

INTRODUCTION of JASE-World

*at FEALAC Eco-Business Promotion Conference
“Energy Saving / Transportation”*

13th November, 2012

Tokyo



**Yoshihiko
MURASAWA
Secretary General,
JASE-World**



Japanese Business Alliance for Smart Energy Worldwide

JASE-World was established
in October, 2008

Japanese Business
Alliance for
Smart
Energy
- **World**wide



**Mr. Hiromasa Yonekura, Chairman of
JASE-W
(Chairman of Japan Business Federation)**



Japanese Business Alliance for Smart Energy Worldwide

Members from Private Companies (72)

Asahi Glass Co., Ltd	Bank of Tokyo-Mitsubishi UFJ	Bridgestone Corporation
Canon Inc.	CHIYODA CORPORATION	DAIKIN INDUSTRIES, Ltd.
DAIWA HOUSE INDUSTRY CO., LTD	FUJIFILM Corporation	Electric Power Development Co.,Ltd..
EX Research Institute Ltd.	Fuji Electric Systems Co., Ltd	IHI Corporation
Hitachi, Ltd.	Hitachi Zosen Corporation	Hokuriku Electric Power Company
JFE Steel Corporation	ITOCHU Corporation	Japan Facility Solutions, Inc.
JFE Engineering Corporation	JX Nippon Oil & Energy Corporation	JGC Corporation
JP Steel Plantech Co.	KANSAI ELECTRIC POWER CO., INC	KANEKA CORPORATION
KYOCERA Corporation	Kawasaki Heavy Industries, Ltd	Komatsu Ltd
MAYEKAWA MFG. CO., LTD	KYUSHU ELECTRIC POWER CO. INC.	Marubeni Corporation
Mitsubishi Corporation	MEIDENSHA CORPORATION	Mitsubishi Materials Corporation
Mitsubishi Electric Corporation	MITSUBISHI HEAVY INDUSTRIES, LTD.	MITSUI CHEMICALS, INC.
Mitsubishi UFJ Lease & Finance	MITSUI & CO., LTD.	Mizuho Corporate Bank, Ltd
MITSUI Engineering & Shipbuilding Co., LTD.	Miura Co., Ltd.	NIHON MICHELIN TIRE CO.,LTD.
NEW JEC Inc.	NGK INSULATORS, LTD.	Nikken Sekkei Ltd
Nippon Koei Co., Ltd	Nippon Steel & Sumitomo Metal Corporation	Nippon Steel & Sumikin Engineering Co., Ltd
NISSEI Corporation	Osaka Gas Co., Ltd	Panasonic Corporation
Sharp Corporation	SEKISUI CHEMICAL CO., LTD.	Sekisui House, Ltd.
Sumitomo Chemical Co., Ltd	Sojitz Corporation	Solar Frontier K.K
Sumitomo Rubber Industries	Sumitomo Corporation	Sumitomo Mitsui Banking Corporation
Takasago Thermal Engineering Co.,Ltd	Tokyo Electric Power Co.,Inc	Tokyo Electron Co., Ltd
TLV CO., LTD.	Toho Gas Co., Ltd.	Toyo Engineering Corporation
Tokyo Gas Co., Ltd.	TOSHIBA Corporation	TNP PARTNERS, corporation
Toyota Motor Corporation	TOYOTA TSUSHO CORPORATION	Yokogawa Electric Corporation



Members from Associations & Authorities

20 Associations

Japan Association of Energy Service Companies	The Engineering Advancement Association of Japan (ENAA)
Japan Far Infrared Rays Association	Engineering and Consulting Firms Association, Japan
Kansai Economic Federation	Kansai-Asia Environmental and Energy-Saving Business Promotion Forum
The Energy Conservation Center, Japan	Japan Coal Energy Center
Japan Photovoltaic Energy Association	The Federation of Electric Power Companies of Japan
Japan Chemical Industry Association	Japan Electronics and Information Technology Industries Association
Japan Machinery Center for Trade and Investment	Nippon Keidanren (Japan Business Federation)
Japan Geothermal Developers' Council	Japan Construction Material & Housing Equipment Industries Federation
The Japan Iron and Steel Federation	The Japan Electrical Manufacturers' Association
Japan Consulting Institute	Heat Pump & Thermal Storage Technology Center of Japan

12 Government Organizations

The Ministry of Foreign Affairs of Japan	The Ministry of Foreign Affairs of Japan
Japan International Cooperation Agency	New Energy and Industrial Technology Development Organization
Japan External Trade Organization	Nippon Export and Investment Insurance
The Institute of Energy Economics, Japan	The World Bank Tokyo Office
International Finance Corporation, Tokyo Office	Asian Development Bank Japanese Representative Office
Japan Bank for International Cooperation	Clean Association of TOKYO 23



Website of JASE-World



Activities of 4 WG

Participation to Int'l Exhibitions around the World

Activities through 4 Working Groups and 11 Sub-Working Groups

4 Working Group (WG)

<p>Energy Saving Solution WG Established the following 6 Sub-Working Groups</p>	<p>Heat Pump & Inverter WG Dispatched a mission to Hanoi, Vietnam in Jun. 2009.</p>	<p>Solar Power Generation WG Dispatched a mission to Morocco and Egypt in Sep, 2010</p>	<p>Geothermal Power Generation WG Started from September, 2010</p>
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11 Sub Working Group (SWG)

Russia SWG	Waste to Energy SWG	Indonesia SWG	Indonesia SWG
Middle East SWG	Vietnam SWG	Latin America SWG	Latin America SWG
Latin America SWG	Energy Solutions for Commercial Sector SWG	Solar Thermal SWG	



◆ **Mission to Middle East (Jan 2010) with Mr. Matsushita, the Vice Minister of METI**



Business forum in Saudi Arabia



Business forum in Qatar



Opening of WFES (Abu Dhabi)

Japanese Public Business Joint Mission

Heat Pump & Inverter WG

◆ **Mission to Vietnam (Jun. 2009) with a METI officer**



Meeting with Hanoi University of Technology



Presentation at Hanoi University of Technology

Solar Power Generation WG

◆ **Mission to Mongolia (Nov. 2011)**



Ministry of Mineral Resources and Energy



National Renewable Energy Center



Government of Dornogobi Province

Geothermal Power Generation WG

◆ **Mission to Indonesia (Jul. 2011)**



Ministry of Energy and Mineral Resources

◆ **Second Mission (Dec. 2011) to Indonesia with METI officer**



Kickoff meeting at Ministry of Energy and Mineral Resources



Site visit of Ulumba Geothermal Power Generation Plant



Energy Saving Solution WG

India SWG

◆ First Mission (Dec. 2009) with a METI officer



Meeting with FICCI

◆ Second Mission (Dec. 2010)



Visit to Chambal Fertilisers and Chemicals Ltd.



Discussion with Chambal Fertilisers and Chemicals Ltd.

Waste to Energy SWG (Indonesia)

◆ First Mission (Oct. 2010) with a METI officer



Visit to Ministry of Public Works

◆ Second Mission (Feb. 2011) with a METI officer



Ministry of Public Works



East Java

Latin America SWG (Brazil)

◆ First Mission (Nov. 2011) with a METI officer



Japanese Business Alliance for Smart Energy Worldwide



Business meeting at Rio de Janeiro



Seminar at Curitiba

Malaysia SWG

◆ First Mission (Oct. 2009) with a METI officer



Meeting with MEGTW (Ministry of Energy, Green Technology and Water)

◆ Second Mission (Jun. 2010)



Meeting with Department of Environment, Ministry of Natural Resources & Environment



Presentation at MMC (MMC Corporation SDN BHD)

Russia SWG

◆ First Mission (Jul. 2010) with a METI officer



Meeting with REA



Signing a memorandum with REA

◆ Second Mission (Oct. 2010)



JASE-World participating in the Energy Conservation Seminar organized by JETRO, JBIC, REA and Sberbank

Singapore SWG

◆ First Mission (Nov. 2009) with a METI officer



Meeting with Energy Market Authority



Meeting with engineering firm UE,UEMA

◆ Second Mission (Feb. 2011)



Report of Energy Audit Results to Regent Hotel

International Promotion

Record of International Exhibitions



Abu Dhabi, UAE
WFES (2010, 2011, 2012)



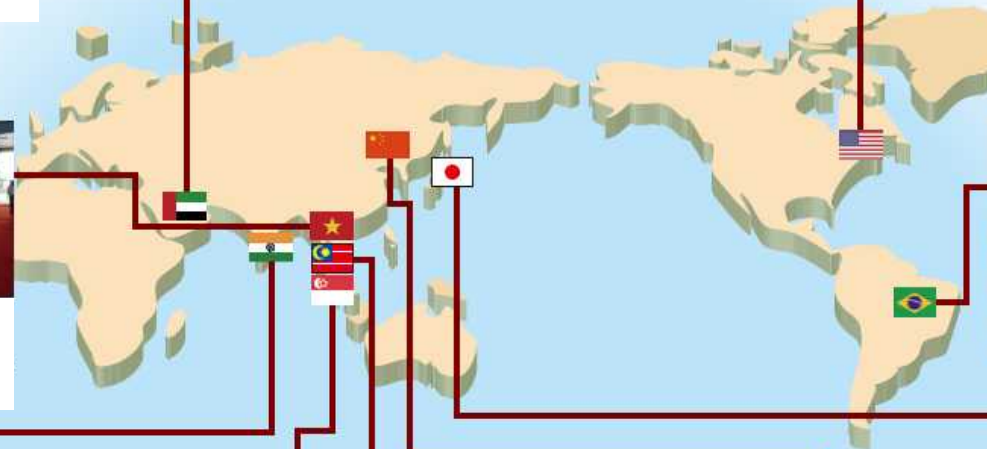
Washington, USA
WEEC (2009)



Hanoi, Vietnam
ENTECH Hanoi (2009)



Sao Paulo, Brazil
FIMAI (2008, 2009)



New Delhi, India
ETE (2009)
IETF (2011)
Bangalore, India
IETF (2009)



Singapore
CEEA (2009, 2010)



Kuala Lumpur, Malaysia
IGEM (2010, 2011, 2012)



Beijing, China
BIESEPE (2008, 2009)



Tokyo, Japan
ENEX (2010, 2011)
Eco-Products (2009, 2010)



MOU with REA, CCE, TERI & FICCI in 2010



REA (Russia)
on 9th July



CCE (Mexico)
on 13th July



TERI (India)
on 20th July



FICCI (India)
on 1st Sept.

For the purpose to establish cooperative relationship.



Japanese Business Alliance for Smart Energy Worldwide

Website of JASE-World



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[Japanese](#) [Contact](#)

The Energy Conservation Center, Japan

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Membership

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Japanese Smart Energy Products & Technologies

English
 Chinese
 España

RESIDENCE

OFFICE

FACTORY

CONSTRUCTION & TRANSPORT

ELECTRICITY

IRON & STEEL

OIL REFINERY & CHEMICALS

SMART COMMUNITY

The worldwide area where we are working



Japanese Smart Energy Products & Technologies

English
 Chinese
 España

RESIDENCE

OFFICE

FACTORY

CONSTRUCTION & TRANSPORT

ELECTRICITY

IRON & STEEL

OIL REFINERY & CHEMICALS

SMART COMMUNITY

What's new!

Jun.18	REPORT	The fifth General Meeting	
May.25	MISSION	Waste to Energy(WTE) Mission to Brazil	Back number > Topics: 2012 > Topics: 2011 > Topics: 2010 > Topics: 2009
Mar.26	MISSION	Waste to Energy(WTE) Mission to Brazil	
Mar.19	ADVERTISEMENT	Wall Street Journal	
Mar.16	DATA	Japanese Smart Energy Products & Technologies 2012Spanish version	
Mar.16	DATA	Japanese Smart Energy Products & Technologies 2012Chinese version	
Feb.23	MISSION	Workshop in Vietnam	
Feb.15	DATA	Japanese Smart Energy Products & Technologies 2012English version	

Working groups

Working groups were established for creating smart energy business projects through collaboration of various companies and organizations

Energy Saving Solution

Create projects of energy saving solutions to meet the needs of the overseas countries.

Heat Pump & Inverter

Make business models to promote the technologies of heat pump & inverter products.

Solar Power

Create comprehensive PV project including materials, engineering, modules and services.

Geothermal Power Generation

Study and implementation of the global business measures of the geothermal power generation.







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JASE-World



Japanese Business Alliance for Smart Energy Worldwide

Main MENU of Technology Catalogue



Japanese Business Alliance for Smart Energy Worldwide



Japanese Smart Energy Products & Technologies, 2012

Japanese Smart Energy
Products & Technologies, 2012

Intro

Greeting

Index (Sector)

Index (Company)

Keyword

Overview Sight

Smart Community



Japanese Business Alliance for Smart Energy Worldwide

Catalogue of Japanese Smart Energy Products & Technologies”

- 1st issued in March 2009, & revised every year so far,
- 221 Technologies from 45 member companies
- Technologies are classified into 7 sectors so as to understand, and additionally into another sector of “**Smart Community**”
- Contact point is shown for each technology
- Downloaded easily from the website
<http://www.jase-w.eccj.or.jp/technologies/index.html>
- Widely distributed through both sides of Embassies, METI, MOFA, JETRO, NEDO, IEEJ, JICA, JBIC, & JC-BASE etc.



Compilation of Products & Technologies



Japanese Business Alliance for Smart Energy Worldwide

CONCEPTUAL IMAGE & CLASSIFICATION of Japanese Smart Energy Products & Technologies, 2012



Figures & photographs are provided by courtesy of the members of JASE World same as being given in the other charts of seven sectors.



Japanese Business Alliance for Smart Energy Worldwide

Sector View of "Residence"

1. RESIDENCE

Japanese Smart Energy Products & Technologies, 2012



Kitchen

- R-01: Energy-efficient Household Refrigerator-Freezer
- R-07: High Efficiency Inverter Compressor for Refrigerator
- R-15: Energy-efficient Refrigerator
- R-17: Light Bulb-Shaped Fluorescent Lamp
- R-22: Energy-Saving IH Rice Cooker & Warmer
- R-24: IH Cooking Heater
- R-26: High Efficiency Gas Cooking Stove



Living / Study Rooms

- R-02: HDD-Equipped High Vision Blu-Ray Disc Recorder
- R-06: Compressors for Air Conditioner
- R-09: Transparent Conductive Film with Exothermic Function
- R-11: Creating Energy-saving Household Air Conditioners
- R-12: Inkjet Multifunctional
- R-14: Far Infrared Heaters
- R-30: Room Air Conditioner for Household Use

Outlook of Zero-emission House



note) Title in each box is subjected to simplification in case of long one, same as other sectors.



Overall

- R-03: Light-transmitting & Insulation Building Materials for Windows
- R-05: High-performance Vacuum Insulation
- R-08: High Efficiency Permanent Magnet Motor
- R-20: Self-Balanced Compact Fluorescent Lamp (CFL)
- R-21: The Development of LED Lamps
- R-25: Ceiling-embedded Ventilation Fan



Bathroom

- R-16: Heat-pump Washing & Drying Machine
- R-27: Condensing Water Heater
- R-29: Heat Pump Washer/Dryer
- R-33: Bidet Toilet Seat with Instant Seat Warming & Heating



Backyard

- R-04: Home-Use Fuel Cell Cogeneration System
- R-10: Space Heating & Water Heating Heat Pump
- R-13: Energy Management System Essential for Smart Community
- R-18: Small Fuel Cell System for General Industrial Use
- R-19: Residential Fuel Cell
- R-23: Natural Refrigerant (CO₂) Heat Pump Water Heater for Household Use
- R-28: Residential Fuel Cell
- R-31: Heat Pump (General Purpose)
- R-32: Heat Pump Water Heater with Natural-Refrigerant



1. RESIDENCE



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Sector View of "Office"

2 OFFICE

Japanese Smart Energy Products & Technologies, 2012



www.tokimeit.com

Energy Management

- O-01: Data Center Power Consumption Measurement
- O-02: Integrated Air-Conditioning & Lighting Control System
- O-13: Energy-saving Air-conditioning Control for Offices
- O-16: ESCO Service Project
- O-17: ESCO Service with Guarantee of CO₂ Emission Reduction
- O-18: Energy Center
- O-19: Analysis of Current Situation and Energy-Saving Renovation
- O-20: Energy/CO₂ Emission Visualization Service
- O-23: Smart Energy System
- O-26: Building Energy Management System
- O-28: Calcium Hydroxide Slurry Thermal Energy Storage System



from WAKINCOA "La Office"

Urban / Building Design

- O-30: Sophisticated Green Building Design
- O-31: Mirror Duct System to Use Natural Light
- O-32: An Office Building as a Large Sustainable Device
- O-33: Embracing the Environment with Wood



Lift & Escalator

- O-06: Escalator (Converter Regenerating Controller)
- O-07: Machine-Room-Less Elevator
- O-14: Elevator Renewal

Office Equipment

- O-08: Digital Multifunction Printer
- O-21: Electronic Paper

Air Conditioning

- O-04: Centralized Controller for International Markets
- O-05: VRF Air Conditioning and Hot Water Supply System
- O-08: Radiation Air-Conditioning System
- O-15: High-efficiency Heat Supply System
- O-23: Triple Effect Absorption Chiller - Heater
- O-24: Solar Absorption Chiller - Heater
- O-25: Actval with Flow Rate Measurement & Control Functions
- O-27: Gas Engine driven Heat Pump (GHP)
- O-29: Geothermal Air-Conditioning System
- O-34: Commercial Heat Pump Hot Water Supply Unit
- O-35: Commercial Heat Pump Air Conditioning System
- O-36: Thermal Storage Air Conditioning System
- O-37: OZONE Air Desulfator

Lighting

- O-03: Full-2 way Remote Lighting Control System
- O-10: Highly Efficient LED Downlight
- O-11: LED Lamps Shaped like Conventional Incandescent Bulbs
- O-12: Ceramic Metal Halide Lamp



II. OFFICE



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Sector View of "Factory"

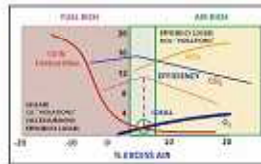
III. FACTORY

Japanese Smart Energy Products & Technologies, 2012



Energy Management

- | | |
|--------------------------------------|----------------------------------|
| F-07: Key Enablers of Vigilant Cycle | F-17: Energy Control System |
| F-08: Zirconia Oxygen Analyzer | F-18: Process Controller |
| F-09: Pressure Transmitter | F-19: Operation Efficiency |
| F-10: Laser Spectrometer | F-20: Production Control System |
| F-11: Infrared Gas Analyzer | F-21: Safety Instrumented System |
| F-12: Magnetic Flowmeter | F-22: Energy-saving Control |
| F-13: Turbidity Analyzer | F-23: Clamp Wattmeter |
| F-14: Plant Information System | F-25: Vortex Flowmeter |
| F-15: Graphic Recorders | F-26: Intelligent RTU |
| F-18: Alarm Management | |



Solution Engineering

- F-30: System for Recovering Solvents via Water Separation
- F-43: Far Infrared Drying
- F-44: Far Infrared Food Processing
- F-52: Waste Treatment Systems Using Cement Kiln
- F-54: Total Solution for Saving Energy
- F-69: Area-wide Pinch Technology
- F-61: Energy Saving at Oil Refineries & Chemical Plants
- F-64: Automated, Unit-based, Palletized Warehouse
- F-65: Automated Warehouses for Freezing & Refrigeration
- F-67: Flue-gas Desulfurization & Selective Catalytic Reduction

Device & Equipment

- F-01: Small AC Servo Press
- F-03: Energy saving due to Medium Voltage Inverter
- F-24: Film Sheet Thickness Measuring and Controlling System
- F-27: Power Metering Equipment to Support Energy Saving
- F-28: Passive Infrared Sensor for Use in Facilities
- F-29: Drying Furnace for Crystalline Solar Cell
- F-31: Energy-saving High-voltage Direct Inverter
- F-32: Inverter for Energy Saving
- F-33: Inverter-driven Air Compressor (Oil Flooded Type)
- F-34: Inverter-driven Air Compressor (Oil-free Type)
- F-39: Energy-saving Free Float Steam Trap
- F-41: General-Purpose Inverter
- F-45: High-Efficiency Gear Motor
- F-47: Ceramic Metal Halide Lamp
- F-53: Friction Spot Joining System
- F-58: High-performance Industrial Furnace
- F-60: Exhaust Heat Recovery Type Burner
- F-63: High-Efficiency Turbo Compressor
- F-66: Vacuum Carburizing Furnace & Full-Automated Line



Air Conditioner

- F-55: Adsorption Chiller
- F-56: Air Refrigerant Freezing System
- F-57: Hot Water Supply Heat Pump
- F-58: Hybrid Cooling Unit
- F-42: Far Infrared Heating



Energy Supply

- F-02: Fuel Cell Power System
- F-04: Micro Tubular Turbine
- F-05: Smart Grid
- F-06: Flexible Amorphous Solar Module
- F-40: High-efficiency Small Once-through Boilers
- F-46: LED High-Bay Light
- F-48: Waste Heat Recovery Power Plant
- F-49: Gas Turbine Cogeneration System
- F-60: Gas Engine



- F-51: Steam Turbine Facilities for Power Generation
- F-55: Natural Gas Cogeneration
- F-57: Gas Engine Cogeneration Equipment
- F-58: Waste Heat Recovery Plant for Cement
- F-62: High-Efficiency Gas Burning Boiler
- F-68: Electric Power Regeneration System



III. FACTORY



Japanese Business Alliance for Smart Energy Worldwide

Sector View of "Construction & Transport"

IV. CONSTRUCTION & TRANSPORT

Japanese Smart Energy Products & Technologies, 2012



C-06: Ring Belt Material for CVT
C-11: Industrial Conveyor Belts



By Bureau of Port and Harbor Tokyo Metropolitan Government

C-01: Hybrid Hydraulic Excavator
C-02: Dissemination of a Fuel-efficient Operation of Machinery
C-07: Energy-efficient Hydraulic Excavators



C-03: Capacitor Hybrid Forklift Truck
C-08: Hybrid Rubber Tired Gantry Crane



C-04: Tires That Contribute to Fuel Saving (for Passenger Cars)
C-05: Tires That Contribute to Fuel Saving (for Trucks and Buses)
C-10: Fuel Efficient Tires
C-13: Heat Exchanger Unit
C-14: Air Heat Exchanger Cooling System
C-15: Ventilation and Air Movement Systems for Road Tunnels
C-16: Low Fuel Consumption Truck and Bus Tires
C-17: High Fuel-Efficiency Tires



C-09: Permanent Magnet Synchronous Motor for Rolling Stock
C-12: High Efficiency and Long Life Street Light
C-18: Automated People Mover

IV. CONSTRUCTION & TRANSPORT



Sector View of "Electricity"

5. ELECTRICITY

Japanese Smart Energy Products & Technologies, 2012



POWER GENERATION FACILITIES

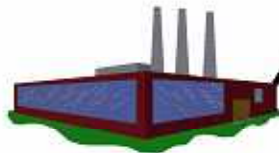
Hydro Power Plant

- E-18: Adjustable Speed Pumped Storage System
- E-29: ES: Hydro Power Plant Development
- E-30: ES: Hydro Power Plant Operation and Maintenance



Thermal Power Plant

- E-12: Supercritical Pressure High Efficiency Thermal Power Plants
- E-19: Supercritical Pressure High-performance Thermal Power Plant
- E-23: ES: Thermal Power Plant Operation and Maintenance
- E-25: ES: Thermal Power Plant Development
- E-39: Advanced Gas Engine



(note) ES means "Engineering Service".

POWER GENERATION FACILITIES

- E-10: Amorphous Transformer
- E-24: ES: Power System Planning
- E-27: ES: Network Protection Scheme
- E-28: ES: Distribution Automation System
- E-35: Central Monitoring System
- E-36: Voltage Drop Compensation Equipment

EHV/ Transmission Substation

MV/ Distribution Substation

Transmission Line 154kV-66kV

Transmission Line 500kV-154kV

HV Customers

RENEWABLE ENERGY

Wind Power

- E-11: 2MW Downwind Turbine Power Generation System

Geothermal Power

- E-02: Geothermal Power Plant

Photovoltaic Energy

- E-01: Wire Saw for Photovoltaic Cells
- E-07: Measuring Conversion Efficiency in Solar Power Systems
- E-08: Sun Tracking Controller for CSP & CPV
- E-14: Concentrated Solar Power Generation System
- E-15: Next-generation Multi-crystalline Photovoltaic Cell
- E-16: Transformer Mold-Type Intelligent Power Module with Bus-In BSD
- E-17: Power Device Large-Capacity Intelligent Power Module
- E-21: Solar Tracking System
- E-32: "One Stop Service" for PV Power Plant Business
- E-33: Next-Generation Concentrated Solar Thermal Power Plant
- E-35: Photovoltaic Inverter



New Rechargeable Battery

- E-20: Secondary Battery
- E-22: ES: Renewable Energy Development
- E-34: Solar Frontier CIS Thin-Film Solar Panels
- E-37: Power Converter for NAS Battery Energy Storage System

LV Distribution Line 100V, 200V

LV Customers

Pole Mount Transformer



CUSTOMER FACILITIES

- E-03: Waste to Energy System
- E-04: Gas Turbine Cogeneration Systems
- E-05: Switching Loss Measurement for Energy-saving Power Device
- E-08: PWM Waveform Measurement for Energy-saving Inverters
- E-08: Aiding Energy Efficiency in Inverter Motors
- E-13: Support for Promoting Energy Efficiency Improvement
- E-29: ES: Technical Support in Energy-saving Master Planning
- E-31: Proposal for the One-stop Service for Energy Saving

V. ELECTRICITY

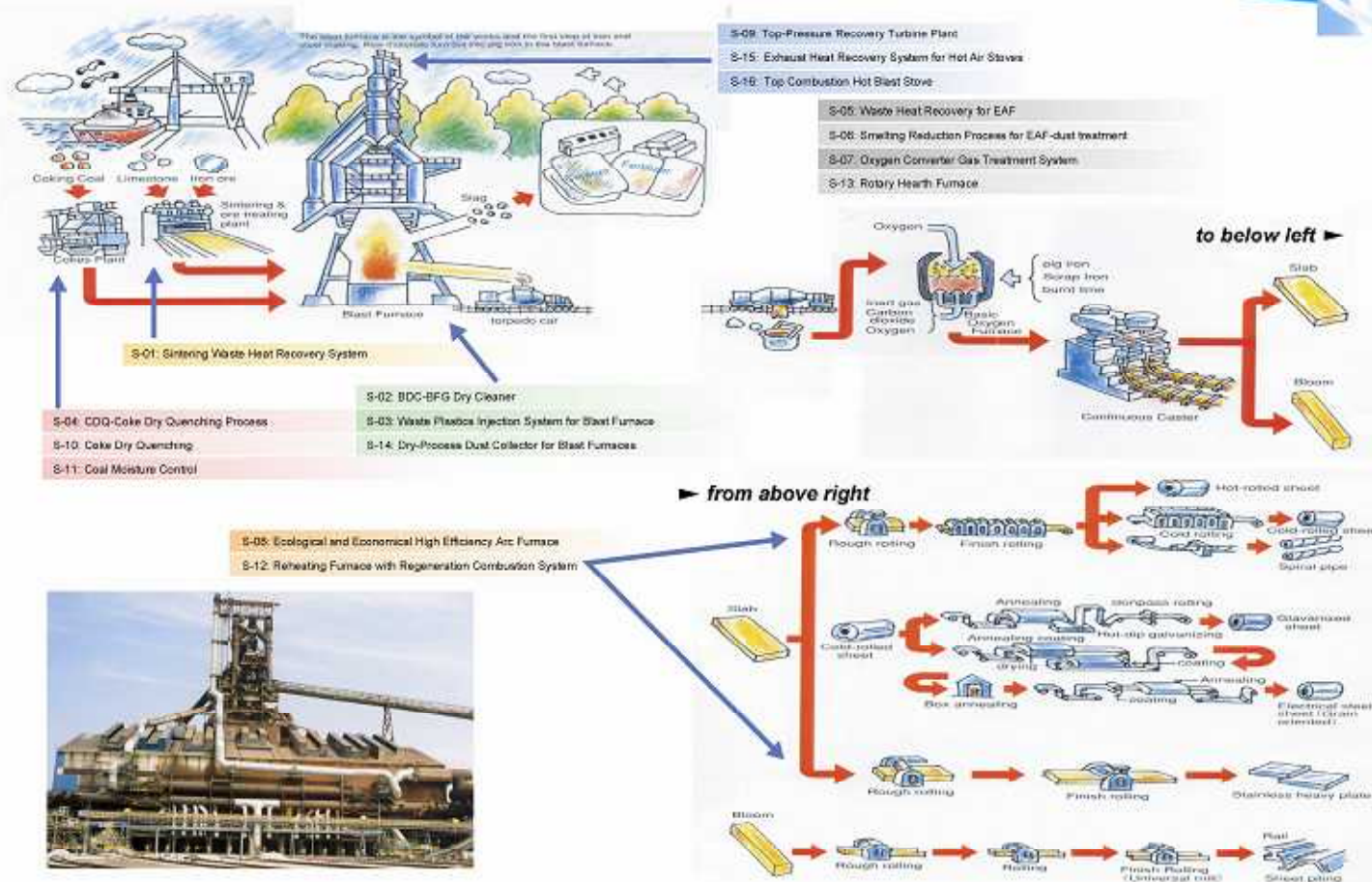


Japanese Business Alliance for Smart Energy Worldwide

Sector View of "Iron & Steel"

VI. IRON & STEEL

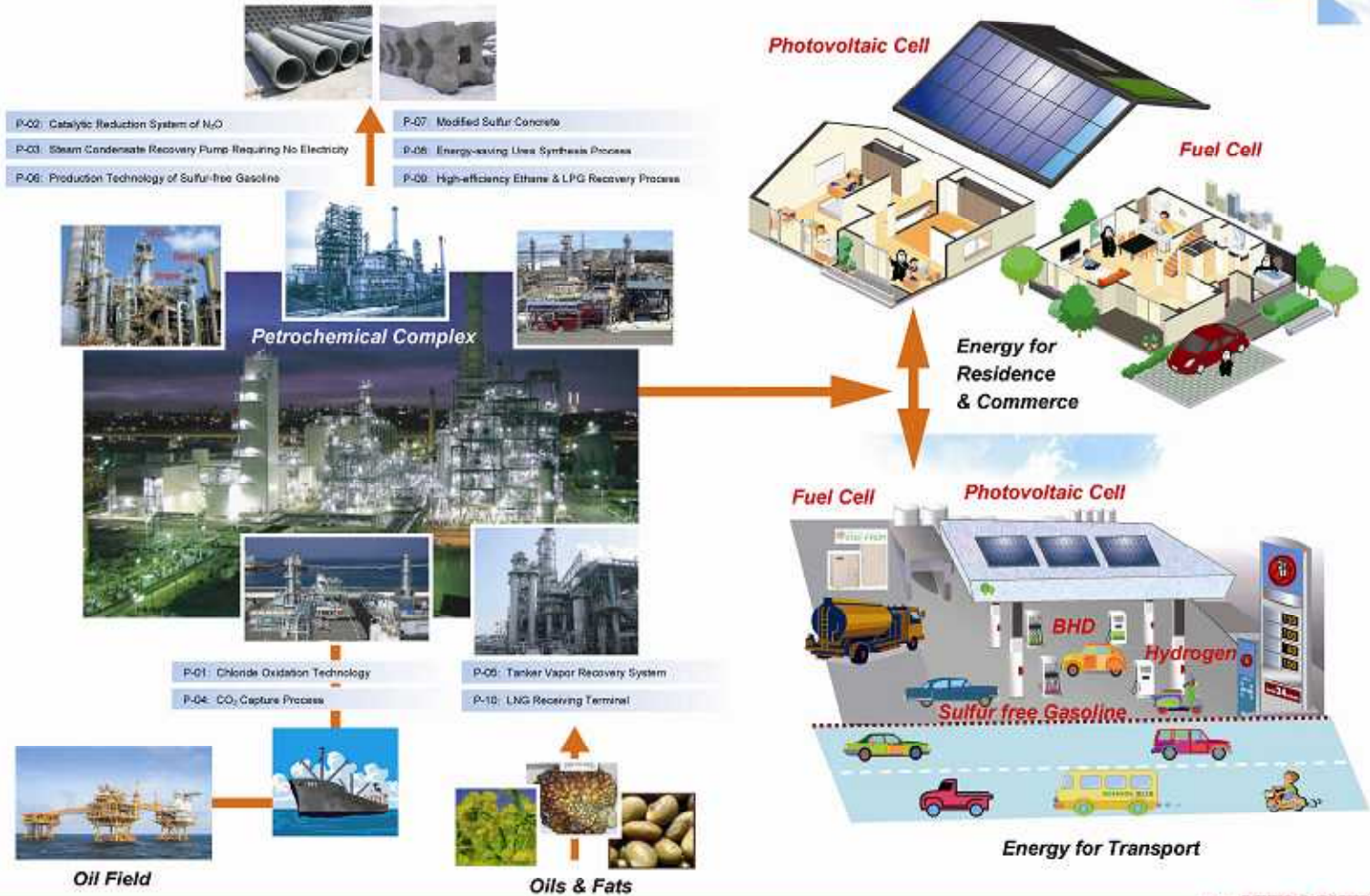
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Sector View of "Oil Refinery & Chemicals"

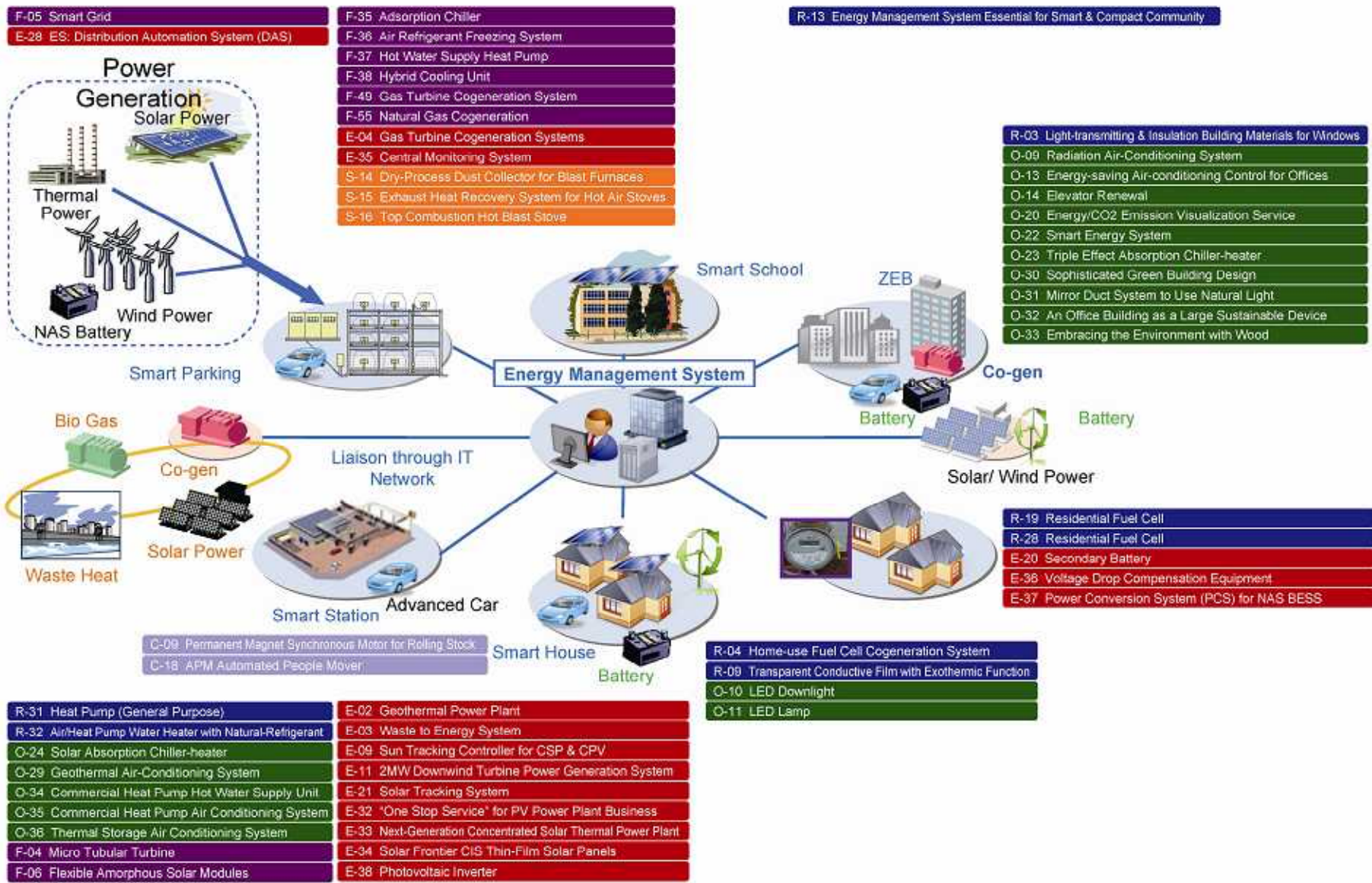
VII. OIL REFINERY & CHEMICALS

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vii. PETROCHEMICALS





Thank you for your attention !!

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

**Address : c/o Energy Conservation Center, Japan
Geo Hatchobori Bldg., 3-19-9,
Hatchobori, Chuo-ku, Tokyo 104-0032, Japan**

Tel & Fax : +81-3-5543-3024

E-mail : jase-w@eccj.or.jp

URL : <http://www.jase-w.eccj.org/>

Secretary General : Yoshihiko Murasawa (Mr)

