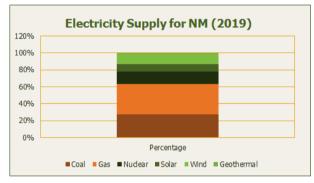
## RENEWABLE ENERGY

Renewable energy is energy generated from sources that do not deplete after use such as solar, wind, geothermal and hydropower. As of 2017, energy generation contributes to an estimated 55% of city emissions according to Albuquerque's GHG Inventory Report; phasing out emissions-producing energy sources is vital to eliminating power generation emissions.

The generation resources that provide energy to consumers are largely determined by an area's power utilities, which are regulated, natural monopolies. In the 1920-30's, as many pushed for countrywide electrification and recognized electric power as a public good, the federal government passed laws to limit electric utilities from operating outside of a single state or defined region. These laws also created federal and state-level oversight primarily to ensure just, reasonable and nondiscriminatory rates.

In Albuquerque, the electric utility is Public Service New Mexico (PNM), an investor-owned utility (IOU), regulated by the New Mexico Public Regulation Commission (PRC). Currently,

PNM generates energy from coal, natural gas, nuclear, solar, wind, and geothermal sources (see chart). Energy generation must be instantaneously matched to consumer demand, which changes hour-to-hour, and season-to-season. This means that intermittent resources such as wind and solar must be balanced with other sources or storage to provide consistent and reliable power. Following the Energy Transition Act, PNM has committed to



phasing out its coal and some natural gas-fired power plants and increasing its reliance on renewable energy to achieve 100% emissions free energy generation by 2040.

Recent renewable energy policy discussions in New Mexico center on concepts of a centralized vs. decentralized grid. In the traditional energy generation model, power is generated from a central facility and then distributed to homes via power lines. As solar energy has advanced becoming more affordable in recent years, the opportunity to generate power onsite creates disruptions to the traditional energy generation model – allowing for more distributed energy generation.

Concepts such as community solar are intended to allow for increased access to renewable energy resources by more than one user. Typically, community solar projects allow for community members who cannot otherwise afford traditional rooftop solar systems, live in multi-family residential housing (e.g. apartments), or have homes that may not be able to support a system with access to solar.

## **Sources and Recommended Reading:**

- PNM Resources: Energy Resources and PNM 2040 Commitment
- Senate Memorial 63 (Community Solar) Presentation to NM WNR 11/9/20
- Guide to Renewable Energy, U.S. DOE, 2010
- <u>Electricity Regulation in the U.S., Regulatory Assistance Project 2016</u> (note: this is only intended as a reference guide for those interested in doing deeper reading regarding utilities)