



# CLIMATE ACTION PLAN



# King County 2020 Strategic Climate Action Plan Update

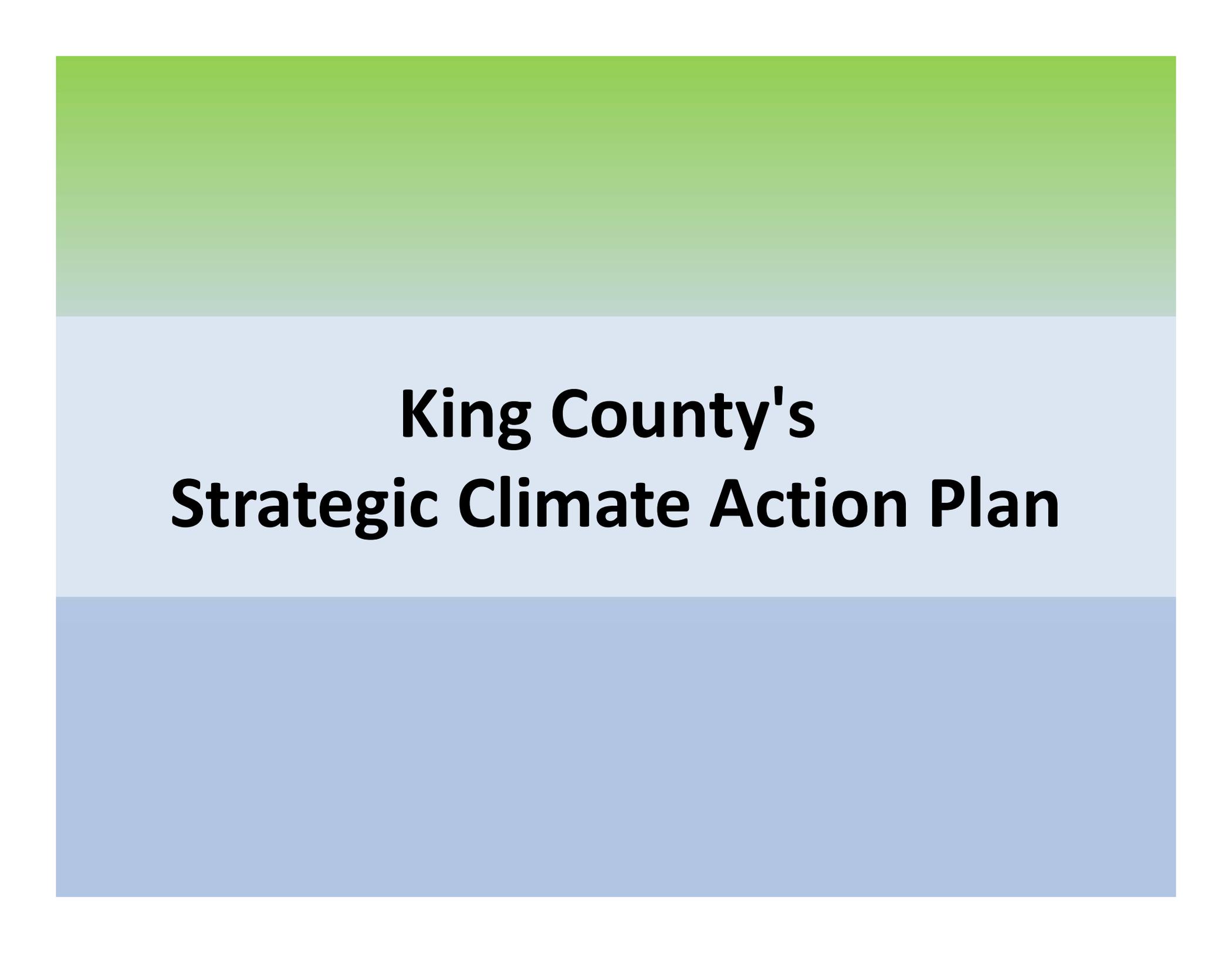
August 20, 2019  
Wing Luke Museum  
King County Climate Action  
Team

Room wi-fi: The Wing  
Password:  
WireLessAsianMuseum

# Today's Agenda

## Topics we'll discuss this afternoon:

- 1:30 - 2:00 – Background on the Strategic Climate Action Plan; meeting goals
- 2:00 - 2:45 – Building & Facilities Energy Goal Area
- 2:45 - 3:30 – Green Building Goal Area
- 3:30 - 4:00 – Wrap up and next steps

The slide features a background with three horizontal bands: a light green band at the top, a light blue band in the middle, and a darker blue band at the bottom. The title text is centered in the middle band.

# **King County's Strategic Climate Action Plan**

# Executive Priority: Climate Change

- The SCAP is King County's blueprint for climate action
- Charts a clear pathway to achieve a clean energy future
- Builds on technical assessments of what actions and commitments, when taken together, achieve climate targets



# 2020 Strategic Climate Action Plan Framework



## E Q U I T Y

### Reducing Greenhouse Gas Emissions

*Transportation & Land Use  
Buildings & Facilities Energy  
Green Building  
Consumption & Materials  
Management  
Forests and Agriculture*

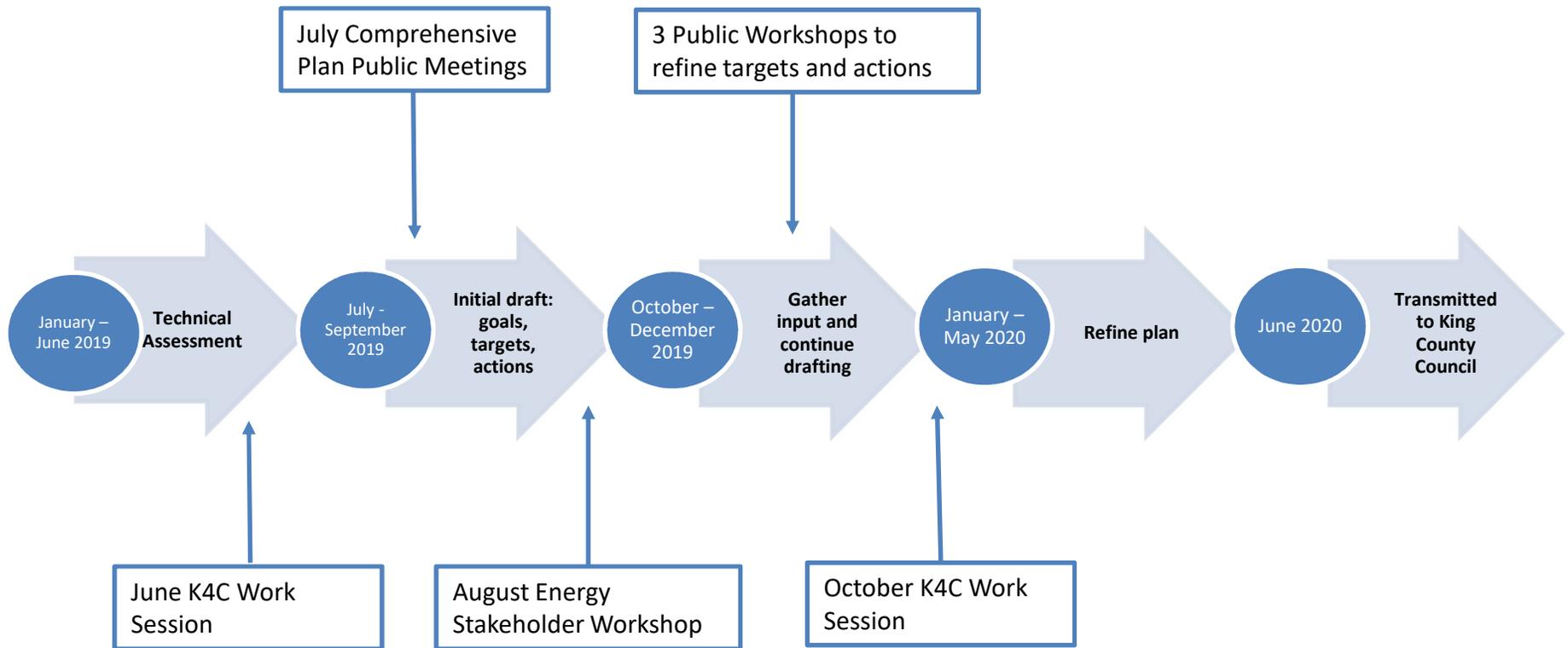
### Sustainable and Resilient Communities

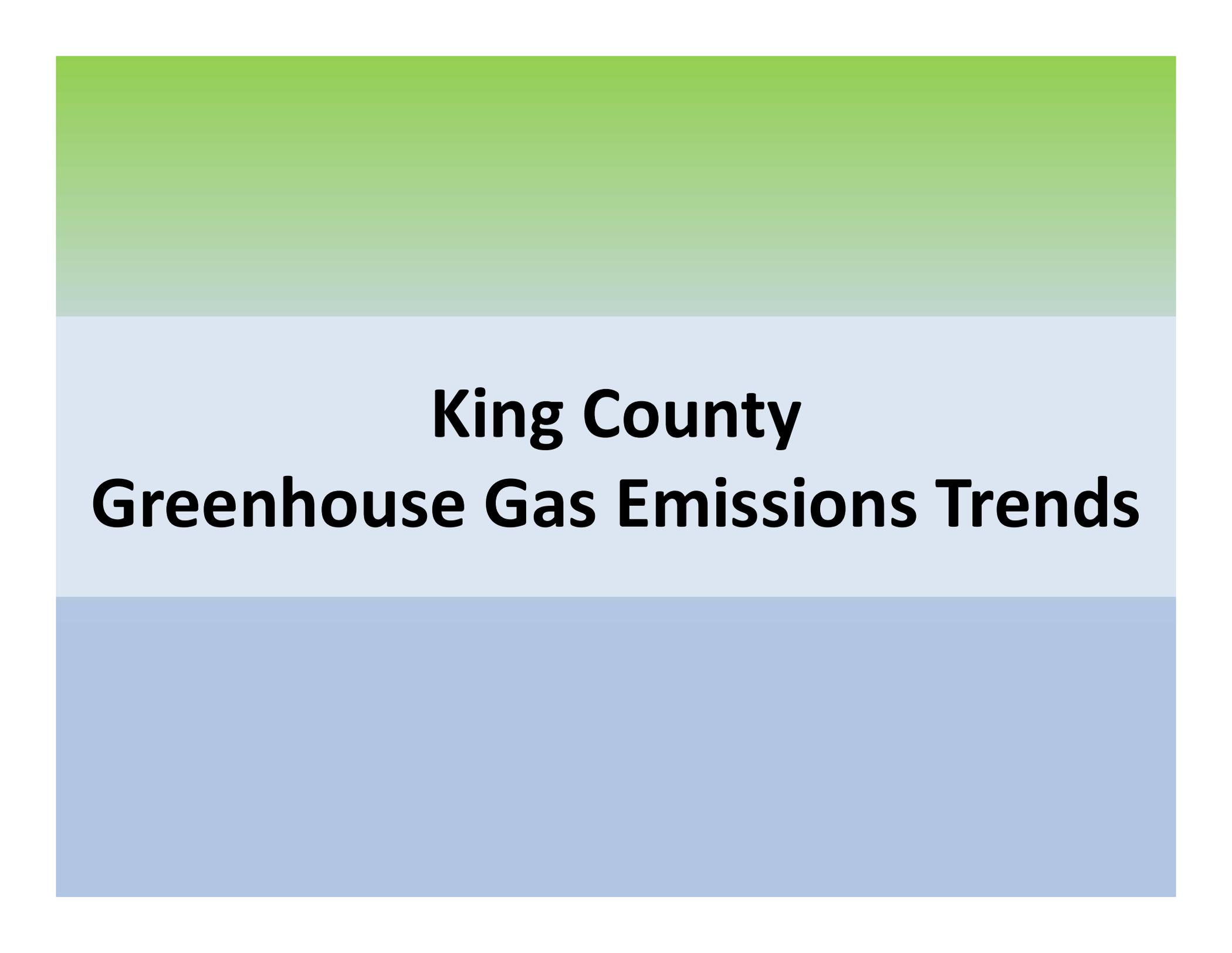
*Intersectional issues prioritizing equity  
Aligning with other County initiatives  
Frontline community driven goals and priorities*

### Preparing for Climate Change Impacts

*Program-specific impacts, responses, priority actions and long term direction for twelve focus areas*

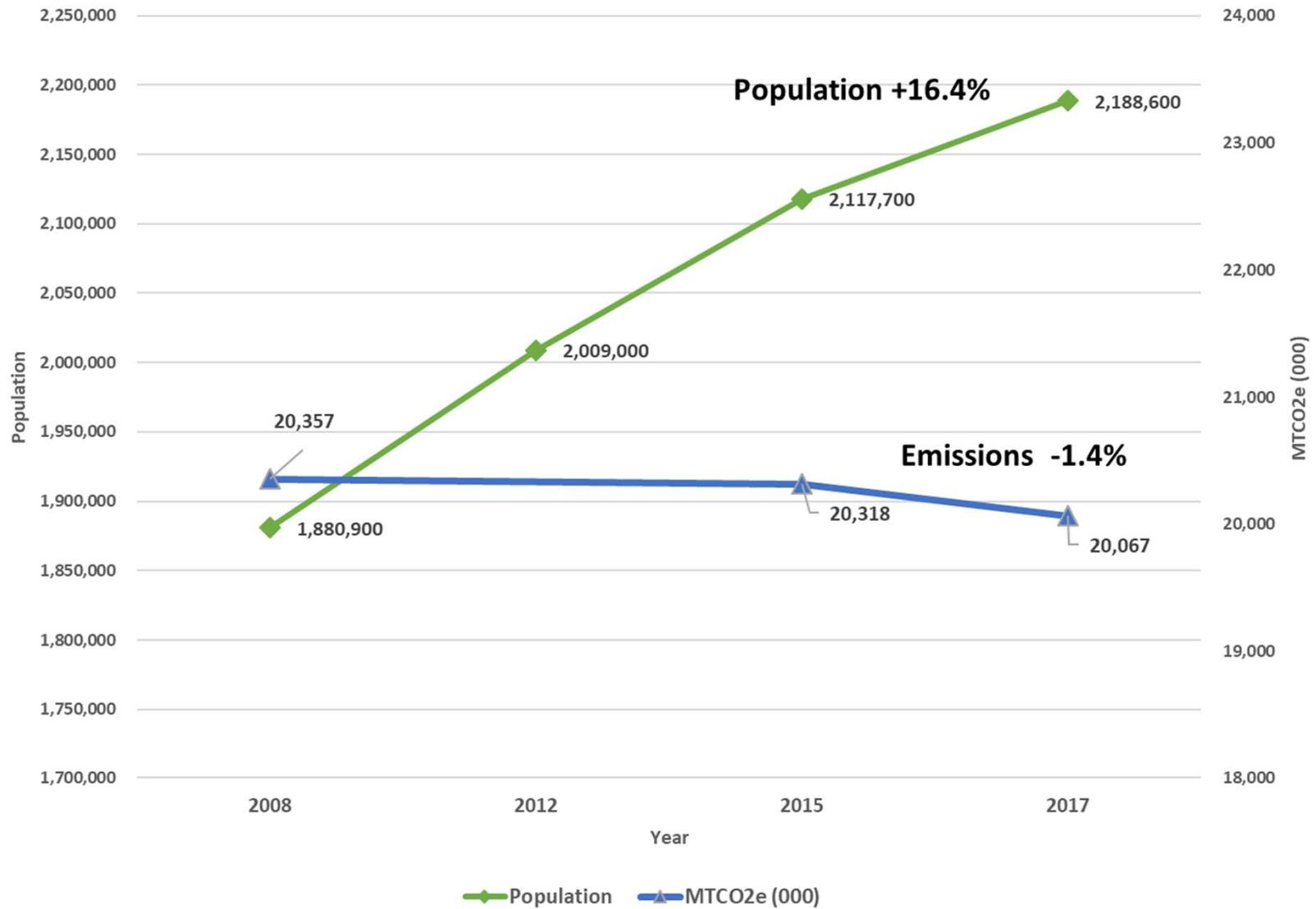
# Climate Action Plan Update Process





**King County  
Greenhouse Gas Emissions Trends**

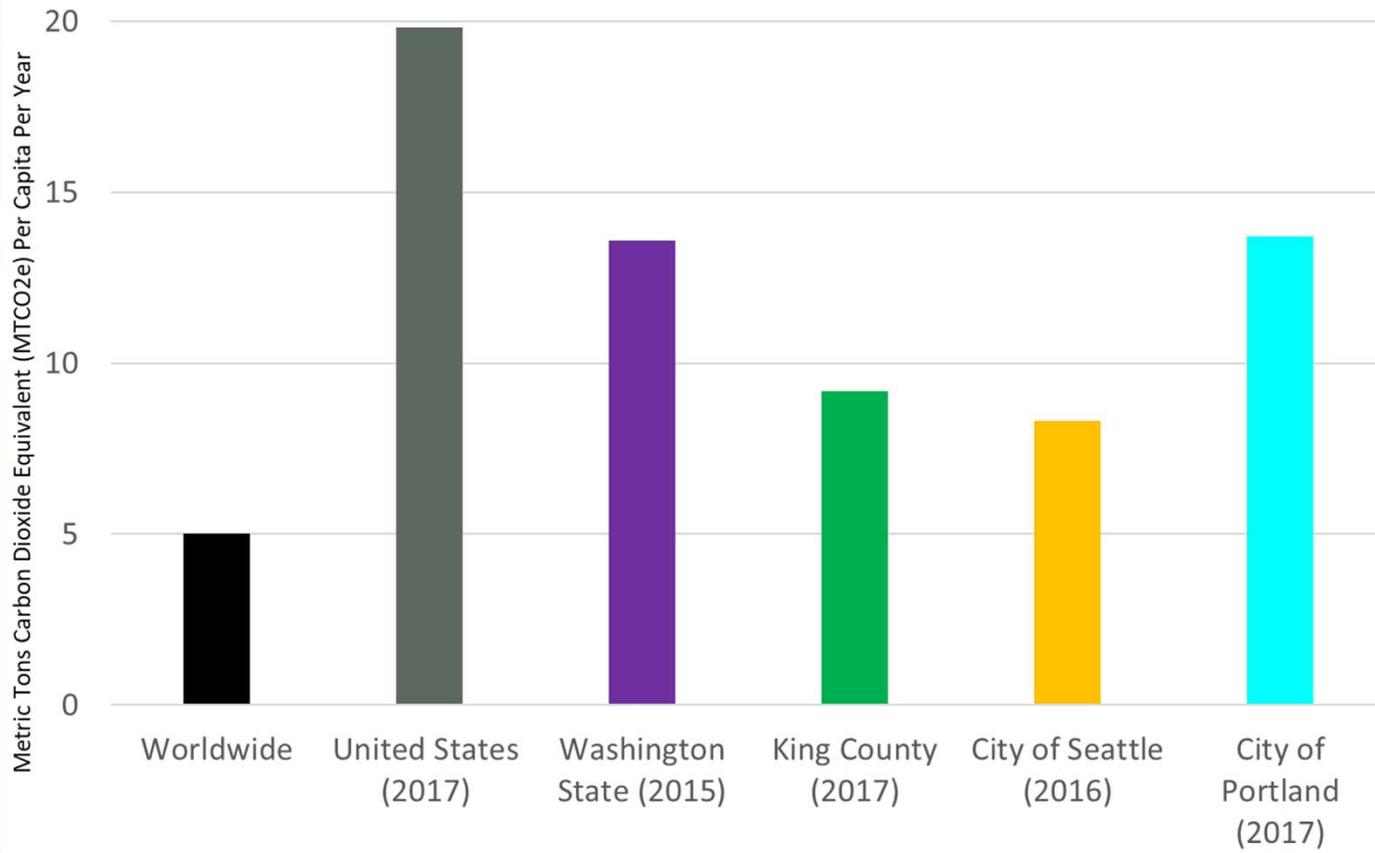
## King County GHG Emissions and Population



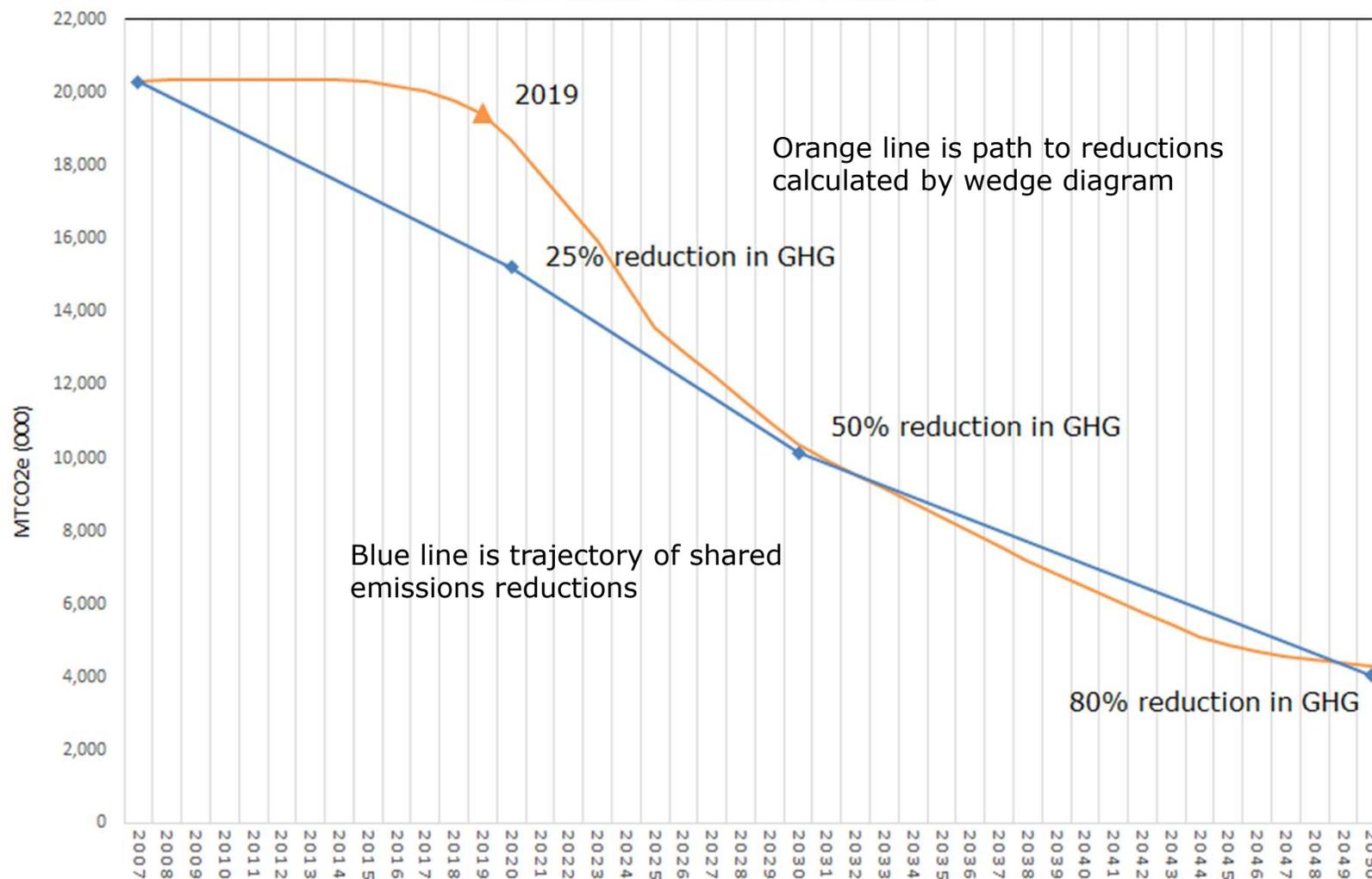
# Per capita emissions

## Comparison of Per Capita GHG Emissions

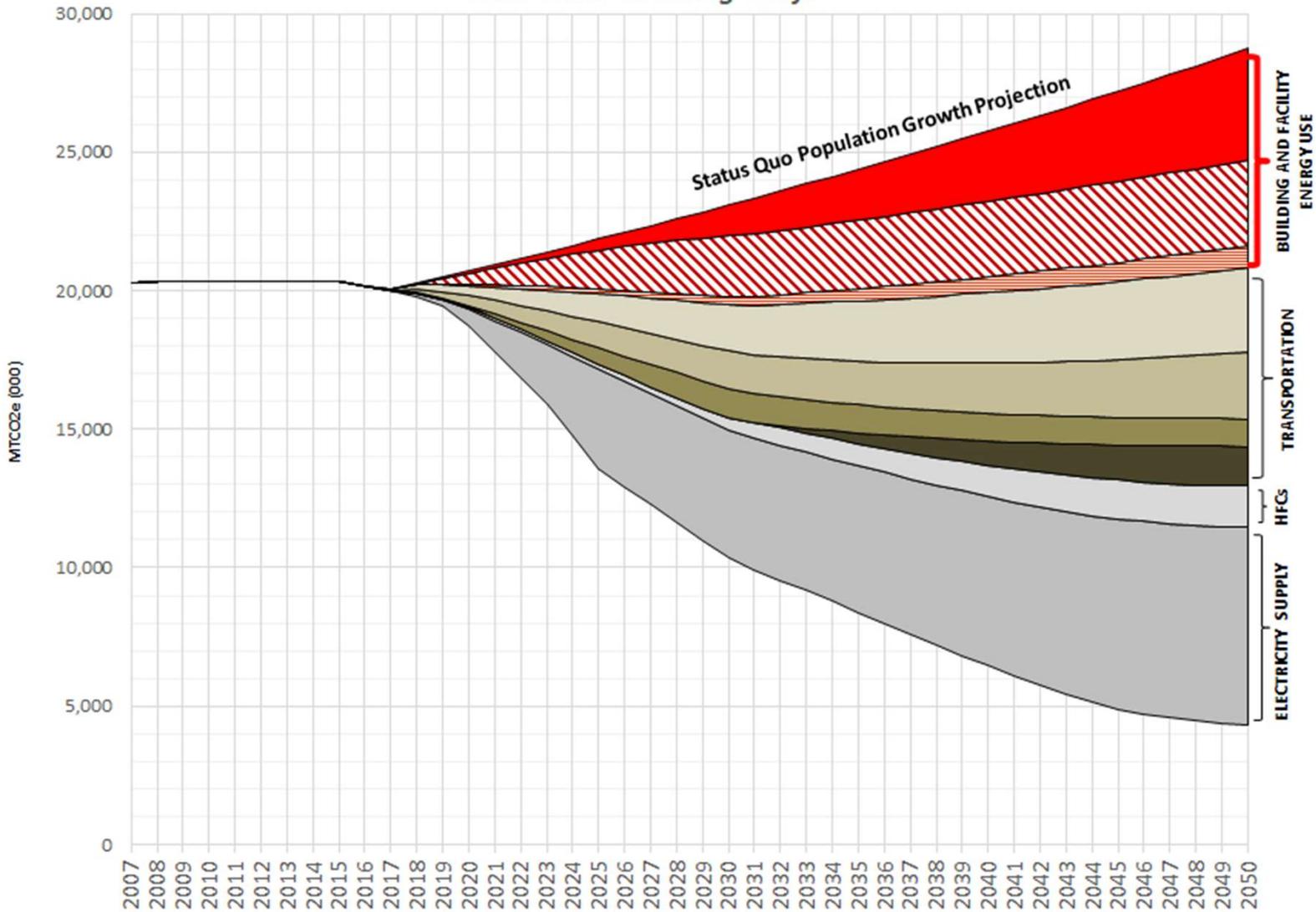
(for geographic based greenhouse gas accounting method; accounting methods may vary slightly by jurisdiction)



## KING COUNTY COMMUNITYWIDE GHG REDUCTION GOALS 2020 SCAP WORKING DRAFT

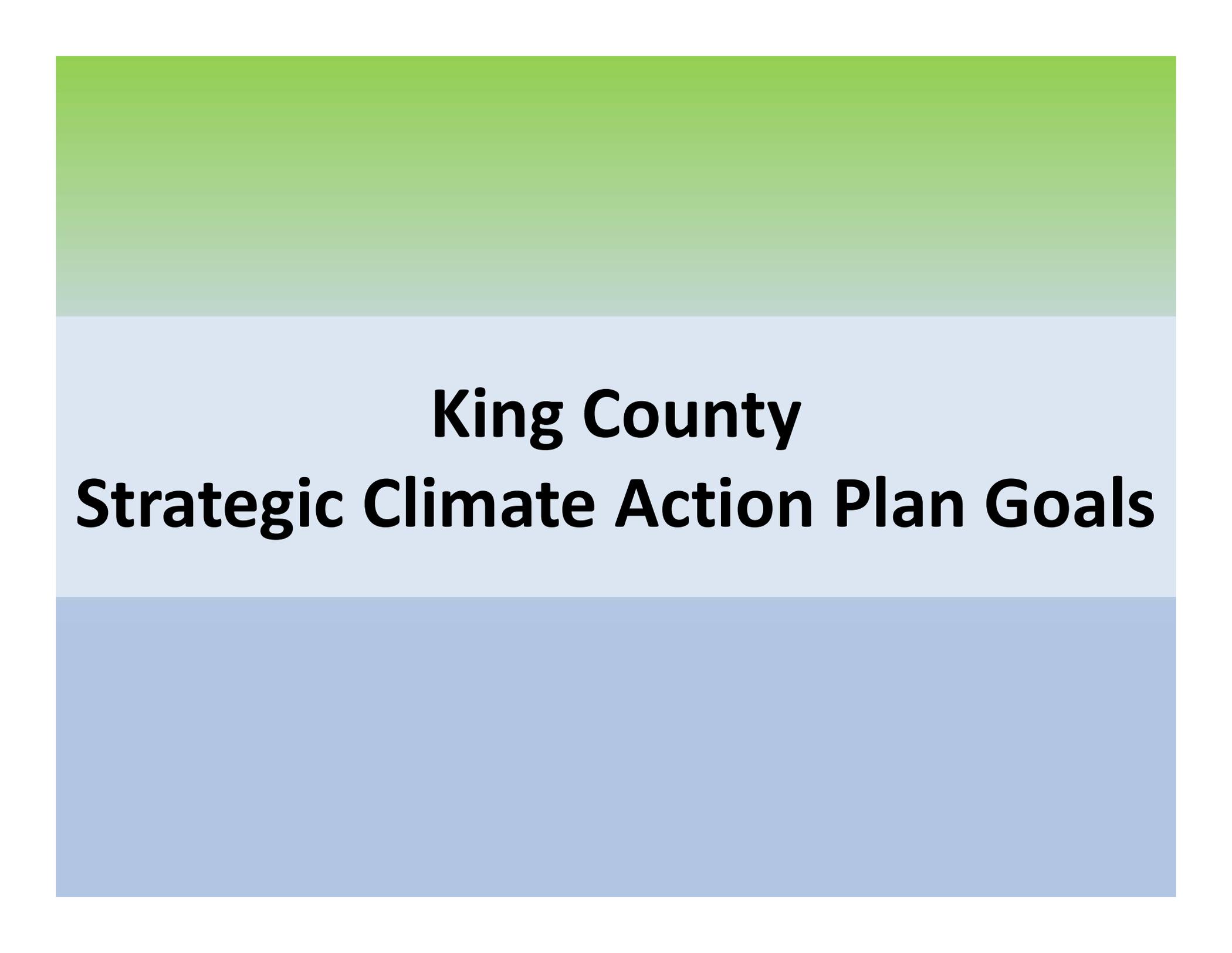


## King County Communitywide Greenhouse Gas Reduction Wedge Analysis 2020 SCAP Working Draft



# Goals for meeting

- Develop or refine key targets in the Buildings and Facilities Energy and Green Building goal areas.
- Identify priority actions and investments that King County can make to help partners help us reach these goals.



**King County**  
**Strategic Climate Action Plan Goals**

# What is the future vision of the 2015 SCAP?

2020	2025	2030	2040	2045	2050
25% reduction in GHG		50% reduction in GHG			80% reduction in GHG
3 out of 4 new buildings are highly efficient	No more coal in our electricity mix	Our electricity is 90% renewable			
More distributed generation		Existing buildings are 25% more efficient			
		New buildings are zero carbon			

*What else should we add?*

# **Buildings & Facilities Energy**

## ***2015 Target Status***

### ***King County Operations & Community Scale***

# 2015 SCAP: King County Operations Buildings & Facilities Energy Targets – Target 1

Ongoing actions over many years are producing noteworthy outcomes

- Energy Reduction

- Increased the 2020 goal from 5% to 7.5% reduction due to strong early progress, base 2014
  - Update: 6.5% reduction through 2018
  - Goal is on top of previous energy plan reduction of over 15%, baseline 2007
  - **Total of over 20% reduction in existing buildings since 2007**

Drivers:

- Converting lighting to Light Emitting Diodes (LEDs)
  - ALL of DNRP complete; remainder of county facilities by the end of 2020
- Deep energy retrofits
- Integrating energy efficiency into major maintenance projects
- Optimizing building operations

- Renewables

- Increased landfill and wastewater biomethane (RNG) production
- Impending purchase of 100% renewable wind/solar power in PSE territory

Operational Energy Goals:  
Walking Our Talk

**King County International Airport  
(Boeing Field) Terminal  
Deep Energy Retrofit**

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- Variable Refrigerant Flow (VRF) space conditioning
- Advanced heat recovery (85%+)
- LEDs throughout the facility
- 68% reduction in energy use
- 99% reduction in natural gas use (gas still used in café)

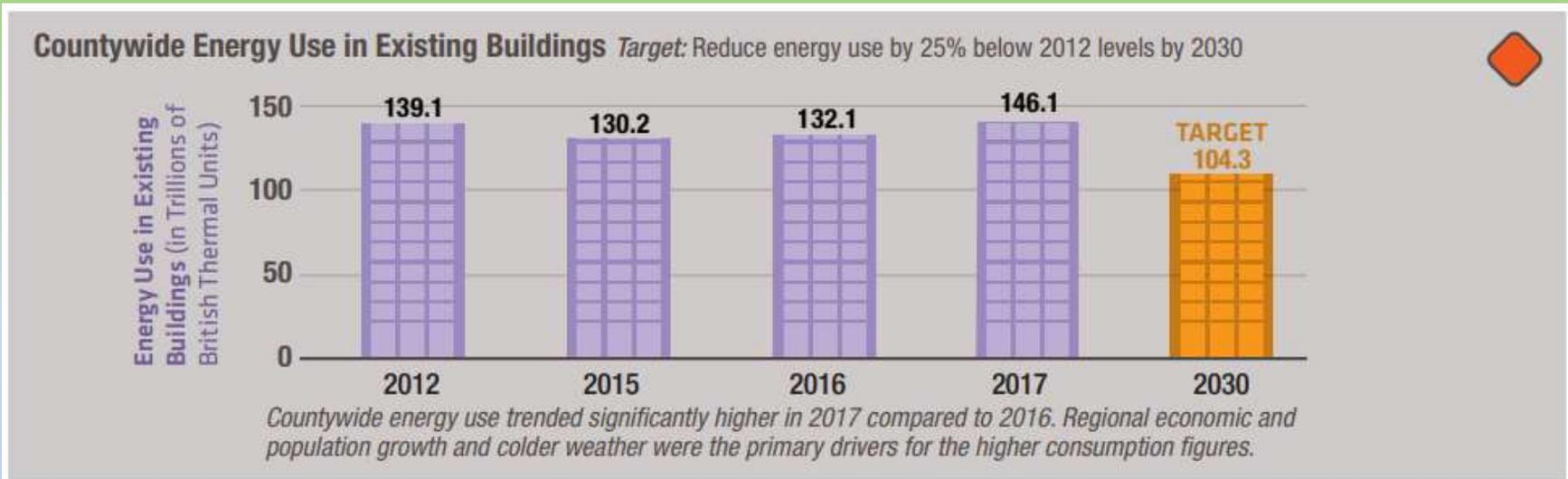


Operational Energy Goals:  
Walking Our Talk  
**Marymoor Park North Utility  
Maintenance Shop Retrofit**  
*Office, repair facility, & metal fabrication workshop*

- One of the world's best energy performing facilities
- Zero Energy certified PLUS the facility produces 48% more energy than it consumes
- Deep energy retrofit (VRF + high efficacy LEDs) reduced energy use 36%
- With state solar grant support, less than 11 year total project payback

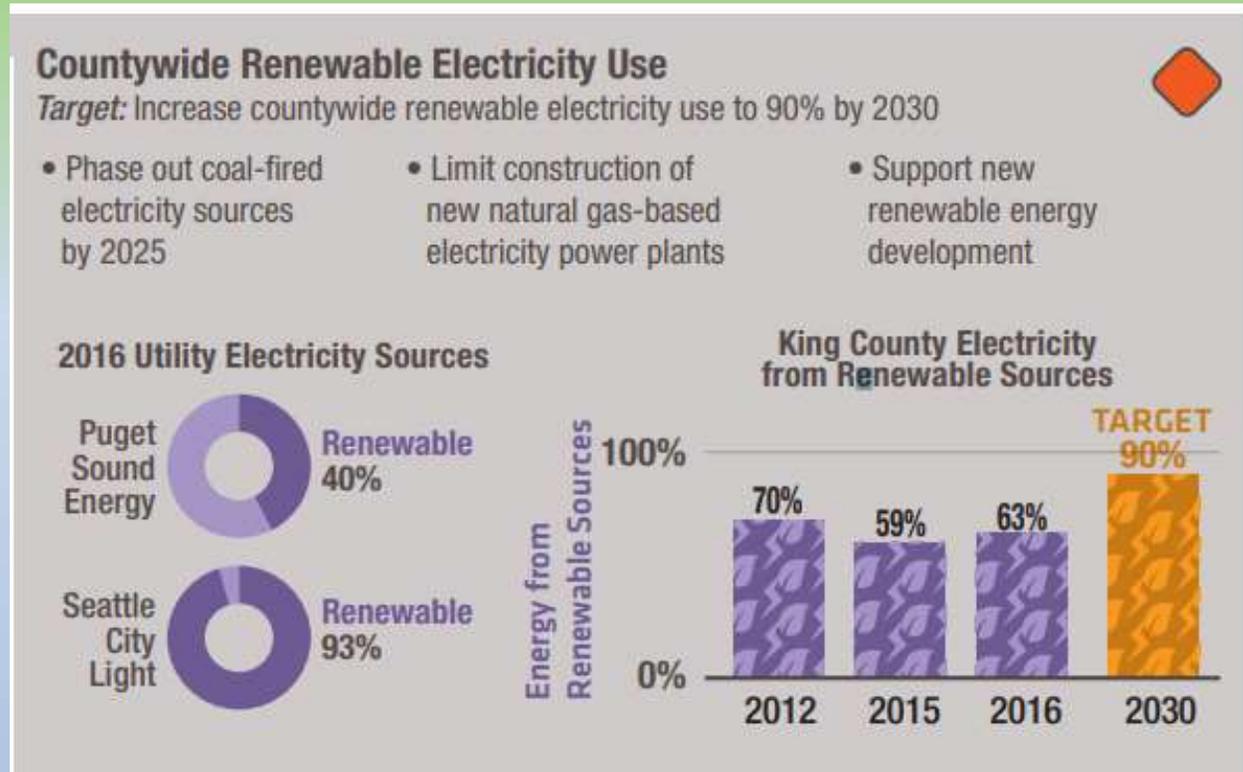


# 2015 SCAP: Community Scale Buildings and Facilities Energy - Target 1



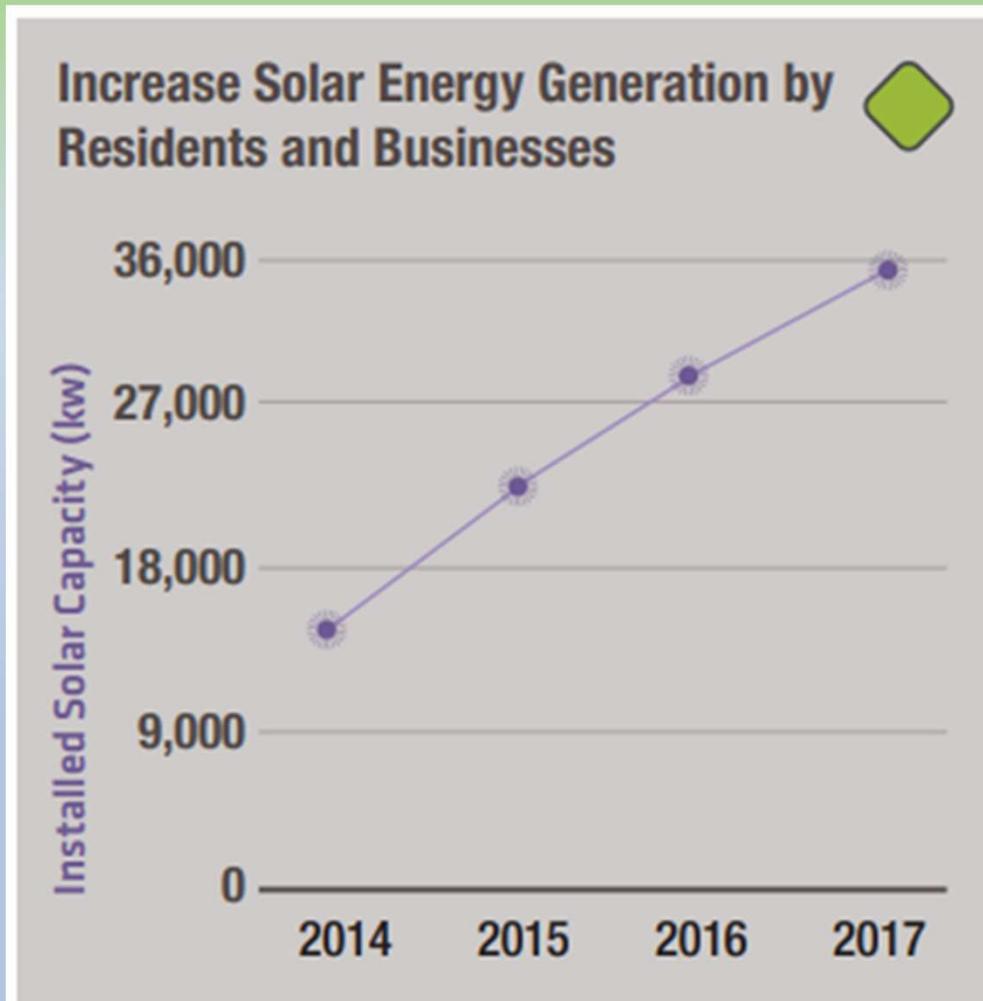
- Target 1: Reduce energy use in existing buildings by 25% below 2012 levels by 2030
- 2017 Status: off – target
- Drivers: cold weather in 2017, population and economic growth

# 2015 SCAP: Community Scale Buildings and Facilities Energy - Target 2



- Target 2: 90% renewable electricity by 2030
- 2017 Status: Off – target, but likely to reach w/passage of 100% Clean in 2019

## 2015 SCAP: Community Scale Buildings and Facilities Energy - Target 3



- Target 3: Increase Solar Energy!
- 2017 Status: Installed capacity growing

# **Buildings & Facilities Energy**

***Proposed 2020 SCAP Goals***

***Community scale***

# 2020 SCAP: Buildings & Facilities Energy Community Scale Proposed Updates

## Target 1: Energy Efficiency

2015 Measures	Proposed 2020 Measures
<ul style="list-style-type: none"><li>• Reduce energy use in existing buildings 25% by 2030</li></ul>	<ul style="list-style-type: none"><li>• RETAIN: reduce energy use in buildings 25% by 2030</li><li>• STRENGTHEN: 45% by 2050</li></ul>
	<ul style="list-style-type: none"><li>• NEW: reduce fossil fuel use in buildings; 20% of use by 2030, 80% by 2050 v. 2017 baseline</li></ul>

# 2020 SCAP: Buildings & Facilities Energy Community Scale Proposed Updates

## Target 2: Energy Supply

2015 Measures	Proposed 2020 Measures
<ul style="list-style-type: none"> <li>90% renewable electricity by 2030</li> </ul>	<ul style="list-style-type: none"> <li>RETAIN: 90% renewable electricity by 2030</li> <li>STRENGTHEN: 100% renewable electricity by 2045</li> </ul>
<ul style="list-style-type: none"> <li>Phase out coal fired generation by 2025</li> <li>Limit new natural gas power plants</li> <li>Support new renewable energy development</li> </ul>	<ul style="list-style-type: none"> <li>COMPLETE: Phase out coal fired generation by 2025</li> <li>RETAIN: Limit new natural gas power plants</li> <li>RETAIN: Support new renewable energy development</li> </ul>

# 2020 SCAP: Buildings & Facilities Energy Community Scale Proposed Updates

## Target 3: Energy Production

2015 Measures	Proposed 2020 Measure
<ul style="list-style-type: none"><li>• Increase solar generation by residents and businesses</li></ul>	<ul style="list-style-type: none"><li>• <b>STRENGTHEN:</b> 10MW/year installed solar</li></ul>



**Green Building**  
***2015 Target Status***  
***King County Operations &***  
***Community Scale***

# 2015 SCAP: KC Operations Green Building Targets 1 & 2

## 2015 Measures

- 100% of project achieve Platinum certification by 2020
- 100% of new projects certified carbon neutral by 2030
- Priority Action: 10 ZE/LBC projects registered by 2020



**King County Parks  
Renton Operation & Maintenance Facility**



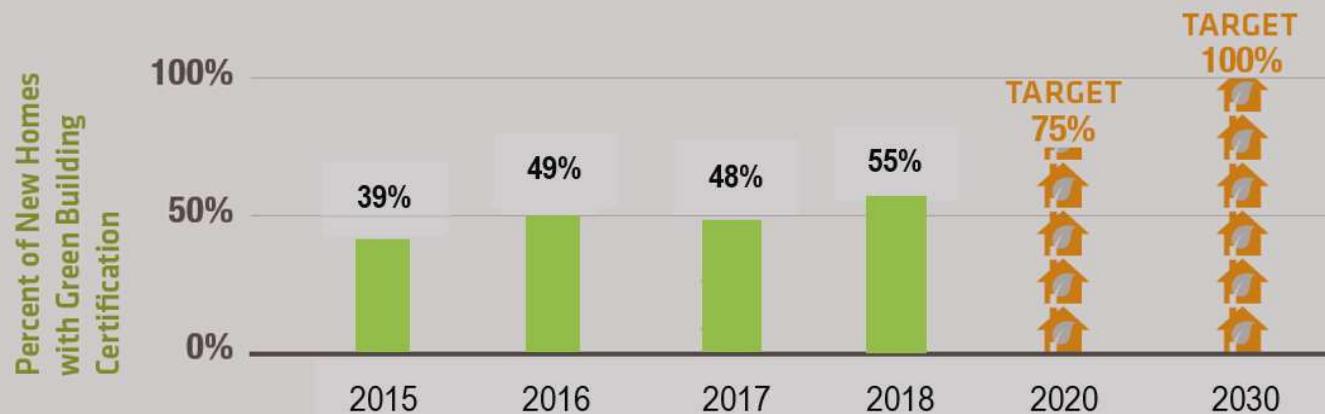
**Petal  
Certification**

# 2015 SCAP: Green Building Community Scale Targets 1 & 2

**Green Building Residential Certification** *King County and K4C Target: 75% of new developments certified green by 2020, 100% of new developments achieve net zero greenhouse gas emissions by 2030*

## Green Building Residential Certification

*Target: 75% of new developments certified green by 2020, 100% of new developments certified green by 2030*



- **2018 Status for Target 1:** Approximately 55% of residential units meet the 2020 goal of 75%
- **2018 Status for Target 2:** Approximately 6% of residential units meet the 2030 goal of 100%
- **Drivers:** Increase in multifamily construction  
*(Although number of units has increased substantially in 2018, the number of buildings certified have only increased by 1%)*

# **Green Building**

## ***Proposed 2020 SCAP Goals***

### ***Community scale***

## 2020 SCAP: Green Building Community Scale Proposed Updates

2015 Measures	Proposed 2020 Measures
<ul style="list-style-type: none"><li>• 75% of new developments certified green by 2020</li><li>• 100% of new developments achieve net zero greenhouse gas emissions by 2030</li></ul>	<ul style="list-style-type: none"><li>• REFINE: adjust metric specify “dwelling units” not “developments”, change the Target dates, and create a Priority Action (incentive) that supports this Target</li><li>• NEW: Create similar certification Targets for altered existing buildings</li></ul>



## 2020 SCAP: Green Building Community Scale Proposed Updates

### Proposed 2020 Measure

**BACKGROUND:** The Washington State Energy Code is required to achieve a certain amount of energy efficiency each code cycle until WA State has a net zero Energy Code. The 2018 amendments to the Commercial portion of the Energy Code did not achieve its Target.

**PROPOSED TARGET:** If there is a gap, King County's Permitting Division will further amend the Commercial portion of the King County Energy Code in order to bridge the State goal deficit.



# Reflection & Next Steps

# Public Workshops

- Public Workshops!
  - 10/2 6pm – 8pm, Bellevue College
  - 10/12 10am – noon, Intellectual House, UW
  - 10/16 6pm – 8pm, Highline College

**What's important to you? Tell us what you think!**



King County

# CLIMATE ACTION

Clean Future. Strong Communities.

King County is committed to taking bold action on climate change by reducing greenhouse gas emissions, preparing for climate impacts, and building strong and resilient communities across our region.



LEAD WITH EQUITY



REDUCE CARBON POLLUTION



PLANT 1 MILLION TREES BY 2020



PREPARE FOR CLIMATE IMPACTS



CREATE A CLEAN ENERGY FUTURE



WORK WITH THE COMMUNITY

## Thank You!

[kingcounty.gov/climate](http://kingcounty.gov/climate)