Non-regulatory measures for market transformation: An Introduction
Tbilisi, 16 December 2015

BUILDING PARTNERSHIPS FOR ENERGY SECURITY

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Agenda

1. Recap of product policy
2. Introduction to non-regulatory strategies
   – Green public procurement
   – Early replacement programmes
   – Retrofitting commercial and public buildings
   – Awareness raising and information to consumers
   – Energy supplier obligations
   – Fiscal policy (tax incentives/increases)
3. Application to lighting products
Expected outcomes

• Better understanding of:
  – Non-regulatory product policies
  – Application of policies worldwide
  – Potential application in Georgia

• Discussion on potential policy options for Georgia
Introduction to product policy

• Remove the worst performing products
• Promote sales of the best performing products
• Mandatory or voluntary measures
  – Green public procurement
  – Early replacement programmes
  – Retrofitting of lighting systems: Commercial and public buildings
  – Awareness raising and information to consumers
  – Energy supplier obligations
  – Fiscal policy (tax incentives/increases)
Interactions between mandatory and voluntary measures
Green public procurement

- GPP Criteria in 21 different areas
- 26% of the last contracts signed by public authorities in the EU27 included all EU core GPP criteria
- 55% of these contracts included at least one EU core GPP criterion

Source: CEPS, 2012
GPP in Action

• Municipality of Kolding, Denmark in 2011

• LED office lighting as part of purchasing group
  – Whole life cost, short payback, high saving potential criteria
  – 20,000 units purchased to replace standard incandescent
  – Expect savings of 125EUR per unit over lifetime
Early replacement programmes

More frequently used for large, more costly appliances

- Ex. UK’s Boiler Scrappage Scheme (2010)
- £400 rebate for early replacement of ‘G’ rated boiler (125K vouchers)
- All vouchers allocated in 3 months!
- Jobs provision for installers
- Cost £50M to Govt.
- Administered by EST

Source: Energy Saving Trust, 2010
Retrofitting commercial/public buildings

- Ontario, Canada
- Administered by local electric utility
- Funded through the Independent Electricity System Operator.

**Available Incentives**

<table>
<thead>
<tr>
<th>LED Light Type</th>
<th>Lighting Requirements</th>
<th>Available Incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED MR16 lamp</td>
<td>Up to 6 Watt</td>
<td>$6 / lamp</td>
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<tr>
<td></td>
<td>7 to 10 Watt</td>
<td>$11 / lamp</td>
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<td>LED PAR lamp</td>
<td>Up to 16 Watt</td>
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<td>16 to 25 Watt</td>
<td>$20 / lamp</td>
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<td>LED Recessed Downlighting</td>
<td>350 to 600 lumens</td>
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<td>600 to 800 lumens</td>
<td>$23 / downlight</td>
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<td>800 lumens or greater</td>
<td>$29 / downlight</td>
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<td>LED Exit Signs</td>
<td>Retrofit Kit</td>
<td>$8 / retrofit kit</td>
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<td></td>
<td>5 Watt or less</td>
<td>$15 / sign</td>
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<tr>
<td>LED Refrigeration Strips</td>
<td>30 Watt or less</td>
<td>$75 / LED strip light</td>
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*Lights must be Energy Star qualified
**Lights fixtures must be DLC qualified

SAVE ENERGY IS ALWAYS A BRIGHT IDEA.

Upgrade to new LED lighting with saveonenergy incentives to shorten payback periods, reduce maintenance costs, and cut operating costs.

USE 75% LESS ENERGY THAN INCANDESCENT LIGHTING

- Perfect for low temperature applications
- Incentives of $6 - $20 for LED lamps
- Last 25 times longer than incandescent
Awareness raising and information to consumers – Voluntary labels
Awareness raising and information to consumers - Topten.eu Scheme (2000)

- European countries working together
- 16 websites tailored to consumers’ needs
- 2 millions visitors per year
- 13 languages

Topten network’s impacts:

- Stakeholders make better decisions and get recognition: consumers, procurement officers, retailers, manufacturers, policy makers, NGOs, utilities, institutions, the media
- Savings per year:
  - 600 GWh
  - €120 million
  - 276,000 tons of CO₂
Awareness raising and information to consumers - Premium Light

- Intelligent Energy Europe Project
- Promotes market transformation
  - Consumer awareness
  - Laboratory testing
  - Product quality assurance
  - Training retailers on information provision
  - Advise service sector
- Estimated impact:
  - Reach 10 million consumers
  - 0.15 Mtoe/a primary energy could be saved during the project period; and
  - 0.35 Mtoe/a primary energy are expected to be saved in 2020.
Awareness raising and information to consumers
- Super Efficient Appliance Deployment

- Initiative under the Clean Energy Ministerial (CEM) and a task of the International partnership for Energy Efficiency Cooperation (IPEEC)
- 17 countries participate
- Promotes manufacture, purchase and use of efficient products
- Accelerates standards and labelling programs through international cooperation
- Provides technical assistance to non-SEAD members
- Partners with IEA 4E and UNEP GEF en.lighten initiative
Awareness raising and information to consumers - Super Efficient Appliance Deployment

• SEAD Global Efficiency Medal competition
  – Recognizes and rewards highly efficient products (Best available technologies)
  – Guides buyers
  – Shows levels of efficiency that can be obtained today

• 2015 international winner achieved 106 lm/W
• October, 2014 nomination – BAT already moved on!
ENERGY STAR® Awards

- US Environmental Protection Agency
- Started in 2013
- Recognition of ENERGY STAR® partners that work with ENERGY STAR®
- Excellence – Lighting Retailer or Showroom stocking related products
Awareness raising and information to consumers - IEA 4E

- IEA 4E (Energy Efficient End use Equipment)
- Joint initiative of nine countries for knowledge sharing (Policy, standards, environment and health issues, technology)
- Voluntary performance tiers for policymakers

4E activities by type, 2008-13

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<td>53</td>
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Awareness raising and information to consumers - en.lighten Programme

- UN Environment Programme Global Environment Fund
- Est. 2009 for market transformation in lighting
- Phillips and OSRAM are partners
- Assist in establishing national/regional lighting labs
- Tech support for quality control capabilities in testing and production
- Off-grid lighting taskforce
Awareness raising and information to consumers - Community Programmes

- Community based approach
- Goal to improve uptake of existing programmes, incentives, rebates, tax credits, etc.
- Energy ambassadors meet community (schools, retailers, businesses, hospitals...)
- Energy task force
- Promotions/ challenges/ competitions
- Media role
Fiscal Policy: Incentives

- UK Enhanced Capital Allowance Scheme
- Products on Energy Technology List are eligible for tax incentives
- Lighting products included
Fiscal policy: Tax increase

- Ex. Tunisia
- Plan to phase out incandescent bulbs by 2014 (now 2016)
- Progressive consumption tax
- (10% in 2007) to (50% in 2011)
- Revenue used to subsidise CFL prices
Energy Company Obligations

- Part of commitment to EC Energy Efficiency Directive
- Focus on insulation, and replacement boilers for low income, vulnerable customers
- 3 main obligations, all achieved over 100% of targets
- 30MtCO2 saved over lifetime
- £5.16B saved over lifetime

Designed by DECC
Administered by Ofgem
Delivered by energy suppliers
Energy Company Obligation

- Predecessor to ECO programme
- 200M CFLs delivered to households
  - Many were never used
  - Distributed CFLs doubled target
- Suppliers recouped cost through higher energy bills
- Requires high oversight to prevent double counting and loopholes
Pilot Projects in EU (2012)

- Most projects took place in 2006 – 2011
- Avg. 59% savings (Range: 10-90%)
- Key issues:
  - High investment cost
  - Poor light quality and brightness
- Many issues resolved in today’s products

Source: JRC, 2012
Thank you for listening
Any questions?

Thomas Ramssson, Senior Technical Expert
James Gardiner, Senior Technical Expert

Thomas.Ramssson@icfi.com
James.Gardiner@icif.com

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