# Storage National Report of Hungary

## 1. Background information on storage in Hungary

### 1.1. Update of the information already presented in the Hungarian Energy Office's 2005 national report

**Prices and Tariffs of Storage**
Applicable prices and tariffs differ depending on the public utility needs and demand of the competitive market.

**Public utility service prices**
The fee for the basic services provided by MOL Natural Gas Storage Plc. to the public utility wholesale trader and the TSO shall be determined in accordance with the provisions of the effective tariff Decree in force at any time.
Supplementary services shall be charged according to individual agreements.
According to the current Ministerial decree on Tariffs:

**Storage tariff /1/,/2/**

a.)

| Injection charge | Withdrawal charge |
|---|---|
| HUF/m3 | HUF/m3 |
| **1.126** | **0.376** |

b) Determination of mobile storage charge and peak storage charge is as follows:

- **$TM = 4{,}79 \times cm^{0{,}48}$ [HUF/m3]**
- **$TCS = 224{,}29 \times cm^{0.48}$ [HUF/m3/day/year]**

Where:
TM: mobile storage charge (HUF/m3)
TCS: peak storage charge (HUF/m3/day/year)
cm = 100 * cs / m
cm: 100 million m3 based peak / mobile capacity contract of the customer entitled to access
cs: peak storing contract (m3/day) of the customer entitled to access
m: mobile storing contract (m3) of the customer entitled to access

1/. Eligible customers have negotiated access to storage (they are excluded from the scope of administrative pricing).
2/. In the case of captive customers - up to the proportion of the load of the interoperating natural gas system by captive customers - the public utility wholesaler pays the storage charges to the storage licensee. The charges paid by the public utility suppliers to the public utility wholesaler cover the transmission and storage charges paid by the public utility wholesaler to transmission and storage licensees as well.

**Tariffs on the competitive market:**

- Seasonal non-interruptible
    - The starting point shall be represented by the fees and pricing mechanisms specified in the tariff decree in force at any time
    - It consists of four elements (mobile capacity contracting fee, peak capacity contracting fee, store-in fee and store-out fee)
    - The mobile capacity contracting fee and peak capacity contracting fee shall be the function of the proportion between peak capacity/mobile capacity requested
    - Store-in capacity fee shall be the function of the proportion between the store-in peak capacity/mobile capacity requested
    - Store-in and store-out charges also depend on the evenness of the filling and discharges

**Tb=[(bcs/m)/(1/150)/3+2/3]*Tbet**
where:
Tb: injection fee (HUF/m3)
bcs: committed injection capacity (m3/day)
m: committed mobile capacity (m3)
Tbet: injection fee by regulation 70/2003. (X.28) GKM (HUF/m3)

- Virtual non-interruptible
    - All elements of the pricing mechanism correspond to the pricing of the seasonal fees
    - It consists of three elements (peak capacity contracting fee, store-in fee and store-out fee)
    - The rate for each element in the fee structure shall be one third of the respective element in the seasonal pricing mechanism
    - In addition to the three virtual pricing elements, a seasonal mobile capacity contracting fee is also payable (provided there is a need for seasonal storage as well as the virtual capacity requirement and this element shall be paid as part of the seasonal charges, there is no need to pay it repeatedly due to the virtual capacity requirements)
    -
- Seasonal interruptible
    - All elements of the pricing mechanism correspond to the pricing of the seasonal non-interruptible fees
    - No fee for peak capacity contracting

**Development**

In 2005 there had been a capacity development project realized at Zsana UGS. This project increased the daily withdrawal capacity of Zsana with 3 mcm/day (from 18 to 21). In accordance with this development the current whole UGS capacities worked out as follows:

| **Working Gas Withdrawal Capacity** | **million $m^3$** | **million $m^3$/day** |
|---|---|---|
| Hajdúszoboszló | 1400 | 19.2 |
| Kardoskút | 180 | 2.3 |
| Pusztaederics | 330 | 2.5 |
| Zsana | 1300 | **21.0** |
| Maros-I | 150 | 2.2 |
| **Total** | **3360** | **47.2** |

Taking the necessary measures to ensure that gas storage facilities contribute to an appropriate degree to achieving the security of supply standards:
The storage licensee performs arrangements to increase its withdrawal capacity with 9 Million $m^3$/day and, working gas capacity with 600 Million $m^3$ during the next five years.

**Access to storage**

A regulated TPA exists for the public utilities, and one agreed by negotiations exists for the competitive market, and therefore regulated access is predominant due to the dominance of the public utility sector. There is no exemption from the TPA.

Services offered for the integrated storage: seasonal firm, virtual firm, and seasonal interruptible. Interruptible peak storage capacity can only be contracted if all firm has been contracted and only for a party eligible for access (network user) who has previously also contracted firm capacity. Capacity can also be contracted for periods shorter than one year. Interruptible capacity can only be contracted for a maximum of one year. Unloading is only possible during the unloading season and loading is only possible during the loading season.
Any demand different from this can be satisfied using virtual storage. Daily flexibility is limited by reservoir mechanical properties. The highest speed of the increase and decrease of unloading performance is published by the storage licensee on its home page.
In the case of capacity overbooking, the Implementation Decree of the Law on Gas Supply determines the order that new demand is satisfied in. According to this, the demand of the system operator and household customers has priority. This is followed by the demand on behalf of non-household public utility customers, followed by long term contracting, and finally by other demand on the competitive market. All customers are eligible with the exception of household customers.
Capacity may only be contracted upon justified customer demand. The starting points for most of the agreements are regulated tariffs and tariff specification of the public utilities.
According to the governmental decree on eligibility, the storage capacity that was provided to entrants of the competitive market prior to switching shall be made available to them. From amongst customer that have switched, major industrial customers only made partial use of this right, as they had been able to replace a part of storage with import at better prices.

**Security of Supply**

Underground natural gas storage facilities are important tools of compensating seasonal and daily fluctuations.
The five underground natural gas storages installed in depleted natural gas fields are together capable of storing 3.36 billion $m^3$ of natural gas. The peak capacity of daily withdrawal is 47.2 million $m^3$. The withdrawal capacity on the peak consumption day (26 January 2006.) during the winter of years 2005/2006 had been 46.883 million $m^3$/day, covering 52.58% of the consumption of that day.

**Changes in owner structure**

In the spring of 2005, E.On Ruhrgas International Co. declared its intention to buy the two segments of MOL Hungarian Oil & Gas Company's gas business. These two segments are the Gas Storage and the Gas Trader Plcs.
The regulator Hungarian Energy Office consented the acquisitions with a special 10 points stipulation system to implement. In the second step, the Hungarian Economical Competition Bureau consented the acquisitions with stipulations as well.

In the third step, the European Union's Competition Directorate General, (DG Comp) after a half year thorough investigation, approved the acquisitions on 21st of December 2005, but with special conditions to implement too. (Case No COMP/M.3696)
Conditions:

(i) Ownership unbundling
- E.On will be the 100% owner of Hungarian gas storage and trading from 1st of April 2006.

(ii) Put option related to MOL Transmission

(iii) Gas Release Programme

(iv) Contract release

(v) Access to storage
- Details of this:
  1. E.ON undertakes to grant access to storage capacities at regulated price and conditions to end users and wholesalers that purchase gas directly through the gas release programme or the contract release. In particular, E.ON undertakes to offer access to sufficient storage capacities for those end users and wholesalers even if they purchase gas for the first time or develop an increased demand for storage when buying gas quantities through the gas release programme or the contract release.
  2. E.ON undertakes to report any issue related to storage capacity constraints to the HEO. In any event, in accordance with the HEO resolution, E.ON is under an obligation to implement a storage development plan.
  3. The objective of the access to storage capacities at regulated price and conditions is to ensure that successful bidders in the gas release programme and the Third Party assignee of the contract release will be able to structure the purchased gas quantities according to their own or their customers' needs.

### 1.2. Description of competences

- Hungarian Energy Office (hereinafter: HEO) issues, modifies or withdraws the licences required for pursuing activities (e.g. gas storage) subject to licence.
- HEO examines and controls the financial and economical conditions of establishing a natural gas storage system involving the issue of a licence and the modification of the licence.
- HEO approves the transformation of the storage licensee, as well as the acquiring of influence in the licensees, respectively the modification in the value of the subscribed capital.
- HEO has the right to inspect the documents associated with the activities subject to licence, even if they include business secrets.
- In accordance with the Government Decree on the Implementation of Act on Natural Gas Supply, storage licensee must prepare a development plan and capacity requirement assessment for 5 years, which shall be updated every year. The updated plan shall be sent to the regulator HEO, who shall check the development plan and its implementation every year.
- The regulator approves the Operational and Commercial Code, the Business Conduct Rules and their modifications, as well as supervises compliance with the provisions of these regulations, and may impose a fine specified in separate regulations in case of the breach of the regulations.
- HEO determines the scope of the data of management which have to be made public by the storage licensee.
- HEO supervises the access to natural gas storage facilities – specified in separate regulations
- The regulator controls the fulfilment of the unbundling of the activities according to the prescription of the relevant regulation
- The Mining Bureau of Hungary (MBH) issues, modifies or withdraws the establishment license of natural gas storage facilities.
- The MBH yearly checks and approves the Technological Operation Plan shall be prepared by the storage licensee, with regard to the technical, safety, health protection and fire regulations.

## 2 Effective implementation of the GGPSSO

### *2.1 Roles & responsibilities of Storage System Operators*

2.2.1. Existence of a document setting out all terms and conditions for the use of storage by affiliates under GGPSSO § 1.3 and overall assessment:

The document had not been submitted yet, because of the E.On acquisition mentioned above.

### *2.2 Necessary TPA services*

2.2.1. Institutional arrangements surrounding exclusion of capacity from TPA:

- what entities are responsible for making decisions on this matter?

HEO is responsible for making decisions.

- what role does each of them play in the overall process?

Exclusion of storage capacity from TPA is approved and controlled by the HEO.

2.2.2. Role of your regulatory authority (and any other bodies/entities involved) in designing the menu of services offered by the SSO:

- is it completely up to the SSO to design services offered or is a relevant national regulatory authority consulted or in charge of approving this offering?

The SSO shall ask consultation from HEO in designing services offered.

2.2.3. Storage services tariffs/pricing methodologies:

- is your regulatory authority (or any relevant national regulatory authority) involved ( e.g. by benchmarking storage tariffs, by regulating tariffs)?

The HEO is responsible to prepare the ministerial decrees on tariffs and pricing.

2.2.4. Overall assessment of the menu of services offered by the SSO(s):

- are storage services offered in a way that facilitates competitive, non-discriminatory, and efficient access to best meet storage users' needs (in accordance with the requirements of the GGPSSO 3.3)?

The storage services are offered on the website of SSO, in compliance with the prescriptions of GGPSSO 3.3.

### *2.3 Capacity allocation and congestion management*

2.3.1. Capacity allocation procedures and congestion management mechanisms, and the development of competition:

- are these arrangements likely to create undue barriers to market entry and not prevent market participants, including new market entrants and companies with a small market share, from competing effectively (in accordance with the requirements of the GGPSSO 4.1.a&c) ?

The basis for allocation shall be the unified daily actual storage turnover, while allocation shall be made in accordance with the proportions of the last effective nominations.
Volumes registered below or above the last effective base nomination levels and called up as an option shall be allocated fully to the partner offering the option.
In so far as modified nominations and the options offered are not able to ensure daily balance in the system, and the TSO has to use balancing gas, it shall be allocated to the TSO.
The conditions of the access to the network may not include any unjustified discrimination, may not give ground for any abuse, may not include any unjustified restriction, as well as they may not endanger the security and the quality of the supply.

2.3.2. Description of the relationship between PSO (Public Service Obligations) and capacity allocation procedures/congestion management

According to the Act on Gas Supply the storage of natural gas serving for the supply of household customers and the communal customers specified in separate regulations have a priority. The storage licensee shall be obliged to offer the capacity primarily for the public utility wholesaler in order to supply the household customers and the communal customers specified, furthermore for the TSO to the extent necessary for balancing. Having been satisfied the storage requests of these customers, the storage licensee shall be obliged to make accessible the available spare capacities for the public utility wholesaler, the traders and eligible customers, on transparent and non-discriminative way.

### *2.4 Confidentiality*

2.4.1. Overall assessment of the arrangements in place to ensure that no information available to the SSO concerning its storage business is passed to other parts of the any affiliate:

- have these arrangements been monitored and by whom?

Yes, the arrangements have been permanently monitored by the HEO.

- are these arrangements effective?

The arrangements were partly effective so far, however they shall be totally effective after the E.On acquisition in process.

2.4.2. Overview of the content of the Grid and Commercial Code

*Confidential handling of data*

(a) Protection for business secrets shall cover protection of data qualified as business secrets arising out of the activities, protection of business secrets received from another party or parties according to a contract or agreement, as well as protection of business secrets confided to licensees/access licensees due to their role played in the natural gas system.
(b) Data may be classified in three groups: secret data, confidential data and public data. The qualification system sets a single system for regulating the solutions to the task related to qualification and granting authorisations for looking at data. Data exchange agreements must specify the classification of each type of data.
(c) In determining the level of information security required for protecting business secrets (ITSEC elaborated by the European Union by taking into account TCSEC and other national documents – June 1991) the requirements applicable to security class TCSEC B2 shall govern (group B: mandatory and controlled protection B2 = structured access protection). Accordingly, in the field of assigning access authorisations the „Mandatory Access Control" (MAC) control method shall be implemented. The information security concept for applications that support the processing of data that constitute business secrets also and the detailed information security requirements applicable to such data must be elaborated in accordance with this guideline.
(d) According to the TCSEC and ITSEC requirements, computer sub-systems and applications that support the processing of electronic data classified as business secrets must be separated from the other parts of the information technology system by (internal)

firewalls, i.e. a VPN (virtual private network) needs to be established even within the computer LAN networks of licensees.

(e) Those who participate in cooperation must agree to treat such information confidentially also in the course of their own work, and shall ensure that heir agents, employees and officers also treat confidentially all data, information and documentation classified as confidential by their owners, and not to this close them to third parties and not to use them for purposes that would lead to an infringement of the interest of the owner.

(f) Agreement must be reached on the scope and exchange of confidential data/business secrets and information in the data exchange agreement concluded between parties.

(g) In cases when data or information or any part of data or information classified as confidential has to be disclosed to a third party the disclosing party must obtain a written statement of consent to this from the owner of the data or secret.

(h) The party who received confidential data or information must credibly annihilate confidential data or information if it is not needed anymore for performing that party's tasks.

### *2.5 Transparency*

2.5.1. Description, where applicable, of the process followed in case some of the information required by the GGPSSO is not published by the SSO(s) in your jurisdiction (e.g. notification to national regulator)

In some events the SSO delayed with publishing information and notification of HEO as well. After unambiguous warnings these insufficiencies had been come to an end.

### *2.6 Secondary markets*

There is no secondary market in Hungary, primarily on account of the non-liquid market.

## 3 Need for other measures beyond the GGPSSO

3.1. Proposal of additional measures, at European level, if indeed the GGPSSO are not sufficient to ensure fair, transparent and non discriminatory conditions for access to storage, in the light and in the spirit of Directive 2003/55.

Hungarian Energy Office has no proposal for additional measures. The GGPSSO seem sufficient to perform these expectations for the present. The experiences of the implementation will show the contingent need for further measures.