NEW SOURCE REVIEW REFORM RULE UPDATE

DIVISION OF AIR QUALITY

STAKEHOLDER MEETING

PSD REFORM RULE

HISTORY AND PURPOSE

Utah Department of Environmental Quality
Division of Air Quality

November 29, 2005

Salt Lake City, Utah

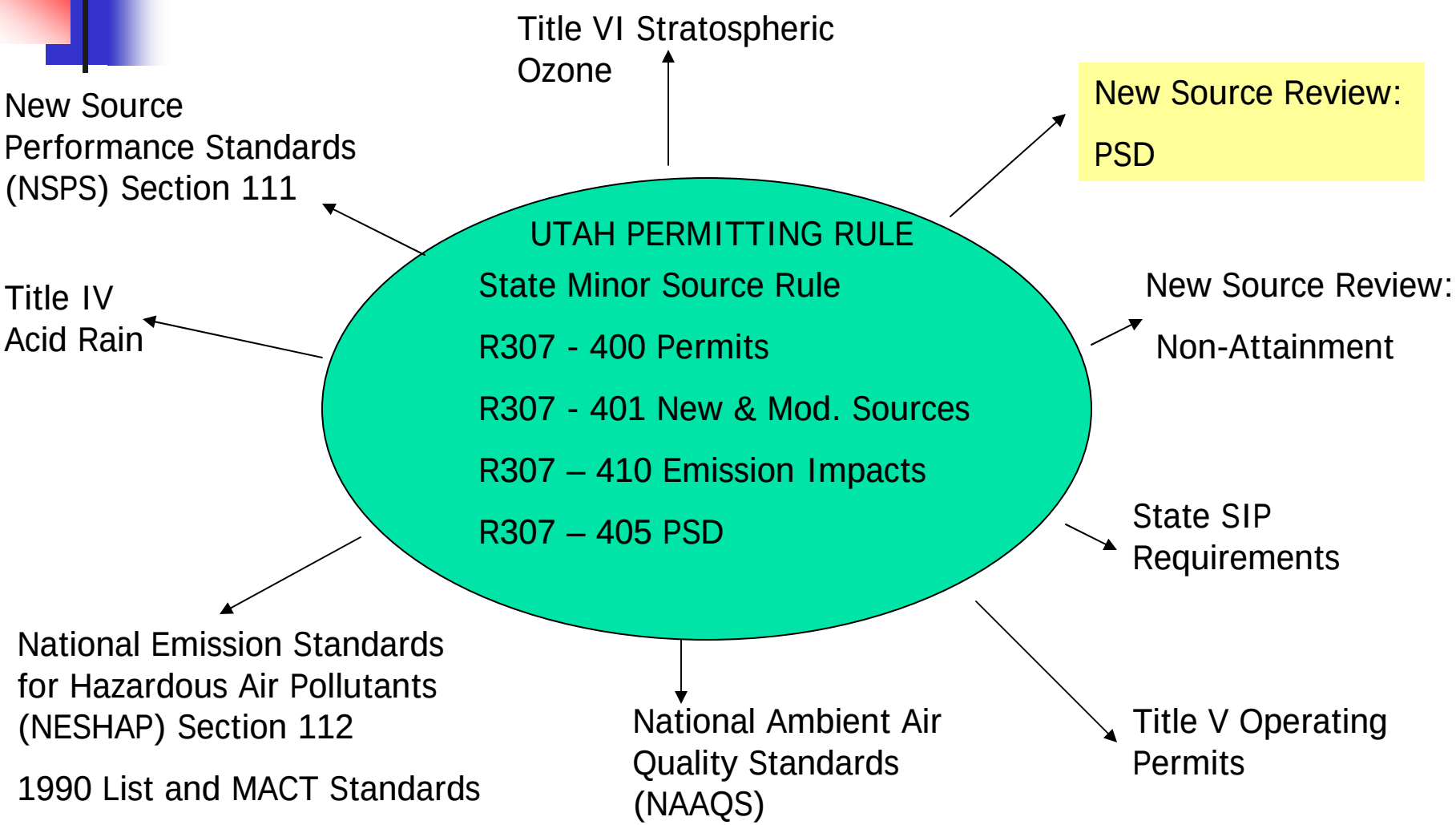
NSR REFORM PROGRAMS

- The Actual to Projected Actual (A2A) Definition of a Major Modification
  - Pre Project-Emissions Calculation: Baseline Actual Emissions (BAE)
  - Post Project-Emissions Calculation: Projected (Future) Actual Emissions (PAE)
  - Applicability Test: Baseline Actual to Projected Actual (A2A)
- Plant-wide Applicability Limits (PAL)

NSR REFORM RULE – COMMON ELEMENTS

- NEW RULES APPLY TO NSR MAJOR PSD AREA SOURCES ONLY
- NEW RULES APPLY ONLY TO NSR MAJOR MODIFICATIONS AT EXISTING SOURCES
- NEW RULES ARE VOLUNTARY FOR INDUSTRY

NSR REFORM RULE - SCOPE



NSR REFORM RULE – CONTROL TECHNOLOGY

- LAER – NSR Non-Attainment (Lowest Achievable Emissions Rate)
- BACT – NSR PSD (Best Available Control Technology)
- BART – Regional Haze (Best Available Retrofit Technology)
- NSPS – see 40 CFR 60
- NESHAPs – see 40 CFR 61
- MACT (Maximum Achievable Control Technology) – see 40 CFR 63
- STATE BACT (Best Available Control Technology)
- SIP – RACT

NSR REFORM RULE PURPOSE & HISTORY

- The Reform Rule was designed to Encourage:
- Increased Operational Flexibility while Maintaining Air Quality Standards
- Energy Efficiency Improvements
- Investments in New Technologies
- Modernization of Facilities

NSR REFORM RULE HISTORY & PURPOSE

- The NSR reform process began in 1992 with the formation of the Clean Air Act Advisory Committee, in part, as a response to the WEPCO Rule.
- EPA requested public comment on the proposed rule in 1996, 1998 & 2003.
- NSR Reform Rule finalized December 31, 2002.
- Ten northeastern states filed a motion on January 30, 2003, in the Court of Appeals for the District of Columbia – New York vs. EPA
- EPA granted, in July of 2003, reconsideration and requested additional public comment on six issues related to the original December 2002, NSR Reform Rules.
- DC District Court issued its decision on New York vs. EPA June 2005

WEPCO RULE

- As a result of the Wisconsin Electric Power Company vs. EPA (WEPCO) court ruling in 1990, EPA allowed the use of the A2PA Applicability Test for Electric utility sources (1992 Rule).
- The NSR Reform Rule extends the WEPCO rule to any major source modification.

DC CIRCUIT COURT NSR REFORM RULING

- The DC Court found the following reform elements to be permissible interpretations of the CAA:
  - Use of the Actual to Projected Actual Applicability Test
  - Use of the ten year look back period for baseline actual emissions determinations
  - The use of demand growth exclusion in projected future actual emission calculations
  - The Plant-wide Applicability Limitations (PAL) program
  - The Court concluded that the CAA unambiguously defines “increase” in terms of actual emissions.

DC CIRCUIT COURT NSR REFORM RULING

- The DC Court also found that all procedural challenges related to lack of notice to be without merit.
- The Court rejected the challenges to EPA's Environmental Impact Analysis.
- Issues that were not addressed by the Court for lack of a factual record included:
  - Alternative NSR Standards
  - Anti-backsliding
  - Menu of Alternatives

NSR REFORM RULE HISTORY & PURPOSE

- The development of the EPA's NSR Rule has been a ten year process that included the input from air quality experts across the country including state and local air quality agencies, advocacy groups, industry groups and the public. EPA also issued a technical analysis of the anticipated air quality impacts of the NSR Reform.
- UDAQ's rule development was a 2 year process that included: two open stakeholder meetings and 2 smaller rule development stakeholder meetings.
- Today, as part of the UDAQ stakeholder process, UDAQ will present an analysis of the impact of the NSR Reform rule on PSD and Major Sources in Utah.

IMPLEMENTATION BY STATES

- For delegated States, the new rules became effective March 3, 2003. California, Hawaii, District of Columbia, Illinois, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New York, South Dakota, and Washington.
- Region VIII States:
  - South Dakota – Reform Rule implemented by delegation March 2003
  - Colorado – State Rule April 2004 - SIP submitted to EPA July 2004
  - North Dakota – State Rule IBR 2004 – SIP Revision Feb. 2005
  - Montana - Will submit State Rule to Environmental Board December 2005
  - Wyoming – Will submit State reform rule to Environmental Council – early 2006

EPA SIP REQUIREMENTS

- It is UDAQ's considered opinion that based on federal and state rule making processes and technical analyses the provisions in the Reform rule will not weaken the combined Federal and State NSR program in Utah.
- Based on the cooperative efforts of the EPA and UDAQ, we do not anticipate negative impacts on air quality due to the Reform Rule.
- Region VIII has indicated that they expect states agencies to either submit a reform rule SIP by January 2, 2006 or demonstrate a good faith effort to develop a reform program.
- Region VIII has indicated that the consequences of not pursuing a reform package could include sanctions and eventual a promulgation of a Federal Implementation Plan (FIP).

What Sources are Affected?

- 44 Sources that may be major PSD sources
  - 7 WEPCO sources
  - 8 primarily under nonattainment area rules
- 29 Sources that may be affected by the adoption of NSR Reform Rule

Affected Sources

- 7 have undergone PSD review
- 13 have been regulated under minor source NSR, SIPs, or other programs
- 8 are grandfathered
  - 1 small (18 MW) NG power plant
  - 7 NG compressor stations

Affected Sources

- 8 sources had emissions greater than 1,000 tons of any pollutant in 1999
- 10 had emissions between 300 and 1,000 tons in 1999
- 10 had emissions less than 300 tons in 1999

8 Grandfathered Sources

- All are burning natural gas
- All are relatively small (5 of the 8 sources emit less than 300 tons/yr of any pollutant)
- When equipment is upgraded it will be less polluting because newer compressor engines and gas turbines will have lower NOx emissions

14 Sources Regulated Under Other Programs

- Emissions have been going down at these sources
- Minor source BACT has been applied at smaller projects over the years
- There have been significant SIP reductions
- Many sources that would have been on this list in the past no longer qualify as major sources

Analysis of Emission Impact in Utah

Utah Analysis

- Difficult if not impossible to quantify the changes in terms of tons/year
  - PSD modifications are project specific
  - Historic inventory information not available for past PSD permits
  - Projected future actual data not available for past PSD permits
  - There are many business reasons that determine what modifications are needed

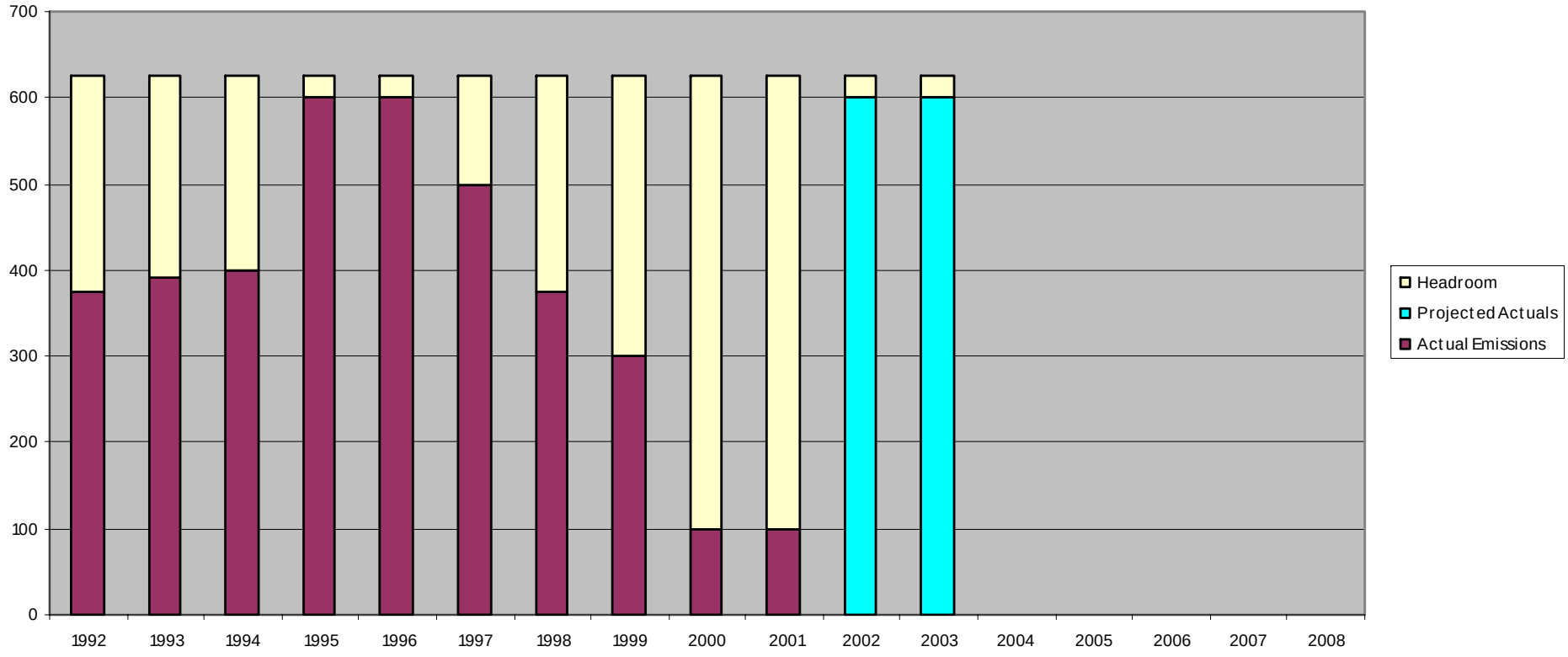
Utah Analysis

- What sources are potentially subject to this rule?
  - What pollutants are emitted
  - What is the relative size of the source
  - What is the current level of control
  - What other programs are working in parallel with PSD to regulate these sources

Utah Analysis

- Would past PSD permits have been affected by NSR Reform
- How would various scenarios play out in Utah?
  - Combination of major and minor NSR
  - Would NSR reform lead to emission increases under these scenarios?
  - Simplified examples that focus on one pollutant

Scenario D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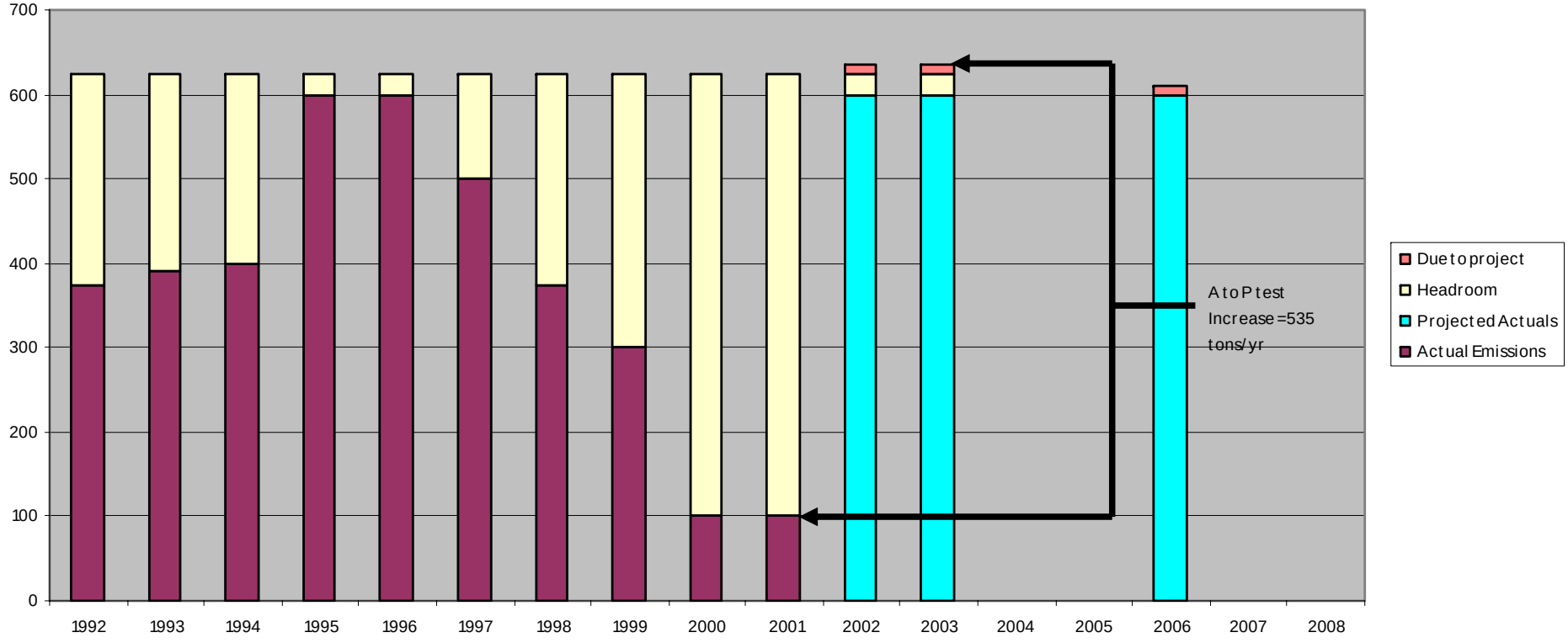
Projected Actuals
Actual Emissions

Scenario D2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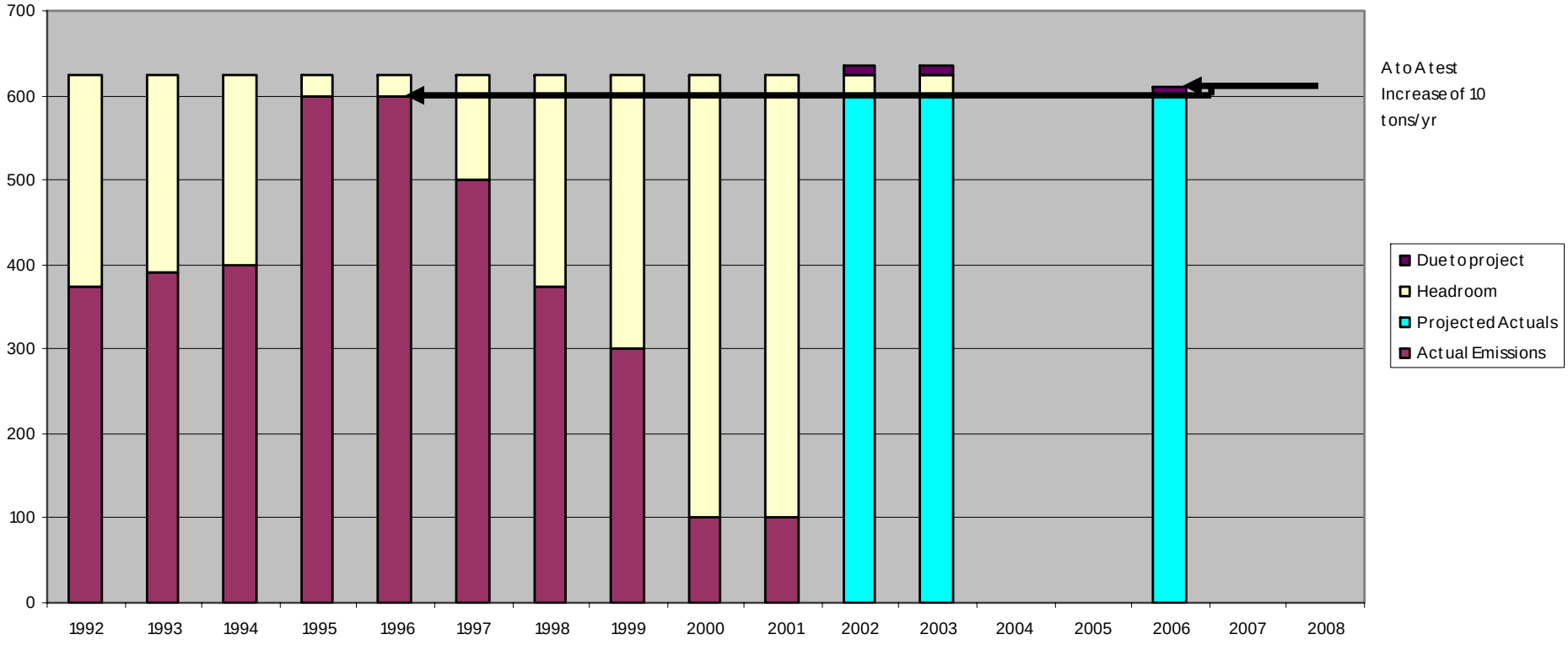
A to P test
Increase =535
tons/yr
Due to project
Headroom
Projected Actuals
Actual Emissions

Scenario D2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A to A test
Increase of 10
tons/yr
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Projected Actuals
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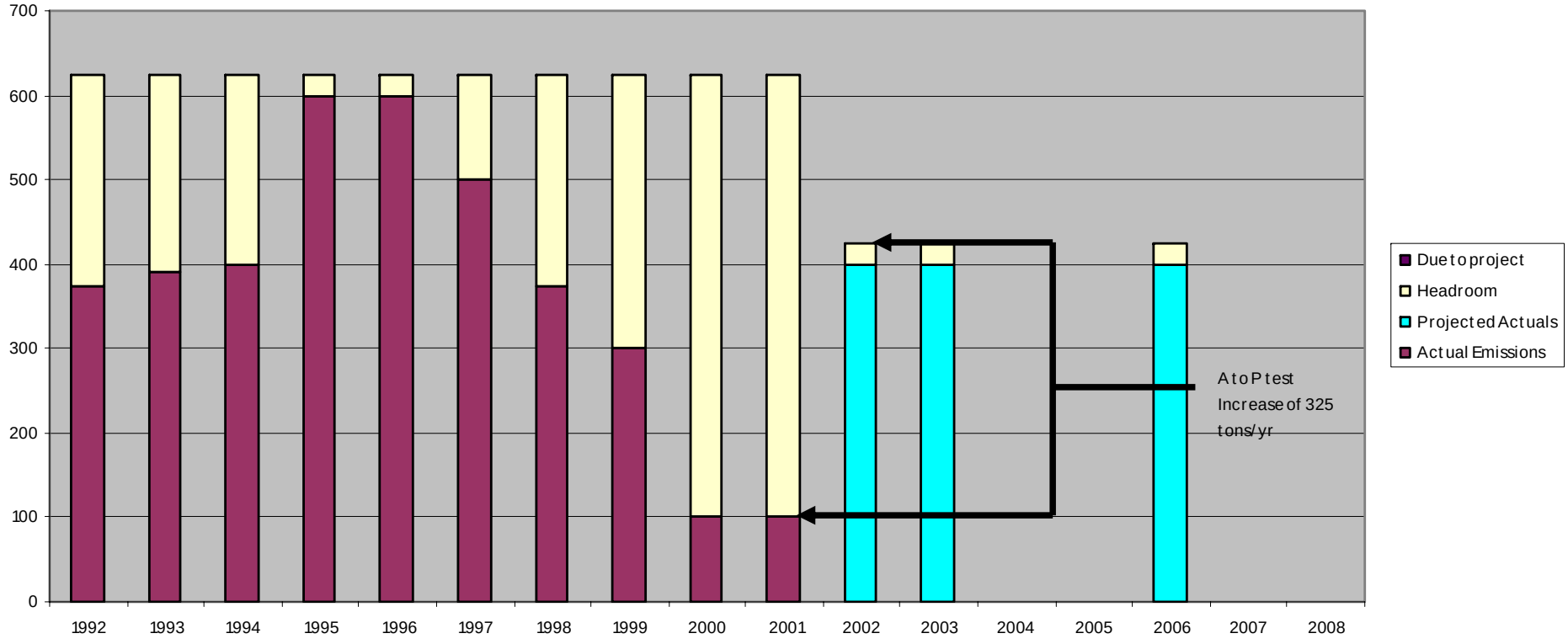
Scenario D3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A to P test
Increase of 325
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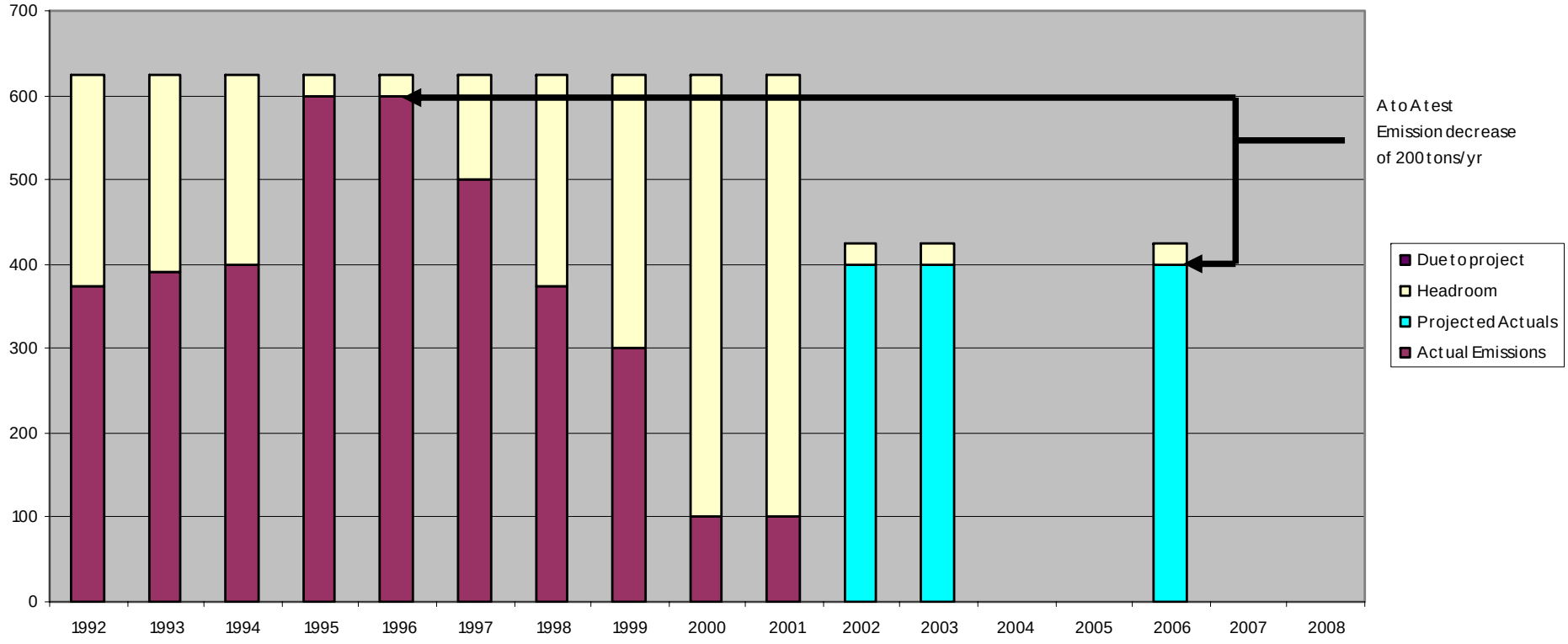
Projected Actuals
Actual Emissions

Scenario D3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A to A test
Emission decrease
of 200 tons/yr
Due to project
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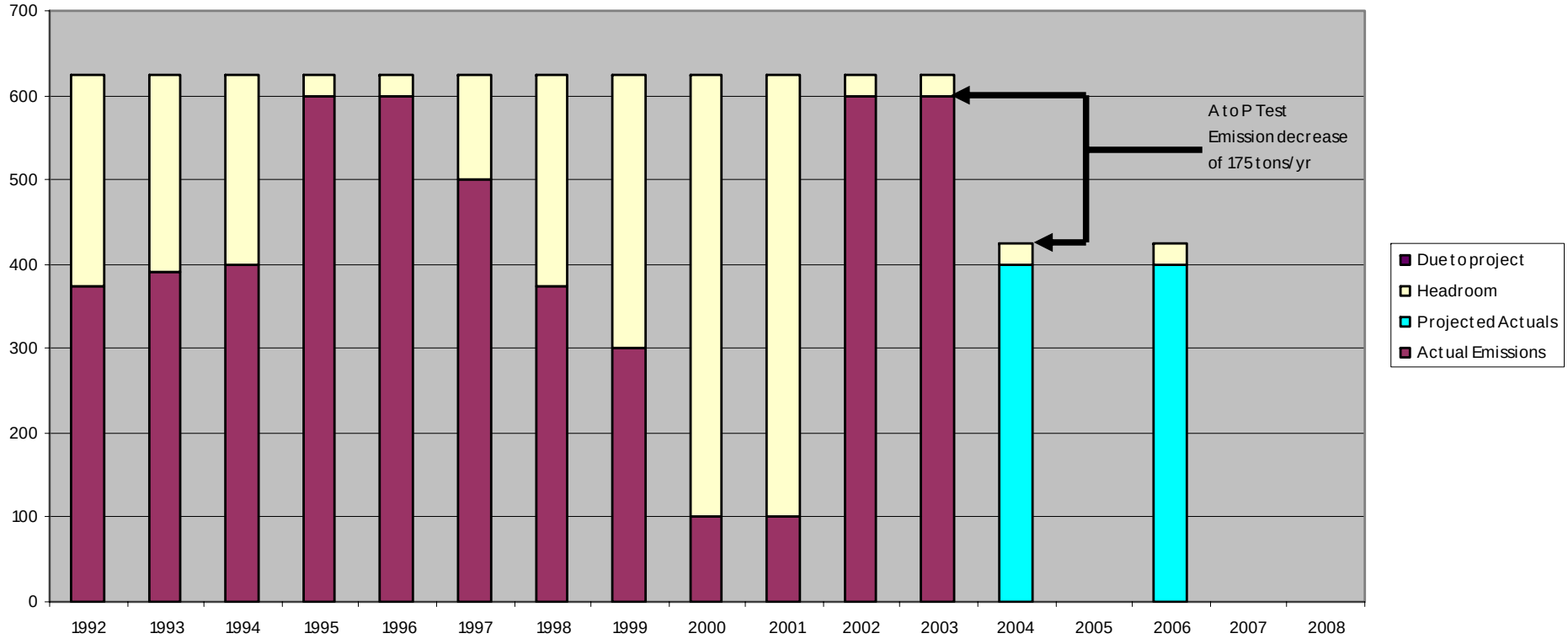
Projected Actuals
Actual Emissions

Scenario D4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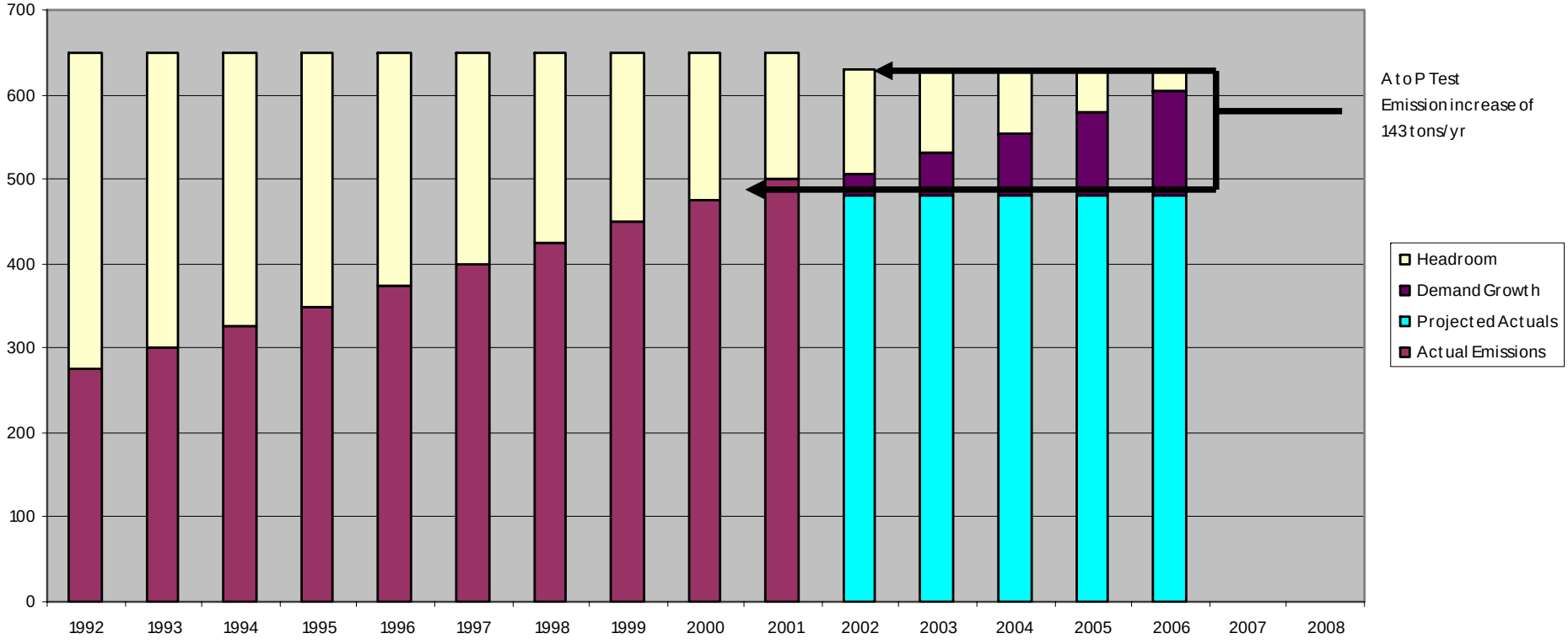
A to P Test
Emission decrease
of 175 tons/yr
Due to project
Headroom
Projected Actuals
Actual Emissions

Scenario I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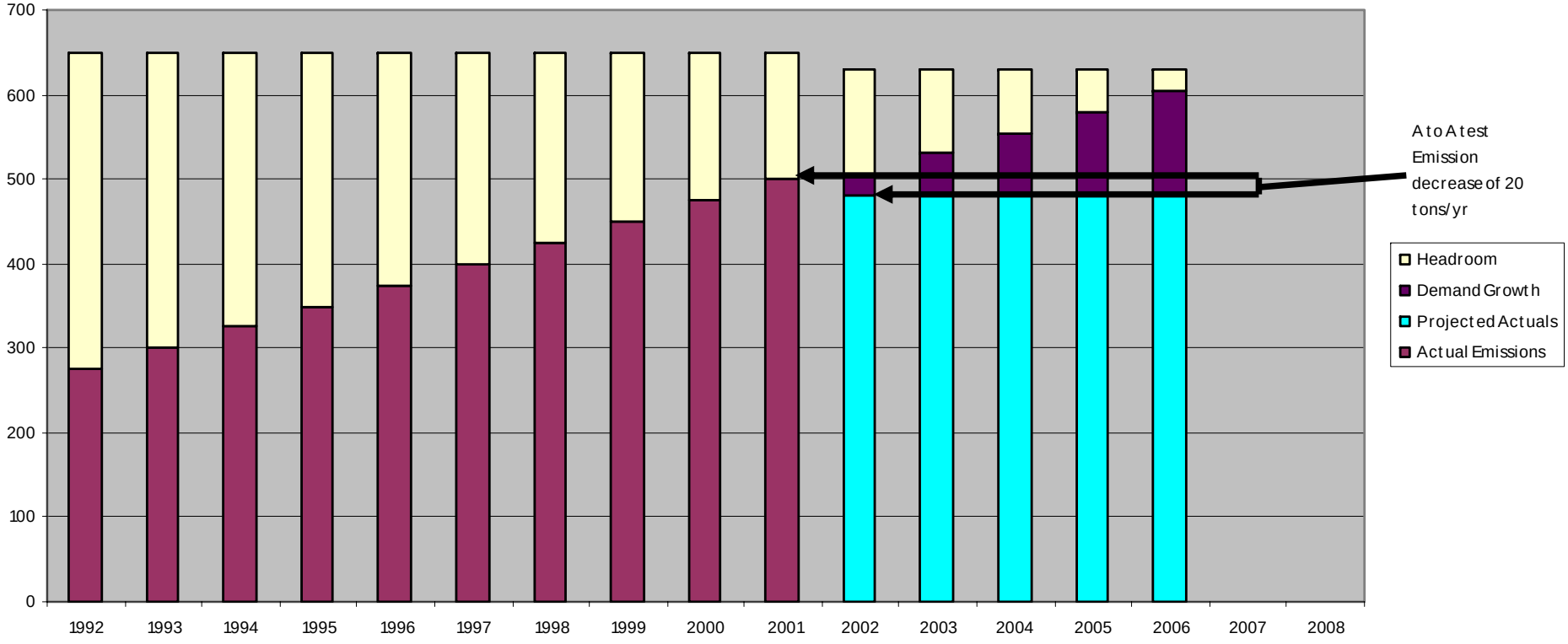
A to P Test
Emission increase of
143 tons/yr
Headroom
Demand Growth
Projected Actuals
Actual Emissions

Scenario I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A to A test Emission decrease of 20 tons/yr
Headroom
Demand Growth
Projected Actuals
Actual Emissions