

# Job Opening

## Chemical Process Engineer (M/F/D)



### Overview

Electrochaea GmbH is seeking a highly motivated and experienced Chemical Process Engineer to support the Development Team in technology commercialization for its biological methanation process. The Company's developing a disruptive new technology for conversion of carbon dioxide into methane, uses renewable power and a variety of CO<sub>2</sub> feed stocks. Electrochaea's power-to-gas technology represents a commercially viable solution for utility-scale energy storage, grid balancing, and carbon recycling.

The core of the technology is a proprietary biocatalyst – an adapted strain of methanogenic archaea, a single-celled anaerobic microorganism – which efficiently converts hydrogen and carbon dioxide into pipeline-grade methane for direct injection into the existing natural gas grid.

The Company is commercializing this power-to-gas technology in markets with high penetration of wind and solar energy (Denmark, Sweden, Germany, Benelux countries, UK, California, etc.), where the intermittent nature of renewable energy sources leads to prolonged periods of excess electricity production. Favorable markets are also defined in terms of electricity prices, incentive schemes and existing infrastructure.

### Description of Position

The Process Engineer will be part of a dynamic, international and multidisciplinary team, working with an innovative new technology with international appeal:

You will ensure significant process and quality optimization of our proprietary gas fermentation with a strong focus on physical-chemical process parameters and implementation of suitable process analytics. In cooperation with the development team and external partners, you will be responsible to plan, execute and evaluate calculation of process flow simulations, liquid/liquid and gas/liquid mass transfer and interaction of fluid dynamics with bioreactor geometries. You will be responsible for testing and refinement of the model.

Through close contact with development and engineering teams you will develop the basis for reactor optimization and scale-up.

### Qualifications

The ideal candidate will have the following qualifications and capabilities:

- Completed studies (diploma, master's degree, doctorate) in chemical engineering, process engineering, or related discipline
- At least 3 years of practical experience in industry
- Deep understanding of chemical processes, ideally with a biotechnology background
- Experience in methodology and application of modeling with particle-based methods (Discrete Element Method [DEM]) and/or Computational Fluid Dynamics
- Prior knowledge (desired) and/or interest (required) in process analytics and chemometrics.
- Strong ability to analyze technical problems in a solution-oriented manner
- Highly goal oriented and independent working style, ability to critically reflect and challenge the results obtained
- Proven ability to plan and develop project schedules and work within a budget
- Strong teamwork and communication skills
- Flexible and able to work well in a dynamic environment
- Excellent organizational and prioritization skills with the ability to handle multiple projects at once
- Able to interact comfortably, confidently, and professionally with all levels of the organization and external parties

### Additional details and requirements:

- Salary will be commensurate with experience and capability
- Letter of application/intent
- CV
- Names/contact information for three professional references
- Please send your application to [jobs@electrochaea.com](mailto:jobs@electrochaea.com) along with a brief statement of your interest in this position, career goals, availability, resume, and expected compensation.

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.

# Job Opening

## Project Manager



### Overview

Electrochaea GmbH is seeking an experienced Project Manager to support technology commercialization for its biological methanation process. The Company's developing a disruptive new technology for conversion of carbon dioxide into methane, uses renewable power and a variety of CO<sub>2</sub> feed stocks. Electrochaea's power-to-gas technology represents a commercially viable solution for utility-scale energy storage, grid balancing, and carbon recycling.

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### Description of Position

The Project Manager will be part of a dynamic and international team, who are working with an innovative new technology with international appeal. The Project Manager will develop strong stakeholder relations and lead the project execution with support from engineering, management and finance. The Project Manager will convey all contractual agreements, obligations and design elements to the project partners. These documents together will provide the front-end engineering package which will be the basis for design of our methanation plants.

The Project Manager will also be part of the team interfacing between the Company and vendors, EPC contractors, partners, site owners, and suppliers for contract negotiations and for QA of documentation required for bids, qualification of suppliers and contractors. Other important duties will be to provide insight to the Project, Technology and Business Development teams on compliance with relevant standards and to work with the engineers to organize HAZOP, safety, and environmental reviews and documentation.

### Detailed Main Tasks and Activities

- Creation & development of project documentation packages.
- Contractor and vendor bid evaluation and selection based on technical and economical considerations.
- Principle interface with project partners, clients and EPC contractors.
- Overall responsibility for the timely delivery of project work.
- Responsible for signing off on project decisions and documentation throughout the project.
- Preparation and review of schedules, reports and equipment procurement.
- Evaluation of risk and economic analysis of scope and design changes.
- Determine, in conjunction with management, the resources and organization of the projects.
- Preparation of man-hour estimates for engineering activities and the effect on project schedule.
- Ensure the development of achievable detailed schedule for all engineering and execution activities consistent with the overall project delivery.
- Understand constructability issues, quality and scope and the potential for cost optimization.
- Identify areas of concern with respect to the progress of assigned engineering tasks and recommend corrective actions whenever required.
- Provide consultancy on engineering decisions consistent with contractual obligations.
- Organize and participate in Hazard and Operability (HazOp), Safety Integrity Level (SIL) and project health, safety and environment reviews.

### Qualifications

The ideal candidate will have the following qualifications and capabilities:

- B.S. or higher degree in engineering (mechanical, chemical or a related discipline) with minimum 7 years professional experience in a gas processing related industry.
- Strong technical background in continuous process operations (refining, chemicals, gas, pipeline, or renewable fuels processing) including process plant support experience.

# Job Opening

## Project Manager



- Thorough understanding of the requirements and ability to produce all project documents including, scope of work, reports, contracts purchase orders, etc.
- Thorough knowledge of process engineering documents including, PFD, M&E balance, P&ID, specification and data sheets.
- Solid understanding of constructability and construction practices.
- Understanding of government supported project work, including grants such as EUDP funding.
- Detailed knowledge of international engineering standards including ASME, DIN, PED and ATEX codes.
- Demonstration of performance in safety, health, and environmental management.
- Strong commercial skills, including understanding of scope, quality and cash flow and contract negotiation.
- Participation in process hazard operations reviews.
- Strong written and verbal communication skills.
- Strong organizational and procedural skills.

### **Minimum requirements for the position will include:**

- Fluency in written and spoken English and at least one other European language
- Ability to communicate effectively with multiple audiences and different levels of the organization
- Ability to develop and work within a budget
- Ability to plan and develop project schedules using Microsoft Project.
- Track record of interacting creatively, collaboratively, and productively with other disciplines
- Willingness to travel.

### **Additional details and requirements:**

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