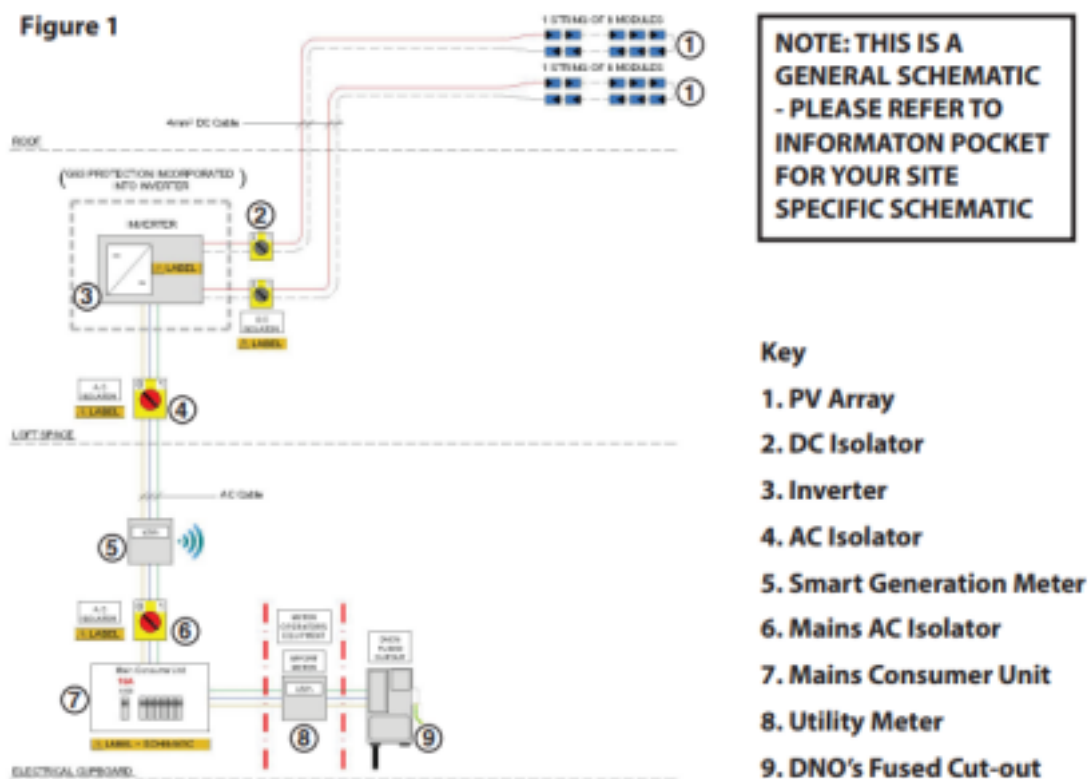


1.1 General Description – Refer to Figure 1

The Photovoltaic (PV) System installed at this property is designed to produce electricity for the site. The panels receive energy from light generated by the sun and converts this into a DC electrical current. This electricity is then converted into an AC current (the standard type of electricity used in Ireland). This in turn is connected into your existing electric system via the fuse board / distribution board. This means that you will reduce the amount of electricity you buy from the National Grid as you will be using the electricity generated by your own property (day light hours only). If, however, you produce more electricity than your property requires at any one time this will be safely fed back into the National Grid. This process is fully automated. Your system should run automatically without any interface other than the required maintenance detailed in Section 3 Maintenance/Monitoring. Your system will reduce the amount of electricity you buy from the National Grid and therefore the carbon footprint of your property. The system has been designed and specified to perform at its optimum based on the information provided and collected. However, consideration by the system users should be given regarding future building works that may shade the system and therefore affect its performance. Similar consideration should be given to the planting of any trees and other obstructions that may shade the system and therefore reduce performance. The owner of the system can quickly verify the function of the system by checking the inverter display panel which will indicate correct operation or fault codes. The occupier will also be able to check the energy meter for the accumulation of kWh (i.e. increasing during sunny day / light periods). See Inverter booklet in for more information.

1.2 Figure 1 & Description



1.3 Energy Performance

The energy performance for the system is based on an average / standard dwelling of this type. Basic assumptions have been made with regard to orientation and roof pitch and therefore, the performance of the system may differ from the basis assumed at design stage. On average, a PV System in Ireland would achieve approximately 850 kWh for every kW installed. For instance: a 4-kW system would achieve approximately 3400 kWh per annum. However, each property would have had an individual SAP calculation with regard to its energy performance and consumption. Refer to back pocket for specific info

2. Isolation / Shutdown and Start Up procedures

Isolate the power supply at the MCB. Isolate and lock AC isolator adjacent to the MCB. Isolate and lock DC isolator adjacent to the inverter. Start-up procedure to be carried out in accordance with the inverter operating instructions. See inverter booklet. The D.C current supplied by the collectors is live during the daylight hours. The cables supplying the inverter with this current must not be tampered with. Any works carried out to these cables must be done by a fully qualified engineer. Note- These cables will still be live even when the consumer unit/distribution board is isolated. All DC cabling is adequately labelled. Please ensure the labels are not removed for any reason. -See photo.



3. Monitoring and Maintenance

Maintaining a PV system is unlike maintaining other renewable technologies. We have attended many systems (prior to remote monitoring technology) where failures have only been detected by our annual service. The loss of revenue from the free electricity that could have been used by the tenant or home owner can be very significant running into €1,000s.

4. FAQs

Does the system work automatically? Yes, the inverter is the brain of the system. Electricity from the solar system will be used instead / as well as that from the grid. (Page 2-3).

Does the system need to be registered? Yes, the system will be registered by us with ESB networks using the NC6 form.

Do the panels work in winter? Yes, the panels work in any sort of daylight conditions; however, efficiency will be decreased the darker it is.

Do the panels need to be cleaned? In certain circumstances, yes, i.e. if the panels are not mounted to a minimum of 10° pitch or if they are in a position that is more susceptible, i.e. coastal locations (due to birds) etc.

How do I maximise my electricity savings? You can do this by ensuring the system is continuously functional, as well as altering your electrical usage pattern to ensure you use as much of the free electricity as possible. For example, using all high electricity items during the day when the solar panels are producing the most electricity. These items include your washing machine, dishwasher, tumble dryer etc.

Can my house be solely run from the PV system? I.e. Will I have an electricity bill? This is dependent on the system size and your electricity usage patterns. The more smartly you use your electricity (using high electricity items during the day), the more the PV will contribute. Generally, the average three bed house consumes 3,300kWh per annum. A 1kW PV system will on average generate in excess of 850kWh p/a. The key is to use as much of the generated electricity as you can! Batteries can also be used to store energy so that you may use it as and when required. Please contact Us for more info.

Should I turn the system off when I go on holiday? No, the system will simply export the excess electricity so there is no need. Turning off the system will increase your electricity bill.

What happens if there is a power cut? The system will restart once the electricity is back on automatically.

How do I know if my system is working? You can check the Kwh meter daily to ensure it is tallying up, alternatively we will let you know if you are part of our remote monitoring package.