The Greenhouse Gas Emissions Reduction Act (GGRA)
Draft Plan

The Greenhouse Gas Reduction Act

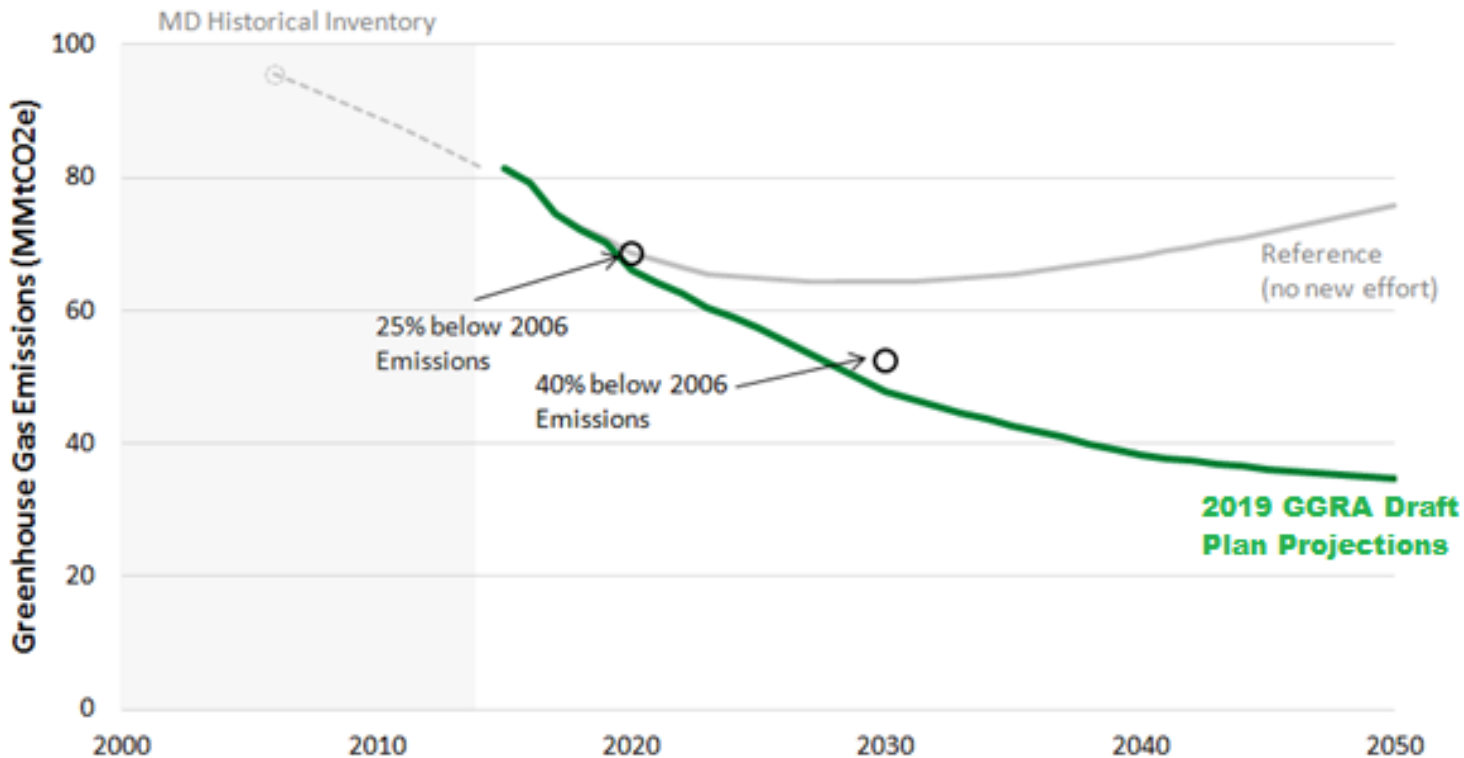Maryland Law ("GGRA"): Reduce GHGs 25% by 2020 and 40% by 2030
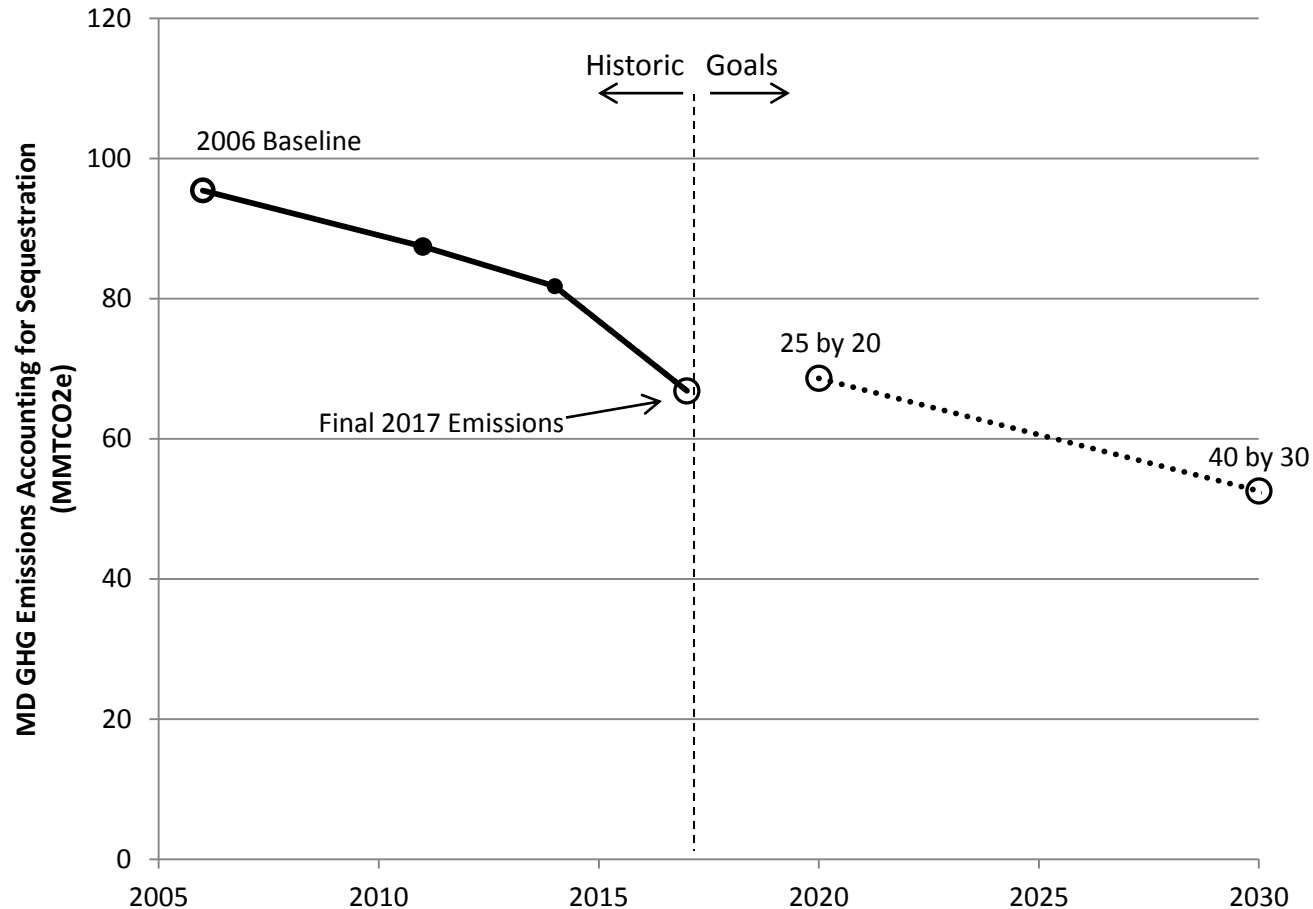
Maryland greenhouse gas emissions, accounting for sequestration. Note favorable weather drove additional reductions in 2017.

The GGRA Plan

The GGRA requires MDE to develop a plan to meet the GHG goals. That plan draws upon existing programs across all levels of government, and new state programs.

Maryland greenhouse gas emissions, accounting for sequestration. MDE projections from 2019 GGRA Draft Plan.

Major Mitigation Programs

Electricity Supply
Renewable Portfolio Standard (current)
Clean and Renewable Energy Standard (proposed)
Regional Greenhouse Gas Initiative (RGGI)

Transportation
Public Transit & other infrastructure
Electric Vehicles: Clean Cars & ZEV Mandate
50% ZEV Transit Buses by 2030
Smart Growth & Compact Development
Transportation and Climate Initiative (TCI) could
fund & enable other measures.

Building Energy Use
EmPOWER Maryland
Compact Development
State Building Efficiency EO

Short-lived Climate Pollutants
HFC regulation
Methane regulation
Sustainable Materials Mgmt

Carbon Sequestration
Forest Management Programs
Healthy Soils Program

Electricity Supply Programs

Electricity strategy: incentivize clean energy and cap emissions from fossil energy.

- CARES
  - Bill proposed for this session; example impacts in the *2019 GGRA Draft Plan*
  - Builds upon existing RPS; 100% Clean Electricity by 2040

- RGGI
  - Carbon cap on power plants and state investment in clean energy (10 states participate)
  - Growing to more states: NJ renewed participation, VA promulgated a reg (on hold), and PA drafting reg now.
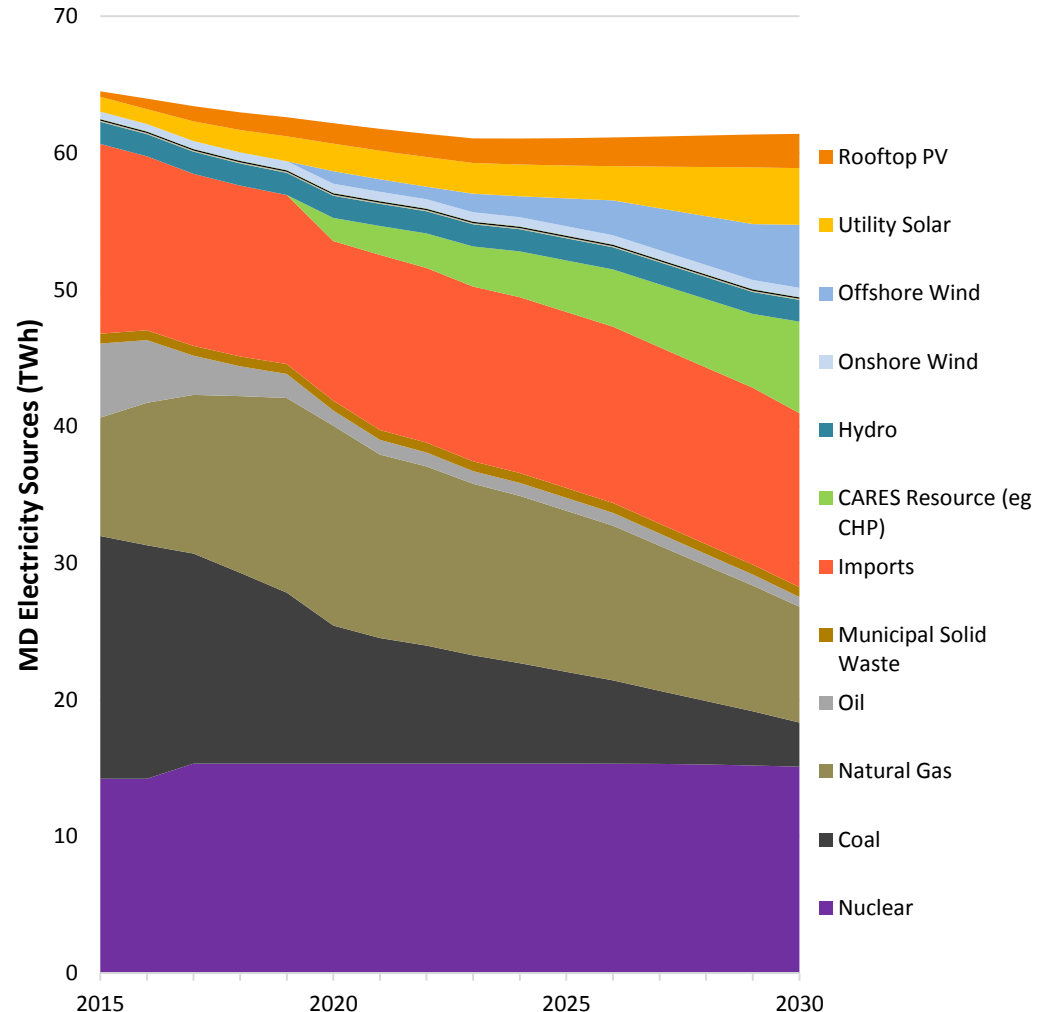
Maryland electricity generation and imports in GGRA Draft Plan through 2030. CARES and RGGI reduce fossil generation and increase clean & renewable generation.
**Analysis assumes no new nuclear or carbon capture before 2030**

Buildings Programs

Buildings strategy: use efficiency to counteract growth & convert heating systems to run on increasingly clean electricity.

- Efficiency:
  - EmPOWER beyond 2023
  - Achieve State Building Efficiency Goal
  - Achieve Compact Development Goal

- Electrification:
  - Increase use of efficient electric heat pumps for building heat, perhaps using EmPOWER incentives.
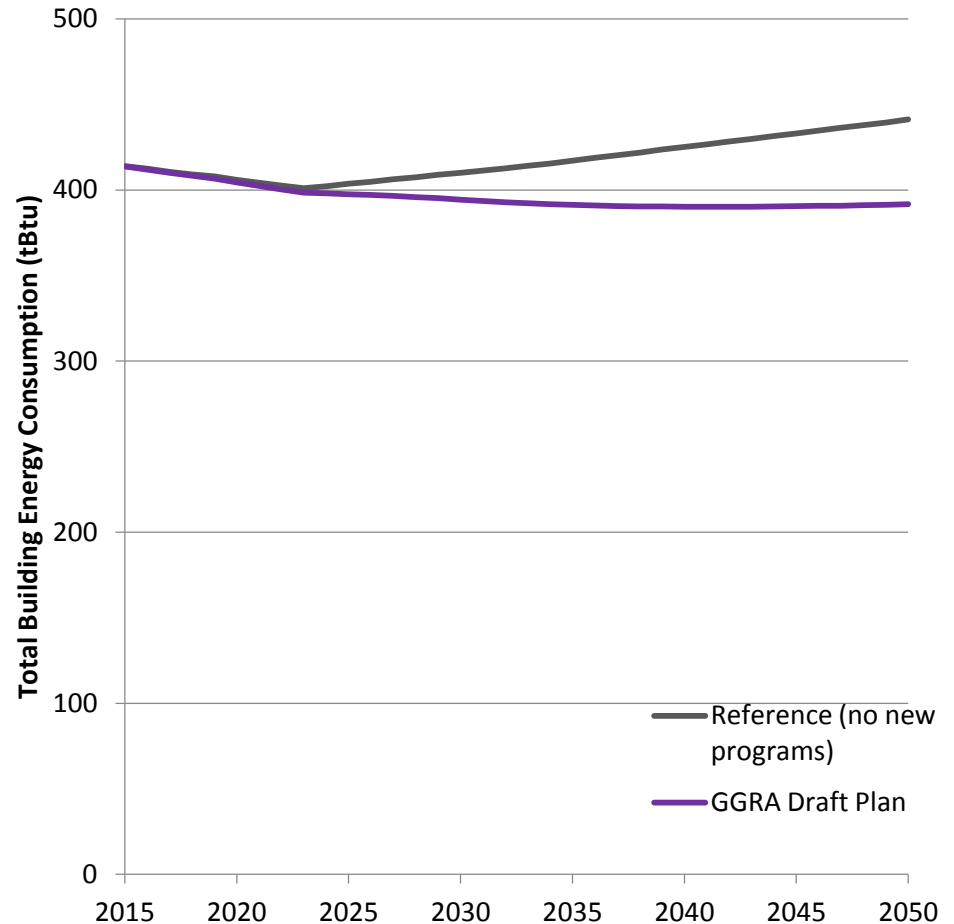
Transportation Programs

Transportation strategy:

Reduce vehicle miles traveled   AND   **deploy electric vehicles** that run on increasingly clean electricity

- Transit Investments
- Intercity Transportation
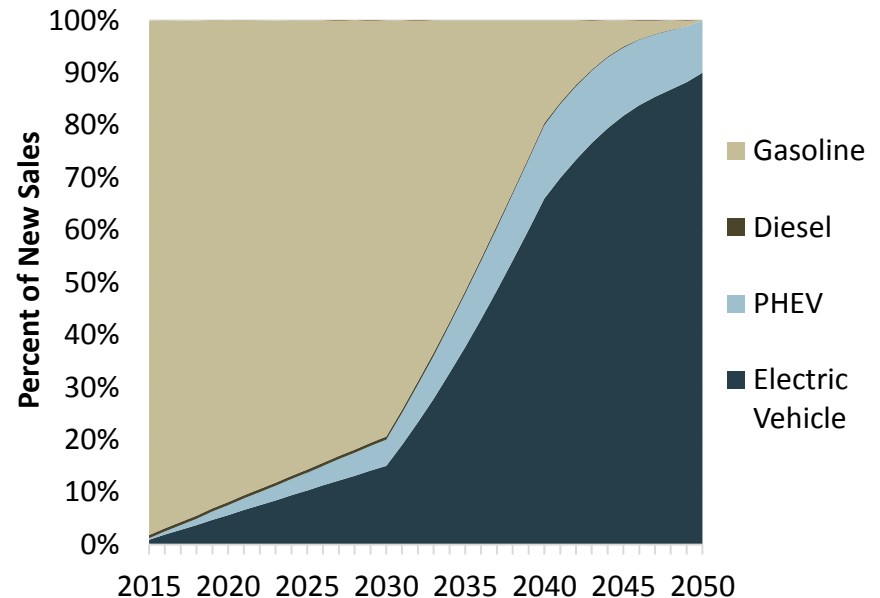- Active Transportation (e.g., bike lanes)
- Compact Development

- Clean Cars Program & ZEV mandate
- 50% ZEV Transit Buses by 2030
- Transportation and Climate Initiative
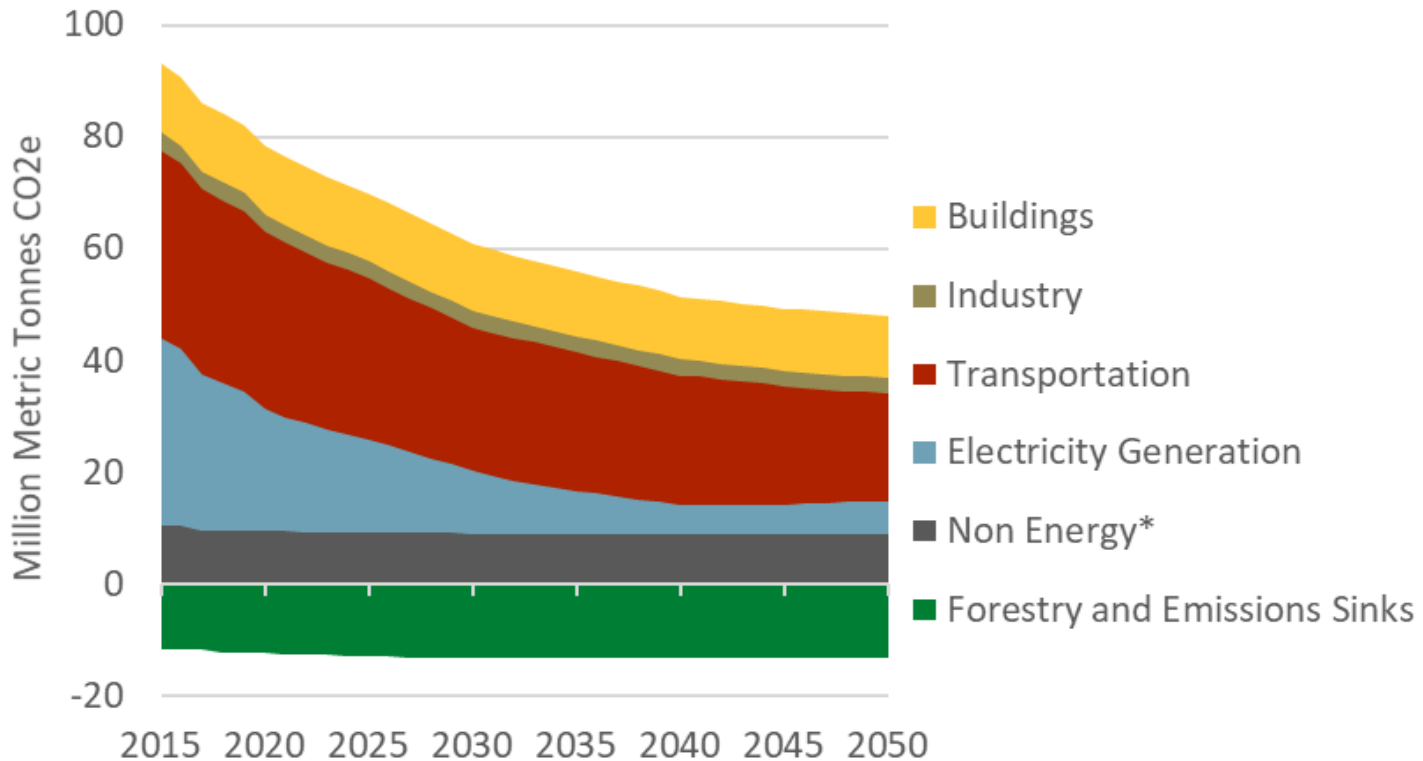
Light Duty Vehicle Miles Traveled
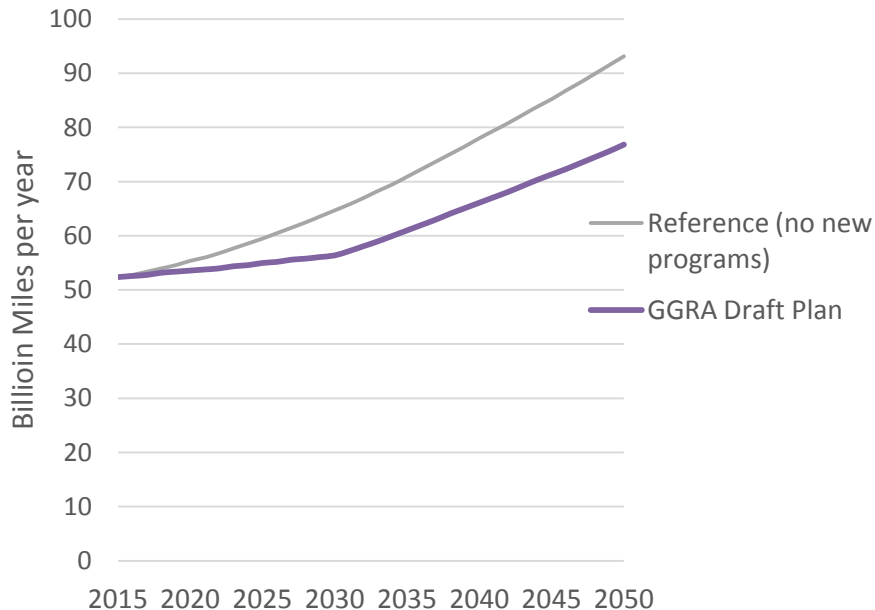
Light Duty Auto Sales

Sequestration Programs

Forest management, tree planting, and Healthy Soils programs (DNR & MDA) accelerate carbon sequestration in forests and agricultural soils, adding benefit on top of emission reduction programs.
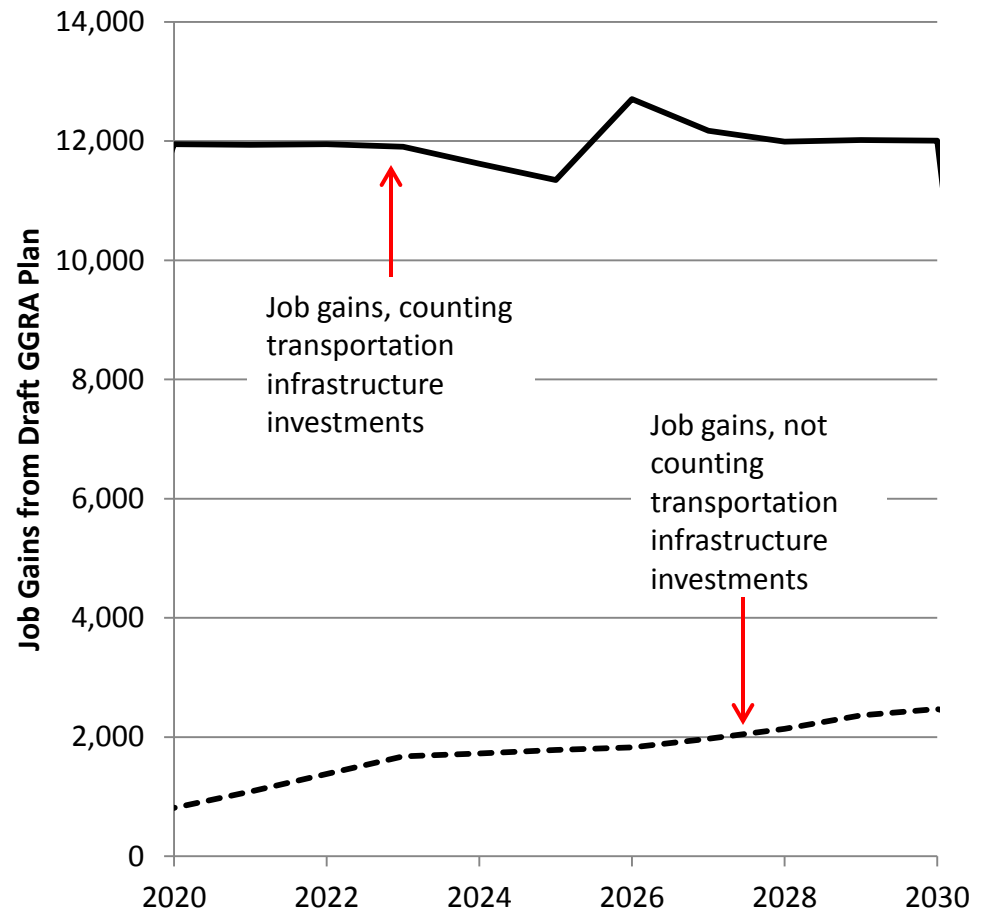

Non Energy includes Agriculture, Waste Management, Industrial Process and Fossil Fuel Industry.

GGRA Draft Plan Employment Results

- GGRA requires positive economic impacts.

- The Draft Plan drives substantial job gains.

- Almost all of MD's fossil fuel comes from out of state.

- Investments that reduce fossil fuel consumption drive positive impacts for MD's economy.

Job gains, counting transportation infrastructure investments

Job gains, not counting transportation infrastructure investments
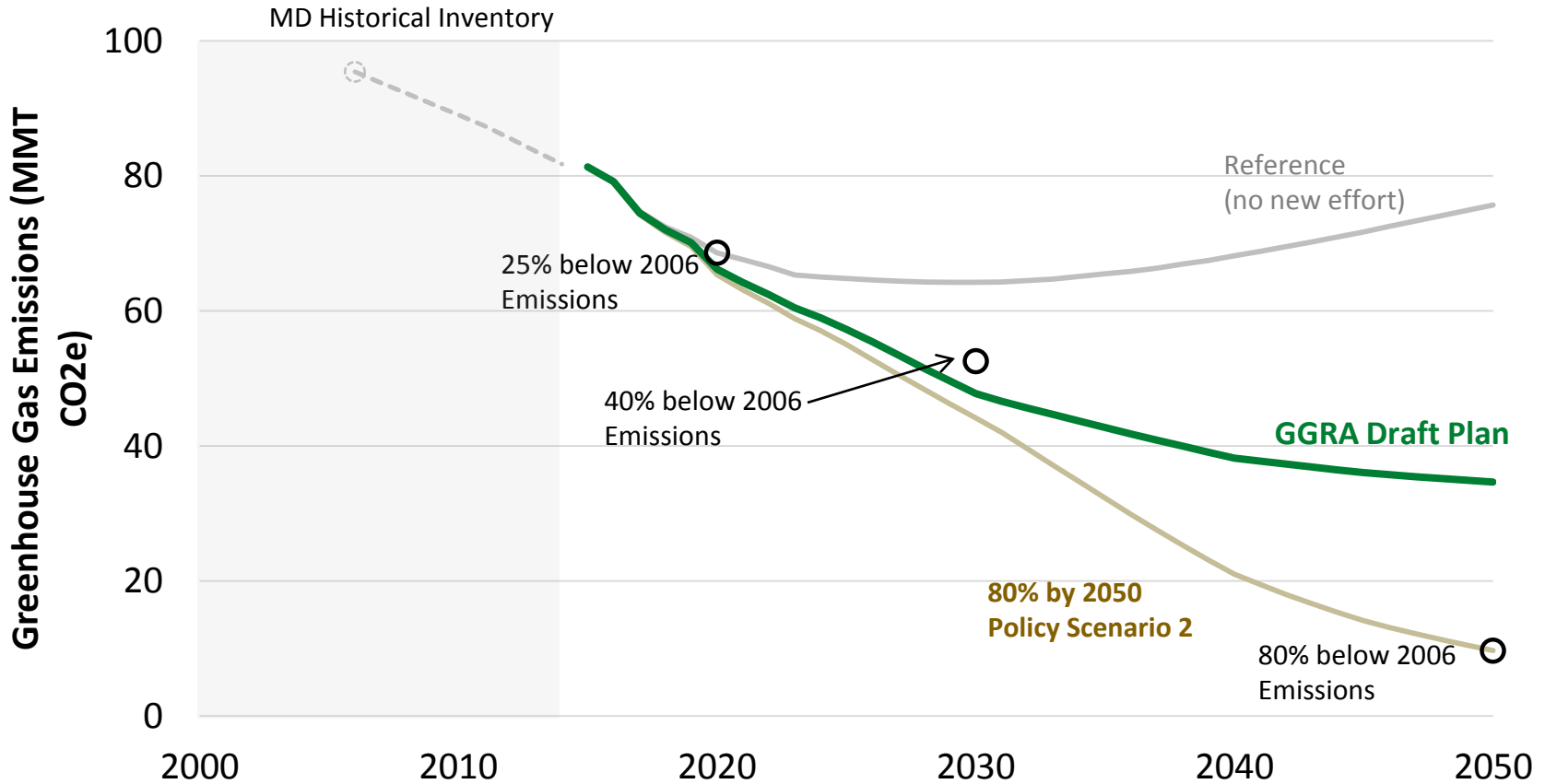
Large transportation projects drive substantial job gains in the near-term; investments in in-state clean energy and fuel-saving measures provide more modest underlying gains. (Transportation gains dependent on Federal funding)

Long Term Goals

MDE analyzed a scenario that achieves 80% reduction by 2050 ("Scenario 2")
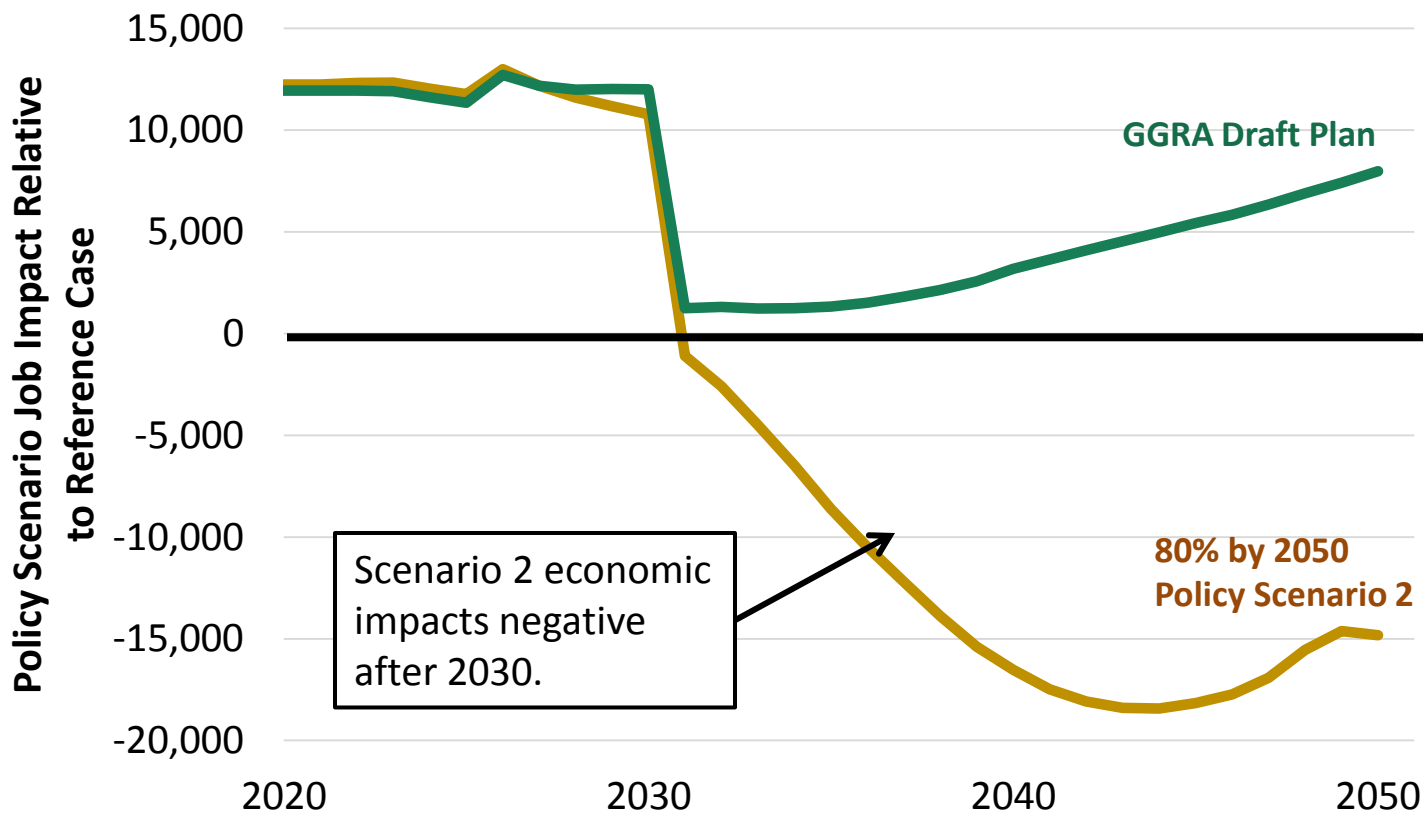

Important long-term measures included: renewable natural gas, other advanced biofuels, electric or other zero-emission heavy trucks and non-road vehicles.

Long Term Challenges

Scenario 2 identified important long-term measures that should be re-evaluated as technologies mature, but are currently expensive.

These measures may be necessary for deeper reductions, and may be cost-effective when the time comes. In the meantime, the Draft Plan focuses on measures necessary for 2030.

Public Comment & Outreach

- [Read the GGRA Draft Plan](#) out for comment now:

- MDE holding series of public meetings around the state:
  - 12/3: Chesapeake College, Queenstown (Complete)
  - 12/17: MDE HQ, Baltimore (Complete)
  - 1/10: Frostburg State University, Frostburg (Complete)
  - 1/14: Charles County Govt Building, La Plata (Complete)
  - 1/29: Webinar (Complete)
  - 1/31: MDE HQ, Baltimore (Complete)
  - 2/12: Webinar
  - 3/4: Webinar

Meeting details are in [our website](#).

Contacts

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