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DEKRA - global partner for a safe world



# DEKRA – excellence and expertise for your safety needs and requirements

The need for safety is a fundamental requirement of life. From our homes to our workplaces, the products and services we use, and how we produce, manufacture and distribute them. Safety underpins everything we do. With almost 100 years of experience, knowledge and innovation behind us, DEKRA ensures safety and peace of mind for businesses, organizations and individuals worldwide. Today, we support the safety needs and requirements of virtually every sector and industry, providing 100% reliability, anywhere around the globe.

#### Safety is our DNA

Since the first day of our foundation in Berlin in 1925, safety has been deeply anchored in DEKRA's DNA. Safety was the reason our company was founded and it is the reason why we continue to grow. Starting life in the field of automotive safety, we have continued our expansion into every possible area of safety testing, certification and consulting. From automotive OEMs and suppliers to power generation and distribution, industrial goods or the oil and gas industry, we enable thousands of customers in all the world's leading industries to achieve safe, sustainable and profitable operations.

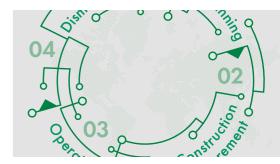
#### Your global partner

Wherever you need our services, we can deliver. DEKRA's network of in-house experts, subsidiaries and representatives to-day extends across more than 60 countries and five continents. Whichever sector or industry you work in, our teams and consultants are on hand to help you meet your safety and certification objectives. As one of the world's leading expert organizations and a globally active partner, you can call on our expertise at any time, anywhere around the globe.

#### A safer future

As the world continues to change and evolve at incredible pace, new safety challenges are constantly arising seemingly at every turn. Being able to respond successfully to this changing landscape requires a great deal of knowledge, experience and versatility. With our future-oriented services, that is precisely what DEKRA offers you.

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# Partnering along the asset life cycle

Covering every aspect of the asset life cycle, from the earliest concept and planning stages, through implementation, operation and maintenance, right up to end-of-life.

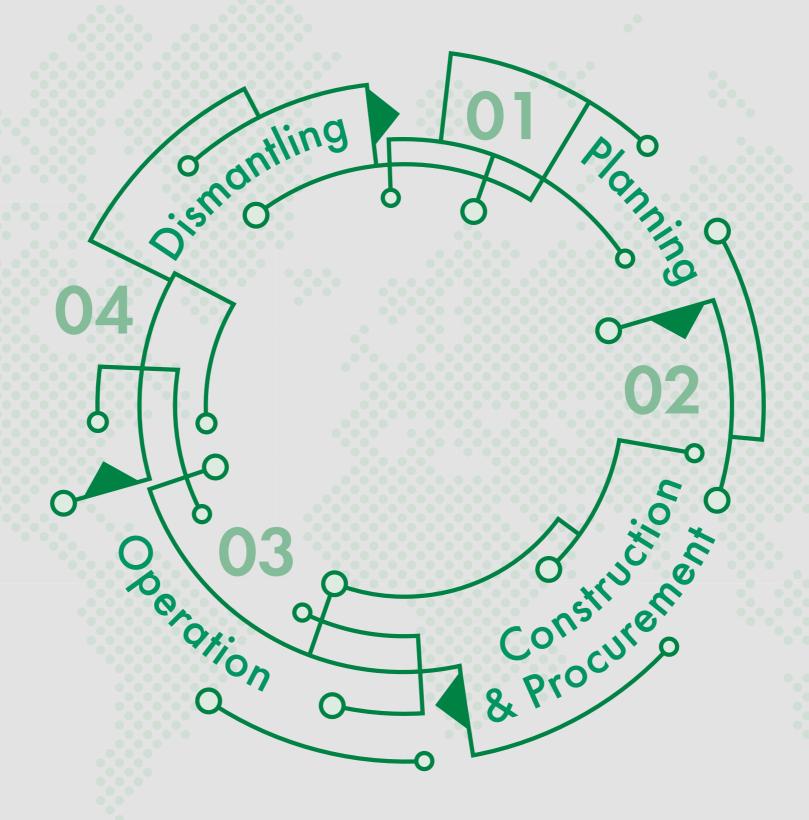
## Safety and security from the very start

The safety journey can be influenced by a wide range of factors, from government regulations to asset lifetime management and cyber security risks.

With our vast knowledge, experience and technical expertise, DEKRA experts can accompany your organization along the entire life cycle of your products and services. Whatever safety and security challenges you are facing, we have a solution to offer.

DEKRA experts are specialized in all areas of power generation and distribution. Conventional, nuclear and renewable power generation as well as all areas of power distribution are fields of knowledge DEKRA regularly supports.

Our extensive experience in the energy sector enables our specialists to ensure that all your assets in this field comply with the relevant regulations. We also offer support in managing reputational risk in sensitive areas of power generation and distribution. Further services include the management of shutdowns with intensive requirement of NDT manpower and asset management as well as the provision of security solutions for critical systems against cyber attacks, and much more.





### Professional planning is the key to success

What's the old saying? "If you fail to plan, you are planning to fail." Professional planning is the key to the success of any project or undertaking. DEKRA offers a true end-to-end service covering every conceivable aspect of safety and security planning in all areas of power generation from conventional to renewable power generation as well as power distribution. Even in sectors as sensitive as the nuclear power industry DEKRA experts are able to offer both consultancy and support with various services based on many years of experience in order to prevent dangerous and possibly expensive faulty planning.

#### Your needs and requirements

We can support you in setting up a sustainable and reliable planning process according to your own needs and requirements, all the while focusing the highest quality and safety standards as well as taking care of avoiding cost-intensive mistakes. During the planning phase DEKRA is your trusted partner, for example, in strategy and risk management, the execution of wind or solar park assessments, carrying out environmental advisory, coordination and

services, undertaking health, safety and environmental strategy planning and management as well as fire protection management, and we can provide expert advice on sustainability issues.

#### Cyber security and IT resilience

Another important focus area of DEKRA is the field of data protection and data security. In the digital age, comprehensive cyber security and IT resilience should be top of the list during the planning stage.

#### Wide-ranging portfolio

We offer a wide spectrum of services at the operational level ranging from expert audits and product safety testing to explosion protection, medium/high voltage testing and construction control. We are also specialists in fire protection and ventilation systems, environmental and electrical inspections, machinery and equipment inspections and much more.

"The success of a project depends entirely on how good your planning has been. Sure, you can never get everything right – but you can certainly stop a lot of things from going wrong. DEKRA's expertise in this area was priceless."

The energy market is undergoing fundamental changes. The various targets and sustainability goals set by legislators are causing a transformation of the energy generation and distribution sectors. These are now shifting towards a new mix of centralized and decentralized power generation and a restructured and more digitalized power distribution market to feed this power to the homes of end consumers around the world.







## The Future of Energy – supporting you in transitioning to renewable energy sources

- > Environmental Advisory and Services
- > Environmental Technical Advisory and Inspection
- > Expediting, Shop and Vendor Equipment Inspections (Electrical, Pressure Vessels, Machinery)
- > Green Energy Power Measurement and Technical Advisory
- > Health, Safety and Environment (HSE) Management System
- > Health, Safety and Environmental (HSE) Strategy and Management
- > Health, Safety and Environmental (HSE) Management Training and Examination
- > International Sustainability and Carbon Certification (ISCC)
- > NDT Advisory
- > Supply Chain and Second-Party Audits for Health, Safety and Environment (HSE)
- > Sustainability Advisory and Services
- > Technical Advisory linked to Green Energy
- > Testing and Certification for Equipment

## Asset Inspections and Maintenance – working with you to minimize downtime and maximize productivity

- > Design Verification of Assets and Equipment
- > Electrical Technical Advisory and Inspection
- > Environmental Technical Advisory and Inspection
- > Fire Protection Management and Advisory
- > Health, Safety and Environmental (HSE) Strategy and Management
- > NDT Advisory
- > Process Safety Consulting
- > Process Safety Competence Development
- > Remote and/or Online Monitoring and Digital Optimization Service
- > Work Safety Advisory
- > Work Safety Risk Assessments



## Digital Processes – from testing to cyber security, DEKRA is at your side in developing robust Industry 4.0 operations

- > Cyber Security and Data Protection
- > Cyber Security Certification
- > Digital Health, Safety and Environmental (HSE) Solutions
- > Functional Safety Consulting
- > Information Security Awareness Training
- > Information Security Training and Examination
- > Information Security Management System (ISMS)
- > Internet of Things (IoT) and Machine-to-Machine (M2M) Security Testing
- > Product Penetration Testing
- > Remote and/or Online Monitoring and Digital Optimization
- > Security Evaluations
- > Second-Party Audits for IT and Cyber Security

## Added Value – innovative services to enhance operational performance

- > Occupational Health and Safety Management
- > Business Continuity Management System
- > Business Resilience Impact Assessment (BRIA)
- > Remote and/or Online Monitoring and Digital Optimization Service



## Minimum downtime, maximum productivity

The extreme complexity of construction and procurement processes within power generation and distribution leaves them wide open to risk. In cooperation with you we support you in the development of measures to mitigate risk and increase safety and security across a wide spectrum of related areas. The key is to minimize downtime and maximize productivity while ensuring the highest achievable levels of safety.

#### From planning to commissioning

The construction of a power generation asset demands a high level of expertise, experience and knowledge. DEKRA specialists support you in all areas of the construction and procurement phase of conventional, nuclear and renewable power generation projects as well as power distribution, starting from product certifications, to material tests, inspection services, enabling staff to work in a construction project up to taking care for the operational health and safety on your construction site.

#### Exactly the services you need

DEKRA is highly experienced in the construction and procurement stage to support you for example by taking care of all kind of material testings, whether destructive or non-destructive testing or product certifications as well as in ATEX. Not only this, but the specialists from the inspection services are also approved to carry out acceptance tests of pressure equipment, electrical equipment, machinery or functional equipment like lifts or cranes according to national standards

or support you globally with expediting services or vendor shop inspections.
Furthermore, DEKRA specialists are able to ensure a safe and risk minized work environment for example, through safety advisory, services and coordination, as well as organizational safety and reliability.

"Safety may not be the first thing you think of when you're in a construction or procurement process – but if it saves you injuries or unplanned downtime, you will be happy it wasn't the last thing you thought of!"

Safety in all dimensions is a key condition for the success of any complex construction project. Each unplanned downtime of the project causes, at the very least, high financial losses. In our actual times a sustainable project management highly demands in-time delivery of all relevant supporting services, for example inspections and tests. This in turn sets certain requirements regarding the project and time management capabilities of any EPCs (Enginnering, Procurement and Construction companies) involved as well as energy utility companies. Of course the safety of each employee on site is by consequence one of the core targets of any construction site project in order to safeguard the above mentioned points as well.

# DEKRA Services for ...

## The Future of Energy – supporting you in transitioning to renewable energy sources

- > Chemical Safety Advisory
- > Environmental Measurements
- Expediting, Shop and Vendor Equipment Inspections (Electrical, Pressure Vessels, Machinery)
- > Fire Protection Management and Advisory
- > Mandatory and Non-Mandatory Inspections during Construction
- > Project Monitoring
- Safety Advisory, Services and Coordination
- Second-Party Inspection during Manufacturing and Supplying
- > Sustainability Advisory and Services

# Asset Inspections and Maintenance – working with you to minimize downtime and maximize productivity

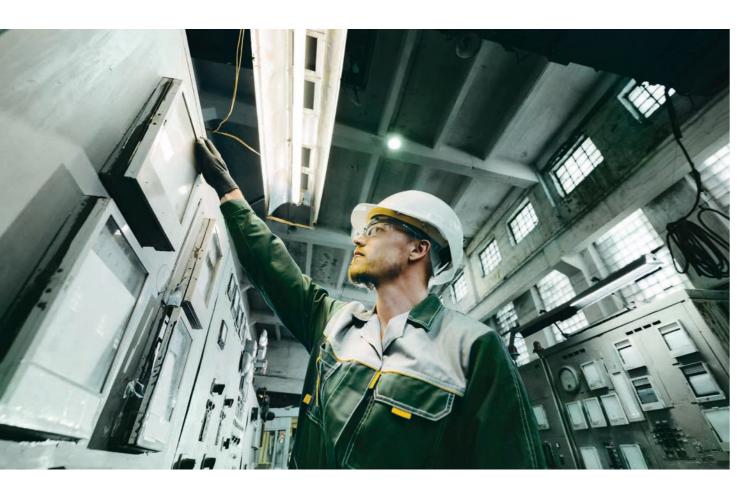
- > Certification of Assets and Equipment (Pressure Equipment, Machinery, Buildings)
- > Expediting, Shop and Vendor Equipment Inspections (Electrical, Pressure Vessels, Machinery)



- > Fire Protection Management and Advisory
- > Health and Medical Advisory, Services and Examinations
- > Lift Inspector Training
- > Mandatory and Non-Mandatory Inspections during Construction
- > Non-Destructive and Destructive Testing (NDT/aNDT/Mechanized Inspection)
- > Organizational Safety and Reliability
- > Project Monitoring
- > Safety Advisory, Services and Coordination
- > Second-Party Inspection during Manufacturing and Supplying



- Digital Processes from testing to cyber security, DEKRA is at your side in developing robust Industry 4.0 operations
- > Cyber Security and Data Protection
- > Digital Health, Safety and Environmental (HSE) Solutions
- > Functional Safety Consulting
- > Information Security Awareness Training
- > Remote and/or Online Monitoring and Digital Optimization Service



## Ongoing processes require outstanding support

The operational phase is where you need maximum support with ongoing processes as well as plant and equipment maintenance and safety. In this context, non-destructive testing, inspection services, process safety and HSE issues are among our core competencies. Being familiar with the asset is just as important as having the right capacities to maintain regular inspections and especially shutdowns.

#### Effective and lean strategies

In power generation and distribution you need a partner who knows how to get things done. DEKRA offers far more than our vast experience in individual inspections. With DEKRA you also benefit from the highest level of professionalism and quality in all service; from assigning top expert, trained and qualified to provide you with the best result, through to the provision of the latest testing equipment, and right down to the documentation of all services rendered and making this accessible online. With all this, DEKRA offers effective and lean strategies for the implementation of your construction project.

#### Comprehensive services

Some of DEKRA's core competences in the power generation and distribution sector include third-party inspections of pressure, electrical and lifting equipment as well as the required non-destructive tests. In addition to this, DEKRA also takes care of the organizational safety and the reliability of the systems in place as well as offers support in environmental and sustainability matters, personnel and management certification. These services are further complemented by a focus on security issues, which DEKRA implements by taking care of your cyber security.

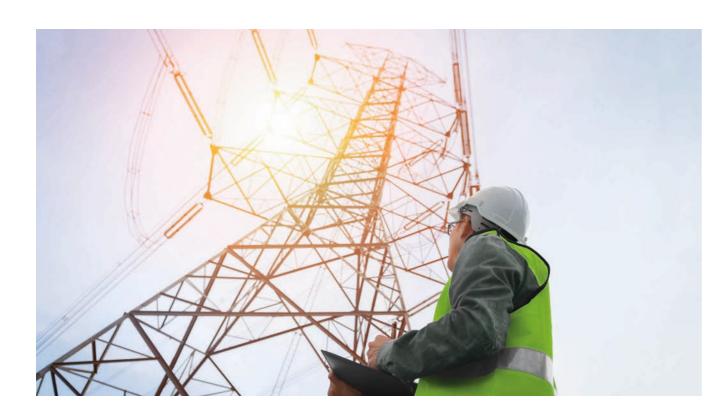
#### Your ideal partner

Not only does DEKRA cover all relevant areas from inspection, material testing, organizational safety and reliability, we also follow a holistic approach by bringing all our fields of knowledge together in order to offer you comprehensive consulting in a view to help you avoid mistakes before they happen and thus tweak and finetune your strategy. With many years of proven experience in these missioncritical areas, DEKRA is your ideal partner for operational safety and security.

"When it comes to safe operation of plant and machinery, DEKRA's services and expertise have been invaluable."

From material testing and inspection, to process safety and HSE strategies, we offer an enormous range of proven solutions to support you in ensuring a maximum availability and productivity of your power generation and distribution asset.





### DEKRA Services for ...

## The Future of Energy – supporting you in transitioning to renewable energy sources

- > Condition Monitoring of Assets and Equipment (Renewables)
- > Company Representative for Emissions Control Training
- > Environmental Advisory and Services
- > Environmental Measurements
- > Fire Protection Management and Advisory
- > Health, Safety and Environment (HSE) Management System Certification
- > Health, Safety and Environmental Management Training and Examination
- > Mandatory and Non-Mandatory Inspections
- > Power and Efficiency Measurements (Renewables)
- > Safety Advisory, Services and Coordination
- > Supply Chain and Second-Party Audits for Health, Safety and Environment (HSE)
- > Sustainability Advisory and Services

## Asset Inspections and Maintenance – working with you to minimize downtime and maximize productivity

- > Condition Monitoring of Assets and Equipment (Renewables)
- > Cyber Security and Data Protection
- > Fire Safety Officer Training
- > Health, Safety, Environmental (HSE) Advisory, Coordination and Services
- > Initial and Periodic Mandatory Equipment Inspections
- > Lean Management Training
- > Non-Destructive Testing
- (NDT/aNDT/Mechanized Inspection)
- > Non-Periodical and Periodical Voluntary Inspections
- > Occupational Health and Safety Training
- > Organizational Safety and Reliability
- > Process Safety Solutions



## Digital Processes – from testing to cyber security, DEKRA is at your side in developing robust Industry 4.0 operations

- > Cyber Security Phishing Campaign
- > Data Protection Consulting
- > Digital Health, Safety and Environmental (HSE) Solutions
- > Functional Safety Consulting
- > Information Security Management System (ISMS)
- > Information Security Risk Assessment and Management
- > Information Security Training and Examination
- > Remote and/or Online Monitoring Digital Optimization Service
- > Second-Party Audits for IT and Cyber Security

## Added Value – innovative services to enhance operational performance

- > Occupational Health and Safety Management
- > Business Continuity Management System
- > Business Resilience Impact Assessment (BRIA)

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### For the future, for all of us

Although by definition this area is always the last item on everyone's "to-do list", dismantling is a key area of safety and risk management and needs to be given due consideration. Particularly in sectors where there is a high potential for environmental damage or risk of injury, it is essential to handle dismantling with as much care as you would apply to planning or construction.

#### Before and during dismantling

Key issues before and during dismantling with which DEKRA can assist you are environmental inspections and mitigating associated risks, as well as plant safety inspections both before and during dismantling. Furthermore, DEKRA can offer support in the inspection of extremely hot or radiated areas using robots.

#### Knowledge and experience

In supporting you in planning and implementing your dismantling project, we can draw on all the knowledge and experience we have built up over many years of providing our planning and construction services. After all, the better you understand how a facility has been built, the better you are able to safely decommission and take it apart.

#### Safe and effective strategies

Whatever the nature of your dismantling project is, we will be pleased to work with you to devise a safe and effective strategy for its successful realization.

## "End-of-life is a fact of life and it needs to be treated with the same respect. The choices we make can have enormous impacts on others."

Decomissioning and dismantling projects are often associated with significant health and safety or environmental risks. DEKRA experts can work with you every step of the way to ensure a positive and economically viable outcome.



### DEKRA Services for ...

## The Future of Energy – supporting you in transitioning to renewable energy sources

- > Environmental Measurements before Dismantling
- > Health and Safety Measurements before and during Dismantling
- > Health, Safety and Environmental (HSE) Strategy and Management
- > Waste Management Training

# Asset Inspections and Maintenance – working with you to minimize downtime and maximize productivity

- > Construction Site Coordinator Training
- Health and Safety Measurements before and during Dismantling
- > Health, Safety and Environmental (HSE) and Sustainability Advisory, Coordination and Services
- > Process Safety Solutions

Digital Processes – from testing to cyber security, DEKRA is at your side in developing robust Industry 4.0 operations

 Remote and/or Online Monitoring and Digital Optimization Service

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"DEKRA's global network ensures that I can access the testing and safety services I need, wherever I need them."

### In over 60 countries, on 5 continents

Whenever and wherever questions of safety arise, we are one of the first points of contact for solving them. With subsidiaries and representatives around the globe, we provide a direct local presence.

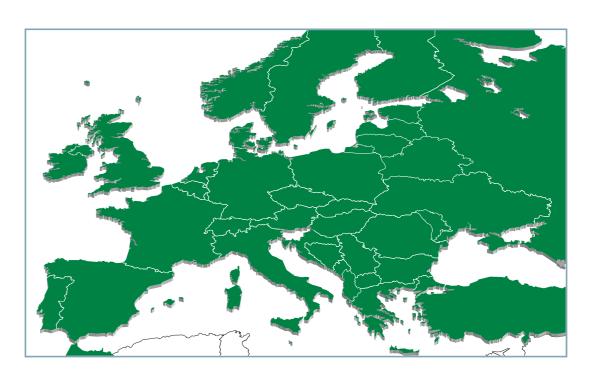
#### Almost 44,000 employees

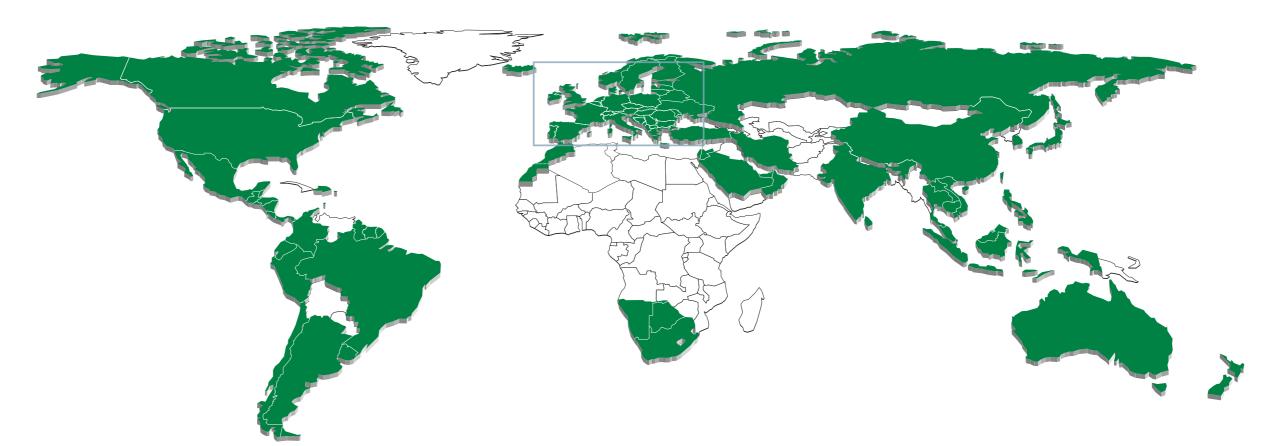
Whenever our expertise and safety services are needed, we are there - with nearly 44,000 highly qualified employees, we take care of your safety needs and requirements around the world.

## Independent, neutral and reliable

DEKRA is the world's largest independent expert organization in the TIC industry. Our expertise and safety services meet the highest quality standards.

## Global partner for a safe world





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