



ENERGY

# OUR PART OF THE BIGGER PICTURE

SAFER, SMARTER, GREENER

# WELCOME TO DNV GL

DNV GL is a new company, but our heritage dates back to 1864. We unite five well-known brands - DNV, GL, KEMA, Garrad Hassan and Noble Denton - with a common purpose to safeguard life, property and the environment. Together, we provide independent certification and leading global expert advisory services to the energy, maritime, oil & gas and business assurance industries.

DNV GL is an energy powerhouse that draws its strength from a rich legacy of independence and excellence. Our customers benefit from the innovation and experience in testing, inspection, certification and advisory services for which KEMA is known, wind certification and advisory from DNV and GL, and Garrad Hassan's leadership in renewable energy technology. Through our expertise and services, we aim to support you with integrity and foresight, as we strive for safety and sustainability in the energy industry - that's our broader vision.

With unprecedented change occurring in the energy industry around the world - from growing energy demand and the globalisation of markets, to the expansion of renewables and an increased focus on sustainability, your ability to be nimble while managing risk and complexity is critical to your success. As DNV GL, we understand what the bigger picture means to you - being safer, smarter and greener - and together with you we can tackle the 'energy trilemma' of delivering affordable, reliable and clean energy.

Inspired by the future of energy, our logo captures this expansive perspective in the colours of the sea, land and sky.

Our legacy companies will operate as DNV GL under a united brand. However, we will continue to issue KEMA certificates from our laboratories and certain report types under the Garrad Hassan name to maintain industry recognition for these trusted documents.

The energy transition to a safer, smarter and greener world has begun. We look forward to working with you in shaping it further.

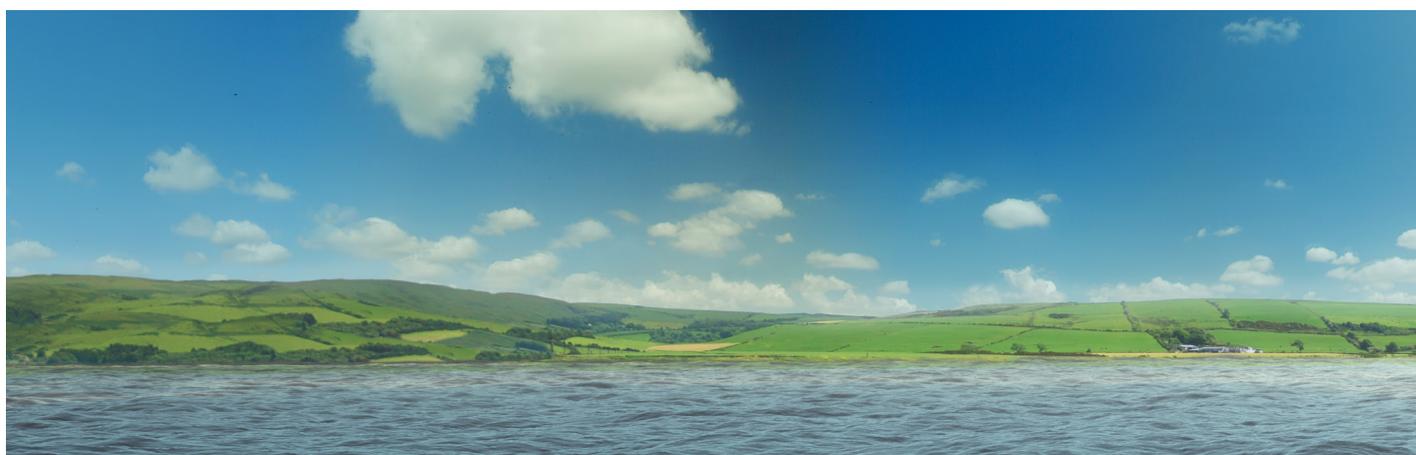


*D Walker*

*David Walker  
Chief Executive Officer  
DNV GL - Energy*

# DNV GL IN ENERGY

DNV GL brings together knowledge that extends across the value chain: from policy and regulation to generation (conventional and renewable), through transmission and distribution, and energy efficiency.



This breadth of knowledge enables us to support you in understanding the technical consequences of business decisions and the business consequences of technical decisions.

- Independent, accredited certification of equipment for the transmission & distribution of electricity; product and project certification for the renewables industry.
- Advisory services spanning the entire energy value chain, with a strong focus on energy efficiency, renewable integration, clean conventional generation, power grids, energy storage, measurement and cyber security.
- World-leading expertise in the development and qualification of wave and tidal energy conversion devices.

## Empowering you to stay ahead

Addressing the future means innovating today. We invest in proprietary research in areas such as future grids, renewables, energy storage and smart cities. And we are involved in partnerships, standardisation

committees and joint industry projects worldwide that benefit our clients and the industry at large.

Many of these projects target new technologies such as offshore High Voltage Direct Current (HVDC), floating wind turbines or critical challenges such as cyber security for smart grids. Others assess the impact of new technologies and business models - from smart grids to consumer-driven demand management - on communities, industry and society as a whole.

Investment in innovation is vital too. Our high power and high voltage laboratories already offer the world's largest testing capacity. And by 2015 we will be the first to provide independent testing of components for ultra-high power super grids of 800 kV and above.

## DNV GL - ENERGY: FAR AND WIDE

- 3,000 energy experts in 30 countries; 10 laboratories
- World leader in high power and high voltage testing
- Market leader in renewables for over 2 decades
- Involved in more than 150 EU projects in the past 20 years
- 30 years' experience and market leading energy efficiency services

# CUTTING THROUGH COMPLEXITY

A complex energy landscape raises complex questions. How do you bring innovative new energy technology to market whilst keeping financing costs low? To what extent can technical risks be removed from an energy investment decision? How can businesses make sense of emerging opportunities and manage risk within a constantly changing regulatory environment?



Based on a holistic approach, we can work with you to help answer your unique questions. Our experts are regularly involved in projects in all major and emerging global markets for renewable energy. And we support all kinds of businesses from developers, investors, manufacturers, large-scale utilities and independent project developers, to non-profit and government organisations.

In a changing world, we explore emerging issues from energy resiliency to climate change adaptation. We are also investing in the integration of renewables and grid technologies so that energy systems are fit for the future.



## EXTENSIVE EXPERTISE, FAR-REACHING SUPPORT

- Analysis, advice, testing, data collection and trusted expert opinions for the renewables markets: project development & engineering, asset operations & management, measurements, solar, offshore
- Strategic advice, planning, implementation and energy delivery optimization: market and policy development, power system planning, project management and technical services, operational excellence and systems expertise, energy efficiency programmes and measures

For example, our innovative approach to the design of offshore wind projects is bringing down the cost of energy for this important technology. It is only by taking a broader view that we, as an industry, can secure the right mix of clean conventional energy and renewables at the heart of the energy systems.

For us, creating a safer and more sustainable world is more than just words: it is what we do with our customers every day.



## Our main offices

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### DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organisations to advance the safety and sustainability of their business. We provide classification and technical assurance along with software and independent expert advisory services to the maritime, oil & gas and energy industries. We also provide certification services to customers across a wide range of industries.

Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. As a company, we continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight. With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

### In the Energy industry

DNV GL delivers world-renowned testing and advisory services to the energy value chain including renewables and energy efficiency. Our expertise spans onshore and offshore wind power, solar, conventional generation, transmission and distribution, smart grids, and sustainable energy use, as well as energy markets and regulations. Our 3000 energy experts support clients around the globe in delivering a safe, reliable, efficient, and sustainable energy supply.