

UNDERGROUND SUN STORAGE ARGENTINA



Can Underground hydrogen storage be used for microbiological methanation? Research is currently underway in two underground hydrogen storage projects: Underground Sun Storage and Hychico, both in their second phase, focusing on the injection of the mixture of CO₂ and H₂ with the aim of inducing microbiological methanation (Panfilov, 2016).



What is underground sun conversion? Underground Sun Conversion The project ???Underground Sun Conversion??? headed by the Austrian company RAG Austria AG started in 2017 as follow-up project of ???Underground Sun Storage???. During ???Underground Sun Storage??? it was demonstrated in a field test that the storage of natural gas with admixed 10% H₂ is technically feasible.



Can UHS be used in caverns and porous media storages? The technical feasibility of UHS in caverns and porous media storages was proven recently by various pilot projects, which are summarized in the following section. The cyclic storage of pure hydrogen or hydrogen-rich natural gas mixtures in the subsurface is similar to conventional natural gas storage.



While few pilot projects are already demonstrating the technical feasibility (Underground Sun Storage in Austria, HyChico in Argentina), widespread commercialisation will require addressing safety, regulation, and public ???



Several techniques exist to store H₂ at higher energy densities, which sometimes necessitate energy inputs in the form of heat or work, or the incorporation of H₂ binding materials. Among several H₂ storage options, underground H₂ storage emerges as a large-scale and seasonal storage alternative. Cushion gas (e.g., N₂, CH₄, CO₂, etc.) is ???

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Underground Sun Storage: Publizierbarer Endbericht 31. Oktober 2017
Seite 8 von 187 2 Kurzfassung Der publizierbare Endbericht zum Projekt Underground Sun Storage fasst die wesentlichen Erkenntnisse aus dem Forschungsvorhaben zusammen. Dort wo erforderlich, wird auf weitere Publikationen, die im Zusammenhang mit diesem Projekt entstanden sind,



The International Gas Union (IGU) hosted the World Gas Conference (WGC), which takes place every three years, from 1-5 June 2015 in Paris. Stephan Bauer presented the Underground Sun Storage project at the conference, the international gas industry's biggest and most prestigious meeting with 3,500 delegates from around 100 different countries.



The results drawn from the Working Package 6 "Separation of Hydrogen" of the Underground Sun Storage were presented at the International Spring Conference of GPA in Paris by Dr. Aleksander Makaruk. Read more 16th Global Energy Village Summit Salzburg 23.06.2016 | Report The 16th Global Energy Village Summit which focused on "Storage



Underground Sun Storage ??? Wind- und Sonnenenergie unterirdisch speichern Sonnenenergie gewinnen, speichern und bereitstellen: Diese zukunftsweisende Form der Energieproduktion und -speicherung testet die RAG derzeit in einem einzigartigen Forschungsprojekt.



Das österreichische Forschungsprojekt Underground Sun Storage unter Leitung von RAG Austria AG wurde Mitte 2013 gestartet und im Jahr 2017 positiv abgeschlossen. Ziel des Projektes war die Erforschung von grossvolumigen und saisonalen Speichermöglichkeiten von in Wasserstoff umgewandelter erneuerbare Wind-und Sonnenenergie in ehemaligen Erdgaslagerstätten.

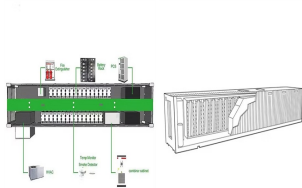
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Underground Sun Storage: World's first geological hydrogen storage facility goes into operation Jobs Mitglied werden Einloggen Beitrag von ADVANTAGE AUSTRIA Argentina ADVANTAGE AUSTRIA Argentina hat dies direkt geteilt Diesen Beitrag melden ADVANTAGE AUSTRIA Colombia 583 Follower:innen



Opening of the Underground Sun Storage research facility on 05/10/2015 in Pilsbach, Upper Austria 05.10.2015 | Event The continuing growth of solar and wind power means there is a need for pioneering energy storage solutions. Large underground gas storage facilities are already proven to be safe and reliable.



Unique research project to investigate underground storage of wind and solar energy 05.10.2015 | Press release Federal Minister of Transport, Innovation and Technology Alois St?ger, Managing Director of the Austrian Climate and Energy Fund Theresia Vogel and RAG Chief Executive Officer Markus Mitteregger open the Underground Sun Storage test facility in ???



In the lead project "Underground Sun Storage 2030" (USS 2030), the safe, seasonal and large-scale storage of renewable energy in the form of hydrogen in underground gas reservoirs is being developed. In addition, all partners ???



The "Underground Sun Storage 2030" project in Austria is also investigating H 2 storage facilities to use DGFs [41]. This project was established to facilitate the storage of pure and mixed H 2 in the Molasse gas reservoir. Its ultimate aim is to enable large-scale underground storage of solar energy in the form of H 2 [36, 41].

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Flexible Storage: Eine nachhaltige Speicherlösung für ein erneuerbares Energiesystem der Zukunft. Das Forschungsprojekt "Underground Sun Conversion Flexible Storage" zielt darauf ab, eine saisonale und grossvolumige Transformations- und Speicherung für erneuerbare Energien bereitzustellen.



Building on this, the project "Underground Sun Storage 2030" is now moving to the real scale and - under the leadership of RAG Austria AG - is investigating the storage of pure hydrogen, generated from solar and wind energy, in former natural gas reservoirs as part of a field trial. Together with renowned partners from industry and the Austrian



Firstly, field-scale application of hydrogen storage, such as the Underground Sun Storage project resulted in no degradation or corrosion over these components (Pichler, 2019, Bauer, 2017), while other experimental studies focused on hydrogen effects on wellbore components at HPHT conditions found no obvious effect on cement and steel



Anrainertag "Underground Sun Storage" am 6.10.2015 in Pilsbach/Oberösterreich 06.10.2015 | Veranstaltung Einen Tag nach der offiziellen Eröffnung lud die RAG die Bewohner der Gemeinde Pilsbach und der Ortschaft Moosham zum Anrainertag auf



"Underground Sun Storage" - Publizierbarer Endbericht 31. Oktober 2017.
Download (pdf, 6 MB) Underground Sun Storage Stand Juni 2019.
Download (pdf, 465 KB) Broschüre "Underground Sun Storage" Stand

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The project "Underground Sun Storage" as well as the further research project "Underground Sun Conversion" receive funding from Austrian Climate and Energy Fund established by the Ministry for Transport, Innovation and Technology, as part of its energy research programme. Final Report.



RAG im Projekt "Underground Sun Storage": RAG ist der Konsortialführer und größter Investor innerhalb des Leuchtturmprojektes Untertage Sonnenspeicher. Mit den erfahrenen Mitarbeitern als Teil des Untertage Sonnenspeicher-Projektteams stellt RAG das jahrelang für die Entwicklung, Errichtung und Inbetriebnahme von Speicheranlagen



Underground Sun Storage Status June 2019. Download (pdf, 520 KB)
Brochure "Underground Sun Storage" Status February 2016. Download (pdf, 950 KB)
Key role of membrane gas separations in the utilisation of an underground natural gas reservoir for the renewable energy storage



Im Leitprojekt "Underground Sun Storage 2030" (USS 2030) wird die sichere, saisonale und grossvolumige Speicherung von erneuerbarer Energie in Form von Wasserstoff in unterirdischen Gaslagerstätten entwickelt. Darüber hinaus werden alle am Projekt beteiligten Partner gemeinsam wertvolle technische und ökonomische Erkenntnisse für den Aufbau einer gesicherten



Con Underground Sun Storage, la primera instalación de almacenamiento de hidrógeno del mundo en un depósito poroso subterráneo, RAG Austria AG Renovables y Gas y sus socios en el proyecto están



Mit "Underground Sun Storage", dem weltweit ersten reinen Wasserstoffspeicher in einer unterirdischen Porenlagerstätte, setzt die RAG gemeinsam mit ihren renommierten Projektpartner*innen der österreichischen Energielandschaft international neue Maßstäbe. Dieses

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Projekt baut auf Erkenntnissen aus den Vorprojekten auf, in denen
bewiesen

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PLUS Energie Report - Underground Sun Storage-Conversion 20-12-2016
(pdf, 710 KB) O? Nachrichten - Underground SunStorage 03-12-2016.pdf
(pdf, 1 MB) Klima- & Energiefonds - Underground Sun Storage 10-2016
(pdf, 2 MB)