

IEA Energy Efficiency in Emerging Economies

Training Week Programme



20 – 24 May 2019

UIC-P Espaces Congrès

16 rue Jean Rey, 75015 Paris

 [#energyefficientworld](https://twitter.com/energyefficientworld)

About the IEA

The IEA works to ensure reliable, affordable and clean energy for its 30 member countries and beyond. Our mission is guided by four main areas of focus: energy security, economic development, environmental awareness and engagement worldwide.

Energy Efficiency in Emerging Economies (E4) Programme

The E4 Programme collaborates on energy efficiency with six of the largest energy consuming emerging economies, namely Brazil, China, India, Indonesia, Mexico and South Africa. Together these countries currently use one third of the world's energy consumption and this proportion is set to grow. The programme also works within two regions, ASEAN and Latin America, supporting energy efficiency through established political and trading relationships.

The collaboration in these countries and within these regions is highly flexible, based on changing needs, but falls into three main themes:

- understanding the potential for energy efficiency to enable a secure, sustainable energy supply
- supporting target setting and policy design to deliver energy efficient prosperity
- tracking progress through energy efficiency indicators and policy evaluation for continuous improvement.

There are five main modes of collaboration:

- hands-on policy support: focusing on the day to day needs of officials responsible for delivering energy efficiency policies (directly with the people leading and supporting policy making)
- thematic workshops: bringing together officials and experts from a range of countries to explore a specific topic (collaboration with dozens of key stakeholders)
- policy training: group training for junior officials and future leaders, primarily through the E4 Training Weeks (targeted capacity building for hundreds of people)
- webinars: online seminars offering access to a range of experts for key topics (general capacity building for 1000s of people)
- online training: self-paced learning on energy efficiency indicators (general capacity building for potentially tens of 1000s of people).

The first phase of the E4 Programme (2014 to 2017) was made possible thanks to the generous contributions of the Government of Denmark and the European Commission.

The second phase of the programme (commenced in 2018), is part of the IEA Clean Energy Transitions Programme (CETP), which aims to collaborate with partner country governments on all aspects of their clean energy transitions with support from a range of donors including Canada, Denmark, the European Commission, Germany, Italy, Japan, Sweden, Switzerland, and the United Kingdom.

The Opportunity for Energy Efficiency

VENUE: UIC-P ESPACES CONGRES, 16 RUE JEAN REY, 75015, PARIS – ROOM LUIS ARMAND

08:15 - 09:15 Participant Registration - Welcome Coffee and Tea

09:15 - 09:25
WELCOMING ADDRESS
Dr. Fatih Birol, Executive Director, International Energy Agency (IEA)

09:25 - 10:15
THE GLOBAL ENERGY EFFICIENCY CHALLENGE
Moderator: Dr. Fatih Birol, Executive Director, IEA

- His Excellency, Mr. Christopher Sharrock, Ambassador, Permanent Representative of the United Kingdom to the OECD
- His Excellency, Mr. Carlos Márcio Cozendey, Ambassador, Delegate of Brazil to International Economic Organizations in Paris, Embassy of Brazil in France
- His Excellency, Mr. Giancarlo Kessler, Ambassador, Permanent Representative of Switzerland to the OECD

10:15 - 10:45 Group Photo - Coffee and Tea Break

10:45 - 11:15
STRATEGY FOR AN ENERGY EFFICIENT WORLD
Brian Motherway, Head, Energy Efficiency Division, IEA

11:15 - 12:00
ENERGY EFFICIENCY INNOVATION
Moderator: Melanie Slade, IEA

- Jean-Jacques Marchais, Schneider Electric
- Vincent Sciandra, METRON
- Julie Kjestrup, Danfoss

12:00 - 13:30 Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

The Opportunity for Energy Efficiency

VENUE: UIC-P ESPACES CONGRES, 16 RUE JEAN REY, 75015, PARIS – ROOM LUIS ARMAND

13:30 - 13:45 ENERGY EFFICIENCY SWAPS – ENERGY SUBSIDY REFORM
Peter Wooders, International Institute for Sustainable Development (IISD)

13:45 - 14:00 COOLING FOR ALL
Ben Hartley, Sustainable Energy for All (SEforAll)

14:00 - 15:00 GROUP ACTIVITY: THE MULTIPLE BENEFITS OF ENERGY EFFICIENCY
Ailin Huang, Jessica Glicker and Luis Lopez, IEA

15:00 - 15:30 Coffee and Tea Break

15:30 - 15:45 INVESTMENT GRADE ENERGY EFFICIENCY POLICY
Nigel Jollands, European Bank for Reconstruction and Development (EBRD)

15:45 - 16:45 GROUP ACTIVITY: BARRIERS TO ENERGY EFFICIENCY
Edith Bayer, Joe Ritchie and Vida Rozite, IEA

16:45 - 17:00 THE WEEK AHEAD: THE TRAINING SESSIONS
Chiara Guido, IEA

17:00 - 19:00 Networking Reception

Energy Efficiency in Buildings

ROOM FRIEDRICH LIST

LEAD: BRIAN DEAN, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30 INTRODUCTORY ROUNDTABLE

09:30 - 10:30

1. WHERE TO START: ENERGY USE IN BUILDINGS
Brian Dean, IEA and Ian Hamilton, UCL

Scenario: An influential NGO is urging for all new construction to be zero emission or net zero energy buildings.
Discussion question: *What factors are key to achieving zero emission or net zero energy buildings?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

2. WHERE TO START: ENERGY EFFICIENCY POTENTIAL IN BUILDINGS
Brian Dean, IEA and Maxine Jordan, IEA

Scenario: You have been asked to create new policies for energy efficient buildings.
Discussion question: *How do you determine where to start?*

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 14:30

3. TOOLKIT: ENERGY EFFICIENT BUILDING DESIGN
Brian Dean, IEA and Pierre Jaboyedoff, BEEP

Scenario: Builders are saying that construction timelines are short and it is not possible to design more efficient buildings because it is too complicated.
Discussion question: *What changes in building design can enable more energy efficiency in buildings?*

14:30 - 15:00

Coffee and Tea Break

15:00 - 16:30

4. TOOLKIT: ENERGY EFFICIENT BUILDING TECHNOLOGIES
Brian Dean, IEA and Ian Hamilton, UCL

Scenario: Stakeholders are saying that new policies are not possible because the technology that enables increased energy efficiency is not available.
Discussion question: *What technologies could change your market for energy efficiency?*

16:30 - 17:00

SPECIAL SESSION: IEA'S TECHNOLOGY COLLABORATION PROGRAMMES
Brian Dean, IEA and Ian Hamilton, UCL

17:00 - 19:30

Boat Trip on River Seine (Port de Suffren – participants will leave together from UIC-P at 17:00)

Energy Efficiency in Buildings

ROOM FRIEDRICH LIST

LEAD: BRIAN DEAN, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

09:30 - 10:30

5. TOOLKIT: ENERGY EFFICIENCY POLICIES AND TARGET SETTING
Brian Dean, IEA and Maxine Jordan, IEA

Scenario: There has been a change of government and the incoming government wants a range of options for interventions to rapidly increase energy efficiency.
Discussion question: *How do you identify, prioritise and quantify these policy options?*

10:30 - 11:00 Coffee and Tea Break

11:00 - 12:00

6. WHAT ARE THE STEPS? ENABLING INVESTMENT WITH ENERGY EFFICIENCY POLICIES
Brian Dean, IEA

Scenario: You continue to hear from stakeholders that all they need is money and then they will consider doing energy efficiency in buildings.
Discussion question: *What policy approaches can enable energy efficiency investment?*

12:00 - 13:00 Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 17:00

SITE VISIT – BOUYGUES CONSTRUCTION CHALLENGER
Departure from UIC-P at 13:00

Energy Efficiency in Buildings

ROOM FRIEDRICH LIST

LEAD: BRIAN DEAN, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

09:30 - 10:30

7. WHAT ARE THE STEPS? IMPLEMENTING CODES AND STANDARDS

Brian Dean, IEA and Pierre Jaboyedoff, BEEP

Scenario: A respected industry association claims that the building energy codes are out of date.

Discussion question: *How do you advance building energy codes in your jurisdiction?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

8. WHAT ARE THE STEPS? BUILDING OPERATIONS AND PROCUREMENT

Brian Dean, IEA and Pierre Jaboyedoff, BEEP

Scenario: The Mayor wants to show leadership by example in public buildings.

Discussion question: *How do you deliver energy savings through public buildings?*

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 13:30

SPECIAL SESSION: THE MULTIPLE BENEFITS OF ENERGY EFFICIENCY IN BUILDINGS

Brian Dean, IEA and Maxine Jordan, IEA

13:30 - 14:30

9. DID IT WORK? EVALUATION AND ENERGY EFFICIENCY INDICATORS

Brian Dean, IEA and Ian Hamilton, UCL

Scenario: Leadership wants to know how effective the building energy efficiency policies have been.

Discussion question: *How do you determine the benefits of your policies and programmes?*

14:30 - 15:00

Coffee and Tea Break

15:00 - 15:30

SPECIAL SESSION: INTERNATIONAL AND REGIONAL INITIATIVES THAT CAN HELP

Brian Dean, IEA and Pierre Jaboyedoff, BEEP

15:30 - 17:00

10. ENERGY EFFICIENCY QUIZ

Brian Dean, IEA and Maxine Jordan, IEA

Energy Efficiency of Appliances and Equipment

ROOM 303 – GEORGES BARBU

LEADS: KEVIN LANE AND EMILY MCQUALTER, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30

INTRODUCTORY ROUNDTABLE

09:30 - 10:30

GUEST PRESENTATION: OZONE DEPLETING SUBSTANCES

Ina Colombo, International Institute of Refrigeration

1. WHERE TO START: PLANNING ENERGY EFFICIENCY PROGRAMMES

Emily McQualter, IEA and Kevin Lane, IEA

Scenario: The government wants a range of options for interventions to rapidly increase residential energy efficiency for appliances, equipment and lighting.

Discussion question: *How do you identify, prioritise and quantify these options?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

2. WHERE TO START: SELECTING PRODUCTS FOR MEPS AND LABELLING PROGRAMMES

Kevin Lane, IEA

Scenario: You have been asked to expand your governments Standards and Labelling programme to cover more products. Discussion question: *What steps would you take to develop your recommendation?*

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 14:30

3. WHERE TO START: ASSESSING CURRENT PERFORMANCE AND SETTING MEPS

Emily McQualter, IEA and Kevin Lane, IEA

Scenario: A respected industry association claims that the MEPS levels for a certain product are so out of date that all the products on your market comply.

Discussion question: *How do you go about testing this claim, and what do you do if this information is correct?*

14:30 - 15:00

Coffee and Tea Break

15:00 - 16:00

GUEST PRESENTATION: INDUSTRY PERSPECTIVE ON S&L PROGRAMMES

Michel Farah, Daikin

4. WHAT ARE THE STEPS: INDUSTRY TRANSFORMATION

Melanie Slade, IEA

Scenario: Several local manufacturers of electric fans have said that the MEPS levels currently in force in several neighbouring economies would ban most of their current product lines, and threaten their businesses.

Discussion question: *What steps could you take to gain the support of local industry for the introduction of MEPS?*

16:00 - 16:30

5. TOOLKIT: THE RELATIONSHIP BETWEEN PRODUCT EFFICIENCY AND PRICES

Kevin Lane, IEA

Scenario: You have been asked to prepare an impact statement for your regulations, including the effect on product prices. Discussion question: *How would you go about the task of estimating future product costs?*

GUEST PRESENTATION: STANDARDS AND LABELLING PROGRAMMES IN GHANA

Hubert Zan, Energy Commission of Ghana

16:30 - 17:00

GROUP EXERCISE

17:00 - 19:30

Boat Trip on River Seine (Port de Suffren – participants will leave together from UIC-P at 17:00)

Energy Efficiency of Appliances and Equipment

ROOM 303 – GEORGES BARBU

LEADS: KEVIN LANE AND EMILY MCQUALTER, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30

GROUP EXERCISE

09:30 - 10:30

6. WHAT ARE THE STEPS? STAKEHOLDER INVOLVEMENT AND COMMUNICATION

Emily McQualter, IEA

Scenario: You are asked to prepare a communications strategy for your MEPS programme.

Discussion question: *What are the key elements to this strategy?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

7. TOOLKIT: INSIGHTS INTO ENERGY LABELS

Emily McQualter, IEA

Scenario: A newspaper article has questioned the validity of energy labels on refrigerators, saying that the label does not reflect real usage. Your manager has asked you to outline a response.

Discussion question: *What do you say?*

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 17:00

SITE VISIT – DARTY ELECTRONICS STORE

Departure from UIC-P at 13:00

Energy Efficiency of Appliances and Equipment

ROOM 303 – GEORGES BARBU

LEADS: KEVIN LANE AND EMILY MCQUALTER, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30

GROUP EXERCISE

09:30 - 10:30

8. TOOLKIT: MODERNISING ENERGY EFFICIENCY THROUGH DIGITILISATION
Vida Rozite, IEA

Scenario: There are special grants available to government departments for 'smart' initiatives that lead to reduced costs for business.

Discussion question: Which projects would you put forward?

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

9. TOOLKIT: MONITORING, VERIFICATION AND ENFORCEMENT
Kevin Lane, IEA

Scenario: You've been given \$300,000 to improve compliance rates in your S&L programme.

Discussion question: How do you go about deciding on the most effective ways to spend this?

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 14:00

10. DID IT WORK? MONITORING AND EVALUATING POLICIES AND PROGRAMMES
Charles Michaelis, Strategy Development Solutions

Scenario: The Minister wants to know how effective your programme has been.

Discussion question: How do you go about answering this?

14:00 - 14:30

GUEST PRESENTATION: UNITED FOR EFFICIENCY
Brian Hojui, United for Efficiency, UN Environment

14:30 - 15:00

Coffee and Tea Break

15:00 - 16:00

GROUP EXERCISE AND REPORT BACK

16:00 - 17:00

11. WHAT TO DO NEXT?
Kevin Lane, IEA and Emily McQualter, IEA

Roundtable Discussion and Review

Energy Efficiency in Industry

ROOM 203

LEAD: PATRICK CRITTENDEN, SUSTAINABLE BUSINESS

09:00 - 09:30

INTRODUCTORY ROUNDTABLE

09:30 - 10:30

1. WHERE TO START: MAKING THE CASE FOR INDUSTRIAL ENERGY EFFICIENCY POLICY

Patrick Crittenden, Sustainable Business

Identify policy-making challenges, analyse data and explore business barriers to establish the need for industrial energy efficiency policies and programmes.

Discussion question: *What are the key justifications for the programmes you are involved in?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

2. WHERE TO START: MAKING THE CASE FOR INDUSTRIAL ENERGY EFFICIENCY POLICY (CONT.)

Patrick Crittenden, Sustainable Business and Hugo Salamanca, IEA

Set objectives and position energy efficiency programmes in the context of national priorities and other policies and programmes.

Discussion question: *What does success look like?*

12:00 - 13:00

Lunch – Carre Suffren Canteen, 33 Rue de la Fédération

13:00 - 14:30

3. TOOLKIT: SELECT ENERGY EFFICIENCY PROGRAMME MEASURES

Patrick Crittenden, Sustainable Business and Hugo Salamanca, IEA

Designing energy efficiency programmes to maximise outcomes.

Discussion question: *How can energy efficiency programmes create a foundation for industrial energy efficiency in your country?*

14:30 - 15:00

Coffee and Tea Break

15:00 - 16:30

4. TOOLKIT: SELECT ENERGY EFFICIENCY PROGRAMME MEASURES (CONT.)

Patrick Crittenden, Sustainable Business and Vida Rozite, IEA

Leveraging digital technologies to accelerate industrial energy efficiency and to streamline programme delivery.

Discussion question: *How can we use new technology to enhance the efficiency and effectiveness of energy efficiency programmes?*

16:30 - 17:00

WHERE TO GET HELP

Patrick Crittenden, Sustainable Business

17:00 - 19:30

Boat Trip on River Seine (Port de Suffren – participants will leave together from UIC-P at 17:00)

Energy Efficiency in Industry

ROOM 203

LEAD: PATRICK CRITTENDEN, SUSTAINABLE BUSINESS

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

09:30 - 10:30 5. TOOLKIT: SELECT ENERGY EFFICIENCY PROGRAMME MEASURES (CONT.)
Hugo Salamanca, IEA and Marco Matteini, UNIDO
Design and implement programs that support the implementation of energy management systems to encourage 'continuous' energy efficiency improvement.
Discussion question: *How can energy management programmes create a foundation for industrial energy efficiency in your country?*

10:30 - 11:00 Coffee and Tea Break

11:00 - 12:00 6. UNDERSTANDING AND CONSULTING WITH STAKEHOLDERS AND CASE STUDY
Patrick Crittenden, Sustainable Business
Identify stakeholders and develop a stakeholder engagement strategy.
Discussion question: *Who are your key stakeholders and how can you align your interests with theirs?*

12:00 - 13:00 Lunch – Carre Suffren Canteen, 33 Rue de la Fédération

13:00 - 17:00

SITE VISIT – GENERAL ELECTRIC
Departure from UIC-P at 13:00

Energy Efficiency in Industry

ROOM 203

LEAD: PATRICK CRITTENDEN, SUSTAINABLE BUSINESS

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

09:30 - 10:30

7. TOOLKIT: FINANCING ENERGY EFFICIENCY

Patrick Crittenden, Sustainable Business

Scaling up energy efficiency with innovative financial instruments.

Discussion question: *What are the best options to assist industrial businesses with finance for energy efficiency?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

8. TOOLKIT: IMPLEMENTING PROGRAMMES AND CASE STUDY

Patrick Crittenden, Sustainable Business

Designing a pilot and developing an implementation strategy.

12:00 - 13:00

Lunch – Carre Suffren Canteen, 33 Rue de la Fédération

13:00 - 14:30

9. WHAT ARE THE STEPS? PROGRAMME DESIGN SCENARIO EXERCISE

Patrick Crittenden, Sustainable Business

In groups, participants prepare for and then present on the following Scenario: You are working in a team to design a new, regional industrial energy efficiency programme:

- *What industry sectors and segments will you target and why?*
- *Which stakeholders will you consult and involve?*
- *What measures will you include in your programme and what barriers will these overcome?*
- *How will you gather data and communicate progress?*

14:30 - 15:00

Coffee and Tea Break

15:00 - 16:00

10. DID IT WORK? INDICATORS, EVALUATING AND SCALING UP PROGRAMMES

Patrick Crittenden, Sustainable Business and Hugo Salamanca, IEA

Design evaluations to track progress, establish programme strengths and identify limitations and opportunities to scale up.

Short presentation on the energy efficiency indicators and the benchmarking work for Japan's G20 presidency.

16:00 - 17:00

11. REVIEW: ROUNDTABLE DISCUSSION ON APPLICATION CHALLENGES AND THE DEVELOPMENT OF ACTION PLANS

Patrick Crittenden, Sustainable Business

Energy Efficiency in Cities

ROOM GEORGE STEPHENSON

LEADS: JOHN DULAC AND MELANIE SLADE, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30	INTRODUCTORY ROUNDTABLE
09:30 - 10:30	<p>1. WHERE TO START: ENERGY USE AND POTENTIAL IN URBAN SYSTEMS <i>John Dulac, IEA</i></p> <p><u>Scenario:</u> Your mayor/governor is under pressure to reduce energy consumption to meet national targets. <u>Discussion question:</u> <i>How do you help the mayor/governor understand the drivers of energy consumption in the city?</i></p>
10:30 - 11:00	Coffee and Tea Break
11:00 - 12:00	<p>2. TOOLKIT: ENERGY EFFICIENT URBAN PLANNING <i>John Dulac, IEA</i></p> <p><u>Scenario:</u> There is increasing urbanisation and increasing demand for urban services. <u>Discussion question:</u> <i>How can we design a more energy efficient urban system?</i></p>
12:00 - 13:00	Lunch – Carré Suffren Canteen, 33 Rue de la Fédération
13:00 - 14:30	<p>3. TOOLKIT: URBAN TRANSPORT – SHIFT TO MORE EFFICIENT MODES <i>John Dulac, IEA</i></p> <p><u>Scenario:</u> Demand for mobility in your city/municipality is increasing. <u>Discussion question:</u> <i>What are the ways to increase mobility through more efficient forms of transport?</i></p>
14:30 - 15:00	Coffee and Tea Break
15:00 - 17:00	<p>4. TOOLKIT: URBAN TRANSPORT - IMPROVING EFFICIENCY OF TRANSPORT SERVICES <i>John Dulac, IEA</i></p> <p><u>Scenario:</u> Transport-related emissions continue to remain high in your local area. <u>Discussion question:</u> <i>What are options you can take to increase transport efficiency to reduce emissions?</i></p>
17:00 - 19:30	Boat Trip on River Seine (Port de Suffren – participants will leave together from UIC-P at 17:00)

Energy Efficiency in Cities

ROOM GEORGE STEPHENSON

LEADS: JOHN DULAC AND MELANIE SLADE, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

09:30 - 10:30

5. TOOLKIT: UTILITIES – WATER MANAGEMENT

Melanie Slade, IEA

Scenario: Local residents are complaining about unreliable and costly drinking water supply.

Discussion question: *What can you do to reduce energy use in the water sector and improve service delivery?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

6. TOOLKIT: UTILITIES – LIGHTING AND OTHER URBAN SERVICES

Melanie Slade, IEA

Scenario: Local residents are complaining about dark and unsafe streets.

Discussion question: *What can you do to reduce energy use in public lighting and improve service delivery?*

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 17:30

SITE VISIT – CLICHY BATIGNOLLES SUBURB WITH PARIS & METROPOLE AMÉNAGEMENT

Departure from UIC-P at 13:00

Energy Efficiency in Cities

ROOM GEORGE STEPHENSON

LEADS: JOHN DULAC AND MELANIE SLADE, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

09:30 - 10:30

7. TOOLKIT: SMART CITIES
John Dulac, IEA and Melanie Slade, IEA

Scenario: Your mayor wants to be known for innovative solutions.
Discussion question: *What are the ways you can use digitalisation to further reduce urban energy use and improve urban services?*

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:30

8. WHAT ARE THE STEPS? FINANCING OF PROGRAMMES
John Dulac, IEA

Scenario: There are ambitious targets but seemingly little funding available to realise energy efficiency projects.
Discussion question: *What are the financing options that you can take?*

12:30 - 13:30

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:30 - 15:00

9. DID IT WORK? EVALUATION AND ENERGY EFFICIENCY INDICATORS
John Dulac, IEA

Scenario: The national government wants to know how effective the energy efficiency programmes have been and wants to compare different cities.
Discussion question: *How do you develop indicators that properly measure the benefits of your programmes?*

15:00 - 15:30

Coffee and Tea Break

15:30 - 16:15

REVIEW: URBAN SYSTEMS
John Dulac, IEA and Melanie Slade, IEA

16:15 - 17:00

10. ENERGY EFFICIENCY QUIZ
John Dulac, IEA and Melanie Slade, IEA

Energy Efficiency Indicators and Evaluation

ROOM 302

LEADS: CHARLES MICHAELIS, STRATEGY DEVELOPMENT SOLUTIONS AND MAFALDA SILVA, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30

INTRODUCTORY ROUNDTABLE

09:30 - 10:30

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.

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

2. TOOLKIT: ENERGY BALANCES AS A FIRST TOOL FOR INFORMING POLICIES

Francesco Mattion, IEA and Mafalda Silva, IEA

Introduction to the energy balance and the insights and aggregated indicators relevant to energy efficiency policies.

Activity: Reading balances and discussion on applications of indicators.

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 14:30

3. 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.

14:30 - 15:00

Coffee and Tea Break

15:00 - 17:00

GUEST PRESENTATION

Hugh King, BEIS, UK

4. TOOLKIT: DATA FOR EFFICIENCY INDICATORS

Mafalda Silva and Victor Garcia, 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.

17:00 - 19:30

Boat Trip on River Seine (Port de Suffren – participants will leave together from UIC-P at 17:00)

Energy Efficiency Indicators and Evaluation

ROOM 302

LEADS: CHARLES MICHAELIS, STRATEGY DEVELOPMENT SOLUTIONS AND MAFALDA SILVA, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

09:30 - 10:30

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
Pei Qingbing, ERI, China

10:30 - 11:00 Coffee and Tea Break

11:00 - 12:00

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?

12:00 - 13:00 Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 17:00

SITE VISIT
PARTICIPANTS WILL BE ASSIGNED TO ONE OF THE FOUR SITE VISITS SCHEDULED

Energy Efficiency Indicators and Evaluation

ROOM 302

LEADS: CHARLES MICHAELIS, STRATEGY DEVELOPMENT SOLUTIONS AND MAFALDA SILVA, INTERNATIONAL ENERGY AGENCY

09:00 - 09:30 REVIEW: WHAT WE LEARNED YESTERDAY AND QUESTIONS

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.

10:30 - 11:00

Coffee and Tea Break

11:00 - 12:00

8. REVIEW: SUMMARY OF KEY MESSAGES AND ACTIONS INVOLVED IN MONITORING AND EVALUATION
Charles Michaelis, Strategy Development Solutions and Mafalda Silva, IEA

12:00 - 13:00

Lunch – Carré Suffren Canteen, 33 Rue de la Fédération

13:00 - 15:00

9. 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 and evaluation questions?
- What data is needed to develop the indicators and answer the evaluation questions?
- What are possible obstacles?

Group exercise

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

Making More Energy Efficiency Happen

ROOM: LUIS ARMAND

09:00 - 09:30	SECTOR STREAMS REPORT BACK ON KEY LESSONS Patrick Crittenden, Sustainable Business
09:30 - 10:00	COMMUNICATION STRATEGIES TO SUPPORT ENERGY EFFICIENCY GOALS: PLANNING AND IMPLEMENTING EFFECTIVE CAMPAIGNS Melanie Slade, IEA and Charles Michaelis, Strategy Development Solutions
10:00 - 10:30	Coffee and Tea Break
10:30 - 11:30	COMMUNICATION STRATEGIES TO SUPPORT ENERGY EFFICIENCY GOALS Melanie Slade, IEA and Charles Michaelis, Strategy Development Solutions
11:30 - 12:00	ENERGY EFFICIENT PROSPERITY POLICY PACKAGES – INTRODUCTION Edith Bayer and Brian Dean, IEA
12:00 - 13:00	Lunch – Carré Suffren Canteen, 33 Rue de la Fédération
13:00 - 13:30	ENERGY EFFICIENT PROSPERITY POLICY PACKAGES – GROUP WORK Edith Bayer and Brian Dean, IEA
13:30 - 14:30	ENERGY EFFICIENT PROSPERITY POLICY PACKAGES – REPORT BACK Edith Bayer and Brian Dean, IEA
14:30 - 14:45	ENERGY EFFICIENT PROSPERITY POLICY PACKAGES – AWARDS Brian Motherway, IEA
14:45 - 15:00	Coffee and Tea Break
15:00 - 16:00	CLOSING REMARKS AND AWARDING OF CERTIFICATES Paul Simons, Deputy Executive Director, IEA

Sector Trainers



Brian Dean has more than 20 years of experience in energy efficiency and leads IEA's work on energy efficiency in buildings to support governments and organizations globally with energy efficiency policy. Brian has been an author for various recent reports, including IEA's Future of Cooling, Energy Efficiency 2018, and the Global ABC Global Status Report for Buildings and Construction. Prior to joining the IEA in 2014, Brian was head of Energy Efficiency Policy and Analytics at ICF International, where he supported the development of the ENERGY STAR program, utility-based energy efficiency programs, building energy codes and energy demonstration projects. Brian has an education in engineering, architecture and political science from Rensselaer Polytechnic Institute and Massachusetts Institute of Technology.



Pierre Jaboyedoff is an Associate at Effinart, and has been a consultant for the Swiss Agency for Development and Cooperation in India since 1992 and since 2011 he has been the leader of the Swiss team for the project BEEP (Building Energy Efficiency Project) which has been supporting India's Bureau of Energy Efficiency, including in the development of the new Energy Conservation Building Code for Residential Buildings (Eco-Niwas Samhita). Pierre has been active in R&D and consulting in high performance buildings since 1984, has been involved in IEA solar and buildings research projects, and is an expert in simulation assisted integrated design of buildings (passive design, HVAC and renewables). Pierre has a mechanical engineering master's degree with a focus on energy and thermal engineering from EPFL, Lausanne, Switzerland.



Ian Hamilton is an Associate Professor at the UCL Energy Institute, University College London, UK. Ian's research is focused on the nexus between energy supply-demand in buildings, indoor and urban environmental conditions, and health and climate change. Ian is the Principle Investigator for the IEA's 'Annex 70 - Building Energy Epidemiology' on energy and building stock data and modelling drawing together researchers from 25 institutions from across 12 countries. Ian is a co-investigator on the UK's 'Centre on Research for Energy Demand Solutions', the UK-China Centre for Total Building Performance and the UK's Health Protection Research Unit on 'Healthy and Sustainable Cities under Climate Change'.



Maxine Jordan leads the energy efficiency in buildings work within the IEA's Energy Efficiency in Emerging Economies (E4) Programme. After several years working as a building services and environmental design consultant in London specialised in high performance buildings, Maxine moved to Brazil to work in one of the country's leading energy efficiency and policy research consultancies, where she participated in preparatory studies for the National Energy Efficiency Action Plan for Buildings. At the IEA, Maxine contributes to policy support and analysis for buildings and cooling efficiency in the programme's emerging economies, as well as to the Buildings and Construction Roadmaps with the GlobalABC. Maxine holds a Masters of Engineering degree from the University of Cambridge in Civil, Structural and Environmental Engineering.



Kevin Lane has 25 years' international experience in energy efficiency focussing on lights and appliances. He has successfully contributed to over a dozen European energy end-use studies commissioned as preparation for EU product policy (e.g. EU labelling, minimum efficiency standards and voluntary agreements), including UK impact assessments. Kevin has supported the development of standards and labels in various other countries (including: EU, China, US, Australia, Vietnam). While at the Environmental Change Institute, University of Oxford he created and developed the DECADE residential end-use model, which has been used as the basis for the UK Government's impact assessment for multiple Eco-design measures.



Emily McQualter manages IEA's Energy Efficiency in Emerging Economies (E4) programme of work in Southeast Asia. Emily has experience with energy efficiency policy making within the Australian Government as part of the Equipment Energy Efficiency Programme (E3) and has lived and worked on energy efficiency issues in Southeast Asia for a number of years. Emily spent time in rural Philippines and in Thailand, where she worked for the United Nations Environment Programme, Regional Office for Asia and the Pacific on energy efficiency programmes. Emily received a BSc and Masters of Natural Resource Management from the University of Melbourne.



Patrick Crittenden is the Director of Sustainable Business. He is a recognised expert in industrial energy efficiency policy and practice and has provided advisory and consultation services to national and regional governments on an extensive range of policies including the Australian Energy Efficiency Opportunities Act and the Mongolian Energy Efficiency Business Programme. Patrick is an engaging speaker and facilitator and has designed and delivered stakeholder engagement and energy efficiency capacity building events in Australia, the United States, France, India, Russia and Mongolia. He holds a Bachelor of Social Science and Policy degree and a PhD in Management. His PhD research examined the interaction between government policies, market forces and organisational culture to provide new insights into how and why energy management practices change in large energy using businesses.



Hugo Salamanca manages IEA's Energy Efficiency in Emerging Economies (E4) programme of work on industrial energy efficiency and in South Africa. Hugo has been working on industrial energy efficiency, supporting small and medium companies and large industrial plants, across sectors including petrochemicals, iron and steel, and the food industry carrying out energy audits, implementing ISO 50001 energy management systems and assisting in the finance of energy efficiency projects using the financial tools available. Hugo started his career working between France and China promoting large LNG storage technologies for ENGIE ensuring dialogue between Chinese companies, institutions, government bodies and partners to work towards promoting innovative solutions. Hugo holds a Master's Degree in Engineering in Energy and Environment from École Centrale de Nantes and a Master of Science in Environmental Science and Engineering from Tsinghua University.



John Dulac leads IEA's energy technology and policy analysis in the buildings sector, contributing to IEA efforts to better understand the implications for a low-carbon economy. John leads the IEA's Collaborative on Combined Heat and Power and efficient District Heating and Cooling (CHP/DHC) and is the desk officer for the Technology Collaboration Programmes (TCPs) on Energy Conservation through Energy Storage (ECES), Heat Pump Technologies (HPT), District Heating and Cooling (DHC). John was the lead author of IEA's policy pathway on urban planning, *A Tale of Renewed Cities*, and previously worked as a research associate at the Asian Development Bank. John received a BSc in Environmental Engineering and BA in International Relations from Tufts University, and an MSc in Urban Planning and Master of International Affairs at Columbia University.



Melanie Slade has spent nearly thirty years in energy efficiency policy development and implementation in many parts of the world. She started out working in the UK Government on industrial energy efficiency and has worked with many other governments to establish energy efficiency programmes, perhaps most notably, the Government of China in the 1990s. She also spent six years overseeing the regulation of minimum energy performance standards and labels for lighting, equipment and appliances in Australia and New Zealand. Mel moved to the IEA in 2014 to manage the Energy Efficiency in Emerging Economies programme to work with policy makers in Brazil, China, India, Indonesia, Mexico, South Africa and Thailand to develop more effective energy efficiency policy, track its progress and assess its potential.



Charles Michaelis has 25 years' experience of evaluating government policies and programmes. He has worked in Indonesia, Vietnam and China as well as Australia and the UK. Within the energy efficiency field, Charles has conducted more than 100 evaluations of policies relating to industry, buildings, lighting and appliances. He has also worked on renewables and demand side response. Currently, Charles is leading a major evaluation of the UK's International Climate Finance. Charles has expertise in a wide range of approaches to evaluation, data collection and analysis approaches. He believes that, even with limited resources, it is always possible to use evidence and analysis to improve the effectiveness of programmes and policies.



Mafalda Silva is a Statistics Manager in the IEA Energy Data Centre and leads the end use data and energy efficiency indicators data collection and related publications and databases at the IEA, which have recently been expanded to include more countries globally. Mafalda has also been working in developing international collaboration around data – particularly efficiency data – under IEA's Clean Energy Transitions Programme. Previous to joining the IEA, she worked as a researcher for over seven years on the fields of energy demand in cities, urban planning and urban metabolism. Mafalda also holds a PhD in Sustainable Energy Systems and a BSc. in Environmental Sciences at the University of Porto.

