

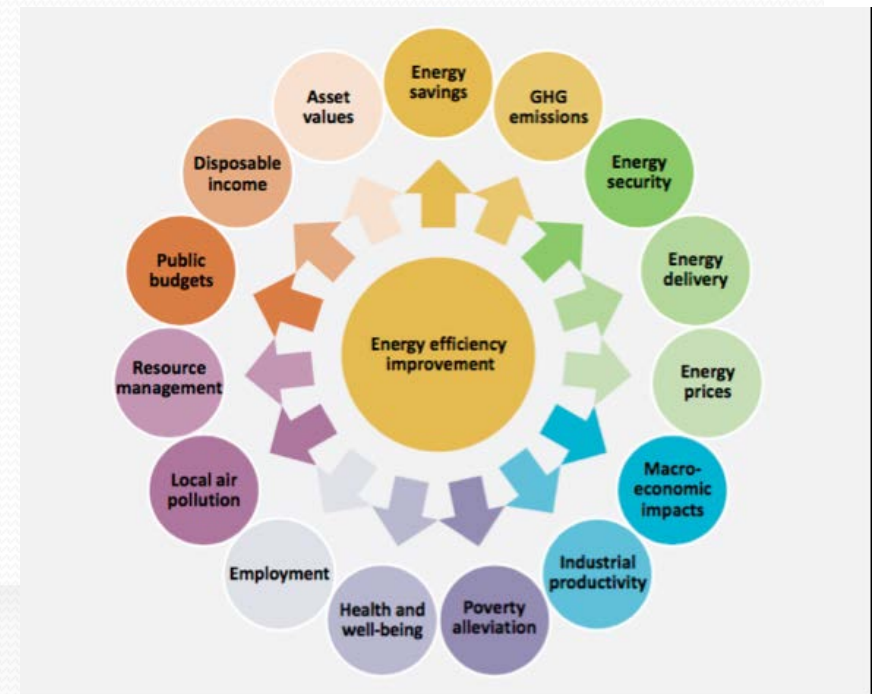
Non-Energy Impacts - An Overview of the MA Approach -

Energy Efficiency Resource Standard
Stakeholder Workshop
February 17, 2017



Non-Energy Impacts

- Positive and negative non-energy benefits can result from various energy efficiency program activities, which together are referred to as non-energy impacts (NEIs)
- Types of NEIs
 - ✓ Participant-specific
Water, Comfort, Health, Durability, Maintenance
 - ✓ Utility-specific
Reduced spending on debt collection
 - ✓ Other
Economic Development, National Security, Environmental

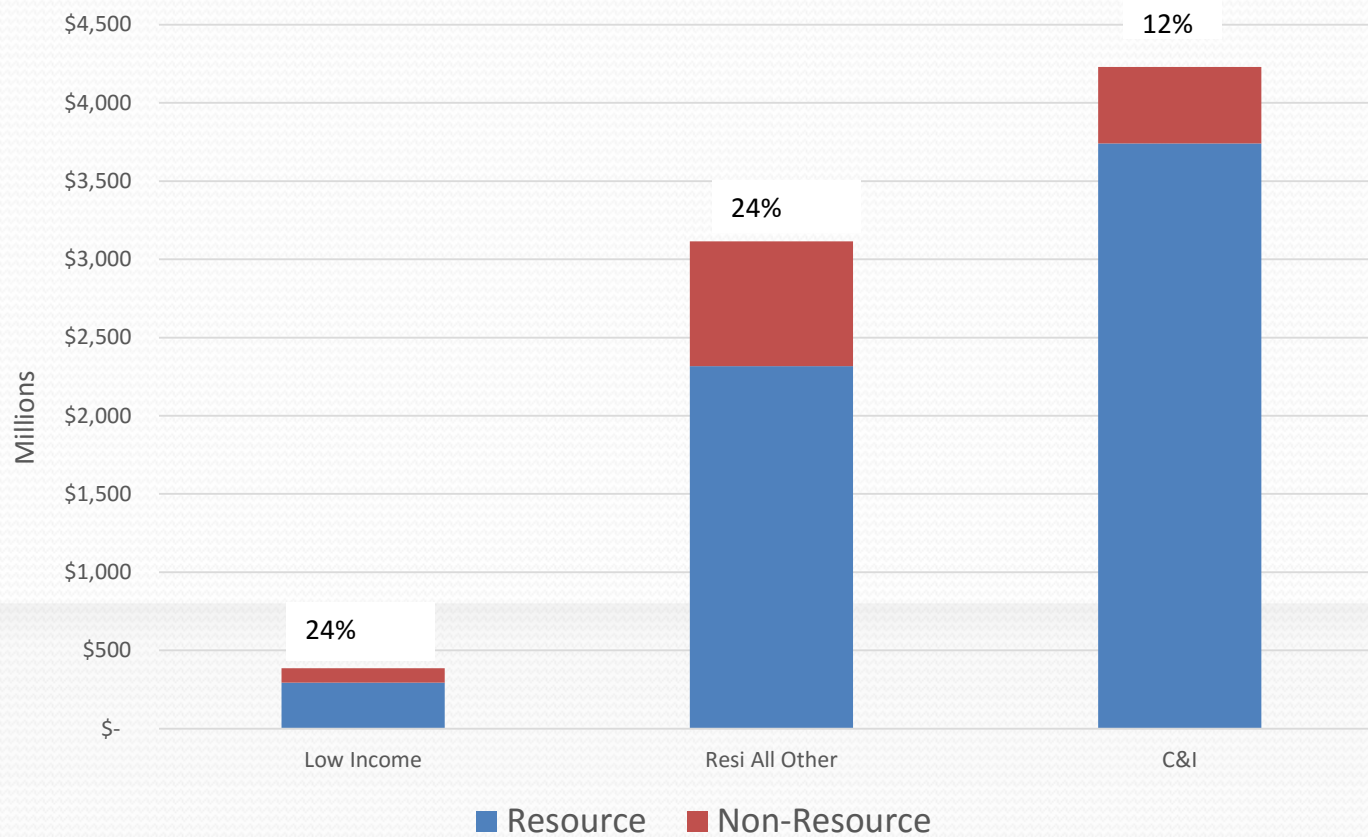


Source: International Energy Agency

Non-Energy Impacts – MA Approach

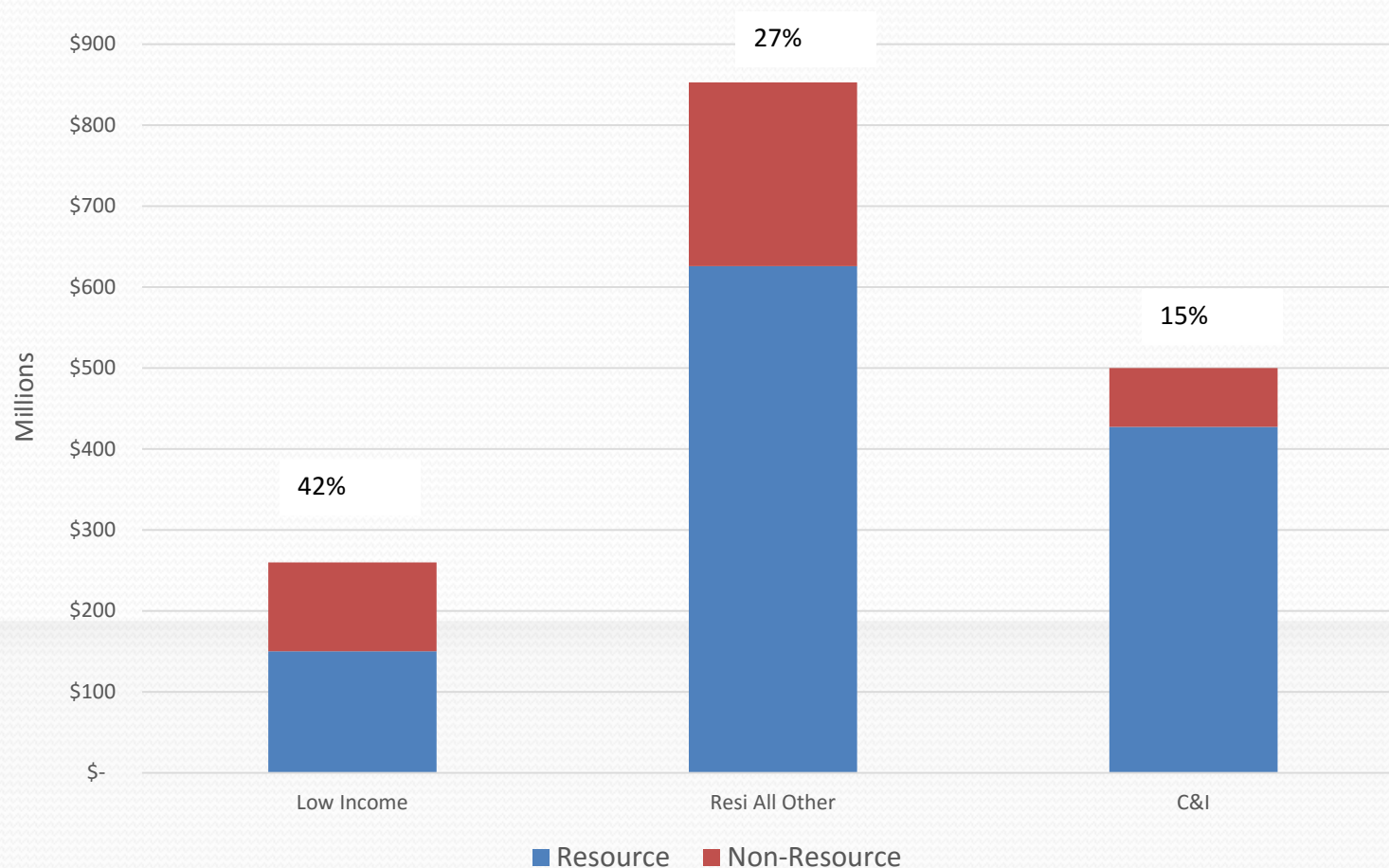
- Quantitative based on robust evaluations using widely accepted econometric tools
 - Annually per unit (i.e., a furnace or home)
 - Annually per kWh or therm saved
 - One time per unit
 - One time per kWh or therm saved
- Applied at the measure level within the Benefit/Cost model using values from the MA Technical Reference Manual
- Can be deemed (i.e., static) or based on a customized customer-specific-analysis
- MA policy is to fully quantify and capture the full suite of benefits from energy efficiency measures and programs

Electric Statewide Benefits by Sector (2013-2015 Term in MA)



Based on public data on MassSaveData.com

Natural Gas Statewide Benefits by Sector (2013-2015 Term in MA)



Based on public data on MassSaveData.com

Types of Non-Energy Impacts - MA

Residential and Low Income

- Thermal Comfort
- Noise Reduction
- Home Durability
- Health Benefits
- Lighting Quality and Longevity
- Equipment Maintenance
- Property Value Increase
- Water and Sewer

Types of Non-Energy Impacts - MA

Additional Low Income

- Arrearage reduction
- Bad Debt Write-Off
- Safety Related Emergency Calls
- Customer Calls and Collections
- Improved Safety
- Reduced Tenant Complaints
- Rental Unit Marketability
- Price Hedging
- Rate Discounts

Types of Non-Energy Impacts - MA

Commercial and Industrial

- Operations and Maintenance
- Administrative Costs
- Avoided Labor Costs
- Rent and Sales revenue
- Product Spoilage and Waste Disposal
- Water and Sewer