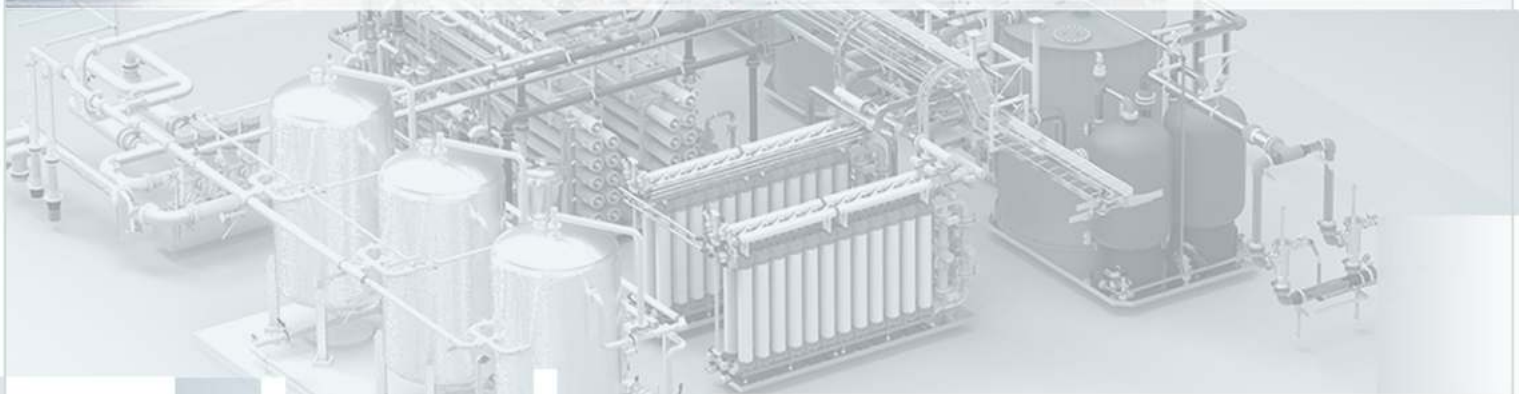




Ipec Capability Statement
Hydrogen Services



Hydrogen

Engineering Services
From Concept to Commissioning

Consulting Services
Enabling your transition for a new hydrogen energy economy

Technology Services
Trusted technical and regulatory knowledge with R&D



Hydrogen Services

ipec.com.tr
dunal@ipec.com.tr

About IPEC

IPEC is a well-established industrial project engineering and consultancy company based in Turkey. With over 35 years of experience in the chemical, petrochemical, and power generation industries, IPEC has evolved into a fully integrated engineering and consultancy company with diverse capabilities, including cutting-edge solutions for the emerging hydrogen industry.

We provide:

- Experienced in providing cost-effective solutions
- Skilled in developing and optimizing process systems
- Flexible engineering and project management solutions
- Expertise in piping and instrumentation diagram (P&ID) development
- Proficient in front-end engineering and design (FEED) studies
- Utilize advanced software and technology for accurate and efficient results
- Dedicated to delivering high-quality services on time and within budget

Designing
first national
hydrogen
electrolyzer
in Turkey

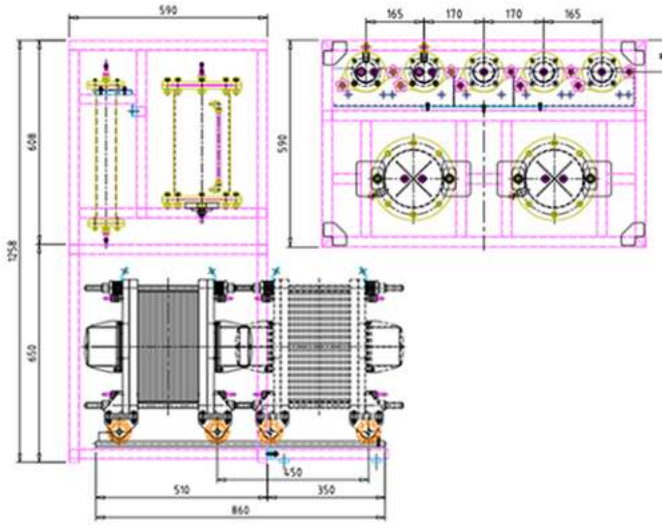
Investing in
global research
to realise
zero emissions
clean hydrogen
energy future

Working across key hydrogen
sectors to decarbonise power
generation, transportation, and
industrial applications.

Partnering with
universities
and hydrogen
industry bodies



Hydrogen



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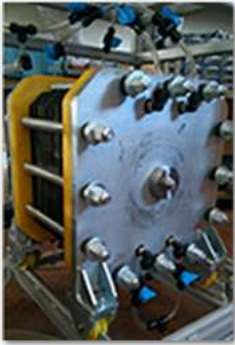
Driving Innovation in Hydrogen

Our engineering expertise and R&D capabilities

Our team has a proven track record of delivering exceptional engineering services and solutions to clients in a variety of industries.

We pride ourselves on our expertise in electrolysis technologies including in alkaline electrolysis. We are proud to offer our own in-house electrolyser technology and production capability.

With our extensive experience in system sizing, balance-of-plant systems design, and system integration, we are confident in our ability to provide best-in-class services to meet the unique needs of our clients.



TÜBİTAK

T.C.
TÜRKİYE BİLİMSEL VE TEKNOLOJİK ARAŞTIRMA KURUMU BAŞKANLIĞI
Teknoloji ve Yenilik Destek Programları Başkanlığı



Sayı : 26890849-115.99-E.163583
Konu : Ar-Ge Destekleri (7170468)

04/09/2019

İPEC ENERJİ DİŞ TİCARET MÜHENDİSLİK MÜŞAVİRLİK İNŞAAT SANAYİ
LİMİTED ŞİRKETİ
SAYIN ZÜLFÜ DOĞUKAN ÜNAL
GÜVENLİK CAD. NO:20/2 AYRANCI MAH. 06690 ÇANKAYA ANKARA

İlgi : 23.08.2019 tarihli başvurunuz

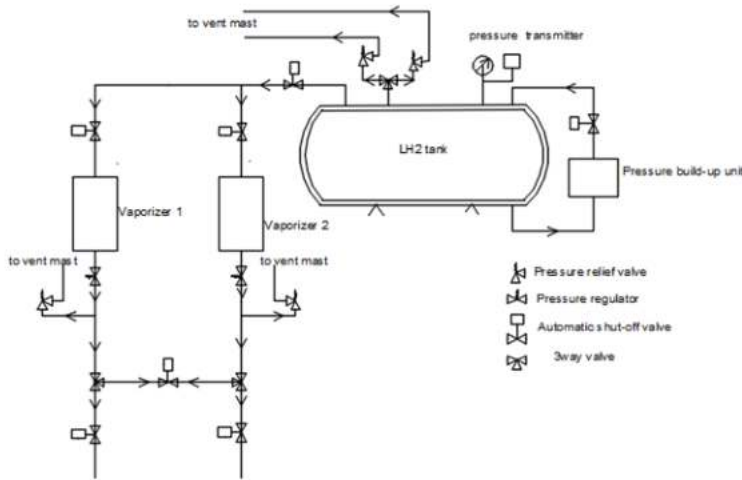
TÜBİTAK Teknoloji ve Yenilik Destek Programları Başkanlığı (TEYDEB) bünyesinde yürütülen destek programlarına, 21.08.2017 tarihinde başvurusu bulunan ilgi yazınıza konu 7170468 numaralı ve "ALKALİ SU ELEKTROLİZİ İLE HİDROJEN ÜRETİMİ" başlıklı proje öneriniz, 31 Ocak 2018 tarihinde imzalanan sözleşmeyle desteklenmiş ve proje öngörülen hedefler doğrultusunda başarıyla tamamlanmıştır.

Söz konusu projenin, 01.08.2017 - 31.12.2018 tarihleri arasındaki faaliyetleri değerlendirilerek desteklenmiş olup, son dönemine ilişkin teknik ve mali değerlendirmeleri de yapılarak 01.07.2019 tarihi itibarıyla proje destek süreci sonlandırılmıştır.

İşbu yazının verilmesi kapsamında firmanıza ilişkin mali, idari, hukuki ve milli güvenlik açısından herhangi bir değerlendirme yapılmamıştır.

Bilgilerinizi rica ederim.

Önder ZOR
Başkan a.
USETEG Grup Koordinatörü V.



From Concept to Completion

Our end-to-end hydrogen engineering services

At IPEC, we offer end-to-end hydrogen engineering services that cover every aspect of your project, from concept to completion.

Our team of experienced engineers will work closely with you to understand your specific needs and develop customized solutions that meet your requirements.

With a focus on quality, safety, and efficiency, we are committed to delivering projects on time and within budget.

Technical reports - Detailed information on IPEC's solutions with a focus on development and testing.

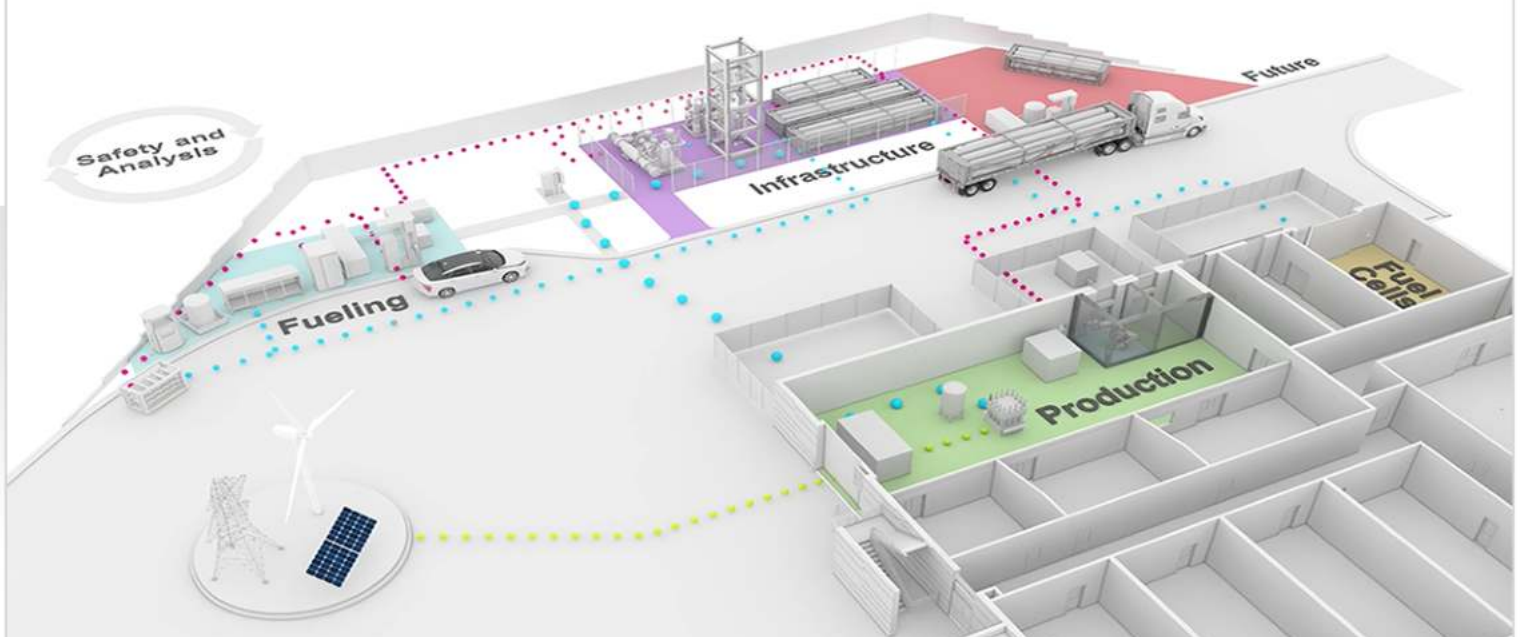
Case studies - Showcasing previous projects with challenges faced and solutions provided by IPEC.

Process flow diagrams - Visual representation of hydrogen engineering project steps and processes.

Safety manuals - Describing IPEC's safety protocols and procedures to ensure a safe working environment.

Training materials - Providing training to clients and staff on equipment use, operation, and maintenance.

Compliance documents - Ensuring compliance with industry standards, regulations, and certifications.





Providing Clarity in a Complex Industry

Our feasibility studies and technical expertise

At IPEC, we understand that documentation is critical in the hydrogen industry. That's why as part of our feasibility studies and technical expertise, we offer various types of documentation to support your project.

We can provide **pre-feasibility reports** to help you determine the viability of your project before committing significant resources. Our pre-feasibility reports typically include market analysis, technology assessment, regulatory compliance, and high-level cost estimates.

For more detailed analysis, we offer comprehensive **feasibility studies**. These studies provide a detailed analysis of the proposed project, including an in-depth evaluation of technical, economic, and financial factors. Our feasibility studies typically include risk assessments, environmental impact assessments, detailed financial projections, and a roadmap for project implementation.

In addition to these reports, we also offer other types of documentation, such as **technical reports, engineering designs, procurement specifications, and project management plans**. Our team of experts works closely with you to develop customized documentation that meets your specific needs and helps you achieve your goals.

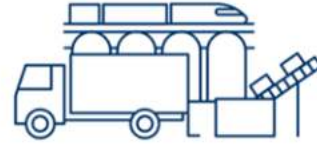
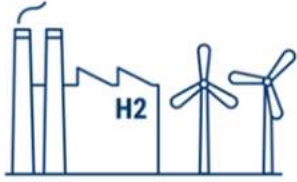
At IPEC, we are committed to providing our clients with the highest quality documentation and technical expertise possible. Contact us today to learn more about how we can help you navigate the complexities of the hydrogen industry and achieve success with your projects.

Pre-feasibility Reports

Early stage analysis of a potential Hydrogen projects.

Feasibility Reports

Comprehensive analysis of technical, economic, and financial factors to determine the viability of a Hydrogen project.



Decarbonisation with Hydrogen

Our Expertise in Decarbonisation Solutions

At IPEC, we recognize the urgent need for decarbonization and are proud to offer innovative solutions that help our clients reduce their carbon footprint. Through our front end engineering services for hydrogen combustion in industrial settings, we work closely with clients to design custom solutions that enable them to meet their sustainability targets without sacrificing productivity or profitability.

Our team of experts has extensive experience in the design and implementation of green hydrogen systems for a variety of industrial applications, including ammonia production, refining, steel production, power generation, and more. By utilizing clean, renewable energy sources like wind and solar power, we can help our clients replace traditional fossil fuels with green hydrogen, significantly reducing their carbon emissions while ensuring their operations remain efficient and cost-effective.

At IPEC, we believe that sustainable, low-carbon industrial processes are key to a cleaner, healthier future for all. Contact us today to learn more about how we can help you achieve your decarbonization goals through green hydrogen combustion.



Switching to Combustion

A Hydrogen Alternative
to Fossil Fuels

Green Ammonia

The Sustainable
Chemical Solution
of the Future

NH₃

Industrial Project Engineering Services

Team of experienced engineers and technical experts

At IPEC we specialize in providing comprehensive Industrial Project Engineering Services to our clients. Our team of experienced engineers and technical experts work together to deliver high-quality solutions that meet the unique needs of each project.

A background image of an industrial facility with complex piping, valves, and a worker in a blue shirt and yellow hard hat. The image is overlaid with several colored callout boxes containing text.

Concept Design

Initial stage of design, developing a conceptual plan.

Feasibility Studies

Analyzing project viability, assessing risks, and identifying optimization opportunities.

Basic Engineering

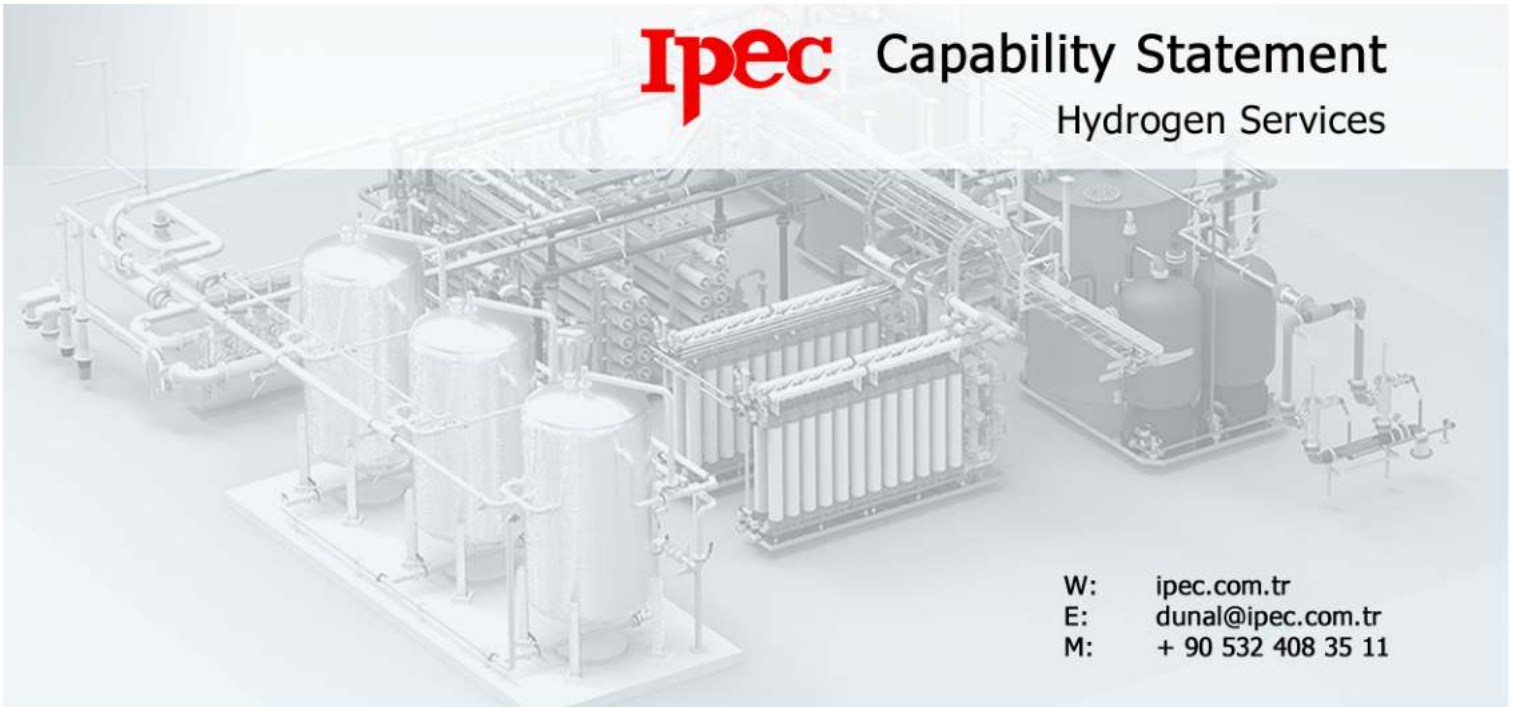
Developing detailed design drawings, equipment specs, and process flow diagrams.

FEED Engineering

Detailed planning identifying project requirements and preparing cost estimates.

Detail Engineering Services

Bringing together previous stages into a comprehensive blueprint for project execution.



Ipec Capability Statement

Hydrogen Services

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M: + 90 532 408 35 11

Thank you for considering IPEC's Hydrogen Capability Statement. We are dedicated to providing exceptional solutions to our clients in the hydrogen industry.

At IPEC, we have a team of highly experienced experts who specialize in all aspects of hydrogen production, storage, transportation, and utilization.

If you have any questions or would like to discuss how IPEC can assist you with your hydrogen needs, please do not hesitate to contact us. We look forward to hearing from you.