Solar Power to the People

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Greg Dalton: I'm Greg Dalton.

Kousha Navidar: And I'm Kousha Navidar.

Greg Dalton: And this is Climate One.

[music change]

Greg Dalton: Solar power has been around for awhile

[playback: 80's solar ad]

Greg Dalton: You know Kousha, I remember the first time I heard about solar power. I think it was in the hills of California with some hippies growing weed and they had solar thermal that took heat from the sun to heat their hot tub.

Kousha Navidar: Wow, hippies with hot tubs and pools. I love that image,

Was trying to think of my first experience with solar panels… Ok, so, for me, solar power came into my life, I think kind of endearingly. The first was in kindergarten. Do you remember those blue calculators in school with the strip of cells at the top that powered the calculator? I remember covering them up with my finger to see how long it would take for the numbers to fade away.

Greg Dalton: I'm getting an image of what kind of a student you were.

Kousha Navidar: Inquisitive!

Greg Dalton: Much later I had a solar powered cell phone. It was the early 2000s and Sprint came out with a Samsung phone you could point at the sun and charge the battery.

Kousha Navidar: Wait, there were commercial solar powered cell phones?

Greg Dalton: Yes. It didn't last very long, they didn't sell very many but the CEO was trying to be more sustainable and make a point.

Kousha Navidar: Wow. Okay so one more for me: And I've gotta give a shout out to my other first memory of solar power – The Simpsons. Here's a clip from one of my favorite early episodes, it's about a new monorail that gets installed in Springfield. And partway through the episode, the monorail goes out of control, and here's what the people of Springfield say.

[playback Simpsons clip]

Greg Dalton: We don't have solar powered monorails yet but the technology has come a long way. I remember in 2004 I first ordered solar panels, it took a whole year for them to arrive from Europe. And I don't want to think about what the shipping cost. But thanks to continued technological advances, solar has become the cheapest way to create electricity.

Kousha Navidar: How much cheaper are we talking about?

Greg Dalton: Well, solar prices are less than half of what they were just a decade ago. Prices are expected to continue to fall, though tariffs and supply chain disruptions could change that.

Kousha Navidar: Wow, less than half! Plus, it's way easier to use on your own. I haven't seen a lot of people with a wind turbine in their backyard.

Greg Dalton: Right, solar is making its way into many aspects of our lives that were unthinkable a few years ago. Sprinter van. Power wells in rural areas. Ranchers don't have to run electrical lines. I have a portable solar and battery I use in the wilderness. And all of that is driven by the price drops we've been seeing.

Kousha Navidar: Yeah, and that's super important for a lot of reasons. First, affordable is good. And second… You know, I have an apartment in Brooklyn. And I never thought I might be able to have solar **power** – I don't own my roof. But here's the thing I just found out: In more and more places, you don't have to be a homeowner to get solar. "Community solar" is this idea where solar panels are more collectively owned. And Greg, one of the first things we connected on as a way of setting up this story was that we're really into riding bikes.

Greg Dalton: That's right! I rode an e-bike to meet you.

Kousha Navidar: That's right, I forgot about that, great point. And I recently learned that one of the places I regularly bike past is the site of one of those community solar projects now being developed. It's on the roof of the old Brooklyn Army Terminal. This particular project is being spearheaded by an environmental justice organization called UPROSE. Their executive director is Elizabeth Yeampierre. I got to talk to her. She explained how her agency went from being a social service organization to something more.

Elizabeth Yeampierre: In that time, um, the organization got filled up with people, particularly young people from around the block. We spent about a year listening to find out what people needed

and what was real clear at that time was that they were about to expand the Gowanus Expressway, which had about 200,000 cars going through there every day and 25,000 trucks and –

Kousha Navidar: And for listeners, that's a big interstate that goes right along the, the, the water in Brooklyn. Right.

Elizabeth Yeampierre: Yeah, it's a, it's a, it's a Robert Moses construction that divided the community,and, uh, was just dropping tons of co pollutants into people's lungs. And so it became clear early on was that there wasn't an organization working on environmental justice. And we wanted an organization that didn't compete with others, but collaborated and met unmet needs. And so, uh, the young people were really concerned about, um, the ability to breathe and people in the community said the same. And that's sort of how we then go into, uh, the environmental justice movement and or, and Uprose then starts fighting against the unfair siting of environmental burdens in Sunset Park. So. We didn't, that wasn't the history of the organization. And I certainly had never taken an environmental class in my life. But it was what people said they needed and we have transferable skills. And so we started training people to organize. We started learning policy. We started moving infrastructure and we started winning.

Kousha Navidar: Tell me about winning.

Elizabeth Yeampierre: We literally file a lawsuit against the state to stop the expansion of the Gowanus expressway. We fight for 15 years for doubling the amount of open space, which we do, uh, by getting a Bush terminal park, which is 23, uh, acres and, and people from other places may not think that's a lot, but in a deeply, a densely urban community, it's a lot. Uh, we are able to expand the median, the 4th Avenue median. Let's make the community more pedestrian friendly. We facilitate the design of a community led greenway. We stopped the siting of a 520 megawatt power plant that would have been the size of 3 football fields. We stop our elected official from fighting against legislation that, uh, would have prevented our community from being safe from lead paint. Like it was one thing after the other and every win led to another, because nothing is more addictive to the community than winning. Our elders came to us and they asked, um, that the state had taken away one of the buses and they wanted their bus back and they said, we need, we can't get on the trains. Trains are not accessible to people with limited mobility or disabilities. We need our bus back. Uh, and we organized a coalition and got the bus back.

Kousha Navidar: Well, you know, Elizabeth, what really stands out to me listening to you. It's a few things. One of them is that this was community led, right? Like when you entered in the mid 90s, Uprose, the community was the one saying, we want to focus on literally our ability to breathe. And, and the second is this kind of intergenerational, but very community-based work in Sunset Park. So I gotta ask, tell me a little bit about Sunset Park. What's it like to live there?

Elizabeth Yeampierre: Thank you for asking that question, because the truth is that we see ourselves as staffing the community that while the community is working 2 or 3 jobs or raising their children that we're there and we get our marching orders from them and we staff them. But Sunset Park is, you know, I refer to it as Sancocho, which is this Latin stew that has all these different flavors and is just amazing and nourishing. It is a Latino mix, you know, Puerto Rican, Dominican, Mexican, Ecuadorian, you know, Central and South American, Asian, mostly Chinese and Fujian. It is a working class community in the largest significant maritime industrial area in New York. And if you go to the park, you're going to see the Chinese dancing, doing ballroom dancing. You're going to see the Mexican community getting ready for quinceaneras. You're going to see. See the Caribbean's in a corner with their drums out. It is a community that sort of tests everything that people think about, uh, diversity. Um, it, it, you know, we speak different languages. Uh, our children are playing with each other. Our elders are playing Mahjong and dominoes. Uh, it is, I think, I don't know, it is

what I had envisioned growing up, New York City should, should be.

Kousha Navidar: And also I imagine a lot of the same gentrification pressures that maybe Manhattan has been facing for a while, Sunset Park definitely faces as well. Is that fair to say?

Elizabeth Yeampierre: Absolutely. I mean, I think that a lot of folks, uh, the chamber of commerce, uh, industry city, a lot of developers have, uh, basically been promoting sunset park as the destination location for the privilege. And if they did that, we wouldn't just lose our small business. And we wouldn't just lose our communities. and just so, you know, when communities are uprooted and displaced, it rips social cohesion and makes them more likely to die from extreme weather events. The other thing that would have been, uh, impacted is that, um, we would have lost the significant maritime industrial area, which is the largest in New York and really has to be building for a climate future. It has to be building for climate adaptation, mitigation and resilience. It should be the place where green manufacturing is happening. It's had a whole legacy of extraction, of harm, but the potential that exists there for moving it from an extractive economy to a regenerative one that not only serves the local community through jobs and through cleaner air, but also addresses the climate needs of the region is vast.

Kousha Navidar: and this idea of having climate resilience be within the DNA of the way that a community rises up, and develops, I think, is crucial. And that kind of takes me into. This, this project, which I find so interesting, Sunset Park Solar., you know, Elizabeth, I love riding my bike around Brooklyn, and I've actually biked close by the Brooklyn Army Terminal, where this project is taking place. So walk me, through the highlights of the program. I guess we could start with installing solar panels?

Elizabeth Yeampierre: Yeah, so thank you for asking because we're really excited about this project. Remember that everything we do, we hope will be replicated, um, and that other communities will learn and do the same or even do better because we really need to lean into collective care and we can do it even through infrastructure, which may not sound sexy to some people, but to us is very exciting.

Kousha Navidar: Infrastructure can be the sexiest of things in urban planning.

Elizabeth Yeampierre: We get very excited. So this was an idea we had about 5 years ago about how do we take our rooftops and turn our rooftops? Um, because we're, you know, we're in a densely populated place and we don't have a lot of open space or and we don't have site control. We don't have a lot of spaces that we can use to redevelop, to address whether it's, uh, renewable energy, whether it's, uh, drinkable water, uh, food sovereignty, wellness, we are limited in space. So we were looking at our rooftops and thinking about how can we make sure that we are bringing renewable energy into Sunset Park, and creating community wealth at the same time, and the community had also told us right after Superstorm Sandy that they wanted Uprose to get them past this thing about changing the light bulb that all anybody ever told them to do to address climate change was to change the light bulb as if they were responsible for climate change and as if that was enough. So this project sunset park solar then is a community led collaboration between the developer partner working power and the New York City economic development corporation. And its purpose was to reduce greenhouse gas emissions, alleviate energy burdens, bolster a local energy economy, protect low income households from unpredictable energy price fluctuations. And for me, also reducing coal pollutants, the fact that you could have access to energy that is not harming the health of the local community. It's 725 kilowatts of clean, renewable energy. It was capital raised by Uprose and Working Power 1. 8 million dollars for this. With a tax credit financing that is currently at 900,000 K. and it would provide subscribers with up to 20 percent of discounts in the electricity bills, energy bill savings for 170 households over the project's 25 year lifetime.

Kousha Navidar: And those are households in Sunset Park, you're saying, people who live and work there.

Elizabeth Yeampierre: Right, and we already have 170 households that have subscribed and we have a wait list of 360 plus residents, that the revenue 1 million dollars plus from the project is going to be reinvested in the community wealth fund and that will allow community residents to directly allocate resources to local priorities, which we hope will be climate related.

Kousha Navidar: And how far along is the project? Like when, when does the switch turn on.

Elizabeth Yeampierre: The construction, I think, begins in May. And then by the end of the year, it's up and running. Yeah.

Kousha Navidar: Oh, wow. Okay. So, you know, we're, we're talking about six years, I guess, from, from soup to nuts. That's, you know, in the world of policy that, that is pretty fast moving in some ways, I think if you're talking about a large-scale community based initiative there. So–

Elizabeth Yeampierre: In the world of policy, but in our world where we're seeing extreme weather events, we're seeing fires and Prospect Park and orange skies and, uh, and so many challenges to our ability to thrive. It feels like it moves slow, but yeah, you're right. You're right. These things do take time, which is another reason why organizations should be intergenerational.

Kousha Navidar: So then tell me, how replicable do you think a project like this is? I mean how much do you talk to other communities about what you're doing?

Elizabeth Yeampierre: So, you know, we have this plan called the grid and part of it is to move away from fossil fuel dependency. And so we've looked at different rooftops and the one that we're looking at right now is the Jackie Gleason bus depot. And that building on 36th street and 5th avenue, if we were able to access that rooftop, we would be able to service a thousand families. Right and so we're going to use everything that we learned from the smaller array that serves 170 families and we've developed a proposal for that rooftop. We've also looked at parking lots, everything from the Liberty view parking lot to industry cities parking lot to see if in those places, we can have sort of like a private public relationship where the owners of those properties would put in solar canopies that would benefit small businesses and Sunset Park. Part of this is not just putting down the infrastructure and benefiting the community, but also raising climate consciousness. And giving hope, letting people know that there are solutions and that they're not just aspirational, but that they're operational.

Kousha Navidar: We're in the first few weeks at this point of a new administration. We've talked a lot about your work, uh, UPROSE's work. Does this new administration looking forward impact the way that you're approaching your work now?

Elizabeth Yeampierre: Um, yeah, I think it will impact our work because remember that while we were working to decarbonize the community, now we're seeing disruption at another level. We were thinking about climate disruption and thinking about how do we make sure that we're building a community that is addressed? And it's about addressing, uh, the community's needs in a changing climate and how do we build climate consciousness and now we're hearing about raids and ICE and we're hearing and people are telling us how fearful they are. I was getting my nails done this weekend and a Guatemalan sister told me what do I do if ICE shows up? It is a reign of terror and it is an effort to really sort of dismantle everything that we hold sacred and when we started moving forward and thinking about the future, when we became part of the climate justice movement, we were thinking about how do you defend and protect the sacred? And so that's where we are right

now.

It's always been difficult to get people to think about the environment when they have to deal with housing, when they have to deal with employment, when they have to deal with other kinds of challenges that people from the front line have to deal with. Our goal is to make sure that we make the connection between our effort to address climate change and those other disruptions. Any community that is being disparately impacted or harmed by this level of disruption is going to be impacted even more by climate disruption. It will exacerbate all of those problems. So, we're going to keep moving and we're going to go hyper-local and we're going to do it in the name of love and all that is sacred. And we are going to keep our eyes on the prize, which is, we're going to try to get that infrastructure on that and that bus depot. We're going to try to get those parking lots. We're going to try to figure out how we create a community land trust so that we can grow food. The thing that's at the middle of all of this is that we have each other. Um, and so we got to lean into each other, all of us who believe in human rights and all of us who believe and have a vision of a future that looks very different from the past.

Kousha Navidar: It's very well said, Elizabeth. And you know, it has been such a pleasure getting to learn about Sunset Park Solar and more getting to hear how your kind of multidimensionality approach to these community led climate resilience projects, at least in New York City, are coming to light.

Kousha Navidar: Elizabeth Yampierre is executive director of UPROSE. Elizabeth, thank you.

Elizabeth Yeampierre: Gracias, thank you so much.

Greg Dalton: Coming up, a community battered by hurricanes and an unreliable electric grid takes control of their own energy.

Arturo Massol Deyá: We started like what we call it the energy insurrection. A bottom up process for transforming our energy landscape.

Greg Dalton: That’s ahead, when Climate One continues.

Kousha Navidar: Help others find our show by leaving us a review or rating. Thanks for your support!

Greg Dalton: This is Climate One. I’m Greg Dalton.

Kousha Navidar: And I’m Kousha Navidar

[music cue]

Greg Dalton: In the town of Adjuntas [ad-HOON-tas], in the interior of Puerto Rico, a community hub called Casa Pueblo is helping people take charge of their own energy production.

Kousha Navidar: Casa Pueblo was ahead of the game – they installed their first solar panels WAY back in 1999.

After Hurricane Maria devastated the island in 2017, Casa Pueblo kept the lights on for their community with their solar and battery storage system. They used their model to help local businesses and individuals get solar systems of their own. Now they’re working on linking those

individual systems together to create micro-grids. Those micro grids help make the whole community energy self-sufficient."

Greg Dalton: Casa Pueblo was started by Alexis Massol [mass-SOUL] González in 1980 with his wife Tinti Deyá Díaz. [Tin-tee Die-YAH Dee-as] Their initial goal was to stop a massive mine that would have devastated the local ecosystem. After years of protests, they successfully blocked the project and were given management over a community sponsored forest they named Bosque del Pueblo.

Kousha Navidar: Now Arturo Massol Deyá, the son of the founders, is the executive director of Casa Pueblo. He spoke with Climate One's Ariana Brocious, where he picked up the story of Bosque del Pueblo.

Arturo Massol Deyá: When everything at first was about protesting and preventing the mining from happening, we realized that protesting was not enough. So we evolved from protesting to proposing alternatives, and we proposed Bosque del Pueblo. So after 15 years defending the land from the mining we achieved a change in public policy, a great victory prohibiting mining in Puerto Rico, open street mining, and a year later that land was designated as a forest. And we decided that we wanted to manage the land. So it was also about assuming the responsibilities of our own proposals. And I think that raised the bar and the understanding of what we were doing as a community and climate, natural resources all came together for an alternative model for community development.

Ariana Brocious: That's a really remarkable victory not just to actually stop the mining, but to protect the land and then take ownership or, or responsibility, as you said, of it and managing it. Another big component of the work you all do is solar. And I think 1999 was when you first began this, this solar project. Why did solar seem to be a good avenue for Casa Pueblo way back in 1999?

Arturo Massol Deyá: so we realized quickly enough that the greatest threat to natural resource conservation and for the conservation of biodiversity was the threat of the fossil fuel economy. And at that time, Puerto Rico was 99 percent dependent upon a bunker, eventually coal and natural gas became into the fossil fuel equation.

Ariana Brocious: And just quickly for listeners, bunker fuel is heavy oil.

Arturo Massol Deyá: Uh, so we needed to propose an alternative system that could be relied upon and solar makes sense in Puerto Rico, and that's why we decided that to back up our statement that Puerto Rico needed to move away from the fossil fuel economy that we needed to reduce our ecological footprint and one way to do it was by embracing clean energy sources and fuels that are at reach, available for free and they're clean. And that's when we decided to do that, that installation in 1999, five solar panels. And that's what we installed.

Ariana Brocious: So you placed five solar panels initially, that work has evolved dramatically in the last couple decades. You've now been building these micro solar grids. Tell us a little bit about that work and, and what the sort of priorities are in who and what you are supplying with renewable energy.

Arturo Massol Deyá: Let me tell you, we went through an energy transition. Something that Puerto Rico as an island nation have to go through again. In 1999, we were able to produce like 5, maybe 10 percent of our total energy needs at Casa Pueblo, the main installation for our organization. In 2007, we upgraded that system with the help and support from the University of Puerto Rico at Mayagüez. At that time, we reached like 50 percent of our total energy needs. We acquired a radio

station at that point, our energy demand increased with that. And in 2017, at that time, we reached that 100%. We can produce more than all of our energy needs in Casa Pueblo before the pass of Hurricane Maria. So when Hurricane Maria went through Puerto Rico, there was a power failure, power outage, uh, in our municipality that lasted up to a year in some areas and Casa Pueblo was ready. And at that point we started like what we call it the energy insurrection. A bottom-up process for transforming our energy landscape.

Ariana Brocious: I want to ask more about the energy insurrection, but just quickly on Hurricane Maria. You all were essentially an energy oasis during that disaster. What were you doing to help the community during those disasters?

Arturo Massol Deyá: I mean, um, the hurricanes are natural events in the Caribbean. The disaster is the incapacity of the government and the utilities and services to support the well-being of the people. In our case, uh, we were able to reopen right away because we had power, uh, we cleaned up all the damages done by the hurricane.

That was very strong and nasty. But at that time we reopened, people were going there to recharge their equipment, to plug in respiratory machines. We have our radio station going and providing some communication and advisors and coordinating support. And Casa Pueblo at that time decided to, to help the community in other ways because the government was incapable of, again, complying with their responsibilities. So we hooked with people in the diaspora in Houston, Philadelphia, Madrid, and other places in this planet. And we were able to channel a lot of support, including solar lamps, medication, blue tarps, machinery and stuff that actually helped the community respond during that time.

Ariana Brocious: That's such a profound statement, what you said about hurricanes are natural events, the disaster is the response. I'm gonna, I'm gonna be thinking about that for a while. So you've mentioned this idea of wanting to create an energy insurrection. That word means a lot. So tell me more about what that means to you and what you're trying to do in that vein.

Arturo Massol Deyá: Well, we have been promoting a transition to clean energy sources since 1999, but top down, you don't see any transformation happening. Actually, what the government has done is, is to privatize transmission and distribution and, and the centralized generation, and they want to, to gasify Puerto Rico. They want to keep the same mentality, the same set up that has failed Puerto Rico and will fail again because it's obsolete. And because it's not happening top down, we have to push from the bottom up and Casa Pueblo and Adjuntas, our municipality, has become a reference of what can be done in other places. We have powered the elementary school, over 300 homes that need energy security for medical purposes. We have done the fire station, the barbershop. We have done grocery stores. We have done elderly homes. We have built a solar cinema for, for entertainment and mental health. Not only the radio station, the transmission tower of Radio Casa Pueblo is also running on solar, so we have been dealing with different needs within the community, building energy security and showing that that transformation can be done, that is at reach, that is doable, and we have been tested with earthquakes and hurricanes that came after Hurricane Maria, and we are, Adjuntas, in a better situation. You don't eliminate all the risk associated to these events, but the community is in a better position to deal with these challenges. And that's what we're pushing now for energy independence for Puerto Rico, not only a technological transformation, we're thinking way beyond just a technology change. We need much more than that.

Ariana Brocious: And I want to underscore for people the difference between the model many people in the mainland United States have solar, but it's on their rooftop and it's interconnected with the bigger electricity grid. And so they're not actually self-sufficient entirely. They may be

generating a portion of the power that they use, but they're still tied to that bigger grid. And if there were a power outage, unless you have a battery or something at your house, you're pretty much still at the mercy of those supplies. You're describing a system that's totally separate, totally independent, and can then function regardless of what's happening with the bigger grid. So installing solar can be expensive, and I know Casa Pueblo gets funding from a few different sources, some of it's self-generated through the sales of coffee. You also receive donations, from some pretty big figures around the globe. How do you begin to expand the work you're doing, building more solar, more microgrids, given that it can be kind of expensive?

Arturo Massol Deyá: Well, let me tell you what is really expensive is to confront the consequences of the fossil fuel economy. Burning coal might look like it's inexpensive, but when you have to suffer all the consequences of climate change. Uh, it's not that inexpensive. Uh, it's very expensive. Uh, in the case of Puerto Rico, all of the fossil fuels are imported. We don't control the prices. We are at the mercy of that market. Uh, and we have a public debt of that infrastructure that makes everything really expensive. Solar is very inexpensive. I mean, you have to pay up front for the infrastructure for the solar panels. The prices are coming down. The fuel is free, it's there for the next 25 years. So, uh, in that sense, uh, solar is the best economical, environmental, social, uh, political solution for Puerto Rico and for many, many other places. In our case, uh, we have engineers in our group that helps. We, like you said, we got solar panels donations. We generate our own income in a way. Alex Honold from the Honold Foundation has been helping Casa Pueblo and and our community, Oxfam America, and many others have seen that helping Casa Pueblo is, is a good way to help others in our community. Traditionally what you see is this money being allocated to Puerto Rico through federal funding. We don't use any of those federal federal funding because we're fighting for decolonization of Puerto Rico as well. So we don't want their money. but if you see that top down, for every dollar that is invested in Puerto Rico top down, you see the indirect cost, you see everything going more expensive, you have to hire this, you have to buy from there, all the bureaucracies, so from, from every single dollar, you see like 10 cents as, or maybe 5 cents as an output for, for, for the local impact. When you see it in a community setting, you see the opposite. You see a dollar being amplified by synergy, by the synergy that you see among the different actors, and people who are participating. So that's how we have been kind of very effective with minimum amount of resources we have. We have been able to pull out a great solar footprint for, for, for Adjuntas.

Ariana Brocious: So what can other communities take from the work Casa Pueblo is doing to help become self reliant, particularly energy self sufficient?

Arturo Massol Deyá: I think you need to get organized. Casa Pueblo is doing this right now because we have been organized and, and confronting different threats and reality. Everything we do in Casa Pueblo is science, culture and community. That's our social equation for change. Knowledge, but knowledge by itself is not going to change anything. It's knowledge with our own culture, with what we think ought to be done to build community. We started with solar lamps after Hurricane Maria because it was at reach, it was something that was doable at that time and will have a great impact, but the idea of using solar lamps was also to educate the community about embracing these alternative energy sources and and then we did urgency systems, a small solar units for, for, to run a respiratory machine or a dialysis equipment. And then we were doing homes. And after that, we were doing critical infrastructure, all of the sudden we were doing micro grids. And after doing micro grids, now we are doing networks of micro grids, which is the next level. That's because we never thought we were going to be doing things like this, but our reality, the sense of urgency and commitment from our community and the support from other and understanding by others had helped Casa Pueblo move forward and perhaps other communities and other people. I don't know, I don't have a recipe for them, but the idea is, we're open to share the way we have been doing things, and if that helps motivate others and, and, and find ways to, to move

forward, we're more than happy to help as well.

Ariana Brocious: Wonderful. Your projects range from protest to community education, to supporting the arts with a cinema, a radio station, to building actual infrastructure. Of all of these efforts, what do you think makes the biggest difference?

Arturo Massol Deyá: Well, I think it's the integration, the interconnectivity of this agenda. We're not doing the solar installations just to have electricity. We're building an alternative model for, for local development. And as we're doing that, we are also addressing other challenges, not only climate change. We are confronting also colonialism, the need to decolonize Puerto Rico. And as we're building more self-sufficient system, economically, energy. education, communications like Radio Casa Pueblo we're building a reference of, of where we should be heading. To me, it's not only energy, it's natural resource conservation, it's our resistance, our culture, our language, our way of living, agriculture, food security, it's the integration of all of the above to build an alternative Puerto Rico, one that can self-determine itself in the future by embracing our own resources in a responsible fashion with our planet as well.

Ariana Brocious: Arturo Massol Deyá is Executive Director of Casa Pueblo de Adjuntas. Thank you so much for joining us on Climate One.

Arturo Massol Deyá: You're welcome.

Kousha Navidar: Coming up, a conservative group in rural Virginia embraces solar energy, minus the politics.

Skyler Zunk: We're united with our neighbors in rural Virginia that we want clean air. That we want clean water, that we want to be good stewards of our land, and we want our neighbors to be good stewards of their land.

Kousha Navidar: That's up next, on Climate One.

Greg Dalton: This is Climate One. I'm Greg Dalton.

When people think of community solar, it's easy to conjure images of small installations on roofs or one big solar farm that is co-owned by members of the community. And in today's politicized society, there's a popular conception that solar is embraced mostly by people on the left, But in conservative rural Virginia, a group called Energy Right wants to be a resource for farmers and others to help understand the value that solar projects could bring to their communities.

[music change]

I talked with Skyler Zunk, Co-founder and CEO of Energy Right to better understand how rural communities are embracing solar. And, in a twist of fate, the day we spoke a power outage in Richmond caused a large water treatment plant to stop working.

Skyler Zunk: Well, it certainly underscores the importance of an advanced energy grid and energy security. Um, a brief power outage at the Richmond, Virginia water treatment plant caused a pump to go down. Then, based on my understanding, it caused a cascading effect of the other pumps to go down. So yesterday, we had a boil water advisory and a trickle of water, uh, woke up this morning and there was not an ounce coming out of any faucet, shower, toilet, you name it. So rather unfortunate, but I've retreated here to the county, Chesterfield, uh, at my parents house where we

were blessed with a well. So a little bit, a little bit off, off grid for, uh, for this conversation today.

Greg Dalton: Yeah, off grid and on point for talking about resilience and things that we take for granted until they don't work. Well, you spent 18 months as a special assistant with the Interior Department during the first Trump administration. I'm curious how that experience influenced the way you view energy.

Skyler Zunk: Yeah, well, really enjoyed my time during Trump's first term in Washington at the Department of the Interior. I had the chance to see how the department works, I, in my opinion, it's the coolest cabinet agency in all of Washington, dealing with our public lands, our outdoor spaces, our natural resources, both onshore and offshore, uh, gave me the incredible opportunity to see energy policy take place at the federal level. Seeing how these large energy projects were permitted on federal lands onshore, uh, offshore wind, offshore oil and gas exploration as well. Um, really learned a lot, got to see a lot of our nation's experts in action, trying to make America more energy independent during Trump's first term, and have really translated that work into some of our day to day operations here in the Commonwealth of Virginia.

Greg Dalton: Right, and you started an organization, Energy Right. Can you explain what Energy Right does and how it came to be?

Skyler Zunk: Yeah, my colleague and I launched Energy Right as a non profit organization dedicated to clean energy education in rural conservative Virginia. We want the right side of the aisle to be engaged on the clean energy conversation. Wherever it takes place, uh, there's a lot of new energy generation taking place across the country. Virginia is absolutely no exception to that, uh, bringing on, uh, hundreds of thousands of megawatts of new clean energy year to year. It's a big challenge to meet across Virginia's 95 counties, to permit these projects, to answer questions that local community residents have, local elected officials have in the permitting process. What is a solar project? What is a solar farm? What does it mean for my community in terms of land use elements in terms of local taxation? So we launched this and are now at a team of five folks all across the Commonwealth traveling very routinely to get out to these counties to let them know what our vision for clean energy the right way is.

Greg Dalton: And say you show up in a rural county in Virginia, what language do you use when you talk about energy? What values do you touch on? How does that start? And what's the case for clean energy in rural Virginia?

Skyler Zunk: Well, the case for new energy development and overwhelmingly clean energy is that we need it for our economy to grow. Virginia is facing some of the highest increases in energy demand year for year. We need to find some way to meet that, that is affordable, effective, and secure. Overwhelmingly that means more solar power coming online within the Commonwealth as the cheapest way to put a new electron on the grid as part of a overall, all of the above energy strategy. My colleagues and I have experience working in rural Virginia on political campaigns on a number of different fronts and utilize our networks and really just to see who we can meet out in the, uh, in the corners of the Commonwealth that are pursuing clean energy development to let them know we're here as a resource.

Greg Dalton: I heard you talk about the importance of price. Sometimes clean energy is thought of as a coastal elite thing, liberal thing. I'm just curious if you have to encounter, overcome some of those maybe initial resistance to that clean energy thing.

Skyler Zunk: Yeah. Unfortunately, to your point, clean energy has been politicized. We think that's very unfortunate because you need both sides of the aisle working in unison to make sure our energy

portfolio advances with cost effectiveness, security in mind. Some of the biggest supporters that we meet of these projects. Some of the landowners that own the land underneath a solar farm and lease it to an energy company for a long term land lease are very conservative, want limited government, limited government in scope, want clean energy to, you know, it advances as steadily as possible and just want to utilize their private property how they see fit. That's big in rural Virginia, that's big in conservatism. Some of the folks working these projects, um, electricians, uh, folks maintaining the vegetation in and around solar farms, some folks grazing their flocks of sheep to maintain the vegetation under solar panels are, uh, as, as rural, as conservative, as a rock solid Virginian, as you can get. We think the clean energy industry will be the beneficiary of conservative involvement on these topics and implementing, you know, competition, market driven approaches to clean energy wherever we can.

Greg Dalton: You mentioned sheep farmers. I saw a video on your website of a sheep farmer. Was he third or fourth generation? Proudly talking about his heritage and, you know, with some solar panels in the background. So sheep and solar, you don't think of sheep and solar often together, which is this new thing called agrovoltaic. So tell us about that person and what he embodies.

Skyler Zunk: Yeah, Greg, you're referring to our friend, Matt English, who is born and raised in Appomattox County, Virginia, right, right smack dab central Virginia, who has been raising livestock, has been a lifelong farmer, a multi generation farming history in central Virginia, and he's just farming a different way that's working very well for him, for the folks he's hired, to graze his flocks of sheep under panel. He's very proud of the agricultural products that he creates while doing a service to the energy company, keeping the grass, uh, maintained at proper levels to make sure it doesn't overgrow the panels. Matt's a great story. It's phenomenal that he's found a solar project on his home turf, in his home county that he can work, that he can utilize to create a new agricultural product. A lot of folks talk about clean energy projects displacing agriculture, but in Matt's case, he's creating new agriculture, a new agricultural product out of land that was really just a timber farm prior to prior to that solar project. So it's a great example. Many thousands of acres of solar farms across Virginia are being farmed with sheep solar grazing.

Greg Dalton: Sheep and solar, the new combination. Well, Northern Virginia is quite urban, close to Washington, D.C. A lot of data centers, tech, AOL was based there. There's a huge growing demand for energy by data, those data centers. How's that affecting your work? You know, I know there can be something of a difference between the rural parts of the state and northern urban Virginia, which is different politically, culturally.

Skyler Zunk: Yeah, well, we need more energy online in Virginia for a multitude of different reasons, certainly including the data center development that is, uh, focused right on Virginia. I think half of the world's internet traffic. Virginia at one point, and that's a huge economic opportunity for us to take advantage of. It's also a huge challenge in order to power these things. Um, Virginia relies on our neighboring states to power Virginia homes and businesses. So about a third of the energy I'm using right now is coming from another state. We're not an energy independent state. We need to be, and we need to do that in tandem with providing enough energy to power data centers, to power homes, businesses all up and down the line.

Greg Dalton: One of the challenges also is neighbors who don't want to look at transmission lines. They don't want to look at solar. So are there examples of how you've overcome neighborhood objections to some of the clean energy projects? Might be good for your, our, you know, sheep farming friend, Matt, but his neighbors be like, I'm not getting some money, so I don't want it to happen.

Skyler Zunk: Our adjoining neighbor here, where I grew up, actually exercised a solar lease and

got a solar project permitted about 400 acres on a 2000 acre timber tract. I got to see this firsthand as, as a neighbor to this project, dealing with the folks I grew up around my family in this area, talking about what a solar project will be as a neighbor versus the many other things our neighboring landowner could have exercised her right to develop the land, into a neighborhood, into a mall, into anything. Luckily, we have a neighbor that we know for the next 40 years and that's going to be a couple hundred acres of solar panels quietly producing clean energy right here in our neck of the woods. So we predict we won't see very many power outages being a neighbor to an energy generation facility. It will be priority number one with restoring any down lines that might happen in the future, but a lot of our work focused on rural Virginia counties, educating these folks and answering questions that neighbors rightfully have when there's a new land use coming in, you know, adjacent to them, focuses a lot on the fundamentals. I mean, these projects have been in the field operating safely across the country for decades now, and these things can be good permanent neighbors that eventually are returned to their original state or better. So once this solar project reaches the end of its useful life, it will be returned to timber, it will be returned to farming, whatever that landowner wants to do at the end of its life, it can be absolutely returned to that.

Greg Dalton: That sounds like a lot better than a mall and certainly a lot less traffic than a mall next door. And how important do you think it is that you're seen as, you know, one of us, that you're, you know, the way you look, the way you talk, you're not some outsider coming in to tell people what they ought to do with their energy. How important is it to kind of be from Virginia for Virginia?

Skyler Zunk: You know, I think it's very important. We're working in the same communities that we live in or have worked in in the past. Our mantra is that no one is well served by bad information. There's a lot of good information that we need to get into these folks' hands that are from trusted university sources, Virginia Tech, JMU, University of Virginia, as the energy portfolio in these counties change. Virginia, you know, the way we're powering our future is changing some communities that have never been host to an energy generation facility of any of any type are now being host to solar facilities or battery energy storage systems that are new, that are different, coming from Republican politics, having worked in a lot of these communities, I think it does open the door to us. We're not coming into these communities, talking about priorities that folks in Washington or Richmond talk about, you know, our clean energy, or our clean energy mandates or our clean energy goals or climate change. I mean, we're united with our neighbors in rural Virginia that we want clean air. That we want clean water, that we want to be good stewards of our land, and we want our neighbors to be good stewards of their land. It's just about approaching this, this conversation honestly. And with as many good resources as we can put in front of folks.

Greg Dalton: How has the Inflation Reduction Act, that energy law, affected solar projects in Virginia?

Skyler Zunk: Well, prior to the Inflation reduction Act, solar projects were profitable to build. During the Inflation Reduction Act, they're similarly profitable to build and operate long term. I think the IRA has increased the pace at which the industry has pursued more clean energy investment. Folks in rural Virginia often are concerned about the national debt implication that sometimes subsidies and tax credits might have on a national level. Why should we permit this project if it will contribute to our national debt? And we, what we want folks to realize is that energy of all sorts, rightly or wrongly is subsidized at some level by state or federal governments. Agriculture is extraordinarily subsidized by the feds and folks are just used to that. I mean, we want a level playing field and on a level playing field, clean energy can compete and win in an all of the above strategy. So we see that trickle down here in the commonwealth. But on a subsidized and unsubsidized analysis, solar still the cheapest way to put a new electron on the grid. So whether there are federal incentives or state mandates for this energy. Uh, generation switching to more clean sources takes place, solar battery energy storage are similarly competitive to more traditional

energy sources from fossil fuels to nuclear and beyond.

Greg Dalton: Right. There's some energy giants like Duke Energy are moving in that direction, away from coal towards storage though the Inflation Reduction Act, you know, some of that may be on the chopping block. Are you or your, some of your Energy Right colleagues going to go to Richmond or elsewhere and sort of say, Hey, this is important. Voice your concerns about what to keep, what you're willing to let go of?

Skyler Zunk: You know, we're going to focus most of our work, if not all of our work, on the local level. Making sure that folks who are permitting these projects have the tools they need to decide what's best for themselves and their community in the long term. I do think President Trump's incoming administration is going to have some interesting things to do on the solar development front. I mean, there's some elements, including the domestic component threshold within the IRA that I think is good. It increased American manufacturing of solar panels and clean energy technology. That's good. I mean, when we have American made solar panels deployed within Virginia, within other parts of the country producing clean for the long term. I think that's an all around win. I think that's something that President Trump will support. It's important to realize that one of his top confidants and advisors is Elon Musk, a former CEO of a solar company, a big, big believer in clean energy advancement and in solar itself. I don't think the baby's going to be thrown out with the bath water. Solar deployment nearly doubled during President Trump's first term. There's nothing I see that says that that can't happen again in his second term. And, um, you know, I think in all of the above strategy certainly includes renewables, storage, solar energy, et cetera. And I expect that to continue across the country.

Greg Dalton: Well, Skyler Zunk, I appreciate you sharing your insights and encouraging me that clean energy is going to go forward. It's not the disaster narrative that I sometimes hear on the left. So it's really encouraging to hear what you're doing on a very pragmatic local level in Virginia. Thank you.

Skyler Zunk: Thanks, Greg. We certainly hope to make solar great again, as best we can here in Virginia and beyond. It's going to be an important energy source for the long term. So appreciate you inviting me on.

Greg Dalton: You're going to get some hats with that logo or slogan on it?

Skyler Zunk: It's crossed my mind more than once.

Greg Dalton: Okay, well send us one when you do, please, to your friends in San Francisco.

Skyler Zunk: Will do. Thank you, Greg.

Kousha Navidar: And that’s our show. Thanks for listening. Talking about climate can be hard, and exciting and interesting — and it’s critical to address the transitions we need to make in all parts of society. Please help us get people talking more about climate by giving us a rating or review. You can do it right now on your device. Or consider joining us on Patreon and supporting the show that way.

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