

The UPM Market Informer

SEPTEMBER, 2020
Inside This Issue
Surcharge Update2
Rolls-Royce Engine Core Demo3
GE Delivers UK Battery Storage3
U.S. Steel Imports Surge4
Boeing 737 Max Service Momentum4

Competitive Ventures, GE & Kiewit Ready to Begin Work on 1.25-GW Gas Fired Illinois Project

Competitive Power Ventures has closed on the financing for its gas-fired Three Rivers Energy Center project in Illinois. CPV partnered with GE Energy Finance Services, Osaka Gas USA, Axium Infrastructure and Harrison Street. Three Rivers Energy Center attracted \$1.3 billion in private investment. The planned 1,250-MW combined cycle gas turbine facility will use GE's HA turbine technologies and sell its power into the PJM Interconnection market.

Kiewit is lead contractor on construction which should begin soon. Three Rivers Energy Center is expected to begin commercial operation in 2023. The project would be Maryland-based CPV's biggest power plant to date. "Achieving financial close for CPV Three Rivers during a global pandemic and with commitments from 14 international lenders is a testament to CPV's successful track record developing, financing, constructing, and operating safe, reliable, cost-effective and environmentally responsible power generation facilities," said CPV CFO Paul Buckovich. "We're grateful for the trust our lenders have placed in us to deliver."

The plant will feature combustion turbines, two heat recovery systems and two steam turbines. The operational flexibility will allow Three Rivers to quickly respond to grid needs and help support the growing deployment of intermittent renewable generation, according to the company. "GE is honored to continue its relationship with Competitive Power Ventures by supplying advanced gas technology for CPV's third HA-powered facility," said Scott Strazik, President and CEO of GE's Gas Power business. "Our relationship with CPV is built on proven results, and we are proud to be able to provide state-of-the-art technology, services and strategic financing to help develop complex projects like Three Rivers, which will provide reliable, affordable, and sustainable electricity to CPV's customers."

On the financial and infrastructural side, CPV and GE together have closed six projects totaling more than 4,000 MW and \$4 billion of investment, according to reports. CPV owns interest in more than 4.2 GW of power generation across the U.S. Its asset management division manages more than 9,300 MW of fossil and renewable power sites in nine states. Global Infrastructure Partners is principal owner of Competitive Power Ventures. *Source: Power Engineering, Clarion Energy Directors, Photo, Competitive Power Ventures*



Get a quote on 625 or 718 nickel bar from United Performance Metals. We have over 29 bar saws in house with the capacity to process up to 36" diameter and cutting tolerances as low as +/-.030.



UPM Has The Materials You Need To Keep Your Business Running!

> 888.282.3292 sales@upmet.com

VISIT OUR WEBSITE! www.upmet.com



Surcharge Totals June - November 2020

	Jun	Jul	Aug	Sep	Oct	Nov
15-5	0.4464	0.4620	0.4637	0.4792	*	*
15-7	0.6263	0.6320	0.6105	0.6376	*	*
17-4	0.4386	0.4540	0.4563	0.4700	*	*
17-7	0.5405	0.5608	0.5635	0.5951	*	*
201	0.4385	0.4493	0.4405	0.4570	*	*
301 7.0%	0.5350	0.5548	0.6785	0.5874	*	*
302/304/304L	0.5846	0.6072	0.5569	0.6481	*	*
304-8.5%	0.6052	0.6292	0.6120	0.6738	*	*
305	0.7532	0.7871	0.8015	0.8591	*	*
309	0.7838	0.8177	0.8326	0.8906	*	*
310	1.0884	1.1421	1.1741	1.2700	*	*
316/316L	0.7874	0.8030	0.7902	0.8363	*	*
316LS/316LVM	1.0500	1.0800	1.0900	*	*	*
317L	0.9149	0.9270	0.9058	0.9573	*	*
321	0.6168	0.6422	0.6492	0.6906	*	*
347	0.9266	0.9520	0.9590	1.0005	*	*
409/409 Mod	0.1929	0.1929	0.1774	0.1696	*	*
410/410S	0.1996	0.1996	0.1842	0.1765	*	*
430	0.2389	0.2389	0.2243	0.2170	*	*
434	0.2908	0.2860	0.2631	0.2556	*	*
439	0.2474	0.2474	0.2330	0.2258	*	*
440A	0.2389	0.2389	0.2243	0.2170	*	*
2205	0.7179	0.7135	0.6785	0.6995	*	*
263	5.2107	4.8689	4.6223	4.5819	4.5415	4.5356
276	4.9677	4.4746	4.3545	4.5443	4.5846	4.6333
A286	1.3310	1.2250	1.1963	1.2611	1.3262	1.3895
330	1.6758	1.5422	1.5141	1.5934	1.7000	1.8123
400	3.0570	2.6813	2.6200	2.7798	3.0520	3.3636
455	0.6500	0.6800	0.7000	*	*	*
465	0.7700	0.7900	0.8200	*	*	*
600	3.3252	3.0087	2.9608	3.1118	3.3344	3.5831
601	2.8700	2.6280	2.5877	2.7129	2.8952	3.0976
617	4.9474	4.5508	4.3728	4.4409	4.4718	4.5289
625	5.3620	4.9912	4.9088	5.0677	5.1746	5.2960
718	5.2293	4.9757	4.9239	5.0456	5.1730	5.3134
X-750	3.8914	3.5856	3.5389	3.6860	3.9024	4.1440
825	2.2527	2.0533	2.0068	2.1070	2.2015	2.3032
НХ	3.1887	2.8722	2.7909	2.9228	2.9887	3.0624
188	6.3500	5.9700	5.8000	*	*	*
CCM	7.0000	6.5400	5.6500	*	*	*
L-605	7.3300	6.8100	6.5200	*	*	*

*Surcharge currently not available

Rolls-Royce Reveals Attritable Engine Core Demo

Rolls-Royce LibertyWorks has completed rig tests on a new small, low-cost gas turbine core which has been developed using scalable design, manufacturing and materials techniques to meet the emerging U.S. defense requirements for limited-life or attritable engines.

Rolls-Royce says the rapid prototyping project was completed from design-to-test in less than a year at the company's advanced technology unit in Indianapolis. Although no details have been

released of the demonstrator core size or thrust class, Craig McVay, senior vice president of Strategic Campaigns at Rolls-Royce Defense, says "the important element is that it can be scaled to meet numerous needs we see in the expendable and attritable market for the Department of Defense."

The U.S. Air Force is targeting a price range between \$2 million and \$20 million for an emerging class of attritable unmanned aircraft systems that are designed to be reusable surveillance platforms or hybrid cruise missiles depending on the mission. Propulsion system research for the limited-life applications, which range in power requirement from several hundred pounds to 20,000 lb. thrust, is underway at the Air Force Research Laboratory as part of the wide-ranging Advanced Turbine Technologies for Affordable Mission Capability (ATTAM) program.

"This was a Rolls-Royce North America funded program, undertaken while looking at the future needs of the Air Force, Navy, and Army. We believe that this puts us in a perfect position to provide a propulsion system of the future," McVay says. Following initial rig tests, the company plans to use the core engine to demonstrate future low-cost and performance improvement technology. *Source: Aviation Week, Guy Norris* <u>Click here to read more on this story.</u>

GE to Deliver UK's First DC-Coupled Battery Energy

GE Renewable Energy has been selected by Wykes to deliver a 25MW multiple hour duration Energy Storage System, to be integrated with Wykes' solar PV plant at the Chelveston Renewable Energy Park, UK. The site currently operates with 60MW of solar energy and 26MW of wind energy, featuring GE's 2.85MW onshore wind turbines. Wykes will use GE's Reservoir Energy Storage technology to add another 60MW of solar capacity, for a total of 120MW of solar and 146MW from the park.



improve the overall energy output of the solar-storage hybrid system while optimizing costs and increasing the overall system reliability and flexibility. This represents UK's first DC-Coupled Battery Energy Storage System (BESS) integrated with a solar plant.

With the reservoir energy storage system Wykes has full flexibility for today's market circumstances and future market dynamics. It allows Wykes to fully optimize the energy they generate on-site, as well as optimize their grid connection and flexibility to choose how and when the energy generated is used.

Scott Coleman, process and controls engineering manager, Wykes Engineering Ltd said: "As part of our ongoing relationship with GE Renewable Energy, we selected their power storage system as it was flexible, scalable and allowed us to perform a range of tasks enabling us to provide resilient services, not only to the National Grid, but to our Private energy consumers within our expanding on-site Grid."

Prakash Chandra, renewable hybrids CEO, GE Renewable Energy, said: "The world is increasingly moving to generate more dispatchable renewables using hybrid solutions – combining the power of standalone technologies like wind and solar with storage through controls and software, and, this project is a further demonstration of GE's capabilities in this space. We are proud to have been selected by Wykes to deliver this flagship project in the UK and for the opportunity to deliver on this challenging solution."

The UK Government recently announced that it will make it easier to construct projects to store renewable energy from solar and wind farms across the UK as part of its efforts to reduce greenhouse gases by 2050. There is currently 4GW of storage projects in planning which could power a combined 6 million homes in the UK, in addition to the 1GW of battery storage already in operation. *Source: Power Engineering International*







U.S. Steel Imports Surge in July, Powered by Surge from Blooms, Billets and Slabs

U.S. steel imports picked up in July, the U.S. Census Bureau reported in its monthly steel import data release today. U.S. imports of steel reached an estimated 2.4 million metric tons in July, nearly doubling the 1.3 million metric tons imported the previous month.

"The July change in steel imports based on metric tonnage reflected increases in blooms, billets, and slabs; galvanized hot dipped sheets; and reinforcing bars," the Census Bureau reported. "Decreases occurred in oil country goods, line pipe, and standard rails. Increases occurred primarily with Brazil."

Imports from Brazil reached 1.12 million metric tons in July, up from 21,067 metric tons the previous month and 910,976 metric tons in July 2019. Rebar imports totaled 113,567 metric tons in July, up from 70,447 metric tons in June. June imports of blooms, billets and slabs reached 72,334 metric tons. In July, that import figure skyrocketed to 1.20 million metric tons. July 2019 imports, however, reached 1.07 million metric tons. Steel imports for the year to date, however, are down compared to 2019. For the year to date through June 2020, the U.S. imported 11.2 million metric tons of steel. Meanwhile, for the same period in 2019, the U.S. imported 14.2 million metric tons.

"The largest commodity decrease occurred primarily in oil country goods," the Census Bureau said. "Increases occurred primarily in tin free steel; light shaped bars; and pipe and tubing."

Imports of wire rod, meanwhile, fell to 348,614 metric tons from 511,447 metric tons in 2019. By country, the largest year-todate decreases in imports came from Russia and Korea. The largest imports increase came from Canada, Mexico, and Turkey. July imports of oil country goods reached 62,490 metric tons, down from 97,710 metric tons in June. Through the first half of 2020, imports of oil country goods totaled 704,231 metric tons, down from 1.31 million metric tons in H1 2019. The decline in oil country goods imports comes as oil prices have languished. The WTI crude oil price reached \$42.62/barrel on Monday, down slightly from the prior week, according to the Energy Information Administration. Meanwhile, the WTI price came in down \$11.55/barrel from the price a year ago. However, the oil price has recovered in recent months after plummeting into negative territory in April. *Source: MetalMiner, Fouad Egbaria, Photo: Adobe Stock, nattanan726*

Boeing 737 Max Return to Service Picks Up More Momentum as Key Regulator Completes Test

A Canadian regulator completed Boeing 737 Max simulator and test flights, a further step in returning the grounded jet to service. Boeing (BA) stock rose. Transport Canada began test flights Wednesday and told Reuters Friday that it is the first international regulator to complete validation testing of Boeing 737 Max and is now analyzing the results. Meanwhile, the European Union Aviation Safety Agency (EASA) said Thursday that the agency would start the 737 Max test flights in Vancouver, Canada, the week of Sept. 7.

"While Boeing still has some final actions to close off, EASA judges the overall maturity of the redesign process is now sufficient to proceed to flight tests," according to the release.

The jet completed the Federal Aviation Administration's certification flight tests in early July. In August, the agency outlined a proposed airworthiness directive that will require Boeing and airlines to meet certain conditions before the jet can return to flight. Shares rose 0.9% to close at 175.80 on the stock market today, after retaking their 50-day average earlier this week, according to MarketSmith chart analysis. Top Boeing 737 Max supplier Spirit AeroSystems (SPR) added 1.6%, and engine supplier General Electric (GE) climbed 2%. *Source: Gillian Rich, Investors Business Daily*