

10
YEARS
ON THE
CZECH
MARKET

SSO: RWE Gas Storage

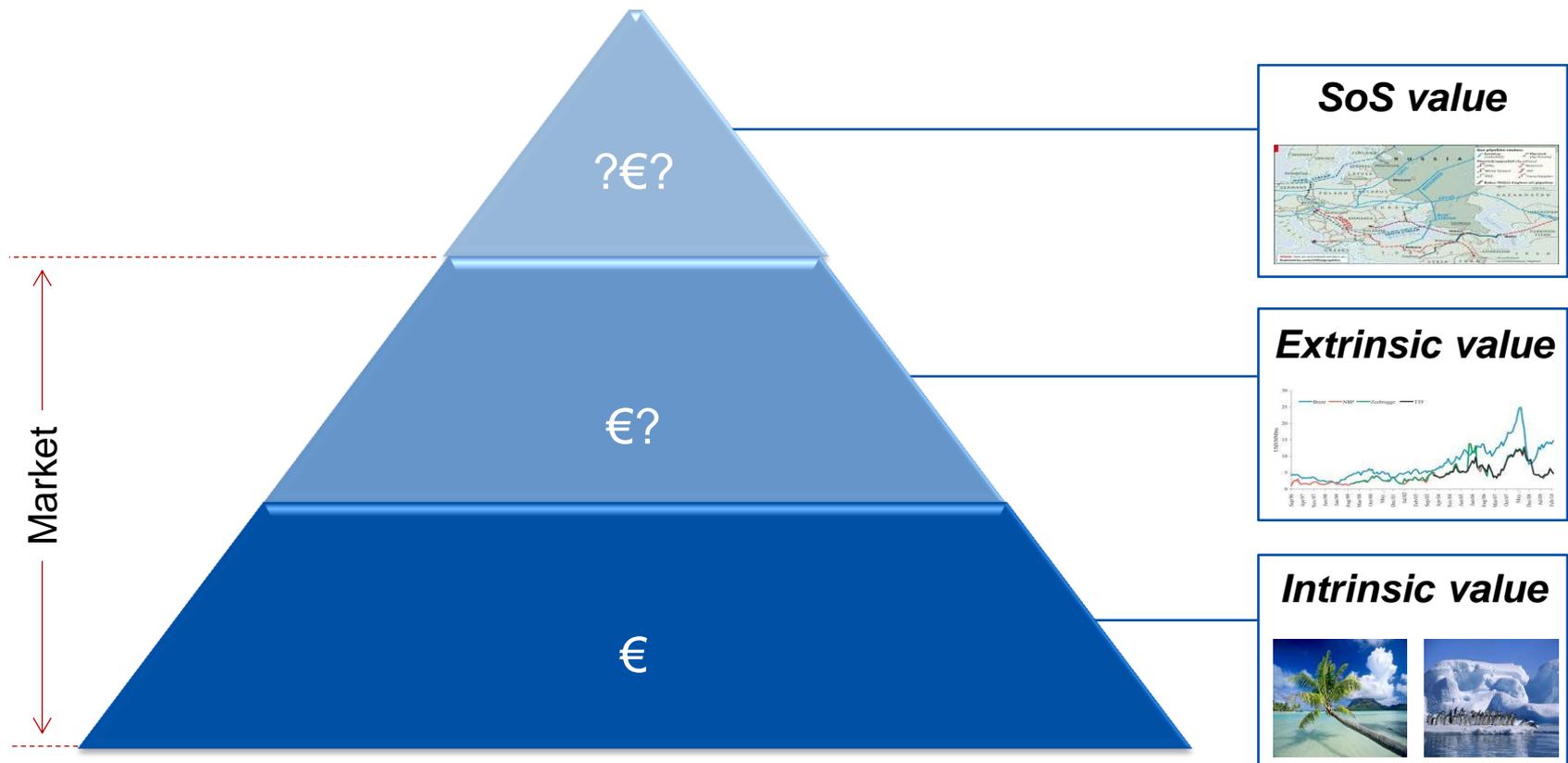
ENTSO, TYNDP, 21–22 March 2013, Riga

RWE
The energy to lead



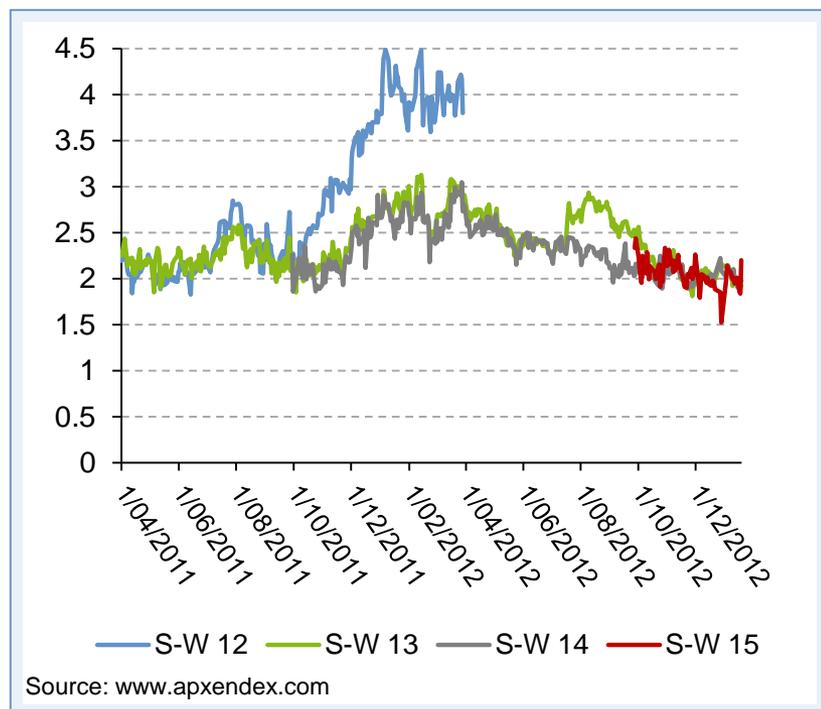
Zbyněk Pokorný
Head of Sales, RWE Gas Storage

Value of storage consists of three basic elements; it is not a pure S-W spread!

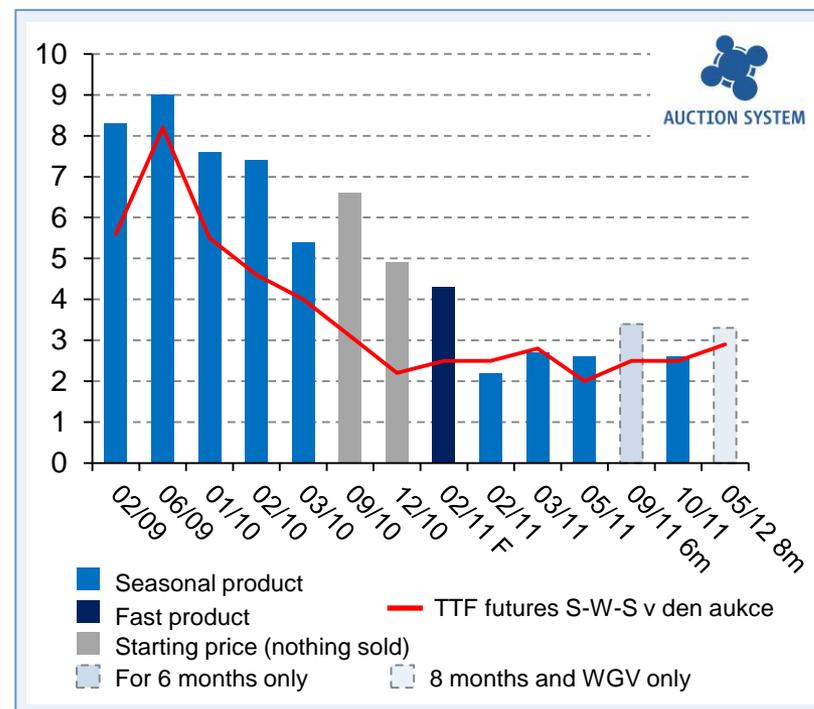


S-W spreads stabilized at ~2 EUR/MWh; storage prices strongly correlated with S-W spreads

S-W spreads (€/MWh)



Final auctions prices vs. TTF S-W spreads (€/MWh)



- > S-W spreads have become a „magic formula“ when buying storage
- > Most forecasts expect S-W spread to increase again in the mid-term

- > RGS auctions show a very strong correlation between final auction prices and S-W spreads
- > Higher interest in seasonal products for a lower price

SSOs to seek for additional benefits for the customers vs regulatory limitations



Range of products

(bundled/unbundled, long/short-term, additional services, SSO cooperation?)



Easy and user-friendly applications and tools

(on-line booking, etc.)



Simplified market model

(e.g. elimination of transmission to/from storage -> UGS directly at VTP)



Support of secondary market

(e.g. store-x, internal tool simplifying transfer of gas between storage users)

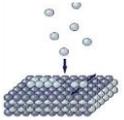


Transparency

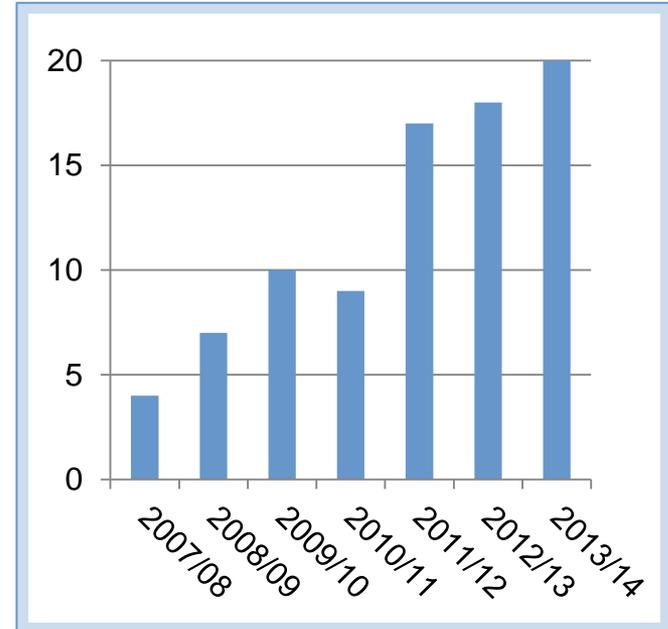
(data publication, e.g. final auction prices: <http://www.rwe-gasstorage.cz/en/auction-history/>)

RGS introduced new services in 2012 and develops additional; customer base steadily increasing

New services/products of RGS

<p>Temporary WGV</p>		<ul style="list-style-type: none"> > Re-selling of WGV not currently used > Allocation via auctions/e-mail > Attractive price level
<p>Guaranteed Reverse Capacities</p>		<ul style="list-style-type: none"> > Flexible injection/withdrawal switching with guarantee > Allocation based on contracted volume
<p>Secondary auctions</p>		<ul style="list-style-type: none"> > Organization of auctions for secondary capacity in the RGS Auction system

Number of customers



- > Additional services/products planned for 2013, e.g.
 - Protected area for customers
 - On-line requests for capacity lease/transfer, gas transfer
 - Other type of interruptible capacity

- > Both Czech and EU storage users

RGS behaves (more than) transparently

- > **Virtual storage capacity**
- > **Aggregated Outflows / Inflows**
- > **Daily published information**
 - **Total capacity** (total withdrawal and injection capacity for the following gas day by products)
 - **Total contracted capacity** (total contracted firm withdrawal and injection capacity for the following gas day by products)
 - **Daily stock level** (current stock levels in the virtual gas storage by products)
 - **Available interruptible capacity** (actual daily injection and withdrawal capacity)
 - **Interrupted interruptible capacity** (interrupted interruptible withdrawal and injection capacity and the highest offered price per capacity unit that was interrupted)
 - **Interrupted firm capacity** (interrupted firm withdrawal and injection capacity by products)
 - **Daily withdrawal and injection** (actual daily withdrawal and injection capacity by products)
 - **Aggregated nominations** (sum of all nominations for the following day)
- > **Capacity development**
- > **Planned shutdowns and maintenance**

Daily Stock Level

Enter the date range

from:

till:

>

Daily Stock Level from 27.08.2010 till 06.09.2010			
Date	Daily Stock Level [mcm]	Utilization of injection rate [mcm]	Utilization of withdrawal rate [mcm]
27.08.2010	2 140,7	10,4	0,0
28.08.2010	2 151,2	10,5	0,0
29.08.2010	2 160,3	9,1	0,0
30.08.2010	2 169,6	9,3	0,0
31.08.2010	2 177,0	7,4	0,0
01.09.2010	2 180,8	3,8	0,0
02.09.2010	2 190,5	9,7	0,0
03.09.2010	2 198,1	7,6	0,0
04.09.2010	2 207,2	9,1	0,0
05.09.2010	2 215,8	8,6	0,0
06.09.2010	2 220,6	4,8	0,0

Planned shutdowns and maintenance

Period	Restriction	Comment
06.10.2010 - 15.10.2010	to 84.6% of maximal available withdrawal capacity	Stabilization Interruption
01.10.2010 - 05.10.2010	to 42.8% of maximal available withdrawal capacity	Stabilization Interruption

RWE Gas Storage currently has no shutdowns or maintenance restrictions.

Planned shutdown:

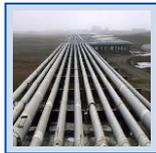
In the Czech Republic, new PSOs are defined by law and fulfilled by gas suppliers



A group of “**protected**” end customers has been defined including households, health and social services, public transit, food industry and heating plants

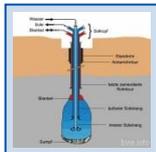


Off-take regimes have been defined with a merit order for cutting off selected groups of customers in case of emergency



Security of supply standard is set and updated each year for protected customers for the following situations:

- > 7 coldest days in 20 years
- > 30 coldest days in 20 years
- > Failure of the largest piece of gas infrastructure for a period of 30 days

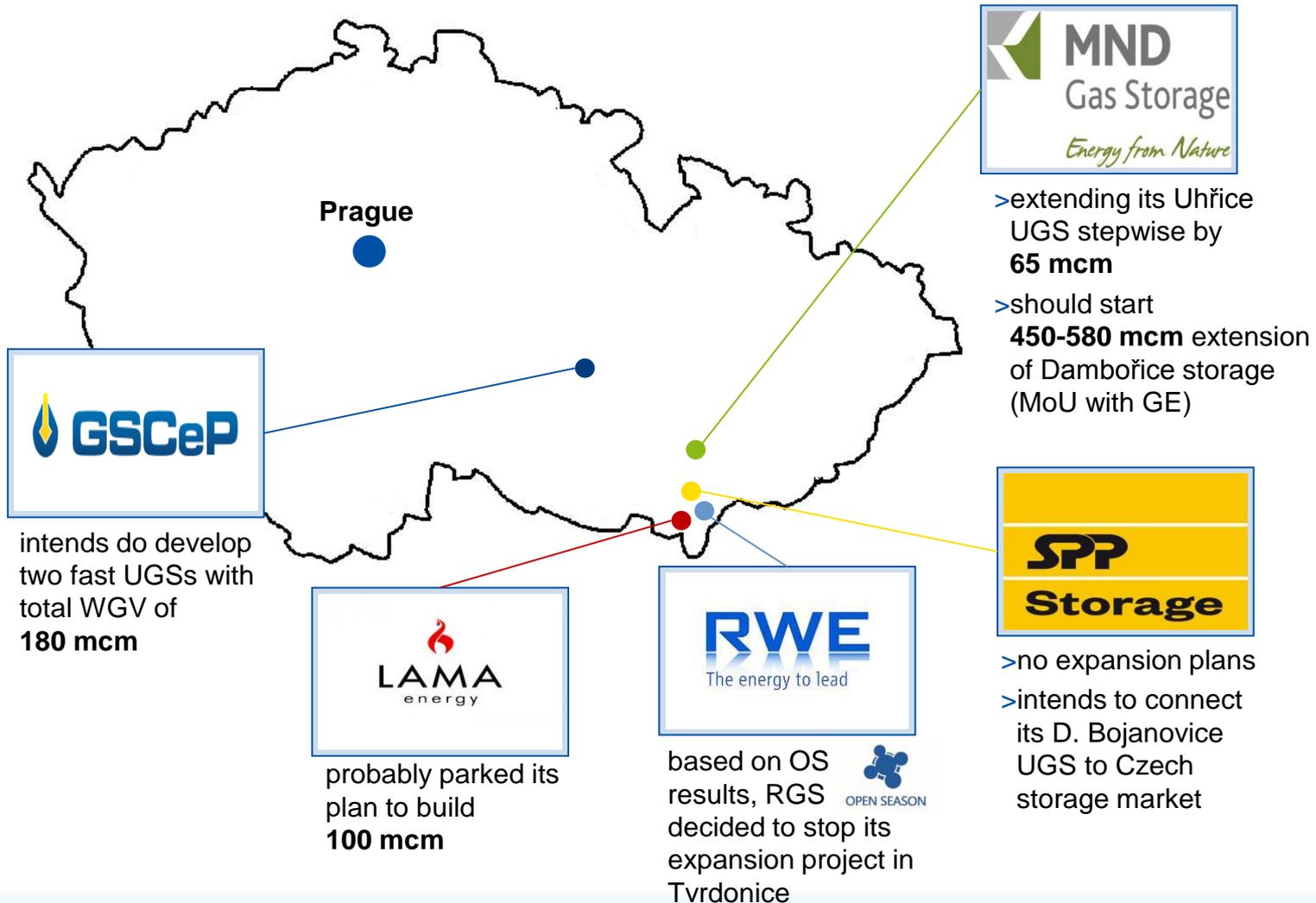


From October to April, at least **20 percent** of the security of supply standard must be covered **using gas storage** anywhere in the EU



If stored **outside** of the Czech Republic, a firm transmission capacity contract is also required

Current conditions on the market do not support development of new capacities; some projects still alive



Czech TSO grid

