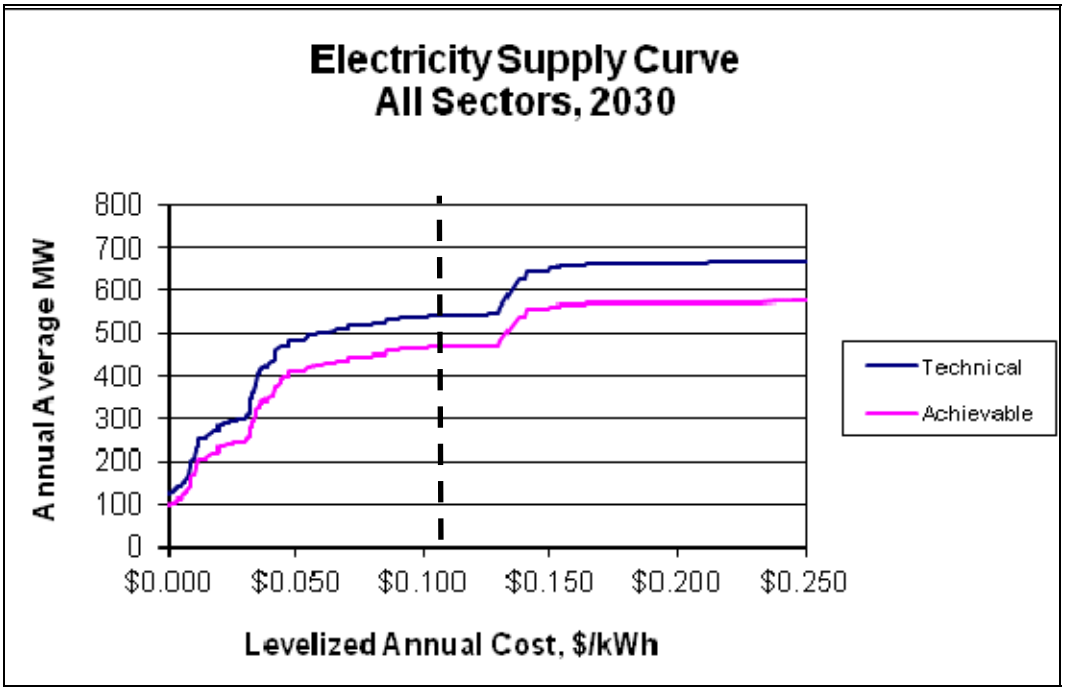
Oregon Conservation Potential

Represents Energy Trust service territory in Oregon: PGE, Pacific Power, NW Natural and Cascade Natural Gas

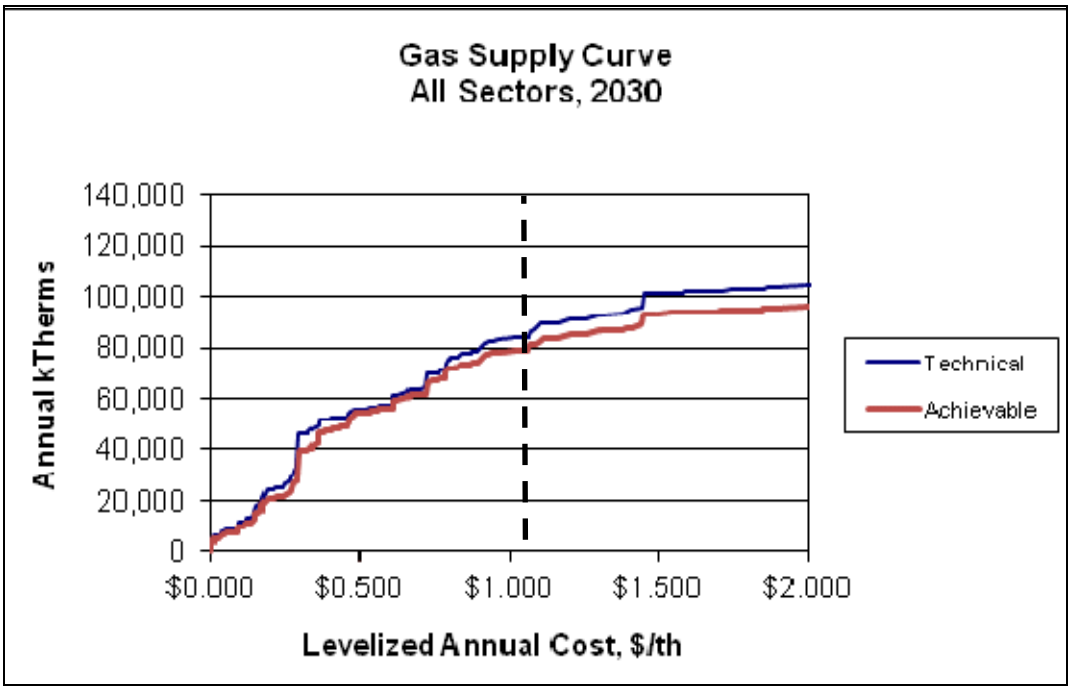
Electric

- Most available and proven electric efficiency resources are cost-effective.
- The dotted line represents a rough cut-off line for cost-effectiveness ($.07 to $.11).



Gas

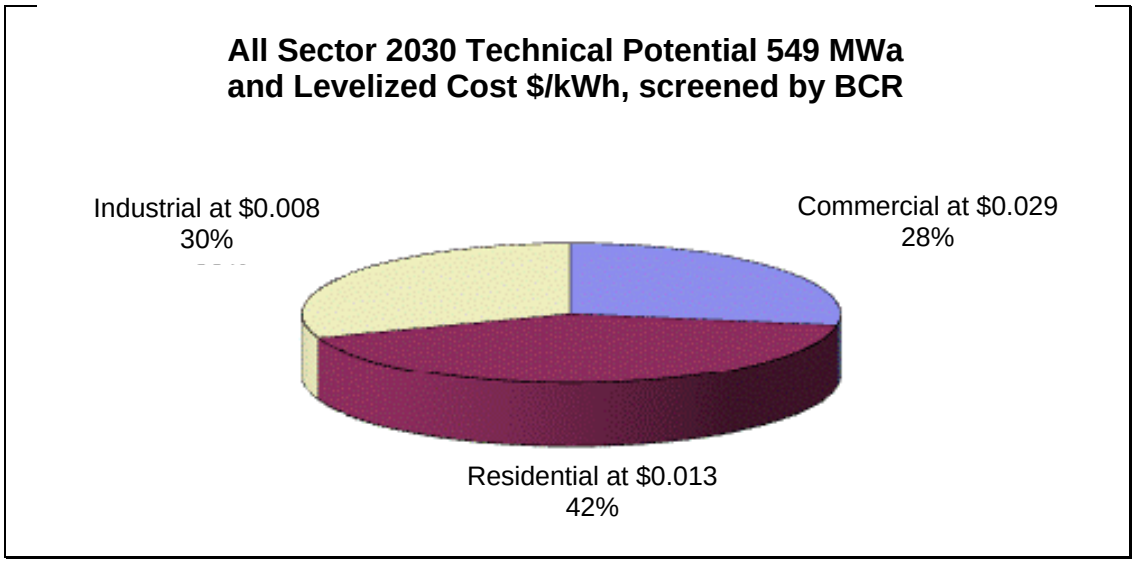
- Slightly more gas resource is available above the cost-effectiveness line. ($1 to $1.20).



Energy Trust Potential Savings by Sector (PGE/Pacificorp)

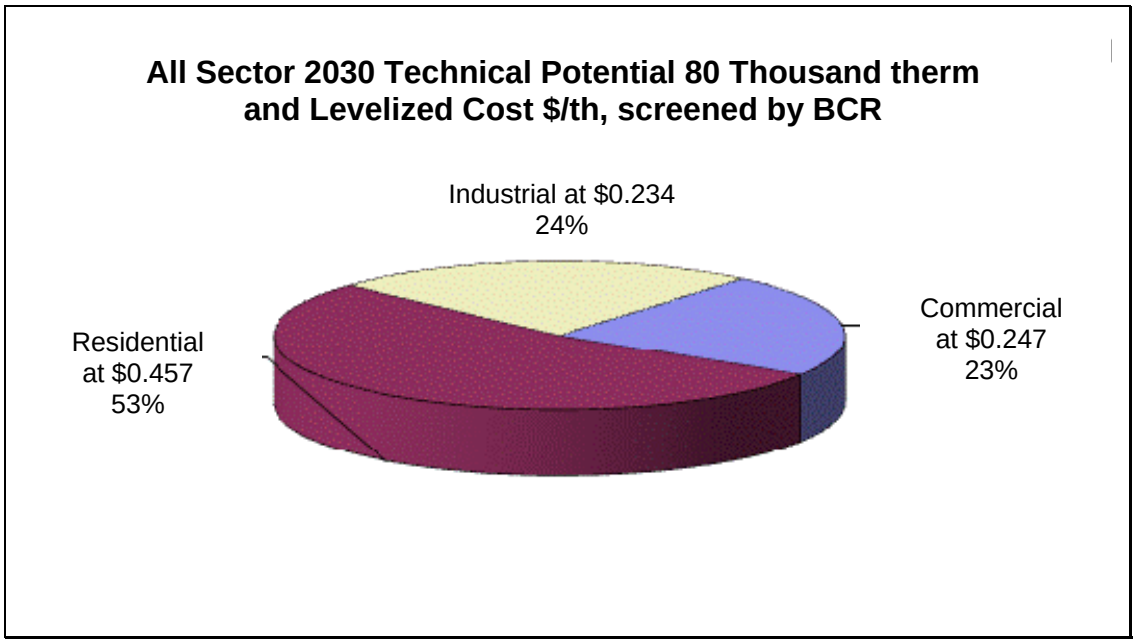
Electric

- About 40% of proven future electric savings will come from homes. The remainder will come from commercial and industrial. Farm loads are a small part of industrial.

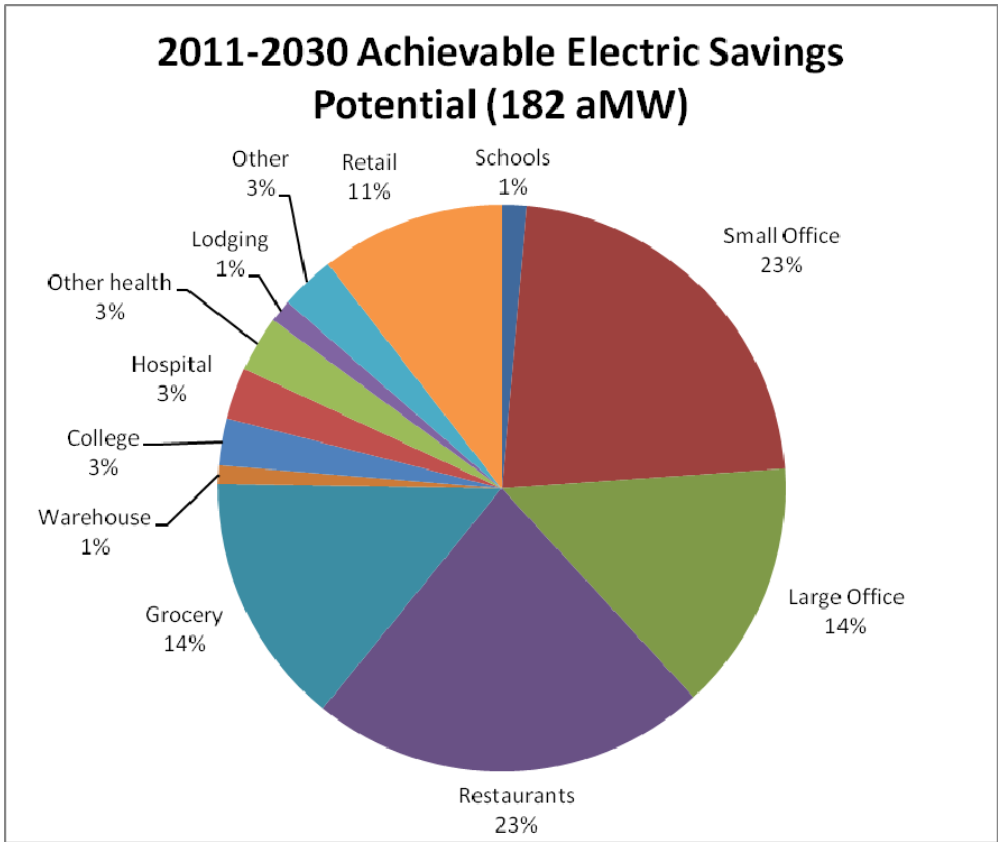


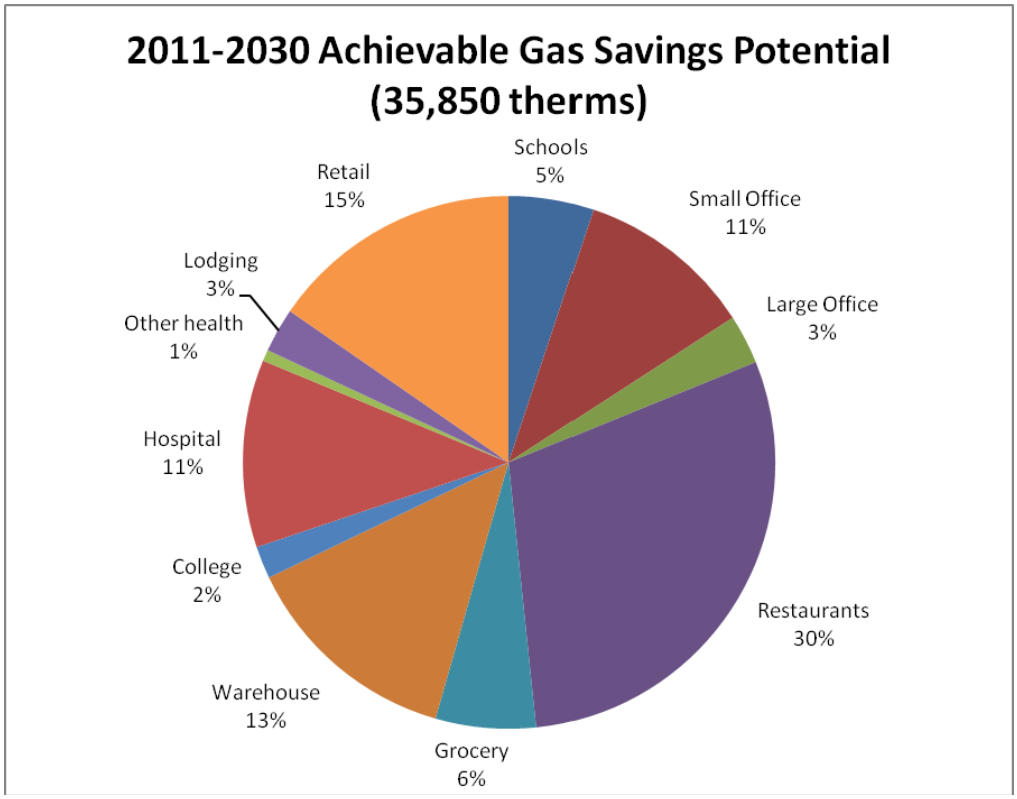
Gas

- More than half of proven future gas savings come from homes.



Commercial Retrofit Savings Potential by Building Types





Small Conservation Potential Segments

- Small buildings, moderate and low income customers, and rural sites represent smaller savings potential and these savings are more expensive to acquire.
- Remaining weatherization opportunity is quite modest for electric and significant for gas.
- Smart Grid represents modest potential for new efficiency measures.

Untapped Sectors and Opportunities

- Where is it challenge to acquire energy efficiency at acceptable ratepayer costs:
    - Technology that is unproven, needs refinement, and where savings cannot be reliably predicted. More investment needed for field testing, product refinement, and evaluation, especially in our climate.
    - Small buildings – transaction costs are the challenge
    - Moderate-income- possible with much higher incentives/rate impact
    - Behavior change – Energy Trust is seeing significant success for industrial customers and piloting residential and commercial strategies. Tools exist and the challenge is to invest to determine reliable and persistent savings.
    - Technically complex measures that require coordination, such as heat recovery for space heat in groceries, designing both shell and cooling systems together
- Technologies that are most important to validate in next few years to build technical potential
    - Behavioral approaches
    - Home heat pump water heaters
    - Advanced design and lighting controls for retrofits
    - Window retrofits in commercial buildings – may be cost-effective only when replacing cooling systems and requires integrated analysis
    - Home windows – generally cost-effective to upgrade when customer is replacing for other reasons, retrofit to save energy only is very expensive
    - Evaporative cooling for commercial buildings
    - LED and OLED lighting – commercial today only for a few niche markets
    - Advanced design in new buildings and homes

Actual and Forecasted Savings

- o Energy Trust has roughly tripled the amount of added electric savings per year since startup, and is doing many times what prior programs did for gas.
- o Our savings in 2010 represents roughly 1.4% of electric load and .8% of non-transport load for gas.
- o Gap between blue and green lines represents the amount of new technology and management practices we would need to validate and then acquire to maintain current pace of savings.