

## Leading Bioplastics Producer, to Expand its Green Business Portfolio



PTT Chemical announced today that it is collaborating with Cargill to form a 50/50 joint venture by investing \$US150 million in NatureWorks LLC, the world's leading bioplastics manufacturer and supplier of its broad family of renewable Ingeo(TM) biopolymers made from plants to plastics and fibers markets worldwide.

"The Thai Government encourages an investment in Green Chemicals, and particularly bioplastics which have high growth potential in the South East Asian market" said Thailand's Minister of Energy, H.E. Mr. Pichai Nariiphaphan. "PTT Chemical has made a significant step in achieving Thailand's strategic objectives of becoming a regional hub for green technologies and solutions."

"This is a significant investment by a leading chemical company which will allow NatureWorks to continue its aggressive growth while expanding its capacity to meet global demand for bio-based products. PTT Chemical's investment demonstrates a significant milestone in moving Ingeo bio-based plastics & fibers to the polymer mainstream," said Marc Verbruggen, president and chief executive officer of NatureWorks. "PTT Chemical's investment supports NatureWorks intent to globalize its Ingeo manufacturing capability by building a new production facility in Thailand, supporting our Asian customer base, and delivering on our commitment to renewable feedstock diversification. We anticipate bringing the new plant online in 2015 and expect to announce further details on this expansion later this year."

"This investment will strengthen PTT Group's Green Growth strategy towards sustainable development by integrating more renewable and environmentally friendly materials in its portfolio, while offering more green product choices to the customer to fulfill our responsibility as the "Power for a Sustainable Future" for Thailand and all stakeholders" said Mr. Nuttachat Charuchinda, the Chief Operating Officer, Downstream Petroleum Business Group of PTT Public Company Limited. "PTT Group is keen to play a role in pioneering a world-scale bioplastics industry with the aim to become a global leader by 2020 and push Thailand to become an Asian bio-hub."

"PTT Chemical reinforces NatureWorks' leadership position and proven track record in bringing cost effective biopolymer innovations to the global marketplace," said Mr. Veerasak Kositpaisal, President & CEO of PTT Chemical Public Company Limited. "NatureWorks is currently the forefront producer of bio-based products with commercially viable production volumes, competitive costing and a global customer base. Our investment in the company and its Ingeo technology platform for plastics and fibers is in line with our long-term strategic green growth and diversification objectives."

"We are very pleased to partner with PTT Chemical," said Paul Conway, the Vice Chairman & Director of Cargill Incorporated. "This collaboration marries Cargill's upstream expertise in agricultural feedstocks and world-class organic acid fermentation with PTT Chemical's downstream expertise in polymers and leadership in Asian markets. We look forward to working together to support the growth of bioplastics."

Ingeo offers the performance of conventional plastics and fibers with a fraction of the greenhouse gas emissions and much lower non-renewable energy requirements. Because it is made from renewable plant material, Ingeo has inherently more stable pricing, contrasting sharply to the massive price swings observed from fossil based polymers, according to Mr. Veerasak Kositpaisal.

NatureWorks has seen steady 25 to 30 percent increases in annual product demand over the past several years. In the last two years, NatureWorks doubled its Ingeo supply availability by bringing online the full production capacity of its Blair, Nebraska, processing facility. The proposed new Ingeo facility in Thailand would be NatureWorks' second production plant, Marc Verbruggen added.

More than 100 leading consumer brands and retailers in the US, Europe and Asia currently offer Ingeo based product innovations in such categories as flexible and rigid packaging, food service-ware, durable consumer products, apparel, home textiles and personal care and hygiene products. An Ingeo innovation display gallery, presented in conjunction with the t COP-16 [climate change](#) conference in Cancun, Mexico, showcased a selection of commercially available, low-carbon-footprint Ingeo products produced by such international brands as Avianca, Electrolux, Henkel, NEC, Shiseido, Stonyfield and Walmart.