

Episode 102

How to Set Up a Community Energy Scheme

The show notes: www.houseplanninghelp.com/102

Intro: In this podcast we're going to be exploring community energy schemes and how you might set one up. Matthew Black from Fintry Development Trust is my guest and we're going to hear how they capitalised on an opportunity that came their way from a wind farm developer.

However, I started my conversation by asking Matthew about his background and where his passion stems from.

Matthew: I've had a long interest in the environment and our planet in general, and always been alarmed at the impact that humans are having on our planet. And as a result I got more and more interested and did more and more reading and then went to university in Glasgow and did a degree in green technology and also began working for an organisation called the Energy Agency, which was promoting renewable microgeneration technologies. And then after that I began working with the Fintry Development Trust in the same field about four years ago.

Ben: So tell me about the Trust, because that's the example that we're going to use today. How did you get involved?

Matthew: Well I got involved by simply applying for a job and going for a job interview. That's how I became involved. But for a history of the Trust, I joined in 2011. The Trust was set up in 2007 as a result of four members of the community coming together and negotiating with a wind farm developer who was planning a wind farm.

So they were approached in about 2003 really to set up a wind farm in the area and they wanted the support of the local community. Back then these four residents got together and said: "Well we're all in favour of the wind farm but perhaps we can have a wind turbine on the site." So after years of negotiations what eventually happened was that they installed a fifteenth turbine, an extra turbine on the site, for the Fintry community, and that was paid for by the wind farm developer. And every year we pay off a loan, a mortgage if you will, on that turbine and we pay maintenance and land rental and so on, on that turbine, and then the remainder of the

annual income left over comes back to the community. And the Trust was set up in 2007 to manage that income on behalf of the community.

Ben: Let's see if I understand this, so it was a private company that came to you?

Matthew: Yes.

Ben: And they were saying: "Can we use your land?" Is that right?

Matthew: No, it wasn't our land. The land belongs to a local farmer, but when a wind farm developer comes to a community they need to get the local community on board to support their planning application or support the wind farm as part of their planning procedure.

Ben: So you could have said: "We don't want this windfarm here," started a campaign and then the windfarm might not have come about?

Matthew: Exactly yes, indeed.

Ben: So take me back to that point where you were talking about the extra wind turbine. Whose idea was this?

Matthew: Well it was an idea of four members of the community who really started that rolling. There was four guys, Gordon Cowtan, David Howell, Martin Turner and Bill Acton as well. So they were four members of our community who decided to get together and negotiate this deal with the wind farm developer.

Ben: And so the wind farm developer paid for the turbine up front and then you're gradually buying it back from them?

Matthew: Yes, indeed. With interest.

Ben: So this is an interesting situation here. First of all you've had the initiative to do it, how has it worked in practice?

Matthew: Well I think because we were the first community to go down this, I think there was sort of finding our steps quite a lot. You know, it wasn't easy and I think it was quite risky as well on our part. So it wasn't easy and maybe in hindsight the four residents that set up would do things a little bit differently if it was now, but apart from that it's gone very well.

I mean wind's energy being very intermittent, it's quite hard to predict or forecast the wind, therefore it's quite hard to forecast the amount of income we're going to get because we get our income once, twice yearly. So once every six months. So it's quite hard to predict how much money we're going to have because wind is so intermittent.

Ben: And that means that it's just a variable in terms of you can't say well last year it did this?

Matthew: Exactly yes.

Ben: Oh okay. We haven't really talked about wind power on this podcast too much before so this is all very interesting. Can I jump in with a random question that I always wonder when I'm going past a windfarm, and all the turbines are turning around except for one. Does it mean that that one is out of commission? You may not know the answer to this, I just always think that!

Matthew: Well, there's different reasons. Sometimes it's for maintenance. Sometimes the generator will be asked to limit the amount of energy they're delivering to grid at any one time because there isn't the demand for that energy at that given moment. But also sometimes, depending on the direction of the wind and the properties of the wind, sometimes a turbine will shut down to give preference to another nearby turbine to maximise output. If there's a turbine in front of another one then that will take a lot of the wind energy out. A lot of energy out of the wind so the turbine maybe behind it or next to it might not get so much wind, so I think it's a balance between all these factors.

Ben: But presumably they have been organised in such a way that most of the time they're okay because you put them up there you want them all to work!

Matthew: Yes indeed. And there will be some sites that are more windy than others and so these are the sites that are more likely to, developers are more likely to want to develop and invest in.

Ben: Let's go back to your wind turbine for a moment because I just want to really clarify in my mind. You've got the turbine, how do you know how much it has produced over time? Does that come to you or what sort of reading and how does this work? How do you divide it all amongst the community and get them to pay?

Matthew: Well, we'll be given figures by the manager of the windfarm and the owners of the whole project. So they'll give us figures, you know, how much wind has been produced, how much electricity has been produced and any maintenance cost and they'll send us a report and we'll have our income, our bottom line from the end of that and so we get that every six months or so.

Ben: And how long will it take to pay off? Will it still be going at the end of that?

Matthew: In all it will take fifteen years to pay off, and we've been doing so for about eight years. So we've got about seven years left of repayment before the turbine is wholly belonged to the community. I must also point out at this time that although there is a fifteenth turbine on the site, instead of owning one single turbine we own more or less about a fifteenth of the whole site. That means that we're not relying on the output of one single turbine, but we can rely on the output of the whole wind farm as a whole.

Ben: It's quite an interesting situation. I'm assuming this is an electricity company that you've got, so to speak, into bed with. So what do they think of it all that you've now got your own needs sorted out?

Matthew: I think it's a good thing for them. It's good publicity for themselves and I think it's generally a positive outcome for everyone.

Ben: All of the energy that's coming in, I'm assuming it's being used specifically by your community?

Matthew: No. It's not. The electricity goes straight to the grid. It does not come straight to the village. So the village itself in practice is not wholly powered by wind. It gets its electricity straight from the grid. And the electricity produced by the turbine goes straight to the grid as well.

Ben: Okay, I think I've understood that situation now, that you're using it for an income, it's still bringing in energy so to speak in the larger picture. Where did this take you as a community then?

Matthew: So that took us as a community, so we set up the Development Trust to manage the income. The aims and objectives of the Fintry Development Trust is to make the community a more sustainable place. To make it as carbon neutral as we possibly can. So our aims and objectives are primarily around the environment and renewable energy.

So we started with those aims and objectives, and we talked a lot with the community about their expectations and we've managed to create projects by having this income to create more and more energy projects in the village and to make it a more sustainable place.

We also provide a grant system where we offer householders a small grant of around £500 to improve the energy efficiency or renewable energy generation of their home. So that's something that we do and we're really an embedded community organisation within the community and yes that's how we do it.

Ben: And this is all from the income of these turbines? Wow, that's something. So does that make you think about other communities and that they might benefit this way, and is it a silly thing if you just say well, why don't we put up a turbine? Look at the success you've had here, why don't we put up a turbine, or is it really because you're dealing with experts who know what they're doing and you've just got a piece of the action?

Matthew: No, no I think it's definitely applicable to other communities and many other communities since we started out in 2007 have done something similar in Scotland. There's many, whether they've done it through a joint venture model such as ourselves or whether they've just put up a single turbine that is wholly community owned. Many communities throughout Scotland have now done this.

Unfortunately it's becoming less and less financially viable due to the government cuts on green subsidies which we've been hearing a lot about in the news recently, so unfortunately that's definitely prohibitive.

Ben: So you say it's not as viable. It makes sense though still or not financially?

Matthew: Yes, it certainly makes sense. I guess when any community comes to look at this this kind of project they have to weigh up the financial benefits and as I was saying green subsidies are always changing. So it depends I think. I think the new government is definitely looking to cut wind power subsidies significantly, so it may not be as viable in the future as it once was.

Ben: Does it make you more of a resilient community?

Matthew: Yes, definitely. It brings the community together quite a lot and makes us more resilient. And the other projects that we've been

involved in makes the community more resilient and more autonomous and more sustainable.

Ben: How did you take it forwards? You mentioned you had the turbine to begin with, but it's not really just that any more is it?

Matthew: No it's not. So after we had the turbine we did an insulation project where we got a bit of funding. We were able to survey, do an energy survey of the community so we knocked on the door of every household in the community to survey their use of energy and we offered people free cavity wall and loft insulation. So that was the first project.

We then embarked on giving energy advice to households who were wanting to go down the renewable energy route. So the community is off the mains gas grid so most people are using electricity, LPG or oil for heating. So that's a much more fossil fuel intensive and expensive fuels to use rather than mains gas most people in urban areas have. So there's a real opportunity and willingness for people to choose less expensive and lower carbon technologies to install into their homes. So many people fitted air source heat pumps and ground source heat pumps, biomass boilers, solar hot water systems and solar PV and these sorts of technologies.

So we really advised and encouraged people to take on board this technology. Now we have around about 120 micro-generation renewable installs in the community. So that started in 2009 and is ongoing. We've also, we've done some work to the local sports club, Fintry Sports Club, which is a charity organisation, really the hub of the community. So it has the village shop, it has a bar and restaurant there, it has a bowling hall. There's a rugby pitch. It has a gym there. So we took out an oil boiler there and put in a biomass boiler. We've now put 200 solar panels on the sports club as well and insulated the building.

We've put solar panels on the local school as well. We've helped the local pub. The local pub has now put in a biomass boiler and we've insulated that building as well. We've recently put in biomass district heating for 26 properties in the community. We've set up a local wood supply chain for firewood so I have a chainsaw licence so sometimes I go into the wood and harvest wood from local wood that has, it's been unmanaged so a lot of storm damage and so on. So I've gone in and harvested some of the wood there and then we've been able to give that away to the community for free to encourage them to burn wood and burn less oil. And these are

some of the initiatives which we've done. We've also set up a community garden. That's sort of a broad picture of some of the projects that we've been involved in.

Ben: It sounds like you've done a heck of a lot and I think that's fantastic. So what would it take for someone living anywhere in the world really to start something like this?

Matthew: Well I think it's looking, any community has its potential opportunities for energy generation or it has, it may have a community asset which is not energy related, such as a community hall or community shop or something like this. So it's really about focusing on the potential of the community and investing in that.

And also being quite opportunistic as well. Over the years we've managed to, our income is not so substantial that we can afford things like staff and so on, so we've quite often we've applied for grants as they've come along and so on. So it's about being aware of the opportunities out there and the potential within the community to invest in these assets and develop the community sustainably. And a lot of the responsibility for that I think now falls on the community as a whole because it may not be something that's developed by the local authority, or the wider government.

Ben: To me it sounds like you had a fantastic community anyway. Perhaps there's someone listening saying: "Our community, they just don't get together like you do." So what tips would you have for them?

Matthew: I'd say perseverance. Don't give up. And find new ways to engage with the community and get people's experiences and be open to people's views and try and bring people together in as many ways as possible.

I suppose for us it's been slightly easier because we are a very small community. There's only 335 households in the Fintry community, so because it's quite a small population it's been really quite easy for us to engage with the community. But for others I'd recommend once people start seeing the value in your mission and what it is that you're doing for the community, people can start seeing a value and that's something to be very proud of. And it's something that inspires and encourages other people in the community to engage with you and really get on board and say: "Wow, what these guys are doing is really brilliant." So I would suggest perseverance and keeping your eyes and ears open for opportunities that could come along.

Ben: Has this been a massive learning experience or have there been tools and resources that you've used along the way that have really helped?

Matthew: It's been a fantastic learning experience. It's been a steep learning curve. There's been people who we engage with to perhaps may have helped us along the way or been a resource, such as the local community council. There's been the people who run the sports club but also wider there's been the local council have been helpful. There's some local MPs that have been supportive and there's government programmes, energy efficiency and renewable energy programmes, that we've been able to use to help our projects as well. It has been a big learning curve and I think learning curves, learning processes, learn just as much from mistakes as they do from the successes.

Ben: Do you have a couple of mistakes you could share with us?

Matthew: I think personally what I've learned, because we have projects come along, ideas for projects, many of the community have different ideas for projects. Not all projects will work. So sometimes you get really inspired and involved in a project and you go out and tell everybody about it. You get everybody's expectations up and for one reason or another that project might end up not becoming viable or there may become a stumbling block that you just can't get past and therefore the project maybe doesn't go ahead or doesn't go down the route that you had hoped. But because you've already been very excited about that project you've already told everybody in the community so you've raised people's expectations. [Both laugh.]

But it's one of these things you can't win at everything and there's certainly a lot of things in our community that we have achieved and we are able to be proud of and we were very happy that we've been able to do that and we're hoping to carry on and progress in these projects that we do.

Ben: We're just about out of time but I think I have two more questions. The first one is on optimisation, because I have this thought at the back of my mind, that really when it comes to renewable energy what we should be doing is working out the ultimate locations for, say, the wind turbines or whatever it might be. So when it comes to the renewable sources you now have in the community do you think they've been optimised?

Matthew: Yes. In other words do you think they're the best technology for that?

Ben: Not just that. In terms of actually would it be better for the community to get together and just have, I don't know, a field of solar panels or is it better individually on roofs and things like that? I mean how much thought has gone into those sorts of things?

Matthew: Yeah, thought has gone into those things. Sometimes we've gone and looked at bigger projects and tried to put in bigger projects that will have more impact, but sometimes that's just not possible. We have thought about these things and it has been optimised, yes I would say so.

Ben: So this episode has really been an introduction to community energy and how you might go about setting up your own community energy scheme. Is there any major thing that we've left out? I'm sure we could go into lots more detail but is there anything that you think we should mention before we finish up?

Matthew: Yes, I'd say that it's important that we've set up our Development Trust as a charity, and we have seven board members on the Trust and they have different experiences that they bring to the table. And I think it's a good way that it's been set up. Whereas we have our staff that develop the projects and then we have our board of trustees that really look after the Trust, and it's important that people, that a community sets itself up in a way that is transparent and also very clear on its outcomes and that I think our example is a very good way of doing that.

Ben: Matthew, thank you very much.

Matthew: Thank you Ben.