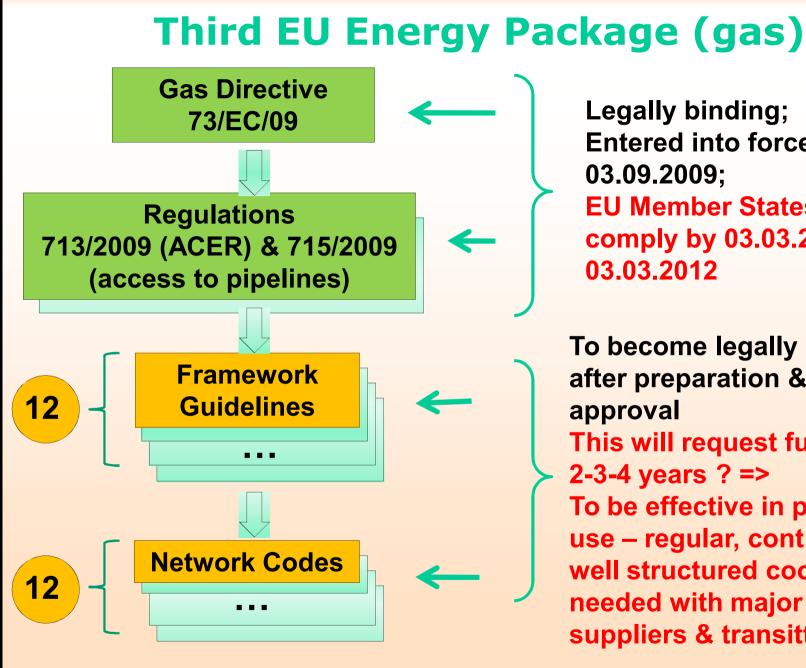
"Formation of the European Union's internal gas market under Third Energy Package: how to make it workable with due consideration of the fair concerns of non-EU gas exporters"

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Presentation at Energy Delta Convention 2010 "Gas fuels Energy Transition" Conference, Martiniplaza, Groningen, Netherlands, 23-24 November 2010

- Future architecture of the EU internal gas market according to 3rd EU Energy package (2009)
- Some key problems of the 3rd EU Energy package – and possible solutions:
 - Contractual mismatch problem to provide long-term access to transportations capacity
 - Conflict with project financing principles – derogations from MTPA
 - Gas pricing: total spot/futures pricing
 or slow adaptations of LTGEC pricing formulas



Legally binding; **Entered into force** 03.09.2009; **EU Member States to** comply by 03.03.2011 / 03.03.2012

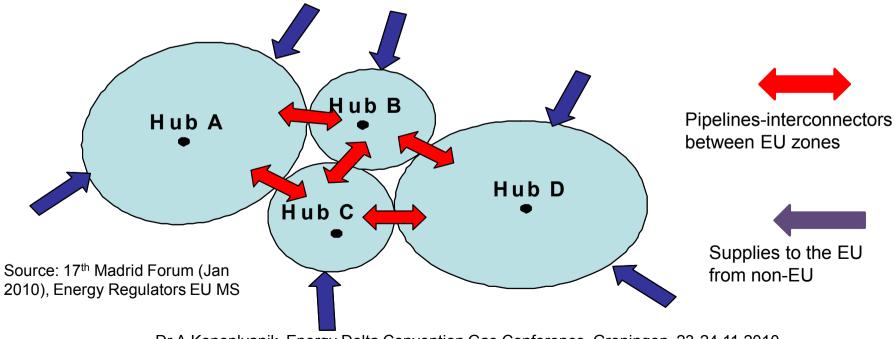
To become legally binding after preparation & approval This will request further 2-3-4 years ? => To be effective in practical use – regular, continuous & well structured cooperation needed with major suppliers & transitters

Future organization of the common internal EU gas market according to 3rd EU Energy Package

No single (homogenous) internal EU gas market in the near future even as an economic model
 All market areas to be organized as entry-exit zones with virtual hubs => Towards uniform capacity allocation mechanisms ("bundled products") & gas pricing mechanisms ("liquid hubs"), but:

(1) Capacity allocation: **short**-term vs. **long**-term? At zone borders? At hubs? Bundled products – only on volumes (of throughput capacity) or on duration of access as well? How to overcome inconveniences of the 3rd Package? (f.i.: long-term = (1 year+) => "contractual mismatch" problem)

(2) Gas pricing at hubs: on **all** gas volumes *or* just on a **portion** of gas supplies? When hubs would become really liquid? All or only few of them? Which ones?



Dr.A.Konoplyanik, Energy Delta Convention Gas Conference, Groningen, 23-24.11.2010

Key provisions of the EU Gas Directives (1998/2003/2009) and the problems they created

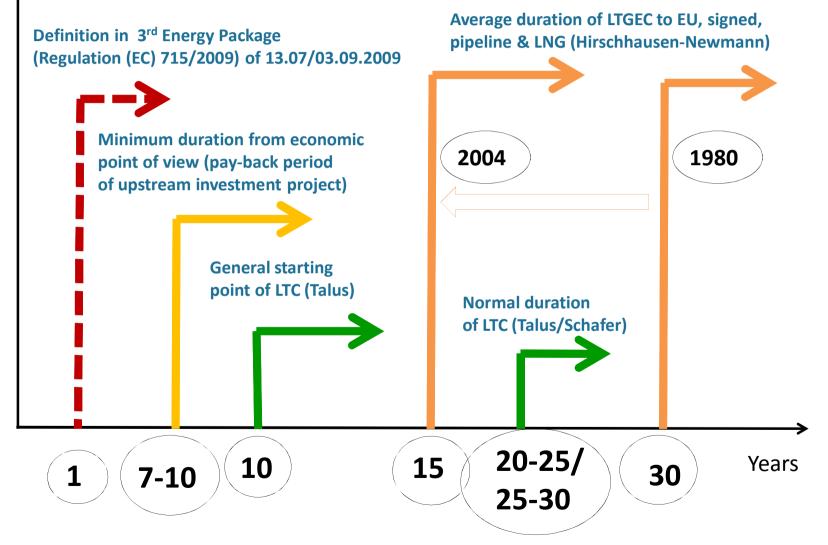
- Key CEC/DG COMP assumption: "The more competition (number of players / intermediaries) the better it is for end-users" (???) => the policies:
- Segmentation of VIOC (unbundling) splitting gas business between "competitive" (production / consumption) and "monopolistic" (transportation / distribution) spheres of activity,
- Mandatory third party access (MTPA) to gas transportátion infrastructure,
- Switch from LTGEC to spot trade, etc.
- => In result: incremental risks (trade + investments), incl. problems:
 - "Contractual mismatch",
 - Bankability of investment projects (project financing),
 - Price volatility / predictability (guidance for long-term & capital-intensive investment decisions)

Instruments for implementing key provisions of EU Gas Directives outside the EU

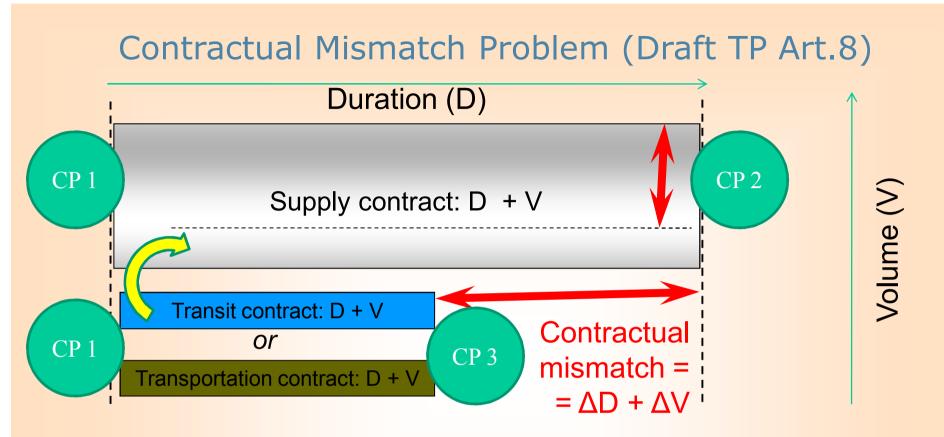
Export of EU «acquis communautiare» through:

- First EU Gas Directive (1998) => Energy Charter Treaty (1994/98)
- Second EU Gas Directive (2003) => Energy Community Treaty EU-SEE (2006)
- Third EU Gas Directive (2009) => "Third party clauses" of Directive 73/EC/09 + sanctions for violation of Directive's provisions (up to 10% of global turnover of mother company) => legal collision (?): how EU law (acquis communautaire) corresponds with international law provisions (ECT, etc.)

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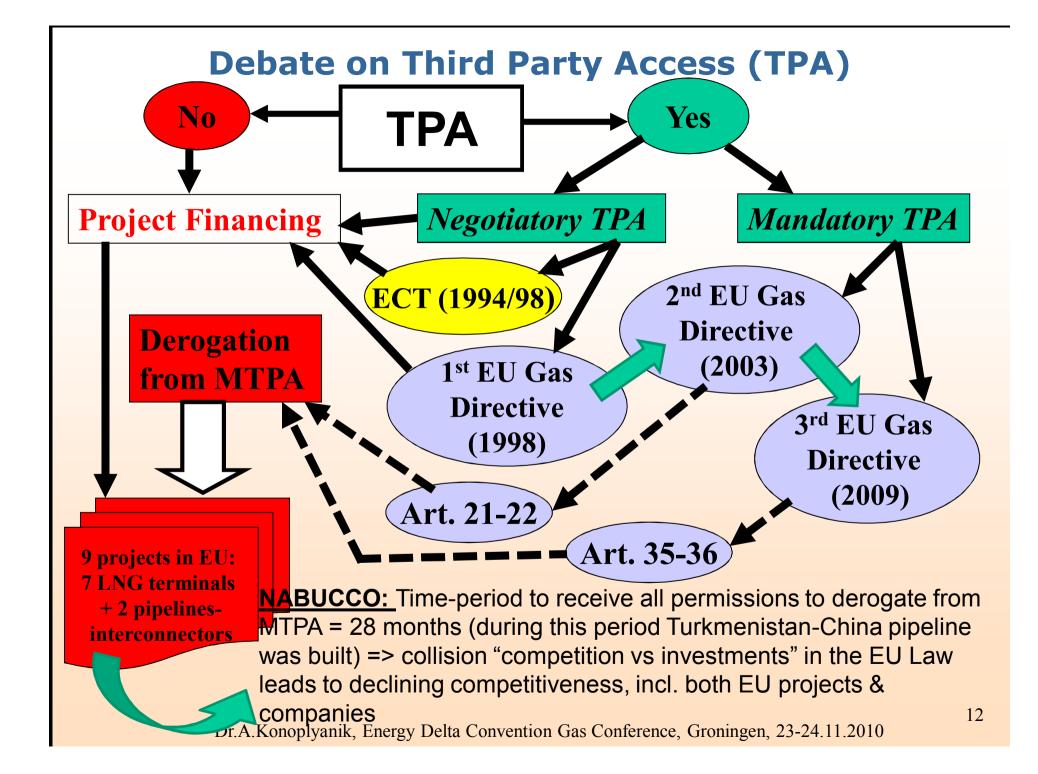


Contractual mismatch: between duration/volumes (D/V) of long term supply/delivery contract (LTGEC; CP1-CP2) and transit/ transportation contract (CP1-CP3); the latter is integral part to fulfill the delivery contract => risk non-renewal transit/ transportation contract => risk non-fulfillment supply/delivery contract. **Core issue:** guarantee of access to/creation of adequate transportation capacity for volume/duration of long term contracts

Long-term vs short-term capacity allocation: problem & draft solutions

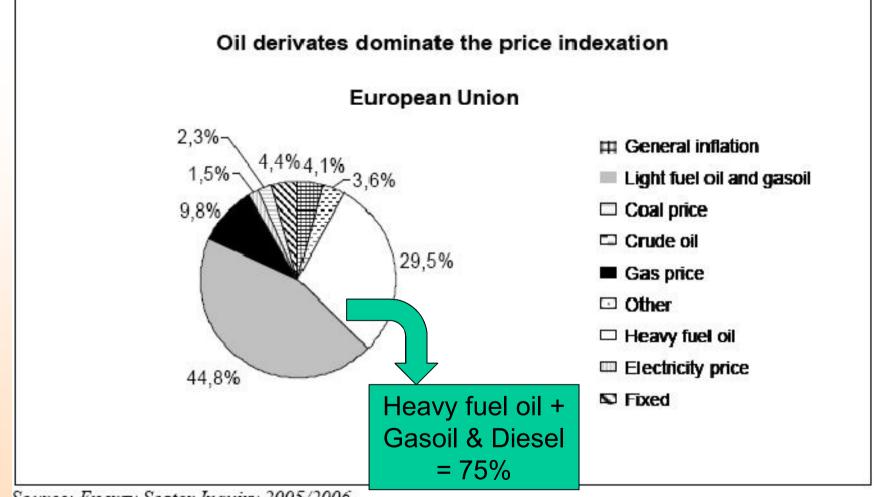
- Problem: in 3rd package "long-term" = 1 year+ (Regulation (EC) 715/2009) => this will de-stipulate long-term investment supply projects which are to be supported by long-term contracts (duration to be long enough to guarantee pay-back of long-term upstream investments)
- Two draft solutions:
 - "Right of First Refusal" (if available only short-term capacity products) => appropriate for suppliers, but as if incompatible with EU acquis - due to RF-EU bilateral informal consultations on Energy Charter Protocol on Transit in 2004-2007,
 - To provide long-term capacity allocation products => "bundled capacity products" to refer NOT only to volumes, but to durations as well => two-dimensional model of "bundled capacity product" (volume & duration) to escape contractual mismatch problem => draft procedure jointly developed by RF & EU experts during RF-EU informal bilateral consultations on Energy Charter Protocol on Transit in 2004-2007

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Price indexation structure in the EU

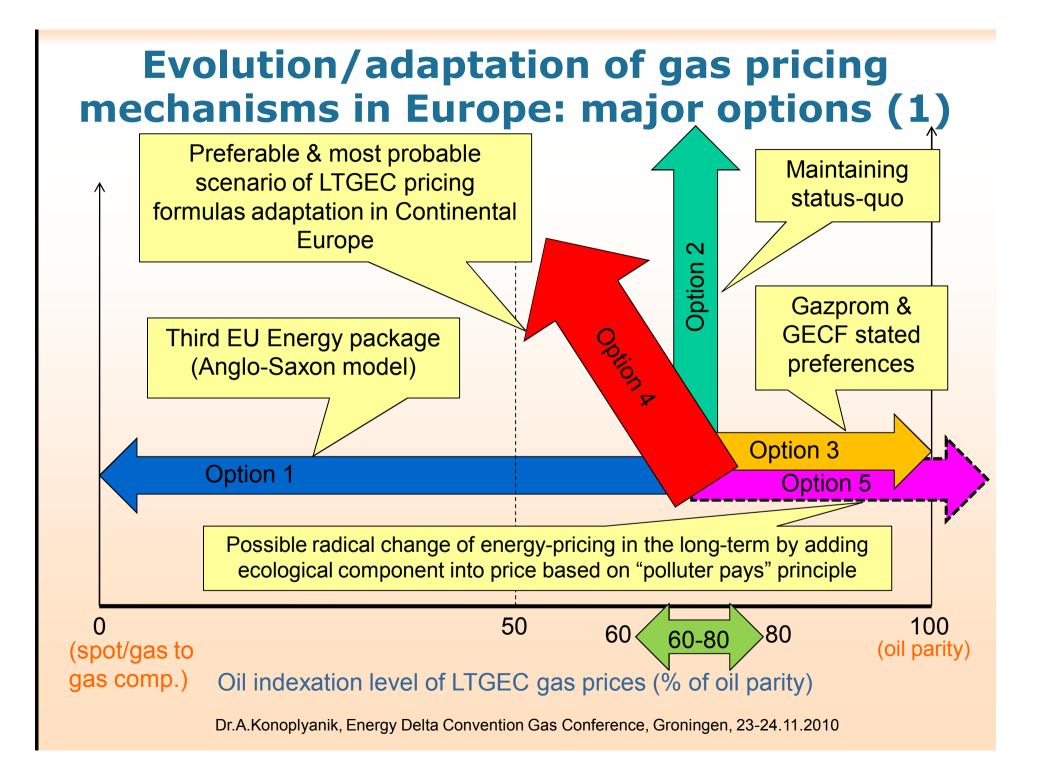


Source: Energy Sector Inquiry 2005/2006

Liquidity of European gas hubs, Q4-2009

United Kingdom: National Balancing Point (NBP)	14.9	
Belgium: Zeebrugge (ZEE)	4.9	
 Austria: Central European Gas Hub (CEGH) 	3.2	
 Netherlands: Title Transfer Facility (TTF) 	3.0	
 Italy: Punto di Scambio Virtuale (PSV) 	1.9	
• France: Point d'Echange de Gaz (PEG) (av.2009)	1.9	
 Germany: NetConnect Germany (NCG) 	2.4	
For comparison:		
 USA (oil): NYMEX (WTI) (Feb.2010) 		1680-2240
 UK (oil): ICE (Brent) (Feb.2010) 		2014
 USA (gas): NYMEX Henry Hub (av.2009) 		377
Break-even churn level for liquid marketp	lace	15

Churn is the commonly used parameter for measuring liquidity level of marketplaces & is defined as the ratio of traded volumes to physical gas deliveries after trades Source: "Gas Matters", IHS-CERA, M.Kanai (ECS)



Evolution/adaptation of gas pricing & contractual mechanisms in Europe: major options (2)

- Option 1: to substitute gas price indexation in LTGECs by spot/futures quotations => NO
- Option 2: to maintain status-quo (LTGEC with dominant oil indexation) => NO
- Option 3: to maintain oil-indexation within LTGEC and to move to oil parity => NO
- Option 4: to adapt mostly oil-linked gas price indexation in LTGEC by pricing formulas linked to broader spectrum of parameters & non-oil gas replacement values => YES (longterm capacity allocation *must* be available to exclude contractual mismatch problems - supply vs. transportation):
 - Long-term supplies (basic/base-load) : more flexible LTGEC (n x 1 year) + "modified" gas replacement value formulas (price indexation *not* limited to oil-pegging);
 - Short-term supplies (supplementary/peak- & semipeak load) : short-term (< 1 year)/spot contracts + futures quotations
- Option 5: to develop new pricing concepts leading to exceeding oil parity by gas prices (LTGEC + new indexation ingredients, like comparative ecological (dis)advantages of different fuels, etc.) => NOT NOW

Thank you for your attention

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