USAID SEE Regional Energy Demand Planning Initiative

The Merits of Improved Energy Efficiency in the Building Sector

SEE-REDP Steering Committee and
USAID/Hellenic Aid Cooperative Energy Program
Kick-off Meeting

Athens, Greece

May 19-20, 2008

[Presented by Pat Delaquil on behalf of the SEE-REDP Technical Working Group]

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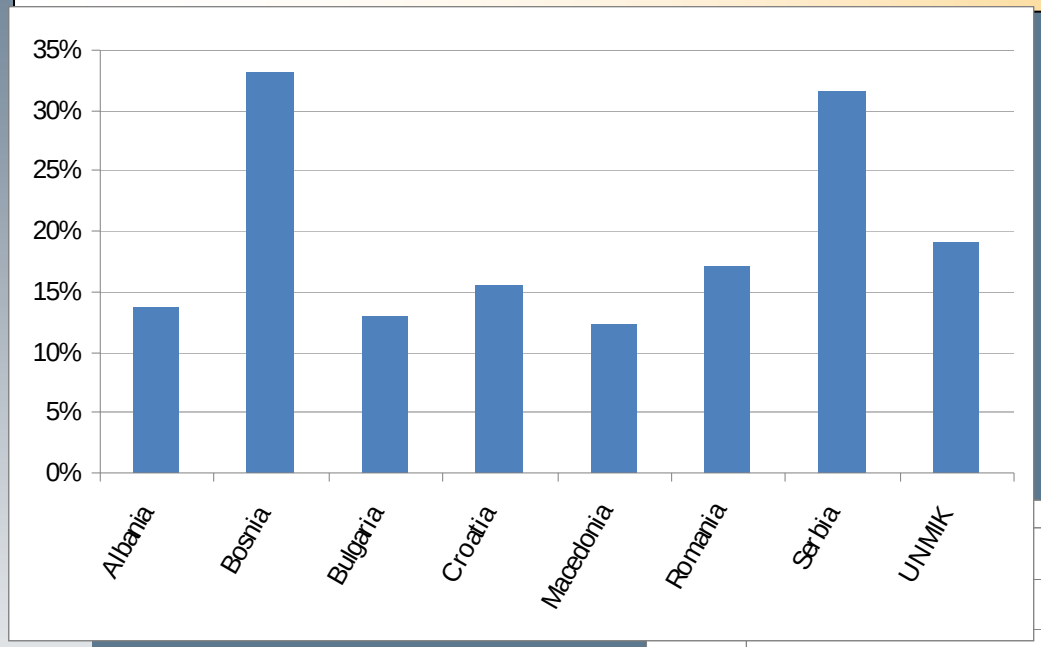
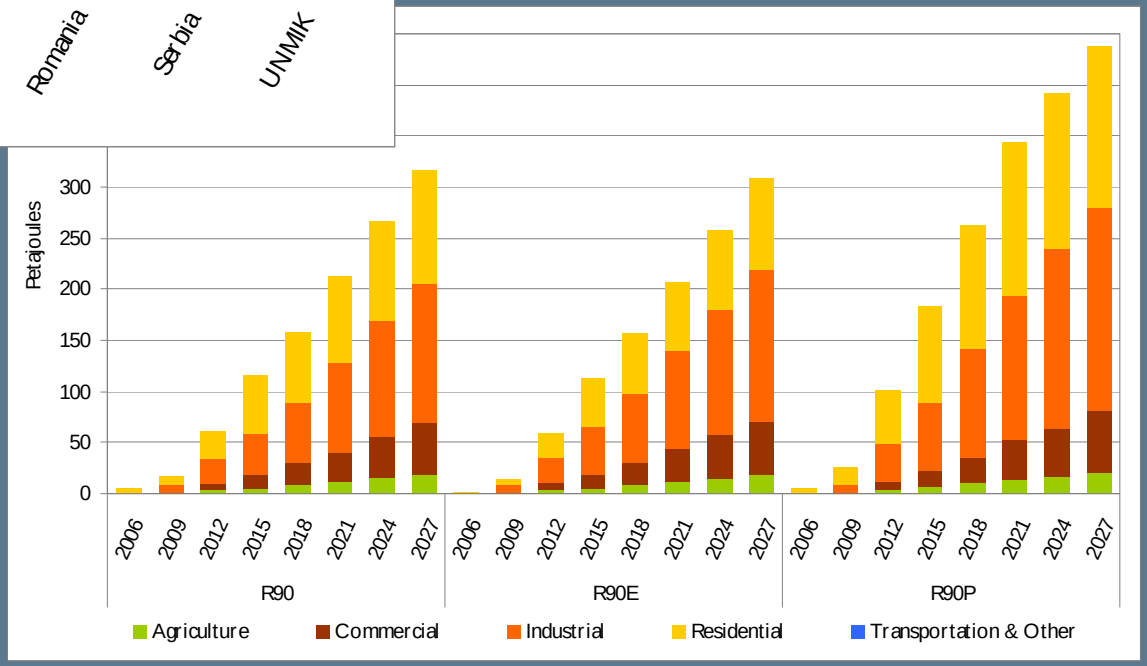
Energy Intensity Reduction and Energy Savings



Reduction in 2027 energy intensity, 16% for the region in the R90P scenario

Energy savings by sector for the region



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A Closer Look at Final Energy Savings in Commercial and Residential Sectors: Croatia

- Final energy savings most pronounced in:
  - Space and Water Heating
  - Lighting
  - Cooling
- No savings realized (at this stage) in:
  - Refrigeration - efficient devices are too expensive, except for slight penetration in the R90E scenario
  - Limited building shell improvements (only insulation) owing to lack of data
  - Public lighting, cooking and others – lack of improved devices options (in the current models)

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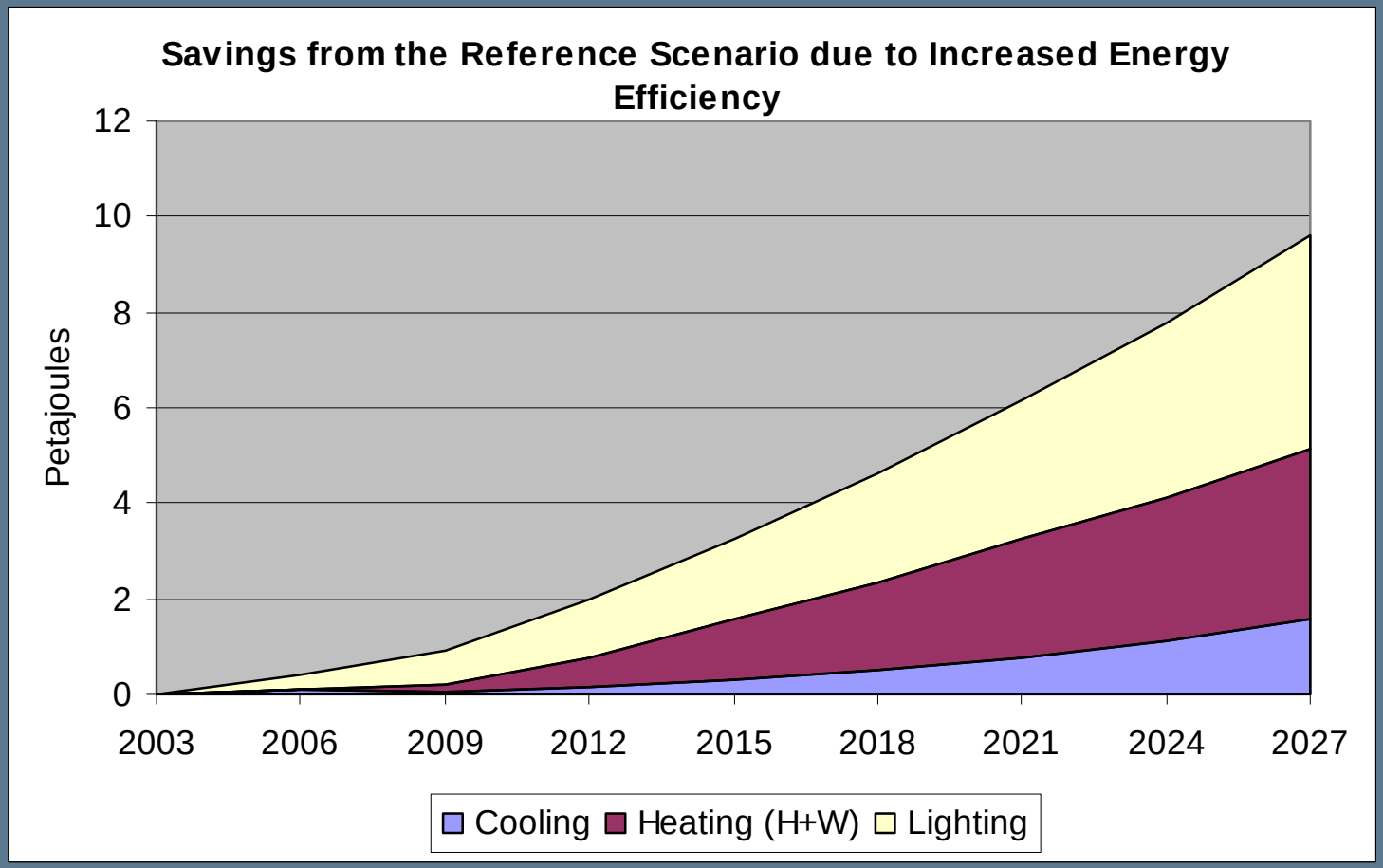
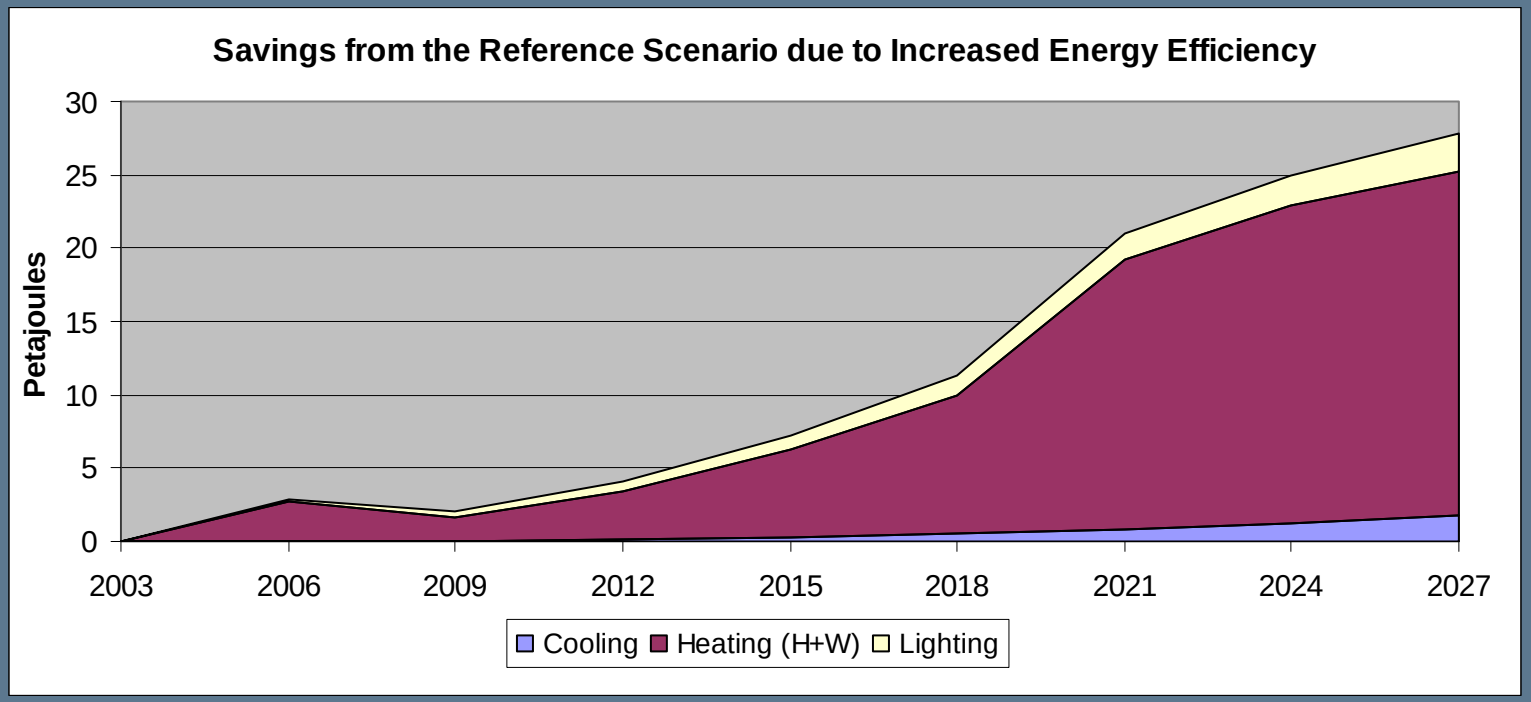
Commercial Sector Final Energy Savings due to Increased Energy Efficiency: Croatia



Given access to higher efficiency devices a total savings in final energy consumption of 4.4% can be realized in 2015 and 9.5% by 2027.

Residential Sector Final Energy Savings due to Increased Energy Efficiency: Croatia



Given access to higher efficiency devices a total savings in final energy consumption of 7.8% can be realized in 2015 and 27.1% by 2027.

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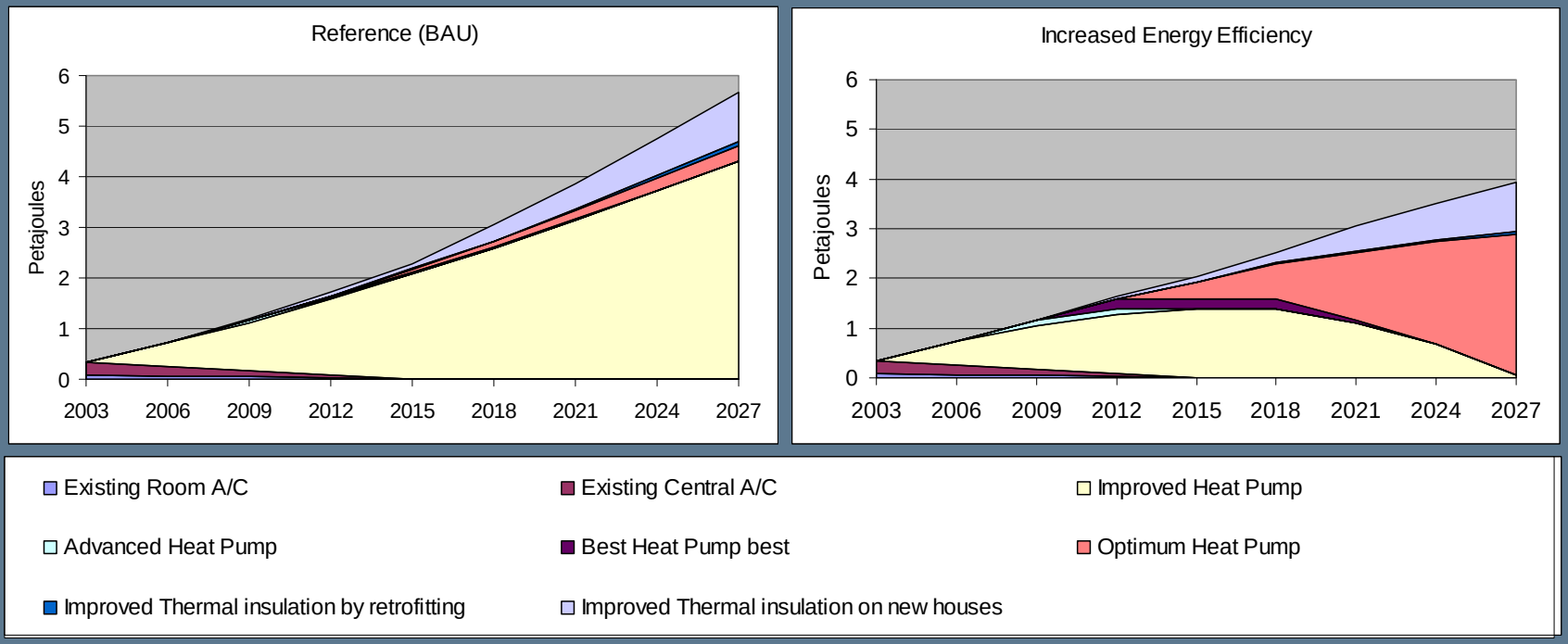
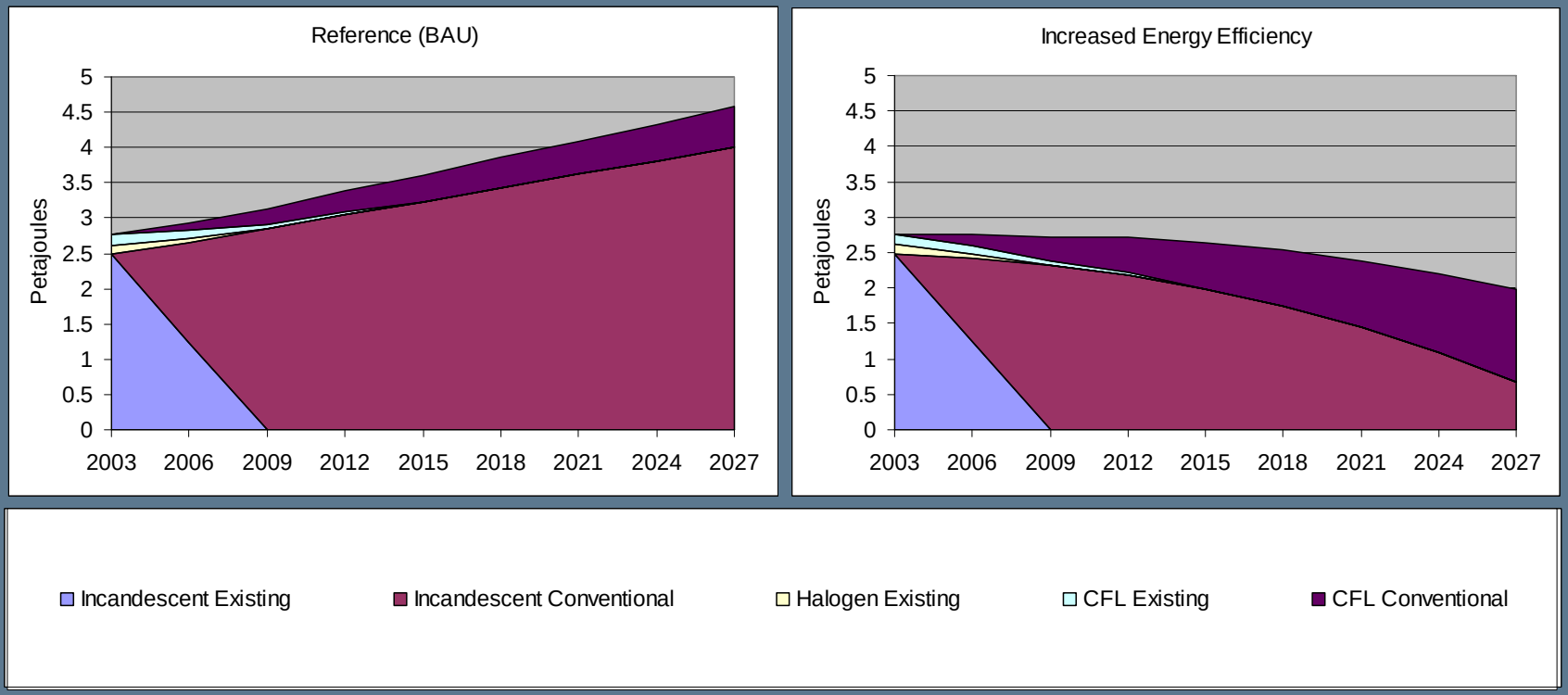
Penetration of Improved Cooling Devices in Residential Sector: Croatia



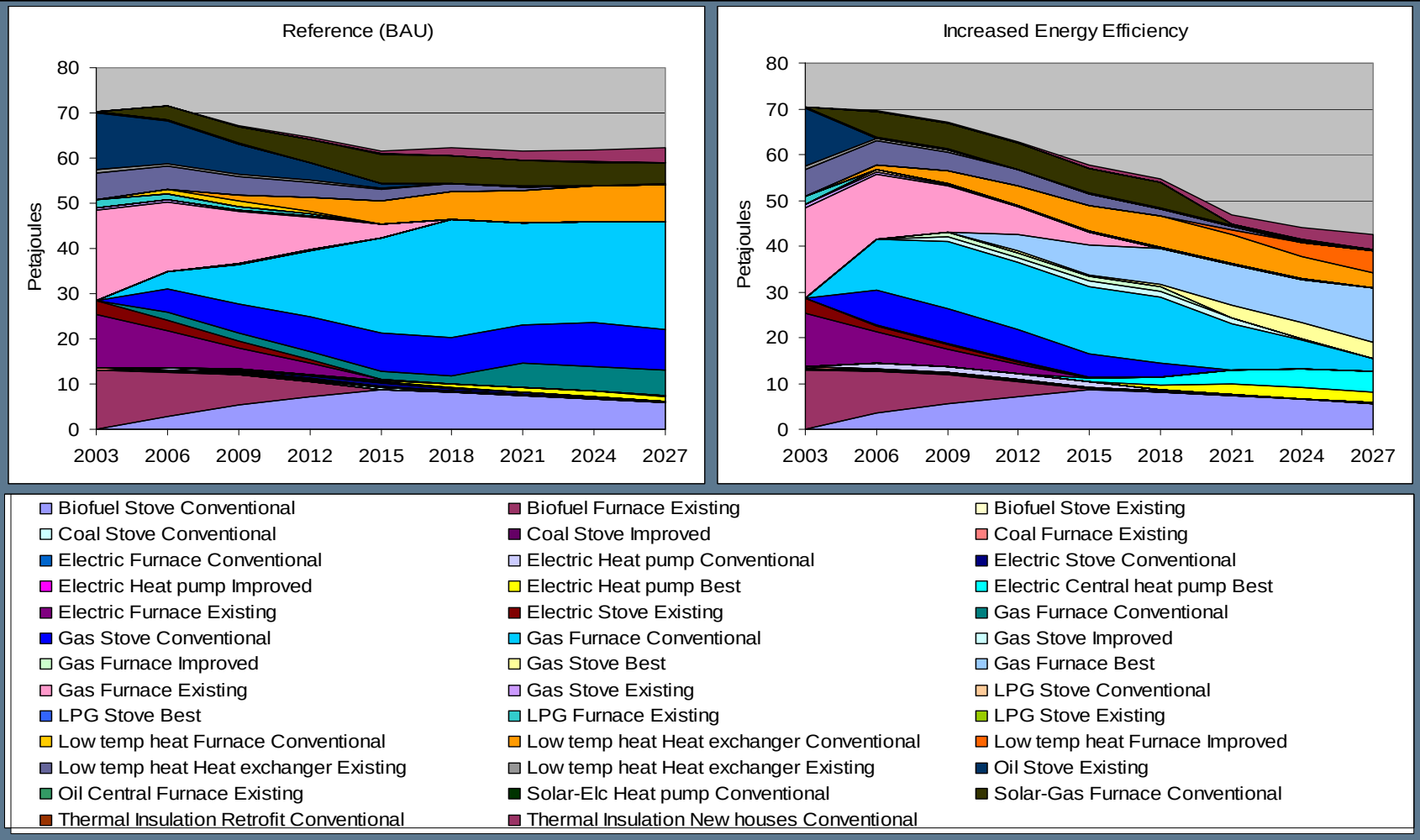
Given access to higher efficiency air conditioners an 11.2% reduction in electricity for cooling can be realized in 2015 and a 30.5% reduction by 2027.

Penetration of Improved Lighting Devices in the Residential Sector: Croatia



Given access to higher efficiency lights a 27% reduction in electricity for lighting can be realized in 2015 and a 57% reduction by 2027.

Penetration of Improved Space Heating Devices (and Insulation) in Residential Sector: Croatia



Access to higher efficiency space heating devices results in a 5.1% reduction in energy use in 2015 and a 34% reduction by 2027.