Course Syllabus

Appliance Energy Efficiency Policy

1. Description

Without energy efficiency, total final energy consumption would be around 30% higher by 2030 driven in part by the increasing number of appliances and other energy using devices. Switching to highly energy efficient appliances globally is essential if we are to reach our net zero emissions goals. Recent evidence shows that targeted energy efficiency policies have helped halve the energy consumption of key appliances in the longest-running efficiency programmes.

This course aims to prepare participants to successfully advance energy efficiency policies for appliances and equipment. It does this by explaining how policy can reduce energy use and introduces the principals of the design and implementation of an energy efficiency policy package, which integrates regulations, information, and incentives to drive appliances towards higher efficiency levels. The course consists of 7 modules that, together, introduce the subject. It is a comprehensive tutorial, meant to immerse and challenge participants to consider the many decision levels and options involved during the development process. The overall duration of the course is about 20 hours. It is self-paced so that you can stop and start at will and manage your own learning experience.

2. Target Groups and Participants

The approach is both cross-disciplinary and practical, applying foundational concepts to real-world examples. The course has been developed with a strong policy perspective, and therefore is particularly suited for policymakers.

3. Learning Objectives

This course aims to prepare participants to successfully advance energy efficiency policies for appliances and equipment. It does this by explaining how policy can reduce energy use and introduces the principals of the design and implementation of an energy efficiency appliance policy package, integrating regulations, information, and incentives to drive appliances towards higher efficiency levels.

Specific objectives:

- Providing participants with a vision of the “big picture”,
- Providing enough details to engage productively on any of the topics, and
- Providing resources for information and collaboration.

On completion, participants will be able to answer the following questions:

- What is meant by energy efficiency appliance policy? What policies can be used to reduce energy use in appliances?
- What is an energy efficiency policy package, and how can it be designed and implemented to promote large scale deployment of energy efficiency appliances?
- What are Minimum Energy Performance Standards and how do they work?
- What are Energy Labels? How can they be designed to be more effective?
- Why might you need policies in addition to Minimum Energy Performance Standards and energy labels? What benefits can these other policies offer?
- What market data is needed for energy efficiency appliance policy and how to select the right sources in each case?
- What is necessary for an effective compliance system and how to encourage voluntary compliance and deter non-compliance?
- What is meant by evaluation? How can policymakers use evaluation to make appliance energy efficiency policies more effective?

4. Methodology

This course is based on the MOOC model (massive online open course), which means that its content and activities are available through Open Edx platform 24 hours a day, 7 days a week, providing flexibility in time and space to review the material and learn at your own pace based on the work schedule of each participant. The course lasts approximately 20 hours, distributed in 7 thematic modules.

All modules will be available for students from the first day of the course. Each participant is in charge of managing their learning process. This implies that, as a participant, it is your responsibility to follow the course contents, set your own pace and dedicate appropriate time and attention to the course materials. You should review the videos, do the readings and answer the evaluations. We suggest to access all modules and all lessons in chronological order to achieve comprehensive training as the lessons are structured to build on each other. We also suggest taking notes of the contents of the modules and lessons. This will help prepare you for the evaluations at the end of each module and will also serve as personal material for the future.

We recommend investing a few minutes of learning each day in the course, in a comfortable place without distractions. The most important thing is the quality of time spent and not the quantity. Each participant will decide how to invest and distribute the time they will devote to their professional improvement.

5. Content and Activities

This course is structured in 7 modules. Each module has several sub-themes as follows:

MODULE I – Introduction to Appliance Energy Efficiency Policy

- Energy efficiency policy in appliances and equipment
- Why is appliance energy efficiency policy important?
- Energy Efficiency Policy Packages
- Appliance Energy Efficiency Policy Package

MODULE II – Regulation: Minimum Energy Performance Standards

- What are Minimum Energy Performance Standards?
- Why are Minimum Energy Performance Standards important?
- How to set Minimum Energy Performance Standards
    - Prioritisation of products
    - Setting product coverage
    - Setting standards
- How do Minimum Energy Performance Standards affect product prices

MODULE III – Information: Insights into Energy Labels

- What are energy labels?
- Why are energy labels important?
- Types of energy labels: comparative and endorsement labels
- Label design and placement
- Product database for energy labelling
- Awareness raising

MODULE IV - Incentives and Industry Transformation

- What are incentives?
- How incentives work with other policies
- The different types of incentives
- Examples of incentives
- Steps when considering incentives

MODULE V - Understanding the Market: data needs and data-collection methods

- Data needs in appliance energy efficiency policy
- Data sources
- Data collection
- Sources of ownership and usage data

MODULE VI - Introduction to Compliance

- What is compliance?
- Why is compliance important?
- Steps to deter non-compliance
- Approaches to market surveillance and testing
- Responding to non-compliance

MODULE VII - Introduction to Evaluation

- What is evaluation?
- Why is evaluation important?
- Evaluation processes
- How evaluation of appliance policies works
- Choosing an evaluation approach

6. Evaluation

Each module has a mandatory evaluation or activity that the participant must perform in order to complete the module.

From modules 1 to 7 there will be a final mandatory evaluation of the contents. These evaluations are 5-10 questions with 60 minutes to answer once it starts. To pass these evaluations, you need to answer at least 75% of the questions correctly.

Each participant has 8 attempts to pass each of the assessments. To pass the course the participant must pass all the evaluations.

7. Certification

At the end of the course, participants will receive a certificate. The certificate is issued when the student has successfully participated in at least an average of 75% of the course modules. This average is calculated by dividing the sum of the % of each module, by the number of modules in the course. It recognizes the student's participation in the course, access to the material of each lesson and / or fulfilment of the activities (mandatory or not). The certificate can be downloaded as a diploma in PDF format.

8. LinkedIn Group

Each participant is invited to join the IEA's LinkedIn group IEA Energy Efficiency Policy in Emerging Economies located here.

This LinkedIn group has been created exclusively for alumni of the energy efficiency in emerging economy training weeks to stay connected, update one another on progress and strengthen the international community of energy efficiency policy practitioners.

As they take the course, we strongly encourage participants to use this LinkedIn group to ask any questions they may have about its content and energy efficiency in buildings.

For any technical issues, please contact our helpdesk at: support@abstract-technology.de

9. Contact

IEA: energy.efficiency@iea.org

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