Item No.	8a_supp
Date of Meeting	April 14, 2020

Renewable Natural Gas Supply Contract Authorization

Environment & Sustainability

Facilities & Infrastructure

Port of Seattle®

Presentation Overview

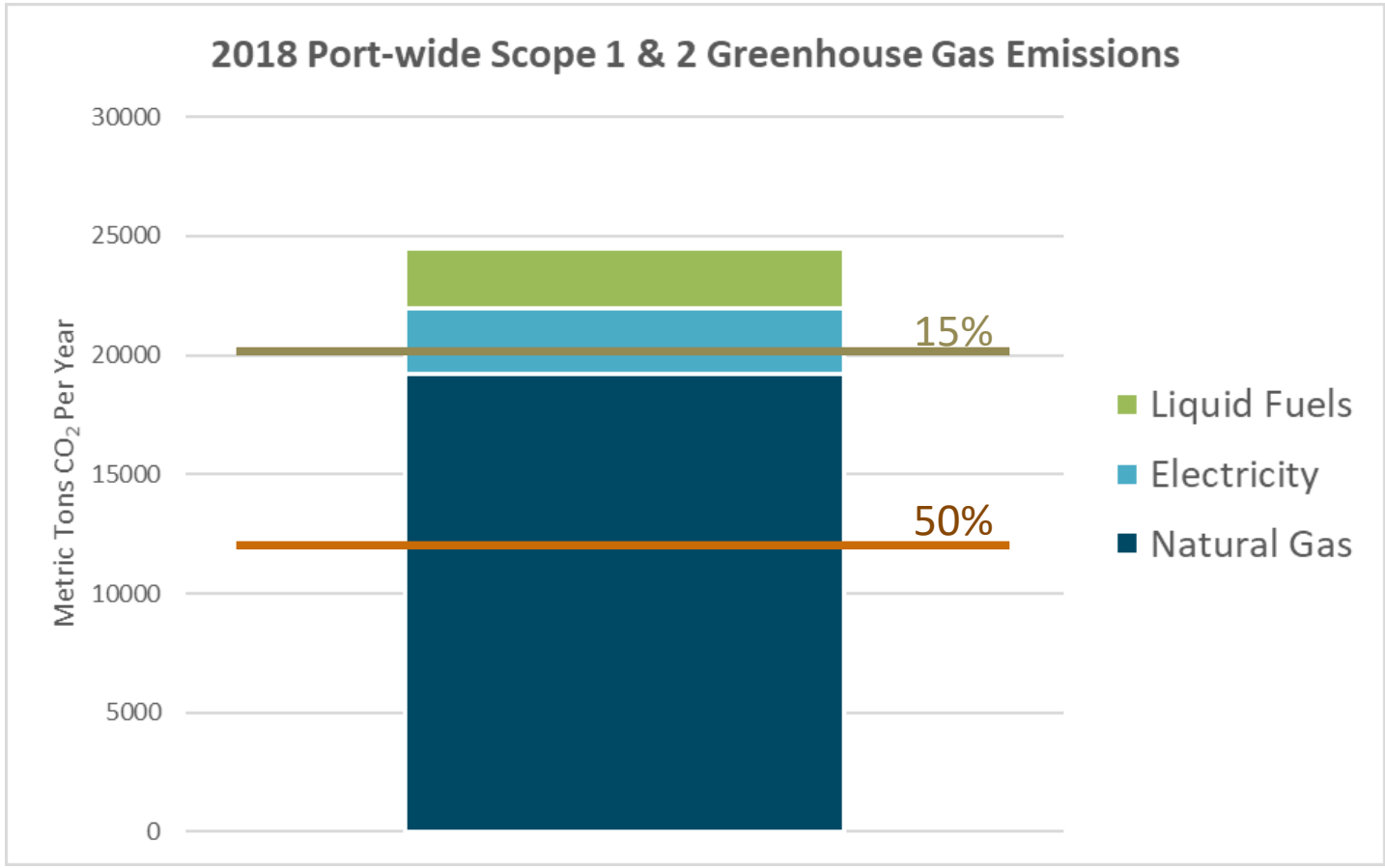
1. Review Port climate goals
2. How Renewable Natural Gas (RNG) supports climate goals
3. Why RNG is needed now
4. Proposed Action
   - Contract Principles
   - Budget

The Port's Climate Goals

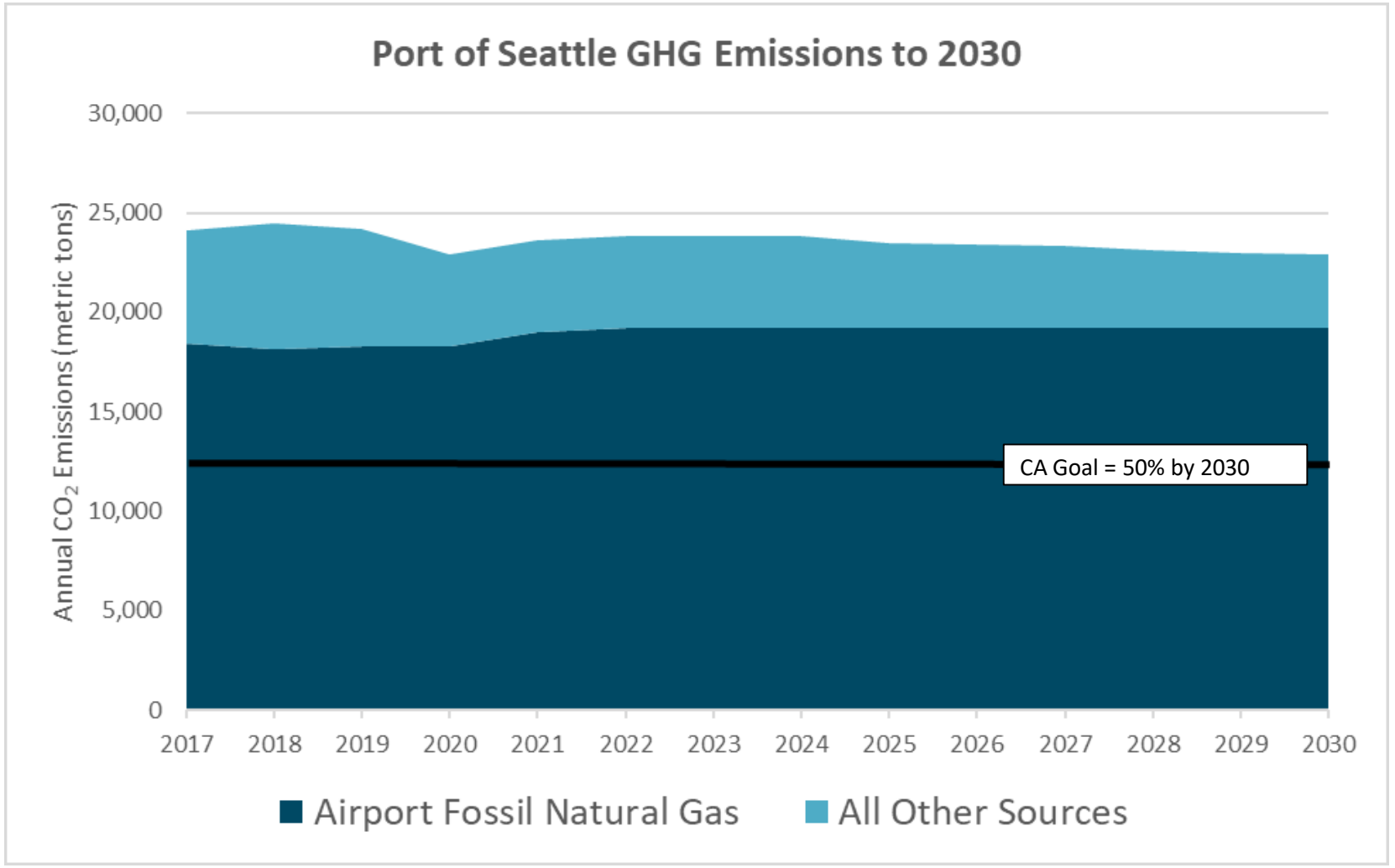
Reduce Port-owned and –controlled (Scope 1 &2) greenhouse gas emissions below 2005 levels by:

- 15% by 2020
- 50% by 2030
- 100% by 2050

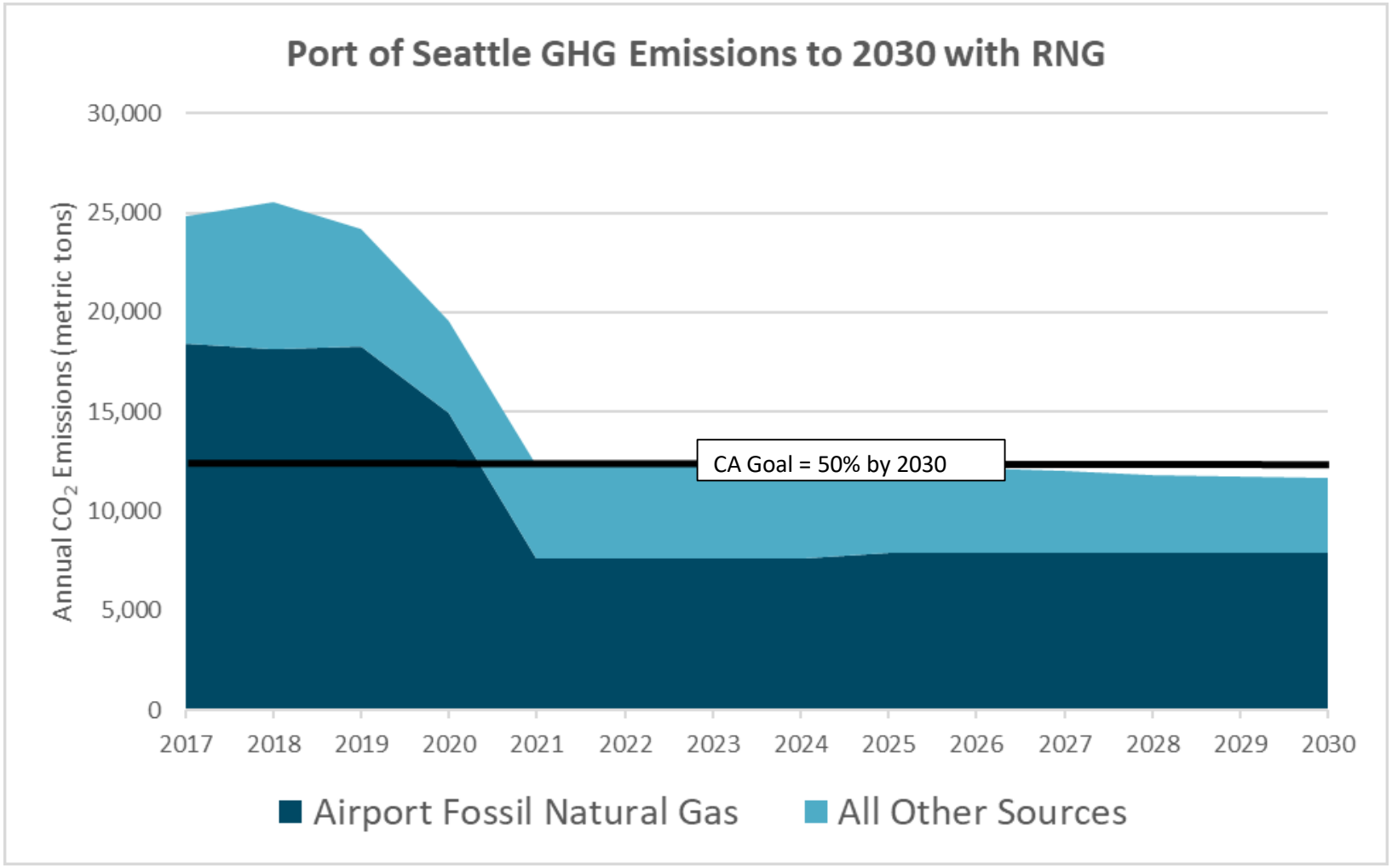
The Port's GHG Emissions



Projected Future Greenhouse Gas Emissions



With RNG Supply



What is Renewable Natural Gas (RNG)?

A zero carbon natural gas alternative. As organic waste breaks down, it emits methane gas that can be captured and processed to meet natural gas pipeline quality specifications.

RNG Sources:

- ~100 production facilities nationwide
- 70% are landfills; 30% wastewater treatment & anaerobic digesters
- 90% of these facilities used for transportation fuel (i.e. CNG fleets)

RNG Project Examples

Cedar Hills Landfill, King County

Renton WWTP, King County

Bar-Way Farm, Massachusetts

Why RNG is Needed Now

- There are no viable alternatives to reduce the footprint of the natural gas boilers:
  - Electrification would cost hundreds of millions
  - Electrification would require additional emergency back-up systems
- RNG:
  - Is the best zero carbon nat gas substitute available now
  - Is the lowest-cost option to meet climate goals
  - Supports energy independence
  - Creates green energy economy jobs

Contract Elements

- Fixed Price
- Flexibility to purchase additional gas
  - 10% with short notice
  - Larger volumes as mutually agreeable
- Projects supplying gas must be new sources (aka “additionality”)
- Meet definition of renewable cellulosic fuel
- Receive full federal incentive value
- Ability to capture 100% of future incentives to reduce cost

Budget Request

Operational Cost

Gas Account	2020 Cost‡	Annual Cost	Total 10-Year Cost
Central Plant (Heating)	$643,500	$2,145,000	$21,450,000
CNG Fueling Station	*$42,037	*$150,000	*$1,500,000
TOTAL	$685,537	$2,295,000	**$22,950,000**

‡Original budget for 2020 is $1.5 million. This new 2020 budget represents a savings of $800K

*Conservative estimate. Varies with federal incentive

Budget Request

Impact to Airline & Port Costs

- Transportation RNG is recovered by the CNG Operations cost center:
  - Affects Rental Car Facility and Employee Parking (North Employee Parking Lot)
  - Expected to be negligible cost, or refund/credit due to federal incentives
- Central plant (heating) RNG is recovered by Port expenses and Airline rates
  - Shared between Port expenses 23% and Airlines 77%
  - The RNG-related cost increase to the airline rates & charges will be <1%
  - No RNG-related cost impact to terminal tenants such as airport dining and retail (ADR).

Cost of Carbon Mitigation

Project Type	Cost per Metric Ton CO_2
Convert Buses to Electric	$900
Stage 3 Mechanical Conservation	$300
RNG	$209
Renewable Diesel	$125
PSE Green Direct Electricity	$61