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EU-Turkey relations in the field of energy

NOTE

Abstract:

This note reviews the role of Turkey as an EU energy transit partner as well as the state of EU-Turkey energy relations, including the integration of energy networks and the alignment of Turkey to the relevant EU acquis.

main sources:

European Commission: Turkey 2005 Progress Report; COM (2005) 561 final; http://europa.eu.int/comm/enlargement/report_2005/pdf/package/sec_1426_final_en_progress_report_tr.pdf;

Clingendael International Energy Programme (CIEP), Institute for International Relations: "Study on Energy Supply Security and Geopolitics - Final Report", The Hague, Netherlands, January 2004 (study produced for the European Commission DG Energy and Transport).

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Author: Karsten Mecklenburg

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Copies can be obtained through:
E-mail: kmecklenburg@europarl.eu.int

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1. EU – Turkey energy issues – an overview

EU energy policy objectives include:

- the improvement of *competitiveness*,
- *security of energy supplies* and
- the protection of the *environment*.

The *EU energy acquis* consists of rules and policies, notably regarding competition and state aids (including in the coal sector), the internal energy market (opening up of the electricity and gas markets, promotion of renewable energy sources), energy efficiency, nuclear energy and nuclear safety and radiation protection.

In Turkey, in the past years, the European Commission noted in its 2004 and 2005 progress reports *some progress* in these areas (See below under point 4. for details).

In terms of *EU-Turkey cooperation*, the establishment and development of *Trans-European (energy) Networks* and the promotion of proper interconnection and interoperability of national networks aim to take full advantage of the internal market.

In view of *future security and diversity of energy supplies*, it has been widely accepted that *energy* must become an *integral part of EU external trade and foreign and security policy-making*. At the same time, EU foreign and security policy and external trade policy are crucial energy policy tools to achieve future security of supply.

The *potential of Turkey* to become an important country *for oil and gas transit from Russia, the Caspian Sea region and the Persian Gulf* adds to the strategic importance of Turkey to the EU. *Turkey also connects the EU with the Middle East* and is an important player in the *Mediterranean*.

Also in this context, *political-strategic considerations* play often an *important role in discussions about Turkey's future EU membership* or closer relations with the EU.

2. The challenge of security and diversity of energy supply and transit

2.1. The EU perspective

The EU faces the gradual exhaustion of North Sea oil and gas resources. Consequently, it must aim to diversify the sources of raw materials. There is a strong need for a long-term EU common energy policy. The EU imports about 90 % of its total oil consumption, and 40 % of gas consumption. Up to 40 % of the EU's gas imports currently come and will continue to come from Russia. The new CEE EU member states have an oil dependence of 90–94 % and a gas dependence of 60–90 %. OPEC represents 45 % of current EU oil imports. Both the launching of the EU-Russia strategic energy partnership on November 30th 2000 in Paris, as well as the vast energy potential of the Caspian and Central Asian regions have refocused the EU's attention on the necessity of diversifying its energy imports.

The break-up of the former Soviet Union has increased the number of countries through which pipelined gas must transit. The transit of Caspian Sea region gas to Europe, either through the Russian pipeline system or through the new route through the Caucasus and Turkey is particularly complex.

The *potential of Turkey* to become an important country *for oil and gas transit from Russia, the Caspian Sea region and the Persian Gulf* adds to the strategic importance of Turkey to the EU. *Turkey also connects the EU with the Middle East* and is an important player in the *Mediterranean*.

In respect of energy, the role of Turkey is bound to even grow because of the increasing volumes of oil and gas that will transit through the country, from both *Persian Gulf producers*, the *Caspian Sea* and *Russia*.

In any event, *wider market integration, including energy trade*, is and will be an *important policy tool to secure energy flows*. (See below, point 4.)

2.2. The Turkish perspective

Turkey itself has an increasing need for oil and gas resources that can no longer be solely fulfilled by Russian supply. Around 17 % of Turkey's total energy consumption depends on gas. In the long-term, Turkey's oil demand and imports are expected to increase heavily. Oil constitutes around 42 % of the country's total energy requirements, but its share is declining while the share of natural gas rises. About 90 % of Turkey's oil supplies are imported, mainly from the Middle East (Saudi Arabia, Iran, Iraq, and Syria) and Russia. Turkey's port of Ceyhan has been a major outlet for Iraqi oil exports.

Traditionally Russia has been Turkey's largest gas supplier. Considering Russia's own economic situation it will be unlikely that it can meet Turkey's increasing energy demands in the future. Caspian energy resources could therefore be an important alternative for Turkey. Both for own consumption and transit, Turkey is thus seeking oil and gas alternatives in light of decreasing North Sea production. Regarding oil, the construction of the Baku-Tbilisi-Ceyhan pipeline should increase security of supply and also reduce the burden of dangerous materials carried through the Turkish Straits.

The need of gas supply has driven Turkey to increasingly follow economic rather than geopolitical policy (in contrast to its oil pipeline approach). The gas business is different from the oil business. The areas of supply and demand need to be directly connected by pipelines, as shipping gas is technically very complex and expensive.

In 1996, Iran and Turkey signed an agreement for the delivery of natural gas over a period of 23 years. The pipeline which runs from the western Iranian City of Tabriz to the Turkish capital Ankara opened on December 10th 2001. It has a length of 2,577 km, and a capacity of 4 bcm, with export expected to rise to 10 bcm in 2007. In late 2002, Turkey stopped importing gas from Iran because of price cuts in Russian supply. Iran has carefully treated the gas dispute as an isolated matter and maintains contact on issues such as agriculture and transportation. This approach may pay off if Turkey turns the gas back on and keeps it on. Traditionally, the rivalry between Persia / Iran and Ottoman / Turkey concerned domination over the Central Asian transit routes for trade. Since the disintegration of the Soviet Union, Iran and Turkey have entered into competition yet again over their influence in the region, although in a much more moderate way.

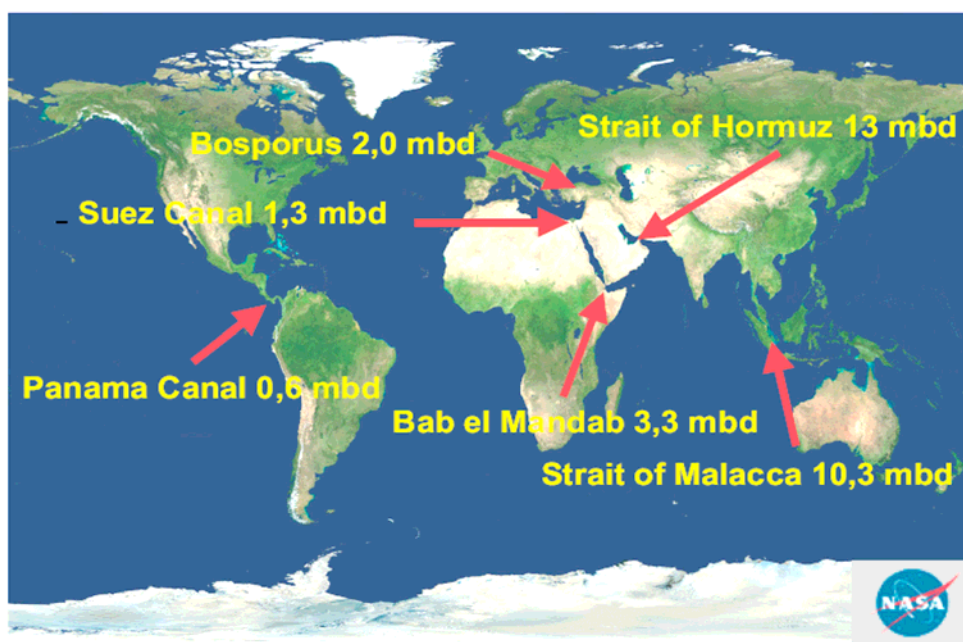
2.3. The role of the Bosphorus as oil transit point

Much of the Russian oil is exported through the Black Sea port of Novorossiysk and then shipped through the Bosphorus on to the Mediterranean and beyond. The narrow strait does not only cause frequent delays for ships wanting to pass through, but also security and environmental concerns have been raised because the ships have to pass a densely populated

area. Fears that a shipping accident will cause danger to the population and the environment are mounting with the increased maritime activity.

Turkey would prefer oil to be transferred by pipeline from the Turkish Black Sea coast to the Mediterranean coast, and collect the transfer fees, but Russia so far has insisted on its free passage to international waters.

In terms of energy supply security, the Bosphorus is also described as one of the major global “chokepoints”. A “chokepoint” is a strategic strait or canal, which could be closed or blocked to stop sea traffic. Of all oil traded internationally each day, more than three-fifths moves by sea, the rest by pipeline. The map below provides an overview of the most important choke points in contemporary oil trade patterns.



The map shows the importance of the Bosphorus in Turkey as an important oil transit point with oil flows of 2.0 mbd¹, from the Black Sea towards the Mediterranean.

Only a half mile wide at one point, the Bosphorus is a very busy and hard-to-navigate waterway. It is a crucial maritime export route for crude oil made available at Black Sea ports, i.e. the majority of Caspian oil production. More stringent Turkish rules on tanker transits have reportedly added a few days to the transit time. At this very congested sea-lane, accidents occur quite often. A major accident could cause significant environmental damage and shipping could be suspended for a prolonged period of time.

3. Diversification of energy transit routes and network integration

3.1. New pipelines

Turkey has continued its efforts to *diversify resources and routes* and to strengthen its *role as a transit country* for *oil and gas from the Caspian Basin* and the *Middle East* to the EU.

Turkey supports the “*Nabucco*” *gas pipeline project* (Turkey- Bulgaria-Romania-Hungary-Austria) currently in the planning phase, for which the Caspian Basin, including Iran, could also

¹ reference: 2001

be a supplier, and is collaborating with the Mashreq countries in the project to bring natural gas from Egypt, Syria and eventually, when conditions permit, from Iraq to the EU.

A new ***South Caucasus gas pipeline*** Baku-Tibilis-Erzurum is expected to become operational by the end of 2006.

Regarding oil, the construction of the ***Baku-Tbilisi-Ceyhan*** pipeline should increase security of supply and also reduce the burden of dangerous materials carried through the Turkish Straits. Special attention should be paid in the future to the protection (security) of these infrastructures, with due regard to their important role for the security of supply of the European Union.

3.1. EU support to strengthen Turkey as a transit country

The EU has been taking a number of efforts to strengthen Turkey's position as a transit country by actively participating in projects of common interest for ***Trans-European Energy Networks*** as well as ***regional formations***, which will contribute to security of supply.

On the EU side, the establishment and development of ***Trans-European Networks*** and the promotion of proper interconnection and interoperability of national networks aim to take full advantage of the internal market and to contribute to economic growth and the creation of employment. The ***trans-European energy networks*** finance electricity and gas transmission infrastructure feasibility projects which are of European interest and aim to increase competitiveness in the electricity and gas markets while reinforcing security of supply. Protection of the environment is integral to the EU's development policy of trans-European networks.

With financial support from the EU, for example, the construction of the ***Turkey-Greece gas interconnector*** has started in July 2005 and should be completed in 2006. This project is among the priority projects of the European Union. A feasibility study and environmental impact assessment and engineering studies were financed through the trans-European networks funds.

The feasibility study regarding the ***extension*** of the Turkey-Greece gas interconnector ***to Italy*** is also being undertaken with trans-European networks funds. This study will determine the gas amounts to be carried by the pipeline.

The construction of the ***Nabucco gas pipeline*** project to transport natural gas from the Caspian and Central Asian region to Europe via Turkey, Bulgaria, Romania, Hungary and Austria is among the priority projects of the European Union. This pipeline will significantly contribute to the security of energy supply in Europe. The financial and legal basis for the project has developed considerably after the establishment of the Nabucco Company Pipeline Study GmbH in late 2004. The European Commission has called Turkey to pursue its efforts to support and participate in the development of the Nabucco Project. The TEN-E (trans-European energy network) Programme has supported technical, financial and economic studies in relation to the Nabucco project.

3.2. Energy network integration and interconnection

Turkey ***so far has no synchronous interconnection to the western European electricity networks***, and ***energy trade is limited***. But progress has been made in cooperation with the Union for the Coordination of Transmission of Energy, as well as on the construction of the Babaeski-Filippi link with Greece. Currently a two-line link with Bulgaria is operational, but on a non-synchronous basis.

Turkey signed the *2003 Athens Memorandum* designed to create a *regional electricity and natural gas market in South East Europe* and participated in the negotiation process leading to an Energy Community Treaty.

In addition, *Euro-Mediterranean cooperation in energy* received a boost in 2003 when two ministerial conferences were held; one in Athens in May and one in Rome in December. These meetings provided new impetus to the Barcelona process, for energy relations among the partners of the Mediterranean ring, which had been launched in 1995, with those present agreeing on the principle of a genuine common energy policy. To this end, the Commission has created a technical platform and defined the financial instruments required to make this objective a reality. The ministers signalled the need for rapid implementation of the protocol of agreement regarding the phased integration of the electricity markets in Algeria, Morocco and Tunisia into the EU's internal electricity market by 2006. Initial studies were presented as part of the 'MedRing' project for the development of a *Euro-Mediterranean electricity ring* (Turkey–Greece, Algeria–Spain, Algeria–Italy–France).

(See below for details on Turkish alignment with the EU acquis in the field of energy trade and internal market.)

4. The energy sector in Turkey and its alignment with the EU acquis

As regards the *internal energy market*, *limited progress* has been made in Turkey over the past two years.¹

While the legal framework and implementing legislation for the liberalization of the electricity market is fairly advanced and largely in line with the EU acquis, implementation remains limited. A 2004 national strategy paper on electricity sector reform and privatisation strategy is under implementation. TEDAS, the Turkish electricity distribution company, has been restructured and 21 distribution regions have been established. However, some delays are occurring in the preparation of the privatisation of 20 distribution companies. In July 2005, an amendment to the Electricity Market Law was adopted which allows private distribution companies to establish generation facilities on the condition that accounts for distribution and generation activities are kept separate.

Although some progress has been made as regards *electricity losses* (technical losses in distribution and theft) their overall ratio remains high at 18.6%².

Delays in privatization and the unresolved *issue of guaranteed prices hamper competition*. According to the 2005 European Commission Progress Report, Turkey should continue efforts to ensure timely implementation of the electricity sector strategy paper. Turkey should furthermore focus attention on the following issues:

- The dominant position of the state trading company in the wholesale market should be adjusted,
- the current restrictions for cross-border trading should be removed,
- the existing long-term power purchase agreements should be tackled, and
- cross-subsidies should be eliminated.
- The reduction of distribution losses also remains an important issue to tackle.

¹ Main source: European Commission: Turkey 2005 Progress Report; COM (2005) 561 final; http://europa.eu.int/comm/enlargement/report_2005/pdf/package/sec_1426_final_en_progress_report_tr.pdf

² reference year: 2004

Market opening in the gas sector remains at 80%. However, given that the **national gas incumbent BOTAS** has maintained its **monopoly** on import, trade and storage of gas, there is **no effective market opening**. The first preparations for the restructuring of BOTAS and the privatisation of trade and storage activities have started, but no tangible results on account or legal unbundling have been achieved yet. The tendering for gas distribution companies in cities is ongoing. 32 tenders have been completed since market opening, fifteen of which are operational.

While the **legal framework for the gas sector** is mostly **in line** with the **acquis**, Turkey should increase its efforts to prepare for an effectively functioning market. The **privatisation of distribution companies** should continue and the restructuring of BOTAS should be prioritised. A concrete time frame and road map for the reform of the gas sector should be developed.

Concerning **administrative capacity**, the **Energy Market Regulatory Authority** has 296 employees, with 166 of them involved in regulatory matters. The authority's responsibilities will further increase with the completion of the liberalization process. This will require larger numbers of staff, especially in economic regulatory matters. Staff training schemes should continue. The capacities and independence of the Energy Market Regulatory Authority must be further strengthened, with its decisions not being dependent on approval by other government bodies. The authority is financed through contributions from regulated companies and entities.

According to the 2005 Progress Report of the European Commission, **no progress** has been made on the adoption of **state aid** legislation, or on the establishment of an operationally **independent state aid monitoring authority**. Despite the fact that Turkey is obliged under the Customs Union and ECSC Free Trade Agreement to align and ensure full transparency of its existing and new state aid schemes, neither of these obligations has so far been fulfilled. (Turkey's lignite production does not receive state aid. For the hard coal production in the Zonguldak coal basin, a restructuring programme to reduce state aid and to promote private operation is underway.)

Concerning **energy efficiency**, no major development has been taken place during the past two years. Turkey should as a matter of priority adopt an energy efficiency framework law, as a basis for legal alignment to the EU **acquis**, and to **reduce the high energy intensity of the Turkish economy**.

As regards **renewable energy sources**, some progress was noted by the European Commission in the 2005 progress report. A Law on the Use of Renewable Energy Sources in Electricity Generation was adopted in May 2005, establishing the necessary legal framework for the promotion of renewable energy. The law provides transitional arrangements (until 2011) for more competitive prices for electricity generated from plants that have a renewable energy resource certificate, and other incentives for investments in renewables. However, the law does not set a target for electricity generated from renewable sources by 2010, as foreseen by the relevant EU directive. Given **Turkey's significant untapped potential for renewable energy sources**, it should set itself an ambitious target for their further development, including geothermal energy. Turkey would be recommended to develop an overall strategy for renewable energy sources.

Regarding **nuclear energy**, Turkey currently does **not** operate **any nuclear power plants**, but there is one 250 kW TRIGA II **research reactor at the Istanbul Technical Institute** put into operation in 1979. A radioactive waste processing facility has been in operation in Ckmece since 1989. Turkey has recently reactivated earlier plans to develop a nuclear energy generation capacity, aiming at 5.000 MW by 2020 to meet rising domestic demand forecasts. Preparatory studies have been launched. Turkey is **partially aligned with the acquis**, and a regulatory authority is in place. A **safeguard agreement with the IAEA** entered into force in 1981.

The *European Union* has repeatedly *emphasised* the importance it attaches to a *high level of nuclear safety* in all candidate countries. Some progress has been made as regards *nuclear safety and radiation protection*. Several implementing regulations on radiation safety have been adopted in the past two years. Turkey will need to ensure compliance with Euratom Treaty requirements and procedures. In this respect, due attention will need to be paid to preparing the implementation of Euratom safeguards, in particular regarding the reporting of nuclear material flows and inventories directly by the persons or undertakings operating nuclear installations or storing nuclear materials. This includes small holders like universities and medical facilities.

As a *candidate country*, Turkey *must* also *comply* with the directive on *environmental impact assessments* including transboundary consultations with Member States. Under the international Convention of Nuclear Safety, Turkey already has an obligation to consult neighbouring countries on proposed nuclear installations and provide information allowing them to conduct their own impact assessment.

Main Sources:

European Commission: Turkey 2005 Progress Report; COM (2005) 561 final; http://europa.eu.int/comm/enlargement/report_2005/pdf/package/sec_1426_final_en_progress_report_tr.pdf;

Clingendael International Energy Programme (CIEP), Institute for International Relations: "Study on Energy Supply Security and Geopolitics - Final Report", The Hague, Netherlands, January 2004 (study produced for the European Commission DG Energy and Transport).