

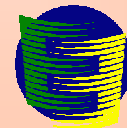
# **Formation of the Eurasian energy market and Energy Charter process**

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Deputy Secretary General  
The Energy Charter Secretariat**

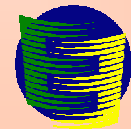
**26<sup>th</sup> IAEE International Conference  
4-7 June 2003, Prague**

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- 7. Energy Charter Treaty: security of supplies vs. security of demand**
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# **1. Development of energy markets: some objective trends**



# NATURAL DEVELOPMENT OF NON-RENEWABLE SOURCES OF ENERGY

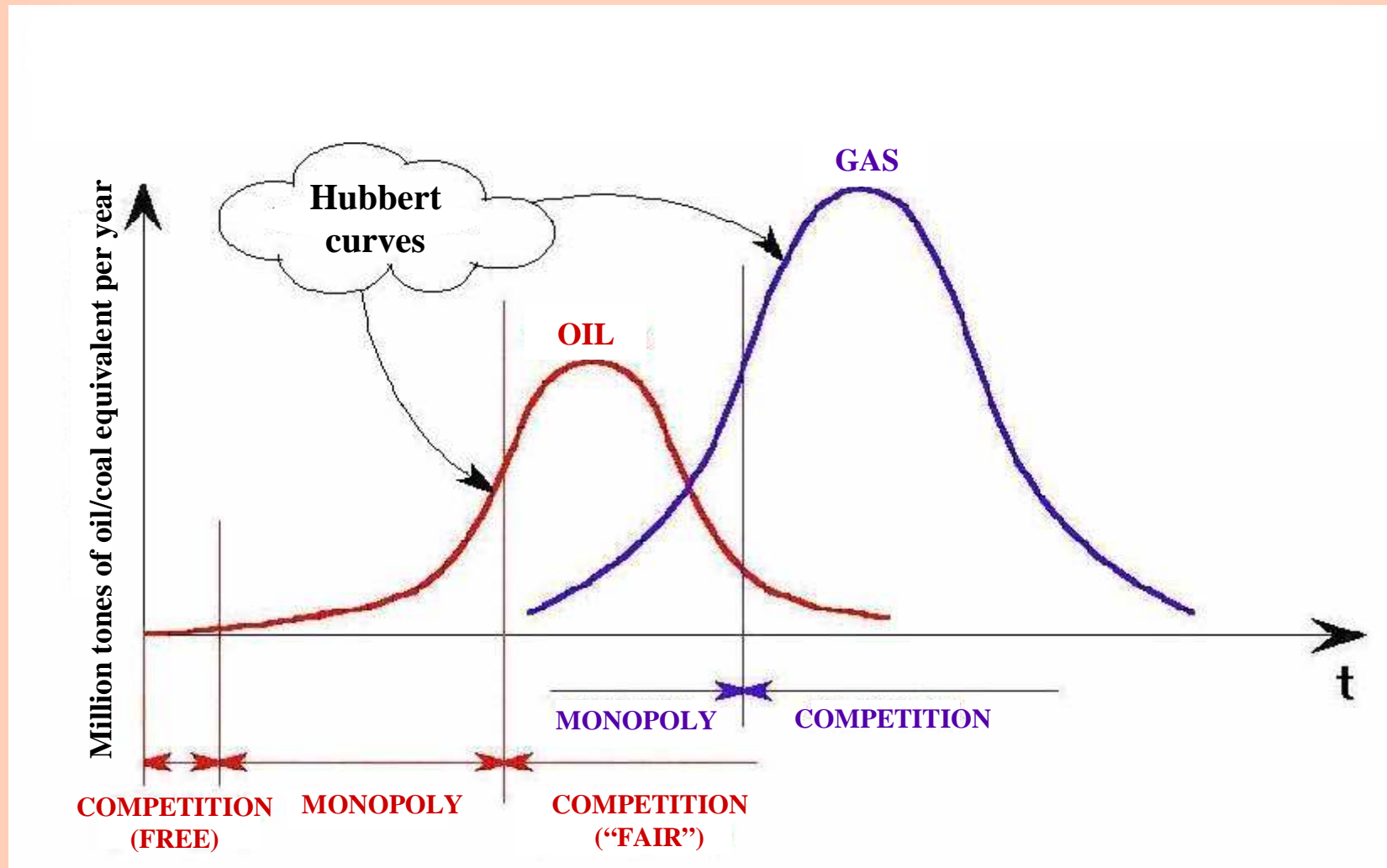
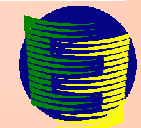


Figure 1



# PRICING SYSTEMS AND CONTRACTS TYPES IN OIL AND GAS MARKETS

| Market parameters | Pricing stages            |  |   |
|-------------------|---------------------------|--|---|
|                   | 1 <sup>st</sup> STAGE     | 2 <sup>nd</sup> STAGE  | 3 <sup>rd</sup> STAGE   |
| <b>OIL MARKET</b> |                           |  |   |
| Contracts         | Long term                 | (a) Long-term<br>(b) Short-term  | (a) Long-term<br>(b) Short-term<br>(c) Spot, forward, futures |
| Pricing formula   | Cost-plus                 | (a) Escalation formulas in the competitive sphere of consumption (electricity generation)<br>(b) Cost-plus in the monopoly sphere of consumption (transport) | Buy-back price (oil-to-oil competition)                       |
| Price escalation  | Marginal production costs | (a) To prices of alternative energy resources (RFO – to coal)<br>(b) To marginal production costs (light petroleum products)                                 | To futures quotations   |
| Price trends      | Increase                  | Increase/decrease  | Decrease  |
| <b>GAS MARKET</b> |                           |  |   |
| Contracts         | Long term                 | (a) Long-term<br>(b) Short-term  | (a) Long-term<br>(b) Short-term<br>(c) Spot, forward, futures |
| Pricing formula   | Cost-plus                 | Escalation formulas  | Buy-back price (gas-to-gas competition)                       |
| Price escalation  | Marginal production costs | To prices of alternative energy resources (gas-to petroleum products, coal, electricity)   | To futures quotations   |
| Price trends      | Increase                  | Increase/decrease  | Decrease  |

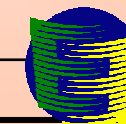
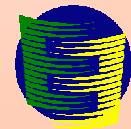


Figure 2

**2. What is energy security? Evolution of concepts and dominant instruments on the way from energy independence to energy interdependence**



# ENERGY SECURITY

***ENERGY SECURITY* = stable, cheap & environmentally friendly energy cycle (primary supplies + transportation + refining + transformation + final consumption)**

***ENERGY SECURITY* =**

- (1) minimum volume risk +**
- (2) minimum price risk**

**EVOLUTION OF *ENERGY SECURITY* INSTRUMENTS:**

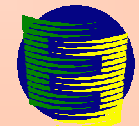
- (1) colonies + traditional concessions,**
- (2) military instruments + modernized concessions, PSAs, RSCs,**
- (3) strategic reserves + stocks,**
- (4) international law instruments**

**EFFECTIVE *ENERGY SECURITY* INSTRUMENTS are different at different stages of energy markets development:**

- from monopoly to competition as a driving force of energy markets development,**
- from energy independence to energy interdependence,**
- from local markets of individual energy resources to global energy market**

**Further to growth of energy interdependence, international law becomes more and more effective (relatively cheap per unit of supplies/final consumption) instrument of providing *energy security***

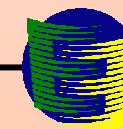
Figure 3



## PARTICULAR MECHANISMS OF DIMINISHING VOLUME AND PRICE RISKS UNDER DIFFERENT ENERGY SECURITY INSTRUMENTS

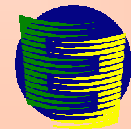
| Mechanisms of diminishing:          | Colonies  | Military instruments  | Strategic reserves + stocks  | International law   |
|-------------------------------------|---|---|--|---|
| - volume risk                       | Direct control of supplies (traditional concessions)                          | Modernized concessions, PSAs, risk-service contracts (LTC for duration of agreement between host-country & foreign company) | Producer states production & export quotas + strategic reserves + stocks in both producer and consumer states (idle producing capacities, float tanker storage vs. SPR, government & company owned commercial stocks) + LTCs | Diversified energy supply infrastructure (multiple supplies concept) + consumers with switching (competitive supplies)        |
| - price risk                        | Stable & low posted prices + transfer pricing + cost-plus (isolated projects) | Stable & low posted prices + transfer pricing + cost-plus (isolated projects)   | Spot + forward pricing = unstable prices; increased price volatility to be compensated by producers export quotas (major exporters = swing producers) + consumers stocks regulation policy + escalation formulas             | Exchange pricing = futures + options = unstable prices; increased price volatility to be compensated by hedging (derivatives) |
| Basis for pricing (traded item)     | Physical energy (oil, gas)  | Physical energy (oil, gas)  | Physical energy (oil, gas)   | Paper energy (oil, gas contract)  |
| Driving force of market development | Monopoly (individual consumer states/cartel of private companies)             | Monopoly (cartel of private companies)  | Monopoly (cartel of producer states/state companies)   | Competition   |

Figure 4





### **3. Evolution of energy markets and legal instruments of investment protection**



# DEVELOPMENT OF ENERGY MARKETS AND MECHANISMS FOR INVESTORS PROTECTION / STIMULATION

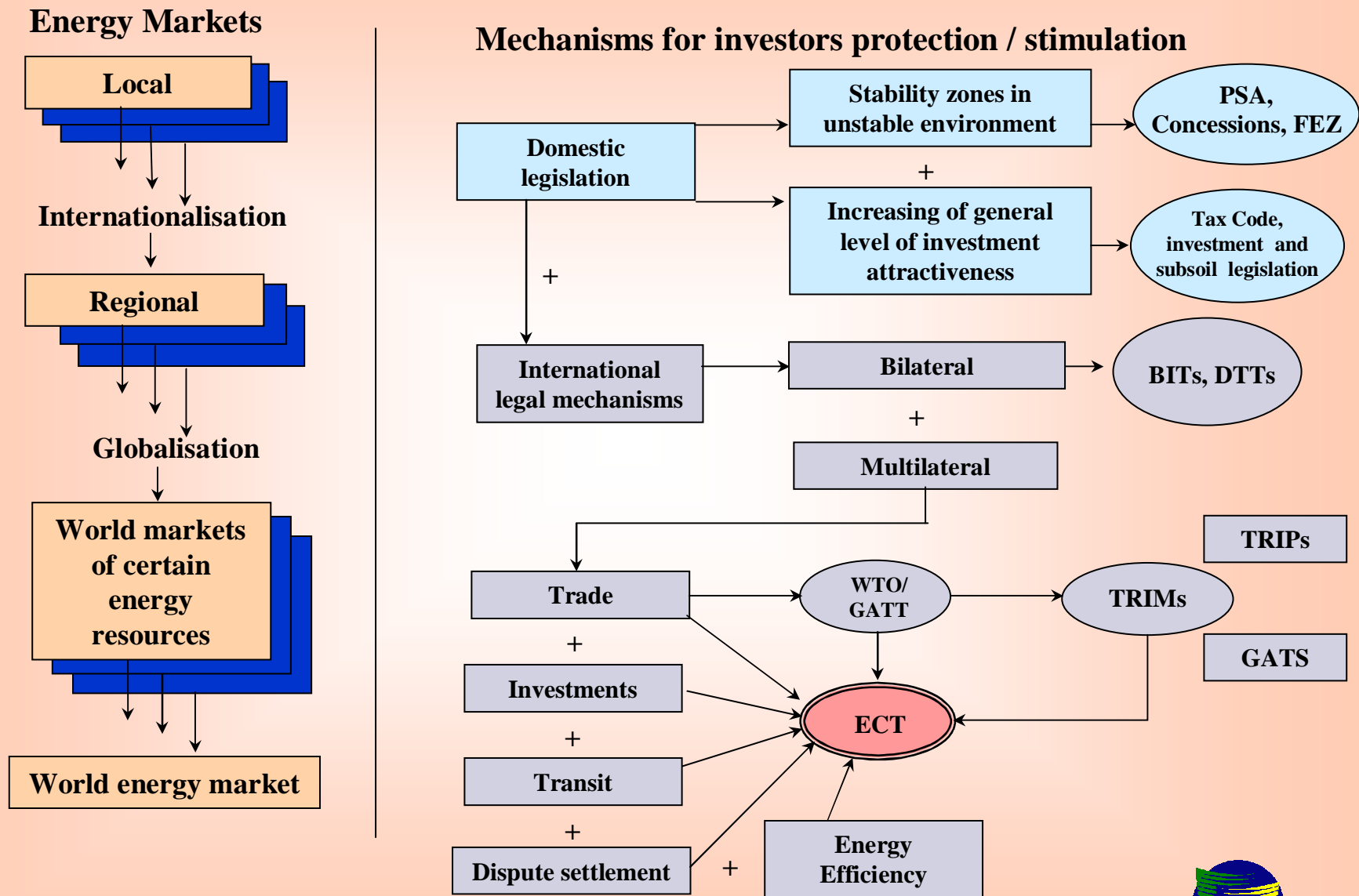
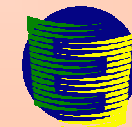
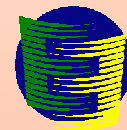


Figure 5



## **4. Energy Charter process and Eurasian energy market geography**



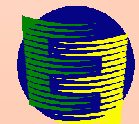
# ENERGY CHARTER HISTORY

|                          |   |
|--------------------------|---|
| <b>June 25, 1990</b>     | <b>Lubbers' initiative on common broader European energy space presented to the European Council</b>  |
| <b>December 17, 1991</b> | <b>European Energy Charter signed</b>   |
| <b>December 17, 1994</b> | <b>Energy Charter Treaty (ECT) and Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) signed</b>  |
| <b>16 April, 1998</b>    | <b>ECT enters into force</b>  |
| <b>As of today</b>       | <ul style="list-style-type: none"> <li>• <b>ECT signed by 51 states + European Communities = 52 ECT signatories</b></li> <li>• <b>ECT ratified by 46 states + EC (excl. 5 countries: Russia, Belarus, Iceland, Australia, Norway )</b></li> <li>• <b>Russia and Belarus : provisional application of ECT</b></li> </ul> |

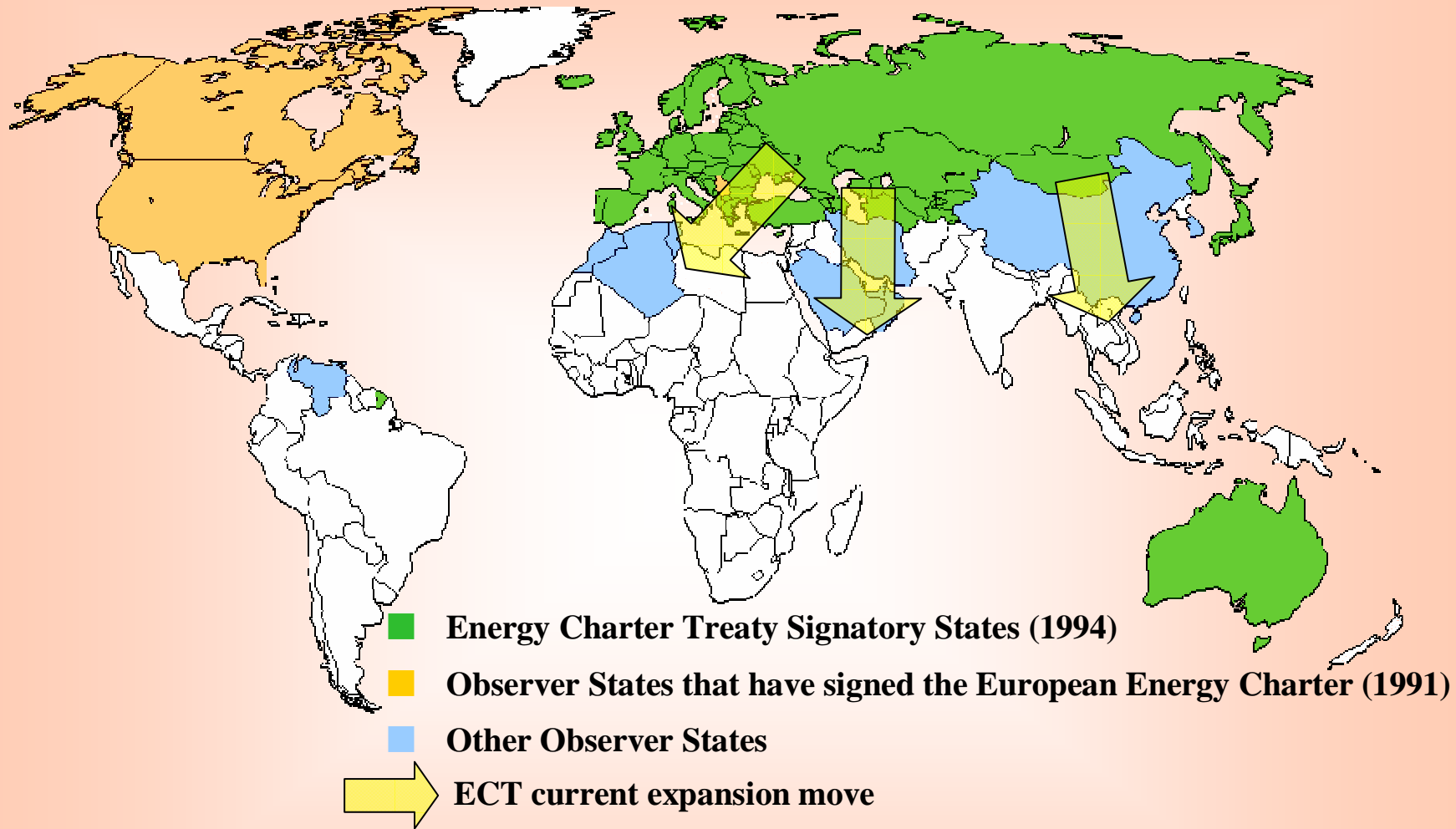
**Russia has started ratification process in 1996**

**RF State Duma (2001): Russia will ratify ECT, but not yet (depending on Transit Protocol)**

Figure 6



# ENERGY CHARTER TREATY: GEOGRAPHY



1. From trans-Atlantic political declaration to broader Eurasian single energy market
2. ECT expansion is an objective and logical process based on economic and financial reasons

Figure 7



# ENERGY CHARTER WORLD AND MAJOR ENERGY FLOWS IN THE EASTERN HEMISPHERE

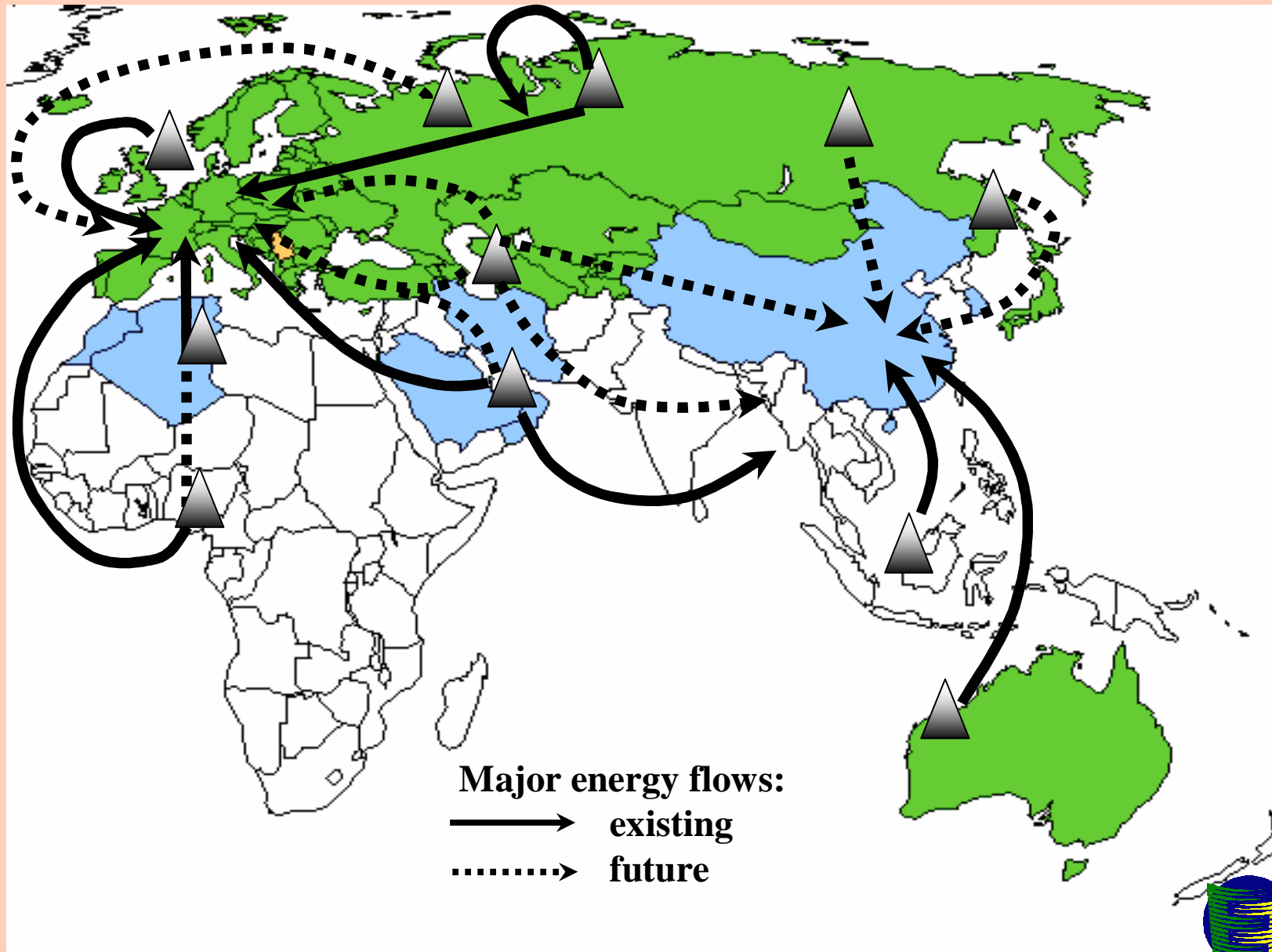
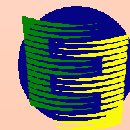


Figure 8

## **4. Energy Charter instruments**



# ENERGY CHARTER AND RELATED DOCUMENTS

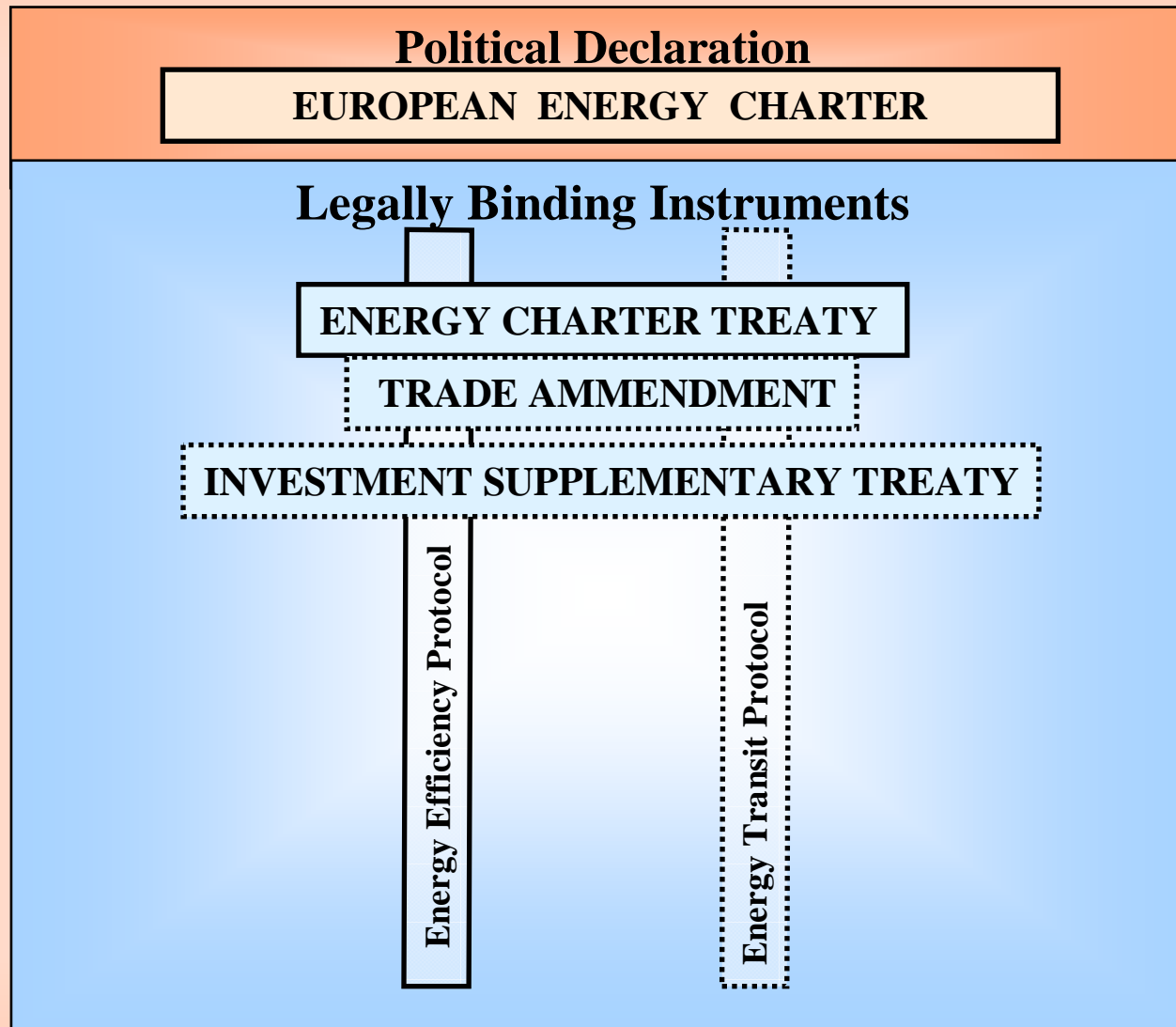
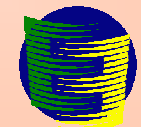


Figure 9





# ECT MAJOR OPPONENTS IN RUSSIA AND THEIR ARGUMENTS

| Arguments against ECT ratification   | Comments   |
|--|--|
| <p><b><u>Gazprom:</u></b></p> <ol style="list-style-type: none"> <li>1) ECT demands mandatory TPA to Gazprom’s pipelines for cheap gas from Central Asia</li> <li>2) Obligation to transit Central Asian gas at low (subsidised) domestic transportation tariffs</li> <li>3) ECT will “kill” LTCs</li> </ol> | <p>No such obligation. ECT excludes mandatory TPA (ECT Understanding IV.1(b)(i)).</p> <p>No such obligations (ECT Article 7(3)). Transit and transportation are different in non-EU.</p> <p>Not true. ECT documents do not deal with LTC at all. Economic niche for LTCs will become more narrow due to objective reasons, but they will continue to exist as a major instrument of financing greenfield gas projects.</p> |
| <p><b><u>Ministry of Nuclear:</u></b></p> <ol style="list-style-type: none"> <li>1) Bilateral RF-EU trade in nuclear materials is not regulated by ECT</li> </ol>  | <p>Prior to ECT signing in 1994, RF and EU has agreed to regulate nuclear trade bilaterally (P&amp;CA).</p>  |

Major Russia’s concern regarding ECT ratification relates to gas transit issues

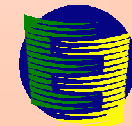
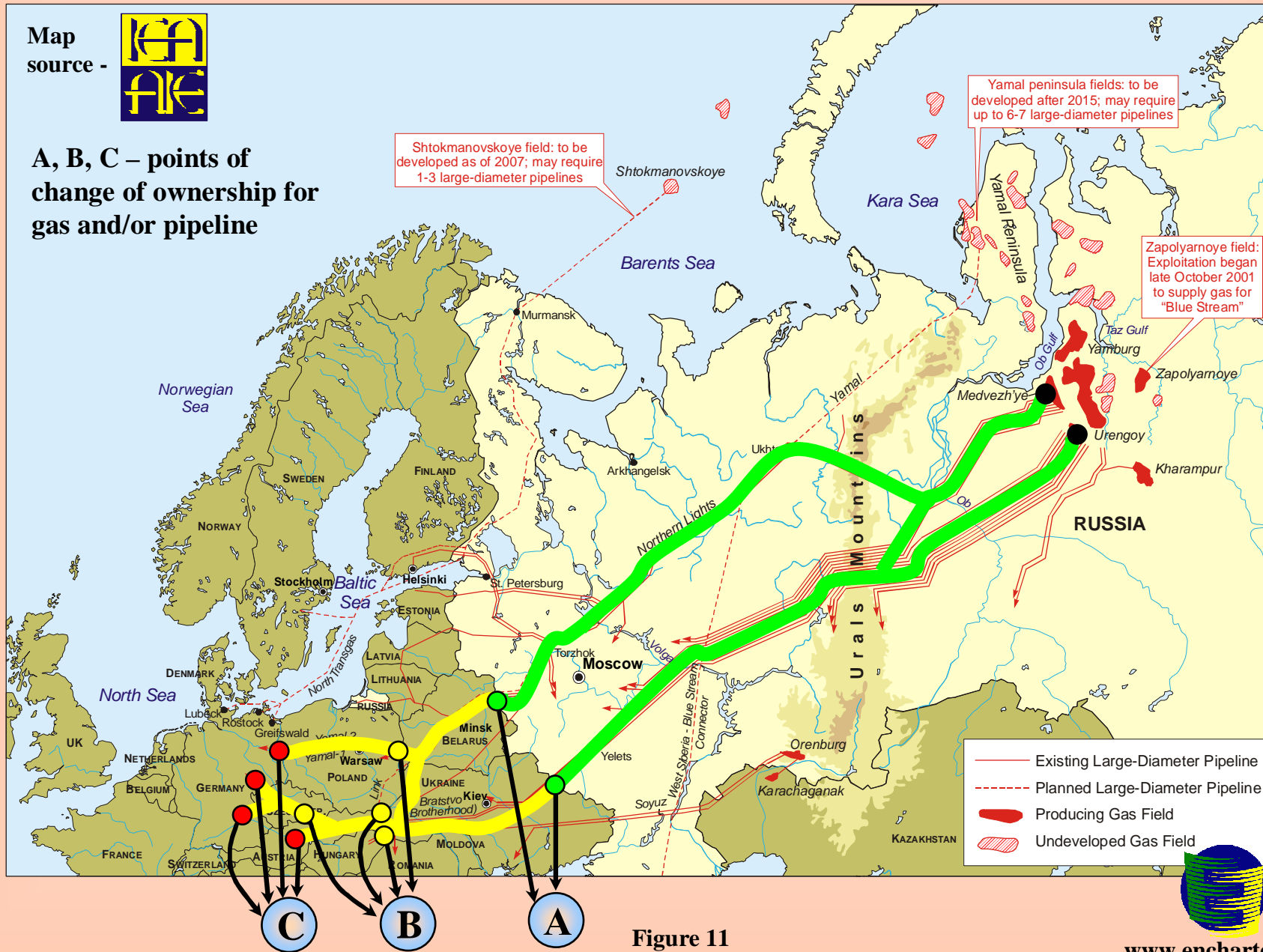


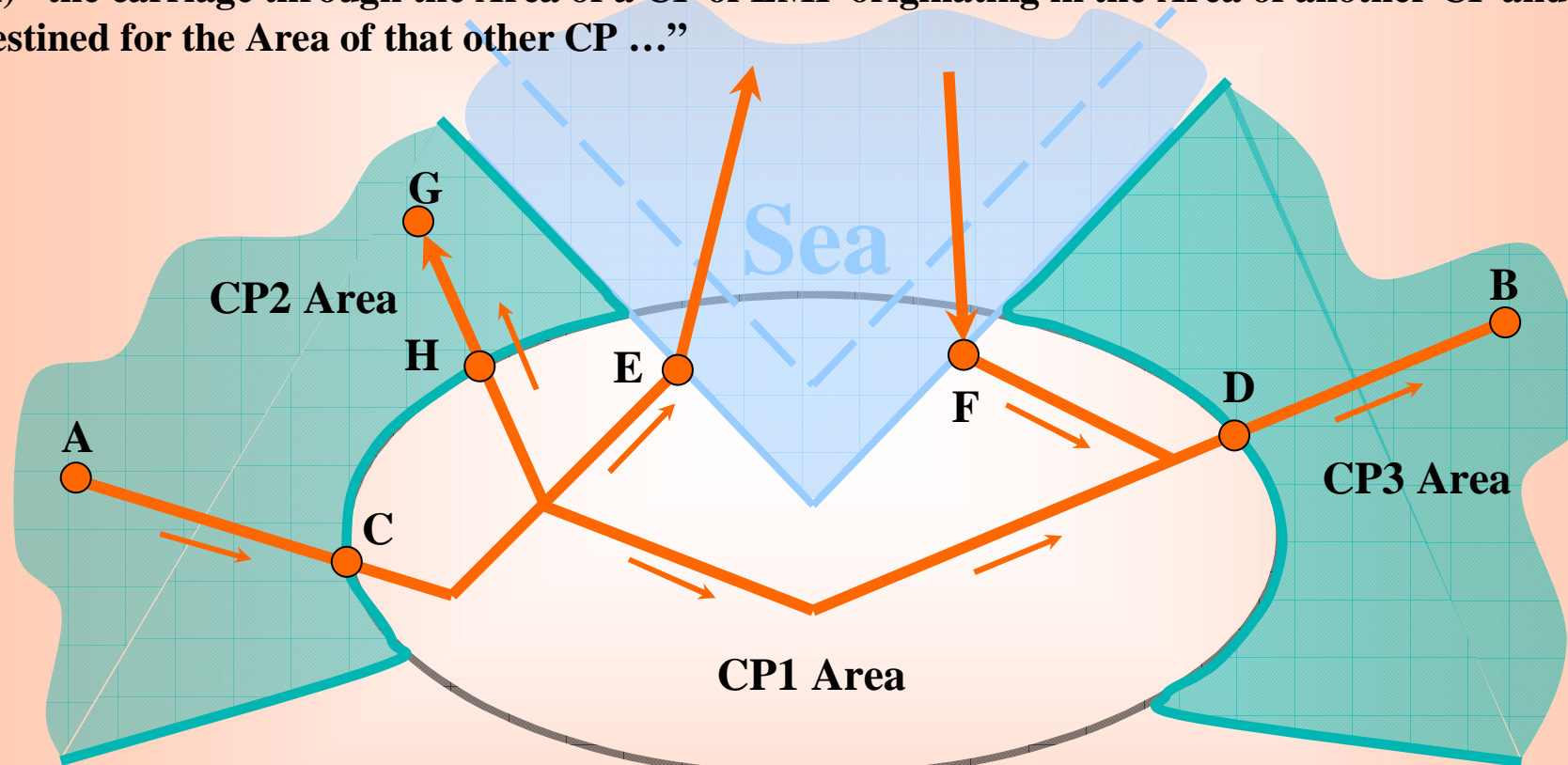
Figure 10

# RIGHT OF FIRST REFUSAL AND INTEREST OF DIFFERENT COUNTRIES IN ITS APPLICATION IN EUROPE (1)



## DEFINITION OF TRANSIT (Art. 7(10) ECT)

“...(a) Transit means: (i) the carriage through the Area of a CP, or to or from port facilities in its Area for loading or unloading, of EMP originating in the Area of another state and destined for the Area of a third state, so long as either the other state or the third state is a CP; or (ii) the carriage through the Area of a CP of EMP originating in the Area of another CP and destined for the Area of that other CP ...”

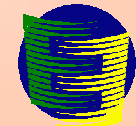


### 3 possibilities of energy supplies from A to B:

No transit (on-boarder sales at C and D), f.i. RUF-EU, Turkm-RUF, Kaz-RUF

Transit: • through the pipe owned/leased by shipper, f.i. Fr-Germ, Norw-Fr; planned RUF-CIS/EE  
• through the pipe not owned by shipper

Figure 12



## GAS TRANSIT ROLE FOR MAIN EXISTING (1999) AND PROSPECTIVE EXPORTERS TO EUROPE

| Country-exporter             | Direct supplies, % of volume of exports | Transit through the territory of:<br>% of volume of exports |               |                 |                |
|------------------------------|---|---|---------------|-----------------|----------------|
|                              |   | one country   | two countries | three countries | four countries |
| <b>EXISTING EXPORTERS</b>    |   |   |               |                 |                |
| Netherlands                  | 76,2                                    | 13,8  | 10,0          | -               | -              |
| Norway                       | 67,7                                    | 7,5   | 21,4          | 3,4             | -              |
| Algeria                      | 44,9                                    | 14,8  | 9,6           | 24,3            | 6,4            |
| Russia                       | 39,5                                    | 9,4   | 11,4          | 28,1            | 11,6           |
| <b>PROSPECTIVE EXPORTERS</b> |   |   |               |                 |                |
| <b>Turkmenistan:</b>         |   |   |               |                 |                |
| - NW bound                   | √                                       | --  | --            | --              | --             |
| - SW bound (x)               | --                                      | √   | √             | √               | √              |
| <b>Kazakhstan:</b>           |   |   |               |                 |                |
| - NW bound                   | √                                       | --  | --            | --              | --             |
| - SW bound (x)               | --                                      | --  | --            | --              | ?              |
| Azerbaijan (x)               | --                                      | √   | √             | √               | √              |
| Iran (x)                     | √                                       | √   | √             | √               | √              |
| Nigeria                      | --                                      | --  | √             | √               | √              |

(x) Turkey = market and transit hub

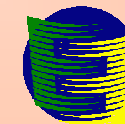


Figure 13

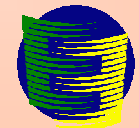
# ECT TRANSIT PROTOCOL

1. **Obligation to observe Transit Agreements**
2. **Prohibition of unauthorized taking of Energy Materials and Products in Transit**
3. **Negotiated access of third parties to Available Capacity in Energy Transport Facilities used for Transit (mandatory access is excluded)**
4. **Facilitation of construction, expansion or operation of Energy Transport Facilities used for Transit**
5. **Transit Tariffs shall be non-discriminating, objective, reasonable and transparent, not affected by market distortions, and cost-based incl. reasonable ROR**
6. **Technical and accounting standards harmonized by use of internationally accepted standards**
7. **Energy metering and measuring strengthened at international borders**
8. **Co-ordination in the event of accidental interruption, reduction or stoppage of Transit**
9. **Protection of International Energy Swap Agreements**
10. **Implementation and compliance**
11. **Dispute settlement**

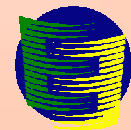
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## **Result:**

- **risks & costs related to transit diminishes**
- **competitiveness of transit supplies increases**
- **improves “energy security” (“security of supplies”+”security of demand”+”security of infrastructure”)**



## **6. Energy Charter Treaty's role in diminishing risks of financing energy projects**



## FINANCING ENERGY PROJECTS: FROM EQUITY TO DEBT FINANCING

### Equity/debt financing ratio:

Pre-1970's = ~ 100 / ~ 0

Nowadays = ~ 20-40 / ~ 60-80,

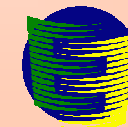
f.i. most recent:

BTC pipeline = 30 / 70

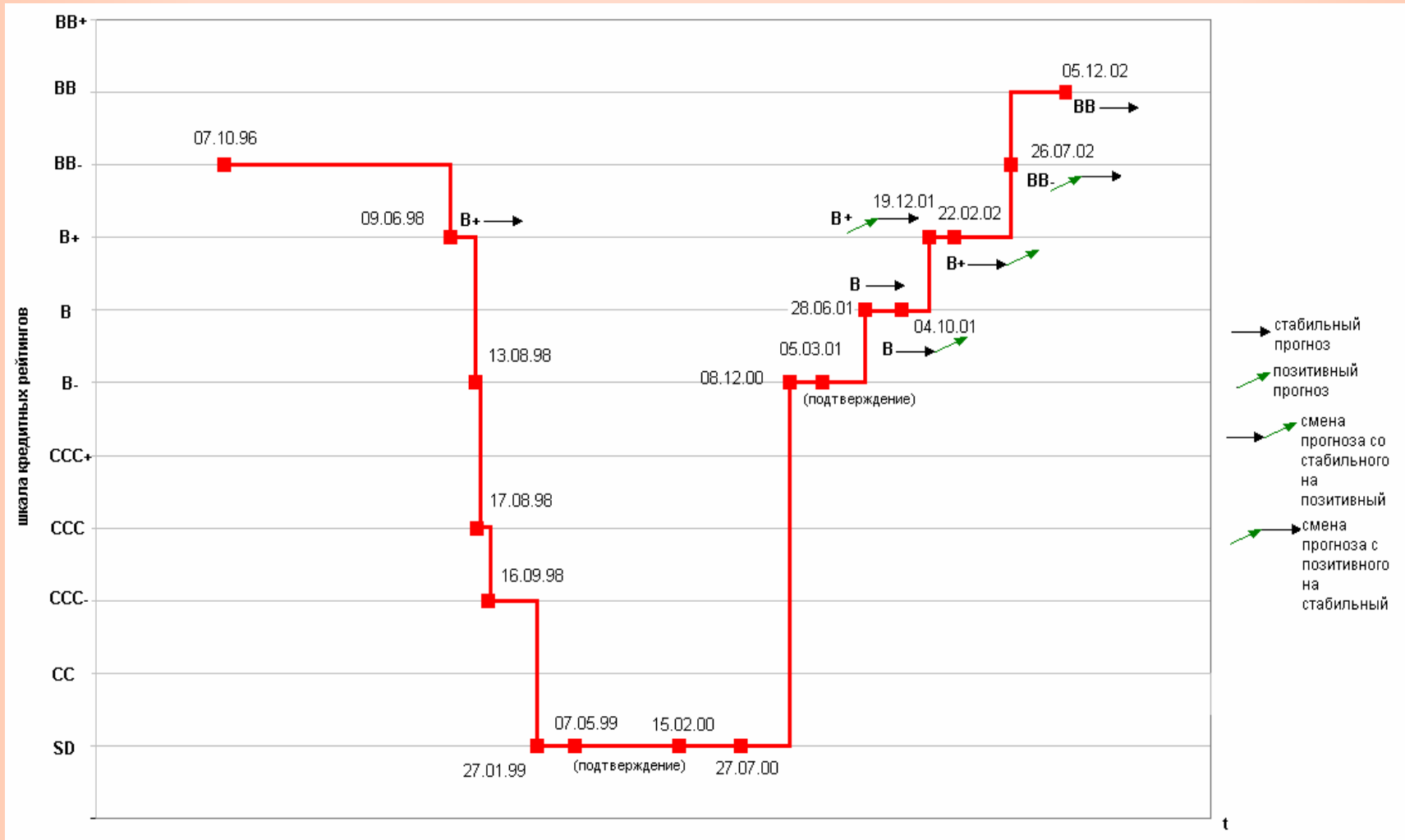
Sakhalin-2 (PSA) = 20 / 80

(2 fields+pipeline+LNG plant)

- ➔ Increased role of financial costs (cost of financing) of the energy projects
- ➔ Availability and cost of raising capital = one of major factors of competitiveness with growing importance in time



# RATING HISTORY OF RUSSIA (STANDARD & POOR'S)

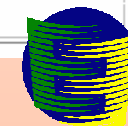




# CURRENT POSITION OF RUSSIA AT THE RATING'S SCALE OF MAJOR RATING AGENCIES

## (long-term credit ratings)

|                              | Moody's                                    | Standard and Poor's                       | Fitch IBCA                                 | Краткое описание                                       |
|------------------------------|--|---|--|--|
| <b>“Investment” ratings</b>  | Aaa  | AAA                                       | AAA  | Максимальная степень безопасности                      |
|                              | Aa1  | AA+                                       | AA+  | Высокая степень надежности                             |
|                              | Aa2  | AA  | AA   |  |
|                              | Aa3  | AA-                                       | AA-  |  |
|                              | A1   | A+  | A+   | Степень надежности выше средней                        |
|                              | A2   | A   | A  |  |
|                              | A3   | A-  | A-   |  |
|                              | Baa1                                       | BBB+                                      | BBB+                                       | Степень надежности ниже средней                        |
|                              | Baa2                                       | BBB                                       | BBB  |  |
|                              | Baa3                                       | BBB-                                      | BBB-                                       |  |
| <b>“Speculative” ratings</b> | Ba1  | BB+                                       | BB+  | Неинвестиционная, спекулятивная степень                |
|                              | Ba2<br>(РОССИЯ: рейтинг присвоен 16.12.02) | BB<br>(РОССИЯ: рейтинг присвоен 05.12.02) | BB   |  |
|                              | Ba3  | BB-                                       | BB-<br>(РОССИЯ: рейтинг присвоен 02.05.02) |  |
|                              | B1   | B+  | B+   | Высокоспекулятивная степень                            |
|                              | B2   | B   | B  |  |
|                              | B3   | B-  | B-   |  |
|                              | Саа  | CCC+                                      | CCC  | Существенный риск, эмитент в тяжелом положении         |
|                              | --   | CCC                                       | --   |  |
|                              | --   | CCC-                                      | --   |  |
|                              | Ca   | CC  | --   | Сверхспекулятивная степень, возможен отказ от платежей |
|                              | C  | C   | --   |  |
| --                           | --   | DDD                                       | Отказ от платежей                          |  |
| --                           | SD   | DD  |  |  |



## ECT IS BUSINESS-ORIENTED TREATY

ECT/Legislation → ↓ risks → ↓ financial costs (cost of capital) = ① →  
 ↑ inflow of investments (i.e. ↑ FDI, ↓ capital flight) → ↑ CAPEX → ↓ technical costs = ② →  
 ① + ② = ③ → ↑ pre-tax profit → ↑ IRR (if adequate tax system) → ↑ competitiveness →  
 ↑ market share → ↑ sales volumes → ↑ revenue volumes

ECT provides multiplier legal effect in diminishing risks with consequential economic results in cost reduction and increase of revenues and profits

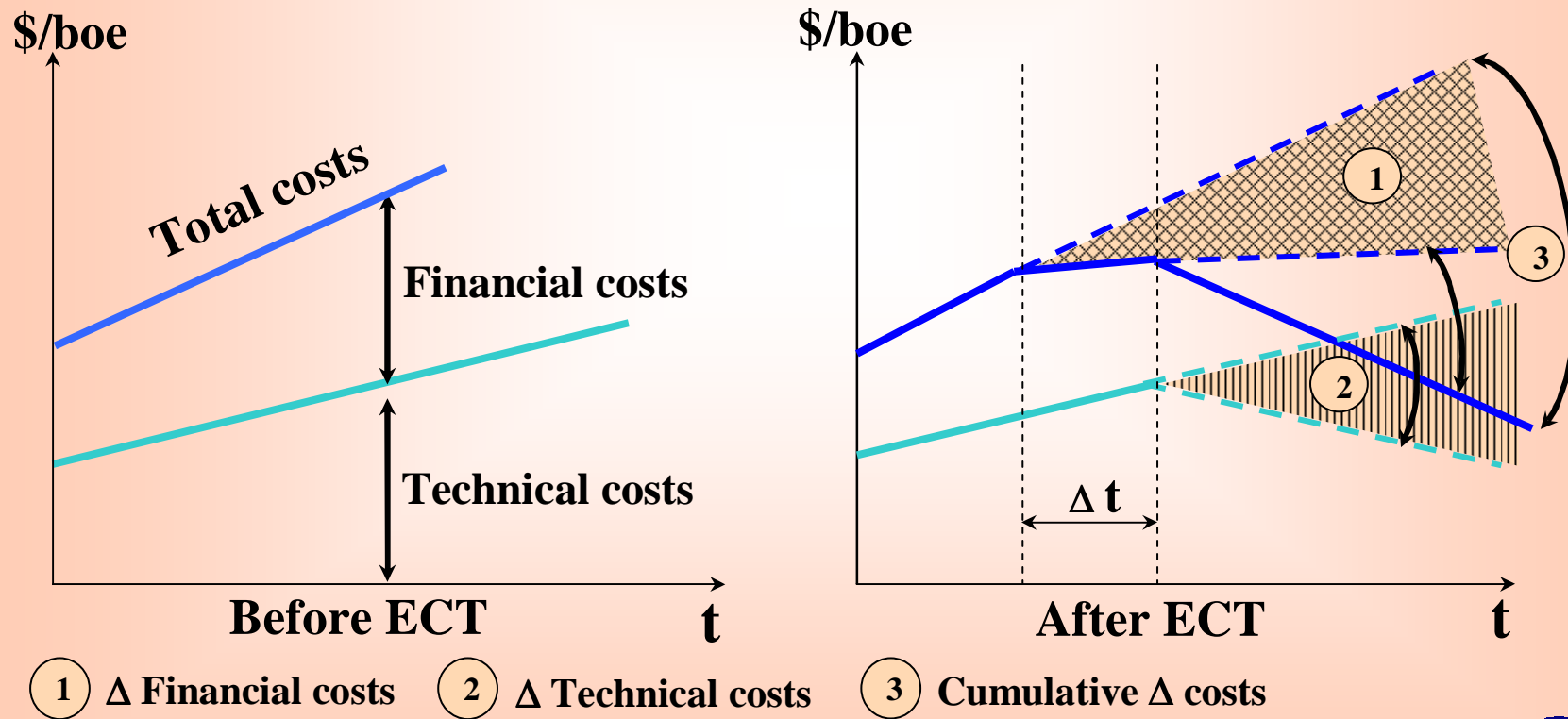
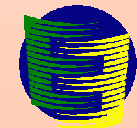
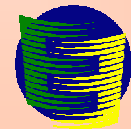


Figure 18



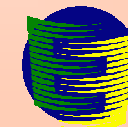
## **7. Energy Charter Treaty: security of supplies vs. security of demand**



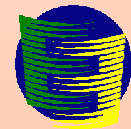
## ECT PROCESS: THEN & NOW

|                                     | INITIALLY  | CURRENTLY  |
|-------------------------------------|--|--|
| <b>Driving force</b>                | <b>Motivated &amp; dominated by interests of consumers</b>                                 | <b>Consumer-producer balance of interests</b>  |
| <b>Policy vs. economy dominance</b> | <b>Politically initiated</b>   | <b>Economically driven</b>   |
| <b>Approach to energy security</b>  | <b>Physical security of supplies from economies in transition</b>                          | <b>Security of supplies + security of demand (by economic, not administrative means)</b>   |
| <b>Geography</b>                    | <p>(1) “Trans-Atlantic” Europe (i.e. in political / OSCE terms)</p> <p>(2) OECD+CIS+EE</p> | <p>(1) Broader Eurasia, incl. North Africa, Australasia (i.e. in energy &amp; economic terms)</p> <p>(2) OECD+CIS+EE+others</p>  |
| <b>Competitiveness</b>              | <b>To decrease final energy prices to consumers even by diminishing producer’s ROR</b>     | <b>To decrease full investment-cycle risks → to diminish both technical &amp; financial costs → to increase competitiveness and protect adequate ROR at each step of energy &amp; investment cycle</b> |

Figure 19



## 8. Conclusions



# **THE ENERGY CHARTER TREATY**

## **ARTICLE 2**

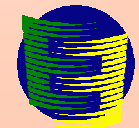
### **PURPOSE OF THE TREATY**

This Treaty establishes a legal framework in order to promote long-term cooperation in the energy field, based on complementarities and mutual benefits, in accordance with the objectives and principles of the Charter.

## **ARTICLE 3**

### **INTERNATIONAL MARKETS**

The Contracting Parties shall work to promote access to international markets on commercial terms, and generally to develop an open and competitive market, for Energy Materials and Products.



## MOST RECENT PUBLICATIONS ON ECT:

