



# Energy Supply

Greenhouse gas emissions associated with our energy supply primarily stem from the use of electricity and natural gas in residential and commercial buildings. Energy supply is embedded within and accounted for in the building energy use GHG inventory sectors and analysis. Energy supply is separated into its own sector with prioritized actions, as changes in electricity production and sources of energy can significantly impact the reduction potential of actions in other GHG sectors. Thus, focusing on supply-side planning will bring about drastic reductions independent of recommended actions for businesses and residents.

Electricity and natural gas use accounts for over 50% of San Miguel and Ouray County's total GHG emissions. The carbon intensity of this sector directly relates to the fuel associated with the supply of these utilities from SMPA and BHE. Natural gas has its own emissions factor associated with its use as a direct energy source for heating, hot water, cooking, and more. Because we are unable to influence the production or emissions factor associated with natural gas, recommendations in this section focus on transitioning electricity supply to renewable sources. The mix of these sources of electricity directly impact the emissions associated with electricity use, with fossil fuel resources having a significantly greater carbon intensity than renewable energy sources.

# Energy Supply



Fortunately, SMPA has committed to 80% renewable production by 2030. Figure 9 (pg. 27) shows the trend toward increasing renewable energy sources and a decrease of fossil fuel sources within the electricity supplied through SMPA from Tri-State. These changes, along with efficiency improvements and the viability of community energy production, make achieving drastic GHG emissions reductions in the coming decade a realistic possibility. The state of Colorado plans for an 80% reduction of greenhouse gas emissions associated with electricity production and a 37% reduction for emissions associated with natural gas. Our region is well positioned to achieve these goals by contributing to statewide GHG reduction while providing savings for our residents and businesses through a mix of rooftop and community solar, and larger regional renewable generation.

SMPA's contract with TriState includes a limit on local energy generation and distribution within SMPA territory. While this limit was recently expanded to allow for additional community solar farm capacity, it still controls overall production capacity allowable. According to SMPA's contract with Tri-State:

- The Total SMPA system-owned or controlled generation shall not exceed 5% of that SMPA's annual energy requirements in any calendar year, and the total installed generation nameplate capacity shall not exceed 15% of that SMPA's annual peak demand in any calendar year. Generation projects that are eligible under this Policy include renewable or distributed generation under the ownership or control of SMPA.
- Tri-State has instituted a new Policy 119 for community solar generation projects. A community solar generation project (CSG Project) is defined as an SMPA owned or controlled (e.g., through a power purchase agreement) solar photovoltaic generation project that is intended to be marketed by SMPA under subscription arrangements to SMPA's retail customers. Eligible CSG Projects under this policy are limited to an aggregated total of the lesser of (a) 4,600,000 kilowatt-hours or (b) CSG Projects sized to serve no more than two percent (2%) of the 2018 Tri-State energy sales (kWh) to SMPA.

It is important to note, that net-metered renewable energy systems below 10 kW, such as a typical residential roof-mounted PV solar array are not limited by this cap on larger scale power production within SMPA's region. Therefore, increasing the installation of smaller net-metered systems has the potential to significantly reduce our electricity-associated GHGs without counting towards the local generation limits.