

THE  
**CADMUS**  
GROUP, INC.

# Boulder County & City's Residential Energy Retrofit Program

Prepared by

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**4<sup>th</sup> Colorado Utility Efficiency Exchange**  
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# Background

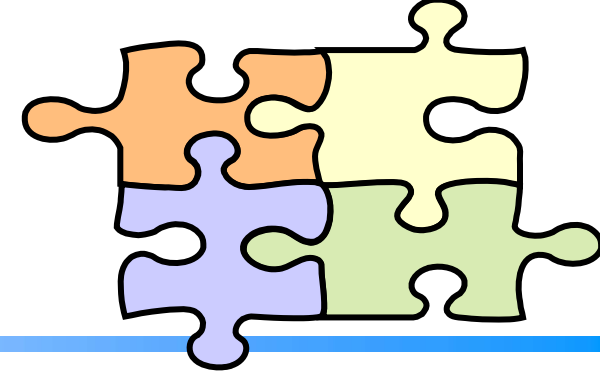
- Kyoto target passed in 2002
- Community approved carbon tax generates \$1.6 million annually
- Current residential sector target: 94,000 mtCO<sub>2</sub>e
- Program needed to deliver significant GHG reductions and engage citizenry

# Program Goals

- Generate significant GHG reductions
- Overcome barriers to residential investment in energy efficiency
- Simple, comprehensive program path
- Offer solutions for all building types
- Leverage available financial incentives & fill in gaps with new incentives
- Foster a robust contractor base

# Design & Development Process

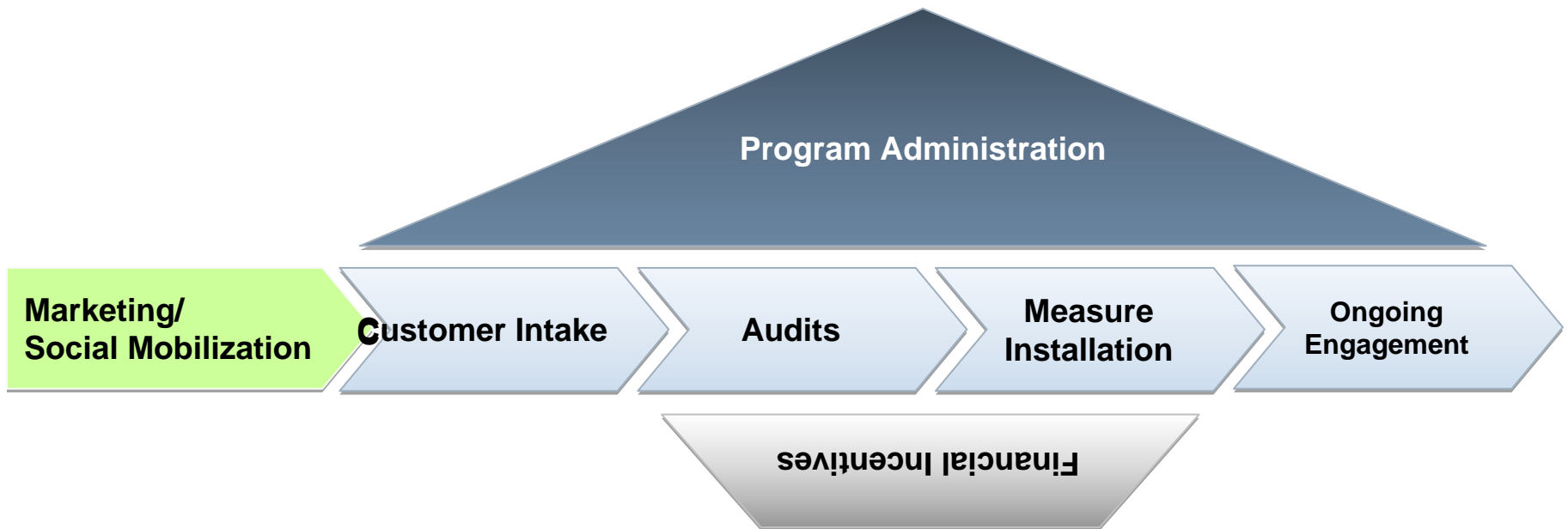
- Extensive research
  - Innovative programs around the U.S.
  - Incentives (utility, local, state, Fed)
  - Complementary programs & regulatory activities
  - Market segmentation & housing characterization
- Stakeholder priorities & synergies
  - GEO, LIHEAP, Xcel & other utilities, contractors



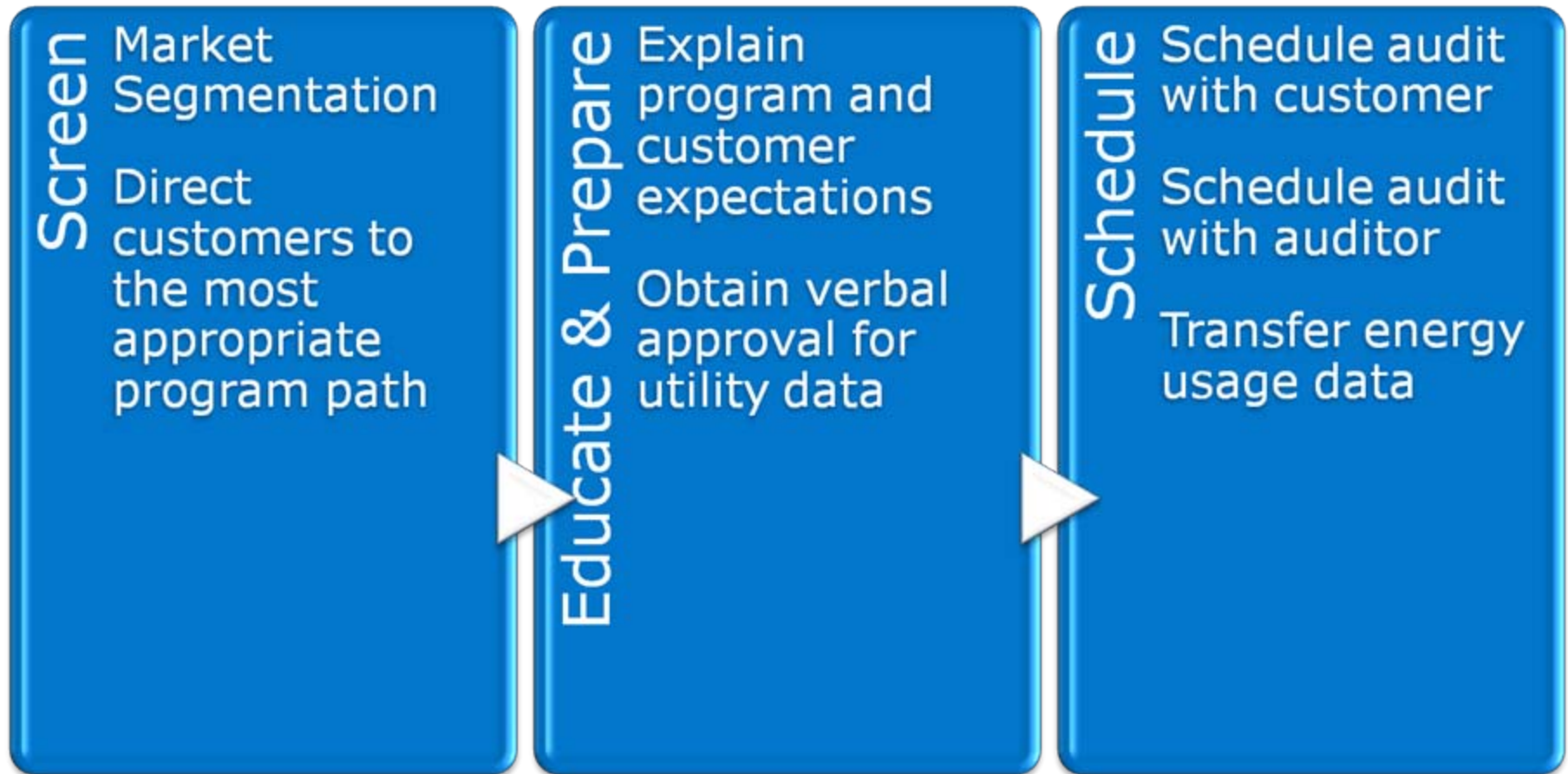
# Solving the puzzle

- Seamless audit to action vs. customer choice, fairness, consistent pricing
  - Up front customer commitment, on-site work order
  - One-on-one assistance
- Simple, one size fits all vs. targeted audits, all building types
  - Three basic audit types, fit to customer scenario
- Open contractor market vs. quality control, fairness
  - Simple rotation, managed by administrator
- Persistence and awareness
  - Ongoing engagement

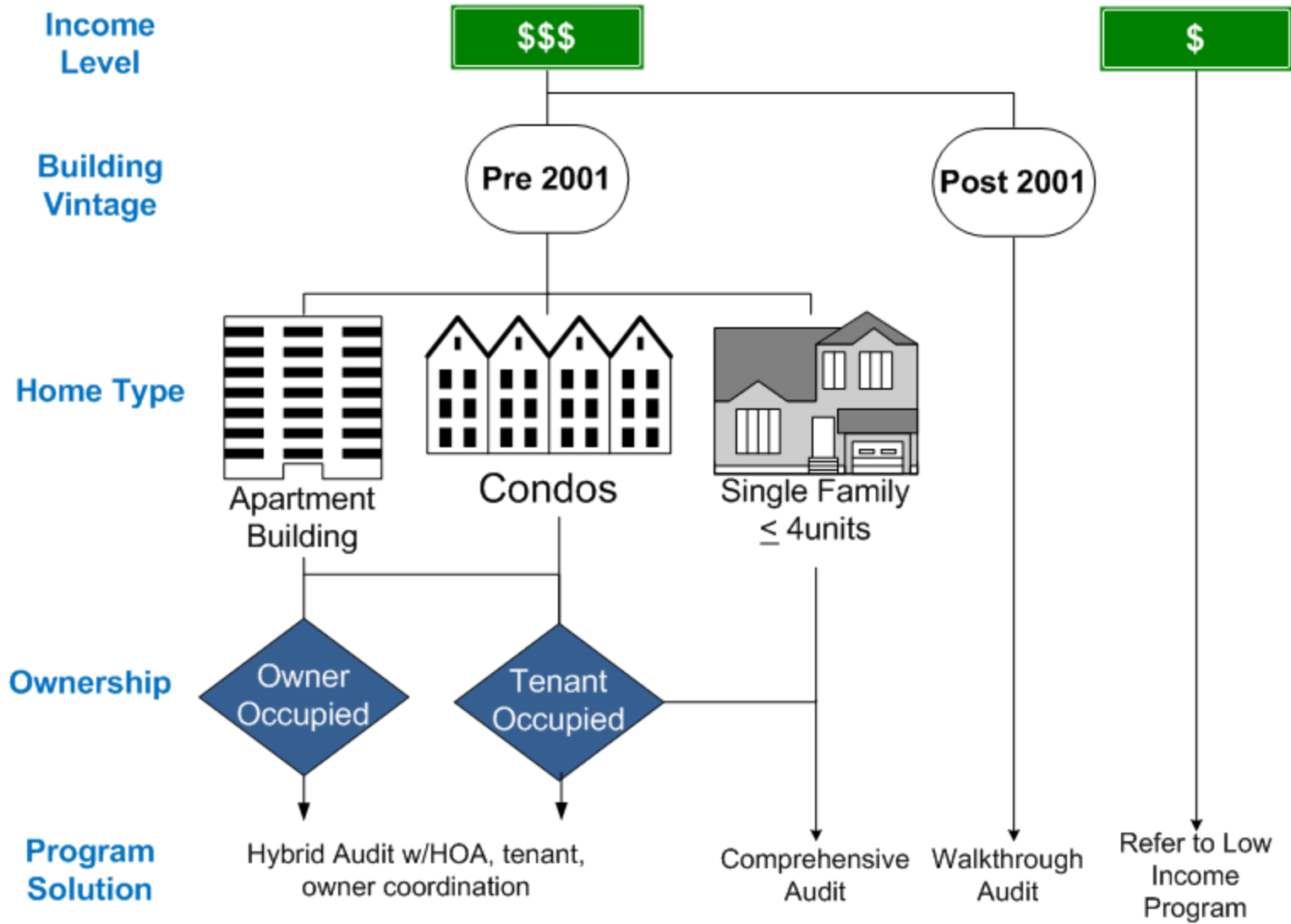
# Program Structure



# Program Features: Customer Intake

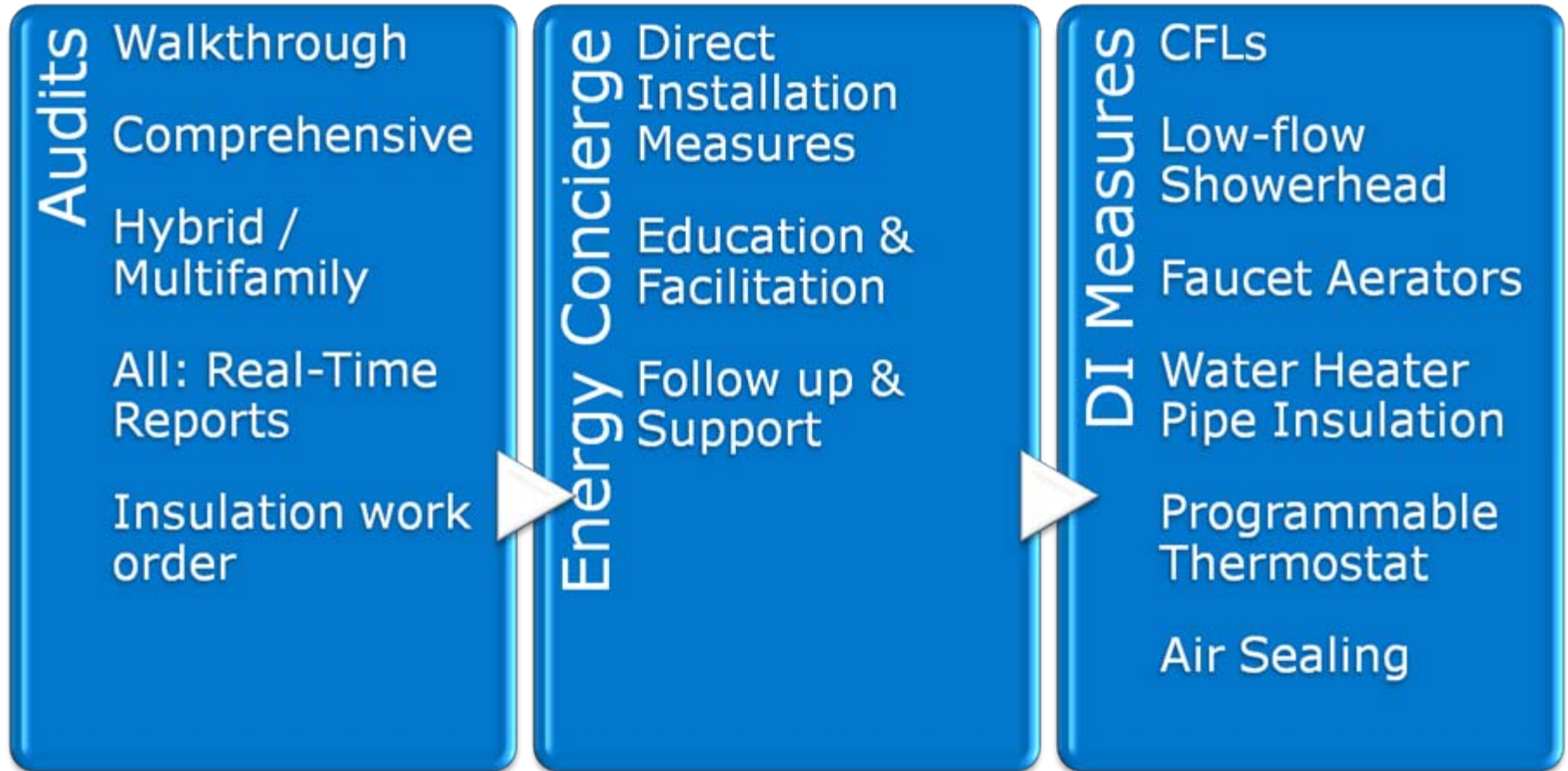


# Market Segmentation Approach

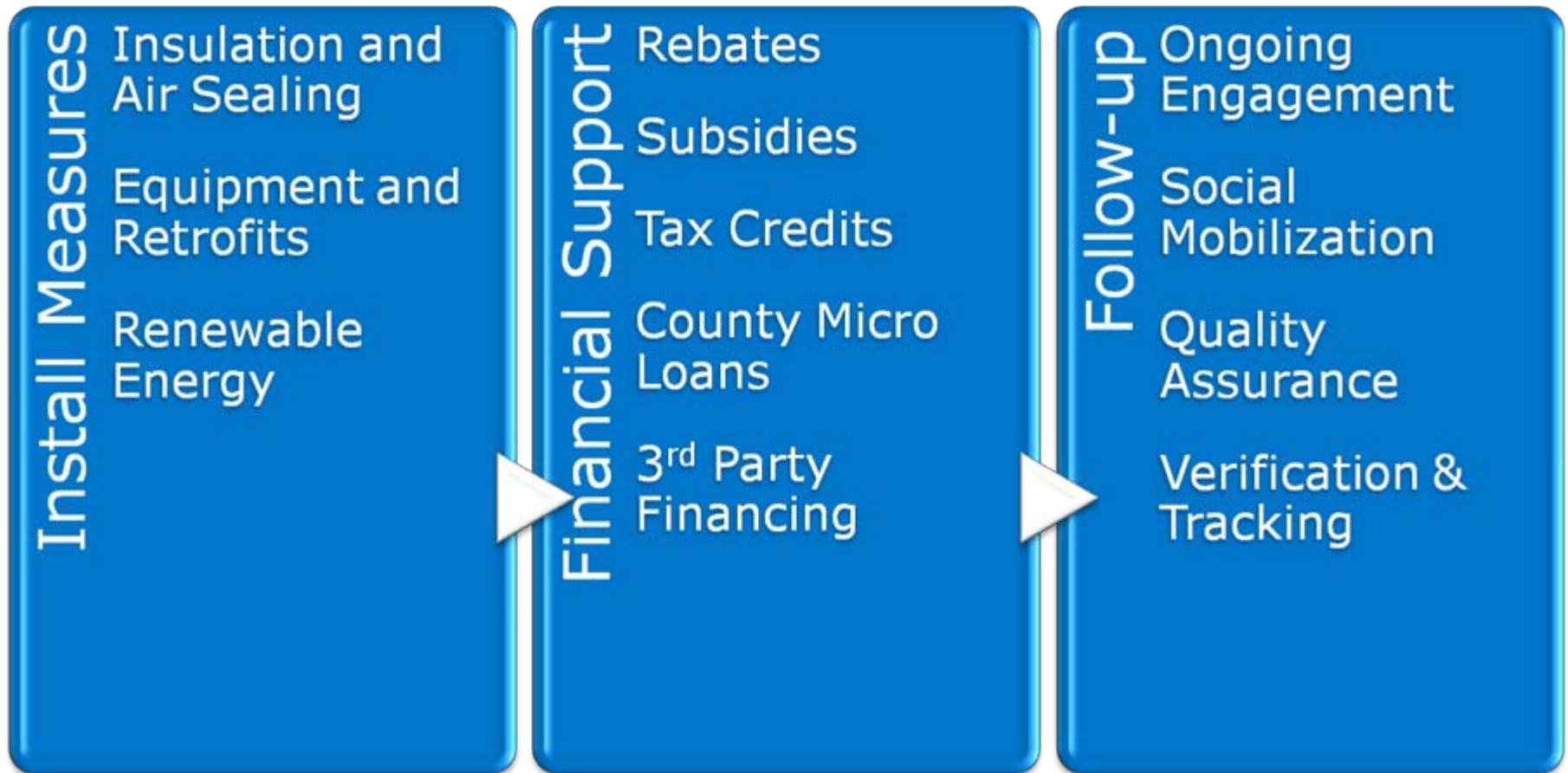




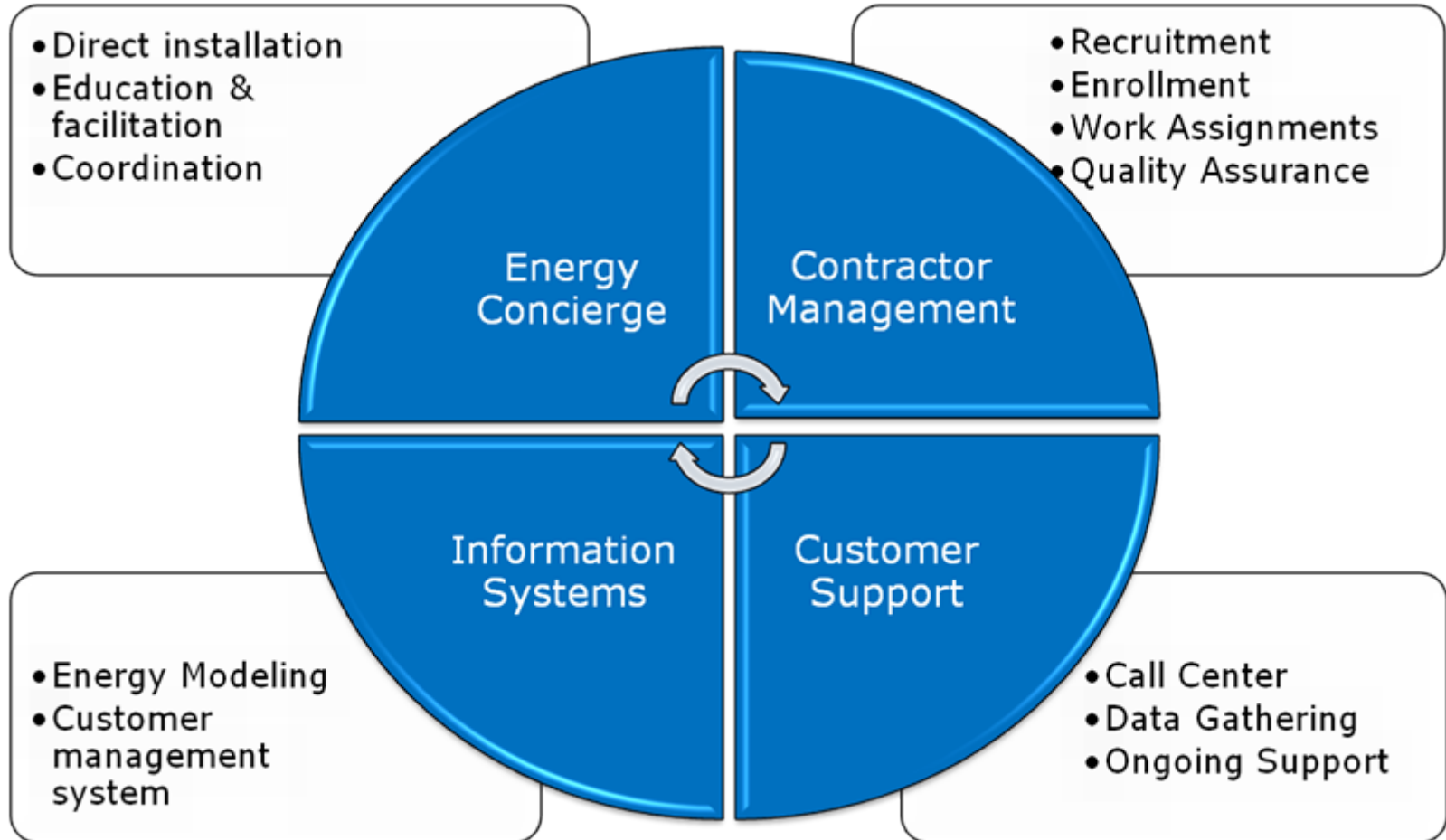
# Program Features: Audits



# Program Features: Post-Audit



# Program Administration



# Customer Costs & Incentives

- Audit Costs (subsidized by County & Xcel)
  - Comprehensive \$120
  - Walkthrough \$20
  - Multifamily ~\$11/unit or \$200/building
- Measure Costs/Incentives
  - Direct Install measures: Free
  - T-stat co-pay \$15
  - Measure rebates per utility/state/fed
  - County rebates TBD

## 3 Year Program Goals/Projections

- Participation: 10,000 homes
- GHG reductions: ~29,650 mtCO<sub>2</sub>e
- Therms: ~1,547,000
- MWh: ~25,826
- Total investment in EE: ~\$40.5M
  - Net customer investment: ~\$26.9
- Job creation: ~31 FTE

# Lessons for Utilities

- City/County sustainability goals + ARRA \$\$ = Great synergies with Utility DSM program goals
- Local government programs have more flexibility
  - No cost effectiveness requirements
  - Able to fill gaps in utility offerings
  - Drive participation in utility programs

# Thank You

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