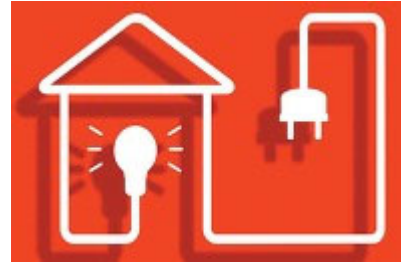


What can I do?

Fixer Upper Fun and Electrification Journey: Step 2

As the Sustainability Manager for the County, it occurred to me that my personal experience of transitioning my home to all electric and reporting out on lessons learned along the way might be of help to others who are also contemplating this shift. The following editorial is by no means an expert opinion; it is merely a personal process shared in the hope of making these projects a little less confusing, cumbersome and costly. The rewards of lowering emissions and eventually utility bills while increasing a home's structural resiliency really are worth the cost and effort and [rehabilitation of structures is a much better alternative for lowering emissions than new construction](#). Please find the preceding article in the [April edition](#) and reach out to the Sustainability Division to relay any of your own learnings on this topic so that we can add it to the electrification themed articles to come: sustainability@santafecountynm.gov



—Jacqueline Beam, Sustainability Manager

After the roof replacement three years ago, and a long to do list facing me, it was time to tackle the replacement of my old, drafty windows and doors. In 2020, I began the search for [energy star certified windows](#) rated for the Santa Fe County area (Northern Climate Zone, U-factor ≤ 0.27 , SHGC any, Air Leakage ≤ 0.3 cfm/ft².) Energy Star criteria varies depending upon location. New Mexico encompasses 3 of the 4 Energy Star climate zones: Northern, North-Central, and South-Central. While Energy Star rated windows are typically 10-15% more expensive than unrated windows and doors, they quickly pay for themselves by reduction in heating and cooling costs. In my search I found a range of high quality window and door options, and met with numerous vendors; many of which offered products that exceeded the Energy Star requirements. Although the aesthetic of high end windows and doors with expanded efficiency ratings met my style minded “ideal,” I didn’t have the budget for a top of the line product. Ultimately a product with a slightly less appealing style (vinyl and composite) and slightly reduced performance provided the best return on investment. Those gorgeous designs that looked like they came straight out of “Dwell” magazine would have required a second mortgage and taken years to pay off; the savings from the more economical Energy Star rated products would pay for themselves well within the life of my mortgage. I also factored in the consideration that once my home was converted to solar for power, the difference in utilities and performance between the high end and the mid-range energy efficiency ratings would likely be negligible. Not only would I see average savings of 12% or more on my winter utility bills, according to Remodeling magazine’s 2024 Cost vs. Value Report, my decision also increased my home value significantly. According to the Report, “this kind of [window replacement](#) increased home value by an average of \$13,766.”

Again, there are a number of rebates and [write off opportunities](#) for switching out [windows](#) and [doors](#) to Energy Star rated products. I wish that I could report this “Step 2” process was a more pleasant one, however, my timing was probably not the best (during the height of the Covid-19 pandemic) and the vendor I chose had a very difficult time fulfilling the agreed upon contract. I had to deal with numerous window and patio door openings covered by plywood for nearly two years before receiving and enjoying the installation (and views) of all of the windows and doors

ordered. Plywood is not the most energy efficient, meaning for two years my winter season utility bills sky rocketed and mice worked furiously throughout the seasons to enter my home through the foam used to temporarily seal the opening edges. I did my best to add more cover and insulation on the inside yet it was unsightly and not very effective. To be honest, the experience was a bit of a nightmare. I reminded myself daily that this was a "First World" problem; owning a fixer upper in this area is still a privilege considering the high cost of housing. Looking back, I am certain I would have made different choices in timing and vendor services if I knew then what I know now! I survived. --And now I am incredibly grateful for the glorious light, views and lower utility bills of this past winter!

Lessons Learned:

1. Work with a contractor you can rely upon (word of mouth referrals tend to be the best source for finding reliable contractors) and make sure to obtain a permit for compliance and full eligibility to receive the New Mexico incentives and credits.
2. Purchase the windows and doors separately if you have space to store them so that you can measure in real time to ensure that all of the measurements for openings are precise.
3. Time the installation and/or opening of the walls with the contractor ensuring no more than a week of boarded up openings to avoid pests and/or inclement weather challenges.
4. Also, it is very important to time the installation for the weather with your contractor. June is the hottest month typically in the Santa Fe area and January-February are the coldest. I would not recommend those months for opening walls, yet September and beginning of October are more mild, with less precipitation and therefore, more optimal.
5. Increase your insulation in walls (2021 IECC: 5B Zone Requirements) that are opened for a new window or door replacement. It is an excellent time to take advantage and upgrade when the mess is already happening rather than going back after the fact.
6. Be sure to use a contractor who is stucco proficient and skilled to button up the windows and doors properly and immediately with stucco—many long term problems arise when stucco patches are done improperly.
7. The pandemic was an unusual time and caused unprecedented challenges with supply chain issues and staff shortages. Even though we hope this won't occur again any time soon, it is important to consider the timing of these projects. Perhaps if there is a major worldwide event taking place that is causing supply chain issues, wait it out for a time when more normalcy returns!

With my new reflective roof and new energy star rated windows and patio doors, I was ready to tackle the next phase in my fixer upper fun: Mini-splits and electric appliances! I had two main rooms (later additions) on either end of the house that were completely without heat and my plug in heaters were terribly expensive to run, not to mention they just did not keep up with the cold in the worst of winter. Most of my appliances were from the mid 90's and way overdue for replacement. I am on natural gas with a radiant floor system yet I wanted to transition to all electric eventually, so how would I strategically approach this next step?

Stay tuned for the next round of fun in the June edition and happy retrofitting!