

Responding to Climate Change

**Summary of Progress Implementing
Commission's March 25, 2008
Motion on Greenhouse Gas
Reduction**

Commission's Motion

- Support federal initiatives to reduce aviation emissions
- Support petition to EPA to regulate aircraft greenhouse gas emissions
- Develop targets to reduce airport and aircraft emissions at Sea-Tac
- Perform a GHG inventory at least every 5 years

Progress to Date

- Projection of airport growth and future emissions
- Review of regional GHG reduction goals for airport applicability
- Numerous meetings with airlines and ATA, other stakeholders
- Preliminary development of a Climate Action Plan

Actions Taken to Support Federal Initiatives

- Letters sent to FAA and state congressional delegation
- Letter sent to EPA supporting regulation of aircraft GHG emissions
- Mark Reis Testimony before Congress
- Participation in the Commercial Aviation Alternative Fuels Initiative
- Participation in ICAO working group
- Promotion of NextGen aircraft navigation

Targets to Reduce Emissions

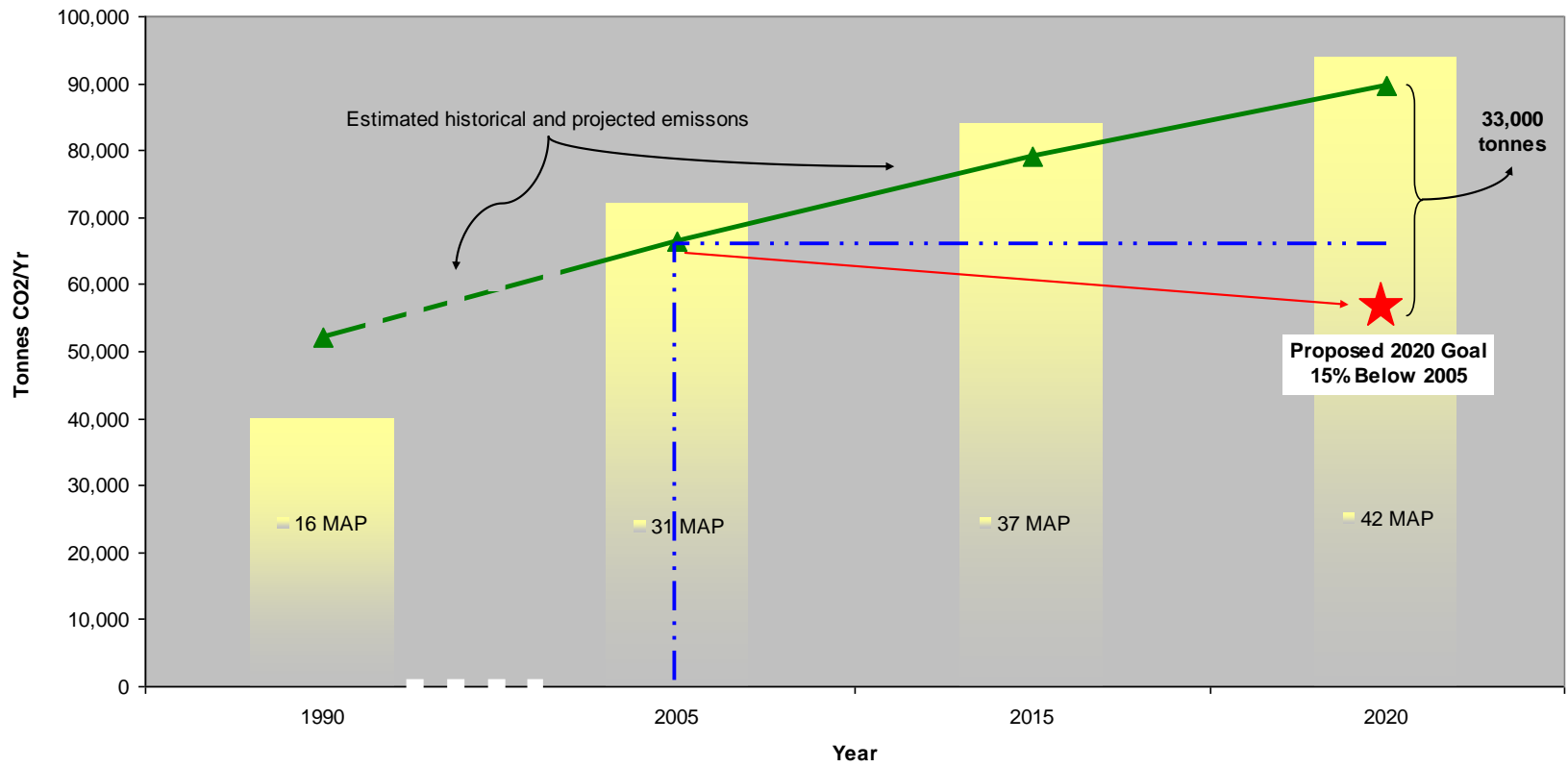
- Three Major Sources of Emissions:
 - POS owned/controlled emissions
 - Airline owned/controlled emissions
 - Public owned/controlled emissions

POS Owned/Controlled Emissions

- Recommended Goal:
 - Reduce emissions by 15% below 2005 levels by 2020
- Recommended goal is:
 - Equivalent to regional goal adopted by the Western Climate Initiative, and
 - Consistent with state target adopted in ESHB 2815 (Reduce statewide emissions of greenhouse gases to 1990 levels by 2020)

Emission Reductions Needed to Achieve Recommended Goal

Seattle-Tacoma Interantional Airport GHG Emissions and Goals



Emission Reduction Initiatives

- **Reductions completed since 2005**
 - Total Reductions ~8,450 tons
 - Green Tag Energy Purchase ~6,620 tons
 - Fuel Hydrant System ~980 tons
 - Recycling Program ~800 tons
 - Garage Floor Count ~50 tons

Emission Reduction Initiatives

- Future Initiatives will require ~**24,550** tons reduction
- Additional reduction initiatives have been identified, however precise path to achieving goal remains unclear
- Achieving goal will require sustained commitment
- Possible future reduction initiatives include:
 - Energy conservation efforts
 - On-site alternative energy development
 - Continuous efficiency improvements to infrastructure and IT
 - Telework
 - Shuttle consolidation
 - Offsets

Airline Emissions

- Staff has identified a number of emission reduction projects
- Implementation requires infrastructure improvements, the cooperation of the airlines, and in some cases cooperation and approval of the FAA
- Staff has proposed to airlines the development a work plan for implementing cost-effective emission reduction projects
- Airlines are to present their proposed strategy for working with the POS on emission reductions

Airline Emission Reduction Projects

- **Pre-Conditioned Air**
 - FAA grant money secured. Implementation expected 2010-2011
 - Projected emission reduction: 40,000 tons annually
- **Gate Electrification**
 - Ongoing
 - Projected Emission Reduction: 11,000 tons annually
- **GSE Electrification**
 - FAA grant money secured. Implementation expected 2010-2011
 - Projected Emission Reduction: 20,000 tons annually
- **Third Runway Activation**
 - Projected Emission Reduction: 50,000 tons annually
- **CDA**
 - Port, Alaska Airlines, Boeing, FAA involvement. Implementation within next several years
 - Projected Emission Reduction: 50,000 tons annually

Public Owned/Controlled Emissions

- Public emissions are inherently challenging for the POS to affect given:
 - Public preferences
 - Lack of jurisdiction over area transit and roads
- Public emissions are exclusively transportation related
- Transportation emissions are commonly benchmarked through reductions in vehicle miles traveled (VMT)

Public Owned/Controlled Emissions

- The State of Washington has adopted a transportation specific climate goal of reducing total vehicle miles traveled 18% by 2020, 30% by 2035 and 50% reduction by 2050 (State goal adopted in ESHB 2815)
- If Sea-Tac were to adopt a similar goal for public emissions related to airport use it would mean:
 - 2005 VMT baseline ~**162,318,863**
 - Projected 2020 VMTs ~ **208,000,000**
 - VMT level to meet goal ~**133,101,467**
 - VMT reductions needed ~**74,898,533**

VMT Reduction Initiatives

- **Five (5) percent mode shift goal**
 - Mode Choice Survey completed by Aviation Planning
- **Hotel shuttle consolidation**
 - Phase Feasibility Study Complete
 - Estimated VMT reduction potential: 800,000 miles
- **Parking shuttle consolidation**
 - Estimated VMT reduction potential: 2,000,000
- **Sound Transit - Light Rail**
 - Sea-Tac link opens December 2009
- **Commuter trip reduction**
 - Estimated VMT reduction potential: 175,000 miles
- **Telework**
 - Estimated VMT reduction potential: 400,000 miles

Public Owned/Controlled Emissions

- Ongoing initiatives will likely reduce airport related VMTs by ~3,375,000
- Achieving statewide goal would require an additional ~70,000,000 VMT reduction
- Such a reduction is not feasible for the POS alone
- **Recommended Goal**
 - The POS will do its part to assist the state, and local governments in meeting the statewide transportation specific climate goal of reducing total vehicle miles traveled 18% by 2020, 30% by 2035 and 50% reduction by 2050

Where Do We Go From Here

- Developing Climate Action Plan
- CAP will consist of five components:
 - Measurement
 - Policy/guidance
 - Emission reduction projects
 - Adaptation planning
 - Communicating actions to employees, business partners, and the public