



Residential Energy Efficiency Scheme

PEPDEE Workshop

Essential Services Commission of South Australia

www.escosa.sa.gov.au

escosa@escosa.sa.gov.au

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Topics

- ❖ Policy Objectives
- ❖ Design
- ❖ Operation
- ❖ Administration
- ❖ Results

Policy Objectives

- ❖ Improve energy efficiency and reduce greenhouse gas emissions within the residential sector
- ❖ Assist households prepare for likely energy price increases
- ❖ Reduce total energy costs for households, particularly low income households

Design

- ❖ 6 year scheme – 2 by three year stages
- ❖ REES Obligated retailers - > 5,000 customers
- ❖ Energy efficiency activities – deemed values
- ❖ Energy audits
- ❖ Priority group – 35% of activities & all audits
- ❖ No market certificates – but trading permitted

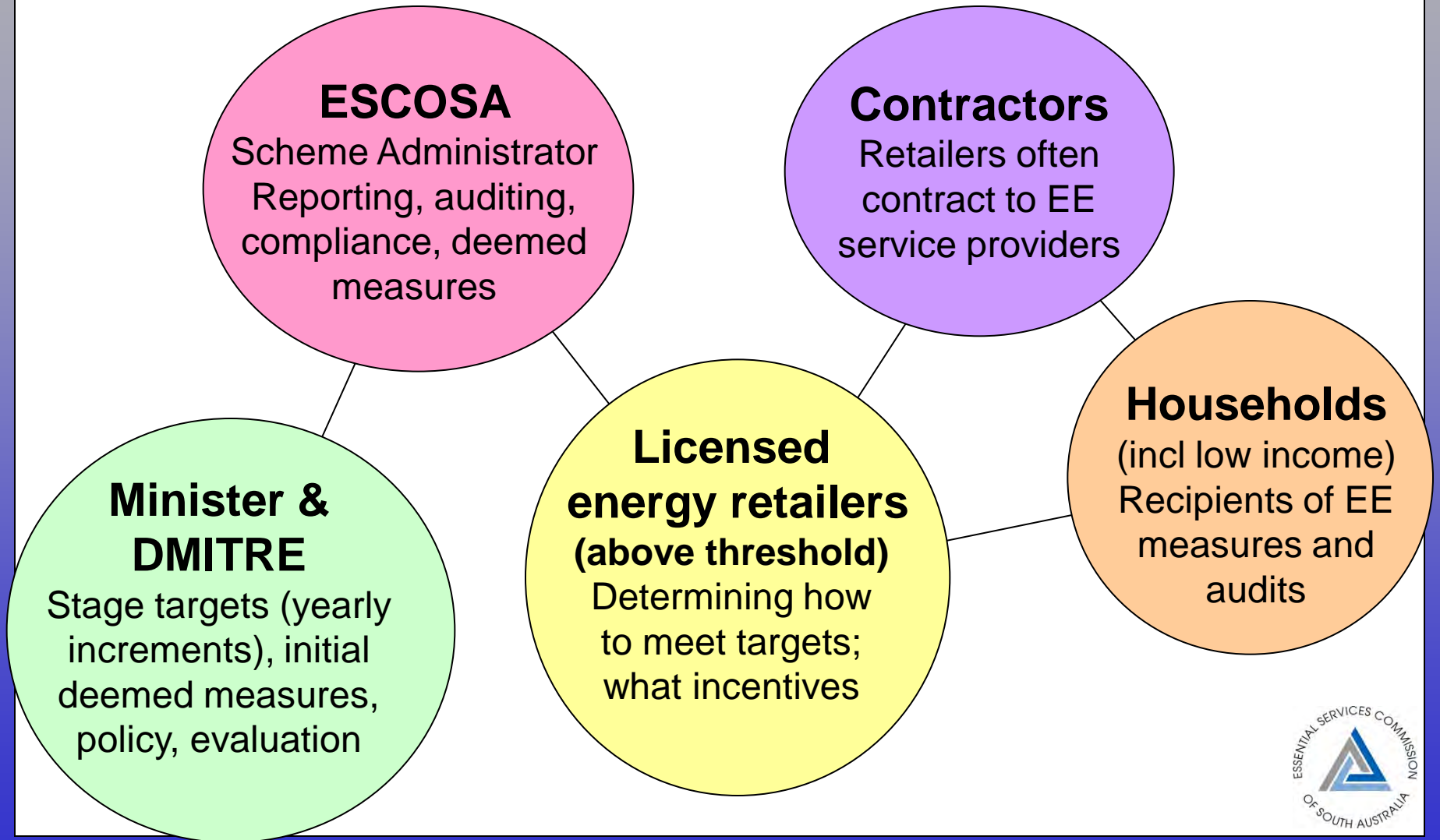
Priority Group

- ❖ Priority group = low income households
- ❖ Priority group households–
 - holds one of the following Commonwealth cards:
 - Pensioner concession card
 - TPI Gold Repatriation Health Card
 - War Widows Gold Repatriation Health Card
 - Gold Repatriation Health Card (EDA)
 - Health Care Card (including a Low Income Health Care Card);&/or
 - receives the South Australian Government Energy Concession;&/or
 - falls within a class of persons who are experiencing hardship determined or approved by the Commission

Operation



Key players



Targets

Stage 1

Stage 2

	2009	2010	2011	2012	2013	2014	Total
Greenhouse gas reduction (tCO ₂ -e)	155,000	235,000	255,000	255,000	335,000	410,000	1,645,000
Priority Group	35%	35%	35%	35%	35%	35%	35%
Energy Audits	3,000	5,000	5,000	5,667	5,667	5,667	30,001

Administration

- ❖ Commission administers the REES
- ❖ Operational rules are outlined in the REES Code
 - available on the Commission's website
- ❖ Commission allocates energy efficiency activity targets among retailers based on energy sales
 - credits for GreenPower sales
- ❖ Commission allocates audit activities among retailers based on customer numbers

General Principles for All Activities

- ❖ *Flexibility* – a range of activities should be available
- ❖ *Additionality* – activities should encourage savings additional to BAU
- ❖ *Verifiability* – savings should be verifiable
- ❖ *Consistency* - confidence that savings could be achieved in the majority of circumstances
- ❖ *Penetration* – technically capable of broad implementation
- ❖ *Accessible and practical* – the activity should be easily implemented in the residential sector
- ❖ *Cost effectiveness* – cost effective abatement
- ❖ *Other schemes* – consider activities and specifications in other schemes

Stage 1 REES Activities

- ❖ Replacing an inefficient showerhead with an efficient unit
- ❖ Installing insulation in an uninsulated roof space
- ❖ Installing draught proofing under doors, around windows, etc.
- ❖ Retiring inefficient refrigerators and freezers
- ❖ Replacing inefficient incandescent lighting with compact fluorescent lighting
- ❖ Install energy efficient ductwork in a ducted air conditioning system
- ❖ Replace an inefficient air conditioner with an evaporative system
- ❖ Replace an inefficient heating and/or cooling system with an efficient system
- ❖ Install an efficient heating and/or cooling system
- ❖ Install low greenhouse intensity water heaters (new install or replacement)

Results

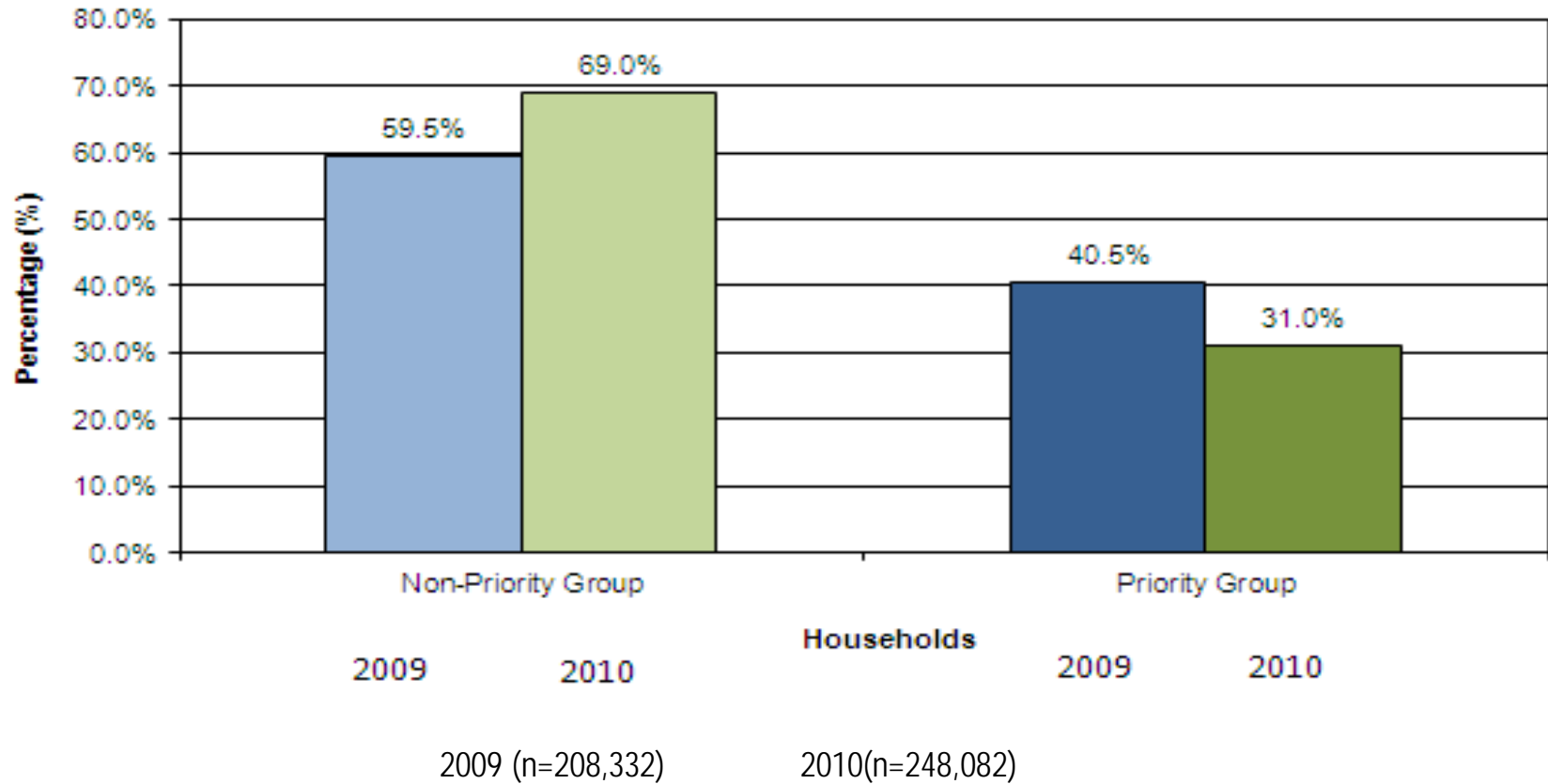
Achievement of overall greenhouse gas reduction target-priority group –tCO₂-e

Year	Priority Group target	Amount reported	Credit applied	Excess/ (shortfall)
2009	54,251	84,369	n.a.	30,118
2010	83,030	77,018	30,680	24,668

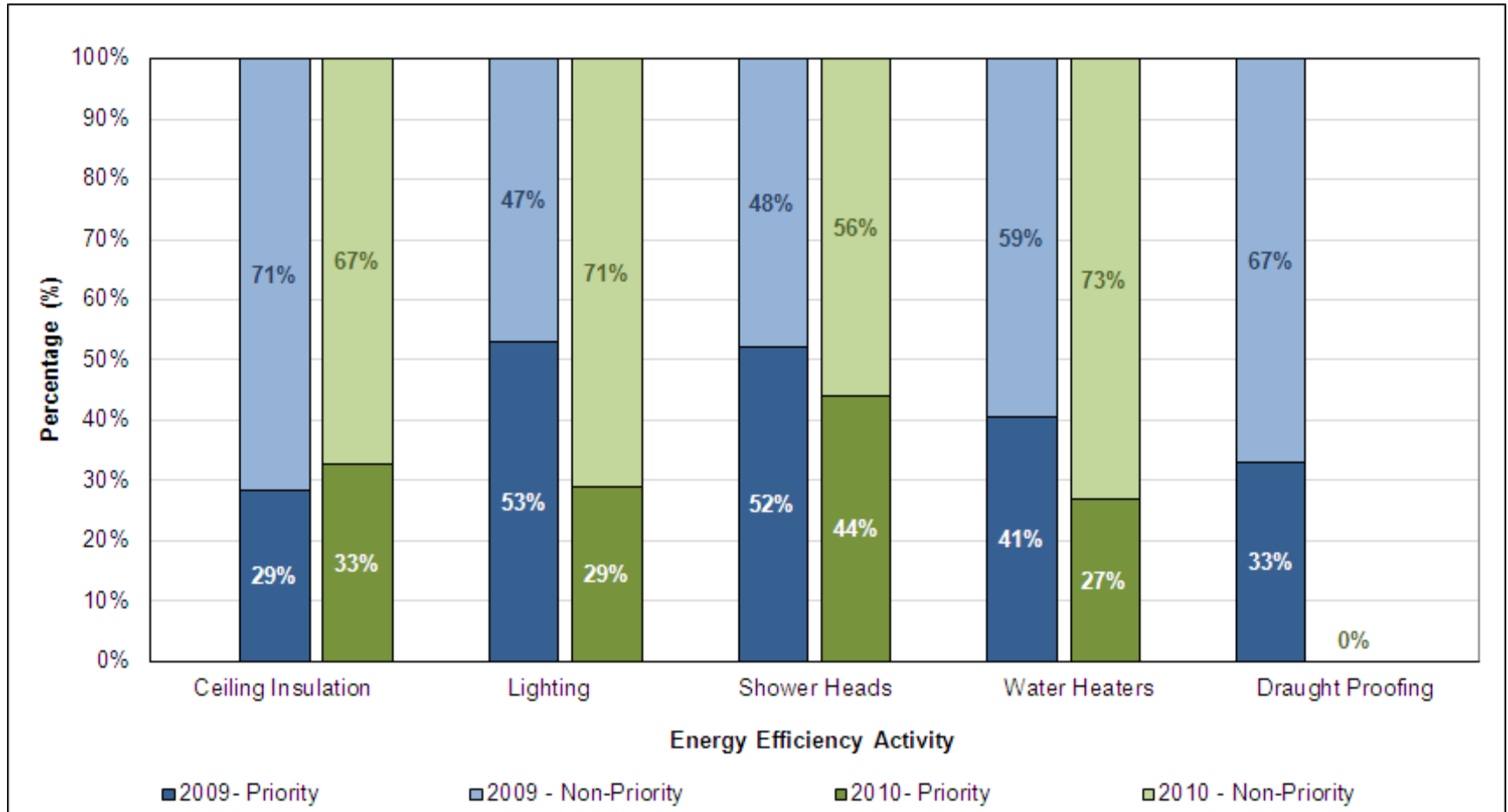
Achievement of overall energy audit target

Year	Overall target	Number reported	Credit applied	Excess/ (shortfall)
2009	3,000	3,674.5	n.a.	674.5
2010	5,005.5	6,526.5	679	2,200

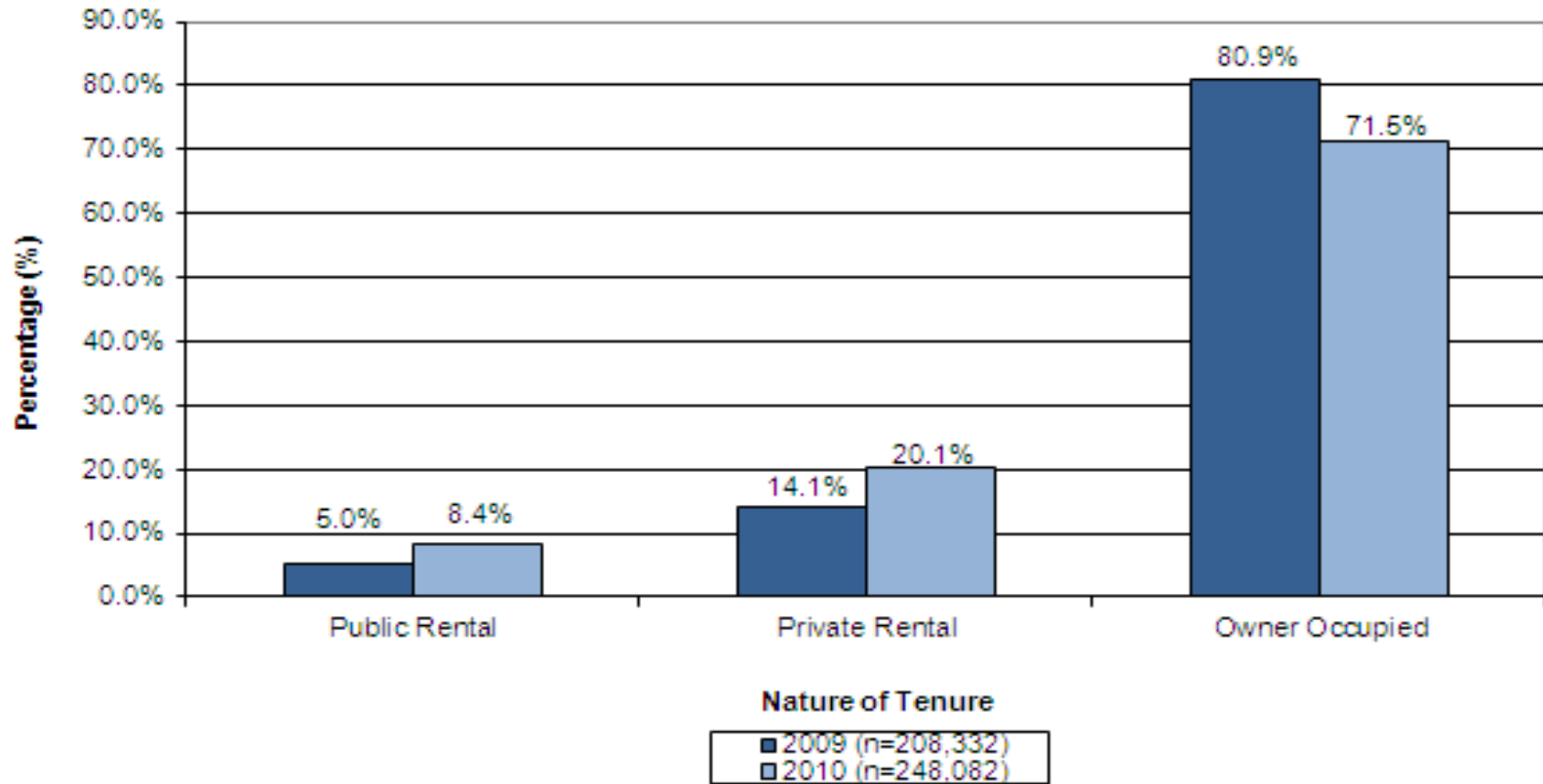
Priority Group Activities



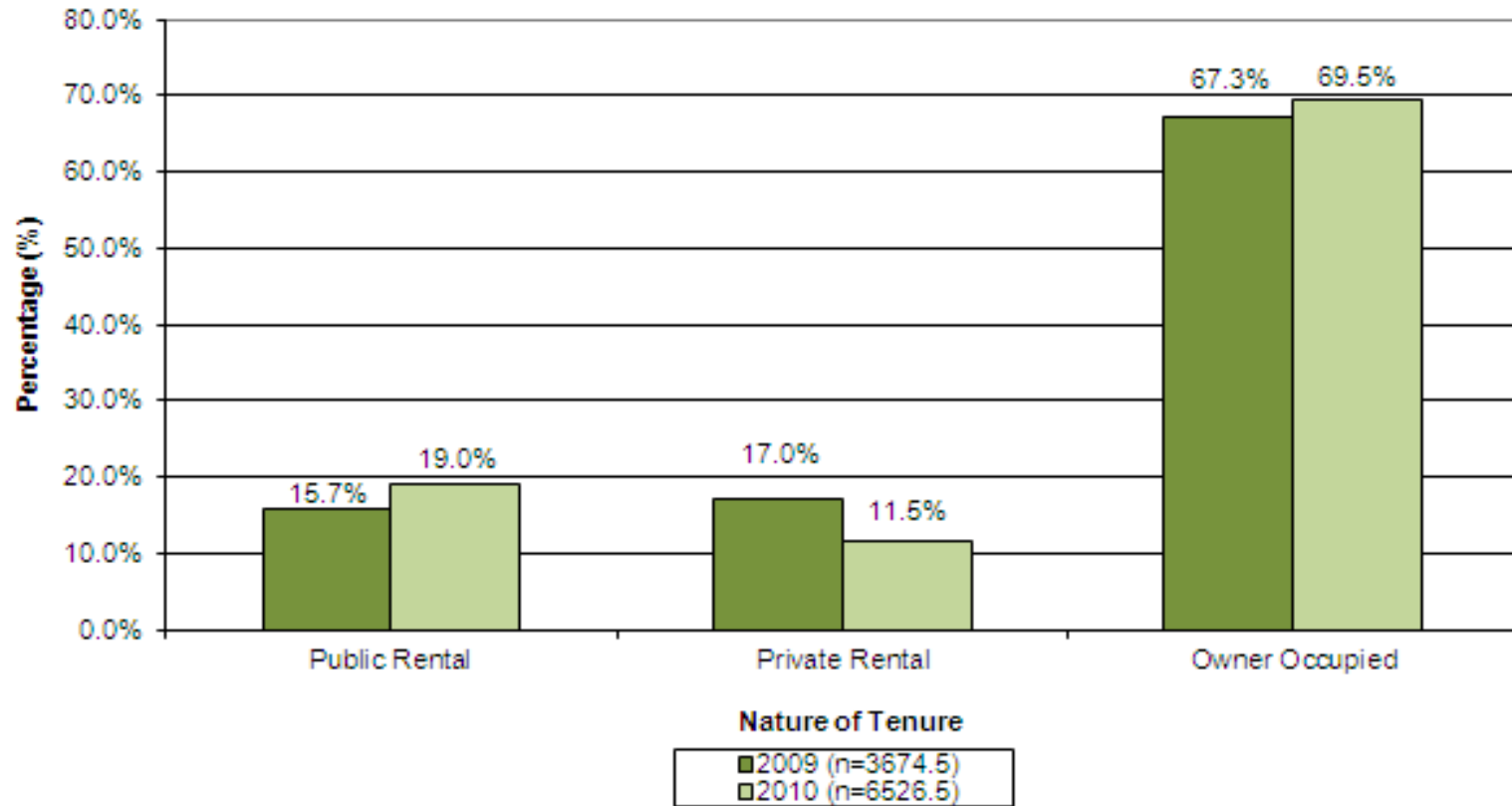
Priority Group Activities



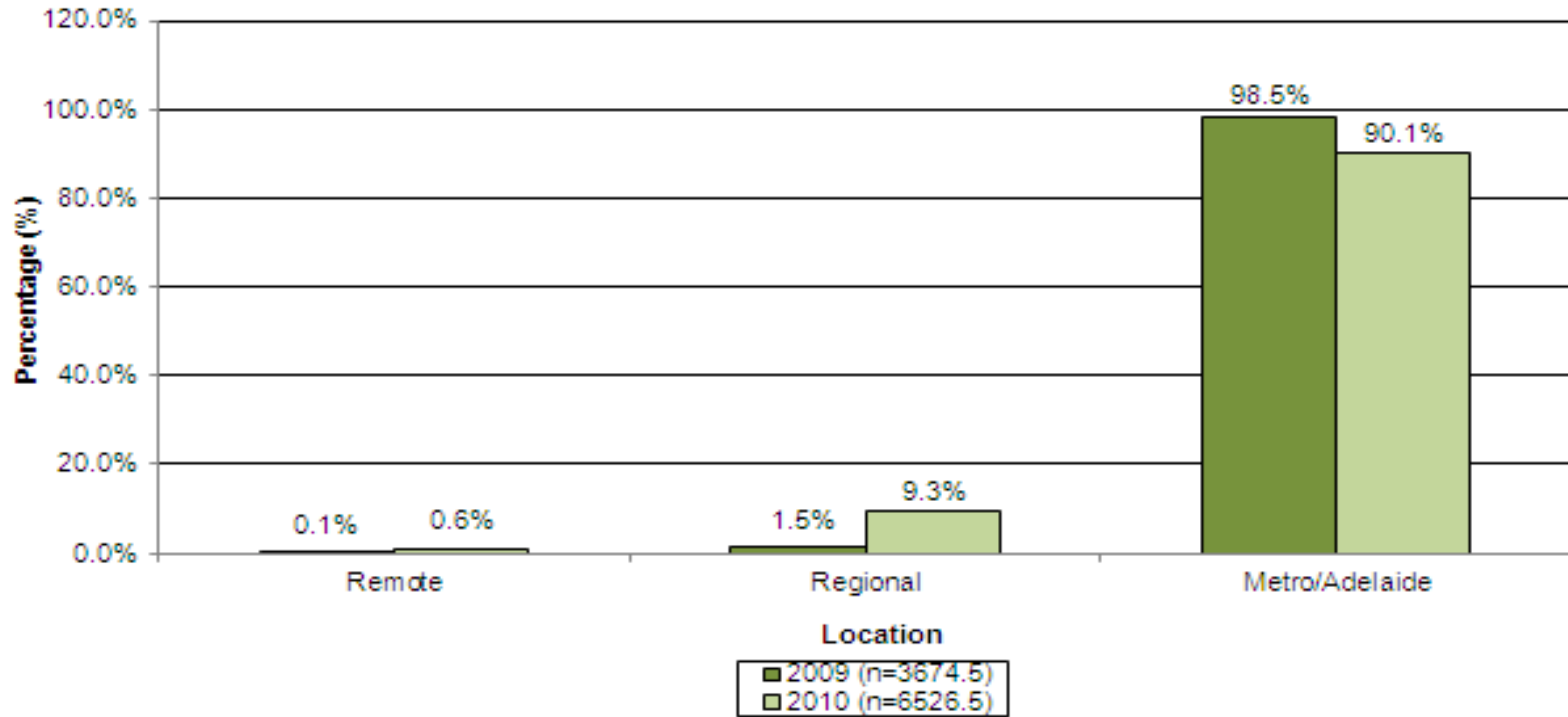
Priority Group Activities



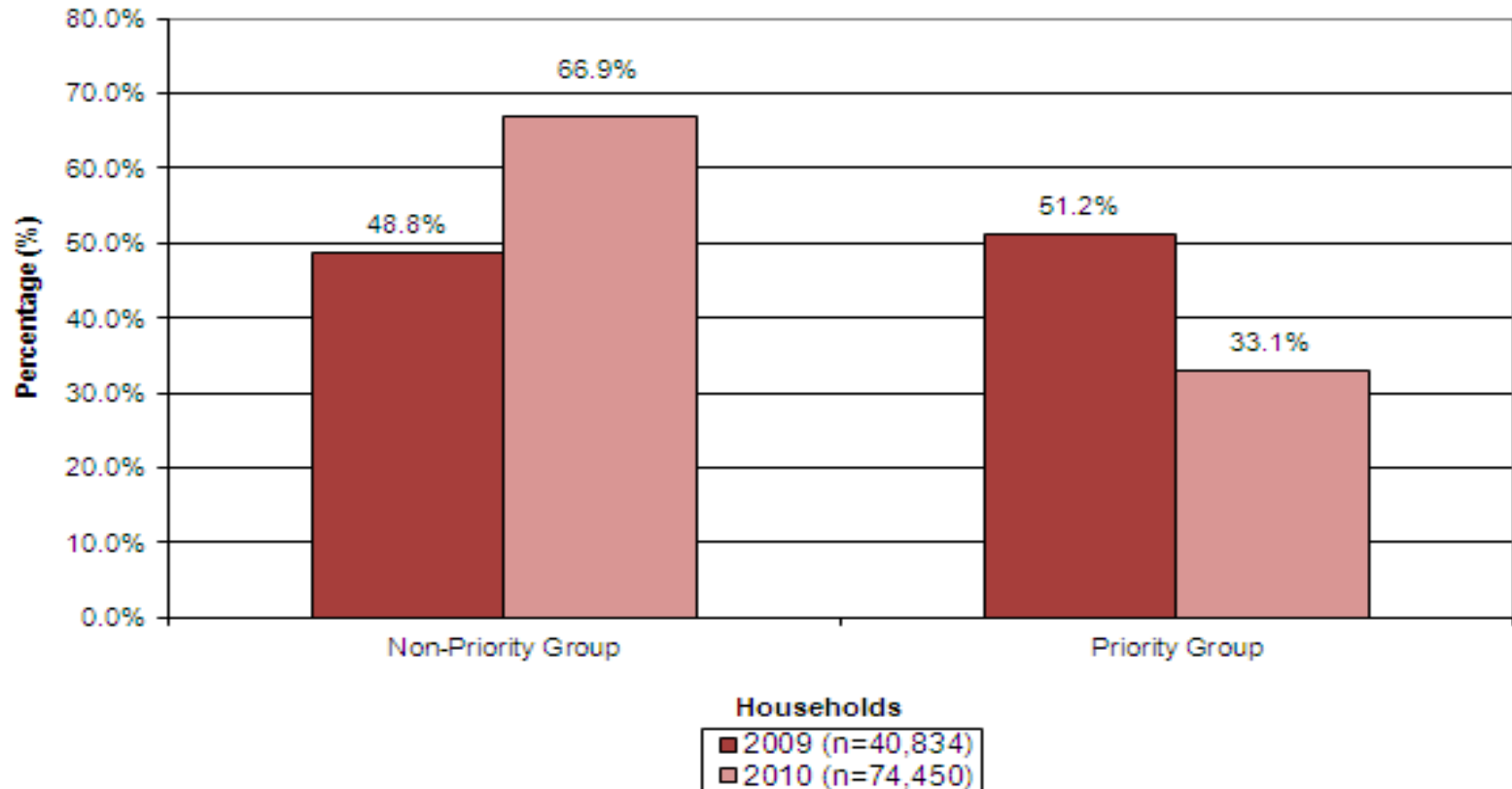
Audits



Audits



Benefiting Households



2012 Activities

- ❖ Install CFLs
- ❖ Install efficient extra low voltage down lights
- ❖ Install ceiling insulation
- ❖ Install draught proofing products
- ❖ Upgrade ductwork
- ❖ Install efficient showerhead
- ❖ Replace or upgrade water heater
- ❖ Install standby power controllers
- ❖ Upgrade heating/cooling system
- ❖ Dispose secondary fridge/freezer
- ❖ Promote the installation of high efficiency pool pump

Cost

- ❖ Annual cost of REES estimated at \$11m
- ❖ All residential customers bear cost
 - 41,000 benefitted in 2009 & further 75,000 in 2010