Sustainable energy solutions

Sustainable energy solutions (Sustainable products in 2018)

Goals	Measures	Status	Target year
Continued development of environmentally sound energy supply and storage	Field trial of the pilot plant in Pilsbach as part of the Underground Sun Conversion R&D project, expansion through second well	٠	2019/20
	Development of follow-up projects, building on the Underground Sun Storage project, aimed at large-scale, seasonal energy storage	٠	2019/20
	Integration of, and holistic approach to energy supply technologies (gas, electricity, heat and transportation)	٠	2019/20
	Raising public awareness of CNG through incentive payments in the form of fuel vouchers to local customers for purchases of CNG-driven vehicles	٠	2019/20
	Admixture of green gas	•	2025
	Launch and expansion of LNG production in Austria Roll-out of LNG logistics to supply filling stations	•	2025
	Modernisation and increased availability of district heating plants (e.g. in Kremsmünster)	٠	2019/20

Research and development: energy storage and services

Development of innovative technologies to shape the market and drive energy market transformation in the direction of sustainable, regenerative products	Conclusion of the Underground Sun Conversion project (final report)	•	2021
	Launch of the Underground Sun Conversion – Flexible Storage (USC-FlexStore) project; 2020-2023: development and establishment of the USC process	•	2020 – 23
	Coordination (as consortium leader) and technical support for the methane splitting project at the University of Leoben Examining options for constructing a pilot plant in Austria under the operational management of RAG. Medium term: creating a prototype methane splitting plant	٠	2025
	USS 2030: development of project for construction of a hydrogen storage facility by 2025 (Rubensdorf hydrogen storage facility)	٠	2021 – 25
Geothermal	Construction of a geothermal plant in Bruck/Garching a. d. Alz (Germany)	٠	2020
Reuse of depleted gas production sites			
Use of existing reservoirs for energy storage and the production of	Ongoing evaluation of all depleted gas reservoirs for potential use as gas storage, or Underground Sun Storage or	•	2021/22

Underground Sun Conversion facilities

RAG has already converted 50% of its depleted gas reservoirs into gas storage facilities

renewable gas

New | • Completed: measures initiated have been brought to completion | • Ongoing: measures are implemented regularly |

• Ongoing: measures will be continued in subsequent years | • Postponed | • Partially implemented | • Not implemented / on hold

Goals	Measures	Status	Target year
Sustainable energy mining: reuse of gas production facilities, sites and reservoirs once production ends	Drawing up a technical plan for the future supply of the company's own needs from renewable PV production (energy storage and transportation plan)	٠	2021
	Ongoing evaluation of the expansion of PV arrays on remediated sites, open spaces and rooftops	•	2025
	Gradual implementation of the solar energy plants project starting in 2021 to ensure all plants are supplied with carbon- neutral energy from the company's own PV generation activities; construction and commissioning of the first solar energy plant, Sierning 6	•	2021 ff.
	Heat storage: reuse of flooded reservoirs as waste heat and process heat storage facilities	٠	2030
LNG			
Sustainable supply of energy to transport sector in the form of LNG	Technological development and conversion of ULTC to liquefaction of natural gas (with regard to forthcoming admixture for renewable LNG/LBG) in collaboration with development partner: cooperation with Hitachi Zosen	٠	2021/22
	Construction of a new LNG filling station in Upper Austria in collaboration with marketing partner	٠	2021