



# **Energy Efficiency Programs:** *Design and Implementation*

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# About CLEARResult Consulting

- Design and implement energy efficiency and renewable programs for utilities and state governments.
- Staff has helped launch and run programs in AR, CA, LA, MA, NV, NY, OK, TX, WI.
- Member of the 2007 working group that helped prepare the SCC report to the State Legislature and Gov. Kaine on energy efficiency in accordance with SB 1416.
- East Coast Headquarters located in Fairfax.



# The Value of Energy Efficiency to Virginia

- EE can be acquired for one-third to one-half of the cost of new generation.
- EE is clean and reliable.
- EE pays even bigger dividends during fuel cost increases.
- There are no NIMBY issues associated with EE.
- If Virginia really focused on EE, it may be possible to eliminate or defer at least some of the capital projects now required to relieve electric transmission and distribution congestion.



# The Goal of an Energy Efficiency Program:

*To influence users to save energy in the  
most cost-effective manner possible*



# Types of Energy Efficiency Programs

- Direct-install: Energy-saving and load control technologies installed by a utility (*includes both conservation and demand response programs*)
- Educational: Ad campaigns, informational brochures, presentations
- Incentives-only: Dollars per unit installed and/or savings achieved
- Market-moving: Education and incentives, plus pro-active steps (i.e. market outreach, technical support, training) that build infrastructure and help accelerate and sustain market adoption of energy efficiency



# Administrative Models for EE Programs

- Utility-Administered Programs
- Governmentally-Administered Programs
- Third Party Administrator



# Utility-Administered Programs

## Pros

- Established relationship with customers
- Ready access to customer's energy use information
- Can use EE strategies (especially demand response) to help balance supply constraints, inform integrated resource planning

## Cons

- EE goals can conflict with utility's energy sales goals
- Sometimes lack specific expertise necessary to design and run programs
- Programs can vary widely among utilities in the same state



# Governmentally-Administered Programs

(i.e. New York State Energy Research and Development Authority – NYSERDA)

## Pros

- Sole purpose is EE; no conflict with utility's energy sales goals
- EE expertise resides in one organization, not fragmented among utilities
- Programs consistently offered and administered statewide
- Procurement process to select qualified vendors is open book
- Distinct separation of EE program costs and utility administration costs

## Cons

- Lack of pre-existing relationship with utility customers (could be argued that this is a benefit)
- Privacy limitations on access to customer energy usage information
- Administering agency needs to build/acquire necessary expertise, infrastructure
- Government bodies inherently less entrepreneurial than private-sector



# Third-Party Administrator

(i.e. Efficiency Vermont, Energy Trust of Oregon)

## Pros

- Sole purpose is EE; no conflict with utility's revenue goals
- EE expertise resides in one organization, not fragmented among utilities
- Programs consistently offered and administered statewide
- Procurement process to select qualified vendors is open book
- Incentive structure shifts performance risk to administrator
- Greatest flexibility to ramp up or down quickly as the market dictates

## Cons

- Lack of pre-existing relationship with utility customers (could be argued that this is a benefit)
- Privacy limitations on access to customer energy usage information



## Recommendations

- Start with “Quick Start” pilot programs based on successful models in other states, evolve into full programs in 2-3 years.
- Focus on vertical markets, i.e. Retail, Health Care, Schools, etc., in the Commercial Sector.
- Focus on Technology-based (lighting and appliances, insulation, HVAC) or Solutions-based (whole-house improvements, residential new construction) approaches in the Residential Sector.
- Build infrastructure through outreach and training to service providers.
- Build customer awareness through program-specific education.
- Programs should be designed and delivered by firms with the most experience, capability, and capacity.