

PEOPLES GAS®  
ENERGY EFFICIENCY PROGRAM

NORTH SHORE GAS®  
ENERGY EFFICIENCY PROGRAM

# Heat Recovery with Carbon Capture

IL SAG Market Transformation Savings Working Group  
2/28/24

Thomas Manjarres | Technical Lead

Peoples Gas and North Shore Gas Energy Efficiency Programs

# Tech Update: CarbinX™ an Economizer that Captures Carbon

## Technology Review

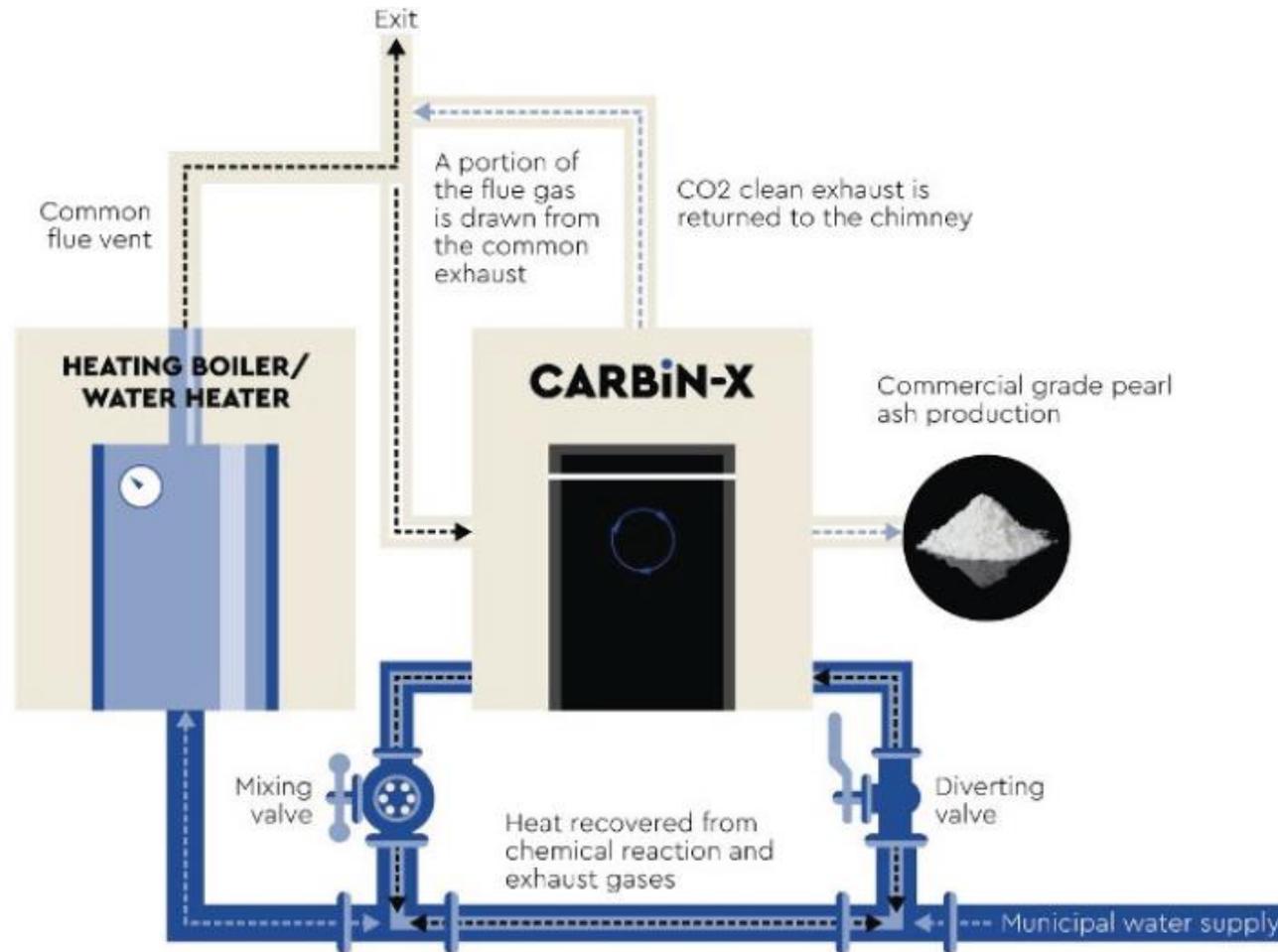
- >30% gas savings
  - ✓ flue gas heat recovery
  - ✓ + heat recovered from CO<sub>2</sub> capture reaction
- 20-50% CO<sub>2</sub> capture rate
- Optional: Cash rebate from manufacturer for captured carbon (\$0.9/kg)

## Updates

- 2 NSG public schools in 2023 and Q1 2024.
- Recruiting host sites for more demonstration projects in PGL and NSG territories
- Developing supply chains for potash (top) and pearl ash (bottom)



# An Economizer that Captures Carbon





# Future Considerations

- CarbinX v4 units promise 50% carbon capture capability
  - Expected launch in 2024
- CleanO2 (manufacturer) has mapped a pathway to CarbinX units that capture 100% of CO2 emissions.
- When paired with low carbon fuels like RNG and synthetic natural gas (SNG), CarbinX units can help customers achieve **carbon neutral** and even **carbon *negative*** status **today**.