



Wesseling, 25. Juni 2019

## **Shell Rheinland Raffinerie: Baubeginn der weltweit größten Wasserstoff-Elektrolyse**

Im Werk Wesseling der Shell Rheinland Raffinerie wurde der erste Spatenstich zum Bau einer Wasserstoff-Elektrolyse-Anlage gesetzt. Mit Unterstützung durch die Europäische Union (EU) will das REFHYNE Konsortium damit einen Beitrag zur Energiewende leisten.

Die Investitionssumme beträgt 16 Millionen Euro, hiervon trägt das Europäische Fuel Cell Hydrogen Joint Undertaking 10 Millionen Euro bei, 6 Millionen Euro werden vom Konsortium mit Shell, ITM Power, SINTEF, thinkstep und Element Energy getragen.

Der Bau der neuen Anlage, die mit einer Polymer-Elektrolyt-Membran-Technologie (PEM) ausgestattet ist, soll in der zweiten Jahreshälfte 2020 abgeschlossen sein. Die Kapazität beträgt 1.300 Tonnen Wasserstoff pro Jahr.

Die PEM-Anlage von ITM Power ermöglicht es, Wasserstoff aus Strom statt aus Erdgas zu gewinnen. Wenn er als grüner Wasserstoff mit erneuerbarer Elektrizität gewonnen wird, trägt er dazu bei, die CO<sub>2</sub>-Intensität des Raffinerie-Standortes von Shell zu reduzieren.

„Ölprodukte werden auch in den kommenden Jahrzehnten eine wichtige Rolle spielen, und dieses Projekt bedeutet, dass wir sauberere Kraftstoffe und Petrochemikalien herstellen können“, erklärte Frans Dumoulin, Direktor der Shell Rheinland Raffinerie, vor rund 100 Gästen. „Zugleich wollen wir den Wasserstoff im Verkehrswesen und anderen Sektoren einsetzen.“

Wasserstoff kann bei der Energiewende eine wichtige Rolle spielen. Heute wird Wasserstoff bereits bei Brennstoffzellen-Fahrzeugen sowie in industriellen Anwendungen eingesetzt. Beim Transport kann Wasserstoff helfen, die Luftqualität vor Ort zu verbessern, da Brennstoffzellen-Fahrzeuge nur Wasserdampf ausstoßen.

„Erneuerbare Energien werden für Shell immer wichtiger“, sagte Dr. Thomas Zengerly, Vorsitzender der Geschäftsführung Shell Deutschland Oil GmbH. „Royal Dutch Shell hat dafür einen eigenen Geschäftsbereich aufgebaut: New Energies.“

Für den Raum Köln erwartet Shell den Aufbau einer neuen Wasserstoff-Modellregion, die auf Aktivitäten rund um Tankstellen, Auto- und Buseinsatz aufbauen soll und die gemeinsam das Potential von Wasserstoff in der Energiewende zeigen kann.



Für die Landesregierung begrüßte Christoph Dammermann, Staatssekretär im Ministerium für Wirtschaft, Innovation, Digitalisierung und Energie des Landes Nordrhein-Westfalen, den Bau der Anlage: „Wasserstoff besitzt ein großes Potenzial für ein klimaneutrales Energiesystem der Zukunft. Aus erneuerbarem Strom gewonnen, kann er als wichtiger Energieträger und Langzeitspeicher im Verkehrs-, Wärme- und Industriesektor dienen und so zu einem Schlüsselement für die Energie- und Verkehrswende werden.“

Bart Biebuyck, Executive Director, EU Fuel Cells and Hydrogen Joint Undertaking, sagte: „FCHJU-finanzierte Projekte wie REFHYNE machen es für die Hersteller von Elektrolyse-Anlagen in Europa möglich, Anlagen zu bauen, die den strengen Normen der Raffinerien entsprechen. Sie werden dazu beitragen, den CO<sub>2</sub>-Fußabdruck industrieller Prozesse durch die Herstellung von grünem Wasserstoff zu verringern.“

Simon Bourne, Chief Technical Officer von ITM Power, sagte: „Dieser Spatenstich des weltgrößten PEM-Elektrolyseurs ist ein wichtiger Moment für ITM Power und unsere Partner. Die Zusammenarbeit mit Shell war für uns ein Privileg, und der Prozess hat unser Marktangebot dadurch verändert. Die großtechnische Elektrolyse wird heute als ein wichtiges Element bei der Dekarbonisierung wichtiger industrieller Prozesse angesehen, und das Projekt REFHYNE legt den ersten Baustein für 100-MW-Industrieanlagen und darüber hinaus.“

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**Zusatzinformationen:**

Die Shell Rheinland Raffinerie ist die größte deutsche Raffinerie. Pro Jahr werden rund 17 Millionen Tonnen Rohöl verarbeitet. Bis zu 3000 Beschäftigte in den Werksteilen in Köln-Godorf und Wesseling produzieren rund zehn Prozent des in Deutschland verbrauchten Diesel- und Ottokraftstoffes, rund 15 Prozent des in Deutschland verbrauchten Kerosins sowie Produkte für die chemische Industrie.

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With respect to operating costs synergies indicated, such savings and efficiencies in procurement spend include economies of scale, specification standardisation and operating efficiencies across operating, capital and raw material cost areas.

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