

The Impacts of COVID-19 on Sector Specific Electricity Sales

Key Findings

- EIA's most recent Short-Term Energy Outlook, released in early May, forecasts a 6.5 percent decline in retail electricity sales to C&I customers in 2020.
- Electric cooperatives and other utilities are seeing large decreases in load from the commercial and industrial sectors, specifically in regions with large oil and gas extraction businesses.
- There may be some offsetting increases in residential load as consumer-members stay home.

What has changed?

The COVID-19 pandemic has brought significant upheaval to daily life. With millions of Americans working from home and many businesses shuttered, the complete impact on electricity sales and electric utilities will not be fully realized until much later in the year, as the country transitions to a “new normal.” Electric utility data tends to lag by several months, which makes it difficult to realize the entirety of the impacts on utility operations until more data becomes available. However, sector-specific trends are starting to emerge which can help inform electric cooperatives on the breadth and depth of the impact.

Electricity sales reported by the U.S. Energy Information Administration (EIA) are broken down into four distinct sectors, which are defined as follows:

- The **residential sector** includes private households and apartment buildings where electricity is consumed.
- The **commercial sector** includes nonmanufacturing business establishments, such as hotels/motels, restaurants, wholesale businesses, retail stores, educational institutions, public street and highway lighting, municipalities, and government agencies or divisions under special agreements or other utility departments as defined by the pertinent regulatory agency and/or electric utility.
- The **industrial sector** includes manufacturing, construction, mining, agriculture (irrigation), fishing, fuel production and transport, and forestry establishments.
- The **transportation sector** includes railroads and railways that use electricity as the source of propulsion.¹

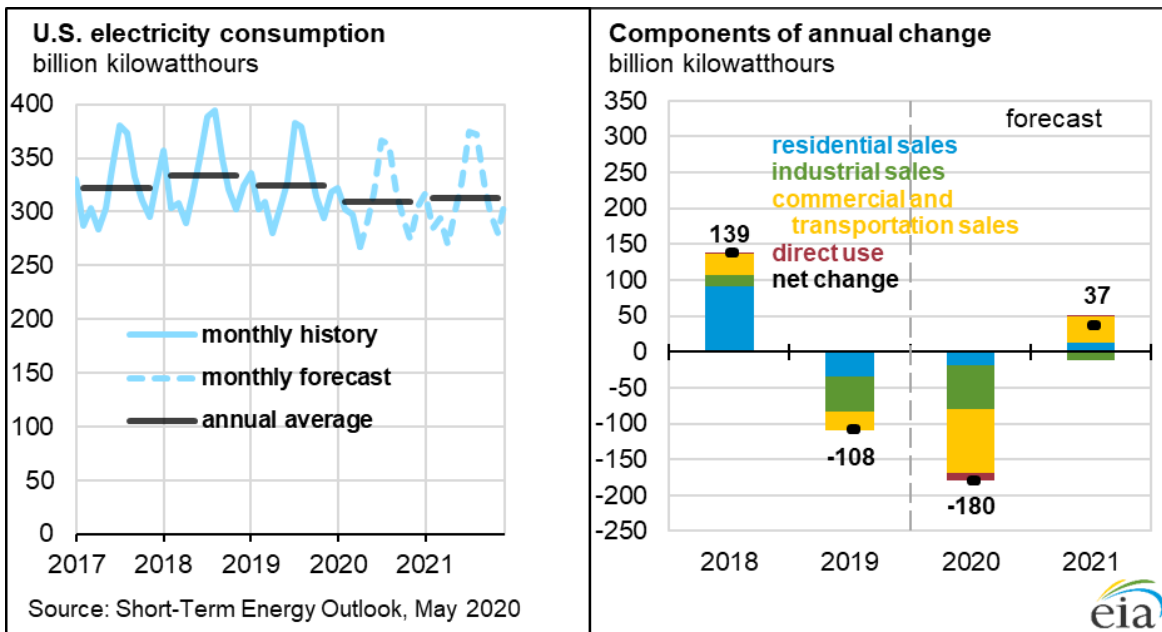
¹ EIA-861: Annual Electric Power Industry Report Instructions, available at: https://www.eia.gov/survey/form/eia_861/instructions.pdf. No cooperative reports retail sales in the transportation sector.

What is the impact on cooperatives?

The immediate impact of social distancing is restricted commercial and industrial (C&I) economic activity, which in turn leads to lower electricity use from the C&I sector. EIA’s most recent Short-Term Energy Outlook (STEO), released in early May, forecasts a 6.5 percent decline in retail electricity sales to C&I customers in 2020. The oil & gas extraction industry is particularly exposed, as abundant oil supply due to increased production from Saudi Arabia and Russia, combined with a very low demand for transportation fuel, has led to negative short-term oil prices.

EIA forecasts a smaller decrease in residential electricity demand. The STEO projects that “U.S. sales of electricity to the residential sector fall by 1.3 percent in 2020 because of lower electricity demand as a result of milder winter and summer weather, which is offset slightly by increased household electricity consumption as much of the population spends relatively more time at home.”²

Figure 1: Electricity Consumption by Sector



About 54 percent of retail electricity sales by distribution co-ops³ are to residential consumer-members, with the remaining 46 percent of sales going to C&I consumer-members.⁴ By comparison, the rest of the industry sold 62 percent of their retail power to C&I customers, with only 38 percent of sales going to residential customers. This means that, on average, co-ops are relatively less exposed to the negative impacts of reduced C&I load from COVID-19. There are, of course, wide variations across the country, depending on the types of industries in a region, that can cause cooperatives to differ from the national average in retail sales and the impact that COVID-19 will have on their sales.

² EIA Short Term Energy Outlook, May 2020. Available at <https://www.eia.gov/outlooks/steo/outlook.php>.

³ Includes Public Power Districts and other electric distribution utilities that are members of NRECA.

⁴ NRECA Fact Sheet: “America’s Cooperative Electric Utilities: The Nation’s Consumer Owned Electric Utility Network.” February 2020. Available at: <https://www.cooperative.com/programs-services/bts/Documents/Data/Electric-Co-op-Fact-Sheet-Update-February-2020.pdf>.

Residential rates are generally higher than rates for larger C&I customers, so revenues from increased residential sales can help partially offset lost revenues, even if overall demand is lower. However, residential load may not increase for all utilities or in all areas. Moreover, EIA projects that total retail electricity sales will lag behind 2019 levels through 2021, as the nation's economy recovers from the crisis. Residential, commercial and industrial sector electricity sales across the U.S. in 2021 are projected to be 0.5 percent, 3.7 percent, and 7.8 percent less than 2019 levels, respectively.

What do cooperatives need to know or do about it?

The full impact of COVID-19 is still unknown and will not be fully understood until state mandates are lifted and cooperatives are able to analyze their loads in more detail. Understanding the electricity demand breakdown by sector gives insight into how exposed individual co-ops might be to these impacts. Cooperatives that have a higher C&I load will likely be more affected by the revenue losses, while those that serve more residential areas will potentially be less impacted by losses in revenue from lower electricity sales.⁵

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⁵ See NRECA Fact Sheet: "Financial Impact of COVID-19 on Electric Cooperatives: \$7.4 Billion Hit on Operating Revenue and \$2.6 Billion in Unpaid Bills." April 21, 2020, available at: <https://www.electric.coop/wp-content/uploads/2020/04/Financial-Impact-of-Load-Loss-and-Unpaid-Bills-on-Electric-Cooperatives-042120.pdf> for a discussion of potential revenue impacts to electric cooperatives.