



# Energy Efficiency Promotion: the Role of ECCJ

the Role of ECCJ

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**The Energy Conservation Center, Japan**

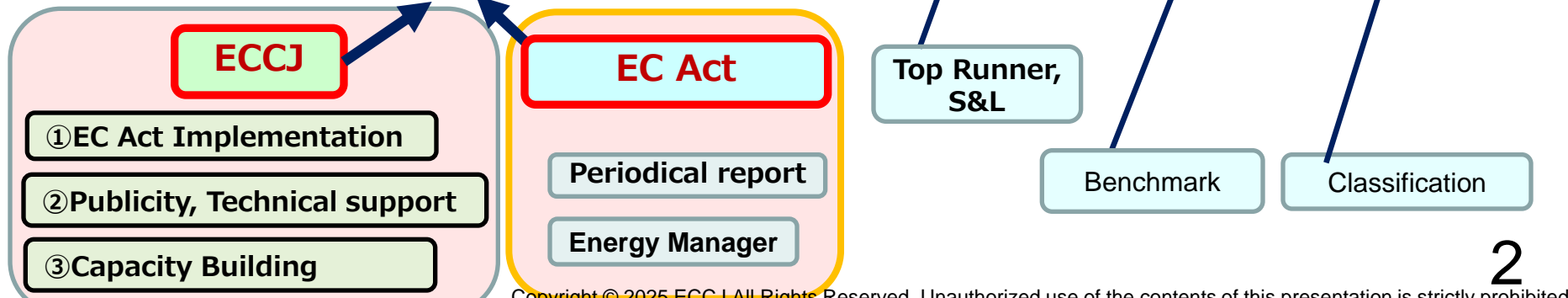
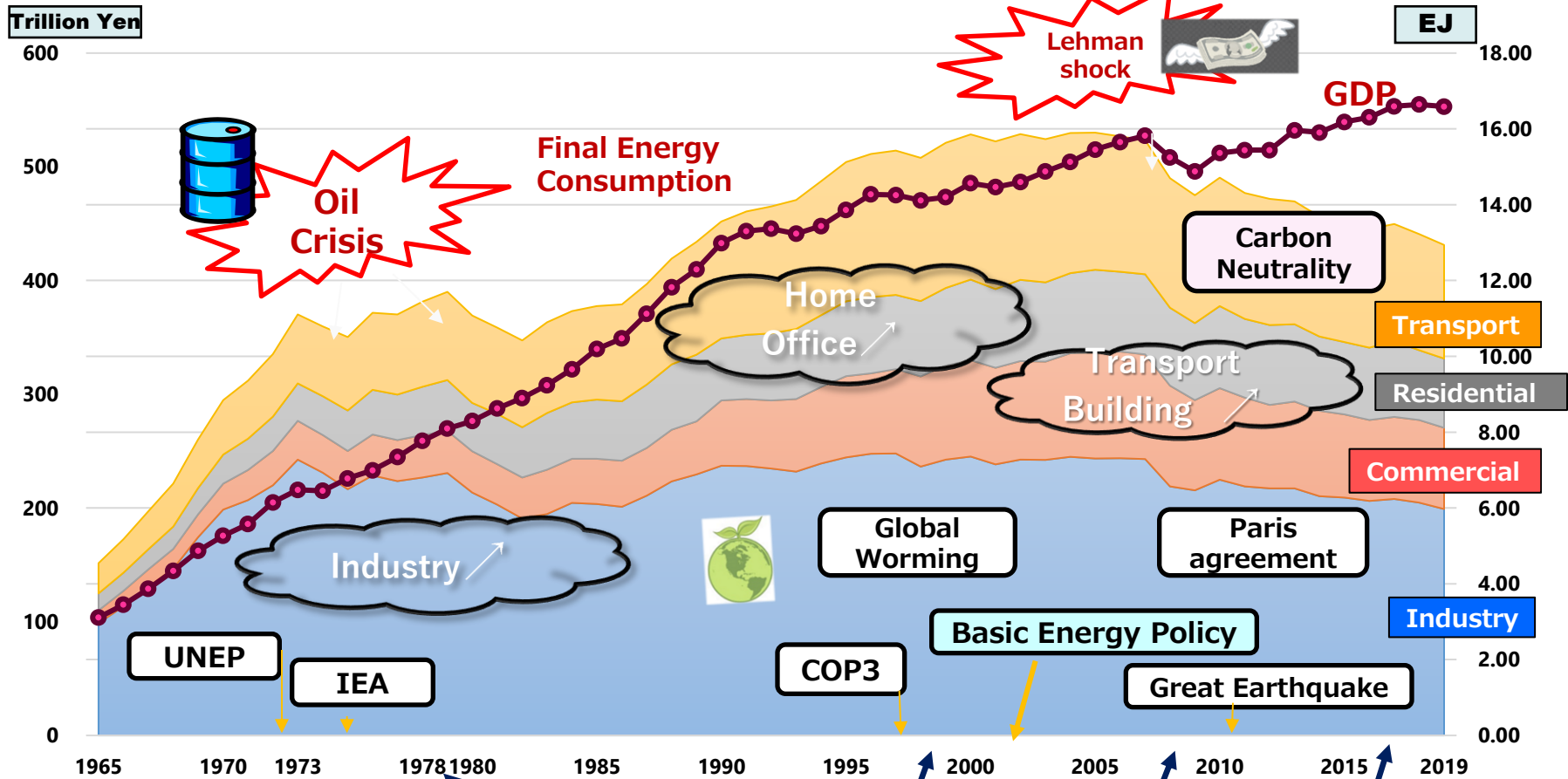


# Contents

- ◆ **History of Energy Efficiency & Conservation in Japan and the Role of ECCJ**
- ◆ **Activities of ECCJ**
- ◆ **Key Points for EE&C**

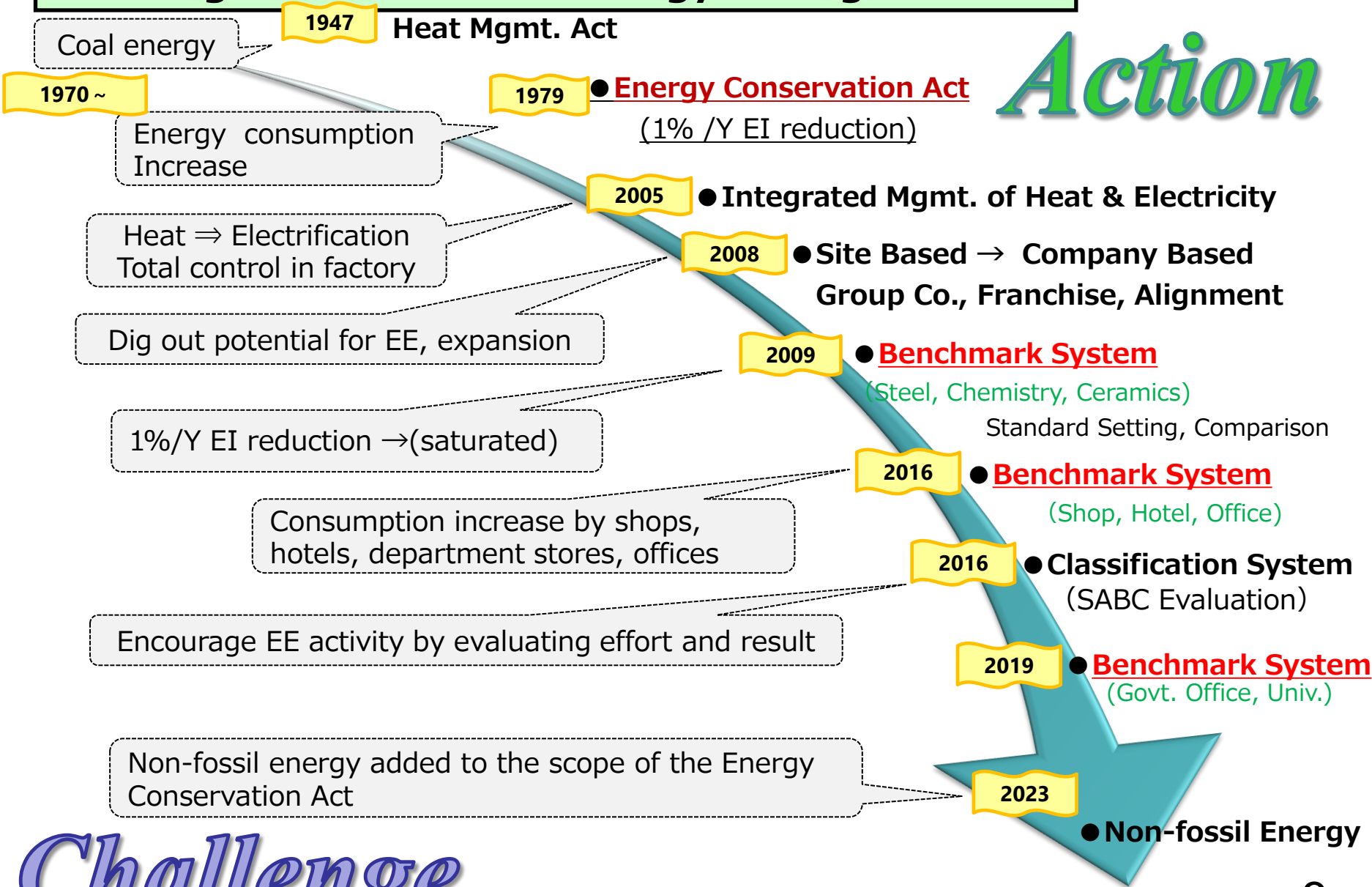


# History of Energy Efficiency and Conservation in Japan





# Challenge and Action for Energy Management

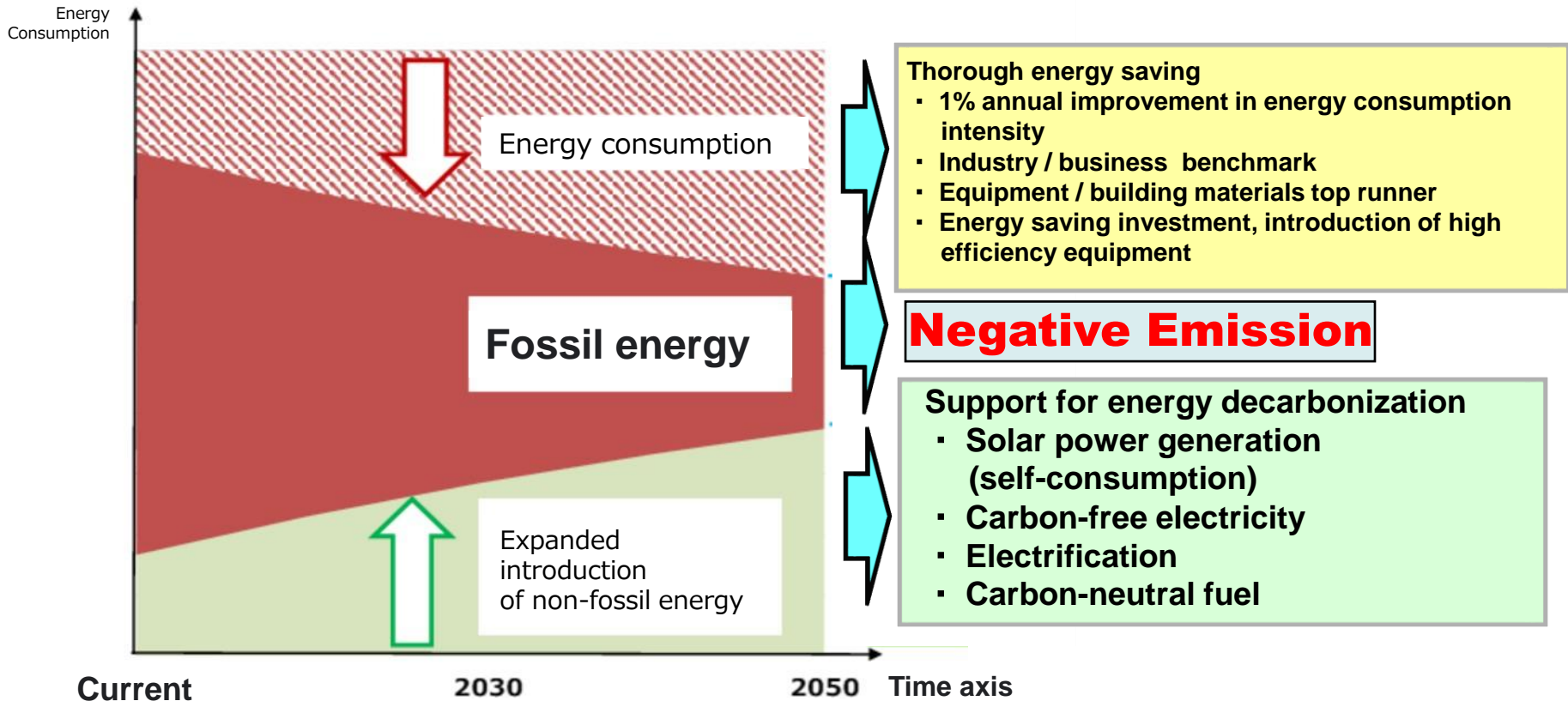


# Action

# Challenge



# Efforts for 2050 Carbon Neutrality



\*) From the materials of the Basic Policy Subcommittee on October 13, 2020



# Contents

- ◆ History of Energy Efficiency & Conservation in Japan and the Role of ECCJ
- ◆ Activities of ECCJ
- ◆ Key Points for EE&C



# Overview of ECCJ

**ECCJ : The Energy Conservation Center, Japan**

**Core organization for promoting energy efficiency and conservation in Japan**

**Legal status : General Incorporated Foundation**

**Established : 16th Oct.1978**

**Office : Tokyo head office & 8 branches**

**Supporting member : around 2,000 companies**

**Full-time Staff : 76 (as of Sep. 2024)  
(+ Registered Experts)**

**Business size : 13 million USD (2023FY)**

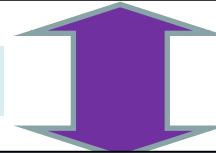


# Position of ECCJ

**Ministry of Economy, Trade and Industry ( METI )**

Legal system/ framework, regulation, certification

Entrust activity

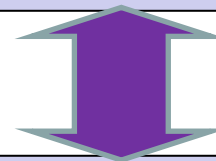


Report, Proposal

**ECCJ**

Assist to implement legal system  
Promotion program, awareness

Support, Audit, Lecture



Q&A

**Energy Consumer**

Factory, Building, Home, Transportation etc.

Execution of EE &C activity





# METI-ECCJ Collaboration Framework

**Ministry of Economy, Trade and Industry ( METI )**

**METI**

Agency for Natural Resources & Energy

Regional Bureaus (9Regions)

**Collaboration**

**ECCJ**

**ECCJ**

International Cooperation Div.

Technology Div.

ECCJ Branches ( 8 Branches)

Examination & Training Center

Support Service Div.

Admin.& Mgmt. Div.



# Main Activities of ECCJ

## 1. Implementation of EC Act

- Qualification Test of Energy Manager
- Factory Inspection

## 2. Technical support

- Energy Audit, Provide Information, Capacity Building

## 3. Awareness, Public affairs

- Award, Publicity
- Education, Capacity Building

## 4. International cooperation

- Capacity Building Program
- J A S E – W (Support for Business Globalization)



## Main Activities of ECCJ - 1

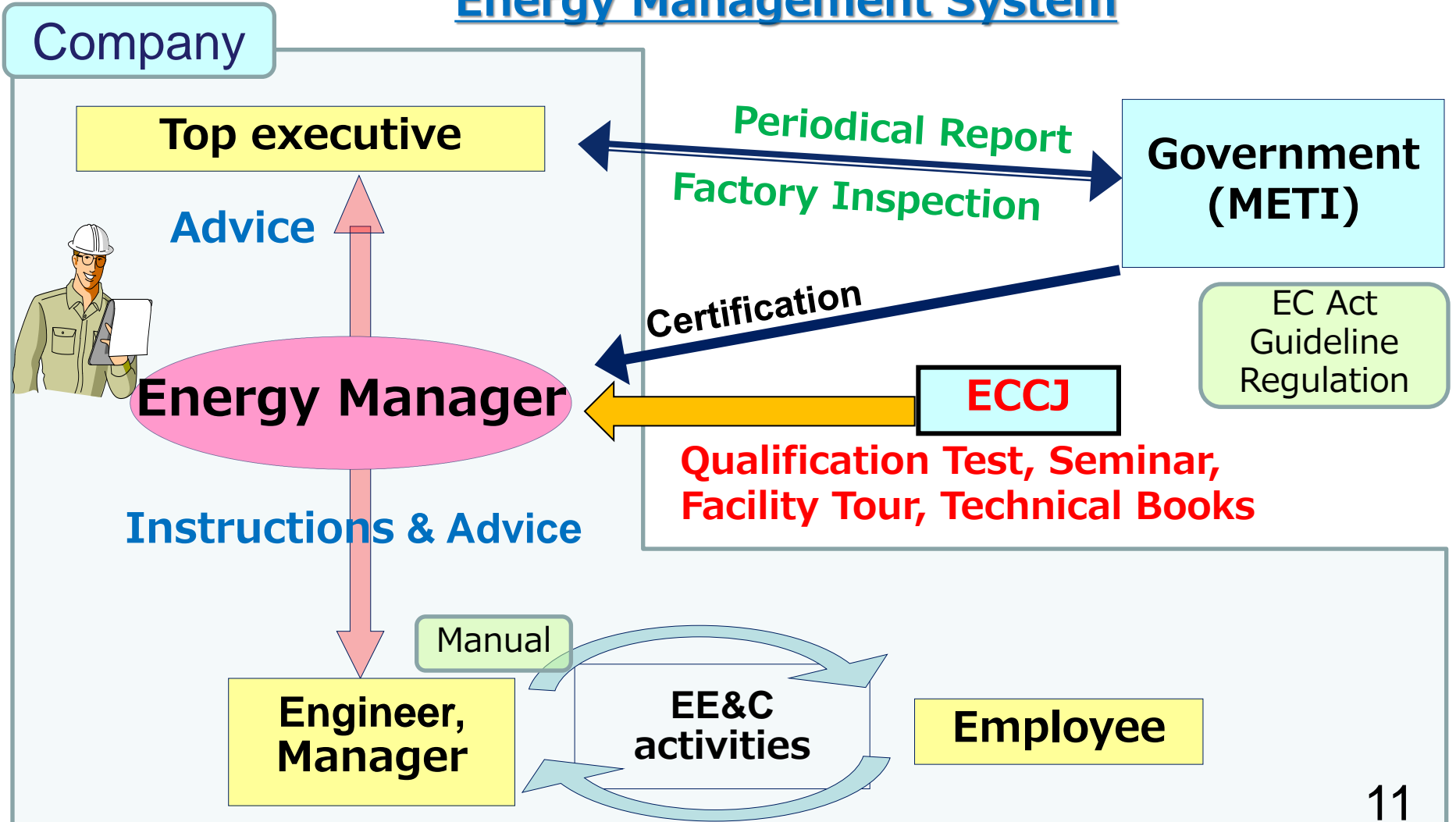
### Implementation of EC Act

- (1) National Qualification Test for Energy Manager**
- (2) Periodical Report**  
⇒ **Assistance and Advice of Reporting**
- (3) Capacity Building for Energy Managers and Energy Management Officers**
- (4) Factory Inspection**  
⇒ **Assist METI by onsite inspection**



# Main Activities of ECCJ - 1 Implementation of EC Act (1)-(3)

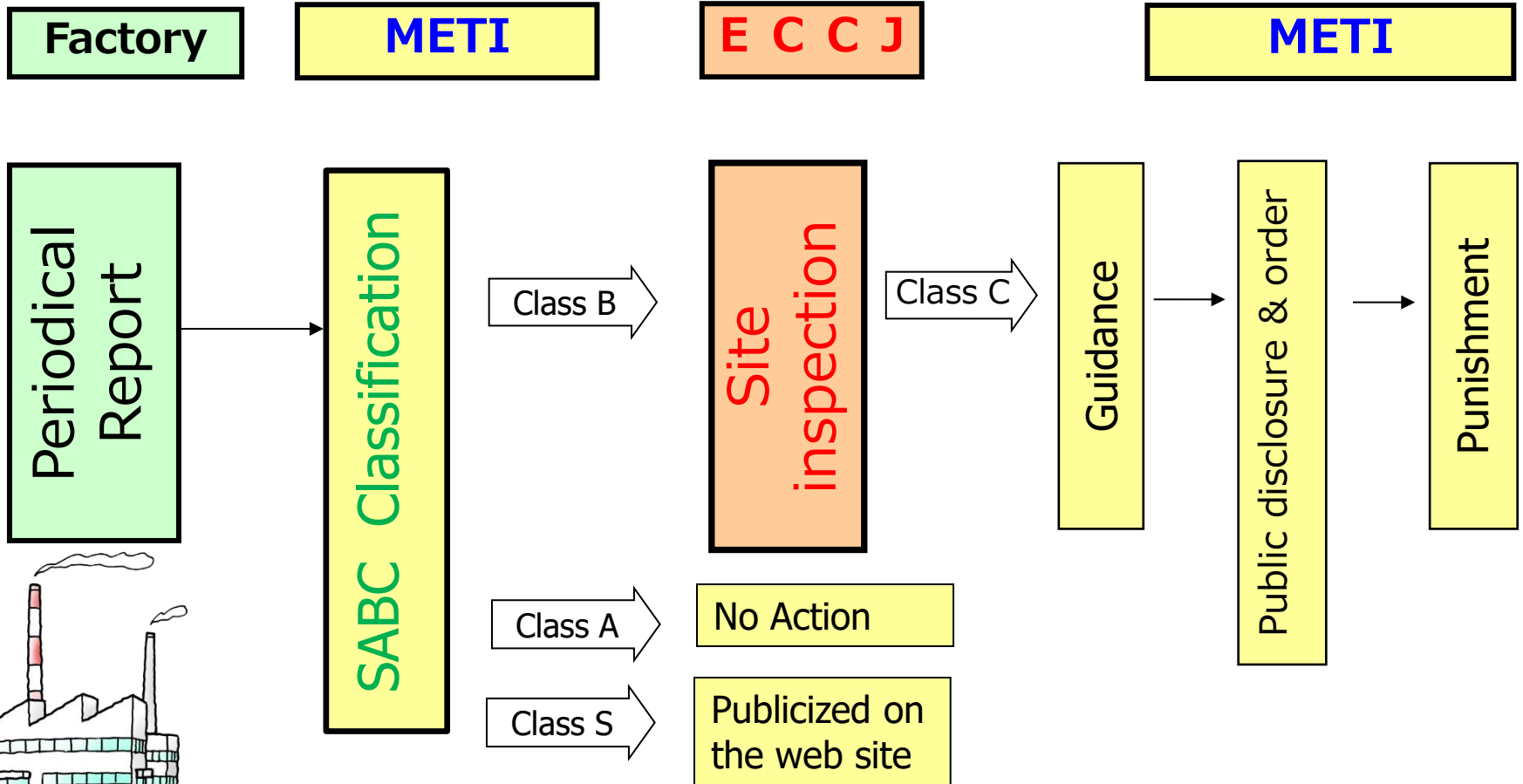
## Energy Management System





# Main Activities of ECCJ - 1 Implementation of EC Act (4)

## Factory Inspection



**ECCJ inspects Factory under Assignment by METI**



## Main Activities of ECCJ - 2

# Technical Support

### ■ Audit, Information, Support Tools

- Onsite audit ⇒ Advise ⇒ Follow-up
- Dissemination
  - Case study seminar, Web site
- Research and analysis
- Technical survey & evaluation



### ■ Capacity Building

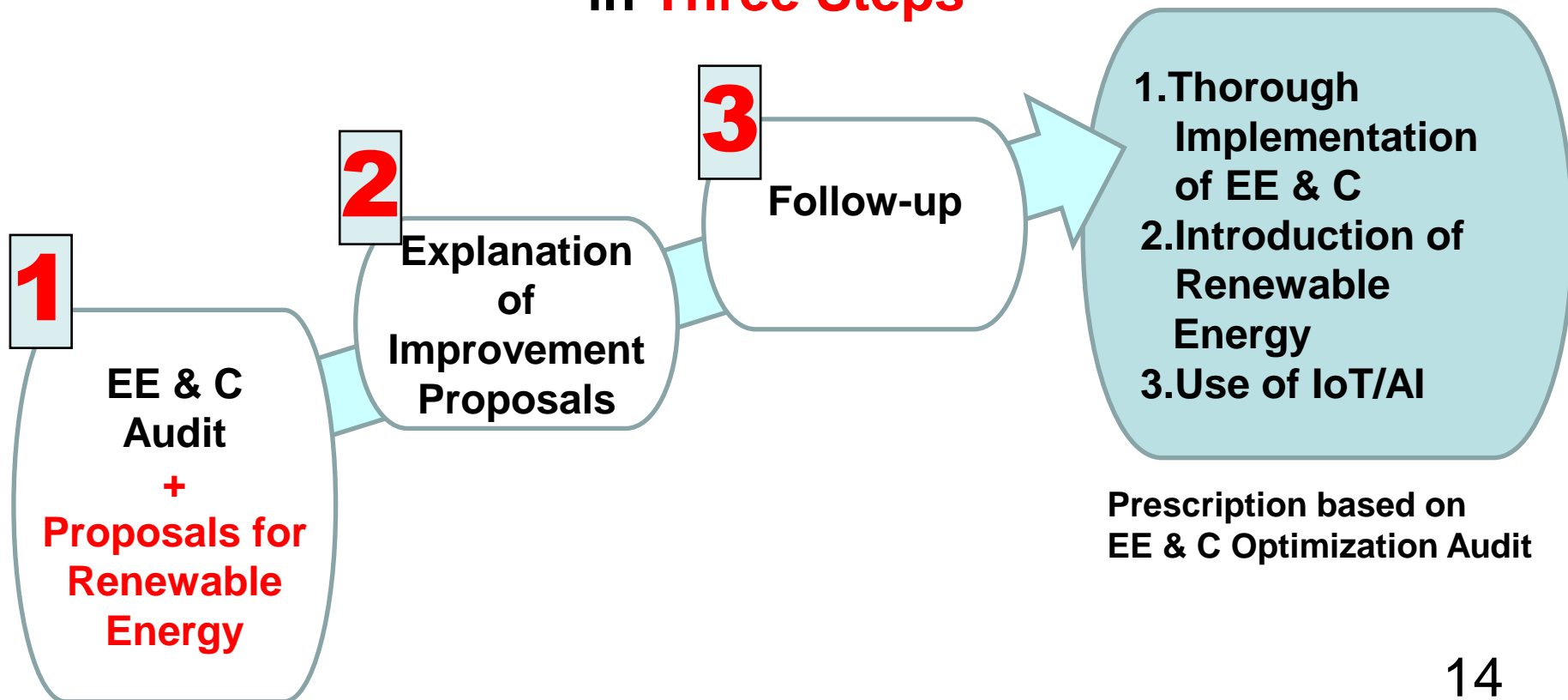
- Seminar for National Qualification Test, follow-up
- General Training Course
  - Technical/Legal/Practical trainings
- Expert Qualification
  - Training for audit professionals



# Main Activities of ECCJ - 2 Technical Support

## EE & C Optimization Audit

### Features of EE & C Optimization Audit Support in **Three Steps**

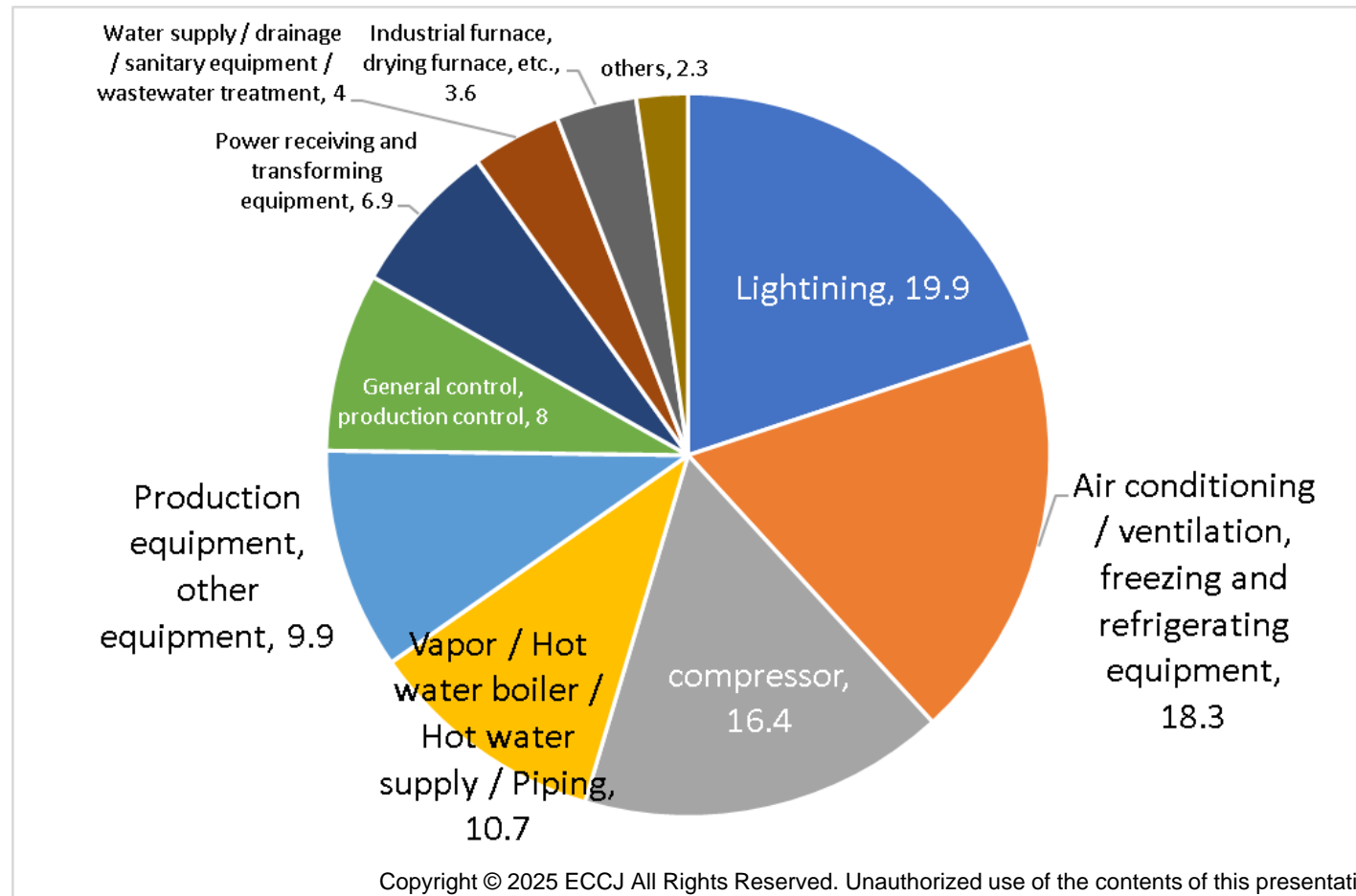




## Main Activities of ECCJ - 2

# Technical Support

### Points of the Proposal for improvement in Energy Saving Diagnosis for Factories







## Main Activities of ECCJ - 2

# Technical Support

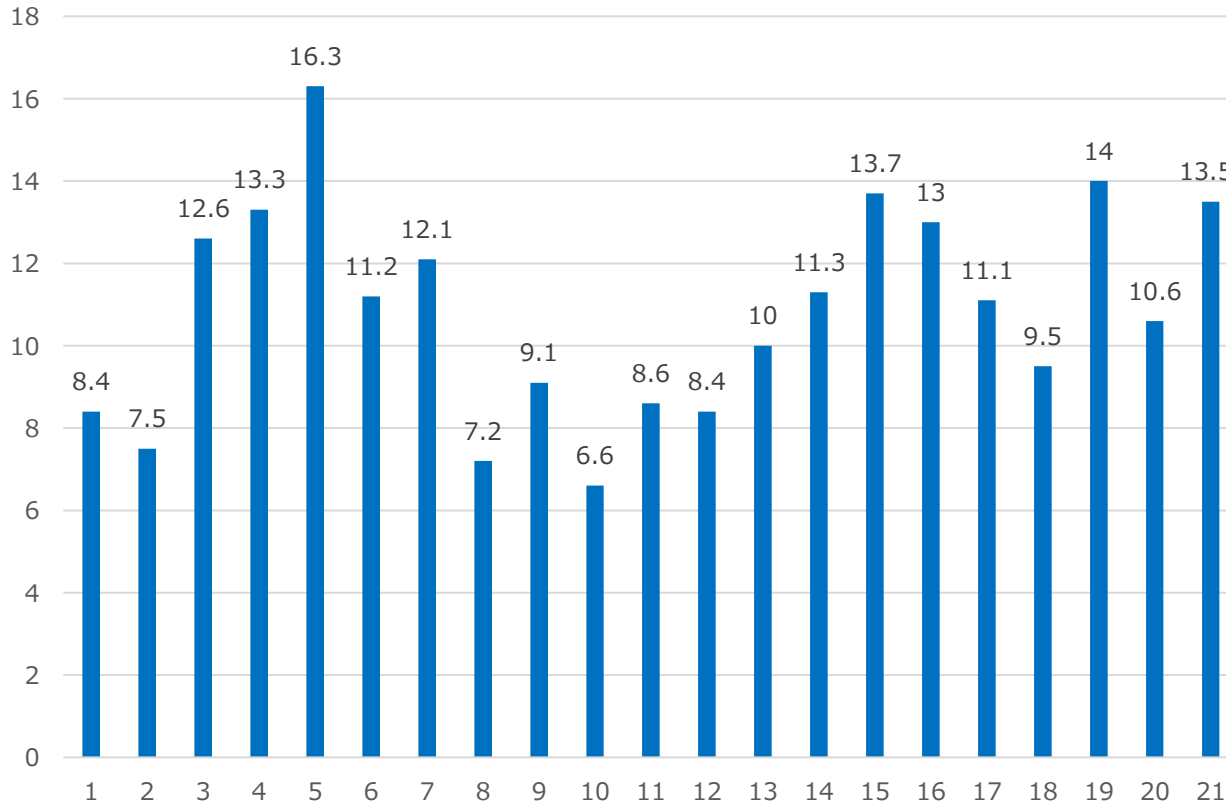
### Classification of barriers example to inhibit the dissemination of energy-saving equipment

Theoretical Barriers	Comment
Imperfect Information	Lack of information may lead to cost-effective energy efficiency measures opportunities being missed
Adverse selection	If suppliers know more about the energy performance of goods than purchasers, the purchasers may select goods on the basis of visible aspects such as price.
Access to capital	Limited access to capital may prevent energy efficiency measures from being implemented.
Risk	Risk aversion may be the reason why energy efficiency measures are constrained by short pay-back criteria.
Inertia	Individuals who are opponents to change within an organization may result in overlooking energy efficiency measures that are cost-effective.
Bounded rationality	Instead of being based on perfect information, decisions are made by rule of thumb.



# Main Activities of ECCJ - 2 Technical Support

**Average energy saving potential of factories by industry (%)**



1	Grocery
2	Beverages, etc.
3	Fiber
4	Wood / wood products
5	Furniture Equipment
6	Pulp / Paper
7	Printing
8	Chemistry
9	Plastic
10	Rubber Product
11	Ceramics and earth and stone products
12	Steel
13	Non-ferrous metal
14	Metal products
15	Machinery and equipment for general use
16	Production machinery and equipment
17	Commercial machinery and equipment
18	Electronic products
19	Electrical machinery
20	Transportation machinery and equipment
21	Others

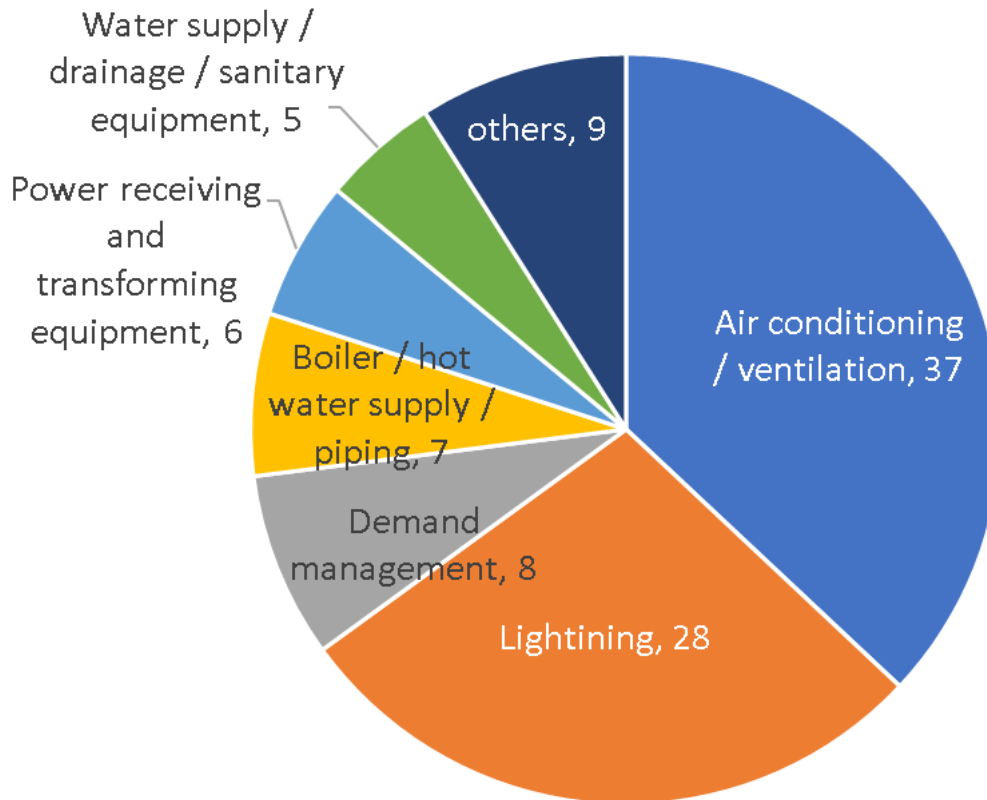
(From the 2015-2019 diagnosis results)



# Main Activities of ECCJ - 2

## Technical Support

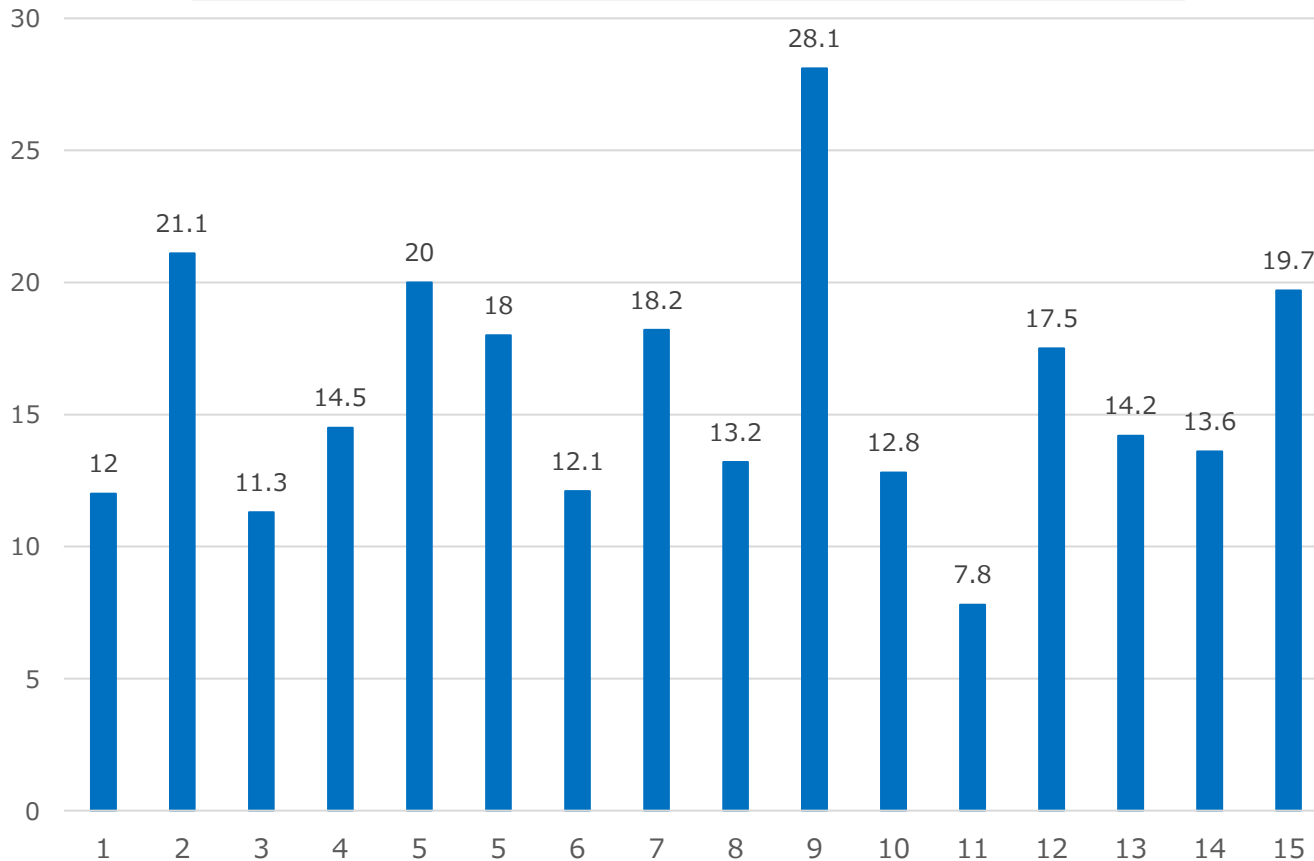
### Points of the Proposal for Improvement in Energy Saving Diagnosis for Buildings





# Main Activities of ECCJ - 2 Technical Support

**Average energy saving potential of commercial facilities by industry (%)**



(From the 2015-2019 diagnosis results)

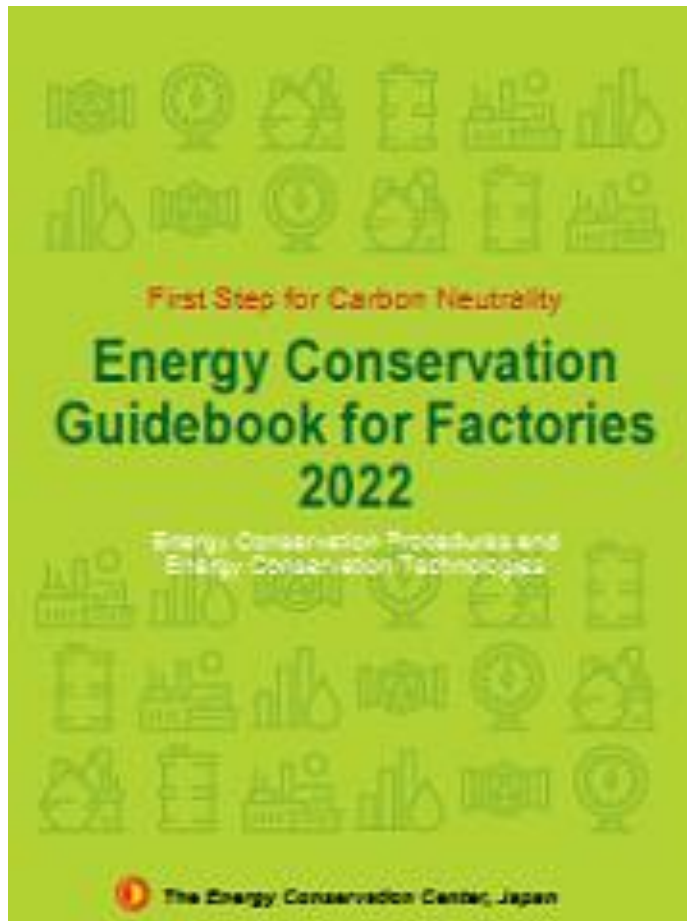
1	Long-term care and welfare facilities
2	General office
3	Hotels, accommodations, etc.
4	Government building
5	Commercial facilities, etc.
5	Physical education facility
6	Hospital / medical facility
7	Meeting place, etc.
8	school
9	Distribution facilities, etc.
10	Supermarket
11	Laboratory
12	Universities, vocational schools, etc.
13	Books / museums, etc.
14	Barber, beauty, bathhouse, etc.
15	Entertainment facilities, etc.



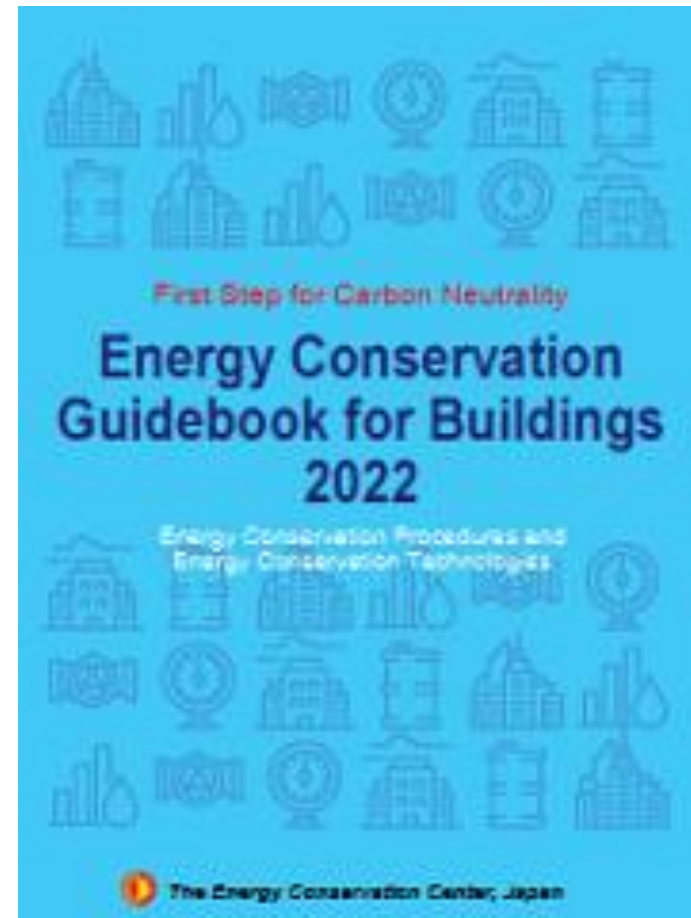
# Main Activities of ECCJ - 2

## Technical Support

### Energy Conservation Guidebook



[https://www.asiaeec-col.eccj.or.jp/wpdata/wp-content/uploads/ecguidebook\\_factories\\_2022.pdf](https://www.asiaeec-col.eccj.or.jp/wpdata/wp-content/uploads/ecguidebook_factories_2022.pdf)



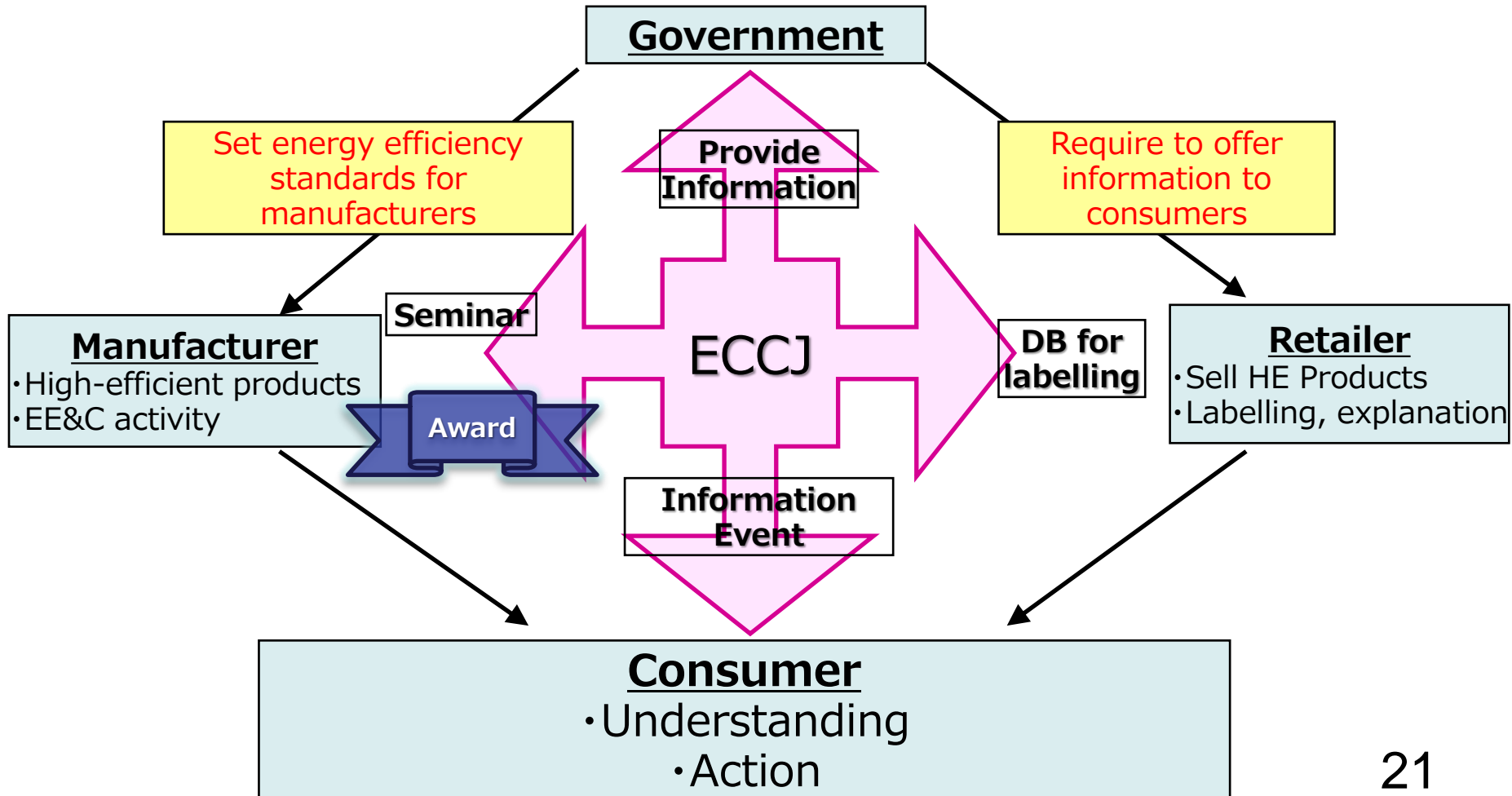
[https://www.asiaeec-col.eccj.or.jp/wpdata/wp-content/uploads/ecguidebook\\_buildings\\_2022.pdf](https://www.asiaeec-col.eccj.or.jp/wpdata/wp-content/uploads/ecguidebook_buildings_2022.pdf)



### Main Activities of ECCJ – 3

## Awareness, Public Affairs

ECCJ in Awareness ⇒ Provide information **in a neutral stance**





# Main Activities of ECCJ – 3

## Awareness, Public Affairs



### Awards

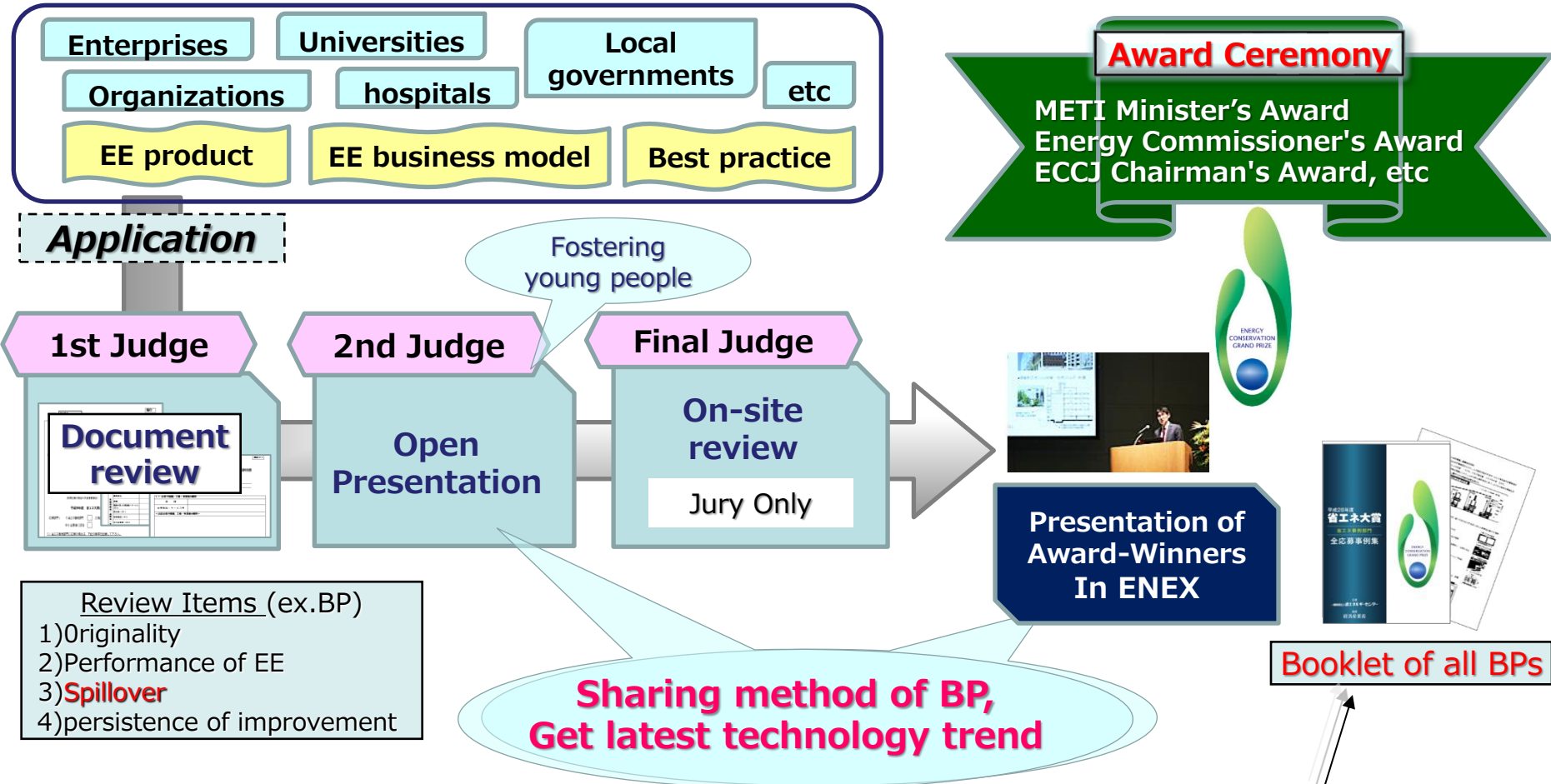




# Main Activities of ECCJ – 3

## Awareness, Public Affairs

### Energy Conservation Grand Prize



<https://www.jase-w.eccj.or.jp/technologies/index.html>



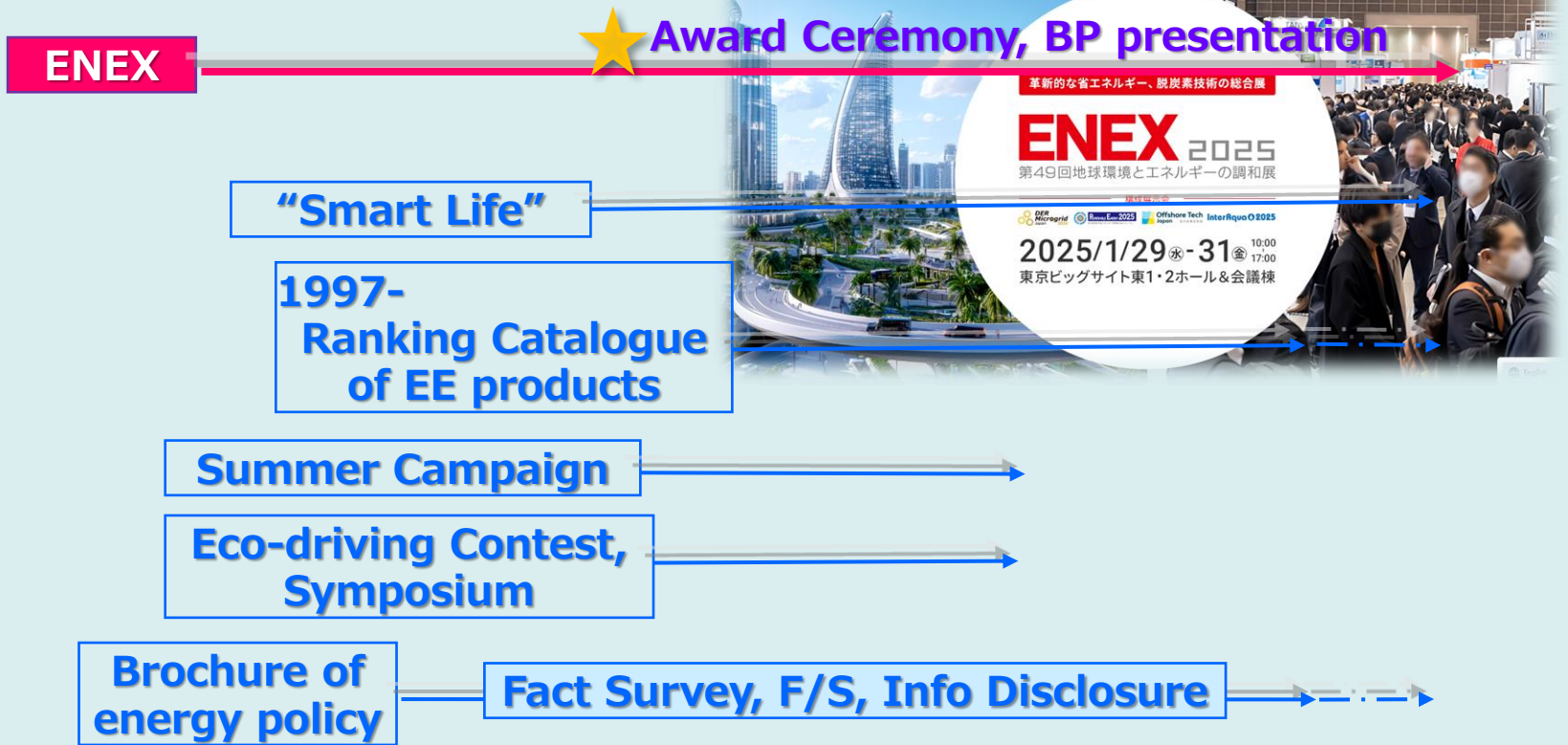


# Main Activities of ECCJ – 3

## Awareness, Public Affairs




### Publicity





## Main Activities of ECCJ – 3

**Awareness, Public Affairs****Example of educational programs and capacity building methods**

	Target	Tools
Education	<p>A) For Students ; energy conservation activities</p> <p>B) Model schools of excellent EE activities</p> <p>C) For Teachers ; How to teach energy saving activities to students</p>	
Capacity Building	<p>D) For Consumers; Training of EE promoters Certification; Energy Conservation / De-carbonization Expert (Household field, Building field)</p>	<ul style="list-style-type: none"> <li>❑ textbooks</li> <li>❑ Seminars</li> </ul>
	<p>E) For Energy managers</p> <p>F) For Engineers</p>	<ul style="list-style-type: none"> <li>❑ Seminars &amp; Site-tours</li> <li>❑ QA by Email</li> <li>❑ Pamphlet &amp; Website</li> <li>❑ Diagnosis</li> </ul>



## Main Activities of ECCJ – 3

# Awareness, Public Affairs

## Energy Conservation / De-carbonization Expert (Household field, Building field)





## Main Activities of ECCJ – 4

# International Cooperation

- ◆ **International Cooperation based on Intergovernmental Agreements**
- ◆ **Support for International Business Related to Energy Efficiency and Conservation**

### 【Backgrounds】

- The promotion of EE&C measures in emerging countries, where energy demand and the emission of greenhouse gases are increasing, is not only important for climate change countermeasures, but also contributes to Japan's energy security.
- Those countries do not have sufficient systems and enforcement mechanisms in place to promote EE&C measures, which is a major challenge in promoting the introduction of energy management.



## Main Activities of ECCJ – 4

# International Cooperation

### ◆ International Cooperation based on Intergovernmental Agreements

Support for the development of EE&C policies and measures and the deployment of related technologies in emerging and resource-rich countries, mainly in the Asian region, by dispatch of experts and implementation of training programs for experts.



### Accomplishments [up to FY2023]

- Countries where international cooperation has been implemented (cumulative total): **Approx. 50 countries**
- Number of experts dispatched (cumulative total): **approx. 2,100**
- Number of the trainees (cumulative total): **approx. 5,300**
- Number of online seminars (cumulative total): **over 200**



## Main Activities of ECCJ – 4

# International Cooperation

### ◆ International Cooperation based on Intergovernmental Agreements

### Outcome of our activities:

- Preparation of laws and regulations regarding energy conservation
- Development of energy conservation system
- Training of energy management leaders
- Support for establishment of energy management technology facility



## Main Activities of ECCJ – 4

# International Cooperation

### ◆ Support for International Business Related to Energy Efficiency and Conservation



*Japanese Business Alliance for Smart Energy Worldwide*

<https://www.jase-we.org/about-us/>

**Japanese Business Alliance for Smart Energy Worldwide (JASE-W)** was established in 2008, as a public-private partnership to promote Japan's excellent energy-efficient and renewable energy technologies on a business basis internationally.

ECCJ is supporting the operation of JASE-W.

【Number of members】

41 companies, 21 organizations (as of October 2024)

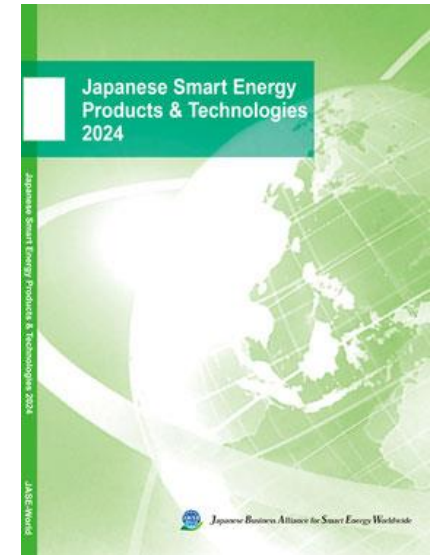


## Main Activities of ECCJ – 4 International Cooperation

### ◆ Support for International Business Related to Energy Efficiency and Conservation

#### 【Main Activities of ECCJ】

- Introduction of Japan's excellent energy-efficient and renewable energy technologies by dispatching experts to overseas missions and participating in international exhibitions.
- Providing “Japanese Smart Energy Products & Technologies”
- Conducting research projects to promote the spread of Japan's energy-efficient and renewable energy technologies, etc.
- Cooperation with the Asia Zero Emission Community (AZEC) concept promoted by the Japanese government.



#### Japanese Smart Energy Products & Technologies (English version)

<https://www.jase-w.eccj.or.jp/technologies/index.html>





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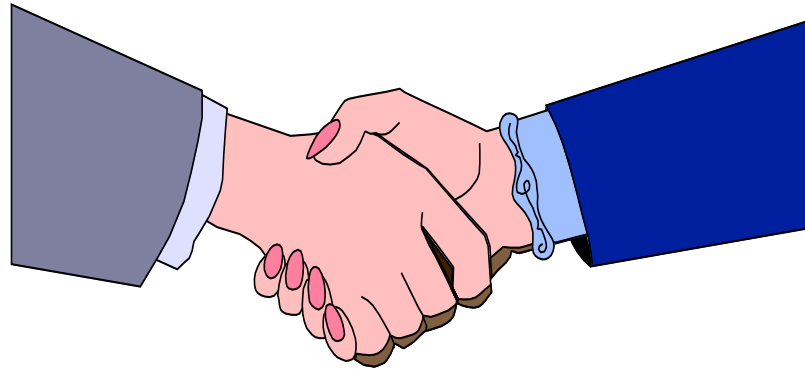


## Key Points for EE&C

- ✓ **Energy Managers** play key role in Energy Management system. Proper **information** & Technical **Support** for Energy Managers are necessary.
- ✓ To learn **best practice** and to introduce **energy efficient appliance** is effective way to achieve energy efficiency.
- ✓ **Dissemination and awareness** for energy efficiency is one of the most important tool as well as manufactures and retailer effort.
- ✓ **EC Act and the core organization as a bridge with energy users is essential. The organization plays an important role in the improvement of EE&C.**



# *Thank You for Kind Attention!*



For More Information:

**The Energy Conservation Center, Japan**

<http://www.eccj.or.jp>

**Asia Energy Efficiency and Conservation Collaboration Center  
(Established in ECCJ (April 2007))**

<http://www.asiaeec-col.eccj.or.jp/index.html>

**Japanese Business Alliance for Smart Energy Worldwide (JASE-W)**

<http://www.jase-w.org/english/top/>