# The Virginia Energy Project - Coves 2009

## Overview of an Emerging Community Energy Program in Charlottesville and Albemarle County:

## Program Design and Proposal

Bill Dunnington

# *The SEEA Proposal Fact Sheet:*

- Applicants : City of Charlottesville, County of Albemarle
- Steering Team and Work Group - January to May 2009
- 200 pages, 26 letters of support
- Key partners; City/County elected officials & staffs, DMME, PVCC, EPA, Dominion, UVA, and many trade partners and community organizations

***Proposal Targeted Results for a Seven Year Initiative –***

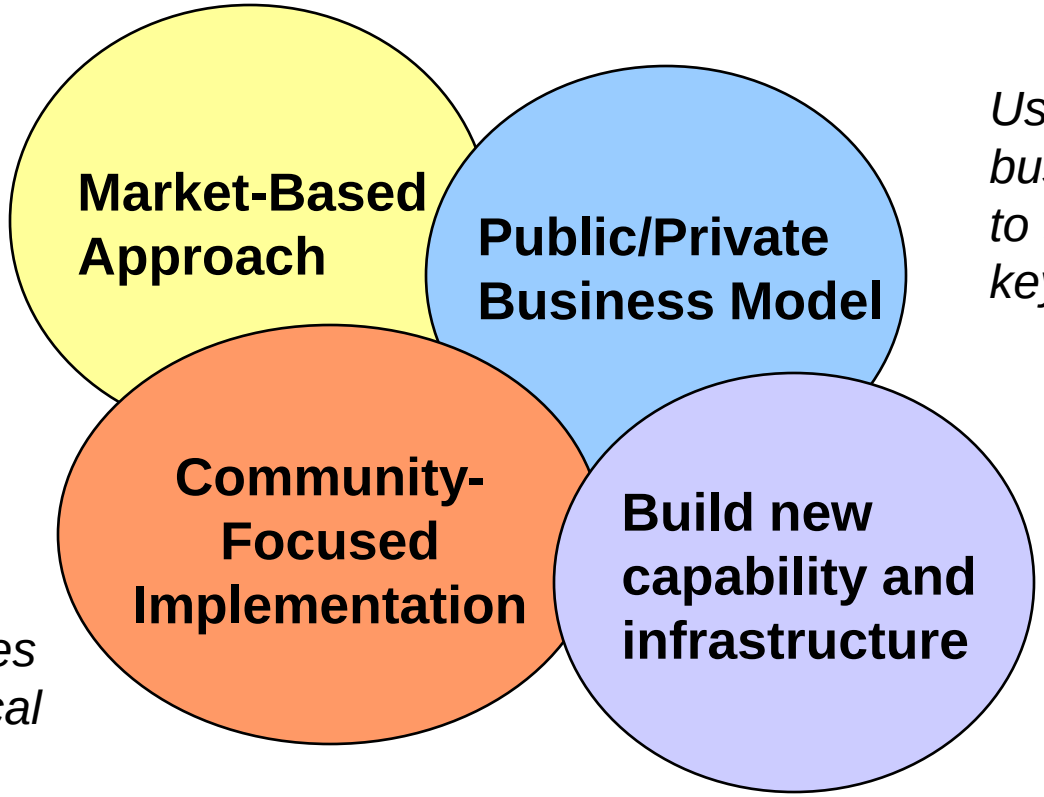
- $125 million of energy improvement projects ;
  - 60% residential, 25% commercial, 15% MUSH
  - Retrofit 17,600 houses, 1200 businesses
  - Efficiency first, deliberate approach to renewables

A business with the soul of a non profit

- 1535 job years of employment (12.5 job years per $1M projects)
- Leverage community, workforce, economic development
- ARRA funding and sustainably cash positive in year 3

***The Virginia Energy Project is an initiative for promoting energy conservation, efficiencies, and renewable generation in communities across the Commonwealth.***

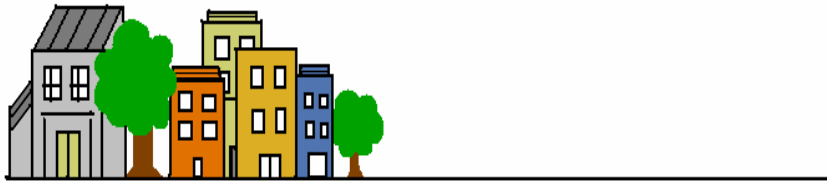
*Act now, to improve market functioning, while key legislative changes continue to develop*




*Use a new L3C business model to take down key barriers*

*Work with citizen leaders to adapt, apply best practices – and leverage local resources*

*Train and employ people in jobs that matter and won't be outsourced. Support projects that accelerate the shift toward a local, clean tech energy future*



# *VEP helps people design, implement and improve community energy programs.*

***Demand***

Plan and support community and regional initiatives

Create demand for green jobs and workforce capability

***Enablers:***

- Strategy & program design
- Financing tools
- Marketing ideas
- IT tools
- Standards, M&V
- Technical Skills
- Learning networks

Create Public-Private Partnerships, or City-County-School Alliances

Build industry, CC and tech school partnerships to train the workforce and entrepreneurs

***Supply***

# *Key Elements of the SEEA Proposal Approach:*

- DMME - Steve Walz sponsorship, VEP grant coordination

- Local Readiness and Timing
  - Ongoing City and County sustainability efforts
  - Charlottesville, Albemarle, UVA climate protection planning
  - SPARK – a local energy efficiency initiative
  - Dominion's activities, plans, smart grid investment
  - Green architects, builders, trade partners, EarthCraft, USGBC

- Community Engagement
  - Key elected officials and citizen leaders on the steering team
  - Reach out to involve people - tap networks of relationships
  - Tie together, strengthen and leverage efforts across groups

- Contest : Clear and Elevating Goals, a Challenge and a Deadline
  - All of the elements of a crisis - but - a compelling chance for co-creation

- Core Work Group
  - Cynthia Adams, Kristel Riddervold, Sarah Temple, Lance Stewart, Paul Orentas, Bob Burnette, Bill Dunnington

# *Proposal Timeline and Key Activities*

- January - Get Started
  - Form Steering Committee and Working Group
  - RFP review, City and County Resolutions, letter of intent

- February - Understand Context : "AS IS" Assessment
  - Building stock
  - Dominion's activities and plans
  - Piedmont Community College - Construction Academy
  - Reach Out meetings - Trade partners

- March - Look at Content : Programs, Practices, Possibilities
  - Berkeley, Boulder, Boston, Burlington, Milwaukee, Portland…..
  - Van Jones' book - Energy Star - Positive Energy - Smart Grid
  - Building Performance – ACEEE – Comfort Institute
  - Build financial modeling tool

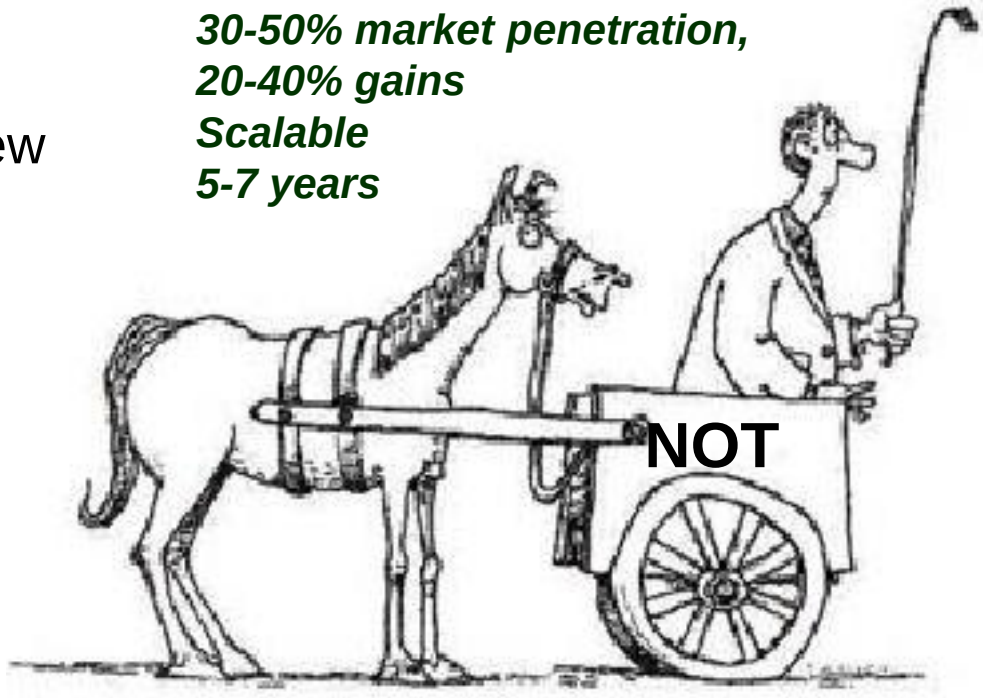
- April - Course of Action: Sweat the Details, Keep the Big Picture in Mind
  - Coordinate, size, stage, sequence component programs
  - Connect back with trade partners, reach out to others

- May - Proposal Preparation
  - City and County Resolutions, letters of support

## *We did a general design …..*

***30-50% market penetration,***
***20-40% gains***
***Scalable***
***5-7 years***

Form a new separate alliance…




Renewables, yes, but efficiency first…

Financially viable, not forever grant-based…

Workforce & Contractor Supports

Home Performance

ecoREMOD

1212

Commercial Program

Renters Program

# The Local Energy Alliance Program (LEAP) Model : Community-based, public-private alliance with key stakeholders.

**A Public Private Alliance**
City/County play a pivotal aggregating role.

*Lead aggregation and energy policy activities*

**ENERGY ALLIANCE FOUNDERS**
City of Charlottesville
County of Albemarle
University of Virginia
Virginia Energy Project
Dominion Power
DMME

**Delivery Mechanism**
- Service organization.
- Market-centric strategy
- Public Interest goals

*Stand up a separate operating company to facilitate energy services to all markets using ESCO principles*

**Financing Leverage**
- Capital pool
- Multiple sources

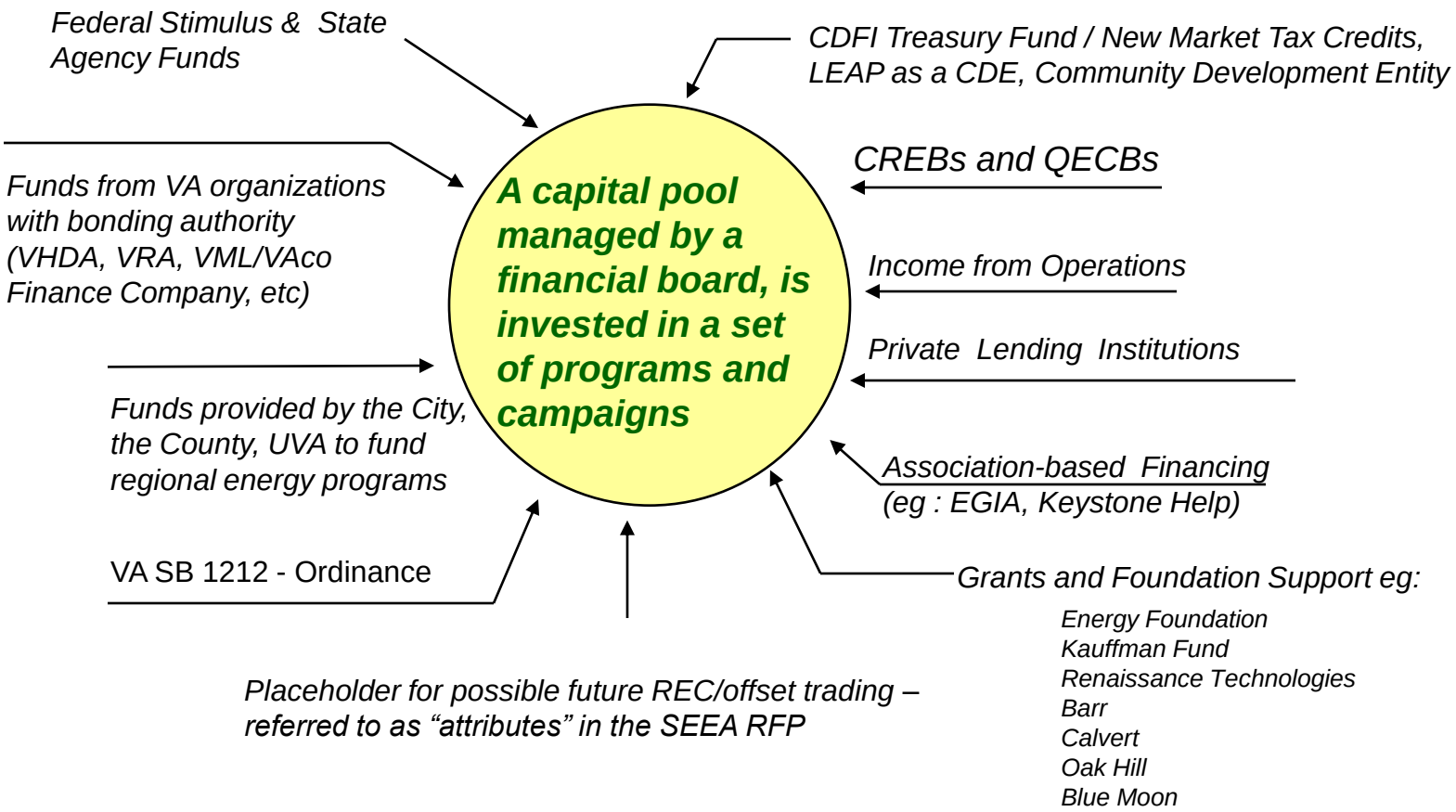
*Remove financial barriers for citizens*

**Technologies**
- Wide Application
- Deep Penetration

*Make it Easy for People to Find Help, Act, Save Money*

# The Funding Strategy: Diversify

Develop a capital pool from multiple sources to invest in energy programs which save people energy, money and generate fee income. Manage the pool with oversight from a financial board.



The funds will be invested in capabilities and campaigns; some highly targeted programs, some open market programs, but all ultimately aimed at 30-50% penetration and 20-40% energy gains per participating customer.

**Capability**

Marketing & Outreach

Energy Star / BPI Partnerships

Contractor Training & Certification

Grants Writing

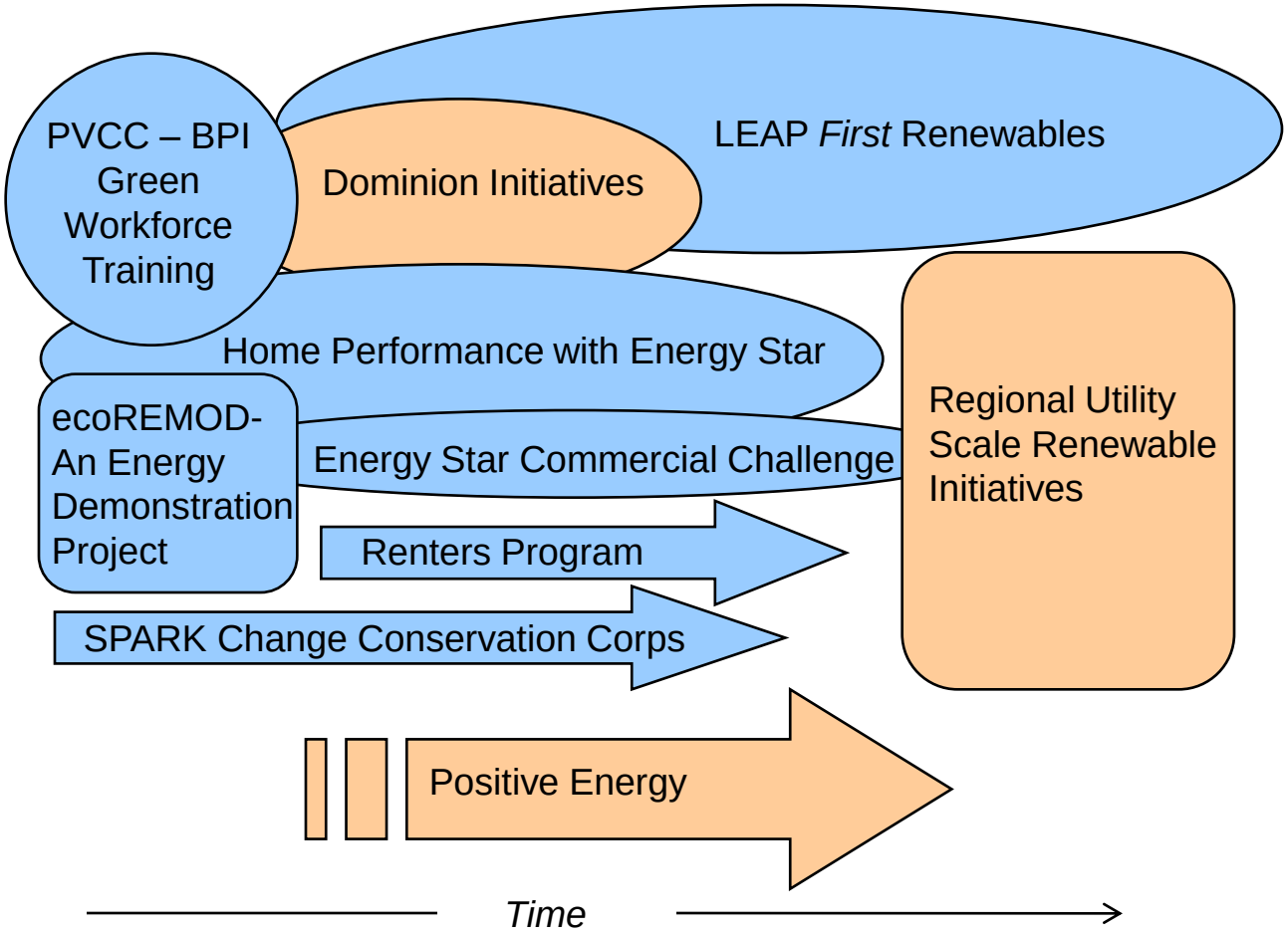
Project Financing Arrangements

Energy Extension Agents-Technical Support

Website, e-commerce

Quality / M&V

**A Portfolio of Staged, Coordinated Campaigns from Weatherizaton to Renewables to Utility Scale Initiatives**



# LEAP - Approach to the Markets

- Strong Home Performance Residential Emphasis

  Tiered Services, Home Performance with Energy Star
  Support existing low income initiatives in the Region
  Develop a Renters Program
  SPARK – Build on an existing program, brand
  Develop a vibrant retrofit market

- Develop Light Commercial EE Capability

  Commercial Challenge with Energy Star

  Support development of local commercial "light-escos" by bundling customers in service cohorts, promote cross-selling and teaming arrangements, provide training, technical conferences and a grants clearinghouse.

- Few Large Entities

  Continue to be served by the 15 large national ESCOs already certified by the Commonwealth

# The Core Value Propositions

- *For Customers*:

  We want you to implement the sensible energy improvements that will save you money. We will provide the delivery system, financing and quality management to make it safe to invest, make sure it works and make sure it pays for itself.

- *For Contractors and Trade Partners*:

  We want you to get certified to do this energy work well, to guarantee your work, and in return, we will bring you motivated customers that have prearranged financing

- *For Lenders & Financial Partners*:

  We want you to make a market in your community by making low interest energy loans, enjoy a solid return, and we will take virtually all the risk off the table.

# Develop a Set of Financing Solutions

We will offer a portfolio of financing programs for different needs and budgets. The goal is to take first-cost obstacles down and have savings offset costs.

| Project Cost (in 000s) / Market | *Tier 1*<br>Weatherization, Insulation, Appliance Upgrade<br>$ 0 - 7K | *Tier 2*<br>Major Insulation, Window Upgrades Solar Hot Water<br>$ 7 - 25K | *Tier 3*<br>Retrofit plus solar, wind or ground source<br>$ 25 - 50K |
|---|---|---|---|
| Residential Low Income | WAP/LIHEAP | "Green Match"<br>Stimulus Supported Guaranteed Loan and Match | |
| Residential Middle Market | Portfolio of Financing Mechanisms<br>- Capital pool<br>- Ordinance to implement SB 1212<br>- Loan buy downs tied to tested efficiency metrics<br>- Power Purchase Agreements<br>- Commercial Leasing | | |
| Commercial | | | |

# The LEAP concept of operations is a non profit energy services organization, illustrated below.

Start – Up Mode

## LEAP Board

Financial Advisory
Technical Advisory

**Board Members From :**

Charlottesville/Albemarle

SEEA

UVA/Community College

DMME

Dominion

Foundations

**LEAP Operations**

- **"Marketing & IT"** – customer acquisition, communications
- **"Operations"** – deliver or program manage energy programs
- **"Quality"** – Audits, M&V, data quality, process management
- **"Finance"** – manage capital needs, cash flow, risk, returns
- **"Customer Service"**

***Mission is Service***

***Value Proposition : "Easy, one-stop-shop for net gain energy solutions that pay for themselves."***

- *Convener, educator*
- *Clearinghouse*
- *Honest broker*
- *Market-maker*
- *Job creation engine*
- *Catalyst – new products, services, businesses*
- *Deliver some services directly, but mostly work "on" the market vs. "in" it*

# The Regional Value Proposition*

For a seven year investment of $125 million in LEAP, this region can reasonably expect to generate $20 – 25 million annually, a 18-20% return that it can borrow on, pay out of savings, at no cost to its operating budget.

1) That's a lot of jobs. $1M invested ≈12.5 job years (most in installation, some in sales/distribution of materials installed), so about 125 X 12.5 = 1560 job years. The multipliers are tbd, but twice that would be likely.

2) It's 17,600 houses made more comfortable, energy efficient and valuable – and also 121,000 tons of GHG emissions and 115 million kWH saved

3) After full installation and payment of loaned capital, that will mean over $200 million per decade will stay in region with ongoing gains to public health and wealth, quality of life, productivity, ability to absorb energy price increases.

4) The strategic economic development opportunity is to help rebuild local construction sector – and create a new energy-based economic sector.

* Does not include impacts from the commercial or institutional markets

# *VEP post-proposal supports and resources:*

- **For LEAP**
  - Funding for transition activities (website, legal structuring, SPARK 50)

- **For Commonwealth Communities interested in energy programs**
  - Energy Efficiency Toolkit
  - Program planning tools and processes
  - Legal documents for alliance structuring
  - Clearinghouse and catalyst
  - Advocacy for state-level service supports (financing, marketing)
  - PV Solar offering for tax exempt entities

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