KSH Consulting

July 2009

Forest Industry News

NEW PROJECTS ANNOUNCED

Planning Phase

(Sweden) Domsjö Fabriker and Chemrec are teaming up for the construction of an industrial scale production plant for renewable automotive fuel from biomass through gasification of black liquor. The unit is to be located at Domsjö Fabriker's site in Örnsköldsvik, Sweden. The project is set to cost around SEK 2,800 million (US$360 million) and is expected to be wrapped up in late 2012. The plant would produce about 100,000 tonnes/a of second generation renewable automotive fuels biodimethylether and biomethanol produced from gasified black liquor from pulp mills. It would reduce fossil-fuel carbon dioxide emissions by about 250,000 tonnes/a. The energy feedstock for the fuel is logging residues, bark and industrial wood waste. (PPI Europe, July 16, 2009).

(Turkey) Hayat Kimya has decided to expand tissue production in Turkey and start-up new facilities in Iran. The company will invest in a second 65,000 tonne/a PM at its mill in Izmit, northwest Turkey. The firm has chosen Metso to supply the unit. Installation of the tissue machine is planned for March 2010 and production is set to begin at the end of 2010. The US$100 million project will lead to an additional 350 jobs at the Izmit plant. (PPI Europe, July 23, 2009)

(Iran) Hayat Kimya is also planning to build two new plants in Zencan, in Iran. One of the mills will produce 65,000 tonnes/a of tissue, also on a Metso PM. The second factory will manufacture diapers and feminine hygiene products and is to start production in the first quarter 2010. The investment in the tissue mill totals US$410 million, while the hygiene product factory will cost US$50 million. The company estimates that 500 new jobs will be created. The firm aims to become the biggest tissue manufacturer in the Middle East. (PPI Europe, July 23, 2009)

(Brazil) Suzano Papel e Celulose said July 14 it signed final agreements with Vale, previously announced a year ago, which secure the implementation and start-up of Suzano's new US$1.8 billion pulp mill in Maranhão state, Brazil, by 2013. The pulp mill will have an annual production capacity of 1.3 million tonnes of bleached hardwood kraft pulp and is scheduled to start-up in 2014. The agreements with Vale involves the acquisition of 84,000 hectares (209,000 acres) of land in south-eastern Maranhão, of which 34,500 ha are planted with eucalyptus, as well as areas allocated as permanent preservation areas and legal reserves. Suzano will pay Real 235 million (US$117 million) for those assets to Vale over 12 quarters, with the first payment due 90 days after the signing of the agreement. (PPI Latin America, July 15, 2009). Suzano on July 21 firmed a logistics contract with Transordestina Logística that involves rail transportation of pulp from the new Suzano pulp mill in Teresina, Piauf state, to the port of São Luís, in Maranhão state, Brazil. (PPI Latin America, July 22, 2009)

(Australia) Gunns has announced that it has decided on a joint-venture partner for its controversial market pulp mill planned for Tasmania, Australia. Gunns declined to name the partner, but said it was a company with significant international experience in the pulp and paper sector. This has raised speculation that the other party may be the Swedish pulp specialist Södra, with whom it was rumoured to be in negotiations. Gunns proposes using the elemental chlorine-free bleaching process at the 1.1 million tonne/a kraft pulp plant, which would consume almost 4 million tonnes/a of wood. The fiber would comprise of a mixture from native forest and from pine and eucalyptus plantations. (PPI Asia, July 6, 2009)

(China) Shandon Huatai Paper has chosen Metso Paper to supply a coated woodfree paper machine for its mill in Dongyng city, Shandong province, China. Start-up is scheduled for December 2010. The 9.9 m wide unit, PM8, will have a design speed of 2,000 m/min and a total capacity of 800,000 tonnes/a. Output will be coated fine paper in a basis weight range of 80-200g/m^2. Andritz will provide the stock preparation system. PM8 will mark Shandong Huatai's diversification into the coated fine paper sector. The firm is already China's largest newsprint producer, operating four such machines at the Dongyng facility with a total capacity of 1.2 million tonnes/a. (PPI Asia, July 6, 2009).

(South Korea) Donghae Pulp has inked a letter of intent with **Voith Paper** for the supply of a 430,000-450,000 tonnes/a coated fine paper machine. The PM will be installed at the Moorim Paper subsidiary's Onsan mill in Ulsan city, South Korea. A contract is expected to be signed soon. The unit, which is slated to come onstream in June 2011, will be integrated with the facility's pulp production. A company's spokesman said the integrated pulp and paper capability should give the firm an edge when competing with Chinese producers in sales of coated woodfree (CWF) paper overseas, since most Chinese coated fine paper production is non-integrated. (PPI Asia, July 20, 2009)

(China) China's second largest containerboard producer **Lee & Man Paper Manufacturing** has decided to convert one of its machines to produce uncoated woodfree paper. The move is part of the company's plans to diversify into fine paper production. It has suffered from China's sharp decline in exports of general goods, after the economy deterioration in October 2008, with packaging demand falling. The company has signed up with Metso to rebuild PM6 at its plant in Changshu city, Jiangsu province, China. The 6.5 m wide unit has a capacity of 350,000 tonnes/a of 80-125 g/m^2 recycled fluting. After the rebuild, it will have a capacity of around 200,000 tonnes/a of 60-80 g/m^2 uncoated woodfree paper. The company is still working with the suppliers on mapping out the exact schedule for the overhaul, but it is penciled in for early next year. (PPI Asia, July 20, 2009)

Implementation/Start-up Phase

(Sweden) Grycksbo Paper has installed a new biomass boiler at its Grycksbo plant in Sweden. The boiler, running on pellets, was officially inaugurated on June 18, 2009. The investment cost is SEK 130 million (US$16.5 million). Petrokraft converted the old oil-fueled boiler into a biomass boiler. Pilum supplied the filter for flue gas cleaning. The boiler meets the entire mill's need for steam, meaning a complete switch to renewable energies for the mill. The mill produces some 265,000 tonnes/a of coated woodfree paper on its three PMs. (PPI Europe, July 9, 2009)

(Hungary) Hamburger Group has begun commercial production on a new recycled containerboard machine at its Dunaujvaros mill in Hungary. The 7.8 m wide unit, PM7, has a capacity of 400,000 tonnes/a and a speed of 1,500 m/min. It was supplied by **Voith Paper**, along with a stock preparation system. **Metso** provided the winder and **Veolia** expanded the site's wastewater treatment system. Once the machine's press is up and running, it will start producing fluting and higher quality testliners. The unit is designed to manufacture testliner and medium in the 70-150 g/m^2 basis weight range. Some output is destined for Hamburger's converting operations and the rest will be sold on the market (PPI Europe, July 2, 2009)

(Czech Republic) Mondi has taken delivery of a new Euro 45 million (US$63 million) **Voith Paper** machine, PM6, for its Steti mill in the Czech Republic. The magazine-glazed paper machine will produce 45,000 tonnes/a of white kraft paper in the basis weight range of 30-90 g/m^2. The construction work is expected to be done by August 2009 and paper will be on the market in October 2009. PM6 at Steti will create 15 new positions for engineers, lab technicians and machine operators at the mill. (PPI Europe, July 2, 2009).

(Portugal) Altri has finalized the expansion of its Celbi bleached eucalyptus kraft market pulp mill in Figueira da Foz, Portugal. The project was wrapped up toward the end of June 2009. The project has doubled the plant's capacity from 300,000 tonnes/a to 600,000 tonnes/a. The mill is in the middle of the start-up curve and is producing around 1,200 tonnes/day. Suppliers for the Euro 320 million (US$ 446 million) scheme included Metso, Andritz and GL&V. (PPI Europe, July 16, 2009).

(Poland) Arctic Paper has installed a new cogeneration plant at its Kostrzyn mill in Poland. Turbomach supplied the 11 MW gas turbine, while Rentech Texas US provided the boiler. The new combined heat and power plant will help Arctic Paper meet its entire heat and electricity requirements at the facility. Any excess electricity that is produced will be sold externally. The company said that the use of natural gas halves emissions of carbon dioxide, and nitrogen oxide emissions are also reduced by 40% compared with coal-fired plants. The firm has a 20-year contract with the state-owned PGNiG, which gives a more stable price for the future. (PPI Europe, July 16, 2009)

MERGERS, ACQUISITIONS & PLANT CLOSURES

(France) SAICA has wrapped up the closure of PM2 at its mill in Vénizel, northern France. The shut is part of the company's plans to reorganize the plant in order to maintain the site's competitiveness. Some 95 people are being made redundant as a result. PM2 manufactured 90,000 tonnes/a of testliner and recycled fluting. The firm has yet to decide on the fate of the machine. The mill houses another unit, PM4 which was rebuilt last October 2008. The investment increased its 155,000 tonnes/a capacity to 250,000 tonnes/a as well as improving its paper quality. (PPI Europe, July 9, 2009)

(Uruguay) UPM and Metsäliitto Cooperative have signed a letter of intent to restructure the ownership of Oy Metsä-Botnia Ab (Botnia). Under the terms of the agreement, Metsäliitto's and Botnia's share of the Fray Bentos pulp mill and the eucalyptus plantation forestry company Forestal Oriental in Uruguay will be transferred to UPM. After the transaction, Botnia would retain its current assets in Finland, while Metsäliitto would become the majority shareholder with approximately 53%. M-real's holding would be approximately 30%. UPM's ownership in Botnia would fall to roughly 17%, more or less in line with UPM's use of Botnia's pulp produced at the Finnish mills. If the proposed transaction is successful, UPM's share of pulp capacity from Botnia's Finnish mills would decrease from 1.1 million tonnes to 400,000 tonnes/a; UPM's share of eucalyptus pulp would increase by approx. 500,000 tonnes/a; and UPM would have the direct ownership of the Uruguayan plantations. The Uruguay mill would increase UPM's pulp capacity to 3.2 million tonnes In addition, UPM would also obtain a minority shareholding (1.2%) of the energy company Pohjolan Voima Oy (PVO) from Botnia. (Pulpwatch, July, 2009).

(China) Norske Skog has agreed to sell its 56.17% stake in Shanghai Norske Skog Potential Paper (SNP) to follow shareholder Potential Industries. SNP owns a plant in Baoshan, in Shanghai, China, which houses a 145,000 tonnes/a newsprint machine. It is one of the smallest mills in Norske Skog's global portfolio, according to the Norwegian giant. The Norwegian firm's Chinese operations have been struggling with fierce competition stemming from an uneven playing field in that market and failing newsprint prices. Most of its Chinese competitors are state-owned and able to obtain subsidized bank loans with low interest rates to fund expansions or replenishing working capital. But, as a foreign company, Norske Skog is not able to tap this source, leaving it no choice but to seek funds elsewhere. (PPI Asia, July 20, 2009)

KSH Consulting

(USA) The possibility of a new "subsidy" emerges in the USA. Legislation to help farmers who are willing to dedicate some of the acreage to energy crops has been adopted in the US. The **Biomass Crop Assistance Program (BCAP)** will provide payments to farmers while they establish and grow biomass crops for designated biomass conversion facilities. The payment can not exceed the biomass sale price, which is capped at up to US$45 per dry ton of material. This mean that if a farmer is paid US$30 per dry ton for the biomass by the conversion facility, the farmer would be eligible for an additional US$30 per dry ton payment from the government for the costs associated with providing the product. Although pulp is explicitly excluded from the definition of bio-based products, it is thought that several parties are exploring measures to have it included on the basis that energy from the kraft recovery boiler should qualify. This could feasibly have significant ramifications on the pulpwood market in the US as the subsidy paid to farmers/foresters would ultimately reduce pulpwood prices thereby affording the US producers significant cost savings for their fibre. (Pulp Watch, July 30, 2009)

(Canada) **Kruger** will stop coated paper production indefinitely at its Trois-Rivières, QC, mill effective October 20, 2009. Supercalendered (SC) and newsprint production will be maintained. Trois-Rivières' paper machines 1, 2 and 4 have about 170,000 tonnes/a of combined lightweight coated paper capacity, which Kruger says represents about 35% of the company's overall coated paper capacity. As well as the three PMs, two coaters along with the woodroom and groundwood plants will also close, resulting in approximately 400 layoffs from the facility's 550-strong workforce. (Pulp & Paper Week, July 10, 2009)

(USA) **Chemrec**, a Swedish biofuels company, which last month gained $64 million for a US$350 million project to build a biorefinery in 2012 in Sweden that would make automotive fuel from gasified black liquor, is looking for a kraft pulp mill in the USA – possibly Georgia – for another biorefinery, its first in the USA, by 2012. There are 11 potential pulp mills in Georgia. The process would need about 25% of a typical pulp mill's black liquor. That means less black liquor may be burned into energy in the mill recovery boiler. Chemrec completed a biorefinery feasibility study for NewPage, where there is the potential for a new biomass boiler at the Escabana, MI, coated printing and writing paper mill. (Pulp & Paper Week, July 17, 2009)

PRODUCT PRICE SUMMARY (US Dollars)

Product	Units	2002	2003	2004	2005	2006	2007	2008	2009E	2010E	Current Price
NBSK Pulp (N.E.)	m. ton	462	525	617	611	681	800	839	636	688	660
BEKP (N.E.)	m. ton	458	502	520	587	642	707	782	527	566	530
Newsprint 48.8 g/m^2 (US East)	m. ton	465	503	547	610	668	585	695	551	548	455
Uncoated. Freesheet No.3 Offset 50 lb (US)	sh. ton	692	628	676	727	815	832	912	851	832	830
LWC 34 lb (US)	sh. ton	867	829	859	997	978	923	1,085	937	922	895
Linerboard 42 lb (US East)	sh. ton	391	371	418	428	488	517	569	536	472	540
Lumber #2&Btr. (W-SPF 2x4, FOB)	Mbf	270	278	394	353	296	250	220	168	198	195
OSB 7/16" (N-C US)	Msf	160	380	369	319	218	160	171	155	175	166
Canadian Dollar	US$	0.64	0.72	0.77	0.83	0.88	0.93	0.942	0.865	0.94	0.928

E = estimated

Sources: RISI Monthly Commentaries (July 31, 2009), Wood Markets Monthly (May 2009) & BMO Capital Markets (July 31st, 2009) and spot rate of July 31st