



## The Economic Case For Energy Efficiency - From Business Models to End Users

Utah Renewable Energy Conference  
April 19, 2011

## DwellTek Introduction

- Utah-based Home Performance Contractor
- Holistic service offering – from insulation to windows to solar and everything in between
- Building Performance Institute accredited contractor, RESNET certified home raters
- Utah Home Performance with Energy Star partner
- My personal background



## Key Principles

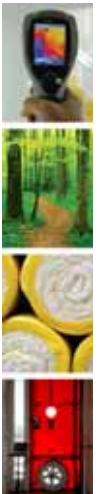
***Home energy efficiency is not a one-time purchase – it's a long term path***

### **For Homeowners**

- Data-driven baseline
- Establishing priorities
  - Budget
  - Comfort
  - Sustainability
- Looking for guidance

### **For Contractors**

- Operate and sell with integrity
- Lifetime value of the customer
- Integrate evolving technology
- Long-term relationships



# The DwellTek Path to Renewable Energy

## Analyze

- BPI- accredited home energy performance assessment
- Short-term and long-term priorities

## Optimize

- Reduce base-load demand
- Leverage controls to enable better operating decisions

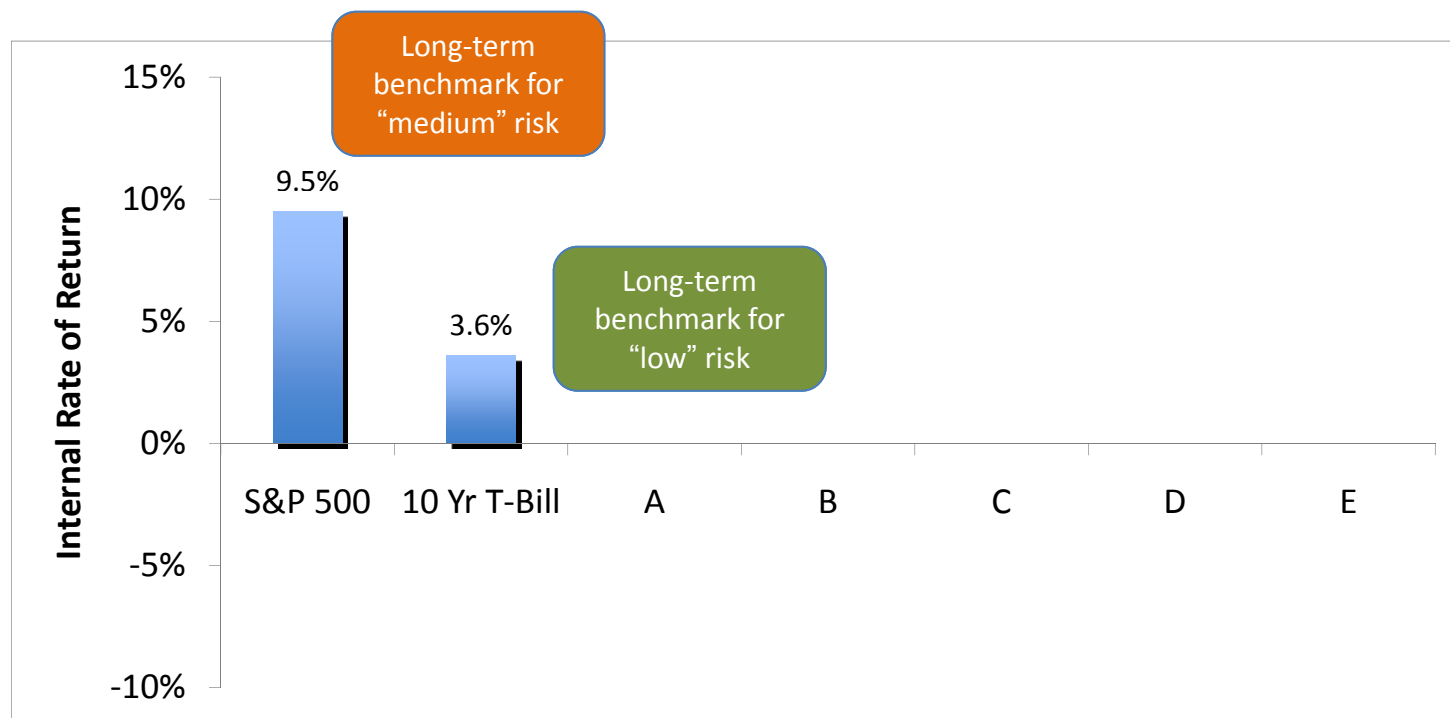
## Unplug<sup>®</sup>

- Modular, scalable systems
- Innovative hybrid solutions



## Informed Decision Making

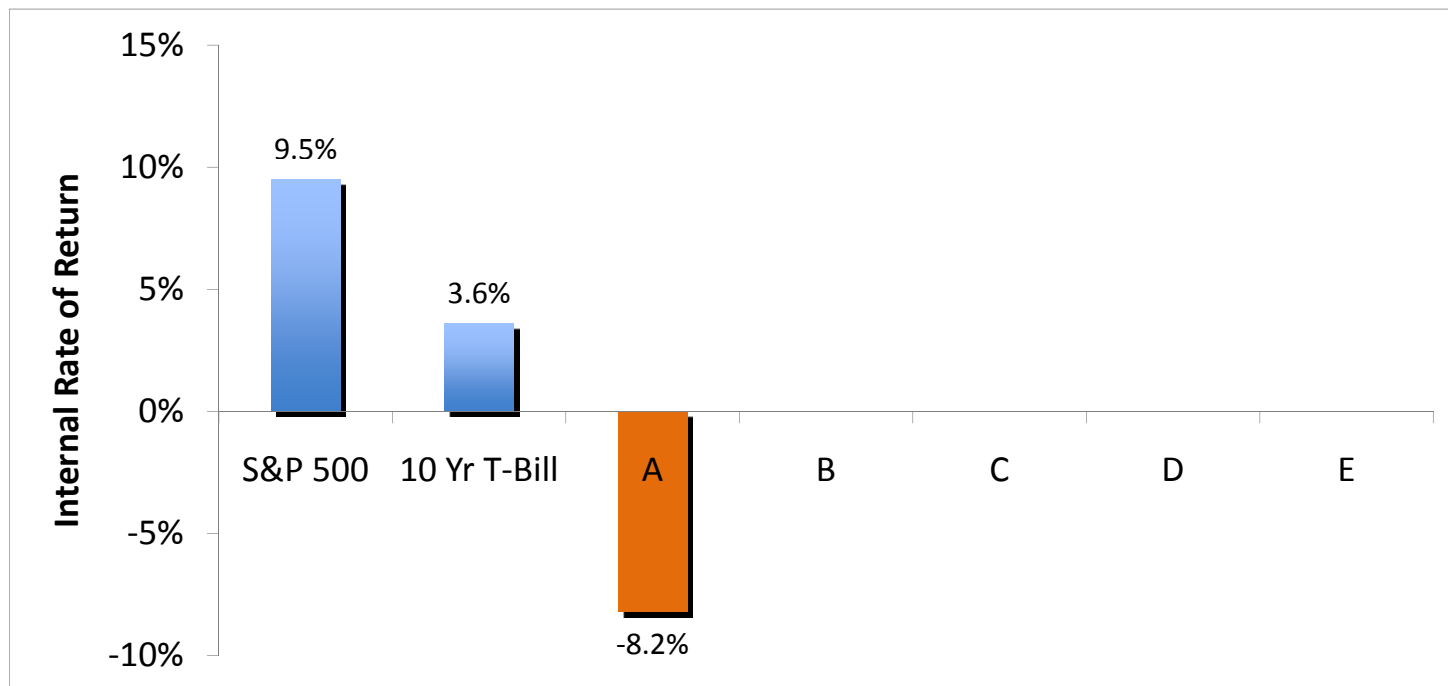
- Internal Rate of Return (IRR) is a time-weighted measure of investment return
- “Apples to apples” comparative to financial rates of return e.g. S&P 500
- All investments must be considered in terms of risk



## “Traditional” PV Solar Returns

### Scenario A

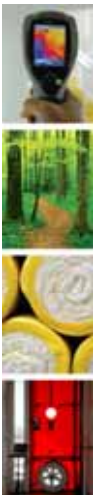
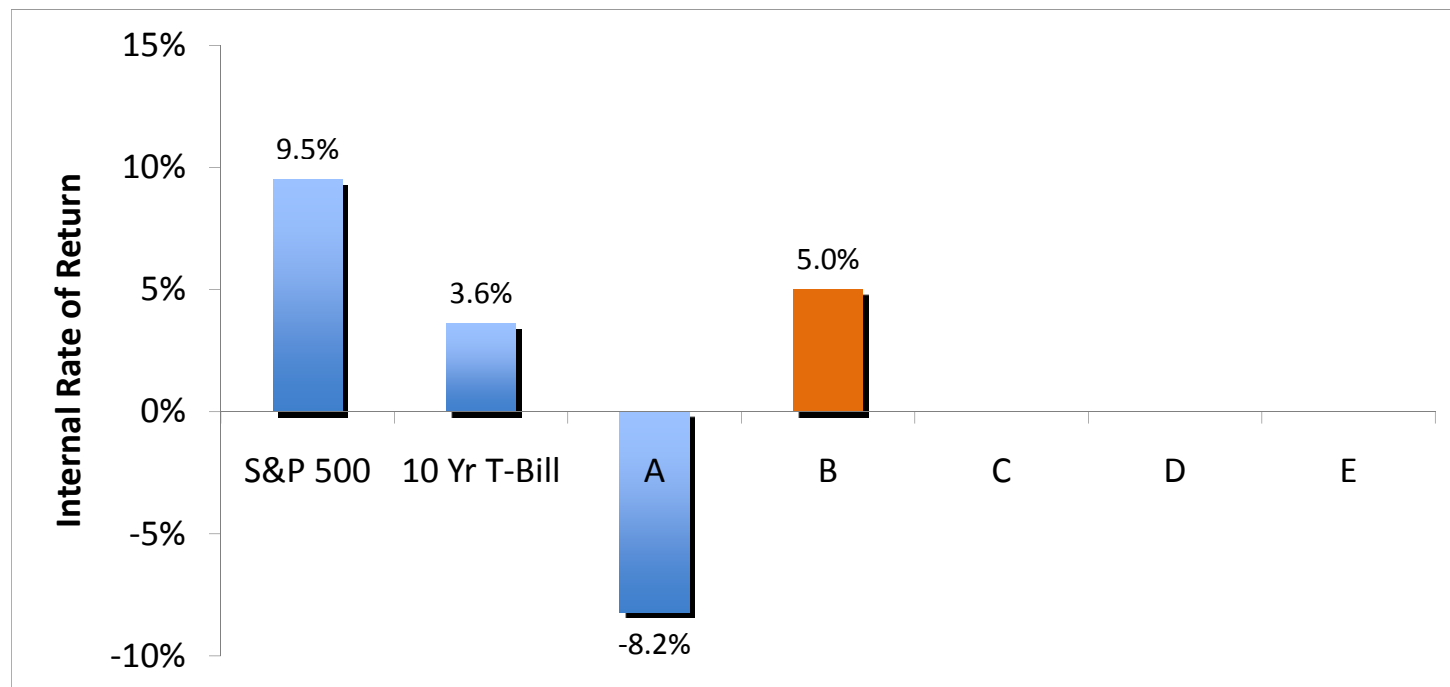
- 4kw standard PV system: \$28K gross cost, \$12K net of rebates & tax credits
- Homeowner sells home in 10 years



## Evolving Market Awareness

### Scenario B

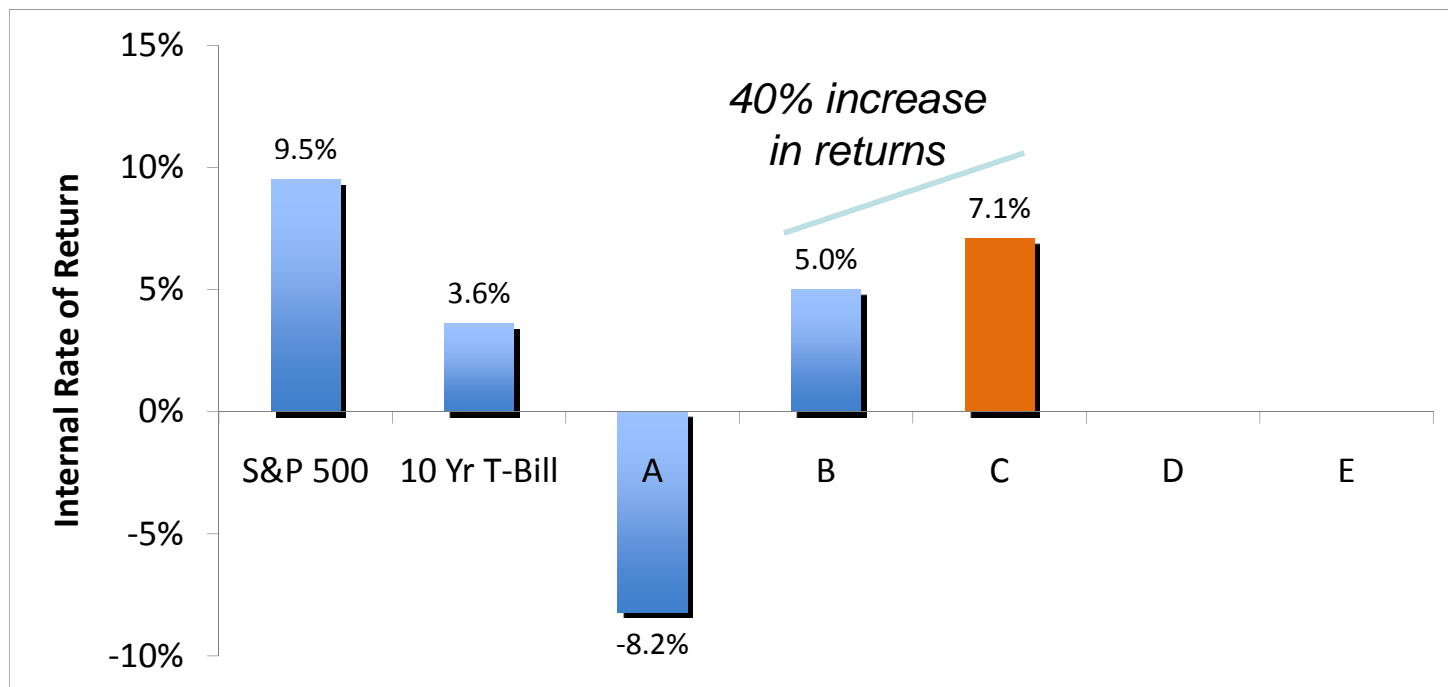
- Same 4kw standard PV system
- Home sale in 10 years at 5% price premium over similar non-solar home



## Holistic Home Efficiency Approach

### Scenario C

- \$3K “pre-investment” in energy efficient home improvements to reduce electric base-loads by 20%
- Down-size PV system to 3kw: \$22K gross cost, \$9K net of all incentives



# Hedge Against Rate Increases

## Scenario D

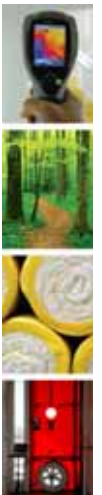
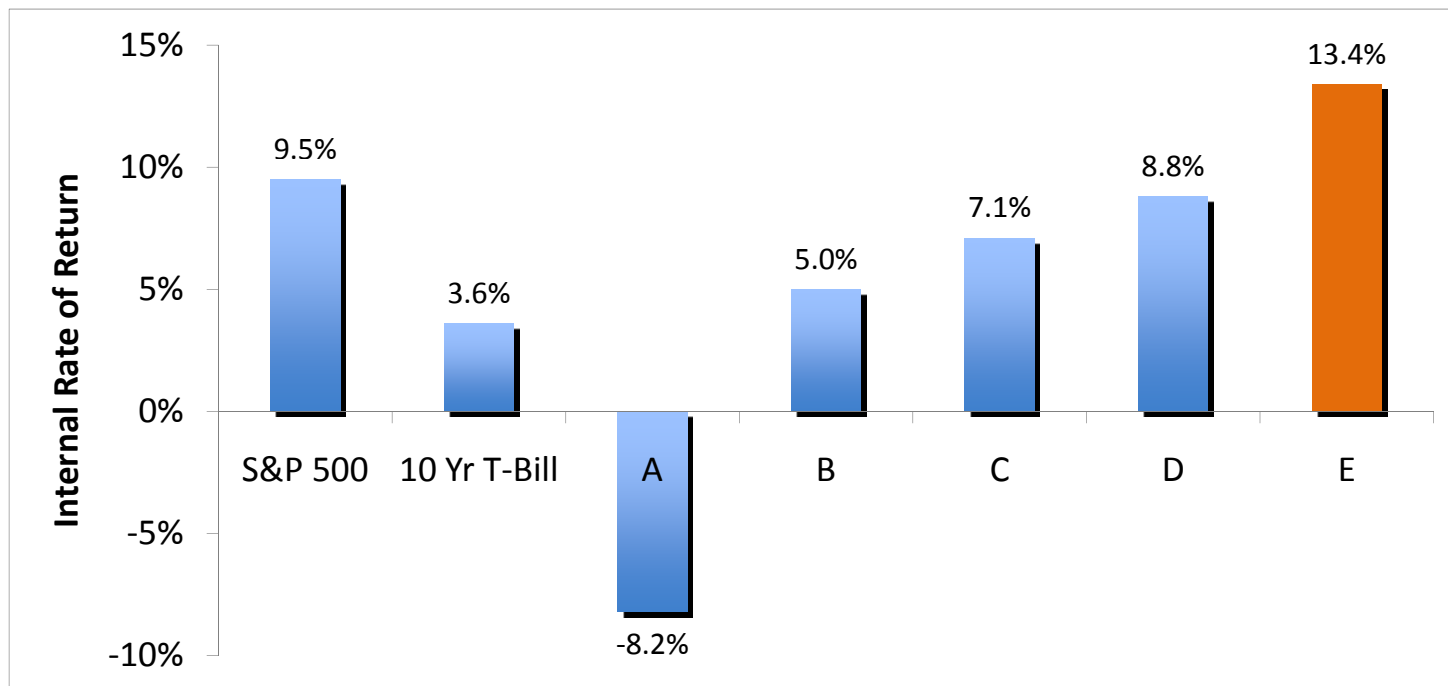
- Same 3kw PV system and efficiency improvements
- Electric rates rise to East Coast levels



## Betting on the “Green Revolution”

### Scenario E

- Same 3kw PV system and efficiency improvements
- Electric rates rise to East Coast levels
- Home sale in 10 years at 10% premium over similar non-solar homes



## Summary

- Energy efficiency is not a one-time purchase, it's a long term path
- Analyze, optimize, unplug<sup>®</sup>
- Home energy efficiency and renewables can be an outstanding financial investment
- DwellTek is here to help!

