



# **Retrofit 30 million homes by 2020?**

There is a behavioral blueprint

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**Stephen Bickel**

Director of Market Research, D&R International

**2012 Behavior, Energy & Climate Change Conference**

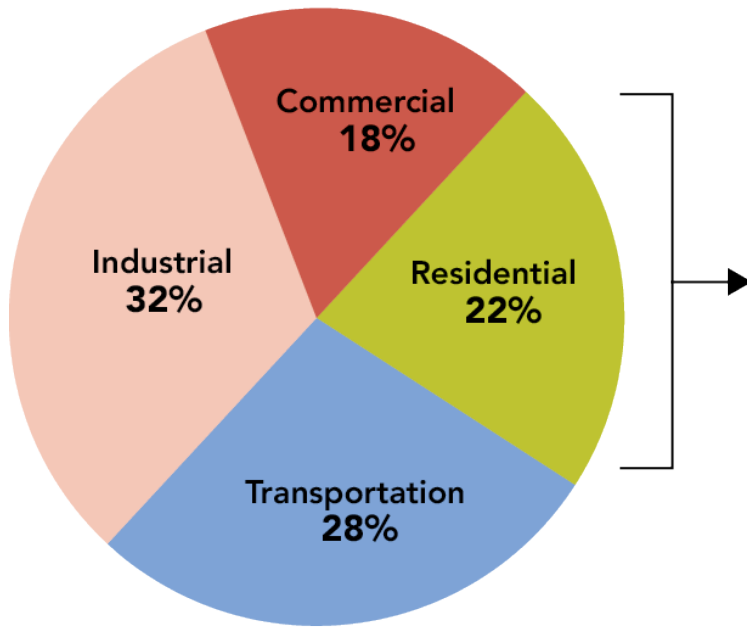
Sacramento, California



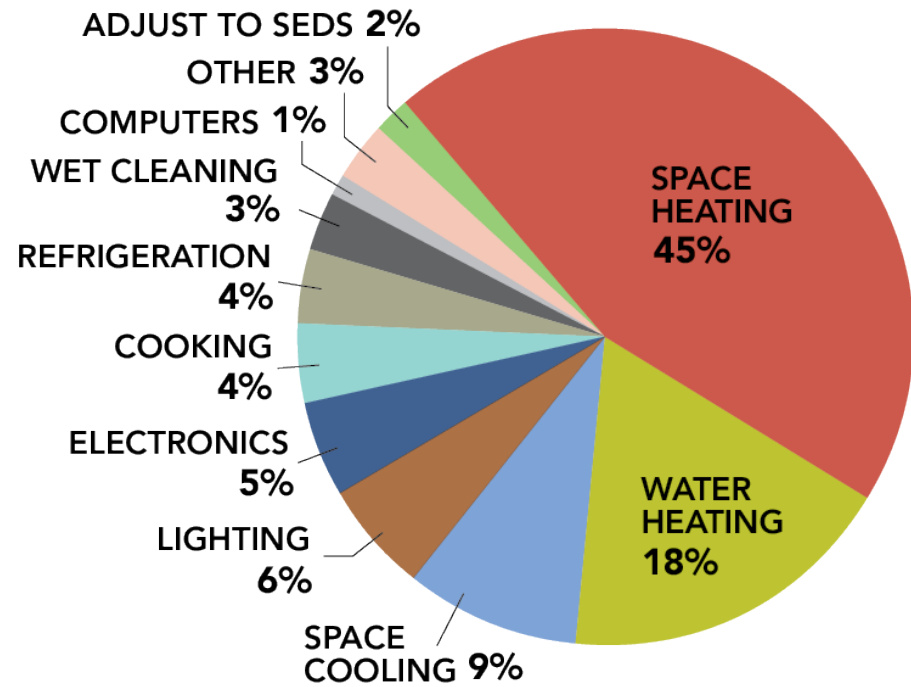
# A Holy Grail



**U.S ENERGY CONSUMPTION  
IN 2008 99.5 QUADS**



**RESIDENTIAL SITE ENERGY  
CONSUMPTION BY END USE**

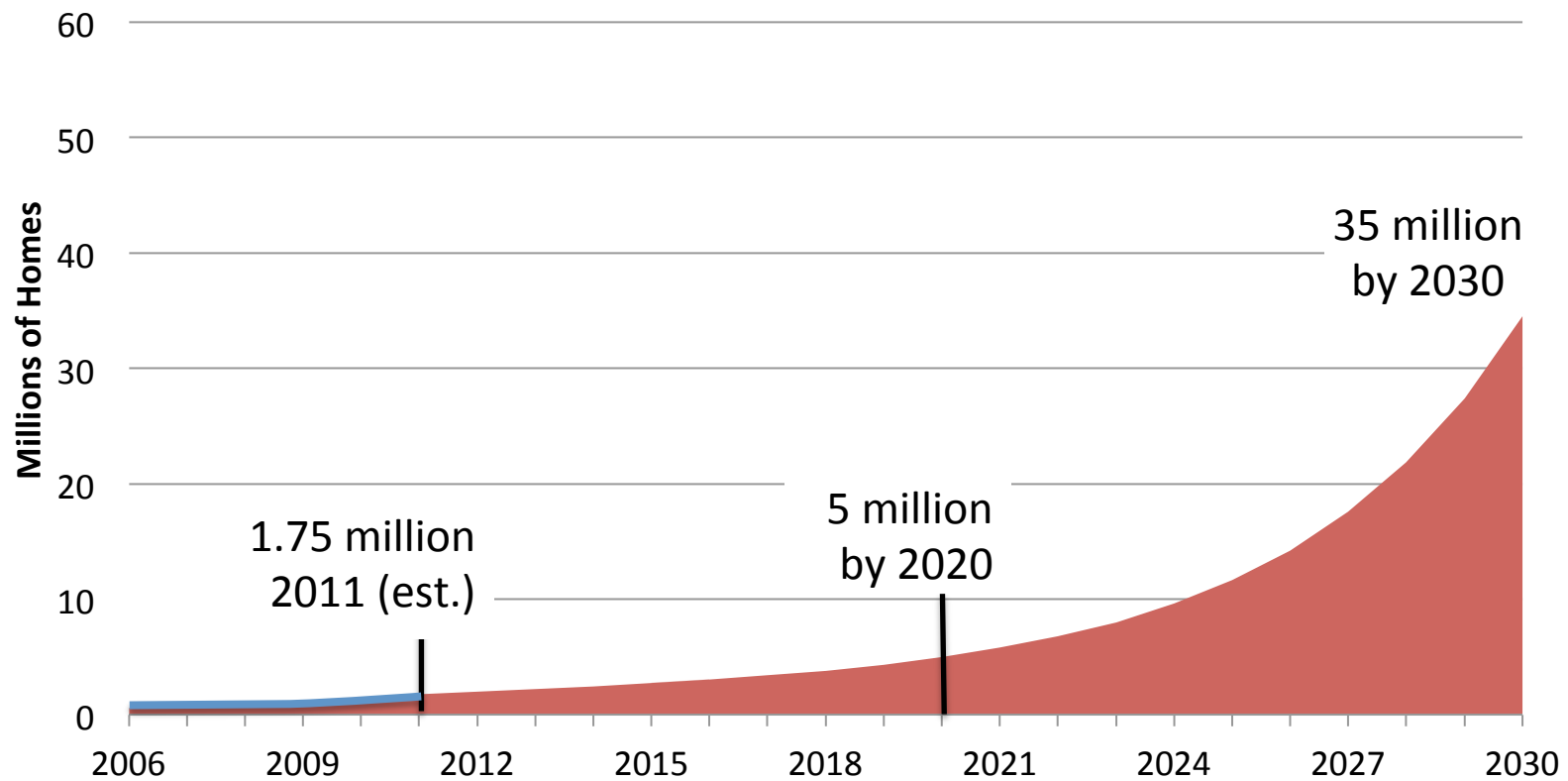




# Current Best Case Scenario



**Whole Home Retrofits Through 2030  
If Current Groth Rate is Sustained  
(Cumulative)**

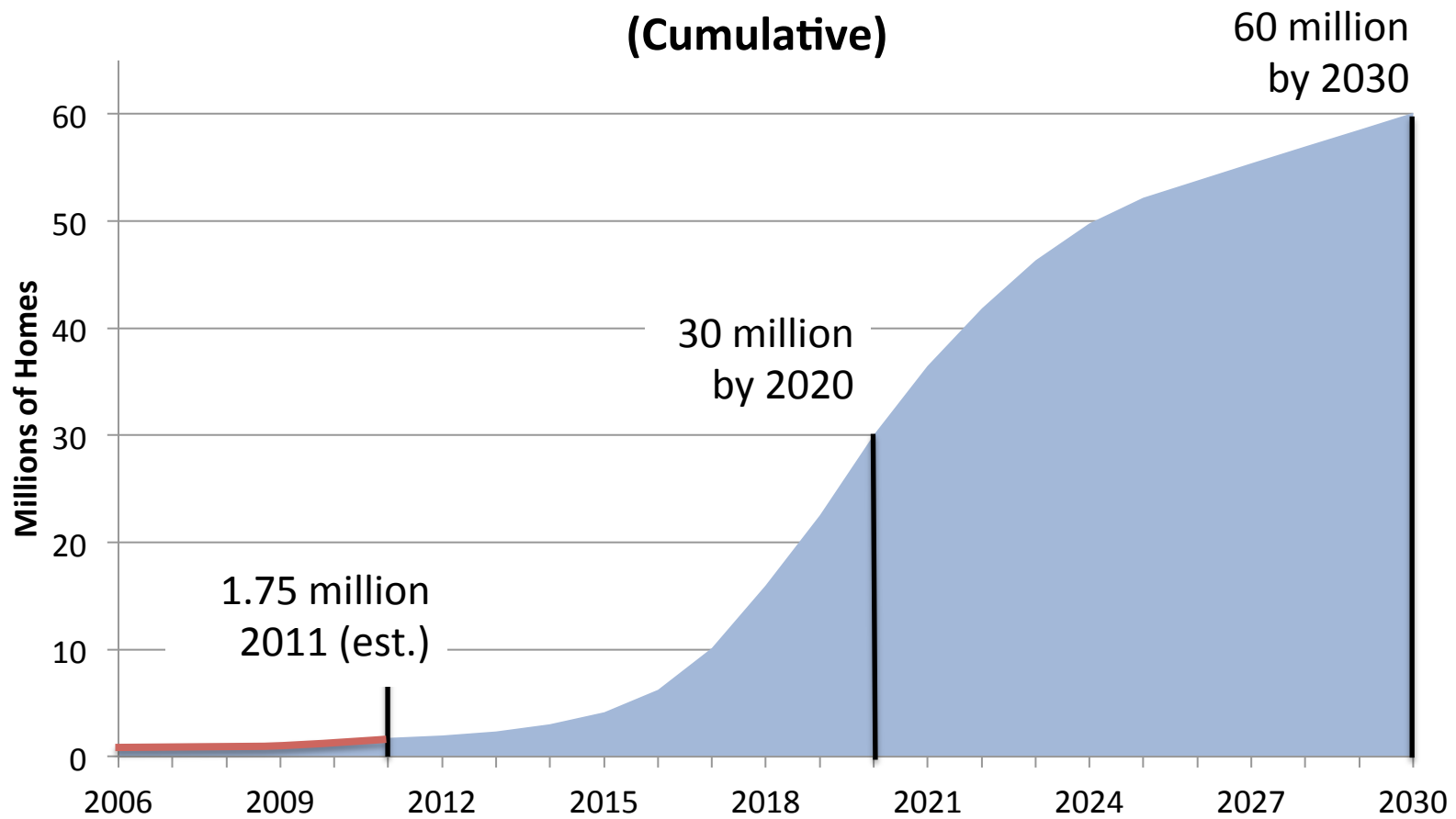




# What we really would like to see

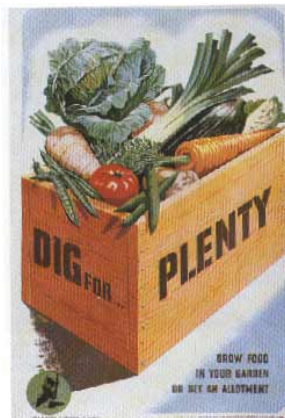


## Whole Home Retrofits Through 2030 In Our Dreams (Cumulative)





# Victory Gardens





# Victory Gardens



- **December 6, 1941:**
  - National Defense Garden Project
  
- **1943:**
  - **50%** of U.S. households had Victory Gardens
  - Produced **40** percent of all U.S. fruits and vegetables
  
- **1944:**
  - Canned **4.1 billion** cans/jars of food (165/household)



# How did they do it?



- Nation at War
- Food needed for troops
- Food needed for home front to be healthy and do their part



- National crisis, real and present needs



# How did they do it?

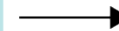


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- Plant a garden for victory
- Grow your own: be sure
- Can all you can it's a real war job



- SUCCESS - Simple, vivid, concrete, credible, emotional, [stories]





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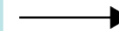


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- USDA and Office of War Information
- USDA National Garden Conference in DC
- State Garden Conferences
- State Defense Councils, State Nutrition Committees, USDA Defense Boards
- County Victory Garden Committees
- Schools



- Coordinated nationally, implemented locally
- Hierarchical but decentralized



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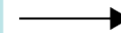


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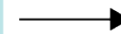
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- Existing public and private sector networks



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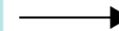


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- Visible



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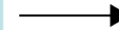


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- Fresh fruits and vegetables (spring-fall) canned vegetables and fruits (winter)



- Tangible benefits



# Behavior Genius



- National crisis, real and present needs



## BEHAVIORAL PRINCIPLES LEVERAGED

- Appealed to higher purpose and self-interest
- Channeled fear into action by providing direct concrete act that demonstrably helped address the threat



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▪ Tangible benefits



- Persistent and repeated gratification: fresh vegetables in summer and canned vegetables with vitamins in winter, enough food, healthy family



# Current Home Energy Retrofit



VICTORY GARDENS

EE HOME RETROFIT



# Current Home Energy Retrofit



## VICTORY GARDENS

National crisis, real and present needs

## EE HOME RETROFIT

Yes, but many skeptics/opponents



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Existing public and private sector networks	Sometimes
Visible	No
Tangible benefits	Few

# VICTORY HOMES





# Switch Framework (Heath and Heath)



- **Motivate the Elephant**
- **Direct the Rider**
- **Shape the Path**



# Motivate the Elephant



## **Motivate the Elephant**

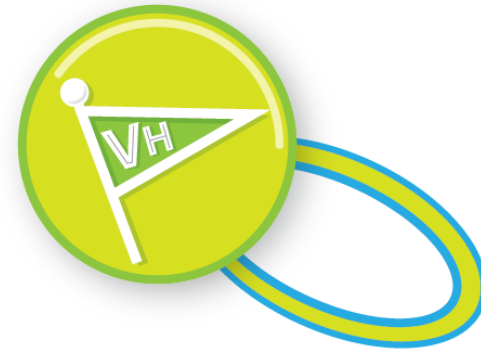
- Visible**
- Shared higher purpose  
[And personal benefit]**
- Hard work**



# Motivate the Elephant



## Make It Visible





# Shared higher purpose [And personal benefit]



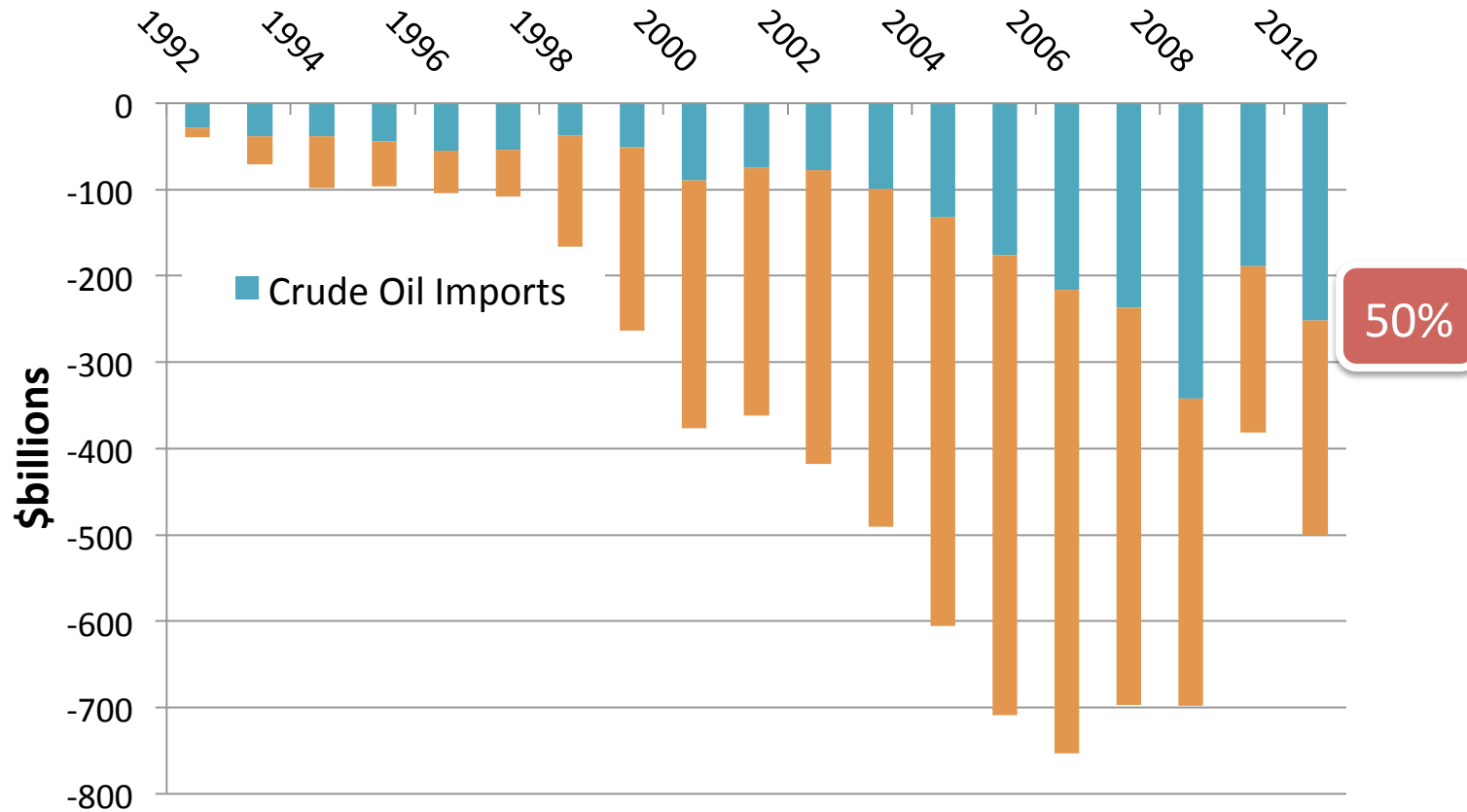
- **Put America on its feet**
- **Stand tall and independent**
- **Others?**



# America = Fat, Lazy, Import Junky



## Oil Imports As a Share of U.S. Trade Deficit





## Hard work



- **Energy upgrade 50% of U.S. homes by 2030**
  - 10% by 2015
  - 30% by 2020
  - 100% by 2050
- **Cut your home's energy by 40%**





# Hard Work



- Chose to pay more to keep your dollars working in the US

- Take two steps
  - Light cool and bright
  - Tuck your home in tight





# Shape the Path



- **Structure retail choice architectures**
- **“Energy upgrade” add on from home improvement contractors**
- **“You’ve heard of a barn raising, come on over to our house sealing!”**
- **Lawn Flags**
- **Home energy reports –a la Opower**



# Shape the Path



## Existing Networks – Products/Services





# Shape the Path



## Existing Networks - Social



- **Traditional – Community groups [school, scout, church, etc.]**

- **Electronic – Facebook, Google+ etc.**





# Shape the Path – Examples



- **Operation Change Out**
- **Lighting Facts**
- **Market Lift**



# Tangible Benefits



- Gratification when see visible home improvement



- Status/in-group feeling from public display



- Comparative and progressive feedback



# Coordination and Leadership





# Current Home Energy Retrofit



VICTORY GARDENS

VICTORY HOMES





# Current Home Energy Retrofit



**VICTORY GARDENS**

National crisis, real and present needs

**VICTORY HOMES**

Possible



# Current Home Energy Retrofit



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## VICTORY HOMES

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Visible	Yes



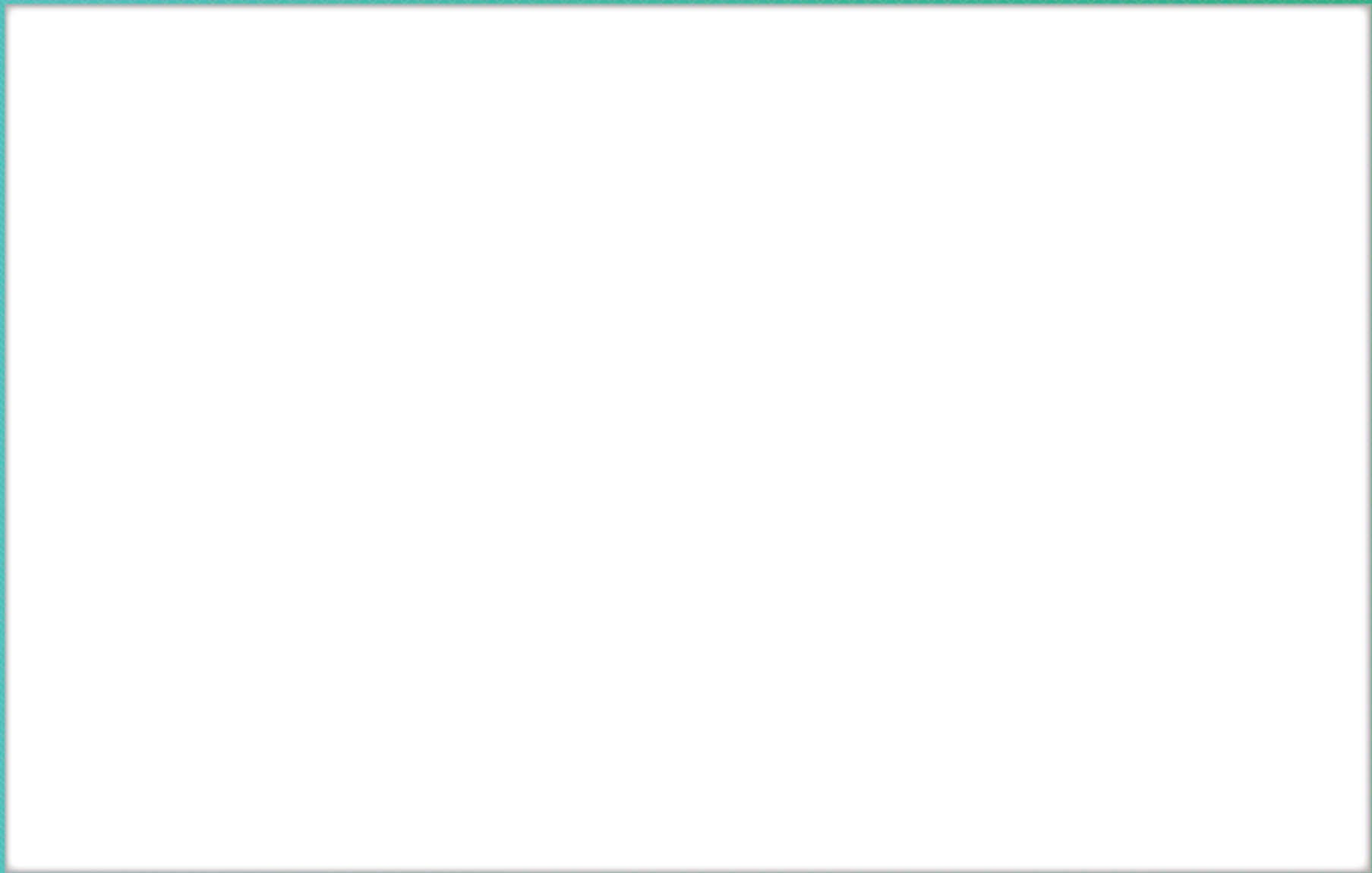
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Existing public and private sector networks	Possible
Visible	Yes
Tangible benefits	Yes



# Discussion





The Energy Efficiency  
Market Experts

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