

From the

land

Farming family the **Gourlays** were determined to embrace their surroundings, creating a striking home for their retirement that makes the most of its setting and celebrates local materials

WORDS **NICHOLA HUNTER** PHOTOS **DOUGLAS GIBB**

THE GOURLAY FILE

NAMES Neil & Mary Gourlay
OCCUPATIONS Farmer and B&B owner
LOCATION Dumfries and Galloway
TYPE OF BUILD Self build
STYLE Contemporary
CONSTRUCTION METHOD Stick-built timber frame
PLOT SIZE 0.5 acres
LAND COST Already owned
HOUSE SIZE 340m²
PROJECT COST £720,000
PROJECT COST PER M² £2,118
TOTAL COST £720,000
BUILDING WORK COMMENCED October 2011
BUILDING WORK TOOK 72 weeks

Forward planning is essential when it comes to succeeding in the agricultural business, but farmer Neil Gourlay and his wife, Mary, have taken the concept to a whole new level with their ambitious self build project.

When the couple purchased a neighbouring farm in 2002, they felt the time was right to map out their family's future. "The house wasn't included in the sale of that land," says Neil. "I realised that if my son decided to join the business in the future, he wouldn't have anywhere to live. So it seemed sensible to build a new property – and I really wanted it to be something out of the ordinary."

The proposed house would be situated on a stunning part of this isolated plot, which is located close to the village of Moniaive and offers picturesque views across the countryside to where the three glens of Craigarroch, Dalwhat and Castlefairn converge.

Natural selection

It was 2009 before design work got underway in earnest and the project took nearly five years to come to fruition. When you delve into the level of care that went into the scheme, you can begin to appreciate why so much time was spent on it. "I'm a great believer in sustainability and many of the materials used in the house were found on the farm," says Neil. "While that made some of them cheaper, it wasn't a case of me being a miserable Scotsman – the labour required to use them added to the costs and time involved."

Natural, sustainable materials are a core part of this house – from the locally sourced softwood timber frame, built stick-by-stick on site, to the 500 tonnes of stone taken from the surrounding fields. Around 2,000 fleeces were taken from neighbouring farms' Blackface sheep for the wall insulation, while the oak cladding came from wind-felled trees on the Gourlays' land.

"What we've tried to achieve here is to create a house that's incredibly green but also thoroughly modern," says Neil. A case in point is the turf roof, which was initially quoted at £3,000. "We had the farm machinery and experienced workers to enable us to do it for just £200, using material from the surrounding fields so that it blends in beautifully. We had to bring in an engineer to redraw the roof's steelwork to take the extra weight."

Developed in conjunction with architect Mark Waghorn, the house is designed to make the most of the site. Neil spent a lot of

time at the plot getting a feel for where the sun would be at different times of the day – and the result is a two-storey, five-bedroom home with an upside-down layout. “It made sense to maximise light in the living space, so you go downstairs to go to bed,” he says. “However, we chose to put the main open plan zone on the northern elevation – so the sun comes in from behind. We still get the extra heat from solar gain, but our views aren’t disturbed by glare.”

Power play

The house’s sustainable, energy-efficient fabric is complemented by a number of modern technologies. In fact, the house runs almost completely off-grid – with electricity supplied by a 100kW wind turbine. Warmth is principally generated by a combination of solar gain and a ground source heat pump hooked up to underfloor heating, which helps deliver low energy bills.

An Austrian kachelofen (which is basically a clay-built, heat storing biomass stove) creates a balmy ambience, while solar thermal panels provide an additional boost of hot water. This is all



“What we’ve tried to achieve here is to create a house that’s incredibly green but also thoroughly modern”



The random stone cladding, which was sourced on site, echoes the dry walling that reaches out on either flank





The railway sleeper flooring is both characterful and durable. "It will probably outlast my grandson, and I don't think I'll ever get bored of the effect," says Neil

complemented by a mechanical ventilation and heat recovery system, which recycles warmth from wet rooms (such as the bathroom) and redirects it back into the house as part of a fresh supply of air.

These technical elements of the project weren't as straightforward as Neil had originally hoped – with the turbine causing a particular headache. "The product our architect applied for was capable of powering the whole house and on its own would have cost £35,000," he says. "However, it needed to be set on a hill 800m away, and making the connection to the national grid came in at £65,000."

The couple didn't want to ditch their goal for a near self-sustaining house, so to justify the huge additional expense they decided to go back to the planners and secure permission for a bigger turbine that would generate long-term profits. The Feed-In Tariff currently pays out at 13.73 pence per kilowatt-hour (p/kWh) of electricity for installations smaller than 100kW, and at 10.85 p/kWh for turbines up to 500kW



in size – although most domestic setups will be much smaller. "The turbine we went for produces enough energy for half the village," says Neil. "Apart from the small cheat that I can draw power from the grid when the wind doesn't blow, the house fundamentally doesn't use mains services at all."

Getting on track

The Gourlays set their architect an initial budget of around £400,000 for the project – but they quickly revised their figures. "Once planning permission was granted, I put the job out to tender," says Neil. "The quotes I received were around £700,000, so we had a decision to make as to whether we still wanted to go ahead."

WE LEARNED...

THE AUTOMATED SLIDING

DOORS are a luxury, but they work really well – we just push a button to operate them. The alternative would have been to put in a three or four track manual slider, but it would have broken up the sleek look.

DON'T PUT IN ROOMS just for the sake of having them. Our laundry was a bit of folly – it's far too complex and isn't used in the way it should be.

OUR HEAT PUMP is first class in combination with the underfloor heating, but the jury is still out on the effectiveness of our solar panels in the conditions we get in west Scotland. We could have done without them and cut our costs.



The couple intended to finance the works through a combination of selling some shares, money from the family and a loan through Clydesdale Bank. "We went back to the bank to secure more funds and just accepted that it would take longer to pay off," says Neil. "While we went over the original figure we gave to the architect, once we decided to go ahead we stuck with our budget for the build."

Scheduling the project proved difficult – and the job ended up overrunning by about four months. "We had horrific snow that year and we were building in an exposed location on top of a hill," says Neil. "There were days the contractor couldn't even get onto the site, so I can't blame them for the delay." The couple appointed 3b Construction, based in Port William, to tackle the entire project. "It probably cost us about 10% more to go with a single contractor, but I think it was worth it to have just one company on site. It avoids any confusion about who's at fault if something goes wrong."

While they were happy to leave the main structural work in the hands of the professionals, the couple did tackle some of the heavy tasks themselves. "Among other things, we cleared the site, brought the stone in and laid the roof – so we probably ended up doing about a tenth of the project ourselves," says Neil.

The right fit

One area Neil was keen to be involved with was specifying and sourcing the finishing touches – something he enjoyed as much as managing the build. "It took nearly a year and a half to complete the house, but I never lost interest," he says. "All the way through the project we were finding things to furnish or decorate it with. Occasionally I wondered how we would pay for everything, but I had a lot of fun tracking down these additional features."





The stone cladding has been left exposed in some rooms to reinforce the house's connection with its setting



Neil has left no stone unturned when it comes to getting the details right. "All the baths, WCs, basins and taps came from Tynemouth Architectural Services, a salvage yard in Newcastle," he says. "I gave them five months to find the right sanitaryware for me and amazingly they managed to track down pretty much everything. I also got some fantastic pieces from eBay, such as the Belfast sink and a cabinet for the hallway, which cost just £100."

The kitchen is a mix of old and new, with distressed units by Stevenson McConnel juxtaposed against state-of-the-art appliances. The Fisher & Paykel fridge-freezer is the smallest standard-size product the couple could find with an integrated ice maker. The Everhot range cooker, which runs on electricity, has a convection hob, hotplate and four ovens.

One of the highlights of the main living space is the kachelofen – a feature Neil first encountered while staying with friends in Austria. "It acts like a giant storage heater," he says. "I suggested it to the contractors and even bought them a book about the subject, but I could see that we needed to find a specialist. We ended up bringing a master kachelofen builder and his girlfriend over for a couple of weeks to make it. It only takes about four or five logs per day, so it's really efficient and a central feature of the house. If anything, my only complaint now is that it's too hot!"

The furniture in the dining area is bespoke. "I've bought a few pieces from Michael Douglas, of Jarabosky, in the past. When I met him at The Royal Highland Show I asked if he was interested in working on the project," says Neil. "He made the dining table and bench from railway sleepers to match the flooring." In total, 286 of these were used across the project.

A house for the future

Until they retire, the couple have decided to rent out the house – named Three Glens, after the view. "It could be as much as 10 years before we move in, but it's definitely something to look forward to," says Neil.

His eye for detail has seen the house attain a five-star rating from Visit Scotland and a Gold Award from The Green Tourism Business Scheme. "I was really pleased with the award; though I wouldn't do it again," he says. "I had an ambition and I've fulfilled it – but I couldn't tackle another project with the same level of care and detail. We built a home rather than something to make money, and the bottom line is that we've created a nice, warm house that Mary and I will enjoy at some point in the future."

closer look

Local, sustainable materials...

This project is packed with eco features, such as solar thermal panels and an electricity-generating wind turbine, but perhaps the most impressive part of the scheme lies in the materials sourcing. Local softwood makes up the timber frame, while products such as the oak cladding come direct from the site itself. It's a wonderfully sustainable approach and helps the modern house blend into its setting – but it's not without its downsides. "We used trees from the farm for the cladding, which we felled, dried and then sent to a sawmill to have them cut into boards. Our builder then trimmed them down to the correct length," says Neil. "It cost twice as much to use our own oak as it would have to buy new boards in – mainly because of the extra time and labour involved. I hadn't expected that when we started. But the finish does tell a story, in that it came from the farm."



Site-sourced materials

Floor plans



TOTAL BUILD COST BREAKDOWN

Elements	Cost m ²	Cost %	Total cost
Structure & materials	£882	42%	£300,000
Roof	£47	2%	£16,000
Joinery	£353	17%	£120,000
Windows, doors & blinds	£212	10%	£72,000
Heating & plumbing	£88	4%	£30,000
Electrics	£65	3%	£22,000
Flooring	£41	2%	£14,000
Kitchen	£26	1%	£9,000
Ground source heat pump (GSHP)	£47	2%	£16,000
Borehole for GSHP	£21	1%	£7,000
Kachelofen biomass stove	£24	1%	£8,000
Solar thermal panels	£29	1%	£10,000
Miscellaneous	£282	13%	£96,000
Grand total			£720,000

Useful contacts

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 MAIN CONTRACTOR **3b Construction** 01988 700000 www.3bconstruction.co.uk
 MORTGAGE **Clydesdale Bank** 0800 345 7365 www.cbonline.co.uk
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