



**TAIYO**  
ELECTRIC CO., LTD.

# ***Company Profile***

***TAIYO ELECTRIC CO., LTD.***

# ***Established : 1943***



- ***Started manufacturing of **Generator** for **Marine Use**.***
- ***Started manufacturing of **Diesel Gen. Set** and **Co-Gen. System** for **Industrial Use** since 1971.***
- ***Since then,  
**75 years History & Experience.*****

## ***General***

- **Capital : ¥ 480,000,000.- (Approx. US\$ 4.36 mil.)**
- **Employee : 430 ※Part timer : 87, Group company : 280**
- **Annual Turn Over : ¥ 13,640,000,000.- (Approx. US\$ 124 mil.)**

**※October 2017**

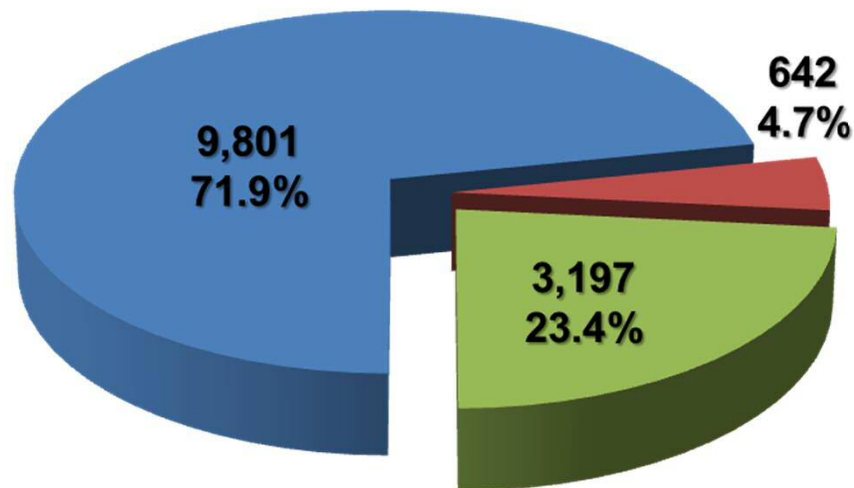
# Business Details



- 2017

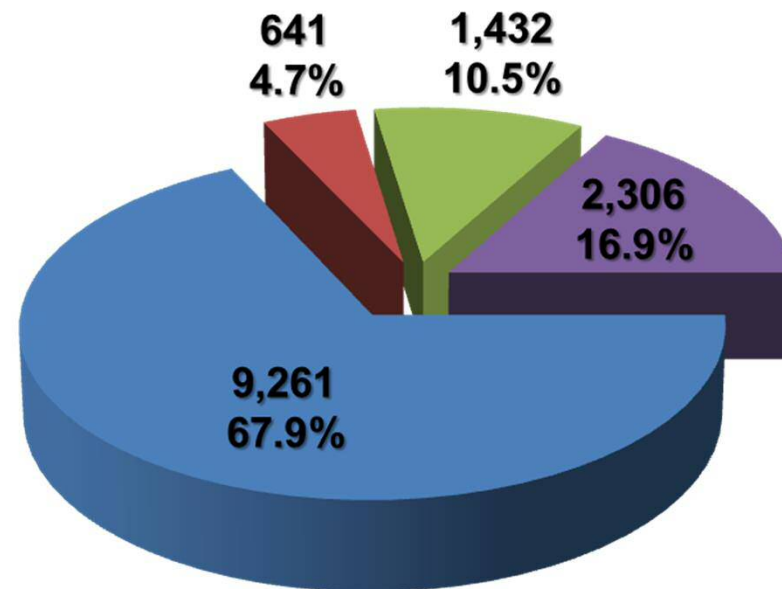
- Unit : Mil. Yen

## Annual Turnover



- Merchant Marine
- Fishery
- Industry

## Production



- Rotating Machinery
- FAN
- Control Equip
- Other

# ***History (1/2)***

- 1917 : Inauguration.
- 1943 : Established as TAIYO Electric Co., Ltd. (capital : ¥1,000,000.-).
- 1944 : Started Gifu factory.
- 1962 : Started Isesaki (Controller) factory.
- 1966 : Gifu factory was certified by JG (1<sup>st</sup> certificate in the trade).
- 1967 : Isesaki (Controller) factory was certified by JG.
- 1968 : Started Gumma (Generating) factory.
- 1970 : Gumma (Generating) factory was certified by JG.
- 1974 : Started Odai Iron Works Co., Ltd. (Taiwan)
- 1976 : Started Gifu Hashima factory.
- 1980 : Started KTE Co., Ltd. (Korea)
- 1982 : Started Mihara sales branch.  
QA of Gifu factory was certified by LRS class society.
- 1984 : Started TAIYO Electronics Co., Ltd.
- 1985 : QA of Gifu factory was certified by ABS class society.
- 1992 : Started System factory in Gumma plants.
- 1993 : Gifu factory acquired ISO-9001 certification (1<sup>st</sup> certificate in the trade).
- 1994 : Exhibited to SEA-JAPAN94.  
Gumma plants & Gifu factory was authorized for NK system.  
QA of Gifu factory was certified by CR class society.
- 1995 : Started Kani factory.

# ***History (2/2)***

- 1996 :** *Started Technical & Administration center of Gumma plants.*
- 1998 :** *Started R&D center of Gifu factory.*
- 1999 :** *Gumma plants acquired **ISO-9001 certification.***
- 2000 :** *Started Administration center & modified Kani factory.*
- 2001 :** *QA of Gumma plants was certified by **LRS class society.***
- 2002 :** *QA of Gumma plants was certified by **CR class society.***  
*QA of Gifu factory was certified by **MSA of DNV class society.***
- 2004 :** *QA of Generating factory (Gumma) was certified by **KR class society.***
- 2005 :** *Modified Controller (Isesaki) factory.*
- 2006 :** *Started Yamatoku factory in Gifu plants.*
- 2009 :** *Gumma plants acquired **ISO-14001 certification.***  
*Gifu factory acquired **ISO-14001 certification.***  
*QA of Gifu factory was certified by **KR class society.***
- 2011 :** ***TAIYO Foundry Co., Ltd. moved to Kagamigahara city.***  
*500kW Diesel G set for electric power supply was installed in Gifu.*
- 2012 :** *M/V AMANOKAWA (LIB electric propulsion ship) got ship of the year 2012.*
- 2013 :** *500kW load test facility was started in Gumma plants.*
- 2015 :** *Started Singapore branch.*
- 2016 :** *390kW Gas G set for electric power supply was installed in Gumma.*
- 2017 :** *TAIYO's website was renewed.*

# ***TAIYO Group***

## ➤ **Domestic**

· ***TAIYO Techno Sales Co., Ltd.***

***Sales of Electric Machinery & Technical services***

· ***Sanshin Senpaku Dengu Co., Ltd.***

***Production & Sales of Electric Apparatus***

· ***TAIYO Denko Co., Ltd.***

***Machining & Winding***

· ***TAIYO Foundry Co., Ltd.***

***Production & Sales of Casting parts***

· ***Hashima Electric Co., Ltd.***

***Machining***

## ➤ **International** · ***KTE Co., Ltd. (Korea)***

***Production & Sales of Electric Panels***



## Network in Japan

**HOKKAIDO Branch**

北海道

**MIHARA Branch**

**SHIMONOSEKI Branch**

島根

広島

鳥取

岡山

香川

徳島

愛媛

高知

和歌山

兵庫

京都

大阪

奈良

三重

岐阜

愛知

静岡

長野

山梨

埼玉

群馬

栃木

福島

山形

秋田

岩手

青森

**TOKYO Head Office**

東京

神奈川

千葉

### GIFU Plants

- Gifu Factory
- Gifu Hashima Factory
- Kani Factory

### GUMMA Plants

- Generating No.1 Factory
- Generating No.2 Factory
- Controller Factory



# ***Gifu Plants***

***Gifu Factory*** : Large Capacity Generator, Motor & System Products



***Kani Factory*** :  
Small Generator Set &  
Winding of Marine Generator



***Gifu Hashima Factory*** : Ventilation Fan





# ***Gumma Plants***

***Generating No.1 Factory*** : Small Capacity Generator & Motor



***Generating No.2 Factory*** :  
Diesel Generator Set ,  
Medium Capacity Generator & Motor



***Controller Factory*** : Switchboard & Console



# ***Marine Products***



## **Electric Equipments**

- 1. Generator***
- 2. Motor***
- 3. Switchboard (MSB)***
- 4. Control Console (ECC)***
- 5. Fan***

## **System Products**

- 1. Various Motor Speed Control System (VVVF)***
- 2. Various Power Generating System (Thyristor or PWM)***
- 3. Power Management System (PMS)  
& Alarm Monitoring System (AMS)***



## *Eco Gen System*

**PMS** - Power Management System &  
**AMS** - Alarm Monitoring System

### **MSB & GSP**



### **ECC & CCC**



### **PWM** - Power Supply System

#### **SG**



#### **DG**



## *Energy Saving*

### **VVVF** - Speed Control System



#### **FAN**



#### **MOTOR**



#### **THRUSTOR**

# **TOTAL SUPPLIER**



# **Complex Energy Saving**



**Reference1: JMU sno.186 - 209,000dwt BC (1/8)**

**Energy Saving**

**Eco Gen System**

**Generating System :**  
**3pcs DG (700kVA)**  
**1pc TG (600kW)**  
**1pc TCG (480kW)**  
**1pc SM (425kW)**

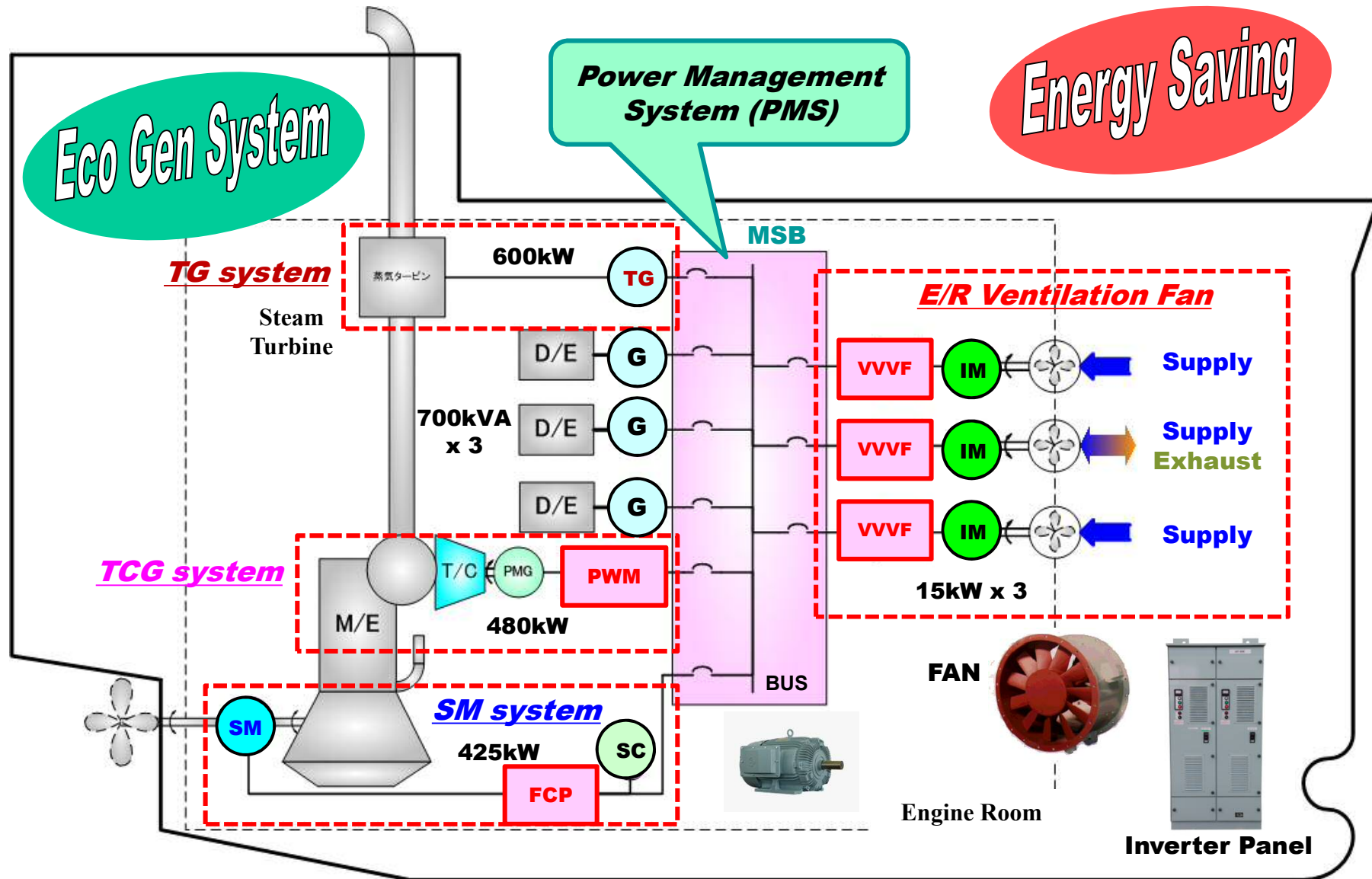
**K Line : M/V CAPE GREEN**

**【 Energy Saving Effect 】**

**Reduce FO consumption *Approx. 20% (in total)***

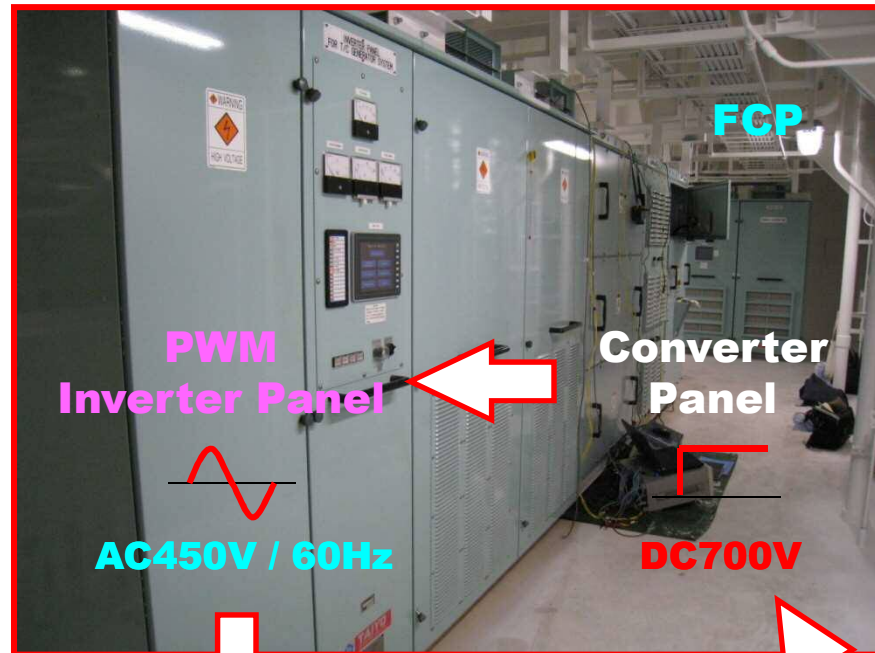
# Complex Energy Saving

**Reference1: JMU sno.186 - 209,000dwt BC (2/8)**



# Complex Energy Saving

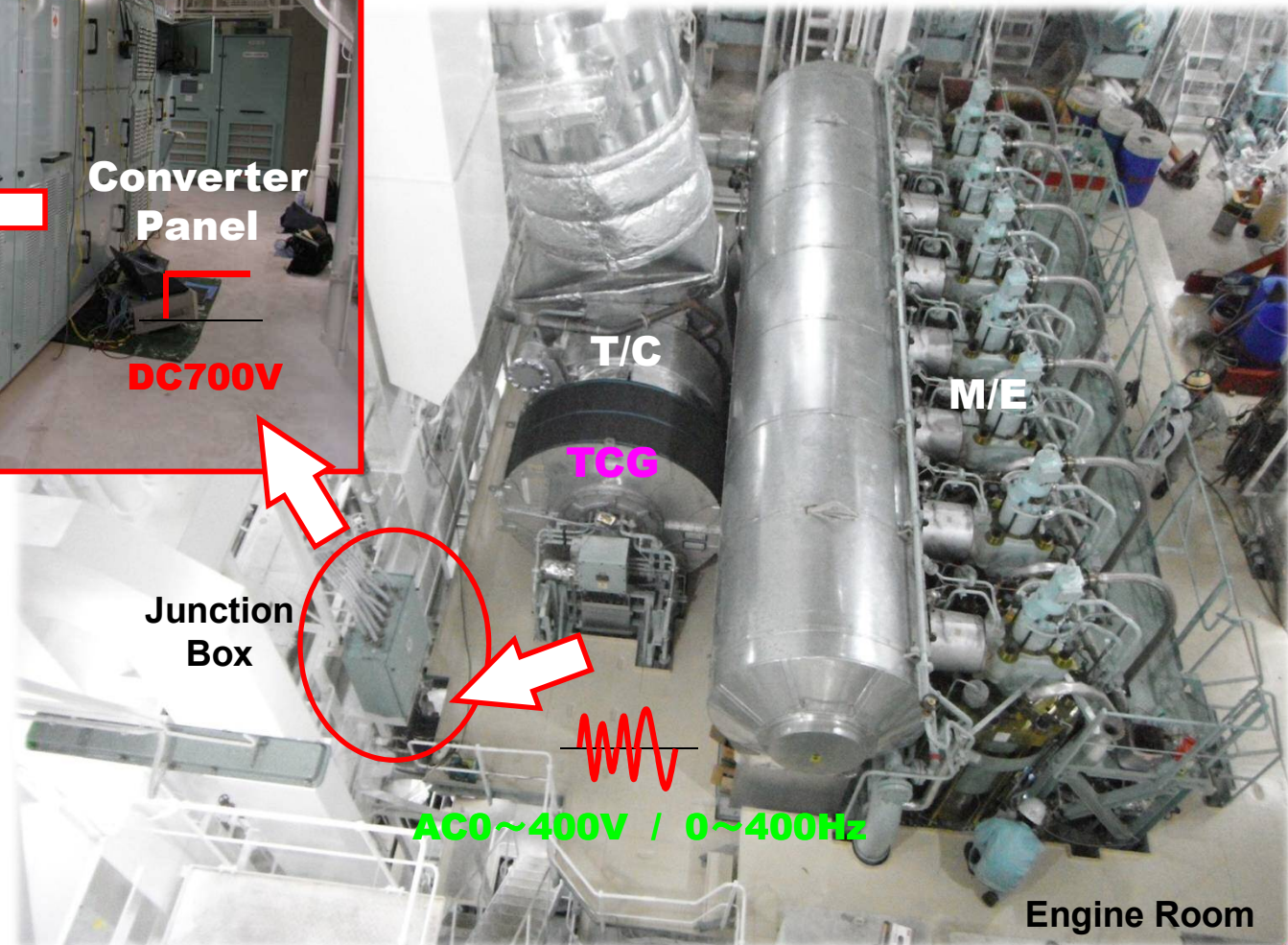
Reference1: JMU sno.186 - 209,000dwt BC (3/8)



to MSB

*Eco Gen System*

TCG system (480kW)





# **Complex Energy Saving**



**Reference1: JMU sno.186 - 209,000dwt BC (4/8)**

**SM system**

**425kW SGM**

**Energy Saving**



# **Complex Energy Saving**



**Reference1: JMU sno.186 - 209,000dwt BC (5/8)**



**DG system (700kVA)**

**3pcs Diesel**

**Eco Gen System**

**TG system (600kW)**

**Steam Turbine**

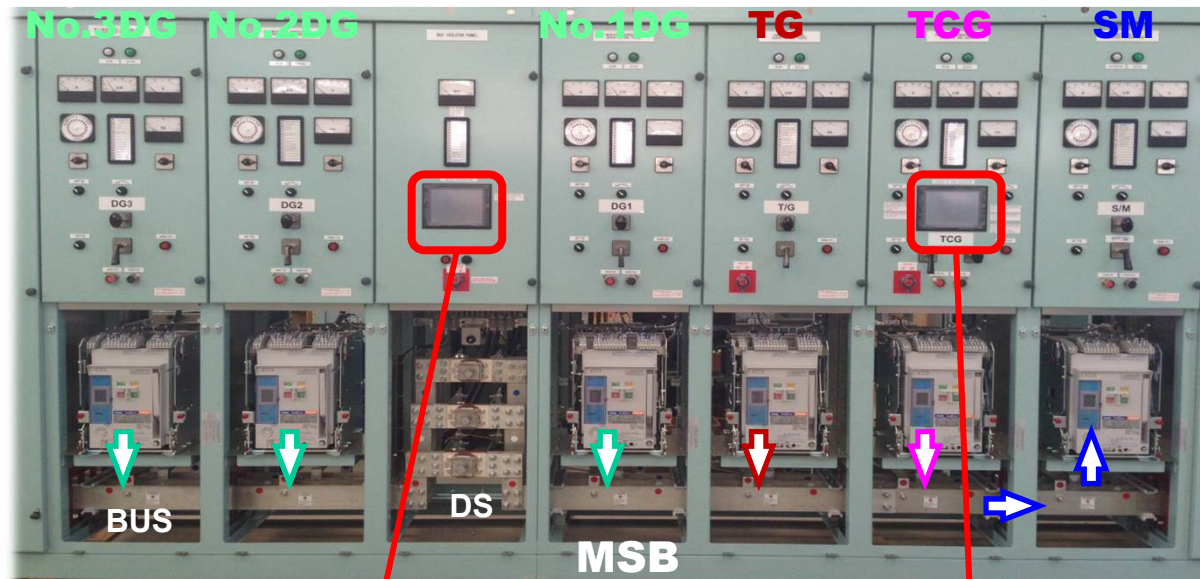


**Generator  
Steam Turbine**



# Complex Energy Saving

**Reference1: JMU sno.186 - 209,000dwt BC (6/8)**



## Power Management System (PMS)

### TCG

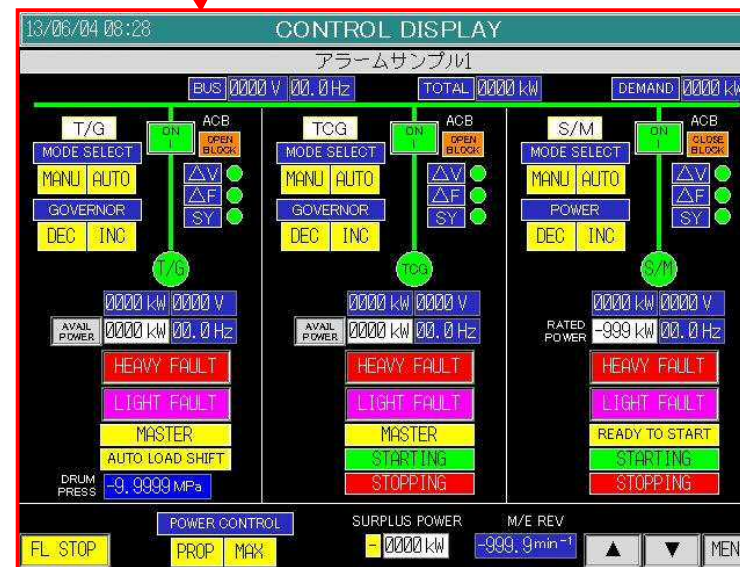
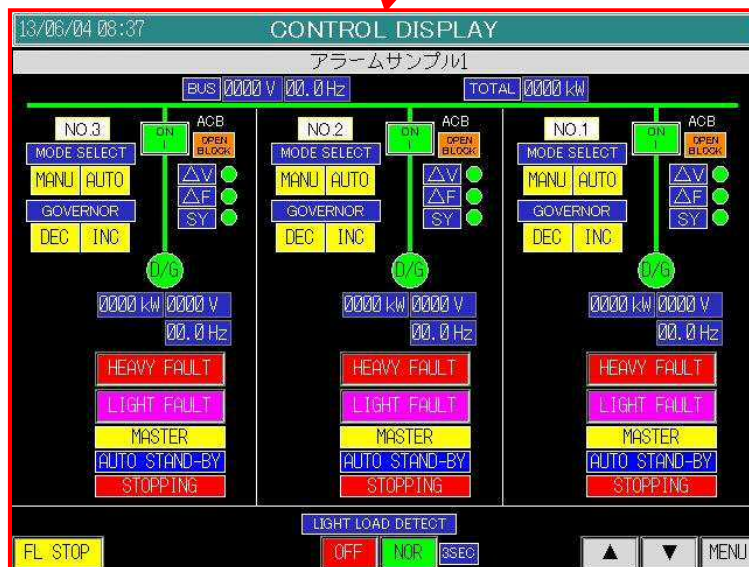
- Calculated Gen ability power based on M/E load

### TG

- Calculated Gen ability power based on steam press

### SM

- Para run condition of TCG & T/G
- Supplied surplus power from TCG & T/G



## LCD Monitor

for Gen. Control  
(Example)

# ***Industrial Products***



## ***Electric Equipment***

- 1. High Voltage Generator***  
***AC3,300V、6,600V、11,000V、13,800V class***
- 2. Low Voltage Generator***  
***AC200V、400V class***
- 3. Various Switchboard & Control Panel***

## ***System Products***

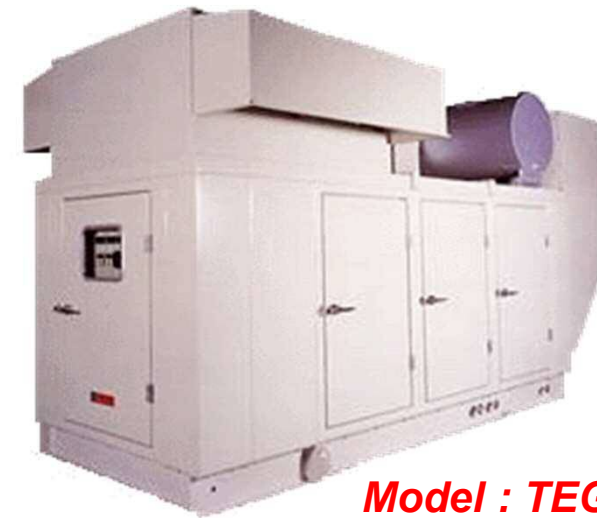
- 1. Gas Engine Co-Generation System***
- 2. Diesel Engine Co-Generation System***
- 3. MG Set for Shower Power Supply System***
- 4. Diesel Engine Generator Set for Transfer Crane***
- 5. Small Generator Set***



# System Products (2/5)

## ➤ Diesel Engine Co-Generation System

### Parallel Running System (DG 15sets)



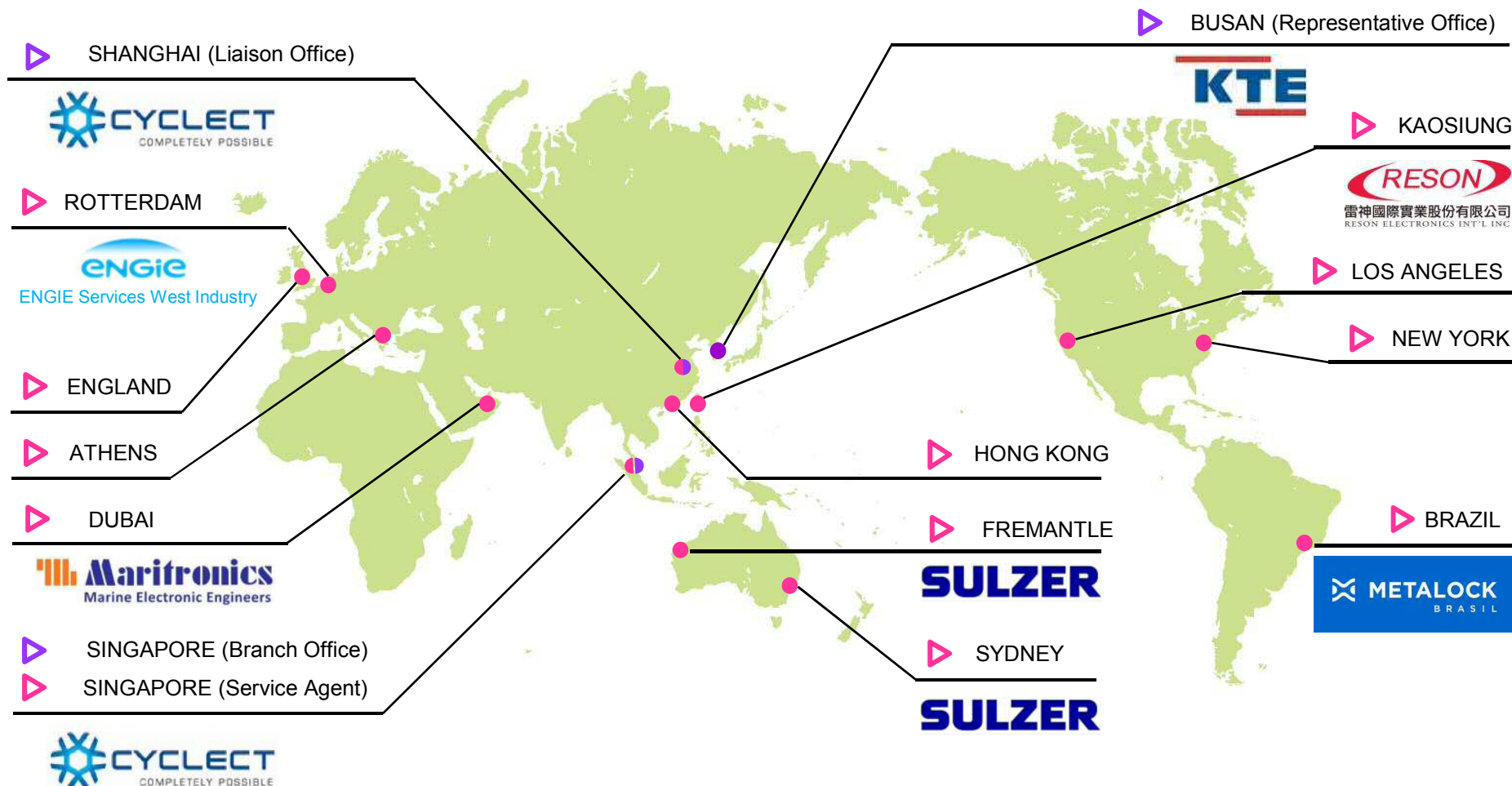
Energy Saving

Eco Gen System



## 5. Service Network

### World-Wide Service Network



 **TAIYO** Branch, Representative or Liaison Office  
 **TAIYO** Service Agent





**TAIYO**  
ELECTRIC CO.,LTD.

# ***TAIYO***

## ***ELECTRIC CO., LTD.***

# ***END***

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**URL : <http://www.taiyo-electric.co.jp>**