Employer benefits

The Industry Standard for a safer and more productive workforce
What are GWO Standards?

GWO standards are created by the industry, for the industry. They reflect the risks a wind turbine technician faces at work.

Training providers, certified according to GWO criteria, deliver GWO courses and have lower development costs, with the savings passed on to the industry.

Employers accept the training of technicians educated outside their own companies if they are GWO certified.

This means they do not have to retrain them in the basics; they avoid duplicating training and technicians are available for an increased number of productive workdays on site.

Most GWO members have standardized over 30% of their basic training for wind power technicians in this way, creating a safer and more productive workforce.

Standards Portfolio

Core modules

**Safety**
- First Aid
- Working at Height
- Manual Handling
- Fire Awareness

**Technical**
- Electrical
- Hydraulic
- Mechanical

Task specific modules

**Safety**
- Advanced Rescue
- Enhanced First Aid
- Sea Survival
- Rigger/Signal Person

**Technical**
- Blade Repair
- Installation
Chairman’s Introduction
What’s in it for you?

Executive Summary
Five measurable benefits of GWO standards
1) Safety
2) Productivity
3) Standardization
4) A competitive market
5) Supply chain alignment

Methodology
If you want to innovate, you have to start doing some things the same as everyone else.

GWO creates training standards and we encourage the industry to think in this way. This is not always a popular message in a competitive industry and working together to standardise is no easy task, especially when technology is moving quickly, and the pressure is on amidst a rapidly falling cost of energy.

In fact, standards are sometimes viewed as contradictory to innovation. Some argue they reduce choice or lock us all into a single system.

However, GWO members recognized many of their training programs were very similar already.

They understood basic safety and technical training could be standardized. This has created benefits up and down the wind energy supply chain.

**Today, GWO members spend less developing basic training programs**

Instead we can innovate as employers with our own learning development programs, adding value to the professional lives of our technicians.

We can also recognize the validity of a training certification framework that we trust because we designed the standard ourselves.

**GWO standards reflect the safety risks we know our technicians face.**

The benefits for contractors are even bigger. If you have one training standard, and ten customers, it’s much cheaper and easier to train everyone in the same way.

In this report, we are holding a mirror up to our own standards. Do they offer value for the industry? Do they keep technicians safe? What is in it for you?
Benefits in summary

There are major advantages to the wind energy industry from operating within a standardized basic safety-training framework.

Added together, GWO members agree they amount to a safer and more productive workforce.

The International Renewable Energy Agency estimates the global wind workforce at 1.1m people. With 90,000 people trained in 41 countries, GWO trained technicians now represent between 5-10% of the workforce. In 2019, GWO’s biggest growing markets were China, India, North America and Latin America. It is here were the benefits of standardization will be most keenly felt.

When more people receive a GWO training, the benefits increase.

<table>
<thead>
<tr>
<th>GWO standards deliver five measurable benefits for employers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety</strong></td>
</tr>
<tr>
<td><strong>Productivity</strong></td>
</tr>
<tr>
<td><strong>Standardization</strong></td>
</tr>
<tr>
<td><strong>A competitive market</strong></td>
</tr>
<tr>
<td><strong>Supply chain alignment</strong></td>
</tr>
</tbody>
</table>
Raising safety standards

The GWO framework aligns industry safety and technical training standards, which are common to all wind energy companies.

Our mission statement is to “create an injury free working environment” and the first step towards achieving this has been to improve the overall quality of safety training for the industry.

GWO members and independent service providers working within the GWO framework agree with the statement that GWO has improved the alignment and quality of basic safety training standards.

To support the industry’s ambitions, North American wind power will have a growing workforce in the coming decades. As a leading employer in the industry it will be a great help if Avangrid’s projects can secure standardized training like GWO which is developed by the industry, for the industry.

Kristy Abel – Director, Environmental Health & Safety and Training, Avangrid Renewables

GWO standards improve the alignment and quality of safety training in the wind energy sector

62% Strongly agree

19% Agree

19% No opinion
We see huge benefit from there being more GWO training providers in the USA and Canada. RWE has approximately 600 employees in scope for GWO training and our contractor base would be very near 1500.

Adell Heneghan – VP HSE Americas, RWE Renewables

Productivity

The majority (60%) of GWO members service multiple turbine brands.

They created a portfolio of training standards to remove duplication. Sometimes they were re-training experienced technicians from the ground up to meet their own bespoke safety training requirements. In other situations they might be required to deliver a unique training matrix for a specific turbine or customer.

Members agree that since they have adopted the GWO framework, reduced duplication has saved them money and allowed technicians to be more readily available for work, in some cases by as much as 5-6 additional productive work days every year.

For every GWO certified technician we employ/contract we can expect them to be available for

- 10% +1 day on site each year
- 10% +3 days on site each year
- 30% +4 days on site each year
- 40% +5 days on site each year
- 10% +6 days on site each year

Technicians with a GWO Basic Safety Training certificate can be deployed on site for more working days each year than those without

- 44% Strongly agree
- 19% Agree
- 31% No opinion
- 6% Disagree
Standardization

More than two thirds of GWO members have standardized over 30% of their entry level training programs.

The Basic Safety Training (BST) and Basic Technical Training (BTT) standards require approximately 70 hours’ instruction.

On the safety side, the BST covers essential, wind-industry-specific skills in First Aid, Fire Awareness, Working at Height and Manual Handling.

On the technical side, the BTT covers the basic mechanical, electrical and hydraulic systems and operation of wind turbines, plus understanding of the hazards and risks associated with these topics.

Having standardized these training programs, GWO members can rely on a basic minimum level of skills training from anyone with a GWO BST or BTT certificate.

Contracting networks would see a major simplification in what their customers ask for. Think about it, you’re an engineering contractor in the wind industry and you have 10 customers. Up to now, you’ve had to train your people in 10 different ways. GWO could put an end to that.

Brian Walencik, Americas Wind Environmental, Health and Safety Director, GE Renewable Energy

What proportion (%) of your entry-level training programme do the Basic Safety Training and Basic Technical Training standards cover?

67% 30+%
17% 16-20%
8% 11-15%
8% 6-10%
A competitive market

As the GWO network grows, employers and contractors benefit from increased competition. A global network of GWO certified independent training providers has stepped up to the plate to meet the expectations of wind turbine owners and manufacturers.

Since 2012, independent training providers have invested in fixed facilities, on-site and mobile training facilities.

This market has given employers options to train technicians locally or close to an installation, manufacturing, service or other wind turbine industry operation.

The network is growing rapidly, with the fastest expansion anticipated in North America, Latin America and China over the next three years.

Academic diplomas combined with accredited GWO training increases significantly job prospects and employability of the graduates of these colleges as future workers of the wind industry

Isabelle Le Beau - Executive Director, Enercon Canada

Independent training providers help to keep basic training costs competitive

19% Strongly agree

56% Agree

25% No opinion
Supply chain alignment

When standards are present, a foundation of mutual recognition exists between contracting parties. When standards are supported by a robust third party audit and compliance model, there is no longer any argument over what type of safety training a supplier should provide or what type a customer should expect.

GWO standards are increasingly established as contractual pre-requisite helping align the safety training activities of the whole supply chain.

Asked to rank five potential benefits of the standardized framework, 11 out of 17 respondents said ‘established as contractual expectation’ was the second most important benefits of a global standard.

We need more GWO training providers in North America, it’s that simple. Our customers increasingly require GWO training as part of their contract negotiations so without more training providers, this requirement is hard to meet. On a broader scale, standards help everybody. GWO helps manufacturers like us to improve safety, reduce the amount of retraining we need to do, increasing productivity and ultimately helping to deliver a lower cost of energy for everyone.

Autumn Lewis, Continuous Improvement Manager, Nordex Acciona Windpower

Please rank the following benefits of GWO standards
1= most important  5= least important

- Established as contractual expectation
- Improved safety/fewer incidents/injury
- More efficient sourcing of labour
- Option to outsource non-core training
- Utilise training budget for proprietary needs
METHODOLOGY:

The GWO members survey

We surveyed 12 of the 17 GWO member companies in addition to four independent service providers (ISPs) who operate within the standardized framework. GWO member respondents are collectively responsible for substantial installed capacity (Figure 1). The whole sample of 16 respondents including ISPs is represented in Figure 2, indicating the number of technicians employed or contracted by the sample group.

67% of respondent companies service multiple turbine brands. Of those who do, the number of brands varies from 1-2, to 8-10 (Figure 3). This is an important factor in determining key benefits of standardization, including duplication of training and the availability of technicians for more productive working days.

Wind energy companies increasingly deliver service contracts for 3rd party manufacturers or owners. This trend is identified in Figure 4 which shows seven of 12 GWO members do so.
ABOUT GWO
Global Wind Organisation is a non-profit body founded by leading wind turbine manufacturers and operators, to create a safer and more productive workforce.

GWO members strive for an injury free work environment in the wind turbine industry, setting common international standards for safety training and emergency procedures.

FIND OUT MORE
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