# ESCO and EM in Japan

(Energy Service Company & Energy Management)

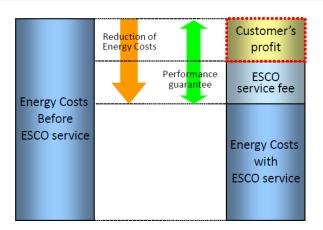
#### Advantages of ESCO scheme

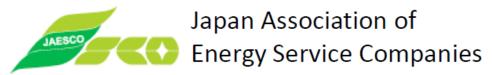
#### (Performance Contract)

ESCOs guarantee energy cost reduction

#### (Pay from the Savings)

Investment cost is provided by ESCOs and the service fee is covered by the saved energy cost





# **Preface**

JAESCO (Japan Association of Energy Service Companies) is the only association in Japan which promotes ESCO projects and Energy Management (EM).

JAESCO was established in October 1999 in order to conduct the following activities;

- (1) Policy related lobbying activities
- (2) PR and marketing of ESCO concept
- (3) Training the staff of member companies
- (4) Information
- (5) International cooperation
- (6) others

And in May 2016, JAESCO included EM as its business territories. EM includes;

- (1) Installation of BEMS, FEMS etc.
- (2) Measurement and recording of operation data
- (3) Visualization and analysis of energy consumption
- (4) Supporting optimal operation of facilities
- (5) others

# **Energy Audit**

- Identify Energy Efficiency possibility
- Calculate saved energy & cost
- Estimate installation cost
- Calculate payback year



# **ESCO**

- Evaluate the credibility of customers
- Estimate installation cost
- Calculate long term payment plan of customers
- Design the Measurement & Verification Plan
- Design guarantee level of EE performance

### EM

- Installation of BEMS, FEMS etc.
- Visualization of energy and water consumption
- Continuous measurement and analysis of operation
- Supporting of optimal operation of facilities

#### Governmental policies to promote ESCO

#### METI (Ministry of Economy, Trade and Industry

April 2007	published "Manual for local governments to introduce ESCO".
April 2010	revision of the energy conservation law and its ordinance.  "large energy consumers must consider the performance contract provided by ESCOs in order to improve energy efficiency."
April 2014	revision of the ordinance of energy conservation law " large energy consumers must consider to introduce services of BEMS aggregators and/or ESCOs to improve load leveling performance."

#### MOE (Ministry of the Environment)

Dec. 2007	law for procurement of environmentally conscious products " Government and public organizations must consider to procure
	ESCO services for their buildings and facilities."

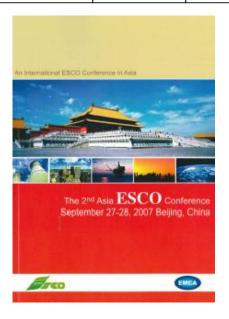
#### MLIT (Ministry of Land, Infrastructure and Transport)

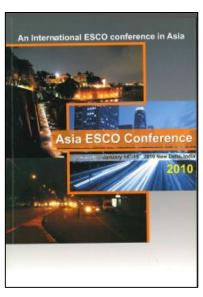
1 revision of manual for public buildings to introduce ESCOs	
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# JAESCO hosted 3 Asia ESCO Conferences

year	venue	р	Subsidy from		
		countries	persons	papers	
Oct., 2005	Bangkok	15	300	52	METI (Japan)
Sep., 2007	Beijing	10	200	41	METI (Japan)
Jan., 2010	New Deli	12	300	40	NEDO (Japan)

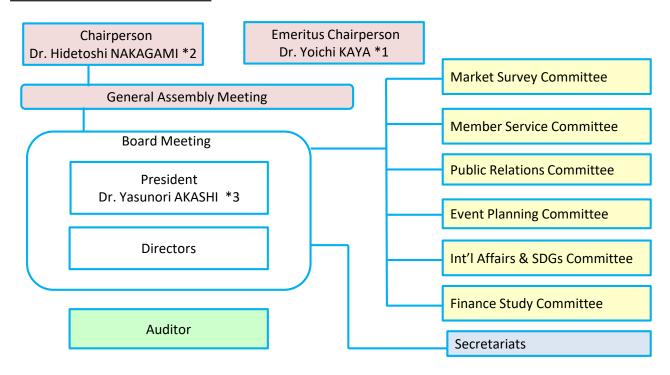






### About the Association

### **Structure of JAESCO**



- \*1: Professor Emeritus of Tokyo University
- \*2: Chairman of Jyukankyo Research Institute (JYURI)
- \*3: Professor of Tokyo University

# **Members of JAESCO**

Regular Members ----- 23 companies
Supporting Members ----- 45 companies
Friends of JAESCO ----- 20 individuals
Special Members ----- as the followings

Dr. Yoichi KAYA (Professor Emeritus of Tokyo University)

Dr. Shuzo MURAKAMI (Professor Emeritus of Tokyo University)

Dr. Takao KASHIWAGI (Professor Emeritus of Tokyo Institute of Technology)

Dr. Yasunori AKASHI (Professor of Tokyo University)

Jyukankyo Research Institute (JYURI)

Daiichi Sogo Legal Office

Development Bank of Japan (DBJ)

Energy Conservation Center of Japan (ECCJ)



# Market Trends of ESCO & Energy Management (EM) in Japan

This survey is conducted annually to understand the current situation of ESCO & EM market. This year, the questionnaire was distributed by email to 65 JAESCO member companies and 98 non-member companies, and responses were received from 87 companies.

Figure-1 shows the sales amount of ESCO & EM in FY2022. The total sales amount is 62 billion Yen, of which ESCO is 49 billion Yen and EM is 12 billion yen.

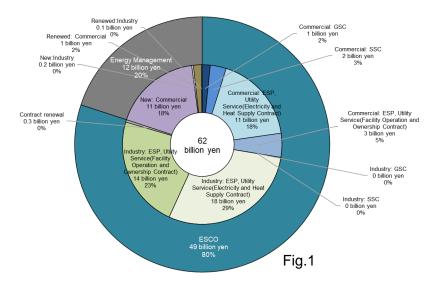


Figure 2 shows the number of contracts for the ESCO & EM businesses in FY2022. The total number of contracts is 1,792, of which 124 are ESCO projects and 1,668 are EM projects.

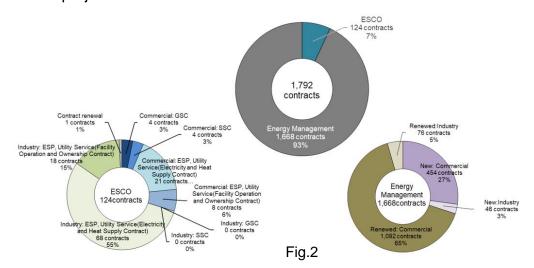


Figure 3 shows the trend of ESCO market since 1998. The data are composed of members of JAESCO as well as some non-members.

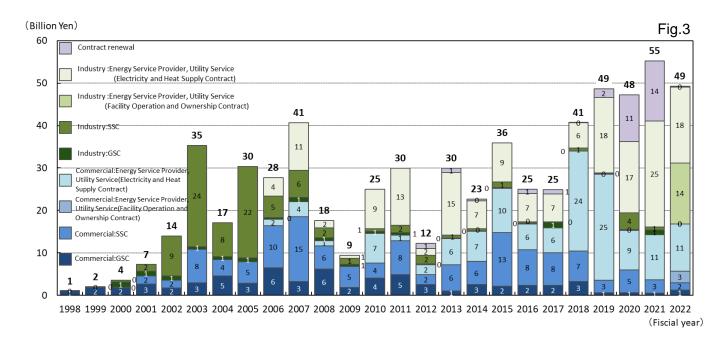
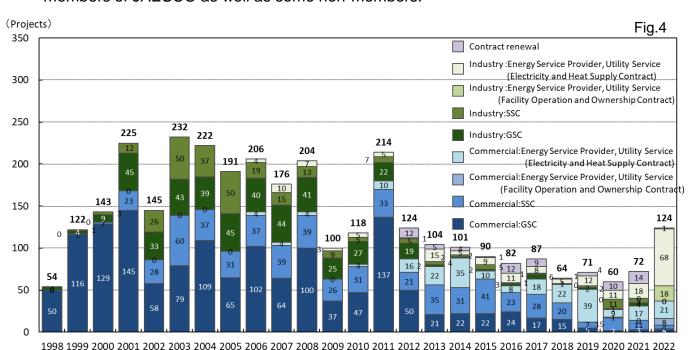


Figure 4 shows the trend of number of ESCO projects. The data are composed of members of JAESCO as well as some non-members.



(Fiscial year)