Industrial team plans for AEO2015

Macro Industrial Working Group (MIWG)
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WORKING GROUP PRESENTATION FOR DISCUSSION PURPOSES
DO NOT QUOTE OR CITE AS RESULTS ARE SUBJECT TO CHANGE
AEO2015 lite year additions

• Process flow status (complete AEO2016)
• Data updates
• Regulation changes
• Ethane / propane price modeling
Process flow models

• General:
  – Replace energy consumption based on engineering judgment with specific technology or equipment choice e.g. anode production for primary aluminum
  – Also can choose technology diffusion
  – Technologies are primarily based on CIMS (Consolidated Impacts Modeling System) data from DOE’s (PNNL) Pacific Northwest National Laboratory

• Sub-modules completed: Cement & Lime, Aluminum, Glass

• Project completion for AEO2016
  – Steel submodule – in progress, coding in a few months
  – Paper submodule – commence in August
Data updates & regulation

• Data
  – CHP historical data
  – Benchmarking total industrial consumption
    • SEDS (State Energy Data System)
    • MER (Monthly Energy Review)
    • STEO (Short Term Energy Outlook)
  – Rebase macro input to 2009$

• Regulation
  – California GHG cap & trade scoping plan & regulations updated; does not affect IDM modeling
  – 111(d) NOPR – not modeling for AEO2015; may not be applicable to CHP
    • Size: greater than or equal to ~25MW electric in the thermal input cycle; industrial CHP not that large
    • Industrial CHP not designed to sell significant proportion of electricity to grid.
Ethane/Propane Price Modeling

• Why important
  – Influence on macro bulk chemical shipments
  – Driver of HGL supply (drilling)
  – The ‘new world” of HGL supply in the U.S.

• AEO2014 model
  – Propane: Dynamic Linear Model (DLM) based on gas and oil prices
  – Ethane: linear regression using organic & resin shipments as drivers

• AEO2015 new model
  – DLM joint pricing model of ethane and propane
  – Automated updating of parameters
  – Drivers will include exports, chemical shipments, and “total” ethane supply
Memo on this meeting and presentation can be found here in about a month:

http://www.eia.gov/forecasts/aeo/workinggroup/macroindustrial/
Thank you for your attention!

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