

ACTIVITY REPORT

SEPTEMBER 2007- FEBRUARY 2009

European Coordinator

JOZIAS VAN AARTSEN

PROJECT OF EUROPEAN INTEREST

Project of European interest n° NG 3

Brussels, 04 February 2009

This report only represents the opinion of the European Coordinator and does not prejudge the official position of the Commission. The content of this report is established as of 04 February 2009.

REPORT OF JOZIAS VAN AARTSEN

1. THE MANDATE & PARAMETERS OF WORK

Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks (TEN-E), foresees the appointment of European coordinators in order to monitor and to facilitate the implementation of the most critical identified priority projects. In this context, the appointment of Coordinators was mentioned as an opportunity for important infrastructures encountering difficulties in the conclusions of the European Council of 8/9 March 2007.

Four European coordinators were appointed on the 12 September 2007 by the Commission for a duration of four years and they will monitor projects facing technical, political or financial difficulties. The "Priority Interconnection Plan" adopted by the Commission on 10 January 2007 in the framework of the so-called "energy package" and the Action Plan adopted by the European Council on 9 March 2007 mentions specifically the nomination of European Coordinators for specified projects.

The mandate that I accepted is defined¹:

as European coordinator for the project of European interest n° NG 3 and in particular the natural gas connection Turkey-Austria, through Hungary, Romania, Bulgaria (NABUCCO project), as defined in Annex I to this Decision pursuant to Article 10 of Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks (TEN-E).

NG 3 (Natural gas route 3) is defined (in the TEN – E context) as;

NG.3. Caspian Sea countries - Middle East - European Union:

new gas pipeline networks to the European Union from new sources, including the Turkey - Greece, Greece - Italy and Turkey - Austria gas pipelines.

Although commonly referred to as the Nabucco Co-ordinator², I have deliberately avoided using that name for my role, referring to the technically correct 'NG3' (hereafter called the Southern Corridor) terminology. I have placed a special emphasis on work related to achieving the Nabucco pipeline, but I have not forgotten that other pipelines may also achieve the strategic aim implied in the NG3 title (Nabucco, ITGI, TAP and

¹ See Annex I

² In any case, 'Nabucco' is often used as a surrogate or synonym for NG3 or Southern Corridor; in addition, many commentators use 'Nabucco' without any reference to the actual pipeline project, or without any reference to that project's feasibility and development timetable.

WhiteStream would qualify), namely to link the European Union to new sources of gas in the Middle East and the Caspian region³.

Let me digress slightly. Physically, there is much gas in the ground within the territory of near abroad of the European Union. But it will stay there unless we get the terms of trade right. When we speak of there being little gas, what we mean in fact is that there is little gas that will be supplied to the European Union *under current terms*. If we change the terms then gas will come – *there will be more gas*. Moreover, although it is obviously true, it is good to remind ourselves that the future is *unknown*. Without getting into the unknown unknowns, one of the known knowns is that future gas use depends on choices made today, so there is a high variability in future gas projections, depending on whether the EU goes green, nuclear or some other variant. Actual future gas use is *unknown* which leads to high risk perceptions for capital intensive investment.

Nabucco will in plateau phase deliver 31 billion cubic metres of gas per year (bcma), or about 5% of EU gas consumption by 2020 (and proportionately more of imports)⁴. The Southern Corridor should supply more as a percentage of consumption. (Please note that these are 'ball-park' figures, not predictions.) ITGI, TAP and WhiteStream will supply far less individually (at least as planned now).

If, in the future and according to developments, the European Union was to increase its target for the amount of gas coming through NG3, the adoption as such of a target would imply three consequences: (1) we cannot accept a Nabucco–unique regime (or one unique to any other pipeline) or policy: we must strive for a general regime, a general policy and a general strategic aim, independent of any particular company/pipeline involved, (2) all planned pipeline projects may be feasible in this wider scheme and the question becomes one of *scheduling* the pipelines to come on-stream when gas is available, rather than competing for a finite initial resource; but that (3) we have to assume that non-commercial risks will be reduced if we are to see any investment.

Moreover, the likely growth of gas demand in the European Union⁵ means that – even adopting a higher target – we need new pipelines from traditional suppliers. Projects like Southstream are compatible with Nabucco – my job is in part to promote the harmonious development of these projects, to the benefit of the European Union.

The European Union has always pursued a diversification of actors and partners. This is in a way just another translation amongst many of the underlying free-market and competition-based pillars on which the European Union is based. Contrary to some concerns voiced by certain commentators, the Southern Corridor is a project that

³ See the excellent work of the IEA "Perspectives on Caspian Oil and Gas Development" – December 2008.

⁴ There are many scenarios for future gas use and I have not adopted any particular one; this figure is an arbitrary composite.

⁵ I refer to the Strategic Energy Review -<u>http://ec.europa.eu/energy/strategies/2008/doc/2008_11_ser2/strategic_energy_review_wd_future_pos_ition2.pdf</u>

enhances gas producers access to the EU market and is a positive contribution to the attractiveness of gas as a fuel in the EU fuel mix.

The role of transit states is also an issue that needs to be addressed in abstract before we deal with any states in particular. Purely in trade terms, the European Union needs to insist that the right of free transit for trade is respected. GATT Article 5 provides for that free transit (and this is reproduced in the Energy Charter Treaty and the Energy Community treaty). Without that insistence, any neighbouring state in whatever product sector may seek to interfere with trade and trade routes for commercial and political advantage; the Commission should be firm in protecting the principle of free transit. We cannot accept an imposition on free trade.

Diversification has a multi-dimensional rationale. It is notably a strategic response to perceptions of risk. In that light, it makes no sense to diversify in ways that increase political and economic risks, rather than reducing them. Within the Commission (and the European Union more generally), this issue must be addressed in the light of wider ambitions that Europe has in terms of enlargement, transatlantic relations and Neighbourhood Policy.

2. METHODOLOGY

Throughout 2007 and into early 2008, my aim was to focus on the internal issues facing the European Union and Turkey. Once I had achieved some level of consensus within the European Union and Turkey, my aim was to make recommendations to the European Commission (in mid - 2008).

My method has been to listen to stakeholders, governments, international agencies and others, and I have listed⁶ the most important meetings that I have had.

3. FINDINGS

Key findings emerged from the listening exercise.

3.1. Concentration of the external sources

The increasing loss of domestic gas supply within the European Union will lead to an increased dependence on external suppliers. Whether or not we reduce energy consumption, shift into other energy sources, use more coal or nuclear, it is inevitable that a higher proportion of our gas will come from abroad.

Firstly, there will be an impact on competition. As diversity dwindles, so will competition. As is already clear, company consolidation will continue in foreign suppliers, and many, if not all, of the companies involved will be state-owned or controlled. We could be faced with four or five external company suppliers, state-run, that will have ample possibility to establish a means to divide markets and establish price discrimination, whether formal or not. Two responses are necessary, the first being outside of my mandate, but which is the fostering of supplier company diversity, and the second, which is to find new suppliers.

⁶ Annex II

The second impact will be an increased influence of governments on the energy market. Even more important for the European Union, in this event, than *speaking with one voice* is *acting with one will*, and most often, the European Union acts as the result of legal imperatives. I urge the European Union to put in place the necessary legal defence mechanisms⁷ and to use the powers that it already has⁸, and to do so by developing the internal market and using that internal mandate for external influence. The Commission must unambiguously assume jurisdiction of external natural gas pipelines, both those existing and those planned, and apply a single set of rules, including third party access, de-monopolisation, and investment protection and pursue gas company diversification; there should never be one company facing the European Union at the other end of a pipe.

This prognosis is alleviated by the circumstance that the European Union is surrounded by gas from non-traditional suppliers, all within pipe-line distance. From a perspective of proven reserves, much more gas is to be found in the Caspian – Middle East region⁹, and the spread of this gas amongst many countries implies a very high degree of political, route and counterparty risk diversification.

3.2. Paradigm Change

The delivery of gas through pipelines to the European market requires a lot of infrastructure and a lot of co-operative behaviour. Until recently the paradigm for the achievement of that infrastructure was state-to-state negotiation and implementation through state-owned companies. This was the paradigm that was dominant when the major Russia – EU pipelines were built, with co-ordination for all intermediate states on one side being done by the then USSR. The situation now is more complicated and the regulatory hurdles much higher. Environmental impact assessments, as an example, are difficult to carry out across borders. And there are many more borders to cross. Nabucco has four Member States and one external partner to deal with directly. Its suppliers potentially constitute up to nine other countries, and its shippers and consumers could be situated in as many as ten Member States; it also has at least two important potential additional transit countries to be concerned with (Georgia and Syria).

The European Union should make additional efforts to adapt to this new situation and thereby providing the right framework for our companies to cope with the challenges.

However, our political and legal support mechanisms are weak.

The Commission should take the lead in this area and for every pipeline offer considerable political and legal assistance. Practically, the Commission could offer to support co-ordinating committees for all pipelines. The Commission could also standardise the agreements that underpin pipeline development (intergovernmental agreements, host government agreements, mechanisms for the implementation of

⁷ The 3rd country clause is a welcome start in the new legislative package.

⁸ In competition law and in secondary legislation, such as the hydrocarbons licensing directive.

⁹ See map in Annex III

strategic and project environmental assessment, etc) and offer a one-stop shop for all regulatory approvals (instead of an institutional maze). The Commission also needs to promote priorities; and contrary to what is now the case, we cannot have four or five 'equal' priorities.

3.3. Support to Transit States

Transit states need support. There is no defensible political rationale for these states to allow transit if the result is that there is a domestic shortage (even if there is no link between transit and domestic conditions). We must be concerned with transit states' energy and economic development.

I will not hide the fact that this is the major issue with Turkey. Turkey's gas consumption is expected (in its own estimation) to double in the coming 15 years (though the recession might change that heady forecast). Turkey has secured its gas supplies until about 2015; afterwards contracts should be extended and new contracts concluded in order to cover the supply gap due to the increased demand. A further handicap to the Turkish gas system is the very limited amount of storage and thus the lack of seasonal balancing. Suppliers outside of Turkey have to provide the flexibility that Turkey needs.

The biggest obstacle to the Turkish gas market is the lack of reform; the laws in place seem to be unimplemented and BOTAS, the incumbent, continues to have a strong influence on policy and supply. Needless to say, BOTAS, like all incumbents, is not keen on competition.

Turkey had adopted a position of 'taxing' - on an *ad hoc* and unpredictable basis - every project that plans to pass through its territory to help resolve its domestic gas supply issues, though this approach seems to be evolving. I can only welcome that evolution.

In summary, we must be flexible with regard to transit states, support them when we can, and offer them long term partnership, the Energy Community being an ideal vehicle. But one fundamental item must be sure and non-negotiable; that is, the basis for transit must be unimpeded access to markets, without quantative restriction or measures having similar effect, or of unwarranted charges. This is the basic, fundamental principle of the European Community, of GATT Article 5 and of the Energy Charter.

3.4. Network Reform and a "Virtual Nabucco"

Contrary to popular perception, the EU is already linked to many parts of the Caspian and Middle East region. Physical links already exist up to the waters of the Caspian Sea, the Red Sea and the Persian Gulf. However, for a variety of historical reasons, no gas actually flows to the EU over these links, save for some small contractual flows.

One of the more interesting ideas I have encountered is that there is an organic approach to development of the Southern Corridor. By using existing facilities, building new small interconnectors and optimising the flow of gas in existing networks, gas could turn up in the EU. It is certainly laudable in the short-term, and my understanding is that we could make it work fairly simply.

3.5. Scheduling

The four major pipelines¹⁰ being planned for the Southern Corridor to some extent rely on new gas from the gas field in Azerbaijan called Shah Deniz Phase II (SD2). SD2 is a field in joint ownership by a consortium of international companies, amongst which is the Azeri national hydrocarbons company SOCAR. SD2 will provide between 8 to 16 bcma of gas somewhere in the period of 2014 to 2016 (depending on your information source).

Five pipelines¹¹, whose total capacity is between about 65-75 bcma, are competing for a gas field that at maximum could supply 16. This is surely as any producer would wish. In addition, SD2 could be sold using existing networks to Russian consumers. The potential end consumers/buyers of gas are probably the same behind all the pipelines, and the right combination of price and transit arrangements ought to win the contest.

Clearly not all pipelines can get gas, and yet the European Union has designated (in the TEN - E programme) three of the pipelines as of strategic importance (ITGI, Nabucco & WhiteStream), and some Member States have been vocal in support of another (Southstream). (The other one is TAP.)

Azerbaijan is known to be interested in diversifying its gas supplies, and notably to gain new customers in the European Union in order to get access to EU prices and price data. The European Union should be providing the possibility for Azerbaijan to access EU markets. The next months and years will be critical in this regard. But what is not right is that the Member States promote each pipeline by undercutting the others. Observers are right to find this activity objectionable amongst Member States who ought formally to be acting together.

4. **PROPOSALS**

I have made formal and specific proposals in letters to Commissioner Piebalgs and Minister Güler in July 2008. I would like to position those proposals in a wider setting.

After 18 months in office, I can see that the difficulty in the development of the Southern Corridor is at the same level as its importance. There are many actors, many states, many companies and many interests and they are not all working in the same direction. But I would like to set out a framework, or a schedule, if you wish, of how to approach the Southern Corridor, from a political perspective.

Firstly, I think the organic approach is important. There are lots of small actions that need to be taken and I know the Commission (and the Energy Community) are dealing with this. Implementing and enforcing small rules, cancelling non-performing concessions, building small links, allowing reverse flow of gas, *etc.* will get gas flowing and that coupled with an emphasis on contractual diversification and trading can bring measurable benefits to the countries of Central and South East

¹⁰ WhiteStream, Nabucco, ITGI, TAP

¹¹ The above four, plus Southstream.

Europe. Such actions can be taken up in the Madrid and Maribor Gas Forums, and demolishing the internal European Union transit regime¹² (replacing it with the more logical and flexible transmission regime) can be dealt with by the Commission in Brussels. You might summarise this as simply completing the internal market.

Secondly, we need to build from the bottom up. Small amounts of gas can get from Azerbaijan to the EU now and we need to send a message that we expect reasonable volumes in the near future and that we expect an early start. That is why SD2 is so important; if we envisage that 8 bcma is offered into the EU market from SD2, 4 is offered into the Turkey market and smaller volumes offered into Georgia and Azerbaijan, we should be able to find common ground with Turkey, Georgia, but most importantly Azerbaijan (after all, it is their gas).

I think that we, the European Union, should have a view on the pipelines and their respective merits. My own view (reinforced by the most recent crisis) is that any pipeline that delivers the most gas into the most liquid markets (and therefore provides the most security), that provides regional security benefits in the Southern Balkans in particular and that links up to such initiatives as the Balkan Gas Ring and NETS, should be favoured.

WhiteStream, Nabucco, TAP and ITGI should be judged by criteria derived from this objective standard. Diversification projects, such as Nabucco, TAP, WhiteStream and ITGI, are mutually reinforcing if combined with the integration of isolated networks, through efforts such as the NETS project. An integrated market becomes more attractive for new gas, and this helps new infrastructure projects to come on stream. Politically though, we must increase diversification in the Southern Balkans as a priority.

Thirdly, we need to build volumes and demand. This means that suppliers, transit countries and consumers have to act in common. I have noted how we will need probably more gas from 3rd states in the European Union (in all likelihood); I have also noted how little gas seems to be on offer. More gas before 2020 for more pipelines will only come from beyond the Caspian Sea, in my view. And yet demand is not certain in the EU. Moreover, to get gas flowing, everyone along the value chain will have to respect rules that maintain the value of the resource to the producer state. If consumers do not say how much they want and transit states do not state how they will treat transit, how can producers react?

In a producer country, like Turkmenistan, these signals might be difficult to interpret, especially when set against other offers. In my letters to Commissioner Piebalgs and to Minister Guler, I suggested that the European Community and Turkey engage in a joint initiative to develop a demand aggregator in the Caspian region. This aggregator, called provisionally the Caspian Development Corporation (CDC), would do three things – provide secure demand for gas, provide limited infrastructure and perform cash management functions. The CDC would collect gas in Azerbaijan (but not include Azeri produced gas in its functions) and sell it on to downstream purchasers for a transitional period. Purchasers would use whatever logistics solution would suit them best to get their gas to market.

¹² Article 32 of the gas directive.

The CDC will secure demand and supply.

To make Turkey attractive as a destination transit state, Turkey would have to establish a clear transmission regime based on cost, and reject its current *ad hoc* approach; indeed, I would consider it a precondition that Turkey adopt this position before it can take part in CDC. Moreover, I proposed a joint Azeri – Georgia – Turkey - EC Gas Corridor Transmission Agreement to build a base for the development of the Southern Corridor, based on GATT Article V and cost based transmission principles, strengthened with a mutual assistance obligation.

The Corridor Agreement will fix the transit regime once and for all.

I am glad to see that the idea of CDC and the Southern Corridor was adopted by the Commission in its Strategic Energy Review. As yet Turkey has not indicated its views on the CDC and the Corridor Agreement decisively. The European Community should not wait on this and should proceed.

Fourthly, optionality and diversification go hand in hand. My experiences of dealing with the Southern Gas Corridor have lead me to a strengthened conviction that the European Union is, without apparent reflection, sedulously transferring its eggs from one basket to another. At the same time, and in the same process, we are closing down the optionality of potential suppliers to the EU. The current policy of the Commission is to emphasise the strategic importance of Turkey as an energy bridge. The Commission should not be seen to support the role of Turkey as a gate-keeper taking a toll on all traffic. Turkey, if it has a role, should act as a bridge for free exchange.

As an alternative, but more ambitious approach to the Corridor Agreement, may I suggest the Energy Community. Turkey, Ukraine and Moldova are all interested in eventual membership of the Energy Community Treaty, a preliminary step (in my view) to their inclusion into the European family. Georgia is an Observer. The Energy Community Treaty provides a framework for energy market reform. Reform would be especially important for Turkey and would relieve some of the uncertainty in its energy market. I would support the eventual inclusion of Georgia and Azerbaijan into the Energy Community, thus ensuring a single legal framework for solidarity and market reform between the EU and the states that lead to the Caspian Basin.

Under the precautionary principle, the Commission should explore all alternatives even if an acceptable Corridor Agreement would (or would not) be found with Turkey. I therefore welcome the launching a feasibility study on White Stream. I am especially intrigued by the prospect of developing a direct sub-sea route from Georgia to Romania and then overland to Italy (along the Pan-European Oil Pipeline Route).

If the Commission is to provide a *diversification* of suppliers, then the Commission should promote direct contacts with supplier countries. We should provide optionality to potential suppliers so they can supply us if they wish. My view is that the EU market will always be attractive (it is a big market with high prices), so we do not have to force relationships, we can attract partners. In that regard, I would suggest that the Southern Corridor, apart from the current priority, Turkey, include LNG development in Egypt and Qatar, linking to Krk in Croatia and to Constanza in Romania (perhaps Bulgaria too), a greater emphasis on linking Cyprus, Crete and

Greece into a supply route, and the development of Greece as a regional hub, taking southern gas from North Africa, the Caspian region and providing energy security products to its North and into Central Europe. We should, in discussion with Iraq, provide multiple export routes for Iraqi gas, through LNG in the South (Basra and Alexandria), and through pipelines to the North and West (to the Mediterranean coast).

In conclusion, diversification and optionality will lead to a spreading of political and economic risk throughout the Eastern Mediterranean. I think that will be healthy for the European Commission, Turkey and for the region. The Caspian Development Corporation and the spreading of risk would lead to four price points (hubs if you wish) being developed, in Baku, in Romania, in Greece and in Austria. I think that is a much more diversified risk profile than a single hub collecting all gas to send to the European Union.

ANNEX I: TERMS OF REFERENCE OF APPOINTMENT

Mission statement

EUROPEAN COORDINATOR IN THE FIELD OF ENERGY Gas connection Turkey-Austria: coordinator Mr van Aartsen

On the basis of Commission Decision No [....], the Commission has designated you as European coordinator for the project of European interest n° NG 3 and in particular the natural gas connection Turkey-Austria, through Hungary, Romania, Bulgaria (NABUCCO project), as defined in Annex I to this Decision pursuant to Article 10 of Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks (TEN-E).

The Commission adopted on 10 January 2007¹³ the "energy package", which includes a communication to European Parliament and Council on a Priority Interconnection Plan (PIP). In the framework of this Priority Interconnection Plan, an in-depth analysis of the status of the projects of highest priority specified in the 2006 TEN-E Guidelines has been carried out. In that context, the NABUCCO project was identified as a key project for the European Union. The spring 2007 European Council highlighted its importance for the long term security of gas supply.

In this context, the aim of the project is to develop a new gas supply route for gas produced in the Central Asia, the Caspian region and the Middle East. As European coordinator, you will play a role of "facilitator" and support, where necessary, the NABUCCO International consortium and the Member States authorities concerned in the promotion of this project.

Your mission as a European coordinator will be for a four-year period and will be renewable by mutual agreement. Your tasks, in line with those defined in the TEN-E guidelines, will include:

- Promotion of the project, in consultation with the Commission and the project promoters;
- Identification of all existing obstacles and hurdles in the way of the project implementation, including legal, practical, (real-) political, administrative and economic bottlenecks and their impact on the progress of the project in terms of timing and finance; this relates in particular also to joint actions of regulatory authorities, as well as to the necessary approvals, concessions, licences, rights of way, and environmental and social impact assessments;

¹³ An energy policy for Europe, COM (2007) 1.

- Identification of possible solutions to overcome the identified obstacles together with the project sponsors, the relevant national, regional and European authorities and representatives of civil society involved in the relevant discussion point;
- Consultation, together with the Member States and Candidate countries concerned, of the project promoters and potential gas suppliers in order to better define the content of the project and to monitor the environmental impact assessment;
- Consultation, where necessary, with the project promoters and interested financial institutions concerning the financing of the project;
- Drawing up of an annual report for the Commission, for transmission to the European Parliament and the Member States concerned, on the progress made in implementing the project, new regulatory or other developments which may affect the characteristics and any difficulties or obstacles likely to cause serious delay affecting its completion;

In the performance of your duties, I request you to plan and realise any mission in third countries well in advance and in close cooperation with my services, which will ensure coordination with the other competent services in the Commission, in particular for any contacts, mission and discussions with third countries.

During the performance of your mission you may not make commitments on behalf of the Commission without its prior written agreement. Accordingly, you must act impartially, in an independent and confidential manner, and apply to the best of your abilities your professional knowledge and skills solely in the interests of the Communities.

You must avoid any situation giving rise to a conflict of interest regarding the areas in which you are requested to intervene. Any conflict of interest emerging during your mandate will have to be pointed out to the European Commissioner responsible for energy without delay.

Moreover, you commit yourselves not to use nor reveal any document or information brought to your attention at the time of the performance of your duties, unless this information has already been made public. All the results produced by you shall be the property of the European Communities, which can use and publish them if it considers it necessary.

During the performance of your mission, which is unpaid, you will be granted a monthly flat-rate allowance of \in 1.500 to cover ongoing expenses. Your mission expenses will also be reimbursed in accordance with current Commission rules. In addition, you will be given technical and administrative support by the Commission.

The Director for the Security of supply and energy markets is your contact person in the Directorate-General for Energy and Transport. The Commission can assure you in advance that you will have the full support, in the implementation of your mission, of the Director and the member of staff who will be designated to assist you on a day-to-day basis at the technical and administrative level. The Commission is convinced that your support, on which it really counts, will be crucial for the success of the trans-European networks.

The Directorate-General for Energy and Transport will organise regular meetings between the European coordinators to allow information and experience to be shared.

The Belgian courts shall have exclusive jurisdiction in respect of any dispute concerning the validity, application or interpretation of this contract. This contract is governed by Belgian law.

ANNEX II: REPRESENTATIVE & SELECTED CONTACTS/MEETINGS (THIS IS NOT AN EXHAUSTIVE LIST)

Auli Warnar
Auli, Werner
Bagis, Egemen
Barrett, Tom
Barroso, Jose-Manuel
Bartenstein, Martin
Basescu, Traian
Boltz, Walter
Bowden, Julian
Briatta, Gilles
Bryza, Matt
Chase, Howard
Davutoğlu, Ahmet
Day, Catherine
De Giovanni, Daniele
De Luca, Vicenzo
Denchev, Lyubomir
Denisov, Ivan
Dialuce, Gilberto
Dimitrov, Petar
Duzyol, Huseyin Saltuk
Eggington, Ann
Erdogan, Recep Tayyip
Eyyubov, Emin
Ferrero-Waldner, Benita
Fidan, Hakan
Gallistl, Hans
Goksel, Osman
Gould, Tim

Gul, Abdullah Guler, Mehmet Hilmi Gupta, Atul Gusenbauer, Alfred Hernadi, Zsolt Hilbrecht, Heinz Houtman, Ann Judisch, Stefan Kohnstamm, Steve Koka, Janos Kroes, Neelie Lamy, Jean Levitte, Jean David Louvot, Matthieu Maystadt, Phillippe McAllister, Mike Menat, Pierre Miller, Angus Mitschek, Reinhard Molterer, Wilhelm Morel, Pierre Neykov, Slavtcho Ogutcu, Mehmet Papalexandri, Katerini Piebalgs, Andris Popescu, Tariceanu Raynaud, Fabien Rehn, Oli Ruttenstorfer, Wolfgang Setton, Phillipe

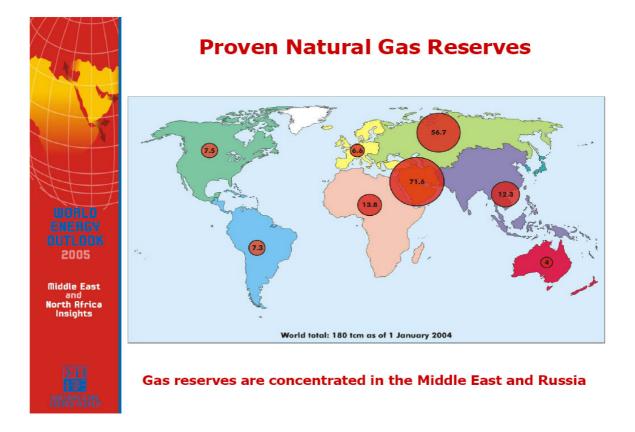
Simsek, Mehmet Stefanov, Stanislav Target, Patrick Tosheva, Galina Van der Loo, Hans Vosganian, Varujan Wicks, Malcolm

ANNEX III



Source: IEA, used with Permission

ANNEX IV



Source: IEA, used with Permission