

## What Can I Do?

### Electrification and Fixer Upper Fun—Step 3

*Note: 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 for those also on this path. The rewards of lowering emissions and eventually utility bills while increasing your home's structural resiliency really are worth the cost and effort. [Rehabilitation of structures is a much better alternative for lowering emissions than new construction.](#) Please find preceding articles in the [archived April and May newsletter editions](#) 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](mailto:sustainability@santafecountynm.gov).*



—Jacqueline Beam

My fixer upper progress after three and a half years includes the installation of a TPO Reflective Roof (Check) and Energy Star rated patio doors and windows (Check). Next came appliances and mechanical heating and cooling research. To replace my appliances with high efficiency electric alternatives, I knew I would need an electrical panel upgrade, yet I wasn't sure how many new 220v outlets would be required considering the many appliances to be installed and new heating/cooling additions.

I decided to begin by searching for and choosing new appliances with the strategy of replacing older gas and non-efficient models with all electric, high efficiency versions and adding a mini split for heating and cooling before beginning the electrical panel upgrade. Shopping for Energy Star rated appliances is the more fun side of the challenge so I started there.

#### Considerations:

- An old commercial gas range and stove needed to be replaced with an electric wall oven, microwave and air-fryer combo and an induction stovetop.
- My Energy Star rated refrigerator was sufficient in efficiency, however, it was too wide for my new kitchen galley area.
- I didn't have a dishwasher, having thrown out (for scrap recycling) the previous non-functioning unit during the move-in.
- I am on a domestic well and strive to save water wherever and whenever I can; Energy Star rated dishwashers, when operated fully loaded, can [save half of the electricity of non-rated models and over 8,000 gallons of water annually.](#)
- My old, stackable washer and dryer were also rated for water conservation and energy efficiency, yet they were outdated in efficiency standards compared to current models. The dryer ran on natural gas, and neither were operating effectively. It was time to let them go for scrap and recycling as well.

I chose electric Energy Star rated models which received high reviews for efficiency and water conservation.

## Lessons Learned:

- 1) Find a plumber to cap the gas lines before the new appliances can be installed and an electrician to run the 220v wiring for new appliances.
- 2) Research [PNM to find out the rebate opportunities for my appliances.](#)
- 3) Choose a mini-split for the number of zones that need heating and cooling and work with an HVAC contractor to discuss the electrical needs as well as the pros and cons of placement. [It is important to note the capacity of the mini-splits available in the market and choose a product that has the ability to perform even in very cold temperatures.](#) (My heat pump choice will effectively heat my two newer addition zones in -20 exterior temperatures with a reduction in efficiency below 0 degrees.)
- 4) The IRS offers incentives as well for replacing appliances through [IRA and State programs](#) which are in the process of being deployed.

After all was said and done with the research and selections, it was recommended by my electrician, that I replace my old panel, add a junction box and increase the electrical capacity from 100 watts to 200 watts allowing for the new appliances, future EV charging and potentially roof top solar. With the installation of all electric appliances and a heat pump I had nearly completed the final step towards converting my home to all-electric operation. All that remains is a natural gas water heater that is next on my list for replacement. Certainly, this has been a journey. Yet, I will be well on my way with the scaffolding needed for EV charging and PV in the future!

Stay tuned for the final step of my journey to electrification which will detail the process of upgrading my electrical panel in next month's article.