

SERVE Social Case Study for Retrofitted Houses

Case Study No. 4

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1. Case study basic information

The name of the householder in case study no. 4 is Grainne Egan. Grainne lives in a renovated bungalow in a small village in North Tipperary. The original house was built in 1965 and it was extensively renovated in 2010. Currently the area of the house is approximately 188 m² and there are two occupants.



“It’s a three bed bungalow, with an extension on both ends, one towards the lake, one towards the lane ... the new double doors provide a nice view over the river Shannon”.



The house is situated up a quiet lane which leads to a small cluster of houses. Its closeness to the Shannon attracts tourists in the summer months and local accommodation is provided in the village. Essentially it is a quiet area with a church and a public house.



“It’s a quiet village ... most people have lived here most of their lives ... everyone knows each other”.

2. Situation of household before and after retrofitting

The Egan household had the following types of retrofitting:

- Wood burning stove
- High Efficiency Boiler

- High Efficiency Cylinder
- Cavity Fill Wall Insulation
- Attic Insulation
- Windows
- Heating Controls

Energy consumption and costs – comparison

The householder in case study no. 4 had not lived here long-term prior to the renovation. She stayed in the house briefly after she bought it, yet as it was a family home she would have known how it felt.

“I stayed for a few nights when I bought it ... started the building work then ... it was a family home anyway I would have known all the cold and damp”.

Prior to the retrofit the house was heated with two open fires and oil central heating. A combination of turf and solid fuel was burned in the fireplaces. Although the house had radiators, a comfortable level of warmth was only achieved in the rooms with the open fires.

“The oil rads never heated anything ... down the house would have always been cold”.



One of the open fires, in the main living area was replaced with a wood burning stove. This is now quite a big living space which flows through to the kitchen, the stove has an exposed

pipe and this adds to the heat in the room. Although there isn't a back boiler, you can still feel the heat of the stove all through the house. This added to the insulation, means that the householder uses much less solid fuel in this house now in comparison to the original bungalow. The householder uses the stove as the main source of heat backed up by the oil. The open fire in the sitting room is used, but not as frequently.

"I used the open fire in January for the month ... I was studying ... it was lovely and warm ... I would have had the oil heating on too".

There has certainly been a reduction in heating oil consumption and a change to wood as the main fuel for burning in the stove/open fire.

Quality of living-comparison

As mentioned earlier this householder did not reside in this house much before the renovation/retrofit, but it belonged to her grandparents and she is very aware that it is now much more comfortable to live in. She works full-time and takes one day off a week for her postgraduate studies. The retrofit has guaranteed a "perfect" quality of living in this household.

"Even now when you walk down the through the house you'll feel the heat ... even though I haven't any on".

Other aspects

The house was transformed from an ordinary bungalow to a modern spacious home. This was achieved in conjunction with the householders' father, who was the main builder involved in the renovation. This householder is very interested in bringing solar energy into her home and plans to do so in the foreseeable future. Already some of the ground work is done and it may be just a case of fitting the solar panels.

"I would love to get solar panels ... they will be my next big thing ... my plumbing is ready ... maybe early next year".



As a young professional living in rural Ireland, the householder has created a home that is now very energy efficient and will hopefully soon be harvesting a renewable energy source. Her environmental awareness is high and through the retrofit she has created a more sustainable home.

3. Main Reasons/Motivations for household retrofitting

The householder in case study no.4 first heard about SERVE through her local church parish newsletter and from her parents. She chose to engage in the process immediately and rang North Tipperary Co. Council.

This householder feels that the decision to apply for the grant was initially economical. Although she was going to renovate, and improve the energy efficiency of the existing building either way, by applying to SERVE the householder did more upgrades than she might have had on an individual basis.

“For the short term it was lovely to get the few pounds back ... in the long term it’s going to save me money”.

Comfort was also a motivational factor in the retrofit; although this householder is quite a warm person by nature and doesn’t necessarily crave a very warm home. The other occupant in the house seems to be quite the opposite, so between them they make good use of the heating controls. Overall the house is now warm and comfortable.

“I’m a very warm creature ... by nature ... I’m very warm blooded”

Certainly this householder has a keen sense of her impact on the environment; she is particularly aware of her waste consumption and is very conscious of the importance of recycling. Recently she has started to grow her own vegetables.

“I guess I do still use solid fuel ... I know that’s not very environmentally friendly but I’d be conscious and I’m learning ... even with solar ... I understand that’s the way to go ... it’s the way I’d love to go”

All the contractors working on the renovation/retrofit were local; they would all have been contractors with her father over the years. Although the insulation company did travel a distance they employed a local man from the village. The householder feels it’s important to support the local economy

“... especially in a small place with people living so close”.

4. Main Barriers/Problems encountered

Financial problems

The householder did not have any financial problems during the retrofit. She had acquired a mortgage and had her savings; therefore she was able to do all the SERVE work within this budget.

“Thankfully I didn’t have any problems ... the work was all within budget”.

Technical problems

There were no major technical issues with this retrofit, but a slight issue arose with regards the installation of the stove. The new wood burning stove is free standing, in the extended part of the living room. Initially the householder thought the pipe from the stove could go straight through the roof over the stove, but the BER assessor explained that a special pipe had to be installed that curves above the attic and goes straight up into the chimney of the old fireplace.

“It wasn’t a big complication ... literally we had just bought the stove ... and they told us we’d have to go through the chimney breast ... just a small thing”.

Other

There was a slight delay with applying for the grant at the beginning. The householder had all the paperwork filled out then there was a bit of a delay because more building work had to be done than anticipated. It was necessary to wait a month or two and then fill in all the new details.

“It took a month maybe six weeks until I could start with the heating and plumbing work ... it was no great delay”.

Another issue that took some time was the design of the double doors. The householder wanted a big window for light and the view, and with being conscious of the cost and not buying the doors from the shop floor, she found it was a challenge to make sure it fitted the right criteria for the SERVE grant.

“The glass was tricky to make sure it was in the right BER ... I wanted a big window, I don’t have one anywhere else ... I think that’s what helped”.

5. Overall satisfaction with installed measures

Subsidies

This householder was happy enough with the amount of money received from SERVE for the measures she installed in her home. Unfortunately due to an oversight on her behalf she did not apply for an additional grant available to her, therefore she did not get as much support as the other case study applicants interviewed.

The householder found there was plenty of information available about the SERVE project, but the paperwork involved in applying was quite challenging.

“The first pack was quite daunting ... dad sat with me and we figured it out ... some of the terms, you know ... it was alright but there was a lot in it”.

With regard to recommending the project, the householder feels it is very important to look into all the details and terms and have someone to help you. If you follow the correct procedures it is certainly worthwhile.

Technical issues

All the new systems in place in this house are working perfectly, there have been no technical issues to date and the householder is happy using all the new systems installed.

Quality

The householder feels the quality of the workmanship was excellent; she received advice with how to monitor the temperatures and use the thermostats on the radiators.

“The quality of the work was brilliant, I mean the windows, stove ... they were all lovely companies to deal with ... I would recommend all the companies I used ... electricians and plumbers”.

“I had some back for a quote for the solar panels ... they kept asking me how I was getting on ... they are interested in knowing about it themselves”.

Value for money



The householder certainly feels she has had value for money. She is acutely aware that these measures have dramatically reduced her future energy consumption, and both from an economic and environmental perspective she is very happy about this. It seems unfortunate that she missed out on the additional grant available to her, yet perhaps this resonates with the fact that she found the paperwork quite daunting and as a result somehow overlooked the



opportunity for extra savings. Regardless of this though, this householder is extremely positive about having made this investment in her new home.

Other

On a scale of one to ten, this householder would give the process of participating in the SERVE project eight. She is very satisfied with her newly retrofitted and renovated home and looks forward to many comfortable years in here.

6. Conclusion

The householder in case study no.4 is a young professional, living in a small village in North Tipperary. The area is close to the river Shannon and caters for tourists, especially in the summer months. In 2010, this house was renovated from a 1960's bungalow, to a modern spacious and energy efficient home. The householder intends to install solar panels in the next year or so, adding renewable energy to the house. All SERVE grant processes went smoothly and value for money was achieved, overall this householder is very happy with the new measures installed.