

## **PROVIDENCE FRIENDS MEETING**

### **CLIMATE CRISIS COMMITTEE'S**

#### **SOLAR ARRAY JOURNEY**

The Climate Crisis Committee (CCC) was formed at Providence Monthly Meeting in early 2021 to help fulfill PMM's and PYM's commitment to address climate change, to promote increased awareness in our Meeting about climate issues, to educate our Meeting on how, locally, we can reduce our carbon footprints, and to help identify opportunities for witnessing to our faith in creating a more sustainable society. Our work is grounded in a deep spiritual belief that ***"The world is God's creation. How we treat the earth and all its creatures is basic to our relationship with God, and of fundamental religious concern to the Society of Friends"*** - Philadelphia Yearly Meeting, 1998

Over the last three years, the CCC

- created a survey that prioritized the Meeting's climate related issues,
- held Zoom meetings with the Meeting defining and demonstrating carbon footprint calculators,
- hosted (and created a slide show) of an in-person demonstration of 5 different houses of PMM members or attenders that either used solar arrays or passive means to reduce their carbon footprints,
- ran an in-house hands-on demonstration of building a solar oven,
- evaluated the feasibility and learned the pitfalls of switching to a "clean energy" company,
- started (and continue) to collect and recycle single use batteries and holiday light strings from the local community,
- started an in-house composting collection,
- participated in a multi-denomination "Plastics Free July" program,
- shifted the Meeting's perspective on sustainability (moving from individual stress to community strength),
- received Meeting approval to install a solar array,
- organized the fundraising needed to cover the array costs, and
- oversaw the array installation!

And we haven't stopped there.

The path to obtaining the solar array was a community learning experience even though a few PMM members and attenders did have solar panels installed when the PMM solar journey began.

We understood that the Inflation Reduction Act (IRA) was going to provide a 30% federal energy rebate on renewable energy systems for non-profits and this helped to galvanize the Meeting in going forward. We knew that our array would need to be ground mounted and would be installed on property that PMM purchased 15 years or so before and was being used primarily as an occasional overflow parking area.

In February 2022, the CCC presented our suggestion that PMM find a way to install a solar array. We recognized that this was as much a spiritual act of faith to stand in the Light and ground ourselves in hope as it was practical. PMM quickly came to unity on both moving forward on the project and to review funding possibilities (see below). We reached out to an installer known to members of the Climate Crisis Committee, who visited PMM that same February.

A proposal was received from the vendor in March 2022. Since we are a PECO commercial customer, it was pointed out that our “payback” time would be greater than if we were considered a residential service - payback time was included in all the quotes we received from the vendors.

In May 2022, we hosted a meeting of the Meeting at the first proposed site to discuss the the aspects of a solar array and a potential array location. This meeting provided feedback as to the pros and cons of this location as well as potential roadblocks at other Meeting property locations. In addition, this meeting also provided an opportunity to explain to the group more details about solar, the approximate size of a panel, the approximate size of the array to meet the expected annual electrical consumption by the Meeting, the trenching needed (and its probable location) to get the electricity to the utility meter and other aspects. Black walnut trees and shading were issues among others. Concerns about the height of the array started to arise.

In June 2022, the Meeting gave the CCC approval to solicit array quotes from three vendors. (During our solar journey, the price of solar arrays was going up as covid-19 had been wreaking havoc on supply chains.)

We began to interact with neighbors, one of whom was opposed to the array in principle as well as how it would impact the immediate environment that they lived in. We also had to work with two municipalities - the actual array was going to be located on the part of the Meeting’s property that was in Nether Providence; the array was going to be hooked into the utility’s meter that was located in Media on the meetinghouse wall.

Quotes from the three installers were received in August/September and all three were very close in terms of fiscal costs. All proposals were of the same type and location, maximizing production with regard to the trees surrounding the proposed location. All three designs were the standard rack, ground mounted type, reaching a height of 7 1/2 to 8 feet tall. Unfortunately, their proposed locations impinged on a gentlemen’s agreement that PMM had with a neighbor allowing for tree service trucks to access his property when needed. Some members, as well as a neighbor, who we continued to communicate with, started to push back on the array rack height.

**Raising money** - the CCC worked with the PMM Finance Committee in determining how to raise the funds needed and the impact this would have on the Meeting’s finances understanding that all of the money was needed upfront to cover the cost of the project - the 30% energy rebate that the government was promising would not be seen until after the installation was completed, if at all! In September 2022, a Sprint was formed, pledge letters written and mailed, and pledges and contributions began rolling in. By December, it was clear that we would have enough money raised with the understanding that the members only needed to raise 70% and that the project could go forward. The remaining 30% of the project costs were to be fronted by the Meeting as a short term loan until the federal rebate arrived.

Working with the Meeting in October, the CCC went back out to the vendors asking for the array to be located toward the southern edge of the property, allowing for tree service access for our neighbor in addition to asking for a lower profile design; only one of the three vendors provided a quote; in that November quote were three proposals, one of which was a low profile arrangement. All three proposals allowed for the tree service to access the neighbor's property. The low profile design tempered the concerns of those who were against the higher profile design. We met with the Parking Committee to go over the latest array location and its impact on future parking - they were onboard.

Back to the Meeting we went, and approval was granted to go ahead with the low profile, 32 panel, 14.4 Kw design in December 2022. The contract signing was completed in January 2023. We had the money, we had a contract, now we needed to get on the schedule.

But before that happened, we needed to get approval from the municipalities and PECO. Nether Providence first indicated that their approval was not needed since the hookup was going to take place in Media. Media Borough reached out to them suggesting otherwise. In the end, in February 2023, both the township and the borough granted permission to proceed.

Next was PECO. Before the array installation could begin, we needed their approval. PECO performed a Technical Review to determine if work was needed to be done locally on their utility lines to accommodate the additional power from our array. The results of the review indicated that something needed to be done which led to their Engineering Study; this lasted 4 months and took us into July, which is when we received their permission to continue with our installation.

The installer then put us on their schedule for August. But before they could install the array, we needed to prepare the ground for the array. The installer came out to the meetinghouse and located the perimeter of the array. From there, PMM members donated their time and money to determine what was the best course of action to prepare the ground as well as procuring and installing the material required - 12 tons of modified crushed stone to be raked out across the array area as well as drainage and filtration fabric to be stapled to the ground under the stone.



Installation began on August 29 and was completed September 5. Now we had to wait for PECO's Permission To Operate as well as getting a new net meter installed before the array could become active. These two events happened rather quickly - the switch energizing our array was actuated October 9 @12:35 PM by the Clerks of the CCC and the Property Committee - we were now reducing our carbon footprint big time!

**Pursuit of the 30% federal energy rebate -**  
We received information from a vendor regarding the 30% federal rebate process early in 2022. We understood that the rebate

was going to apply to systems that were installed in 2023 or later. As 2023 was beginning, we began looking more earnestly into the rebate process. We asked local and federal government

officials, solar organizations, and the IRS (which is the government agency for establishing and administering the process) - what is the process? In August 2023, a CCC member attended a solar-oriented webinar about the IRA with IRS personnel on the panel. One of the IRS personnel on the webinar, when asked about the status of the rebate process, responded that the process was a long way from being completed - check back later in the year, which we did but to no avail. It wasn't until January 1, 2024 that the government website we were following about the process had finally finalized the process to the tune of 79 pages. From there, our Treasurer was able to find his way through the "paperwork" maze to complete the application and get the PMM array registered with the IRS to file the claim. Now we need to wait again and who knows for how long.

**Fencing** - Because the array was located in our overflow parking area and because of the gentlemen's agreement with our neighbor in allowing tree service trucks to access their property through PMM's property, fencing was installed around the perimeter of the array. The design of the fencing was developed as an Eagle Scout project. The October 2023 installation was coordinated and performed by a scout troop. The fencing installation included 4 large bollards that protect the array from vehicles damaging the array. The bollards will have native perennials planted in them by our Landscape Committee.



**SRECs** - Solar Renewable Energy Credits. We, as a committee, wanted to retire the SRECs and not receive any financial gain from them. We had to explain what SRECs were and what they stood for to the Meeting members, and why the CCC wanted to retire them over the course of two different meetings. Finally, the Meeting agreed in December to retire our SRECs and not get compensated for them.

**GATS** - Next was applying to GATS, Generation Attribute Tracking System, the system that keeps track of solar generated electricity. We didn't need to apply to GATS in order not to receive compensation but it was important to us as we wanted the Meeting's solar generated electricity to be counted among all of the other producers in the state. The GATS application was approved in early February.

So here we are, more than two years after we started down the road to greatly reducing the Meeting's carbon footprint by obtaining a solar array that should generate enough electricity to cover our electrical requirements (we'll know sometime later this year if that goal was accomplished). Yes, we are still tied to the grid and receive electricity from PECO when the sun is not shining or when the Meeting is using more electricity than what we are generating, but the feeling that we have, knowing that we are using some of our own electricity as it is being generated, as well as supplying electricity to the grid, is truly spiritually up-lifting.

It's been a community - the solar array was agreed to by the Meeting, procurement of the array coordinated through the Climate Crisis Committee, funding financed by the Finance Committee

through pledges and donations and the federal rebate as well as completing the application and getting registered with the IRS for the IRA, installed (along with the fencing) with oversight from the Property Committee, the location okayed by the Parking Committee, and maintenance of the bollard plantings to be taken care of by the Landscape Committee.

The CCC has helped bring the PMM community closer together in its three years of existence pursuing its mission to address climate change, to promote increased awareness in the Meeting about climate issues, to educate the Meeting on how, locally, we can reduce our carbon footprints, and to help identify opportunities for witnessing to our faith in creating a more sustainable society.

And we continue to be hopeful about the future! Stay tuned for our next installment - about the workshop that we convened in February!

***Climate Crisis Committee  
Providence Friends Meeting  
March 2024***