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QualiBuild is an initiative to add transparency to the building sector and to improve standards by providing training for those employed in this sector and a register for those who want to employ an approved level of craft worker.

The core values for the brand are Quality, Knowledge, and Openness. These values will assist in visually articulating the brand message. Quality has been chosen in an attempt not to categorise the brand as 'green' or 'sustainable' but rather to highlight a sector operating at a higher level. Knowledge will demonstrate the core function of the training. Openness will attempt to aid in the transparency of the initiative to allow consumers and developers to make informed choices regarding the workers they employ.
The logo for QualiBuild has been developed to exist as a mark of quality, to be a standard in training and education and to represent the industry in a holistic way. The core objective of QualiBuild is to improve the industry in a transparent and open way that can allow all stakeholders to participate in this positive change.
04. The Marque

The marque has been developed from the concept of compliance. In its simplest form the ‘Tick Marque’ has a perceived recognition of quality, but it is the combination of quality in all areas that fulfils the QualiBuild objectives.

This marque can easily be animated in digital format and the marque as shown can be used as an additional brand device for marketing material.

The Tick Mark must be used in QualiBuild Teal or 100% Black
The logotype is a combination of 3 harmonious colours from bright cyan, teal to forest green. This palette was chosen to highlight the holistic approach of the QualiBuild initiative.

Each represents one stakeholder (the craft worker, the consumer and the developer) and the palette is developed to be fresh and modern with a distinct departure from the over-used ‘green’ palette that currently represents the sector.

Full colour, Pantone and RGB options are provided.
When required, the logo can appear in a single colour out of 100% black. The percentages shown here must be adhered to.
07. Typeface

Logo
The sans serif Futura has been chosen for the logotype. It has been selected for its geometric and solid structure. Its is extremely legible and is seen as a symbol of modernity and precision.

In Print
Humanist 521 typeface has been chosen for its legibility and clarity. This sans serif produces well at reduced sizes and should be used on printed material. Roman for headings and Light for body copy.

Onscreen
Open Sans has been chosen for onscreen headings while Verdana should be used for body copy.

Print: Humanist 521
Headings: Roman
Body Copy: Light
abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Onscreen
Headings: Open Sans
Body Copy: Verdana Regular

Email
Day-to-day: Verdana
There are 2 lockups for the logo. The first is horizontal and should be used whenever possible.

The logo can be used with or without the tagline. Please see further directions at '14. Tagline' in this document.
09. Horizontal Exclusion Zone

When placing the logo the exclusion zone around all sides is the height of the ‘B’ letter form as shown. No other content/image can encroach upon this exclusion zone.
10. Horizontal Size

The minimum height the logo can be reproduced at for print is shown here. There are different heights for the logo with or without the tagline.
There are 2 lockups for the logo. The second is vertical and should only be used in place of the horizontal lockup where space constraints exist and the horizontal lockup cannot be used.

The logo can be used with or without the tagline. Please see further directions at ‘14. Tagline’ in this document.
12. Vertical Clear

When placing the logo the exclusion zone around all sides is the height of the ‘B’ letter form as shown. No other content/image can encroach upon this exclusion zone.
13. Vertical Size

The minimum height the logo can be reproduced at for print is shown here. There are different heights for the logo with or without the tagline.
14. Tagline

Upskill, Train, Improve, is the brand positioning statement that describes all that QualiBuild encompasses. This is the primary version of the logo and should be used whenever possible. This must be used for all consumer facing marketing and promotional efforts e.g. website, leaflets, brochures.

QualiBuild can appear without this tagline for inhouse use and when used in communication directly within the building sector.
15. Backgrounds

The use of the logo and marque are strictly managed to ensure consistency.

Do:
• Use the logo in accordance with the guidelines in this document
• Wherever possible use the logo on a white background
• Where white is not feasible, use the logo on no more than 10% saturation of a spot colour
• Place a white border behind the logo when placing on top of full colour imagery - border should be to the scale of the exclusion zone

Please Don’t;
• Skew or rotate the logo
• Distort the logo
• Place the logo on patterns or gradients
• Add effects or other colours not specified here to the logo
• Use the logo in part to associate with your business

If in doubt please contact Seamus.Hoyne@lit.ie
When placing the logo on marketing material please ensure to position it in the top right hand corner of the page as shown - ensuring to follow the exclusion zones. This relates to small format material.

For large format (banners etc) the logo must occupy the top 25% and be placed central to the overall layout ensuring that exclusion zones are maintained.
17. Registered Craft Workers

Those craft workers who register on the website www.qualibuild.ie/register and avail of training or upskilling are entitled to attach the ‘Registered’ logo to their marketing material, websites, stationery as set out here on completion of the training.

Find us on the register www.qualibuild.ie/register
18. Appicon

The device is to be used for the Appicon for iPhone and Android.
19. Favicon

The device is to be used as the Favicon for the website.
20. Contact

All logos will be supplied in vector format

All artwork must be sent to LIT for final approval prior to printing
Seamus.Hoyne/ Seamus.Hoyne@lit.ie

Should you require further assistance with regards to the use of the QualiBuild logo please contact
Danielle Townsend Design
(+353) 86 313 88 16
info@danielletownsend.com
QUALITY BUILDING AND FOUNDATION ENERGY SKILLS

WHAT DOES NEAR ZERO ENERGY MEAN TO ME?

CONTINUOUS AIRTIGHTNESS

ATTENTION TO DETAILING

RECOGNISING COMPETENT COMPANIES, PRODUCTS AND SYSTEMS

BEST PRACTICE APPROACH

CONTROLLED VENTILATION
Quality Building is a job for all of us – so that the customer is provided with the best building possible, energy efficient and with high quality detailing, resulting in a comfortable and healthy building that is the best value for money. As energy use in buildings accounts for 40% of the final energy consumption in Ireland, energy efficient retrofits and new construction are key to keeping Ireland on track to achieve new energy and carbon performance targets. Therefore, building construction workers, designers and building owners need to understand what quality building will mean for them.

WHAT CAN I DO?

**Trainer**
If you are involved in the training of building construction workers, sign up for our Train the Trainer course.

**Building Construction Worker**
If you are a building construction worker, sign up for our Foundation Energy Skills programme

**Commercial or Home Owner**
If you are a commercial building owner or homeowner, look for evidence that your builder and designer understand energy efficiency, and have completed recent training programmes in energy-related topics, such as air tightness, controlled ventilation, proper insulation methods and systems, and that they follow the appropriate detailing to ensure your project is done right!

WHAT CAN WE DO FOR YOU?

The QualiBuild programme, which commenced in 2013, is working with Government Departments and relevant agencies at a national level to ensure all Irish building construction workers undergo training and up-skilling. The training currently available is comprised of a Foundation Energy Skills Programme for building construction operatives and craft workers and a Train the Trainer programme to increase the knowledge and competency of trainers involved in construction training.
For All Trades and Building Site Workers

FREE Foundation Energy Skills Training Course
Starting in April 2015 / 3 Days / Choice of: Full Day / Evening / Online

Express your interest on-line at www.QualiBuild.ie/fes-training
Call Mark at ITB on 01 885 10 35 with any questions

Single Subject Certificate at NFQ level 6
Content covered includes:
• Buildings as a System
• Energy Principles
• Air Tightness and Building Fabric
• Thermal Bridging
• Ventilation and Condensation
• Heating Systems
• Energy use in Buildings
• Low Energy Language

NATIONAL DELIVERY IRISH GREEN BUILDING COUNCIL
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<tr>
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<tbody>
<tr>
<td>09:00am</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>09:45am</td>
<td>Zoe Wilders, EU Commission/EASME - The Build Up Skills Initiative – Results and Impacts to date</td>
<td>Overview of the impact of the EU Build Up Skills Initiative and Future Plans</td>
</tr>
<tr>
<td>10:10am</td>
<td>Damian English TD, Minister of State for Skills, Research and Innovation – Irish context</td>
<td>The Energy Performance of Building Directive and the Energy Efficiency Directive have recently proposed significant changes to the National policies and Building Regulations in Ireland. The urgency now with up-skillling the building construction workforce in Ireland to implement these changes are paramount.</td>
</tr>
<tr>
<td>10.30am</td>
<td>Torsten Windmueller, KOMZET - Training Irish Crafts Workers in Germany – Lessons from HEAT Plus and CESBEM</td>
<td>Experiences from training Irish Construction Personnel on Low Energy Buildings within Leonardo-da-Vinci mobility projects will be presented. Since 2009 KOMZET have trained nearly 400 Irish carpenters and plumbers and have gained a deep understanding of the differences in the skills and background information of craftsmen in both countries.</td>
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<tr>
<td>11.00am</td>
<td>Tea/Coffee</td>
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<tr>
<td>11.30am</td>
<td>Seamus Hoyne, LIT - Foundation Energy Skills Training for Irish Construction Workers</td>
<td>Outline of QualiBuild Foundation Energy Skills Training and it future roll out. The Foundation Energy Skills (FES) programme is a core component of the Irish Build Up Skills Initiative. Under the QualiBuild project it is planned to provide this training to 200 construction workers and develop a plan to roll it out nationally. Details of the programme and its supporting Train the Trainer programme will be presented.</td>
</tr>
<tr>
<td>12.00pm</td>
<td>Tomas O’Leary, Passive House Academy - Training the Trades in Building Excellence – the Passive House Approach</td>
<td>Passive House is widely regarded as one of the most stringent building performance and comfort standards in the world. The Passive House Academy has trained tradesperson in this field in Europe, the US and Australia and recognizes the importance of providing locally relevant hands-on training in the topics of insulation, airtightness, thermal bridging, window installation and mechanical services.</td>
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<tr>
<td>12.30pm</td>
<td>Rolf Rehbold, Build Up Skills Germany - German Build Up Skills (BUS) actions, current activities and regional initiatives on “smart builders” and quality networks</td>
<td>What kind of quantitative and qualitative gaps exist in Germany to reach the 2020 goals in the building sector and what needs to be done to close these gaps? Besides the results coming out of the first BUILD UP Skills (BUS) initiative in Germany the speaker will provide an overview of the main topics of Pillar II of BUS Germany that will be implemented from 2014 to strengthen the qualifications for interfaces between trades and the house as an integrated system. Furthermore, the talk will comment on regional initiatives to build up qualification for building sector workers.</td>
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<td>13.00pm</td>
<td>Lunch</td>
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<td>14:15pm</td>
<td>Robert Butler, CIF - Employers Approaches to Construction Worker Training</td>
<td>The launch of the CIRI register is major initiative for the construction industry. This presentation will outline the CIRI Register and how the CPD process will improve employee training and the general awareness of key sectoral pillars of training needed. It is anticipated that the subsequent up-skillling provided to the worker which in turn lead to enhanced quality of project outcomes.</td>
</tr>
<tr>
<td>14:45pm</td>
<td>Joseph Little, Joseph Little Architects - How the Code of Practice of Retrofit and other tools can help raise the standards of design professionals</td>
<td>How the Code of Practice of Retrofit and other tools can help raise the standards of design professionals. Joseph Little has been to the forefront of working with design professionals to ensure they have the skills and knowledge to design high quality low energy buildings. Experiences from working with and training design professionals will be presented.</td>
</tr>
<tr>
<td>15:15pm</td>
<td>Tea/Coffee</td>
<td></td>
</tr>
<tr>
<td>15:45pm</td>
<td>Simon McGuinness, Dip Arch, MRIAI - “BIM, nZEB and Retrofit – The Father, The Son and The Holy Grail”</td>
<td>The ability to model buildings in 3D in order to accurately model their thermal and hydrothermal behaviour is critical to safely delivering the Retrofit revolution that beckons. The presentation will review recent research at DIT aimed at mapping a course towards routinely delivering 85-95% energy reductions for existing residential, institutional and commercial buildings. This is the biggest construction project ever contemplated by mankind. It is a challenge that demands a new mindset as much as a new skill set.</td>
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<tr>
<td>16:15pm</td>
<td>Panel Q&amp;A - Time provided to debate and query the presentations and future needs for training in relation to low energy buildings</td>
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<tr>
<td>17:00pm</td>
<td>Conference Close</td>
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SPEAKERS

Zoe Wildiers, EU Commission/EASME - The Build Up Skills Initiative – Results and Impacts to date

Zoe has been working as a Project Officer at EASME (previously the Executive Agency for Competitiveness and Innovation) since 2009. During this period she has been working on projects on renewable energy and energy efficiency. Previously, Zoe had been working as a Project Manager mainly on wind energy projects.

Damien English, Minister of State for Skills, Research and Innovation

Damien English is the Minister of State at the Departments of Education and Skills and Jobs, Enterprise and Innovation with Special Responsibility for Skills, Research and Innovation. He is a member of the Fine Gael Parliamentary Party representing the constituency of Meath West. Damien first stood for election in 1999 and was elected to Meath County Council for the Navan electoral area. In the 2002 general election, Damien was elected to the 29th Dáil as TD for the Meath constituency. At 24 years of age he was the youngest TD in the 29th Dáil.

Torsten Windmueller, KOMZET - Training Irish Crafts Workers in Germany – Lessons from HEAT Plus and CESBEM

Mr Windmueller is a cabinetmaker & joiner by trade; and graduated from technical college in Hildesheim as a timber engineer. Mr Windmueller was employed by Materials Testing Institute of University of Stuttgart from 1998 to 2007 in the field of inspection of prefabricated house manufacturers and glulam producers in Europe. Since 2007, he is a Project manager at Gem. Berufsförderungswerk and responsible for EU projects, inspection of prefabricated house manufacturers and working on standards regarding timber products on European and national level.

Seamus Hoyne, LIT - Foundation Energy Skills Training for Irish Construction Workers

Seamus Hoyne is the Head of Department of Technology & Flexible Learning at LIT. He is an engineer by background with an undergraduate degree and Masters Degree in that discipline. He is a Chartered Member of the Institute of Engineers of Ireland. He has been a Lecturer in LIT since 2000 and was the Manager of the Tipperary Energy Agency between 1998 and 2012 in addition to his lecturing role in LIT. He has been the Project Manager for a number of major European Projects including the €10 million FP7 funded SERVE project, the Irish Build-Up Skills project and the current QualiBuild project. He has also developed and managed a number of Leonardo Projects including CESBEM and HEATPLUS.


Tomás O’Leary has been working in the field on sustainability for over two decades. He is a Co-Founder of a number of firms focused on delivering innovative design, consulting and training services including MosArt Architects and the Passive House Academy. Tomás was inspired in 2002 to embark on building the first Certified Passive House in the English speaking world, his family home for the past 10 years. This hands-on experience with what remains to this day as cutting edge energy efficiency has driven much of his effort in the past decade. The Passive House Academy (PHA) is recognised internationally as a leader in providing training for both designers and contractors and has developed dedicated training labs in Dublin, London and New York. Tomás is highly focused on trying to make a difference to the survivability of our planet, and he believes working in this field can bring about improved quality of life and many business opportunities. He lives in Wicklow and enjoys nothing more than the company of his wife Máiréad and their three girls.

Rolf Rebold, Build Up Skills Germany - German Build Up Skills (BUS) actions, current activities and regional initiatives on “smart builders” and quality networks

Since 2010, Rolf R. Rebold is the Deputy Director of the Research Institute for Vocational Education and Training in the Crafts Sector (FBH) at the University of Cologne. In this position he is responsible for scientific analyses in various projects in the field of vocational training and provides the federal ministry for economic affairs as well as the crafts organisations with expertise and advice. In this function he is the scientific coordinator in the German Buildup Skills Projects Pillar I and II. His career began with the VET as a bank clerk in 1996 and some years of experience in this profession. After graduating at University in economic education in 2006, he worked as a research assistant at the Chair for Vocational, Economic and Social Education. From 2008 to 2010 he supported the board of directors of the University in planning and implementing a Central Career Service (Professional Centre) at the University of Cologne.

Robert Butler, CIF - Employers Approaches to Construction Worker Training

Robert heads up the Training Services’ Department within the CIF and has responsibility for developing and delivering the CIF’s internal and externally accredited training programmes. Robert also supports the Safety policy role which involves liaising with members on the issues and providing assistance with their regulatory compliance issues. Robert is currently a Director / Board member of the Health & Safety Authority, he is also the outgoing Chairman of the IOSH Construction Specialist Section. Included in this role is the operation of the Construction Quality Assurance Ireland (CQAI) accreditation service which provides a sectorial approach to management systems certification. The scheme provides the construction industry with independent certification to international quality and environmental management systems standards.

Joseph Little, Joseph Little Architects - How the Code of Practice of Retrofit and other tools can help raise the standards of design professionals

...
Joseph Little graduated in 1996 from UCD with a Bachelor of Architecture and in 2008 from the Graduate School of the Environment in mid-Wales with an honours degree in "MSc Architecture – Advanced Environmental and Energy Studies". He formed this practice in 2003 and has consistently worked to raise the bar in construction standards since. Little has been a member of the Royal Institute of Architects since 2003 and was the first architect to join ÉASCA (the Environmental & Sustainable Construction Association) in 2007. He is also a founder member of Irish Green Building Council and the practice is a member of the Passive House Association of Ireland.

**Simon McGuinness, Dip Arch, MRIAI - “BIM, nZEB and Retrofit – The Father, The Son and The Holy Grail”**

Simon McGuinness is a Certified Passive House Design consultant and Architect. He lectures in building retrofit technology and sustainability at the Dublin School of Architecture, Bolton Street, Dublin where he leads the MSc Programme in Energy Retrofit Technology. He has over 25 years' experience in retrofit technologies in Ireland and abroad and has worked on a wide range of project types and contract sizes including extensive conservation experience. He received the UK Office of The Year award for his retrofit of the SOM designed 1 Fleet Place.
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<tr>
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<th>Topic</th>
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<tbody>
<tr>
<td>08:45am</td>
<td>Registration</td>
<td>An overview of the SustainCo project, looking at general nZEB philosophy &amp; the practical aspects associated with nZEB design. The session will also introduce the SustainCo website, in particular the technical and financial toolkits. The session will conclude with a look at the unpinning European and Irish legislation.</td>
</tr>
<tr>
<td>09:15am</td>
<td>Derek Blackweir (LIT) - SustainCo Introduction</td>
<td>Introduction of the SustainCo project, looking at general nZEB philosophy &amp; the practical aspects associated with nZEB design. The session will also introduce the SustainCo website, in particular the technical and financial toolkits. The session will conclude with a look at the unpinning European and Irish legislation.</td>
</tr>
<tr>
<td>10:00am</td>
<td>Seán Armstrong (DECLG) - Cost Optimisation</td>
<td>An overview of cost optimisation principles and why cost optimal solutions are required. The current status of cost optimisation in Ireland.</td>
</tr>
<tr>
<td>11:15am</td>
<td>Gerhard Lutz (KOMZET) - Building physics</td>
<td>An introduction to the importance of three aspects of building physics when designing an nZEB building: 1) Air tightness - how it is achieved and design consideration; 2) ventilation why it is required, how it is achieved and issues to be considered; 3) Moisture movement - why it is important to control movement of moisture in the structure and through the building.</td>
</tr>
<tr>
<td>12.00pm</td>
<td>Alexandra Hamilton (TEA) - Renewables</td>
<td>A brief outline of the various renewable technologies suitable to Irish domestic &amp; non-domestic buildings, and how to integrate them to achieve NZEB standards in both retrofit and new build settings.</td>
</tr>
<tr>
<td>12.45pm</td>
<td>Paul Kenny - Case studies</td>
<td>Gurteen Agricultural College, Co. Tipperary. Gurteen underwent large retrofit of its buildings to reduce energy consumption. In addition, a 600kW biomass boiler and 50kW wind turbine now produce 100% of heating and 20% of electrical energy demand.</td>
</tr>
<tr>
<td>13.00pm</td>
<td>Lunch</td>
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<tr>
<td>14.00pm</td>
<td>Michael Bell - Case studies</td>
<td>Serve Domestic Housing Upgrades, Nenagh, Co. Tipperary. 347 houses across Nenagh were deeply retrofitted as part of the EU CONCERTO SERVE Project, reducing household energy consumption by an average of 44%.</td>
</tr>
<tr>
<td>14.30pm</td>
<td>Adrian Gallagher - Case Studies</td>
<td>Irish Eco Homes. A new build domestic building in Co. Galway, built in 2009. It consists of a lightweight but highly insulated timber frame construction, with greatly reduced thermal bridging and an airtight envelope. Space &amp; water heated by a 7kW solid wood stove, along with solar gains &amp; heat recovery ventilation system.</td>
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<tr>
<td>15.00pm</td>
<td>Panel Q&amp;A - Time provided to discuss the case studies</td>
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<tr>
<td>15:30pm</td>
<td>Conference Close</td>
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</tbody>
</table>
### SPEAKERS

**Derek Blackweir (LIT) - Sustainco Introduction**

Derek Blackweir has over 30 years’ experience in the construction sector as a Building Surveyor in London specialising in the refurbishment and planned maintenance of properties ranging from listed buildings to medium and high rise apartment blocks, and as a Facilities Manager and Safety Officer for a third level college in Ireland. For the last two years, Derek has been working on a number of EU sustainable energy projects including the current SustainCo project. Derek was responsible for the development and management of the CPD accredited/recognised Retrofitting Multi Storey Buildings (REMSOB) Leonardo project. Academically, Derek has a BSc in Building Surveying, MSc in Occupational Health & Safety Management and an MSc Architecture: Advanced Environmental Energy Studies.

**Seán Armstrong (DECLG) - Cost Optimisation**

Seán Armstrong is the Advisor of Building Standards for the Department of Environment, Community and Local Government DECLG.

Seán is a Chartered Engineer with a Masters in Engineering. He is responsible for the development of Part L of Building Regulations and the implementation of the Recast Energy Performance of Buildings Directive in DECLG. He has 25 years of experience in engineering and construction in both the private and public sector. He represents DECLG and Ireland on a range of standards committees and EU working groups related to energy efficient buildings. He is also a member of the Build Up Skills Initiative Steering Committee and the Qualibuild Steering Committee.

**Gerhard Lutz (KOMZET) - Building physics**

Gerhard obtained a Masters in Engineering (FH) for Timber Technologies and has many years of experience. He is now the sub-professor for the Project Management/Civil Engineering Course and the fit-out works in Civil Engineering at the HBC Hochschule Biberach, University of Applied Sciences, Germany. As a manager and lecturer for Timber Construction at the Gemeinnütziges Berufsförderungswerk des Baden Württembergischen Zimmerer u. Holzbauwerke he was involved in many National and International Projects notably, CESBEM and REMSOB held in conjunction with LIT. Cesbem was aimed at up-skilling the Construction Sector in the field of energy efficiency in buildings. Remso provided technical training in the energy efficient refurbishment of multi-storey buildings, with an emphasis on building physics, energy efficiency, diffusibility and airtightness, ventilation systems and 3D scanning.

**Alexandra Hamilton (TEA) - Renewables**

Alex is an Energy Engineer with Tipperary Energy Agency and is working on the IEE funded SUSTAINCO project, the aim of which is to increase the visibility and understanding of the Near Zero Energy Building (nZEB) philosophy. She is involved with the Local Authority energy data analysis, including the monitoring and reporting of public sector consumption in line with SI 542 of 2009. She project manages a number of community and local authority energy efficiency and renewable projects, including biomass, PV and wind installations. Alex holds a first class Masters of Science in Sustainable Energy Engineering from Waterford Institute of Technology, where she specialised in micro-generation & auto-generation renewable energy technologies. She also has an honours degree in Civil, Structural and Environmental Engineering from Trinity College, Dublin and a Postgraduate Certificate in Principles of Management from the Quinn School of Business in UCD. Previous to working at TEA, Alex worked in road design, construction and maintenance, and has 4-years teaching and research experience with UCD & WIT.

**Paul Kenny (TEA) - Gurteen College Case Studies**

Paul is the CEO of the Tipperary Energy Agency, he has been with the agency since 2006 and is involved with both renewable energy (wind and bio-energy) and energy efficiency projects and programs. Paul has particular experience with domestic energy use, including teaching on several LIT sustainable energy programs and contributing to several domestic sustainable energy EU projects. Prior to joining the Agency in December 2006, Paul worked for Proctor & Gamble as a Production Manager & Engineer. Paul, a chartered engineer, holds a Degree in Mechanical Engineering and has also completed several post graduate certificates in Sustainable Energy. He is currently studying for a MSc. in Energy from Heriot Watt University, Edinburgh.

**Michael Bell – SERVE Domestic Retrofit Project Case Studies**

Michael is a Senior Energy Engineer, working for Tipperary Energy Agency since July 2010. His responsibilities involve Local Authority energy management, renewable energy development, project management and implementation of EU projects including SERVE, SMART REFLEX, FOREST and BioEnArea. Michael previously worked in project management and senior engineering roles for six years on complex construction projects. Michael holds an honours degree in Civil, Structural and Environmental Engineering from Trinity College Dublin, a Masters in Engineering Science from UCC, a Postgraduate Diploma in Project Management from TCD and a Postgraduate Certificate in Environmental and Energy Engineering from CIT. Michael is a chartered member of Engineers Ireland.
As a technology graduate of the University of Limerick, Adrian has worked in the low energy construction industry for over 15 years. Focusing on timber frame building design, low energy building solutions and sustainable construction methods. Adrian set-up his own business in 2005 to design manufacture and erect low energy timber framed buildings.