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E U R O P A

Mapping CCS in Hungary **Report Summary**

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Energy production and emission breakdown from different fossil fuels

	% of power generation	TWh (electricity)	CO ₂ emissions (million tonnes) from electricity
Coal	20%	7002	8.76
Gas	38%	13,160	8.27
Oil	1.50%	521	0.45
Total	59.00%	20,683	17.48

Scenarios for different greenhouse gas reduction trajectories

GHG reduction scenarios and objectives of climate change mitigation are outlined in the Hungarian National Climate Change Strategy (HNCCS) which has been elaborated by the Hungarian Ministry of Environment and Water in collaboration with the Hungarian Academy of Sciences, environmental and energy NGOs.

Title	Organisation	Years covered	Brief description
National Climate Change Strategy	Ministry of Environment	2008-2025 (2050)	The Strategy defines two alternative CO ₂ emission reduction trajectories for Hungary. Provided that the European Union holds on to its commitment of reducing CO ₂ emission by 20% by 2020, competent Hungarian governmental departments commit to reduce emission rates by 16-25 % by 2025. In the case if the European Union sets a 30% emission reduction by 2020 as its new objective, Hungary will pledge to a 27-34% CO ₂ emission reduction by 2025.

New Thermal Power Plants

The most important point-like CO₂ emission source (6.5 million tonnes / year) in Hungary is the Mátra Power Plant (formerly "Gagarin" Power Plant) situated in North-East Hungary, about 80 km from Budapest. The power plant is operated by MVM Rt. (MVM Hungarian Electrical Plants Co.). This more than 800 MWh capacity power plant is supplied with lignite from two nearby opencast mines. The power plant will be extended with new blocks to produce an additional 400 MWh energy.

Units	Fuel	Power (MW)	Goal year	State
Mátra VIII	Lignite	400	2015	The development is in an advanced stage, public procurement procedures are on their way.

State of regulatory process for CCS

The regulatory process for CCS, notably the transposition of the Directive concerning the geological storage of carbon-dioxide has been started on schedule and is expected to be completed within two years. Implementation of the CO₂ storage directive has been started. The two Ministries responsible for this would be principally the Ministry of Environment and Water (Department of International Climate Politics), but also the Ministry of Transportation, Communication and Energy (Bureau for Mining and Geology).

National CCS supporting programs and plans for full-scale CCS

There is no such programme in Hungary and no indication of openness for the usage of structural funds in this field. Regardless, a potential framework for a CCS funding programme would be the National Environmental Protection and Energy Operative Programme (KEOP) which currently only supports RES, EE and biodiversity projects.

MVM Mátra Power Plant Co. expressed their strong intention to equip its new 400 MWh lignite powered block with CCS technology. Recently they are analysing the legal, financial, economical and geological constraints of a full-scale demonstration project. They are also mapping the possible sources of funding out of which the most adequate may be the New Entrants Reserve. On the other hand, the project planned is unlikely to receive any domestic financial support. Mátra Power Plant is forming a research cohort with the Geophysical Institute of Hungary, and may form a technological alliance with MOL Hungarian Oil Co. to use their expertise in the field of EOR.