




MANE-VU Technical Support Committee



OTC/MANE-VU Spring Meeting - June 6-7, 2018
Baltimore, MD

Overview

1. Regional Haze SIPs - 2nd Planning Period Schedule
2. Visibility Report - Monitoring Data
3. EI Trends Report
4. Consultation/MANE-VU Ask
5. Modeling

Regional Haze SIP 2nd Planning Period – Schedule

IMPROVE Data Analysis	<ul style="list-style-type: none"> ✓ Decisions on Methods • 1st and 2nd Planning Period Calculations, QA, and TSD (<i>June 2018</i>)
Inventory Development & Analysis	<ul style="list-style-type: none"> ✓ 2011/2028 Alpha 2 & TSD ✓ Emissions Trends Analysis
Modeling	<ul style="list-style-type: none"> ✓ 2011 Base Case Modeling • 2028 Base Case Modeling (<i>June 2018</i>) • 2028 Control Case Modeling (<i>July 2018</i>) ✓ Document Modeling Platform and Results (<i>Except 2028 Modeling</i>)
Four-Factor Analysis/Contribution Assessment	<ul style="list-style-type: none"> ✓ Qc/d ✓ CALPUFF Assessment ✓ Back Trajectory & IMPROVE Data Analysis ✓ 4-Factor Data Collection ✓ HEDD Analysis ✓ Winter EGU NOx Control ✓ Synthesize Assessments
Updating RPGs	<ul style="list-style-type: none"> • Draft RPGs and Document (<i>Summer 2018</i>)
Consultation	<ul style="list-style-type: none"> ✓ Establish Consultation Process ✓ Intra-RPO Consultation (<i>Except Documentation</i>) ✓ Inter-RPO Consultation (<i>Except Documentation</i>)
SIP Submission	<ul style="list-style-type: none"> • SIP Submission (<i>Before 2019</i>) • Rule Adoption

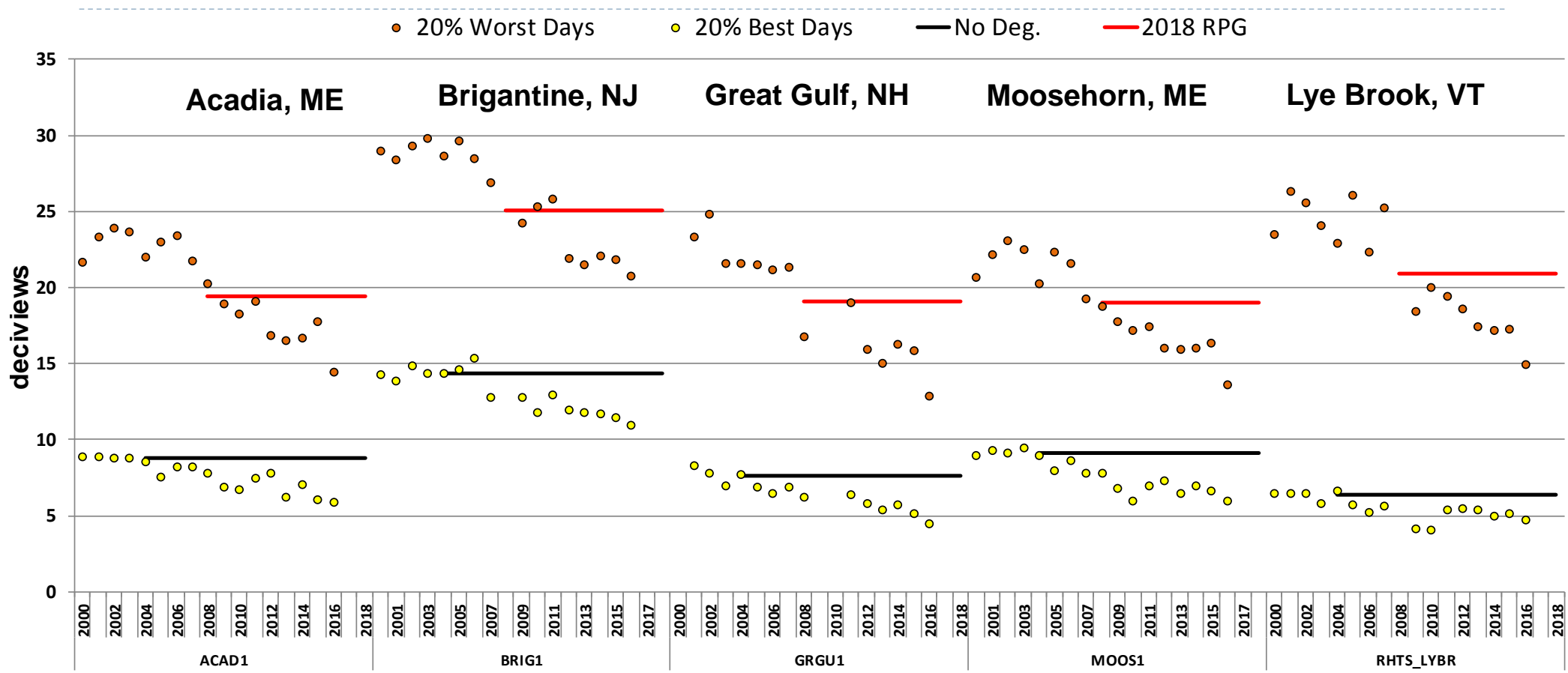
Visibility Report

- ▶ Maine developed reports based on original by NESCAUM examining Visibility Data
 - RHR III Metric – Required for analyses for 2nd planning period
 - 1st Planning Period Metric – For later 5-year lookback submissions

- ▶ Status/Next Steps
 - Under 21 Day EPA/FLM Review
 - **Final IMPROVE RHR III data released last week– one last update needed**
 - **Expected Finalization by End of May**

1st RH SIP Planning Period Metrics

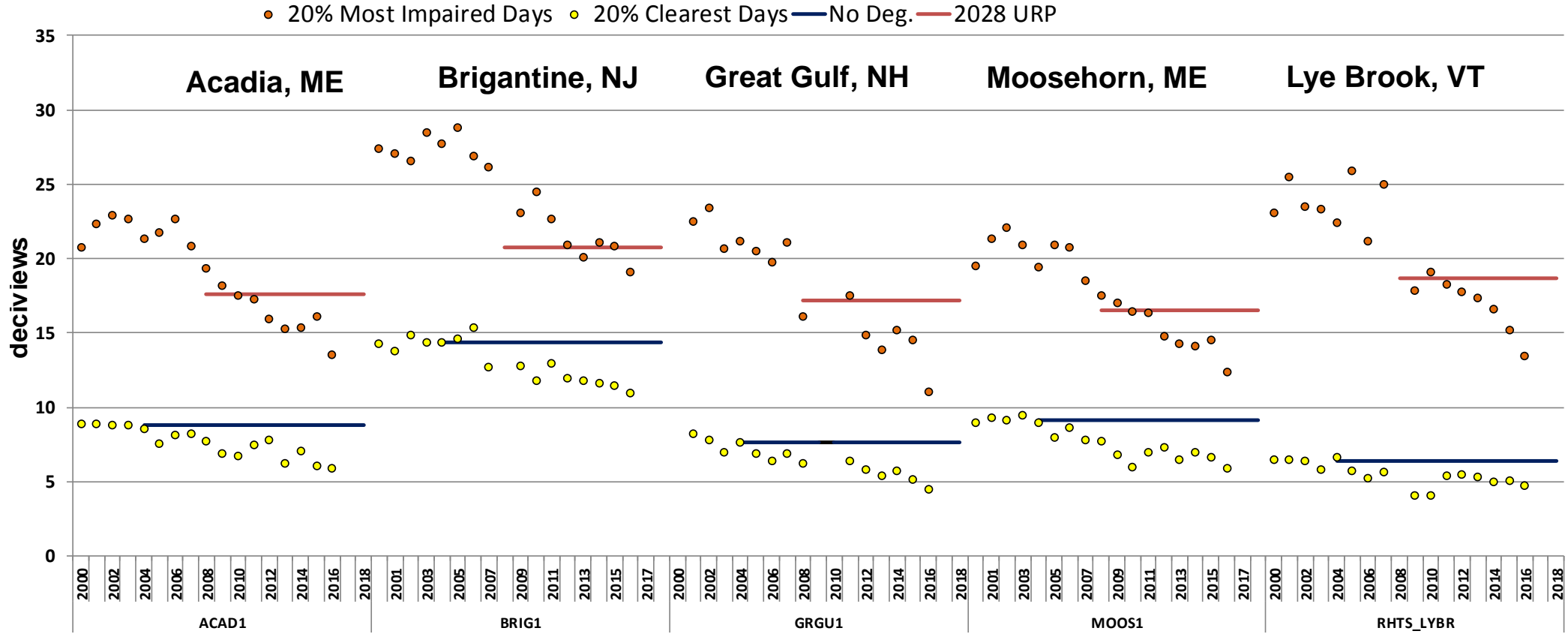
Visibility is Improving - Current Levels are Below 2018 RPGs



Progress at Monitored Class I States in MANE-VU using IMPROVE RHII Algorithm

2nd RH SIP Planning Period Metrics

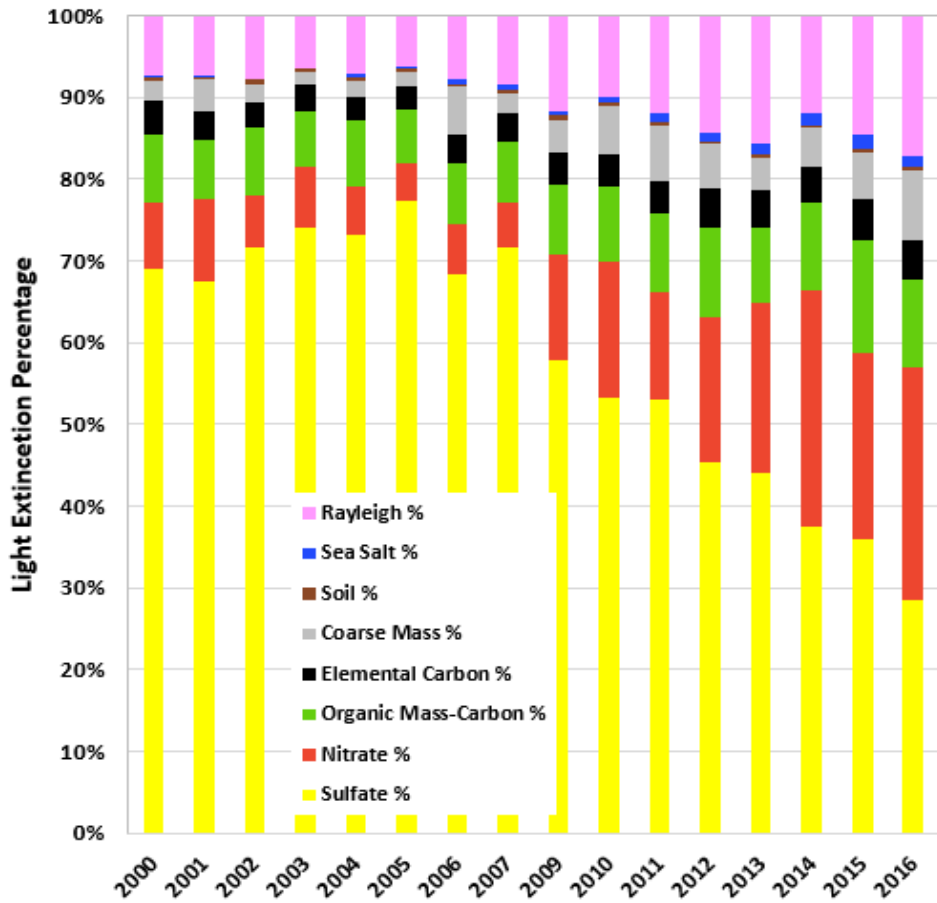
Visibility is Improving - Current Levels are Below 2028 URP



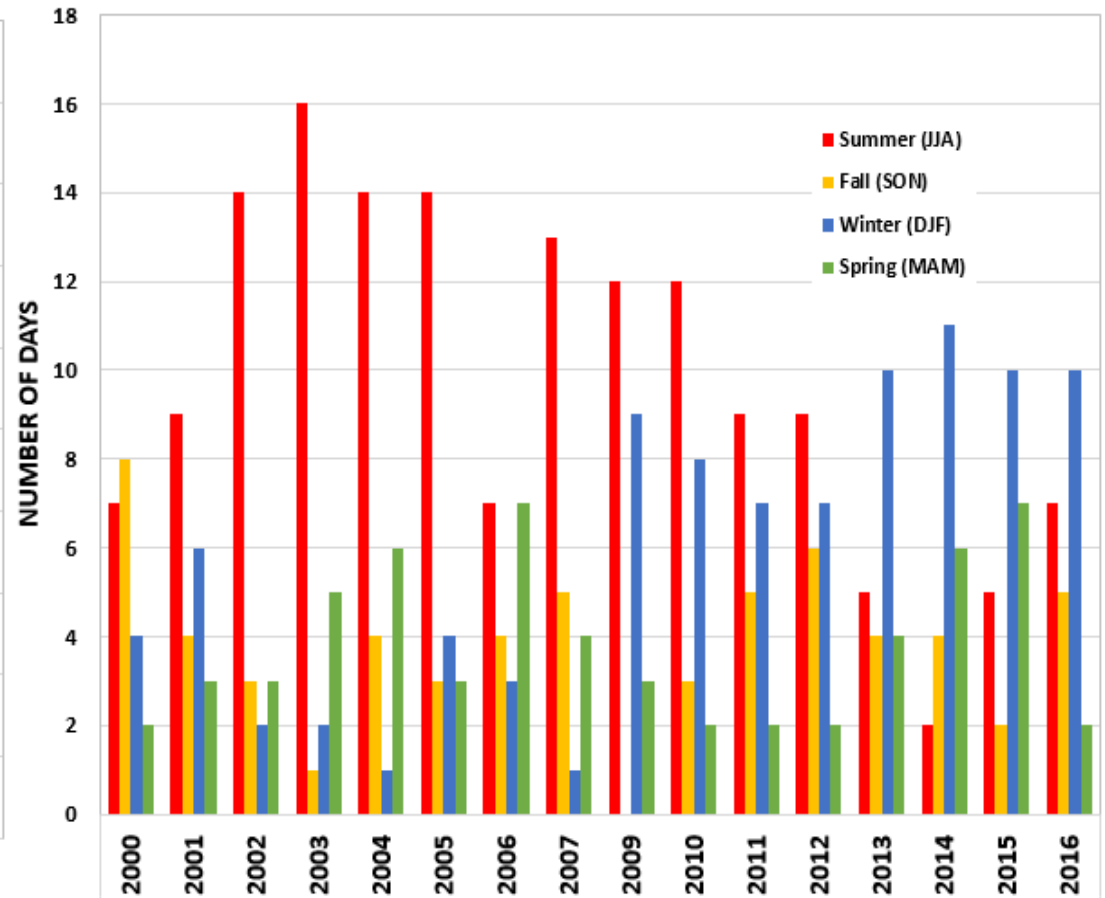
Progress at Monitored Class I States in MANE-VU using IMPROVE RH III Algorithm

Winter Nitrates Contribution Increasing

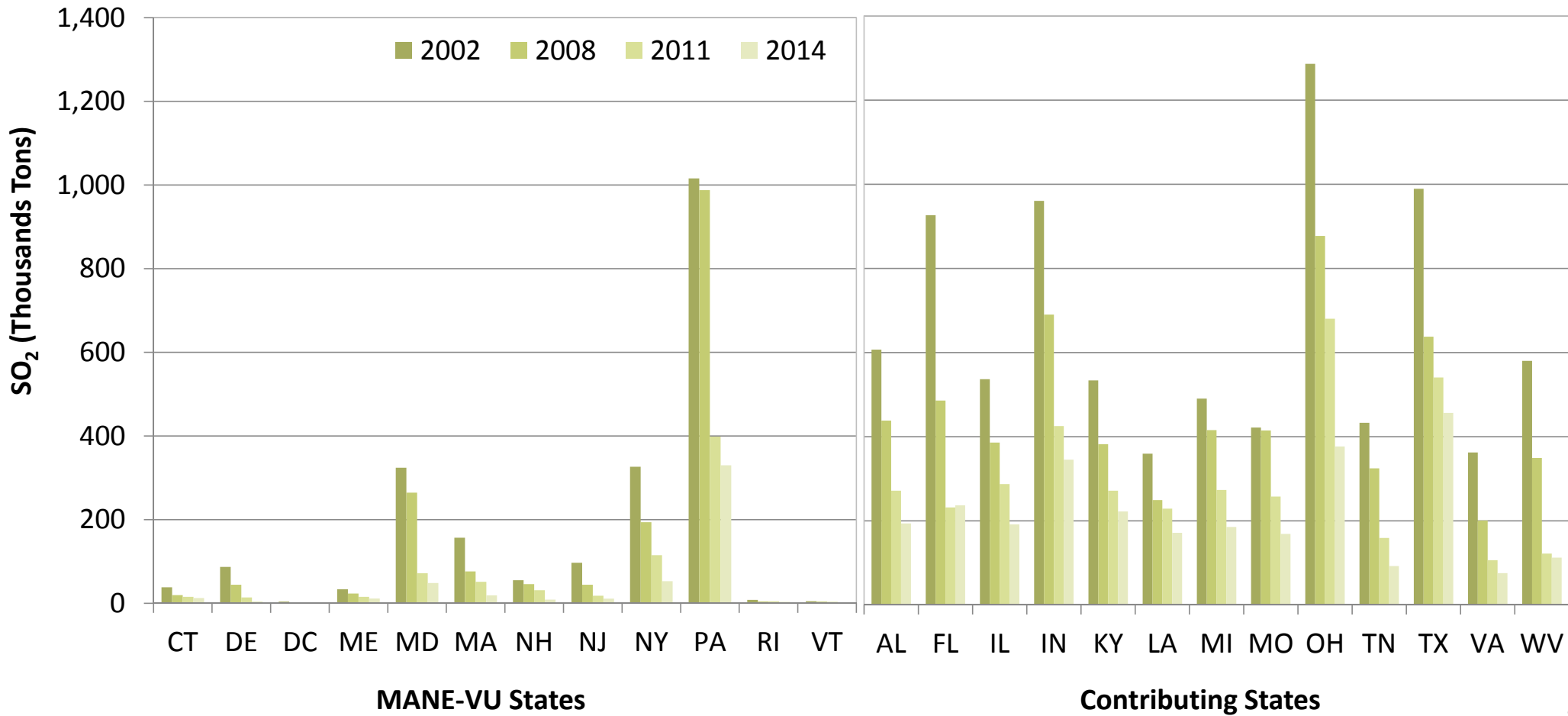
Brigantine Wilderness 20% Most Impaired Days



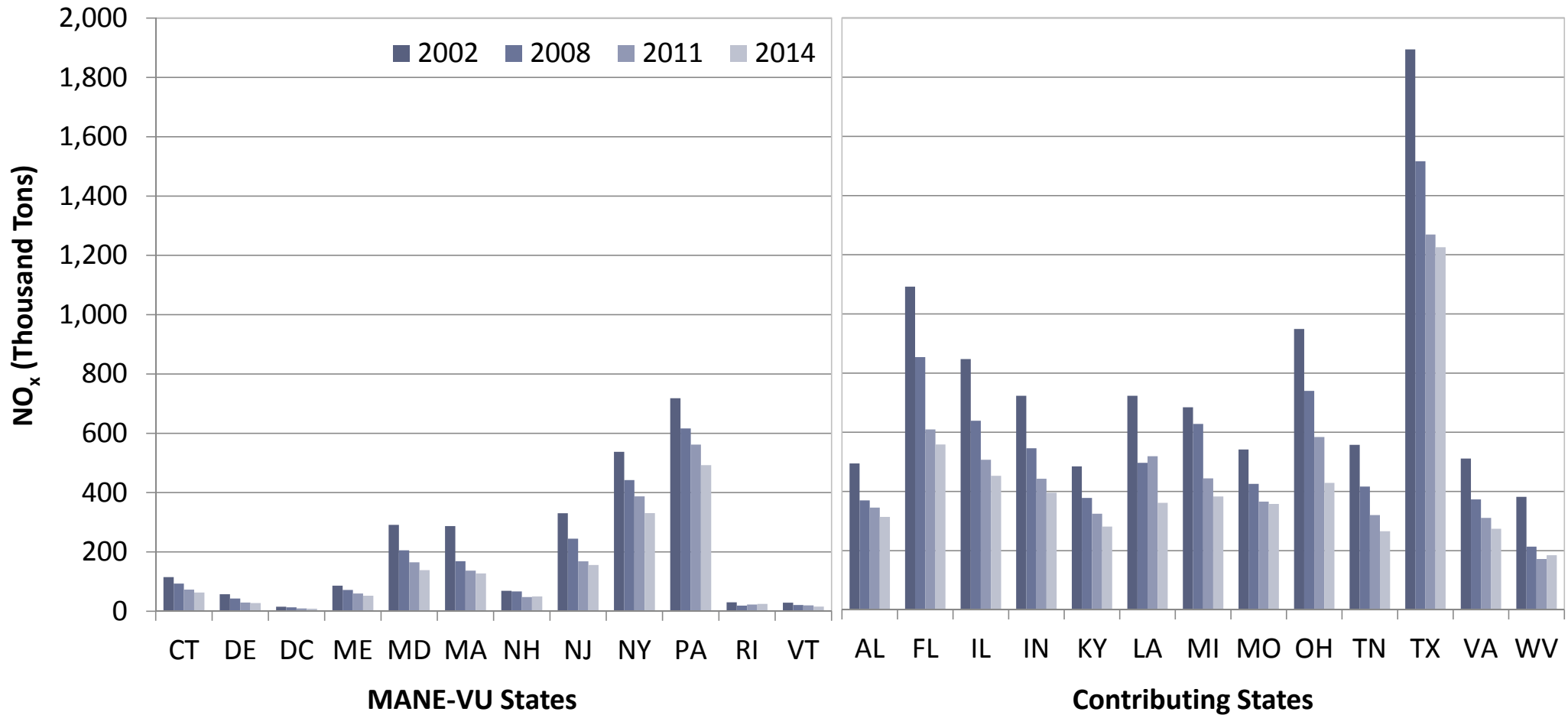
Brigantine Wilderness 20% Most Impaired Days



Annual SO₂ Emissions from NEI, 2002-14



Annual NO_x Emissions from NEI, 2002-14



MANE-VU “Ask”

Signed August 25, 2017

MANE-VU States

- Ensure effective use of installed controls on EGUs (≥ 25 MW) year-round
- 4-factor analysis for most important sources ($> 3 \text{Mm}^{-1}$ extinction)
- Complete 2007 low sulfur fuel oil rule
- Update permits and/or rules to reflect already achieved rates for SO_2 , NO_x , and $\text{PM}_{2.5}$
- Strive to meet particular NO_x emissions standards or perform 4-factor analysis on HEDD units
- Increase energy efficiency and implement CHP or other DG

Upwind States

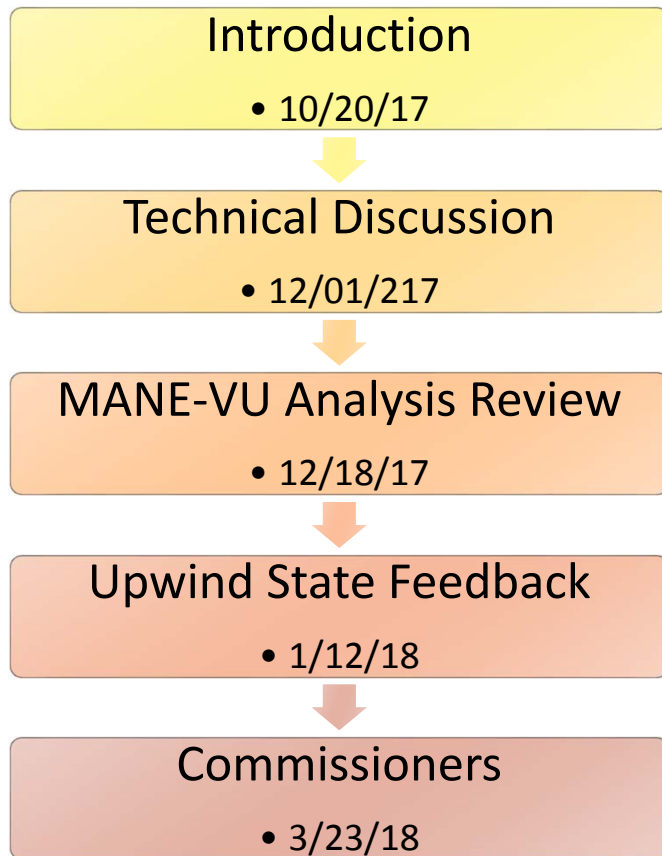
- Ensure effective use of installed controls on EGUs (≥ 25 MW) year-round
- 4-factor analysis for most important sources ($> 3 \text{Mm}^{-1}$ extinction)
- Complete 2007 low sulfur fuel oil rule
- Update permits and/or rules to reflect already achieved rates for SO_2 , NO_x , and $\text{PM}_{2.5}$
- Increase energy efficiency and implement CHP or other DG

FLMs / EPA

- FLMs consult with MANE-VU Class I States when scheduling prescribed burns
- EPA develop measures that will further reduce emissions from heavy-duty onroad vehicles
- EPA ensure that Class I Area state “Asks” are addressed in “contributing” state SIPs prior to approval

▶ Including the Ask in photochemical modeling underway

MANE-VU Inter-RPO Consultation



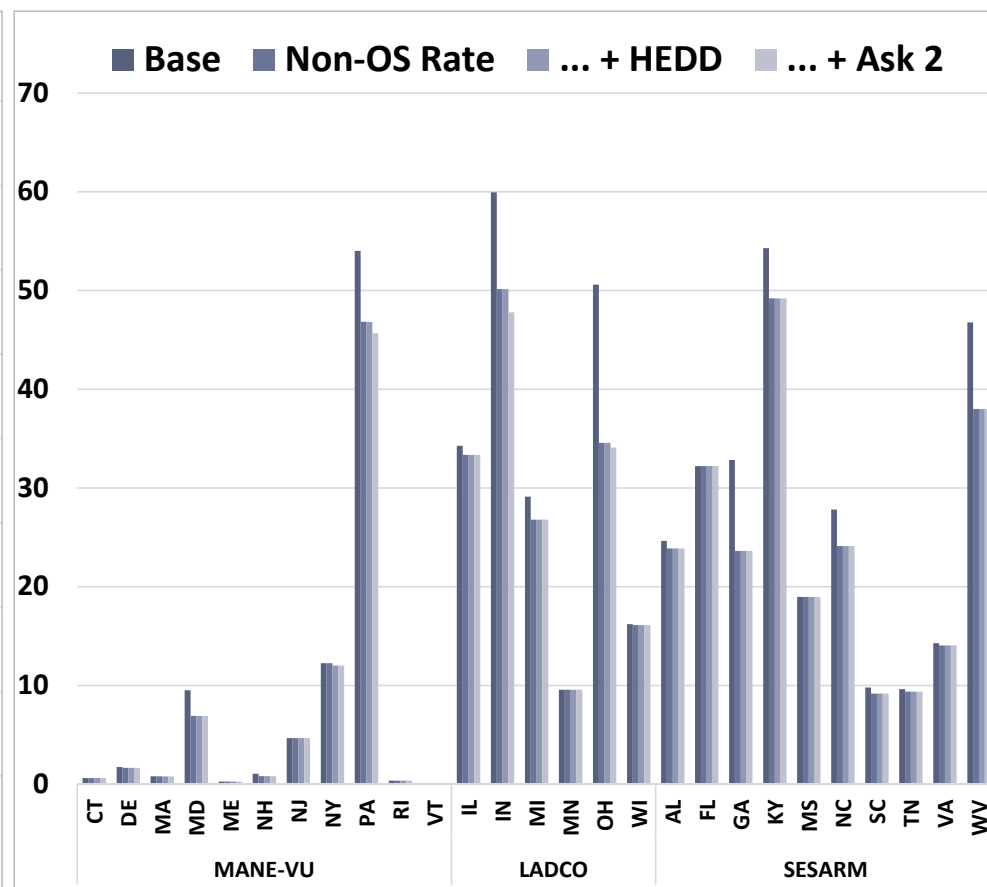
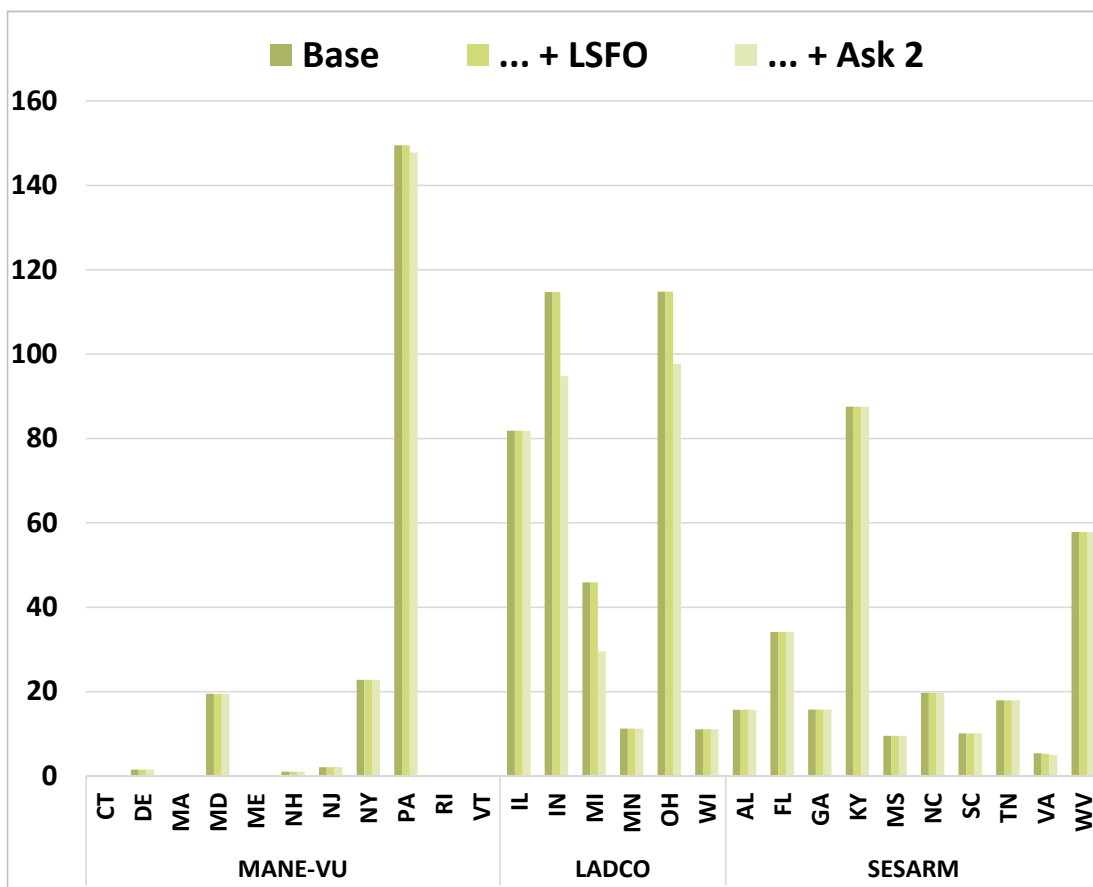
- ▶ Between MANE-VU and contributing states, as identified using weighted contribution analysis
 - ▶ Five Webinars between 10/20/17 and 3/23/18
- ▶ Consultation Report
 - ▶ **Under 21-day review by EPA**
 - ▶ **Minutes out for comment with Upwind States**
- ▶ Response to Upwind States

Changes in Annual Emissions (ERTAC) On Implementing MV Ask

Thousands Tons

SO₂

NO_x

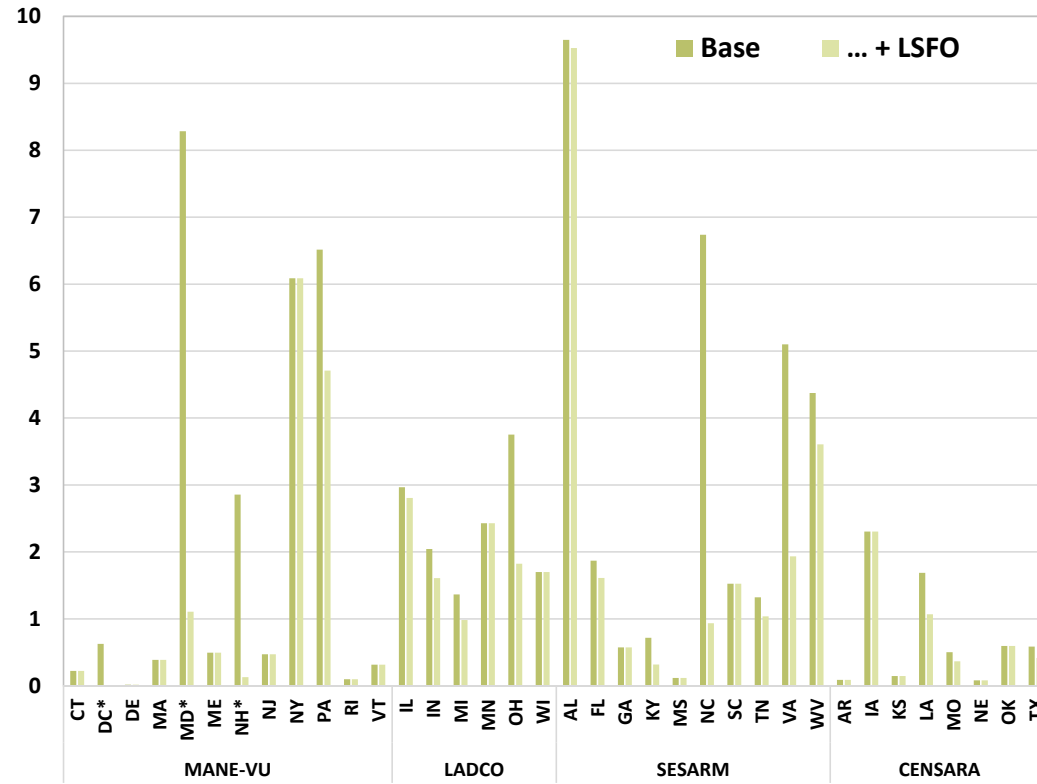
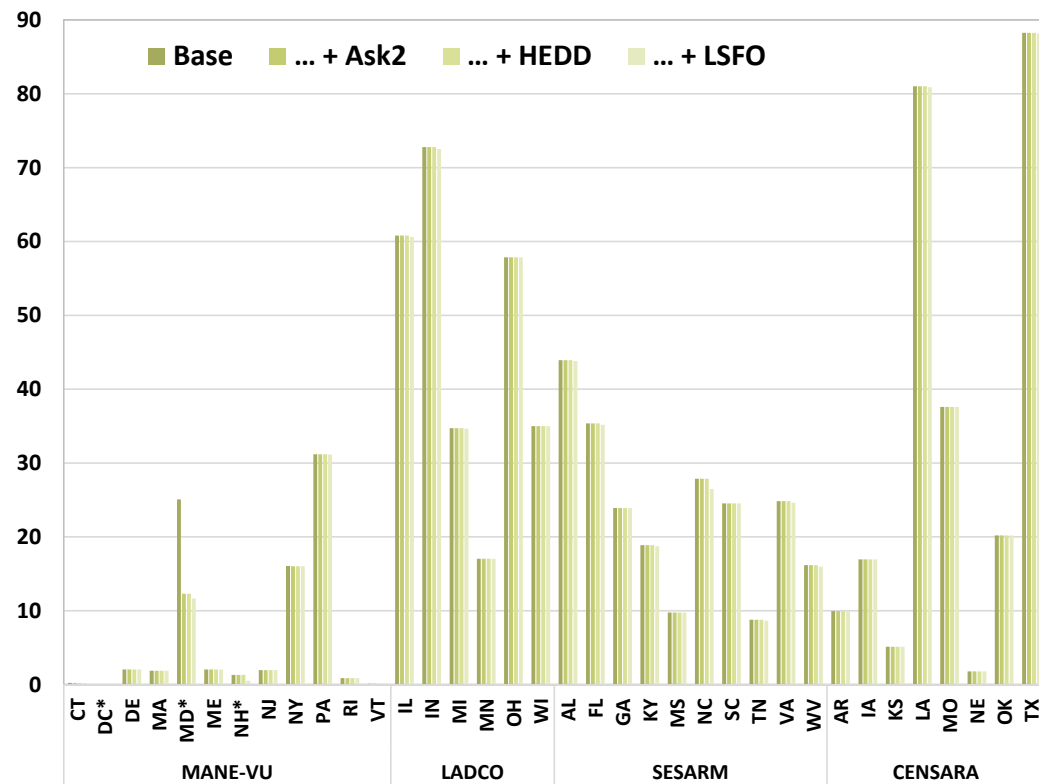


Changes in Annual SO₂ Emissions (EMF) On Implementing MV Ask

Thousands Tons

Point Sources

NonPoint Sources



* Note: Several States in MANE-VU have implemented some or all of the LSFO rule, but do not include it in their FY projections

In Summary

- ▶ Nearing completion of 2nd Planning Period Regional Haze SIP work
- ▶ Have documented visibility and inventory trends
- ▶ The “Ask” is final for the 2nd Planning Period
- ▶ Both Intra- and Inter-RPO consultations are done, and documentation nearly finished
- ▶ Inventory development for base case and control case modeling is completed and modeling is underway
 - ▶ Results still need to be documented, but remainder of documentation is nearly complete