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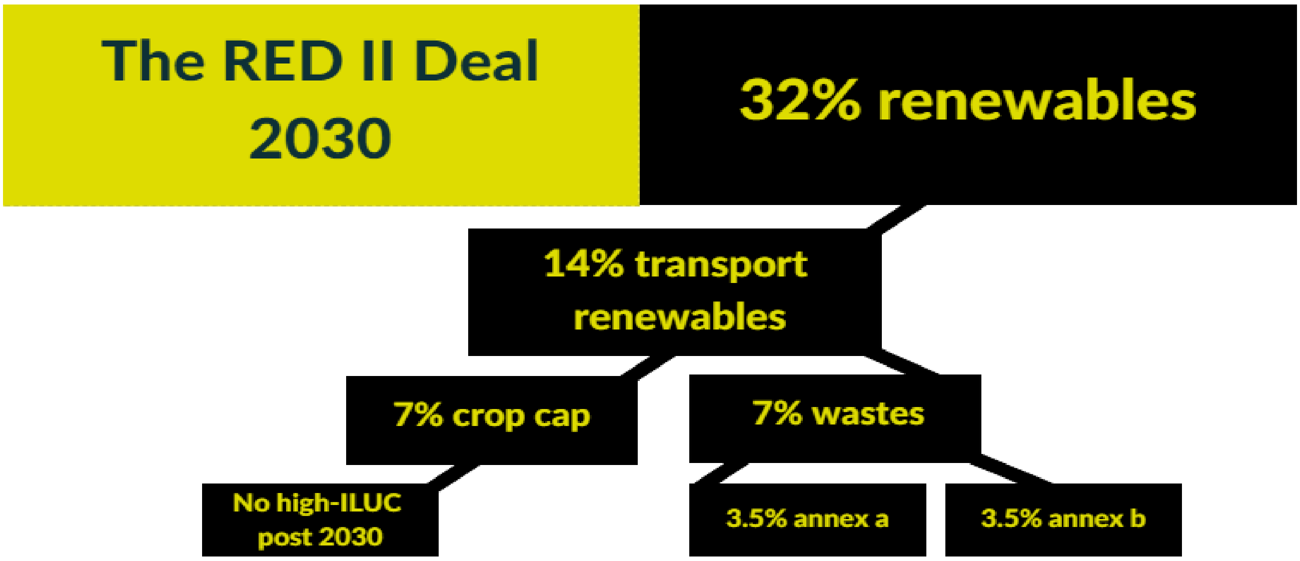
Shanghai update: Chinese waste boom spurs trade and traceability investment

European fuel and feedstock originators have been busy negotiating with Chinese waste suppliers at an ISCC technical meeting in Shanghai this week. The busy gathering of over 200 industry representatives reflects the rapid upscaling of China's waste-based biofuel and feedstock industry to meet rising waste fuel demand into Europe and potentially the US market. While international traders work to increase the economic efficiency of the previously cottage industry waste export business, the sustainability sector is also updating its processes to keep effective tabs on the traceability of the mushrooming international supply chain.

China's total available export capacity is currently reduced by around 10-15% by unregulated trade in domestically-collected oil recycled back into local food and feed supply chains, a trade incentivized by faster payment, absence of forex risk, and the need for collectors to partner with a trading company to qualify for an export tax rebate. European buyers continue to insist on payment on delivery unlike Asian arrangements which prioritise prepayment on cash against documents, says Austria-based collector and waste biodiesel producer Munzer. The three-month lag in receiving export tax refunds meanwhile puts pressure on Chinese collectors' cashflow, Ke Yuan says.



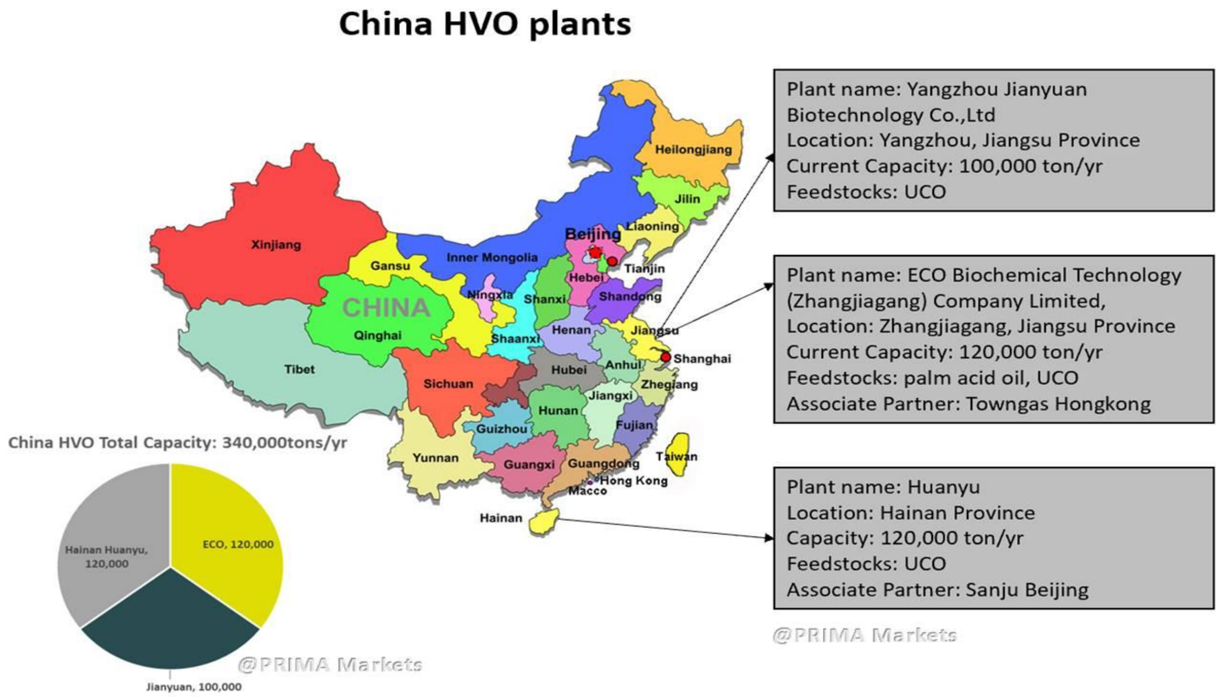
Chinese collector Ke Yuan oil pegs China's current collection capability at up to 5mn t/yr relative to current UCO and gutter oil collection rates of around 3mn t/yr. This implies an annual export capability of up to 1.5mn t/yr, equivalent to 30% of the more than 5mn t/yr waste market which European trade associations expect to emerge with the adoption of RED II and its "soft" Annex B waste cap.

Bulking up Chinese shipments

Even so, Ke Yuan sees China's exports this year surging to around 500,000t following an existing YtD rise in bulk export shipments on top of existing flexi bag deliveries. PRIMA data shows China already exported 252,000t of UCO to major destinations last year, up from just 42,000t in 2016.

Bulk shipments of Chinese oil have recently jumped to ports in Malaysia where the tonnage is combined with locally combined oils for shipment on to European buyers at lower bulk freight rates. Collection capacity in the major Guangzhou hub in southern China meanwhile came back into action on 7 July after a regional crackdown by environmental inspectors on polluting or unlicensed collectors was lifted. Inspectors levy fines or imprisonment for firms found illegally diverting UCO back into the domestic food supply chain.

Heating imported deliveries remains a major headache for Munzer. The firm has struggled with flexi bag heating pads which have either smashed in transit or taken too long to liquefy their cargoes. Working with partners able to offer pre-heating services before unloading remains one option for the firm going forward alongside other investigations into solutions such as introducing steam into containers by the insertion of pipes.



Restricted availability of shipping containers or bulk tankers remains one impediment to growth in China's export trade. Even large shipping companies sometimes struggle to maintain a constant supply of containers able to carry flexi bags, Ke Yuan cautions, making relations with reliable third party ISO tank suppliers imperative for the firm. Ke Yuan is now offering September/October bulk deliveries from shore tanks in Taizhou.

Moving up the value chain

Chinese UCO has traditionally been a cheap source of high FFA, high-sulphur material for European buyers able to handle the lower specifications. But Chinese quality has been rapidly improving since 2016, says the country's largest UCOME producer, the 200,000t/yr Longyan Zhuoyue New Energy. While it says more improvement is needed, the use of distillation towers and other control technologies has already brought sulphur content down tenfold in five years to less than 10ppm, with the firm motivated to continue improving measurements such as CFPP to command higher prices.

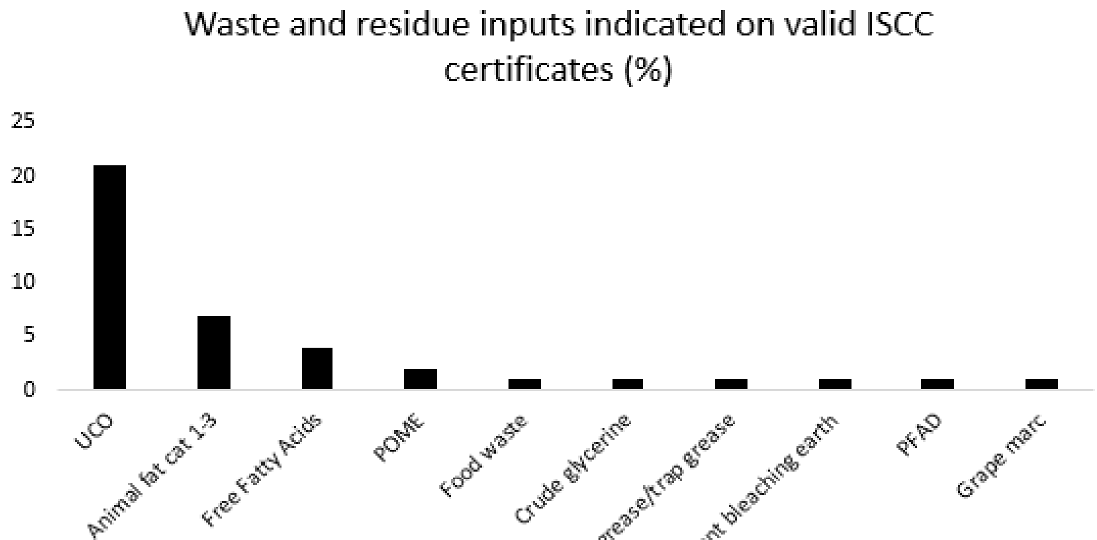
Longyan expects to sell 170,000t of its UCOME overseas this year, up from 140,000t last year. Besides Europe, the firm is applying for US certification, with other Asian suppliers also eyeing the extra margin on offer into California's high-pricing LCFS market. Domestic UCOME demand however is emerging as a potential rival to end-users in both Europe and the US, with Shanghai's newly minted B5 mandate expected to consume 300,000t/yr of domestically-collected UCO, according to Hong-Kong based HVO producer ECO.

China's handful of HVO plants are sputtering into gear, with around 20,000t of product understood to have traded to date priced between $1,200/t and $1,500/t depending on timing. Continued export flow remains open to question, with at least one unit struggling to keep operating because of technical problems.

Mede facility also eyeing a vegetable-oil heavy start-up slate as it ramps up from late summer. Other experienced multinationals are also eyeing new European waste-based investments to capitalise on the crop-capped biofuel future envisaged by European legislators. Contracted or vertically-integrated feedstock supply chain origination is seen as key to maintaining the economic viability of new low carbon fuel production units in a marketplace expected to become increasingly competitive as demand rises versus a fragmented upstream international supply chain.

New ISCC committee spearheads waste traceability

The sustainability industry is racing to keep pace with the breakneck fuel-based growth in the international wastes market. ISCC has set up a new technical committee on wastes and residues to develop stakeholder views on the global future for low carbon



Source: ISCC

Asia waits for EU HVO

Asian UCO sellers are still waiting for new European HVO producers to fully enter their market to contract UCO tonnage to run in their huge new units. ENI's 800,000t/yr Gela plant in Sicily is expected to start up in January 2019 initially running palm oil to avoid contamination issues, with Total's 550,000t/yr La

transport fuels and help accelerate their deployment. The committee, to be led by REG Germany's Director of Government Affairs Michael Fiedler-Panajotopoulos after an industry-wide vote in Shanghai this week, aims to develop "secure, practical certification for low carbon fuels and feedstocks" on traceability, sustainability and GHG-methodologies.

Other committee appointments include Greenergy's Patrick Lynch as Deputy Chair Europe/Americas, ECO Environmental Investments' Dannis Poon as Co-Chair Asia and Neste Singapore's Yau Woon Lee as Deputy Chair Asia.

The committee plans to inform stakeholders of required regulation across the “low-ILUC” fuels favoured by Brussels, as well as waste and processing residues, crop residues, fossil carbon-recyclables and non-bio renewables.

Maintaining a trouble-free supply waste feed and fuel supply chain across the new waste trading Silk Road west from China remains a priority for the bulk international buyers looking to overseas supply to satisfy mandated demand for low carbon fuels. Developing a 100% traceable and transparent well-to-wheel supervision system across the Chinese low carbon fuel supply chain will provide peace of mind into the emerging muti-million tonne per year international market. For investors, a regulated and reliable supply chain will be key to steering funding towards the highest returning projects in sustainable low carbon transport feed and fuel supply chains.

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