Luminant

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Proposed Clean Air Transport Rule And Texas

June 9, 2011

Overview

- Luminant Overview
- Background: EPA Proposal and SO_2 Budget Allocations if Texas is Included in CATR
- Concerns with Base Case IPM Modeling Analysis and EPA's CATR Modeling of SO_2 Emissions for Texas
- Impacts of Flawed Budget for Texas

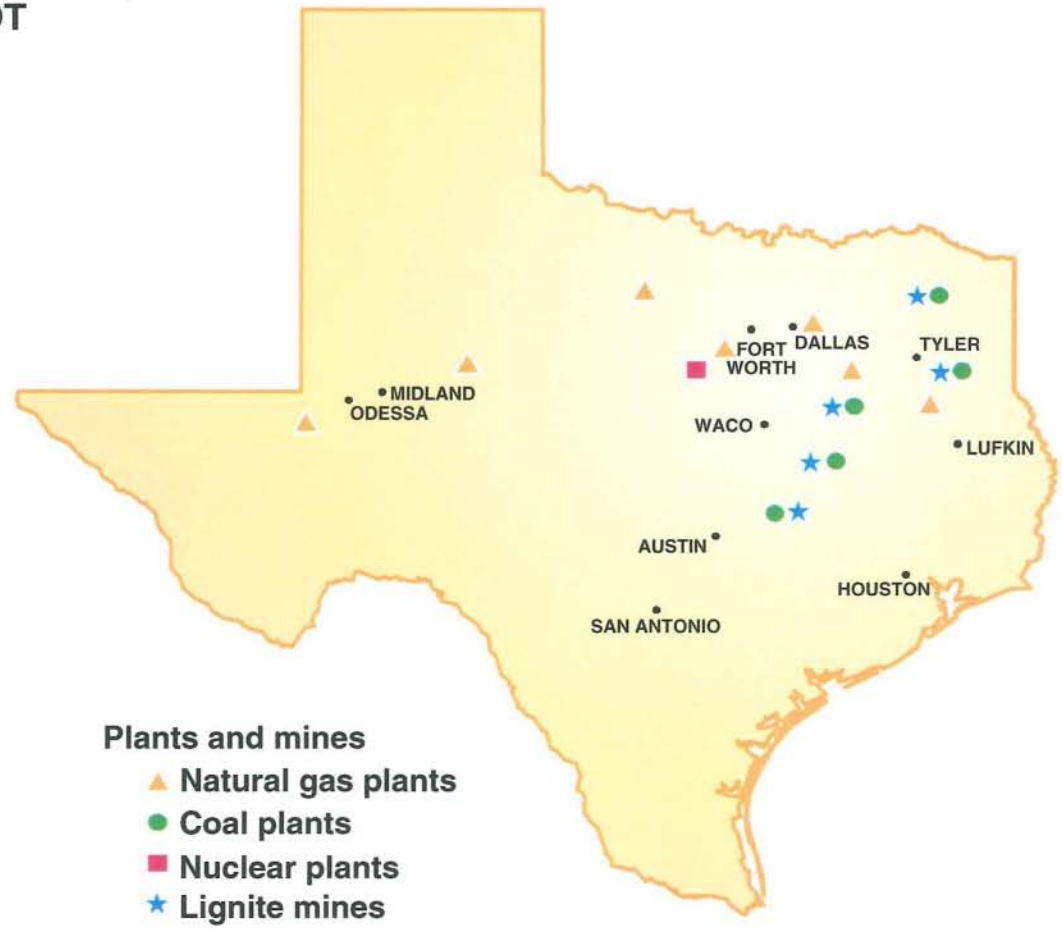
Luminant Generation And Mining Facilities

Generation capacity in ERCOT
At 12/31/10; MW

Nuclear	2,300 MW
Natural gas[1]	5,110
Coal	8,017
Total	15,427 MW

Lignite mine production
2010; million tons

Monticello	2.5 M tons
Big Brown	2.6
Three Oaks	5.4
Kosse	6.2
Martin Lake	10.8
Total	27.5 M tons

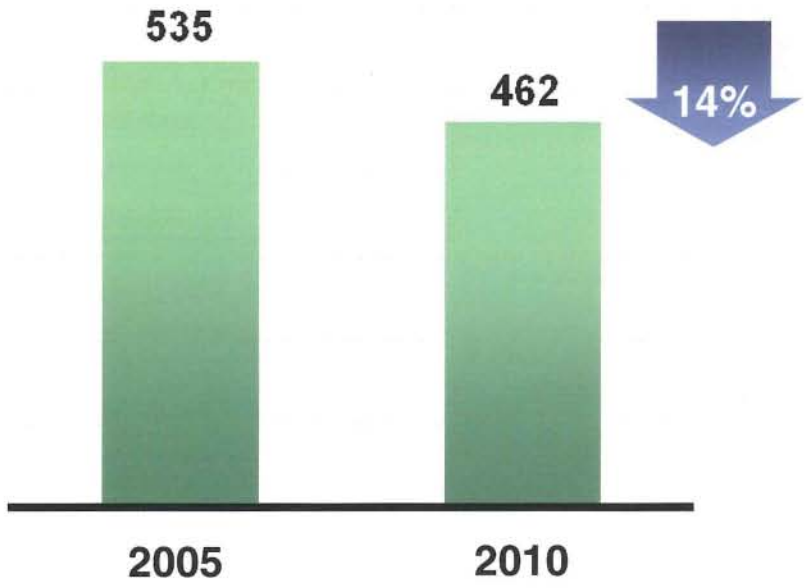


Luminant is the largest generator in Texas and a wholly owned subsidiary of Energy Future Holdings

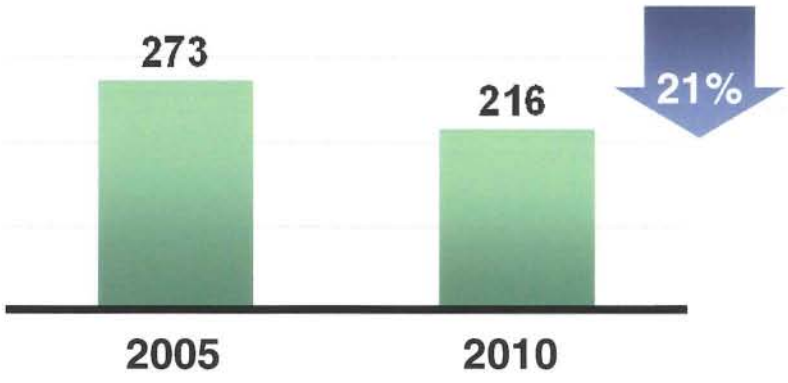
[1] Includes four mothballed units (1,655 MW) not currently available for dispatch and eight units (1,268 MW) currently operated for unaffiliated parties.

Reductions in Texas/Luminant SO_2 Emissions Since 2005

Texas EGU SO_2 Emissions
000 tons



Luminant SO_2 Emissions
000 tons



Luminant has achieved a 21% reduction in SO_2 since 2005. Over the same period, total generation increased by 13%.

Source: EPA Clean Air Markets Division, Data and Maps Database Website

Background – EPA CATR Proposal

- **Texas Not Included in Proposed CATR Annual SO_2 Program**
  - EPA modeling showed no significant downwind impact from Texas
  - Requested comment on including Texas based on model of projected emissions and impact with CATR implemented
  - No proposed emissions budget for Texas

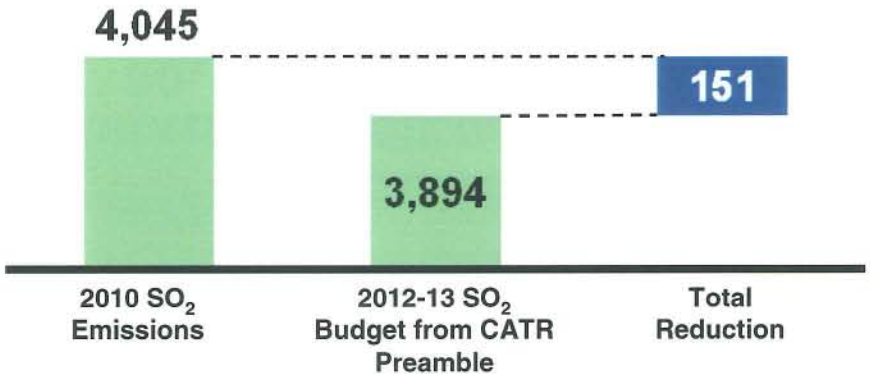
- **Luminant Concerns and Purpose of Meeting**
  - Inclusion of Texas in annual SO_2 program *with*
  - Flawed modeling used to set SO_2 budget *leading to*
  - Severe and disproportionate impacts in Texas

Concerns With EPA Analysis

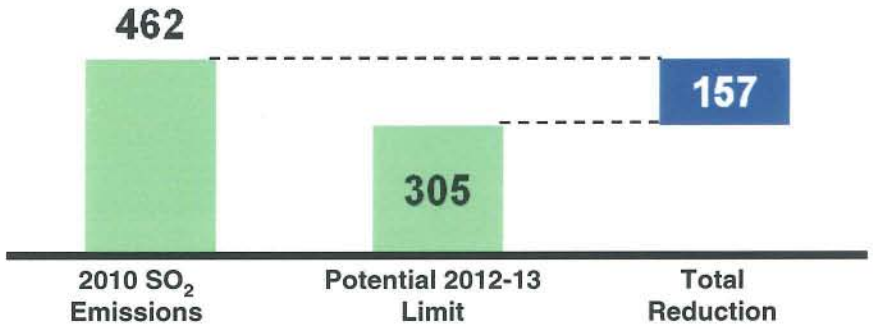
- **EPA Base Case IPM Modeling Flaw**
  - Assumes blended fuel plants will switch to 100% PRB by 2012
  - Switch at Luminant's mine mouth units by January 1, 2012 infeasible
    - Full switch requires boiler component replacements with ~25 months lead-time
    - Would require ~5,500 MW of generation to operate at significantly reduced capacity (impacting price and reserve margins)
    - Would threaten jobs of 1,000+ Luminant plant and mine employees in Texas
- **Severe and Disproportionate Impacts**
  - A budget for Texas in the final CATR at or below base case levels would severely affect jobs, prices, customers, and Texas reserve margins
  - At this budget, Texas reductions would be approximately one half of the total nationwide reductions under CATR – and Texas was not proposed to be included

Share Of Total US SO_2 Emissions Reductions In 2012-13 If Texas Is Included With A Limit Of 304,977 Tons

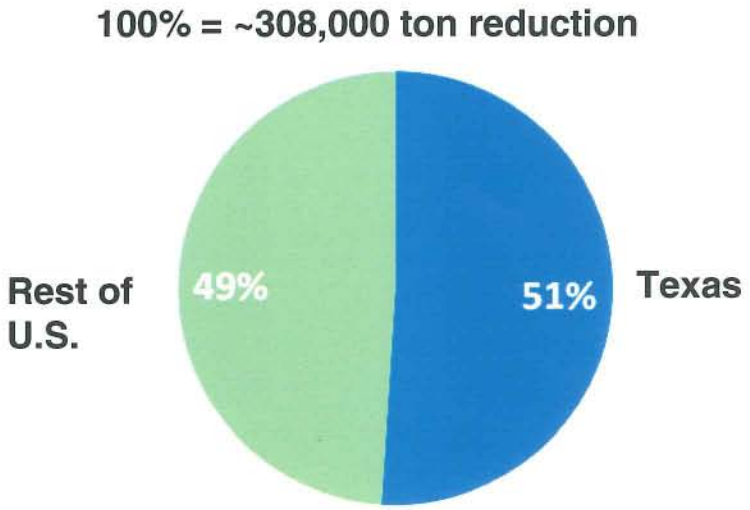
SO_2 Reductions – all proposed Group 1 & 2 states
000's tons[1,2]



SO_2 Reductions – Texas[2,3]
000's tons



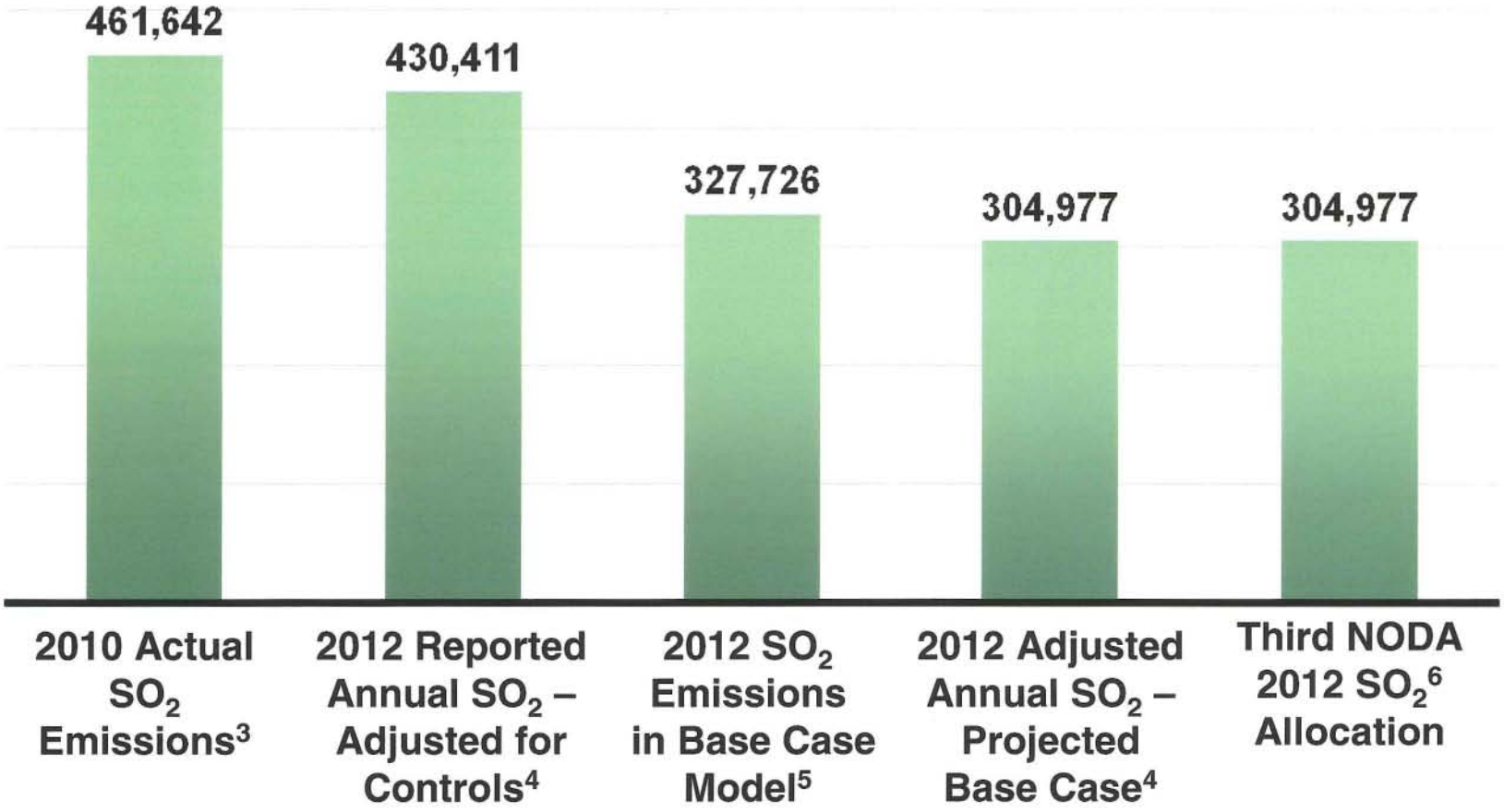
Share of 2012-13 Reductions Compared With 2010 Emissions



[1] State SO_2 Budgets for 2012-2013 from proposed CATR preamble , pp 45425 &45449
[2] State SO_2 2010 Emissions – EPA Clean Air Markets Division, Data and Maps, Acid Rain Program Data
[3] Reported and Projected Base Case Tons from BADetailedData.xls, Tab – Adjusted Data

EPA Proposed CATR And NODA SO_2 Modeling Analysis For Texas Electric Generating Units

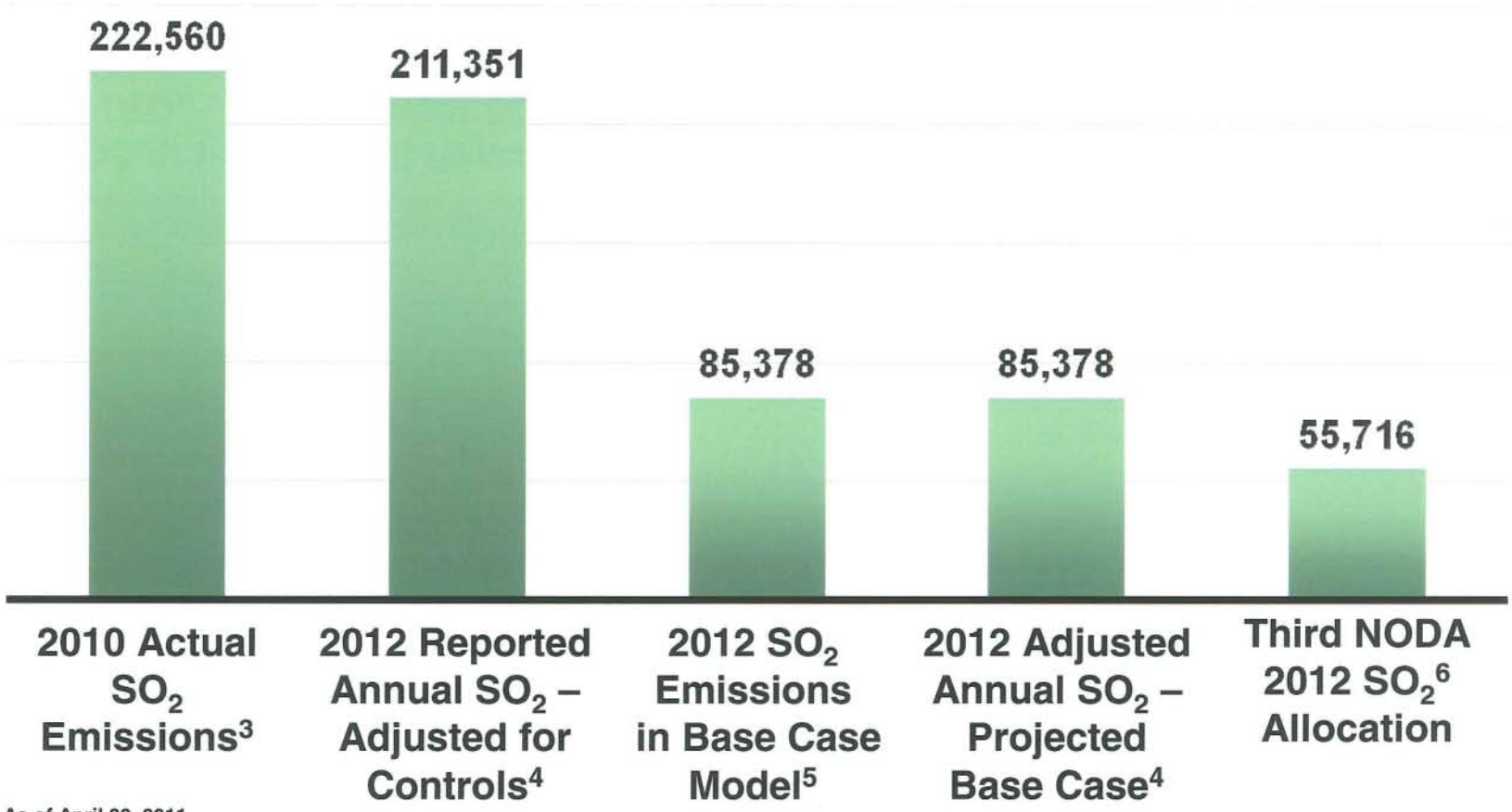
Tons of Annual SO_2 Emissions[1,2]



[1] As of April 30, 2011
[2] The new unit set-aside for Texas is estimated at 9,149 tons (3%) and has not been subtracted from data above
[3] From EPA Clean Air Market Division's Data and Maps Website
[4] From BADetailedData.xls, Adjusted Data tab, found at http://www.epa.gov/airquality/transport/tech.html
[5] From ParsedFile_TR_Base_Case.xls, TR_Base_Case 2012 tab found at http://www.epa.gov/airmarkets/progsregs/epa-ipm/transport.html
[6] From altallocationtablesdata.xls, Option 1 underlying data tab, found at http://www.epa.gov/airquality/transport/actions.html#jan11

EPA Proposed CATR And NODA SO_2 Data For Texas EGUs That Use Blended Lignite and Subbituminous (PRB) Fuels

Tons of Annual SO_2 Emissions[1,2,7]



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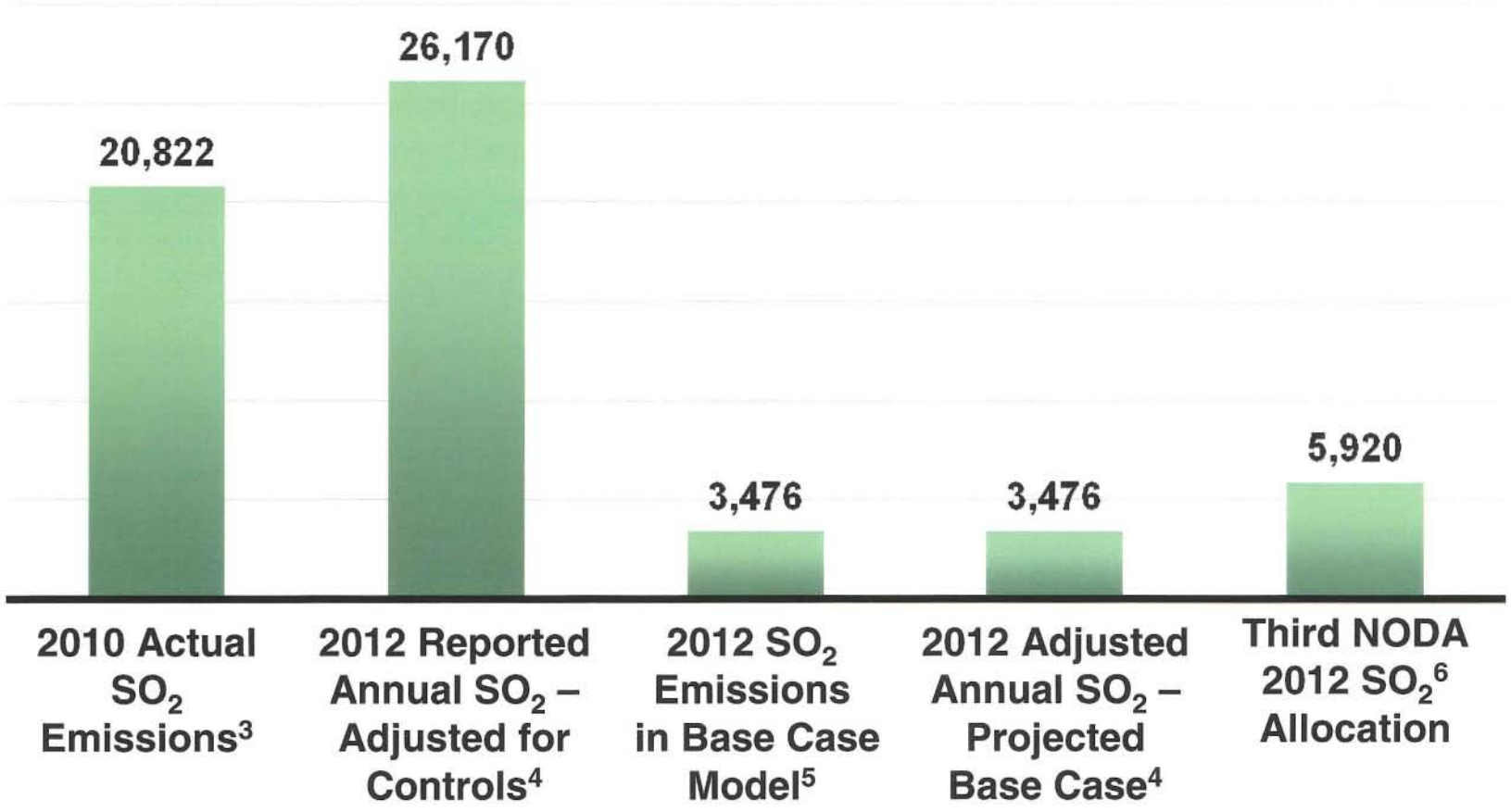
[6] From altallocationtablesdata.xls, Option 1 underlying data tab, found at http://www.epa.gov/airquality/transport/actions.html#jan11
[7] Includes Big Brown 1 &2; Limestone 1 &2; Martin Lake 1,2,&3; Monticello 1,2 &3; and Twin Oaks 1 & 2

EPA Proposed CATR And NODA SO_2 Data For Blended Coal Unit – Martin Lake Unit 2 Example

Tons of Annual SO_2 Emissions[1,2]



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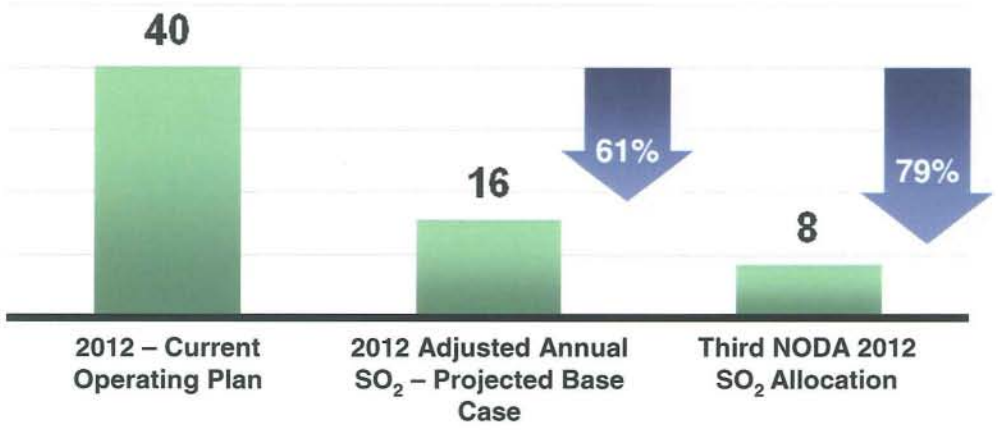
[5] From ParsedFile_TR_Base_Case.xls, TR_Base_Case 2012 tab found at http://www.epa.gov/airmarkets/progsregs/epa-ipm/transport.html
[6] From altallocationtablesdata.xls, Option 1 underlying data tab, found at http://www.epa.gov/airquality/transport/actions.html#jan11

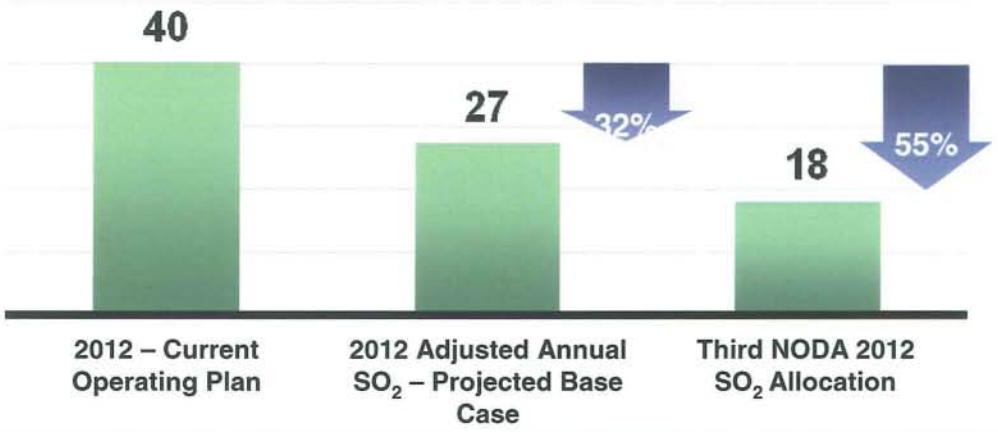
Impact Of Potential Limits At Luminant's Blended Fuel Plants Assuming A TX Limit Of 304,977 Tons In 2012-13

Scenario 1 – Continue blending lignite and PRB
Total generation; TWh



Other Impacts
- Higher electricity prices
- Reserve margins tighten
- 2-4 units shut down
- ~500 – 800 plant and mine jobs at risk
- Significant per MWh cost increases

Scenario 2 – Discontinue lignite; PRB only
Total generation; TWh



Other impacts
- Higher electricity prices
- Reserve margins tighten
- 2-4 units shut down
- ~300-800 plant jobs at risk and all 1,200 mining jobs idled
- Significant per MWh cost increases

Every 5 TWh reduction is the equivalent of ~400,000 Texas households (ERCOT)

Luminant Jobs At Blended Fuel Coal Units

Plant/Mine Site	FTEs[1]
Big Brown Plant	119
Big Brown Mine	213
Martin Lake Plant	254
Martin Lake Mines	683
Monticello Plant	192
Monticello Mines	281
Total plant employees – blended fuel plants	565
Total mine employees – blended fuel plants	1,177
Sandow Plant	135
Three Oaks Mine	255
Oak Grove Plant	141
Kosse Mine	306
Luminant – total coal plant/mine employees	2,579

[1] As of April 30, 2011