

Carbon Emissions and Accelerating Century Agenda Objectives

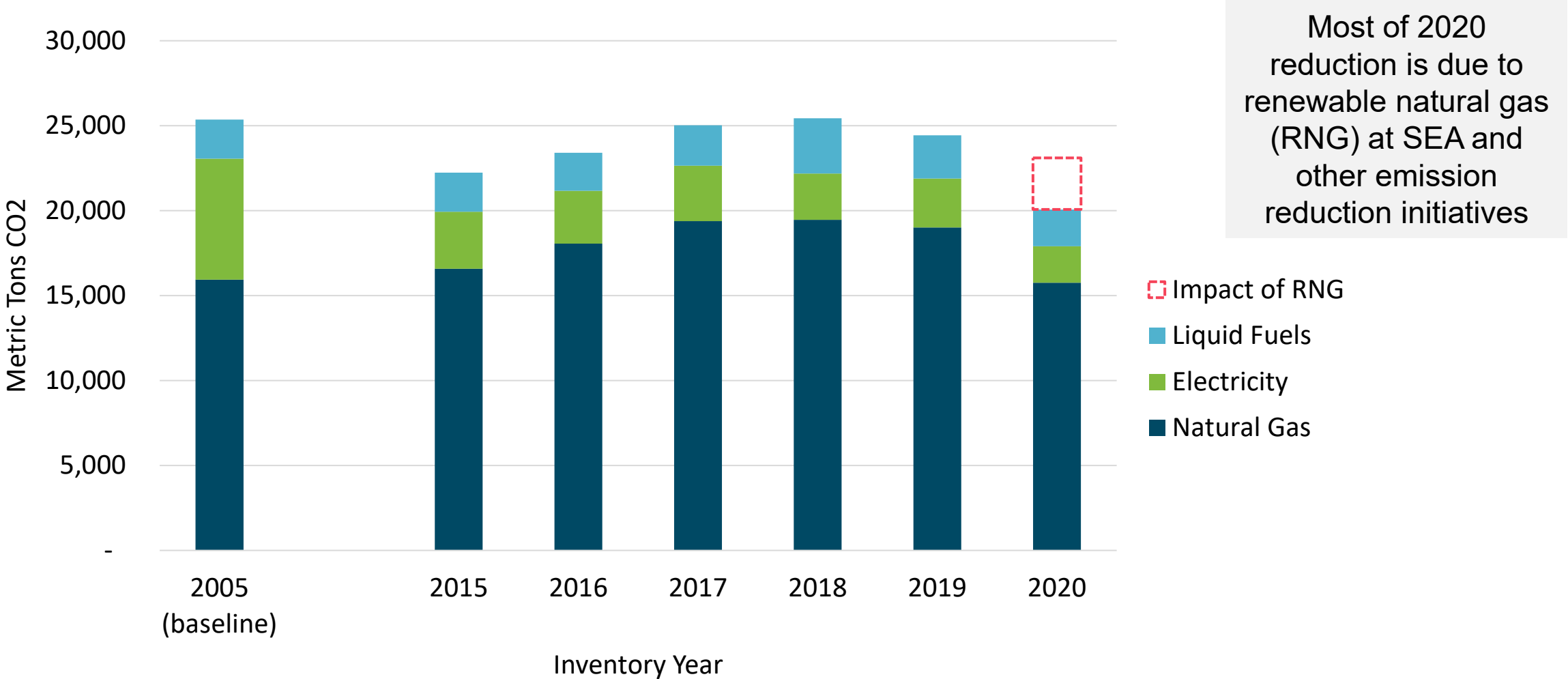
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Leslie Stanton and Ryann Child

Overview

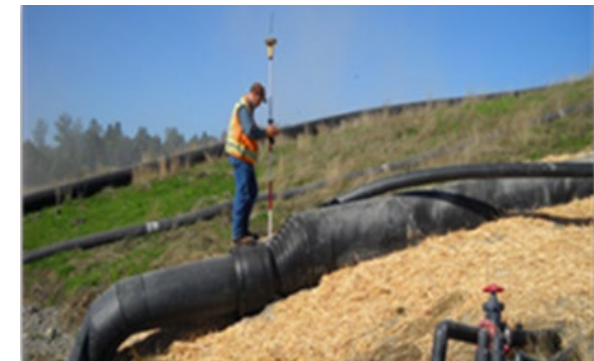
- Current carbon emissions and trends
 - Port-wide Scope 1&2
 - Scope 3: aviation and maritime
- Carbon reduction initiatives and estimated impacts
- Accelerating the Century Agenda objectives
 - Current Scope 1, 2, and 3 objectives
 - Proposed objectives and potential impacts

Port-wide Scope 1&2 Emissions



Scope 1&2 Emission Reduction Initiatives

- Renewable natural gas (RNG) at SEA
 - Signed 10-year contract landfill gas in Q2 2020
 - SEA boilers and Bus Fleet
- Renewable diesel in port fleet vehicles
- Updating SEA central mechanical plant with low-carbon fuel source
- Eliminating fossil natural gas in maritime facilities
- Joined PSE's Green Direct program at SEA

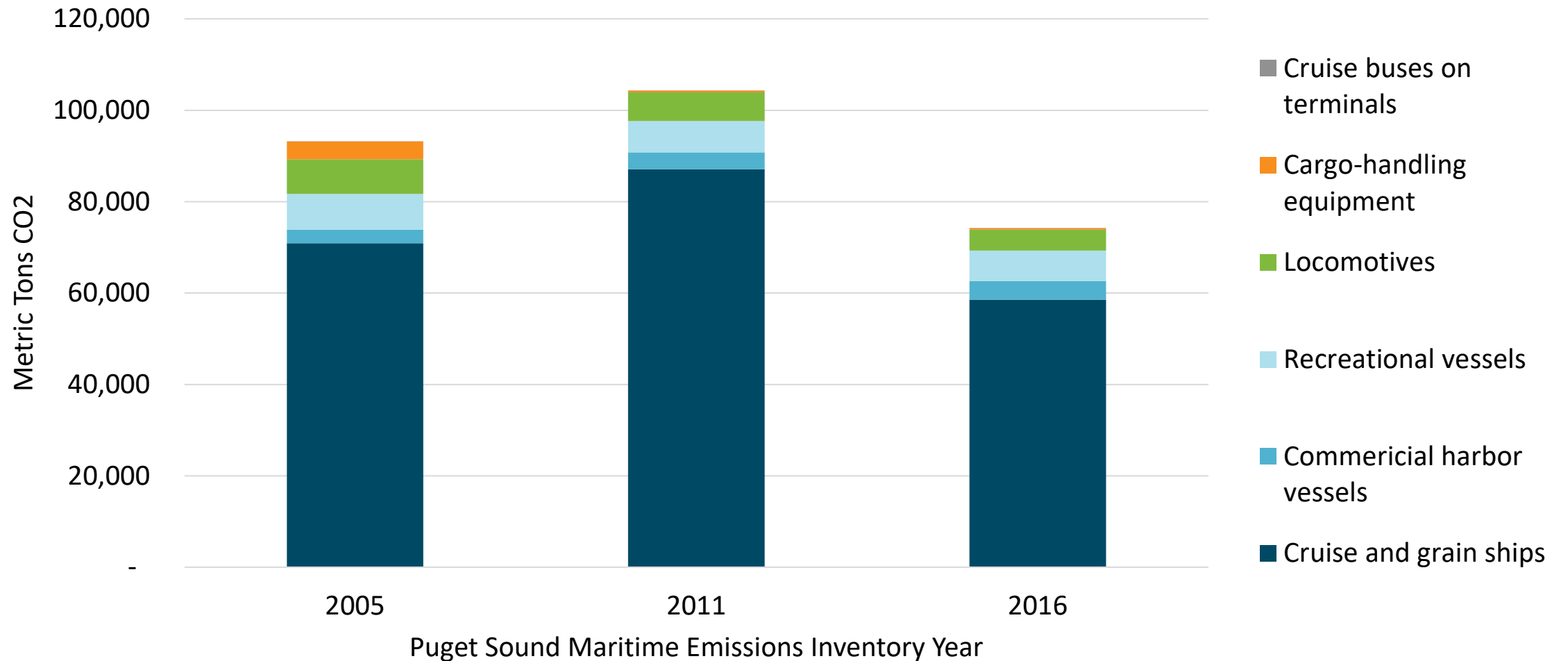


Scope 1&2 Emission Reduction Initiatives

- Sustainable Fleet Plan for Port Vehicles
 - Installing electric vehicle (EV) charging stations and replacing all light duty vehicles with EVs
 - Use RNG in bus fleet until ~2031 and replace with EV
 - Use renewable diesel in remaining diesel vehicles
 - “Right-size” fleet and vehicles



Scope 3 Emissions Maritime*



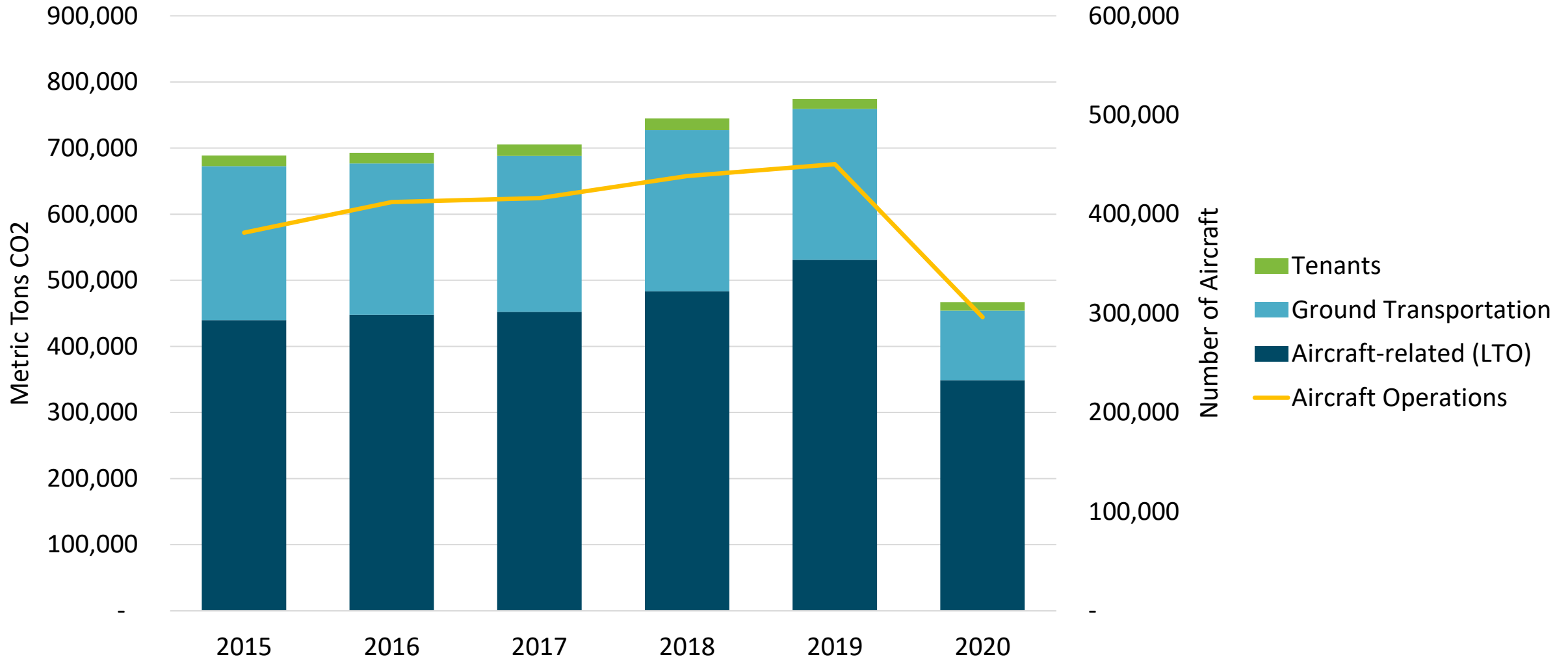
*Does not include GHG emissions associated with marine cargo terminals operated by the Northwest Seaport Alliance

Maritime Scope 3 Initiatives

- Seattle Waterfront Clean Energy Strategy
 - Install cruise shore power at Pier 66 by 2023
 - Address infrastructure constraints by 2030 to support transition to zero-emission maritime industry
- Work with cruise lines to make 100% of homeport calls shore power-capable and plug in by 2030
- Advocate to strengthen national and international standards to support sustainable maritime fuels and zero-emission technology development
- Incorporate sustainability best practices into leases



Scope 3 Emissions SEA Airport



Aviation Scope 3 Initiatives

- Support sustainable aviation fuel (SAF)
 - Economic studies: infrastructure, feedstocks in WA, fuel production
- State and federal advocacy
 - Washington's Clean Fuel Standard, blenders tax credit, stimulus funding for low-carbon energy sources and infrastructure
- Ground transportation (GT) strategies
 - Transition TNCs, taxis, other GT providers to EV or renewable fuels
 - Incentivize behavior change: access fees, parking rates, more transit
 - Advance tenant employee programs (TMA)

Accelerating Port of Seattle's Century Agenda GHG Objectives

Scope 1&2 GHG Reduction Objectives for Aviation and Maritime

- **Current**

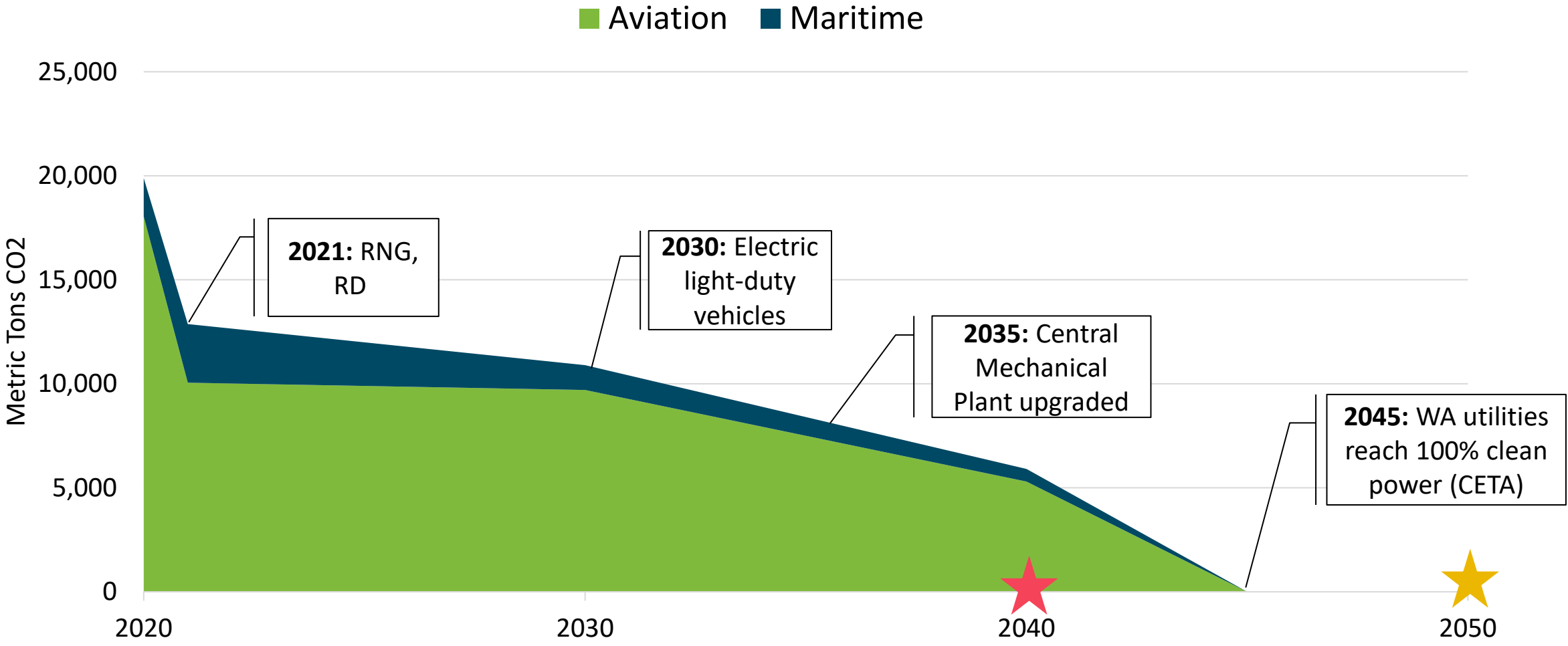
- 15% below 2005 levels by 2020
- 50% below 2005 levels by 2030
- Carbon neutral or carbon negative by 2050

- **Proposed**

- 15% below 2005 levels by 2020
- 50% below 2005 levels by 2030
- **Net Zero or better by 2040**

- **Net-zero:** any carbon dioxide released into the atmosphere from a company's activities is balanced by an equivalent amount being removed
- **Carbon neutral or carbon negative:** emissions are offset with a reduction that can include buying carbon offsets to make up the difference

Scope 1 & 2 Emission Reduction Pathway for Aviation and Maritime



Achieving 2040 Target for Scope 1 & 2

- Existing strategies expected to achieve zero carbon by 2040
 - Extend RNG contract until Central Mechanical plant switchover or purchase RNG from utility providers
 - Estimate Central Mechanical Plant transition begins in 2025 and complete by 2040
- Remaining emissions related to purchased electricity
 - Purchase additional renewable power
 - Delay to goal to 2045 and full implementation of CETA
- Fleet vehicles expected to turnover by 2040
- New urgency to prioritize capital projects with carbon reduction opportunities

Scope 3 GHG Reduction Objectives for Aviation and Maritime

- **Current**

- 50% below 2007 levels by 2030
- 80% below 2007 levels by 2050

- **Proposed**

- 50% below 2007 levels by 2030
- **Carbon neutral or better** by 2050

- **Net-zero:** any carbon dioxide released into the atmosphere from a company's activities is balanced by an equivalent amount being removed
- **Carbon neutral or carbon negative:** emissions are offset with a reduction that can include buying carbon offsets to make up the difference

Achieving Scope 3 Objectives for Aviation and Maritime

- Continue to advocate for strengthened tailpipe standards and renewable energy production across maritime and aviation industries
- Increase requirements for TNCs, taxis and expand to other ground transportation providers
- Continue to implement 2020 NW Ports Clean Air Strategy, partnering with other ports and industry (e.g., Getting to Zero Coalition)
- Continue to lead at both airport and seaport locations by installing infrastructure for renewable fuels, electricity, and shore power

Recommend Accelerating GHG Targets

- Responds to the urgency of the climate crisis with more aggressive targets
- Aligns with Washington state GHG targets
 - 2040: 70% below 2005
 - 2050: 95% below 2005 and achieve net-zero GHG emissions
- Builds on reduction initiatives already underway to achieve the proposed targets
- Affirms Port leadership on building the clean energy economy and eliminating carbon emissions



Century Agenda GHG Objectives Update Order

- To endorse the Executive Director's acceleration of the carbon emission reduction targets of the Port of Seattle