Low-Carbon Gas in HRM's Net-Zero Future

Heritage Gas

Forward *Energy*.


MAKE
CLIM
CRIS
SOCCER
JUSTICE
ACTION.

HalifACT 2050

ACTING ON CLIMATE TOGETHER

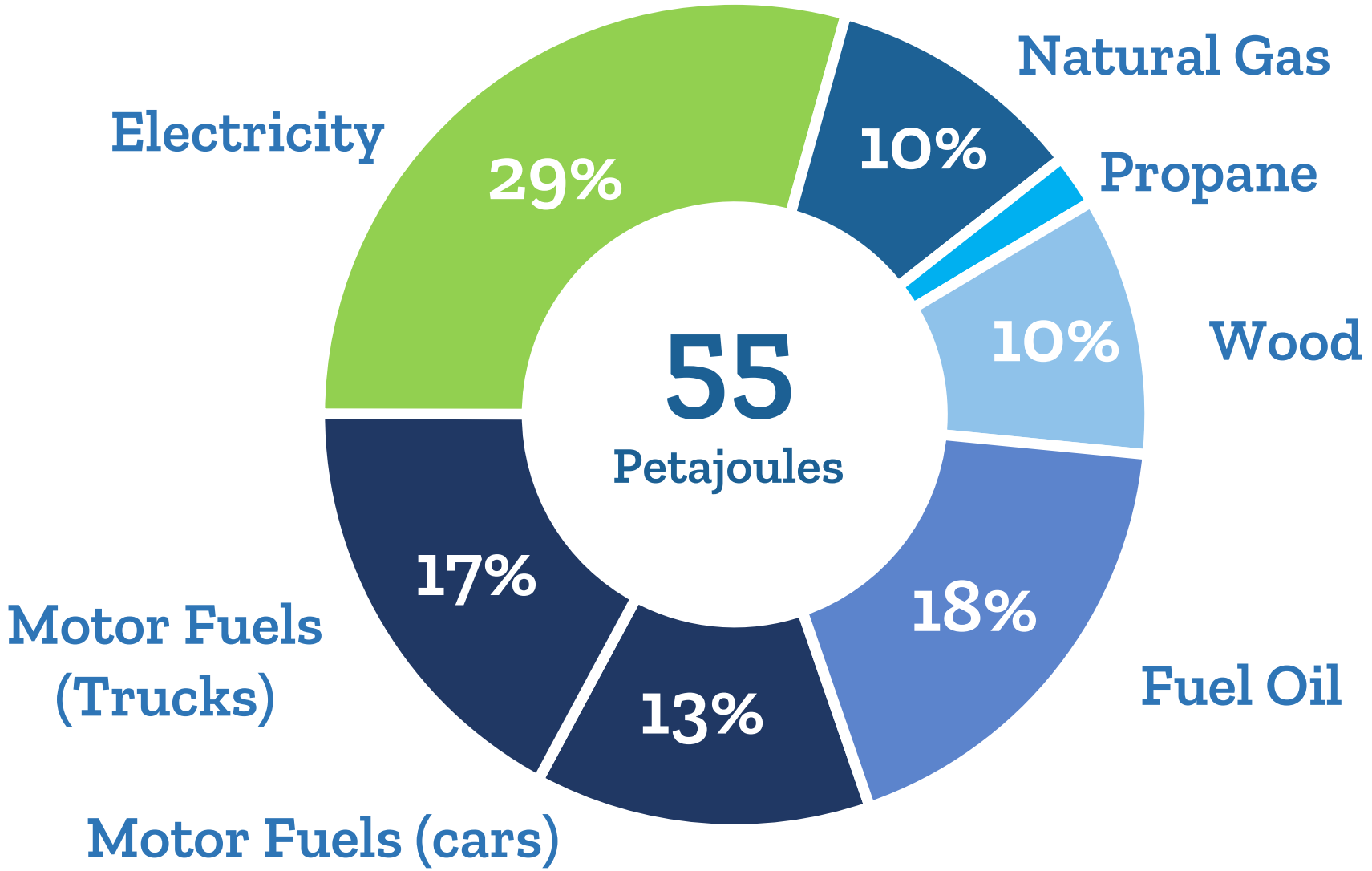
Decarbonizing the Gas Grid

RNG and hydrogen play a key role in a net-zero future.

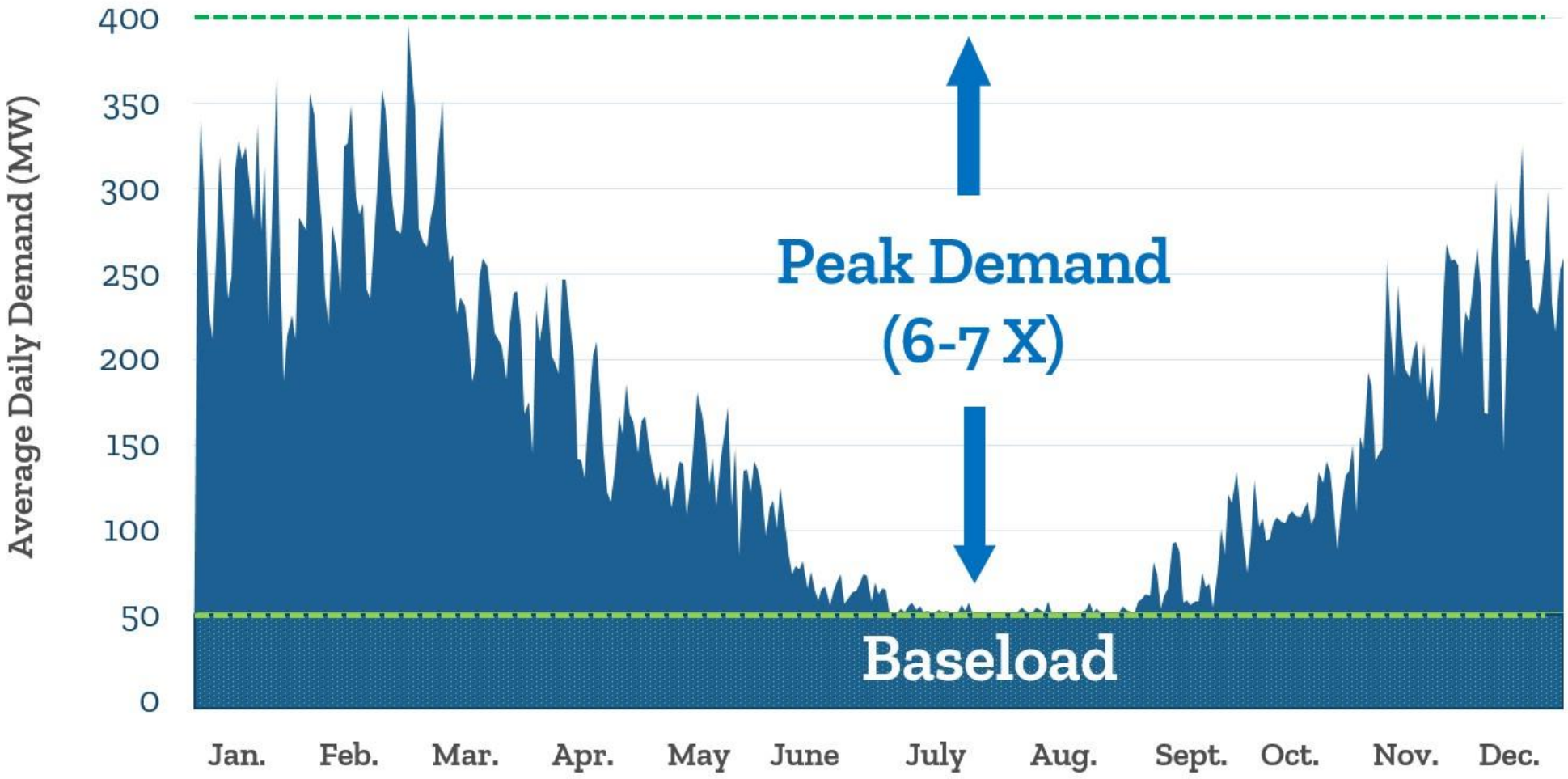
Heritage Gas

Forward *Energy.*

Final Energy Use Demand in HRM



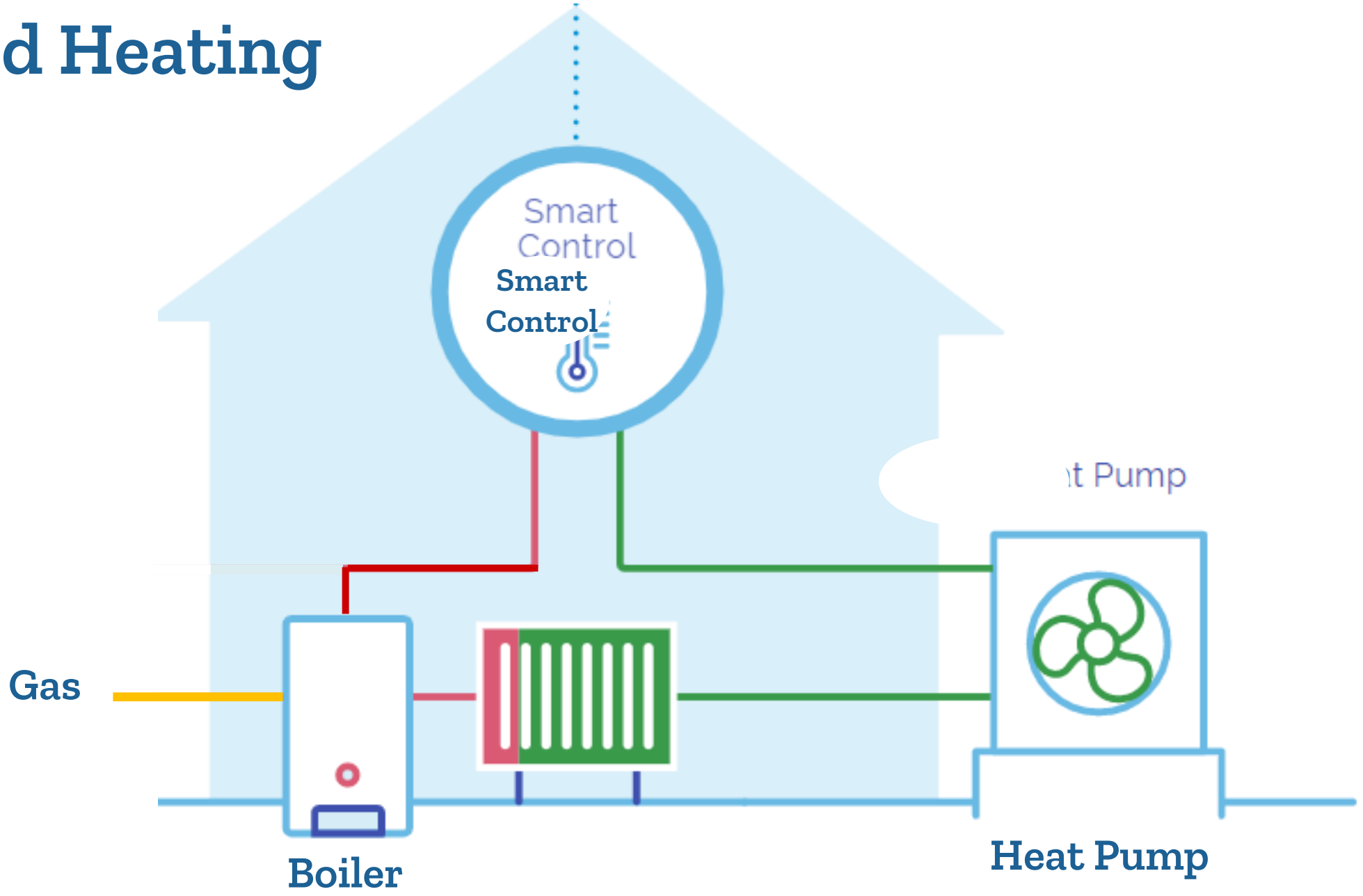
Peak Demand Impacts



Heritage Gas

Forward *Energy.*

Hybrid Heating

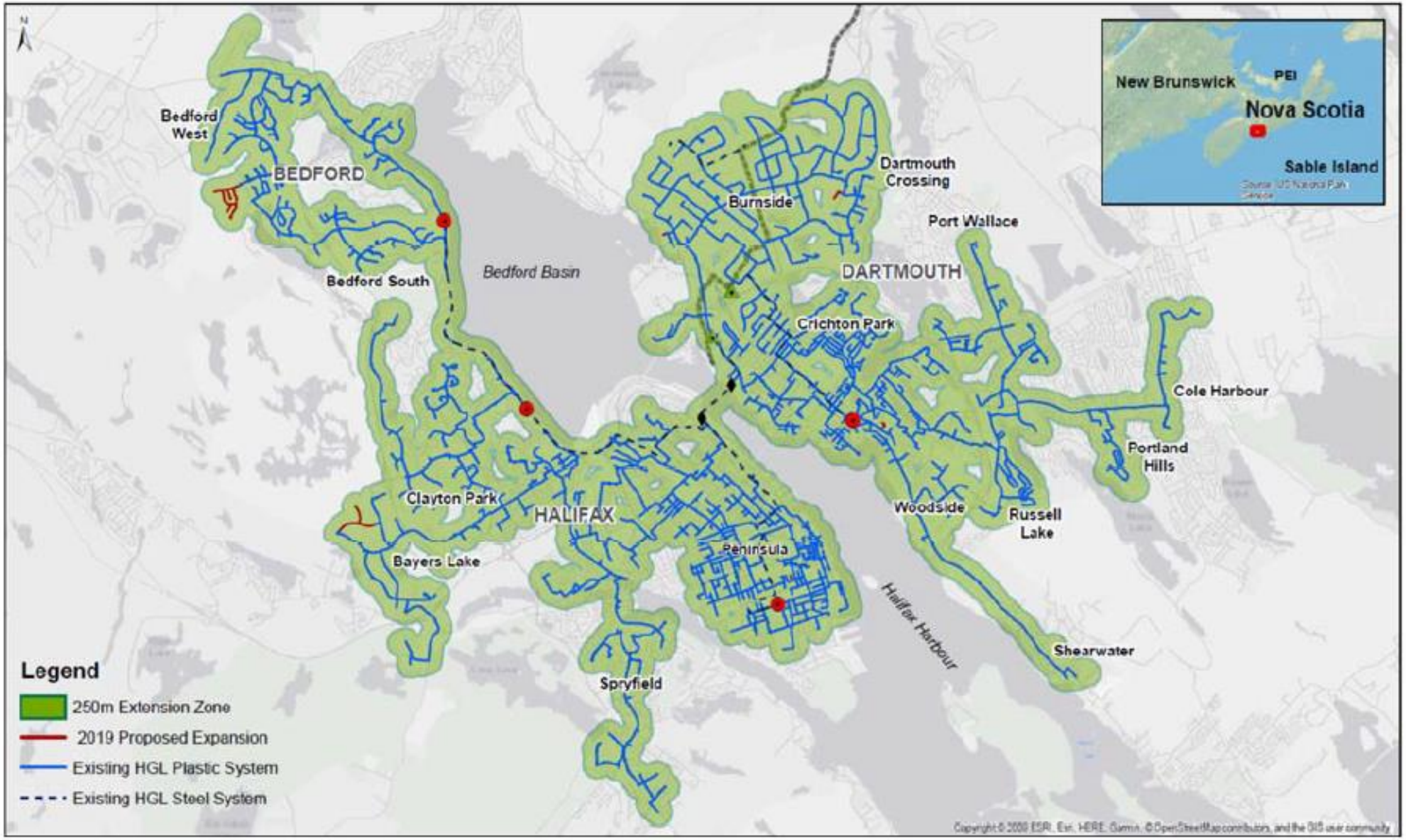


A Better Way Forward to Net-Zero

A cleaner electric grid

A cleaner gas grid

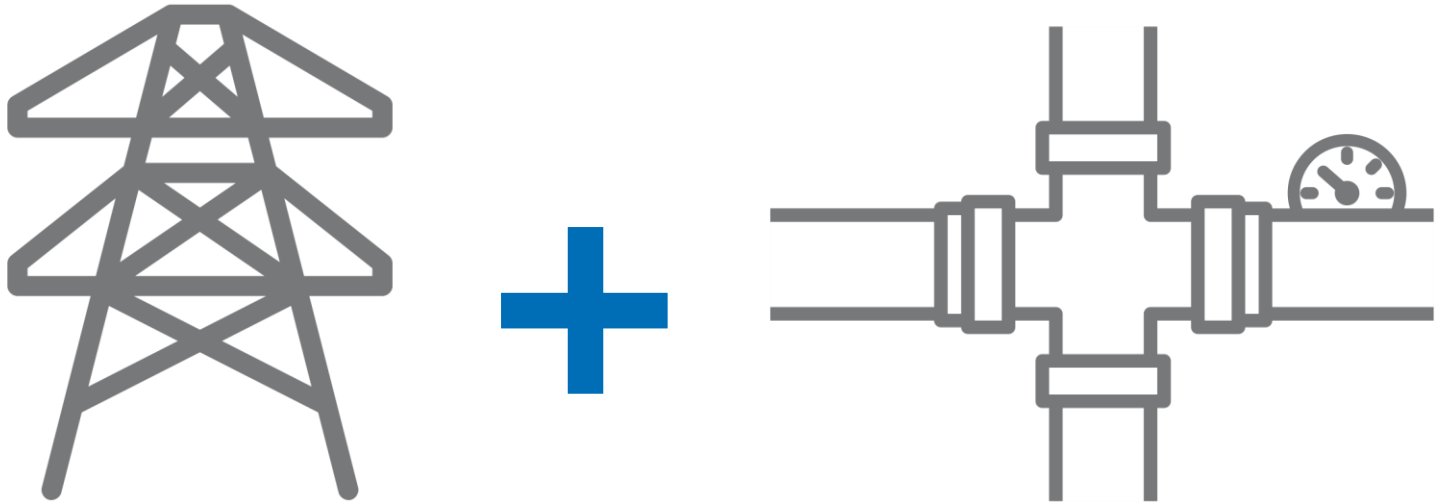
Net-zero emissions



Heritage Gas

Forward *Energy*.

Linked Electricity & Gas Grids



Linked electricity and gas grids can work together to build a more flexible and resilient energy system

Hydrogen

Maritimes Hydrogen Feasibility Study

By 2050, hydrogen can:

- Make up 22% of delivered energy in Nova Scotia
- Account for 25% of our emissions reductions
- Provide grid-scale energy storage
- Help decarbonize key sectors
    - As a fuel for electricity production
    - By providing heat for buildings and industry
    - As a heavy transportation fuel

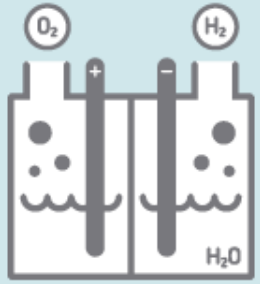
Heritage Gas

Forward Energy.

Green Hydrogen

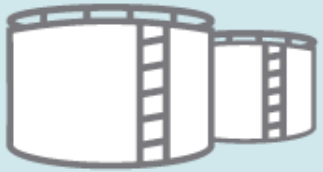
Renewable Energy Generation

Surplus wind is used to produce renewable electricity



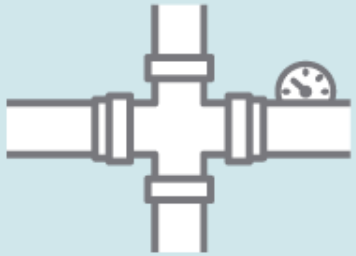
Green Hydrogen Production

Electrolyzer uses electricity to split water molecules to create hydrogen and oxygen



Hydrogen Storage

Hydrogen is compressed and stored



Hydrogen Distribution & Use

Hydrogen is piped to customers

Building Heat

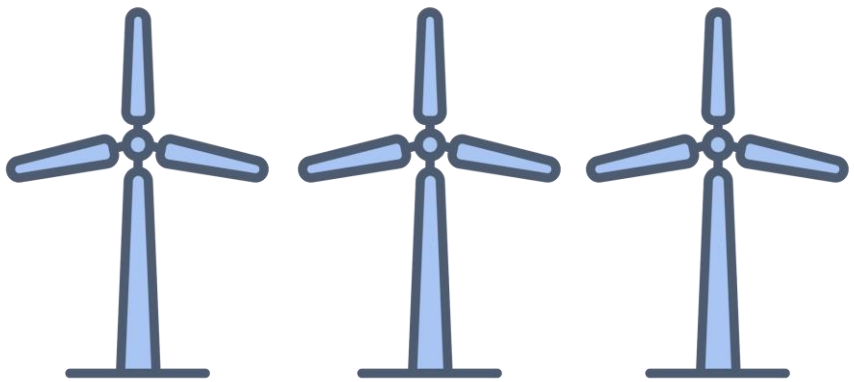
Industry

Heavy Transportation

Power Generation

Hydrogen Energy Storage

Storing the wind's energy when it blows.



So we can use it when it doesn't.

Northern Gas Networks

H21

Natural Gas

Clean Hydrogen

An Integrated Energy System for Nova Scotia