

# Utah Energy Efficiency Strategy

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Energy Efficiency as a Resource**

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# Background

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- ❑ Utah Governor Jon Huntsman, Jr. adopted a strong energy efficiency goal in April 2006 – a 20% improvement in the efficiency of energy use statewide by 2015
- ❑ Governors' Office requested preparation of a strategy to meet the goal
- ❑ SWEEP assembled team including Utah Clean Energy and ACEEE to prepare the strategy; oversight from Governor's office
- ❑ Organized kick-off workshop and engaged in extensive stakeholder consultation

# Overview

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- ❑ Study examines 23 major policies or initiatives that would help to achieve Governor Huntsman's energy efficiency goal
- ❑ Educational, incentive and regulatory options
- ❑ Addresses the efficiency of electricity, natural gas, gasoline, or diesel fuel use
- ❑ Defines 20% efficiency improvement as 16.7% reduction in energy use
- ❑ Analyzes energy savings potential, cost, cost effectiveness, environmental and social benefits, political viability, and priority

# High Priority Policies

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- ❑ Energy savings standards or targets for electric utility Demand-Side Management (DSM) programs
- ❑ Expansion of natural gas utility energy efficiency programs
- ❑ Upgrade building energy codes and fund code training and enforcement
- ❑ Lamp and appliance efficiency standards for products not covered by federal standards
- ❑ Expand low-income home weatherization

# High Priority Policies (cont.)

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- Industry challenge and recognition program to stimulate industrial energy intensity reductions
- Energy savings targets for state agencies
- Clean car standards for new cars and light trucks
- Pay-as-you-drive insurance
- Reduce rate of growth of vehicle use
- Broad-based public education campaign

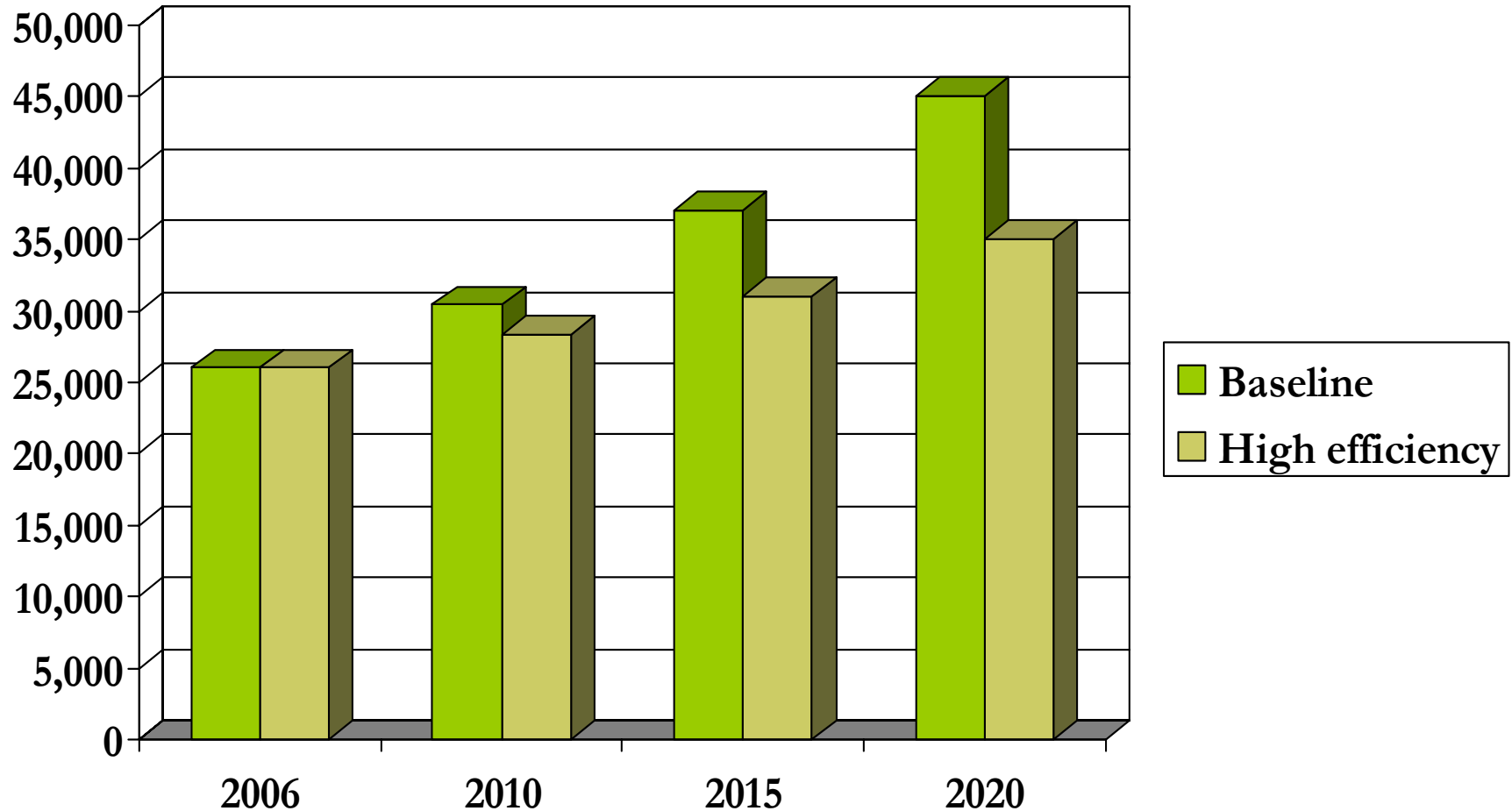
# Electricity Savings by Option (GWh per year)

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<b>OPTION</b>	<b><u>2010</u></b>	<b><u>2015</u></b>	<b><u>2020</u></b>
<b>Electricity DSM</b>	<b>894</b>	<b>2,375</b>	<b>4,108</b>
<b>Building codes</b>	<b>214</b>	<b>674</b>	<b>1,391</b>
<b>Appliance and lamp standards</b>	<b>137</b>	<b>1,334</b>	<b>2,137</b>
<b>Industrial challenge</b>	<b>130</b>	<b>615</b>	<b>1,183</b>
<b>Public sector initiatives</b>	<b>169</b>	<b>421</b>	<b>604</b>
<b>Public education</b>	<b>226</b>	<b>393</b>	<b>420</b>
<b>Other</b>	<b>202</b>	<b>377</b>	<b>476</b>
<b>TOTAL</b>	<b>1,972</b>	<b>6,189</b>	<b>10,319</b>

# Electricity Scenarios (GWh per year)

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# Natural Gas Savings by Option (million decatherms per year)

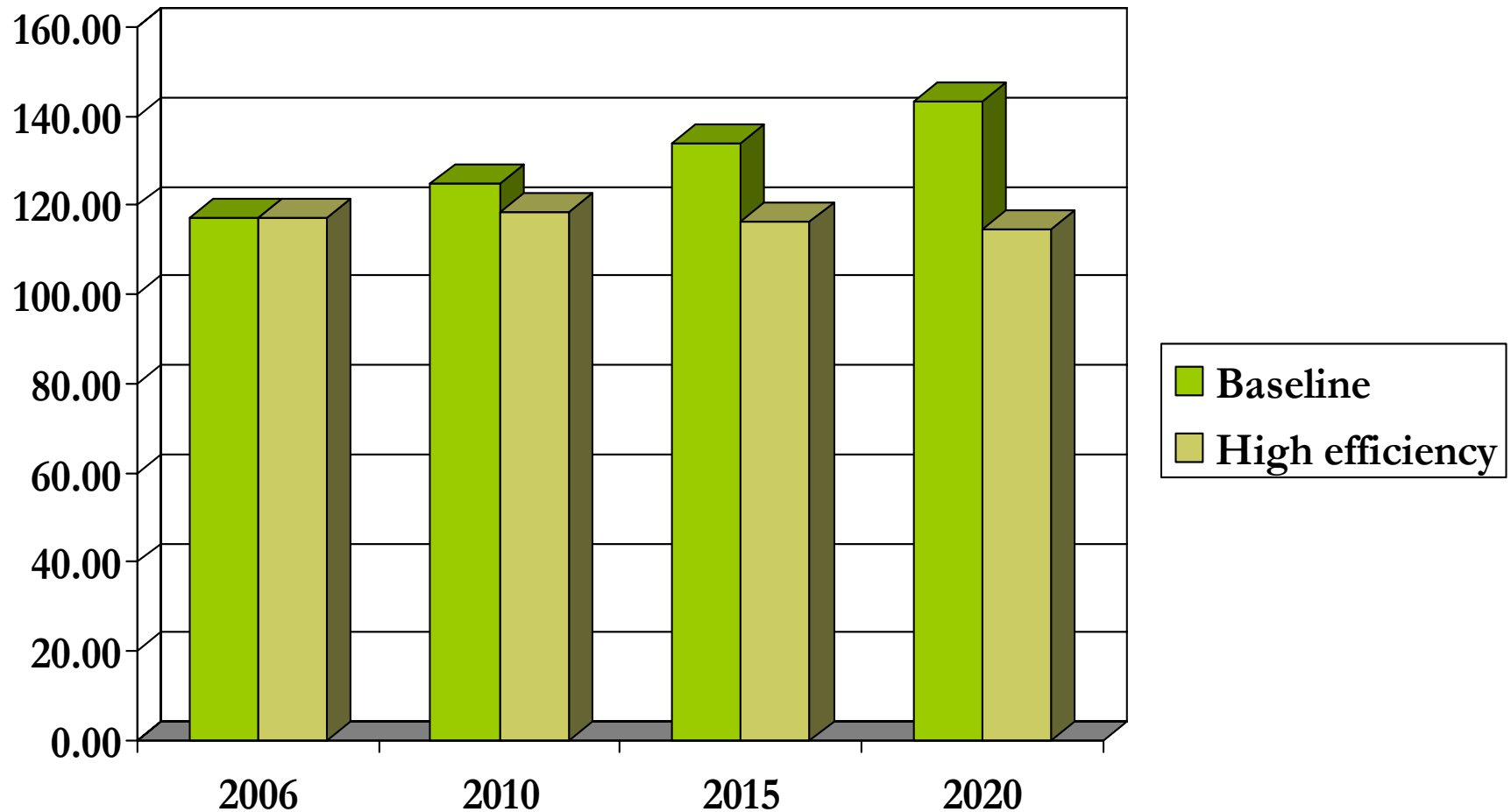
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<b>OPTION</b>	<b><u>2010</u></b>	<b><u>2015</u></b>	<b><u>2020</u></b>
<b>Gas DSM</b>	<b>2.33</b>	<b>8.27</b>	<b>14.94</b>
<b>Building codes</b>	<b>1.25</b>	<b>3.74</b>	<b>7.48</b>
<b>Conservation ordinances</b>	<b>0.40</b>	<b>1.20</b>	<b>1.60</b>
<b>Industrial challenge</b>	<b>0.78</b>	<b>3.71</b>	<b>7.25</b>
<b>Public sector initiatives</b>	<b>0.78</b>	<b>2.10</b>	<b>2.96</b>
<b>Public education</b>	<b>1.09</b>	<b>1.75</b>	<b>1.69</b>
<b>Other</b>	<b>0.52</b>	<b>1.42</b>	<b>2.05</b>
<b>TOTAL</b>	<b>7.23</b>	<b>22.19</b>	<b>37.97</b>

# Natural Gas Scenarios

(million decatherms per year)

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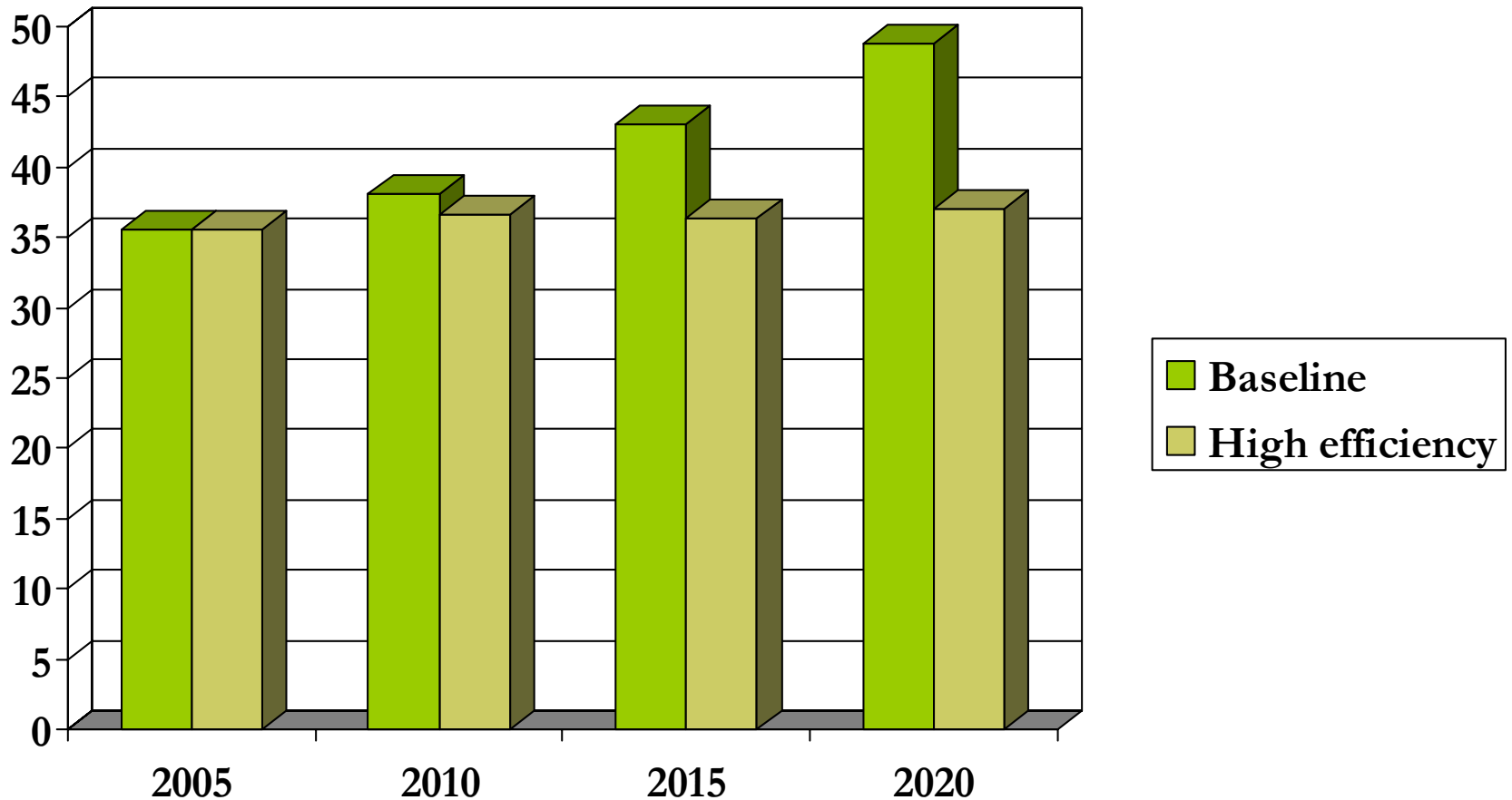
# Gasoline and Diesel Fuel Savings by Option (million barrels per year)

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<b>OPTION</b>	<b><u>2010</u></b>	<b><u>2015</u></b>	<b><u>2020</u></b>
<b>Clean Car standards</b>	<b>0.24</b>	<b>2.08</b>	<b>4.59</b>
<b>Feebates</b>	<b>0.16</b>	<b>0.98</b>	<b>1.78</b>
<b>PAYD insurance</b>	<b>0.03</b>	<b>1.50</b>	<b>3.30</b>
<b>Reduce VMT growth</b>	<b>0.11</b>	<b>0.71</b>	<b>1.42</b>
<b>Enforce speed limits</b>	<b>0.62</b>	<b>0.70</b>	<b>0.80</b>
<b>Truck efficiency measures</b>	<b>0.25</b>	<b>0.99</b>	<b>1.44</b>
<b>Replacement tire standards</b>	<b>0.20</b>	<b>0.68</b>	<b>0.74</b>
<b>TOTAL (Totals do not equal sum of rows)</b>	<b>1.52</b>	<b>6.72</b>	<b>11.80</b>

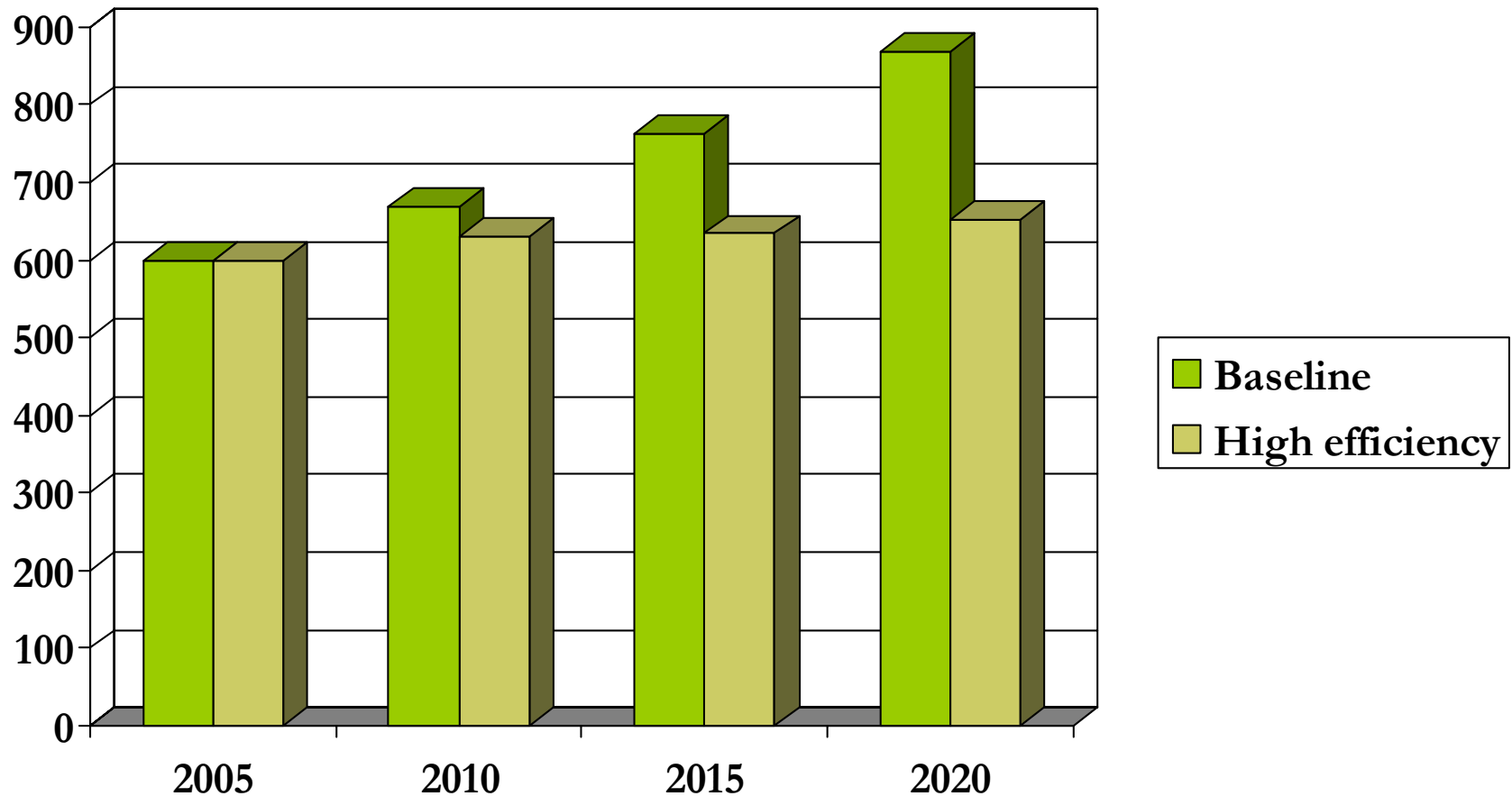
# Gasoline and Diesel Fuel Scenarios (million barrels per year)

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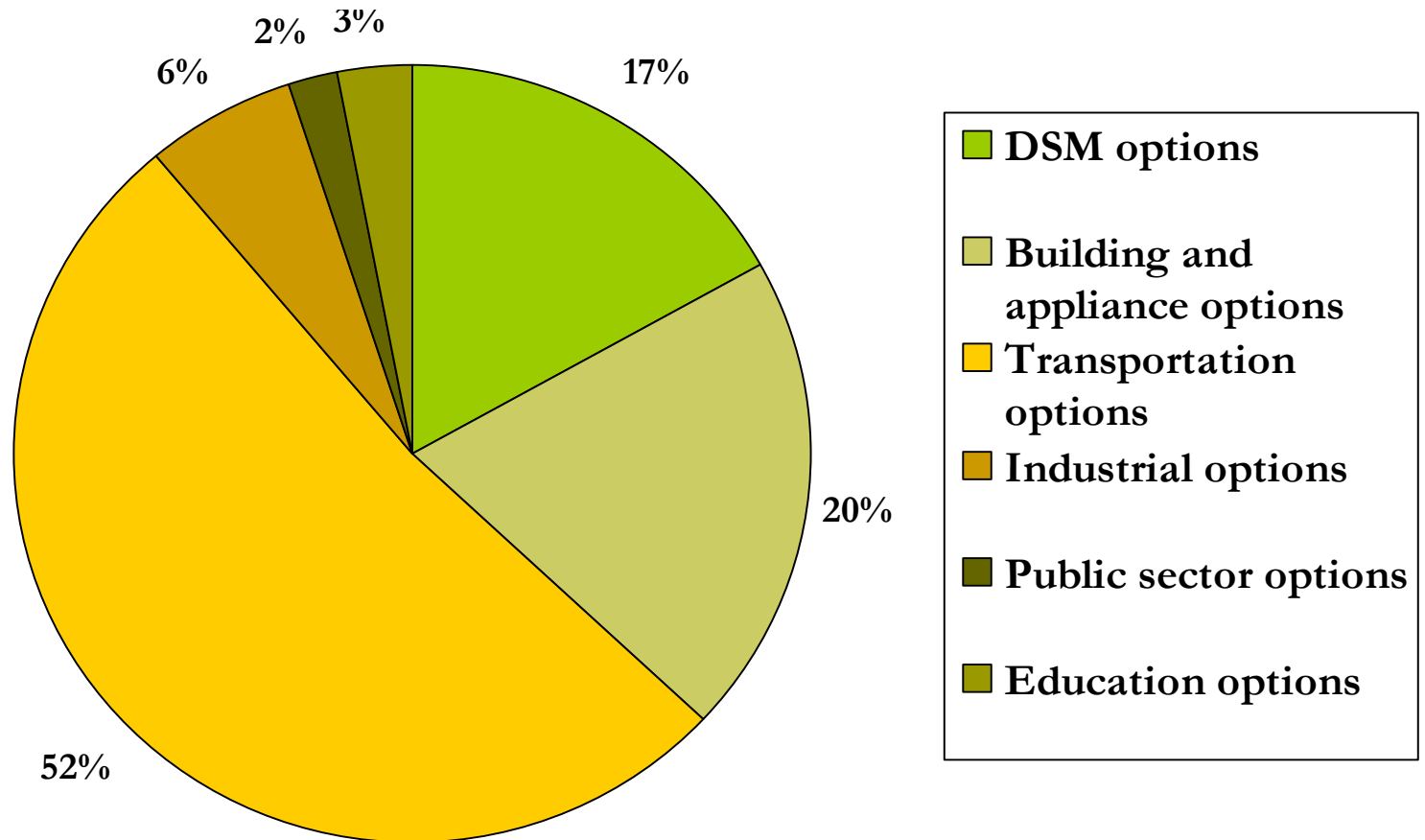
# Primary Energy Use (trillion Btu per year)

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# Net Economic Benefit - \$7.1 billion

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# Overall Results and Benefits

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- ❑ Policies in combination meet Governor Huntsman's energy efficiency goal
- ❑ Net economic benefit of over \$7 billion for households and businesses in the state
- ❑ Substantial reduction in CO<sub>2</sub> emissions – 7.9 million metric tons per year by 2015
- ❑ Policies also reduce emissions of other pollutants, reduce water consumption, help businesses be more competitive and profitable, and increase employment

# Next Steps

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- A number of policies already being implemented to some degree – utility DSM programs, statewide building code, public sector initiatives, VMT reduction
- Policies and analysis educate Governor's office, legislature, PUC, and other interested public officials
- Policies and analysis feed into state climate action plan now under development
- Policies and analysis assist EE advocates

# SWEEP:

*Dedicated to More Efficient Energy Use in the Southwest*

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Resources available online at:

[www.swenergy.org](http://www.swenergy.org)

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