The purpose of this advisory is to assure CME clearing firms and end clients that if major energy prices continue to fall towards zero in the coming months, CME Clearing has a tested plan to support the possibility of a negative options underlying and enable markets to continue to function normally. That plan is as follows:

- If WTI Crude Oil futures prices settle, in any month, to a price between $8.00/bbl and $11.00/bbl, CME Clearing MAY switch its pricing and margining options models from the existing models to the Bachelier model, currently utilized in numerous spread options products where negative underlying prices and strike levels are a regular occurrence. If any WTI Crude Oil futures prices settle, in any month, to a level below $8.00/bbl, CME Clearing WILL move to the Bachelier model for all WTI Crude oil options contracts as well as all related crude oil options contracts effective the following trade date. CME Clearing will send out an advisory notice with one day notice before any implementation occurs with all appropriate details.

- Similarly, if RBOB Gasoline futures prices settle, in any month, to a price between $0.20/gal and $0.30/gal, CME Clearing MAY switch its pricing and margining options models from the existing models to the Bachelier model. If any RBOB Gasoline futures price settle, in any month, to a level below $0.20/gal, CME Clearing WILL move to the Bachelier model for all RBOB Gasoline options contracts as well as all related gasoline options contracts effective the following trade date. CME Clearing will send out an advisory notice with one day notice before any implementation occurs with all appropriate details.

- Similarly, if Heating Oil futures prices settle, in any month, to a price between $0.20/gal and $0.30/gal, CME Clearing MAY switch its pricing and margining options models from the existing models to the Bachelier model. If any Heating Oil futures price settle, in any
month, to a level below $0.20/gal, CME Clearing WILL move to the Bachelier model for all Heating Oil options contracts as well as all related heating oil options contracts effective the following trade date. CME Clearing will send out an advisory notice with one day notice before any implementation occurs with all appropriate details.

The primary goal of this advisory is to let the market know that CME Clearing is ready to handle the situation of negative underlying prices in major energy contracts and we want to give all of our clearing firms, customers, and partners a view into what the CME Clearing plan is so that each of our partners can do their own respective planning for this potential situation.

Negative strike prices will NOT be listed in any of these energy markets until this model change is made per the plan above and may not occur even if the modelling changes do happen.

Please note that all existing CME Clearing message and file formats already support, without modification, negative futures prices as well as negative strike prices. We will publish additional information shortly regarding the details of potentially affected products and sample files.

Should you have any questions, please contact CME Clearing Risk Management at Clearing.RiskManagement@cmegroup.com or 312-648-3888 or CME Clearing Pricing & Valuations at OTCPricing&ValuationsFnOTeam@cmegroup.com