



MANE-VU Technical Support Committee



OTC/MANE-VU Committees' Meeting
September 21, 2018

Overview

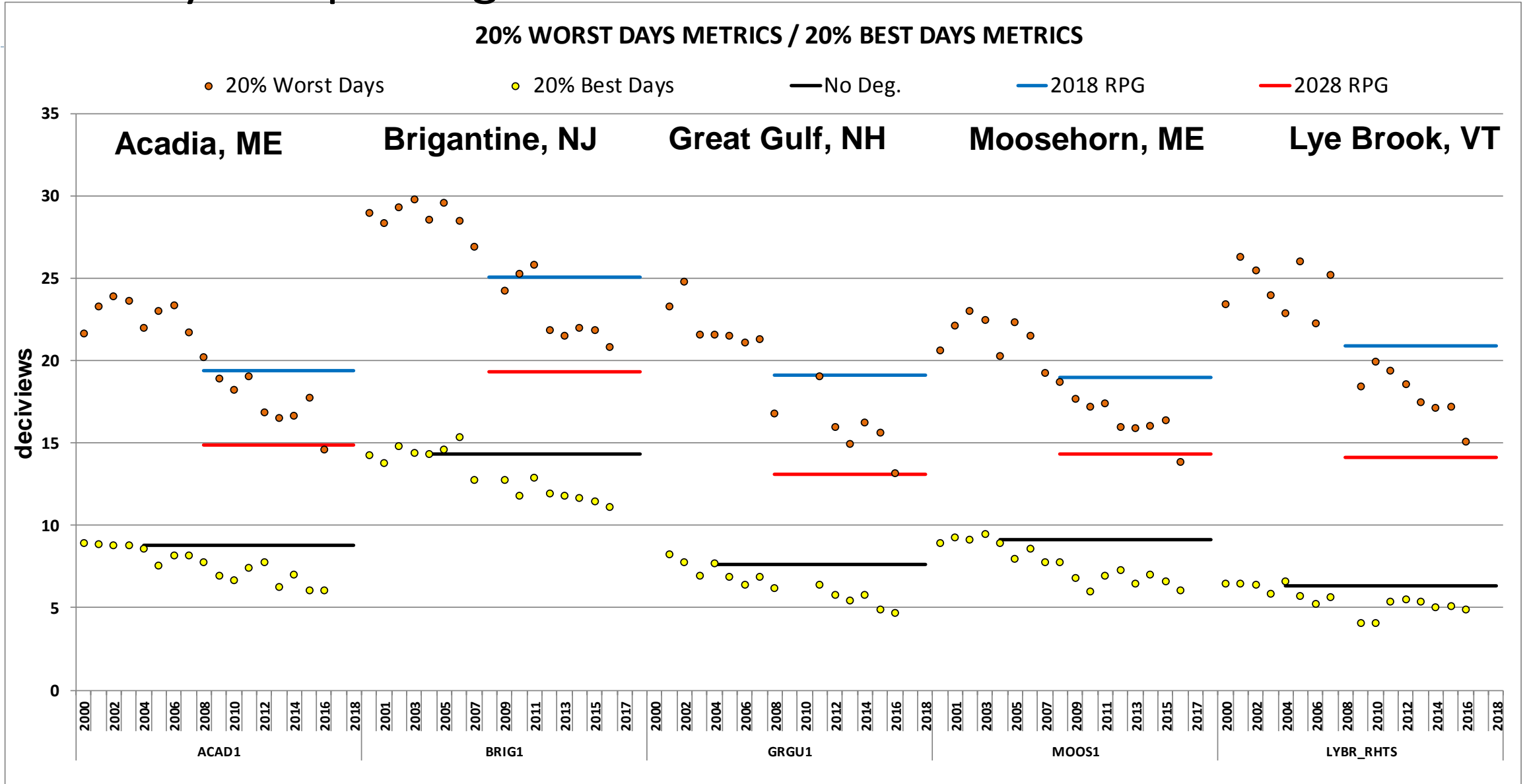
1. Regional Haze SIPs - 2nd Planning Period Schedule
2. Visibility Report - Monitoring Data
3. EI Trends Report
4. Consultation/MANE-VU Ask
5. Modeling
6. SIP Writing

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
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 ✓ 2028 Control Case Modeling ✓ 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
Consultation	<ul style="list-style-type: none"> ✓ Establish Consultation Process ✓ Intra-RPO Consultation ✓ Inter-RPO Consultation
SIP Submission	<ul style="list-style-type: none"> • SIP Submission (<i>Before 2019</i>) • Rule Adoption

1st RH SIP Planning Period Metrics

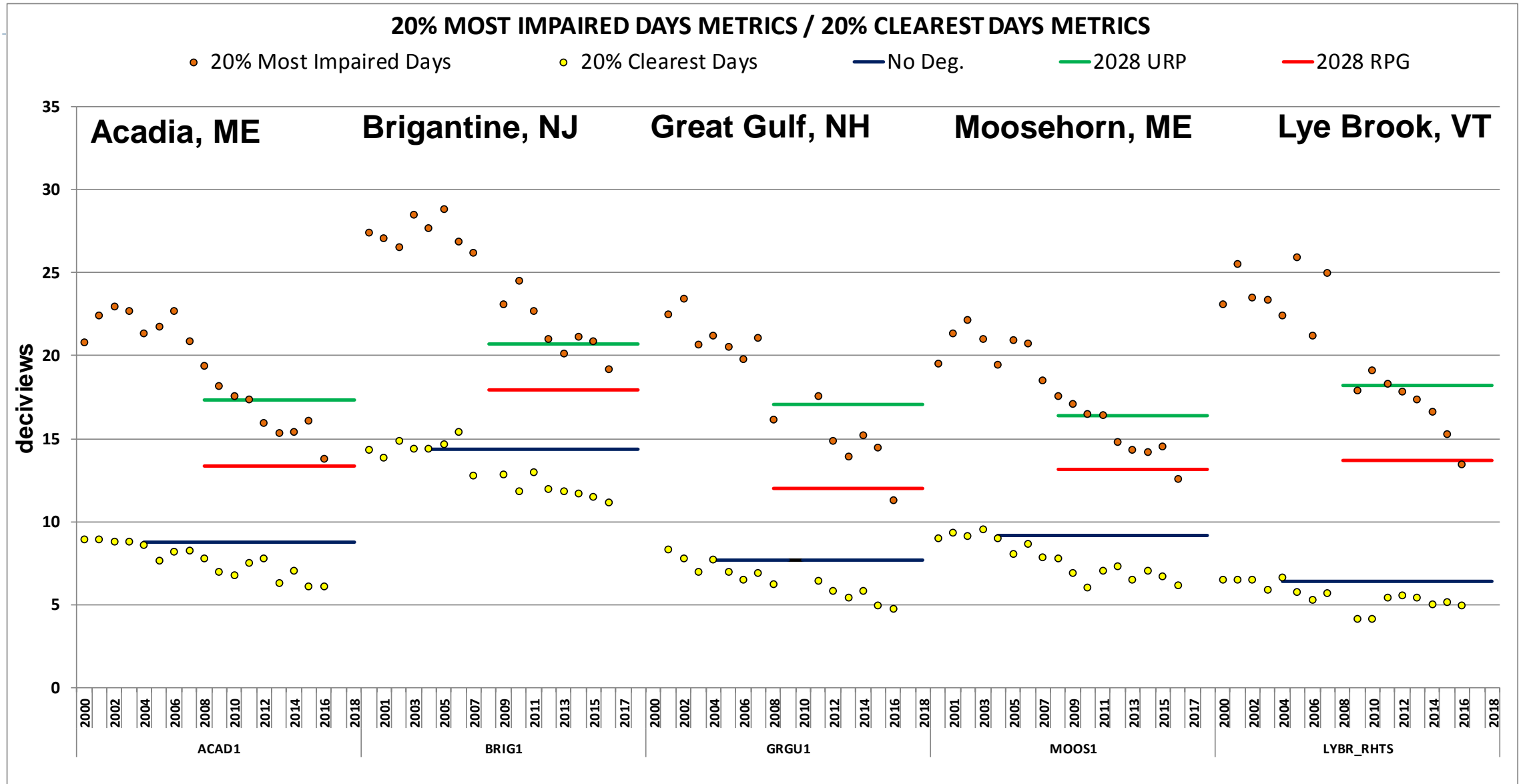
Visibility is Improving - Current Levels are Below 2018 RPGs



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

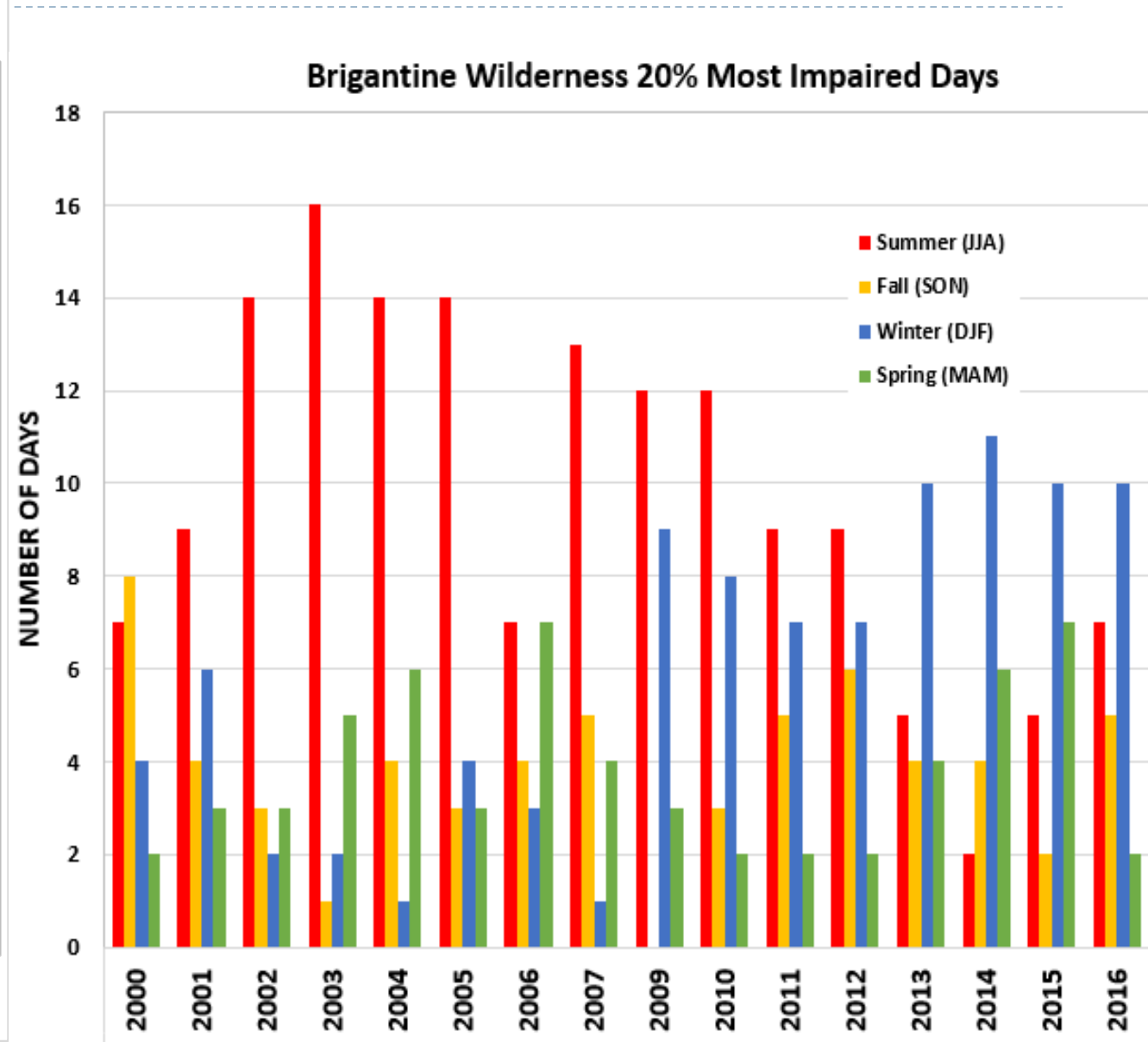
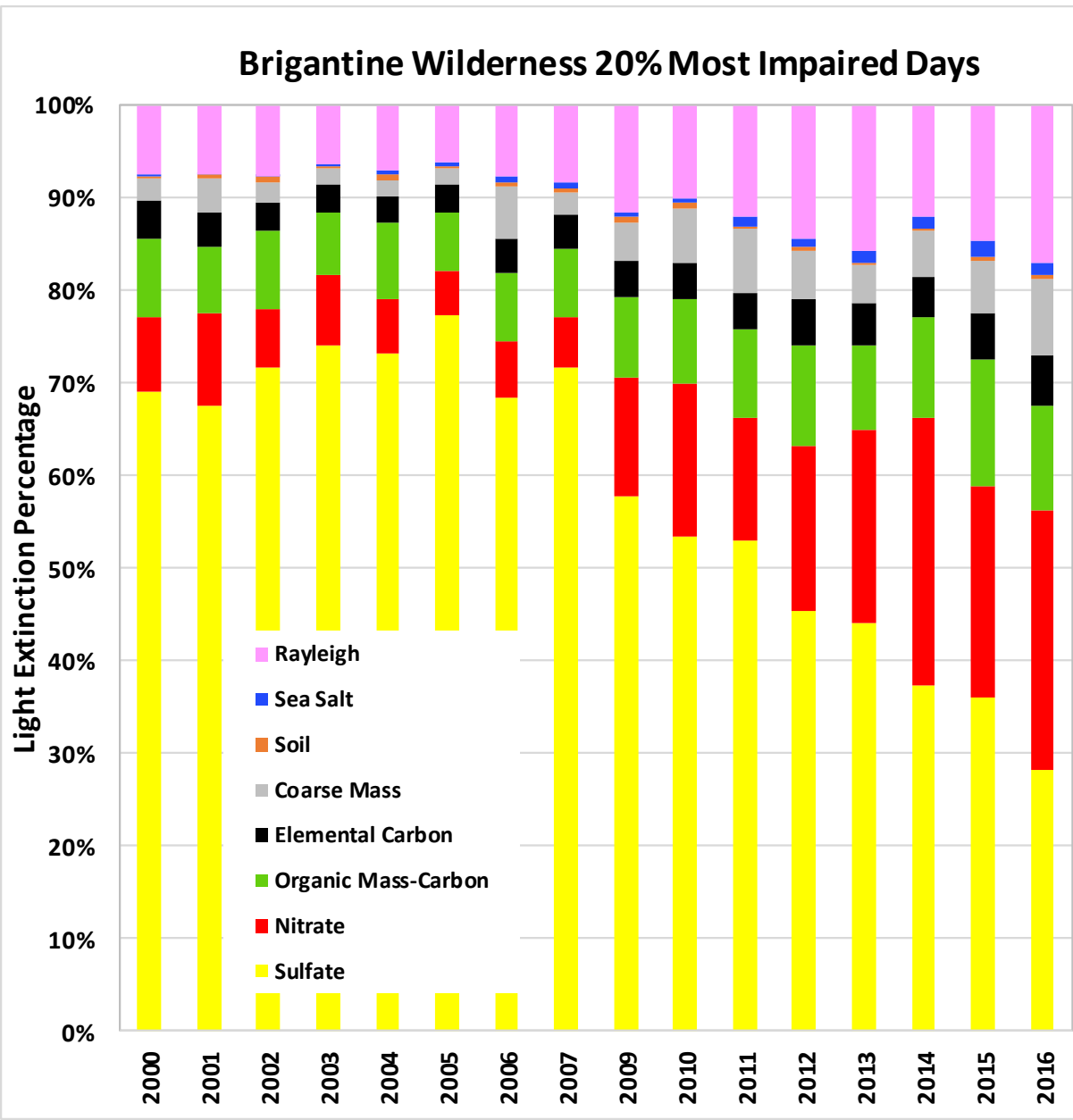
2nd RH SIP Planning Period Metrics

Visibility is Improving - Current Levels are Near 2028 RPGs

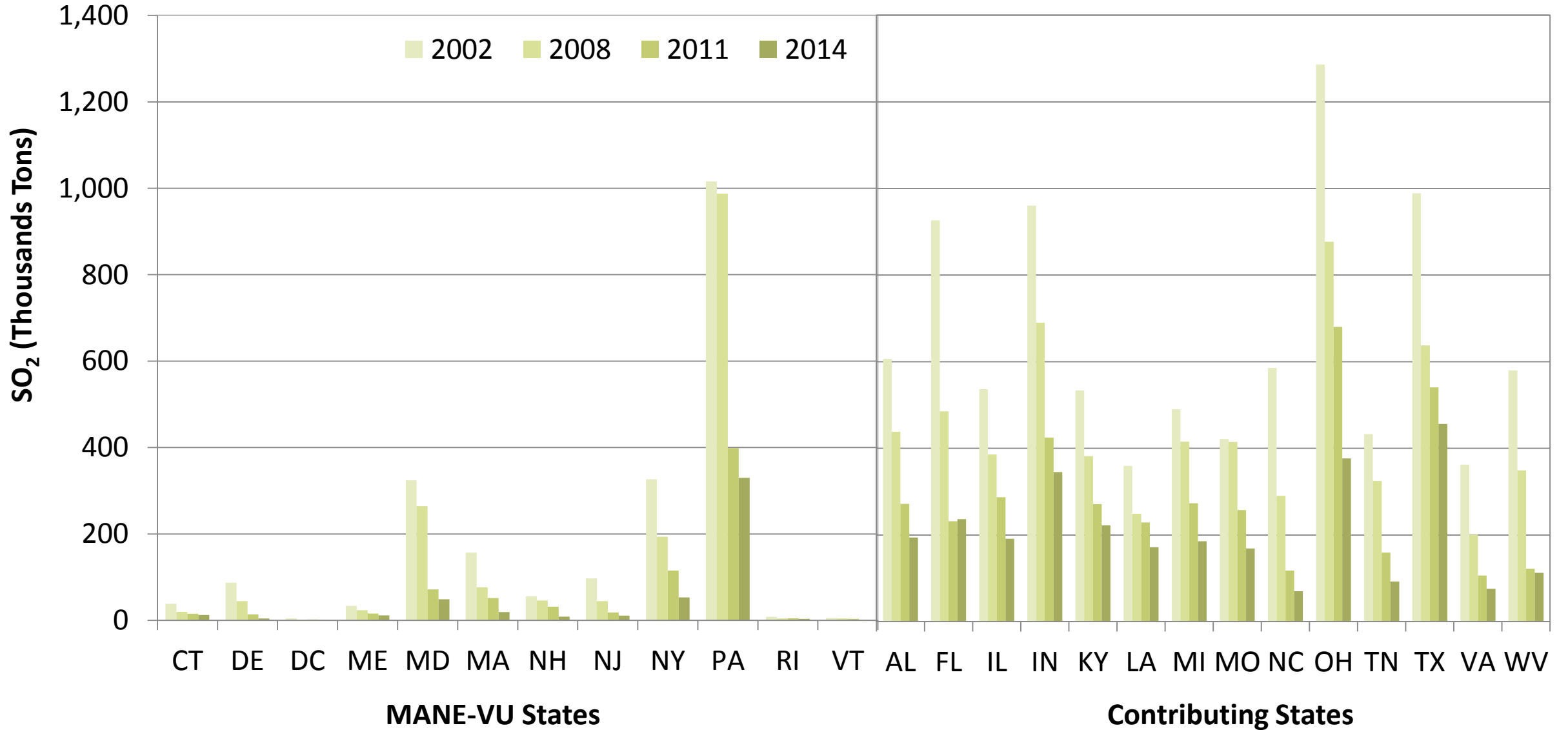


Progress at Monitored Class I States in MANE-VU using IMPROVE RH III Algorithm

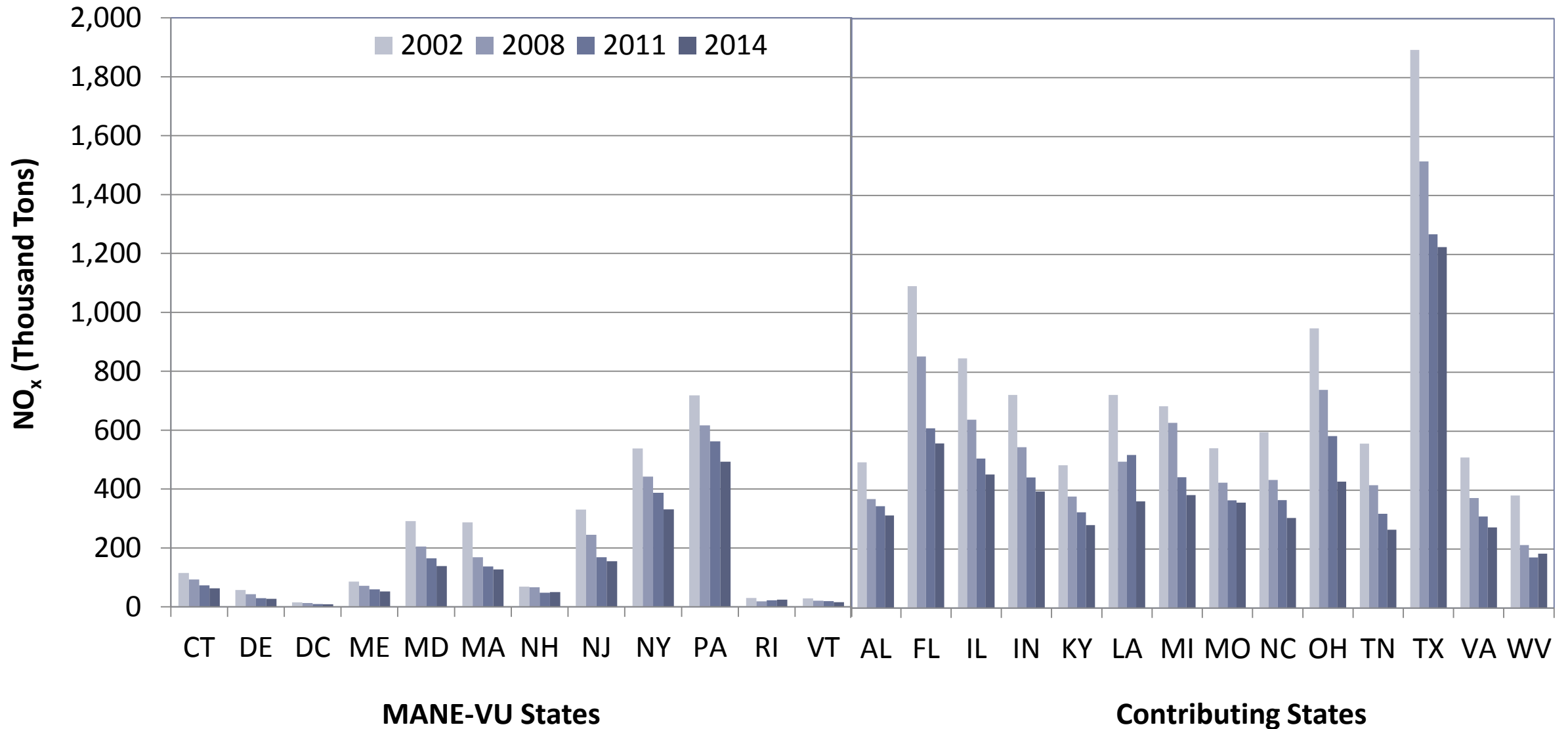
Winter Nitrates Contribution Increasing



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

MANE-VU Inter-RPO Consultation

Introduction

• 10/20/17



Technical Discussion

• 12/01/17



MANE-VU Analysis Review

• 12/18/17



Upwind State Feedback

• 1/12/18



Commissioners

• 3/23/18

- ▶ Between MANE-VU and contributing states, as identified using weighted contribution analysis

- Five Webinars between 10/20/17 and 3/23/18

- ▶ Consultation Report

- Available at:

https://otcair.org/MANEVU/Upload/Publication/Correspondence/MANE-VU_RH_ConsultationReport_Appendices_ThankYouLetters_08302018.pdf

- ▶ Response to Upwind States

Changes in Annual Emissions (ERTAC) On Implementing MV Ask

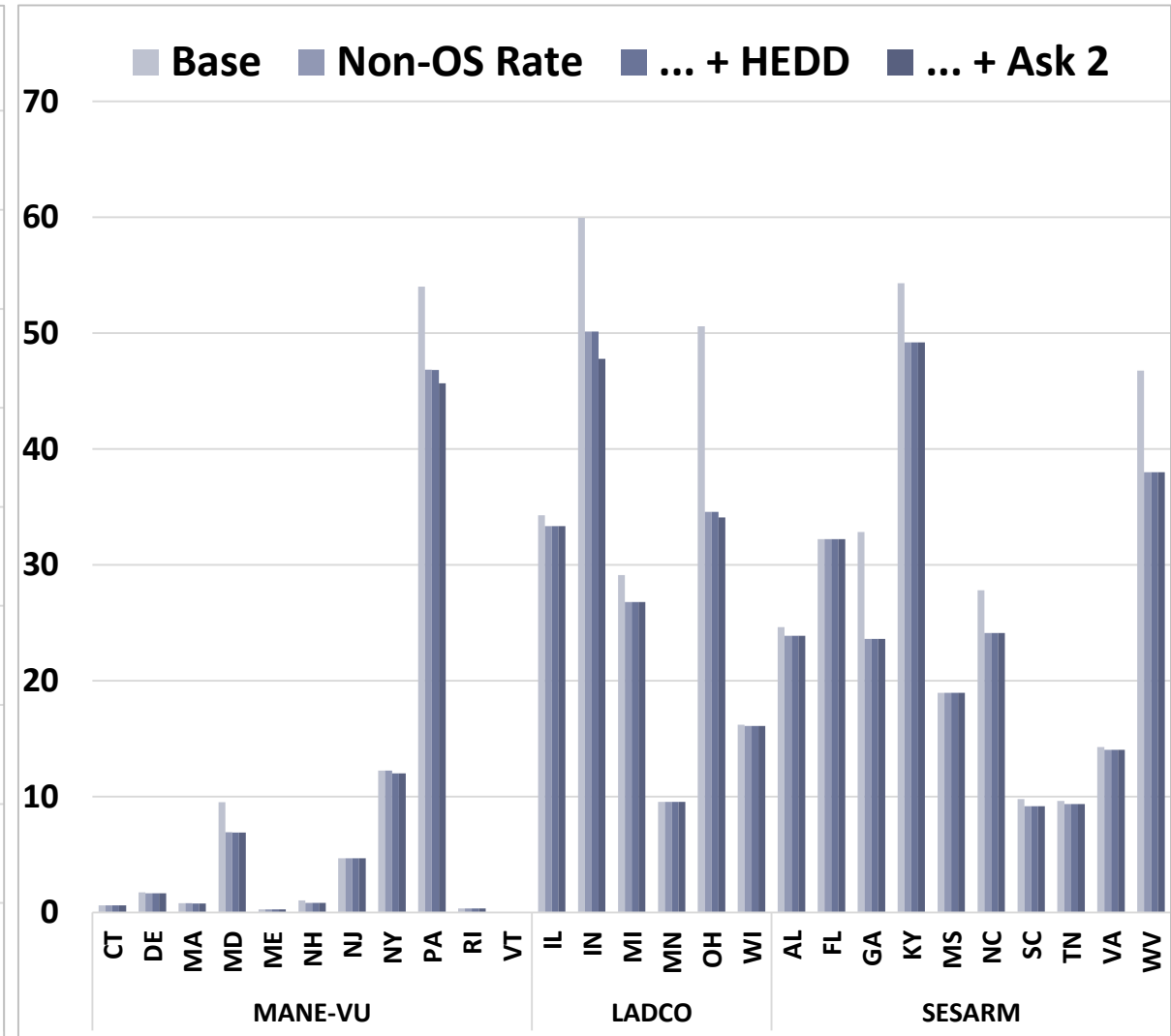
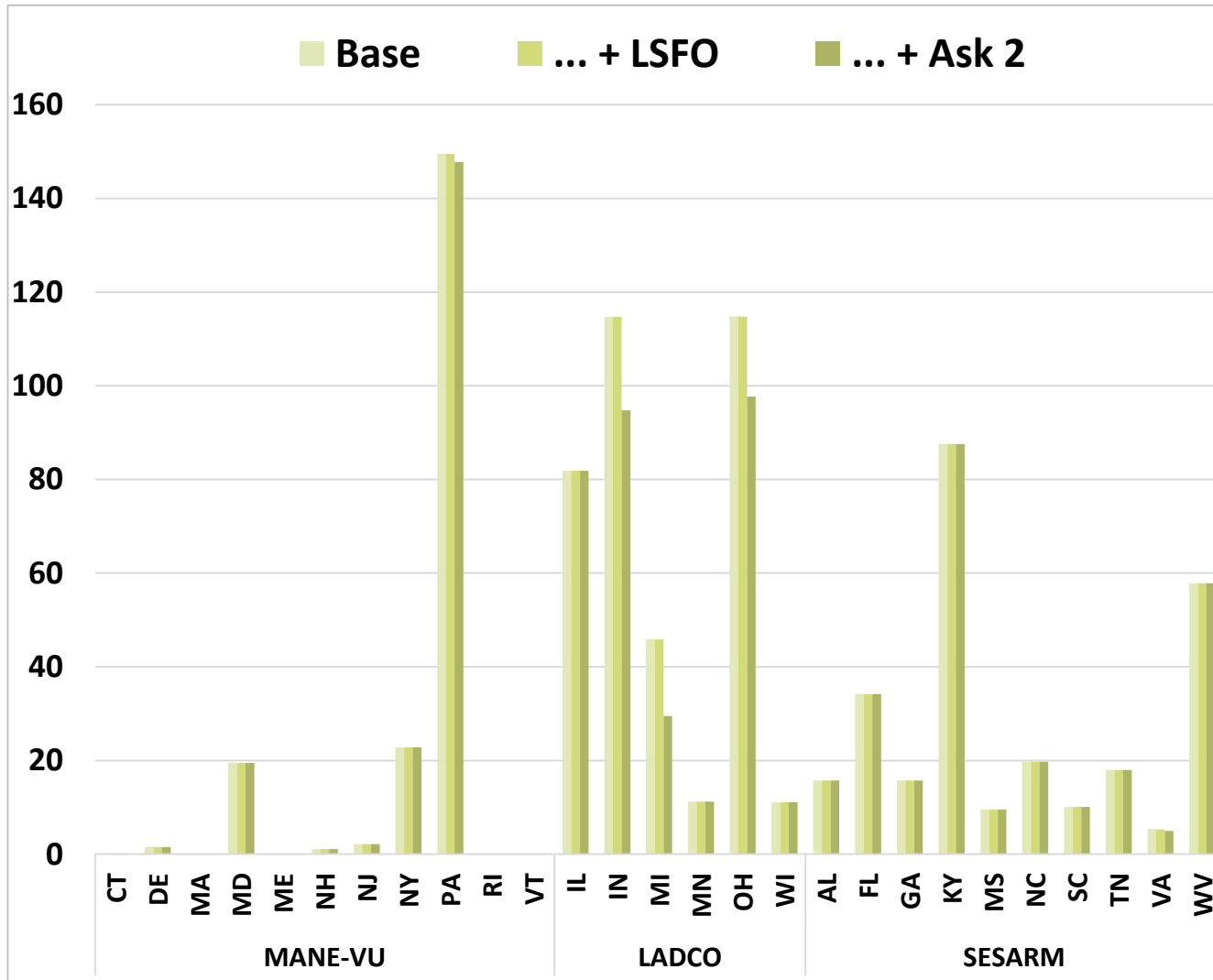
Thousands Tons

SO₂

NO_x

Base ... + LSFO ... + Ask 2

Base Non-OS Rate ... + HEDD ... + Ask 2

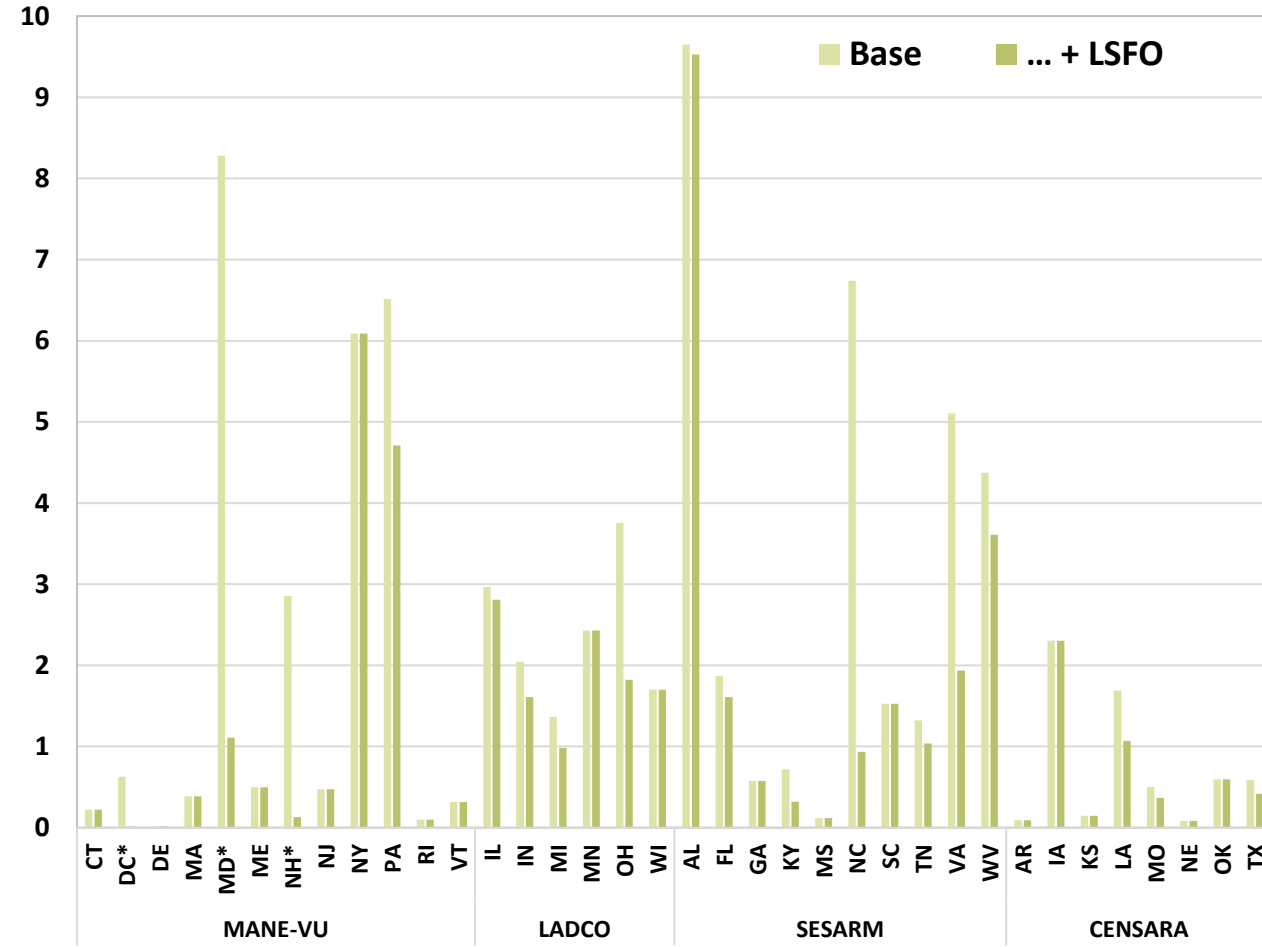
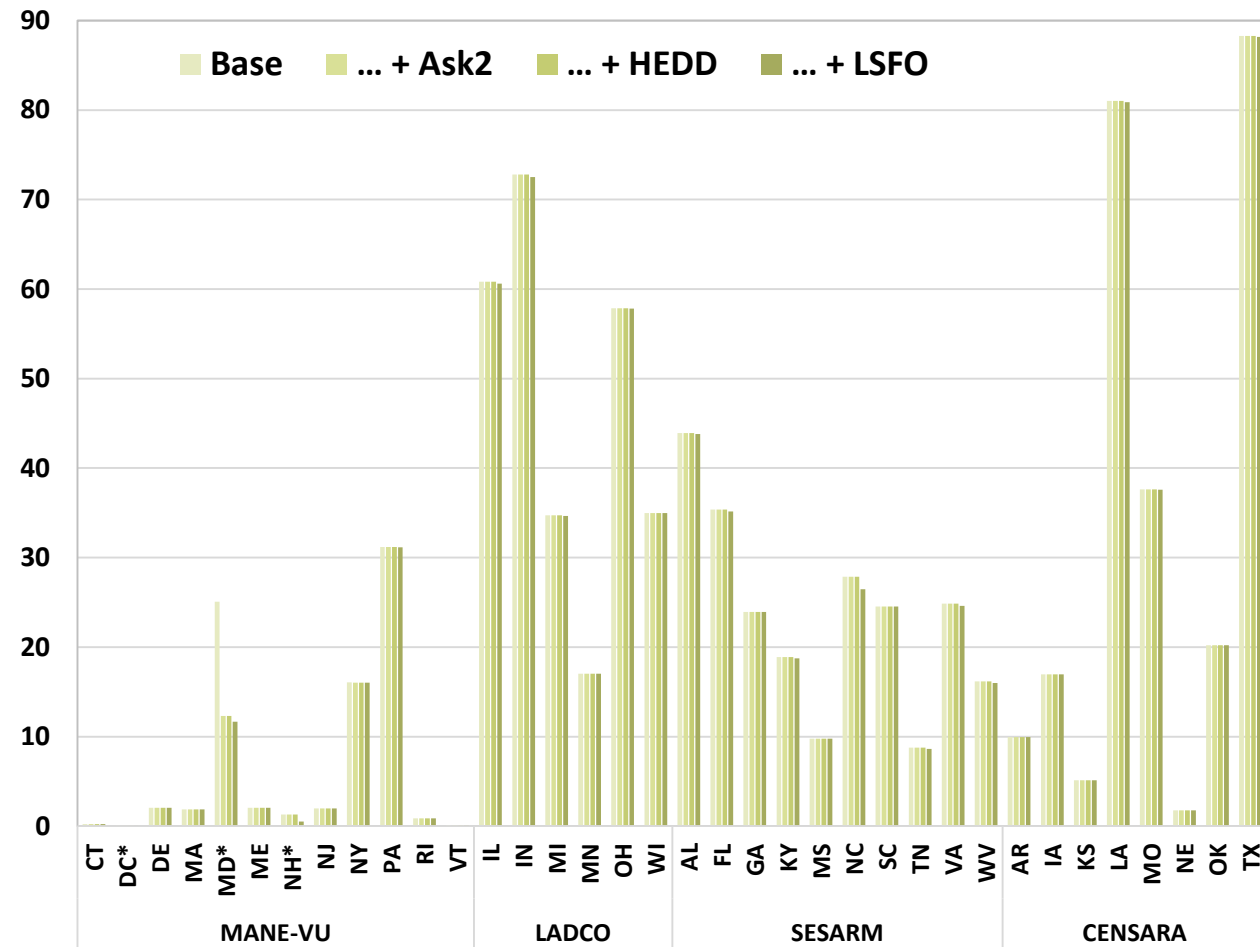


Changes in Annual SO₂ Emissions (EMF) On Implementing MV Ask

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

SIP Writing Status

- ▶ States in various stages of SIP writing/4-factor analysis
- ▶ States with robust SIP drafts sharing them with others as templates
- ▶ A listing of MANE-VU haze planning documents has been provided as a resource

https://www.dropbox.com/sh/v0mu218ery5aktn/AAD1x_Vb-ZpssglBZ6KGh1s_a/MV_Haze_Planning_Docments_List_08032018.xlsx?dl=0

In Summary

- ▶ 2nd Planning Period Regional Haze SIP work almost complete
- ▶ 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 finished
- ▶ Inventory development for base case and control case modeling is completed and modeling is completed
 - Modeling TSD is currently under 21-day review period (ends Sept. 19, 2018)
- ▶ States in various stages of SIP writing