



# **ALBUQUERQUE ENERGY COUNCIL**

**FY2019 & FY2020 Annual Report**  
July 1, 2018 to June 30, 2020

# CITY OF ALBUQUERQUE



September 4, 2020

Dear Burqueños,

The Albuquerque Energy Council is a vital link between community and government in how we use our most important resources. With its help, in partnership with our administration, we are making unprecedented headway in sustainability and energy conservation. In just a few short years, we put the City on a clear path toward 100% renewable energy, a great leap forward in energy conservation, and a big jump in electrifying our vehicles.

We are deepening connections with residents through new programs to reduce energy bills for small local businesses and low-income homeowners, decreasing our community's carbon footprint and helping folks save money. The Albuquerque Energy Council's support for these new initiatives is a bridge between resident's needs and our action.

All this work in recent years is built on progress the Energy Council has helped shape since 1977. Over the last several decades, the Albuquerque City Council set in place a carve-out of 3% of all general obligation bond funds to be solely dedicated to improving the energy efficiency of City buildings and establishing renewable energy projects. These funds help ensure the spaces that house essential City services and community resources are comfortable and efficient and also generate savings for taxpayers by reducing utility bills.

The inspiring work done to date is just the beginning. We are facing unprecedented challenges. We must build resilience in ways that advance equity, environmental stewardship and a sense of belonging and connection throughout all neighborhoods.

I am confident the Energy Council will lead in the One Albuquerque spirit – bringing the best of community knowledge and technical expertise together. I encourage all those who read this report to connect with the work of the Council and share your voice with the City on the important issues outlined here.

Sincerely,

Timothy M. Keller  
Mayor

PO Box 1293

Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)



## **The City of Albuquerque Energy Council**

Established in 2003, the City of Albuquerque Energy Council (AEC) serves as an advisory committee comprised of professionals in the energy and environmental areas. The committee has responsibility for working with City staff to affect energy conservation programs within the residential, commercial, industrial, city government, energy conservation interest groups, transportation, and utilities sectors of the community.

Part of the AEC's responsibilities include oversight of the CIP monies set aside for energy conservation projects. In 2001, the City of Albuquerque provided for a 1 percent set aside for energy conservation and renewable energy capital improvements. This amount was increased to 3 percent in 2007. Energy conservation projects must adhere to strict guidelines to ensure their cost effectiveness. The return on investment of the CIP set aside funds must be below the life expectancy of the equipment.

The previous investment made by the City of Albuquerque to fund energy projects has been highly effective in reducing the City's energy use and operating costs at City facilities. Since early in the program, the City has accomplished the following:

- Implemented 115 projects at a cost of approximately \$167.6 million;
- Saved more than 207 million kilowatt hours (kWh) and more than 14 million British Thermal Unit (BTU) of energy;
- Achieved more than \$25 million of annual savings in energy and operations and maintenance costs, benefiting the City department budgets that can use these monies for important City services;
- Achieved an average return on investment of 5.2 years; and,
- Reduced 145,907 metric tons of carbon emissions, equivalent to removing more than 30,000 cars from the road, more than 3 million planted trees growing for 10 years and the energy it would be consumed by 15,407 homes for one year.



### **City of Albuquerque Energy Council Members (current)**

- Alex Montano, Yearout Energy
- Ali Bidram, University of NM
- Amy Miller, Council Chair, AMM Consulting LLC
- Carlos Lucero, PNM
- Donna Griffin, retired City of Alb.
- Michael Cecchini, EcoTerra LLC
- Ryan Centerwall, Affordable Solar
- Sanders Moore, Council Vice Chair, Policy Solutions Institute
- Sandra McCardell, Current-C Energy Systems
- Tammy Fiebelkorn, Southwest Energy Efficiency Project

### **City of Albuquerque Staff**

- Kelsey Radar, Chief Sustainability Officer, Environmental Health Department
- Saif Ismail, Energy and Sustainability Manager, Department of Municipal Development
- Sydney Lienemann, Climate Advisor to the City of Albuquerque, Natural Resources Defense Council





## **Energy Efficiency at the City**

Hundreds of energy saving projects have been completed since an original 1 percent, then the increased 3 percent set aside, was put into place at the City. In the past two years, these projects have resulted in 220,178,023 kWh savings of electricity; since the program's inception, the City has saved more than 855 thousand kwh savings of electricity. In this report, the AEC highlights a few recently completed projects that are excellent examples of initiatives that are reducing the City's energy use, saving the City money (ultimately saving taxpayer money), and reducing greenhouse gas emissions to protect the environment.

### **KiMo Theatre - Completed in May 2020**

The KiMo Theatre is one of Albuquerque's cultural jewels. Built in the heart of Downtown Albuquerque in 1927, the KiMo was designed in the short-lived architectural style that fused the spirit of Native American cultures of the Southwest with the exuberance of Art Deco. For years, Albuquerque area residents and visitors have had the opportunity to experience plays, live music, dance performances, movie screenings, art and more at this historic landmark.

#### **Project:**

All lighting fixtures throughout the **90,224** square foot building, including in offices, the theatre space, mechanical spaces, makeup rooms and kitchen, were replaced with energy efficient LED fixtures and lighting controls were added throughout the theatre. This meant that hundreds of lights, including fluorescent, incandescent, high pressure sodium, quartz, and metal halide lights from over the years were removed. Not only does the new lighting save energy, but it produces a higher quality of light, both increasing and decreasing lighting levels in areas as needed.

#### **Project Results:**

- Total project cost - \$288,649
- 351 lighting fixtures were replaced.



- Reduced lighting energy consumption by 90 percent, avoiding 125,314 kWh of energy usage annually.
- Projected avoided annual energy cost for electricity -- \$16,291.
- With rebates and energy savings, the anticipated estimated return on investment is 5.56 years.
- The project will reduce annual maintenance costs, including \$31,913 in staff time, \$5,445 in avoided lamp disposal costs and \$5,445 in avoided ballast disposal costs and an estimated \$6,049 in annual HVAC costs.

### **The City of Albuquerque Pino Yards Building and Warehouse - Completed April 2020**

The City of Albuquerque Pino Yards, located in Northeast Albuquerque, is where the majority of the City's fleet vehicles are refueled and maintained.

#### **Project:**

All lighting fixtures throughout the 65,167 square foot facility including those in offices, the warehouse, vehicle repair areas, mechanical rooms were replaced. The parking lot and other exterior lighting fixtures were replaced.

- Total project cost - \$328,226.24
- 437 lighting fixtures were replaced.
- Reduced lighting energy consumption by 64 percent, avoiding 220,045 kWh of energy usage annually.
- The projected avoided annual energy cost is \$28,606.
- With rebates and energy savings, the estimated return on investment is 4.39 years.
- The project will reduce annual maintenance costs, including \$27,525 in staff time, \$6,555 in avoided lamp disposal costs and \$6,510 in avoided ballast disposal costs.





## **Manzano Mesa Multigenerational Center - Completed in June 2019**

The Manzano Mesa Multigenerational Center in Southeast Albuquerque encompasses multipurpose classrooms, an arts and crafts room, computer laboratory, game room, social hall, fitness center, showers and lockers, kitchen, and a 10,000 square foot gymnasium. Manzano Mesa provides meeting space for community organizations, neighborhood groups, and continuing education programs. The Center also features many outdoor benefits including a bike trail, pickleball courts and soccer fields.

### **Project:**

All lighting fixtures throughout the inside of the facility and the exterior part of the facility, including the parking lot and exterior lighting, were replaced with LED lighting with new lighting controls.

### **Project Results:**

- Total project cost - \$456,933
- 612 lighting fixtures were replaced.
- Reduced lighting energy consumption by 55 percent, avoiding 85,597 kWh of energy usage annually.
- The projected avoided annual energy cost is \$10,998.
- With rebates and energy savings, the estimated return on investment is 4.77 years.
- The project will reduce annual maintenance costs, including \$48,114 in staff time, \$9,180 in avoided lamp disposal costs and \$8,995 in avoided ballast disposal costs.





## **Lomas Tramway Library - Completed in August 2019**

The Lomas Tramway Library is one of 18 public libraries located throughout Albuquerque that provides books, meeting rooms, programming, computer access and more for area residents.

### **Project:**

All lighting fixtures throughout the 13,593 square foot facility including offices, the warehouse, vehicle repair areas, mechanical rooms, the parking lot, and exterior lighting were replaced.

- Total project cost - \$262,979.28
- 360 lighting fixtures were replaced.
- Reduced lighting energy consumption by 84 percent, avoiding 154,126 kWh of energy usage annually.
- The projected avoided annual energy cost is \$28,606.
- With rebates and energy savings, the estimated return on investment is 4.46 years.
- The project will reduce maintenance costs, including \$23,125 in staff time, \$5,400 in avoided lamp disposal costs and \$4,920 in avoided ballast disposal costs.







## Renewable Energy at the City

In September 2016, the Albuquerque City Council unanimously adopted a resolution to have 25 percent of its energy come from solar resources by 2025. In 2017, the City began aggressively adding solar energy to new and existing facilities. Though the AEC currently does not review renewable energy projects, the AEC believes renewable energy is an essential part of the City's overall energy saving platform.

As of July 1, 2020, the City has 7.5 MW of solar energy on facilities. Not only have these installations reduced the energy costs of the City, but they have helped to create local employment. The City issued an RFP in 2017, with a focus on hiring local solar vendors. Six solar companies have been part of the installations on the following facilities:

- **Fire and Police Stations** including Fire Stations 2, 5, 7, 8, 11, 18, 21 and 22 and the Police Training Academy, the 5th and 6th Area Commands, and the older Albuquerque Police Department Building and the City of Albuquerque Forensic Science Center.
- **Leisure and Recreation Areas** including the Ladera Golf Course, the Los Altos Swimming Pool, the Rio Grande Zoo, the Botanical Garden Aquatic Center, the Balloon Fiesta restaurant, and the Museum of Albuquerque.
- **Libraries** including Central Unser, Cherry Hills, and Downtown Main.
- **Visitor and Business Facilities** including the City of Albuquerque Sunport and the Albuquerque Convention Center.
- **Community and Senior Centers** including the North Domingo Baca Multigenerational Center, the Alamosa Multigenerational Center, the Los Griegos Community Center, the Barelas Senior Center. The Taylor Ranch Community Center, and the Los Volcanes Senior Center.
- **Critical City of Albuquerque Offices and Facilities** including the City of Albuquerque and Cerro Colorado Landfills, the Daytona and Montano Transit Centers, the City of Albuquerque Karsten Building, the Pino fleet yards.



## **The Future of Energy Savings at the City of Albuquerque**

The City of Albuquerque has a roadmap to achieve a net zero goal by 2030. City staff is currently working on building efficiency and renewable projects as well as implementing smart building technologies which would impact all City government facilities. The City will also be working on Purchase Power Agreements and other mechanisms to achieve its 100 percent renewable goal.



