Chart of the Week #2022-14
Energy Value of Ethanol vs Gasoline

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Gasoline and Ethanol Price Differentials, Volumetric and Energy Bases
Energy Value of Ethanol vs Gasoline

- Since the beginning of 2022, gasoline prices have risen over 40%. Because of the adverse consequences of high prices for U.S. consumers, the Biden administration has been trying to find policies to provide immediate relief.

- On April 12, 2022 the Administration announced plans for EPA to issue an emergency waiver to allow summertime sales of gasoline blends of E15 (gasoline blended with 15% ethanol). Currently, gasoline has ethanol at a maximum of 10% in most parts of the U.S.

- While fuel ethanol prices have risen also, they have increased at much slower rates than that of gasoline. On a volumetric basis during 2022, the price of wholesale ethanol has averaged 56 cents less than that of wholesale gasoline blendstock.

- However, ethanol has 70% of the energy density of non-ethanol blended gasoline (E0). E10 has 97% of the energy density; E15 has 95.5%. This implies that for the same volumetric amount of fuel, a motor vehicle would have lower mileage per gallon using E15 compared to using E10.

- In addition, only about 2,300 of the U.S.'s 150,000 filling stations have appropriate pump and tank hardware to handle gasoline blends above 10%.

- This slide deck is available on the EPRINC Website

- For more information on this chart, please contact Max Pyziur (maxp@eprinc.org) or Lucian Pugliaresi (loup@eprinc.org).
Additional Slides
Crude Oil and Corn Price Differentials,
Volumetric and Energy Bases

Analysis based on CME and EIA Data