

2023 ENERGIZING EFFICIENCY CASE STUDY

Danville Utilities Energy Efficiency Grant Program Through the American Rescue Plan Act

Aging equipment and poor insulation have long been a cause of excessive energy consumption in homes in the Danville Utilities service area. This has become evident through conversations with customers, service providers, and through investigations of high consumption complaints.

The City of Danville received American Rescue Plan funding, and assigned to Danville Utilities **one million dollars towards improving efficiency in homes that were high consumers of energy**. The goal was to **assist customers with getting new HVAC equipment and/or insulation** depending on the needs of the residence. By replacing these systems, greater energy efficiency would be achieved and would ultimately **help the customer save on utility bills**.



Danville Utilities reviewed the monthly consumption of residential accounts and put together a list of **customers that had high energy consumption** relative to the size of their house. Danville Redevelopment and Housing Authority (DRHA) sent applications to the identified customers and using demographics and scoring factors such as age of residents, household financial information, and health data of residents, the Danville Department of Social Services further culled the list to **those who were in most need of assistance**. DRHA then examined the age and condition of HVAC units as well as assessing the existing insulation to **determine what areas needed improvement and provided project management for each home**. Any costs associated with the improvements were paid to DRHA to be distributed to the contractors providing the services.

The **Virginia Energy Efficiency Council**, a member-based 501c3, launched the Energizing Efficiency Campaign in 2023 to further the mission of advancing EE across the state by showcasing incredible work being done in our communities and inspiring others to act. Learn more at VAEEC.org/Energizing-Efficiency-Campaign.



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CHALLENGES

The largest challenge faced for this project was the availability of contractors and equipment. HVAC contractors were available but didn't always have access to equipment due to **supply chain issues**. Insulation was readily available, but there are very **few contractors in this area that perform this service**. Many homes were able to get HVACs installed from the onset of the program, but those that also required insulation experienced delays while waiting for the insulation contractor to be available. Fortunately, DRHA was able to identify a second insulation contractor and HVAC supply issues also eased. This allowed the program to continue. To date, almost all the funds have been depleted with just a few projects left to be finished.

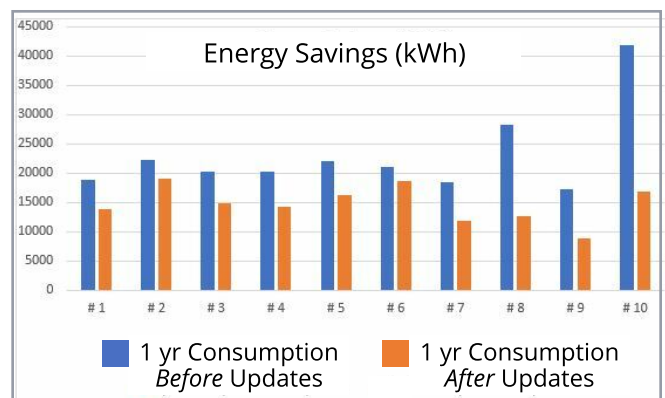
THE RESULTS

Currently, **a total of 56 home efficiency projects have been completed** by this program. Of these homes, **37 received both new HVAC equipment and insulation**. An additional **13 received insulation only**, **six had new HVAC installed**, and **one had an existing HVAC repaired**.

This has undoubtedly resulted in **improved comfort and safety** for these homeowners and their families who would have otherwise not had the means to make these improvements to their homes. This program has already seen remarkable results.

Of the 56 completed homes, we currently have one-year historical data for 10 of these homes.

The total realized energy savings from these ten homes is 83,023 kWh over the course of one year. To put that into perspective, **that is enough energy to power seven average U.S. homes** for an entire year.



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