

EIA's Final Release Annual Energy Outlook 2012: Focus on U.S. coal distribution changes through 2035



Diane Kearney, Operations Research Analyst

Rail Energy Transportation Advisory Committee to the Surface Transportation Board

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Energy Information Administration

- Statistical and analytical agency within the U.S. Department of Energy
- Produces monthly short-term and annual long-term projections
- Produces special analyses of emerging issues and regulatory changes
- EIA's analyses and projections are independent, by law, and should not be seen as representing the views of the Department of Energy, the Administration, or any other organization.

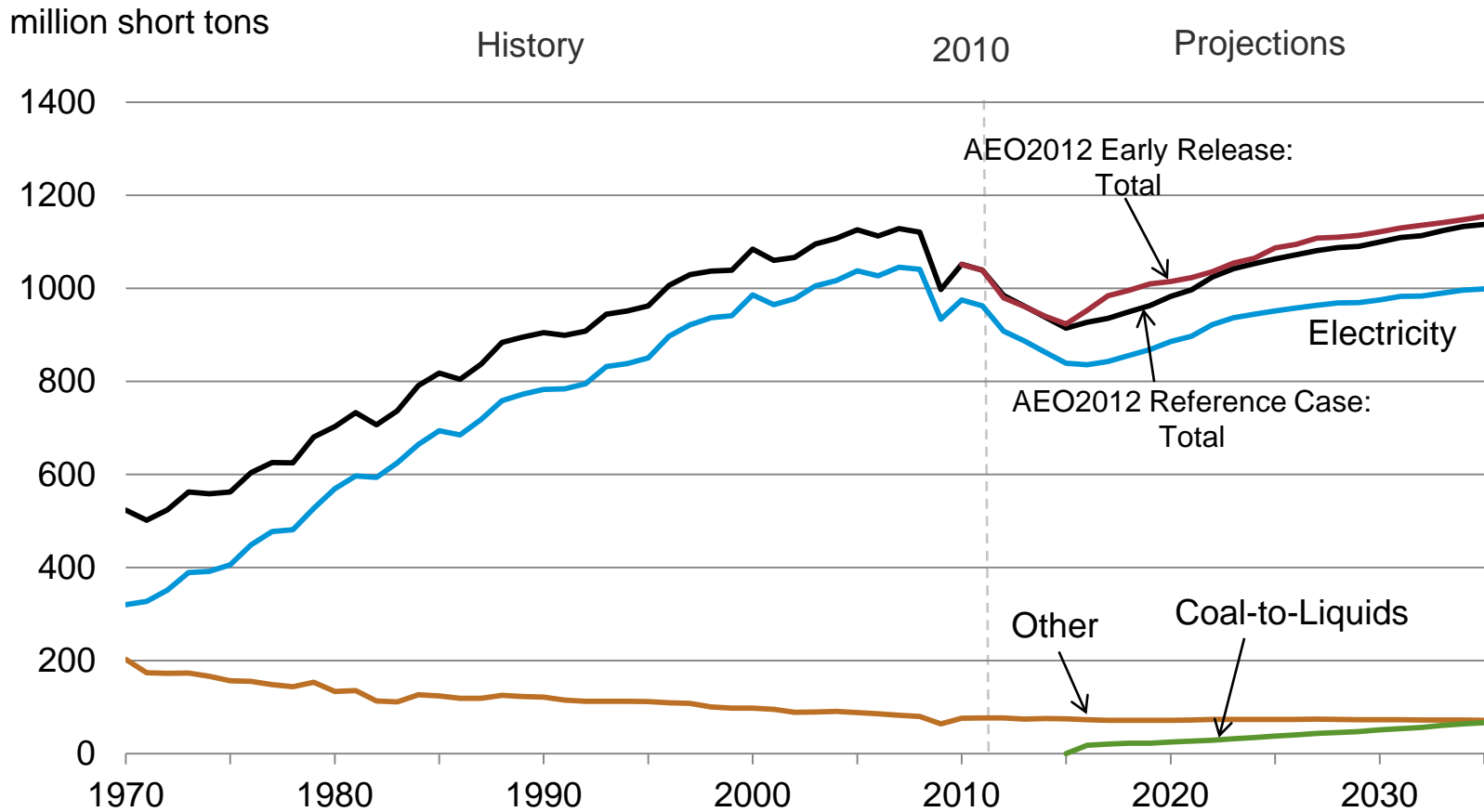
Overall results from the AEO2012 Reference case, which assumes current laws remain unchanged

- Projected growth of energy use slows over the projection period reflecting an extended economic recovery and increasing energy efficiency in end-use applications
- Domestic crude oil production increases, reaching levels not experienced since 1994 by 2020
- Natural gas production increases throughout the projection period and exceeds consumption early in the next decade
- Renewables and natural gas fuel a growing share of electric power generation
- Total U.S. energy-related carbon dioxide emissions remain below their 2005 level through 2035

Key factors affecting the outlook for coal

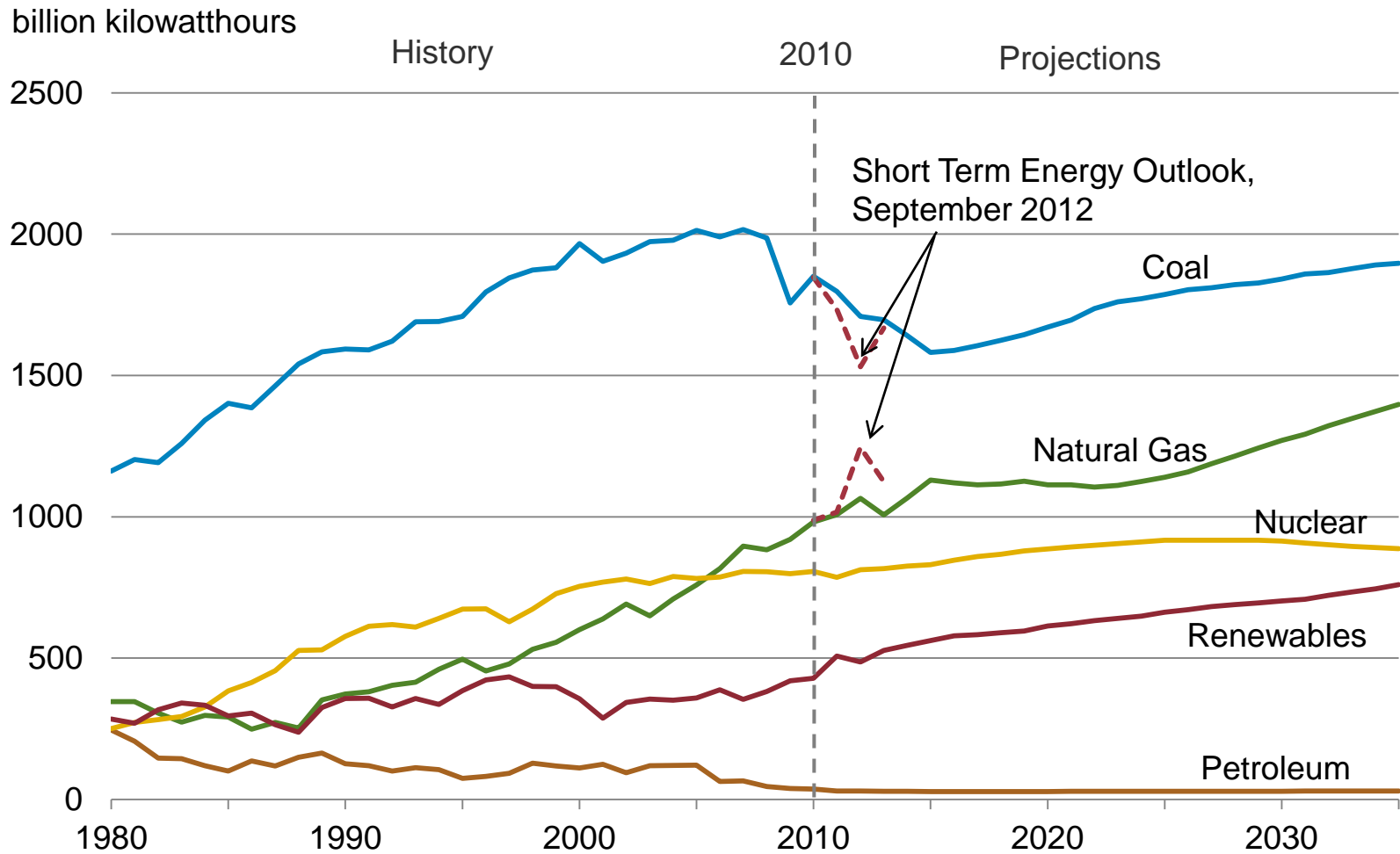
- sustained low natural gas prices
- higher coal prices
- slow growth in electricity demand
- implementation of Mercury and Air Toxics Standards (MATS) and Cross-State Air Pollution Rule (CSAPR)
- Renewable portfolio standards

Coal consumption by sector, 1970-2035



Source: EIA, Annual Energy Outlook 2012 Early Release and Annual Energy Outlook 2012 (final)

Electricity Generation by Fuel, 1980-2035

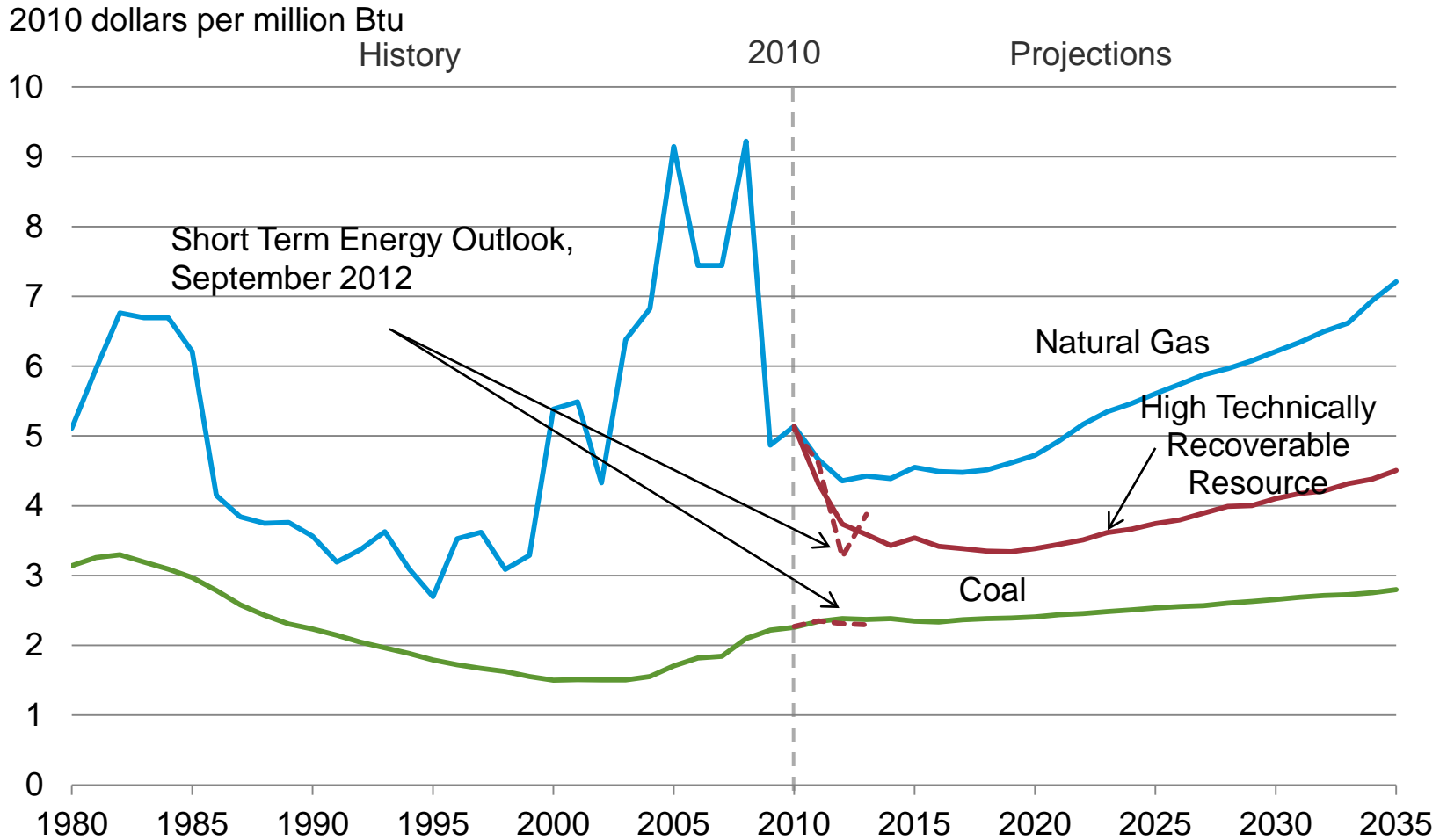


Note: Includes generation from plants in both the electric power and end-use sectors.

Source: History: U.S. Energy Information Administration (EIA), *Annual Energy Review*;

Projections: EIA, *Annual Energy Outlook 2012*, Reference Case.

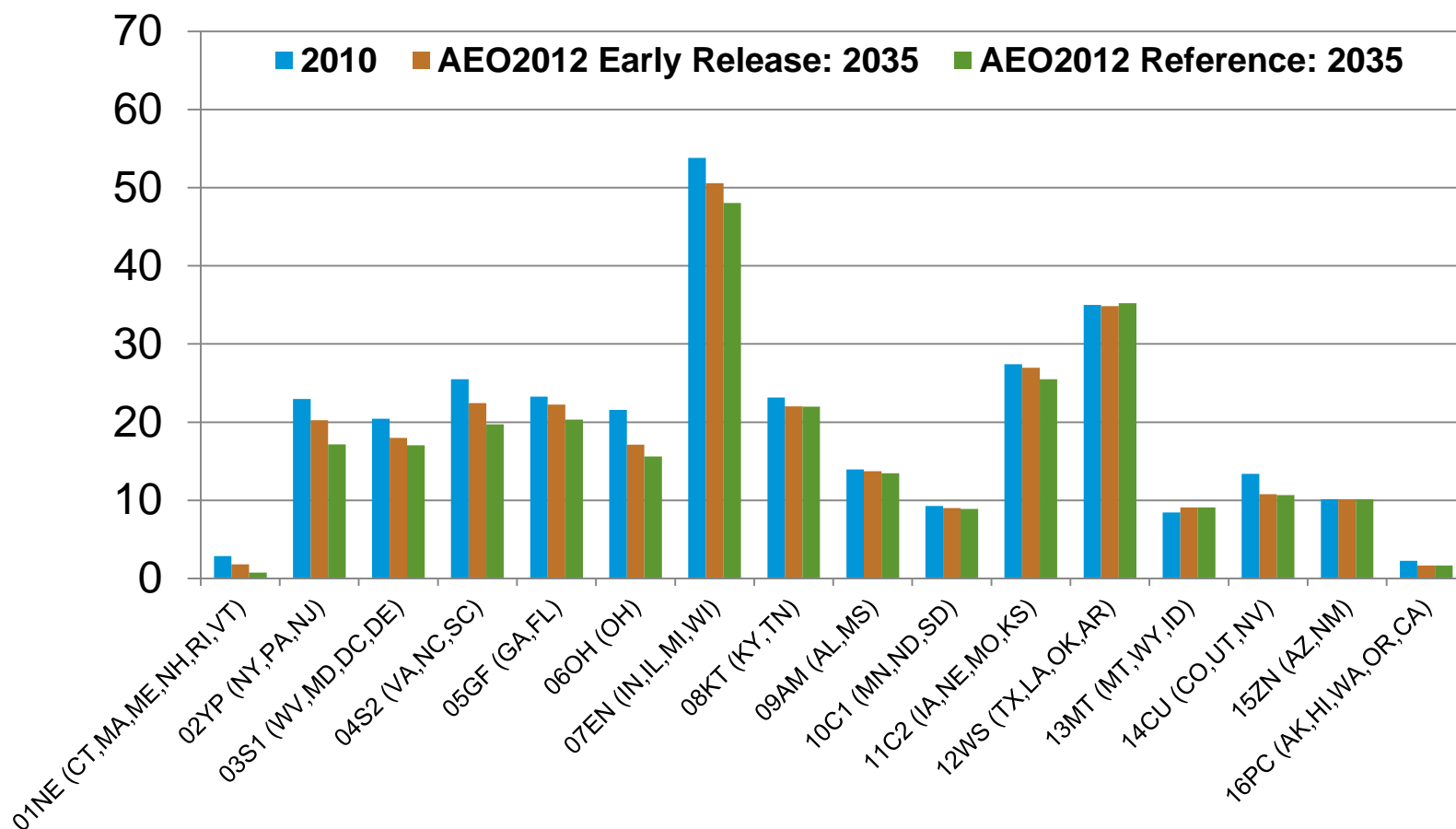
Average Delivered Price of Coal and Natural Gas to the Electric Power Sector, 1980-2035



Source: History: U.S. Energy Information Administration (EIA), *Monthly Energy Review* and *Electric Power Monthly*; **Projections:** EIA, *Annual Energy Outlook 2012 Reference Case*.

Coal-fired generating capacity in the electric power sector by coal demand region, 2010 and 2035

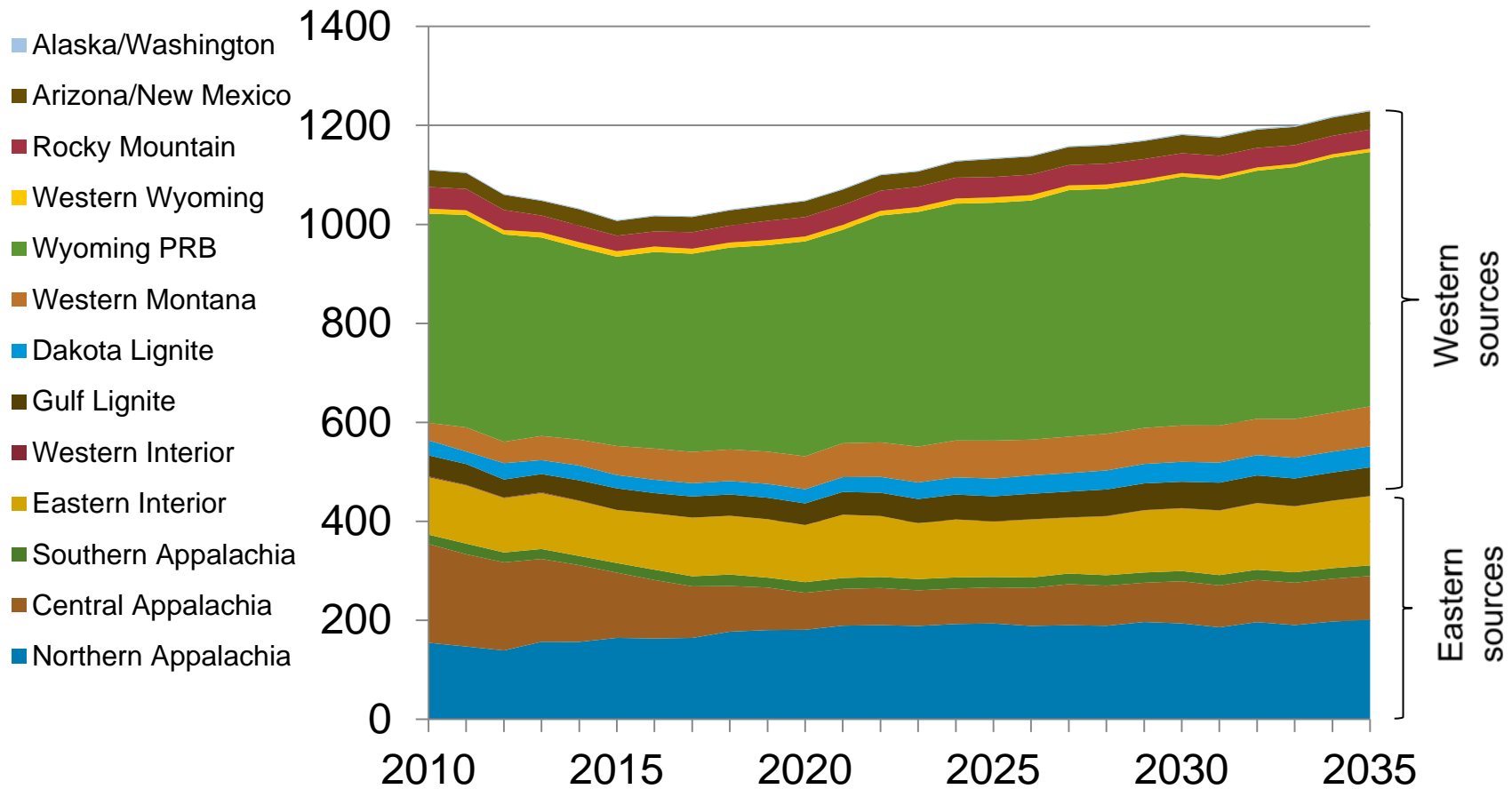
gigawatts, net summer



Source: U.S. Energy Information Administration, *Annual Energy Outlook 2012*, Early Release and Reference Case

Overall coal supply – general trends

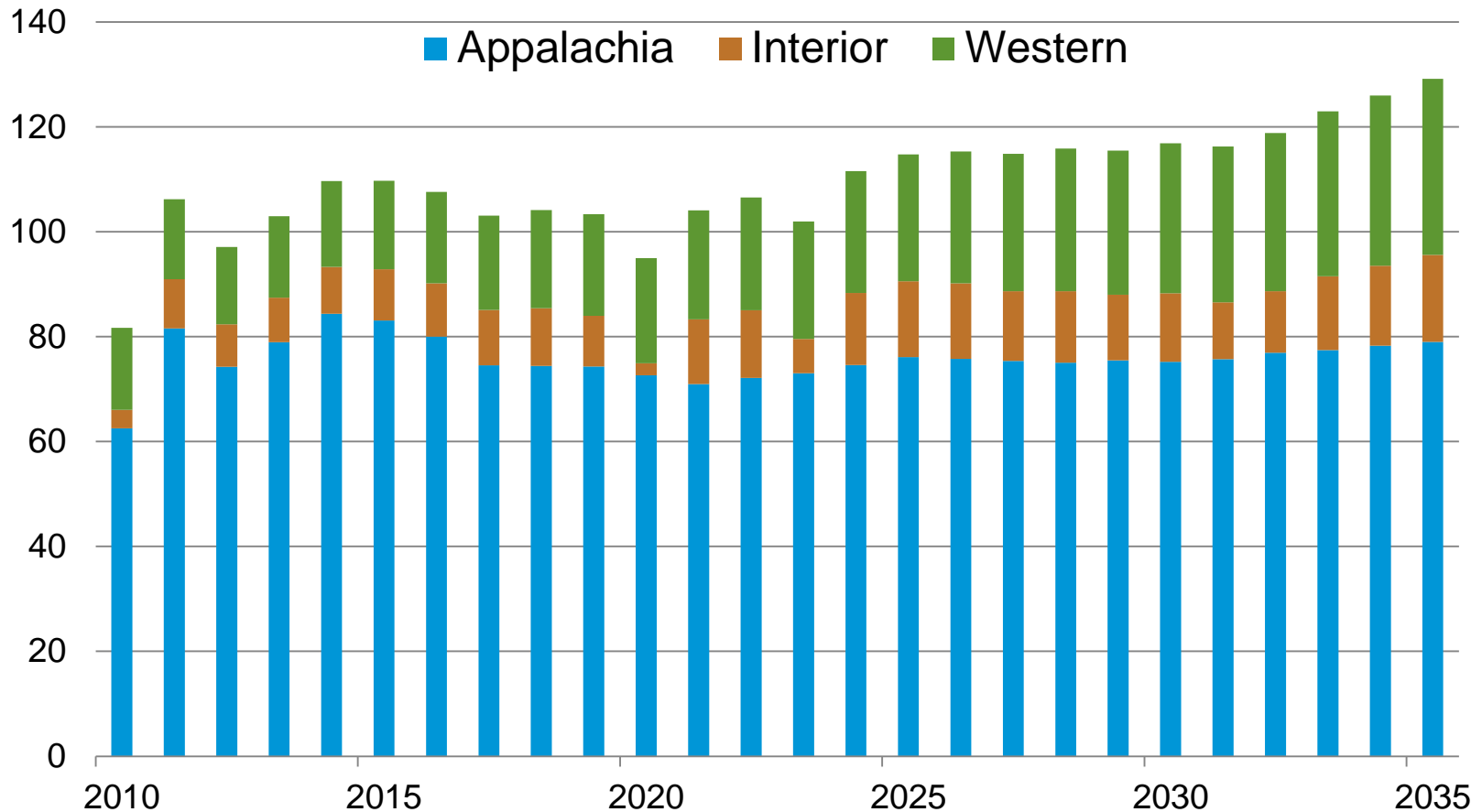
million short tons



Annual Energy Outlook 2012 (final publication)

Coal Exports by region, 2010-2035

million short tons

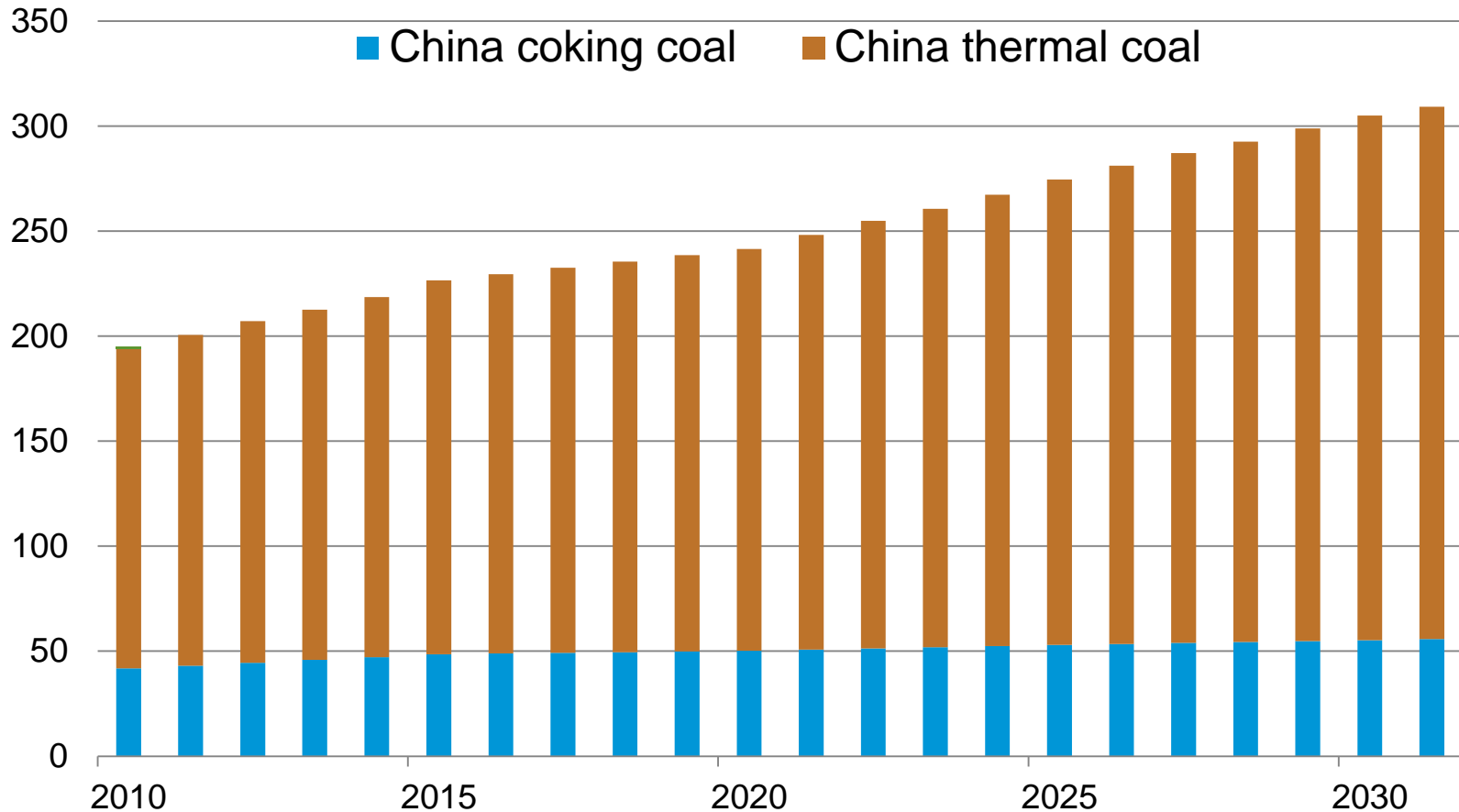


Source: 2010: U.S. Energy Information Administration (EIA), *Annual Coal Distribution Report*;

Projections: EIA, *Annual Energy Outlook 2012*, Reference Case

Coal Seaborne Import Demand for China, 2010-2035

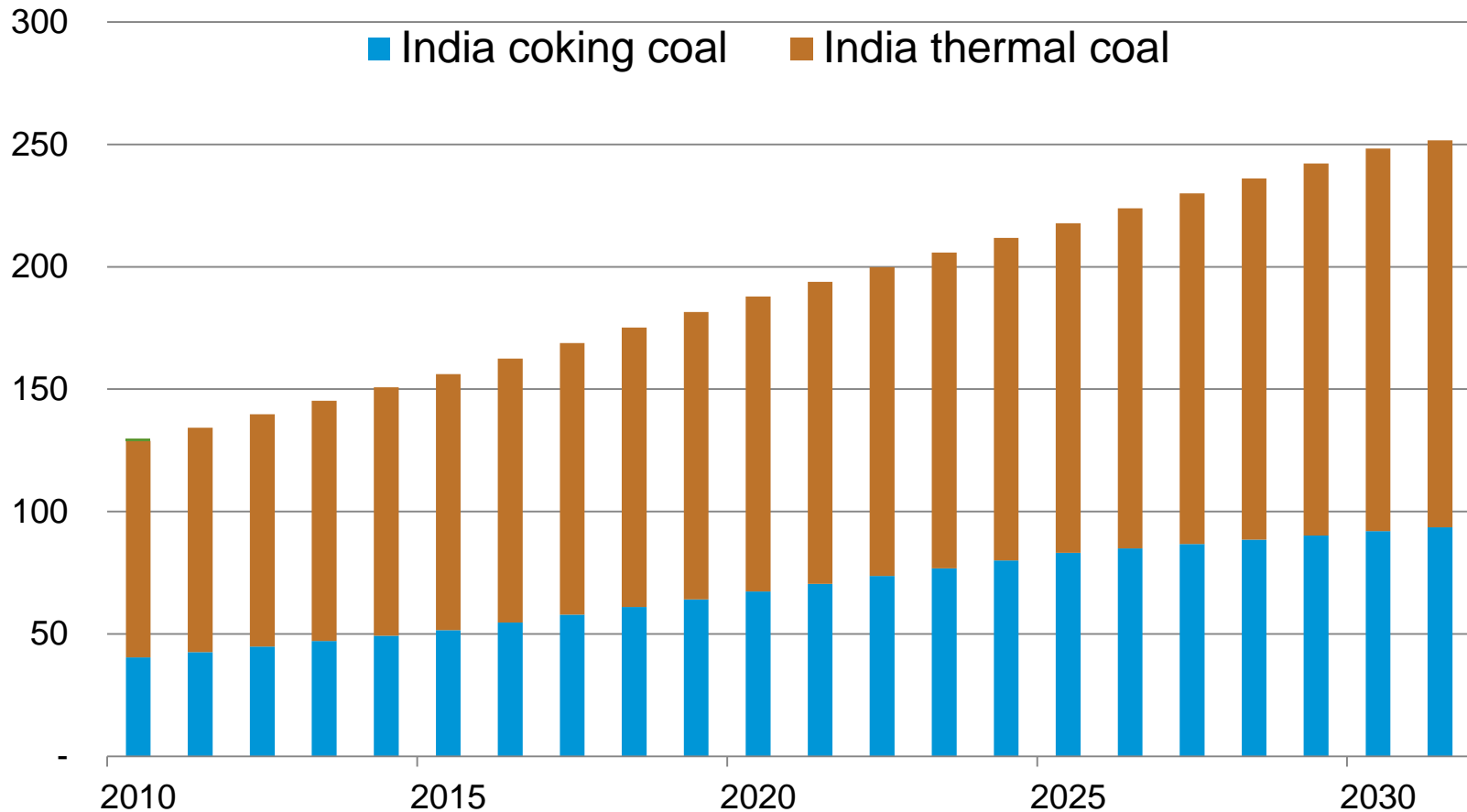
million short tons



Source: EIA, *Annual Energy Outlook 2012*, Reference Case

Coal Seaborne Import Demand for India, 2010-2035

million short tons



Source: EIA, *Annual Energy Outlook 2012*, Reference Case

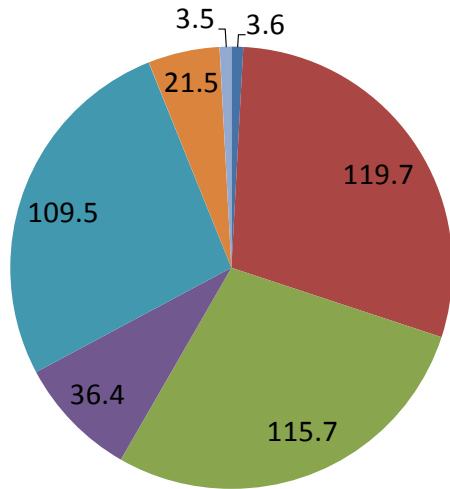
Demand regional definitions used in this presentation

Region 1	Region 2	States
Northeast	Northeast	Connecticut, Maine, Massachusetts, New Hampshire, Vermont, Rhode Island, New Jersey, New York, and Pennsylvania
Midwest	East North Central	Illinois, Indiana, Michigan, Ohio, Wisconsin
	West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota
South	South – East of the Mississippi	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, and Tennessee
	South – West of the Mississippi	Arkansas, Louisiana, Oklahoma, and Texas
West	West	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, Washington

Wyoming Powder River supply by destination 2010, 2015, 2035

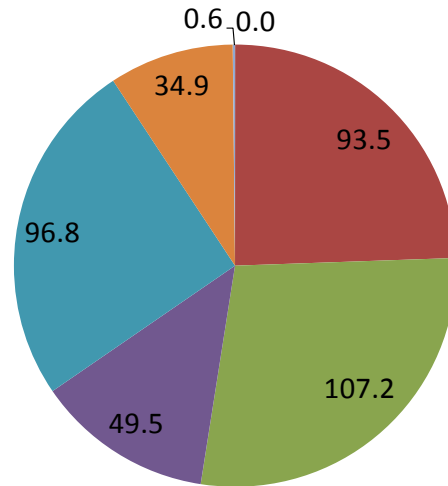
million short tons

2010

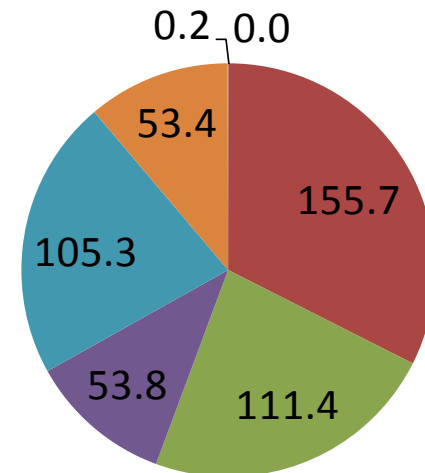


- Northeast
- East North Central
- West North Central
- South - East of Mississippi
- South - West of Mississippi
- West
- Exports

2015



2035



Total: 409.9

Total: 382.4

Total: 479.9

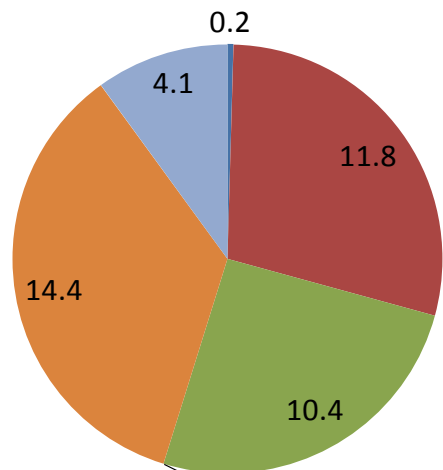
*excludes coal-to-liquids, waste coal, and lignite

Source: 2010: Annual Coal Distribution Report (June 28, 2012);
Projections: Annual Energy Outlook 2012

Western Montana (excluding lignite) supply by destination 2010, 2015, 2035

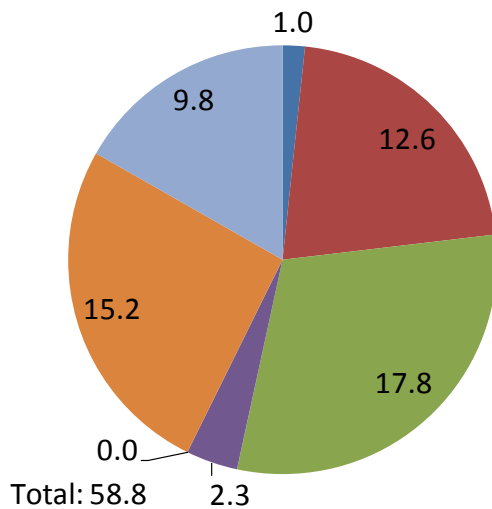
million short tons

2010

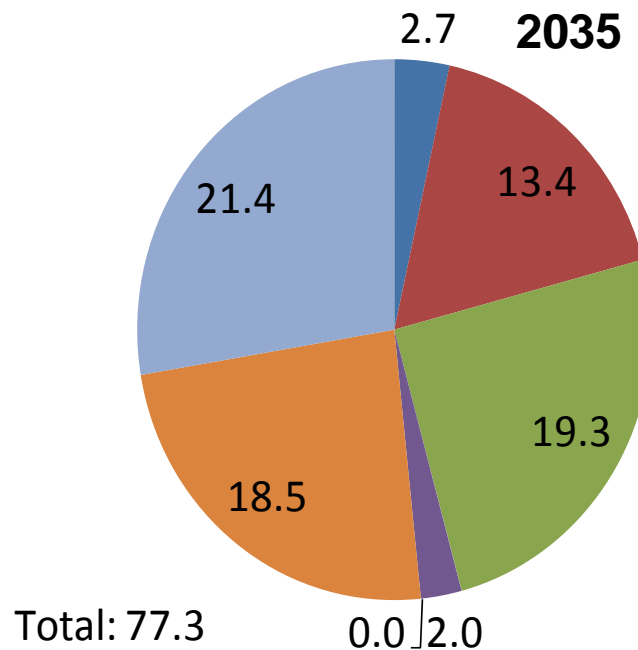


- Northeast
- East North Central
- West North Central
- South - East of Mississippi
- South - West of Mississippi
- West
- Exports

2015



2035



Total: 40.9

*2010 includes some lignite

*excludes coal-to-liquids, waste coal, and lignite

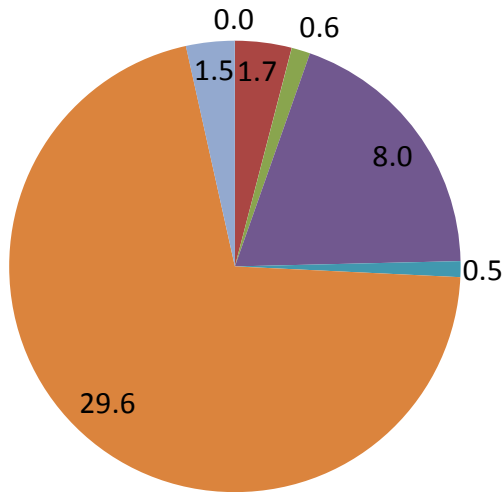
Source: 2010: Annual Coal Distribution Report (June 28, 2012);
Projections: Annual Energy Outlook 2012

Rocky Mountain supply by destination 2010, 2015, 2035

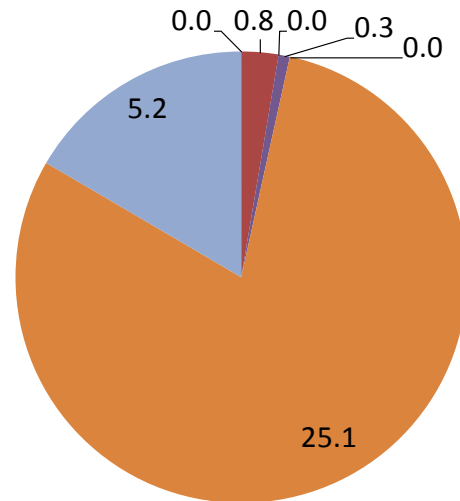
million short tons

- Northeast
- East North Central
- West North Central
- South - East of Mississippi
- South - West of Mississippi
- West
- Exports

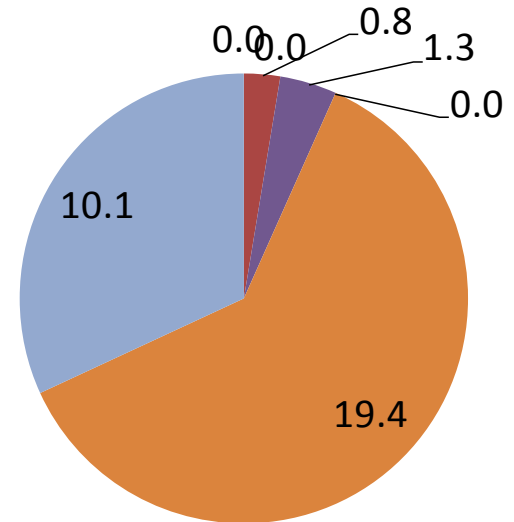
2010



2015



2035



Total: 41.8

Total: 31.3

Total: 31.7

*excludes coal-to-liquids, waste coal, and lignite

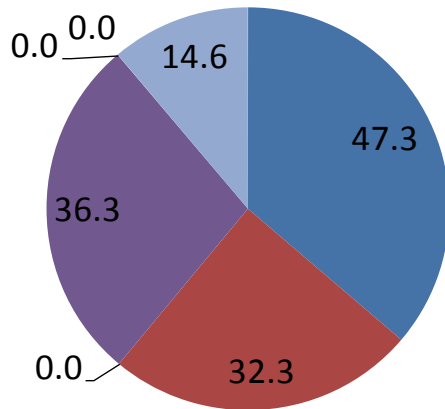
Source: 2010: Annual Coal Distribution Report (June 28, 2012);
Projections: Annual Energy Outlook 2012

Northern Appalachian supply by destination 2010, 2015, 2035

million short tons

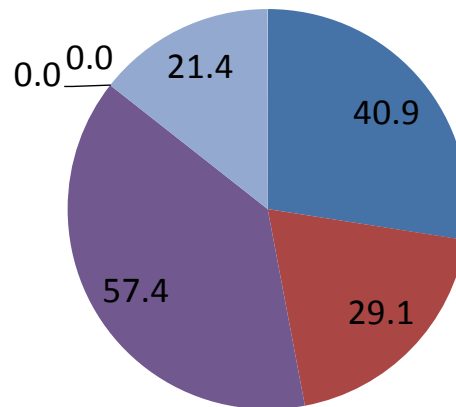
- Northeast
- East North Central
- West North Central
- South - East of Mississippi
- South - West of Mississippi
- West
- Exports

2010



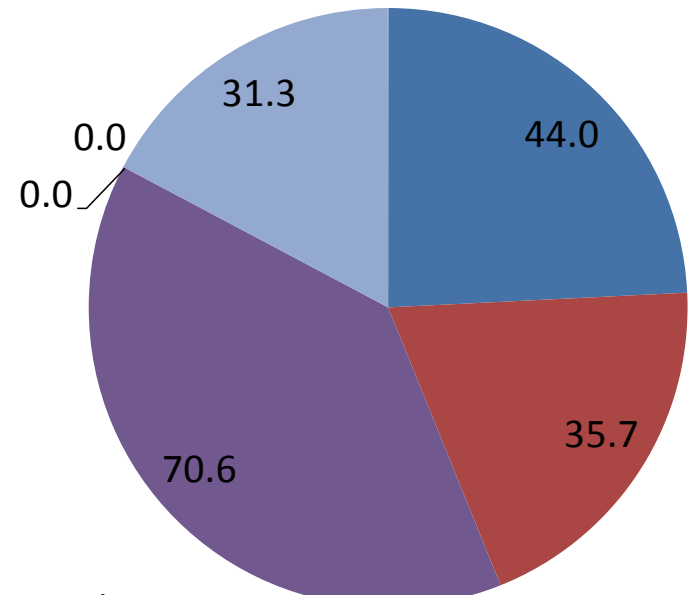
Total: 130.5

2015



Total: 148.7

2035



Total: 181.6

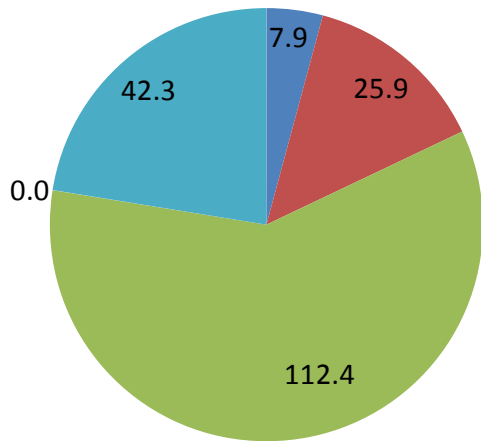
*excludes coal-to-liquids, waste coal, and lignite

Source: 2010: Annual Coal Distribution Report (June 28, 2012); Projections: Annual Energy Outlook 2012

Central Appalachia supply by destination 2010, 2015, 2035

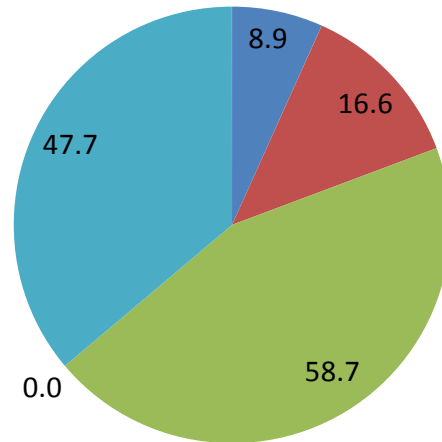
million short tons

2010



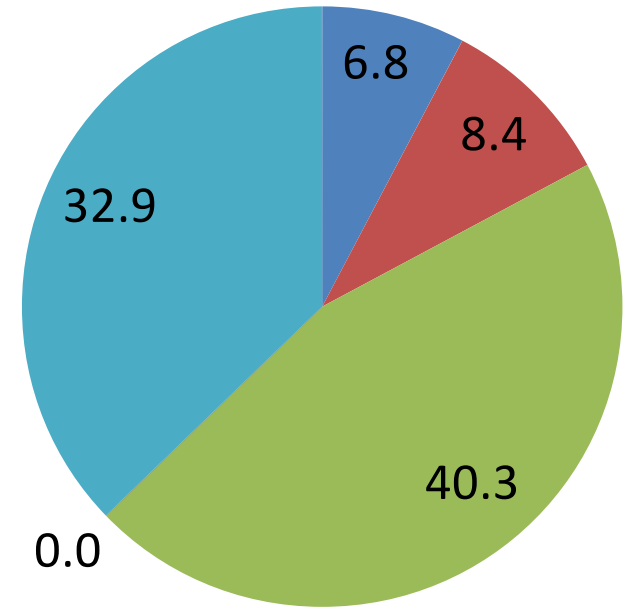
Total: 199.6

2015



Total: 131.8

2035



Total: 88.5

- Northeast
- Midwest
- South
- West
- Exports

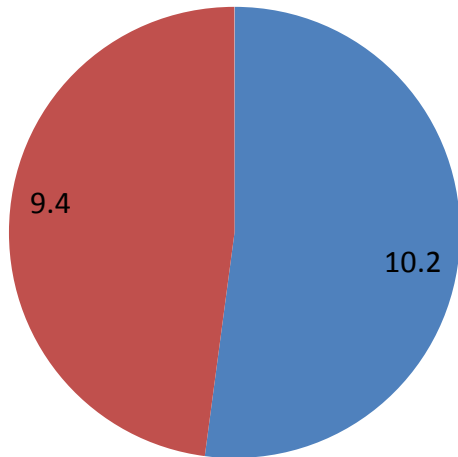
*excludes coal-to-liquids, waste coal, and lignite

Source: 2010: Annual Coal Distribution Report (June 28, 2012);
Projections: Annual Energy Outlook 2012

Southern Appalachian supply by destination 2010, 2015, 2035

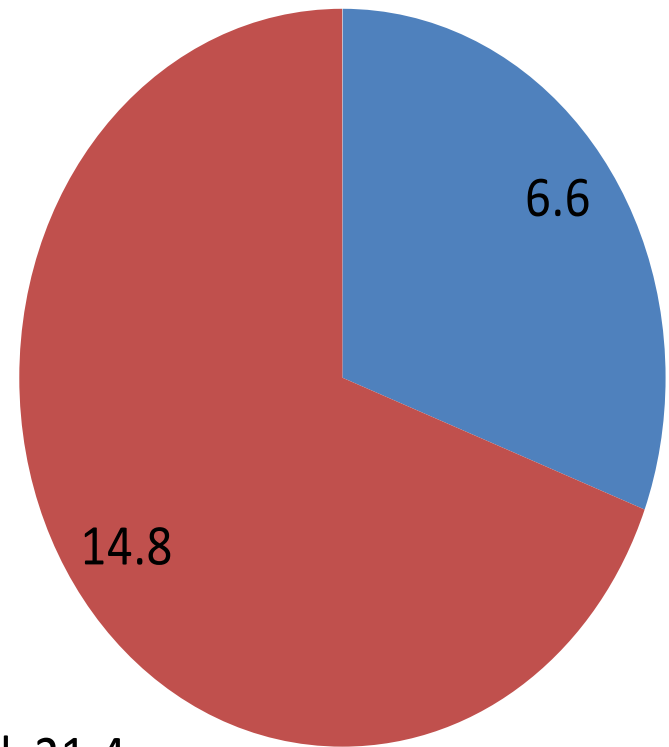
million short tons

2010

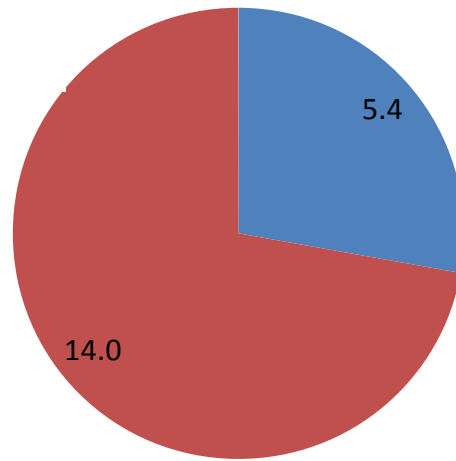


■ South - East of Mississippi ■ Exports

2035



2015



Total: 21.4

Total: 19.5

Total: 19.6

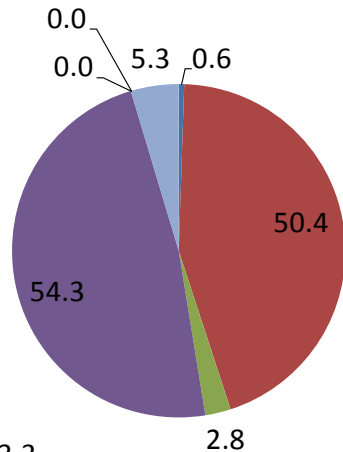
*excludes coal-to-liquids, waste coal, and lignite

Source: 2010: Annual Coal Distribution Report (June 28, 2012); Projections: Annual Energy Outlook 2012

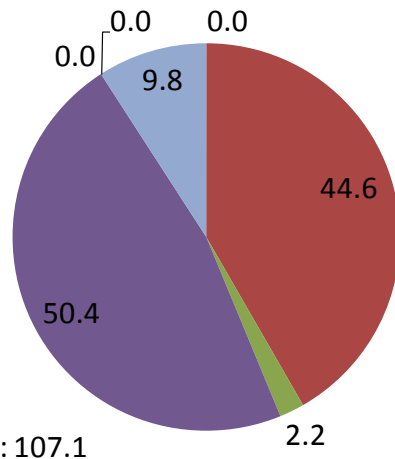
Eastern Interior supply by destination 2010, 2015, 2035

million short tons

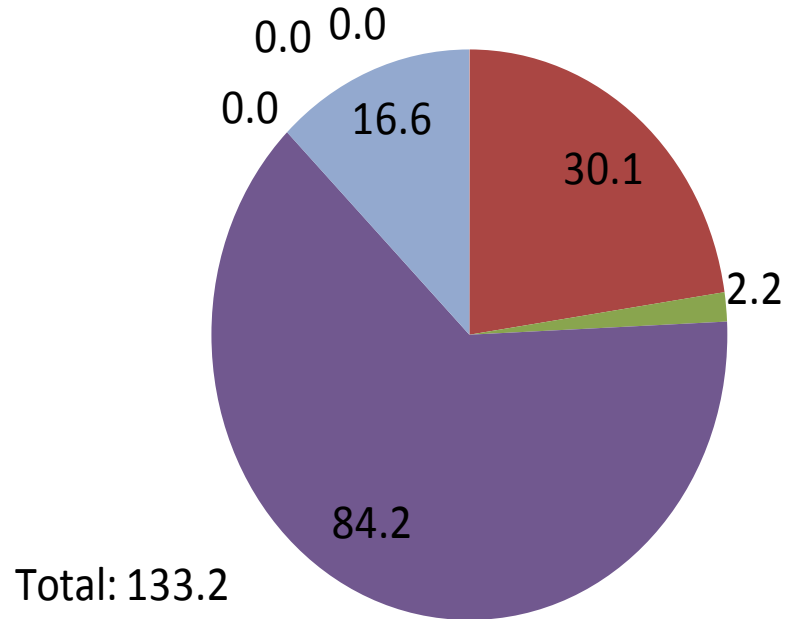
2010



2015



2035



- Northeast
- East North Central
- West North Central
- South - East of Mississippi
- South - West of Mississippi
- West
- Exports

*excludes coal-to-liquids, waste coal, and lignite

Source: 2010: Annual Coal Distribution Report (June 28, 2012);
Projections: Annual Energy Outlook 2012

For more information

diane.kearney@eia.gov, (202) 586-2415

michael.mellish@eia.gov, (202) 586-2136

ayaka.jones@eia.gov, (202) 586-0998

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