Organic photovoltaics for steel construction elements

ThyssenKrupp Steel Europe and Konarka Technologies are to develop steel roof and facade elements with integrated organic photovoltaics. Konarka Technologies, a US company with a German branch in Nuremberg, specialises in organic photovoltaics, while the Color/Construction unit of ThyssenKrupp Steel Europe is a supplier of steel construction elements.

Unlike conventional silicon-based photovoltaic systems, the joint solution to be developed in the coming years will not need to be mounted on a raised structure but must integrate into the building envelope. The development will be based on PowerPlastic, a solar module from Konarka Technologies with a photo-reactive polymer which, when dissolved, can be applied to various substrates. In addition to steel, suitable substrates include glass and other construction materials, as well as films and textiles.

The thin, light, and flexible surface is applied to the substrate materials in a continuous process. Available in various colors, color combinations and sizes, the construction elements with organic photovoltaic cells means to give planners and architects a greater deal of design latitude.

Severstal will supply rolled metal for Kia car front parts

Severstal began to supply rolled metal for making a front roof panel for the new Kia Rio model. Previously, such agreement was reached for another car - Hyundai Solaris (sedan and hatchback).

Over the 9 months of 2011, Severstal has delivered a total of more than 4,500 tons of rolled metal to the Hyundai plant in St. Petersburg and obtained the approval for 47 parts for cars Hyundai Solaris (sedan and hatchback) and Kia Rio sedan. Since the Hyundai Motor Manufacturing Rus plant plans to step up production in 2012, “Severstal is going to triple deliveries of rolled metal in 2012”, said Dmitry Gorshkov, Director – Marketing & Sales of Division Severstal Russian Steel.

In 2010 Severstal’s rolled metal accounted for 30% of total consumption in the Russian automobile industry. Severstal cooperates with foreign manufacturers located in Russia, such as Renault, Volkswagen and Ford.

Metinvest supplies pipes for East-West gas pipeline

Metinvest has won tender of Turkmengaz and will supply pipes to be produced by Khartsyzsk Tube Works for the implementation of East-West project.

Metinvest has signed a contract for the supply of 150 000 tons of pipe with a diameter of 1420 mm, K60 strength class. Azovstal strips will be used for the pipe production.

East-West Project plays a strategic role as it is considered by many experts as an inlet for NABUCCO gas pipeline, being an option for the creation of transportation route supplying natural gas from Central Asia to European countries. The line will be laid in the territory of Turkmenistan starting Shatlyk compressor station located near Dauletbad and South Yoloten fields extending to Belek compressor station on Caspian coast. Total length of the pipeline will be around 800 km, rated capacity – 30 billion m³ per year. The pipeline construction is to be completed in June 2015 to full operational status.

Tata Steel wins order for new high-speed French rail track

Tata Steel will supply 84 000 tonnes of rail for the new South-Europe-Atlantique line – a 302 km (188 miles) long line between the French cities of Bordeaux and Tours.
The steel will be manufactured in Scunthorpe, UK, before being rolled into rail at Tata Steel’s mill in Hayange, north-east France, for delivery from 2014. The company will also supply switches and crossings to the construction consortium COSEA. The total value of the steel supplied will be around €80 million (about £70 million).

In 2016, the South-Europe-Atlantique project will connect south-western France with high-speed rail services from northern Europe, including London, Paris, Brussels, and Amsterdam.

Trains travelling at 300 km per hour will reduce the journey time from Paris to Bordeaux to two hours and five minutes. Work on building 19 viaducts and seven tunnels will start in the first half of 2012.

Gérard Glas, Head of Tata Steel’s Rail Sector, said: “We will be supplying rails each measuring 108 metres long. These longer rails give passengers a smoother ride and reduce maintenance costs”.

Tata Steel is currently ramping up production at our Hayange rail rolling mill after the completion of a €35 million upgrade. 108-metre rail can now be produced at facilities in France and the UK.

**North Sea and Norwegian Sea oil projects: 3500 tons of JFE Steel pipe**

JFE Steel Corporation announced today that together with Marubeni-Itochu Steel Inc. it has received an order for 3500 metric tons of MightySeam electric-resistance-welded (ERW) steel pipe from Statoil, the international energy company. The pipes, measuring 10.75 inches in their outside diameter, have been produced at the Keihin District facility of JFE Steel’s East Japan Works and shipped to Statoil’s Hyme and Stjerne projects in the North Sea and the Norwegian Sea this August.

Both projects will use the reel-based method to lay pipelines. The reel method, a procedure suitable for medium-scale pipeline, requires strict manufacturing specifications, so mainly seamless pipes or heat-treatment ERW pipes have been used until now.

Compared to conventional products, JFE Steel’s proprietary MightySeam boasts improved weld toughness, even at temperatures below -50 °C. Processes developed by JFE Steel control the morphology and distribution of oxides emitted during welding, and check for flaws along a weld’s entire length on a real-time basis.

MightySeam has already been shipped to customers in North America and Southeast Asia, but not for applications involving the highly demanding reel method. JFE Steel now expects to develop additional business involving MightySeam’s use in frigid environments as a substitute for seamless pipe.

**TMK ships pipe to Gazprom for offshore pipeline**

Oil and gas steel pipe producer TMK, has shipped seamless line pipe to Gazprom to develop the offshore pipeline at the Kirinskoye gas condensate field on the Sakhalin Island shelf. The technical specifications of seamless line pipe for the Kirinskoye field were developed jointly with Gazprom R&D Division in accordance with the Russian gas monopoly requirements. Beginning in 2014, the Kirinskoye field will become a source of gas for the Sakhalin-Khabarovsk-Vladivostok gas transmission system. The field’s natural gas reserves are 75.4 billion cubic meters; its gas condensate reserves are 8.6 million tonnes.

**PLANTS AND EQUIPMENTS**

**Tata Steel makes further investments in South Yorkshire operations**

Trials are due to begin on new equipment at Tata Steel’s Stocksbridge steelworks in South Yorkshire, UK following a £6.5 million investment programme to increase production of aerospace steels. Tata Steel has invested in two vacuum arc remelting furnaces and specialist testing equipment, in order to produce more steel for the aerospace industry. Both furnaces are expected to be in full production in early 2012. Vacuum arc remelting furnaces improve the chemical and mechanical properties of steel so it meets the exacting standards of demanding applications, such as energy exploration and generation, as well as aerospace.

Besides, Tata Steel announced a further £4.5-million investment in its South Yorkshire operations. The £4.5 million scheme must improve plant reliability and energy efficiency, reduce CO2 emissions and boost production of steel products. The amount of energy saved – 19,000 MWh – would power 4,000 homes. The company is investing in four separate improvement projects at its Rotherham and Stocksbridge sites:

- £1 million in new quality inspection equipment at Thrybergh Bar Mill, Rotherham,
- £2 million to enhance fume extraction at Rotherham steelmaking plant,
- £0.5 million to improve steelmaking in Rotherham,
- £1 million to upgrade a re-heating furnace in Stocksbridge.

At the company’s Thrybergh Bar Mill a £1 million investment in surface inspection equipment will also improve product quality in
safety-critical products, including steels used in gears, steering and braking systems on cars. The investment must enable Tata Steel to make more of the technically demanding and safety-critical products for the automotive industry.

In Rotherham a £2 million investment in new equipment for the steelmaking area’s fume extraction system will reduce electricity usage by more than 9000 MWh every year. By enhancing the system with new controls and motors the company will save more than £0.6 million a year in energy bills and reduce indirect CO2 emissions by nearly 5000 tonnes a year.

An investment of more than £0.5 million in the Rotherham site’s small bloom caster, which moulds liquid steel into a solid form, will improve the reliability of the caster and minimise breakdowns.

In Stocksbridge the company is investing a further £1 million to upgrade the second of its ingot re-heating furnaces to improve energy efficiency, following a similar investment in the first furnace earlier this year. This part of the investment will lead to a reduction in gas consumption of more than 10 000 MWh every year, reducing CO2 emissions by 2000 tonnes and saving the company £250 000 a year. By introducing a more consistent and reliable heating system on the furnace, the quality of the steel must also improve.

Tata Steel produces steel at its Aldwarke-based steelworks in Rotherham. The steel then undergoes further processing and refining at the company’s Stocksbridge plant or the Thrybergh Bar Mill in Rotherham. The company employs more than 2000 people in South Yorkshire, including at its technology centre in Rotherham.

Tata Steel to set up new automotive tubes facility at Zwijndrecht

Tata Steel is to set up a new steel tubes manufacturing and processing facility at its Zwijndrecht plant in the Netherlands to serve the automotive sector.

The main elements of this expansion will be a heat treatment facility for the production of normalised precision tubes, and a cut-to-length line. The EUR3 million investment, due to be in operation by July 2012, will create 19 jobs. Steel used at the facility (including advanced and ultra high strength steels) will come from Tata Steel’s plants in IJmuiden and Port Talbot.

Remco Blauw, Managing Director of Tata Steel’s tubes business in Europe, said: “One of the main targets of the facility will be the supply of specialised chassis parts: normalised, cut-to-length high-strength steel tubes for lightweight structural use in vehicles. The integrated supply chain this investment will create within Tata Steel will enhance our ability to serve automotive OEM customers”.

In 2004 Tata Steel’s European tubes business entered the market for larger tubes for the automotive sector, making high-specification chassis tubes. The Zwijndrecht investment is due to make Tata Steel a fully integrated tubes supplier for the automotive sector, controlling the complete chain from the production of steel to the production, normalising, cutting and packing of tubes.

Siemens continuous casting line for ultra-thick slabs goes into operation at voestalpine Stahl

Two LiquiRob industrial robot systems have been installed in the new CC7 continuous slab caster at the Linz production site of voestalpine Stahl GmbH. The robots have been installed in front of and behind the ladle turret, one near the ladle support and the other in vicinity of the tundish car. They assume tasks such as automatic connection of electrical and utility supply to the ladle, connection of the shroud and sliding cylinder and the unlocking of the ladle tilt hinge bolt. Procedures at the tundish such as temperature measurements, the determination of oxygen and hydrogen content, sample taking, the addition of casting powder and ladle oxygen lancing are now completely automated and carried out by the robots. The operating personnel must no longer enter potentially dangerous zones and can safely monitor and control the casting process from the control room.

CC7 caster equipped by Siemens VAI at voestalpine Stahl GmbH in Linz, Austria.

The casting platform is automated by the LiquiRob robot systems.
The CC7 continuous casting line is equipped with a straight mold and a bottom feeding system in order to minimize setup times and is designed for an annual production volume of 1.2 million tons of slabs. Slabs can be cast in the line in thicknesses of 225, 285, and 355 millimeters and in widths ranging between 740 and 2200 millimeters. The casting bow radius is 10 meters, and the metallurgical length is 35 meters. Roughly 70 percent of the produced slabs will be further processed into heavy plates. Siemens VAI was responsible for all of the engineering activities and delivered the turnkey process equipment for the casting line, including engineering, assembly and startup supervision. The project also included the basic and process automation systems.

Dillinger Hütte invests in offshore wind

Dillinger Hütte is investing in a supplier plant for offshore wind power plants. The company’s Supervisory Board approved the investment for construction of a monopile plant in Nordenham (Lower Saxony). The monopile plant will be built directly on the North Sea. The location was attractive in terms of logistics, both for supplying the plant with plate from Dillinger Hütte and its subsidiary, GTS Industries (Dunkirk), as well as for delivering the finished monopiles, which can feature diameters of up to 7 meters, lengths of up to 100 meters, and can weigh up to 1000 tons. After reaching full capacity in 2017, the plant will be able to produce 100 monopiles per year. The plant will feature its own wharf facilities, large storage areas and railway and truck connections.

With this, Dillinger Hütte will no longer merely supply the input material – heavy plate – but instead aims at becoming a full-service provider of monopiles for construction of offshore wind power plants. A total of around €135 million will be invested in construction of the plant, which is expected to begin operating in 2014 and will employ more than 300 people.

With the plant, Dillinger Hütte is responding to expectations for high demand in the wind power plant market and to inadequate capacity among today’s suppliers.

In addition, Dillinger Hütte is investing a sum of around €9 million in the construction of a second plate edge-milling machine in its heavy fabrication division at the Dillingen location. This system allows plate to be precisely dimensioned; this can then be offered as a service that saves customers from having to perform this procedure themselves. These plates are primarily used for heavy plate with greater thicknesses, such as that used for pressure vessels and for offshore monopiles.

Both the plate edge-milling machine and the investment in construction of the new CC6 continuous casting line, which was approved in May, must ensure that sufficient supplies of plate can be offered in the technically demanding grades and large dimensions that both customers and the future Steelwind Nordenham company are bound to require.

ArcelorMittal orders converter tilting drive from SMS Siemag

ArcelorMittal Gent, Belgium, has placed an order with SMS Siemag, Germany, for the design, manufacture and installation of a new converter tilting drive. This shall replace the previous drive which has been operated by the company for forty years. The drive is rated for a torque capacity of 7500 km and is among the most powerful converter tilting drives supplied by SMS Siemag so far. The scope of supply includes main gear unit, primary gear units, torque arms, mounting device and pneumatic emergency drive. The gear unit and the trunnion pins are connected to each other by a special process. Compared with the connection via a tangential key, the installation is carried out by means of an oil press fit, resulting in a lower sectional area reduction of the drive-side trunnion pin. Furthermore, this facilitates dismantling and installation for maintenance purposes. In the event of failure of one of the four primary gear units, it is possible to continue operation for a certain period. The drive itself can be operated for a brief period with two primary gear units or, in the case of power failure, with the nitrogen motors. The tilting drive will be manufactured in SMS Siemag’s workshops in Hilchenbach and is to be delivered to Belgium in August 2012.

SMI Amtek to install second forging press line

SMI Amtek Crankshaft Pvt. Ltd, a joint-venture company owned by Sumitomo Metal Industries, Ltd., Sumitomo Corporation, and Amtek Auto Limited, has decided to install a second forging press line in order to respond to rapidly growing demand for crankshafts in India. This expansion will increase annual production capacity from 800,000 to 2.2 million units. Investment will amount to 1 billion rupees (approximately 1.9 billion yen at a rate of 1 rupee/1.9 yen), and the line is scheduled to start operation in November 2012.

The Sumitomo Metals aims to raise the global share to over 10% by the forged crankshaft business and will satisfy customers through our four-bases supply and sales structure, which comprises Japan, the United States, China and India.

ArcelorMittal Kessales modernizes CAL

The furnace section of the existing Stein Heurtey CAL at ArcelorMittal Kessales (Belgium), built in 1985, has been completely revamped. Annealing throughput is 650 000 t/y, the max. processing speed is 230 m/min. This continuous annealing line largely produces material for the automotive industry, especially high strength steel (DP1400).
EBNER has fitted this facility with double-P type Inconel radiant tubes from the new line of RECOTEB radiant tube/burner system solutions. This radiant tube/burner package features higher combustion efficiency and simultaneously lower NOx emissions. The scope of supply includes a new furnace section, 203 RECOTEB radiant tube/burner packages (double-P type, Inconel), modifying the exhaust system from Pull to Push/Pull and new electrical and control systems including installation and commissioning. The largest challenge presented by this project involved dismantling the existing furnace section and removing it in segments, without touching the support frame. Both roll boxes will remain as is.

**Constellium to invest €28 million in Neuf-Brisach and Singen plants**

Constellium, formerly Pechiney-Alcan, will invest €28 million in its Neuf-Brisach (France) and Singen (Germany) plants to meet customer demand and optimize production processes.

€13 million will be invested in Neuf-Brisach in the modernization of the pre-heating process. The plant is a supplier of rolled aluminium products to the beverage and food packaging, as well as the automotive, markets. The investment plan includes the installation of a new pusher furnace.

In parallel, the rolling mill in Singen, which specializes in functional surfaces for the packaging, building, renewable energy and automotive markets, will benefit from a €4 million investment for the revamping of two of its pusher furnaces in order to improve performance and operating flexibility.

€11 million will also be invested in the installation of a new press line in Singen, focusing mainly on extruded profiles for the automotive Crash Management Systems (CMS) business. This investment must ensure a significant step in capability and productivity improvement to support Constellium’s internal supply chain for the Automotive Structures plant in Gottmadingen (Germany).

**Paul Wurth secures contracts in India**

The Paul Wurth Group has recently booked a number of orders for engineering and supply of its Bell Less Top charging systems to be installed on existing and new blast furnaces for various customers throughout India.

JSW Steel Ltd. intend to modernize their ironmaking facilities and ordered Paul Wurth MIDI BLT® systems for Blast Furnaces No. 1 and 2 (sized at 8 and 8.4 meters hearth diameter respectively) of the Vijayanagar Works at Toranagallu, Karnataka state. This BLT type features a new, more efficient water cooling concept for the main equipment. On No. 2 BF it will replace a rotary charging unit.

As an alternative to another no-bell system and in order to ensure plant availability and performance, Essar Steel Ltd. has purchased Paul Wurth’s MIDI BLT® chute drive for the 10.5 m diameter hearth furnace operating at its Hazira works, Gujarat state.

SAIL’s Durgapur Steel Plant in West Bengal will also use Paul Wurth’s technology in the future. During its next capital repair, Blast Furnace No. 3 (with an 8.6 m diameter hearth) will be upgraded from double bell charging to the Paul Wurth CF (Central Feed) BLT system, a type designed for mid-sized furnaces which has been successfully used in various SAIL plants for many years.

Equipment supply, installation and commissioning of all these projects are scheduled to take place in 2012.

**NLMK revamps hot rolling facilities**

Following its reconstruction, NLMK has started hot testing and produced the first slab at its reheating furnace No. 3, a facility for heating slabs prior to hot rolling. Furnace capacity has increased 23% to 320 tonnes per hour. The revamped furnace must allow a 35% reduction in specific fuel consumption, decreased metal loss, lower air emissions, and stabilized rolling.

Reheating furnace No. 3 is the third new type facility at NLMK’s hot rolling operations in Lipetsk (reheating furnace No. 5 was revamped and commissioned in 2004, reheating furnace No. 4 – in 2007). The technological capabilities of these units enable them to process both carbon and transformer (grain-oriented) steel slabs.

The project forms part of the action plan aimed at the reconstruction of Hot Strip Mill 2000 equipment with a view to expanding hot-rolled steel production at NLMK’s Lipetsk site to 5.7 million tonnes of high quality steel by improving the productivity of existing equipment. This project, worth approximately RUR1.9 billion, has been implemented jointly with CMI (Belgium) as part of Stage II of NLMK’s Technical Upgrade Program.

**Dongfeng Nissan orders SMS Meer forging line**

The Chinese-Japanese joint venture, Dongfeng Nissan Passenger Vehicle Company, has placed an order with SMS Meer for the supply of a wedge press with forging roll. The machines are intended for the new
forging works in Guangzhou (Huadu Province, China). The plant will enable Dongfeng Nissan to produce various con rod sizes for passenger cars.

The wedge press is an AKP 2500 with a forging force of 25 MN which can withstand large eccentric loads. The wedge drive of the ram ensures consistently close forging tolerances. The ARWS 1 forging roll performs the material to be forged.

Dongfeng Nissan will produce con rods only for its own car production on the plant. The production of the con rods on forging roll and wedge press is fully automatic. The parts are transported in the wedge press by a servo-electric automatic walking beam system. A die holder quick-changing facility is also integrated into the plant. The plant forges two con rods simultaneously in a cycle time of 4.8 seconds.

Nissan already successfully operates two identical plants from SMS Meer at its works in Yokohama, Japan. Commissioning of the new forging line is scheduled for the beginning of 2013.

ArcelorMittal Hamburg modernizes wire rod mill

ArcelorMittal Hamburg GmbH, Germany, has placed an order with SMS Meer, Germany, for the modernization of a two-strand wire rod mill. The annual capacity amounts to 900,000 t. With this revamp ArcelorMittal aims to improve the product quality. New cantilever stands from SMS Meer will enable higher rolling forces in the future.

This is the fifth modernization order which ArcelorMittal has placed with SMS Meer for the wire rod mill supplied in 1969. With the present revamp ArcelorMittal is continuing the abolition of the mill stands designed for two-strand operation. The company will be replacing the last two mill stands of the intermediate train 1. Currently, a two-strand rolling operation is taking place in these mill stands.

SMS Meer will be converting this section into two single-strand rolling lines. For this purpose, the existing looper tables will be moved and two new mill stands of type CL 200 will be positioned in V-H arrangement for each strand. These cantilever mill stands represent a new generation and are able to absorb even higher rolling forces and rolling torques. The modernization will be completed in September 2012.

Outotec wins large-scale iron ore pelletizing plant project in Russia

Outotec has agreed with NLMK Novolipetsk Metallurgisk Kombinat on the delivery of a large-scale iron ore pelletizing plant in Stary Oskol, 600 kilometers south of Moscow. NLMK Novolipetsk belongs to steel producer NLMK Group. The project will be executed in cooperation with Siemens VAI. Outotec’s share of the project is approximately EUR 150 million.

Outotec’s scope includes basic and detailed engineering, process technology, procurement services as well as the entire process and plant equipment supplies for the iron ore pelletizing plant. In addition, Outotec has agreed to provide services during the plant’s installation and start-up.

Construction is expected to be completed in 2014 with the plant fully meeting NLMK’s pellet targets for its main production facility in Lipetsk in 2015. When completed, the Stary Oskol project will produce roughly 6 million tonnes of pellets annually.

Vallourec inaugurates new Brazilian plant

Created under a joint venture agreement, Vallourec & Sumitomo Tubos do Brasil (VSB) is 56% owned by Vallourec and 44% owned by Sumitomo Metals and Sumitomo Corporation. The construction of the new plant, which began in 2008, is now complete, and production is in the start-up phase. VSB is located in Jeceaba, in the state of Minas Gerais, close to Vallourec’s other Brazilian entities. It is an integrated plant, producing steel billets and seamless steel tubes, which benefits from direct access to raw materials provided by two Vallourec subsidiaries, one specializing in iron ore extraction, and the other in charcoal production.

This manufacturing will have two blast furnaces and an electric furnace, a premium tube-making facility and heat treatment, threading and finishing lines. It will employ a workforce of 1600 and will have an annual production capacity of one million metric tonnes of steel (of which 300 000 tonnes for Vallourec’s own, non-VSB requirements), and 600 000 metric tonnes of tubes, of which 300 000 tonnes for Vallourec. The plant must boost the Group’s tube production capacity by over 10% and will serve international oil and gas markets, notably in West Africa.

The electric arc furnace was supplied by Tenova. VSB selected a blast furnace technology that can use both coke and charcoal, which is considered a renewable source of energy. The 140 ton capacity Consteel EAF is due to optimize energy consumption and assure a low level of noise emissions and pollutants.

Tenova also supplied the dedusting system and other ancillary equipment of the meltshop. In the rolling mill section Tenova LOI Italimpianti provided the rotary hearth furnaces and the shell furnaces. Tenova LOI Italimpianti also provided two walking beam furnaces for tempering as well as one 100 t/h walking beam furnace for hardening for the plant heat treatment facilities.
By resolution of the Supervisory Board, Peter Urban, Chief Financial Officer of ThyssenKrupp Steel Europe AG, has additionally been appointed head of “Controlling” on the management board of the Steel Americas business area with immediate effect. The post became vacant when his predecessor Reinhard Florey switched to the management board of the Stainless Global business area.

Eurofer: “China dumps organic coated steel on EU market”

Eurofer filed an anti-dumping complaint with the European Commission providing evidence that imports of organic coated steel from China are sold at dumped prices and cause significant injury to the EU steel industry.

“Over the past four years imports from China into the EU increased dramatically, despite the drop in EU consumption. As a result of this, the EU industry lost sales and market share forcing it to cut back on production and to reduce capacity”, says Gordon Moffat, Eurofer’s director general.

According to Eurofer the EU market share of organic coated steel from China has increased from 0.5% in 2004 to 15% over the last 12 months, with imports at their highest ever level in the second and third quarters of 2011. The imports were sold at prices significantly below prices of EU producers and prices from other third countries.

The product covered by the complaint is organic coated steel, consisting of pre-painted sheet and plastic coated sheet, which are composite materials made up of a metallic substrate and an organic coating which adhere together firmly and complement each other in their properties.

Vale to invest in new demonstration plant

Vale announced a 49 million Canadian dollars investment in its Copper Cliff Mine 114 Orebody Demonstration Plant, in Ontario, Canada. The demonstration plant will feature Rail-Veyor technology and offer opportunities to test safer and more efficient mining techniques and new, specialized equipment. “The 114 Orebody Demonstration Plant is part of...”
Developing a sustainable mining operation in Liberia has necessitated finding solutions to a number of challenges. To date, ArcelorMittal invested 800 million USD in repairing roads and infrastructure, whilst also supporting the need for education and healthcare amongst the local population, through projects including the reconstruction of a 240 km railway, port, hospital and school facilities – developments that will serve local communities as well as enabling the iron ore mining operation to operate efficiently.

By 2012, ArcelorMittal aims to ship four million tonnes of iron ore from Liberia each year. A first test shipment successfully took place last week.

Another key element of the company’s investment in Liberia was the launch, in January 2010, of the Corporate Responsibility (CR) Forum. Created in partnership with the German international development body Deutsche Gesellschaft Fur Internationale Zusammenarbeit (GIZ), the role of the CR Forum is to promote effective corporate citizenship and good business practice amongst both domestic Liberian companies and other multinationals planning to invest in the country.

The creation of this body, which is also chaired by ArcelorMittal, has received credit from campaign groups including the UK-based corporate watchdog Global Witness, underlining the credibility and transparency of the company’s strategy.

ArcelorMittal has focused on creating a sustainable operation that can ultimately be run by Liberian nationals.

The $3.4 billion investment Vale announced for its Sudbury operations in November 2010, said Alex Henderson, General Manager, Mines and Mill Technology, North Atlantic Region, Vale. “This investment allows us to test new and innovative mining technologies that could dramatically improve mining processes across our operations”.

Rail-Veyor technology will soon be installed at the 114 Orebody Demonstration Plant. The technology is currently being tested at an above ground site near Turner Road in Sudbury. The project is expected to create approximately 100 jobs for the duration of the project. Project completion is scheduled for the first quarter of 2013.