



APRIL 2017

Efficiency Vermont: Performance-based since 2000

An overview of our results

Abby White, External Affairs Officer
Jim Massie, Budget and Reporting Director



One Utility,
Two Hats



Efficiency
Vermont

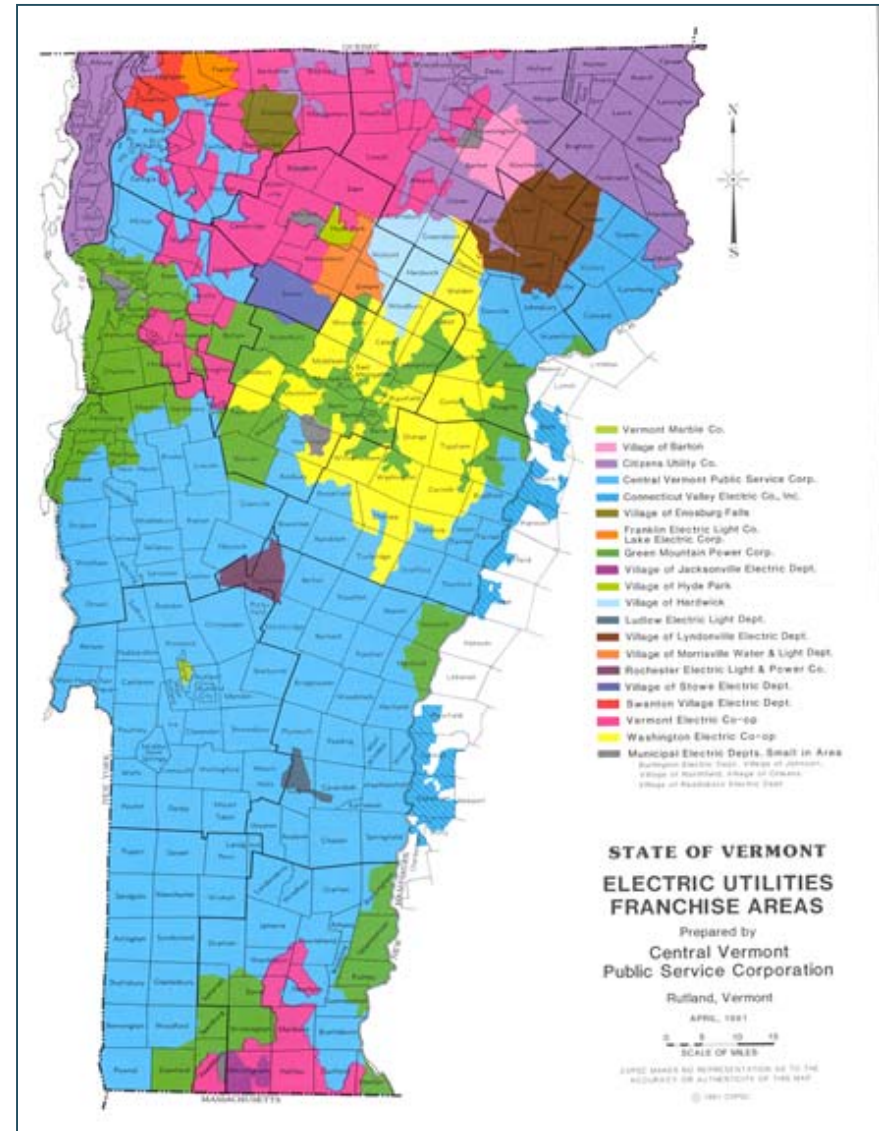
Overview

- History
- About Us
- Results
 - Savings
 - Stories
- Budget and performance
- Vision for the future

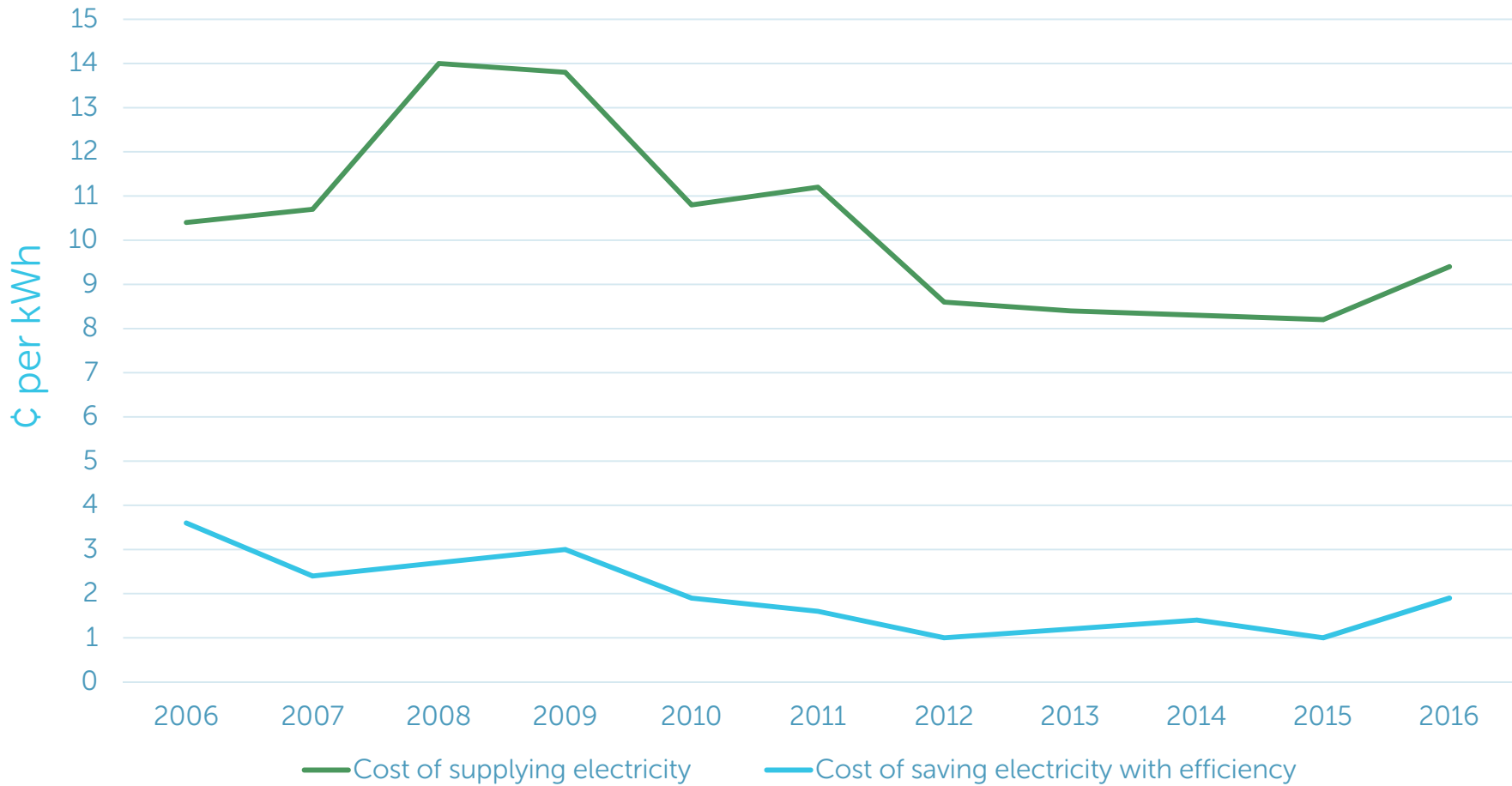
Why Energy Efficiency

Before Efficiency Vermont

- Electric and gas utilities required to provide “least cost” services
- Efficiency services provided across 22 utilities
- New model represented:
 - Transparency
 - Statewide equity
 - Independence
 - Performance-based approach



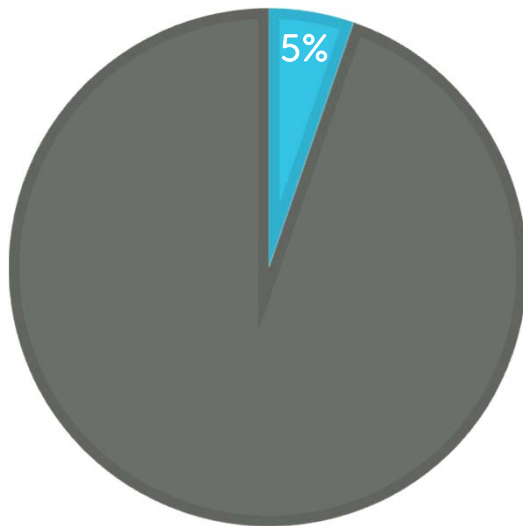
Why energy efficiency



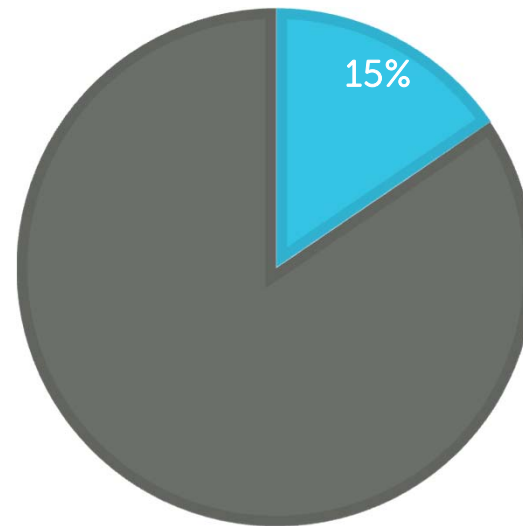
Why energy efficiency

The percent of Vermont's electricity supplied by efficiency

2006

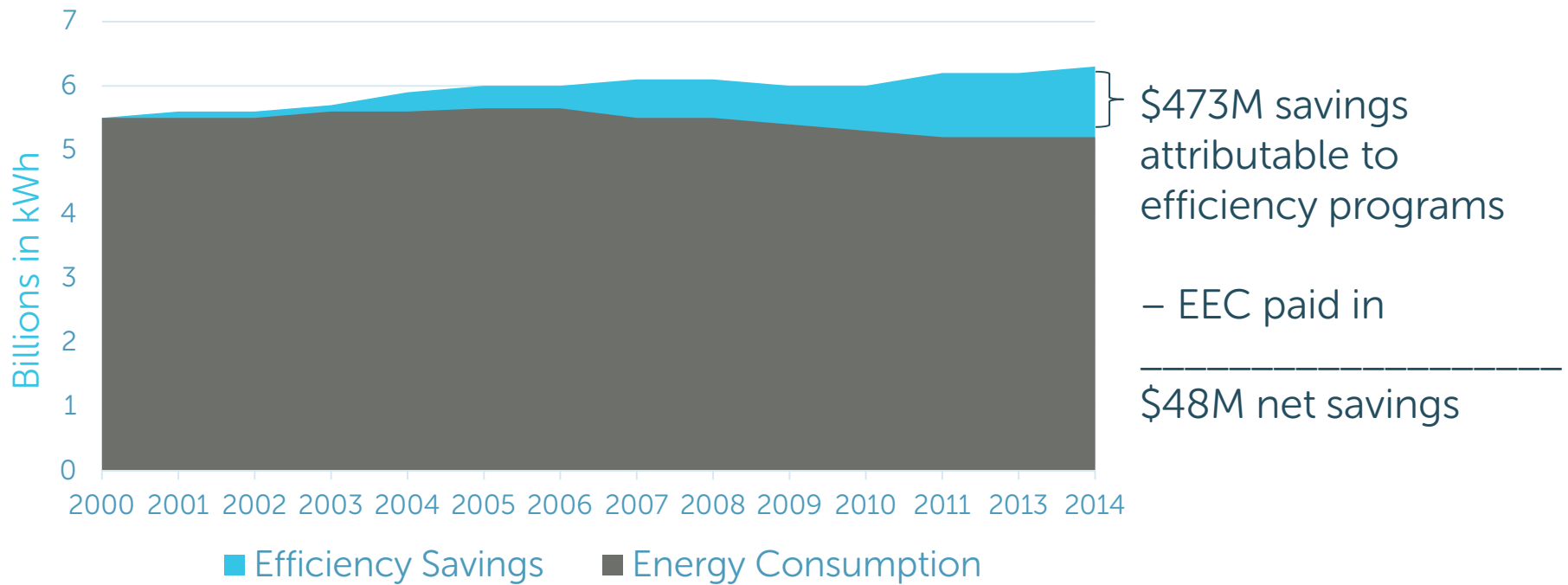


2016



Fifteen-year results

Electricity Consumption and Savings
2000-2014 (kWh)

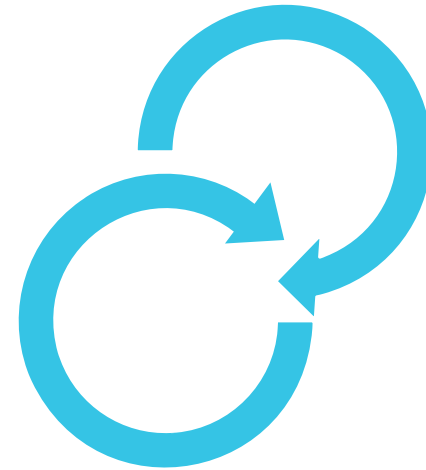


Source: Public Service Department Report to
Legislative Joint Energy Committee, 2016

Why Efficiency Vermont

1. To remove barriers

- Financial
- Informational
- Access



2. To ensure equity statewide

3. To drive customer engagement

4. To foster economic development

5. To provide objective, third-party expertise

About Us

About VEIC

- Non-profit founded in 1986
- Reduces the environmental, economic, and societal uses of energy
- 340 employees nation-wide
- Three efficiency utilities, and nation-wide consulting

Efficiency
Vermont

EFFICIENCY\$MART

DC
SUSTAINABLE ENERGY
UTILITY



veic.org

Efficiency
Vermont

About Efficiency Vermont

- Statewide, independent energy efficiency utility
- Electric and thermal efficiency services for all
- Nationally-recognized leader in transforming markets



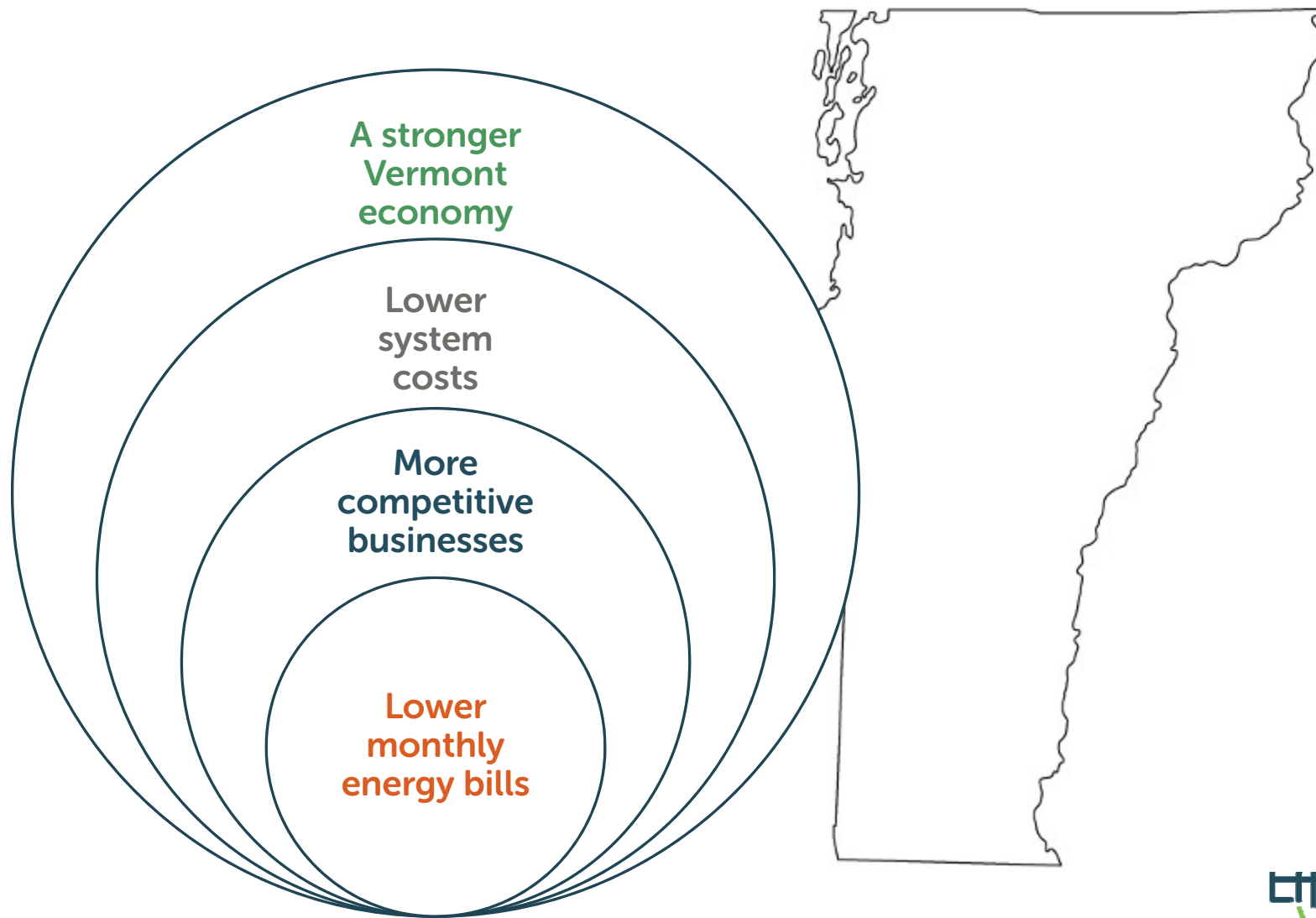
What we do

- Provide education, services, rebates & financing
 - Electric & thermal
 - Residential & commercial
- Manage a statewide network of contractors, retailers, distributors, etc.
- Account-manage top 300 electric users
- Develop supply chains



Results

Savings at four levels



Customer stories



“We’ve done great projects and seen great energy savings, which has helped us grow.”

– Built by Newport, Newport

Savings

\$24,300 per year

179,000 kWh per year

Customer stories



Savings

\$3,000 per year

“This winter, my family is toasty warm and I’m not worrying about the fuel bills.”

- Simone Colby, VerMod homeowner,
Vergennes

Customer stories



Savings

\$40,700 per year

“When we saw the operating and energy savings the choice was easy. We have done extensive testing and analysis over the past two years and we are finding the treatment has actually improved.”

- Peter Krolczyk, Chief Operator,
Waterbury Wastewater Treatment Facility

Economic impact



We have completed projects with all 16 Vermont hospitals over the past five years.

Sector Lifetime Savings

\$63 Million

461,000 MWh

Non-energy benefits

Water savings

Indoor air-quality

Patient comfort

2016 Results



132,826
MWh saved



136,004
MMBtu saved

- Enough to power more than 17,000 homes for a year.
- Enough to heat 1,750 homes for a year.

Avoided pollutants

894,251 tons
Carbon dioxide
425 tons
Nitrogen oxides
939 tons
Sulfur oxides



- Equals more than 90M gallons of gasoline, or
- Removing 38% of Vermont's cars from the road for a year

Sources: Efficiency Vermont's Savings Claim Summary, 2016; and EPA

2016 Results



73,554

Households served



\$9,154,075

Saved by households



8,341

Businesses served

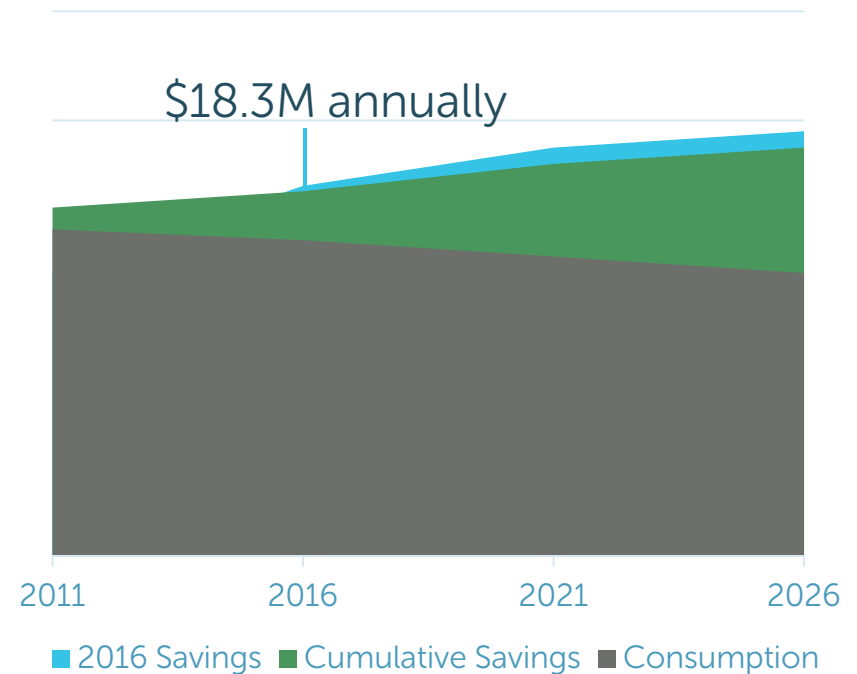


\$9,163,543

Saved by businesses

Money saved was recycled back into Vermont's economy

\$18.3M in annual savings grows to \$213M in lifetime savings.



Source: Efficiency Vermont's Savings Claim Summary, 2016



Budget and Performance

Performance Motivations

- Strong corporate desire to reduce the environmental and economic impacts of energy, especially for the most vulnerable Vermont populations
- Performance-based compensation drives toward policy objectives and efficiency

Policy

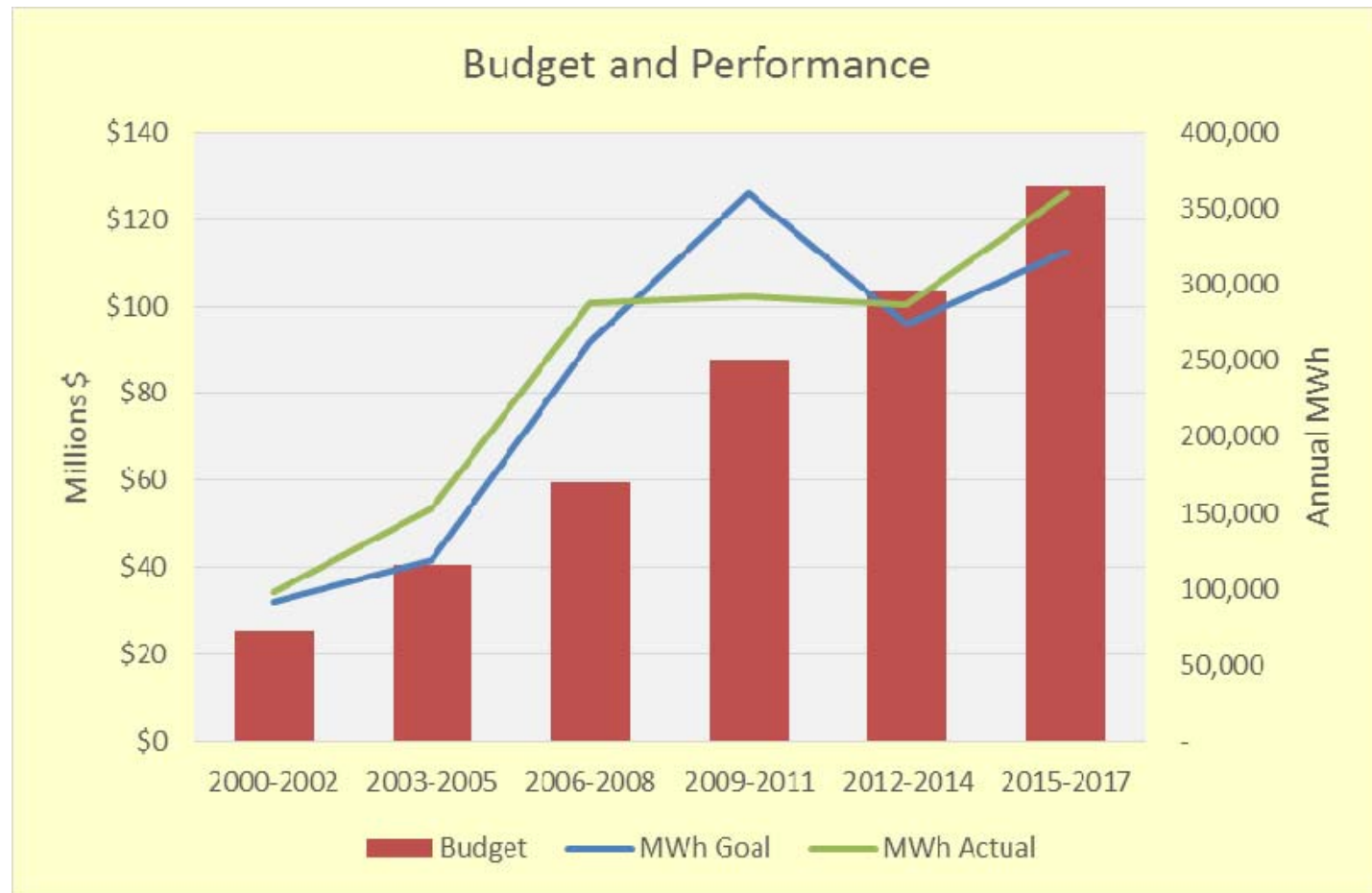
- 30 VSA § 218c: Requires comprehensive, cost effective energy efficiency programs “to acquire the full amount of cost-effective savings”
- 30 VSA § 209(d): Public Service Board to establish performance goals, budget, and energy efficiency charge rate “to achieve all reasonably available, cost-effective energy efficiency savings”

Performance Metrics

- 22 performance metrics 2015-2017
- Balancing policy objectives: Who we focus on and why
 - Equity (geographic, sector, income)
 - Market Transformation (ex. CFL)
 - Comprehensiveness (minimize transactions)
 - Quality (objective, accurate, reliable)

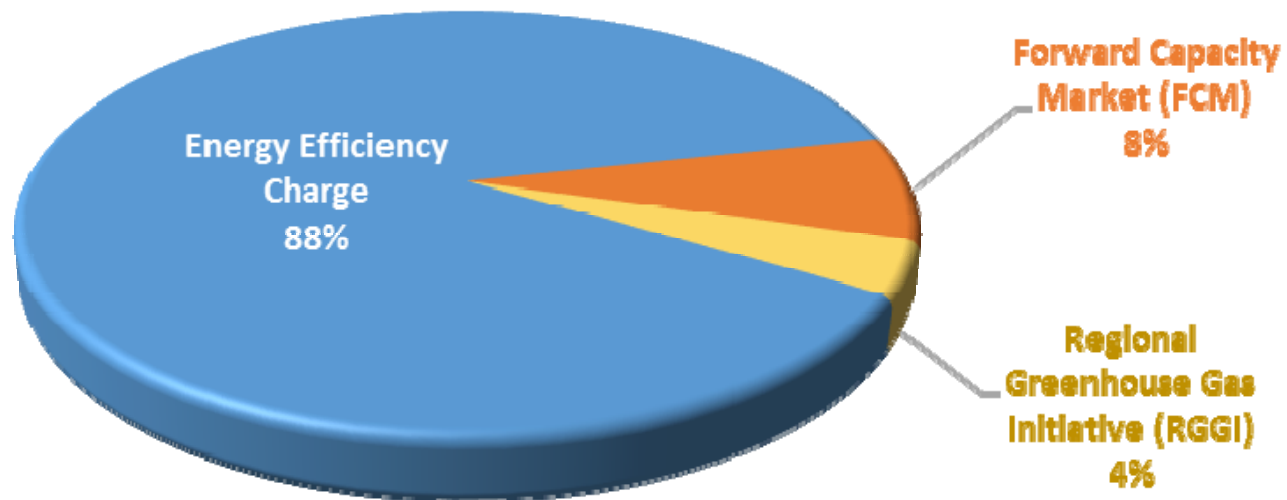
Budget

- 2:1 benefit to cost ratio
- 95% (101 of 106) of indicators exceeded minimum performance levels since 2000



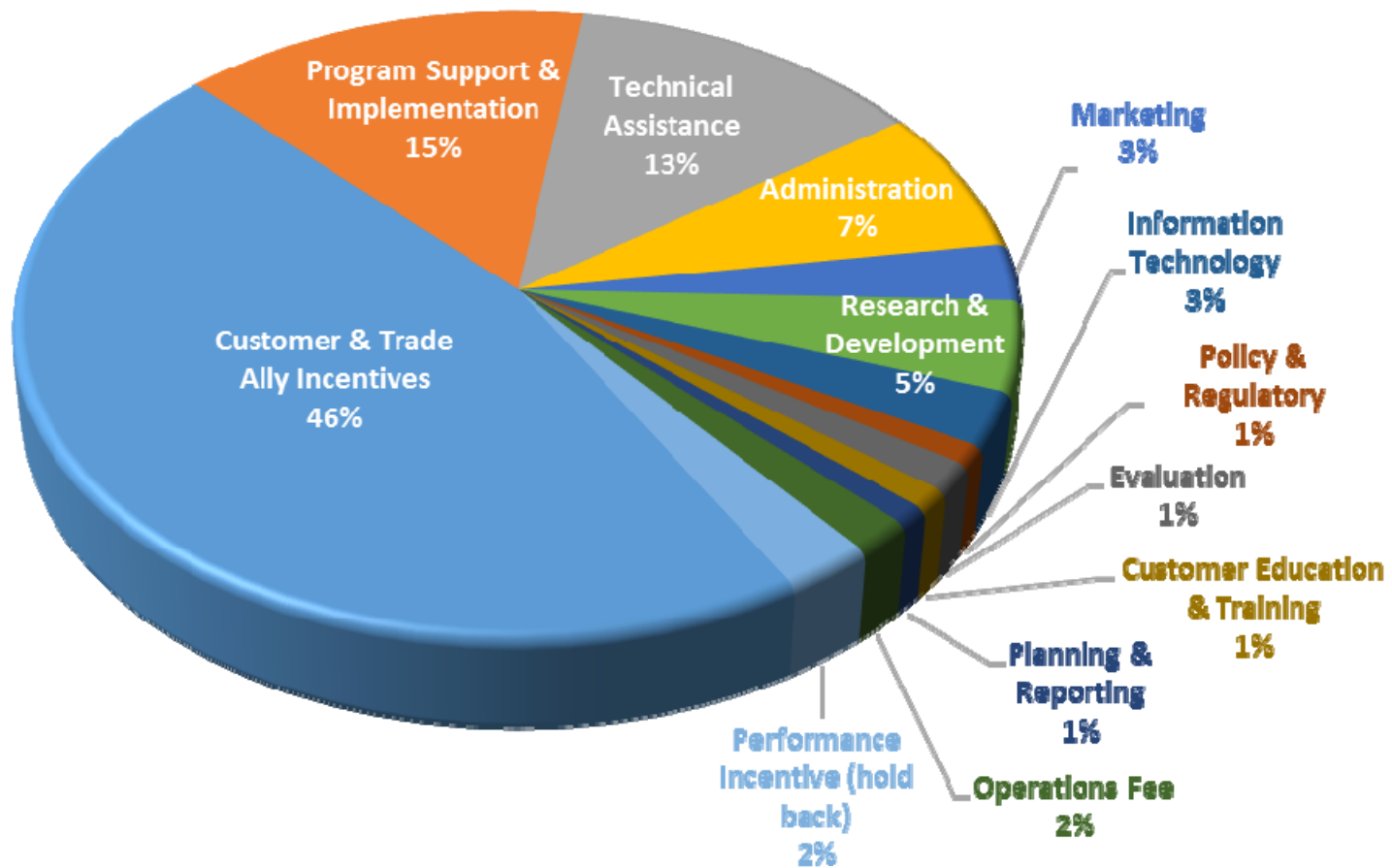
Budget 2016

REVENUE



Source	Programs	Revenue
Energy Efficiency Charge	Electric	\$50,575,902
Forward Capacity Market (FCM)	Thermal	\$4,443,898
Regional Greenhouse Gas Initiative (RGGI)	Thermal	\$2,289,281
Total Revenue		\$57,309,081

Allocation of 2016 Expenses



2016 Electric Summary

Sector	Collections	Spending
Residential	\$23,237,902	\$23,806,877
Commercial	\$19,187,091	
Industrial	\$6,815,839	
<u>Street & Area Light</u>	<u>\$172,870</u>	
Total Business	\$26,175,800	\$26,182,851

- Collections equal to 94% (net of BED) of EEC collected
- Spending includes all electric programs and services, operations fee and performance set-aside
- Neither collections nor spending includes \$1.9M for DPS evaluation

2016 Electric Resource Acquisition

2016 Spending	Business	Residential
Incentives	\$12,038,196	\$10,603,634
Planning & Implementation	\$3,010,659	\$3,383,679
Technical Assistance	\$4,784,214	\$2,321,538
Administration	\$2,132,621	\$1,780,105
Support Services	\$620,908	\$1,462,057
Total	\$22,586,598	\$19,551,012

2016 Thermal Summary

Sector	RGGI & FCM	Spending
Residential	\$6,733,179	\$1,316,242
Business		\$5,416,937

- Revenue
 - RGGI = 34% of total or \$2,289,281
 - FCM = 66% of total or \$4,443,898
- Spending
 - Includes all thermal programs and services, operations fee and performance set-aside (does not include \$128K DPS evaluation)
 - Minimum threshold of 62.5% on residential programs – actual 2016 was ~80%

2016 Thermal Resource Acquisition

2016 Spending	Business	Residential
Incentives	\$817,511	\$2,400,741
Planning & Implementation	\$70,432	\$975,539
Technical Assistance	\$90,326	\$323,288
Administration	\$151,586	\$439,525
Support Services	\$38,371	\$688,818
Total	\$1,168,257	\$4,807,911

Performance highlights

Since 2000:

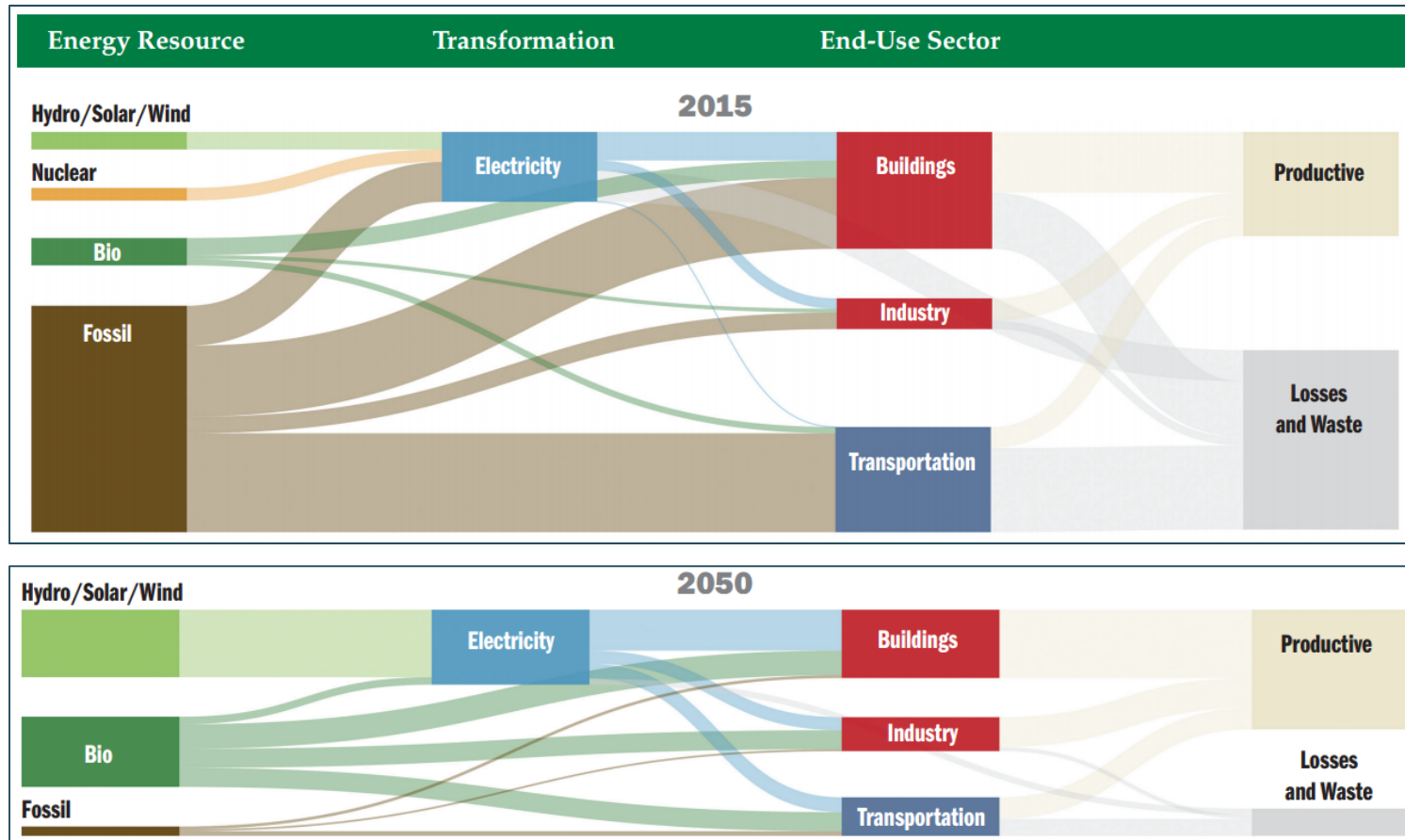
- Saved 15M in lifetime MWh = enough to power 100% of VT households for seven years
- Leveraged \$260M investments in products and services
- Reduced lifetime greenhouse gas emission by 10.4M US tons CO₂ equivalent

Sources: Efficiency Vermont's Savings Claim Summary, 2016 and EPA GHG calculator

Vision for the Future

Comprehensive Energy Plan

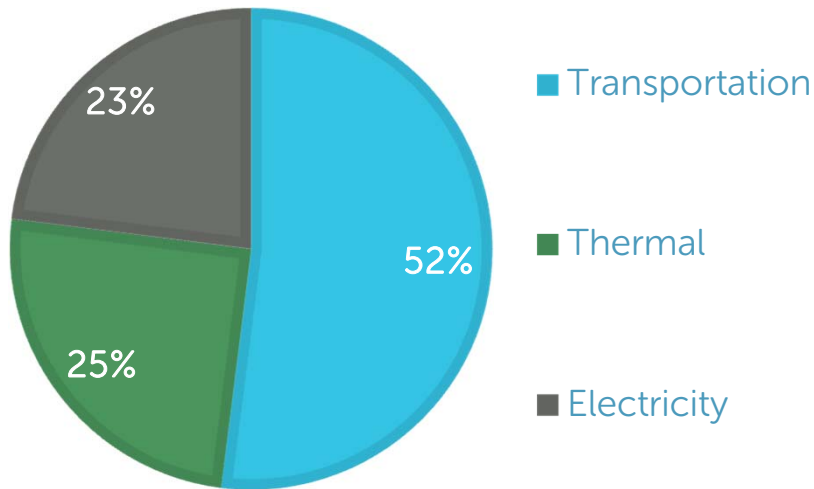
How we get to 90% renewable by 2050...



Source: Vermont's Comprehensive Energy Plan, 2015

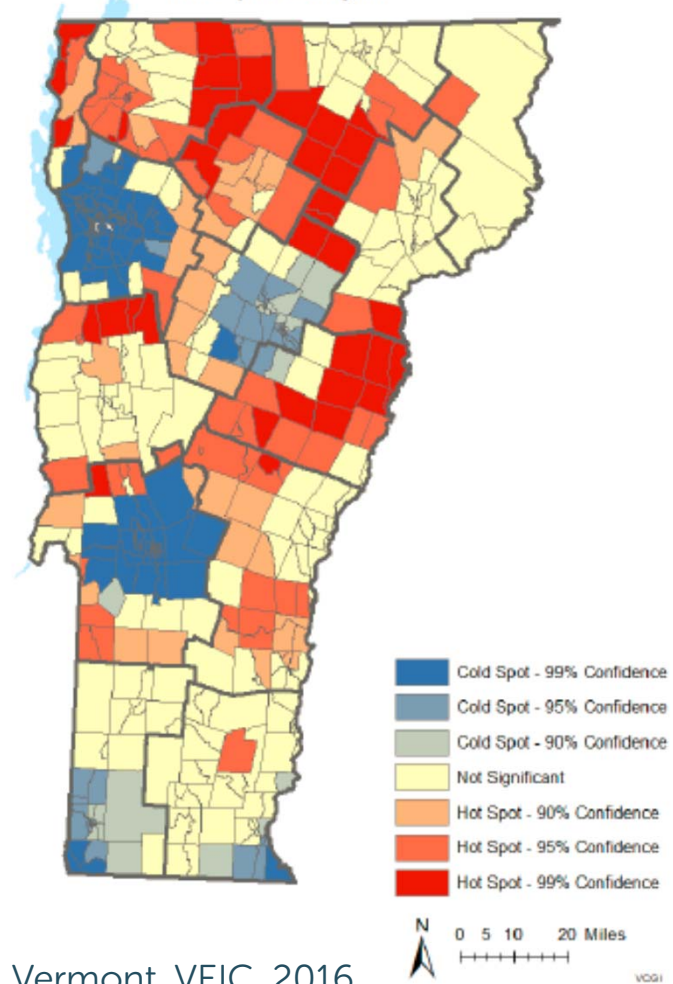
Energy affordability

Vermont's Household Energy Costs



Average total annual energy cost: \$4,700

Transportation Energy Expenditure (\$) Hot Spot Analysis



Source: Mapping Total Energy Burden in Vermont, VEIC, 2016

Where we're headed

Goals:

- Drive down the total cost of energy & bolster economic growth
- Decrease greenhouse gas emissions
- Reduce the energy burden, especially for the most vulnerable



Thank you!

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