

## Sustainable Design Workshop Series

### One Day Training Workshop *Designing Efficient & Reliable Solar Thermal Systems*

This workshop is designed to provide you with the knowledge and practical know-how required to plan and design a solar heating system for residential and commercial/public buildings.

By the end of the day, you should have the knowledge base to:

- ✓ Understand the solar thermal market in Ireland, its main drivers and the business opportunities it offers;
- ✓ Recognise the main characteristics of solar energy (daily & monthly profiles, diffuse & direct radiation, sun path diagram, shading);
- ✓ Identify typical solar thermal applications (domestic hot water, space heating and pool heating) and associated system layouts;
- ✓ Know the major components of a system and how to specify them for durability and efficiency;
- ✓ Assess a site for a solar heating project in terms of hot water requirements and practical aspects of installation of solar collectors, cylinders, etc.
- ✓ Size a solar thermal system for cost-effectiveness and assess the main parameters affecting its efficiency;
- ✓ Estimate the expected thermal output from a solar heating system and conduct a simple lifecycle cost analysis of the project;
- ✓ Be familiar with financial incentives & funding sources;
- ✓ Plan the installation and commissioning process, while being aware of regulatory framework as well as health and safety issues;
- ✓ Be aware of the latest innovations and exciting technologies in the field of solar thermal.

#### Available Dates

Friday 2 October	Dublin
Friday 23 October	Cork
Friday 27 November	Dublin
Friday 4 December	Cork

- Workshops run from 9:30 am – 4 pm
- Dublin workshop venue:  
Bewley's Airport Hotel  
Baskin Lane, Swords, Co Dublin
- Cork workshop venue:  
Lifetime Lab, Lee Road, Cork



130 m<sup>2</sup> drainback solar water heater at Kilkenny Leisure Centre

The workshops are designed to be practical, dynamic and interactive. They involve presentations, simple practical exercises and group discussion. Where possible, a study tour to an exemplary solar thermal system will be organised.

The workshops are led by Xavier Dubuisson, Senior Sustainable Design Consultant at DW ECoCo Ltd. Xavier is one of Ireland's leading renewable energy consultants with over 12 years experience in this area and an outstanding track-record as a lecturer and trainer. The workshops are approved for CPD by Engineers Ireland.

Course fee: €195 per participant payable in advance (5% discount for booking online).  
*Lunch is not included in the course fee; however, a lunch option can be added when booking for an additional fee.*

**Registration Information:** To register, please book and pay online by PayPal or credit card at [www.nicertraining.ie](http://www.nicertraining.ie). (5% discount for booking online.) Alternatively, fill out the form on the reverse and post payment. **Unfortunately, places cannot be held without payment.** Reservations will be on a first payment basis.

**Places are limited to 20 per workshop to ensure a high quality learning environment and to allow your questions to be answered and discussed. Please book early to avoid disappointment.**

**For questions or if you would like any further course information please contact Devyn Olson-Sawyer, Programme Manager on 01 454 6411 or email [courses@nicertraining.ie](mailto:courses@nicertraining.ie)**

**Delap & Waller EcoCo Limited**  
Integrated Sustainable Design Consultants  
Directors: M.J. O Doherty, J.A. Ennis, S.N. Murray, J.Stuart.  
Registered in Dublin No. 398740

**National Irish Centre for Energy Rating (NICER)Ltd.**  
Directors: D Olson-Sawyer, C. Foust PhD  
Reg. in Dublin 178822



**Delap and Waller EcoCo**

Integrated Sustainable Design Consultants

# Sustainable Design Workshop Series

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_ Phone No: \_\_\_\_\_ Mobile No: \_\_\_\_\_

Have you participated in a DWecoCo or NICER Training event in the past?  Yes  No

How did you hear about our training programme?

email  internet (where? \_\_\_\_\_)  leaflet  other: \_\_\_\_\_

Do you have a disability or other special requirements you would like us to know about?  Yes  No

If yes, please outline below the supports you request: (We will facilitate requests as practical)

Please describe any any interest / background or education/learning that is relevant to this subject (through degree/certs, work, life experiences):

**(Reminder: To avail of the 5% discount, book online!)**

Cheque/postal order enclosed for: Workshop fee  €195 Add lunch option  €15 Add to mailing list   
Workshop  Retrofitting Houses  Solar Thermal  Microgeneration

Date/location: 1<sup>st</sup> choice \_\_\_\_\_ 2<sup>nd</sup> choice \_\_\_\_\_

Book all three workshops (Retrofitting Houses, Solar Thermal, Microgeneration)

discounted rate of  €500 (includes lunch) – NICER will contact you regarding available dates/locations

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Please return to: Devyn Olson-Sawyer, Programme Manager, NICER Training, 213 The Tramyard, Dublin 8. Email: booking@nicertraining.ie

**Booking Terms & Conditions:**

MC/Visa via PayPal and payment by cheque or postal order, and please make all cheques / postal orders payable to NICER Ltd. Post FAO Devyn Olson-Sawyer, Programme Manager, 213 The Tramyard, Spa Road, Dublin 8. Bookings will not be confirmed until a signed form is received by post, email or fax. Full payment is due prior to course date. We will accept a written cancellation of confirmed booking and refund 100% of the course fee up to 7 days (one week) before the beginning of the course, and 80% of course fee if received 48 hours before the beginning of the course. Fees will not be reimbursed if written notice is not received.

I understand the terms and conditions of NICER Training’s cancellation policy (please tick box)

**Data Protection and Privacy:**

NICER Training will hold your details on our files to contact you about other NICER Training courses and services. Please indicate which format you would like to receive publications, promotional materials, newsletters, etc. from NICER Training. NICER Training will not share your details with any third party.

Via email (PDF)  Via text or HTML email  Printed publication via post  Do not send further information

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