

# **Alternative Ways to Develop SIPs through Multi-Pollutant Planning; Barriers and Possibilities**

Leah Weiss

# Traditional Planning Uses a Siloed Approach

- Examines one problem (e.g., pollutant) at a time (e.g., first ozone, then particulates, then mercury)
- Often focuses on one outcome (e.g., single pollutant impacts)
- Often does not consider other impacts
  - Other agency-related pollutant impacts
  - Other societal impacts

# Multi-Pollutant Planning Broadens the Horizon

- Recognizes that actions/policies/programs that help in one area can help in another area
- Promotes integrated thinking and consideration of trade-offs
- Expands the analyses to include other issues (e.g., social and economic considerations)
- May yield better results at lower cost (e.g., can help design cost-effective approaches that minimize burden on industry & maximize use of state resources)

# Multi-Pollutant Planning Approach

- A broader, longer term planning process from which multiple plans can be developed and a guiding future vision can be sustained
- The SIP is no longer the sole driver, but one of several drivers and derivative products
- Requires working with/aligning multiple state offices in joint data development and planning to identify solutions that meet multiple needs

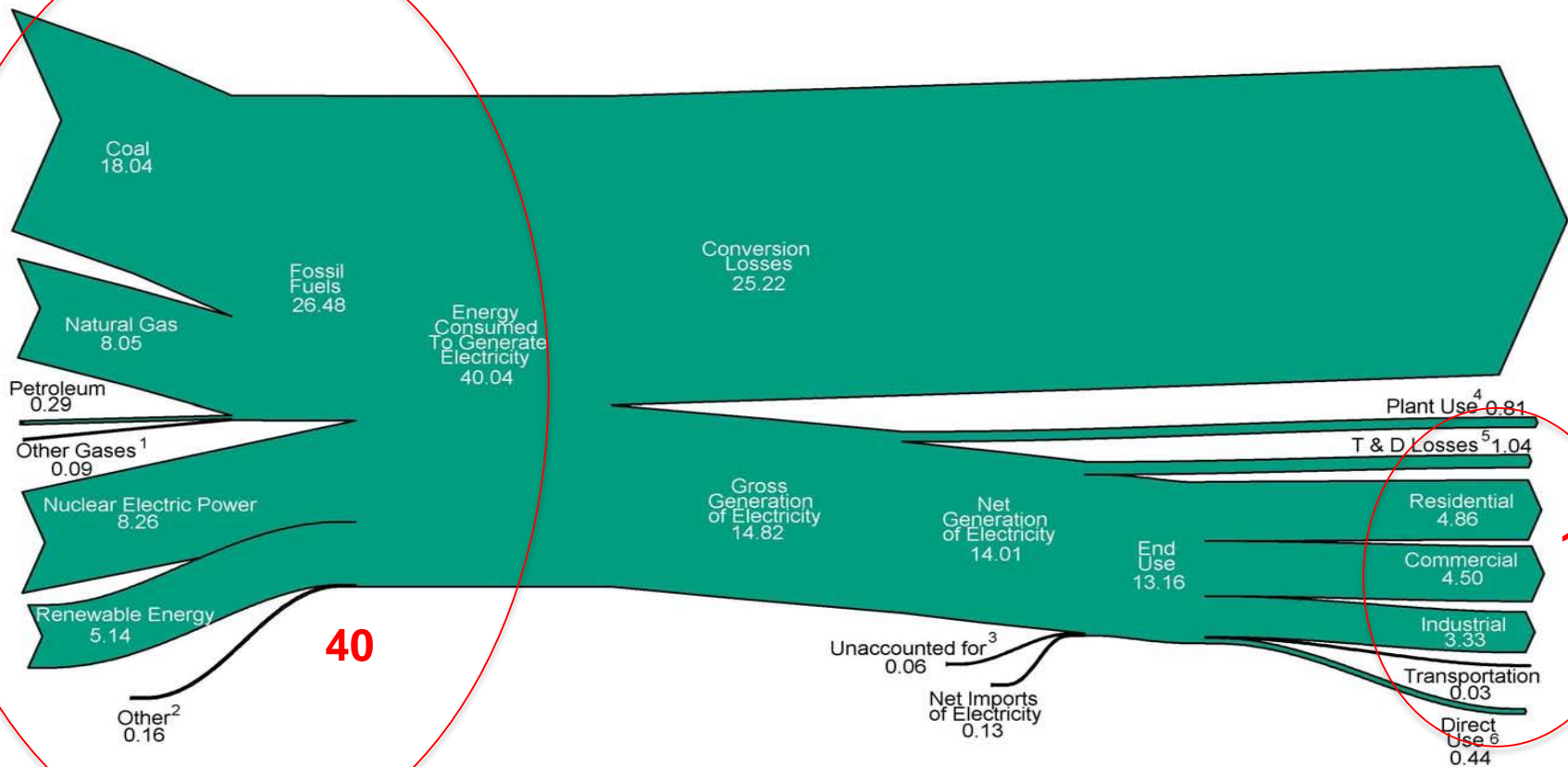
# Possibilities

- Address multiple pollutants, including SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, and Hg
- Highlight tradeoffs and co-benefits of policy options
- Analyze environmental, public health, economic, and energy implications of various pollution control strategies
- Conduct multi-sector analyses
- Conduct multi-media analyses

# Why Energy Efficiency Might Be a Good Starting Place

Figure 8.0 Electricity Flow, 2011  
(Quadrillion Btu)

U.S. Energy Information Administration  
Annual Energy Review 2011



40

13

# NESCAUM's Linked Model Framework

- Energy model (NE-MARKAL) is the centerpiece; immediately integrates air and energy (when used by air agencies)
- Uses traditional air planning tools (CMAQ, BenMAP)
- Introduces use of economic model by air planners (REMI)
- Models linked through outputs and inputs
- Framework can be expanded/updated

# Links to some NESCAUM Multi-Pollutant Reports

- NYSERDA report: “Applying the Multi-Pollutant Policy Analysis Framework to New York”
  - <https://www.nyserda.ny.gov/About/Publications/Research-and-Development-Technical-Reports/Environmental-Research-and-Development-Technical-Reports>
- Maryland’s Greenhouse Gas Reduction Act Plan (see Appendix H)
  - <http://www.mde.state.md.us/programs/Air/ClimateChange/Pages/Air/climatechange/legislation/index.aspx>



# EPA's Roadmap Pathways for Incorporating EE into SIPs (1)

- Baseline emissions projection pathway
- Control strategy pathway
- Weight-of-evidence (WOE) determination pathway
- Emerging/voluntary measures pathway; basis for EPA's 2004 guidance on EE in SIPs

EPA's Roadmap and supporting documents:  
<https://www.epa.gov/energy-efficiency-and-renewable-energy-sips-and-tips>

# EPA's Roadmap Pathways for Incorporating EE into SIPs (2)

## Case studies (2014)

- New York: quantification pathway
- Massachusetts: baseline pathway
- Maryland: “Expanded Weight-of Evidence” (reinterpretation of EPA’s weight-of-evidence pathway)
- <http://www.nescaum.org/initiatives/ee-re-in-sips>

# Barriers and Challenges

- Paradigm shift
- Coordinating with other agencies
  - Learning to speak the same language
  - Understanding program structures and data
  - Getting regulatory commitments for programs
- Finding significant emissions reductions
- Getting ahead of the SIP planning cycle
- Staff resources and training

**Any questions or comments?**

# Thank you!

**Stay tuned for the post-training quiz**

**Please fill out your evaluation form; let us know how we did and what you need next**