

Policy Successes for Energy Efficiency in Buildings

Christopher C. Seeley

December 11 2013, Jakarta

CLINTON FOUNDATION – Energy Efficiency Building Retrofit Program Project Portfolio – Asia

**6 years, 10 countries, 153 Buildings Retrofitted
across SEA, Japan, Korea, and Hong Kong**



Portfolio Overview	
TOTAL Investment (US\$)	\$89,552,463
TOTAL Energy Cost Savings (US\$)	\$14,796,730
TOTAL mtCO2e reduction per year	90,420
Averages	Per project
Average Investment Amount (US\$)	\$585,310
Average Savings Amount (US\$)	\$96,711
Average Simple Payback (years)	6.05
Average building savings	18.17%

Ministry of Energy

Energy Conservation Revolving Fund

Goals:

- To stimulate commercial investments for EE
- To educate commercial banks about EE lending
- 11 local commercial bank partners

Loan Details:

- Up to 100% project financing
- Capped at US\$1.5 million
- 7 year maximum payback
- Interest rate is capped at 4%, (negotiable)

Eligible Investments:

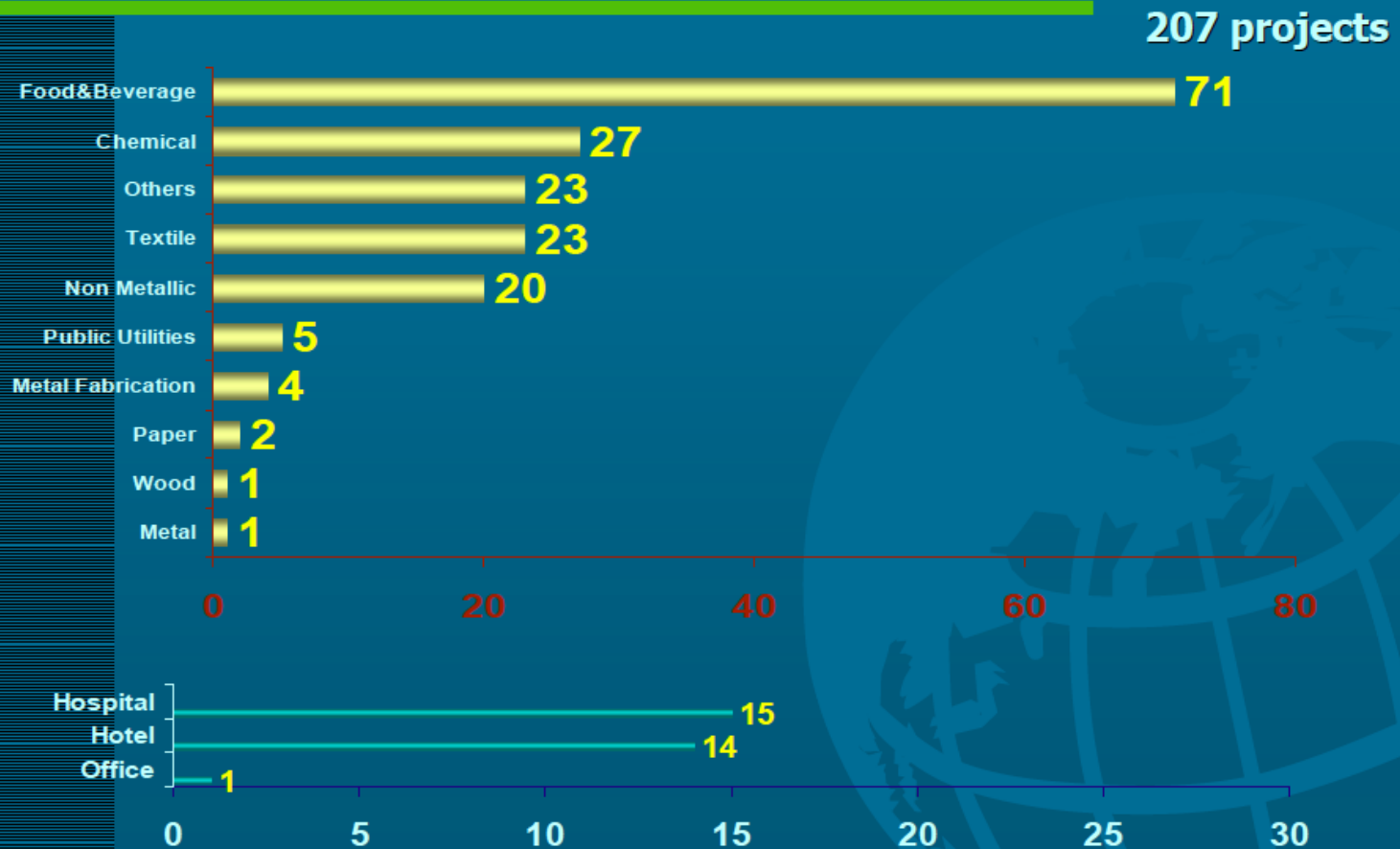
- Equipment and installation costs
- Consulting designs
- Civil works: piping
- Associated costs: removal of existing equipment, taxes, etc.

3 phases of US\$60 million each

Ministry of Energy

Energy Conservation Revolving Fund

Number of Factories and Buildings received funding (phase 1, 2, 3) 25 Apr.2008



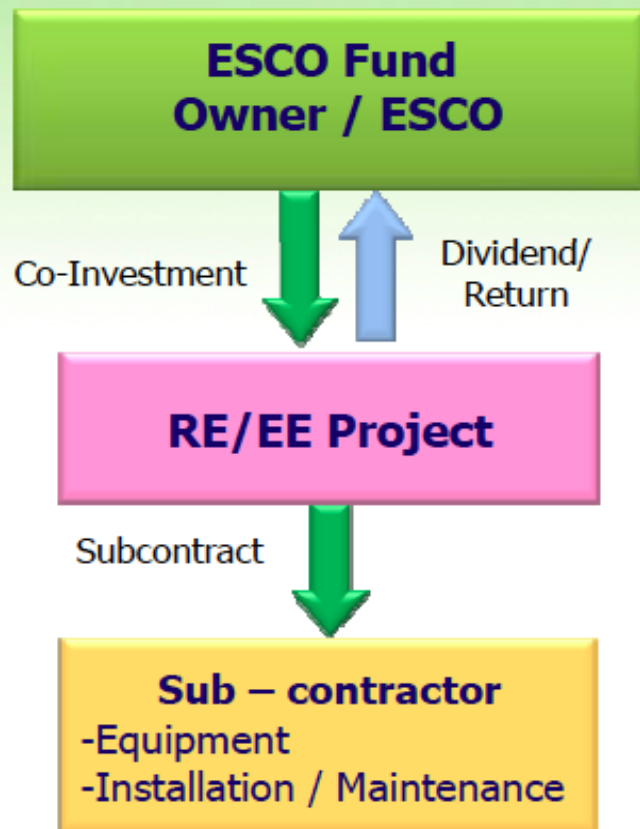


About ESCO Fund

- **Established by Department of Alternative Energy Development and Efficiency (DEDE), under the financial support from Energy Conservation Promotion Fund (ENCON Fund)**
- **Size of Fund: 500 MB (1st Phase: October 2008 – September 2010)**
 - Managed by TWO fund managers appointed by DEDE
 - Energy for Environment Foundation (E for E) managed 250 MB
 - The Energy Conservation Foundation of Thailand (ECFT) managed 250 MB
- **Size of Fund : 500 MB (2nd Phase: October 2010 – September 2012)**
 - E for E has managed 300 MB
 - ECFT has managed 200 MB
- **Aim to encourage investment in energy efficiency and renewable energy projects in Thailand**



Equity Investment



- Investment in Energy Efficiency and Renewable Energy Project
- Size of Equity: 10%-50% of total investment cost but limited to 50 MB per project
- Not as a Majority Shareholder
- Return: annual dividend in the proportion of investment
- Investment period: 5 – 7 years or until owner ready to share buy back, or find a new strategic partner, or list in SET/MAI, but limited to 7 years
- Exit Price: "Put Option" and "Call Option" or "Market price"
- BOD-seat is needed

LEADING BY EXAMPLE



22 Floors, 41,365 square meters

The Jakarta Post

Home News Views Life Jakpost.Travel Jobs

Editor's Choice Business National Archipelago Jakarta World Sports

Jakarta

Governor calls on businesses to follow in city's lead

Andra Wisnu, THE JAKARTA POST, JAKARTA | Jakarta | Fri, June 26 2009, 1:08 PM

Fauzi Bowo

Jakarta News

Commuter service between Serpong and Tanah Abang to reopen Tuesday

For Jakarta drivers, there will never be enough road

Inundation remains a problem in Ciracas despite dredging

Governor Fauzi Bowo has called on the business community to begin following the example set by City Hall to make their buildings more energy efficient and environmentally friendly, to help tackle the impact of climate change.

"All the calculations from the city administration and the CCI (Clinton Initiative Program) - with proper management, with all the saved energy - show that you'd make a return on investment within a few years," Fauzi said at a press conference before the seminar on green buildings.

The seminar was held by the administration and the CCI, an organization founded by former US president Bill Clinton, aimed at tackling climate change issues, among others.

Fauzi said the business community must start investing in eco-friendly technologies for their buildings.

"If City Hall is willing and able, why can't businesses do it?" he said.

Seoul Metropolitan Government, Korea

Interview: Mr. Oh Se-hoon, Mayor of Seoul City

-About half of Seoul's buildings are over 20 years old, meaning that there are a lot of energy being wasted. (Buildings take up 60% of all the city's energy consumption and 64% of the city's gas emission.) That is why Seoul is implementing a Building Retrofit Project(BRP.)

Since 2008, this project has been implemented first in the city and district government buildings and other public buildings. Similar projects in the private sector are being endorsed through a loan.

> By 2009, BRP on 76 public buildings and 50 private buildings, a total of 126 buildings were completed.

> The goal by 2010 is to implement this project on 18 firehouses and 100 private buildings.

At the C40 Summit Meeting held in Seoul last year, Seoul announced BRP as its representative project and the Clinton Climate Initiative (CCI) designated Seoul as a leading city in BRP.

Department of Treasury & Finance - Victoria, Australia

Press Release: Clinton Climate Initiative Helps Victorian Government to Deliver Landmark Project to Improve Building Energy Efficiency

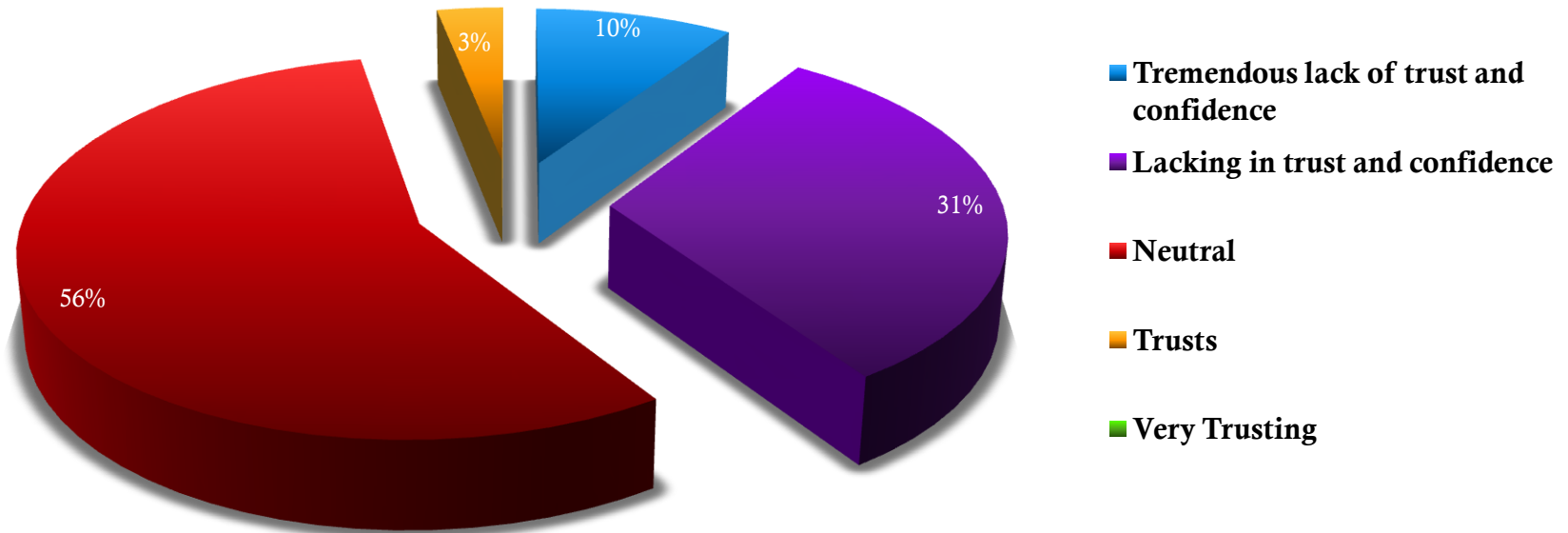
The first phase of the programme includes 16 buildings in Melbourne's business district and regional office buildings totalling 83,000 square metres. These buildings are currently under retrofit, with completion expected this year. These buildings alone, once retrofitted, will reduce energy use by at least 33%, water use by 8% and greenhouse gas emissions by a total of 9,400 tonnes per year. In future phases, energy service companies will prepare proposals under a competitive tender process, with contracts awarded to those who can identify the most savings within an agreed payback period.

ESCOs in the region

- Identified >100 ESCOs in Thailand, Malaysia, and Philippines
- Detailed ESCO Consultations with >30
- Many with limited services, experience, and ability to provide guarantees
- **However**, many which:
 - Offer comprehensive services:
 - Guaranteed Savings
 - Shared Savings
 - Full 'Outsourcing' Model

TRUST & CONFIDENCE IN ESCOs

Stakeholder consultations >100 people



- Accreditation/Certification (regional?)
- ESCO Association
- Dedicated Financing to support ESCOs and ESCO/EPC projects
- Funds allocated to Capacity Building & Procurement Process for Building Owners

Thank you

Christopher C. Seeley

Tel: +66 87 806 0880

ccseeley@climate-change-solutions.net
