

Installation Co-generation system 7.8 MW for increasing energy usage efficiency of manufacturing

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Agenda

1.Company profile

2. Company environment management

- 3. Company energy management
- 4.JCM Project background
- 5.Introduction of Co-generation 7.8 MW system
- 6.Environment report study for work permit
- 7.Exsiting electric system upgrade for work permit
- 8.Co-generation operation result

9.Q/A



1.Company profile

SIAM DENSO MANUFACTURNING CO., LTD (SDM)

- Company Name: Siam DENSO Manufacturing .Co,LtdEstablishment: February 8, 2002Employee: 3,943 people (as of Mar 2019)
- Address : Amata City I.E.Chonburi,Thailand 700/618 M.4 T.Bankao A.Panthong Chonburi 20160

Powertrain group / Common rail system





Siam DENSO produce high pressure injector each diesel and gasoline which are Eco friendly

2.Company environment management

RESPONSIBLE CONSUMPTION

Safety production

AND PRODUCTION

The Environment Goals : To reduce environment impact, achieve highly efficient mobility and thereby help create an Eco-friendly and sustainable society

- Prevention of global warming
- Prevention of air pollution

SUSTAINABLE CITIE

Pollution prevention

- Effective utilization of resources
- Conservation of water resources



Water conservation



Global warming

Renewable energy

Drainage management

FFORDARLE AND



Tree planting

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

ECO VISION 2025

What we can do to preserve the planet.



2.Company environment management [Eco-Vision 2025]



3.Company energy management



4.JCM Project background

Project approach

Euro co-generation plant

Installed plant Total = 2 plant

Installed capacity Total = 4 MW

Installed year = 2013-2014

DENSO Co-generation system

Japan co-generation plant Installed year = 1997-2016 Installed plant Total = 13 plant Installed capacity Total = 112 MW

Thailand (SDM plant)

Asia co-generation plant Thailand (Capacity 7.8 MW), 2018 Year Indonesia (Capacity 2 MW), 2019 Year

We have success of CO₂ reduction from Japan plant and extend result to oversea plant

5.Introduction Co-generation 7.8 MW system

7/11

5.Introduction Co-generation 7.8 MW system

6.Environment report study for work permit

Items	Government concern	Request	Activity support	Period
1	Industrial Estate Authority of Thailand (IEAT)	NOx < 0.171 kg/Rai/day (at stack high 30 m.) NOx control < 18 ppm.	 1.Select high efficiency gas engine type *Kawasaki model KG-18 *NOx < 57 ppm. 2.Design Selective Catalytic Reduction (SCR) to reduce NOx <15 ppm. 	Mar'17-Apr'17 (2 month)
2	Industrial Estate Authority of Thailand	Initial Environment Examination Report (IEE) for Co-generation system (All equipment system)		May'17-Aug'17 (4 month)
	Evaluate and Preparation Plan during 1.Preparation construction period -Design base on law -Public relation meeting		Image: Star and S	Public meeting
	 2.During construction period Transportation control Air pollution, sound con Waste management Public health and safety 	eriod trol trol control od	a ukula uanguxikee project to public	
	-Social and public relatio -Public health and safety -Maintenance control -1/6 Month IEE follow up	n control	Public discussion meetin	g

7.Exsiting electric system upgrade for work permit

DENSO Crafting the Core