

# Are You **E**co-Active

**Roger!**

(But how and what exact profit for us..?)



(oh...All thriving companies are engaged in it....)

**Let's taking Action for a Greener Tomorrow!**

?!

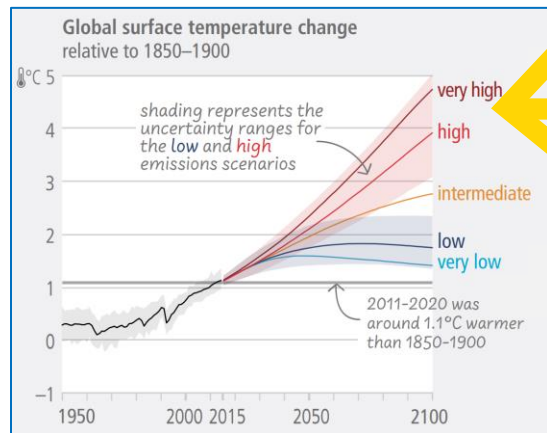


**TPGLao**  
TSB Power Generation

**Proposal for Clean Solution and Value** is on following

# Environmental Crisis

Need stop CO2 emit  
power supply

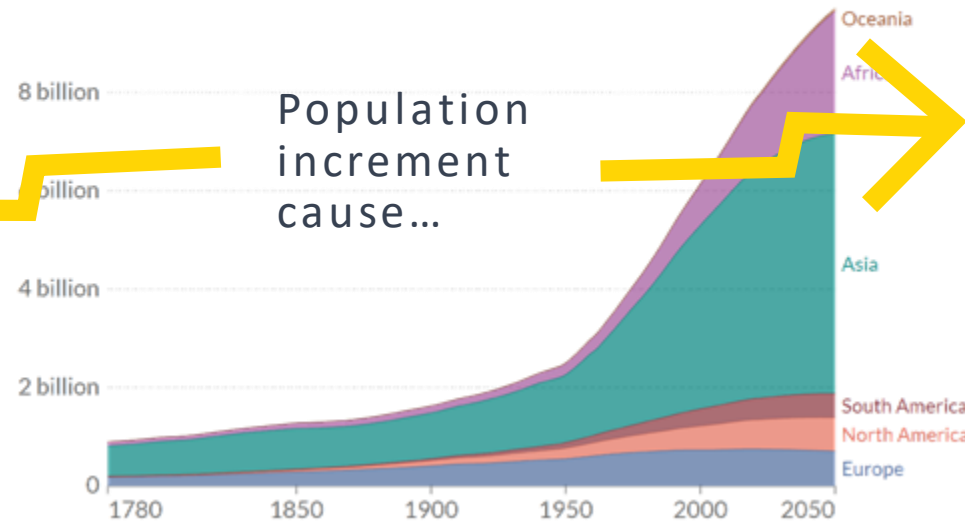


## Population by world region

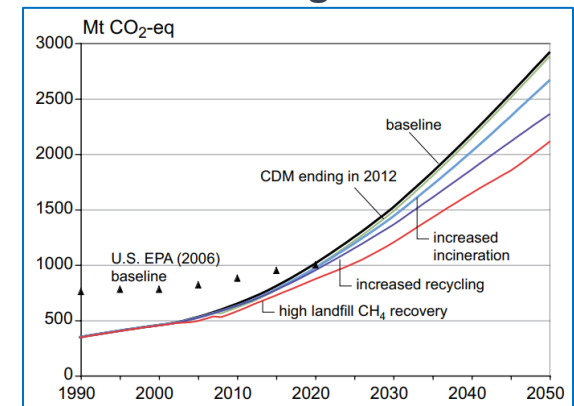
Historic estimates with future projections based on the UN medium-fertility scenario.

Our World in Data

All together ☐ Relative



Need appropriate  
waste management



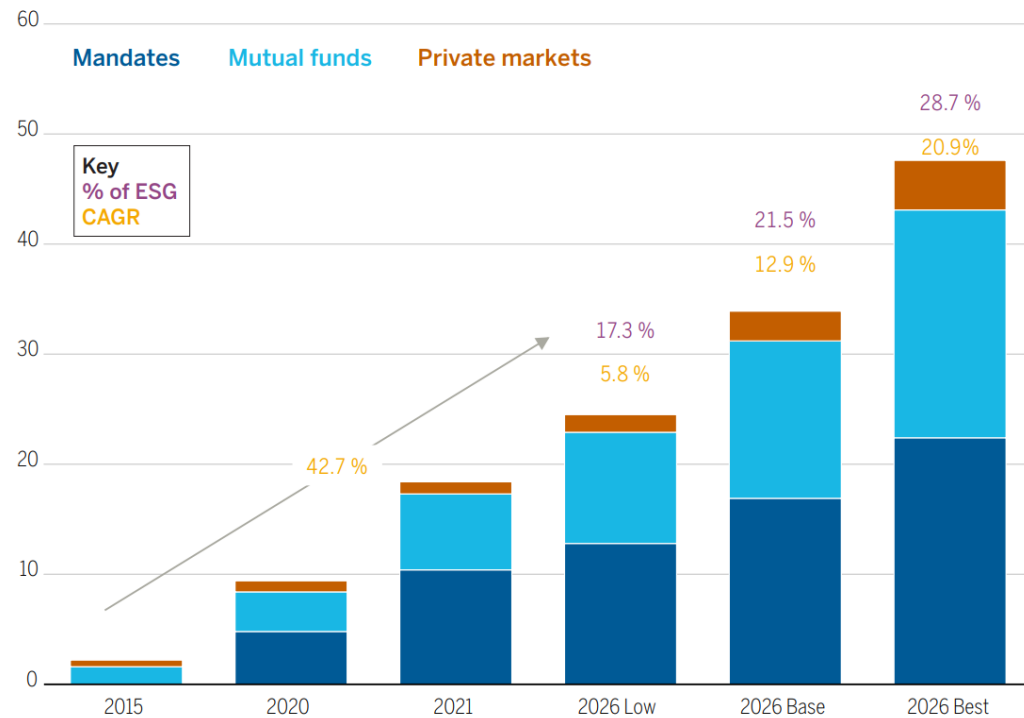
Action towards environmental measures is urgently needed. Especially in Southeast Asian countries where population growth is significant and individual electricity consumption is increasing, there is an urgent need for environmentally-friendly power supply and energy-saving facilities.

Meanwhile, it is not enough to simply promote products that are already used in advanced countries. Understanding the local conditions and providing products that can be used effectively in the region are essential.

## FACT that :

**Companies implementing environmental measures are growing,  
While those indifferent to environmental concerns are declining.**

**Global ESG AUM (US\$ trillion)**



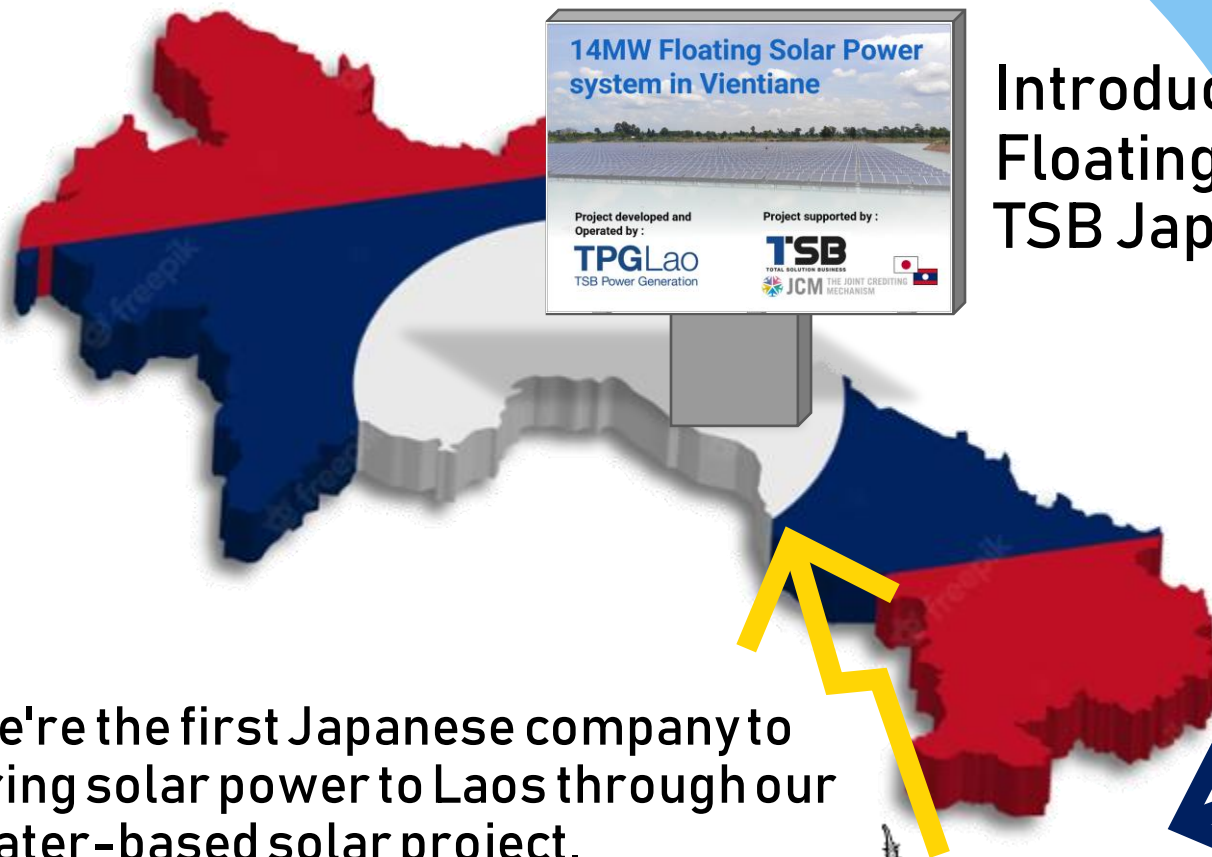
Source: PwC Global ESG and AWM Market Research Centre analysis

For example,  
Walmart, the giant super market in US,  
Due to the sharp increase in hurricanes,  
they suffered damages worth 22Million USD,  
impacting 100,000 customers, stores, and  
employees.

As a major corporation, Walmart took the lead  
in initiating environmental protection efforts.  
In 2005, they declared their commitment to  
using 100% clean energy by 2050.

As a result, they managed to reduce 650,000  
tons of carbon dioxide and save energy costs  
of over 1billion USD within 10years.

# •WHO is TPG?



Introducing a Pioneering on Water Floating Solar Power generation from TSB Japan to Laos via Thailand!



Technical support

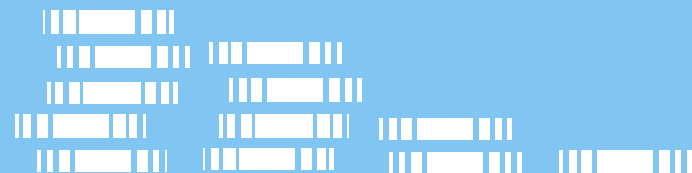
Challenge into ASEAN countries!

We're the first Japanese company to bring solar power to Laos through our water-based solar project.

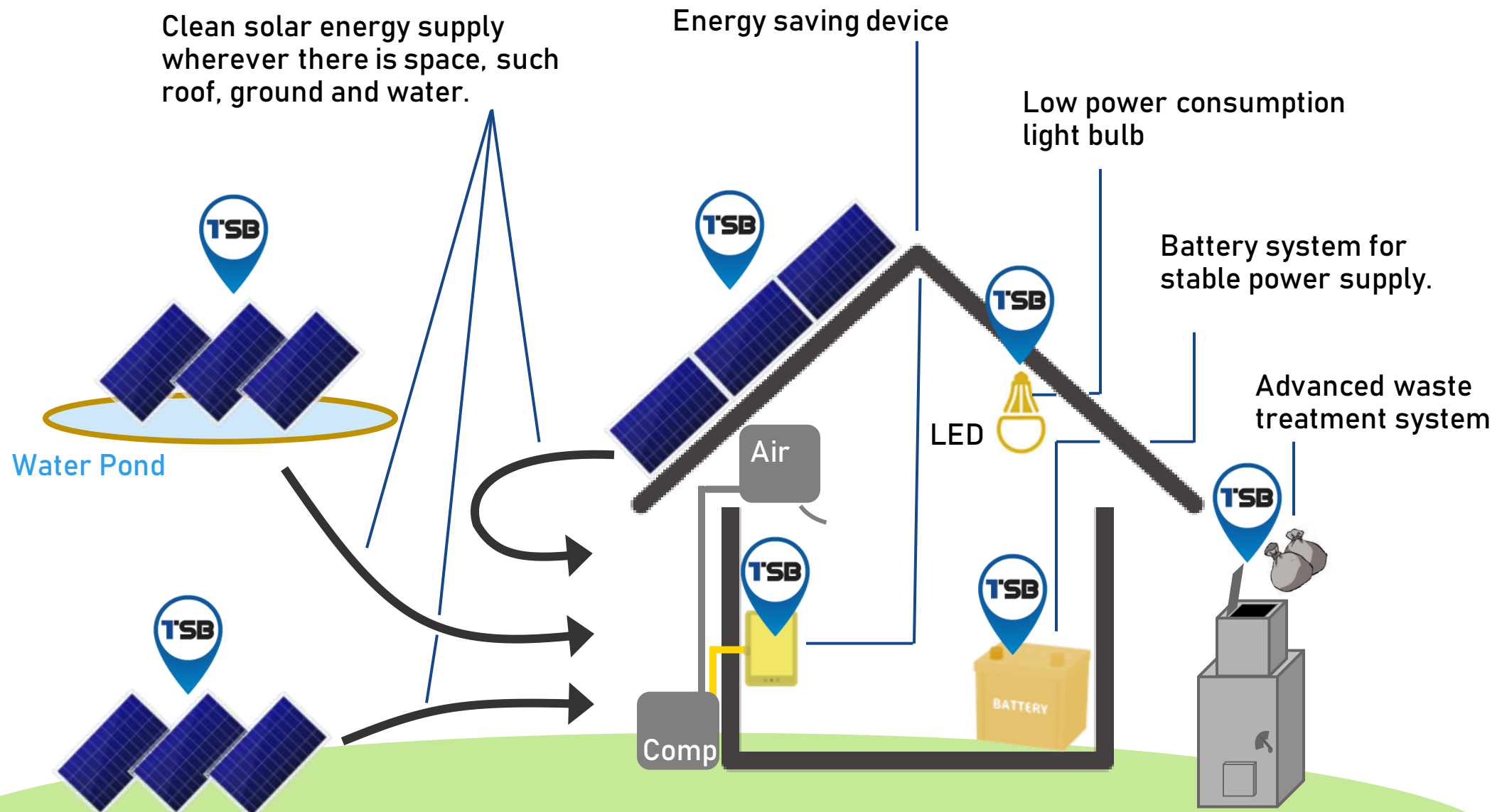
TPG stands for **T**SB **P**ower **G**eneration, and utilizing our cutting edge clean power solution, we are expanding more and further cleaner solution in Lao.



Solar power team at TSB Bangkok.



# Clean Proposal examples from TSB





# TSB Proposal – 1

## PV Power Generation Anywhere

We have expanded PV power supply business widely,  
With a motto of local production for local consumption

### • On the **Roof**

7 site in Japan,  
such on the warehouse,  
factory and public structure



### • On the **Ground**

2 site in Japan,  
both screw piping and  
block weight stand.



### • On the **Water**

1 site each in Thailand and Lao.  
Floating PV system is relatively new,  
and challenging.  
However, there is enormous advantage,  
such higher output efficiency, land utilization  
and water saving.



# TSB Proposal – 2

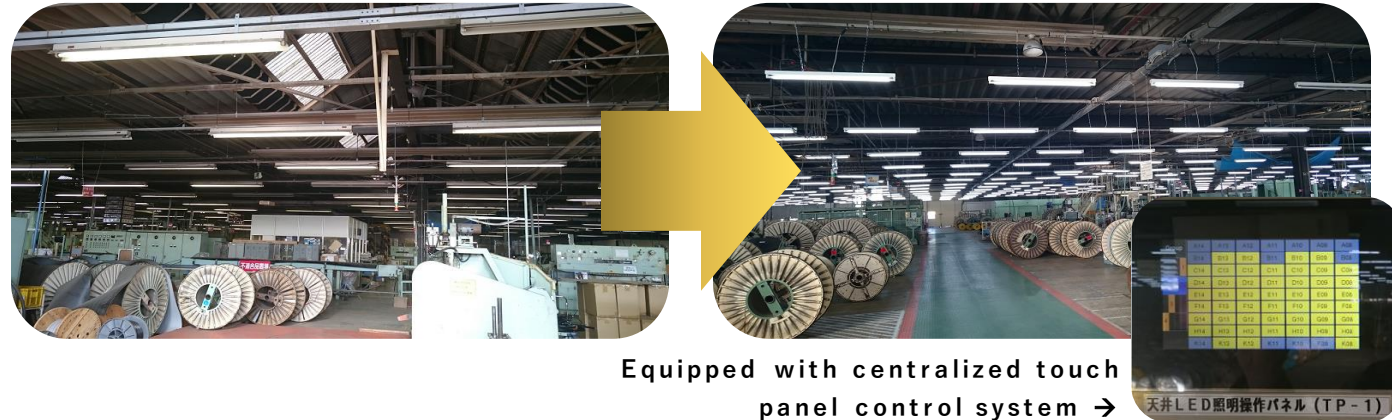
## Effective Power use

PV power is good resource but not perfect.

We propose less power consumption device and power storage device.

### • LED lightning

TSB's proposing high efficiency LED lightning supporting factory in Japan



Equipped with centralized touch panel control system →

天井LED照明操作パネル (TP-1)

### • Energy Saving device

Introducing IoT to Air conditioning system for less power use and monitoring.



Demand control system monitor Air-conditioning system, refrigerator and freezer to control compressor movement without impacting actual atmosphere temperature, which enables power consumption saving 15%~20%. The monitoring system also visualize CO2 emission. This system is widely used more than 5,000set in Japan. This service is available with zero investment.

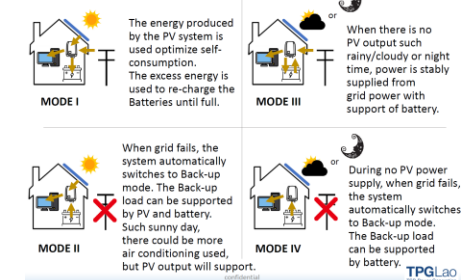
### • Power storage



Installation of Battery system to support power during electricity shut down.

By building system together with Photovoltaic power, it enable continuous work operation at job site.

#### System Running mode





# TSB Proposal – 3

## Alternative proposal

TSB's Eco-solution division born for saving future living.

TSB's origin is THINK at customer perspective.

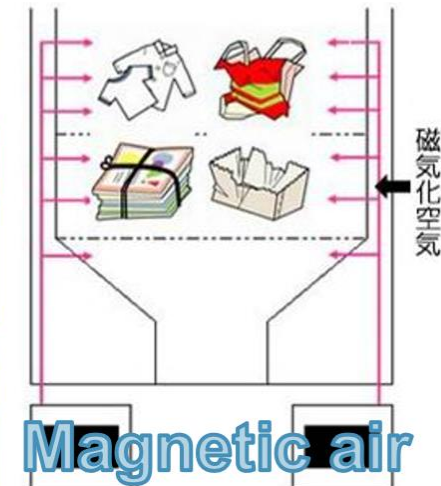
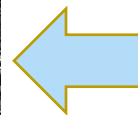
Our proposal is expanding at infinity.

### • Waste management

Any  
Waste



and



Size  
Weight

: W1,800(W) × 1,800(D) × 3,200(H)

: 1,500kg

### Treatment Capacity

Capacity : ~ 2,000kg / day

or ~ 465bags (around 5m<sup>3</sup>) / day

Reduction : 2t → 10kg / day

Amount reducing to approx. 1/300.

Every waste material could be dump in the machine, and the machine decompose molecular bonds.

Eventually, all organic waste change to ash.

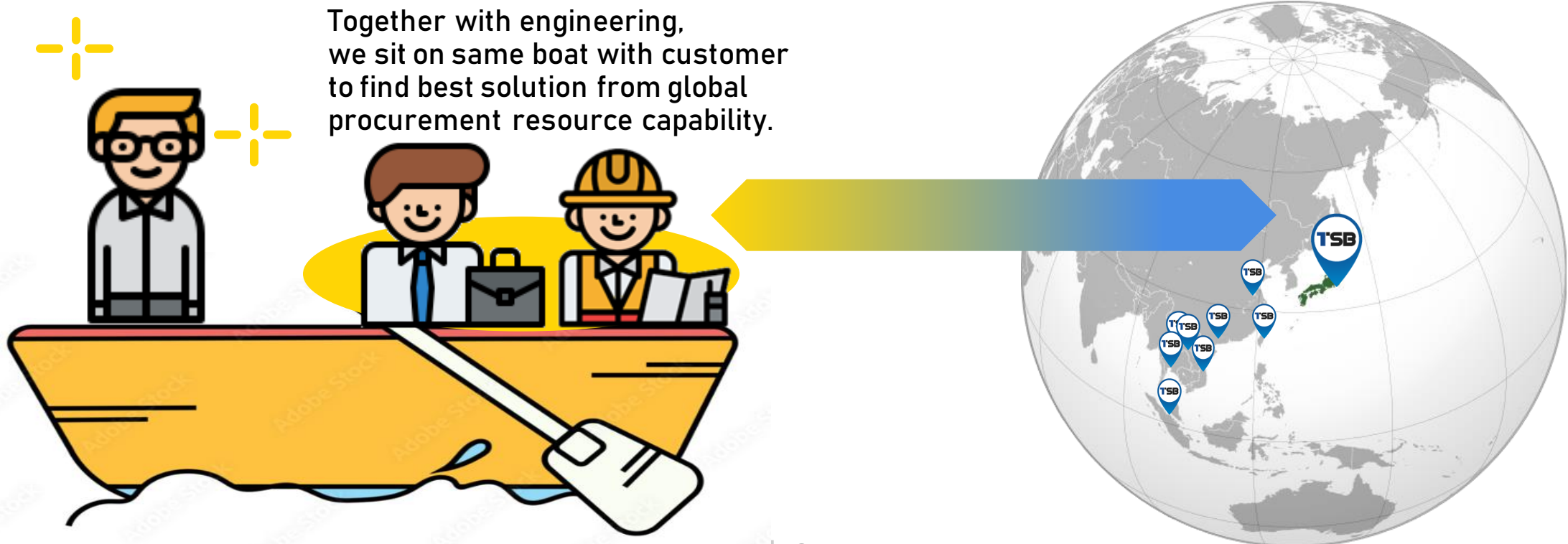
Non organic iron and glass will be left as it is, and could be recycle.



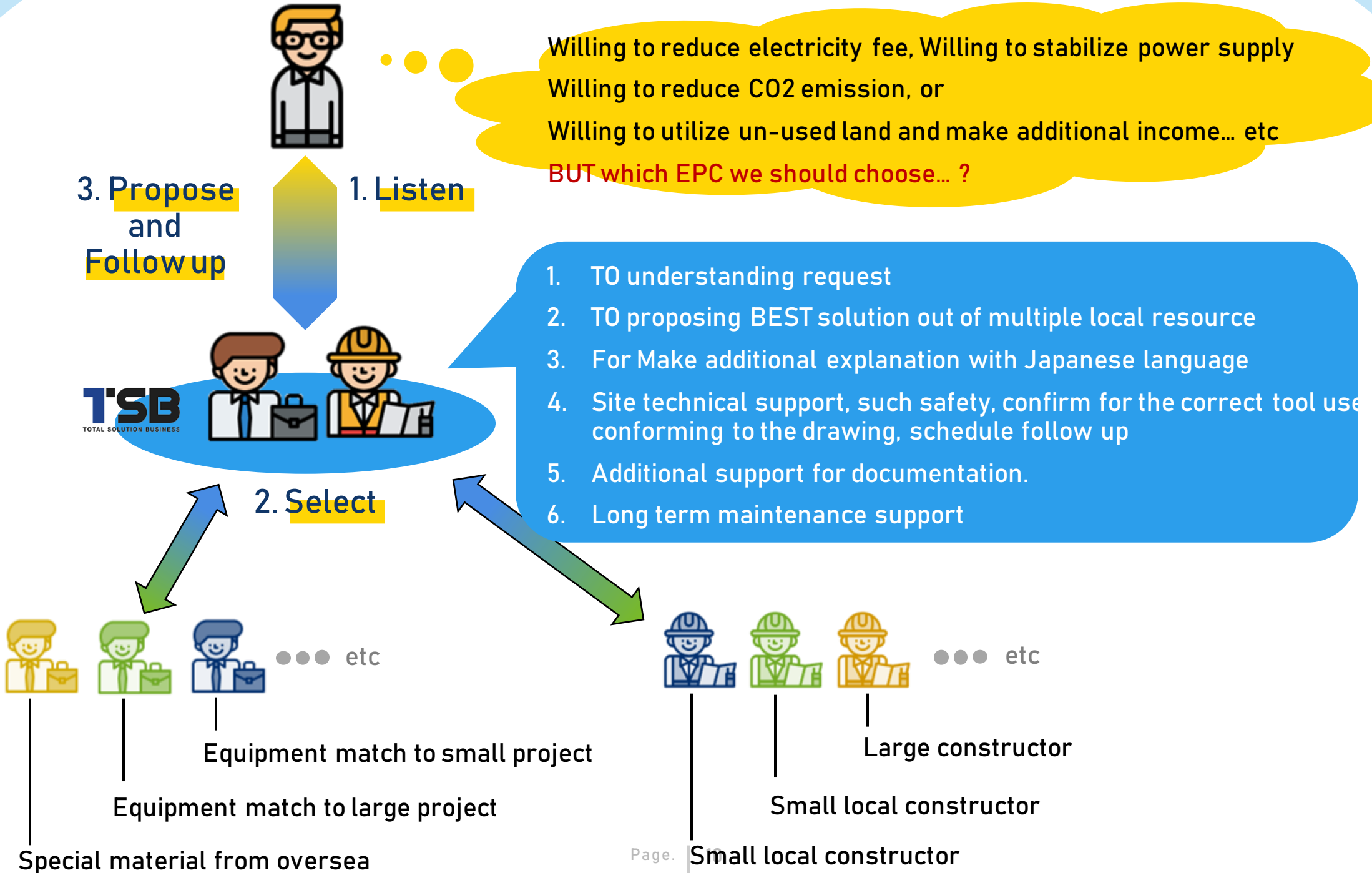
STRONGNESS at TSB

# WORK in LOCAL

**TSB is not an equipment manufacturer. We are a customer-centric technical trading company that creates solutions following each issues and proactively prevents pre and post-installation issues.**



## STRONGNESS at TSB



# Company information

Company	TPG Lao Co., Ltd
Establishment	Sep, 2017
Capital	• 300k USD
Business	<ul style="list-style-type: none"> <li>• Power generation</li> <li>• PV installation, maintenance</li> <li>• Clean energy proposal</li> <li>• Energy related material procurement and installation</li> <li>• Consultant for CO2 reduction proposal</li> </ul>
Location	Ban Nongheo and Nahai Hatxayfong Vientiane Lao PDR.
Worker	8 staff

## Contact



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