



**INNOVATION. SAFETY.
CONFIDENCE.**
SINGLE-SOURCE SOLUTIONS.

ENERGY

SUPPORTING INNOVATION IN ENERGY

Element and NTS have joined to become the market leader in testing, inspection and certification for the energy sector from extraction to generation to distribution. Our expertise from oil and gas to nuclear energy includes verifying functionality, reliability and efficiency at every stage. At the forefront of the energy transition, our services accelerate deployment and assure performance throughout the asset life cycle. We deliver:

- Unparalleled delivery time for projects of any size, duration or location
- Peace of mind with our robust program management, seamless communication, and support plans
- Test results with unmatched levels of accuracy and quality
- Direct access to top engineering experts for technical guidance, from developing the right test plan to interpreting results
- Built-in redundancies in capacity that de-risk your development cycle, resulting in a more resilient supply chain
- Lower cost, faster development cycles possible with digital modeling services that validate designs before production
- Support for every type of material and every stage of the asset lifecycle, with precise simulation of challenging environments
- Large scale testing conveniently located near industry hubs
- Faster, safer launch of green energy initiatives with comprehensive testing services for everything from hydrogen fuels to nuclear power
- Strong business relations with IOC/IEC and EPC contractors offering carbon-free energy solutions
- Cost-effective system upgrades and lower maintenance costs with fully qualified engineered retrofits



OFFSHORE

- Materials characterization
- Fracture & Fatigue Testing
- Corrosion & Sour Service Evaluation
- Chemical analysis
- Mechanical & metallurgical testing
- Engineering critical assessments
- Coating and insulation qualification
- Weld & Welder qualification
- Non-destructive inspection
- Failure analysis
- Non-Metallic aging & compatibility evaluation



ONSHORE

- Materials characterization
- Fracture & Fatigue Testing
- Engineering critical assessments
- Corrosion & Sour Service Evaluation
- Chemical analysis
- Coating and insulation qualification
- Non-destructive inspection
- Air emissions testing
- Non-Metallic aging & compatibility evaluation
- Weld & Welder qualification
- Failure analysis
- Field inspection & evaluation



DISTRIBUTION

- Materials characterization
- Fracture & Fatigue Testing
- Mechanical & metallurgical testing
- Chemical analysis
- Engineering critical assessments
- Corrosion and chemical resistance
- Coating and insulation qualification
- Weld & Welder qualification
- Non-destructive inspection
- Failure analysis

NUCLEAR

- Valve testing services
- QME 1
- EPRI NP-5652: nuclear dedication
- Snubber testing & rebuild services
- Nuclear qualification seismic/environmental testing
- Third party equipment qualification
- Obsolescence solutions



HYDROGEN

- Non-metallic and metallic materials
- Aging, compatibility, RGD and permeation
- Pre-charging and in-situ
- SSRT, fracture and fatigue
- Cryogenic environments
- Systems engineering & design



WIND & SOLAR

- Wind turbine testing services
- Windmill materials & components testing
- Solar testing & certification services



INTRODUCING ELEMENT NUCLEAR



- Offering the industry's most comprehensive and cost-effective service portfolio, including equipment qualification, commercial grade dedication, obsolescence solutions, engineering analysis, component supply and field services
- Leading supplier of pre-qualified components for plant applications from supply partners including Yokogawa Corporation, Gems Sensors & Controls and Siemens

UNPARALLELED PREDICTIVE CAPABILITIES WITH DIGITAL MODELING

We solve complex challenges throughout product lifecycles to optimize efficiency and reduce cost, generating assured outputs validated by physical testing. Services include:

- FEA, CFD, DEM, corrosion modeling
- Multiphysics and mathematical modeling
- Data science and machine learning
- Asset integrity modeling
- Platforms for digital asset management
- Systems engineering & design



Global reach,
localized presence
in the United States,
Canada, Mexico,
UK, Spain, France,
Netherlands, China,
UAE, Saudi Arabia, Italy,
Singapore, and India.

CONNECT WITH AN EXPERT

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