



Geomechanics and Seismicity expert

TAQA Energy B.V. operates on- and offshore installations of oil and gas production and storage in the Netherlands. As a 100% subsidiary of Abu Dhabi National Energy Company (TAQA), an independent water- and power company with the state of Abu Dhabi being its major shareholder, TAQA Energy B.V. together with TAQA's subsidiary company in the United Kingdom, acts as a vehicle for growth in Europe. Future TAQA activities in the Netherlands will be focused on E&P upstream and midstream. Currently, TAQA Energy B.V. and its partners are in the initial project phase of rebuilding the almost depleted Bergermeer gas field into an underground storage facility. TAQA Energy B.V. has a strong ambition to grow the asset base in the Netherlands by developing new fields and actively acquiring additional assets.

TAQA Energy B.V. has offices in Alkmaar and The Hague and offers flexibility in working hours and location.

Function Description

TAQA Energy is planning to convert the depleted Bergermeer gas field near Alkmaar in the Netherlands into NW Europe's largest TPA gas storage project. During depletion of the Bergermeer two sets of earth tremors (1994 & 2001) were associated with the field. As part of the Environmental Impact Assessment a comprehensive study was performed by TNO into the seismic behaviour of the field. An independent review by MIT confirmed the main finding of the study: there is a small probability of a limited earth tremor during operating the field as a gas storage. TAQA is preparing a reservoir and seismic monitoring plan as part of the development plan.

In order to develop, implement and operate the required monitoring systems, TAQA is looking for a recognised expert in geo-mechanics and seismicity. The candidate needs to be familiar with the environmental, political, legal and public acceptance issues associated to projects like this. Knowledge of the socio-political and environmental aspects of the Dutch gas business, especially in North-Holland, as well as the ability to speak Dutch is a strong benefit for the successful candidate.

During the execution stage the geo-mechanics and seismicity expert will focus on continuous collection, interpretation and communication of relevant (micro-) seismic data obtained during the monitoring and surveillance activities. He/she is responsible for developing, implementing and operating the micro-seismic analysis system and analysing the data. In addition, the incumbent is responsible for coordinating and contributing to all external studies on seismicity, micro-seismicity, geo-mechanics, effect of production and injection cycles on tremors and the effects of water injection on reservoir stability.

Roles and Responsibilities

- Develop a system for permanent micro-seismic monitoring in the Bergermeer field together with industry experts
- Implement the micro-seismic monitoring system, including a setup for automated data analysis
- Analyse the data from permanent micro-seismic monitoring and advise on consequences and potential remedial actions
- Coordinate and actively contribute to seismicity and subsidence studies, carried out by external parties such as Panterra, TNO, KNMI, Hamburg University, MIT etc.
- Coordinate and actively contribute to dynamic geo-mechanical studies on injection and production cycles, carried out by external industry partners (e.g. GMI, Schlumberger)
- Coordinate and contribute to studies on the potential effects of water injection on earth tremor events
- Act as the technical authority on behalf of TAQA in discussions with the Ministry of economic Affairs, State Supervision of the Mines, the Province, the Municipalities and other stakeholders such as action groups, public opinion leaders etc.
- Identification of additional study work required to fully understand the geo-mechanics and potential earth tremor issues related to gas storage activities
- Maintaining an overview of all initiatives, monitoring and studies related to seismicity and including this overview in reports and presentations
- Communication and integration with other disciplines in the Bergermeer team

HSSE

- TAQA place HSSE as a high priority, which are reflected in the applicable HSSE Policies, regulations and standards for the work location or office you will be working, therefore TAQA expects a positive attitude towards HSSE
- HSSE considerations should be considered in each activity undertaken in this role; specifically related to the area of earth tremors and public acceptance

Business Qualifications

- Recognised degree (Msc or preferably PhD) in seismology, geo-mechanics or identical area of expertise
- Experience and expertise in the practical application of seismic measurements for gas industry purposes
- Solid appreciation for the social-political forces and movements surrounding large-scale energy projects in sensitive environments
- A recognised expert in the field of seismicity / earth tremors with experience "in the field" (rather than only in a purely scientific environment)
- Understanding of the drivers of gas storage development
- Ability to communicate with other (non) technical disciplines
- Trained in HSSE and proven safety awareness

Skills and Competencies

- At least 10 years of experience in seismology, geo-mechanics or identical area of expertise
- Petroleum engineering knowledge
- Geology and petrophysics: knowledge
- Experience or awareness of gas production and storage operations: technical and business
- Fluent communication skills in technical and non-technical Dutch environment

Details

Estimated start date: a.s.a.p.
Working hours: 3-5 days per week
Duration: Long term
Location: Den Haag
Team: Bergermeer Gas Storage
Supervisor: Subsurface Manager

Contacts

If you are interested in this position, please send your CV and letter to our HR department

E-mail: hr.nl@taqaglobal.com
Address: Prinses Margrietplantsoen 40
2595 BR Den Haag