



Vermont Energy & Climate Summit
“Meeting Vermont’s 2025 Energy & Climate Goals”

*****Pitch Submission Form*****

Let your ideas be heard!
This is your chance to get your energy or climate pitch
in front of 200 of Vermont’s energy leaders and the Governor’s Climate Action Commission

Vermont has a bold goal: to meet 90% of our energy needs through increased efficiency and renewables by 2050. We have also joined leading states across the country in a bi-partisan commitment to adhere to the Paris Climate Accord goals. Where are we now on achieving those goals and what can we do to bend the curve toward 2025 milestones along that path?

- **Energy:** The first milestone of Vermont’s Comprehensive Energy Plan is to meet 25% of Vermont’s total energy needs from renewable sources by 2025. The most recent status estimates put us at around 16% across heat, electricity and transportation (2016).
- **Climate:** The Paris Accord goal seeks a reduction in greenhouse gas (GHG) emissions of 26-28% from 2005 levels by 2025. Vermont’s own statutes are even more ambitious: 50% reduction from 1990 levels by 2028. As of 2013, Vermont’s GHG emissions decreased 11% from 2005 levels and actually *increased* 4% from 1990 levels.

Pitch Invitation

We have a lot of work to do over the next 8-10 years. That is why we want to ***hear your pitch*** for promising opportunities to help Vermont meet its 2025 goals. What will help bend the curve?

Selected proposals will be invited to present at the Vermont Energy and Climate Summit co-hosted by [Energy Action Network](#) (EAN) and the [VT Climate Pledge Coalition](#) (VCPC) on November 8th at Champlain College in Burlington. Please submit your pitch by using the form below and emailing completed proposals to jduval@eanvt.org by **Friday October 20th**.

(NOTE: Regardless of whether you are invited to present on Nov. 8th -- notification will come by Wed. Oct. 25 -- *all submitted and complete proposals will be included in a full compilation to be submitted to the Governor’s Climate Action Commission and the Vermont Legislature.*)

Vermont Energy & Climate Summit Pitch Submission Form

Guiding Criteria: EAN’s mission is to end Vermont’s reliance on fossil fuels *and* to create efficient, clean, affordable, and secure electric, heating, and transportation systems for the 21st Century. The VT Climate Pledge Coalition is seeking pledges to reduce GHG reductions that will help Vermont meet Paris climate commitments. Together, we support the criteria outlined in Gov. Scott’s Executive Order creating the **Vermont Climate Action Commission**, specifically that solutions must:

- Spur economic activity, inspire and grow Vermont businesses, and put Vermonters on a path to affordability;
- Engage all Vermonters, so no individual or group of Vermonters is unduly burdened; and
- Collectively provide solutions for all Vermonters to reduce their carbon impact and save money.

With these goals and criteria in mind, please answer the questions below. Questions 8-12 can be answered individually or in one comprehensive narrative. (Total pitch submission **no more than 3 pages**).

1. **Pitch Submitted By (Your Name or Organization):** [Drift Marketplace, Inc.](#)
2. **Contact Email Address:** Thomas@joindrif.com
3. **Contact Phone Number:** [802-430-7114 \(O\)](tel:802-430-7114) [302-561-5771 \(M\)](tel:302-561-5771)
4. **Pitch Title:** (one line) [Drift Marketplace and the Distributed Asset Ownership Platform: shifting production, asset ownership and revenue to the “Prosumer”.](#)
5. **Pitch Summary:** (one paragraph) [Drift Marketplace streamlines electricity purchases through a SaaS peer-to-peer network using artificial intelligence and high-frequency trading methods to balance electrical supply and demand between customers and devices of all types, in real-time removing inefficiencies from the current wholesale power market structure and passing the resulting savings on to consumers. By factoring in variables, such as the individual customers historical usage, zip code microclimate weather data estimates, real time grid operational parameters; energy is intelligently distributed, stored and dispatched from its network of peer-to-peer energy nodes to deliver power to its consumers at substantial savings over utility rates, with multiple added benefits, including participation in the value of the DER assets. Drift \(a FERC Load Serving Entity\) operates as a Distributed Independent System Operator \(“d/ISO”\) integrated within the larger wholesale market. For its supply of energy, Drift secures a multitude of independent power producers in its network that range from hydroelectric dams, solar-plus-storage projects, wind farms, PV recharging stations, residential storage devices and large commercial building management systems. Additionally, Drift is creating a Distributed Asset Ownership Platform \(“DAOP”\) to revolutionize the acquisition, financing and deployment of distributed energy resource assets vesting ownership and revenue from the sale of excess power through the d/ISO in those that generate the need for the asset – the *Consumer*. This economically aligns the consumer to the marketplace through asset ownership, driving prices down, fostering faster deployment of clean intelligent energy, vitalizing local communities, creating jobs, and democratizing energy.](#)
6. **What energy sector(s) does this Pitch apply to?** (Check all that apply):
 - [Energy Efficiency](#)
 - [Electricity](#)
 - [Transportation](#)
 - [Thermal Heating &/or Cooling](#)

- All (Total Energy)
- None: Non-energy related carbon reduction proposal

7. Which criteria category(ies) does it address? (Check all that apply):

- Economic Activity
- Affordability
- Vulnerable Vermonters
- Other – All of the Above

8. Scale of impact on Vermont’s energy and climate goals: If this proposal came to fruition, how might it move the needle in helping to meet Vermont’s energy and climate goals by 2025 and/or 2050? Please outline assumptions and, if available, provide calculations. Drift has neither undertaken a detailed cost benefit analysis, nor an interpretation of the Drift program in application to the specific impact on Vermont’s energy and climate goals. The acceleration of technologies, entrepreneurship, and consumer demands for choice unprecedented since the mid-1990’s with the emergence of the Internet, the vast array of hardware/software infrastructure, communication tools, bandwidth, artificial intelligence and the computing power of “big data” now available make for a complicated calculation. What we do know is that in 20 years we will have access to energy sources, products and services unimaginable today. One could not have envisioned a smart phone when the landline and dial-in modem were the way to be ‘connected’. Drift’s program anticipates those future sources, products and services.

9. Benefits/costs of this proposal for Vermont and Vermonters: Including, where possible, economic, financial, social, and environmental. Drift’s business model is not based on a markup of energy commodities, but rather a model that minimizes the financial, bureaucratic, and administrative overhead associated with the delivery of energy with a resulting savings to members. A modest membership fee allows the small consumer to gain price parity with a large commercial organization, and leverage the overall consumer base benefits from an aggregate energy demand and generation management. Functionally, this provides members access to tools that will allow them to participate in the wholesale power and advanced DER marketplace, both as consumer and/or producer (which we call a “Prosumer”). Therefore, there is no built-in incentive to charge more than the lowest possible cost for the energy, no matter the volume. This allows all members from small to large to have the same purchasing power and does not incentivize an increased energy demand to generate profits. Drift’s marketplace member fee provides access to the following services:

- Dashboards detailing pricing, payments, usage information and documentation.
- Aggregate purchasing, scheduling, and settlements of wholesale energy across a wide pool of consumption types.
- Energy management and information systems from individual to large commercial operations.
- Access/integration to shared DER generation, including member-owned generation and storage assets.
- Selling aggregated ancillary services to the grid through the DM Platform.
- Invest in DER projects to modernize the grid.
- Access to a growing number of products and services that are intergraded into the DM platform.
- Invest in grid-tied DER generation and battery storage.
- Behind the meter generation and storage.

10. Decision-makers necessary for this proposal to be adopted or move forward (e.g., Legislature, Governor, a regulatory agency, a business, organization, media outlet, or financing institution, etc.). Drift believes that its SaaS, i/DSO and DAOP Programs compliment the primary recommended strategies for electric power in the VT 2016 CEP, which include, but are not limited to: Manage electric load using active means, including new control technologies in concert with expanded access to and adoption of smart rates; Strive to lower both energy bills and electric rates; Engage actively in regional (and local) grid planning and policymaking, recognizing the significant impact that regional choices can have on Vermont; Maximize opportunities to encourage siting of renewable energy on the built environment, in already disturbed areas, or co-located with other uses in order to minimize conflicts with other land uses and users; Take advantage of opportunities to incrementally transform our utility regulations to reflect the reality of distributed energy resources and an integrated grid. The CEP explicitly welcomes innovation and entrepreneurship by utilities and their partners. Drift has gathered a team of entrepreneurs, technologist, engineers, legal, and financial experts to disrupt the status quo and deliver on the promise of the *Trusted Energy Economy*. As we have seen with other industries;

transportation (Uber), accommodations (AirBnb), and merchandizing (Amazon) there is a fundamental shift in restructuring the energy sector in progress. This process will involve the Executive, Legislature, Utility, Regulators, Community, Business and Individuals (“Stakeholders”).

- 11. Strategy and key considerations:** Outline the overall strategy, including gaps, barriers and opportunities for moving this proposal forward. The new intelligent energy network will embrace every facet of life; homes, offices, factories and vehicles continuously communicating with one another sharing information and energy on a 24/7/365 basis. It is necessary to create an energy system that meets the changing expectations of consumers and society for the coming decades a high-performing, customer-focused electricity system that is efficient, flexible, resilient, reliable, affordable, safe, secure and clean. A successful transition to a 21st Century Electricity System requires careful consideration of a range of interrelated issues that will ultimately redefine the regulatory framework and utility business model while creating new opportunities for third-party providers and customers to contribute to the operation of the electricity system. The new energy paradigm will still allow big business to participate!

The opportunity; however, is counter intuitive - Utilities will have to aggressively move into a new business model managing other people’s energies, helping them optimize energy usage, financing technologies, manufacturing and providing services to the various components and processes in this new energy regime.

What barriers—especially regulatory— currently prevent single energy storage systems or aggregated fleets of systems from providing multiple, stacked services to the electricity grid, and what are the implications for major stakeholder groups?

For Regulators

1. Remove barriers that prevent behind-the-meter resources such as battery energy storage from providing multiple, stacked services to the electricity grid that benefit all stakeholder groups, including customers, ISOs/RTOs, and utilities.
2. Require that distributed energy resources (including storage) be considered as alternative, potentially lower-cost solutions to problems typically addressed by traditional “wires” investments and/or centralized peaking generation investments.
3. Across all markets, require utilities to use a standardized, best-fit, least-cost benefit methodology that compares energy storage providing a full suite of stacked services with incumbent technologies.
4. NREL found that permitting and interconnection ranked among the most significant of the non-hardware cost barriers to PV+storage deployment.

For Utilities

1. Restructure utility business models and rates to reflect the value that storage can provide to the grid via temporal, locational, and attribute-based functionality, making utilities indifferent to the distinction between distributed and centralized resources.
2. Prior to considering new centralized assets, look first for opportunities to leverage existing assets, such as storage, via stacking of uses; provide education so that distribution planners, grid operators, and rate designers can work together to leverage storage’s full suite of capabilities.

For the Research Community

1. Develop a widely recognized modeling tool or a consistent methodology and approach capable of comparing, on an equal basis, the net cost of stacked services provided by energy storage and other distributed energy resources as compared to incumbent technologies such as combustion turbines and traditional infrastructure upgrades.
2. Develop a detailed state-by-state roadmap that specifically identifies policy and regulatory changes that must be adapted or revised to enable widespread integration of energy storage and other distributed energy resources.

For Storage and Distributed-Energy-Resource Developers

1. Pursue business models that fully utilize storage.
2. Pursue cost reduction efforts for all power-focused elements of energy storage systems (all \$/kW components) in order to unlock more energy storage markets.
3. Collaborate with utilities and regulators to help them understand what values distributed energy storage

can provide and what new utility business models will be needed to scale them.

To support this transition, **Advanced Energy Economy (AEE)** has prepared issue briefs that are intended to be a resource for regulators, policymakers and other interested parties, as they tackle the various issues arising in the rapidly evolving electric power regulatory and business landscape.

- Advanced Metering
- Access to Data
- Optimizing Capital and Service Expenditures
- DER Ownership
- Energy Efficiency as a Resource
- Performance-Based Regulation
- Rate Design for a DER Future
- Community Choice Aggregation

- 12. Timeline:** To meet our 2025 goals, we need some proposals that can be implemented in the next couple of years as well as some “game changers” that will bend the curve even further out. What timeline do you foresee for your proposal to be developed and implemented?

Goal: The creation of efficient, cost-effective, accessible grid platforms for new products, new services, and opportunities for adoption of new distributed technologies; Ensure optimal utilization of electricity grid assets and resources to minimize total system costs; Facilitate comprehensive, coordinated, transparent, integrated distribution system planning.

2018 - Phase I: Evaluation:

- A. How do VT utilities currently plan their distribution systems? Establish a baseline understanding of our utility planning processes
- B. What does each utility’s current distribution plan look like and assume? Understand the current state of plans and investments
- C. How to augment the utilities’ planning processes to advance grid modernization? Provide stakeholders an opportunity to identify potential improvements in planning processes
- D. Evaluate cost efficient non-wires alternatives to proposed investments, including DER provided services
 - Link to regulatory processes such as interconnection standards and DER valuation analysis
 - Increase transparency of utility investments and grid needs
 - Improved Integrated Resource Plan Inputs Launch and Stakeholder Workshops
- E. Proactively address the accelerating change at the distribution level: technologies, customer demands, growth in DERs through legislation, regulatory and utility adoption and participatory incentives (use carbon dividend and private business)

2018 -2019 - Phase II: Launch Implementation:

- A. Adopt Definitions and Principles. Identify specific actions, technologies, and policies that could support and enable grid modernization.
- B. Initiate Distribution investments (utility, public and private) flexible, resilient grid and meet customer needs under a range of futures
- C. Identify “Champion Community” to act as accelerated proof-of-concept/demonstration community (Pop. ~10,000 – multiple RE sites, businesses and residences available for participation – grid islanding possible)

2019-2020 – Phase III: Integrated Distribution Planning (On-Going)

- A. Establish Community Planning Requirements at multiple sites and communities (15 Communities) through Stakeholder Input on Process, possibly through Community Choice Aggregation

Tasks:

Commission - Community - Stakeholders:

Build a knowledge base of the utilities' distribution systems and the investments being made/projected with complete transparency.

Become familiar with advanced grid technologies and various DERs

Build a framework for guiding Commission actions and for engaging stakeholders

Seek a diversity of perspectives to inform the Commission, Community and the Stakeholder

Engage outside expertise to help evaluate what we learning/missing

Distribution planning should iterate over - near, mid and long-term objectives for these plans.

Suggested Reference Documents:

[Vermont's Comprehensive Energy Plan, 2016](#)

[Vermont's Total Energy Study, 2014](#)

[Vermont Agency of Natural Resources Climate Dashboard](#)

[EAN Annual Report, 2016](#)

[90% Renewable by 2050: Exploring Vermont's Efficiency & Renewable Energy Pathways, 2013](#)