

**Malaysia Green Procurement Seminar**

**Green Purchasing Activities of  
Osaka Gas**

**March 25, 2008**

**Osaka Gas Co., Ltd.**

**Shoji Morino**



# 1. Corporate Profile

## Key facts

Osaka Gas , Relationships with Malaysia

# 2. Green Purchasing Activities

## Outline

Green Purchasing Activities in City Gas Business

## Guidelines

Green Purchasing Guidelines and Company Manuals

## Program1

Green Partner Initiative

## Program2

Osaka Gas EA21(EMS) School

## Program3

Osaka Gas EMS

## Case 1

Recycle of Excavated Soil

## Case 2

Natural Gas Vehicles

## Case 3

FSC Certified Paper & Osaka Gas Recycled Paper

# 3. Conclusion

## Summary

History , Recognition and Future plans

## Key facts

# Osaka Gas

- Operation start: **1905**
- No. of customers: **7 million customers**  
(30% of the total gas market in Japan)
- LNG purchase: **7 million tons**
- Revenue: **US\$ 10 billion**  
(consolidated basis, FY ended March 2007)

## Natural Gas Value Chain



**LNG  
Procurement/  
Ship-transportation**



**LNG  
Receiving  
Regasification**



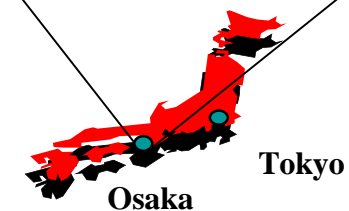
**Transmission/  
Distribution**



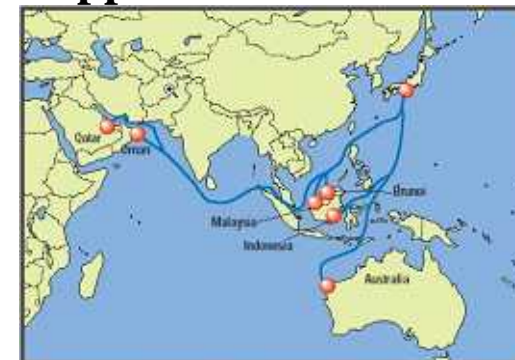
**Marketing/  
Services**

**LNG : Liquefied Natural Gas**

## Service area in Kansai region



## Suppliers to Osaka Gas



## Key facts

# Osaka Gas' Relationships with Malaysia

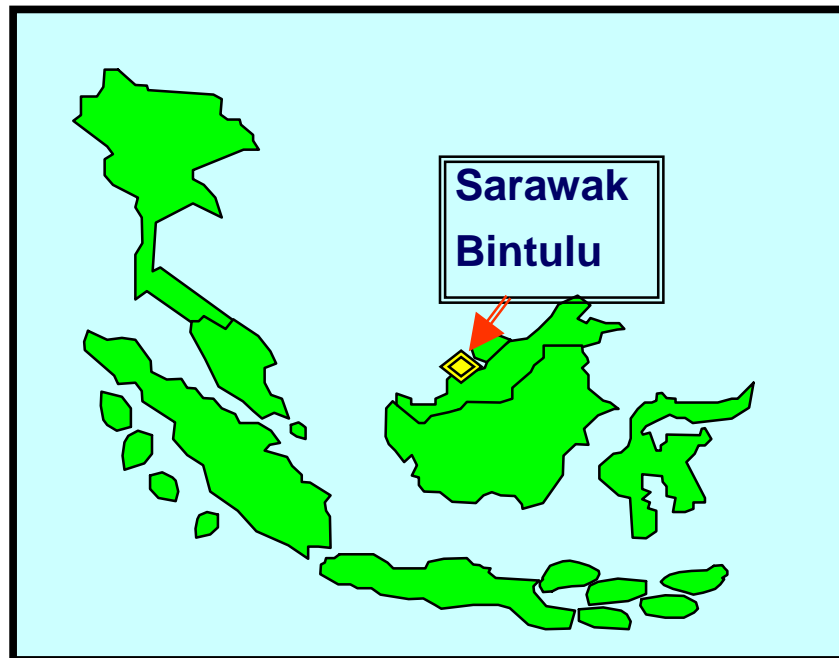
## 1. Import LNG from Malaysia

Partner: Malaysia LNG Sdm.Bhd.

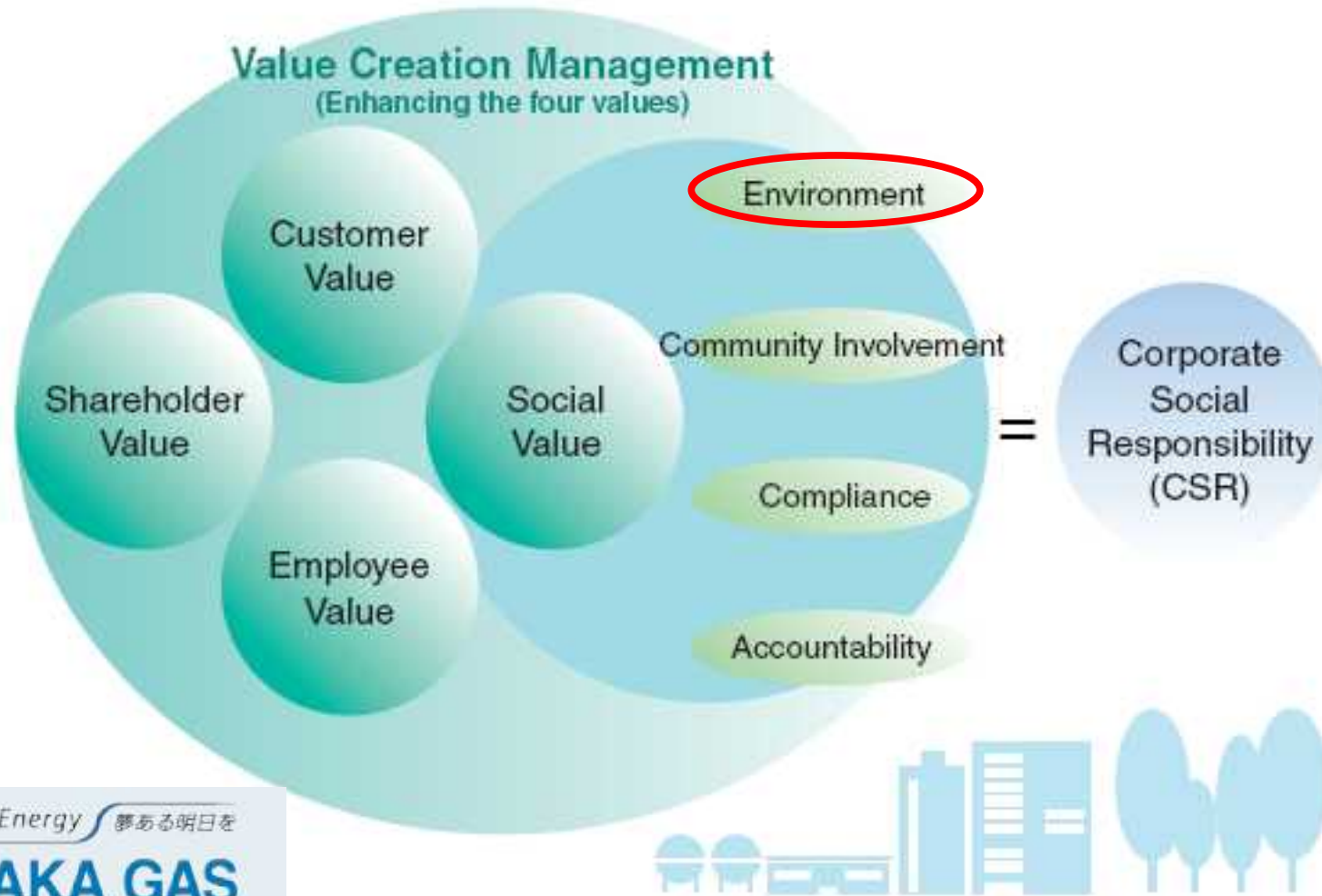
Volume: 0.7 million ton per year(2006)      max 1.7 million ton per year(2009-)

## 2. Procurement of pipe materials (2001-)

## 3. Grant programs



Environment is the most important factor in social value creation.



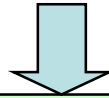
Design Your Energy 夢ある明日を

OSAKA GAS

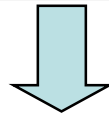


**Guidelines** Green Purchasing Guidelines and Company Manuals

Osaka Gas Group Environmental Activities Philosophy



Osaka Gas Group Environmental Activities Policy



Eco-friendly purchasing

Green Purchasing Guidelines established in 2000  
for 1200 suppliers

[http://www.osakagas.co.jp/purchase/us/green\\_e.html](http://www.osakagas.co.jp/purchase/us/green_e.html)



compliance enforced

Guidelines revised , incorporated into company manuals in 2005

Supplier Meetings (including explanation of green purchasing)

Three programs for suppliers' EMS certification

- (1) Green Partner Initiative for pipe materials suppliers
- (2) Osaka Gas EA21(EMS) School for smaller suppliers
- (3) OG-EMS for suppliers of Osaka Gas Group

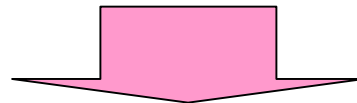


**Program 1 Green Partner Initiative - for pipe material suppliers -**

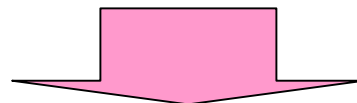
**Evaluating 40 major suppliers' environmental efforts  
(EMS acquisition, manufacturing of eco-products)**



**March 2005**                      **Surveys, Hearings**  
**As of November 2007**      **Registration (17 suppliers)**



**By March 2008 (target date) 20 suppliers to be registered**



**After April 2008 Purchasing priority to EMS suppliers**

## Program 2 Osaka Gas EA21 School - for smaller suppliers -

### Eco Action 21

simplified EMS for smaller companies in Japan

“Partner Companies Greening Program” by government  
for promotion of Eco Action 21

March 2006 The program was launched **by government**.

June 2006 Osaka Gas applied for the program with its suppliers.

July 2006 Authorized as **one of the 3** model companies

2006-07 Osaka Gas EA21 School



15 suppliers got EA21 and the remaining 5 to be certified shortly

## Program 3 Osaka Gas EMS - for suppliers of Osaka Gas Group

### Osaka Gas EMS

simplified EMS granted by Osaka Gas for group suppliers

### Four Requirements

1.CO2 reduction

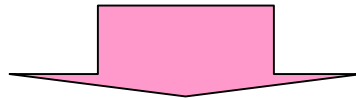
2.copy paper reduction

3.waste management

4.green purchasing

March 2005 Osaka Gas EMS established

Dec. 2005 Initial registration



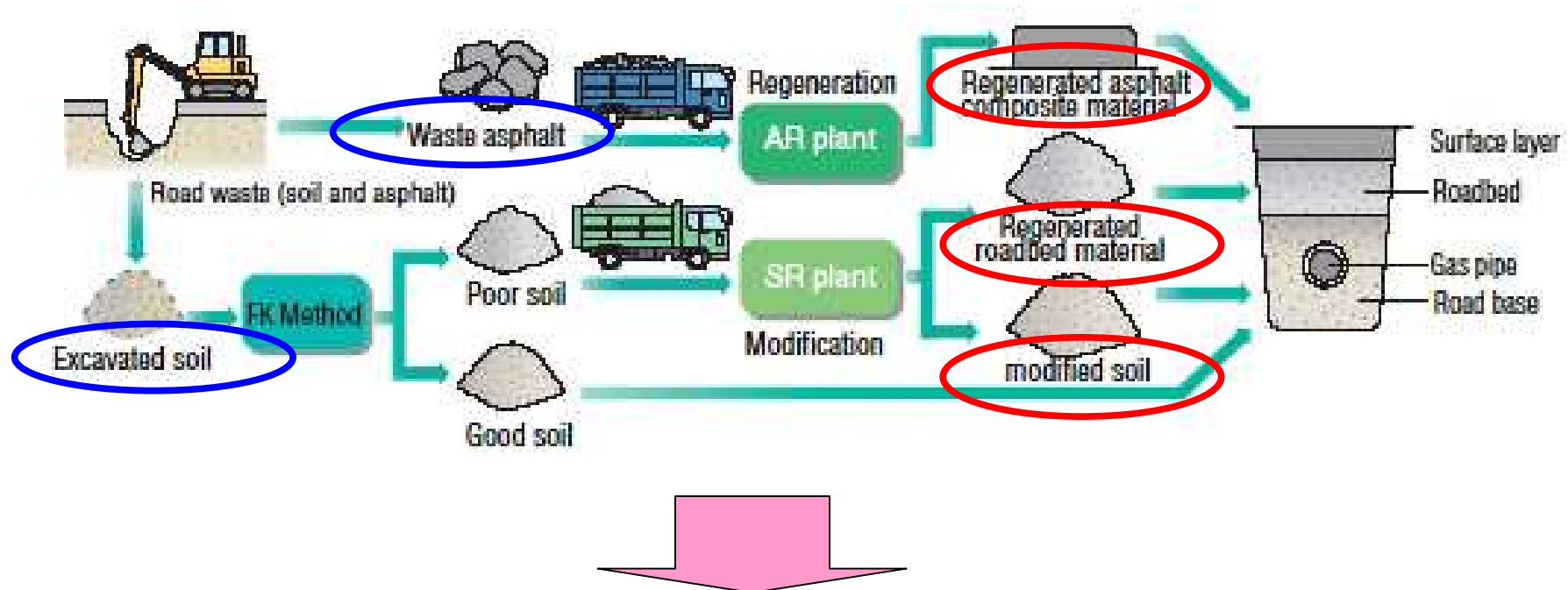
At present 15 suppliers certified



## Case 1 Recycle of Excavated Soil

### Comprehensive Road Waste Recycling System

This plant separates wastes from pipe installation work into **waste asphalt** and **excavated soil**, reusing the waste asphalt as **regenerated asphalt** and the excavated soil as either **regenerated roadbed material** or **modified soil**.



The recycling rate has reached **82%**

## Case 2 Natural Gas Vehicles

### Green Vehicles

#### Promotion within the Company and suppliers:

##### (1) Osaka Gas's vehicles

- 71% are NGVs (Sept. 2007)
- Plan to replace all vehicles with NGVs by **March 2011**

##### (2) Suppliers' vehicles

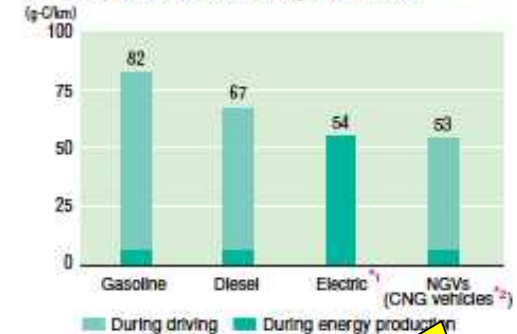
Ask suppliers to replace their vehicles to visit our offices with NGVs and other low-emission vehicles

#### Promotion outside of the Company

(as of Dec.2007)	No. of NGVs	NG Stations
Kansai area	8,706 (26%)	72 (22%)
Nationwide	33,359	324

#### CO<sub>2</sub> emission

(Compared with a vehicle total weight of 1.5 tons)



35% lower than that of gasoline-powered vehicles



NGV

### Case 3

## FSC Certified Paper & Osaka Gas Recycled Paper

### Introduction of FSC certified paper

#### FSC ( Forest Stewardship Council )

Papers originated from properly managed forests under very strict standards considering the entire aspects of **environmental**, **social** and **economic** situations.

2007 Copying paper

Printed matters (CSR Report, calendar etc.)



### Expanded use of Osaka Gas Recycled Paper

#### OSAKA GAS RECYCLED PAPER

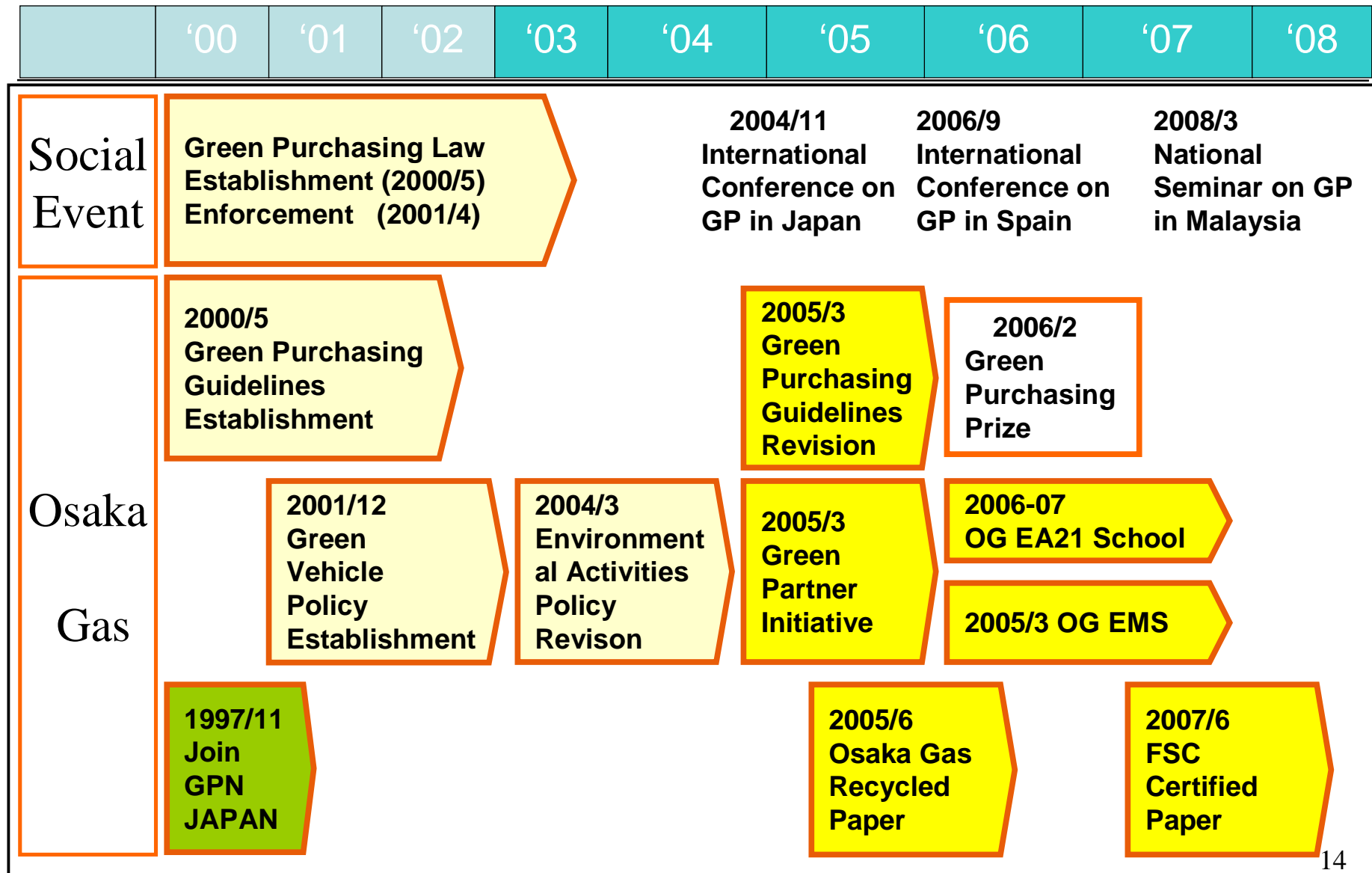
Recycled use of internally used papers in Osaka Gas

2005- Gas appliance catalogues, in-house journals etc.



## Summary

# History of Osaka Gas' Green Purchasing Activities





## Summary Recognition for Green Purchasing by Osaka Gas

Environmental Management Survey” by the Nikkei Newspaper

### 5 Evaluation items

- 1.administration/objectives
- 2.contamination measures
- 3.waste recycling
- 4.global warming countermeasures
- 5.office activities (including green purchasing activities)

### Result

Among top 3 of electricity and gas utilities in Japan  
In 2006, No.1

## **Summary** Future Plans

While encouraging all our suppliers to manufacture and provide eco-friendly products and obtain EMS certification, Osaka Gas intend to draw up and provide new support programs

Further expanding green purchasing through the entire supplier chain

**Communication with Green Purchasing counterparts gives us a lot of new idea.**

Thank You for Your Kind Attention!



**Tenaga Empat**