Group Activity

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#energyefficientworld
Group Activity - Scenario

In 2016, the government of your country signed the Paris Agreement, and in 2018, ratified the Kigali Amendment to the Montreal Protocol on phasing down HFCs worldwide. The President has decided to develop a new agency....

You and your group are the newly employed staff members of the Department of Energy Efficiency (DEE).

You have been tasked by the President to develop an energy efficiency programme for the country. The President is receiving some negative feedback about his decisions, some opponents are suggesting that the programme will cost too much, and questioning how it will benefit the country.

The President wants to see your plan for the country.
Instructions

• You will be assigned to a group that will represent the Department of Energy Efficiency (DEE) in “your country”.

• You will need to develop and present an energy efficiency plan.

• You will be provided with a list of specific questions that you should consider when developing your energy efficiency plan.

• You will be given some time each day to work on these plans, and apply the knowledge you have learnt throughout the day.

• Each group will be required to present their plan back to the President and Committee on the last day of the course (Wednesday).

• Presentations should be no more than 10 minutes in length. Followed by 3 minutes Q&A from the President and the committee!
Planning and Selecting - Day 1

• Identify the policy interventions that you will implement for your energy efficiency programme
  - Priorities what you think will be the most effective interventions and why

• Examine the data provided on a select number of products.
  - Decide on what products should be regulated under your programme and why? Is there any product that shouldn’t be regulated? Is there any product where you feel like you don’t have enough information to decide?
  - Priorities the products you wish to regulate and pick two to be the focus of this plan
Products to consider

- Electric toilet seats
- Air Conditioners
- Blenders
- Refrigerators
- Lighting Products
  - Incandescent Lamps
  - Compact Fluorescent Lamps (CFLs)
  - Linear Fluorescent Lamps (LF)
  - Light Emitting Diodes (LEDS)
We will provide the groups with a range of different data sources to make their decision.

See the separate print outs for information that has been collected for your country... next few slides.
### Census data

<table>
<thead>
<tr>
<th></th>
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<th>2010</th>
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<td>People/household</td>
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### Government survey (every 5 years)

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## Data – Typical power and use values to estimate energy

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<th>Item</th>
<th>Declared energy (kWh/yr)</th>
<th>Power On-mode (W)</th>
<th>Power Standby mode (W)</th>
<th>Use-On (hours/yr)</th>
<th>Use-Standby (hours/yr)</th>
<th>Estimated energy (kWh/yr)</th>
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### Data – Annual volume of sales, historic and future estimate

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## Data – typical lifetime of appliances and equipment

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<th>Years</th>
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<td>LED lamps</td>
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</tr>
<tr>
<td>Electric toilet</td>
<td>20</td>
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</tr>
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</table>
Implementation and Engagement – Day 2

- If you have decided to set MEPS levels, how will you go about this? What factors should you consider?

- What stakeholder might you need to consider and why?

- List the different ways you plan to engage with your stakeholders

- What kind of digital resources could you use?
## Data – registration database for refrigerators

<table>
<thead>
<tr>
<th>ID#</th>
<th>Brand</th>
<th>Model</th>
<th>Feature 1</th>
<th>Feature 2</th>
<th>kWh/yr</th>
<th>Label</th>
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<tbody>
<tr>
<td>1</td>
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<td>y</td>
<td>y</td>
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<td>B</td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
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<td>C</td>
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<tr>
<td>9</td>
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<td>y</td>
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## Data – market research for refrigerators

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<th>Model</th>
<th>Size (litres)</th>
<th>Feature</th>
<th>kWh/yr</th>
<th>Label</th>
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<th>Sales</th>
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## Considerations for MEPS – Life cycle costs

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<th>Model</th>
<th>kWh/yr</th>
<th>Label</th>
<th>Purchase price ($)</th>
<th>Sales</th>
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<td>500</td>
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Energy price: 0.2 $/kWh  
Lifetime: 15 Years

Life cycle costs = Purchase price + Running costs
MEPS considerations – market prices - life cycle costs

Life cycle costs = Purchase price + Running costs
MEPS considerations – engineering design options

<table>
<thead>
<tr>
<th>Model</th>
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<th>kWh/yr</th>
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<th>Price $</th>
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Minimising life cycle cost to the consumer
Labels and Tracking Progress - Day 3

- Design an energy label and list why you have chosen specific features
- How will track your programme?