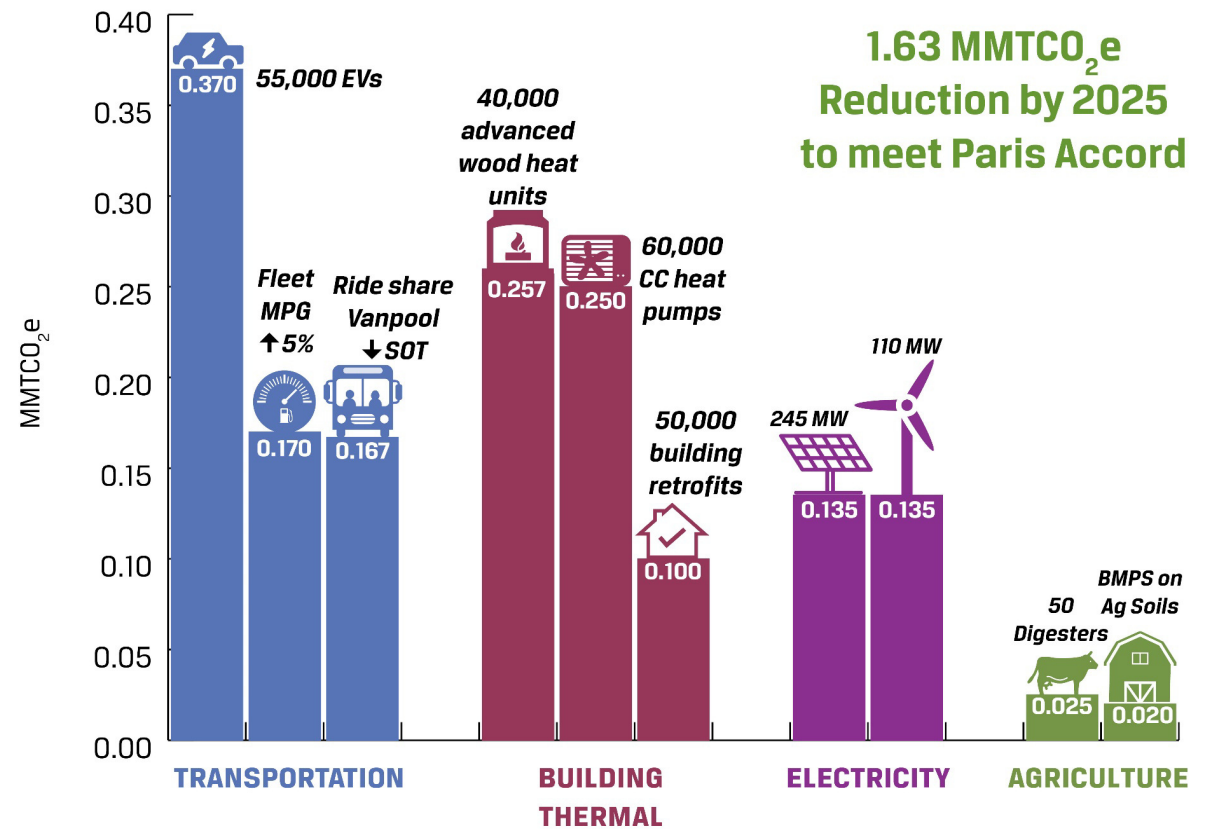
Renewable Generation

Agriculture

TOTAL ENERGY EFFICIENCY

IT TAKES THEM ALL!

## 10 of Highest Impact Drivers for Reaching 2025 Goals



# Policy Pitches

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PRESENTED AT ENERGY & CLIMATE SUMMIT

# High Impact Policy Categories

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- *TRANSPORTATION (3)*
- *HEAT (4)*
- *RENEWABLE GENERATION & STORAGE (2)*
- *TOTAL ENERGY EFFICIENCY (3)*
- *PRICING POLLUTION (1)*

A stylized landscape illustration. The foreground consists of a solid green horizontal band. Above it are rolling green hills of varying shades, with a winding path or road cutting through them. The sky is a light blue color, and a single white, fluffy cloud is positioned in the upper right quadrant. The word "Transportation" is written in a dark, sans-serif font across the middle of the hills.

# Transportation

# Pitch 1

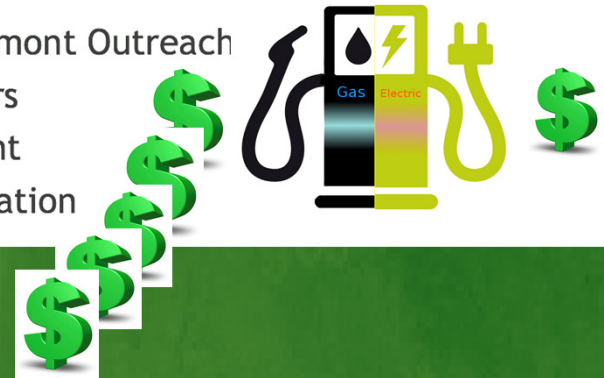
## *Charge Ahead Vermont: EV Transformation*

Presented by:

- Dave Roberts, Drive Electric Vermont (VEIC)

## What to Do

1. Reduce Upfront Costs of EVs
  - a. Equitable Incentives
2. Increase Charging Infrastructure
  - a. Use VW Diesel Settlement Funds
  - b. Utility Regulatory Support
  - c. Building Codes
3. Build Awareness
  - a. Drive Electric Vermont Outreach
  - b. Support EV Dealers
  - c. Utility Engagement
  - d. Policymaker Education



## Pitch 2

# *Big Buses, Big Opportunity*

Presented by:

- Abby Bleything, Vermont Clean Cities Coalition
- Cara Robecheck, Vermont Energy Education Program

On behalf of Transportation for Vermonters (T4VT)

## Seize the Opportunity

- 1. Now: Catalyze investment, build expertise**
  - *Funding:* Invest VW funds
- 2. Medium term: Steadily increase investment**
  - *Funding:* Reinvest operational savings in new buses
- 3. Long term: Scale up investment to transform public bus system**
  - *Funding:* Innovative policies & financing; may include bonding



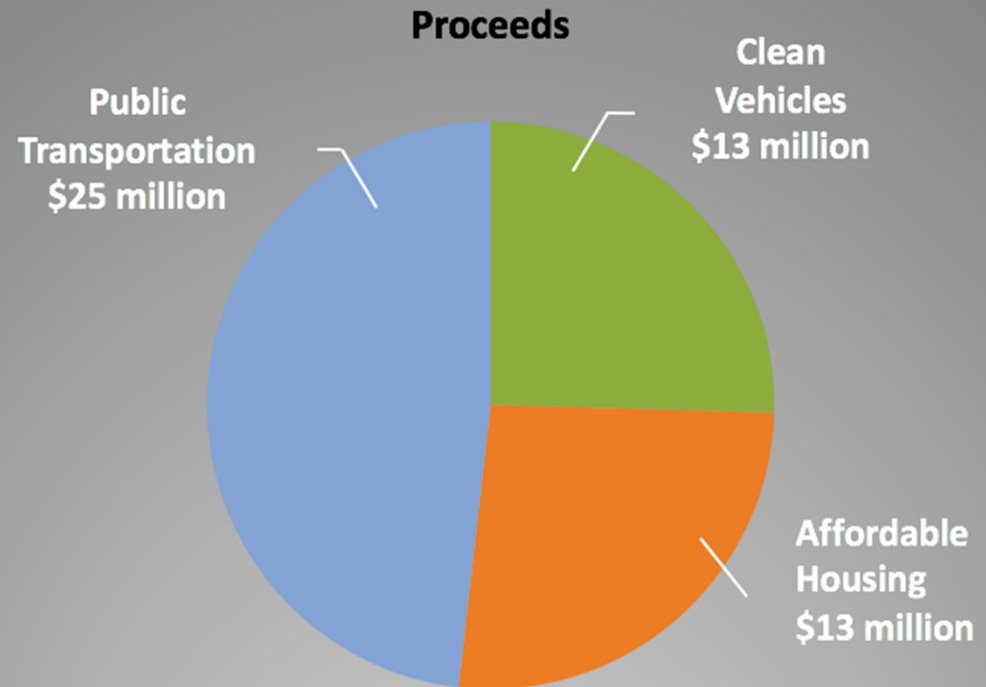
## Pitch 3

# Cap & Invest - Transportation

Presented by:

- Mary Peterson, Tax Attorney
- Dan Gatti, Union of Concerned Scientists

## Transportation funding from VT cap and invest





Heat





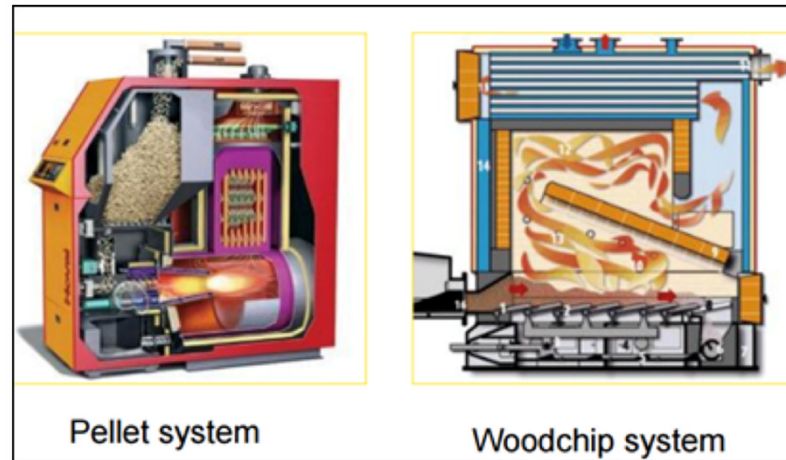
# Pitch 4

## *Home Grown Renewable Heat: Strategies for Achieving Multiple Benefits*

Presented by:

- Ansley Bloomer, Renewable Energy Vermont
- Maura Adams, Northern Forest Center

## Advanced Wood Heat



Expanded use of advanced wood heating is the single most effic HOW?

- ✓ ✓ Incentives and Grants
- ✓ ✓ Sales Tax Exemption
- ✓ ✓ Workforce Development

t)

## Pitch 5

# *Using “Feebates” to Drive Cleaner Energy Choices*

Presented by:

- Richard Faesy, Energy Futures Group

## How could a Feebate be applied? Short-Term Application – Equipment

- Covered equipment
  - Boilers, furnaces, space heaters, stoves, heat pumps
- Eligibility standards
  - ENERGY STAR or equivalent for top tier efficiency
  - Cold-climate heat pumps
  - Advanced wood heating systems
- Approach
  - Exempt eligible equipment from sales tax (+ rebates)
  - Pay with fee on inefficient equipment (+ sales tax)  
water equipment or appliances

## Pitch 6

# Renewable Fuels Standard

Presented by:

- John Quinney, Energy Co-op of Vermont

## What is a Renewable Fuels Standard?

### Why a RFS?

- Vermont burns annually:
  - 100 million gallons of heating oil
  - 91 million gallons of propane
  - 12,100 mcf of natural gas
- A RFS would increasingly replace fossil fuels with:
  - BioHeat – biodiesel/heating oil blends
  - Bio natural and propane gas
  - Wood and wood pellets
- Requires no new taxes or fees
- Stimulates market innovation and the local forest economy
- Fuel dealers have started down the biofuels path



# Pitch 7

## Warm Home Program: Weatherization Surge through Bonds

Presented by:

- Neale Lunderville, Burlington Electric Department

## The Proposal

### The Primer

- **Weatherization** is a whole home approach looking at a building's systems: envelope, heating and cooling, electrical, and baseload appliances. The process usually starts with an energy consult.
- The Weatherization Assistance Program (Wx) supports Vermonters 80% of median income, plus those in SSI & LIHEAP.
- Wx services are provided by five community-based nonprofit organizations.







# Pitch 8

## *Sustainable Energy for VT: Overcoming Barriers to Low Income Access*

Presented by:

- Christa Shute, Institute for Energy and the Environment, Vermont Law School

### **HOW TO FACILITATE LOW-INCOME ACCESS TO COMMUNITY SOLAR**

#### ***Targeted Incentives***

- Net-Metering Adders for local **Community Solar** projects with minimum low-income participation (and/or supporting entities)
- Mechanism for flexible participation
- Net-Metering Adders for individual low-income solar ownership

#### ***Financing that does not over-leverage the poor***

- On-bill Financing (to the meter)
- Collected via tariff on the bill
- Mandatory Consumer Protection

#### ***Education and Training***

- Leads to participation and workforce development
- Neighbors helping neighbors

# Pitch 9

## *Harnessing Energy Storage for Local Clean Energy, Jobs and Grid Resiliency*

Presented by:

- Nathan Wyeth, Sunrun
- Richard Morin, Dynapower

### How Energy Storage Can Benefit Vermont



#### 1. CRITICAL BACK-UP POWER

Enable citizens, C&I facilities and critical community facilities like hospitals, first responders, and schools to power through short or extended grid outages - saving tens of millions of dollars and potentially saving lives.



#### 2. SAVE MONEY FOR RATEPAYERS

Manage costs at every level of the grid – by creating customer bill savings from reduced demand charges, utility savings from peak shaving, and supporting local distribution capacity to reduce costs of replacing aging infrastructure and expanding transmission lines.



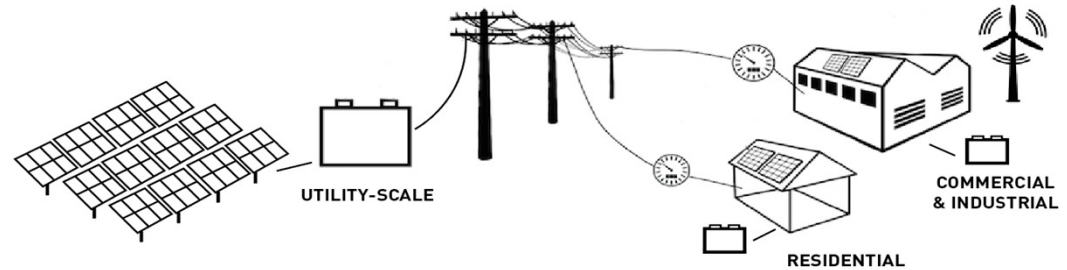
#### 3. INNOVATION ECONOMY & NON-OUTSOURCABLE JOBS

Boost jobs from Vermont-based manufacturers like **Dynapower**, **Northern Power** and **Northern Reliability** all the way to electrical, construction and field service roles at solar+storage providers like **Sunrun** and its local partners.



#### 4. MAXIMIZE LOCAL RENEWABLE ENERGY INTEGRATION

Create a 1GWh local clean energy bank, dispatchable when needed most to reduce imported fossil fuel electricity and enable clean electrification of heating and transportation.



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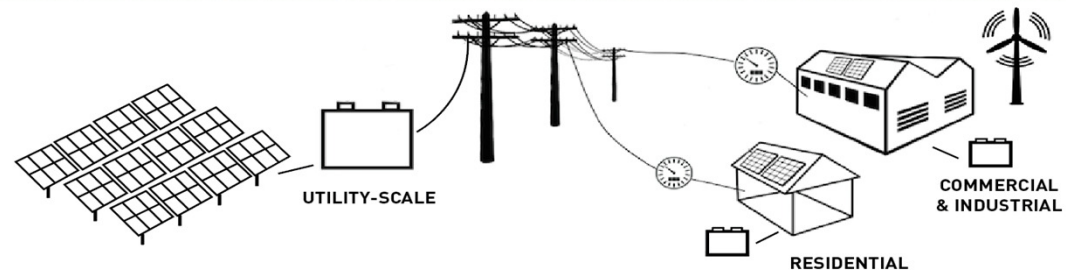
## How Energy Storage Can Benefit Vermont

### GOALS by 2025

- 40,000 Solar + Storage Homes (current = 10,000 solar)
- 5,000 Solar + Storage Commercial & Industrial users
- 400 MW Clean Energy + 1,000MWh/400MW Storage (11% of VT annual electricity usage).
- Storage capacity = 40% of VT peak electricity demand

### POLICIES

- **NEM for PV-tied storage to maximize clean energy**
- **Smart, open platforms to earn revenue – making it affordable**
- **Long term price signals – storage tariffs and “non-wires” replacements to incent private investment**





## Pitch 10

# Vermont Climate Action Communities

Presented by:

- Abby Friedman, VT League of Cities and Towns (VLCT)

### **Goal: to help VT municipalities:**

- ✓ achieve deep energy savings
- ✓ improve resilience
- ✓ transition to a clean energy economy
- ✓ provide locally-supported renewable energy generation for municipalities and the communities they serve



### **How?**

- **Focus existing resources to provide direct guidance to municipalities on climate pledges and how to achieve them**
- **Develop a comprehensive program to provide grants to municipalities to achieve GHG reduction goals**
- **Track progress toward these town-level goals through EAN's Community Energy Dashboard**
- **Program success and additional resources will be based on achieving measurable improvements on efficiency and renewable energy generation**



# Total Energy Efficiency



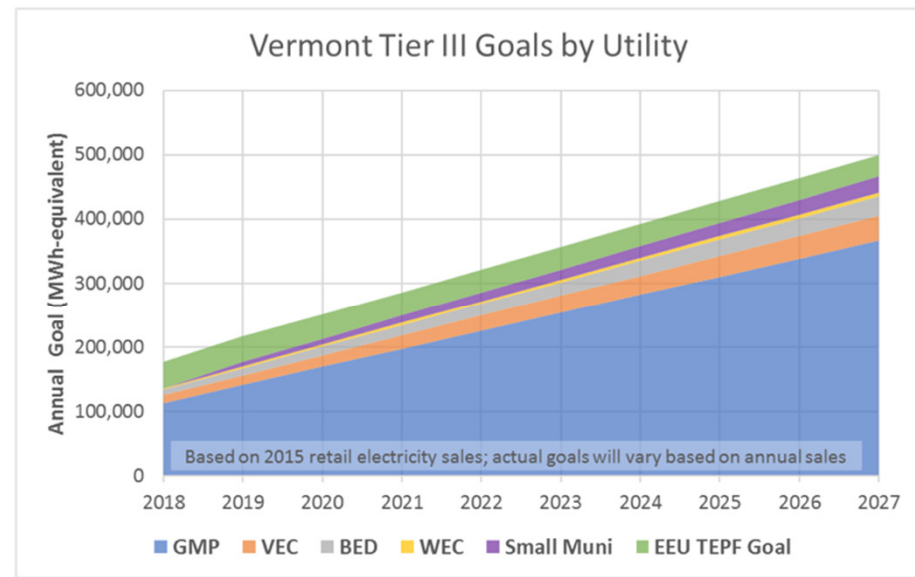
# Pitch 11

## *Emphasize and Improve Tier III*

Presented by:

- Dan Mellinger, Energy Futures Group

## Tier III Goals – Reduce Fossil Fuel Use



### Vermont Comprehensive Energy Plan

Meeting the RES requirements (including tier 3) will reduce Vermont's GHG emissions by approximately 15 million tons by 2032, putting the state on a path to meet one quarter of its emission reduction goal by 2050.

## Pitch 12

# Heat and Transportation Efficiency Utilities

Presented by

- Anne Watson, Montpelier City Councilor

### Goal:

To build on the success of our electric efficiency utilities and extend “efficiency” assistance to ALL energy sectors to help Vermonters reduce their Total ENERGY use by switching to **renewably-sourced heat and transportation**

### How?

- ❑ Apply similar mechanisms that helped save Vermonters over \$50 million/year in electric efficiency (Efficiency Vermont/BED) to the **heat and transportation** sectors
- ❑ Target resources to the most vulnerable to help them switch
- ❑ Incentives could help customers switch to: i) cold climate heat pumps and advanced wood heat; ii)

### ***Option 1: extend the mandate of Efficiency Vermont to offer incentives and technical assistance for TOTAL energy***

- Use existing funding sources, and work on expansion of RGGI to the heat and transportation sectors

### ***Option 2: create a heating oil efficiency utility and a transportation efficiency utility to address the distinct needs of these sectors***

- Funding could come from adding an efficiency fee to fossil fuel heat and transportation

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able to help them switch



switch

cli

## Pitch 13

### *The ESSEX Plan*

Presented by:

- Ashley Orgain, et al.  
Seventh Generation and Friends

# THE ESSEX PLAN



AN ECONOMY STRENGTHENING  
STRATEGIC ENERGY EXCHANGE

# Thank You

For full presentations and all 50 written pitches,  
please visit  
[eanvt.org](http://eanvt.org) (Summit tab)





# 2017 Action at all levels

- ✓ JUNE: Trump Pulls out of Paris Accord – **US Climate Alliance** formed
  - 15 Bi-partisan Governors
- ✓ JUNE: Governor Scott/Mayor Weinberger launch **VT Climate Pledge Coalition**
  - Businesses, municipalities, non-profits
- ✓ JULY: Governor Scott forms **Climate Action Commission**
- ✓ SEPT: **Catalysts of the Climate Economy** National Innovation Summit
- ✓ NOV: **Vermont Energy & Climate Summit** focused on Vermont policies and pledges
- ✓ DEC: **VECAN 10<sup>th</sup> Annual Conference**



## TRANSPORTATION

1. Charge Ahead Vermont – EV Transformation
2. Big Buses, Big Opportunity: How Electric Buses Support Cleaner Air, Healthier Kids, and Lower Costs
3. Cap & Invest: Transportation

## HEAT

4. Home Grown Renewable Heat
5. Using “Feebates” to Drive Cleaner Energy Choices
6. Renewable Fuels Standard - Heat
7. Warm Home Bonds

## ELECTRIC GENERATION & STORAGE

8. Sustainable Energy for Vermonters: Overcoming Barriers to Low Income Access
9. Harnessing Energy Storage for Local Clean Energy, Jobs, and Grid Resilience in Vermont
10. Vermont Climate Action Communities

## EFFICIENCY

11. Improve Tier III
12. Heat and Transportation Efficiency Utilities

## PRICING POLLUTION

13. The ESSEX Plan