

## NEWS

# Tapping the refinery boom in Indonesia

**DIFFERENT BALL GAME:** The country recently restructured its tax incentives to woo cooking oil, oleochemicals and biodiesel investments. Ooi Tee Ching talks to process engineers building refineries there

EVERY process engineer is fighting for a piece of the refinery building pie in Indonesia, said Lipochem Sdn Bhd managing director Koh Pak Meng.

In an interview in Kuala Lumpur, he said his company recently won a bid to put up a refinery there. While the situation in Indonesia is like 30 years ago in Malaysia, he said clients now want super-sized refineries so as to reap economies of scale.

Energy efficiency and water-saving features are also incorporated into the plant design.

"While increasing capacity, our engineers improve the process by reducing water usage and stepping up on heat recovery," he said.

Another differentiating feature in modern refineries is that they are now designed to be fail-safe and fully-automated.

"Refiners cannot tolerate any breakdown that spells margin loss. Also, the new plants are multi-fed. It can take in feedstocks like palm fatty acid distillate or sludge oil," he added.

"We're working on one refinery in Sumatra and we've to do a fast-track (job). The client wants it to be up and running in 10 months. Since the client is expecting fast returns, my



**Alfa Laval makes equipment and components for other engineering firms, says its MD Daniel Ng**

staff are working overtime to meet this short deadline," Koh said.

A seasoned chemical engineer in the edible oils industry, Koh recalled that 30 years ago, Malaysia's downstream sector was started by independent refiners. It was only later on that big plantation companies decided to go downstream.

"Back then, the profit margin was so good that the refineries were like money-printing machines to the in-



**Desmet Ballestra Malaysia is putting up new plants in Indonesia, says its MD Khoo Kiak Kern**

dependent owners," he said.

Now, it's a different ball game.

New refineries are a lot bigger and are erected at a faster pace. Indonesia's current annual refining capacity is estimated to be at 23 million tonnes. By the end of 2013, another 12 million tonnes are expected to come onstream, bringing the total annual capacity to 35 million tonnes.

Eight months ago, the Indonesian



**Lipochem Sdn Bhd managing director Koh Pak Meng says clients now want super-sized refineries so as to reap economies of scale.**

government raised export taxes on crude palm oil drastically, resulting in higher refining capacity and downstream activities. The tax hike made crude palm oil and crude palm kernel oil very cheap for downstream producers there.

Indonesian refiners also have an added advantage as processed products such as cooking oil, soaps and detergents shipped out from Indonesian shores are tax free.

This tax restructure unlevelled the playing field, causing refiners in Malaysia like Wilmar Group, Mewah Group, IOI Corp Bhd, Kuala Lumpur Kepong Bhd, Sime Darby Bhd and Felda Group to lose out.

Some of these plantation giants, with estates in Indonesia, have decided to invest in Indonesia's refining sector to leverage on the cheap feedstock.

Desmet Ballestra, the global leader in edible oils technology, sees both Indonesia and Malaysia as its biggest markets to put up refineries and upgrade existing oleochemicals, specialty fats and biodiesel plants.

In a separate interview, Desmet Ballestra Malaysia managing director Khoo Kiak Kern grinned and said, "our order book is growing".

"We're putting up new plants in Indonesia. Here in Malaysia, we're doing some expansion and upgrading works for the refiners."

He stopped short of revealing the value of jobs his company had won.

Another European-headquartered entity benefiting from the job rush in Indonesia is Alfa Laval Malaysia Sdn Bhd.

It has an added advantage over others because it doubles up as an equipment manufacturer.

"Apart from designing processing plants, we also manufacture the

equipment and components which we supply to other engineering companies," said Alfa Laval Malaysia managing director Daniel Ng.

He added that the group's engineering forte lies in three areas namely heat transfer, separation and fluid handling.

In the 1960s, Alfa Laval was known to have pioneered the processing technology of palm oil, transforming the business landscape from just small soap-making activities to include modernised commercial-scale cooking oil facilities.

"The need to grow has not changed but the processing technology landscape has. We leverage on opportunities that will reinforce our position in the world for our engineering solutions in the energy and food industry," he said.

"Good chemical engineers are always trying to improve their processes, make them safer, more efficient and more cost-competitive," he added.

He said refineries are almost built for chemical engineers. This is because the types of equipment in a refinery — reactors, distillation columns, heat exchangers — are all the sophisticated trappings that a typical chemical engineer is specifically trained to evaluate, design and use.

The current rush to build up Indonesia's palm oil processing industry has prompted a sudden demand for experienced chemical engineers.

"Those who are good and very skilful can command top dollar, whether in Malaysia or Indonesia. Chemical engineers are very much in need now to build and later, to operate the refineries and other downstream add-on plants," Ng said.



**Engineers at Lipochem are busy preparing a distillation column to be shipped over to Indonesia and installed there. New refineries are a lot bigger and are erected at a faster pace.**