

LBST_ID	001	235	555
City	Munich	Unterschleißheim	Regensburg
StationName	H2argemuc	Munich Lohhof - Linde Hydrogen Center (LH2C)	CEP Regensburg
Status	out of operation	in operation	planned
StartDate	05.05.1999	09.10.2006	31.12.2015
EndDate	31.12.2006		
UpdateDate	01.01.2007	16.12.2013	20.05.2014
Update_Text	out of operation	70 MPa refueling in regular operation	newly planned
Latitude	48,35	48,28415	48,9948352
Longitude	11,7749	11,57281	12,06491375
exactPosition	yes	yes	unknown
Street2	Munich International Airport		
Street1	Südallee	Carl-von-Linde-Straße	location only indicative
StreetNr	2		
Zip	85356	85716	
City	Munich	Unterschleißheim	Regensburg
State	Bavaria	Bavaria	Bavaria
Country	DE	DE	DE
Continent	EU	EU	EU
Operator	Bayerngas	Linde AG	
TechnologyProvider1	Linde AG	Linde AG	
TechnologyProvider2	Siemens		
TechnologyProvider3	ET Energie Technologie		
TechnologyProvider4			
Partner1	BMW	Linde AG	
Partner2	Grimm Aerosol		
Partner3	MAN Nutzfahrzeuge		
Partner4	Proton Motor Fuel Cells GmbH		
Partner_Text	Airport Munich, Bavarian Ministry of Economic Affairs		
LH2	yes	yes	
PKW - CGH2 350		yes	
PKW - CGH2 700		yes	yes
Bus - CGH2 350	yes	yes	
CGH2 (other)			
other			
FuelText	LH2 robot refueling		
Supply_ID	LH2 delivery, electrolysis, steamreforming	LH2 Delivery	
HydrogenSupply	CGH2 on-site via electrolysis or steam reformer and LH2 delivery		
HydrogenStorage	Hydride based intermediate storage unit and high-pressure cylinders (10m3 @ 35MPa) for CGH2;	vacuum-isolated tank for 17,600 litres (1200 kg H2)	
Contact	Information office, Tel: +49-89-24447627, Fax: +49-89-24447611, info@prpetuum.de	Linde contact persons are Mr Curcic Tel. 089 31001 5510 or Ms Leisling Tel. 089 31001 5284 or Mr. Klein richard.klein@de.linde-gas.com 089 3100-15169	
Homepage	www.h2argemuc.de		www.cleanenergypartnership.de
PublicAccess	yes	yes	unknown
Access_Text		It requires pre-registration and use of a specific refueling key-card. Please contact Linde Mr.Klein richard.klein@de.linde-gas.com 089310015169	
Goal	The refuelling station is part of the hydrogen demonstration project H2argemuc. The goal is to gain insight into the routine use and economic feasibility of hydrogen as a fuel.	Test facilities, show room for Linde Technology, Refueling Station with public access.	

<p>Description</p>	<p>The fourth phase of the H2argemuc project, which is sponsored by the Bavarian Ministry of Transport, has started in spring 2005 after the third phase was successfully completed. The main objectives of the project - the operational use of hydrogen and the presentation of an enclosed hydrogen circuit - have clearly been achieved. Today, in the Munich area both a rigid bus with hydrogen-powered internal-combustion engine and a fuel-cell bus are used on a commuter route.          CGH2: high-pressure cylinders: 10 m<sup>3</sup> @ 35 Mpa;          LH2: 12,000 l vessel          Steam reformer (hydrogen production capacity 100 Nm<sup>3</sup>/h);          hybrid based intermediate storage unit;          refuelling robot for liquid hydrogen          Vehicles served:          CGH2: 3 MAN low-floor articulated buses with an internal hydrogen combustion engine and a CGH2 hydrogen storage system, which are in daily use at the airport PEMFC forklift with 24kW and 8 h range;          expansion to local public transport using a MAN fuel-cell bus (68 kW from a PEM fuel-cell system and over 140 kW from an energy storage system) and MAN hydrogen-powered internal-combustion engine H 2866 UH and the optimised engine H 2876 UH (monovalent engine);          LH2: BMW 7series in field test (bivalent engine)</p>	<p>vacuum insulated tank for 17 600 liters deep cold liquid hydrogen with dispenser, hydrogen conditioner; hydrogen compressor station (up to 450 bar) with dispenser for LH2 and CGH2;          CGH2 refueling capacity 250 Nm<sup>3</sup>/h, 5000 Nm<sup>3</sup>/d, 20 kg/h, 400 kg/d          LH2 refueling capacity max 3000l/h, 215 kg/h, 50 kg/h, 1000 kg/d           25.09.2012 70 MPa upgrade refueling is in test phase</p>	
<p>VehiclesServed</p>	<p>Passenger cars, buses, a PEMFC forklift (details see description)</p>	<p>test fleets of cars and busses; 10 refuelings a day are expected for LH2 BMW fleet vehicles; CGH2 MAN prototype buses 10 - 20 refueling a year</p>	
<p>Comments</p>	<p>The hydrogen refuelling station has been visited by more than 12,000 people. Almost 500,000 kilometres have been covered by the hydrogen buses and cars without any incident. Nearly 1,000 times vehicles of the BMW fleet have been refuelled with approximately 60,000 litres of liquid hydrogen.</p>	<p>The station is recommended by Daimler for FC B-class: 35 MPa no.           The station is accepted by major car companies.</p>	<p>The station will be part of the announced "50 hydrogen refuelling stations until 2015 project" funded within the German National Hydrogen and Fuel Cell Technology Innovation Programme (NIP).</p>