

February 20, 2019

# Empowering Those with High Energy Burdens— While Increasing Local Wealth

## 2019 Midwest Energy Solutions Conference

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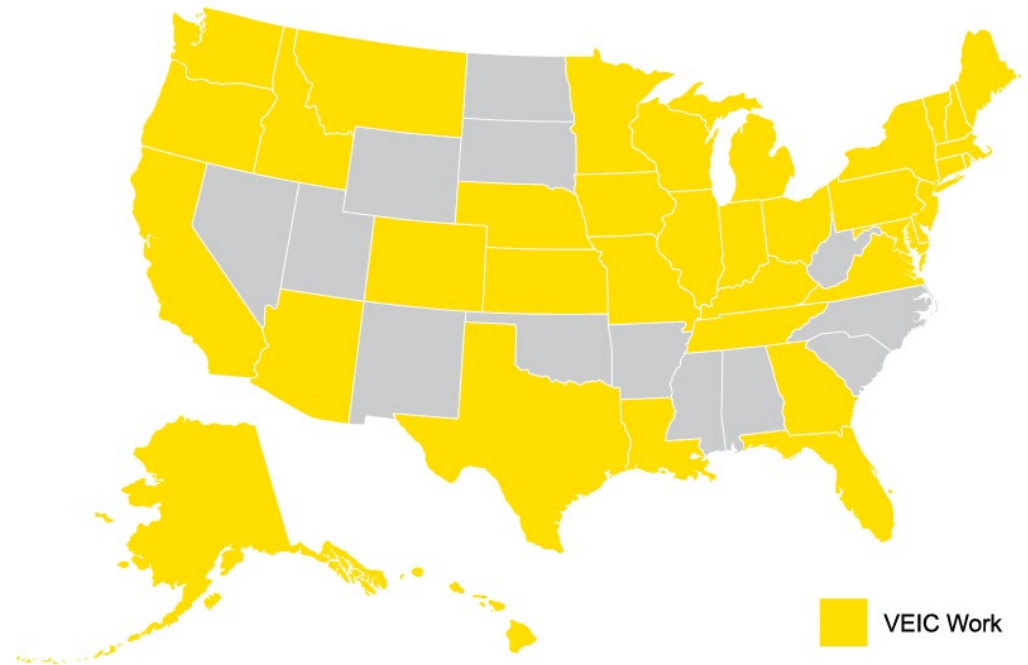
Christine Donovan

Senior Advisor and Managing Consultant



# About VEIC

- Mission-driven nonprofit
- 30+ years reducing economic & environmental costs of energy for all people
- 300+ staff in Vermont, New York, Ohio, & Washington DC
- We design, deliver, and evaluate nationwide:
  - ☐ Energy efficiency
  - ☐ Renewable energy
  - ☐ Transportation
- We “think and do”
  - ☐ Consultants
  - ☐ Engineers and technical assistance experts
  - ☐ Data analytics and EM&V experts
  - ☐ Financing strategy experts



- Our Customers
  - ☐ Utilities
  - ☐ Government
  - ☐ Businesses
  - ☐ Foundations
  - ☐ Environmental & consumer groups

# Major Initiatives



# The “North Country” of NH



- Rural, forested northern New Hampshire featuring the White Mountain National Forest
- 31,000 residents at 16 people per square mile
- 19 towns; populations from 10,000 to 12
- Decline in primary and secondary wood products industry jobs
- Increase in lower wage seasonal jobs (for tourism and recreation)
- Aging population
- Out-migration of young adults seeking white collar jobs
- Median income = \$45k; State median income = \$67k



# Energy Inefficiency in the North Country



- Medium income = \$47K; Average energy bill = \$5,730
- High energy burden = 25% of lowest income spend 25% on energy
- Electricity = 21%, thermal = 33%; transportation = 41%
- Although not not far from ACEEE Scorecard leaders...  
MA #1, RI #3, VT #4 ... **NH #27**
- Fuel assistance funds sometimes run out
- 8 year waiting list for Weatherization Assistance Program
- Utility EE program uptake low; some programs declining
  - Out of 14,556 single family homes total
  - HPwES = 53 (2015); 38 (2016); 23 (2017)



# North Country Utilities & WAP



# Challenges Serving the North Country

- Low population density combined with mountainous terrain = long travel distances and high transaction costs to reach those in need
- Through 2017, chronic over-demand for income eligible services and consistent under-demand for EE and weatherization by those who are “bankable” (with acceptable credit scores)
- Through 2017, utilities were able to meet EE savings targets and expend budgets serving more populated, southern NH with lower transaction costs
- However, EE savings targets are going up
  - From 0.8% in 2017 to 1.6% in 2020
- NH utilities seeking new approaches to markets (including low income) and new partnerships to further leverage ratepayer funding with increased private investment

# Our Assignment



# Our Assignment - Build Local Wealth ...

By taking action that increases EE in ways that:

1. Increase the quality and quantity of **local wealth** – embodied in 8 types of capital
2. Enhance **local ownership and control** of the wealth
3. Improve the **livelihoods** of people, places, and firms in the region
  - Including moving those living on the economic margins towards the mainstream

# Wealth Defined as Eight Capitals

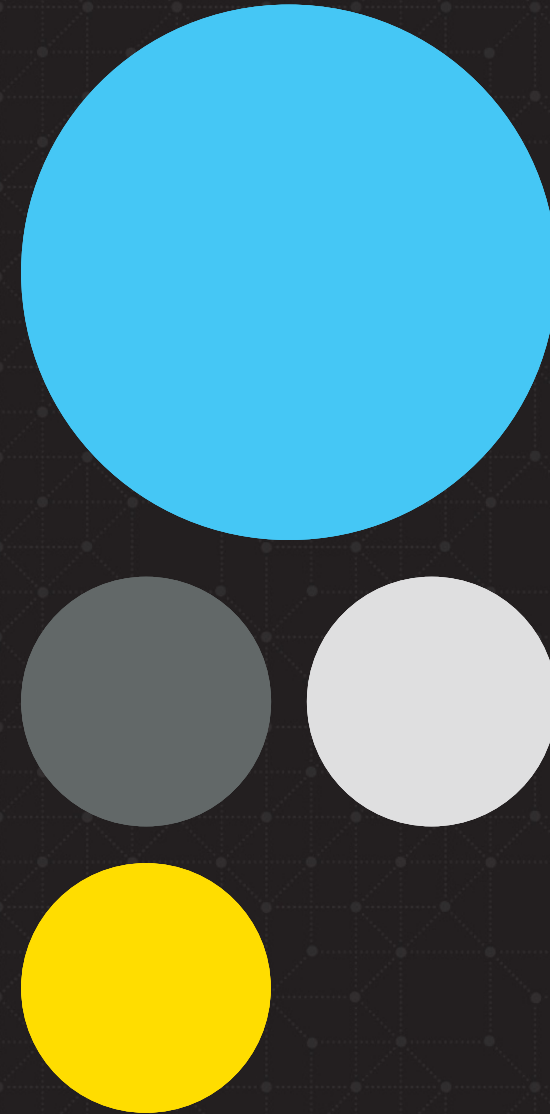
Forms of Wealth	Desired Outcome in the North Country
Built capital	The existing stock of constructed infrastructure – for example buildings, utility grid, roads, broadband, sewer systems – in a region's places.
Individual capital	The existing stock of skills, understanding, physical health and mental wellness of a region.
Financial capital	The existing stock of monetary resources available in the region for investment in the region.
Natural capital	The existing stock of natural resources – for example energy resources, water, land, air, plants, and animals – in a region's places.
Intellectual capital	The existing stock of knowledge, resourcefulness, creativity, and innovation in a region's people, institutions, organizations, and sectors.
Cultural capital	The existing stock of traditions, customs, ways of doing, and world views in a region's population.
Social capital	The existing stock of traditions, customs, ways of doing, and world views in a region's population.
Political capital	The existing stock of goodwill, influence, and power that people, organizations, and institutions in the region can exercise decision-making.

# Inspired by:



- The Neil and Louise Tillotson Fund
- One of the largest permanent rural philanthropies in the U.S.
- Championing the North Country, strengthening communities, spreading economic opportunity
- Neil Tillotson's philosophy was simple: "Be humble, be creative and be kind."
- <https://www.nhcf.org/what-were-up-to/focus-on/neil-and-louise-tillotson-fund/>

Enter Our  
Role as  
Value Chain  
Coordinator





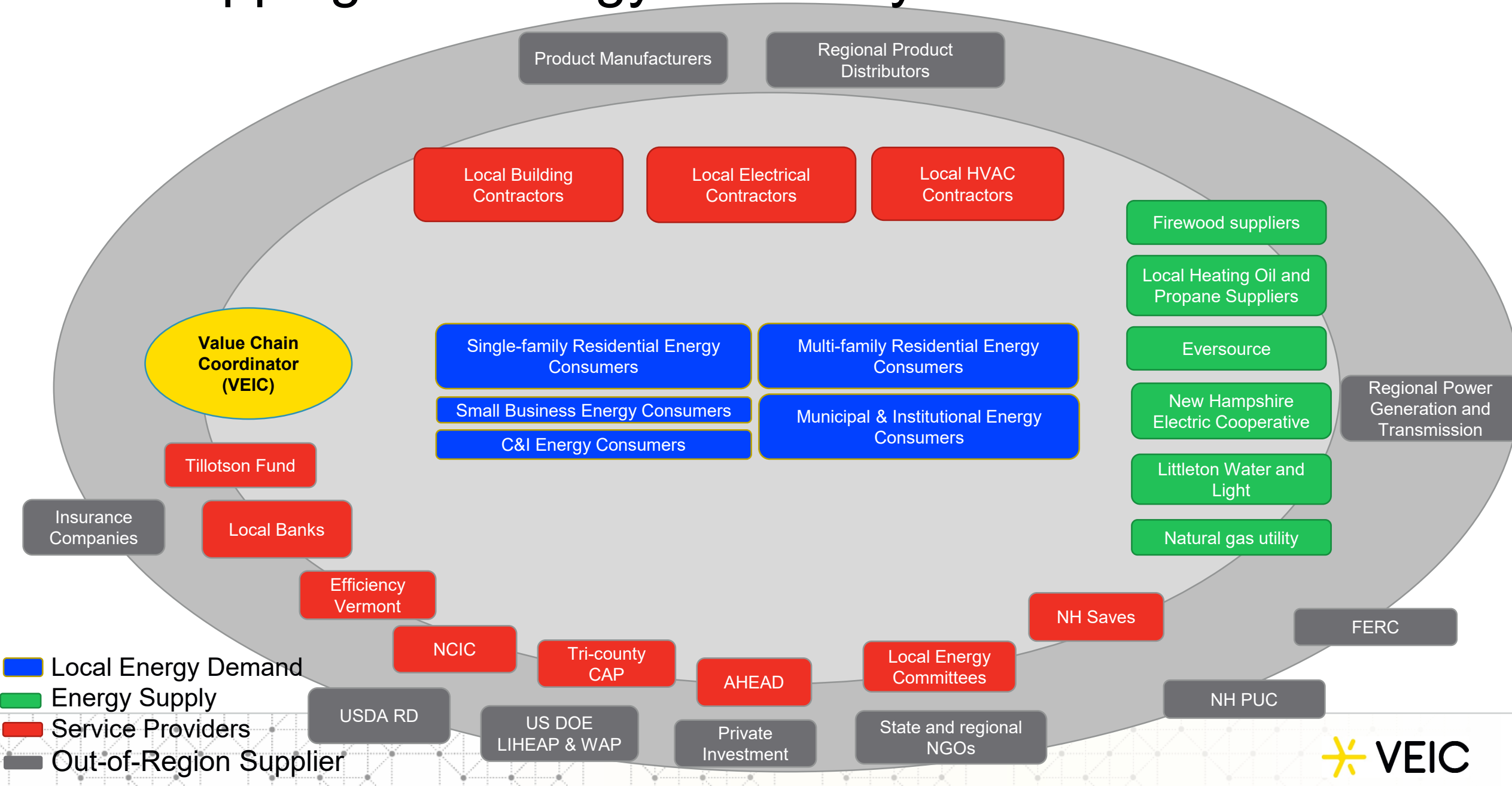
# The Role of a Value Chain Coordinator

1. Convene and connect
2. Focus on demand and supply
3. Coordinate activities
4. Build capacity and capability
5. Then ... leave!





# Mapping the Energy Efficiency Value Chain



# Listening Tour Engaging 50+ VC Partners

- Energy auditors
- Building & HVAC contractors
- Weatherization/fuel assistance
- Affordable housing providers
- Fuel suppliers
- Utilities
- Businesses
- Industries
- Environmental groups / ngos
- Local energy committees
- Municipal leaders and staff
- State legislators
- Congressional delegation
- Transportation providers
- Economic development agencies
- Banks
- Financing authorities

# Local Work Groups – 2018 to ...?

1. Low Income Energy Efficiency and Weatherization
2. Affordable, Efficient Housing for Seasonal Workers and Seniors
3. Weatherize the North Country for Moderate to Upper Income
4. North Country Circuit Rider for Municipalities
5. Workforce Development

# 1. Low Income EE & Weatherization



- Increase EE and weatherization services for those with high energy burdens
- Address those not able to be served by WAP
- Through a new \$31 million+ funding and finance initiative involving many local, state, federal partners
- Providing financial literacy, health & safety, weatherization, and direct installation services
- Offering workforce development and training including:
  - Creating and offering affordable housing at a reduced rate if the worker stays in EE / WX jobs and in the region for 5 years after the training



## 2. Affordable Workforce & Senior Housing



- Large seasonal workforce
- Short-term rentals and vacation homes worsening affordable housing crisis for seniors and low to moderate income families
- “Affordable” proposed as housing + energy costs achievable at wages of \$12 to \$20 per hour
- Working with local CDFI, state housing, finance, and economic development authorities towards multi-year initiative to address
- Ideally, resulting in a local manufacturer of zero energy modular homes





# Example: Zero Energy Modular Homes



- Super efficient design
  - 10-inch thick walls
  - All electric home
  - Heated/cooled with a ductless mini split
- Modular construction
- Solar PV ready
- Savings: \$3,000 annually
- A real asset for the homeowner, so they can build equity

# 3. Weatherize the North Country



- Grassroots campaign to increase demand for EE contractors by “bankable” middle and upper income households
- Target and “saturate” a town or neighborhood
- Neighbor-to neighbor stimulates demand and grows the market for local auditors and contractors



**EARTHSHARE CONSTRUCTION LLC**  
Sustainable Building for Today and Tomorrow



# 4. North Country Circuit Rider



- Many rural towns have no staff beyond Police and Fire Chief
- Towns have no ability to assess EE or apply for grants and funding for improvements
- In-region “Circuit Rider” being hired to:
  - Help municipalities “lead by example”
  - Write grant applications and help raise funds
  - Help manage EE and RE projects
  - Generate interest by business and industry; provide TA to them
- The goal: Develop a pool of funds across towns from EE savings to sustain Circuit Rider in perpetuity

# 5. Workforce Development



- Offer scholarships for BPI certification to help increase supply of trained energy auditors and weatherization contractors
- Build demand for BPI training previously offered by the local community college, but cancelled due to low enrollment
- Seek a commitment to weatherizing homes in the region from contractors requesting the scholarship for their employees



# Led by Local and State Stakeholders

**EVERSOURCE**  
ENERGY

*your*  
NEW HAMPSHIRE  
**Electric Co-op**

COMMUNITY  
**ACTION**  
TRI-COUNTY CAP

Clean  
Energy  
**NH**

Working Together for  
**VITAL COMMUNITIES**

**AHEAD**  
AFFORDABLE HOUSING  
EDUCATION & DEVELOPMENT

**USDA**  
Rural  
Development

Committed to the future of rural communities.

New Hampshire  
**Housing**

Ammonoosuc  
Regional  
Energy Team  
  
Educating  
for energy  
awareness



# Desired Outcomes



Working together, create new models that:

- Increase the 8 capitals thru increased EE & RE
- Expand livable wage jobs for EE and RE services and products
- Achieve measurable EE savings and increase clean energy use
- Ensure efficient, affordable energy for all
- Improve resiliency and local self-reliance

Thank you!

[cdonovan@veic.org](mailto:cdonovan@veic.org)

802-540-7801