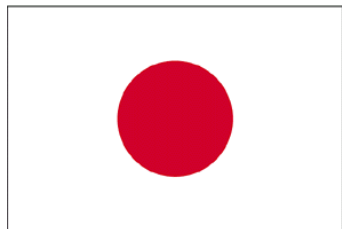


**(FY 2021) Japan – Brazil Cooperation on Energy
Efficiency and Conservation (EE&C)
Application of Key Factors of Top Runner Program
(TR-3) Discussion : Toward Planning - Method and
Strategy to Realize Possible Application to “PROCEL
Gold Seal” (Air Conditioner)**



September 30th, 2021

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Discussion Session : Agenda

Possible Application of Factors of “Top Runner (TR) Program”

Theme :

- **Goal and Possible Solutions to Apply Key Factors of TR Program to “PROCEL Gold Seal (For Air conditioners)”**
- **Strategy, Method and Actions to Realize the Above**

(1) Main Goals for the Cooperation (by Brazilian Side)

- 1) **Clarification by Japan on Questions and Comments of Brazilian Side**
- 2) **Discussion and Opinion Exchange**

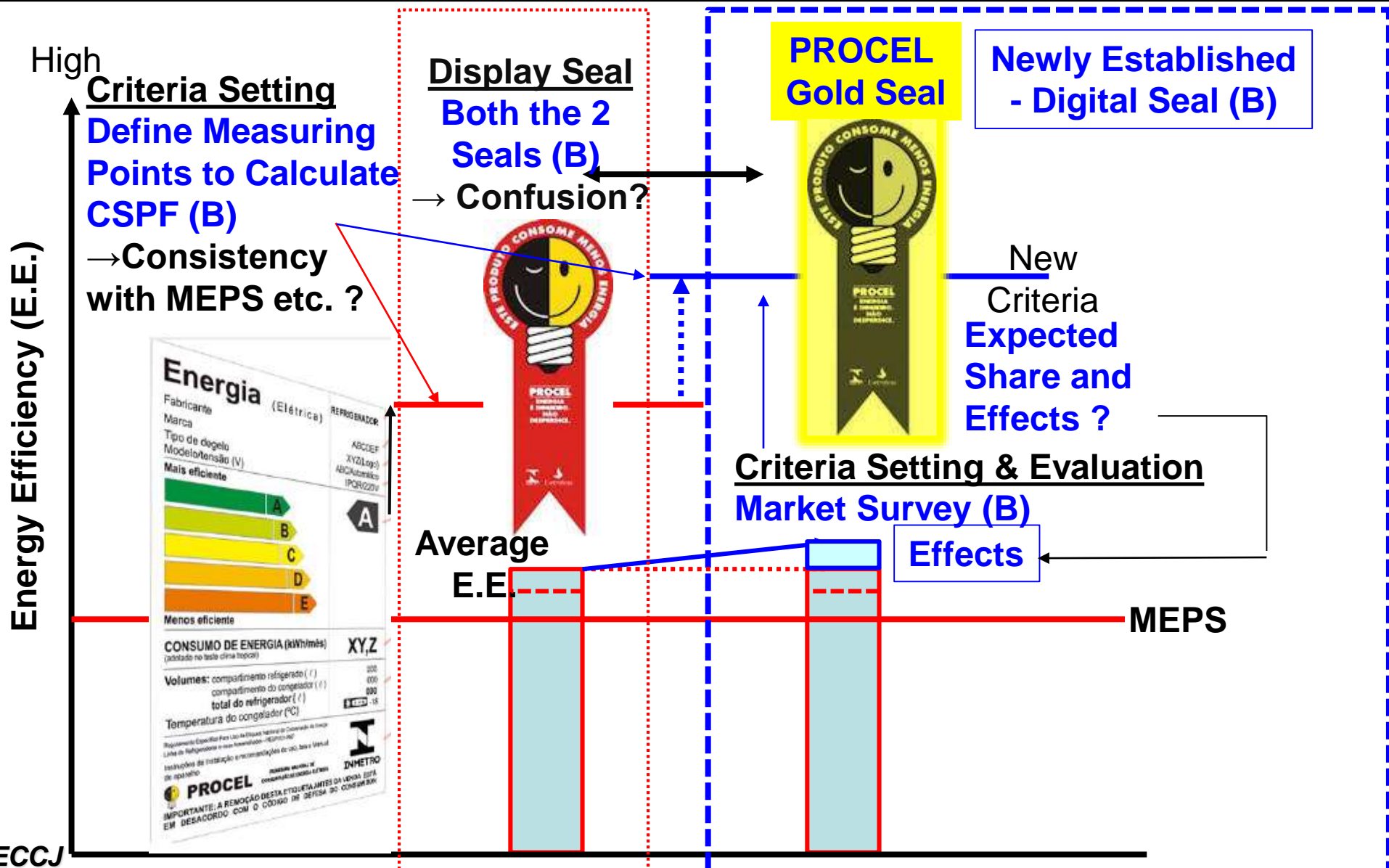
(2) Discussion

- 1) **Possible Solutions to Apply Key Factors of Top Runner Program to “PROCEL Gold Seal (For Air Conditioner)”**
- 2) **Strategy, Method and Actions to Realize the Possible Solutions**
- 3) **Roadmap**

(3) Wrap-up and The Next Actions



Possible Application of Factors of Top Runner Program in Brazil "PROCEL Gold Seal" (Air Conditioner) : Points of Concept (B)



Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Possible Solutions -

Possible Solutions Based on “P – D – C – A” Cycle

Implementation Flow (The Existing S&L System Can Be Based ?)

Policy to Define “PROCEL Gold Seal” and Responsible Organization (PROCEL)

Point : Systematic Approach

The Existing System Can Be Based ?

1. Setup or Change Criteria : Methodology and System

2. Accredite Products for “PROCEL Gold Seal” : Operation System

3. Disseminate Products of “PROCEL Gold Seal” : Procedure and System

4. Evaluate the Actual Results of Dissemination : Procedure and System

5. Feedback

Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Possible Solutions -

Possible Solutions Based on “P – D – C – A” Cycle

1. Setup or Change Criteria : Methodology and System

Criteria – Highest Energy Efficiency Level

Top Runner Procedure

(1) Method to Setup Criteria
(1)-1 Most Efficient Products Available in Market
(1)-2 Expected Improvement in EE by Future Technology

$$(\text{Criteria}) = EE_{(1)-1} + EE_{(1)-2}$$

(Possible Solution 1– 1)
Collect Data & Information
(1) Market Survey (B)
(2) Survey of Foreign Cases (B)
(Reporting by Law ?)

(B) : Identified by the Brazilian Side

(Possible Solution 1– 2)
Organize Working Group

Analyze Data & Information
Weighted Average of EE of Products
Estimated EE Potential by Technologies
Estimated Year to Install Technologies

Design Specifications and Procedure of Surveys and Analyses

Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Possible Solutions -

Possible Solutions Based on “P – D – C – A” Cycle

2. Accredit Products for “PROCEL Gold Seal”

Accreditation System : Responsible Organization – PROCEL (Eletrobras)



(2) Methodology for Accreditation

- (2)-1 Submission of Data of EE Performance by Companies
- (2)-2 Check and Assessment of Data
- (2)-3 Display for the “PROCEL Gold Seal” Products

(Possible Solution -2) Revision of “Rule Book” (B)

(1) Data to Submit

(2) Procedure to Accredit

(3) Display and Its Procedure

Points to Appeal Consumers Good Impacts

(1) 2 Seals with “PROCEL Seal” (B) ?

(2) Digital (B) or Physical ?

- Display (Different from PROCEL Seal)
- Information Provision for Consumers

Consistency with the Existing Regulation

Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Possible Solutions -

Possible Solutions Based on “P – D – C – A” Cycle

3. Disseminate Products for “PROCEL Gold Seal”

Dissemination System : Measures and Tools and Responsible Organization



(3) Measure for Dissemination

(3)-1 Tools (Design of the Seal, Information System for Consumers) → PROCEL

(3)-2 Policy Measures for Promotion (Financial Support etc.) MME etc.

(Possible Solution – 3-1) Tools for Dissemination

(1) Display by the Seal (B)

(2) Give Info. (Digital) (B)
Useful for Consumers

(Possible Solution – 3-2) Policy for Dissemination

(1) Demonstration Program

(2) Ad hoc Monetary Support
for Consumers

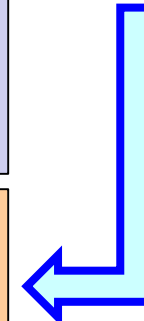
Points to Incentivize Consumers etc.

(1) Appeal Effects & Merits

(2) Enhance Market Needs

Top Runner
Procedure

Reference



Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Possible Solutions -

Possible Solutions Based on “P – D – C – A” Cycle

4. Evaluation Products for “PROCEL Gold Seal”

Evaluation System : Measures and Responsible Organization (PROCEL)



(4) Measure for Evaluation : Market Survey

(Possible Solution – 4-1)
Market Survey

(1) Market Survey (B)

(2) Reporting by Regulation

(Possible Solution – 4-2)
Evaluation Method

(1) Weighted Average of Data

(2) Qualitative Evaluation

Top Runner Procedure

Points of Survey and Evaluation

(1) Systematize the Regular Survey : Framework / Design

(2) Survey for Manufacturer : Actual Results of Shipment

(3) Survey for Consumers : Needs / Preference / Requests

Reference

Officialize the Survey

Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Possible Solutions -

Possible Solutions Based on “P – D – C – A” Cycle

5. Feedback System → Need to Further Discuss and Confirm

Feedback System : Next Improvement and Sharing the Results among Stakeholders



(5) Measure for Feedback

(Possible Solution – 5-1)

Process Data and Information to Share

(1) Processing for Policy Purposes

(2) Processing for Publishing

(Possible Solution – 5-2)

Measures for Feedback / Sharing

(1) Database and Documents

(2) Meeting etc. of Specific Purposes

Points of Feedback

(1) Specify the Purposes → Prepare Data etc. to Meet Purposes

(2) Feedback for Manufacturers to Incentivize R&D to Improve

(3) Expansion of Market of “PROCEL Gold Seal” Products

Top Runner
Procedure



Reference

Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Direction -

Direction to Realize the Possible Solutions Identified by Brazil

1. Market Survey – 1 : Points (Specify Purposes – Design & Procedure)

High Priority

		Purpose : Utilization of Results for			Design and Procedure		
Survey - 1	Survey Object	Set The New Criteria	Evaluate the Actual Results	Dissemination	Survey Items	Taskforce	Method
The Actual EE of Products Used in Market	Makers and Importers	Assess the Highest EE Products	Weighted Average of Shipped Products	Data (EE and Cost Performance)	As per the Purposes	TBD	TBD
		Purpose : Utilization of Results for			Design and Procedure		
Survey - 2	Survey Object	Set The New Criteria	Evaluate the Actual Results	Dissemination	Survey Items	Taskforce	Method
Applied Technologies for EE&C	Foreign Products	Assess EE Potential	Assess Applicable Technologies	Feedback to Domestic Makers	As per the Purposes	TBD	TBD
	Domestic Products	Comparison with Foreign Products	Assess Applied Technologies	Assess Potential of Applicable Technologies	As per the Purposes	TBD	TBD



How to Make the Surveys Sustainable and Systematic in Brazil (Legal Measures ?)



Top Runner System : By Reporting under the EC Act

Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Direction -

Direction to Realize the Possible Solutions Identified by Brazil

1. Market Survey – 2 : Points (Specify Purposes – Design & Procedure)




Survey - 3	Survey Object	Purpose : Utilization of Results for			Design and Procedure		
		Set The New Criteria	Evaluate the Actual Results	Dissemination	Survey Items	Taskforce	Method
Needs / Preference of Products for "PROCEL Gold Seal"	Consumers	NA	<ul style="list-style-type: none"> ● Reasons to Purchase (or) Not to Purchase ● Performance of Used Products ● Demand in the Market 	<ul style="list-style-type: none"> ● Feedback to Manufacturers ● Develop Support Measures to Promote the Products 	As per the Purposes	TBD	TBD

Irregular Survey through Retail Shops in Brazil ?

Possible Application of Factors of Top Runner Program in Brazil - "PROCEL Gold Seal" (Air Conditioner) : Direction -

Direction to Realize the Possible Solutions Identified by Brazil

2. PROCEL Gold Seal : Points (Visual Display for Motivating Consumers)

	Status	Display Form	Data / Information
PROCEL Gold Seal	Coexisted with "Procel Seal"	Digital : By Internet with QR Code to Access and Display the Seal No Physical Attachment (PROCEL Seal : Direct Attachment with the Products)	Digital : By Internet with QR Code to Access and Get Required Data and Info.
			
	Possible Issues to Check	Possible Issues to Check	Possible Issues to Check
	Confusion by the 2 Seals	Very Little Visual Impacts at a Glance to the Products	Question to Timely Get the Required Data / Info.
	Discussion to Solve	Discussion to Solve	Discussion to Solve
	Possibility to Show "PROCEL Gold Seal" only for the Products	Direct Attachment with the Products	Change in Design (Seal with a Label Showing the Key Data and Info.)

Possible Application of Factors of Top Runner Program in Brazil - “PROCEL Gold Seal” (Air Conditioner) : Study Roadmap -

Roadmap to Realize the Possible Solutions Identified by Brazil

1. Develop Specifics of The Possible Measures to Realize

(1) Market Surveys :

Purposes and Design / Procedure to Meet the Purposes

(2) PROCEL Gold Seal :

Way to Display for Motivating Consumers with a Large Impact

2. Prioritize the Actions and Develop Plan of Action

(1) Specify the Prioritized Actions and Issues to Solve

(2) Develop the Plan of Action with Clarifying Milestones

3. Identify the Immediate Actions to Take, Based in Items 1 &2

(1) Actions Possible to Implement Soon

(2) Required Preparation to Take the Actions

Wrap-up and Required Preparation for Next Meeting

Possible Application of Factors of “Top Runner (TR) Program”

1. Wrap-up

(1) Goal of the possible application of key factors of Top Runner Program

The Brazilian side summarized the goals

- ▶ Apply to “PROCEL Gold Seal” (for Air Conditioner).
- ▶ Identified the possible solutions and the required actions.

The Japanese side clarified the questions by the Brazilian side and discussed the points of the goals.

(2) The possible solutions and the strategy etc. to realize these were discussed toward developing the specific plan, based on the systematic approach suggested by the Japanese side.

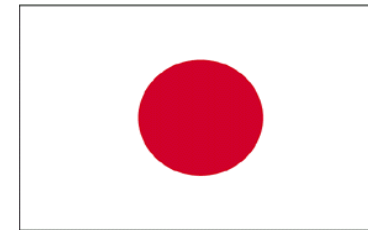
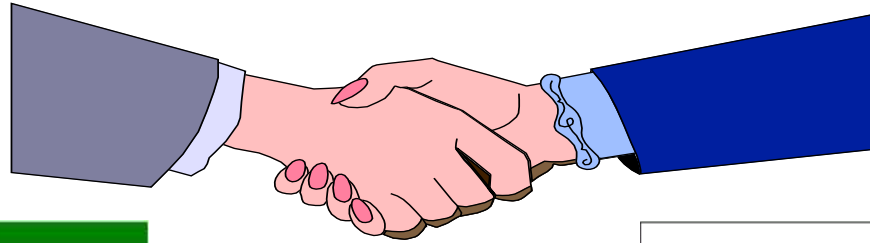
2. The Next Actions

(1) The Brazilian side will continue studying to develop the plan of actions

(2) The Brazilian side will start to take some immediate actions identified

(3) The progress and the results of the above will be shared and discussed in the wrap-up meeting for confirming the future direction.

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/>