Energy Efficiency Training Week
Indicators and Evaluation

Charles Michaelis and Mafalda Silva
Pretoria, 14 October 2019

IEA #energyefficientworld
Roundtable: knowing each other
About us...

- Experienced (more than five years): 15%
- Some experience (between one and five years): 38%
- Just beginning (less than one year): 39%
- No experience: 8%

100%
Areas of interest

Interested in...

- Urban planning
- Buildings
- Industry
- Lighting and appliances
Areas of experience

Used indicators or conducted evaluations in

- Transport
- Buildings
- Industry
- Lighting and appliances
Types of experience

Experience of conducting

- Statistical analysis
- Qualitative data collection (e.g. interviews)
- Quantitative data collection (e.g. surveys)
- Desk research and literature reviews
Purpose of indicators and evaluation

Interest in indicators and evaluation to help...

- Determine the value for money of programmes or policies
- Assess the impact of programmes or policies
- Improve existing programmes or policies
- Develop new programmes or policies

Interested in indicators and evaluation to help...
Purpose of training

Three areas most interested in...

- Using the results of evaluations
- Using indicators
- Collecting and analysing data
- Managing evaluations
- Choosing an evaluation approach
- Selecting indicators
Introductions

• What is your name?

• Where are you from?

• What is your job and how are you involved in energy efficiency indicators and evaluation?

• What are you hoping to get out of this week?
Introductions

• Charles Michaelis
  - From the UK with experience in Indonesia, Vietnam, China and Australia
  - Monitoring and evaluation of energy efficiency policies for 30 years
  - Indicators and evaluation helps to deliver better policies with better results for people and the environment
  - Hoping to build understanding of indicators and evaluation to help you in your work in future
Introductions

• Mafalda Silva
  - Leads the end use data and energy efficiency indicators work stream in the IEA Energy Data Centre
  - Experience in research around sustainable and energy efficient urban planning and urban metabolism
  - Good policies need evidence: data and indicators are central to policy design and evaluation in any field
  - Hoping to provide useful and practical takeaways on indicators and evaluation for your daily work in your countries and to learn from your experience
Training objectives

• This course aims at providing participants with techniques to assess the results of energy efficiency policies and programmes; including a focus on relevant data and indicators and how to use them to feed different stages of the policy cycle, such as understanding policy progress and effectiveness and where improvements may be needed, to inform the design of new policies and programmes, or to refine existing ones.

• The training will involve a combination of practical exercises, group work and discussion to explore the principles of monitoring and evaluation techniques and how to implement them.

• It will also identify sources of data to developing energy efficiency indicators, and how to collect data to address evidence gaps.
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<th>INTRODUCTORY ROUNDTABLE</th>
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1. **WHERE TO START: INTRODUCTION TO KEY MONITORING AND EVALUATION CONCEPTS**  
*Charles Michaelis, Strategy Development Solutions*

Introduction to monitoring and evaluation concepts.

**Activity:** Indicators and evaluation exercise

Coffee and Tea Break

2. **WHERE TO START: USING INDICATORS AND EVALUATION IN NATIONAL POLICY**  
*Charles Michaelis, Strategy Development Solutions*

Introduction to the policy-making process, theories of change, and the use of monitoring and evaluation.

**Scenario:** The national government wants to know if the policies implemented in the previous years have been effective.

**Discussion question:** What is the best way to know this?

**Activity:** Roundtable discussion

Networking Reception
## Agenda: Day 2 – Indicators and Evaluation stream – Tuesday

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<th>Time</th>
<th>Session</th>
<th>Speaker</th>
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<tbody>
<tr>
<td><strong>09:00 - 09:30</strong></td>
<td><strong>Review: What we learned yesterday and questions</strong></td>
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| **09:30 - 10:30** | **3. Toolkit: Energy balances as a first tool for informing policies**    | Mafalda Silva, IEA               | Introduction to the energy balance and aggregated indicators relevant to energy efficiency policies  
**Activity:** Reading balances and discussion on applications of indicators                                                                                                                                 |
| **10:30 - 11:00** | **Coffee and Tea Break**                                                |                                  |                                                                                                                                                                                                        |
| **11:00 - 12:30** | **4. Toolkit: Data for efficiency indicators**                          | Mafalda Silva, IEA               | Introduction to the energy efficiency indicators and their relevance for tracking energy efficiency progress and informing policies  
**Activity:** Indicators exercise and discussion on applications                                                                                                                                 |
| **12:30 - 13:30** | **Lunch**                                                              |                                  |                                                                                                                                                                                                        |
| **13:30 - 15:00** | **5. What are the steps: Main data sources for developing efficiency indicators**       | Mafalda Silva, IEA               | Overview of key data collection methods, and their advantages/disadvantages. Example of regional experience and practices  
**Discussion Question:** What are the benefits or drawbacks of each method? Where and how to find the data to develop efficiency indicators?  
**Guest presentation:** tbc                                                                                                                                 |
| **15:00 - 15:30** | **Coffee and Tea Break**                                                |                                  |                                                                                                                                                                                                        |
| **15:30 - 17:00** | **6. What are the steps: How to tell if your policy made a difference?** | Charles Michaelis, Strategy Development Solutions | Discussion Question: What are the approaches you can take to answer this question?  
**Activity:** What approaches would work in your country?                                                                                                                                               |
| **17:30 - 19:30** | **Social Activity – Energy efficiency innovation**                       |                                  |                                                                                                                                                                                                        |
# Agenda: Day 3 – Indicators and Evaluation stream – Wednesday

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<tr>
<td>09:00 - 09:30</td>
<td><strong>Review:</strong> What we learned yesterday and questions</td>
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</table>
| 09:30 - 10:30 | 7. What are the steps: Efficiency effect and other drivers of energy demand  
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA  
Defining baseline, estimating energy savings from energy efficiency policies, and decomposition of energy efficiency effect.  
**Activity:** Decomposition exercise |
| 10:30 - 11:00 | Coffee and Tea Break                                                    |
| 11:00 - 11:30 | **Review:** Summary of key messages and actions involved in monitoring and evaluation  
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA  
8. Activity: Developing a monitoring and evaluation plan  
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA  
- What are the expected impacts?  
- What are relevant indicators?  
- What data is needed to develop the indicators?  
- What are possible obstacles? |
| 11:30 - 12:30 | Group exercise                                                          |
| 12:30 - 13:30 | Lunch                                                                  |
| 14:00 - 15:30 | 9. Group Work on Activities                                              
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA  
**Activity:** Group reporting of monitoring and evaluation plans |
| 15:00 - 15:30 | Coffee and Tea Break                                                    |
| 15:30 - 16:00 | 10. Where to get help: Additional resources and aspects to take into account in monitoring and evaluation  
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA |
| 16:00 - 16:30 | 11. Energy Efficiency Quiz                                              
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA |
| 16:30 - 17:00 | 12. What to do next? Roundtable discussion and feedback on course        
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA |
What is evaluation?

Evaluation is an **objective** process of understanding **how** a policy or programme was implemented, **what** effects it had, for whom and **why**.

Leads to **more effective** policies and programmes.
What are indicators

Indicators are clues, signs or markers that describe observable changes or events which relate to a programme or policy and show how close a programme or policy is to its desired path and outcomes.

Indicators provide the evidence that something has happened – e.g. an output delivered, an immediate effect occurred or a long-term change observed.
Critical questions for energy efficiency policy makers

• What progress are we making with delivering energy efficiency?
• What is the reason why energy efficiency is not being delivered at a fast enough rate?
• What needs to be done to address this issue?
• What policies and measures could be implemented?
Exercise
4 groups

• 5 minutes

• Taking it in turns, remove a brick and place it on the top

• Tallest tower or last to collapse wins

• What indicators could you use to measure performance?
Reflection

- What did you achieve?

- What about your approach worked and what didn’t, why?

- What would you do differently next time?
What are indicators and evaluation?

• Repeat exercise

• Was that more effective?

• What have you learned about indicators and evaluation?
  - What did you do?
  - How did you do it?
  - What difference did it make?