A summary of the benefits attained from improved energy efficiency through the implementation of Minimum Energy Performance Standards at two levels of ambition (minimum and high). More detailed reports for lighting, cooling and equipment can be downloaded from the United Nations Environment Programme (UNEP) United For Efficiency (U4E) website.

**ANNUAL SAVINGS IN 2030***

- Reduce electricity use by over 14 TWh which is 14.6% of current national electricity use
- Save electricity worth 2.6 Billion US$ equivalent to over 6 Power Plants [500MW each]
- Reduce electricity CO₂ emissions by over 11 Million tonnes equivalent to 6.6 Million Passenger Cars

**ELECTRICITY SAVINGS OVER TIME***

* Denotes savings are from the Minimum Ambition Scenario.
AND EVEN MORE BENEFITS

THE MORE AMBITIOUS THE REGULATION, THE MORE SAVINGS ARE POSSIBLE

MEET GLOBAL CLIMATE GOALS BY SIGNIFICANTLY DECREASED EMISSIONS

OTHER BENEFITS ACHIEVED IN 2030*

Reduced cumulative direct GHG emissions by 800 Thousand tonnes

* Denotes savings are from the Minimum Ambition Scenario.
# Detailed Benefits

## Annual Savings in 2030 and 2040*

<table>
<thead>
<tr>
<th></th>
<th>Lighting</th>
<th>Cooling</th>
<th>Equipment</th>
<th>Industrial Electric Motors</th>
<th>Distribution Transformers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electricity (GWh)</strong></td>
<td>860</td>
<td>2,300</td>
<td>1,000</td>
<td>640</td>
<td>310</td>
</tr>
<tr>
<td><strong>Electricity Bills (Thousand US$)</strong></td>
<td>160,000</td>
<td>210,000</td>
<td>2,000,000</td>
<td>120,000</td>
<td>57,000</td>
</tr>
<tr>
<td><strong>CO2 Emissions (Thousand tonnes)</strong></td>
<td>720</td>
<td>960</td>
<td>9,400</td>
<td>540</td>
<td>260</td>
</tr>
</tbody>
</table>

## Cumulative Savings by 2030 and 2040*

<table>
<thead>
<tr>
<th></th>
<th>Lighting</th>
<th>Cooling</th>
<th>Equipment</th>
<th>Industrial Electric Motors</th>
<th>Distribution Transformers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electricity (TWh)</strong></td>
<td>11</td>
<td>6.0</td>
<td>3.4</td>
<td>0.6</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Electricity Bills (Billion US$)</strong></td>
<td>2.0</td>
<td>1.1</td>
<td>0.6</td>
<td>0.3</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>CO2 Emissions (Million tonnes)</strong></td>
<td>9.2</td>
<td>5.0</td>
<td>2.9</td>
<td>1.4</td>
<td>6.0</td>
</tr>
</tbody>
</table>

## Contribution to Cumulative Electricity Use by 2040

- **Lighting**
- **Industrial Electric Motors**
- **Residential Refrigerators**
- **Room Air Conditioners**
- **Distribution Transformers**

*Denotes savings are from the Minimum Ambition Scenario.*

U4E Country Assessment, October 2020 (Update)
Country Data and Input Assumptions

<table>
<thead>
<tr>
<th>GENERAL INFORMATION</th>
<th>ELECTRICITY MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Residential Electricity tariff</td>
</tr>
<tr>
<td></td>
<td>0.18 US$ / kWh</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Transmission and distribution loss factor</td>
</tr>
<tr>
<td></td>
<td>9.4%</td>
</tr>
<tr>
<td>Electrification level</td>
<td>90.8%</td>
</tr>
<tr>
<td>CO2 Emission Factor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.77 kg / kWh</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSUMPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
</tr>
<tr>
<td><strong>Unit Energy Consumption (kWh/year) or Efficiency Level</strong></td>
</tr>
<tr>
<td><strong>Type of Product</strong></td>
</tr>
<tr>
<td><strong>Business As</strong></td>
</tr>
<tr>
<td><strong>Usual</strong></td>
</tr>
<tr>
<td><strong>Lighting</strong></td>
</tr>
<tr>
<td>GSL Linear HID</td>
</tr>
<tr>
<td>15W CFL</td>
</tr>
<tr>
<td>36W T8</td>
</tr>
<tr>
<td>70W HPS</td>
</tr>
<tr>
<td>2-door refrigerator freezer of average size 250 liters</td>
</tr>
<tr>
<td>800 lumen light bulb: 1,000 hrs/year</td>
</tr>
<tr>
<td>4 foot tube: 3,000 hrs/year</td>
</tr>
<tr>
<td>Poletop street light: 4,380hrs/year</td>
</tr>
<tr>
<td><strong>Cooling</strong></td>
</tr>
<tr>
<td>Residential Refrigerators</td>
</tr>
<tr>
<td>342</td>
</tr>
<tr>
<td>A mix of 3.5 kW and 7 kW split units with a weighted-average cooling capacity of 4.2 kW</td>
</tr>
<tr>
<td><strong>Room Air Conditioners</strong></td>
</tr>
<tr>
<td>3,417</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
</tr>
<tr>
<td>Industrial Electric Motors (IEC level)</td>
</tr>
<tr>
<td>IE0</td>
</tr>
<tr>
<td>3-phase induction motors used in the industrial sector</td>
</tr>
<tr>
<td><strong>Distribution Transformers (Model regulation level)</strong></td>
</tr>
<tr>
<td>See note</td>
</tr>
<tr>
<td>Three-phase and single-phase liquid-filled and three-phase dry-type power distribution transformers</td>
</tr>
</tbody>
</table>

Further details of the modelling approach and assumptions are available on the U4E website. For more information contact: U4E@un.org