Third EU Energy Package: whether Anglo-Saxon model being designed by the EU Commission best suits for gas market architecture for broader “energy Europe”?

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Presentation at the UNECE Working Party on Gas’s preparatory Round Table on the UNECE study on “Development of Efficient Mechanisms of the Natural Gas Market Regulation in the UNECE Region”, 21st WPG Annual Session, Geneva, 18 January 2011

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- **Why attention to the internal EU energy law developments from non-EU producers?**
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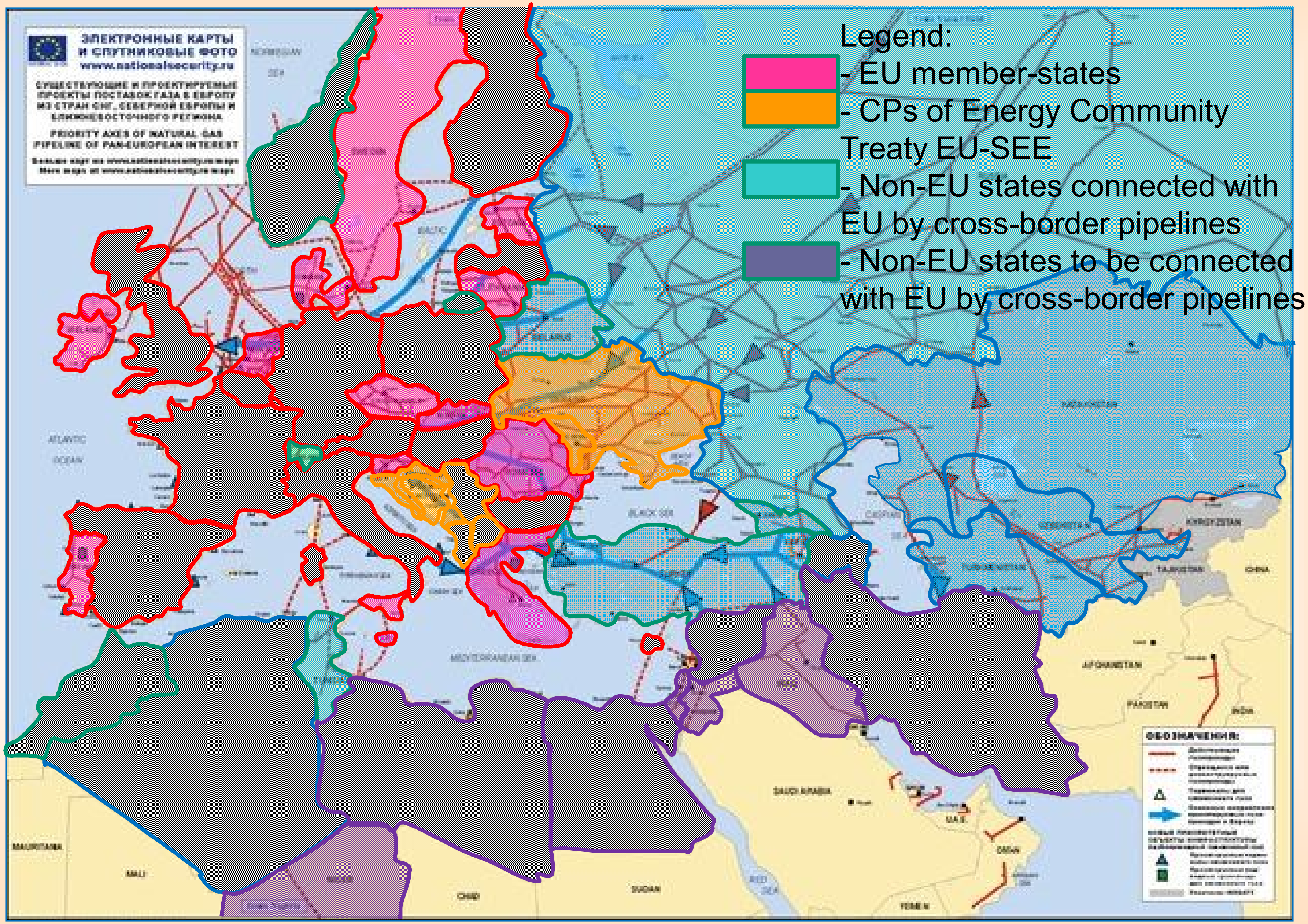
- UNECE study: organizational issues

"Energy Europe" is much broader than just geographical EU



Interconnected Interdependent Energy Europe/Eurasia: shared challenges & risks (1)

- Within cross-border European/Eurasian energy value chains, National Energy Security = International Energy Security = security of supplies + security of infrastructure/transit + security of demand within whole interconnected & interdependent common energy space => predictability to balance interests!!!
- Major threat to international energy security is threat of wrong investment decisions => predictability to minimize risks!!!
- EU has been & would be major export energy market for Russia => challenges & risks at EU energy market can (de)stimulate EU-oriented energy trade & investment from non-EU => to better know & understand in advance EU developments in energy policies & law futures, new challenges and risks, and how to best face them (to diminish costs, improve competitiveness, incl. - in result - global EU competitiveness) => predictability of EU energy/gas market developments !!!

Interconnected Interdependent Energy Europe/Eurasia: shared challenges & risks (2)

- *"Energy markets evolved in **two different ways**:*

  *(a) **bottom-up** - the market evolved to serve the natural need of the market participants (oil, oil products, coal),*

  *(b) **designed markets** (gas, power, emissions)… **Design not always leads to the desired outcome**."*

  (J.Novotny, LDH Energy, Argus Gas Conf, Oct.2010) =>
- Development of EU legislation reflect "designed markets", it is driven not by business, but by administrative/political forces/efforts/modeling based on sometimes not-well-justified & not-fully-proved-in-practice concepts & perceptions, like overestimation of competition role: as if "the more competition (number of players), the better (end-user price will go down)" (CEC DG COMP)
- Within "designed markets" continuous (preferably non-formalized & cooperative) dialogue much more needed: between EU energy legislators and those from non-EU, with EU & non-EU business & expert community (state-to-state & state-to-business regular consultations), etc. => to diminish cross-border risks & costs, to balance trade & investment stimuli, physical & paper energy markets => to make them more predictable for all players within cross-border energy/gas value chains

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Third EU Energy Package (gas)

Gas Directive 73/EC/09

Regulations 713/2009 (ACER) & 715/2009 (access to pipelines)

12 — Framework Guidelines …

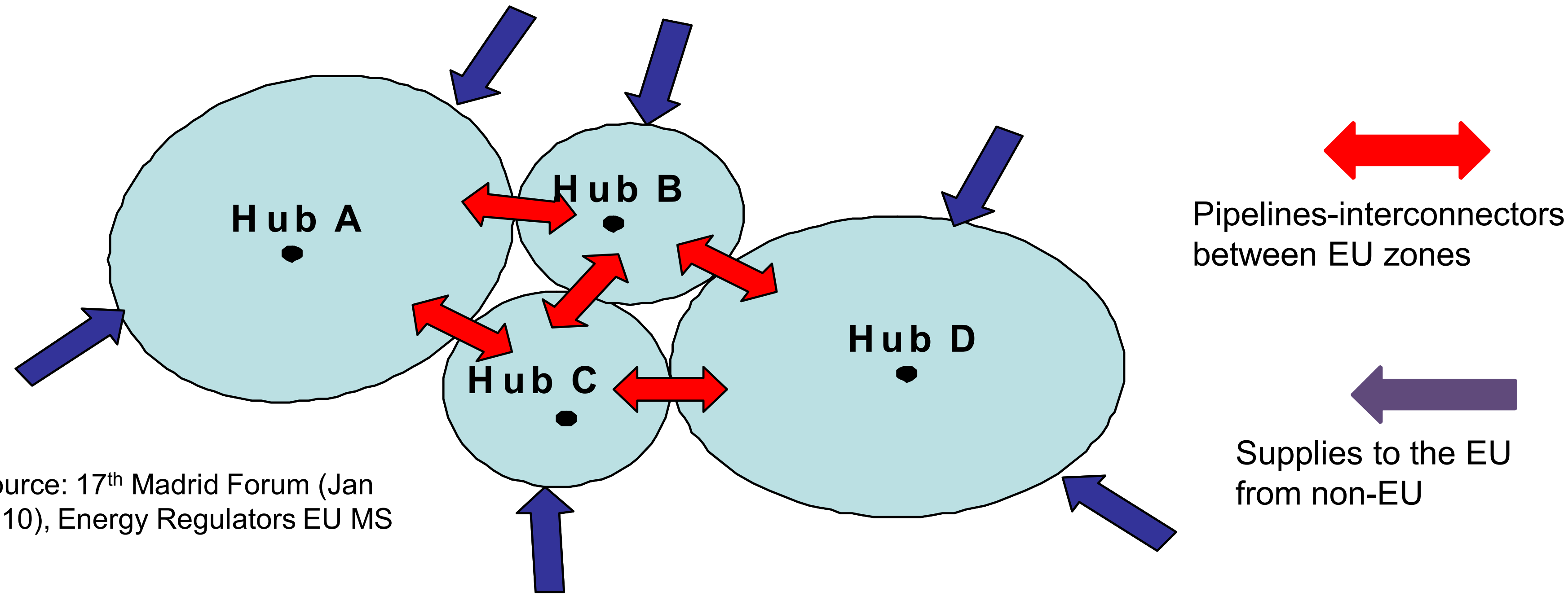
12 — Network Codes …

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?



Source: 17th Madrid Forum (Jan 2010), Energy Regulators EU MS

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

Key CEC/DG COMP assumption/philosophy: *"The more competition* (number of players / intermediaries) – *the better it is for end-users"* **(???)** => the policies:

Key provisions 2nd, 3rd EU Gas Directives	Problems they creates (incremental risks for trade & investment)
Segmentation of VIOC (unbundling)	"Contractual mismatch" (long-term supply vs. transportation contract: correlation in duration & volumes)
Mandatory third party access (MTPA) to gas transportation infrastructure,	Bankability of investment projects (MTPA discriminates project financing)
Switch from LTGEC to spot trade	Increased price volatility & diminished price predictability (price loosing its 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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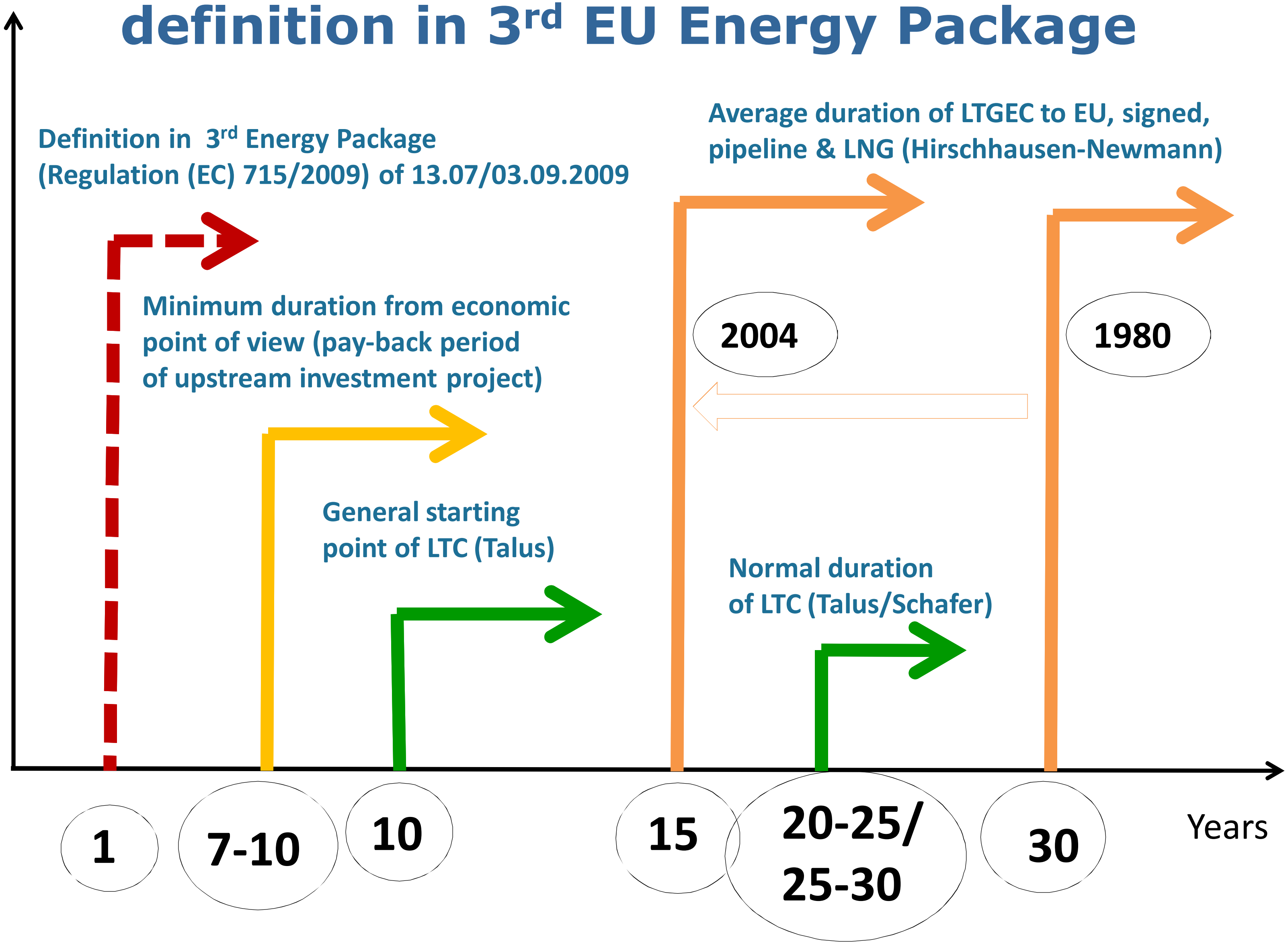
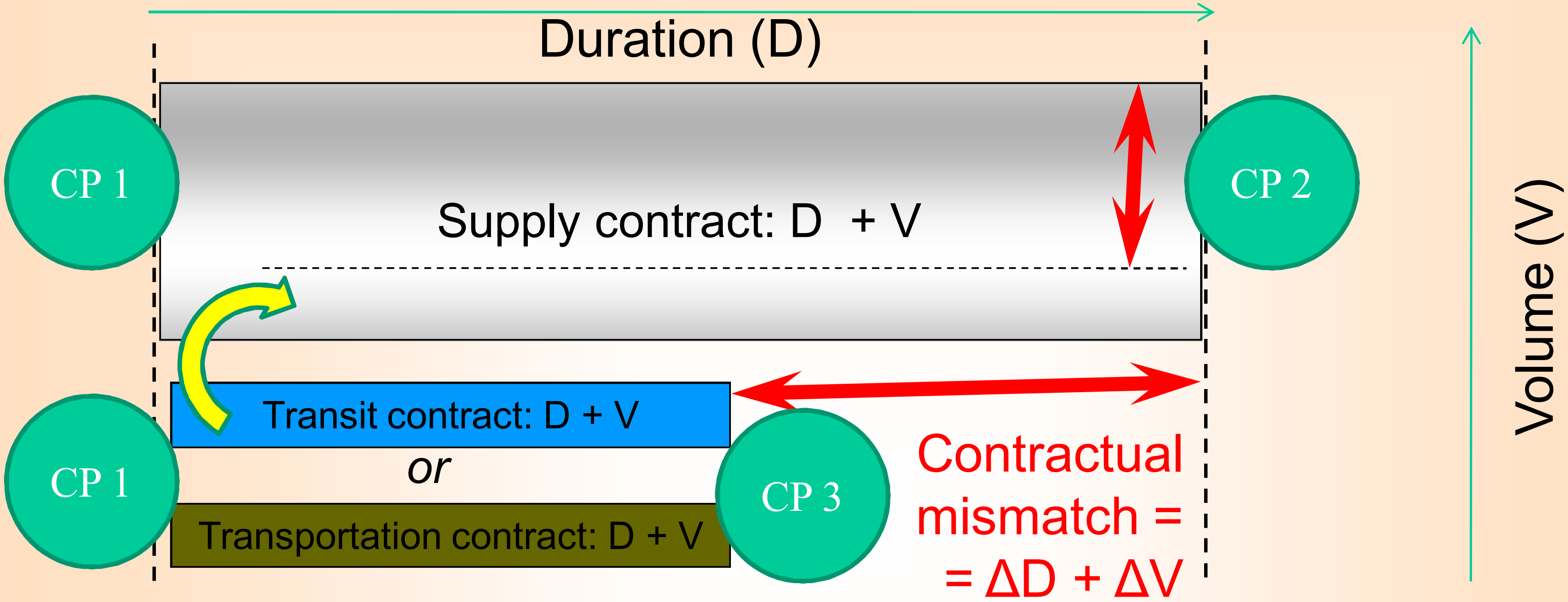
"Long-term" (gas export contracts): different durations in historical European practice & its definition in 3rd EU Energy Package



Contractual Mismatch Problem (Draft TP Art.8)



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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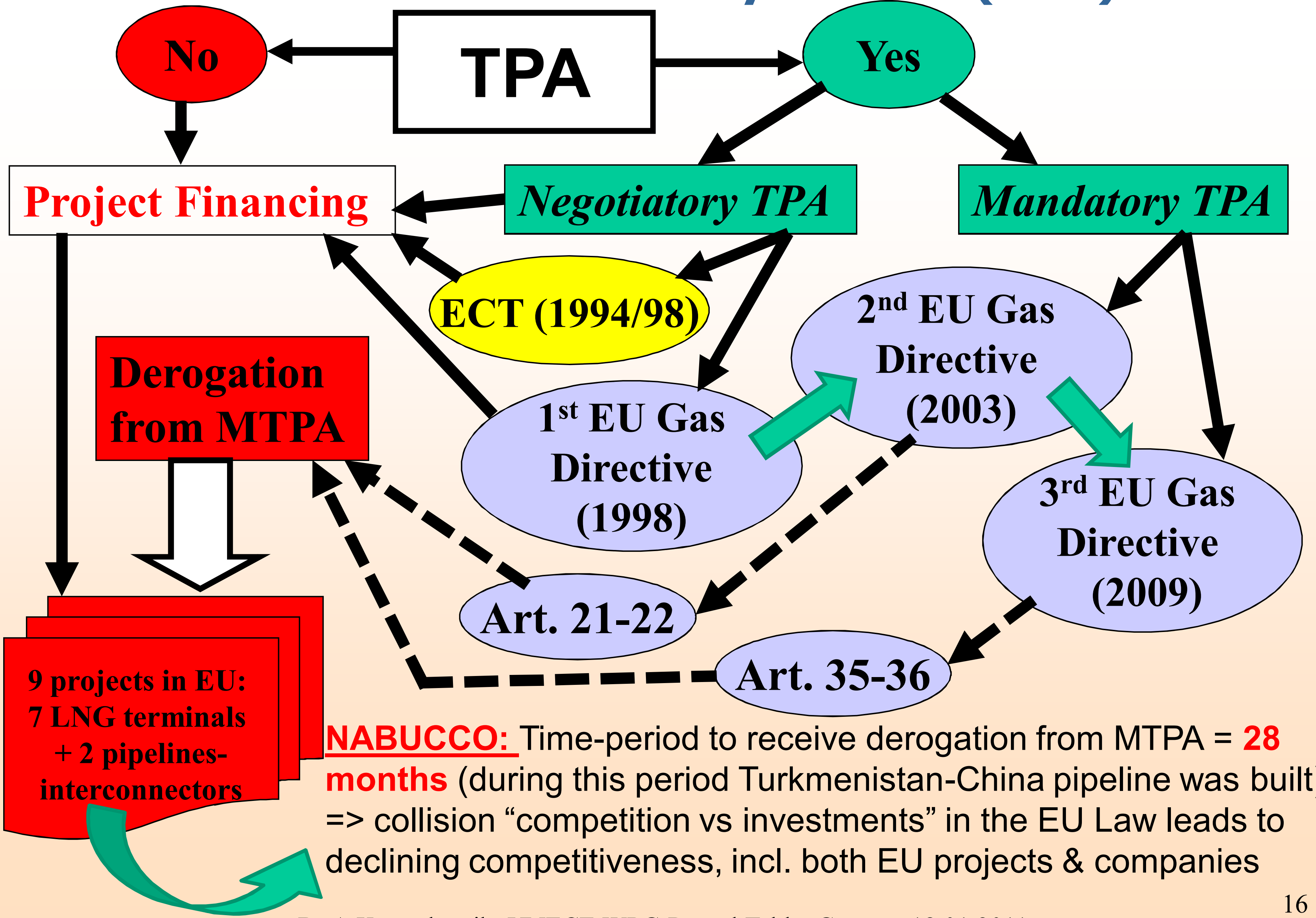
Debate on Third Party Access (TPA)



NABUCCO: Time-period to receive derogation from MTPA = **28 months** (during this period Turkmenistan-China pipeline was built) => collision “competition vs investments” in the EU Law leads to declining competitiveness, incl. both EU projects & companies

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Liquidity of European gas hubs (churn ratio)

	2007	2008	2009
United Kingdom: National Balancing Point (**NBP**)	13.5	14.4	14.5
Belgium: Zeebrugge (**ZEE**)	5.1	5.0	5.0
Austria: Central European Gas Hub (**CEGH**)	2.6	2.9	3.0
Netherlands: Title Transfer Facility (**TTF**)	3.7	3.2	3.0
Italy: Punto di Scambio Virtuale (**PSV**)	1.7	2.0	2.1
Germany: NetConnect Germany (**NCG**, EGT prior 2009)	1.6	1.8	2.1
Germany: GASPOOL (**BEB**)	-	-	2.2
France: Point d'Echange de Gaz (**PEG**)	-	-	1.2

For comparison:

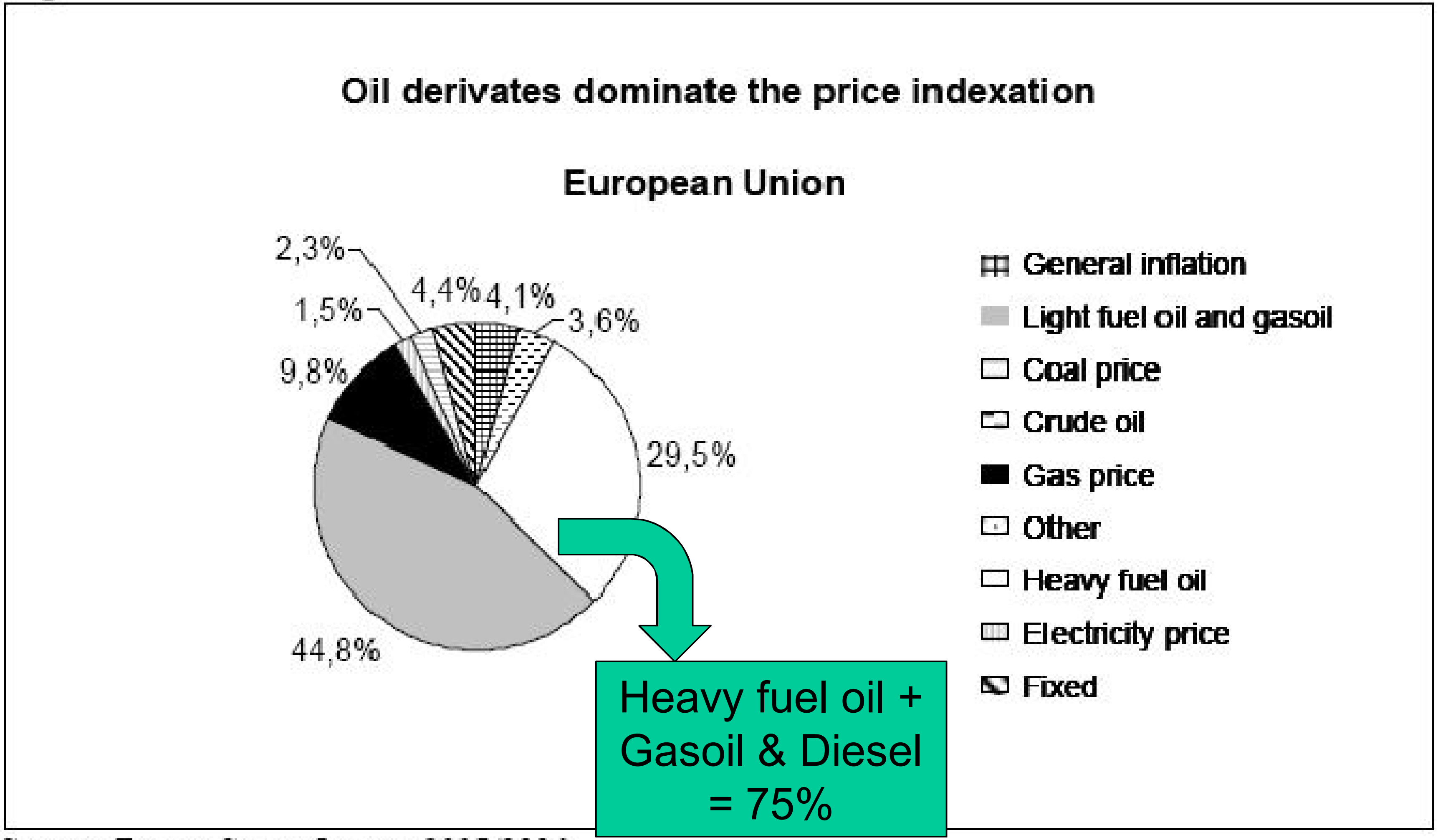
USA (oil): NYMEX (WTI) (Feb.2010) **1680-2240**
UK (oil): ICE (Brent) (Feb.2010) **2014**
USA (gas): NYMEX Henry Hub (av.2009) **377**

Break-even churn level for liquid marketplace 15

Churn is the commonly used parameter for measuring liquidity level of marketplaces; defined as the ratio of traded volumes to physical gas deliveries from the marketplace after trades

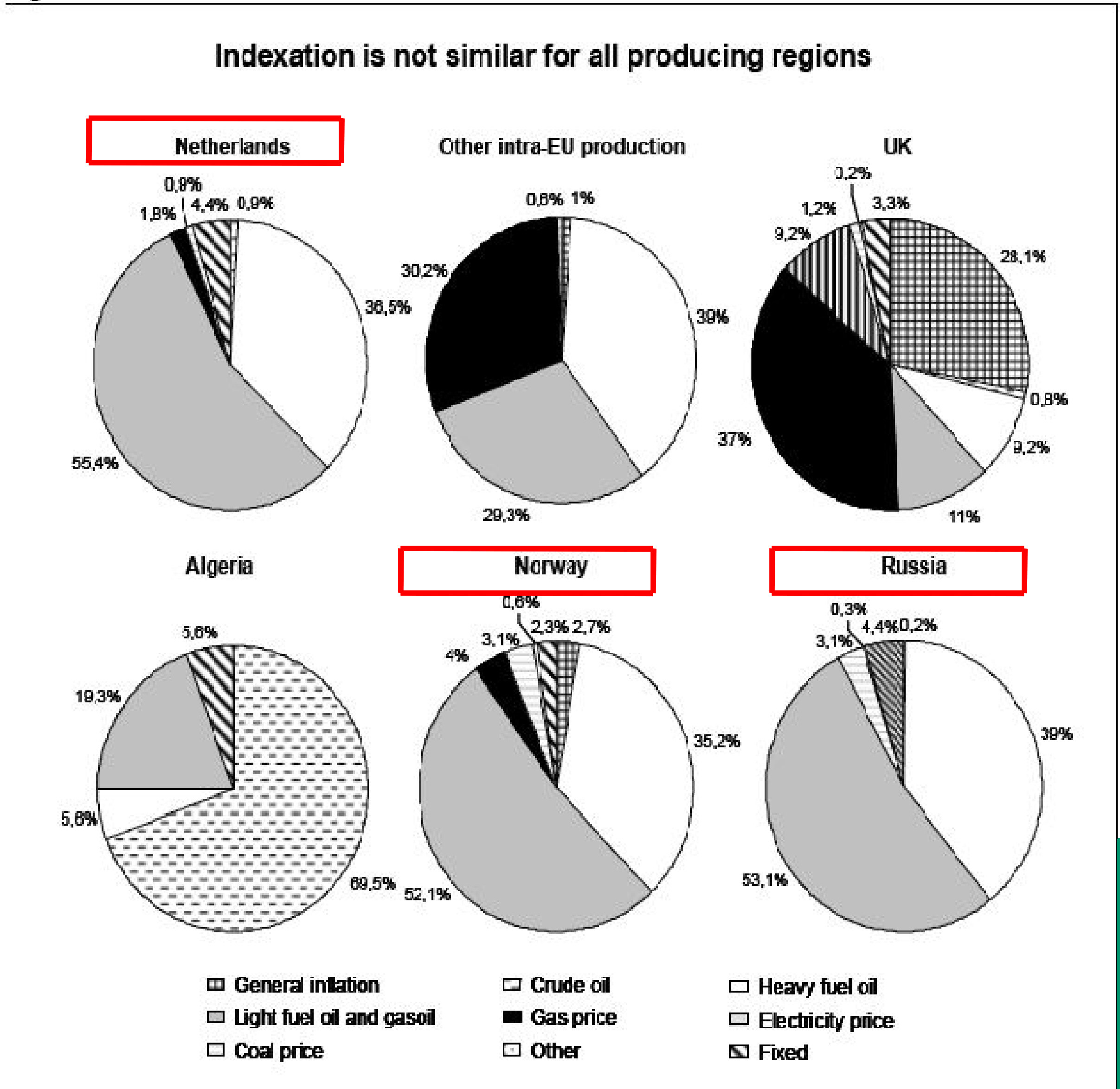
Source: "Gas Matters", IHS-CERA, IEA, M.Kanai (ECS)

Price indexation structure in the EU



Source: Energy Sector Inquiry 2005/2006

LTGEC in the EU: Indexation by Producer

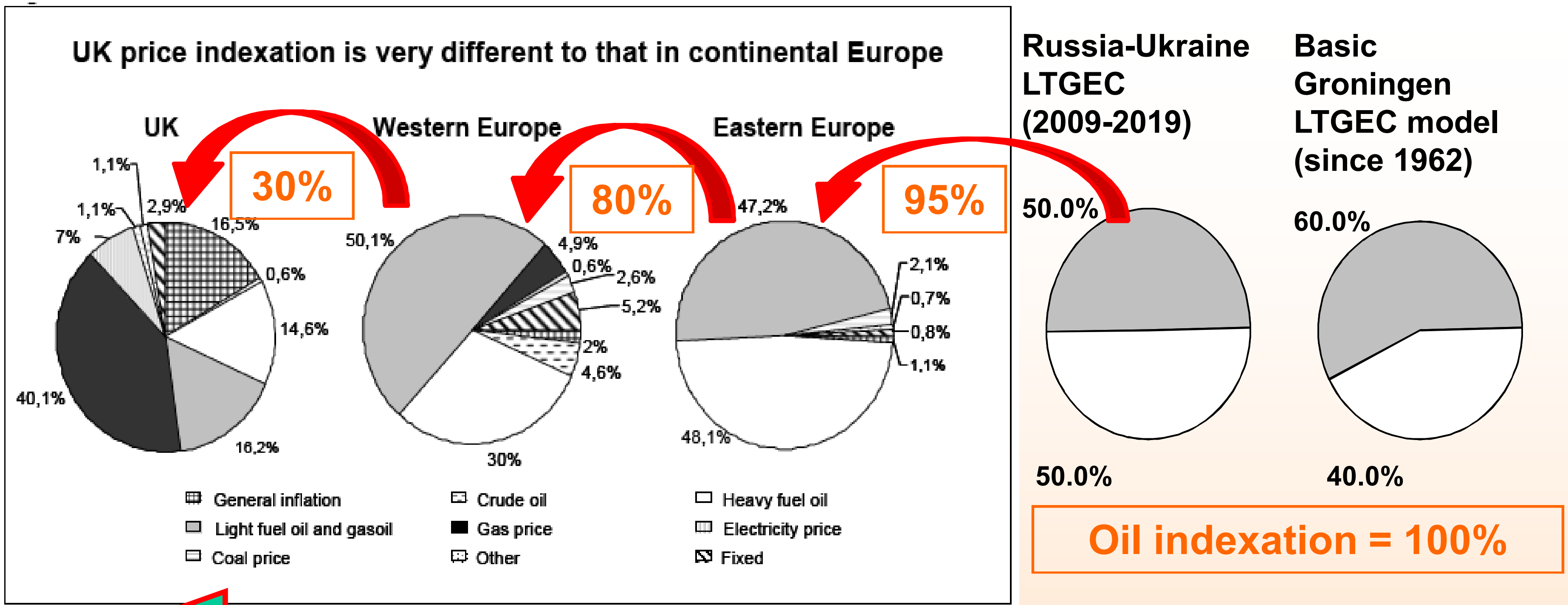


Source: Energy Sector Inquiry 2005/2006

Netherlands, Norway, Russia:
HFO = 35-39%;
diesel & gasoil = 52-55%;
Sum-total HFO+ Diesel & Gasoil:
Netherlands = 92%,
Norway = 87%,
Russia = 92%

Major gas exporters to the EU: mostly oil indexation

LTGEC in Europe: Indexation by Region - Historical Evolution from Less to More Liberalized Markets



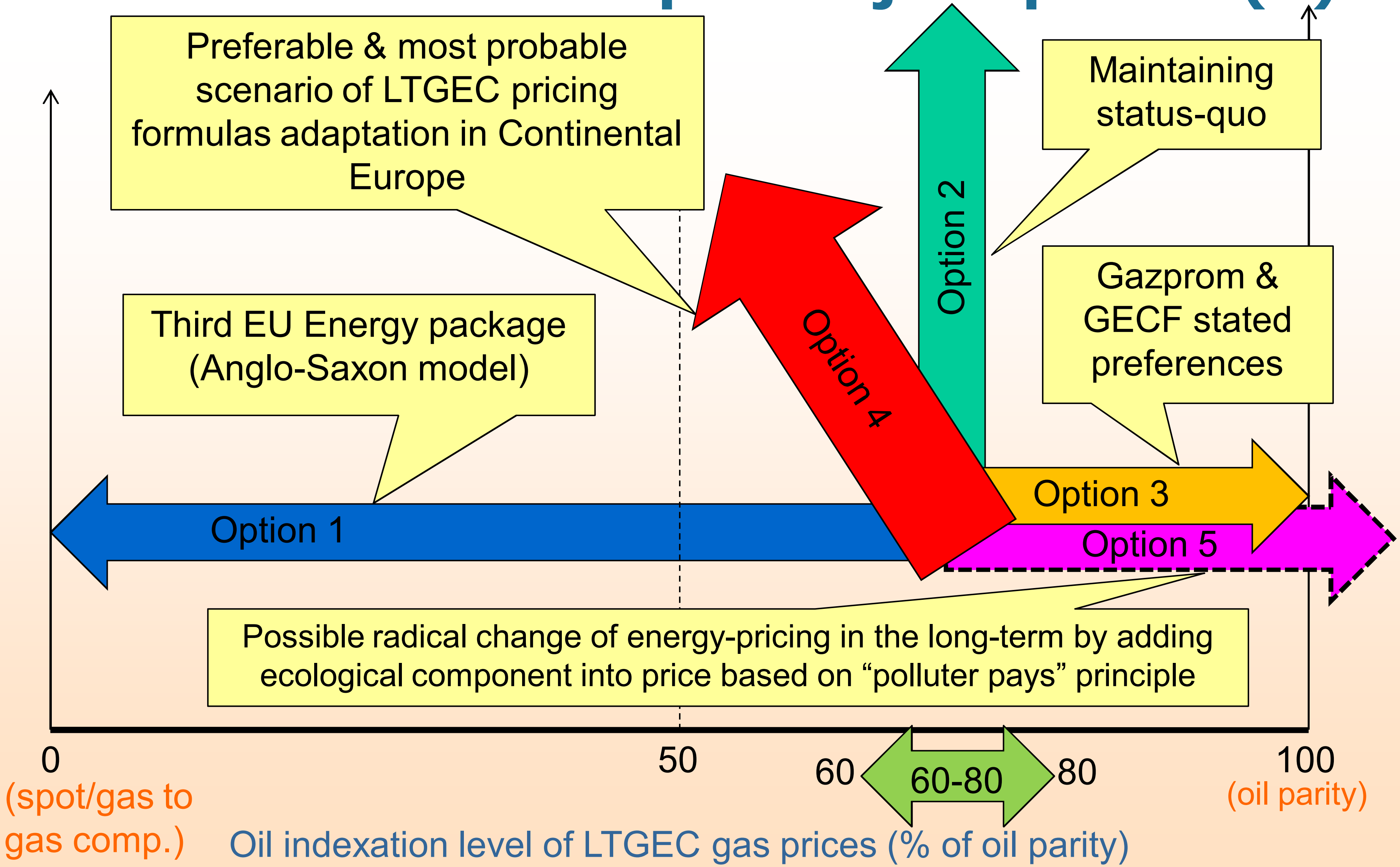
Source: Energ ... *Inquiry 2005/2006*

Evolution of LTGEC pricing formula structure: **from more simple to more complicated**

NB: Russia-Ukraine 2009 LTGEC structure rationale: more practical (understandable & sustainable) to start with less sophisticated pricing formula => similar to basic Groningen formula

Further development (most likely): towards EE-type => WE-type => UK-type price indexation => away from oil parity?

Evolution/adaptation of gas pricing mechanisms in Europe: major options (1)



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** (long-term capacity allocation ***must*** be available to exclude contractual mismatch problems - supply vs. transportation):
  - **Long-term supplies (basic/base-load) :** more flexible LTGEC (+ access to pipeline adequate to LTGEC volume / duration: n x 1 year) + "modified" gas replacement value formulas (price indexation ***not*** limited to oil-pegging);
  - **Short-term supplies (supplementary/peak- & semi-peak 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**

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- **UNECE study: organizational issues**

UNECE study "Development of Efficient Mechanisms of the Natural Gas Market Regulation in the UNECE Region": key organizational (yet unresolved) issues (1)

- A set of difficult, yet not resolved, sometimes controversial problems of gas market(s) future design & architecture within UNECE area to be effectively discussed & presented as a balanced way forward => this will have a long-term capital-intensive consequences for the whole UNECE area => chosen type of future architecture of "designed market(s)" might be a major challenge or possible threat to international energy security => an effective project management & project leadership for this UNECE study is needed, BUT:
- Study TOR: comments proposed (mid-Summer 2010 + 10.10.2010, incl. new title proposal) => but **NO ACTION YET** on TOR improvement yet (after half-year has passed) => best if undertaken by study leadership, but =>
- Study leadership: Candidacy of Mr. **RALF DICKEL** was Proposed as **Task Force Leader** (subject to agreement on terms & conditions) as ***best available candidate*** => but **NO ACTION YET** regarding:
    - terms & conditions,
    - organization of collaboration between either team leaders (Chairman of the Study & Task Force Leader) and/or team leaders & UNECE / WPG / GazpromPromgas officers
- **As result:** it was not possible for proposed Task Force Leader nor to attend this meeting, nor to present today his vision on the study development, incl. all the comments on TOR available => **few further moths are to be lost ?**

Presentation on the UNECE study' organization & structure made by Mr.R.Dickel at preparatory meeting in Moscow on 10.11. 2010 for 21st WPG Annual Session

Efficient Mechanisms of Natural Gas Market Regulation in the UNECE Region

Moscow, 10 November 2010

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Ralf Dickel, Professional Experience

2004 - 9/2010: **Energy Charter Secretariat, Brussels**
Director for Trade and Transit

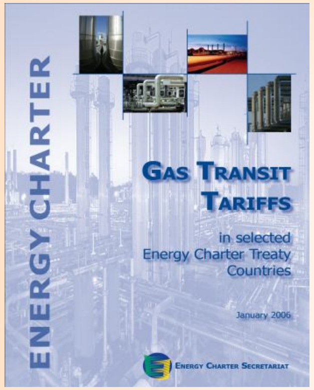
2001 - 2004: **IEA, Paris**
Head of Energy Diversification Division
(Energy Market Reform and Policy Analysis of Energy Markets)

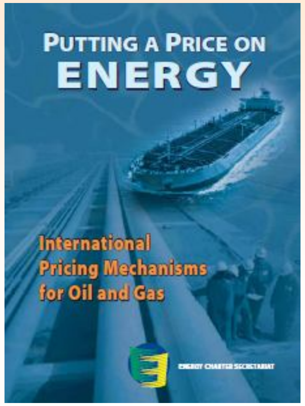
1998 - 2001: **The World Bank, Washington DC**
Senior Specialist, Oil and Gas Policy

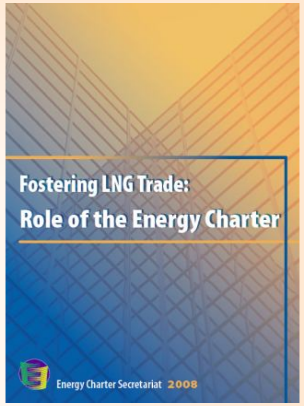
1980 - 1998: **Ruhrgas, Essen, Germany**
Various management positions, including:
1996-1998: Gas Sales Department: Sales strategies
1980-1996: Gas Purchase Department: Last position:
Overall responsibility for gas purchase from Norway
1991: Secondment to the World Bank as Gas Specialist

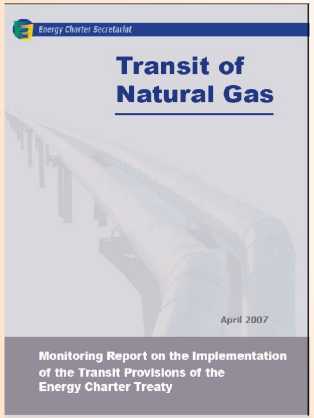
1977 - 1979: **Veba Kraftwerke Ruhr, Gelsenkirchen, Germany**
Administrator power sales

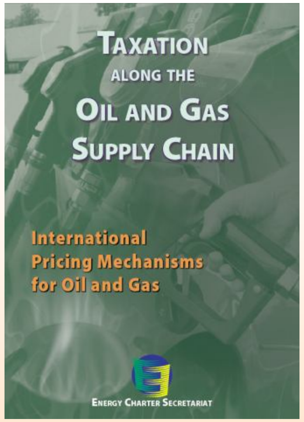
Pertinent Publications at ECS, headed/written by Ralf Dickel

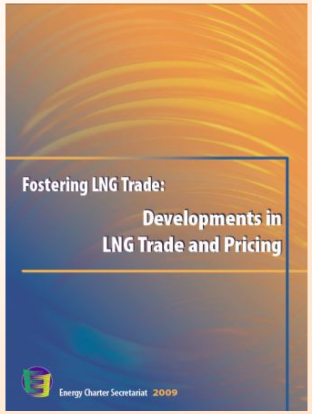






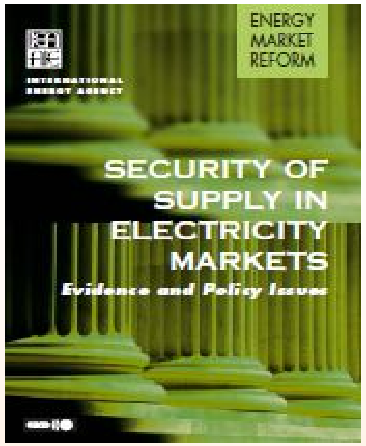


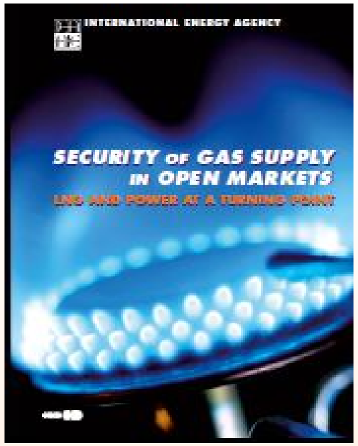


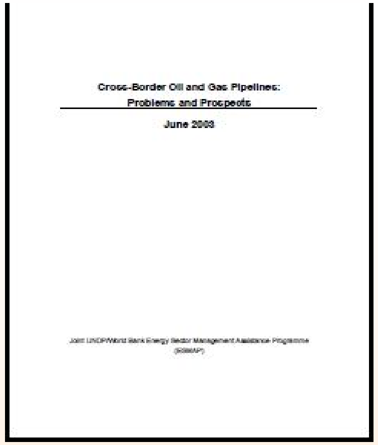


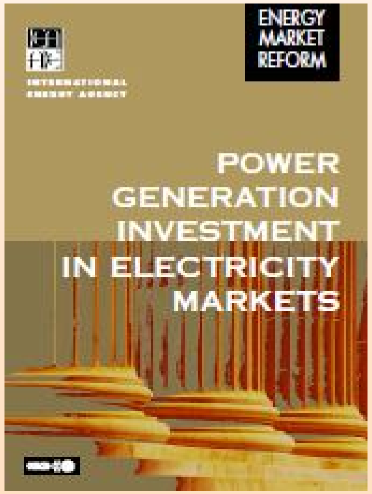
All publications also available in Russian
Free download at www.encharter.org

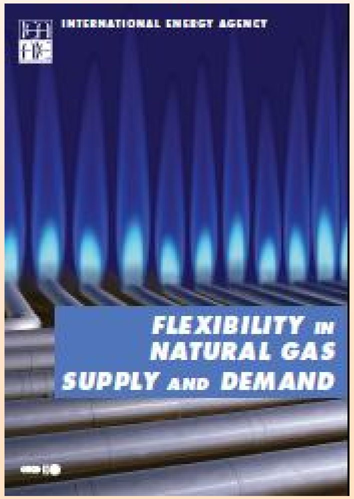
Pertinent Publications at IEA,WB, headed/written by Ralf Dickel

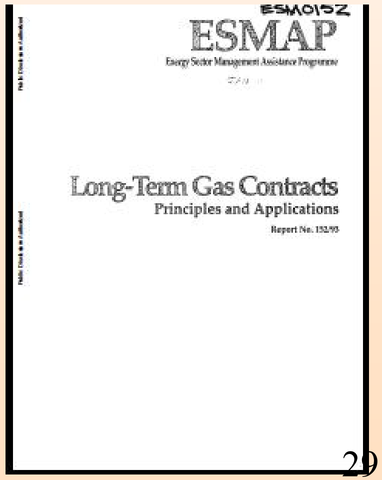












Draft structure of the UNECE study was proposed by Ralf Dickel at 10.11.2010 meeting

- Context of the study
  - Recent developments
  - Work done by others
  - Comparative advantage of UNECE
  - Possible mandate
- The subject of the study
  - Regulation vs.
  - Cross border rules
- Possible Objectives of the study
- Possible outputs
  - Report on regulation
  - Report and further work on cross border rules

+ Detailed description of <u>Ralf Dickel's</u> views on the structure of the UNECE study consisting of 29 detailed slides

UNECE study "Development of Efficient Mechanisms of the Natural Gas Market Regulation in the UNECE Region": key organizational (yet unresolved) issues (2)

- **Question:** Whether today's WPG meeting is ready to approve start-up on the study – if UNECE is interested to prepare a really practical investigation and not just another paper to be placed at the book-shelf? => Definitely: **NO**
- To start a project without project structure, project team (at minimum – project leadership), and sources/structure of adequate financing = to predetermine its inefficiency => whether UNECE WPG would like to develop and later to be associated with inefficient/unsatisfactory project ? => Definitely : **NO**
- **What to do, what to start with to escape negative consequences?**
  - To settle URGENTLY all administrative & financial issues with project leadership and future project management (budget of the study to be defined and organized) => the task for UNECE staff & WPG/GazpromPromgaz officers
  - UNECE/WPG to sign contracts with project leadership (to define responsibilities)
  - Project leadership will start redeveloping TOR & put together experts team based on the updated structure of the updated study

Thank you for your attention

Views expressed in this presentation do not necessarily reflect (may/should reflect) and/or coincide (may/should be consistent) with official position of JSC Gazprombank, its stockholders and/or its/their affiliated persons, and are within full responsibility of the author of this presentation.

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