

**Green
Tech**

Skillnet,

Prospectus 2018

April 2018

**Impactful training and
networking events for
the Irish renewable
energy sector.**

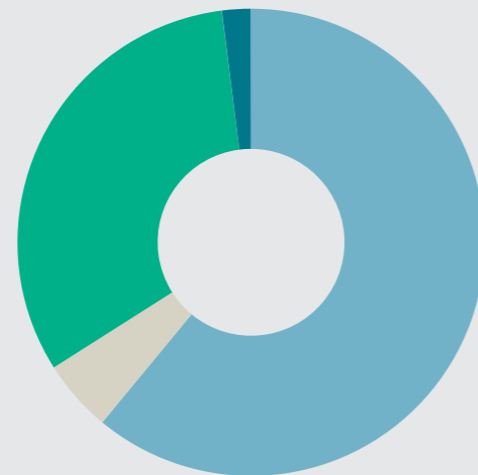


About

The Green Tech Skillnet is an enterprise led network facilitating the workforce and development needs of the Irish renewable energy industry. The network is funded by Skillnet Ireland from the National Training Fund, through the Department of Education and Skills. The network has rebranded from its previous guise as Wind Skillnet which successfully delivered value add training and networking activities to the wind industry over the past 10 years through its contracting organisation, the Irish Wind Energy Association (IWEA). Since 2014, the network has successfully engaged 1,149 trainees over 2,050 training days equating to approximately 25% of those employed within the wind industry in Ireland.

Reflecting the diversification of Ireland's energy system and with an overarching responsibility to EU targets and the mitigation of climate change, the network will support the optimisation of renewables on the Irish grid in the short, medium and long term through learning and development initiatives. In this regard the network aims to deliver impactful training and networking events to a growing workforce, facilitate thought leaders within the renewables sector whilst contributing to Ireland's deep decarbonisation and energy transition.

Ireland's total greenhouse gas emissions



- Energy related emissions
- Waste
- Industrial process
- Agriculture



“The courses provide invaluable insight into key and emerging strategic issues faced by operators. The courses are always delivered to the highest standards by recognised leading experts in the relevant area and are an integral part of our training and CPD programs.”

Robert Spicer, ABO Wind OMS Ireland Ltd.

Prospectus 2018

Grid Connections in Ireland (Wind & Solar) Mullan Grid

The connection offer process in Ireland is going through major changes as it moves to a planning permission led system. This will allow new renewable generators to receive connection offers. This one day course provides an overview of the new connection offer processes and through examples demonstrates how connection policy will be applied to these connection applications going forward.

Grid Code Compliance Limerick IT and Tipperary Energy Agency

This one day course provides an overview of the Irish grid code and the emerging changes and requirements within the code. Topics covered include obligations of renewable energy generators, the process and relative stakeholders in achieving compliance - compatibility with I-SEM (new wholesale electricity market), New Generation Technologies, Demand Side Management and Network Codes.

Energy Storage TNEI and Mullan Grid

This one day energy storage course will include a general background to different types of technology, lessons learned from elsewhere in the world, and insight into some of the challenges and opportunities within the Irish market inclusive of the technical capabilities of energy storage, potential revenue streams and DS3 services alongside of grid connections and developing energy storage sites.

Interconnectors TNEI

This one day course will provide an in-depth look at the role of Interconnectors in Ireland and the way that they can support the market, the grid infrastructure and the development of renewables. This includes: - how Interconnectors work (technically and commercially), what factors make a good interconnector project (Grid infrastructure to connect Interconnectors), interconnector location, design & technology (permissions, surveys, and resource assessments), a market and regulatory overview and an update in relation to European and GB systems.



EV (Electric Vehicles) Integration

Limerick IT and Tipperary Energy Agency

The successful electrification of the transport sector through EV's has the potential to revolutionise the energy sector, and to comprehensively drive down carbon emissions within the energy transition. This one day course will give participants a clear understanding of the latest EV technology, future demand of electric cars and charging infrastructure and flexibility in relation to the grid, and barriers / challenges to their integration.

Wind Power Forecasting

DNV GL

With the new day-ahead and intra-day energy trade market arrangement being introduced through I-SEM (Integrated Single Electricity Market), short term wind power forecasting in Ireland is becoming increasingly important. Although wind power generation is variable and cannot be scheduled like conventional sources of energy, it is predictable, and accurate wind power forecasts provide economic and social value to a wide range of users including: energy traders, wind asset operators and grid operators. This one day course provides a comprehensive introduction to wind forecasting methodology and an insight into the wide range of applications of wind power forecasts.



“Along with providing excellent training from some of the leading experts in the field of wind energy, the training programme also enables great networking opportunities. Through attending training courses, people from different companies have the opportunity to make connections and discuss some of the challenges being faced by the sector.”

Dr. Mary Doorly, External Engagement Manager, Energy Systems

DS3 System Services

Poyry Management Consulting

This one day expert training session will provide understanding of the need and role of System Services for Ireland, including details on the DS3 procurement programme and the opportunities arising from this. The course will outline challenges associated with the integration of greater volumes of renewables on the Irish system; the role of System Services procurement in managing these issues and the scale of the opportunities for providers of different system services through the DS3 programme.

management tool – particularly for renewable generators such as wind and solar. This comprehensive one day course will provide a grounding in PPAs – the different contract types, their structure and key terms, risks and benefits, pricing, their current / future application in Ireland and their negotiation. Baringa will draw on their significant experience in the PPA market to provide real world examples and insights for trainees.

Power Purchase Agreements

Baringa Partners LLP

The Irish power market is undergoing a period of significant change, with the introduction of a new set of market arrangements in the form of the Integrated Single Electricity Market (I-SEM). Under I-SEM, generators will need to find a route to market for their power, and will be faced with new risks – notably, balance responsibility and imbalance costs. Power Purchase Agreements (PPAs) are a key route to market and risk

Offshore Consenting and Development – Creating Value and Reducing Risk

Natural Power Consultants

The aim of this two day programme is to provide participants with an understanding of the current regulatory requirements in particular guidance on EIS and NIS Preparation for Offshore Renewable Energy Projects (prepared for the Environmental Working Group of the Offshore Renewable Energy Steering Group and Department of Communications, Climate Action and Environment) and practical considerations in developing and consenting offshore wind projects in Irish territorial waters. The participants will explore how developers must successfully develop projects as described in their lease awards and avoid failing to keep track with the rapid development in turbines and supporting

“We identified a need within our business to train a number of staff on blade technology and maintenance strategy. The network were instrumental in sourcing an expert and facilitating the tailored development of this course such that it suited the technologies in our varied wind farm portfolio. The course was excellent.”

Robert Farrell, Renewables O&M, ESB Generation



“The training has really helped with my day to day work duties, they have kept me up to date with the latest techniques and are always relevant to the issues within our Industry at that time. All the individual trainers were great and of the highest standard. In many cases the network provided training that we would not otherwise have been able to avail of and for a very reasonable price.”

Jack Brett, Ecopower Developments



infrastructure. In addition, the course will explore how developers in the UK and beyond have increasingly utilised the ‘worst case’ scenario in order to facilitate impact assessments of such Design Envelope projects, and de-risked large project spends such as a detailed geophysical campaign until after lease award and investment decision. The course will draw upon lessons learned from the UK and European experiences to illustrate the course material.

Solar PV

Fehily Timoney and Company

This one day course will provide a detailed overview of Solar PV technology, the regulatory platform, site identification and feasibility studies (incl. grid and financial modelling). Attendees will come away with an understanding of how Solar PV systems work, the physical principles behind the technology, typical system components, design considerations and methods of construction for both ground and roof mounted systems with a focus on the design of ground mounted systems

Co-location

TNEI

This one day course will provide an insight into the current drivers behind, and challenges to, co-locating solar and storage at wind energy developments. Utilising case studies, the course will cover all aspects of feasibility, design implications, consenting requirements and project deliverability inclusive of planning permissions, grid connections and consents, recent developments in relation to regulations and potential revenue streams through the utilising co-location.

Trading in I-SEM

Baringa Partners LLP

The Integrated Single Electricity Market (I-SEM) is due to go live on 23rd May 2018. This one day course aims to update trainees on the latest developments relating to I-SEM design, a briefing on I-SEM implications for REFIT, and an update on I-SEM readiness and route to markets and imbalance costs. Any additional developments and/or query’s will also be tackled on the day.

EU Clean Energy Package

Gwyn Dolben (ex-Energy UK)

The aim of this one day programme will be to provide participants with an understanding of the Clean Energy Package’s provisions relating to renewable energy. The focus will be on analysing the key provisions in the Renewables Directive, Governance Regulation and Electricity Regulation and outlining the likely final shape of the legislation. The sessions will be interactive and will aim to identify the possible impacts on the wind energy sector in Ireland and the wider EU and to explore implementation issues. All participants will be provided with a slide-based analysis of each of the major topics within each legislative proposal, together with written summaries of the CEP legislation and weblinks to the latest texts.

Crane Works

Wind Turbine Engineering

For many site owners, site managers and asset/facility managers, the arrival of a crane on their site is an occasional event and generally seen as a significant, one-off, cost. This one day course will highlight some simple measures to ensure best practice is implemented on site. The course will outline the relationship between all parties and the necessary checks and balances to ensure you, as the ‘client’, have taken all necessary steps to ensure a safe system of work is planned, reviewed and implemented on your site.

Earthing Studies and Standards

NeoDyne

This comprehensive one day training course will enhance the knowledge and skills of professionals carrying out construction and maintenance in the areas of high voltage substations and sites with increased lightning discharge such as wind farms. This will include developing awareness of dangers on HV connected sites during electrical faults,



“The trainer is a practitioner of Community Engagement and has a wealth of current and relevant experience. I hope to put into practice some of the key learnings from this training and help to raise awareness on the importance of this area for industry. The training was brilliant, superb!”

Peter O’Hagan, Project Director, ESB Asset Development



knowledge of relevant standards, appreciation for the effects of soil and weather condition on earthing and factors effecting site safety of energised earthing systems. There will also be an opportunity in the last session of the day for a Q&A with ESBI on behalf of ESB Networks.

IOSH Managing Safely for Wind Power ARMSA Consulting

This IOSH accredited five day course tackles critical issues faced by the wind power sector today. It covers the entire wind farm life cycle, including planning and design, development and construction, commissioning and testing, operation and maintenance and decommissioning phases. Developed with input from wind power companies, this training will add value to your business by equipping your managers and operatives with the skills and techniques to manage both safety and competency resulting in reduced accidents, near misses and inefficiencies in the workplace. The subsequent operational efficiency will add significantly to the bottom line.

The programme takes into account the diversity of organisational structures in the wind power sector, client-supplier relationships, and supply chain management, organisational behaviour, organisational learning and cultural elements of business.

IOSH Managing Safely for Executives ARMSA Consulting

This IOSH accredited one day course provides Senior Executives operating in the renewable energy industry with a full understanding of their role in health and safety and how this should influence their strategic thinking and holistic risk management practices. This not only shows how they can meet all their legal and corporate governance obligations, but shows how to put in place an integrated health and safety policy which can minimise their overall business risk, improve the productivity of the workforce and the quality of the product or service, and reduce costs such as healthcare, insurance premiums and compensation claims.



The course tutors were leaders in their field of expertise in the private sector and predominantly of excellent quality. This course has supported improvements in our internal EIA co-ordination and represented a good return on investment in that the in-house EIA coordinators have been enabled to become more engaged with the EIA topic professionals.”

Philomena Kenealy, Executive Director, Ecopower Developments

Working at Height ARCH Rescue

This two day practical training course is aimed at those who want to complete the Global Wind Organisation Basic Safety Training Standards Working at Heights Module. The training course is approved and fully meets the requirements by RenewableUK and the Global Wind Organisation Basic Safety Training Standards Working at Heights Module. On completion of the course, participants will be able to climb a fixed ladder, use fall protection equipment, understand the hazards, risks and basic rescue techniques associated with working at height in a wind turbine generator. Participants will also be trained to use a constant rate descender for self evacuation and rescue of a colleague.

Hub Access & Rescue ARCH Rescue

This one day course will address hub access methods, safety and practical considerations associated with planning and undertaking rescue and evacuation from wind turbine hubs, and casualty care. The course is delivered using a range of rescue equipment commonly used in wind turbines, or tailored to utilise the specific equipment in use by course participants. The course is aimed at personnel accessing the

hub area of wind turbines and is designed for personnel who have competence and valid certification in working at height on onshore and offshore wind turbines

Accident Investigation & Courtroom Skills La Touche

Delegates will learn how to apply best practice to the investigation & reporting of Incidents. This will help provide for effective risk management and knowledge on how the adversarial system works. This two day training course will cover the relevant skills needed to complete and support an Incident Report in accordance with best practice. Delegates will also get a clear understanding of how to manage an Incident from the initial stage right up to providing clear information to judicial investigations. Participants can also experience and engage proactively in mock court scenarios, where all delegates are cross-examined on their own personal case study. The techniques lawyers use in adversarial questioning will also be examined. This will highlight the importance of accurate factual notes and statements. This course will also show participants how to make appropriate use of supporting evidence, documents and notes when giving evidence and how to give confident and clear evidence when called upon.



“This was the first of a number of other courses that have been developed where there was previously none and we’re finding that the quality and content of the courses being developed, their open outlook for emerging areas of interest and the momentum they’re bringing to this space on an industry level is all hugely valuable, much needed and most welcome.”

Robert Farrell, Renewables O&M, ESB Generation



4x4 Off Road Training Cpl Institute

The objective of this one day training course is for the driver to understand what the vehicle is capable of doing on its own and then learning how to 'partner' it to obtain the best from it. Understanding what it can do Off-Road will give the driver an appreciation of its handling limitations On-Road. It is a lack of understanding of the vehicle's design that causes the majority of incidents as drivers falsely believe the 4X4 vehicle is infallible in adverse weather. This course is graduated in difficulty leading to a driver obtaining a better 'feel' for what the vehicle is trying to do. In essence, less is more. A theory session of approx' 45 minutes will introduce the drivers to the design characteristics of their vehicles and cover the limitations of its on-road handling as well as the Off-Road capability. The various tyre options and drive control selection (low-range) will be explained as this lends to a clearer understanding of what to expect when we go on track. Vehicles fitted with a Diff-Lock will be demonstrated to ensure a lone-worker has the best chance of extracting themselves from a sticky situation or better still to avoid getting into one in the first place. This session includes the safety briefing with an emphasis on vehicle sympathy.

Decision Driver Training Cpl Institute

This one day training session will include an interactive classroom session, where the most common driving errors are discussed and drivers are shown how to identify the potential for a situation to develop and how to manage it. This multimedia session includes a PowerPoint presentation and video footage of actual incidents where the factors leading up to the event will be discussed. This session is designed to be thought provoking and drivers are encouraged to give their own opinions on how a particular situation may have been dealt with or foreseen. The course content can be tailored to include specific subject matter relevant to the organisation and their fleet policy. Course material also includes Driving in Adverse Conditions and Vehicle Technology Information, which covers ABS, Traction Control,

Stability Programme, Emergency Brake Assist, Fatigue Monitors and other driver aids coming on stream which drivers may not be aware of. In addition, there will be an On-Road training element where the trainer will identify areas for enhancement and harness existing driving skills. The driver will be in their normal work vehicle and this element is conducted in an informal manner with a view to provoking thought and raising their awareness of the driving environment. Checks will be conducted prior to drive commencing ensuring the driver knows what to check in order to ensure the vehicle is in proper working order.

"The trainers and course offerings are very strong, and upskilling will continue to be a requirement in a changing and growing economy. A broader understanding and increased awareness of renewable energy and greater training options available to workers in this area will benefit multiple industries and the economy as a whole."

Tom Parlon, Director General,
Construction Industry Federation



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