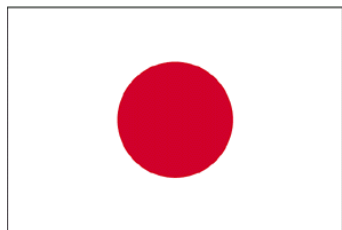


(FY 2021) Japan – Brazil Cooperation on Energy Efficiency and Conservation (EE&C)

Wrap-up of Results and Evaluation / Way Forward

- (1) Possible Application : Key Factors of T. R. Program**
- (2) Energy Efficiency (EE) for Buildings toward ZEB**



February 8th, 2022

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Possible Application of T.R. Program : Points Based on Inputs

(TR-1) Lecture by METI – Only by Presentation Material and Q&A

- ▶ Provision of Details of Top Runner Program under the EC Act in Japan
 - ▶ Specifics of Regulations of Top Runner (T.R.) Program
 - ▶ Specific sample of setting and evaluation of energy efficiency
- The above covers the points Interested by the Brazilian side :
- System to evaluate an overall energy efficiency of products shipped in the market
 - Data collection of amount of shipped products with energy efficiency from manufacturers and importers by Reporting System
 - Weighted average based on the above

(TR-2 and TR-3) Additional Inputs / Discussion by Mr. Kazuhiko Yoshida

- ▶ Items & data to display in the labels to motivate consumer for purchase
- ▶ Basic methodology to choose the targeted appliances / to survey market
- ▶ Comments on the proposal by the Brazilian side on “PROCEL Gold Seal”
 - Issues and possible solutions in terms of the enforcing system based P-D-C-A system
 - Importance and effectiveness of the support system to incentivize manufacturers and consumers, etc.

→ Proposal by the Brazilian side to apply for the “PROCEL Gold Seal”

Building Energy Efficiency toward ZEB : Points Based on Inputs

(B-1) Lecture by Mr. Yoshihiko Akamine

Possible Application of Basic Elements and Methodology of the Japanese Standard and Criteria for Building Design by Building EE Act to the Existing Brazilian System to Evaluate E.E. Performance in Building Design

→ For Comparative Analysis on Calculation Method etc. for Evaluation

(B-2) Lecture by Mr. Kazuhiko Yoshida

Possible Application of the Important Elements, Basic Methodology etc. of the Japanese Standard and Criteria for Energy Management to improve Energy Efficiency and to Sustain Efficient Operation and Maintenance of Buildings

→ For Study for Realization through Establishing Legal Framework and/or Practical Guidance

(B-3) Lecture by Mr. Yoshitaka Ushio : Consideration for

(1) Optimum Approach toward Dissemination of ZEB in Brazil, by Prioritizing Establishment of Basis of High Level of E.E.

(2) Strategy and Measures to Realize Item (1) by Disseminating ISO/TS 23764, Especially through Business with Cooperation of JASE-W

FY 2021 – Achievements Established by the Brazilian Side

The outputs based on the inputs by Japan side are as follows.

1. Possible Application of Key Factors of T.R. Program

- (1) The “PROCEL Gold Seal” was proposed to apply the key factors and components of the “Top Runner Program”.**
- (2) The good “Action Plan for Implementation of the “PROCEL Gold Seal” was prepared by the Brazilian side.**

2. Energy Efficiency (EE) of Buildings toward ZEB

- (1) The Brazilian side has done the comparative analysis to evaluate EE of buildings by comparing the methodology of calculation, conditions and criteria, between the ENCE in Brazil and the Building EE Law in Japan**
- (2) The Brazilian side prepared also good “Plan for Improvement in the Existing Policy and Law to Promote EE&C for Buildings, Considering the Promotion of ZEB in Brazil”**

“Action Plan for the Implementation of PROCEL Gold Seal”

Comments Provided by Yoshida : Points to Refine the Plan

1. Points to Improve the Action Plan

- (1) Clarify Implementation Sequence of the Measures 1 to 4
- (2) In Each Measure, Separate the Actions of Air Conditioners from Those for the Other Appliances
- (3) In Each Main Action, Show the Key Phases as Follows
 - 1) Study → 2) Propose → 3) Plan → 4) Legal Process and/or Implementation → 5) Evaluation
- (4) Show the Years
- (5) Identify Immediate Actions

2. Requests for the Dialogue on February 8th

- (1) Update the “Action Plan of the Implementation of PROCEL Gold Seal”
- (2) Actual Progress in the Immediate Actions **and issues**

“Action Plan for the Implementation of PROCEL Gold Seal”

Suggested Points of the Comments by Yoshida in Dec.

1. Points to Improve the Action Plan

(1) Clarify Implementation Sequence of the Measures 1 to 4

Points

1st Step : To Confirm the Fact and Baseline of the Existing Measures

2nd Step : To Identify Issues → To Study Solutions and Measures

3rd Step : To Plan → To Implement → To Evaluate the Results

M-3 Architecture development of Information and data collection system

→ **Knowing the actual facts of the market for the future evaluation**

M-5 (Proposed) Provision of Information on “PROCEL Gold Seal” especially for consumers (Changes and Benefits etc.)

→ **This would be required in parallel because this is the new measures to be understood especially by consumers not only by manufacturers and retailers.**



“Action Plan for the Implementation of PROCEL Gold Seal”

Suggested Points of the Comments by Yoshida in Dec.

1. Points to Improve the Action Plan

(1) Clarify Implementation Sequence of the Measures 1 to 4

M-4 Development of a mobile application (First package for air conditioners)

→ **Based on evaluation of effects and issues of the existing application software by the feedback from consumers including survey**



M-2 New energy efficiency regulatory framework : Organizing the task force → Study the proposal

→ ➤ **Process to Justify to apply the key factors of T.R. Program to “PROCEL Gold Seal”**

➤ **In the legal system, the “Support System” will be included, such as the tax incentive etc, as explained**

➤ **Development of the “Reporting System” for M-3 on the data collection system and support system for promoting sales of the highest EE products accredited for “PROCEL Gold Seal”**



“Action Plan for the Implementation of PROCEL Gold Seal”

Suggested Points of the Comments by Yoshida in Dec.

1. Points to Improve the Action Plan

(1) Clarify Implementation Sequence of the Measures 1 to 4



M-6 Implementation of PROCEL Gold Seal and Evaluation (Air Conditioners)

M-1 Definition of prioritization criteria for the selection of the next equipment and appliances

→ **The process of planning and implementation for the next appliance will be same as the process for air conditioners.**



(3) In Each Main Action, Show the Key Phases as Follows

1) Study → 2) Propose → 3) Plan → 4) Legal Process and/or Implementation → **5) Evaluation**

→ **It will be possible to establish targets and milestones with conditions.**



“Action Plan for the Implementation of PROCEL Gold Seal”

Suggested Points of the Comments by Yoshida in Dec.

1. Points to Improve the Action Plan



(6) Others : Clarification of the critical factors and conditions to proceed with the activities, showing the critical path

→ Such as “PROCEL’s Resource Application Plan” and authorization by CGIEE etc. (The critical factor will affect the time schedule or actual realization of the planned activities.)



(4) Show the Years (Air Conditioners)

→ As per the planning and implementation sequence



(5) Identify Immediate Actions

() It is recommended to include study on the support system in the planned Measures.**

“Action Plan for the Implementation of PROCEL Gold Seal”

Suggested Points of the Comments by Yoshida in Dec.

2. Requests for the Dialogue on February 8th

(1) Update the “Action Plan of the Implementation of PROCEL Gold Seal”



(2) Actual Progress in the Immediate Actions **and issues**



(3) **Identify the next actions and the timing required to take the identified actions in the future**

We would like the Brazilian side to further improve this good action plan, to actually implement and realize the target and to start the “PROCEL Gold Seal” for air conditioners at first.



“Plan for Improvement in the Existing Policy and Law to Promote EE&C for Buildings, Considering the Promotion of ZEB in Brazil” : Comments and Suggestions

- 1. This is the good and specific plan to improve the labelling system to promote EE&C for buildings, based on the present activities.**

- 2. Points to Further Consider to Improve Effectiveness of the Proposed Plan**
 - 2-1 Overview of Policy System to Promote EE&C for Building**
 - (1) Design the comprehensive policy and legal system for EE&C promotion based on the “Life Cycle of Buildings”**
 - (2) Analyze the existing policy and legal system in Brazil to identify the items required to improve or add**
 - (3) Define the scope, objective and priority of the proposed plan in the comprehensive policy and legal system**

“Plan for Improvement in the Existing Policy and Law to Promote EE&C for Buildings, Considering the Promotion of ZEB in Brazil” : Comments and Suggestions

2. Points to Further Consider to Improve Effectiveness of the Proposed Plan

2-1 Overview of Policy System to Promote EE&C for Building

- (4) Discuss and propose a roadmap toward ZEB based on EC**
- (5) Situate the ongoing “Demonstration Projects for NZEB” in the roadmap considering a synergy with the proposed plan**
 - Evaluation of the actual improvement in EE realized by the EE&C measures through the equipment specified in the labelling by proposed plan, which will be possible to reflect in the plan**

2-2 Proposed Plan

- (1) Estimate Effects and Impacts of the proposed plan and establish the target**

“Plan for Improvement in the Existing Policy and Law to Promote EE&C for Buildings, Considering the Promotion of ZEB in Brazil” : Comments and Suggestions

2. Points to Further Consider to Improve Effectiveness of the Proposed Plan

2-2 Proposed Plan

- (2) Identify the issues to realize the plan and propose solutions**
- (3) Develop the specific and realistic action plan to realize the proposed plan and implement the action plan**
 - The action plan will include activities to assess and improve the standard and criteria for setting and evaluating EE or energy consumption in design of buildings**
- (4) Implement the established plan and evaluate the results**

It is great that the Brazilian side started activities. At the same time, we would like the Brazilian side to further improve the action plan and continue implementation properly.

Next Step / Future Direction

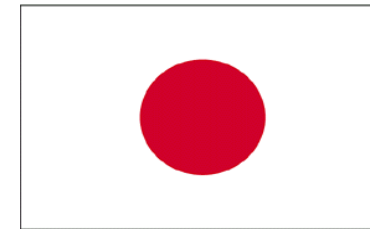
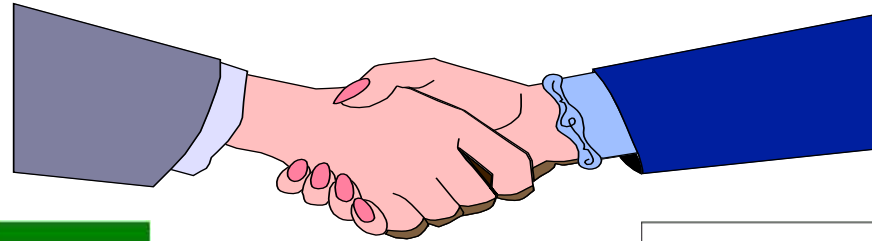
1. Action Plan for the Implementation of PROCEL Gold Seal

- (1) Establish the more specific and realistic implementation plan including systematization of the measures
- (2) Prepare for starting implementation of the “PROCEL Gold Seal” at first for air conditioners

2. Plan for Improvement in the Existing Policy and Law to Promote EE&C for Buildings, Considering the Promotion of ZEB in Brazil

- (1) Draft the comprehensive policy and legal system required for EE&C promotion for buildings in Brazil
- (2) Establish more specific action plan by evaluating the past activities completed
- (3) Continue implementation of the activities and/or required preparation specified in the action plan

Thank you very much



For More Information

[The Energy Conservation Center, Japan \(ECCJ\)](https://www.eccj.or.jp)

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

[Asia Energy Efficiency and Conservation Collaboration Center \(AEEC\)](https://www.asiaeec-col.eccj.or.jp/index.html)

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

[Japanese Business Alliance for Smart Energy Worldwide](https://www.jase-w.org/english/top/)

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