



NOVA Chemicals (NCX) 4.875% Senior Notes '24, 5.000% Senior Notes '25 and 5.250% Senior Notes '27

Since EBITDA expanded rapidly in 2011 as a by-product of North American producers having a feedstock cost advantage over its competitors in Europe and Asia, NOVA Chemicals has been operating with a very conservative balance sheet with net debt near zero over that period. 2017 has seen a change in the capital structure as NOVA embarked on its strategic goal to grow significantly, with a focus on increasing its scale and diversification in the U.S. Gulf Coast, which complements NOVA's existing asset structure in Canada.

On July 6, 2017, NOVA completed its \$2.1 billion acquisition of Williams Partners L.P.'s 88.46% interest in the Geismar, Louisiana olefins plant, 525 acres of undeveloped land adjacent to the plant and Williams' interest in the Ethylene Trading Hub in Mt. Belview, TX. The plant produces 1.95 billion pounds of ethylene annually, while the adjacent land represents a significant opportunity for future growth. NOVA issued \$1.05 billion of 4.875% Senior Notes '24 and \$1.05 billion of 5.250% Senior Notes to finance the acquisition of Geismar. Additionally, on July 6, 2017, the Company paid \$501 MM to Dow Chemical with respect to the Canadian patent litigation suit. Following the acquisition and the litigation payment, LTM Net Leverage has increased from the 0.0x level that the Company was operating at to a still modest 1.8x.

Additionally, in March 2017, NOVA and Borealis signed a preliminary agreement to form a JV with Total Petrochemicals and Refining that will develop and own a new 2.2 billion pound light feed cracker in Port Arthur, TX, develop a new 1.35 billion pound polyethylene facility in Bayport, TX and own Total's existing Bayport polyethylene facility that has capacity of 880 MM pounds. A final investment decision is expected to be made by the end of 2017. The Company is also undertaking two new large-scale projects at its Canadian operations, which feature an expansion of the Corunna cracker by 50% to provide ethylene feedstock to a new polyethylene facility with 950 MM pounds of capacity, with start-up targeted for late 2021. These new growth projects will keep the Company's CapEx at elevated levels with a preliminary 2018 budget of \$800 MM, following \$700 MM in 2017, compared to an average of \$500 MM per year for 2013-2016. While CapEx spending will be significant over the next 4-5 years, we believe that additional spending will be funded through free cash flow generation. As such, leverage is not expected to increase despite the significant growth strategy and there is the potential for significant incremental EBITDA when the projects are completed.

On a relative value basis, we believe that the NOVA Chemicals 4.875% Senior Notes '24, 5.000% Senior Notes '25 and 5.250% Senior Notes '27 offer attractive YTW of 4.69%, 4.81% and 5.15%, respectively, which compares favorably to its peer group. The NOVA bonds offer an additional 80-95 bps of spread compared to the similarly rated Olin 10.000% Senior Notes '25 and 5.125% Senior Notes '27 (Ba2/BB+ ratings for NOVA and Ba1/BB for Olin). Olin carries additional net leverage (3.9x net leverage) and a similar commodity profile. We also prefer the NOVA bonds to Tronox's 5.750% Senior Notes '25 (B3/B-), as the Tronox bonds only offer an additional 30 bps of spread, despite having considerably more leverage (4.2x net leverage) and a similar commodity focus. We rate the NCX 4.875% Senior Notes '24, 5.000% Senior Notes '25 and 5.250% Senior Notes '27 a BUY.

Key risks for NOVA include the volatility in crude oil prices, narrowing of the oil-to-gas ratio, and new ethylene/PE capacity ramping faster than expected.