DOUBLE THE GLOBAL RATE OF IMPROVEMENT IN ENERGY EFFICIENCY

Symposium on SDG 7 (Energy) in Preparation to the 2018 High-Level Political Forum on Sustainable Development

Djaheezah Subratty, 19 October 2017, Oslo
Energy is the golden thread that connects economic growth, increased social equity, and environmental sustainability that allows the world to thrive.

Ban Ki-Moon
## Energy efficiency objective

<table>
<thead>
<tr>
<th>ENERGY ACCESS</th>
<th>SEforALL Objective</th>
<th>Sustainable Development Goal 7</th>
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<tbody>
<tr>
<td>Where to?</td>
<td><strong>Objective</strong></td>
<td><strong>Target 7.3</strong></td>
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<td>By 2030, double the global rate of improvement in energy efficiency</td>
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<td><strong>Indicator</strong></td>
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<td>Compound annual growth rate of energy intensity in terms of total primary energy supply and gross domestic product (GDP) at purchasing power parity (PPP)</td>
<td><strong>Indicator</strong></td>
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<td>Energy intensity in terms of total primary energy supply and GDP at PPP</td>
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<tr>
<td>Adoption Year</td>
<td>2011</td>
<td>2015</td>
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<td>Target Year</td>
<td>2030</td>
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Energy efficiency as part of the sustainable energy package: where do we stand?

(Global Tracking Framework report 2017)
Global overview:
Primary energy intensity (2014)
Speed of progress on reducing energy intensity (2012-2014)

High-impact countries
- Annual primary energy intensity growth rate above 0%
- Annual primary energy intensity growth rate between 0% and -2%
- Annual primary energy intensity growth rate under -2%

Changes in primary energy intensity do not only reflect policy measures, but can be strongly influenced by exogenous factors such as climate and economic growth.

(Global Tracking Framework report 2017)
Global energy intensity is not declining fast enough to meet SDG 7.3

*Compound annual growth rate of primary energy intensity by period, and target rate for 2014–30 (%)*

- **1990–2010 Base period**: -1.4%
- **2010–12**: -1.9%
- **2012–14**: -2.1%
- **2014–30 Target rate**: -2.6%

Additional progress needed in 2014–30 due to insufficient improvement since 2010: -0.2 percentage points

- **2014–30 Target rate**: -2.8%


(Global Tracking Framework report 2017)
Where has progress dragged?

Transmission and distribution losses for electricity (%)

- Low income: 15.8%
- Lower middle income: 17.4%
- Upper middle income: 8.5%
- High income: 7.0%

(Global Tracking Framework report 2017)
EE investment needed to attain the SDG 7 objective

Current investment in EE: $250 billion a year

Required investment in EE: $750 billion - $1500 billion a year
Almost All High Impact Countries Are in the Green Zone for Clean Energy

Energy Efficiency

13 out of 20 high impact countries are doing well
7 out of 20 high impact countries still have some way to go

(Regulatory Indicators for Sustainable Energy report 2016)
High potential countries to improve EE?

Which countries have an enabling environment for investment in energy efficiency?

<table>
<thead>
<tr>
<th>ARE ACCELERATORS WORKING IN HIGH POTENTIAL SECTORS?</th>
<th>AUSTRALIA</th>
<th>BRAZIL</th>
<th>CANADA</th>
<th>CHINA</th>
<th>FRANCE</th>
<th>GERMANY</th>
<th>INDIA</th>
<th>INDONESIA</th>
<th>IRAN</th>
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<th>JAPAN</th>
<th>KOREA, REPUBLIC OF</th>
<th>MEXICO</th>
<th>NIGERIA</th>
<th>RUSSIAN FEDERATION</th>
<th>SAUDI ARABIA</th>
<th>SOUTH AFRICA</th>
<th>THAILAND</th>
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<td>RISE ENERGY EFFICIENCY OVERALL SCORE</td>
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(Regulatory Indicators for Sustainable Energy report 2016)
Where can the fastest results come from?
Relative improvement in final energy intensity by end-use sectors (2012-2014)

![Graph showing compound annual growth rate of final energy intensity (%)]

- Passenger transport: -2.8%
- Industry: -2.2%
- Agriculture: -2.1%
- Services: -1.3%
- Freight transport: -1.1%
- Residential: 0.2%

(Global Tracking Framework report 2017)
Some next steps ....

- **Energy vs Energy Services** (scale)

- **Integrated approach** (let’s start between the SDG7 targets).

- More communication and to broader constituencies (simple/key messaging on **multiple benefits**). We need to be **concrete**, with inspiring **people** stories.

- **Educate** (NY based negotiators/UNGA members, consumers, local commercial banks)

- Look at what still hurts (e.g. EE accounting, intangible, risk perception, **recent data**)
Some next steps ….

• Support **market transformation and adapt** those to small and vulnerable economies. Take care of **SMMEs**.

• Policies and **Business Models**

• Address means of implementation **beyond the UN jargon** (e.g. an investor will be interested in loan guarantees; a city in green procurement for efficient street lighting; internet and the sharing economy)

• Capitalise on local/regional **champions** and S-S exchange.

• **Financing SDG7** (domestic, ODA, private capital). Not just more but better financing.
Initiatives/Partnerships where UN Environment is co-leading or involved in capacity building programmes on EE:

- **Efficient Lighting**
  enlighten initiative; [www.enlighten-initiative.org](http://www.enlighten-initiative.org)

- **Efficient appliances and Equipment**
  United for Efficiency; [www.united4efficiency.org](http://www.united4efficiency.org)

- **Vehicle fuel efficiency**
  Global Fuel Economy Initiative; [www.globalfueleconomy.org](http://www.globalfueleconomy.org)

- **District heating and cooling**
  District Energy in Cities Initiative; [www.districtenergyinitiative.org](http://www.districtenergyinitiative.org)

- **Building efficiency**
  Building Efficiency Initiative; [www.buildingefficiencyinitiative.org](http://www.buildingefficiencyinitiative.org)

- **Copenhagen Centre on Energy Efficiency**
  SEforALL Energy Efficiency Hub; [www.energyefficiencycentre.org](http://www.energyefficiencycentre.org)
  Partnership between UN Environment, Government of Denmark and Danish Technical University
Thank you

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