## Environmental Markets on Nodal Exchange Hit New Records in 2021

The numbers tell the story. Environmental markets on Nodal Exchange hit a record volume in 2021 of 248,944 contracts, up 125% from 110,471 a year earlier.

Total open interest at the end of 2021 was 170,770, up 94% from 87,816 in 2021. Open interest topped the prior month's level 10 out of 12 months last year as well, with open interest across the REC group of products topped the 150K level, hitting 152,513 contacts at the end of 2021, up 83% from 83,471 a year earlier. Broken down further by registry, PJM-related REC open interest ended 2021 at 98,244 contracts, up 75% from 56,102 a year earlier and topped the 100,000 mark in January 2022.

One segment of RECs that helped drive volumes was the innovative voluntary REC products. Texas CRS Wind and Texas CRS Solar (along with Texas Compliance RECS) hit 27,728 contracts, up 177% in 2021 from 10,026 a year earlier. Texas CRS Wind futures also qualified for the CFTC's Commitment of Traders report for the first time as well. It's also worth noting that other voluntary RECs developed by IncubEx and Iaunched in 2021 also posted trades for the first time ever on an exchange. M-RETS Wind RECs posted its first trades in May and ended the year with 450 contracts of open interest, while NAR REC futures traded for the first time in September and posted 704 contracts of open interest at year end. These first-ever listed contracts show the continued demand for voluntary REC contracts and the potential for them in the coming months and years.

Of course, it was an interesting year for North American carbon markets as well, with record prices and renewed market demand. Open interest in California Carbon Allowance futures and RGGI contracts hit a high of 29,823 in December, ending the year at 16,557. December volume for combined CCAs and RGGI contracts was 14,025, up 574% from 2,080 a year earlier.

The renewable fuels complex also made its first strides in 2021 as participants continued to gravitate toward futures markets. The renewable fuels complex posted open interest of 1,700 contracts at year end, up 42% from 1,190 a year earlier. In December and through mid-January, 350 D3 RIN futures (D3 Renewable Identification Numbers generated from cellulostic biofuel production) were traded. With each contract sized at 10,000 RINs, the recent trades represented 3.5 million RINs.

The growth across each product sector - carbon, RECs and renewable fuels - illustrates further interest and demand across multiple participants. Regulatory data from the US Commodity Futures Trading Commission (CFTC) continue to show strong participation by managed money/asset managers in these markets. There is also growing interest by companies looking for instruments that support their efforts to meet Net Zero goals.