



VERMONT ENERGY
INVESTMENT CORPORATION

Vermontivate!

Fun!

Flexible!

Philosopher's Stone?

Nick Lange

Co-Crafter

*ACEEE: Behavior Energy and Climate Change,
Sacramento, CA, Nov 12th, 2012*




Introduction- VEIC

- **501(c)(3), private, non-profit corporation founded 25 years ago**
- Mission:
 - Reduce the economic and environmental costs of energy use**
- Provides energy efficiency and renewable energy consulting and implementation services at the national and international levels
 - *250+ employees, ~\$80 million annual revenue, DC, VT, MA, NJ, OH*

Principles

- 1. Goals**
Clear, Specific, Supporting Objectives
- 2. Mission Alignment**
Market Transformation
- 3. Motivation**
Smart, Performance-Based Compensation
- 4. Accountability**
Results Beyond Compliance, Reward
- 5. Flexibility**
Respond to Changing Markets
- 6. Stability and Sustained Effort**
Goals & Budgets



VEIC Consulting and Implementation

Areas of Expertise

- Policy development & regulatory support
- Program delivery structure
- Market research & analysis
- Program design & implementation
- Project feasibility & technology support
- Transportation research & policy

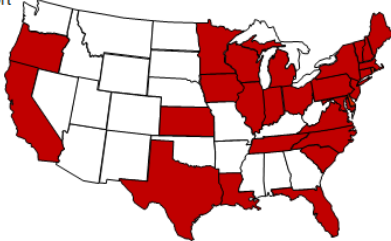
Range of Clients

- Regulators
- Government agencies
- Advocates
- Utilities – IOUs, munis, co-ops
- Foundations

Range of Jurisdictions

- 28 states, 6 Canadian provinces
- China, Vietnam, Mexico, Ireland, United Kingdom, others

VEIC work in the United States
1995 – 2011

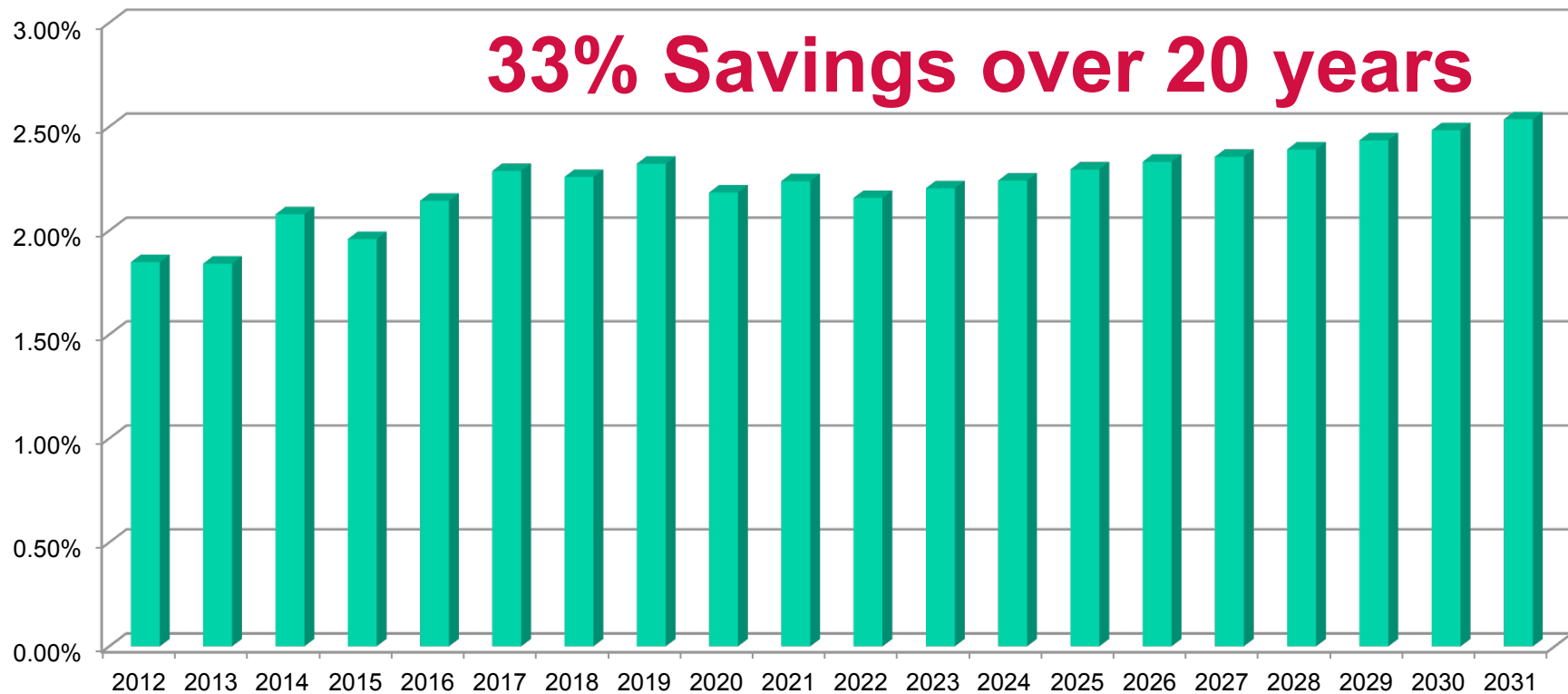




VT Demand Resource Plan 2012 – 2031



Energy Savings (MWh), % of Statewide Sales

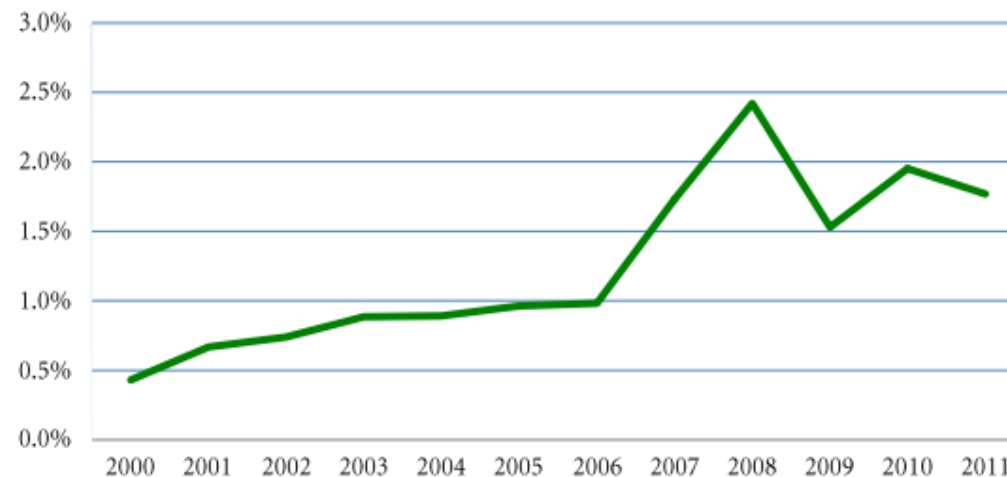


Aggressive, Long-Term Goals

Big Goal, Big Challenges

- Past Success/Diminishing Returns
 - Rising Federal and State Baselines

Figure 2. Savings from efficiency as a percentage of statewide electric resource requirements since 2000



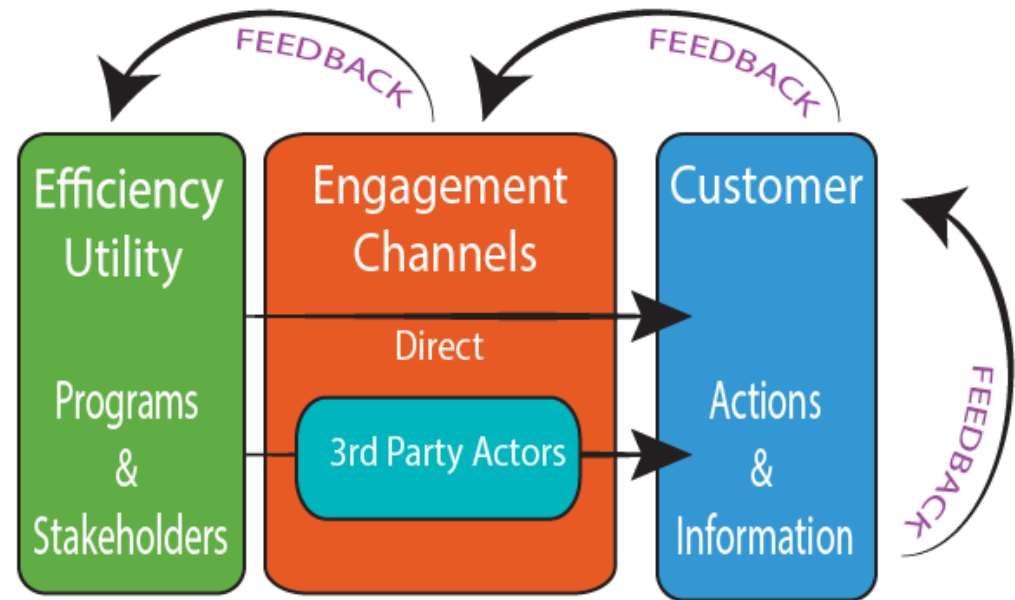
**Already
captured
10 year's
worth of
savings**

- Lower Avoided Costs? (Is cheap natural gas here to stay?)



Wait a minute... I thought this was supposed to be about a *Game*...

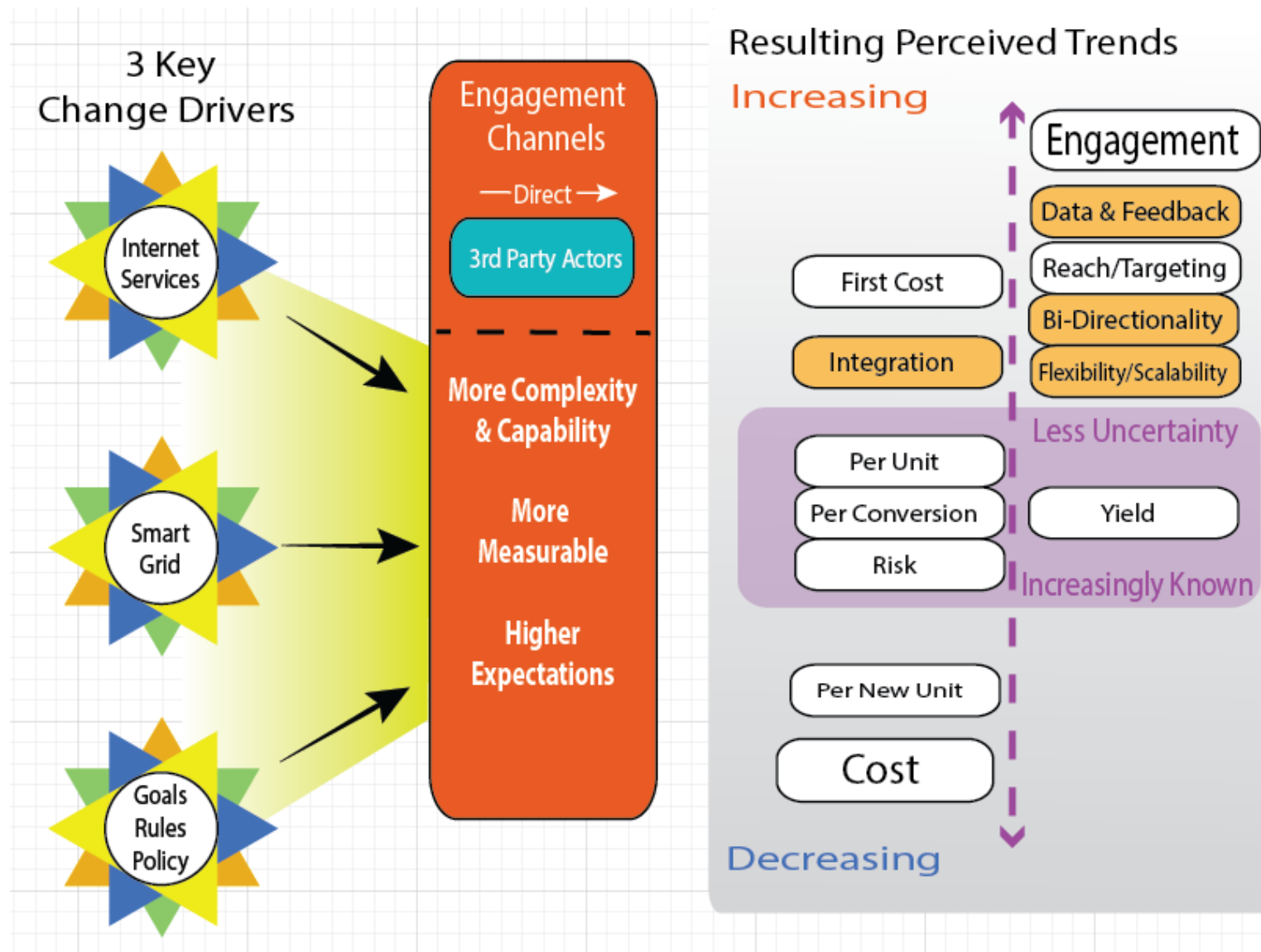
- Savings goals depend upon reaching and influence of customer actions through engagement
- The cost & effectiveness of engagement channels are the most important factors under a program's control
- **Game based approaches have demonstrated best-in-class scalable engagement cost-effectiveness**



[Insert “Game(s)” here? Yes!*

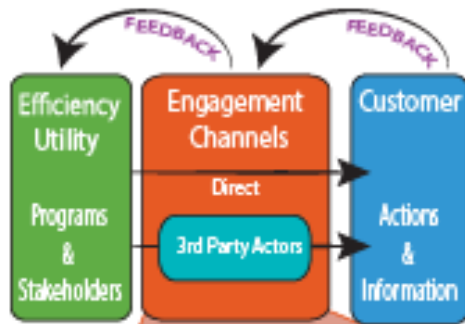


Big Challenges, Big Opportunities

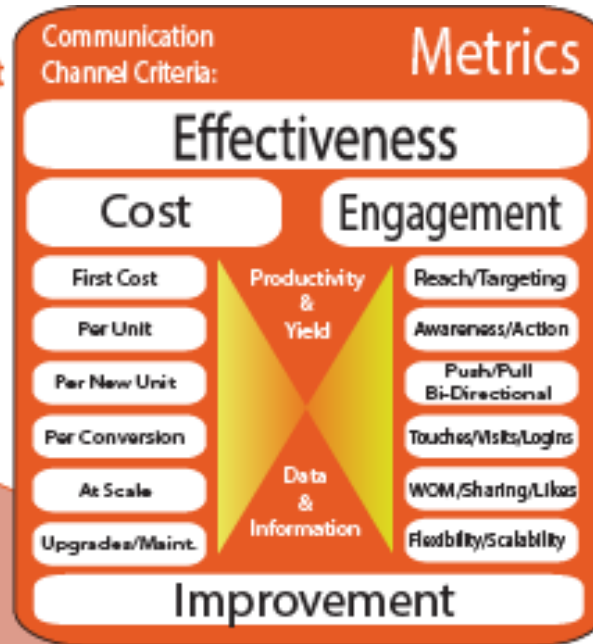




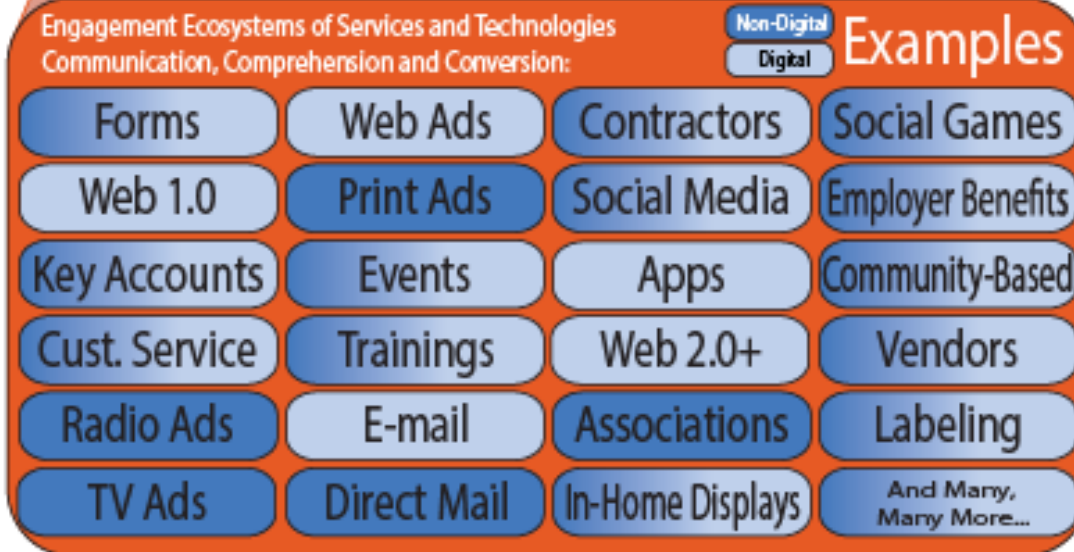
Getting **There** From **Here**
(& **back** again) with **Engagement**



Transformation Goals Lead to
Diverse, Multi-Faceted & Dynamic
Market-Based Initiatives



Deciding What to Use,
When & Where



Social Games & Gamification

- **A lot of buzz + hype**
- Some High Profile Successes
- Many lower-profile “failures”
- Young industry
- **Rapidly evolving**
- **More “art” than “science”**



Vermontivate!

- State-wide, 5-week long, town-based, online/real world engagement competition for an ice cream Party



Our atmosphere's getting all gunky.
And climate change makes us feel funky.
But we'll change our fate!
Play Vermontivate!
And celebrate with Chunky Monkey!

Vermontivate! is a **playable prototype community energy game** that **playsources** the *elements* of energy efficiency and *sustainability*.



Wildly Exceeded Expectations.

Here's the back story: *Started in 2010, with RD&D*

- Long Term Yield \$/MWh
- Near and Long-Term Yield Threats:
 - Rising Baselines (Market Transformation, Diminishing Returns)
 - Higher-Hanging “Fruit” (Hard to Reach Demo, Behavioral, etc.)
 - Customer Motivation (Non-energy “distractions”)

RD&D → Non-Resource Acquisition Investment
→ Can Game Tools & Insights Help Yield?

**Improve Yield Outlook with Strategic Research,
Development, and Deployment**



Background: Highlights from 2010-2011 RD&D

Playsourcing *could* be a valuable toolset to improve **yields** by shifting towards more intrinsic motivators:

- Crowdsourcing: Productive Contributions Through Voluntary, unpaid, participation of the “crowd” (example: *wikipedia*)
- Playsourcing: uses games to drive voluntary engagement to support crowdsourcing (example, *Fold.it*) to meet EE objectives:
 - Data, Information, Advice, Engagement, Emotions, Relationships, Visibility, Evaluation, Measurement and Verification, and many other hard and soft cost barriers to rapid and sustained progress
- Energy efficiency work is good fit in theory, but:
 - **Hard**, non-obvious, unproven in the energy sector
 - Massively Multi-Disciplinary, Art + Science: **success not guaranteed**

Playsourcing:
Fun | More-Effective | Not a Walk in the Park |

Background: 2011 Key Lesson Learned



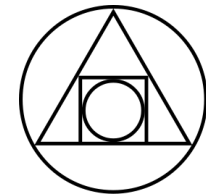
Fruitions First and Foremost Follow Fun

Background: Fun is Fraught with Opportunity

- Gamification isn't a Holy Grail; it is more like Alchemy:

Alchemy	Gamification
Protoscience → Chemistry & Medicine	Proto-business trend → Marketing Best Practices
Framework of Theory	Design Thinking
Experimental Processes	Playtesting
Included Philosophical Principles	Artisinal Crafting Techniques
Mixed Results	Mixed Results

In Alchemy, the Philosopher's Stone is a mythical substance that supposedly could turn inexpensive metals into gold, and create an elixir of immortality



Allure of Alchemy: Turning Lead into Gold

- Lead of Extrinsic motivating factors can weigh down **Yield**

- Incentives, Rebates, etc.
- Labor, Admin expenses



- The Gold of Intrinsic Motivators can lift **Yields**:

- Experience engages, not external “rewards”
- Voluntary
- Collaboration



Spring 2012: Vermontivate!

Opportunity for a Small & Speedy Real-World Experiment:

Key Collaborators

- Tamarack Media – Bill Finnegan, *TogetherGreen Fellow*
- Local Community Activist – Kathy Blume, Creative Roustabout

Key Supporters

- Ben & Jerry's, Front Porch Forum, Efficiency Vermont

Key Objectives

- **Awareness & Empowerment** through digital media
- Change the **tone** of the conversation

Epic Objective → Can we make it **fun, scalable & sustainable?**

**6 Weeks Development, No Cash Budget
Low-Risk, (High-Reward?)**

Vermontivate! – Design Principles

Voluntariness

(Intrinsic Motivation)

Learning

(Problem Solving),

Balance

(Structure and Exploration)

Structure:

(Rules, Challenges)

Exploration:

(Freedom, Strategy)

Active Ingredients from Positive Psychology + Behavioral Economics

- Positive emotion

(Fun)

- Engagement

(Optimum Challenge Curve)

- Relationships

(Social Network Effects)

- Meaning

(Beyond the game & oneself)

- Achievement

(Success Feedback Loops)

Coherency in Aesthetics, Rules, Challenges

Levels: Weekly Challenges from Game Master Characters



Learn about [how to use a paper towel](#), try it out, and [tell me](#) if it really works. If it does, will you keep on workin' it?

**There used to be a bonus point multiplier for [sharing with us](#) any other cool, little-but-big things like this. Please still send 'em in! But for the rest of the competition, all guaranteed bonus points have been frozen to simplify judging and add a touch more assurance of impartiality.*



Head on over to [EnergySavvy](#) and find out your [home's energy score](#) in about the same time as a youtube video.

(This energy scorer isn't perfect, particularly if you live in an apartment, use wood heat, or other details. Just fill it out the best you can, add an asterix in your moment of play and let us know what the issues were)

[Let me know](#) what you think about it! Any surprises?



Come up with, and [tell me](#) three new things you might pledge to do help to save energy for the next 4 weeks.

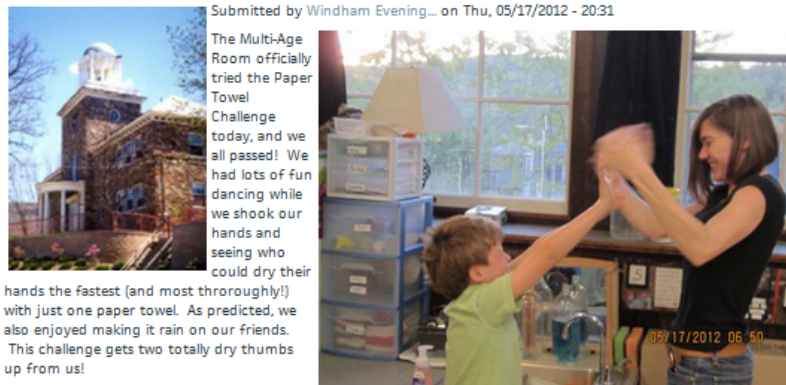
(Need help coming up with ideas? Chat up your [town teammates](#) or visit your [Guilds](#) and stir the pot!)

What play looked like:

- 800+ moments of Play
- 5,500+ unique visitors
- Average of 12 minutes/visit



The Paper Towel Challenge!



Submitted by Windham Evening... on Thu, 05/17/2012 - 20:31

The Multi-Age Room officially tried the Paper Towel Challenge today, and we all passed! We had lots of fun dancing while we shook our hands and seeing who could dry their hands the fastest (and most thoroughly!) with just one paper towel. As predicted, we also enjoyed making it rain on our friends. This challenge gets two totally dry thumbs up from us!

This is what we had to say:

7 year-old boy: "First you use soap, then you sing your ABCs, wash 'em, and then shake your hands 'til 10 or 11 or 12 times and get a paper towel and when you're done you give Jackie a high 5! Your hands get dry."

3 year-old boy: "Rinse with some soap and shake and dry off!" A teacher asked, "Does it work?" And he said, "Uh-huh!"



Green and Clean

Current Rank	Emphasis denotes fulfilled eligibility	Town	June 10 Ranking	Trend	Ranking Score Details			
					Points*	Quality of Play	Wildcard	Weighted total
1		Brattleboro	1	→	1	2	2	420
2		Montpelier	5	↑	3	4	1	241
3		South Burlington	3	→	2	6	3	238
4		Shelburne	2	↓	4	1	4	208
5		Charlotte	4	↓	5	3	5	126
6		Winooski	6	→	6	5	6	102
7		Burlington	7	→	7	8	9	87
8		Hyde Park	8	→	8	7	10	84
9		Williston	9	→	9	10	8	80
10		Morrisville	10	→	10	9	10	76
11		Hinesburg	12	↑	11	14	7	71.4
12		Charleston	13	↑	12	11	10	68
13		Jericho	13	→	13	12	10	64

* Includes wildcard bonus points (through 6/14)

Vermontivate: “An Antidote to Paralysis”



VERMONT ENERGY
INVESTMENT CORPORATION



Governor Peter Shumlin Stopped by this week to say thanks to all of you in the Vermontivate! Community!

This week I'm respectfully offering up my jumpline to the collection of Greens proffered by our esteemed Guest Host.

We're thrilled that he's game for the game!

It helps make up for our slight disappointment that he declined our special Vermontivate! costume. Maybe he'll cut loose and try on Cal threads if he stops by the winning town's ice cream party on June 30



Posted: May 31, 2012 2:56 PM EDT
Updated: Jul 02, 2012 8:04 PM EDT

Thanks for the luv, Guv!



Strolling of the Heifers Weekend 2



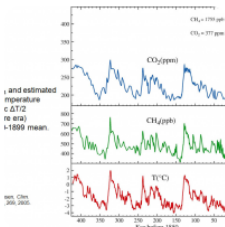
Strolling of the Heifers Weekend



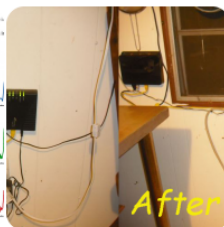
Montpelier PACE



Connecting Dots in Montpelier



350, Ice Caps, and Climate



Surge Strip



My Compost Pile



Muchas Gracias to Kathryn



Surprising Success

Reflections From a Player



This game has become part of my everyday life both in terms of playing along and in changing how we live. You have **educated me while I was having fun!!** You have made this a **multigenerational experience!!**







You have **built a community** of people across the state, **working together**, supporting each other, and learning together.

What I loved the most about how you set up the game is that you had the **perfect mix of challenges** that made you **explore**, that made you make a **change**, that made you **create**, and that made you **connect**.

My **outlook about the entire issue has developed into a lasting concern**. While enlightening me you also **keep me hopeful that we can make a difference instead of making me scared and feeling helpless**.

“I am really looking forward to getting my next GMP bill.”

Key Findings: We Made Some Gold

-  • Making EE Fun is Hard, But Powerful
-  • Dynamics and Flexibility are Essential
-  • We need to walk before we run
-  • And stand before we try to walk
-  • There is no substitute for Playtesting.
-  • Just scratching the surface of integrated offering.

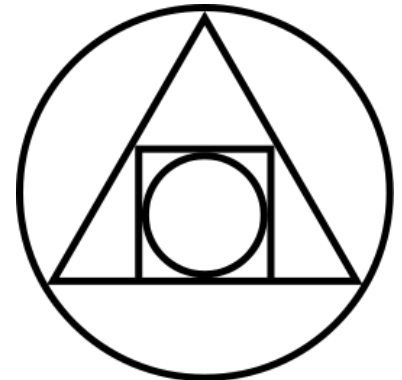
We Wildly Exceeded Modest Expectations. Now What?





For Discussion:

- What are the benefits and challenges to this type of approach with regards to:
 - Scalability?
 - Sustainability?
 - Measurability?
- How could this approach integrate with:
 - Smart Grid Consumption Data?
 - Dynamic Pricing Models?
 - Existing Program?
- What are the risks to this approach?
 - With great potential power comes great responsibility to do it right. How do you know if you're doing it right?



Can the Science be Separated from the Philosophy?

Should it? If So, Where?

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Thank You!

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