Press

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GRP Becomes Asia's Lead Supplier of Zero Carbon Endless Hot Rolled Coil to Europe Following Landmark Deal with Primetals Technologies

- **Multi-million-dollar deal with Primetals Technologies will make GRP Asia's first supplier of hot rolled coil (HRC) with zero carbon direct emissions, outside of China, trading into Europe**
- **Primetals Technologies' revolutionary Arvedi ESP technology for the production of endless hot rolled coil (eHRC) is reshaping how the global steel industry produces steel, trusted by major international steelmakers**
- **GRP's supply will be ready for export into international markets including Europe by 2027, aligning with the launch of the European Union's carbon border adjustment mechanism regime**

Gunung Raja Paksi Tbk (GRP), Indonesia's largest privately owned steel manufacturer, signs a landmark deal with Primetals Technologies to become Asia's first steel plant outside of China able to meet Europe's growing demand for zero carbon hot rolled coil (HRC), and confirms GRP as the leading lowest carbon steel manufacturer in Southeast Asia.

GRP will integrate Primetals Technologies' Arvedi ESP concept, a revolutionary technology that directly links casting and rolling processes operating in endless mode and allowing the production of thin and ultrathin gauges well below 1 millimeter in thickness, largely replacing cold rolled coil steel in Indonesia. As part of its ambitious transition program, GRP will also implement electric arc furnace (EAF)-based steelmaking.

Zero Greenhouse Gas Emissions

The Arvedi ESP endless strip production technology is the first-ever solution developed for the production of steel rolled products that eliminates the use of fossil fuels, reducing the direct greenhouse gas emissions to zero. Production will begin by 2027, advancing GRP's plans to double its current production from 1,300,000 tons to 2,500,000 tons of low carbon steel, over 50 percent of which will be traded into the European Union (EU). The Primetals Technologies scope covers the supply of the full technological equipment including a high-speed caster and a 3 plus 5 stands rolling mill, as well the full package of electric and automation solutions to complete the ESP plant configuration.

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The deal cements GRP's status in the region as a first mover in low carbon steel and its competitive advantage for exporting into the EU's carbon border adjustment mechanism (CBAM) regime. It also forms GRP's latest milestone in its industry-leading Project Green Dragon initiative.

"GRP is setting a new standard for sustainable steel production and capturing the growing green premiums in the market. Through GRP's partnership with Primetals Technologies, we are investing in the global competitiveness of the Indonesian steel industry to help safeguard its future, while building on the Indonesian Government's efforts to sustainably scale this critical industry and reach net zero by 2060," says Kimin Tanoto, GRP Executive Chairman. "GRP is the only steelmaker in our region brave enough to adopt a technology this advanced in the interests of Asia's net zero future, and to compete in the world's emerging carbon trading regimes."

The Arvedi ESP plant's capability to produce high-quality, ultra-thin HRCs of superior quality and improved homogeneity surpasses all other technologies available on today's market. The technology's environmental benefits, including zero CO2 direct emissions, reduced energy consumption, and the elimination of cold rolling and annealing downstream processes, are driving real-world emission reductions in the global steel industry.

Advanced Plant Automation Solutions

Meanwhile, the operational efficiencies achieved through Arvedi ESP's use of advanced digital solutions for plant automation including AI learning tools demonstrate how the Internet of Things (IoT) is revolutionizing steel production at plants like GRP's and bringing new levels of innovation to the Asia region.

"Our team is just excited to partner with GRP in materializing the most advanced project in Asia in terms of green steel ambitions. The Arvedi ESP line at GRP will be the 13th Primetals Technologies plant in the word applying the reliable and yet revolutionary concept of endless casting and rolling, and we recognize GRP for being the first producer in Asia, out of China, to embrace it", says Andreas Viehboeck, Executive Vice President and Head of Global Business Unit Upstream at Primetals Technologies. "Compared to other available technologies, the Arvedi ESP technology ensures higher energy savings and superior material yield and product quality, while guaranteeing the absence of any fossil fuel usage. This will allow GRP to stand out and excel on both Indonesian and international markets, enabling them to also enter into high added value quality product niches, including automotive applications".

"Our adoption of Primetals Technologies' Arvedi ESP technology means, practically overnight, GRP has leapfrogged from its status as a well-known raw commodity manufacturer to high-end steel product producer – no other steelmaker in the world has successfully executed a category shift as swiftly as this. GRP's integration of the new ESP plant will not only help uplift the skills of Indonesia's homegrown talent but also unlock a whole range of higher quality steel products for the domestic and international market," says Kelvin Fu, GRP's Chief Transformation Officer. "This strategic investment will not only boost production capacity to meet surging global demand but also introduce cutting-edge technologies that minimize environmental impact."

Indonesian steel producer GRP signs landmark deal with Primetals Technologies for a new Arvedi ESP line.

About GRP

PT Gunung Raja Paksi Tbk (GRP) is a member of Gunung Steel Group, one of the largest private steel companies in Indonesia. Established in 1970 in Medan, North Sumatra, the company started the business by producing liquid steel, gradually producing beams and steel sheets. In 1991, PT Gunung Naga Mas transitioned to PT Gunung Raja Paksi (GRP). GRP is in Cikarang Barat, West Java Province, Indonesia, covering more than 200 hectares.

With more than 50 years of experience in the steel industry, GRP has the production capacity of 1,300,000 tons of high-quality low carbon steel annually certified by local and international certification organizations. GRP's work aligns with international standards such as the Sustainable Development Goals (SDGs), the Global Reporting Initiative (GRI) and Responsible Steel Principles.

The company is supported by a dedicated workforce and strong corporate values. It launched its ESG Strategy Handbook in October 2022 to guide the company's business strategy, and Net Zero Roadmap in February 2023.

Project Green Dragon: A Holistic Approach to Sustainable Steel

In November 2024, GRP announced its multi-million-dollar, multi-phased initiative, Project Green Dragon, to transform GRP into a leader in sustainable steel production. The project involves a redesigning of GRP's operations, including:

- Transitioning to 100 percent Electric Arc Furnace (EAF) Steelmaking: GRP will demolish its existing non-commissioned blast furnace and rely solely on EAF technology, which is significantly more energy-efficient and environmentally friendly.
- Securing a Reliable Supply of Recycled Scrap: Recycled scrap will be the primary feedstock for steel production, contributing to a circular economy and reducing reliance on virgin materials. GRP is implementing a proactive scrap sourcing strategy, including investing in and partnering with scrapyards domestically and internationally.
- Powering Operations with Green Energy: GRP is actively pursuing the use of renewable energy sources to power its EAFs. This will further reduce the company's carbon footprint and make its steel products even more sustainable.

About eHRC and full Plant Digitalization

eHRC stands for endless Hot Rolled Coils, i.e. hot strip casted and rolled by an Arvedi ESP plant without any interruption between the casting and rolling process, which is inevitable in conventional technologies. Thanks to the so-called endless process, the surface quality, the geometrical tolerances, and the uniformity of mechanical properties of eHRC are superior to conventional hot rolled coils and is comparable to cold rolled products.

This innovative solution, successfully applied for the first time in 2009 at the Acciaieria Arvedi plant in Italy and implemented at 13 plants in Europe, China and USA to date, allows to fully exploit the thermal energy of the liquid steel for the rolling process, hence eliminating the usage of fossil fuel fired reheating furnaces, reducing the greenhouse gas direct emissions to zero.

The endless process also allows the production of coils featuring thin and ultra thin gauges, as low as 0,8 millimeters for the GRP plant, which is impossible to produce with conventional processes. This allows products, in the form of hot rolled band, that other technologies can materialize only with additional cold rolling downstream processes.

The Arvedi ESP plant involves a holistic and comprehensive approach to all the single phases of the process such as solidification of liquid steel, mechanical deformation during rolling, complex metallurgical transformations, cooling processes, as an interconnected and interdependent chain.

A sophisticated automation architecture, fully developed by Primetals Technologies, masters this kind of chain of seamlessly connected processes. This is achieved thanks to intertwined mathematical models of each step that continuously and dynamically adapt the technological process parameters to guarantee the absolute quality of the final product.

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Primetals Technologies, Limited, headquartered in London, United Kingdom, is a pioneer and world leader in the fields of engineering, plant building, and the provision of lifecycle services for the metals industry. The company offers a complete technology, product, and services portfolio that includes integrated electrics and automation, digitalization, and environmental solutions. This covers every step of the iron and steel production chain–from the raw materials to the finished product–and includes the latest rolling solutions for the nonferrous metals sector. Primetals Technologies is a Group Company of Mitsubishi Heavy Industries, with around 7,000 employees worldwide. To learn more about Primetals Technologies, visit the company website primetals.com.