

CHAPTER SEVENTEEN



A NETWORK OF ENERGY SAVERS

This is the most personally satisfying episode of my personal climate story. As a climate warrior, you may find that there just isn't a local organization doing what you want to do on climate in your community—so you may have to create one yourself, build it up, and then let it go.

Through the energy saving work of our church Green Team, I had learned to love helping people save on their energy bills by reducing their energy consumption. Each project is a small new victory that I know will help people for whom their energy expense causes tremendous stress in their lives. And I like being a sort of detective, assessing the home to understand the energy system and then finding ways to quickly make a difference. We have fun and usually our teams are greatly appreciated. Often, the clients provide lunch. I've made some great friends along the way.

ARRIVING IN ASHEVILLE

Karen and I had to start over in our new house and new town, finding

a new church, new Rotary club, making new home renovations, landscaping, etc. I was anxious to get involved in local climate action, so I quickly joined the new Citizens' Climate Lobby chapter, and I started attending a weekly event called "Green Drinks" at a local coffee shop. Each week, there would be a different presentation on environment and sustainability subjects and an opportunity for people to network. I got on the agenda to give a presentation on what we had done with our Energy Saving Volunteers work before I moved to Asheville.

A woman in the audience made the comment, "I just wish there was someone who could give me advice about what to do to save energy in our home." After the presentation, I went up to her and volunteered to provide an assessment of her home for free. That woman was Alice Wyndham, the future co-founder, with me, of Energy Savers Network. We made an appointment to go by her house, and I did the basic inspection and discussed her options. Later, Alice and her husband, Wilant, would install a geothermal heating system as their major climate action purchase to be followed by an electric bicycle and a BMW I-3 electric car.

I told Alice about what we had done with Energy Saving Volunteers, and she offered to help me do something similar in Asheville. I don't think she had any idea what she was getting into, but I said, "Yes, but only if you help!" She agreed, and we got started.

We decided to research other local efforts to start to build a plan and to see if there was something similar going on already. We held conversations with a variety of people in the community, including Jack Heuer of Community Action Opportunities, Scott Hardin-Nieri head of the Creation Care Alliance, Rev. Thomas Murphy from All Souls Cathedral (our new church), and Sam Ruark—head of the Green

Built Alliance, the local association of green builders in Asheville. We explained to them our idea of starting a volunteer-centered effort (sort of like Habitat for Humanity) to “help the climate by helping people” (that became our tagline). We also wanted to find a fiscal sponsor to avoid the paperwork of starting a 501 C-3 non-profit.

SUPPORTING COMMUNITY ACTION OPPORTUNITIES

After a few months of these conversations, we hit on an idea: Why not start out by providing volunteer support to the local weatherization providers? We knew we could attract volunteers—Father Thomas had already said he would help us find some, and our discussions had yielded some interest. And Asheville had an incredible volunteer spirit and a huge interest in all things green, as well as a growing commitment to action on climate change. We didn’t have any clients, and we didn’t have any money, so teaming up made sense.

Most low-income weatherization is funded by federal Weatherization Assistance Program (WAP) block grants, supplemented by state and other sources of funding. In Asheville, these WAP grants go through Community Action Opportunities (CAO), an Asheville based non-profit that administers the grants and employs its own crew(s) along with contractors to do the work. In Buncombe County, CAO was funded to work on fifty or so homes a year. CAO provides “deep retrofits,” or comprehensive energy, as well as health and safety improvements. To a recipient, getting selected for an upgrade is akin to winning the lottery. In addition to the basic services like weather sealing, LED lighting, etc., CAO recipients might get a new refrigerator, bathroom ventilation fans, an efficient HVAC system, or added insulation, depending on the energy savings for the specific client. The value can easily be in the \$5,000–\$10,000 range, and the work

is only done if CAO modelling determines that the whole package is cost effective. Doing similar upgrades for everybody—low-income or not—would be a low-cost way of reducing energy use, but the public funding isn't there to do such work for free, and the transaction costs keep it from happening very fast for those who would have to pay upfront to save energy over time.

The low-income housing stock in Buncombe County is well over 20,000 units. There are as many as 18,000 mobile homes alone—many of them older units and most of them low-income. Most of these homes are poorly insulated and generally have high utility bills. At fifty homes a year, CAO would cover that population in 400 years. Not fast enough to avert catastrophic climate change! To cover the need by 2050, we need to be helping over 600 families a year.

We were so fortunate that Jack Heuer of Community Action Opportunities had Habitat for Humanity experience and was willing to work with volunteers. Alice and I, and a few other volunteers, pitched in on CAO projects. We hoped to work with them once a week. Our team learned a lot from those experiences, and I like to think we helped CAO a little, as well. We were able to observe CAO's techniques and learn from the pros. I learned how to use mastic (also known as duct sealant, a gooey paste that I learned is used liberally by weatherization folks to harden and seal leaks in ductwork) and mastered some other tricks of the trade that I hadn't learned with my work through our church.

In addition to working alongside CAO, we also learned about the opportunity to do "pre-weatherization." Pre-weatherization means going into those houses on CAO's waiting list in which some technical barrier was keeping CAO from beginning the project. I had learned



Typical home of ESN client Buncombe County, NC.

about this idea from one of my contacts with North Carolina Interfaith Power and Light. I had joined their leadership council based on my work in Hayesville, and a fellow council member, Gary Smith, had started a volunteer effort going into homes in Raleigh and getting them ready for service by their equivalent of CAO. Typically, that would mean projects like decluttering or cleaning out basements or attics so the weatherization teams could access the area in the home needing work. In our case, Jack told us about a home about fifty miles away in Rutherfordton that needed attic insulation but had no access to the attic. Alice recruited a carpenter friend, and the three of us spent the better part of one day in Rutherfordton, building an attic access. That home was eventually able to get a major insulation upgrade and a complete new high-efficiency heat pump system. It was the first time we went out on our own without Jack.

GOING OUT ON OUR OWN

Although we were learning, we found that the opportunity for volunteers was limited, given the low number of houses each month worked on by CAO (four in Buncombe), and the frequent situation where schedules didn't match with volunteers, clients, and CAO. We felt like we could do more, and we saw that something needed to be done beyond what CAO was doing with the money it had. I had a sense of what was possible from my experience with Energy Saving Volunteers. In fall 2016, we decided to try to upgrade a few houses on our own.

WE DECIDED TO CALL OURSELVES ENERGY SAVERS NETWORK (ESN)

We began to develop a plan to do houses on our own. We needed to purchase supplies, and we wanted to be able to give a tax deduction for anyone who donated, so we needed to form our own non-profit or be affiliated with one. Julie Mayfield, city council member and CEO of MountainTrue, a local environmental organization, was receptive. MountainTrue had become well known for its role in the "Asheville Beyond Coal" campaign and its longstanding efforts to protect streams and rivers in Western North Carolina. MountainTrue had sponsored other startup non-profits, and she mentioned a particular success in starting up "Asheville on Bikes," which was devoted to getting more people to ride bikes in the local area and to make Asheville more "bike-friendly." Julie got her board to agree to let MountainTrue act as ESN's fiscal sponsor.

We still needed money to get started. My mom, Daphne Rouse Horney, and stepfather, Bill Horney (they were married in 2012 when she was eighty-three and he was ninety-five), made a generous donation, and Karen and I chipped in, as well. We had some money! We began buying supplies, which I stored mostly in my garage.

ESN always needed three things—money, volunteers, and clients. We approached churches initially and made some great contacts with the Care of Creation team at St. Eugene’s Catholic. Bill Maloney, a parishioner at St. Eugene’s Catholic Church, had made a presentation at Green Drinks about their project to put 147 solar panels on the church roof, so I made a presentation about Energy Savers Network to his group and followed that up with presentations to some other church groups, as well. We started to build a list of volunteers. We also put a listing on volunteermatch.org, which, as the name implies, matches people who want to volunteer with organizations seeking volunteers.

Our most stellar early recruit was Pearson King. Pearson was incredible. He had grown up on a farm in Vermont. If you want to start a business, find a person who has deep farm experience. They learn to be jacks of all trades and can do everything. Pearson was an ace at doing home repairs, and he was also able to build a website and introduce us to doing mass emails on Mailchimp. He created our first logo. He recruited volunteers. We couldn’t have done it without Pearson’s early contributions.

Pearson volunteered regularly with us for about a year. Unfortunately, his partner, Meg, who worked in the film industry, was finding it hard to find work because of the actions of the NC Legislature. In March 2016, the legislature passed the infamous “bathroom bill,” which discriminated

against the LGBTQ community. That community was incensed, and the film industry left NC in protest. In our case, our loss was California's gain as Pearson and Meg decided to move to Los Angeles.

We also needed clients. It's a testament to how separated we are as a society that we have a huge poverty problem but people with means don't see the poverty in their daily lives unless it's a feature of their jobs. We couldn't just "put the word out" to our friends and have our telephone start to ring. It's actually pretty hard. We did put the word out to crisis organizations like Asheville Buncombe Community Christian Ministry (ABCCM) and various churches. Bill Maloney and others at St. Eugene's came to the rescue with some potential clients and volunteers from his parish.

OUR FIRST CLIENT

Maria was a joy to help. We patched numerous holes and put in a new back door. She had some extra insulation that she bought to install under her floor. We also discovered some leaky windows, and we ordered some interior storm window inserts for her home. Maria was so gracious, and I remember the wonderful lunch she served the team the day she was there. Maria later donated to ESN, and she helped us find other clients. We were saddened to learn that Maria, who had been in the U.S. for many years, had become very fearful due to the anti-immigrant efforts of the Trump administration. Maria eventually sold her home and moved back to her native Mexico because she felt so unwelcome in the U.S. It was a loss to our country.

We got our second client through a referral from a member of the Creation Care team at a Presbyterian Church, who was also a volunteer

crisis counselor. Woody, an elderly man who had cancer, lived in an old home in the Montford section of Asheville. His home was extremely drafty. When the wind blew outside, you could feel a breeze inside. It was winter 2017, and the oil furnace was barely able to keep up. When we looked in the leaky basement, we discovered that one of the heat supply ducts was broken, and much of the heat was not making it upstairs. Then, we noticed, that we could see from the basement directly into the kitchen above. The floor in the kitchen was slowly caving in. We patched the ductwork, replaced the light bulbs with LEDs, weather-stripped the doors, used spray foam to fill some holes, and did some smaller projects. We also thought that those interior storm windows we had purchased for Maria would be a good solution to the leaky drafty windows, but we couldn't afford to buy commercial grade window inserts for every home. We learned how to build our own helping Woody. It was a good solution.



Alice Wyndham and Susan Presson building one of first interior storm windows outside Woody's house.

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All these measures were band-aids when the house had a gaping wound—that collapsing floor. This was far beyond our scope of work or capability. We reported it back to the crisis organization that had referred us, and we discussed options with Woody. Unfortunately, the ownership of the house was in question, so Woody had not been able to get the paperwork needed to get other charitable organizations to help, and he didn't want to move.

ONE HOME AT A TIME

It's an unfortunate truth in our community that for every Maria there is at least one Woody. We come in, we see the situation, and we yearn to help. We want to help more. But we won't achieve our mission of touching as many families as we can if we get involved with so many needs that are as extensive as Woody's. Over time, we've developed the strategy of having a discussion about the other social service programs that are out there and leaving a list of phone numbers the client can call. And most recently we've won several grants that allow us to hire contractors to make urgent repairs. Energy Savers Network stays focused on its broader mission of providing each client with basic energy saving measures, making referrals as needed, and moving on to the next client.

We were going strong in 2017. One of our most memorable experiences was getting involved with Dolce Lomita Mobile Home Cooperative, a predominantly Hispanic co-housing group in the Emma-area of Asheville. It consisted of one house and seven mobile homes, all owned jointly by a corporation the residents had formed. We weatherized all the homes in the cooperative and were treated by our gracious hosts to several lunches on picnic tables in their common area. It was a great experience.



Lunch at Dolce Lomita Coop—Ellen Golden, Yulia Shaffer, Jackie Fitzgerald, Andrea Golden, Lew Gelfond.

There are many stories of families that we have helped and homes we have encountered. Some houses are just too far gone, and we have to beg off. On a few occasions, the floors were rotting to such an extent that it was just not safe for us to continue. One mobile home had experienced a fire, and all of the windows save one was boarded up. The power had been disconnected, and only one bedroom was habitable at all. In those cases, we do what we can safely do, provide LED lightbulbs, refer the clients to other agencies that might be able to help, and move on. Other times, we run into dogs that are not under control, although we make it very clear to clients now that they must keep their dogs on a leash or separated from the team. I had one unfortunate incident where I left a fence gate open for just a moment, and the dog ran out and was hit almost immediately by a

car. It was traumatic for all concerned and resulted in some huge vet bills, which we paid, and which, thankfully, our insurance company mostly covered.

At first, I would go out to do an assessment, and then a team of volunteers would return on a separate date, for two visits to every client. Sometimes, clients would not schedule the second visit, and we have concluded that we could do everything for the client in one visit. In 2020, our individual donors got together to purchase a van that we keep permanently loaded with all the supplies that we might need for a project. We wrapped the van with our logo and contact information, so now we have an ad for people to call us to get help as we ride around to do projects.

We continue the work building custom storm window inserts for families that have single-pane windows. It would be great for these people to get new windows, but new windows tend to be so expensive that they are almost never justified based on energy savings alone. Plus, we just don't have the budget. But our interior storm windows do make an immediate difference for clients and come at a far lower price—perhaps \$20 per window in supplies. We measure the windows on site and then have “window workshops,” where we get a group of volunteers together at a local non-profit to assemble fifteen to twenty windows in a two-hour volunteer session. I have set up a workshop in my crawl space to cut all the frames myself. We have built almost 1,000 windows in all at this point, and, thus, are far behind a group that has been formed in Maine to do similar projects. Going by the name of Window Dressers, the Maine group has made tens of thousands of window inserts.⁷¹



Stephen, Brad, Yulia, Rocco, and Sean at windows workshop in 2018.

Our plan was to truly be a “network” by recruiting different churches or other groups to form “teams” that would work under our loose direction but would allow us to expand with a decentralized structure. Each team would find its own clients, recruit its own volunteers, and we would provide funding for supplies and for overall coordination. Alice and I would focus on finding new teams, getting them going, and then going on to the next team development. We thought we were on the right track when St. Eugene’s church signed up and agreed to form a team and commit to one home a week. Bill Maloney, a committed environmentalist, talented “do-it-yourselfer,” and former owner of his own company, agreed to give it a try.

That plan fell apart early on. The St. Eugene’s team was fantastic and

helped a handful of Hispanic families living in mobile homes who were members of their congregation. However, I put pressure on them to operate as an autonomous team, and they quickly discovered that coordinating the various activities to do one workday per week was a very large endeavor. It was beyond what we could reasonably expect and beyond what they wanted to do. It was back to the drawing board. A lot of it fell back on Alice and me.

Meanwhile, Alice and I had recruited another volunteer, Lew Gelfond, to help us have a “central team.” We met Lew at a Sierra Club meeting and knew immediately he would be perfect. Lew was also a committed environmentalist, a skilled woodworker, a musician, and he also booked musical gigs. After working as a volunteer a few



Kevin Bates, Lew Gelfond, Brad Rouse, and Ed Prestemon on ESN workday in 2017.

times, Lew agreed to dedicate a day a week, as long as we would find the other volunteers and clients. Lew has been of incredible value to the team in his ability to get broken doors working and properly sealed without having to buy a whole new door.

About this same time, summer of 2017, Pearson (our first key volunteer) left for Los Angeles. Could we keep it going without him and with our one independent team pulling back? We decided we could continue to do a house or two a week, and that is what we did during 2017 and early 2018. In 2017, we completed seventy-three homes, and in the first half of 2018, we were working at an even faster rate. I was working on a couple of houses a week and doing all of the upfront assessments. We knew we needed more help. We needed a fulltime coordinator to keep up and then increase the pace.

ESN GROWS UP

ESN had to do more homes every year to have a meaningful impact. We had to operate at scale. We needed funding and staff and had to mobilize the community for a bigger effort. The next two chapters will tell the story of my involvement with a community effort that started as the Energy Innovation Task Force (EITF) and would later become the “Blue Horizons Project,” a collaboration to reduce energy use and move Buncombe County toward clean energy. I told the task force about Energy Savers Network, and I lobbied for increased funding for low-income weatherization to be part of the overall effort. As a first step, I lobbied for ESN to receive funding for a part-time coordinator. Brownie Newman, Chair of the Buncombe County Commission and co-Chair of the EITF, was in favor of the idea and thought we might be able to get some county funding in late 2017.

One obstacle in getting funding had to do with the fiscal sponsorship. If we were to continue the fiscal sponsorship form of organization (versus forming our own 501-c3), the county would prefer it be with an organization without a heavy focus legal action or political change, which ruled out MountainTrue. The obvious candidate for a new fiscal sponsor was the Green Built Alliance (GBA). Alice and I had met with GBA's Executive Director, Sam Ruark, in 2016. Sam, who was also serving on the EITF, had run energy efficiency programs in California prior to coming to Asheville.

GBA wanted us to get insurance, and to do that, we had to incorporate, so we formed Energy Savers Network, Inc. in August 2017. We formed an official board of directors to succeed the unofficial group which had been meeting monthly at my home. My brother found us a great insurance policy classifying ESN as "handyman services business."

OUR FIRST STAFF PERSON

One day in early 2017, Yulia Shaffer joined us as a volunteer for a workday. Yulia was very personable, enthusiastic, very willing to pitch in, and overall a pleasure to work with. She was a master's degree candidate in the sustainability studies program that was offered through Lenoir Rhyne University, which had its graduate program in Asheville. Yulia had come to Asheville from Arkansas but before that from Baku, Azerbaijan. Working together on several volunteer workdays, we learned she was also seeking to find a subject for her master's degree "Capstone Project." We talked with her about doing a project around ESN and eventually she created our first "ESN

Manual” and helped us to systematize and formalize our procedures.

The county came through with \$25,000 in October 2017 to hire a part-time “volunteer coordinator.” Yulia was the obvious choice. She took on responsibility for finding and training volunteers, while she continued to help on workdays. We secured additional funding for the 2018-2019 budget cycle, and Yulia came onboard as a fulltime volunteer coordinator after her graduation in May.

We were getting attention in the community and raising some concerns among professionals involved in building science/weatherization because we didn’t have a trained specialist verifying our efforts to ensure we were operating safely and actually making an impact. To partially address that, Sam suggested I get trained, so, in 2018, I successfully completed the Building Analyst Professional course from Southface Institute in Atlanta.

One of the benefits of the Southface Institute Training course is that I learned how to operate a blower door. Green Built Alliance had one available, and we began to incorporate the use of the blower door on projects. Now that ESN has a building science professional managing projects, we use a blower door to test for and identify air leakage in all electrically heated homes.

A LOW-INCOME ENERGY UPGRADE PILOT PROJECT

The EITF, and particularly the city and county, decided to place a focus on low-income energy efficiency, and, in early 2018, they were able to obtain funding from the “Southeast Sustainable Communities



Brad and volunteer Joe Wombwell using blower door to test for air leaks on mobile home.

Fund” to expand low-income weatherization through a pilot project. This effort would involve additional funding for CAO to perform deep retrofits and for ESN to work to increase the number of “light retrofits.” Sam, as head of GBA, was responsible for the whole effort. He hired a building science professional as project manager to run the project and ESN was engaged as a “subcontractor.” It was a two-year project, during which ESN would learn a lot from the project manager and do a lot of good, as well.

As ESN's Executive Director and the most engaged volunteer in management and projects, I clashed often with the manager of this project. We truly had different philosophies about this work. I'm engaged by the cause, and I get impatient when people create obstacles which don't make sense to me. I always question things. I like to ask for forgiveness versus asking for permission up front. I like to "build the airplane while we are flying it." I knew all of this from my days at EMA managing PROSCREEN's team of software developers. I preferred a "compositional" approach, and didn't always do everything "by the book."

My approach could be frustrating to those who desire more structure, especially when they have professional certifications designating them as experts. I would challenge this project manager when I disagreed with what he was saying, and he would challenge me in turn, both in front of me and behind my back. Unfortunately, Yulia was placed "in the middle" of these conflicts, having to work with me as ESN's volunteer director and with the project manager as a fellow employee. Thankfully, we made it through the process having incorporated much important feedback into our processes. That project ended, successfully, at the end of 2019.

The year 2019 and early 2020 was a momentous time for ESN. We had committed to 200 homes for 2019, and by November, we were only at 160. Our teams of volunteers and project managers, including me, accelerated efforts, and in those last two months we completed forty-one homes, ending the year at 201.

SCALING UP

Meanwhile, Brownie Newman had reached out and wanted Sam and me to provide him with a plan to greatly expand our efforts. The plan we developed by year-end had a strategy that would get us to

600 homes a year. We would need to hire a bigger staff *and* engage more volunteers. We would also need to continue private fundraising *and* develop a corporate sponsorship program, plus seek additional grants, all to supplement the funding the city and county would provide. The feedback on our plan was very positive, and Brownie committed to try to find the money.

We had done a fabulous job of creating ESN out of thin air and developing strong community interest in having it continue and expand. In 2019, the Sierra Club gave us the “Environmental Organization of the Year Award” and the Energy Innovation Task Force gave us the inaugural “Energy Innovation Award!”

Early in January 2020, Sam had concluded that, to get to the next level, ESN should merge its operation with GBA, and that we should move from fiscal sponsorship to full combination with GBA. I would need to step out of a direct management role and become an advisor to ESN, as well as continue volunteering.

It was a difficult but, ultimately, obvious choice. I had to give up my baby! I had many reservations and questions. Reflecting on the options, it became clear that our little corner of the climate war was best waged if I gave up direct control so that we could achieve our full potential. Just like when my parents had sent me off to boarding school in 1966, or when Karen and I sent our sons to college, it was time to let ESN see if it could get to the next level, and that meant giving it up. We signed the contract to merge ESN with GBA in February 2020, just as the COVID-19 pandemic was getting started.

Despite local financial budget cutting in the face of the COVID-19



Yulia Shaffer, Brad Rouse, and Julie Mayfield with Brad holding Energy Innovation Award, presented April 18, 2019.

pandemic, we did get some of the funding we need to dramatically scale up. That effort is in progress now. The pandemic hampered ESN's operations in 2020, but we were still able to complete 107 homes. We now have a full-time building science professional, Kelvin Bonilla, along with two others dedicated to administration and outreach. In 2021, our volunteers are reengaging, and we are back on track. We have also become involved in "Neighbor to Neighbor Solar," an initiative to provide solar energy systems for ESN clients.

As 2022 begins, we are expanding that effort to provide mini-split heat pumps for people using resistance electric or oil heat. Wouldn't it be incredible if our energy transition could concentrate first on efforts that also help our most energy burdened neighbors?

In the meantime, Yulia has departed to pursue her PhD, and we have been extraordinarily fortunate to bring Steffi Rausch on board as Operations Coordinator. Steffi, as you recall, also volunteers as Asheville's lead organizer for Citizens' Climate Lobby. By joining ESN and winding down her web development business, Steffi is now more than 100% engaged in the climate fight! It's great to have so many other climate warriors helping the cause in our local area! With new spending on climate and affordable housing hopefully on the horizon, we will have an even greater chance to make a difference moving forward.



Alice, Yulia, Steffi, and Brad at one of first 2021 post – Covid lockdown events, to celebrate Yulia's moving on from ESN.

I hope the reader has enjoyed this personal story of one small climate related effort that has many beyond-climate benefits—for clients, for volunteers, and for community. I hope you will seek out climate-focused efforts where you are so that you can make a difference too.