



MINISTRY OF
INDUSTRY, FOREIGN TRADE
AND SERVICES



The 9th Energy Management Action Network Workshop - EMAK9 - “*Toward Sustainability*”

- Disseminating Showcases EnMS and Best Practices in EE&C
- Building Network of Stakeholders to EE&C Promotion

The Energy Management Action Network (EMAK) under the International Partnership for Energy Efficiency Cooperation (IPEEC) is held the 9th workshop in São Paulo, Brazil, with cooperation from the Brazilian Government.

EMAK is purposed to promote improvement of energy efficiency and conservation in the industrial and the commercial sectors, through a network that policy makers and energy efficiency practitioners exchange on proven practices and capacity building, and to support the accelerated uptake of energy management practices and systems in these sectors.

Theme

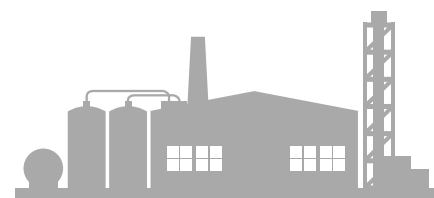
- Sharing Energy Management Know How and Good Practices

Details

- Date November 21st, 2018
- Venue the São Paulo office of CNI (Confederação de Nacional Indústria)
- Time 9:05 – 17:15 <Registration starts from 8:30.>
- Presentation Materials ... <https://www.asiaeec-col.eccj.or.jp/emak2018/>

This workshop is the best opportunity to

- Learn about and share experiences of establishment of well functioned energy management system in Industrial & Commercial sectors.
- Share information about best practices in energy efficiency and energy saving proven in establishment of energy management system.
- Contribute to dialogue on dissemination of knowledge of energy management best practices and purpose of establishment of energy management system.



Time	Agenda
08:30-09:00	Reception
09:05-10:15	Opening and Keynote Address
09:05-09:15	Opening Remarks by CNI (Mr. Rodrigo Sarmiento Garcia, Industrial Policy Specialist, CNI)
09:15-09:25	Welcome and Opening Remarks (Mr. Igor Calvet, Secretary, MDIC, Brazil)
09:25-09:35	Opening Remarks (Mr. Benoit Lebot, Executive Director, Secretariat, IPEEC)
09:35-09:50	K-1 Keynote – 1 Purpose of EMAK 9 / Effectiveness of EM Experienced in Japan for EC Promotion (Mr. Masaomi Koyama, Director, METI, Japan)
09:50-10:05	K-2 Keynote – 2 Importance of EM for EC Promotion in Brazil and Consideration of EM in EC Policy (Mr. Carlos Alexandre Principe Pires, Director, MME, Brazil)
10:05-10:15	Photo Session
10:15-10:35	Networking Coffee Break
10:35-12:35	Session – 1 : Showcases Established in Brazil Showcases of Best Practices in Energy Management System (EnMS) and in Energy Conservation (EC) to Disseminate (Chaired by Mr. Gustavo Saboia Fontenele e Silva, MDIC)
10:35-10:55	S1-1 Outline and Summary of Outcomes of the “Japan – Brazil Cooperation Project” (Mr. Kazuhiko Yoshida, Technical Consulting Adviser, ECCJ)
10:55-11:20	S1-2 Energy Management System and Energy Conservation Initiatives – General Motors Experience and Commitment – Road to 2050 (Ms. Glaucia Sella Roveri dos Santos, Regional Energy Manager – General Motors South America, General Motors do Brasil Ltda.)
11:20-11:35	S1-3 Established Public and Private Network / B+P EE (Mr. Gustavo Saboia Fontenele e Silva, General Coordinator, MDIC)
11:35-12:05	S1-4 CNI's Initiatives to Promote EC in Industry including Voluntary Program (Alliance Program) (Mr. Rodrigo Sarmiento Garcia, Industrial Policy Specialist, CNI)
12:05-12:20	S1-5 Collaborative EC Program : PROCEL Industry (Mr. Carlos Alexandre Principe Pires, Director, MME)
12:20-12:35	Q&A
12:35-14:00	Networking Lunch
14:00-15:35	Session – 2 : Successful Cases in Japan and in Foreign Countries Advanced EnMS : Systematic Energy Management Practice and Implementation of EC Measures including Effective EC Technologies (Chaired by Mr. Masaomi Koyama, METI / Co-chaired by Mr. Yoshihiro Kawaguchi, ECCJ)
14:00-14:20	S2-1 High Efficiency Products with Central Management as a Key Solution to Achieve Lowest Power Consumption of Air Conditioning System (Mr. Leandro Moraes Lourenço, Product Engineering Manager, Daikin McQuay Ar Conditionado Brasil Ltda.)
14:20-14:40	S2-2 Energy Management System for Factory (FEMS) and Building (BEMS) (Mr. Koji Miyashita, President, Mitsubishi Electric do Brasil)
14:40-15:00	S2-3 Energy Efficiency Continuous Improvement activity based on Toyota Way and Toyota Production System, and Contributions to Sustainable Society (Mr. Dário Masahiko Yanagita, Department Chief, Toyota do Brasil Ltda.)
15:00-15:20	S2-4 CMPC Energy Management System (EnMS) and Best Practices (Mr. Roland Alexis Haemmerli, Chief Operations Officer, CMPC Pulp S.A., Chile)
15:20-15:35	Q&A
15:35-15:50	Networking Coffee Break
15:50-17:00	Session – 3 : Panel Discussion and Wrap-up (Speakers / Representatives) Direction of Cooperation with Japan to Promote EC by Establishing EnMS (Chaired by Mr. Kazuhiko Yoshida, ECCJ)
15:50-16:45	Panel Discussion (Speakers and Representatives of Government / Private Sector) Agenda-1 : Requirements Agenda-2 : Challenges Agenda-3 : Areas and Subjects for Next Step
16:45-17:00	Wrap-up (Chairperson) Summary and Way Forward – Direction of Possible Cooperation with Japan
17:00-17:15	Closing
17:00-17:05	Closing Remarks (Mr. Masaomi Koyama, Director, METI, Japan)
17:05-17:10	Closing Remarks (Mr. Carlos Alexandre Principe Pires, Director, MME, Brazil)
17:10-17:15	Closing Remarks (Mr. Igor Calvet, Secretary, MDIC, Brazil)
	END of Workshop
18:00-19:30	Reception

(Abbreviations)

EMAK : Energy Management Action Network for Industrial Efficiency
 CNI : National Confederation of Industry (Brazil)
 MDIC : Ministry of Industry, Foreign Trade and Services (Brazil)
 IPEEC : International Partnership for Energy Efficiency Cooperation
 METI : Ministry of Economy, Trade and Industry (Japan)

MME : Ministry of Mines and Energy (Brazil)
 ECCJ : The Energy Conservation Center, Japan
 EM : Energy Management
 EnMS : Energy Management System
 EC : Energy Conservation

Opening Remarks

Mr. Rodrigo Sarmiento Garcia

Industrial Policy Specialist, National Confederation of Industry (Brazil)

Mr. Igor Calvet

Secretary, Ministry of Industry, Foreign Trade and Services (Brazil)

Mr. Benoit Lebot

Executive Director, Secretariat, International Partnership for Energy Efficiency Cooperation

Keynote Address

◆ K-1 Purpose of EMAK 9 / Effectiveness of EM Experienced in Japan for EC Promotion

Mr. Masaomi Koyama

Director, Ministry of Economy, Trade and Industry (Japan)

- Explaining basic role of IPEEC and EMAK for Energy Efficiency as sharing best practice of energy management.
- Explaining the Japanese Goal and establishment level of Energy Efficiency and the policy for Energy Efficiency including energy management. Especially for Energy Efficiency regulation such as “Benchmark system” and “Top runner program”.

◆ K-2 Importance of EM for EC Promotion in Brazil and Consideration of EM in EC Policy

Mr. Carlos Alexandre Príncipe Pires

Director, Ministry of Mines and Energy (Brazil)

The energy situations in Brazil, the existing policy, the legal framework and the key national programs for energy conservation (EC) are explained.

These include the energy conservation law enforced in 2001 and the key programs for EC such as PBE (Labeling Program), PROCEL (Program for Electricity Efficiency) and CONPET (Program for Rational Use of Petroleum Products).

The presentation also touches the following.

Importance of energy management.

Improved the minimum energy efficiency standards especially for motors used in industry.

Session – 1

Mr. Gustavo Saboia Fontenele e Silva

General Coordinator, Ministry of Industry, Foreign Trade and Services (Brazil)

Showcases Established in Brazil

◆ S1-1 Outline and Summary of Outcomes of the “Japan – Brazil Cooperation Project”

Mr. Kazuhiko Yoshida

Technical Consulting Adviser, The Energy Conservation Center, Japan

The Project was established in 2015 and completed in March 2018 between the Japanese and Brazilian governments.

The Project aimed to establish the basis of the “Demand Management” and the “Demand Response” contributed especially to peak-cutting and saving of electricity which met the Brazilian needs. As a result, the following outcomes were established.

- (1) Showcase Energy Management System (EnMS) based on ISO 50001 by the 4 Brazilian cooperating companies of the 4 sub-industries for dissemination
- (2) Proposals to introduce the regulation on energy management under the existing EC Law and to improve the support system for EC Promotion
- (3) Comprehensive and simple “Action Guide” for Industry (general)

The demonstration activities by the 4 Brazilian companies proved the effectiveness of EnMS for EC promotion with the energy performance indicators improved by 5% to 34%. Finally, the project team developed the roadmap to disseminate / expand these outcomes in the future.

◆ S1-2 Energy Management System and Energy Conservation Initiatives – General Motors Experience and Commitment – Road to 2050

Ms. Glauca Sella Roveri dos Santos

Regional Energy Manager – General Motors South America, General Motors do Brasil Ltda.

This presentation shows the historical commitment of General Motors in energy conservation at its processes, exploring how it was possible to reduce over 60% of energy to produce its vehicles within 15 years in South America region and the challenge to get even more efficient for the next years in a very difficult environment for initiatives. It will show the alternatives to achieve its corporate objectives by sharing benchmark experiences through associations, enhancing its management system according ISO procedures, being part in partnerships like ECCJ and CNI and establishing “SMART” objectives for short, mid and long term to contribute to the vision of zero emissions in the environment, one of the pillars of the corporation.

◆ S1-3 Established Public and Private Network / B+P EE

Mr. Gustavo Saboia Fontenele e Silva

General Coordinator, Ministry of Industry, Foreign Trade and Services (Brazil)

The cooperation MDIC-METI was implemented by ECCJ and was concluded in 2018. Contributed to the process of elaborating the Alliance Program (CNI) and influenced the B+P EE. The Cooperation identified gaps in the coordination efforts of different public entities that are involved in promoting energy efficiency, which led to the perception of the need to reform the system for promoting energy efficiency. This was a significant achievement of the cooperation and strengthened the public and private network.

B+P EE is a Program that targets the improvement of energy efficiency for industrial processes of SMEs. MDIC implemented the pilot project with a significant average reduction of energy consumption of about 26%. This showcase will present the concept, methodology, performance indicators, industrial sectors covered, results of the pilot project and inform about the ongoing implementation of the first stage of the scale-up of B+P EE.

◆ S1-4 CNI's Initiatives to Promote EC in Industry including Voluntary Program (Alliance Program)

Mr. Rodrigo Sarmiento Garcia

Industrial Policy Specialist, National Confederation of Industry (Brazil)

Uncompetitive market structures have led to an excessive cost increase for the energy consumed by the industry in Brazil, especially for the energy-intensive business. In order to improve the competitiveness of the local industry, CNI and ABRACE have worked together to develop the Alliance Program. The methodology of the program includes activities of energy optimization, identification of technology improvements and development of strategies for energy management, design for each industry. To Participate, the industry will sign a Voluntary Agreement with CNI, valid for 24 months, formalizing the objective of improving the company energy efficiency in 5% within this period. The Program was designed to be implemented in 100 large industries until 2022. Since August of 2018, 6 industries have agreed to the program in Brazil, the actions proposed by the methodology, if correctly implemented, could reduce an average of 8.6% in energy consumption.

◆ S1-5 Collaborative EC Program : PROCEL Industry

Mr. Carlos Alexandre Príncipe Pires

Director, Ministry of Mines and Energy (Brazil)

“Industry” is the driver of complex economy also in Brazil which is aware of the necessity of providing and improving the conditions to adopt energy efficiency (EE) measures in the industry.

Therefore, the Federal Government have recently implemented the following.

Improved the minimum EE standards especially for electric motors, allowing to manufacture and sell only class IR3 motors.

National Energy Conservation Program (PROCEL) implemented to promote EE for large companies through the “Program Aliança” and for SMEs through the “Programa Brasil Mais Produtivo”.

Established the “Transformative Investment of Energy Efficiency in Industries (TI4E)” under NAMA.

These programs are harmonized with the Japan- Brazil EC cooperation project.

Session – 2

Mr. Masaomi Koyama

Director, Ministry of Economy, Trade and Industry (Japan)

Co-chaired by

Mr. Yoshihiro Kawaguchi

General Manager, The Energy Conservation Center, Japan

◆ S2-1 High Efficiency Products with Central Management as a Key Solution to Achieve Lowest Power Consumption of Air Conditioning System

Mr. Leandro Moraes Lourenço

Product Engineering Manager, Daikin McQuay Ar Conditionado Brasil Ltda.

In Brazil, energy consciousness awareness has increased and gradually the spread of high efficiency air conditioners is progressing. However, relying on only efficient air conditioning units is not enough to achieve lowest power consumption. In order to achieve the best performance, a management system is required, because the way the system is used has a big impact on the overall results. Daikin would like to take this opportunity to share how the synergy between equipment and management system resulted in huge savings in its own facility, as well as show how the air conditioning technology can contribute dramatically to reduce the domestic electric power consumption.

◆ S2-2 Energy Management System for Factory (FEMS) and Building (BEMS)

Mr. Koji Miyashita

President, Mitsubishi Electric do Brasil

- Mitsubishi Electric provide various products and FEMS/BEMS solutions to contribute to saving energy for factories, buildings, offices, hotels, airports and facilities.
- Factory automation and FEMS (Factory Energy Management System) is our typical expertise with various hardware like VFD inverter, PLC controller with SCADA software.
- Japan House São Paulo is a good reference of BEMS (Building Energy Management System) in Brazil, who uses our BEMS solution to monitor and control air conditioning system, lighting, ventilation of the facility. In the facility, our VRF air conditioning system itself can perform very high energy efficiency. Furthermore, the facility combined with our BEMS system proved to be effective for optimizing energy consumption further.

◆ S2-3 Energy Efficiency Continuous Improvement activity based on Toyota Way and Toyota Production System, and Contributions to Sustainable Society

Mr. Dário Masahiko Yanagita

Department Chief, Toyota do Brasil Ltda.

In this presentation, Toyota do Brasil presents how basic principles of

- 1) Toyota Way
- 2) Toyota Production System

set guideline of energy efficiency for continuous improvement activity in daily routine.

We will present the importance of Utility Management System and will emphasize the importance of human resources development resulted from strong interaction between management and teamwork of members.

We will also link to Environmental Challenge 2050, which is a contribution for sustainable society, and explain Toyota do Brasil actions to each of the 6 challenges.

◆ S2-4 CMPC Energy Management System (EnMS) and Best Practices

Mr. Roland Alexis Haemmerli

Chief Operations Officer, CMPC Pulp S.A. (Chile)

CMPC is a leading Pulp & Paper company that produces wood, pulp, paper, packaging and tissue products over 8 countries in Latin America. Energy comprises one of CMPC's main costs and on a global scale the company consumes over 32.500 GWh of energy inputs.

CMPC aims to be more efficient and competitive in the participating markets, thus securing the long term sustainability of its processes. Hence, in 2013 started implementing an EnMS on its Pulp operations in Chile. Currently, the company is working with EnMS in 28 sites in 6 countries in Latin America.

CMPC Pulp EnMS has proven an effective management system; surpassing its initial 2020 goal in 2017, obtaining a 22% external energy use reduction, which led 40.2 million USD in energy savings and emissions reduction of 198.000 t CO₂. Main tools to achieve this were energy efficiency projects, operational best practices and energy monitoring systems.

Session – 3

Mr. Kazuhiko Yoshida

Technical Consulting Adviser, The Energy Conservation Center, Japan

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Panel Discussion (Speakers and Representatives of Government / Private Sector)

Closing Remarks

Mr. Masaomi Koyama

Director, Ministry of Economy, Trade and Industry (Japan)

Mr. Carlos Alexandre Príncipe Pires

Director, Ministry of Mines and Energy (Brazil)

Mr. Igor Calvet

Secretary, Ministry of Industry, Foreign Trade and Services (Brazil)

