



Proposed Draft Annex to the GCVTC Report

August 11, 2000

Outline of Presentation

- Background information
 - Grand Canyon Visibility Transport Commission
 - 1999 Regional Haze Rule
- Overview of Draft Annex
- Ongoing work

Grand Canyon Visibility Transport Commission Recommendations, June 1996

- Stationary Sources
- Mobile Sources
- Pollution Prevention
- Fire
- Areas in and near
Parks
- Road Dust
- Emissions from
Mexico
- Clean Air Corridors

GCVTC Stationary Source Recommendations

- Implement existing CAA requirements through 2000
 - Known emission reductions
 - On-going source attribution studies
 - States and Tribes encouraged to make expeditious decisions regarding the need for additional pollution controls due to the CAA

GCVTC Stationary Source Recommendations

- Establish stationary source emission targets as regulatory triggers
 - 13% minimum reduction of SO₂ by 2000
 - If greater emission reduction, split the difference between actual emissions and 13% reduction to establish target
 - 50-70% reduction by 2040
 - Interim targets to ensure steady and continuous emission reductions

GCVTC Stationary Source Recommendations

- Develop a plan for allocating credits under a regulatory program emission cap
 - new sources
 - reward early emission reductions
 - allocations to tribal, rural and undeveloped areas are of practical benefit
 - account for the effect on visibility

GCVTC Stationary Source Recommendations

- If targets met, no further regulatory program required
- Backstop cap-and-trade program
 - 5-year review of compliance with targets
 - If program triggered, 5 years to come back into compliance

GCVTC Stationary Source Recommendations

- Complete source attribution studies at Mojave Generating Station
- Develop an improved monitoring and accounting system

1999 Regional Haze Rule

- Published in FR July 1999
- Transport Region States have the option to develop SIPs under section 308 or 309 of the rule
- Adopted the GCVTC recommendations as section 309

1999 Regional Haze rule

- Schedule (section 309)
 - Annex to GCVTC Recommendations due October 1, 2000
 - SIPs due December 31, 2003
 - No required submittal dates for TIPs
 - Periodic Reports in 2008, 2013
 - New SIP under section 308 due in 2018

1999 Regional Haze Rule

- Annex Requirements - October 1, 2000
 - SO₂ milestones for 2003, 2008, 2013 and 2018
 - steady and continuous emission reductions
 - greater reasonable progress than RH BART
 - Documentation of backstop market trading program
 - model rule and MOU
 - other documentation including monitoring, allocations, program operation

1999 Regional Haze Rule

- Annex Requirements
 - may include demonstration of reasonable progress for other Class I areas
 - may include geographic enhancements related to RA BART

1999 Regional Haze Rule

- 2003 SIPs - Stationary Source Requirements
 - monitoring and reporting of stationary source SO₂ emissions
 - criteria and procedures for backstop trading program
 - provisions for activating backstop trading program and compliance reporting
 - provisions for stationary source NO_x and PM

1999 Regional Haze Rule

- 2003 SIPs - Requirements for other sources
 - Mobile sources: Cap emissions at 2005 levels in areas that contribute significantly to visibility impairment
 - Fire: Enhanced smoke management programs
 - Area Sources: Emission management strategies for fugitive dust if necessary

1999 Regional Haze Rule

- 2003 SIPs - Requirements for other sources
 - Pollution Prevention: Renewable energy goals
 - Other Recommendations as practicable
- The entire package of emission reduction strategies is needed for a 309 SIP

Market Trading Forum

- Established to develop recommendations for implementing GCVTC stationary source recommendations
- First meeting in August 1997
- Stakeholders
 - States, Tribes, industry, environmental groups, EPA, FLMs, small business

Market Trading Forum

- Significant time and effort over the last 2 ½ years
 - meetings every 6-8 weeks, more frequent meetings in recent months
 - numerous subgroups developed recommendations
- Emission Inventory Work Group provided technical support

Initiatives Oversight Committee

- Provided guidance and oversight to MTF
- Arbiter of outstanding issues

Annex Structure

- Description of Milestones and Trading Program
 - Executive Summary (completed)
 - Detailed description (under development)
- Preamble - Describes rationale (under development)
- Recommended revisions to Section 309

Annex Structure

- Supporting Documentation
 - Model Rule (completed)
 - MOU among states and tribes (completed)
 - Better than BART demonstration (under development)
 - Technical Support (numerous documents available on web site)

Overview of Annex

- Regional Stationary Source SO₂ Milestones
 - Steady and Continuous Emissions Reductions
 - Better Reasonable Progress than BART
- 2018 Certainty
- Reasonably Attributable Impairment
- Compliance Averaging and Banking

Overview of Annex

- Trading Program Elements
 - Model Rule
 - MOU
 - Allocations
- Opt-in/Opt-out for states and tribes
- Other Class I Areas (geographic enhancement)

Milestones - Principles

- Achieve Steady Continuing Emissions Reductions
- Provide Flexibility to Sources “Up-Front” for Greater “Back-End” Reductions
- 2018 Milestone Achieves Greater Reasonable Progress than BART

Milestones - Controversies Resolved

- Completion of the data “true-up” by WRAP contractors
 - Emissions in 2000
 - Baseline projections for milestone years
- Other data quality issues

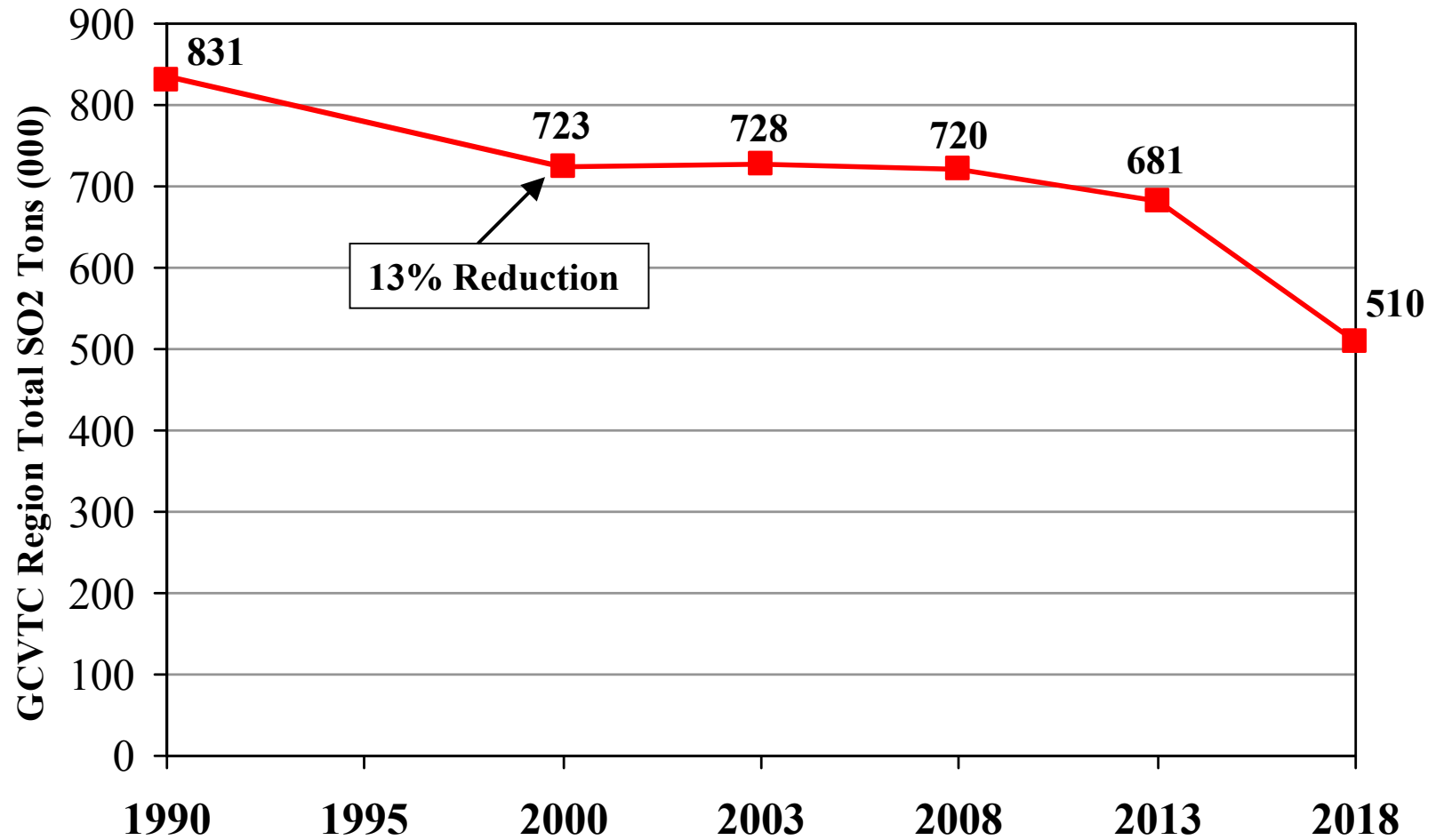
Milestones - Basis

- Policy driven
- Informed by best available information
- Data available at any point in time will change as new information becomes available, assumptions are modified, and quality of data improves

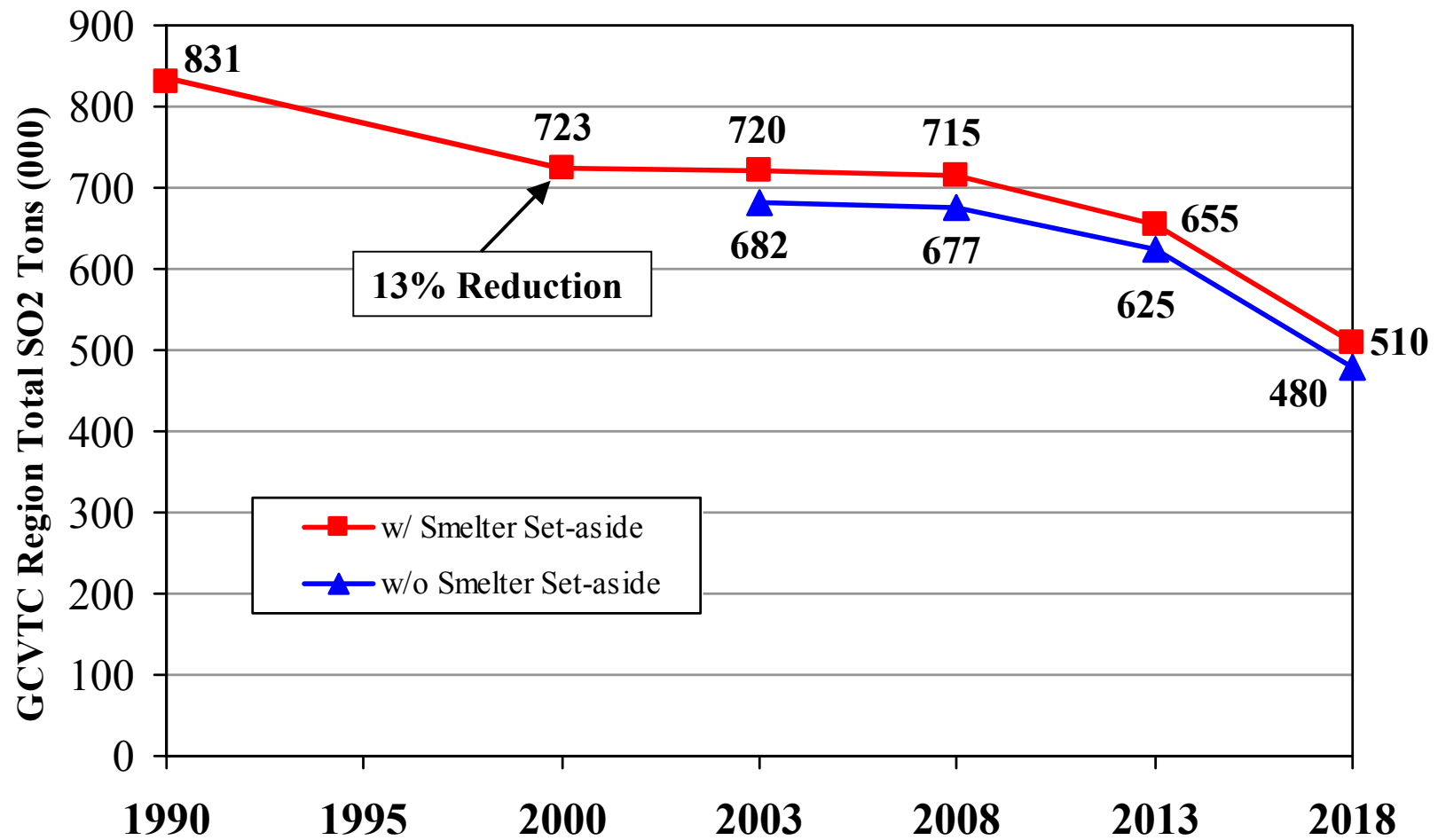
2018 Milestone

- **Baseline emissions projection** 618,000 tons
 - Known reductions
 - Assumed retirements & tech. changes
 - New source & utility growth
 - Operational adjustments
- **Estimated BART reductions** -164,000
- **Utility CEM adjustment** - 10,000
- **Uncertainty/Headroom** + 35,000
- **Total** **480,000**
- **Smelter Set-aside** + 30,000
- **2018 Milestone** **510,000**

Estimated SO₂ Milestones Based on MTF Formulas



IOC Proposed SO₂ Milestones



Better Reasonable Progress Than BART

- 39% reduction from 1990 - Actual reduction of 320,000 tons, including growth
- Includes emissions reductions expected if BART were installed on applicable sources.
- New and existing source growth for non-”BARTable” sources capped for the region.
- Regional haze visibility improvement not distinguishable from application of BART

2018 Certainty

- Concern that the majority of emissions reductions occur in the 2013-2018 time frame.
- States and tribes may trigger the cap-and-trade program if the 2013 milestone is achieved, but best projections show that the 2018 milestone may not be achieved.
- Penalties in 2018 if milestone is not met

BART for Reasonably Attributable Impairment

Three Steps

- Certification by FLM
- Attribution analysis by state/tribe
- BART analysis

Reasonably Attributable Impairment

Certification

- FLM's certify without restriction
- Expectation of sulfate reductions in Class I areas reflecting emissions reductions in milestones
- Confer with state/tribe and identified sources regarding potential emissions changes

Reasonably Attributable Impairment

Attribution Analysis

- States/tribes determine attribution
- WESTAR RH SIP Working Group conducting case studies
- If general principles of attribution identified, can become basis for guidance
- Factors will include frequency, severity and duration of impairment episodes

Reasonably Attributable Impairment

BART Determination

- Potential remedy options
 - Traditional BART analysis
 - States/tribes conduct BART Analysis
 - Use CAA BART factors, applicable guidance and rules
 - Off-Ramp
 - State seeks reductions beyond BART-eligible sources

Reasonably Attributable Impairment

Intergovernmental Relationships

- States, Tribes & FLMs enter into MOUs

Compliance Averaging and Banking

- Compliance based on annual assessment of 3-year rolling average
- Milestones remain constant for each five year increment, and step down
- 2018 milestone compliance determined based on 2018 inventory (1 year)
- Banking of early reductions possible, with bonus allocations for reducing below 2018 allocation or “floor”

Trading Program Elements

- Model Rule defines:
 - Procedures
 - Duties of administrator
 - Monitoring, record keeping and reporting
 - Compliance and enforcement
- MOUs among participating States and Tribes

Allocations

- Set-asides
 - 20,000 tons for tribes
 - New Sources
 - California RECLAIM
- Source Specific
 - Floor (BACT/BART/LAER)
 - Reducible
 - Renewables

Opt-in/Opt-out Procedures

- Decision not due until 2003 SIP deadline
- Milestones and set-aside allocations adjusted based on emissions contributions
- Addition of areas will strengthen market
- “Critical Mass” determination needs to be made

Other Class I Areas

- Demonstration that milestones achieve reasonable progress in all Class I areas
- Three Options
 - Cover in 2003 SIP under Section 309
 - Cover in 2008 SIP under Section 309
 - Cover in 2008 SIP under Section 308
- Intention to demonstrate *this* program meets requirement for all Class I areas

Continuing Work

- Allocations
 - Definition of floors and reducibles source by source
- Finishing Touches on Model Rule
 - e.g., Incorporation of agreements on early reductions, banking, non-utility record keeping and reporting
 - Address EPA issues

Continuing Work

- Annex Document and attachments