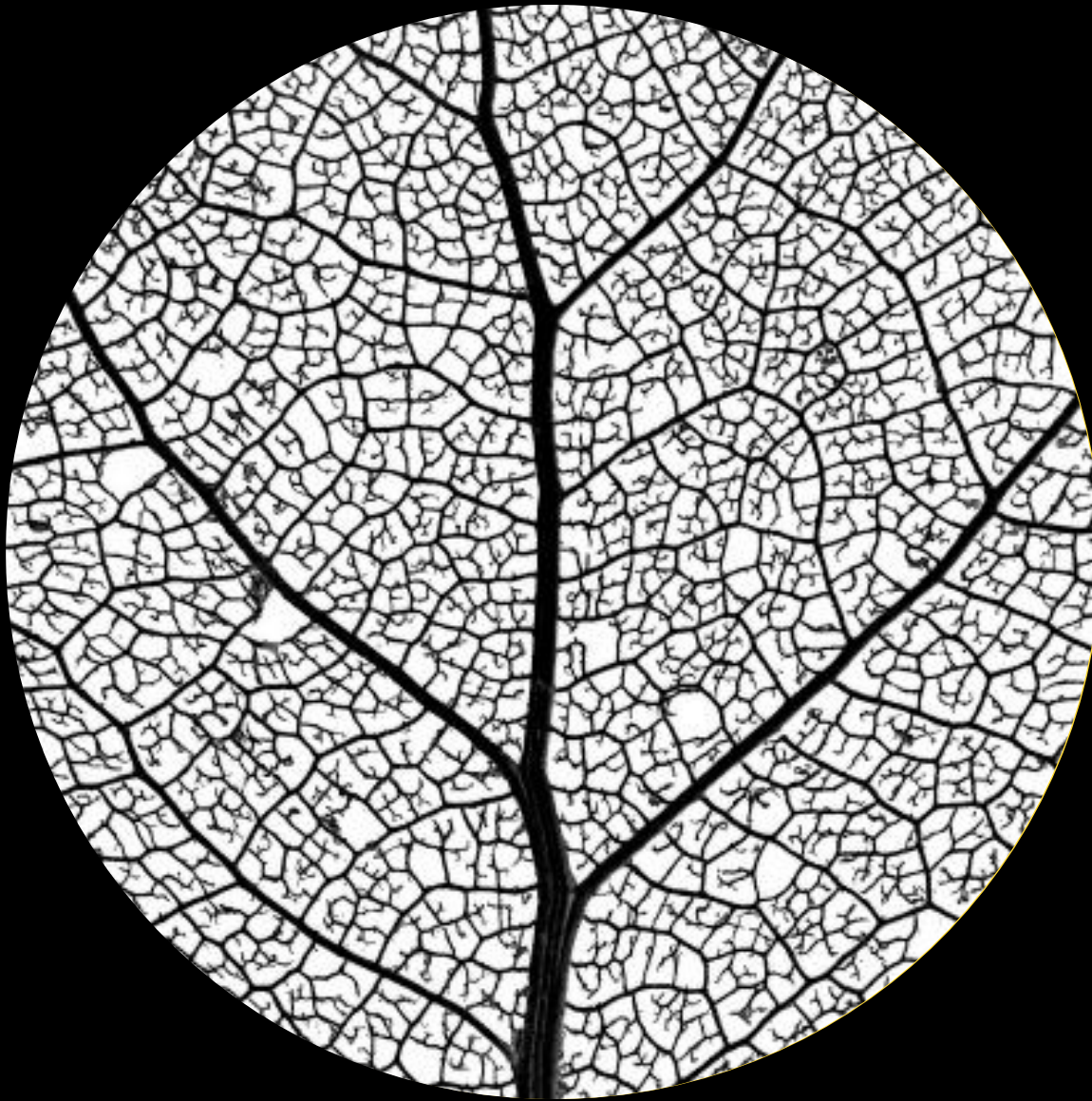


Partnership Models & Strategies for Working with Utilities

Jennifer Wallace-Brodeur
Director of Transportation
Efficiency

APTA Sustainability
& Multimodal
Planning Workshop
August, 2017



Since 1986
reducing the
economic and
environmental
costs of
energy use

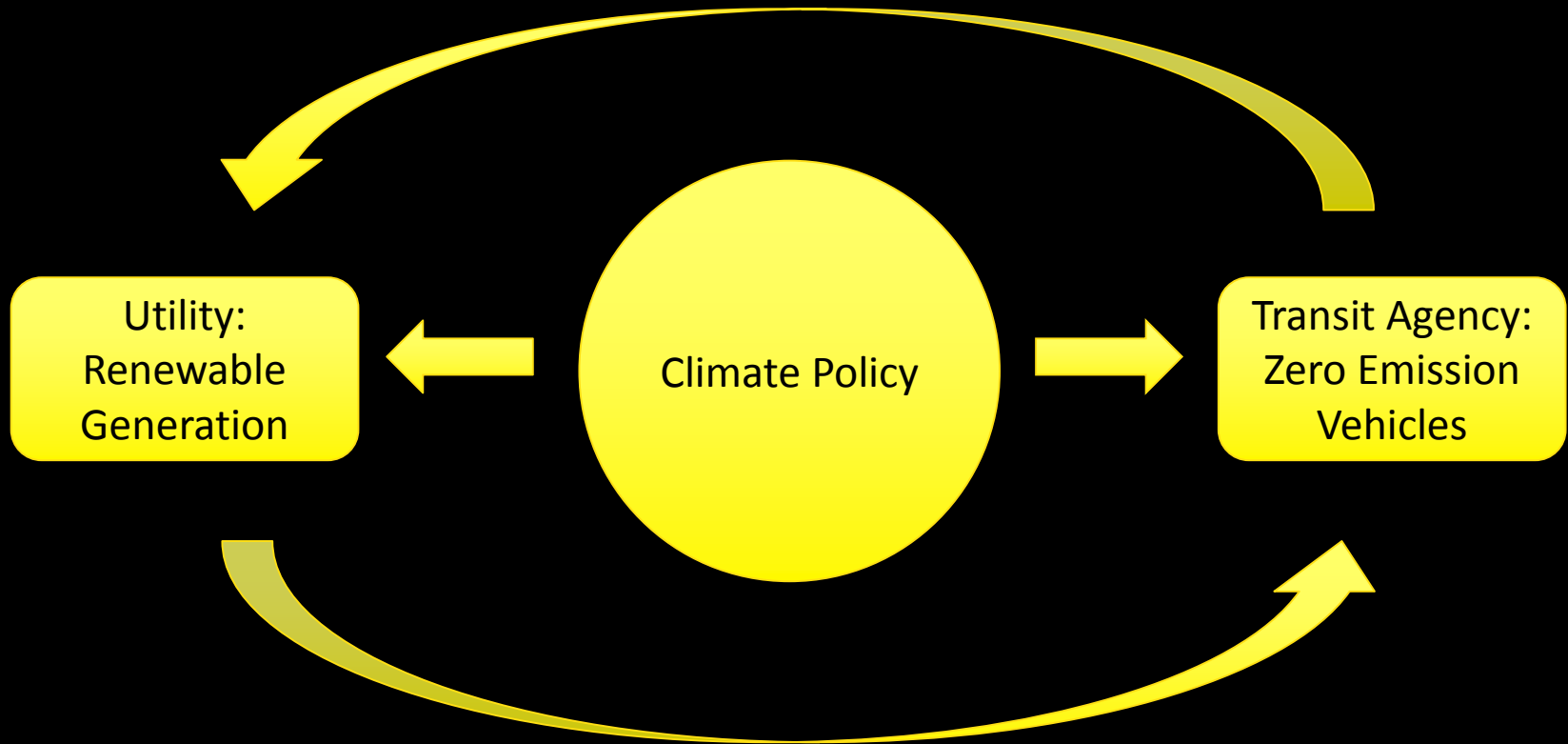
Presentation Outline

- Utility Benefits & Interest in Electric Transit
- Vermont Utility and Transit partnerships
- Lessons & Opportunities
- Ways to Engage with Your Utility

Utility Benefits & Interest in Electric Transit

What are
common
interests?

Mutually Beneficial Relationship



Shared Goals

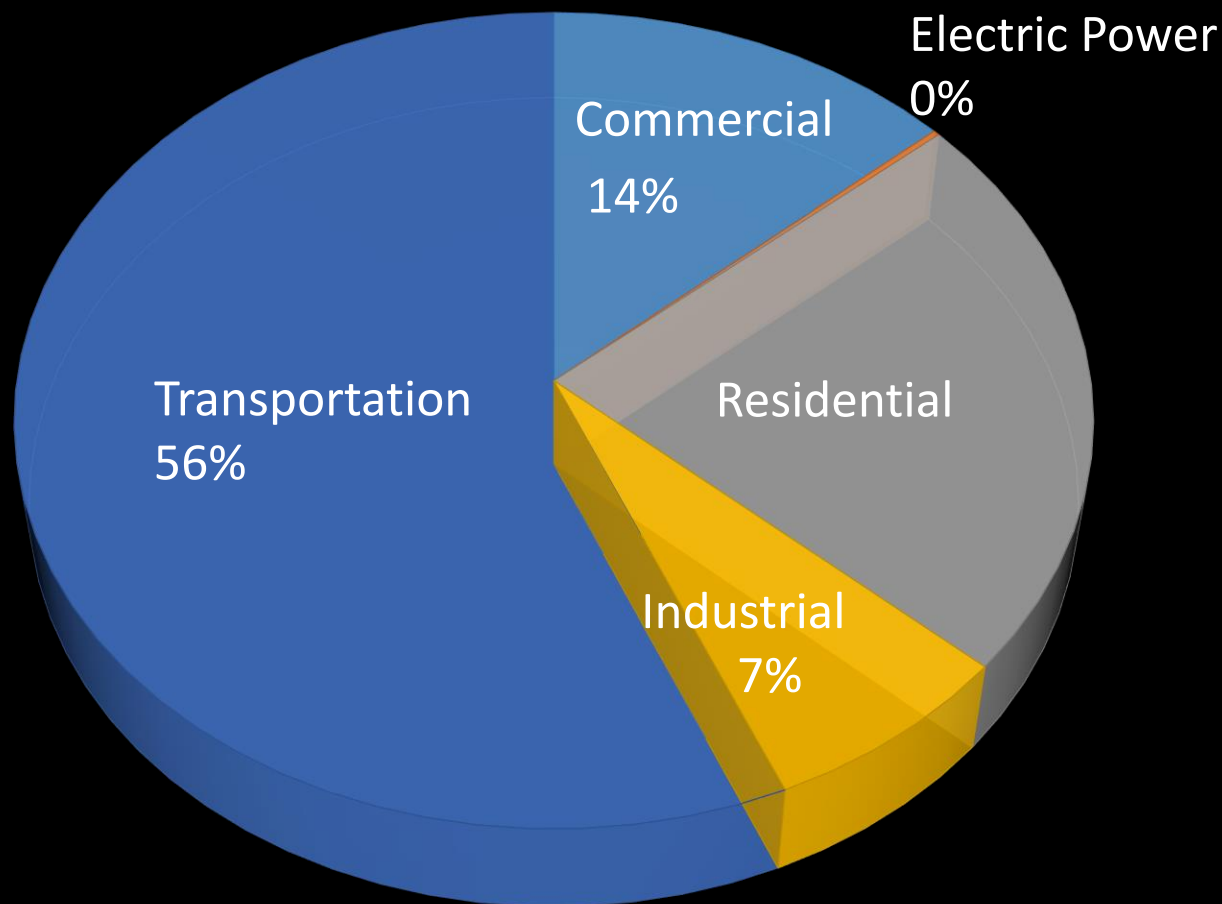
- Climate and Air Quality:
emissions
reductions
- Cost-
Effectiveness
and Efficiency
- Serve same
audience



VT Utility & Transit Partnerships

Incentives
Financing
Battery Storage

Vermont Energy-Related CO2 Emissions by Sector (2013)



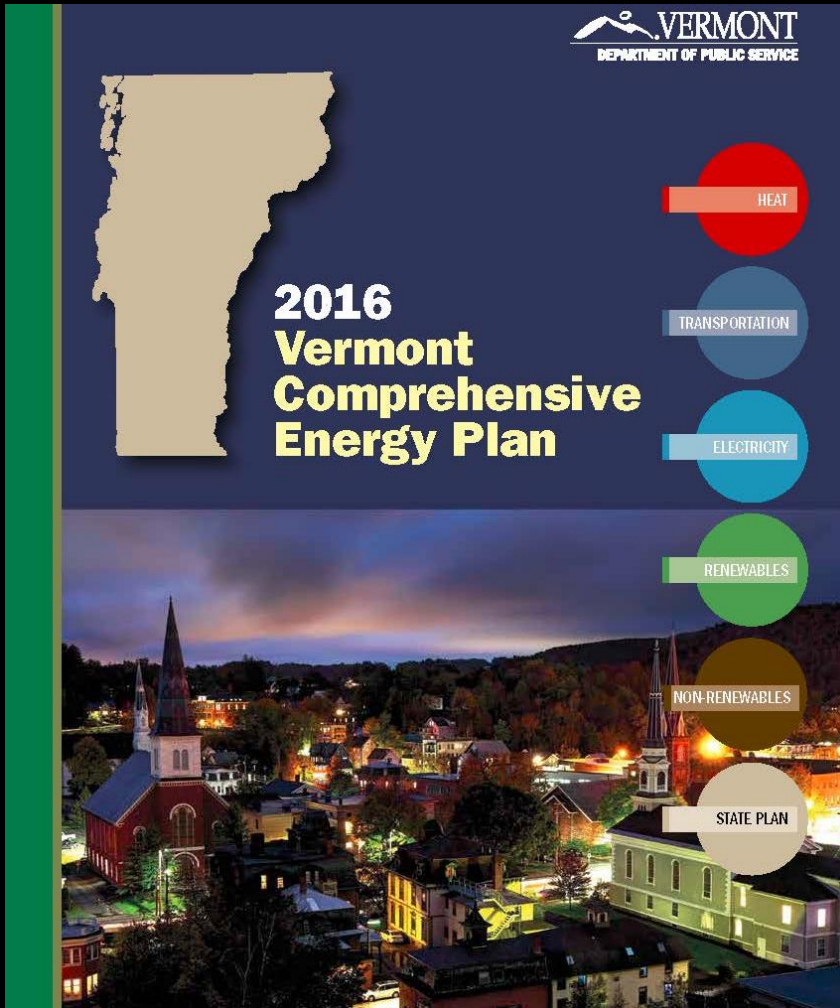
Source: <http://www.eia.gov/environment/emissions/state/analysis/pdf/stateanalysis.pdf> (p.12)

Additional Vermont Context

- Growth in renewable generation – overcapacity for solar in some parts of the state
- Utility transmission challenges to export renewables
- Efficiency Vermont – statewide EEU reducing demand for electricity



Vermont Policy



Comprehensive Energy Plan

Climate Goals (state and municipal)

Renewable Energy Standard (Tier III)

Burlington Electric Department



- Municipal utility: ~ 19,500 customers
- BED leading efforts on Burlington Net Zero
- 100% renewable power generation (hydro, wind, solar)
- Operate efficiency programs
- Vermont Gas provides NG for heating/cooling

Green Mountain Transit



- State's largest transit authority
- 2.5 million riders
- Serves state's most populous county as well as many rural areas
- 129 vehicles in their fleet
- Interested in low emission vehicles
 - Considered CNG, but now focused on electric



BED – GMT Partnership



Tier III Incentive - \$65K/bus

- Portion paid upon delivery of bus
- Remainder paid after 12 months – contingent on total miles driven

Technical Support

BED – GMT Partnership – Phase 2



LoNo and other funding

Net metering support

Financing

Operational decisions and support

VEIC Role

Facilitate Stakeholder
Engagement: VTrans,
GMT, BED

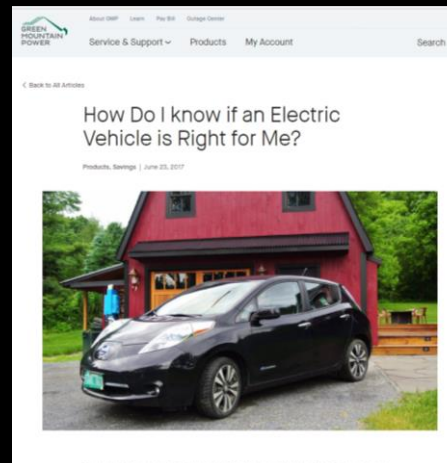
Build Awareness &
Confidence in Technology

- Cost/Benefit Analysis
and State of the
Technology
- Demonstrate
technology



Green Mountain Power

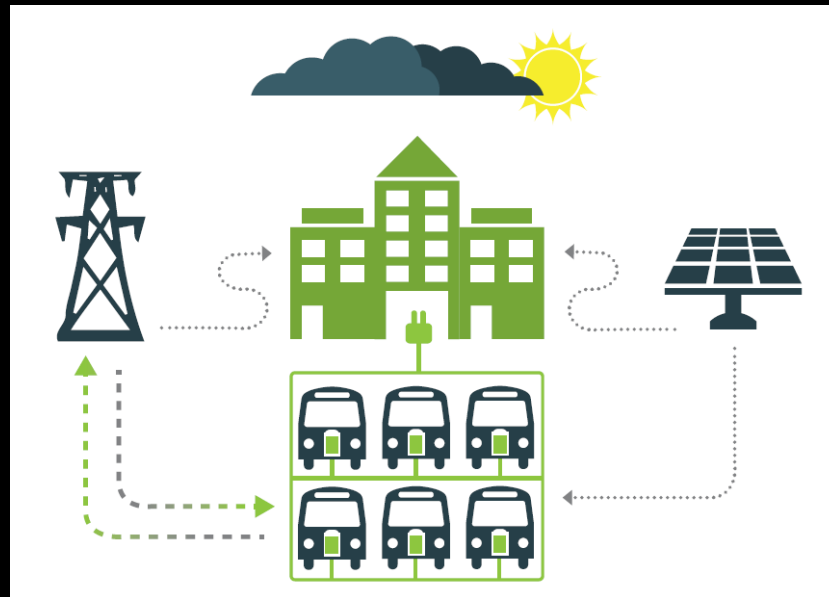
- State's largest IOU
- Track record with programs to advance EVs (EVSE, Nissan Fleetail, Tesla Powerwalls)
- Interested in bus batteries as storage



Lessons and Opportunities

Lessons Learned

Utilities have as much, or more, to gain from electrifying transit as transit agencies

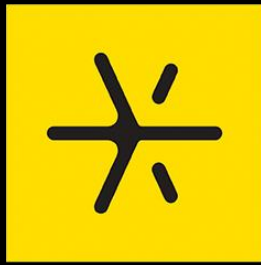


What Should Transit Agencies Ask For From Utilities

- Incentives for charging infrastructure
- Incentives for vehicle purchase
- Financing; Battery Purchase and Leasing
- Managing Fuel Costs
- Understanding current energy use

Ways to Work with Your Utility

- Identify utility staff responsible for EV/transportation programs (or efficiency program) and nurture relationships
- Seek utility input in procurement decisions & technical assistance for installation of EVSE
- Engage utility to identify charging strategies to maximize fuel savings



Vermont
Energy Investment
Corporation