



Buildings

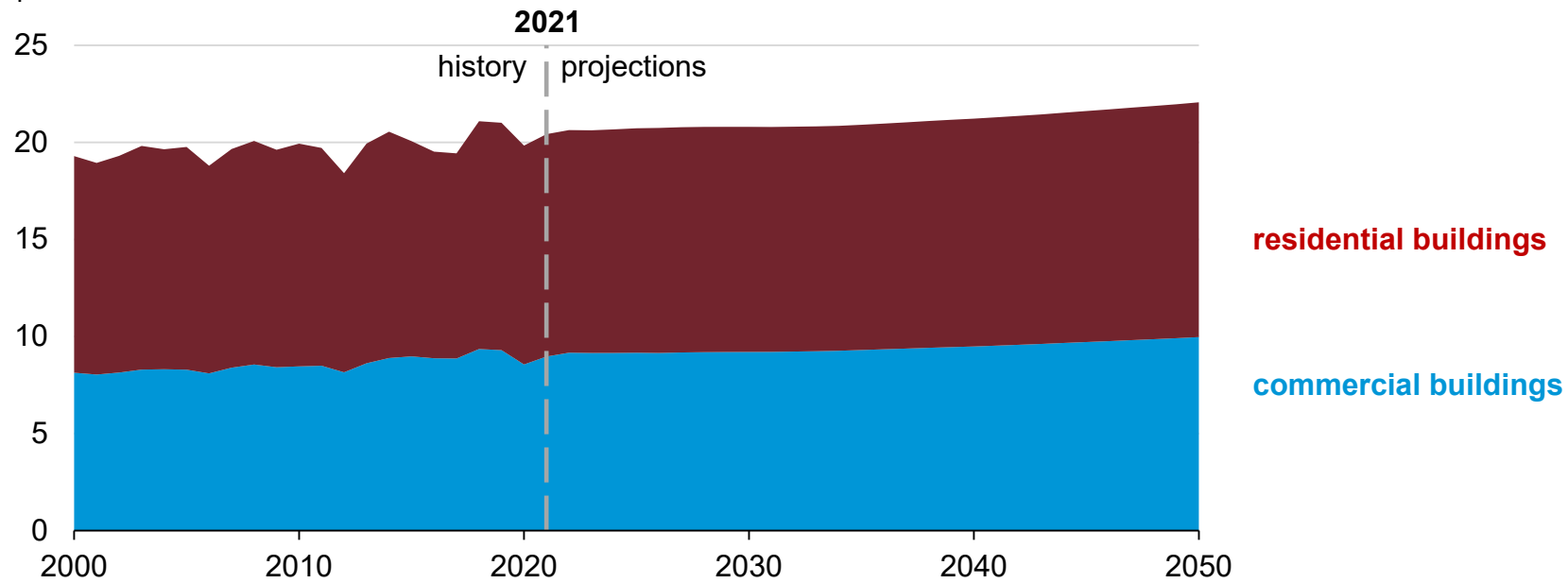


# Total buildings sector delivered energy consumption

## Buildings delivered energy consumption

### AEO2022 Reference case

quadrillion British thermal units



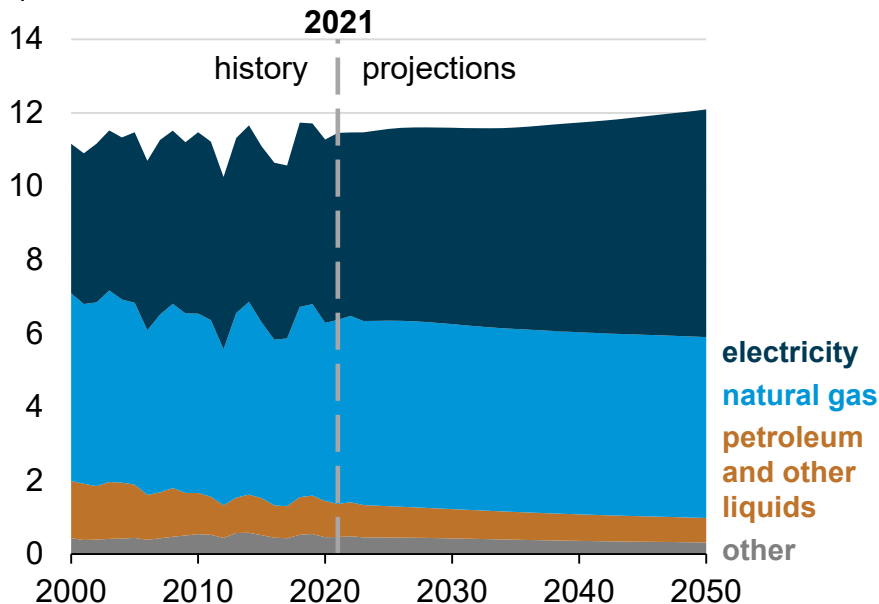


# Residential and commercial buildings energy consumption

## Residential sector delivered energy consumption

### AEO2022 Reference case

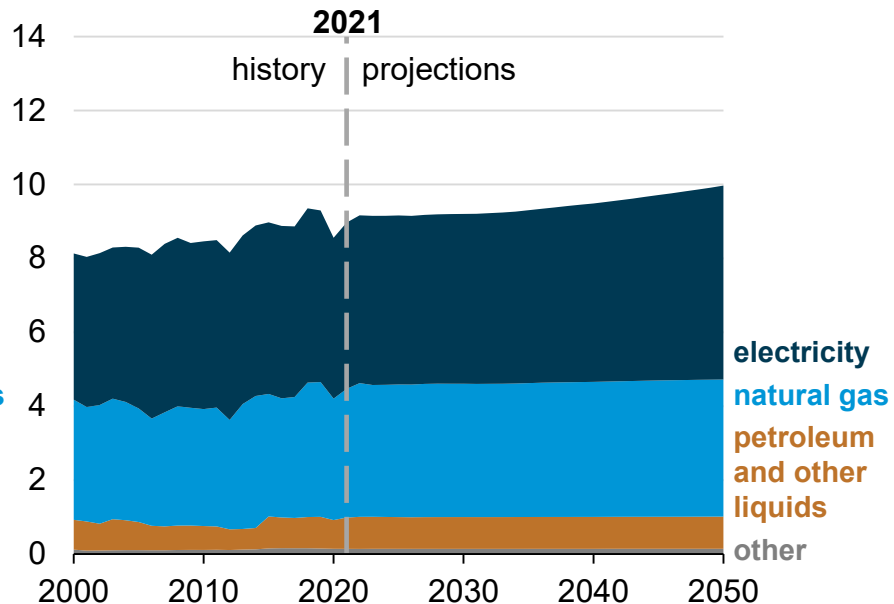
quadrillion British thermal units



## Commercial sector delivered energy consumption

### AEO2022 Reference case

quadrillion British thermal units





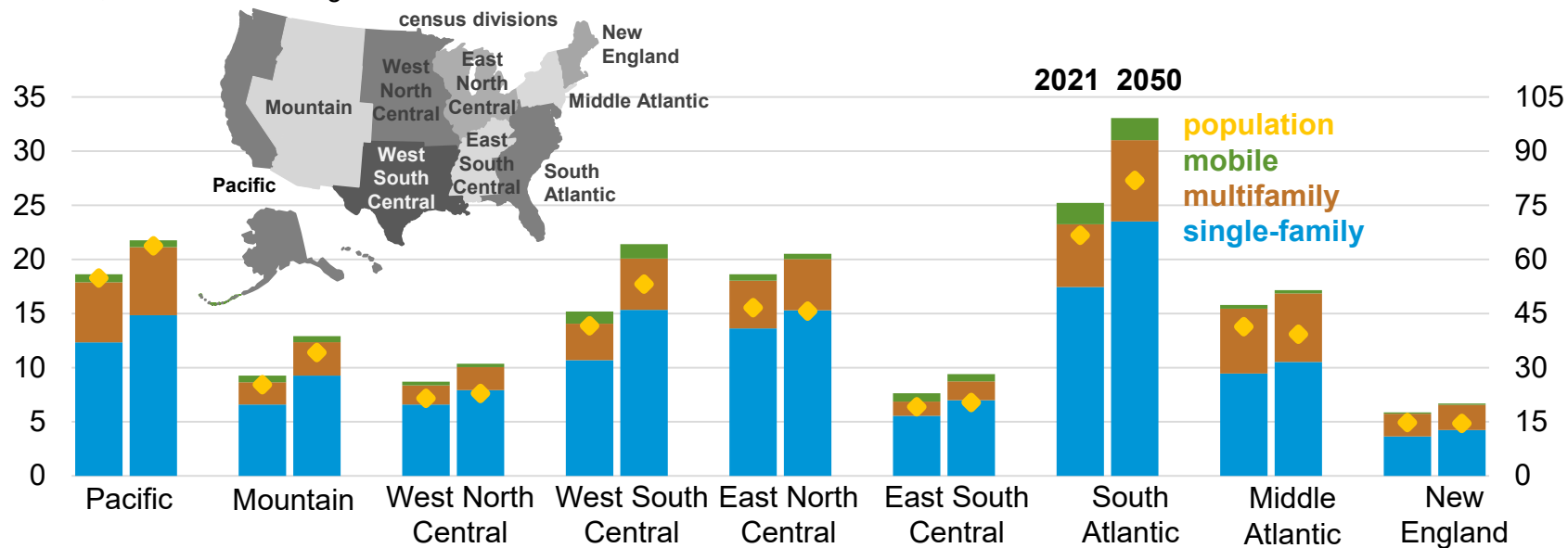
# Change in population and residential housing stocks

## Residential housing unit and population changes by region and type in 2021 and 2050

### AEO2022 Reference case

millions, residential housing units

◆ population  
millions, U.S. population



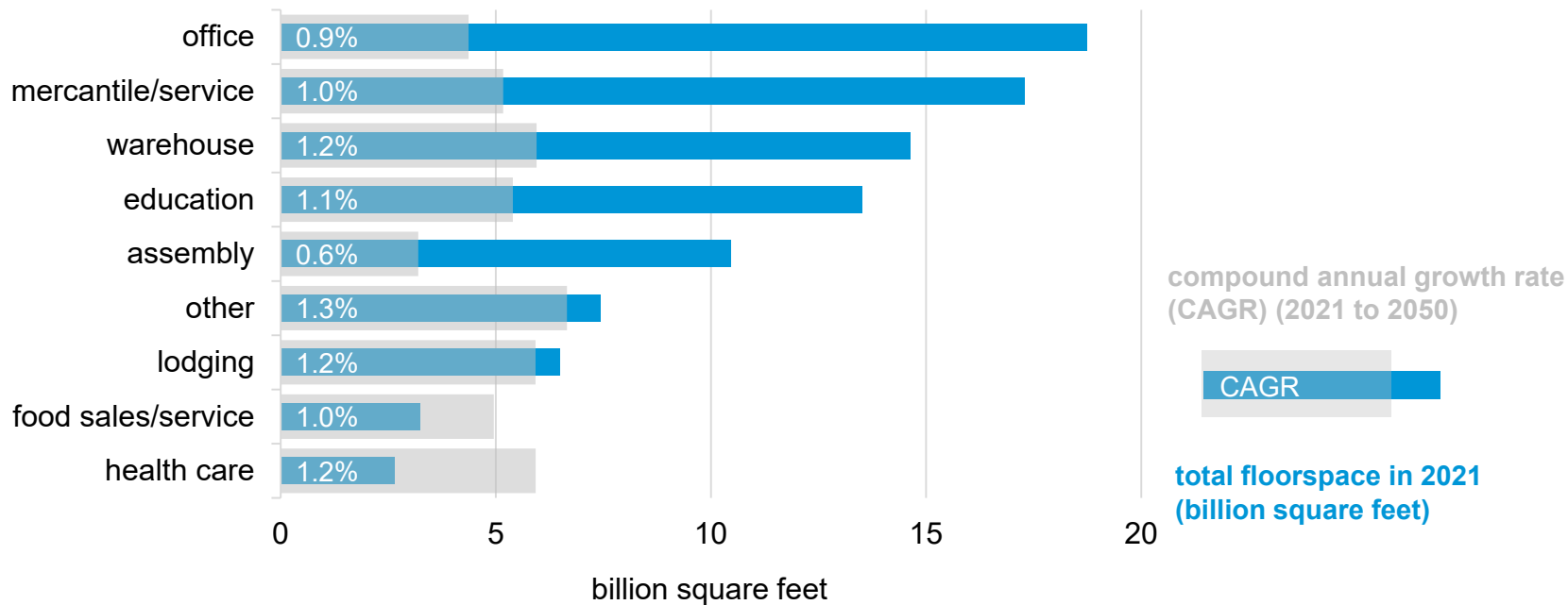


# Commercial buildings floorspace growth

Commercial floorspace in 2021 and growth in floorspace from 2021 to 2050

AEO2022 Reference case

percentage growth



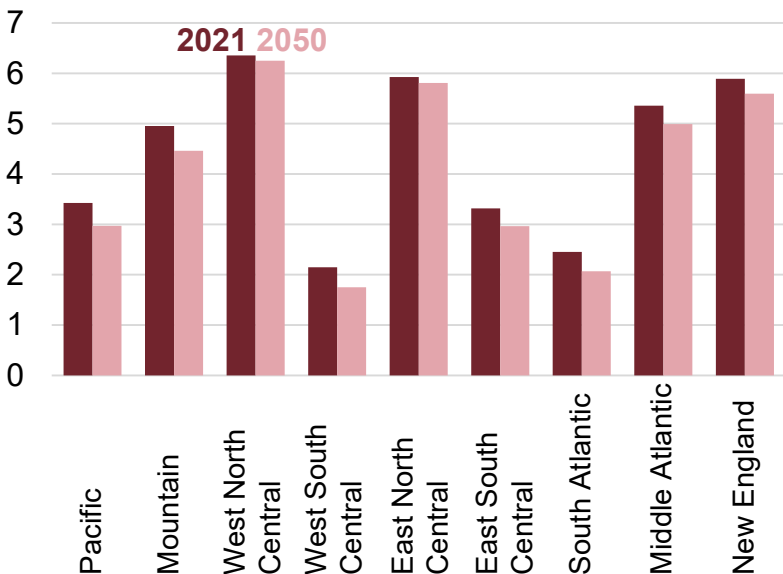


# Population-weighted heating and cooling degree days

### Population-weighted heating degree days by census division

**AEO2022 Reference case**

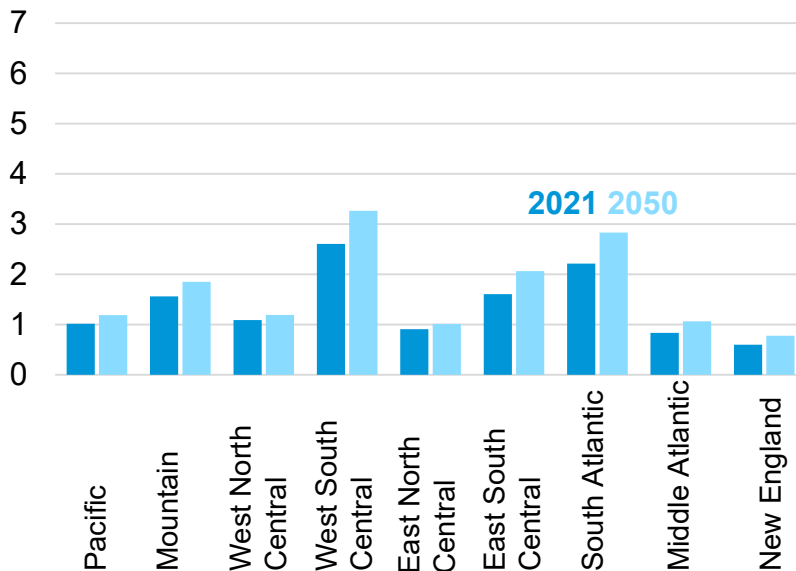
thousand degree days



### Population-weighted cooling degree days by census division

**AEO2022 Reference case**

thousand degree days



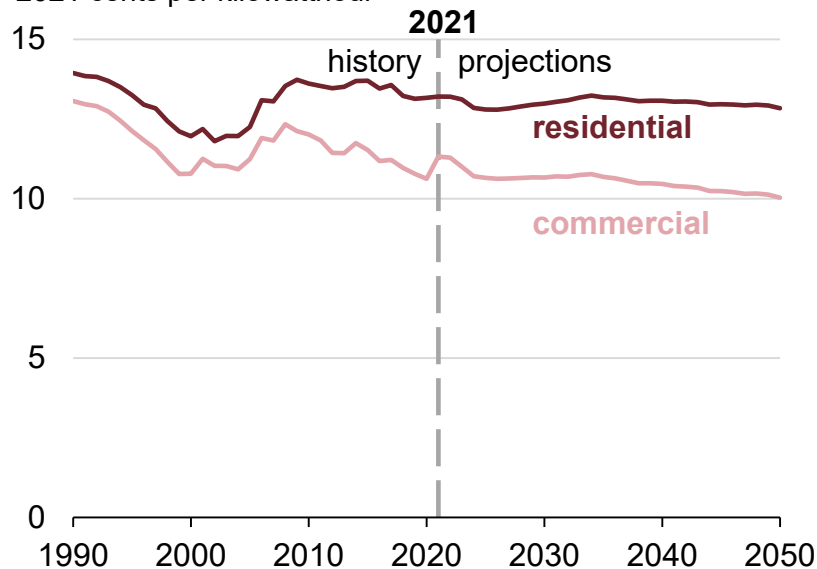


# Residential and commercial electricity and natural gas prices

## Electricity prices in the residential and commercial sectors

**AEO2022 Reference case**

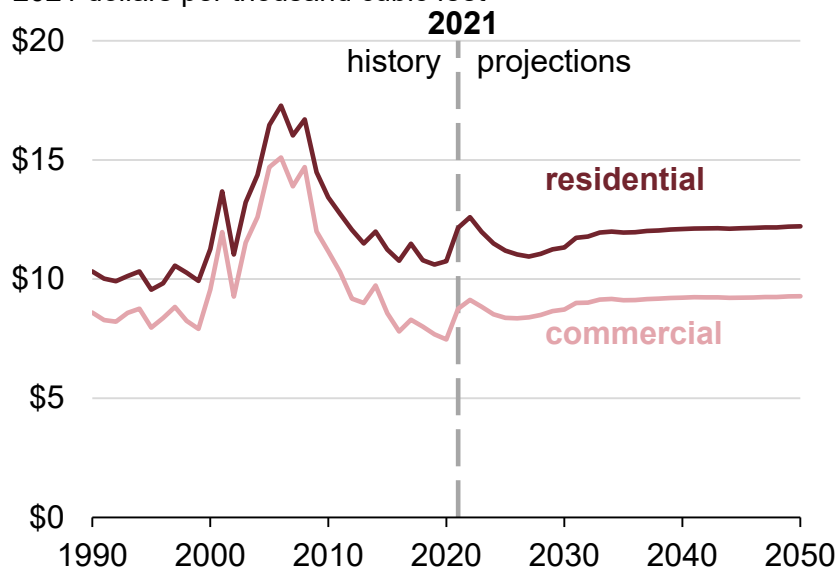
2021 cents per kilowatthour



## Natural gas prices in the residential and commercial sectors

**AEO2022 Reference case**

2021 dollars per thousand cubic feet





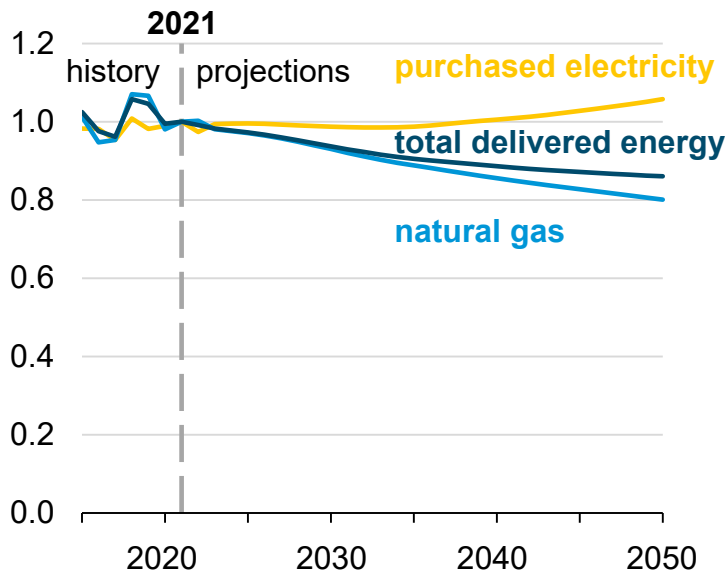
# Residential and commercial energy intensity

## Indexed residential delivered energy intensity

### AEO2022 Reference case

indexed annual energy use per household

2021 = 1.0

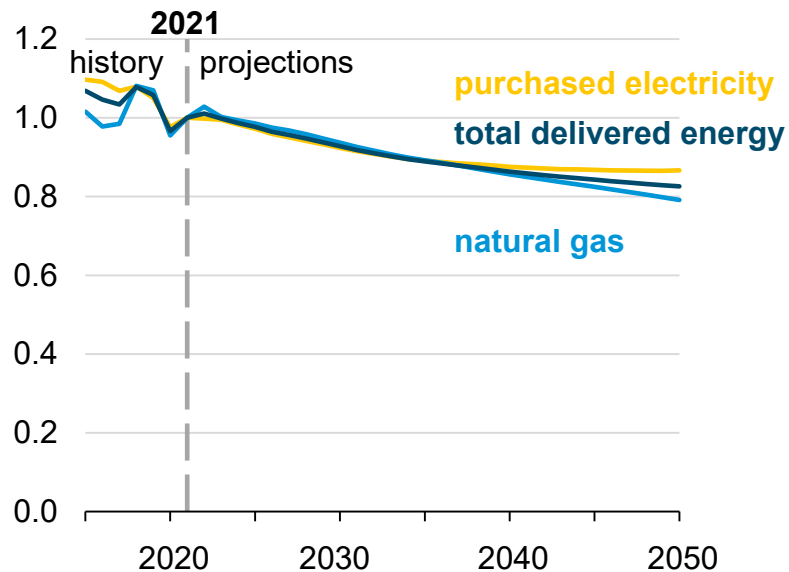


## Indexed commercial delivered energy intensity

### AEO2022 Reference case

indexed annual energy use per square foot

2021 = 1.0



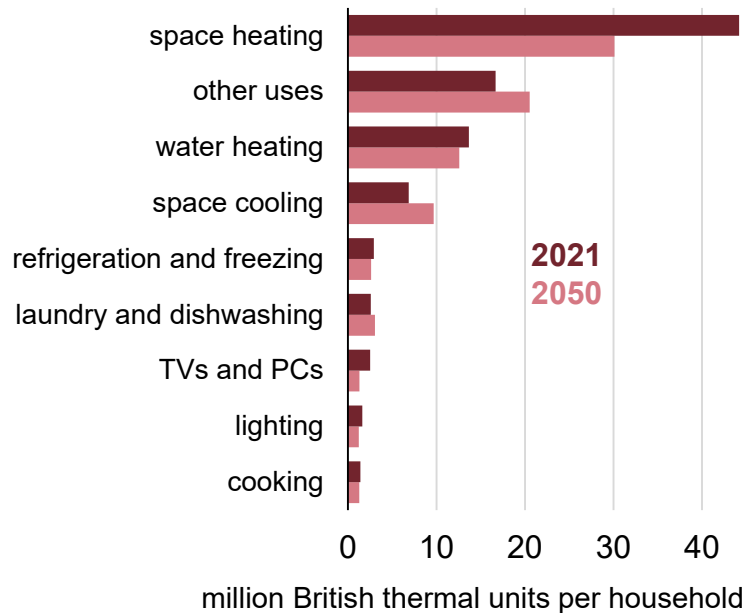




# Residential and commercial overall energy intensity by end use

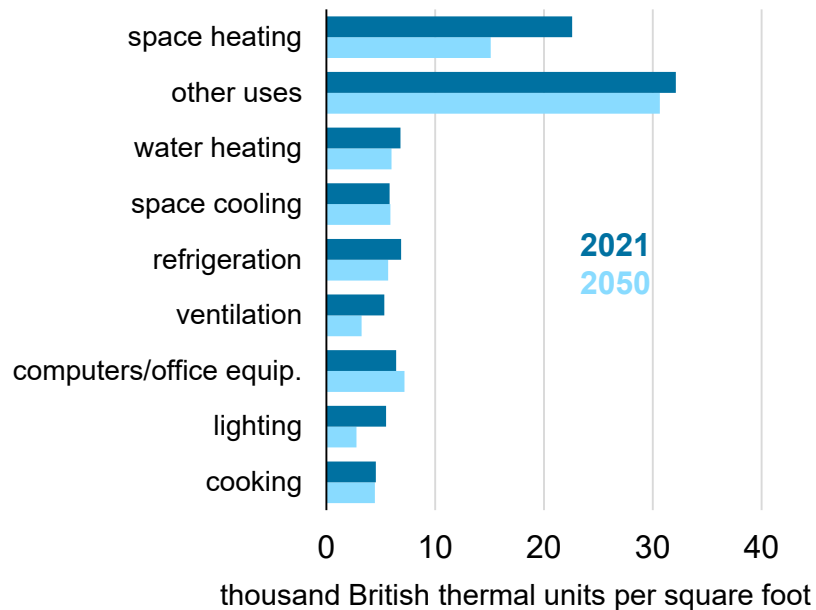
## Residential energy intensity by end use

### AEO2022 Reference case



## Commercial energy intensity by end use

### AEO2022 Reference case



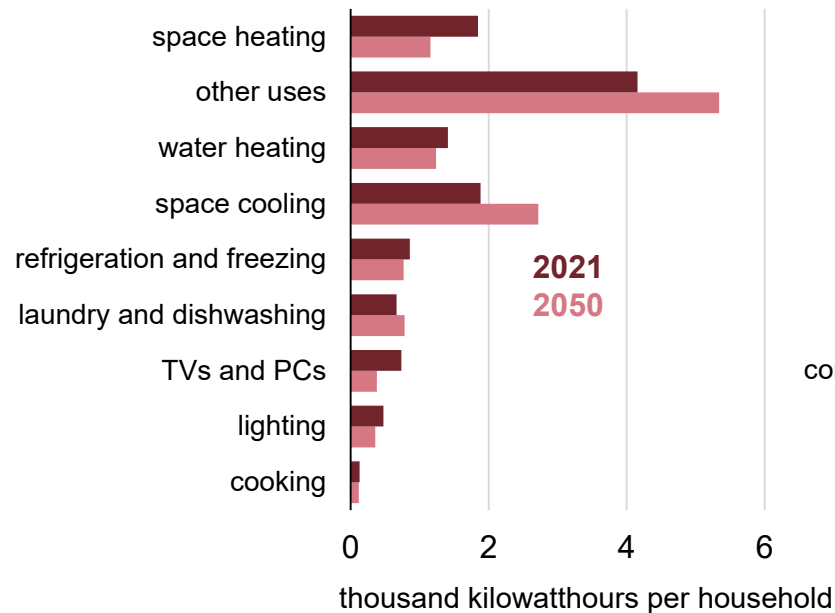
Note: Intensities reflect all energy sources consumed, including both purchased electricity and electricity produced onsite for own use.



# Residential and commercial electricity intensity by end use

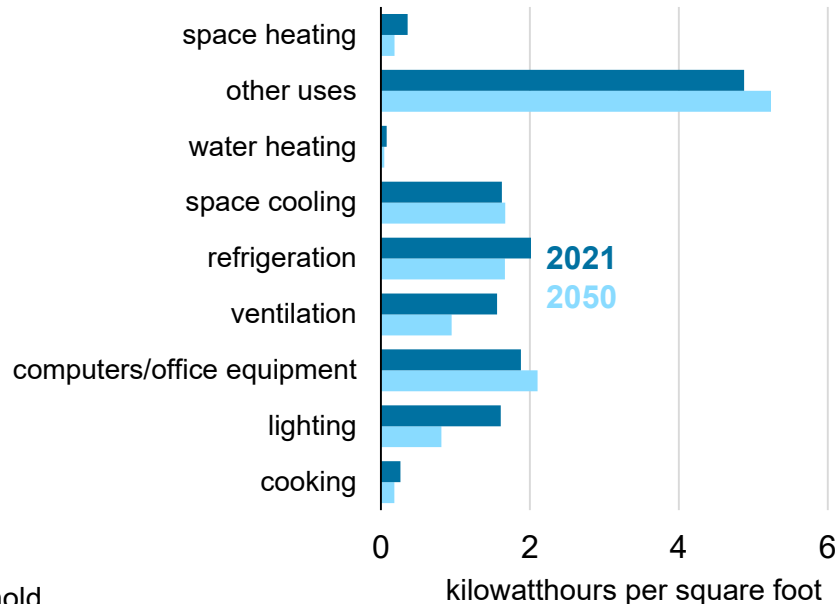
## Residential electricity intensity by end use

AEO2022 Reference case



## Commercial electricity intensity by end use

AEO2022 Reference case



Note: Intensities reflect both purchased electricity and electricity produced onsite for own use.

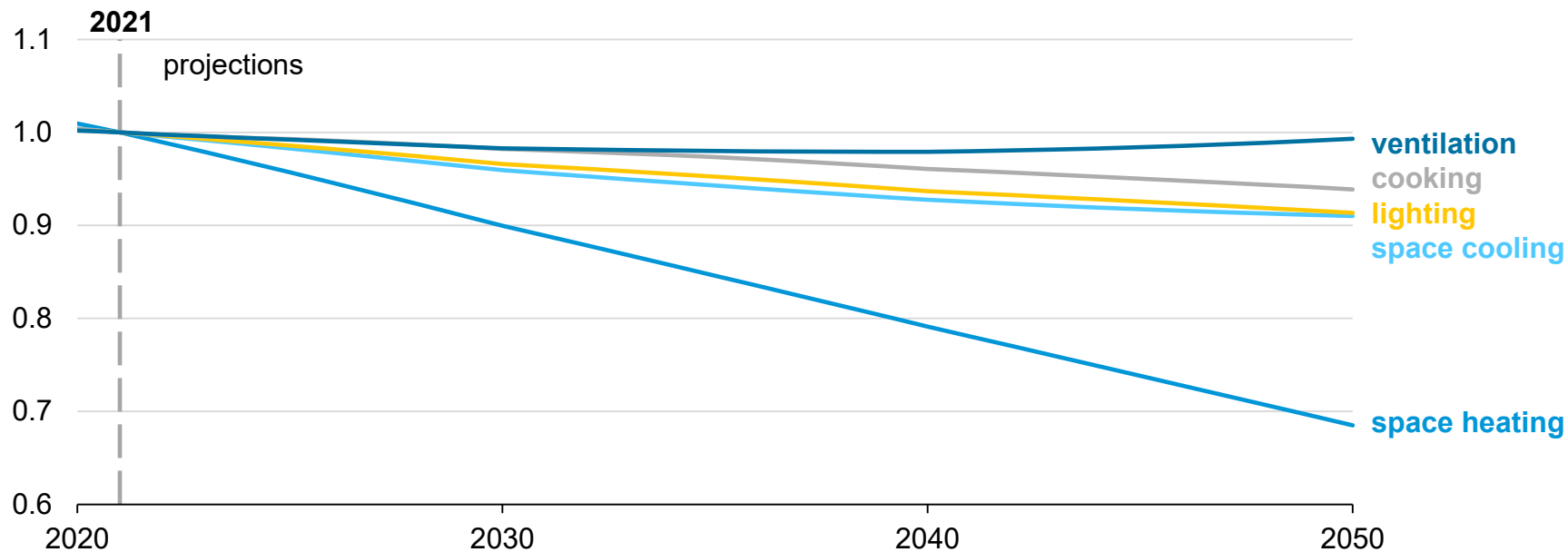


# Commercial building end-use intensities

Indexed commercial service provided per square foot of floorspace

AEO2022 Reference case

2021 = 1.0



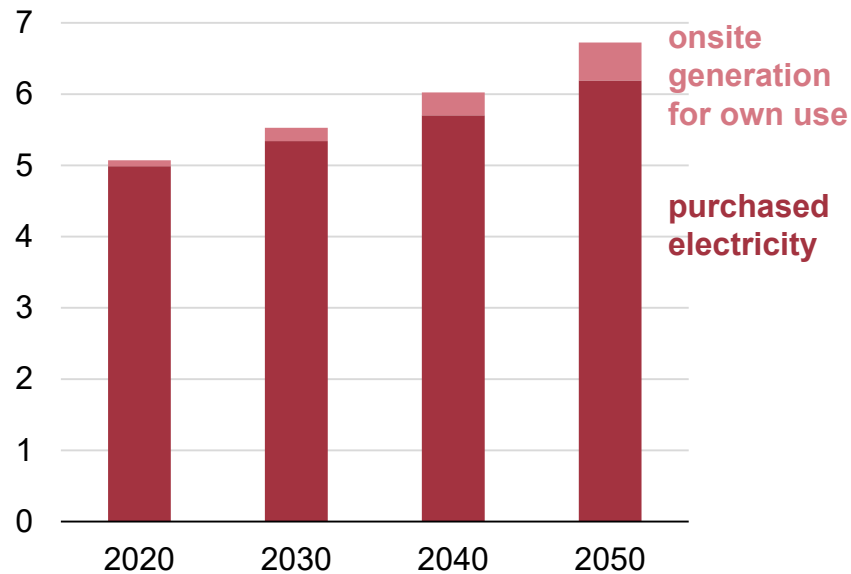


# Residential and commercial onsite generation versus purchased electricity

## Residential sector electricity consumption

AEO2022 Reference case

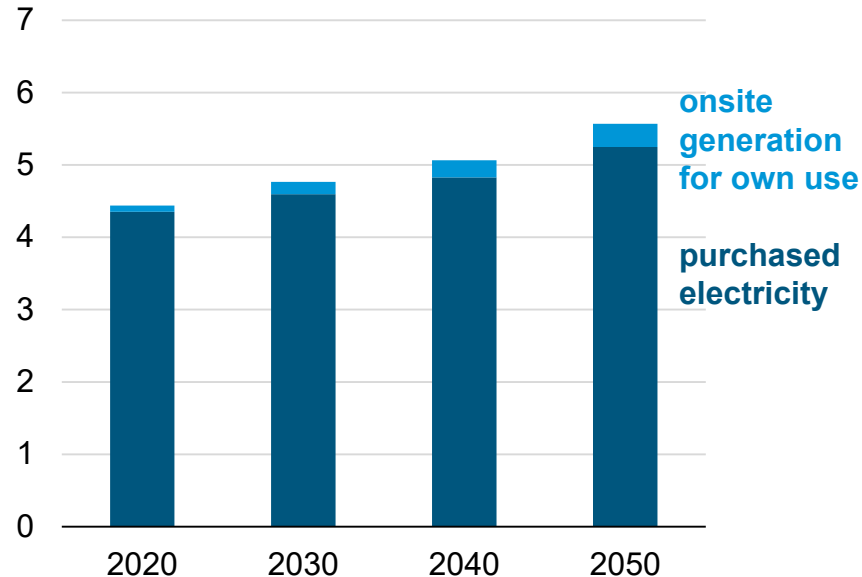
quadrillion British thermal units



## Commercial sector electricity consumption

AEO2022 Reference case

quadrillion British thermal units



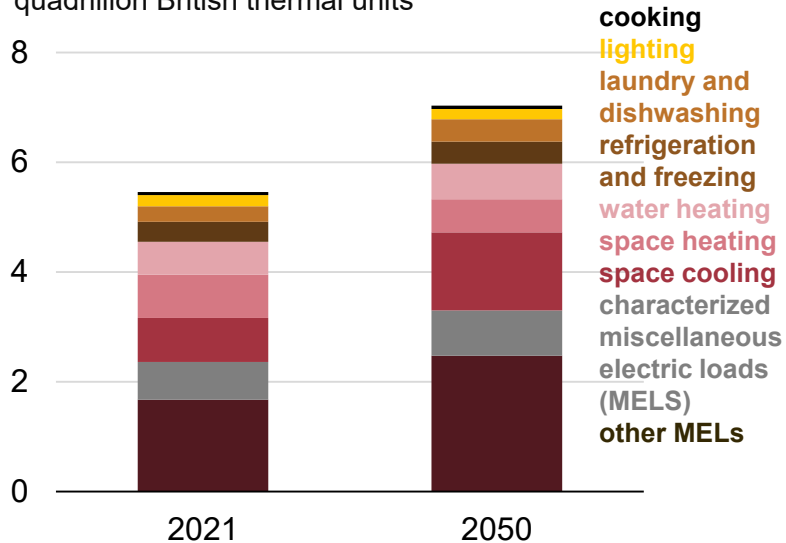


# Residential electricity use and miscellaneous electrical loads

## Electricity consumed to meet residential end-use demand

### AEO2022 Reference case

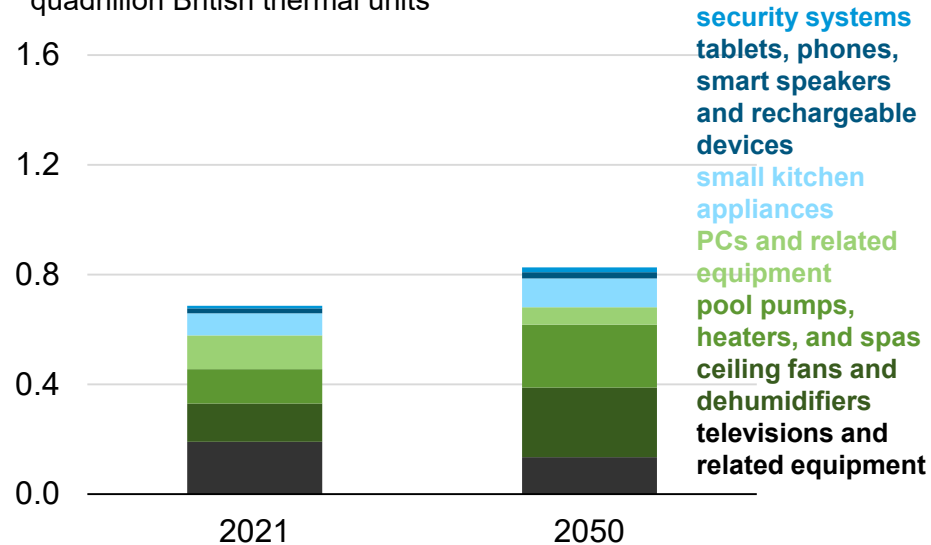
quadrillion British thermal units



## Characterized miscellaneous electric loads in the residential sector

### AEO2022 Reference case

quadrillion British thermal units



Note: The other MELs category includes aggregated energy use for end uses not explicitly characterized in the right-hand chart, as well as unspecified electricity consumption.

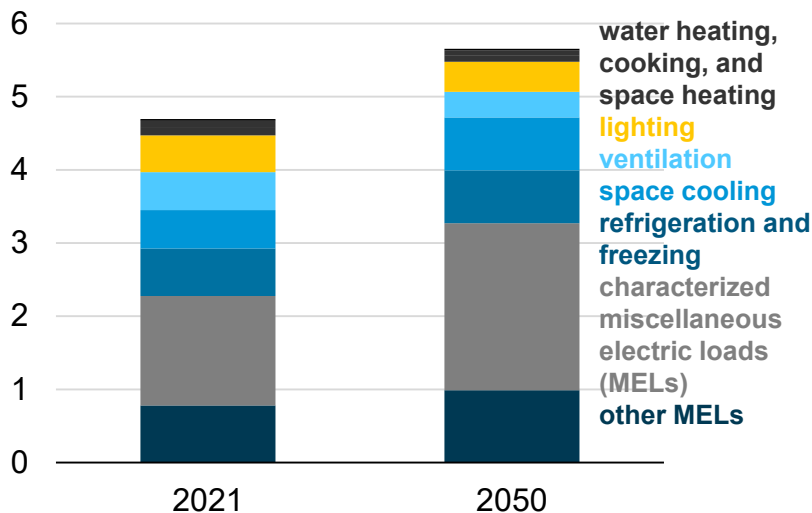


# Commercial electricity use and miscellaneous electrical loads

## Electricity consumed to meet commercial end-use demand

### AEO2022 Reference case

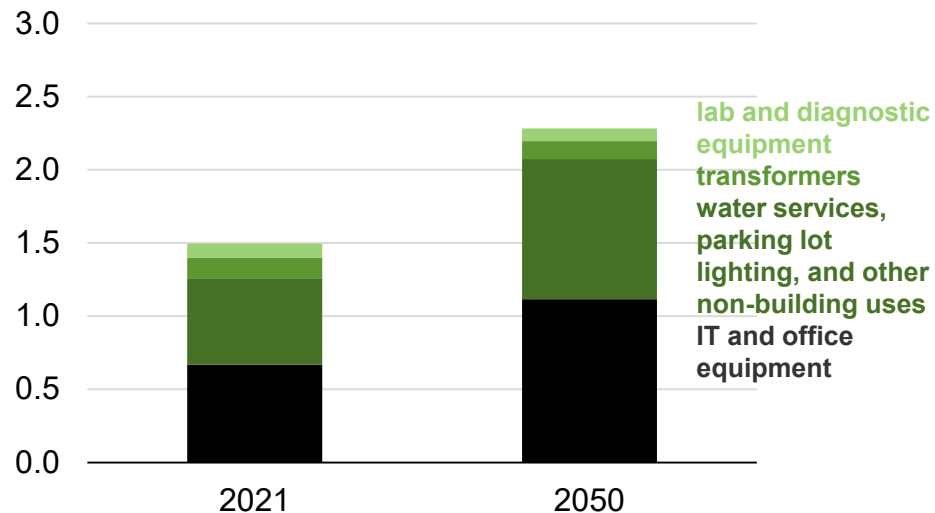
quadrillion British thermal units



## Characterized miscellaneous electric loads in the commercial sector

### AEO2022 Reference case

quadrillion British thermal units



Note: The other MELs category includes aggregated energy use for end uses not explicitly characterized in the right-hand chart, as well as unspecified electricity consumption.

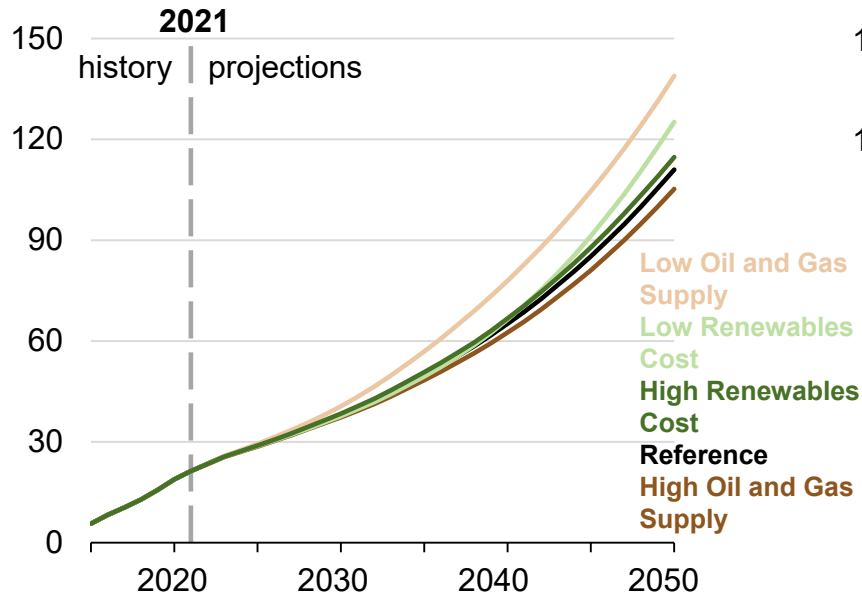


# Residential and commercial solar photovoltaic generation capacity

## Residential solar distributed generation capacity

### AEO2022 Reference and side cases

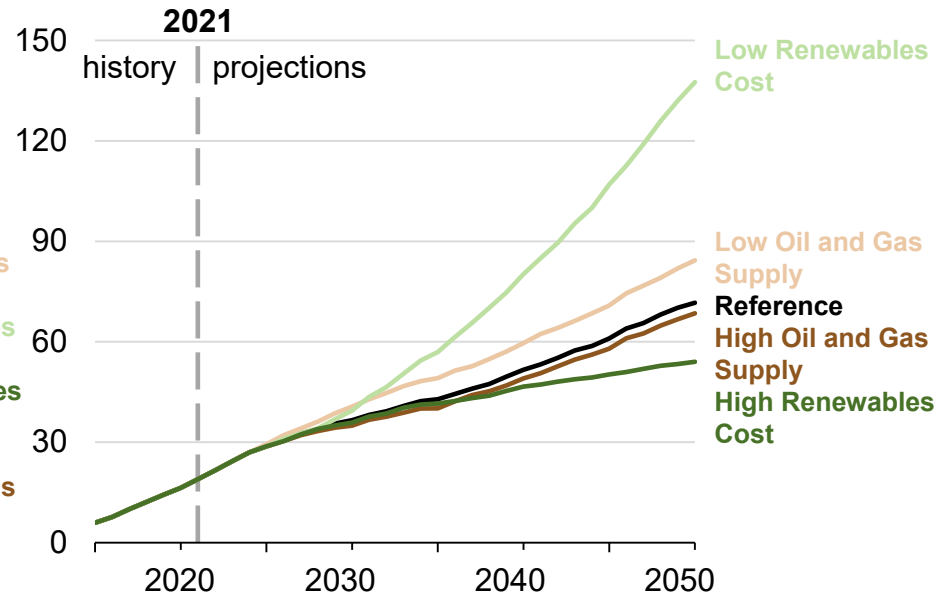
gigawatts direct current



## Commercial solar distributed generation capacity

### AEO2022 Reference and side cases

gigawatts direct current



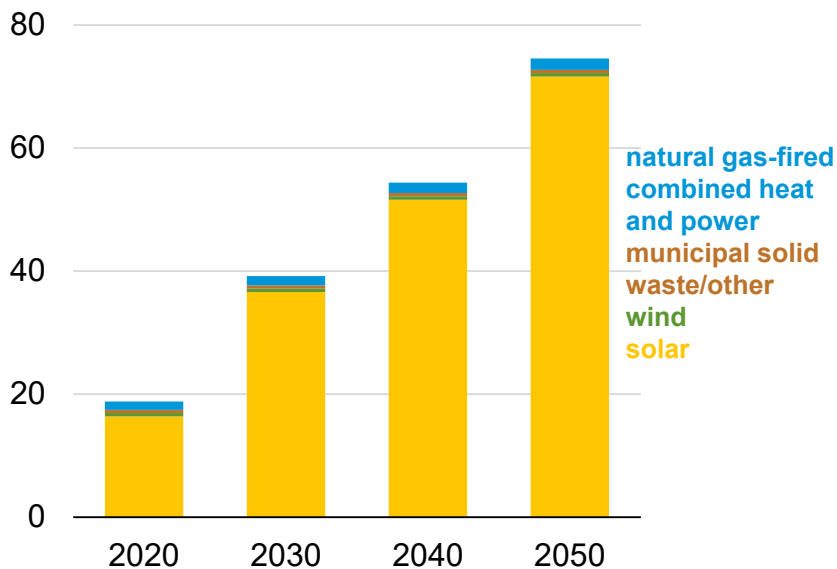


# Commercial distributed generation capacity

## Commercial distributed generation capacity

AEO2022 Reference case

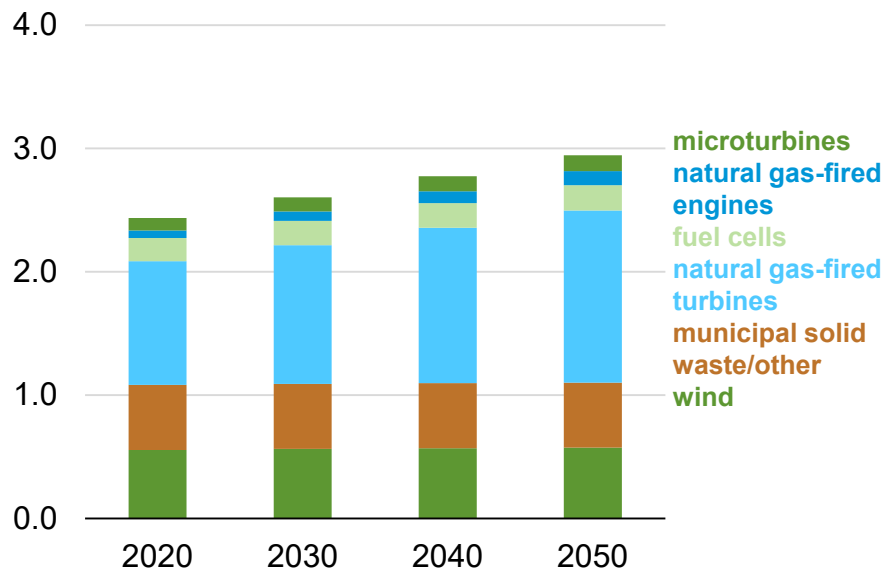
gigawatts direct current



## Commercial non-solar distributed generation capacity

AEO2022 Reference case

gigawatts direct current



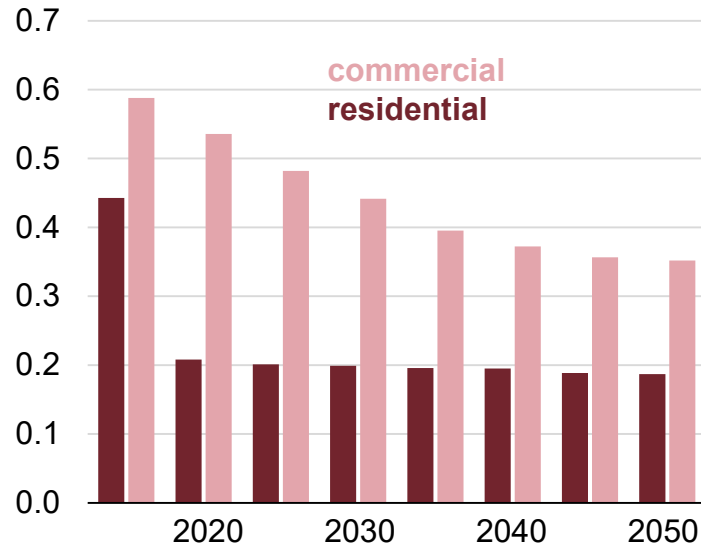




# Residential and commercial lighting consumption and lighting shares

## Electricity consumed to meet lighting demand AEO2022 Reference case

quadrillion British thermal units



Note: Includes both purchased electricity and onsite generation for own use.

## Lighting shares by type AEO2022 Reference case

