



Issaquah City Council Briefing Energy & Climate Plan Update

January 29, 2013

Presentation

1. Background and Goals
2. Energy Map and Carbon Wedge Analysis
3. Primary Strategies
4. Next Steps

Policy Background and Goals

- Reduce greenhouse gas (GHG) emissions 80 percent below 2007 levels by 2050 *(Comprehensive Plan Policy L8.1)*
 - Consistent with King County Comprehensive Plan
- Carbon Emissions Studies *(Comprehensive Plan Policy L8.3)*
- Central Issaquah Plan
- Strategy development for Energy, Waste and other resources
- Sustainability Action Plan

Approach

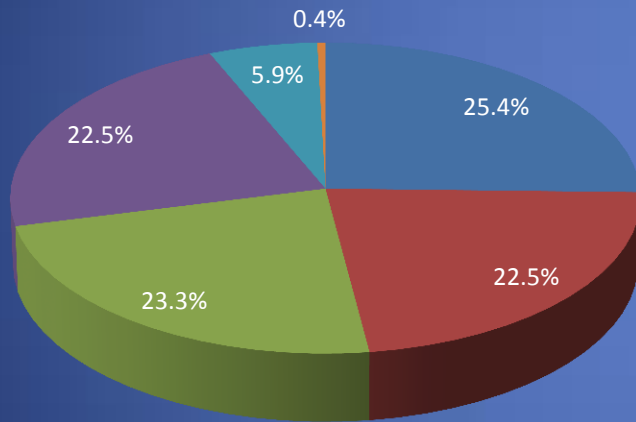
- Energy use analysis
- Energy source to end-use maps
- Carbon sequestration review
- Carbon wedge analysis
- Strategy development
- Near term action plan

Key Data Sources

Sector	Measure	Source(s)
Transportation	Vehicle miles traveled	Puget Sound Regional Council, Origination-Destination data
Commercial	Electricity and natural gas consumption	Puget Sound Energy
Industrial	Electricity and natural gas consumption	Puget Sound Energy
Residential	Electricity and natural gas consumption	Puget Sound Energy
Urban Forests	Acres of forest tree canopy coverage	City 2011 Tree Canopy Study, AMEC
Waste	Garbage, recycling and compost disposal	City Solid Waste data

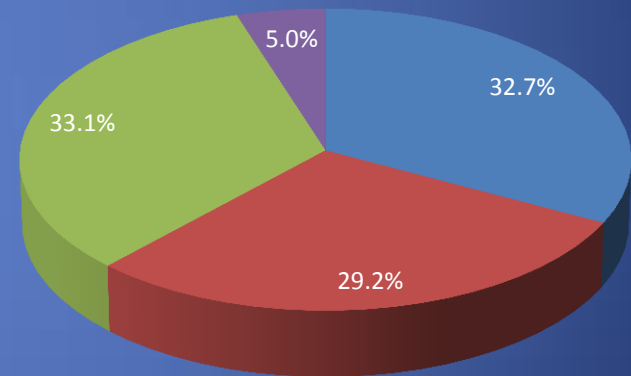
Energy & Emissions (2007)

Issaquah Energy Profile
~5,640 BBTUs



■ Hydro ■ Coal ■ Petroleum ■ Natural gas ■ Renewable ■ Nuclear

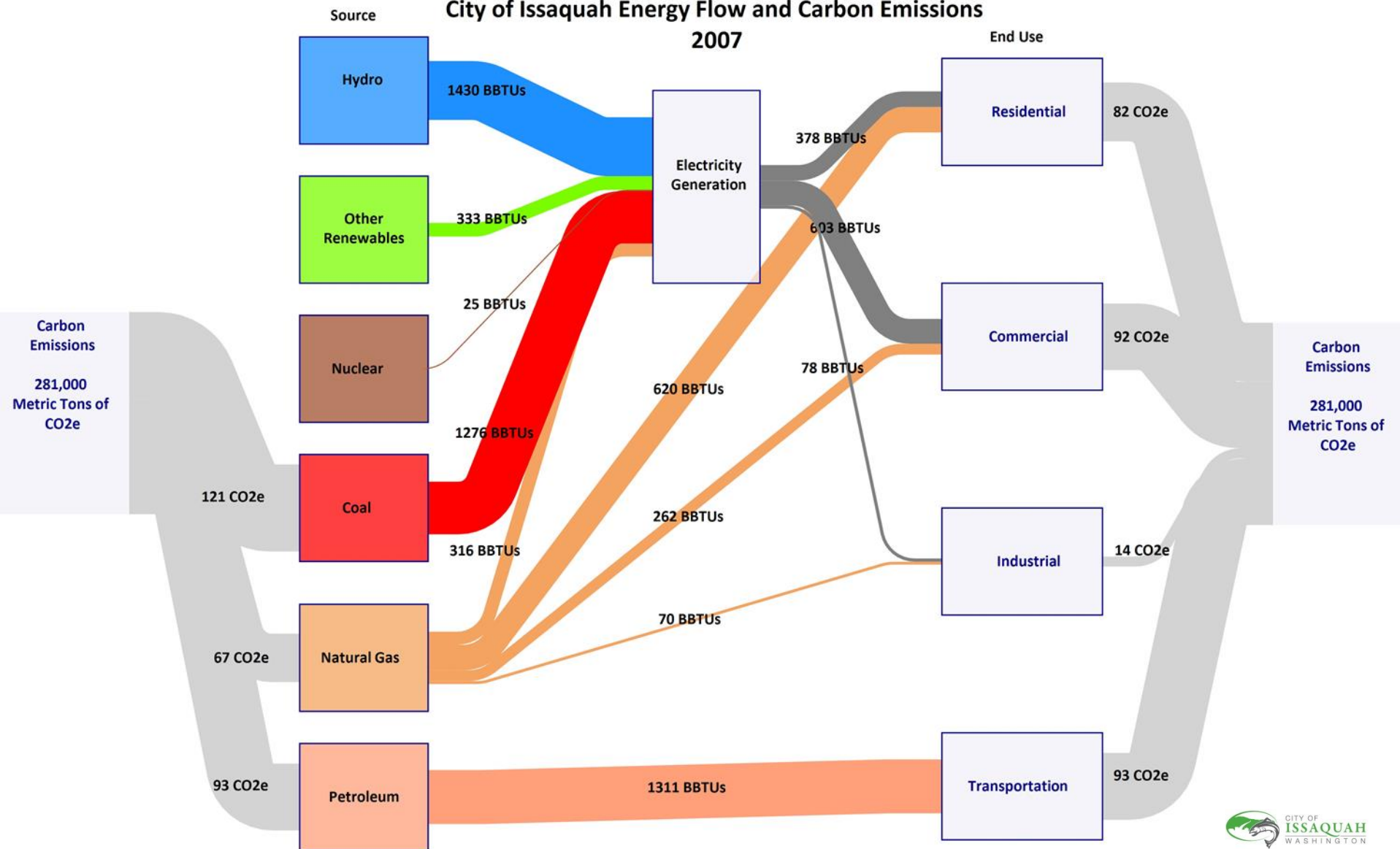
Issaquah GHG Emissions Profile
~281,000 MT CO₂e



■ commercial buildings ■ residential buildings ■ transportation ■ industrial

DRAFT

City of Issaquah Energy Flow and Carbon Emissions 2007



Data sources: PSE, City of Issaquah, PSRC.

Notes: 1) Boxes are not proportionally sized. 2) Energy flows and carbon values were calculated based on total fuel converted to electricity. 3) CO2e refers to carbon dioxide equivalent, as a common representation of greenhouse gas emissions. All CO2e amounts in thousands of metric tons, except for the total figures.



Forest and Waste Analysis

■ Urban Forests

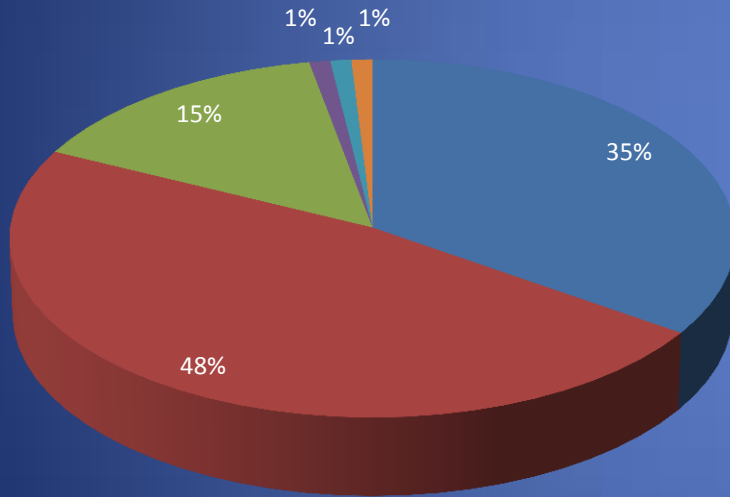
- 151,000 MT CO₂e sequestration. Significant, but a baseline condition
- Avoid net loss, stewardship to improve properly functioning conditions

■ Waste Diversion

- 17,569 MT reductions through recycling and composting as compared to all-landfill approach
- 977 MT reduction annually (with sector inventory approach)
- Additional focus on waste prevention and sustainable purchasing

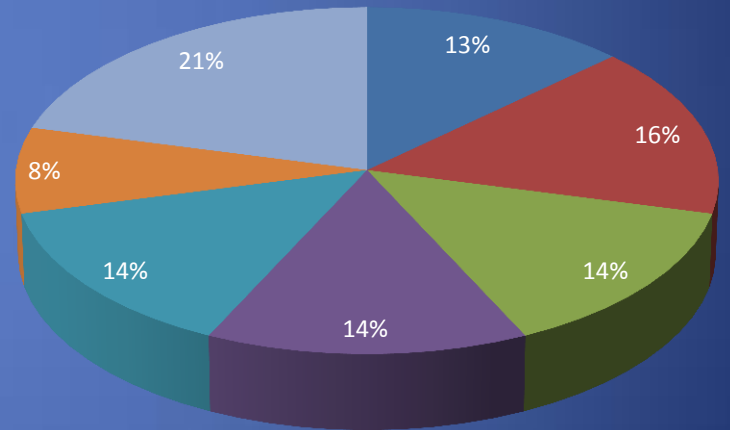
Consumption Based Approach

King County GHG Emissions
"Geographic Plus," by Sector

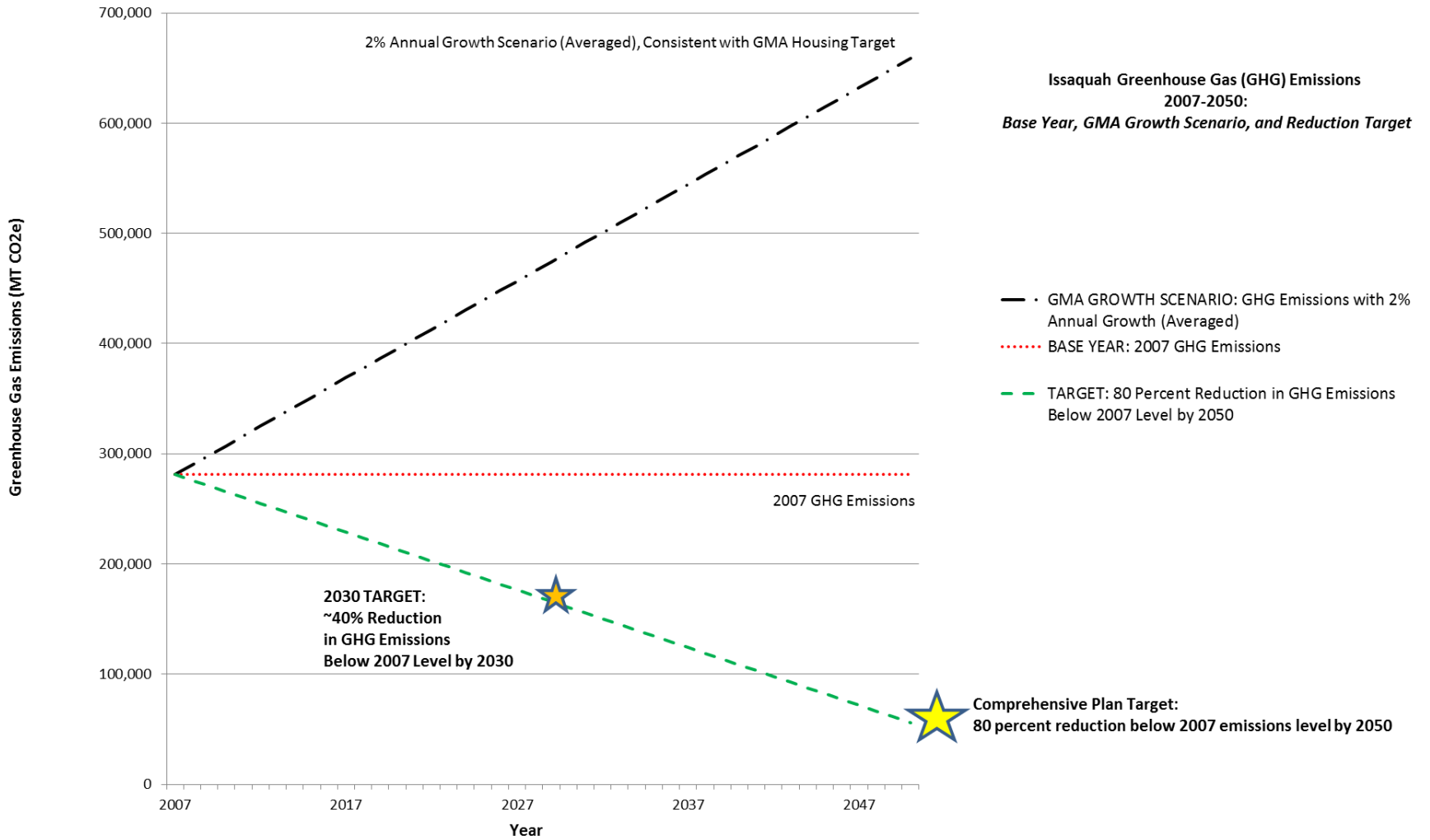


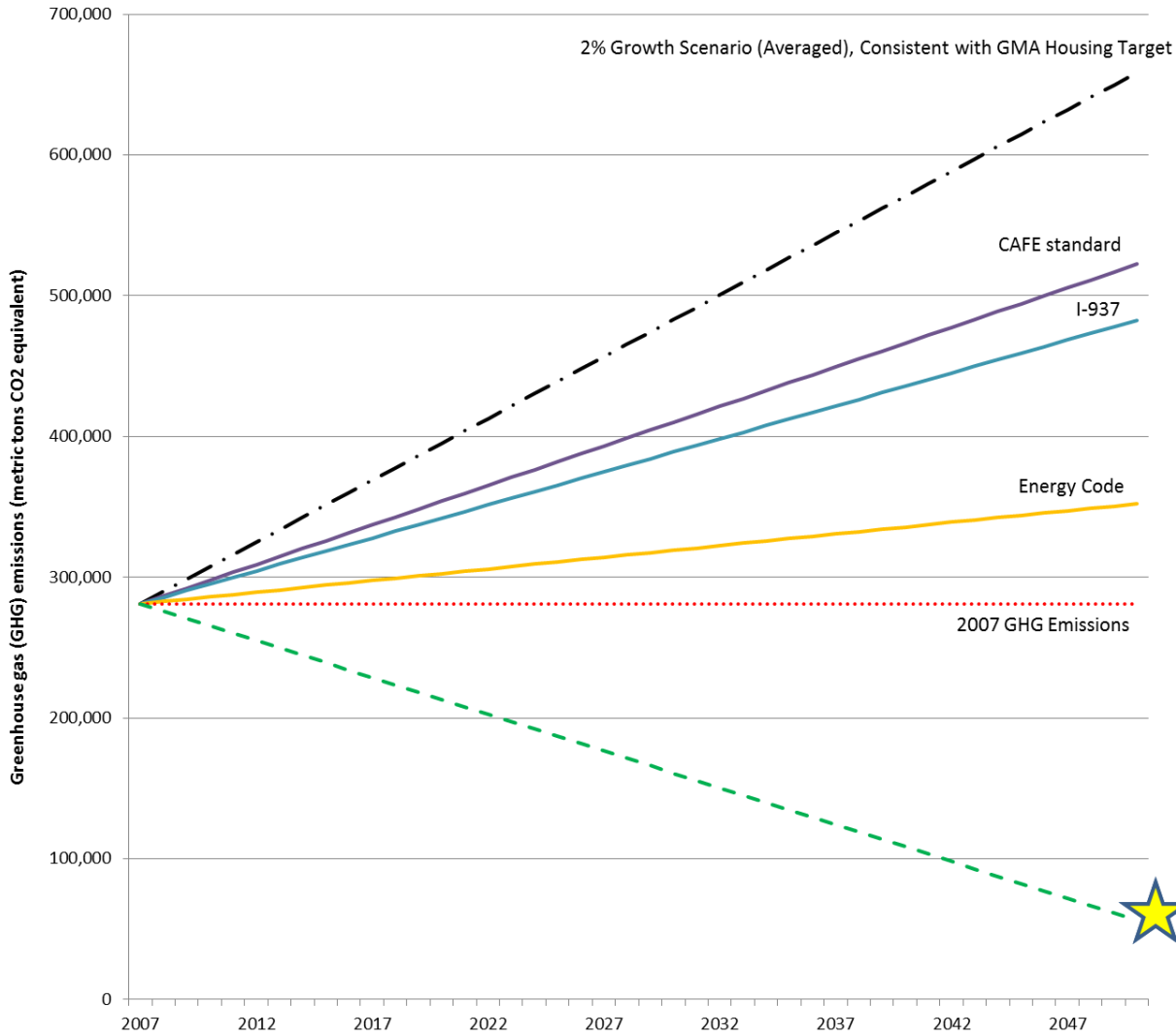
- buildings
- transportation
- industry
- waste
- agriculture
- land use

King County GHG Emissions
"Consumption Based," by Category



- home energy
- food
- services
- personal transportation
- goods
- construction



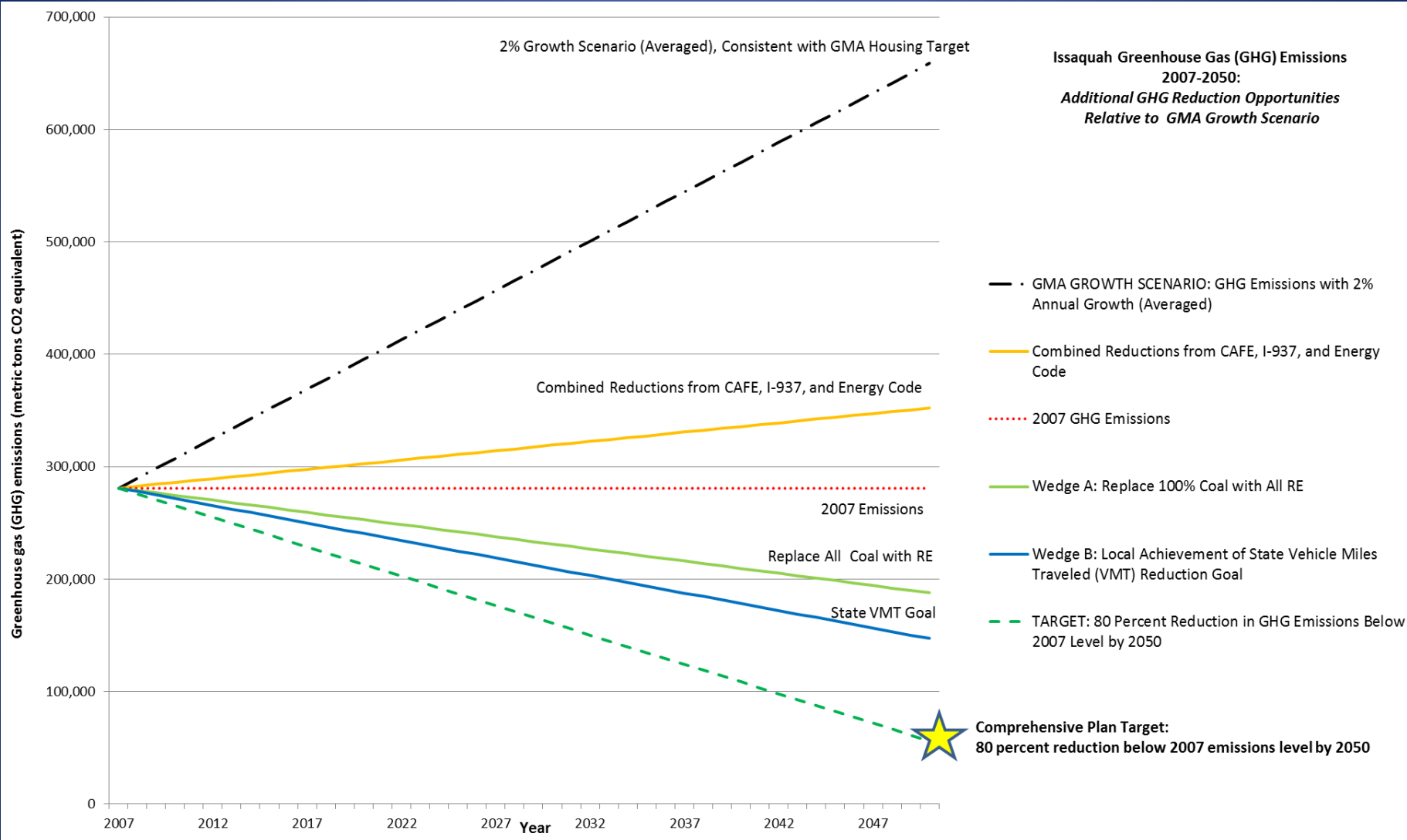


Issaquah Greenhouse Gas (GHG) Emissions
2007-2050:
Expected GHG Reductions Due to Existing Laws
Relative to GMA Growth Scenario

- · GMA GROWTH SCENARIO: GHG Emissions with 2% Annual Growth (Averaged)
- Wedge 1: Full Implementation of Corporate Average Fuel Economy (CAFE) Standard
- Wedge 2: Puget Sound Energy Compliance with I-937 (Averaged)
- Wedge 3: Local Compliance with Energy Code
- · · · · 2007 GHG Emissions
- - - - - TARGET: 80 Percent Reduction in GHG Emissions Below 2007 Level by 2050



Comprehensive Plan Target:
80 percent reduction below 2007 emissions level by 2050



General Findings

- Existing laws are important, but they alone will not stabilize emissions
- State, regional, and local levers of change are all essential to meet the 2050 goal
- City will need to implement new actions on its own, but must also band together on others that require broader action

***Achieving 80 percent reduction by 2050 is possible,
but requires bolder, more organized action***

Primary Strategic Opportunities

■ Support Existing Laws

- Ensure success of WA Energy Code – demonstrate potential and feasibility of significant advancements
- Maintain or strengthen WA Renewable Portfolio Standard (I-937)
- Demonstrate potential and feasibility of trip and VMT reduction

■ Develop New Programs/Program Actions

- Increase built environment energy efficiency above and beyond Code
- Reduce carbon intensity of building and transportation energy
- Reduce petroleum use in transportation with increased commitments to smart growth, clean vehicles, transit, and active transportation modes

■ Regional Collaboration

- Foster regional approaches to energy and climate implementation
- Replace coal & natural gas in fuel mix with renewable energy

Next Steps

- Detailed action planning
 - Near-term implementation horizon
 - Policy and program
 - Prioritizing strategies and tactics
 - Creating process for implementing
- Regional climate collaboration
 - County-wide planning policies – goals, measurement
 - Work with King County and peer cities to align regional strategies
- Sustainability Plan
 - Embed energy strategies in overall planning efforts
 - Community Engagement



Thank you!