

MARKAL-related Activities in the US

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Who Is Using MARKAL in the US, and Why?

- A new national model, calibrated to AEO2002, is being used by DOE-EERE; for several prominent policy assessment undertakings.
- Program managers and policy advisors at the Department of Energy (EERE, OPT, and other branches), and National Laboratories (NETL, NREL, LBL and BNL) are preparing to use the new national model upon release; to evaluate their programs and "their" technologies' potential contribution under various government policies.
- The Energy Information Administration for the System to Analyze Global Energy (SAGE); to produce future *International Energy Outlook* publications.



Who Is Using MARKAL in the US, and Why? (Cont.)

- DOE and BNL evaluating the US region of the the International Energy Agency's (IEA) Energy Technology Perspective (ETP) project; to contribute to the depiction of the US, and gain fuller understanding of TIMES and working with the ETP global model.
- A new national model, calibrated to AEO2002, is being developed by the Environmental Protection Agency (EPA-ORD/OAP); expanded supply and industrial detail, heavy emphasis on documentation of data assumptions.
- Program managers and policy advisors at the EPA-ORD planning on using the new national models; to evaluate potential impacts of new technologies on air emissions and air quality.



Who Is Using MARKAL in the US; and Why? (Cont.)

- EPA-OAP is continuing to explore the potential for the Goal Programming formulation of MARKAL; to perform multi-pollutant/multi-criteria analyses.
- EPA-ORD supporting the writing of a "scoping" paper on the issues and merits of embarking on an undertaking to building of a multi-region US MARKAL model; to better assess regional energy issues (e.g., gas pipelines, re-organized electricity ISO, role of renewables) and air issues (e.g., CAA/SIP compliance, new source emissions standards, inter-state emissions transport, use of System Benefit Funds), heavy interest at NESCAUM for NE as the initial region.



Who Is Using MARKAL in the US; and Why? (Cont.)

- EPA-OAR supporting the addition of "full" methane accounting into the national MARKAL models; to derive methane projections and marginal reduction cost curves.
- BNL supporting governments and universities in 3 Central America countries; to establish baselines and evaluate opportunities within the realm of Climate Change as part of a USDOE/AID co-sponsored project.
- APEC maximum cost-effective renewables project to use 3 or more MARKAL models (China, Indonesia, and if available US (S.Korea, Mexico)); assess the implications of increased levels of renewables using a common set of regionally adjusted technology characterizations.

