

# Carbon Neutral Goals & Guidelines

Board Meeting May 18, 2023 Agenda Item No. 10.1

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# When it comes to climate change, the cost of inaction is far greater than the cost of action

#### CORE VALUE

We recognize that our system is inequitable by design and we vigilantly work to confront and interrupt inequities that exist to level the playing field and provide opportunities for everyone to learn, grow and reach their greatness.

# SCUSD GUIDING PRINCIPLE

All students are given an equal opportunity to graduate with the greatest number of postsecondary choices from the widest array of options

# Acronyms

EUI Energy Use Intensity, which refers to the amount of energy

used per square foot annually

kBtu Kilo British Thermal Units

SF Square foot

PV Photovoltaic

GHG Greenhouse Gas

IPCC Intergovernmental Panel of Climate Change

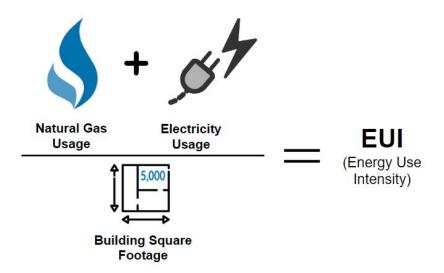
# **Agenda**

- Initial Process
- Goals and Guidelines
- Costs of Inaction
- Next Steps



## **Initial Process**

- Facilities Master Plan
- Districtwide Energy Audit in 2019
- New Building Institute + Sacramento Municipal Utilities District
  - o Determine Energy Use Intensity (EUI) for each building (2018/19 data)
  - o Create Carbon Neutral Goals & Guidelines



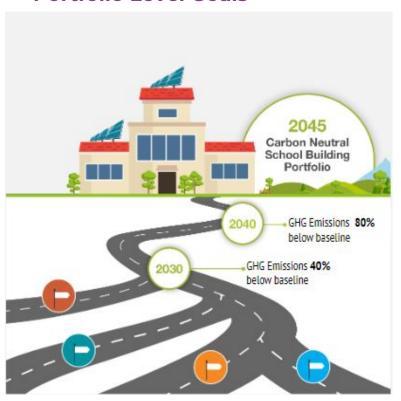
# The Following Goals & Guidelines Pertain to:

- Capital Projects-Bond Projects
  - New Construction
  - Major Modernization
- Facilities Projects-Maintenance
  - o Replacements
  - Retrofits



## **Goals & Guidelines**

#### **Portfolio Level Goals**



#### **Guidelines**



# **Project Level Goals**

- 1. All new construction projects will achieve a site EUI of 19-21 kBtu/sf/year before PV
- 2. All major modernization projects will achieve a site EUI of 25 kBTU/sf/year before PV
- 3. All school facility retrofits will **improve the site EUI by 20-50**% from a 2019 baseline and include a written plan for future removal of all gas-combusting equipment

#### **Efficiency**

- LED lighting
- Daylighting
- Controls
- Ventilation and HRV
- Envelope
- Equipment and plug load management

#### Renewables

- Rooftop solar
- On-campus solar
- Purchased credits or tariff from utility

#### Electrification

- Boiler replacement with heat pumps
- Kitchen loads
- Fleet electric Vehicles and charging

#### Grid Harmonization

- Battery storage
- Grid integration
- Load management

#### Embodied Carbon

- Concrete
- Steel
- Refrigerants
- Other materials

### **Costs of Inaction**

#### Financial

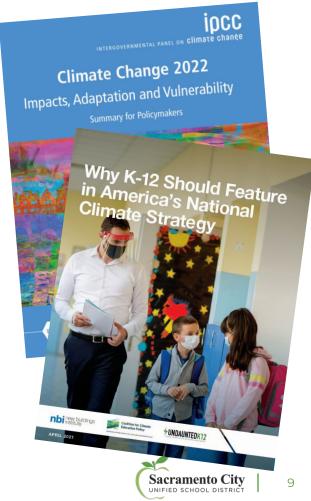
- Carbon neutral schools are not more expensive
- Natural gas prices are volatile
- o Utility bills come from the general fund

#### Environmental

- Climate change is a threat to human well-being and planetary health (very high confidence)\*
- There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all (very high confidence)\*
- The choices and actions implemented in this decade will have impacts now and for thousands of years (high confidence)\*
- o Buildings contribute 40% of global Greenhouse Gas Emissions

#### Social

 Vulnerable communities who have historically contributed the least to current climate change are disproportionately affected (high confidence)\*



# **Next Steps**

- Board Resolution
- Implementation of Goals & Guidelines
  - Embed in Standards and Specifications
  - Training for Maintenance Staff

