



What SERVE meant to me

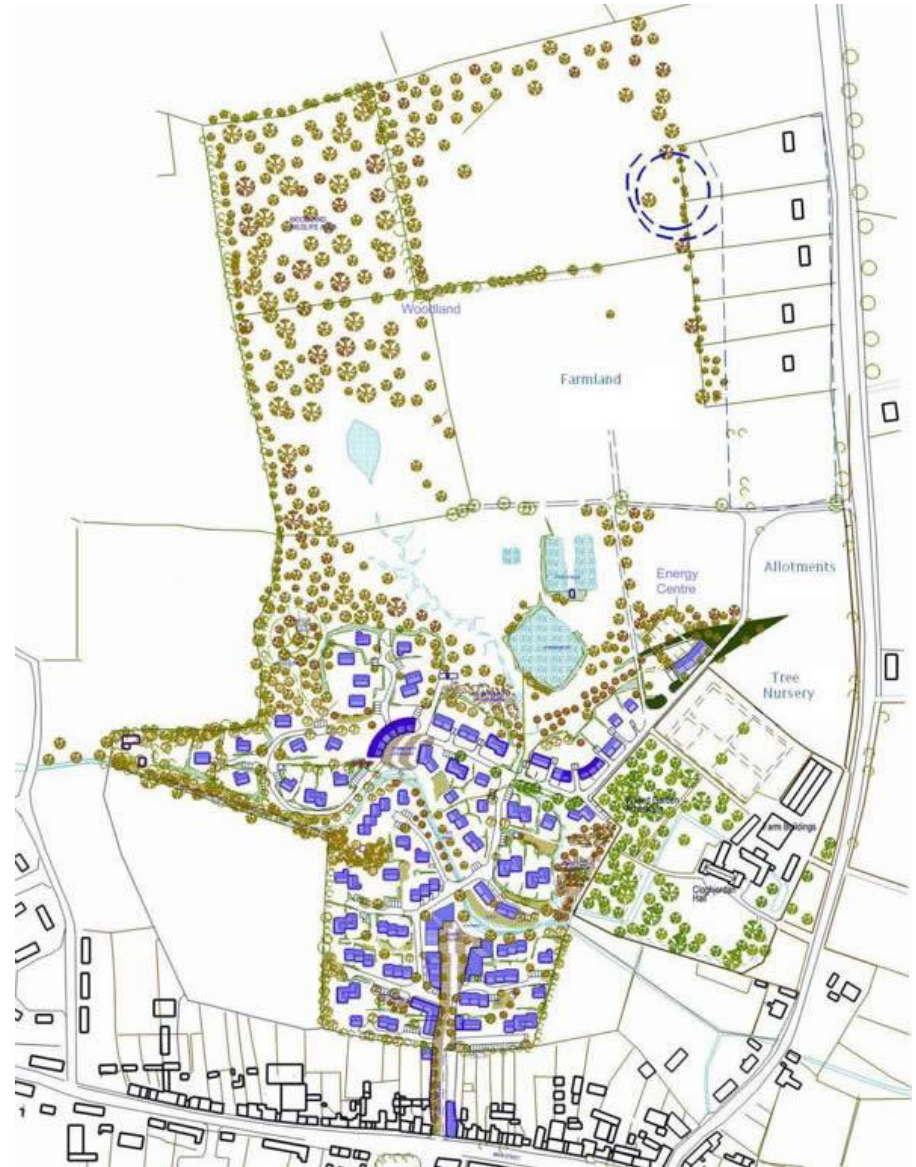
Deirdre O'Brolchain
Cloughjordan's Ecovillage
North Tipperary



how did I get involved
in the
SERVE project?



- Creating a vibrant, resilient and sustainable community
- Located in the heart of Cloughjordan town, Tipperary
- Includes 67 acres of farmland, native woodlands, amenity areas
- Ecocharter
- Renewable Energy, heating all homes & businesses, supported by SERVE





Charming Cloughjordan



**Our Home being built
May 2010**

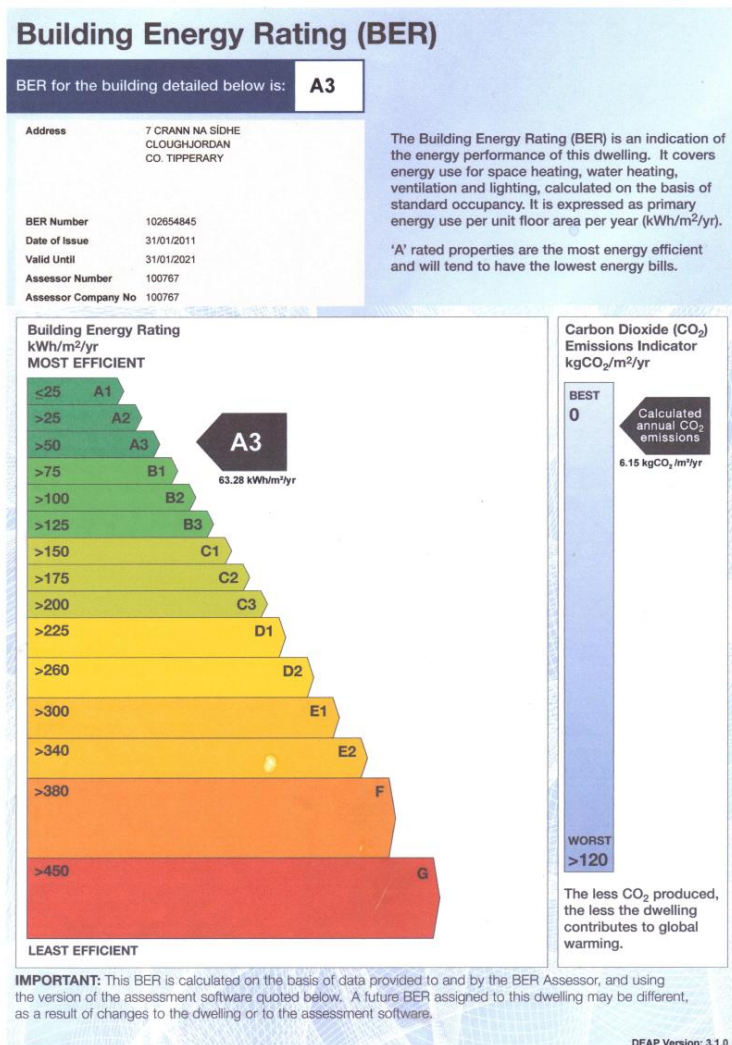
Buffer Tank



Our New Home – August 2010



BER Certificate





**Looking North towards
Knocknacree Woods, with
all houses facing south**

**View from Woodlands
looking south towards
Ecovillage &
Cloughjordan**



why did I get involved in
the SERVE project?

Plan of Residential Area of Ecovillage





District Heating Boiler House

**500sq m
Solar Array**



**Our Plant Room –
not a flower in sight!**



Heat Exchanger



Merlin Heat Controller



Metrima & iMod

Collecting & Analysing DH Data from Houses

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Site number	Comments	House Type	Work from home?	Average Occupancy	12/01/10	20/12/10	20/01/11	31/1/11	28/02/11	31/3/11	30/4/11	31/5/11	30/06/11	31/07/11	31/08/11	30/09/11	31/10/11	30/11/11
2	1.	Passive house, problem with meter reading since May 2011, needs re-calibrating	Detached	No	0.5 (1 part-time)	526	594	892	992	1100E	1,012	1,050	1,116	1,151	1,152	1,153	1,154	1,156	1,157
3	2.	Open plan ground floor, polished stone flooring throughout. Thermostats set to 25 degrees in some rooms	Detached	No	3.	1,954													
4	3.	Only 2 thermostats for UFH in house until June 2011, now in each room. Room temps set very high	Detached	Yes during 2010/2011 only	1 (2 part-time)	2,738	3,868	7,294	8,431	10,043	10,790	11,062	11,234	11,468	11,700	11,836	12,144	12,818	14,000
5	4&5		Detached	Comprises Hostel and Owners	32 bed hostel + apartment: avg. occupancy 2 (home) + 3 (staff)		4,726	7,842	8,799	10,744	13,453	14,759	15,149	15,445	15,703	16,078	16,501	17,193	18,300
6	8.		Semi Detached (other house built but not occupied)	Yes									1,253	2,507	4,106	5,783	7,025	8,710	11,600
7	9.		Terrace of 3	No	2.														
8	10.		Middle of Terrace of 3	No	2.														
9	11.	Not yet occupied. K/W usage to date for drying house 5 occupants, incl. 1 elderly person requiring constant warm house	Terrace of 3	n/a	0.														
10	16.	Question over consistently low meter readings since installation. Needs	Detached	No	5.	5,232	6,166	7,299	7,757	8,470	9,243	9,821	10,381	10,812	11,317	11,779	12,220	12,759	13,300
11	23.		Terrace of 3	No	1.	856	1,048	1,307	1,391	1,514	1,639	1,727	1,798	1,840	1,903	1,976	2,047	2,143	2,200
12	24.		Middle of Terrace of 3	No	1.	1,412	2,088	3,026	3,346	3,807	4,174	4,316	4,485	4,622	4,725	4,844	4,993	5,347	5,900
13	25.	Question over consistently low meter readings. Needs calibration. Thermostats set to 23c in occupied rooms.	Terrace of 3	No	1.	961	1,180	1,460	1,567	1,731	1,890	2,022	2,120	2,206	2,292	2,407	2,512	2,645	2,800
14	40.		Detached	No	1.	412	1,031	1,970	2,330	2,859	3,064	3,281	3,413	3,557	3,720	3,908	4,128	4,338	4,500
15	41.		Detached	Yes	4.	2,350	3,298	4,850	5,394	6,143	6,600	6,814	6,997	7,159	7,300	7,501	7,646	7,936	8,300
16	45.		Detached	No	2.														
17	47.		Detached	No	15														
18	48.	Not yet occupied. Cob	Detached	n/a	0.									244	641	1,051	1,460	1,951	2,400
19	50.		Detached	no	1.				459	1,587	2,263	2,590	3,084	3,498	3,842	4,059	4,432	4,904	5,400
20	52.	Busy household, no dishwasher. High domestic water usage?	Semi Detached	No	5.			2,401	2,927	4,594	5,332	5,836	6,222	6,538	6,833	6,921	7,266	7,746	8,300
Readings Dec 2010 - June 2012																			

Monitoring Electricity Usage & getting the kids involved!



Building Energy Rating (BER)

BER for the building detailed below is: **A3**

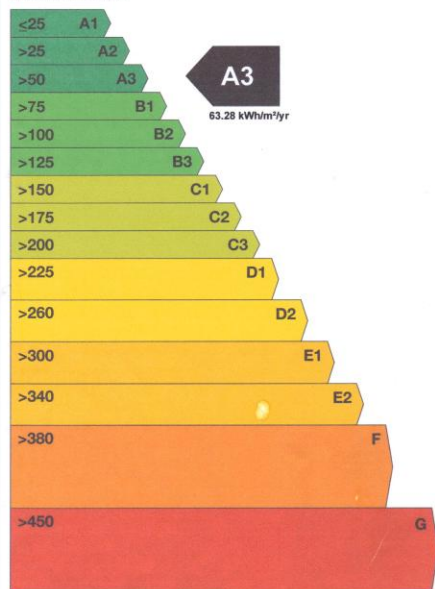
Address 7 CRANN NA SIDHE
CLOUGHJORDAN
CO. TIPPERARY

BER Number 102654845
Date of Issue 31/01/2011
Valid Until 31/01/2021
Assessor Number 100767
Assessor Company No 100767

The Building Energy Rating (BER) is an indication of the energy performance of this dwelling. It covers energy use for space heating, water heating, ventilation and lighting, calculated on the basis of standard occupancy. It is expressed as primary energy use per unit floor area per year ($\text{kWh/m}^2/\text{yr}$).

'A' rated properties are the most energy efficient and will tend to have the lowest energy bills.

Building Energy Rating
 $\text{kWh/m}^2/\text{yr}$
MOST EFFICIENT



A3

63.28 $\text{kWh/m}^2/\text{yr}$

Carbon Dioxide (CO_2)
Emissions Indicator
 $\text{kgCO}_2/\text{m}^2/\text{yr}$

BEST
0

Calculated
annual CO_2
emissions
6.15 $\text{kgCO}_2/\text{m}^2/\text{yr}$

WORST
>120

The less CO_2 produced,
the less the dwelling
contributes to global
warming.

IMPORTANT: This BER is calculated on the basis of data provided to and by the BER Assessor, and using the version of the assessment software quoted below. A future BER assigned to this dwelling may be different, as a result of changes to the dwelling or to the assessment software.

DEAP Version: 3.1.0

Energy Consumption in our home over past 12 months:

Heat: 5170 Kw Hours

Electricity: 2600 Kw_Hours

Total: 7770 Kw Hours

37.4 KwH/m²/yr

A2 rating

was your involvement a positive experience?

Yes!

SO MUCH LEARNT!

- Ecovillage is now home to one of Ireland's largest DH systems & is model for being less reliant on fossil fuels to heat our homes
- DH & Electricity Data collected from all homes is changing residents energy habits & lowering energy consumption
- We are continuing to learn a huge amount about energy efficiency in homes, and understand the importance of considering future energy consumption in the design of new homes
- We're planning for the future!



President Higgins @ Cloughjordan
Ecovillage June 2012



would you participate in a similar project?

**after being involved in the SERVE project,
what more do you want to do?**

Cloughjordan Ecovillage

Accompanied or Self Guided Tour

1 Coach House



This was the coach house for the Inn. It is currently used as a distribution point for milk and vegetables from the Community Farm

2 Django's Hostel



36 bed Eco Hostel and Learning centre. Used for accommodation for tourism and for courses

3 Solar Street Lighting



Prototype of Solar street lighting at the north of the market square. Uses LED technology to provide low energy lighting.

4 Wood Fired Bakery



Wood fired bakery in this live/work unit using wood from local forest. Provides bread for Cloughjordan shops and also sold in specialty food stores in Dublin

5 Eco Houses



All houses on site are highly energy efficient. Built from natural materials, mainly timber but also some cob and straw bale.

6 Energy Barn



Houses two highly efficient wood chip boilers, which provide hot water and heating to all houses and businesses on site



7 Enterprise Centre



The WeCreate Enterprise Centre fosters green businesses to create livelihoods in Cloughjordan and also provides an opportunity for green businesses to thrive

8 Solar Park



Ireland's largest Solar Panel array of over 500m². This supplements the wood chip boilers during the summer and on bright winter days

9 Hen House



Visit the cheeky hens in their hen house, or look around to find them ranging amongst the allotments

10 Allotments



Allotments of 100m² are available to each ecovillager. Browse through them to see the diversity of produce and growing styles

11 Polytunnels



These polytunnels are available to extend the growing season. Cucumbers, tomatoes, basil and pumpkins are amongst the plants which can be seen on display

12 Apple Walk



There are over 25 varieties of apple trees on site. Walk along this trail between two rows of these beautiful trees

You are very welcome to tour the ecovillage, but please respect the privacy of residents