

Green Communities – Terrington Energy Audit

Leah - Hello, my name is Leah Furniss. I'm part of the community support team at Community First Yorkshire. For people who manage community buildings or village halls, it is becoming increasingly important to think about how to run your halls in as environmentally a friendly away as possible. But even knowing where to start with this can be a challenge. So today I am joined by Dave Gaskill, secretary at Terrington village hall, who is going to share with us their experiences of conducting an energy audit.

Morning, Dave, thank you very much for joining us.

Dave - Okay, no problem.

Leah - And so firstly, why did you decide to undertake an audit.

Dave - So we've attended the Community First Yorkshire network meetings, and this isn't a plug for Community First, just happens to be exactly what happened. So the one that this came from was in January in 2018, at Middleton and Asenby. There was just an item on the agenda for doing energy efficiency audits, it wasn't for renewables, specifically, it was more around energy usage at village halls. And as part of that meeting, a document was handed out. Which had just come from the NEA, which is the National Energy Action Group. It was just called energy efficiency and community buildings, it's available on Google, you can do a search and find it, and it was a really useful.

It was after the meeting, I read it through and it was a really useful document set out those sorts of things to look for things like you know, how many heaters what are they driven by, you know, gas, oil? How many windows? How many taps how many sinks? How many toilets? So lots of questions like that in a structured checklist.

I guess there were three reasons why I thought we should do one at Terrington. One is it may actually make the building warmer, because the main hall is a big space and very difficult to heat.

Leah - Like a lot of our halls, I think. If you've got gentle activities like yoga and things like that, it's noticeable for the user isn't it if it's not warm enough.

Dave - Yeah the second reason was it might, it might help cut the bills, although I had no idea really what our bills actually were, at the time. And the other thing was, even if we did none of those two things, it would improve my own understanding of what we've actually got at the Village Hall in terms of, you know, what's oil driven? What's gas driven? What could we possibly improve in those areas? That sort of thing? So those are the three reasons that you wanted to do it.

Leah - That's great. And I think that last point, as well about improving your own knowledge as well, and getting a better understanding of your hall and how energy relates to that is, really, really important. How long did it take to do?

Dave - So it probably took me longer than it would take other people to do because I tend to try and adapt checklists and do them in my own sort of way and then probably spend too long doing the preparation and that sort of thing. That's just the way I am. So the preparation did take me the longest because reading through the NEA documents, there were a few extra questions I wanted to put in or a few areas that I knew didn't apply towards. So I took those out.

But the main reason for doing more prep was, I knew that most of the initial answers like whether we'd got cavity wall insulation and stuff like that, I didn't know the answers to. There was one trustee in particular, who knew a lot of this stuff, I didn't want to waste their time, I wanted to answer everything I could do myself, like how many windows have we got, I can quite easily count. But I wanted to do a lot of prep myself so that I wasn't wasting the time of the person or the people whose input I was dependent on really. So I guess, I guess it took me about an hour or two just to go through, okay, it's not a long time, just an hour, two, doing the checklist and adapt it.

And then I did a walk round of the village hall on my own, just doing lots of counts. And that probably took, I don't know, half an hour to an hour and then I'd arranged a meeting with another trustee and just me and this other person just filled in the blanks, really. But in doing that, there were quite a few things that the other person didn't know the answer to that I had found out. So there was quite a good discussion. It probably took about an hour.

And as part of that sort of without thinking about what the improvements should be we were just naturally talking about, oh, we ought to really put a timer on that or we ought to really do this or we ought to do that. So we just scribbled all that down onto the checklist. So that took about an hour maybe, and then I wrote that up along with the initial list of what we thought we probably ought to do, and sent that out to the committee. So that, again, took about another hour or so. So, it took a while in terms of from start to finish, the number of days and weeks it took to get to, from starting to finishing, but it probably wasn't much more than four or five hours altogether.

Leah - Okay that's really useful to know. And I was going to ask you, how you'd sort of found that process and you've touched on this a little bit. So you mentioned in your first answer that, partly, it was to improve your own knowledge?

So did you find it hard? Was there any of the terminology you didn't understand? Or actually, as someone who's come to this quite new and quite fresh, was it fairly simple to sort of follow through and understand?

Dave - I mean, the so the NEA document, is a mixture of a checklist with questions, literally, the question is, like, how many windows have you got, how many fluorescent lights are there? How many LED lights are the blah, blah, blah, blah. So all of that is fairly straightforward and logical and makes sense.

But it also includes lots of information about the different sorts of heating, and the various different technologies of lighting and what their energy efficiency and usage is? So a lot of that I didn't know before, and you don't have to necessarily know as it was just in the documents. It was interesting to learn a little bit more about it. But in terms of actually doing the audit, it was fairly straightforward and logical and didn't require any particular knowledge.

Leah - Oh, that's really good to know.

I was going to mention this at the end as well. But in case anybody's listening and thinking, oh, yes, I'm interested in doing this. If you go to the Community, First Yorkshire website, there is more information on there about conducting your own audit and a link to the documents Dave's talking about as well. You did mention about timers and things like that, what were your key findings from doing the audit?

Dave - Yeah, well, there was nothing too spectacular in that sense. It's not like we revamped everything, from an old, clunky approach to a brand new, shiny new thing. So most of the findings were that a lot of what we've got is okay, so we already have cavity wall insulation, we already have double glazing, we've already got a reasonably new boiler, blah, blah, blah, you know. So, in that sense, the findings reassured us that we weren't massively away from where we probably realistically should be. The other consideration what we're finding we don't really have huge energy bills anyway.

So just for example, I've broken them down just before this call. So oil, which is the main central heating, driving things, an oil base boiler does most of the hot water, that's about 60 pounds a year. The main hall is heated by gas heaters, and that's about 400 pounds a year. In a normal year, it's not been the same for the last year. And the electricity bill, which is lights and power, and we've got some immersion heaters that are driven on water. That was about 800 pounds. So the reason I mentioned all that is it sort of constrains what's justifiable to spend to make a saving, if you're going to spend four grand to make a 10% saving on a 400 pound bill. It's, you know, what, what's the point really.

So there were lots of small things that came out of it, things like we've got a lot of old bulbs that aren't energy saving bulbs. There were no reflective sheets behind the radiators. One thing was that the actual main front door slams shut, so it was often propped open to avoid it slamming shut when people join meetings. And that just made it really cold. So we fixed the slammer on the door, you know, the damping automatic close thing, which was about a 10 pound fix. And it meant the front door could stay shut more, so it's just simple things like that.

But we did do. You know, there were a few things where we've got an immersion heater that drives the hot water in the toilets. And it's just a simple on off switch, and if people left it on, and when we went after a meeting to lock up and check everything that turned off. If you couldn't do that quickly, you sometimes find the immersion has been left on. So we just put a timer on it with a boost button. So you push the button you get an hour's heat, an hours heating and then it turned itself off, which again isn't rocket science, but it was we hadn't got that. So for the sake of whatever that was 100 pounds for a timer to be fitted. We just fit a few timers and then we put them just simple things like putting signage up. So if people didn't know what's in an area or is unclear where the button was, we just put signs up to say this radiator is driven by button in that room, press that, and then put signs up near the buttons. To say what it did.

So again you could argue has that come out in the energy audit itself. It did. But it's not, it wasn't changing anything particularly. I mean, one, one relatively big thing we did was we had some old gas heaters in the main hall. And we already had a sort of plan if you like to replace them at some point, we just brought that forward. So that, again, was triggered by the energy audit that we did, but it was already had already been discussed as something we would have to do at some point.

Leah - I think what you're sort of touching on there, Dave is really important. You mentioned all those little changes that you've made that you've noticed, because they're almost so little that they kind of go

under the radar a bit, don't they. And there was the big one about changing your radiators, wasn't it, that you already knew about? But all those little things, they do make a difference, they do add up. You said a little bit about your energy bills there, but in terms of groups and things like that, do you think that these changes that you've made, have you seen a benefit to them?

Dave - So we've not directly measured this really, which is a bit of a weakness, we should have thought about it when we were doing the audit, how can we measure whether it's actually has made a difference or not? So it's definitely true that the new heaters in the main hall have heated the main hall quicker, you turn the heaters on and within quarter of an hour the space is warm, whereas before it was like half an hour. So just from a practical perspective, those heaters are better. And the signage is clearly better. And there's a few people have said that they were happy that we put this notice up because they've never known how to turn the radiator on in the kitchen. So that's better definitely and the door doesn't slam anymore and doesn't make people cold.

You know, we will have saved a bit of energy as well by using more efficient bulbs and more efficient heaters. But because we didn't, other than the headline numbers I mentioned about what the bills were, you don't know enough about what actually consumes the energy, we haven't done a proper detailed understanding of you know, how much of your electricity is lights, and how much of it is in the winter, and how much of it is actually the immersion heater. So that sort of thing. We haven't properly done an analysis of what the actual costs are. And then with COVID shutdown, we've not been able to do any sort of like for like comparisons anyway, since really.

Leah - It'll be a little bit difficult until you get some sort of normality going again. So do you think that would be something for the future then that you'd look at a more sort of detailed understanding and breakdown of where exactly your energy usage is?

Dave - Yeah, we tried to sort of just using, you know, like, an immersion heater is so many kilowatts, it's running for so long, how much would that cost at a standard unit price of an energy unit. And just doing that sort of analysis, without even knowing your own bills, you can see how much you might be saving if it's previously been on for three hours, and then it's only on for one. But in terms of actually drilling into our numbers, our real numbers and understanding the consumption of what's actually driving the cost. We haven't really done that yet.

Leah - I mean, from talking to you, this all sounds like a fairly simple, easy thing for someone to do, if it's something that they're considering for their halls. It doesn't sound too much to me that there's anything you would have done differently or any challenges. If someone was considering this. Would you recommend doing it to them as a first sort of step of thinking about their energy and how their hall works?

Dave - Well, yeah, I mean, even just from that having a better understanding of what you've actually got, is worth doing. So in terms of yeah, in terms of, I don't think we'd do anything particularly differently. That document that we got from the networking meeting is definitely a very good input starting point. I think the two challenges that I would probably expect to happen and what we had was, if you hadn't if we haven't got that one person who knew most of our answers, then you're clearly that's going to be more difficult than if you do have somebody that knows at least a lot about, you know, what, which buttons to press that do what you know, how do you heat the water in the toilets, for example, in the hand basins. So if you've got somebody that that knows that your hall well yeah, you're

most of the way there really because a lot of it's just recording what you've got, and then thinking how you can make it better.

And then there are still some things that we haven't done, for example, just a practical thing, like how do we check how good the insulation is in our four metre tall, suspended ceiling in the main hall. We've stuck our heads up through a few of the panels. But we've not done a proper check of how good the insulation really is. But it's not, it's not necessarily a technically hard thing to do. It's just getting around to doing it. And it's, especially with it being you can't really access our ceiling with ladders. It's a big scaffold platform thing you have to set up. But in terms of, you know, the difficulty of doing it, it's pretty easy, really straightforward stuff. So I definitely recommend doing it if people don't already know what they've got in terms of, you know, how many of which sort of heaters have you got? Roughly how old are they, and that sort of thing.

Leah - Thank you, Dave. That's been really, really useful. And I think a lot of people who listen to this and perhaps read as well will really appreciate hearing how you found that. If you are a hall and you would like further information, please visit our website, www.communityfirstyorkshire.org.uk for further information and support, and you'll find lots of information there about all aspects of running your hall. Thank you very much, Dave.

Dave - Okay, thank you.

Leah - Take care.

Updated 10 August 2021