The WTO and Energy

WTO Rules and Agreements of Relevance to the Energy Sector

By Yulia Selivanova
Energy Charter Secretariat
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ICTSD welcomes feedback and comments on this document. These can be forwarded to Moustapha Kamal Gueye, gkamal@ictsd.ch.


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ABBREVIATIONS AND ACRONYMS

ASEAN Association of Southeast Asian Nations
CIS Commonwealth of Independent States
ECS Energy Charter Secretariat
ECT The Energy Charter Treaty
EU European Union
FSU Former Soviet Union
GATS General Agreement on Trade in Services
GATT General Agreement on Tariffs and Trade
GDP Gross Domestic Product
GHG Greenhouse Gas
HS Harmonized System
IEA International Energy Agency
IEF The International Energy Forum
LNG Liquefied Natural Gas
MFN Most Favoured Nation
NAFTA North American Free Trade Agreement
OECD Organization for Economic Cooperation and Development
OPEC Organization of the Petroleum Exporting Countries
SCM Subsidies and Countervailing Measures (Agreement)
STE State Trading Enterprises
TBT Technical Barriers to Trade (Agreement)
TRIMs Trade-Related Investment Measures (Agreement)
TRIPS Trade-Related Aspects of Intellectual Property Rights (Agreement)
UNCTAD United Nations Conference on Trade and Development
UNFCCC United Nations Framework Convention on Climate Change
WTO World Trade Organization
FOREWORD

Energy and energy products are a central element of world trade. Further advancements in renewable technologies are expected to spawn new dimensions in energy trade at the multilateral level. Such developments, when coupled with predicted growth in oil and gas trade, will have a substantial and escalating impact on the international trade regime.

There has long been a misconception that energy is not governed by international trade rules in the same way that other products are. Such a misunderstanding may have been caused by the fact that energy products and materials do not usually encounter market access problems in their export markets. International trade rules have generally dealt with import barriers more than export barriers. In the energy sector, trade restrictions are more pertinent to export barriers, and as a result, market access discussions have not focused as heavily on energy.

The seemingly limited focus on energy can also be attributed to the fact that until recently, large energy exporting countries including Saudi Arabia, Russia and central Asian nations, were not Members of the World Trade Organization. The accession of Saudi Arabia and the likely accession of Russia and other oil exporting countries is seen as a major development that will affect the profile of energy in the trade system.

This paper attempts to put energy in the context of international trade and provide some clarity as to how international trade rules apply to this sector. First, the paper gives an overview of the energy supply and demand market and the international framework of energy regulation. Then, it goes on to examine the WTO rules and agreements that relate to energy trade; the characteristics of energy resources and products that differentiate them from other goods; the existing energy trade processes that could constitute barriers according to GATT-WTO rules; and issues related to energy security, energy investment, and trade in energy services. To conclude, the paper discusses how the interests of both energy-importing and energy-exporting states can be addressed by the WTO.

The GATT and WTO principles that govern international trade are fully applicable to trade in energy and energy products. These include the most favoured nation (MFN) principle and the national treatment principle. During the Tokyo and Uruguay Rounds, WTO Members discussed issues related to dual-pricing practices and resulting subsidies, reverse dumping; export restrictions and export taxes; and problems of natural resource product displacement. The resistance of resource-endowed countries made it impossible to reach an agreement regarding specific rules on these issues, and de facto, the general GATT/WTO rules currently apply to energy issues. WTO agreements that are directly relevant to cross-border energy trade include the General Agreement on Tariffs and Trade (GATT); the General Agreement on Trade in Services (GATS); the Technical Barriers to Trade (TBT) Agreement; the Trade Related Investment Measures (TRIMs) Agreement; the Subsidies and Countervailing Measures (SCM) Agreement; and the Agreement on Government Procurement.

There are, however, specific features of the energy sector which give rise to questions over whether existing GATT/WTO rules and agreements can adequately address relevant energy issues. These aspects relate to security of supply, public service obligations, the existence of quantitative restrictions, requirements of trade in energy services (transportation and access to markets and networks), and environmental implications of different forms of energy.

In the context of growing interests in the development of new sources of energy, a debate has emerged as to whether, in the trade system, a different set of rules and disciplines should apply to renewable energies such as solar, wind and bioenergy. This debate revolves around the issue of “like
products” and has critical implications for renewable energy and climate change policies which have proliferated in a large number of countries.

With the remarkable rise in oil prices during the past few years, the issue of quantitative restrictions on energy production and trade has come to the forefront of the legal debate over their WTO compatibility. This paper examines whether quantitative restrictions on energy exports are allowed under WTO rules and on which basis.

It also seeks to provide an analysis of other critical issues related to cross-border trade in energy such as trade in energy services, energy transit, and state trading companies. Energy services are an essential aspect of negotiations on services, which are part of the on-going Doha Round of multilateral trade negotiations. So far, WTO Members have undertaken limited commitments in the area of energy services. Part of the difficulty relates to the fact that there is no single definition or clear notion of what is meant by energy services. As a result, much discussion has taken place on the issue of classification, with WTO Members discussing different approaches to the issue. In the on-going Doha Round negotiations, Members are expected to bring some clarity and respond to the various offers and requests for liberalisation in this area.

The right to transit significantly impacts cross-border trade in energy. While the GATT through Article V provides for freedom of transit, questions remain since many of the states where energy transit problems occur are not yet WTO members. The energy sector is dominated by government-owned or government-controlled companies that sometimes perform regulatory functions. In their negotiations for accession to the WTO some energy exporting countries have faced demands for the unbundling of state-monopolies, which has been criticised as going beyond WTO requirements.

As many energy-endowed countries are in the process of accession to the WTO, the trade system would be called upon to address both the concerns of energy importing and exporting countries. Multilateral trade rules that would address these concerns in an integrated manner are desirable because they would create a transparent and predictable framework.

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This paper is part of a series of issue papers commissioned in the context of ICTSD’s project on Trade, Climate Change and Sustainable Energy. The project aims to generate policy-oriented and solutions-focused knowledge on key issues at the interface between the multilateral trading system and various regimes and initiatives promoting the transition to a sustainable energy future.

Ricardo Meléndez-Ortiz
Chief Executive, ICTSD
EXECUTIVE SUMMARY

Energy was not specifically addressed by international agreements for a long time, and was mostly treated in a political context as a special case. It is now commonly accepted that the existing World Trade Organization (WTO) rules apply equally to energy products. These rules are not, however, well designed to address some trade-related issues in the energy sector. The WTO addresses import barriers to a larger extent than export barriers. In the energy sector, the trade restrictions are more pertinent to export barriers.

WTO Members addressed issues in relation to the energy policies of exporting countries during the Tokyo and Uruguay Round. Some of the issues discussed included dual-pricing practices and resulting subsidies, and/or reverse dumping; export restrictions and export taxes; and problems of natural resource product displacement by substitutes. The resistance of resource-endowed countries made it impossible to reach an agreement to create specific rules on these issues.

Specific features of the energy sector require special rules related to energy trade. The issues of security of supply, public service obligations, environmental and development goals have to be pursued while considering private profitability and efficiency. Private investments are needed in order to build energy transportation networks and contribute to security of supply and development goals. Some regulatory solution needs to be found in order to both encourage investment and ensure attainment of public policy objectives.

WTO agreements that are directly relevant for the cross-border energy trade include the General Agreement on Tariffs and Trade (GATT), the General Agreement on Trade in Services (GATS), the Technical Barriers to Trade (TBT) Agreement, the Trade Related Investment Measures (TRIMs) Agreement, the Subsidies and Countervailing Measures (SCM) Agreement, and the Agreement on Government Procurement.

The most favoured nation (MFN) principle of the GATT applies to trade in energy and means that “like” energy products and materials cannot be discriminated against on the basis of their origin (imports) or destination (exports) in terms of customs duties, charges or any import or export regulations and formalities.

The national treatment requirement exists with respect to internal taxes and charges, laws and regulations. Internal taxes for imported energy material and products should not be higher than for like energy material and products of domestic origin.

Quantitative restrictions are prohibited through Article XI. This prohibition equally applies to the energy trade. The most relevant exception from this prohibition for the energy sector is the provision that allows temporarily invoked export prohibitions in order to relieve critical shortages of products essential to the exporting country.

WTO Members can use Article XX exceptions to introduce measures in pursuit of certain policy objectives that otherwise would have been WTO-inconsistent. The measure under Article XX(b) needs to be “necessary” to protect human, animal or plant life or health in order to be in line with the GATT. Article XX(g) allows measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.”
Energy products and materials do not usually encounter market access problems in their export markets. Tariffs for energy products and materials are generally quite low although unbound. Tariffs were reduced more for processed than for unprocessed products. Energy exporters traditionally consider that high internal taxes imposed by importing countries on petroleum products including gasoline undermine their ability to derive income from their own natural resources. As long as these taxes are applied on a non-discriminatory basis they are in line with the WTO.

Energy transit is a crucial factor for cross-border energy trade. Article V of the GATT provides for freedom of transit. Transited goods from any WTO Member should be given favourable treatment, equal to that extended to goods from any other country. Many of the states where energy transit problems occur are not yet WTO members. The problem is also that it is often not the state per se but energy companies that impede transit.

The energy sector is dominated by government-owned or government-controlled companies that sometimes perform regulatory functions. In Article XVII of the GATT, Members undertake to ensure that state trading enterprises (STEs) act in a manner consistent with the general principles of non-discrimination. Such companies are obliged to make their purchases or sales on the basis of commercial considerations and to afford the enterprises of the other Members adequate opportunity to compete for participation in such purchases or sales. The phrase “commercial considerations” has been interpreted rather narrowly in the WTO context. The existence of the obligation to give access to transportation pipeline as a means to compete in sales would be difficult to prove on the basis of the wording of Article XVII.

WTO Members have undertaken limited commitments in the area of energy services. There is no single definition or clear notion of what is understood under energy services. Some energy products can be considered either a good or a service. Many services that form part of the energy production chain are in fact not core energy services. Some WTO Members favour a source-neutral classification for energy services applying to all energy sources, except where an activity is related to a specific source. There is a perception that market access commitments should be technologically neutral, i.e. should be made without regard for the technology used to provide energy services.

Energy services are mainly supplied through commercial presence, cross-border trade and movement of natural persons. Market access commitments alone might, however, be insufficient to ensure liberalisation. Trade in energy is often obstructed by difficulties in getting access to transportation and distribution networks. The GATS contains limited provisions that deal with the conduct of private entities such as monopolies and exclusive service suppliers. The United States and Norway proposed to devise a Reference Paper for energy services, modelled on the Reference Paper to the GATS Agreement on Basic Telecommunications Services. The negotiations did not, however, receive impetus.

Discussion of subsidies in the energy context is of twofold character. First, traditional types of energy subsidies are subsidies granted to energy producers and downstream industries. Secondly, in order to achieve environmental policy objectives, some measures have been introduced by governments that allegedly could be inconsistent with WTO subsidy rules. If the government provides support only to industries that export, the programme would constitute a prohibited subsidy. Domestic subsidies, although not prohibited, can be actionable. If subsidised imports are causing injury to the domestic industry of a Member, this Member may impose a countervailing duty to offset the subsidy.

Often energy-endowed countries control domestic prices for energy products at artificially low levels. The main controversial effect of such price controls on energy is the depression of prices
for domestic industrial users. Low-priced energy inputs are typically used as inputs by domestic downstream industries such as fertilisers, metals, etc. If dual energy pricing applies to all enterprises and industries throughout the economy, this practice does not meet the specificity requirement for actionable subsidies.

The energy sector is a capital-intensive industry that requires significant investments in infrastructure. The TRIMs Agreement does not deal with investment policy per se, and only elaborates on the national treatment obligation and prohibition of quantitative restrictions with respect to certain investment measures, such as local content and foreign exchange-related requirements. It is prohibited to impose investment measures that require companies to buy a certain amount of goods of national origin or condition certain imports on the amount of exports.

The pertinent question with respect to energy arises if countries pursuing environmental objectives could discriminate among energy goods and materials on the basis of the technologies used in the production of such goods.

Many energy-endowed countries still remain outside the WTO system. Energy policies of these countries have become a concern for industrialised WTO Members. They try thus to use the accession negotiations to address energy issues. Energy-importing states are interested to address issues such as pricing practices, natural resource development policies, procurement in the energy sector, and restrictive practices of incumbent energy companies. Some acceding countries have faced demands to fully liberalise their energy services sector, to eliminate export taxes and dual price systems, and even unbundle energy monopolies. Whereas some of the applicants conceded to WTO Members’ demands and changed their regulations, some others insist that these demands go beyond the standard WTO provisions and represent so-called “WTO-plus” requirements.

Energy-exporting states would be interested in addressing issues that are of concern for them such as discrimination and market access of energy products and materials as well as downstream products, the access to market of energy services of WTO Members, transit, etc. Many energy producing and exporting countries are concerned about high consumption and excise taxes imposed by importing countries on energy materials and products.

Multilateral rules that would address some pertinent issues related to trade in energy are desirable because they would create a transparent and predictable framework. While rules and disciplines under current WTO Agreements apply to energy, a number of specific questions outlined above remains to be clarified. Considering unsuccessful attempts to devise energy-specific rules during the previous rounds of trade talks, as well as the state of play in the current negotiations, creation of new rules on energy in the WTO does not seem feasible in the near future. The application of existing principles to the energy sector, relying on decisions of the dispute settlement panels to address acute issues on an ad hoc basis, appears to be the likely outcome in the near future.
1. INTRODUCTION

With the integration of the international economy, the issues related to international regulation of energy and natural resource policies became very prominent in both multilateral and regional trade negotiations. Now, the forthcoming WTO accessions of major energy-exporting countries bring the attention of trade negotiators to energy again.

The WTO membership of these countries raises a multitude of issues. Are the practices of these countries WTO-compatible? How do WTO rules apply to the energy sector? Do they address specific concerns of energy-exporting countries? Do WTO Members wish to raise issues related to energy in accession negotiations of energy-exporting countries? What role will energy play in WTO in the future?

Furthermore, new issues have arisen with respect to trade in energy that were not a concern when the GATT was launched, most notably environmental protection and global warming challenges.

The implementation of the climate change policies, including policies in support of renewable energy sources, poses a number of questions as to the consistency of such measures with WTO rules.

The present paper has a multifold purpose. First, it overviews the geographical distribution and trends in energy supply and demand. Second, it describes the international framework of energy regulation and discusses the mandate of different multilateral intergovernmental organisations that deal with energy issues. It also discusses to what extent regional and bilateral free trade agreements address energy issues. Third, it examines in more detail different WTO provisions and the way they relate to energy trade. Fourth, the paper attempts to answer the questions of whether energy products and materials are different from other goods and need special rules of trade. Fifth, the paper reviews existing practices of energy-importing and energy-exporting states that could potentially constitute barriers inconsistent with WTO rules. Finally, the paper attempts to look at the interests of different countries, both energy exporting and energy-importing WTO Members and countries in process of accession, and how these interests can be addressed in the WTO.
2 THE GLOBAL ARCHITECTURE OF ENERGY MARKETS AND REGULATION

2.1 World energy supply and demand

Energy resources are distributed unevenly throughout the world. What follows is a brief overview of the patterns of oil and gas distribution, supply and consumption.

Oil

The major role oil plays in economic development distinguishes it from other commodities. Oil played a critical role in world history during the last century and the two World Wars. It is currently the most significant energy resource comprising around 40 percent of global energy consumption and is likely to maintain this share in the coming decades. Presently oil is traded as any other commodity on the world markets, its price being determined by supply and demand.

Oil resources are distributed highly unevenly throughout the world. The Middle East is the world’s largest oil producing region and its role is expected to increase even more in the future (IEA, 2005).

Of proven oil reserves, 69 percent of the world’s reserves are held by members of the Organization of the Petroleum Exporting Countries (OPEC). Of the 14 biggest oil producing countries 7 are members of OPEC. This dominance allows OPEC countries to influence the world oil price. Because non-OPEC countries’ smaller reserves are being depleted more rapidly than OPEC reserves, their overall reserves-to-production ratio is much lower - about 26 years for non-OPEC and 83 years for OPEC. This implies increased OPEC production as a proportion of world production over the long term. OPEC’s share is thus projected to rise to 50 percent in 2030 (IEA, 2005). Among OPEC members, Saudi Arabia is the biggest producer with one-fourth of the world’s proven reserves. Moreover, its production costs are some of the lowest in the world.

The biggest non-OPEC oil producers include Canada, China, Mexico, Norway, Russia, the United Kingdom and the United States. In 2004, non-OPEC countries produced 60 percent of the world’s oil. Most non-OPEC countries (85 percent) are, however, net oil importers.

In most major non-OPEC countries governments generally have little control over production levels as oil companies are privately owned. These companies’ behaviour is determined by market forces. When prices are high, they can carry out exploration in fields with high production costs. They focus on lower-cost production when prices are low.

Private companies do not hold back profitable production, and have limited spare production capacity. Therefore, in the case of a significant world oil production disruption, OPEC and not private oil companies from non-OPEC states would be the primary immediate source of additional oil supply.

Oil demand is increasing steadily due to world GDP growth. Developing countries are increasing their energy consumption, with notably growing demand on the part of China and India. Of the world’s top ten oil consumers in 2004, only Canada and Russia were net oil exporters. The remaining top consumers are also the world’s largest oil importers. OPEC countries together consume about 8.5 percent of the oil produced in the world.

The high oil prices encourage non-OPEC production of conventional and non-conventional oil. Moreover, the more the oil price rises
the more the development of alternative energy technologies would be promoted. Some renewable technologies are on the edge of becoming commercial, while others occupy a niche position. Although their development to the commercial stage is not expected in the short term, high prices and technological developments increase opportunities for such energy sources.

Oil-exporting countries are vulnerable to oil-price fluctuations; this was evident during the crisis in 1998-1999 when prices decreased to 10 USD per barrel. That experience lead many oil-exporting countries to start economic reforms aimed at diversifying domestic sectors and reducing reliance on oil. Moreover, in Saudi Arabia WTO accession has given additional push for domestic reforms. Saudi Arabia used its natural endowment with energy resources to successfully develop the petrochemical sector. Some other countries have been successful in diversifying from the oil sector. For instance, Bahrain successfully developed the banking sector, United Arab Emirates developed banking and tourism (IEA, 2005).

Gas

Gas resources are more widely spread than oil. Most of these reserves are located in the Middle East (34 percent of the world total), Europe and the Former Soviet Union (FSU) (42 percent of total world reserves). The United States possesses 3 percent of the world’s total natural gas reserves, Africa and the Far East 15 percent, Central and South America 4 percent.14 Three countries - Russia, Iran and Qatar - account for 55 percent of gas reserves. The western hemisphere is almost self-sufficient in natural gas except for small amounts of liquid natural gas imports to the US from Algeria, Australia and United Arab Emirates. The FSU and Africa are net exporters to Europe (Dahl, 2002).

The US and UK markets developed on the basis of exploration of their own natural gas resources. These countries have been, however, moving from self-sufficiency to import dependence. Continental Europe is supplied mainly by Algeria, Norway and Russia, as well as super giant Groningen field in the Netherlands. Japanese and Korean markets developed from the beginning based on imported gas in the form of liquefied natural gas (LNG) from Brunei, Indonesia and Malaysia. Asia supplements internal consumption with relatively small shipments of LNG from Alaska and the Middle East (Dahl, 2002). All of the gas trade in the Asia Pacific region is in the form of LNG imports to Japan, South Korea and Taiwan.

A number of countries currently produce and export LNG. Algeria was the first to export commercial quantities of LNG. It has no longer the largest capacity, having been surpassed by Indonesia. Asia Pacific has the largest amount of regional capacity and also makes the largest purchases of LNG (Dahl, 2002). In addition, totally new projects have been completed. Shipments of LNG from Trinidad and Tobago commenced in April 1999. Shipments from Nigeria’s Bonny Island also commenced in 1999. Expansions are taking place in Indonesia and Qatar.15

Other projects that are in various stages of planning or are under consideration include liquefaction facilities in Argentina, Canada, Egypt and Sakhalin, as well as expansions in Australia, Indonesia, Nigeria, Qatar, and Alaska’s North Slope. Receiving countries include Brazil, India and Thailand.

A distinguishing feature of gas is that it is used in sectors that are highly price inelastic such as residential and commercial sectors. While in North America and the UK gas is used in power generation, in the countries of continental Europe gas plays a minor role in the power sector. Energy sources of domestic origin, such as coal or nuclear power, have been promoted on the continent. It is projected, however, that gas will become the preferred fuel in the power industry for economic and environmental reasons. The demand for natural gas is thus likely to grow significantly. Gas consumption is forecasted to increase by three quarters to replace coal as the second-largest energy source. With the economic growth of India and China, competition for gas supplies is going to increase.
Considering that gas supplies are dependent to a large extent on transportation via pipelines, gas trade has been subject to more explicit regional patterns than oil trade. Canada exports to the US; Argentina exports to Chile, Brazil and Uruguay; Bolivia exports to Brazil. Major suppliers to Western Europe are Algeria, the Netherlands, Norway and Russia. Russia also supplies Eastern Europe as well as FSU markets. Turkmenistan and Uzbekistan also supply gas to other FSU countries. A significant increase in international gas trade is expected - from 22 to 40 percent by 2030.16 Firstly, this is due to increased dependence of some major markets on imports.17 Secondly, there is increased competition for gas supplies among consuming countries, especially fast growing economies in Asia.

At the same time, exporting countries are concerned over security of demand. Development of new fields and construction of transportation networks are extremely capital intensive and subject to numerous risks. The exporting countries want thus to be sure to justify their investments in the long-term. There is a need for investment into supply capacity. Capital required in transitional economies and developing countries is the biggest challenge as investment risks are deemed great in these countries. Attracting private investment will be contingent upon establishing an attractive investment framework (IEA, 2005).

Both for oil and gas, the International Energy Agency (IEA) has forecasted a slowly rising trend in prices after 2010 - due to increase of marginal production costs of non-OPEC countries, the increasing share of a small number of major producing countries and lower spare capacity. Additional production is going to come from the Middle East. The dominance of these countries would increase their ability to impose higher prices through their production and investment policies. The prices would not, however, be able to rise too high because of the possibility for alternatives to be developed to a commercial stage. The increase in prices is favourable for investment in expanding supply capacity (IEA, 2005).

High prices are also likely to have favourable impact on implementation of policies to reduce air pollution and greenhouse gas (GHG) emissions, and to enhance energy security. Increasing energy efficiency and promotion of renewables are some of the issues that need to be addressed in the context of discussion on sustainable energy future. Whereas pollution-related problems could be effectively addressed within a national frame, international co-operation is especially acute for global issues such as GHG.

In summary, fossil fuels are projected to continue to dominate energy supplies. Oil, natural gas and coal will cover 81 percent of energy demand by 2030 (IEA, 2005). Most of the increase in demand will come from developing countries, as their economies and populations grow at fast rates. Transport and power generation will consume a large share of global energy. The growing geographical mismatch between demand and production will lead to increase in international trade in oil and gas. This makes discussion on relevance of WTO rules to trade in energy all the more pertinent.

### 2.2 The World Trade Organization (WTO)

For a long time, being an important strategic commodity, energy was mostly treated in a political context as a special case, without being specifically addressed by international agreements (UNCTAD, 2000). Originally there was a common perception that GATT rules did not apply to trade in energy. This perception was mostly due to the fact that until the 1980s most energy producing countries were not yet contracting parties of the GATT (UNCTAD, 2000). This is understandable, especially in the case of developing countries rich in energy resources, since their main export commodity did not encounter market access barriers in international
markets. On the other hand, becoming the contracting party to the GATT would oblige them to undertake numerous binding commitments and open domestic markets. There were not many incentives for countries whose main and sometimes only major export commodity was energy to subscribe to such obligations. With industrialisation, energy-endowed countries developed downstream industries that were often based in their production processes on the use of energy inputs. These countries saw then more incentives to participate in the multilateral trade agreements. Indeed, although energy did not have any obstacles to reaching the export markets, this was not the case for downstream products. Fertilisers, ammonia and metals needed to compete in the export markets with often-subsidised domestic production of importing countries. Market access problems became a concern for energy-endowed countries.

With accession of some major world energy and petroleum producers to the GATT and the WTO the issues pertaining to energy trade became increasingly acute. The issues related to energy were addressed by the US and the European Community during the Tokyo and Uruguay Rounds of multilateral negotiations. The discussions slowed down then, as the proposals to elaborate on energy-specific aspects encountered opposition from energy-endowed countries.

It is now commonly accepted that existing WTO rules apply equally to energy products. The problem is, however, that these rules are not well designed to address specific issues in the energy sector. Traditionally, WTO rules have been devised in a manner to address import barriers to a larger extent than export barriers. In the energy sector, however, the trade restrictions are more pertinent to export barriers. The concerns over security of energy supply lead to relatively low import duties. At the same time, export duties on energy materials and products constitute an important revenue source for energy-exporting countries. The barriers in trade in energy are thus very different from those in other sectors - they tend to be on the export side, rather than the import side.

WTO Agreements that are directly relevant for the cross-border energy trade include the GATT, GATS, TBT, TRIMs, SCM, and Government Procurement agreements. The pertinent WTO rules relevant to the energy sector will be analysed in section 3 of this paper.

2.3 The organization of the petroleum exporting countries

The Organization of the Petroleum Exporting Countries was created in September 1960 by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. At the time of creation of OPEC, the international oil market was dominated by the ‘Seven Sisters’ multinational companies. The five founding members of OPEC created the Organization in order to gain control in the market over these powerful companies. Six other members joined later: Algeria, Indonesia, Libya, Nigeria, Qatar and the United Arab Emirates.

OPEC member countries produce about 40 percent of the world’s crude oil and 16 percent of its natural gas. However, OPEC’s oil exports represent about 51 percent of the oil traded internationally. Therefore, OPEC can have a strong influence on the oil market, especially if it decides to reduce or increase its level of production.

OPEC rose to international prominence during the 1970s, as its member countries took control of their domestic petroleum industries and acquired a major say in the pricing of crude oil on world markets. There were two oil pricing crises, triggered by the Arab oil embargo in 1973 and the outbreak of the Iranian Revolution in 1979; both resulted in oil prices rising steeply.

OPEC’s objective is to co-ordinate and unify petroleum policies among member countries, in order to secure beneficial and stable prices for petroleum producers; an efficient, economic
and regular supply of petroleum to consuming nations; and a fair return on capital to investors. Production limits are one of possible responses to market fluctuations. OPEC might decrease its oil production in response to market conditions in order to counter falling prices. The oil and energy ministers of the OPEC member countries meet at least twice a year to co-ordinate their oil production policies in light of the market fundamentals, i.e. the likely future balance between supply and demand.²⁰

One of the most common misconceptions about OPEC is that the Organization is responsible for setting crude oil prices. Although OPEC did in fact set crude oil prices from the early 1970s to the mid-1980s, this is no longer the case. While it is true that OPEC’s member countries do voluntarily restrain their crude oil production in order to stabilise the oil market and avoid price fluctuations, they do not set prices. However, given that OPEC countries produce about 40 percent of the world’s oil and about 50 percent of the oil traded internationally, any decisions to increase or reduce production may lower or raise the price of crude oil.

2.4 The International Energy Agency (IEA)

The IEA acts as energy policy advisor for its 26 member countries’ governments in their effort to provide reliable, affordable and cleaner energy for their constituencies. The original purpose of founding the IEA was to coordinate measures during the oil crisis in 1973-74. The IEA’s role has changed since then and deals with broader energy policies. The IEA has established a comprehensive framework for work in the field of different types of energy, including the monitoring of developments in the energy industries and markets, the review of energy market reforms in the IEA countries and an analysis of the impact of market reforms and supply trends on security of energy supply.²¹

An important part of IEA work consists of international collaboration to encourage development and deployment of cleaner and more efficient energy technologies. It provides high-quality energy-climate change analysis and is trying to find practical and cost-effective means of meeting countries’ greenhouse reduction objectives. It examines policy and market challenges leading to a more significant role for renewable energy technologies.²²

Moreover, the IEA provides a framework for more than 40 international collaborative energy research, development and demonstration projects known as Implementing Agreements. These Agreements are contributing significantly to achieving faster technological progress and innovation at lower cost. Such international co-operation helps to eliminate technological risks and duplication of effort, while facilitating processes like harmonisation of standards.

IEA Implementing Agreements are at the core of the IEA’s International Energy Technology Cooperation Programme. This Programme includes numerous other activities that enable policymakers and experts from IEA member and non-member countries to share views and experiences of energy technology issues. These activities are designed to enhance policy approaches, improve the effectiveness of research programmes and reduce costs. The IEA’s Implementing Agreements focus on technologies for fossil fuels, renewable energies, efficient energy end-use and fusion power. While non OECD countries or companies of non OECD countries can be participants in such Implementing Agreements participation by non OECD countries is still minor.²³

2.5 The Energy Charter Treaty (ECT)

The roots of the Energy Charter date back to a political initiative launched in Europe in the early 1990s. After the Cold War was over the economic division of Europe still remained. Countries formed on the territory of the former Soviet Union were rich in energy resources
but needed major investments to ensure their development. At the same time the countries of Western Europe were interested in access to the region’s energy resources in order to diversify their sources of energy supply. There was a need to develop energy co-operation between the producers and consumers. The Energy Charter process was launched.24

The Energy Charter Treaty came into force in 1998 and is now signed by 51 countries (and the European Communities), and ratified by 46 countries. Eight of the Charter member countries are not WTO Members, while seven of them are engaged in the WTO accession process.25

The ECT is primarily a multilateral investment protection treaty for the energy sector. Moreover, the Treaty covers the terms under which energy can be traded and transported across national borders to international markets. In this regard, the Energy Charter process has an in-built similarity with the rules of the multilateral trading system, as WTO provisions are incorporated into the ECT by reference as the basis for an energy trade and transit framework. Non-derogation from the provisions of the GATT/WTO is a core principle of the Treaty. All ECT Contracting Parties, whether WTO members or not, have benefited from the uniform application of the rules of the multilateral trading system in the energy sector.

With respect to the issue of energy transit, the provisions of the Energy Charter Treaty develop the principles of GATT Article V to address issues connected with grid-bound energy transport. Not only does the ECT reconfirm WTO principles of non-discrimination, it expands and elaborates on WTO transit provisions. The ECT obliges its contracting parties not to interrupt transit flow in order to enforce its claim in a pending dispute with another country. Furthermore, apart from reconfirming freedom of transit, the Charter requires governments to facilitate and take necessary measures to make transit practical. For instance, if the transit cannot be carried out via existing available capacity, Contracting Parties are obliged not to impede the creation of new capacity. The Transit Protocol to the ECT, the negotiations of which are pending, would elaborate in more detail some specific aspects of energy transit, such as conditions for access to networks and the criteria for calculating transit tariffs.

The fundamental objective of the Energy Charter Treaty’s provisions on investment issues is to ensure the creation of a “level playing field” for energy sector investments in its constituency. The ECT provisions confirm the prohibition of TRIMs that are inconsistent with Articles III or XI of the GATT. Moreover, the ECT provides for national treatment in relation to management, maintenance, use, enjoyment or disposal of foreign investments in the post-investment phase. Considering that current WTO rules do not deal with investment policy per se, and only prohibit those investment measures that are considered inconsistent with provisions on national treatment and quantitative restrictions, the investment provisions of the ECT provide important added value to the WTO framework. In addition, ECT provisions reduce the non-commercial risks associated with energy-sector investments.26 For instance, the ECT contains provisions on protection of foreign investment against direct or indirect expropriation and breach of individual investment contracts. The protection of investors is reinforced by both inter-state arbitration and investor-state dispute settlement.

Finally, the Energy Charter provides a forum for sharing experiences on energy efficiency issues through the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA). The Protocol contains provisions on protection of foreign investment against direct or indirect expropriation and breach of individual investment contracts. The PEEREA process consists of a series of in-depth energy efficiency reviews and concrete recommendations for individual governments concerning ways of improving their national energy efficiency strategies.
2.6 The International Energy Forum (IEF)

The history of the IEF started with the first Producer-Consumer Dialogue in 1991. In 1999 the Producer-Consumer Dialogue was renamed as the International Energy Forum.\(^{27}\)

The International Energy Forum gathers ministers of energy producing and consuming countries, of industrialised and developing countries. One of the objectives of the IEF is to strengthen dialogue and co-operation between oil and gas producing and consuming countries, and international organisations. In the IEF, ministers address issues of energy security and the links between energy, environment and economic development.

Discussed issues are related to energy resources and markets, investments in the energy sector and improved frameworks for co-operation. The Forum emphasises that improved access to markets, resources, technology and financial services, bolstered by fair and transparent economic, fiscal and legal regulatory frameworks and by good governance, is crucial for the long-term energy security of both producers and consumers.

Based on studies presented by the IEA and OPEC, the Forum acknowledged continued strong reliance on fossil fuels in meeting global energy demand. The Forum underscored, however, the need to accelerate the development of cleaner fossil fuel technologies and alternative sources of energy and increased efficiency.

Furthermore, a business forum was launched back-to-back with the ministerial forum. The aim of the business forum is to facilitate the dialogue between governments and industry players. The Netherlands was the first IEF host country to organise a forum involving the energy industry. The main theme of the 9th IEF held in May 2004 was «investment», and the view of the business sector provided a key input to the ministerial forum.\(^{28}\)

2.7 The United Nations Framework Convention on Climate Change (UNFCCC)

In 1992 most countries joined an international treaty - the United Nations Framework Convention on Climate Change (UNFCCC) in order to address the threat of global climate change. When they adopted the Convention, governments knew that their commitments would not be sufficient to seriously tackle climate change. Parties therefore launched a new round of talks to decide on stronger and more detailed commitments for industrialised countries. In 1997, an addition to the treaty was adopted in Kyoto, Japan. The Kyoto Protocol\(^{29}\) shares the Convention’s objectives, principles and institutions but sets forth more powerful and legally binding measures. The Kyoto Protocol entered into force on 16 February 2005.

The Protocol sets forth the legally binding commitments of its parties to reduce greenhouse gas emissions. Furthermore, it provides a framework with respect to measures for achieving commitments of respective parties. The Parties can, however, choose measures that best suit their economic, political and social conditions.

The climate change commitments can be achieved through adopting domestic measures and by introducing measures abroad by means of flexible mechanisms. Such mechanisms were designed to enable parties to choose a more economic means to fulfil their commitments by reducing emissions abroad. The Protocol provides an indicative list of domestic policies that could be used to reduce emissions: the promotion of energy efficiency, research and development of renewable energy sources, carbon dioxide sequestration technologies and advanced and innovative environmentally sound technologies; reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors; limitation and/or reduction of
methane emissions in the production, transport and distribution of energy, etc.\textsuperscript{30}

The pertinent issue arises as to how to devise policies to combat climate change without breaching trade obligations under the WTO.\textsuperscript{31} Financial support to producers of renewable energy might fall under WTO subsidy rules. Furthermore, energy taxes and all domestic laws and regulations should not be applied in discriminatory manner. Some of the issues that arise in terms of compatibility of climate change policies and WTO rules are touched upon in sections 3.4 and 3.5 infra.

2.8 Bilateral and regional trade agreements

Free trade agreements rarely contain provisions specific to the energy sector.

The North American Free Trade Area (NAFTA) contains an energy chapter, which applies to measures relating to energy and basic petrochemical goods and covers measures relating to investment and to cross-border trade in services associated with such goods. Energy regulatory measures are subject to national treatment requirements.

NAFTA interprets GATT rules in a stricter way than has been the case in the past and builds upon them, for instance in the area of export duties and restrictions (UNCTAD, 2000). For instance, parties state their understanding that provisions of the GATT incorporated in NAFTA prohibit minimum or maximum export-price requirements and minimum or maximum import-price requirements in circumstances where any other quantitative restrictions are prohibited.\textsuperscript{32}

NAFTA parties may adopt restrictions otherwise justified under the GATT with respect to the export of energy or basic petrochemical goods only if they do not impose a higher price for exports of energy or basic petrochemical goods than that charged when such a good is consumed domestically. This requirement covers licences, fees, taxation and minimum price requirements.

Mexico has made a number of reservations. It reserved for itself the following activities (including investment and the provision of services): (1) exploration and exploitation of crude oil and natural gas; refining or processing of crude oil and natural gas; production of artificial gas, basic petrochemicals and their feedstock and pipelines; (2) foreign trade, transportation, storage and distribution, up to and including the first-hand sales of crude oil, natural and artificial gas, basic petrochemicals. The coverage of NAFTA with respect to energy has been substantially limited through these important exemptions of Mexico.

On regional level, most agreements concluded set forth a framework for co-operation in the energy sector. For instance, member countries of the Association of Southeast Asian Nations (ASEAN) signed in 1986 a special Agreement on ASEAN Energy Cooperation. The Agreement provides for co-operation in development and use of all forms of energy, including renewable. The scope of co-operation covers resource investigation, exploration, development, technology transfer, energy conservation techniques, energy security arrangements for emergency situations, sharing of methodologies.

Very few bilateral trade agreements address energy specifically. Those few that address energy mostly contain reservations with respect to investments in the energy sector.

For instance, the Free Trade Agreement between Chile and Mexico contains a number of important exemptions with respect to energy. Chile has reserved national treatment and performance requirements in energy investments in exploration, exploitation and benefits from hydrocarbons in liquid and gas form. The reservation does not cover storage, transport and refining of energy materials. Mexico also has made reservations with respect to national treatment regarding investments in
the energy sector. Only Mexican nationals can acquire, establish and operate gasoline stations. A similar exemption was made with respect to distribution, transportation, storage and sale of gas and petroleum. Moreover, there is a 49 percent ceiling on foreign participation in the Mexican companies supplying combustibles and lubricants used by ships, airplanes and trains. Finally, Mexico has reserved exclusive rights to deny and authorise access to investments in exploration, exploitation, refining or processing of crude petroleum and natural gas, production of basic petrochemicals; transportation, storage, distribution, retail and external trade of crude petroleum, gas, basic petrochemicals and energy materials and products produced from crude oil.

The Free Trade Agreement between Canada and Chile provides that, in the application of energy regulatory measures, regulatory bodies avoid disruption of contracts to maximum extent possible. The parties should also seek to implement regulatory measures equitably. The agreement does not pose, however, a positive obligation on its parties with respect to the above matters.

The energy co-operation agreement Petrocaribe was established to facilitate the development of energy policies and plans for the integration of Caribbean countries. The parties agreed to coordinate and harmonise their energy policies, including oil and oil derivatives, gas, electricity and the efficient use of these resources, technological co-operation, training, development of energy infrastructure and promotion of alternative sources of energy, such as renewable energy. Venezuela has extended credit facilities for supplies of energy with payment periods extended to 25 years on favourable conditions. Some portions of credits could be paid with goods and services.

In conclusion, relatively few bilateral and regional trade agreements contain rules specific to the energy sector. Energy-endowed states appear to be apprehensive about opening their energy sector through international agreements. This is understandable as they are interested in retaining control over natural resources and increasing their political leverage.
The issue of energy in the WTO is not a new topic. The issues related to trade in commodities were discussed during the negotiations on the creation of the International Trade Organization. Specific disciplines on trade in energy did not, however, form part of the original GATT. One of the possible reasons for this is the initial non-participation of energy exporters in the Agreement. Moreover, the issue was much politicised due to the strategic nature of energy products. Security considerations greatly influenced trade policy in the energy sector (Gibbs, 2003).

Later, some countries attempted to include in the trade agreements provisions that would reduce the opportunities for exporting countries to impose restrictions on energy exports. The oil crises of the 1970s, in particular, prompted some industrialised countries, including the United States, to ensure that the issue of export restrictions be placed on the agenda of the Tokyo Round of Multilateral Trade Negotiations. The resistance of many countries made it impossible, however, to reach a substantive agreement on this subject (UNCTAD, 2000).

In the 1980s, the issues related to energy policies were again actively discussed in international trade (UNCTAD, 2000). Importers of energy tried again to address restrictive practices of energy exporters during the Uruguay Round of Multilateral Trade Negotiations. Some of the issues WTO Members addressed in relation to the energy policies of exporting countries included dual-pricing practices and resulting subsidies, and/or reverse dumping; export restrictions and export taxes; and problems of natural resource product displacement by substitutes.

In general, two different approaches emerged: whereas some countries wanted to limit the negotiations strictly to market access and trade-related issues, other countries wanted to address more far-reaching issues, e.g. access to resources and restrictive business practices (Stewart, 1993). During discussions within the Negotiating Group on Natural Resource-Based Products, an issue was raised as to whether pricing policies for natural resources were directly comparable to countervailable subsidies. Furthermore, some governments tried to expand the scope of negotiations on natural resource-based products to cover energy products, such as oil, natural gas and uranium. It was also proposed that negotiations on natural resource-based products should not be limited to questions of market access but should also cover production, access to supplies and restrictive business practices. The United States proposed three approaches: (1) a code approach in which the broad principles and rules of trade practices affecting all natural resource sectors would be developed, (2) amplification or elaboration of GATT Articles, and (3) request/offer approach.

In summary, the following questions were proposed for discussion: official encouragement of price-fixing practices; dual-pricing practices and resulting subsidies, and/or reverse dumping; pricing policies in transactions with affiliated, versus non-affiliated, enterprises; effects of restrictive business practices (whether or not government-condoned); government ownership and management of natural resource product production or trade; natural resource development policies and practices; discriminatory procurement; export restrictions and export taxes; and problems of the displacement of natural resource products by substitutes.

However, resource-endowed countries that exported commodities were apprehensive of binding rules on trade in natural resources. Thus these discussions did not result in any decision on the issue.
Then, the United States suggested that the issue of dual pricing be further reviewed in the broad context of subsidies within the Negotiating Group on Subsidies and Countervailing Measures. The United States called for the development and enforcement of greater subsidy disciplines with respect to what it identified as “natural resource subsidies”. This proposal encountered strong opposition from Mexico. Mexico insisted on changing the original wording of Article 2.1 of the Agreement on Subsidies and Countervailing Duties, which may have been interpreted as proscribing price differentiation for natural resources between domestic and export markets. Mexico proposed to limit the non-discrimination requirement to the same jurisdiction. This proposal was adopted in the final wording of Article 2.1 of the SCM Agreement. The adopted text meant the governments would be able to sell energy products on exports markets at prices higher than those set for domestic consumption.

State energy practices affecting natural resources and energy have been a sensitive and controversial topic because the issue is closely linked to state sovereignty over natural resources. Especially the issue of natural resources input pricing policy and, whether such a policy can be considered a form of subsidisation of a country’s exports, became a subject of increasing debate and even confrontation among countries (Nance, 1989). Thus the attempts during the Uruguay Round to negotiate specific provisions regulating practices related to natural resources, including energy, did not result in an agreement.

3.2 How oil and gas are different

The specifics of production and consumption set energy aside from other products. No other sector than energy has such a tremendous significance for development of other sectors, both manufacturing of goods and provision of services. Moreover, availability of energy and conditions of energy supply have a direct impact on social development.

Partially due to its strategic importance, governments chose traditionally to regulate the energy sector. Moreover, supply of energy used to be considered a “natural monopoly”, i.e. an activity that cannot be carried out in a competitive context in any commercially viable way and needs to be carried out by a sole company. While generation and supply are no longer considered to be a natural monopoly, such perception continues to exist regarding transport and distribution. This perception is changing with the evolution of the technology. Competing networks are being built in the gas sector.
Construction of pipelines requires, however, large investment (Wälde and Gunst, 2003).

The network dependence of energy mainly implies that the elimination of import barriers alone is not enough for effective liberalisation of energy trade. Additional measures have to be taken to open on non-discriminatory basis access to transportation pipelines/transportation networks, distribution systems and storage facilities. Moreover, the network dependence predetermined that most issues related to energy trade have been traditionally tackled on the regional and bilateral level.

Furthermore, the impact of energy use on the environment makes promotion of energy efficiency an important issue, especially following the obligations of some countries under environmental agreements, such as the Kyoto Protocol to the UNFCCC. Energy security is another important aspect that distinguishes trade in energy and determines the necessity of additional disciplines on multilateral level.

The issues of security of supply, public service obligations, environmental and development goals have to be pursued while considering private profitability and efficiency. Private investments are needed in order to build energy transportation networks and contribute to security of supply and development goals. The investors would be, however, reluctant to invest unless they are sure to receive a return on their investments. Furthermore, private companies would prefer to serve profitable networks. Liberalised energy markets cannot be expected to meet the social, developmental and environmental goals. Some regulatory solution needs therefore to be found in order to both encourage investment and ensure attainment of public policy objectives.

### 3.3 Should oil and gas be treated separately?

The question arises if it is feasible to create energy trade rules on multilateral level or whether it would be more efficient to tackle the issues related to barriers to energy trade and security of energy supply on the regional level. Furthermore, are there merits in dealing with energy separately, outside the multilateral trading system and separately from other sectors?

While issues related to energy trade have been tackled traditionally on the regional and bilateral level, it has become evident that the lack of clear rules on energy could lead to serious disputes. While creation of rules related to energy trade on regional level could prevent such disputes, the drawback of dealing with energy issues regionally is the uncertainty for newcomers in the market and possible inconsistency of these rules with rules set under a multilateral framework. Moreover, the dispute settlement of the multilateral trading system provides great incentives to set forth rules on issues that could be disputed in the future. The advantage of a uniform set of rules at the multilateral level is predictability and transparency. On the negative side, such rules cannot reflect specificities of respective regions. The balance may be found if a minimal multilateral framework addressing the most important general issues is created. Further, countries would be able to build on these rules in their bilateral and regional agreements.

### 3.4 WTO provisions – pertinent Issues for energy

**General principles of GATT as applied to the energy sector**

a) **Most-favoured-nation treatment**

*Article I of the GATT sets forth one of the main concepts of the multilateral trading system - that of the most-favoured-nation treatment (MFN). MFN means that WTO Members are obliged to extend any advantage, favour, privilege or immunity granted to any product originating in or destined for any country to “like” product originating in or destined for the territories of*
all other WTO Members. The MFN clause applies to customs duties, charges imposed on or in connection with importation or exportation or on international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation.

WTO Members are obliged to grant MFN treatment immediately and unconditionally. This means that a country cannot grant advantages only on a reciprocal basis, that is only to some countries that provide it with advantages.

What does this mean in practice for energy producing countries?

If a WTO Member decides to impose a border measure such as customs duties, charges or any import or export regulations and formalities or internal measures (e.g. taxes or any regulations) that confer any advantage to energy products from a certain country, it has to extend such an advantage to like products from any other WTO Member. This means that like energy products and materials cannot be discriminated against on the basis of their origin (imports) or destination (exports).

b) National treatment
The second cornerstone of the GATT is national treatment. Article III sets forth that, with respect to internal taxation and domestic laws, regulations and requirements, imported products shall be accorded treatment “no less favorable” than that accorded to domestic products. While MFN applies to all policies - both border measures and internal measures - national treatment applies to treatment of products after entering the territory of a state, i.e. after customs clearance. Another important distinction is that MFN applies to both import and export, but national treatment is applicable only to non-discrimination of imports, and not exports.43 Therefore, a state can impose higher taxes on products for export than for domestic consumption (ECS, 2001). On the other hand, the exporting country could exempt in accordance with Article VI:4 energy goods and materials destined for exports from internal taxes.44

The non-discrimination requirement with respect to internal taxes and charges, laws and regulations is applicable only to treatment of the like products. In practice this means that internal taxes for imported energy material and products have not to be higher than for like energy material and products of domestic origin.45

This means that a WTO Member can give different treatment to energy products that are not like. In order to determine whether products are like, the following factors have to be considered: physical characteristics, end-uses of products, consumers’ tastes and preferences and tariff classification of products.46 It is decided, however, on a case-by-case basis whether the respective domestic and imported products are like.

The United States – Auto Taxes case is pertinent to the present discussion as cars that were more fuel-efficient were not considered “like” other cars for the purpose of taxation (Box 3).

In the Asbestos case (Box 1), the Appellate Body ruled that the criteria of likeness are “neither a treaty-mandated nor a closed list of criteria”. In that case, it found that health risks associated with products can be taken into consideration as criteria related to physical properties and consumers’ tastes and habits.47 If some goods present more risks for health than others, two products might be considered not like and treated differently.
The obligation to accord national treatment is applicable not only to taxation but to all laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of energy materials or products.

With respect to transportation and distribution, Article III:4 of the GATT provides justification to impose different charges as long as the difference is “based exclusively on the economic operation of the means of transport and not on the nationality of the product concerned.” For instance, different charges may be due to different distances and parameters of pipelines used (ECS, 2001).

c) Quantitative restrictions
Article XI prohibits quantitative restrictions. This means that any protection should be carried out through tariffs (price measures) and not through measures directly affecting the volumes (quotas, import or export licenses, etc.). The logic behind this prohibition is that tariff measures are less distortional compared to quantitative measures.

This prohibition of export or import restrictions is valid also for prohibitions to the import or export of energy materials or products below a certain price. Requirements of minimum export or import price would limit the quantity of imports or exports. For instance, if imports are cheaper than domestic products, such restrictions would not allow them to compete effectively on the domestic market. Alternatively, in case of minimum export price (which used to be sometimes imposed in order to maintain a certain
level of supply in the domestic market), the exports would not be provided at a competitive price in the foreign markets (ECS, 2001). Such measures are not allowed.

Article XI foresees several exceptions to the prohibition of quantitative restrictions. The most relevant for the energy sector is the provision that allows countries to temporarily invoke export prohibitions in order to relieve critical shortages of products essential to the exporting country.57 For instance, if a country shows that energy material or products are in critically short supply, it could impose an export ban or quota on exports of such products that could be considered "essential products." Such restrictions are only allowed on a provisional basis.

d) Exceptions

WTO Members can use Article XX exceptions to introduce measures in pursuit of certain policy objectives that otherwise would have been WTO-inconsistent. The burden of proof lies, however, on the party invoking these exceptions. Such measures cannot constitute “arbitrary or unjustifiable discrimination” and cannot amount to disguised restrictions on international trade.

The measure under Article XX(b) needs to be “necessary” to protect human, animal or plant life or health in order to be in line with the GATT. This means that no other alternative less restrictive trade measure can be found in order to achieve the respective policy objective.

Article XX(g) allows measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.” Such measures should not, however, be “applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.” This provision was invoked by the United States in the case involving gasoline against Venezuela and Brazil.

Box 2. United States – Gasoline

The case United States – Gasoline was related to the implementation by the US of its domestic legislation called Clean Air Act of 1990 (CAA) aiming at control of pollution caused by the combustion of gasoline. The CAA required that conventional gasoline sold by domestic refiners, blenders and importers in the US remained as clean as 1990 baseline levels.58

Domestic refiners had to establish an individual baseline representing the quality of gasoline produced by that refiner in 1990 and they had three methods available. Importers of foreign gasoline were required to establish an individual baseline in respect of gasoline imported by them during 1990, using one method. Importers became subject to the statutory baseline if the data necessary for this method was unavailable. Imported gasoline was effectively prevented from benefiting from as favourable sales conditions as those afforded to domestic gasoline by an individual baseline. Thus imported gasoline was allegedly treated “less favourably” than domestic gasoline.

The Appellate Body accepted that clean air was an exhaustible natural resource within the meaning of Article XX(g). Accordingly, a policy to reduce the depletion of clean air was a policy to conserve an exhaustible natural resource within the meaning of Article XX(g). Furthermore, the Appellate Body confirmed that the baseline establishment rules were appropriately regarded as “primarily aimed at” the conservation of natural resources for the purposes of Article XX(g). Without baselines, scrutiny and monitoring of the level of compliance of refiners, importers and blenders with the non-derogation requirement would not be possible. Gasoline Rule’s objective...
of stabilising and preventing further deterioration of the level of air pollution would then be substantially frustrated.

The US did not succeed, however, in proving the consistency of its measure with the chapeau of Article XX. The measures aimed at conservation of resources should not be applied in an abusive way. There was more than one alternative means available to the US in implementing the CAA. These included the imposition of statutory baselines without differentiation as between domestic and imported gasoline. Alternatively, the US could make available individual baselines to foreign refiners as well as domestic refiners. According to the US, imported gasoline was relegated to the more challenging statutory baseline requirement because of these difficulties of verification and enforcement on foreign soil of foreign baselines, and subsequent enforcement actions. The Panel viewed difficulties as insufficient to justify the denial to foreign refiners of individual baselines permitted to domestic refiners.

The US had reasonably available data for verification and assessment which were consistent or less inconsistent with Article III:4. The US had not demonstrated that data available from foreign refiners was inherently less susceptible to established techniques of checking, verification, assessment and enforcement than data for other trade in goods subject to US regulation. Neither had the US pursued the possibility of entering into co-operative arrangements with the governments of Venezuela and Brazil to ensure that procedures of verification work.

In addition, the US did not feel it feasible to require its domestic refiners to incur the physical and financial costs and burdens entailed by immediate compliance with a statutory baseline. The US wished to give domestic refiners time to restructure their operations and adjust to the requirements in the Gasoline Rule.

These facts lead to the conclusion that the baseline establishment rules in the Gasoline Rule constituted «unjustifiable discrimination» and a «disguised restriction on international trade.» Although the baseline establishment rules fell under Article XX(g), they were not entitled to the justifying protection afforded by Article XX as a whole.

Article XXI provides another relevant exception provision. A WTO Member is not prevented from taking any action which it considers necessary for the protection of its essential security interests relating to fissionable materials or the materials from which they are derived. Under this provision it rests with the WTO Member invoking the exception to determine what constitutes such “essential security interests.” Considering the importance of energy it is likely that the application of the exception under Article XXI would be well justified to impose trade restrictions related to energy.

**Market access**

Energy products and materials do not usually encounter market access problems in their export markets. Tariff peaks for hydrocarbons were eliminated, and the duties were generally reduced during the Uruguay Round. Tariffs were reduced more for processed than for unprocessed products. Energy tariffs reflect the goals of energy policy more than those of trade policy - the main objective is to secure energy supply (UNCTAD, 2000). Therefore, their levels are generally quite low although unbound. This creates a situation of legal uncertainty as countries are free to impose much higher tariff rates without violating WTO rules.

Export duties in theory are subject to the same disciplines as import duties. They can be applied but are subject to MFN requirement. They can
also be bound as import duties. Export duties have been, however, less of a concern for WTO Members as it is normally not in the interest of exporting countries to impose high export duties. This would render exported products less competitive in exports markets. In the energy sector however the situation is reverse. The importing countries are interested in receiving energy products and materials at a low price. For exporting countries, export duties constitute often a sizeable source of state revenue. Export duties, although allowed, must be applied on MFN-basis. They remained almost fully unbound after the Uruguay Round. In the accession negotiations, WTO Members currently request energy producing countries to bind export duties, sometimes at zero (UNCTAD, 2000). This appeared to pose problems for some energy endowed countries, as earnings from export duties constitute a substantial part of the state budget.

Energy exporters traditionally considered that high internal taxes (including excise taxes) imposed by importing countries on petroleum products including gasoline undermine their ability to derive income from their own natural resources. As long as these taxes are applied on a non-discriminatory basis they are in line with the WTO.

Transit

Energy transportation often takes place via pipelines or transmission network (for gas and electricity). Sometimes transportation networks cross third countries in transit.

Energy transit is a crucial factor for cross-border energy trade. Energy transit is commonly understood as energy originating in one country (exporter), transiting at least one second country (transit country) and then entering into the destination country (importer). Article V of the GATT provides for freedom of transit: "there shall be freedom of transit through the territory of each member, via the routes most convenient for international transit, for traffic in transit to or from the territory of other members." Traffic in transit cannot be subject to any unnecessary delays or restrictions. It is to be exempt from customs duties and from all transit duties or other charges, except those for transportation or commensurate with administrative expenses entailed by transit or the cost of services rendered.

This means that the energy materials and products in transit through a territory of a WTO Member cannot be subject to customs duties or any other duties or charges. For instance, a transit country WTO Member cannot impose customs duties it levies on imports or exports. It can however levy charges related to the cost of transportation, administrative expenses or other services rendered in respect of transit of such energy materials and products. In order to be in line with Article V of the GATT, any such fees have to be commensurate with the expenses involved.

The non-discrimination obligation in Article V of the GATT means that transited goods from any WTO Member have to be given the most favourable treatment transited goods from any other country receive. No distinction in treatment should be based on the flags of vessels, the place of origin, departure, entry, exit or destination, or on any circumstances relating to the ownership of goods, vessels or other means of transport. It is not allowed, for instance, to discriminate in terms of charges imposed on transit from different countries. The costs of transit can however vary and if actual costs of transit are higher in some instances, difference in charges can be justified.

There is no precedent for interpretation of GATT Article V, although there are cases where transit, in particular of energy, has been used by the transit state to charge excessive transit fees or otherwise impede an oil and gas operation. The problem is especially acute for landlocked states as they do not have an option of sea transportation and are absolutely dependent on transit. The lack of WTO disputes with respect to transit may reflect the fact that most of such problems have arisen outside the WTO.
Indeed many of the states where energy transit problems occur are not yet WTO members. The problem is also that it is often not the state per se but powerful energy companies that impede transit. Article V of the GATT does not provide for an effective obligation of the Members to ensure that companies controlling pipeline in the energy sector comply with the transit obligation of Article V.

State trading enterprises

The energy sector has been traditionally dominated by state enterprises, be it government owned, government controlled or linked to the government in some other way. Governments sometime entrust some regulatory powers to large energy corporations. For instance, such companies can administer transportation, transmission and distribution systems, storage capacities, etc. Such enterprises are not necessarily led by market principles in making policy decisions as to pricing and other matters. Considering their dominance in regard to imports or exports, their policies might therefore distort trade. The question arises whether WTO rules are designed to address practices by such enterprises.

In Article XVII of the GATT, Members undertake to ensure that state trading enterprises act in a manner consistent with the general principles of non-discrimination prescribed in the GATT for governmental measures affecting imports or exports by private traders. The main issue related to the obligations of WTO Members with respect to STEs in the energy sector lies in the conditions of energy transportation, and more specifically third-party access to pipelines. Can Article XVII be interpreted as imposing obligations on energy companies that control transportation and distribution networks to act in a non-discriminatory manner vis-à-vis their competitors in the supply of energy?

In many circumstances it is rather difficult to determine with precision whether certain energy companies fulfil the definition of an STE contained in Article XVII. The problem is that in some countries energy marketing companies have been entirely privatised, i.e. they are not government-owned and are not managed by the government.

The coverage of Article XVII is, however, not limited to state enterprises and state ownership is not the major criteria. Most importantly, Article XVII applies to any enterprises that possess exclusive or special privileges granted by the state, “including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports.”

It appears that exclusive or special rights or privileges should be such as to enable the enterprise to influence trade flows. Thus, a private corporation or enterprise could be considered to be a state trading enterprise if it receives some special right or privilege from the state (that is, a right or privilege not generally available to other private sector entities in the same area, thus giving the enterprise an advantage over other firms) and as a result of this right or privilege is in a position to influence the level or direction of imports or exports.

As to whether energy marketing companies may be regarded as STEs, additional guidance is given in the Interpretative Note Ad Article XVII, Annex I: “...privileges granted for the exploitation of national natural resources but which do not empower the government to exercise control over the trading activities of the enterprise in question, do not constitute ‘exclusive or special privileges’.” The access to energy resources alone would not make an energy company an STE. The control over transportation network would seem, however, to qualify as a special right or privilege in the sense of Article XVII.

State trading enterprises are obliged through Article XVII to make their purchases or sales on the basis of commercial considerations, including price, quality, availability, marketability, transport and other conditions of purchase or sale.
They are obliged also to afford the enterprises of the other contracting parties adequate opportunity, in accordance with customary business practice, to compete for participation in such purchases or sales.\(^{65}\) The existence of the obligation to give access to transportation pipeline as a means to compete in sales would be difficult to prove on the basis of the wording of Article XVII. The energy company could offer an opportunity to buy gas from foreign companies and arguably such an offer would satisfy the requirement of Article XVII to “afford adequate opportunity.” Such an offer could be made at a relatively low price and not be beneficial to the seller. The phrase “commercial considerations” has been interpreted rather narrowly in the WTO context.

The requirement to act in accordance with commercial considerations is not a separate obligation, but is, rather, an express clarification of the obligation contained in the preceding paragraph (a) to “act in a manner consistent with the general principles of non-discriminatory treatment”.\(^{66}\) It has been disputed whether non-discrimination in Article XVII means only MFN or national treatment. There are strong indications that should the panel have the opportunity to determine the issue of coverage of Article XVII, it will most likely rule that Article XVII requires STEs to accord enterprises from any Member treatment no less favourable than that given to enterprises of other Members.\(^{67}\)

The fact that the energy incumbent company controlling the transportation networks would have to accord MFN treatment based on commercial considerations to companies from other WTO Members, would arguably provide little added value to the foreign supplier. Indeed, foreign companies could all suffer from lack of possibility to receive such access to transportation networks on commercially viable terms.

Energy services

The functioning of oil and gas projects is focused around the management of the project by the operator, i.e. the company executing the project for the partners of the venture. For geological surveys, drilling, protecting the environment, designing and building the production facilities and operating production, the operator normally contracts separate specialised technical and consulting firms for different services and buys equipment from several different suppliers. Throughout the period of development of the energy sector, the reliance of the operator on contracted services increased (Anez, 2003). Energy services thus directly affect the costs of energy production - as they constitute an integral part of the energy chain from discovery of an energy field to the distribution of the final product.

WTO Members have undertaken limited commitments in the area of energy services. This might be due to several reasons. Firstly, the energy sector, being a strategic sector for national security, has traditionally been dominated by state companies. These companies are unwilling to give up the market power provided by their monopoly position and resist any liberalisation efforts. Secondly, there is no single definition or clear notion of what is understood under energy services. This lack of definition additionally contributed to the delay in energy service liberalisation, as some governments made development of classification a precondition to undertaking any further commitments in the sector.

The energy services encompass services related to all stages of the energy production chain: exploration, development, drilling, extraction, construction, engineering, production, processing, refining, generation, transportation, transmission, distribution, storage, marketing, etc. (Zarrilli, 2003).

WTO services classification (W/120)\(^{68}\) does not include a special section for energy services, but three separate sub-sectors that are related to energy activities: “services incidental to mining, rendered on a fee or contract basis at oil and gas fields” and “services incidental to energy distribution” in “Business services” and
“transportation via pipeline of crude or refined petroleum and petroleum products and of natural gas” in “Transport services.” Moreover, some energy-related activities, not exclusive to the energy sector, such as construction, consulting, business, communications, financial services and engineering are covered by other sections.69

Several WTO Members were of the view that W/120 was not adapted to the present conditions of the energy services market and suggested that classification of energy services should be carried out. In case of creation of a special section on energy services, there is, however, a risk of imbalance vis-à-vis other service sectors.

There are several problems that are associated with definition of energy services. Firstly, some energy products can be considered either a good or a service (e.g. electricity).70 Furthermore, many services that form part of the energy production chain are in fact not core energy services. Examples of such services are construction, engineering, consulting, etc. There were discussions of merits to distinguish between core and non-core services.71 An activity would be considered as “core” if the service was an essential part of the chain of supply of the sector, i.e. without that service the sector would not be able to function (Tacoa-Vielma, 2003). Non-core services simply support the chain and are closely connected to the process. The problem with this distinction is where to draw the line between the two categories. What makes service an “essential” part of the energy production chain?

There is a question of where to draw the line between production-related services, which would fall under the GATS, and production itself, which would not be covered by the GATS. There are some parts of the energy production processes that are closely associated with service activities, for instance, refining of oil, or liquefaction and gasification. As these manufacturing activities are closely related to production of energy, they are not covered by the GATS. The drawline between service activities and similar production processes seems to depend on whether the activity is performed by an entity which owns the raw material. In this case it would not fall under the GATS. If the activity is carried out on a fee or contract basis by a company that does not own the raw material it might be deemed provision of services.

Some WTO Members favour a source-neutral classification for energy services applying to all energy sources, except where an activity was related to a specific source (e.g. frequency control is related to electricity), making distinction inevitable. Other Members think that a classification based on energy sources would better reflect domestic market structure and regulatory distinctions pertaining to different energy types.

Some Members suggested that, in order to promote technology development, market access commitments should be technologically neutral, i.e. should be made without regard for the technology used to provide energy services.72 It was felt, however, that concept was too far-reaching and implied that countries would not be able to require use of a specific technology when granting access to service providers.

Negotiators seemed to be in agreement over two issues. Firstly, the ownership of natural resources should not be questioned. Second, the right of governments to regulate should be retained in order to ensure security of supply, establish performance and quality controls, maintain public service obligations, protect consumer interests and environment, and promote conservation of natural resources.

Energy services are mainly supplied through commercial presence, cross-border trade and movement of natural persons. Barriers characteristic of the energy services sector include market access and national treatment restrictions similar to those in other sectors, including nationality and residency requirements, restrictions on foreign investment, economic needs tests, the existence of exclusive rights and monopolies, inability to provide cross-
border electronic information and transactions, discriminatory treatment of foreign providers, restrictions on the legal forms of doing business, arbitrary business and licensing requirements, and an opaque regulatory framework. Furthermore, restrictions (duties, requirements of local procurement) for the entry of equipment and material necessary for the supply of energy services constitute a major barrier to energy service trade.73

Market access commitments alone might, however, be insufficient to ensure liberalisation. Trade in energy is often obstructed by difficulties in getting access to transportation and distribution networks. Access on reasonable terms to storage, transport and distribution networks is necessary for the liberalisation of cross-border energy trade. Also, non-transparency of regulation constitutes an important barrier. The problem with creation of third-party access provisions is that transportation networks are controlled by powerful private companies, and not by governments that undertake respective obligations under international treaties. These companies can claim lack of capacity and charge transportation fees that by far exceed the cost of services rendered. Some competitive safeguards are thus needed in order to ensure access to the transportation networks.

The GATS contains limited provisions that deal with the conduct of private entities such as monopolies and exclusive service suppliers. Restrictive business practices by incumbent operators are subject to Article VIII75 and Article IX. Article VIII is especially relevant to gas transportation and distribution services. Article VIII requires Members to ensure that the incumbent natural monopolist in the transportation and distribution market does not act in a manner inconsistent with the MFN principle and with the Member’s specific commitments. In addition, if such a monopoly supplier competes in the supply of a service outside the scope of its monopoly rights, the Member has to ensure that the incumbent monopoly does not abuse its position subject to the Member’s specific commitments. The problem is, however, that most WTO Members undertook relatively limited commitments on energy services.

The United States and Norway proposed to devise a Reference Paper for energy services, modelled on the Reference Paper to the GATS Agreement on Basic Telecommunications Services and to develop a set of rules for cross-border energy trade.76 The purpose of the Reference Paper would be to ensure transparency in the formulation and implementation of rules, as well as non-discriminatory third-party access to and interconnection with energy networks and grids, non-discriminatory objective and timely procedures for the transportation and transmission of energy, and requirements preventing certain anti-competitive practices for energy services in general. The negotiations did not, however, receive impetus.

Although the idea of development of a Reference Paper in the energy sector is very pertinent, despite similarities between the telecommunications and energy sectors (highly regulated markets characterised by large incumbent suppliers and regulation), there are important differences between telecoms and energy that need to be taken into account. The energy sector requires more sophisticated regulation due to possible impact on the environment or issues related to energy efficiency and security of supply (including non-interruption of energy flows).

**Subsidies**

Studies show that subsidies to energy production and consumption amount to hundreds of billions of USD. Discussion of subsidies in the energy context is of twofold character. First, traditional types of energy subsidies are subsidies granted to energy producers and downstream industries. This category comprises direct payments that support production (deficiency payments and operating subsidies to producers as well as consumer subsidies); tax-related subsidies (exemptions from taxation, tax credits, etc.); policies that reduce costs of inputs (budgetary subsidies to energy inputs, price controls for
inputs, etc.); investment subsidies (equity participation, loans at preferential rates, loan guarantees, debt forgiveness, liability funding); policies that create transfers through market prices (OECD, 1997: 18). The latter category is most common in the energy sectors of developing countries and countries with economies in transition. In the developed countries, such subsidies were common in the past - prices were controlled for social or political reasons. Secondly, in order to achieve environmental policy objectives, most importantly climate change policies, some measures have been introduced by governments that allegedly could be inconsistent with WTO subsidies rules. The consistency of the above policies with the WTO will be analysed in Section 3.5. This section provides the explanation of WTO subsidy rules and aspects that can be particularly relevant for the energy sector.

According to Article 1 of the SCM Agreement, a “subsidy” is a “financial contribution by a government or by any public body” or “any form of income or price support” whereby a “benefit” is conferred.

The financial contribution exists, for instance, where there is a direct transfer of funds such as grants and loans, if a government provides fiscal incentives such as tax credits or provides goods or services other than general infrastructure, or if a government “entrusts or directs a private body” to perform the above functions.

The Appellate Body in the case Canada - Aircraft rejected an interpretation of benefit based on whether there was a “net cost” to the government and focused rather on the recipient of the subsidy under Article 1.1(b).

A subsidy is subject to the rules of the SCM Agreement only if it is ‘specific’ in accordance with Article 2.

Export contingent subsidies and subsidies contingent upon the use of domestic products over imported products are deemed to be specific. If the government provides support only to industries that export, the programme would constitute a prohibited subsidy.

Domestic subsidies, although not prohibited, can be actionable. If subsidised imports are causing injury to the domestic industry of a Member, this Member may impose a countervailing duty to offset the subsidy. Also, if a Member believes that a subsidy results in adverse effects, it can bring a dispute settlement complaint before the WTO requesting the withdrawal of a subsidy or removal of adverse effects.

Subsidies have been traditionally used by governments to develop the domestic energy sector as well as downstream industries. Some practices of energy-endowed states, such as pricing policies have been contested on the basis of subsidy disciplines. Currently, some climate change programmes are claimed to constitute a specific subsidy. The most pertinent issues in the energy sector that are discussed in the context of subsidies will be analysed below in section 3.5 of this paper.

**Investment**

The energy sector is a capital-intensive industry that requires significant investments in infrastructure. The energy and power sectors, especially gas pipelines and oil fields, are among lead sectors in foreign direct investment (FDI).

The TRIMs Agreement does not deal with investment policy per se, and only elaborates on the national treatment obligation and prohibition of quantitative restrictions with respect to certain investment measures such as local content and foreign exchange-related requirements (de Sterlini, 2005). Member countries may not impose investment measures that require companies to buy a certain amount of goods of national origin or place conditions on certain imports that relate to the amount of exports.

In this sense, the TRIMs Agreement did not create new obligations that went beyond GATT
disciplines. Many performance-related and technology transfer measures that some countries proposed to include in the Agreement, remained outside its scope (de Sterlini, 2005). Another important limitation is that the TRIMs Agreement covers only those investment measures that are related to goods. The Agreement does not cover investment measures related to services. TRIMs are related only to measures with respect to treatment of imports and exports carried out by investors, not their activities.

Performance requirements that are not covered by the Agreement include export performance requirements, manufacturing requirements, technology transfer requirements, local equity requirements, etc. (de Sterlini, 2005). These measures are often applied to domestic firms as well and are related to authorisations to perform a particular kind of activity, say industrial production. Chemical and petrochemical industries are among sectors that are subject to quite extensive performance requirements. In the past, these sectors experienced a mixture of both local content and export performance requirements (de Sterlini, 2005).

Technology transfer

The WTO provisions related to technology transfer are concentrated in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the GATS.

Under TRIPS Article 7, one of the main objectives of the TRIPS Agreement is promotion of technological innovation and transfer and dissemination of technology. This policy is further developed in Article 66(2) of the TRIPS Agreement which requires developed countries’ governments to provide incentives for their companies to transfer technology to least-developed countries in order to enable them to create a sound and viable technological base.

A similar approach can be found in Article IV(1)(a) of the GATS, which refers to “access to technology on a commercial basis” as one of the means to increase the participation of developing countries in world trade. Furthermore, developed country members should establish contact points with developing and least developed country members to supply information concerning, among other things, the availability of service technology. Developing country members can make the liberalisation of market access to foreign service providers subject to conditions that aim to achieve objectives set out in Article IV of the GATS. Thus in the case of developing countries, a degree of host country regulation over entry conditions is accepted where this is likely to enhance a given country’s access to technology.

Some Members wanted to review effectiveness of the WTO provisions on technology transfer in the Working Group on Trade and Transfer of Technology and to assess the extent to which these agreements hindered flows of technology to developing countries. The possible recommendations suggested by some countries included: steps to expand technical assistance under the TRIPS Agreement; measures to encourage and incentivise multinational firms in developed countries to perform science and technology development work in host countries; adoption of practices that facilitate technology transfer and its rapid diffusion in the developing countries; discouraging use of restrictive business practices by technology owners; and ways of expanding or encouraging the mobility of scientists, technologists and technicians under the GATS. There was, however, disagreement among WTO Members as to the scope of possible recommendations. Some Members pointed out that the relationship between trade and transfer of technology should be thoroughly studied first.

It appears that the service aspects of technology transfer are most important in the energy sector. Contrary to the common misconception, the technology embodied in the equipment and patented know-how is easily accessible in the energy sector on commercial terms (Anez, 2003). The problems lie mostly in the knowledge of how to manage and operate the large capital-intensive energy projects. The large energy companies
often face risks when contracting domestic firms in the country where they carry out energy projects. Numerous safety and environmental norms have to be met. Technical assistance and capacity building are very important for transfer of technology in the energy sector. Considering the importance of technical knowledge and skills, the host government might use different types of investment structures to encourage transfer of knowledge to domestic providers. For instance, it might prefer joint venture over subsidiaries. The system of intellectual property rights protection is a necessary precondition for transfer of technology, especially in small scale projects.

3.5 Overview of barriers and distortions pertinent to the energy sector which might be affected by current WTO disciplines

Export tariffs

Export tariffs are a legitimate trade policy tool. Energy-exporting countries often use such policy tools as export tariffs on energy products to generate state revenue. Although nothing prohibits them from imposing as high export tariffs on energy exports as they wish, unless they have bound their export duties under the terms of their WTO accession, they cannot discriminate between the export markets. According to GATT Article I, most favoured nation treatment must be granted to any Member of the WTO in relation to such exportation. This means that they cannot place higher taxes on exports to one market than on exports to other markets.

Energy-exporting countries that are still not WTO Members sometimes set forth export tariffs for different markets at different levels. Considering that the export duties for energy exports are quite high, this policy could lead to sizeable differences between prices for energy material and products in different markets. Countries acceding to the WTO are required to abolish this discrimination.

Domestic taxes

Domestic energy taxes in import markets represent a much bigger concern for energy-producing countries than do import duties. They are often set at particularly high levels as they serve as revenue-generating tools. Energy exporters consider that high internal taxes imposed by importing countries on petroleum products including gasoline undermine their ability to derive income from their own natural resources (UNCTAD, 2000). However, as long as these taxes are applied on a non-discriminatory basis they are in line with the WTO.

Carbon dioxide and energy taxes can be applied directly to fuels, to electricity and downstream industries that use energy as input - on the basis of the amount of carbon dioxide emitted or energy consumed in their production (UNCTAD, 2000).

The WTO dispute settlement system has dealt with environmental taxes. Firstly, the European Community challenged the United States’ tax on automobiles. The measure was introduced to create an incentive to purchase more fuel-efficient cars. Because most cars affected by the measure were European, the European Community claimed that the tax was inconsistent with Article III:2 of the GATT. The Panel found, however, that fuel-inefficient imported cars were not like fuel-efficient domestic cars, thus they could be treated less favourably.
In the *Superfund* case, brought against the United States by Mexico, Canada and the European Community, the Panel examined the US tax on petroleum imposed with the objective of financing the clean-up of hazardous waste sites. Although the Panel found that some aspects of the US law were inconsistent with Article III of the GATT, it admitted the possibility to impose domestic environmental taxes.

The pertinent question with respect to energy arises if countries pursuing environmental objectives could discriminate among energy goods and materials on the basis of the technologies used in their production. They might wish to impose lower taxes on goods and materials that have been produced using environmentally friendly technologies. The answer to this question is not straightforward. This case appears to be especially complicated.

**Box 3. United States – Auto Taxes**

In the *United States – Auto Taxes*, cars that were more fuel efficient were considered to be unlike fuel-inefficient cars. The Panel considered consistency with the GATT of measures imposed by the US including taxes on luxurious cars, taxes related to fuel economy and regulations on the average fuel economy of cars produced by manufacturers.

According to the Panel, determining likeness of the domestic and imported products includes an examination of the aim and effect of the particular tax measure, i.e. the issue should be analysed in terms of whether less favourable treatment was based on a regulatory distinction taken so as to afford protection to domestic production. The phrase “so as to afford protection” requires analysis of the aim of the measure and the resulting effects. A measure could have the aim of affording protection if a change in competitive opportunities in favour of domestic products was a desired outcome and not merely an incidental consequence of the pursuit of a legitimate policy goal. Analysis of the instruments available to achieve the declared domestic policy goal would be important.

The gas guzzler tax was based on the fuel economy of a particular model type. Cars with a fuel economy above 22.5 mpg did not pay any guzzler tax. According to the US, the purpose of the tax was to conserve fossil fuels, and the threshold ensured that only the most uneconomical cars were subject to the tax. The Panel observed that the threshold in the gas guzzler tax created an incentive in the US market to purchase more fuel-efficient automobiles, and that this incentive would normally lead to increased conservation of fossil fuels. When the gas guzzler tax was introduced in 1978, most domestic automobiles could not achieve the final threshold figure set out in the legislation. This was a further indication that the gas guzzler threshold figure did not target foreign automobiles.

The Panel noted that the nature and level of the regulatory distinction made at the threshold of the gas guzzler measure were consistent with the overall purpose of the measure. The technology to manufacture high fuel economy automobiles was not inherent to the US, nor were low fuel economy automobiles inherently of foreign origin. The fact that European Community automobiles bore most of the burden of the tax did not mean that the measure had the effect of affording protection to US production. The amount of tax payable at the threshold did not seem excessive. The Panel found therefore that the threshold distinction did not result in a change in the conditions of competition that afforded protection to the domestic producers. In terms of Article III:2, and for the purposes of the gas guzzler tax, foreign automobiles below the 22.5 mpg threshold were not “like” domestic automobiles above the threshold, and different and less favourable treatment under the gas guzzler measure could therefore be accorded to them.
if final goods possess identical physical characteristics and have the same end-use (e.g. electricity generated by nuclear power or renewable sources). In this case, it would be difficult to argue that differently generated types of electricity are not like products.

With respect to different regulations related to internal sale of goods, the obligation of national treatment concerns only like products. With respect to taxation, there is an obligation to treat “directly competitive or substitutable products” not worse than domestic products. Even if two types of energy products were not deemed like they still could be found to be directly competitive or substitutable products. An interesting issue is whether different types of energy could fall in the latter category (e.g. gas and coal or other alternative fuels). These are not like products but they could easily fall into the category of directly competitive or substitutable as they can be used alternatively in a number of applications. If this was the case then higher taxation of one or another category of imported product vis-à-vis domestic products could be considered to violate Article III:2 of the GATT, if it is proven that this measure is imposed “so as to afford protection to domestic production.”

The Panel in Korea - Taxes on Alcoholic Beverages stated that “an assessment of whether there is a direct competitive relationship between two products or groups of products requires evidence that consumers consider or could consider the two products or groups of products as alternative ways of satisfying a particular need or taste”.95

The Appellate Body in that case added that potential competition between products may be sufficient for them to be considered “directly competitive or substitutable”.96

In conclusion, it is highly likely that not only two types of the same energy materials produced by different ways, but also two different sources of energy, could be found “directly competitive or substitutable”, if both can serve to satisfy the same need and serve for the same purpose, say heating. However, in order for violation of Article III:2 of the GATT to take place, the discrimination in taxation has to be such “as to afford protection to domestic production.” For example, it would likely be the case if only one type of energy is domestically produced, and it is taxed at a lower rate, the different taxation regime is established so as to protect domestic producers (ECS, 2001).

Energy taxes and border tax adjustments

When states with a high standard of environment policies impose high energy taxes, the energy intensive products produced in these countries become less competitive compared to foreign products that are not subject to such regulations. Therefore, these countries might sometimes choose to refund these taxes to companies upon exportation. Also, governments might wish to impose additional taxes on imports of products from countries that do not adhere to such a high level of environmental protection.

WTO rules do not clearly define the eligibility of some border tax adjustments. Based on the destination principle of international taxation, direct taxes (such as income tax or ownership taxes on property) are not eligible for adjustment under the GATT. Only indirect taxes - taxes levied on the products (such as value-added tax, sales, turnover, excise taxes, etc.) - can be adjusted at the border.

It is WTO-consistent to subject products imported into the country to the same taxes as domestic products. Article II(2)(a) explicitly recognises the right of Members to impose a charge equivalent to an internal tax in respect of the like domestic product or in respect of an article from which the imported product has been manufactured in whole or in part. According to some interpretations, “article” might imply that “the indirect tax is construed as being restricted to products that are physically incorporated into the final product” (Droege et al., 2004).

At the same time, the exported products will be subject to taxation in the country of destination;
thus it is allowed to exempt them from taxation. According to the SCM Agreement, prior-stage cumulative indirect taxes can be exempted at the border when levied on inputs that are consumed in the production of the exported product. Under the SCM Agreement, inputs that are physically incorporated, energy, fuels and oil used in the production process are understood as inputs consumed in the production process. The question whether an input need not be present in the final product is not relevant to adjustment of indirect taxes imposed on the energy, because footnote 61 explicitly provides that energy is considered an input consumed in the production process. In case of a tax on carbon dioxide emissions during production the issue becomes more complex than if the carbon tax is on the carbon content of fossil fuels. Opinions are divided whether border tax adjustments are permitted under WTO law for taxable inputs that are not physically incorporated in the final product.

The Panel in the Superfund Case, brought by Mexico and the European Community against the US, analysed the Superfund Act’s measure that imposed a tax on petroleum that was higher for imported products than for domestic ones. It also imposed a tax on certain chemicals and a tax on certain imported substances produced or manufactured from the table chemicals. This tax is linked to border tax adjustment. The Panel concluded that because the tax on chemicals was a tax directly imposed on products, it was eligible for border tax adjustment.

The adjustment does not pose a problem when it is an energy tax on the product itself being levied or reimbursed at the border, for instance a tax on an energy material or product, unless the respective amount exceeds the amount of the tax levied in respect of the production and distribution of like products for domestic consumption. There is some argument, however, that taxes on non-incorporated inputs cannot be subject to border tax adjustments.

Subsidies

Subsidies might be used by states to promote some energy-efficient methods of production. Considering that certain renewable energy sources are not currently commercially viable, the question of use of different support schemes for renewable energy is acute.

Such programmes cannot be, however, contingent upon export performance (they will fall under the category of prohibited subsidies). If such subsidies are found to be specific to certain enterprises, industries or groups thereof they would be considered actionable and products benefiting from such subsidies can be countervailed. Alternatively, a WTO Member can request a withdrawal of such subsidies if they cause adverse affects.

Not only should the subsidy not be specific de jure (i.e. when the law limits grants to specific industries or enterprises or a group thereof), it has to be de facto unspecific, in order not to be actionable. Limiting the subsidy to producers of renewable energy would possibly meet the criteria of specificity. For instance, if the government decides to grant financial support to energy production plants using renewable energies, this programme would be deemed specific.

The governments have tried to design the programmes in a way that makes the support be provided through private entities. One of the examples is the price guarantees for the producers of renewable energy sources provided by grid operators that are obliged to remunerate producers by law. The argument that the government does not provide support itself and that the programme does not constitute a subsidy does not find support in the SCM Agreement. The requirement of financial contribution would be met if the government does not perform the payment function on its own but “entrusts or directs a private body” to carry out functions foreseen in Article 1(a) and the practice does not differ from practices normally followed by governments.

The question arises as to how to design the programmes aiming at attaining environmental
objectives without financial support being considered an actionable subsidy. A possible solution might be to devise objective criteria or conditions governing the eligibility for, and the amount of, a subsidy, make eligibility automatic and monitor that such criteria and conditions are strictly adhered to. Such criteria and conditions must be transparent and clear. For instance, possible criteria could be a certain level of carbon dioxide emission during production. Although it is possible to devise programmes encouraging energy-efficient use in general, attempts to directly support renewable industries are more likely than not to fall into the category of actionable subsidies.

Dual pricing for energy

Often energy-endowed countries control domestic prices for energy products so they remain at artificially low levels. Normally this is achieved through government price control regulation, that is internal regulation sets forth the maximum prices at which the energy products can be sold in a particular region of the domestic market.

The main controversial effect of such price controls on energy is the depression of prices for domestic industrial users. Low-priced energy inputs are typically used as inputs by domestic downstream industries.103 Dual pricing favours primarily the production of energy-intensive products such as fertilisers, metals, etc. This price control leads to a sizeable differential between the prices paid by domestic companies and the prices paid by foreign companies in their own markets. Since domestic industrial producers do not pay full market price for their energy inputs, this situation has adverse implications for the ability of imported goods to compete with products that benefited from low energy prices.

Some WTO Members view such price controls as subsidy to domestic downstream industries of energy-endowed states. The issue of dual pricing has been a controversial topic in the accession negotiations of energy-endowed countries acceding to the WTO. It is highly unlikely, however, that this policy could be found inconsistent with WTO rules.

Only when the preferential pricing is linked to export performance, would dual pricing policy be prohibited under WTO rules. If the policy is not linked to exportation it could still constitute an actionable subsidy. In this case, energy-endowed states would not be prohibited from using it. The products that benefit from low-priced energy inputs could merely be subject to countervailing duties if they are causing injury to the domestic industry in their export markets. Also, if a Member believes that a subsidy results in adverse effects, it can bring a dispute settlement complaint before the WTO, requesting the withdrawal of a subsidy or removal of adverse effects.

In order to qualify as actionable, a domestic subsidy must be specific to an enterprise or industry, or group of enterprises or industries, or a region. The specificity requirement for actionable subsidies would be met if, for example, the government provided only some industries with energy inputs at low prices. Dual energy pricing normally applies to all enterprises and industries throughout the economy.

The main argument that the dual energy pricing policy constitutes an actionable subsidy hinges on the interpretation of the SCM Agreement’s concept of de facto specificity. The argument holds that even though energy is available at lowered prices to all domestic producers, benefits are de facto limited to specific industries. Indeed some industrial users de facto benefit from the dual pricing mechanism more than others because their production process is more energy intensive. Thus, certain industries, such as fertiliser producers, for example, are predominant beneficiaries of the gas dual pricing practice. Article 2.1(c) provides the scope for the de facto specificity analysis. It says that if, notwithstanding any appearance of non-specificity, there are reasons to believe that the subsidy may be de facto specific other factors may be considered such as: a limited number of
enterprises that receive the subsidy, predominant use by certain enterprises, disproportionately large amounts of subsidy to certain enterprises, the manner in which the granting authority exercised discretion. If eligibility criteria for a subsidy are such that access is limited to a specific industry or group of industries, the subsidy would be de \textit{facto} specific.\textsuperscript{104}

Indeed, it would have been very easy to circumvent subsidy disciplines if the government identified the main production input of an industry it wishes to subsidise and provided it at preferential price without restrictions to all industries. \textit{De facto} the industry heavily dependent on this input would be a predominant beneficiary of the policy.

In this respect, the Panel in the case of \textit{Canada - Softwood Lumber} said that if the inherent characteristics of the good provided by the government limit the possible use of the subsidy to a certain industry, the subsidy is all the more likely to be specific. If certain goods are of use only to a limited number of enterprises or industries, the provision of such goods would be specific to these enterprises or industries.

Narrow utility alone does not, however, predetermine a finding of specificity in circumstances in which the resource, at preferential rates, is used by many industries in the economy but, due to its inherent characteristics, certain industries have greater requirement for it than do others. In this respect any subsidy in form of good provision will have varied utility for different industries.\textsuperscript{105}

Interestingly, the Panel in \textit{Canada - Softwood Lumber} mentioned in passing that it did not consider that “any provision of a good in the form of a natural resource would automatically be specific, precisely because in some cases, the goods provided (such as for example oil, gas, water, etc.) may be used by an indefinite number of industries”. This seems to be the case in the energy sector. Although gas constitutes a larger proportion of production costs of petrochemical products, it is used by numerous other industries in all sectors of the economy. It is highly unlikely that the dual pricing for resources like gas would be found to constitute a countervailable subsidy by a WTO dispute settlement panel.\textsuperscript{106}

\textbf{Anti-dumping}

Downstream products from energy-endowed countries often become the target of anti-dumping duties. This is especially true for imports from markets where government suppresses the price of energy inputs in the domestic market. The investigating authorities often disregard the prices and costs of the production in the domestic market, when they consider that particular market situation does not permit a proper comparison. In such circumstances, the investigating authority uses data from sources unaffected by such distortions, for instance, the costs of other producers or exporters in the same country or information from other representative markets.\textsuperscript{107} The use of third-country data is problematic as normally costs of energy in these countries would be much higher than in domestic markets.\textsuperscript{108}

\textbf{Technical regulations and standards}

Technical regulations and standards are extensively used for energy products and materials as well as energy-consuming end-use devices. They can be important tools to increase efficient use of energy and reduce GHG emissions.\textsuperscript{109} Moreover, many technical regulations are related to the transportation of energy products.

The aim of the Agreement on Technical Barriers to Trade is to prevent a situation in which technical regulations, standards and conformity assessment procedures create unnecessary obstacles to trade or are used as protectionist tools.\textsuperscript{110} Technical requirements may address the production method of goods, their inherent, consumption or disposal characteristics.\textsuperscript{111} For instance, with respect to the energy sector, mandatory requirements concerning composition or characteristics of energy products as well as environmental standards that set maximum
allowed pollution levels caused by energy processes are deemed technical regulations.

Technical regulations should not be more trade restrictive than necessary to fulfil a legitimate objective. Such legitimate objectives include protection of environment, health and safety of people, animal and plant life and health, national security, etc. A chosen trade measure should be a less trade-restrictive measure that can achieve the policy objective. In assessing risks of non-fulfilment of such an objective, available scientific information, related processing technology or intended end-uses of products should be taken into consideration.112

With respect to technical regulations the best of national or MFN treatment should be accorded to imported products. In other words, such regulations should not favour domestically produced like goods or products imported from other WTO Members. For instance, the technical regulation may require incorporation of technology that is produced only in this country.113

The requirement of non-discrimination is applicable in relation to like products. The issue of like products being debated, it is not clear whether the methods of energy production could lead to lawful differentiation between goods produced using more energy-efficient and less energy-efficient production processes.

It is not clear whether the TBT Agreement applies to technical regulations and standards related to manufacturing “processes and production methods” if these processes do not affect the product characteristics of the final output (also referred to as “non-product-related processes and production methods”). According to para. 1 of Annex 1 of the TBT Agreement technical regulations lay down product characteristics or their related processes and production methods. From this wording stems an argument that only processes and production methods that influence product characteristics are covered. For instance, the TBT Agreement arguably does not apply to a law prohibiting the imports of aluminium produced using electricity derived from nuclear power.114 Another pertinent example would be restrictions related to sale of electricity generated by nuclear power plants. In these cases, the production method used does not affect the physical characteristics of the final product.

In any event, the countries implementing policies that distinguish products on the basis of process and production method for environmental and similar reasons, may fall back on the exception in Article XX (b) or (g).115

Investment

It is not uncommon for countries endowed with natural resources, particularly energy, to introduce legislation that favours domestic companies in relation to the investments in the energy sector. Moreover, there are many TRIMs that are specific to the petrochemical industry. The trade-related investment measures most commonly encountered include local content, local equity, export and transfer of technology requirements. The most prominent type of TRIM is a local content requirement. Such measures are prohibited under the TRIMs Agreement.

Investment-related restrictions in the energy sector are also addressed by the GATS to the extent Members undertook commitments in services related to energy. Although initial commitments undertaken by WTO Members in the sector were not extensive, newly acceding energy-endowed states are asked to liberalise their energy services sector. In particular, this is relevant to the exploration, extraction, transportation and processing of energy materials and products.
3.6 Implications of the accession to the WTO of energy-exporting countries

It is estimated that the share of energy-exporting countries that are non-members of the WTO constitutes about 50 percent of world trade in energy products.\textsuperscript{116} The energy policy of these countries attracted little attention in the past. This is partially due to the fact that their share of exports was too small to cause serious trade distortions (Nance, 1989). As these countries have industrialised and their exports have won an increasing share of international markets, energy pricing policies of these countries have become a concern for industrialised WTO Members, as such policies benefit domestic producers of energy-intensive goods (Nance, 1989). For WTO Members it appeared important to use the accession negotiations to secure a level playing field for their domestic industries, which are set back by energy price benefits to downstream industries in the acceding countries.

The issue is being discussed at the moment when the large energy exporters like Algeria, Azerbaijan, Kazakhstan and Russia (and Iraq in the near future) are negotiating their WTO accession. Most of these countries have faced demands to modify their energy policies. Some of the applicants conceded to WTO members’ demands and changed their regulations.\textsuperscript{117} Some others, however, vigorously insist that these demands go beyond the standard WTO provisions and represent so-called “WTO-plus” requirements. These countries refuse to undertake binding commitments upon their accession to modify their energy policies.\textsuperscript{118}

Some acceding countries have faced demands to fully liberalise their energy services sector, to eliminate export taxes and dual price systems, and even unbundle energy monopolies. Acceding countries find it difficult to defend their position in the accession negotiations as there are no clear guidelines or conditions for becoming a WTO Member. The WTO Agreement itself does not contain detailed provisions on accession to the organisation. Its only provision in this respect, Article XII, states that “Any State or separate customs territory possessing full autonomy in the conduct of its external commercial relations and of the other matters provided for in this Agreement and the Multilateral Trade Agreements may accede to this Agreement, on terms to be agreed between it and the WTO.” The WTO Agreement does not clarify what commitments acceding countries should undertake and the scope and extent of demands that WTO Members can present (VanGrasstek, 2001). Neither are there rules or guidelines for conduct of accession.\textsuperscript{119} Thus, the WTO accession process is one of negotiation rather than agreement compliance.

WTO Members have been relatively successful in getting acceding countries to undertake obligations that go beyond existing multilateral rules that address the import side of the problem of lack of energy-specific rules. Energy-importing states are interested in addressing issues such as pricing practices, natural resource development policies, procurement in the energy sector, and restrictive practices of incumbent energy companies.

Energy-exporting states would, however, be interested in addressing issues that are of concern for them such as discrimination and market access of energy products and materials as well as downstream products, the access to market of energy services of WTO Members, transit, etc. Many energy producing and exporting countries have expressed concern that high consumption and excise taxes imposed by importing countries on energy materials and products reduce the revenues received by exporting countries for their finite resources. As long as these taxes are applied in a non-discriminatory manner, they are in line with WTO rules. Energy-exporting countries would benefit, however, from national treatment with respect to domestic taxation and most favoured nation treatment with respect to charges and duties. It is true that many acceding countries receive non-discriminatory treatment in the WTO Members’ market even before they
accede to the Organization. The market access is, however, not predictable because extension of MFN treatment to non-WTO Members is sometimes subject to annual renewal by the authorities in the export markets.\textsuperscript{120}

They would also be able to challenge certain policies of WTO Members in WTO dispute settlement, for instance, discriminatory aspects of energy-related environmental regulations, energy efficiency standards, border tax adjustments. The industries of these countries would benefit from the possibility to contest, on the basis of WTO rules, decisions of investigating authorities of WTO Members in trade remedy investigations with respect to energy-intensive products.
4. CONCLUSION

Although WTO rules apply to energy trade, they are not designed specifically to tackle many problems that arise in cross-border trade in energy products and materials. For instance, issues related to restrictive practices of the energy-exporting countries, practices of energy enterprises that occupy a monopoly position and often are granted exclusive rights and privileges, and transit problems are not addressed to a substantial degree by the existing multilateral trade rules. Moreover, there is lack of comprehensive investment framework. The WTO Membership of energy-exporting countries also poses questions with respect to the policies on renewable energy. These countries might find it disadvantageous if multilateral rules permitted certain policies envisaged by energy-importing countries. This problem might concern permission of certain types of subsidies directed at development of alternative energy sources, permission to distinguish between products on the basis of the production methods, etc.

Multilateral rules addressing the above issues are desirable because they would create a transparent and predictable framework. Energy is a complex industry that requires technical knowledge and a customised approach. The uniform rules would provide a more balanced and efficient framework for international cooperation than is offered by bilateral and regional agreements. Although WTO Members have tried to address the issues related to energy during negotiations in the past, the positions of energy exporting and importing countries are polarised, and agreement was not possible. Creation of these rules thus does not seem feasible in the near future. Considering that energy is generally covered by current WTO provisions, the application of existing principles to the energy sector, relying on decisions of the dispute settlement panels addressing acute issues on an ad hoc basis, appears to be the likely outcome in the near future.
ENDNOTES

1. As of January 2005. This includes Canadian non-conventional reserves. Not including Canada, this estimate of OPEC share rises to 84 percent. Source: Energy Information Administration accessed at http://www.eia.doe.gov/emeu/cabs/nonopec.html, cited from *Oil and Gas Journal*.

2. Countries that produced more than 2 million bbl/d of total liquids in 2004.

3. See discussion of OPEC in section 2.3.

4. This indicates how long proven reserves would last at current production rates.


6. The peak of non-OPEC production was reached in 1985 – 71 percent – and a low was reached in 1973 with 48 percent.


9. Id. Mexico is one notable exception. The constitution of Mexico grants PEMEX, the state oil company, a monopoly over its oil production.


11. Brazil is a notable exception, as it relies less on imports.


13. Production from Canadian oil sands has increased significantly, as well as production of deep water off-shore fields.


15. Id.


17. For instance, the US and the UK moved from consumption of own resources to imports.

18. The major oil companies were once referred to as the Seven Sisters. With their dominance of oil production, refinement and distribution, being well organised and negotiating as a cartel, they were able to take advantage of the rapidly increasing demand for oil and gain large profits. These companies were Standard Oil of New Jersey (now ExxonMobil); Royal Dutch Shell Anglo-
Dutch; British Anglo-Persian Oil Company (later British Petroleum); Standard Oil of New York (later became Mobil, and ExxonMobil); Texaco (later merged with Chevron); Standard Oil of California (later part of Chevron); Gulf Oil. The surviving companies are ExxonMobil, Chevron, Shell and BP. Source: http://en.wikipedia.org.


20 Id.


22 Id.

23 Russia participates in 6 agreements, Brazil and Israel in 4, South Africa in 3, China and Venezuela in 2, Algeria, Egypt, India, Lithuania and Ukraine in 1.


25 The ECT signatories are: Albania, Armenia, Austria, Australia(*), Azerbaijan, Belarus(**), Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Cyprus, Denmark, Estonia, European Communities, Finland, France, Georgia, Germany, Greece, Hungary, Iceland(*), Ireland, Italy, Japan, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Mongolia, Netherlands, Norway(*), Poland, Portugal, Romania, Russian Federation(**), Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, Uzbekistan, United Kingdom. (*) Country which has not ratified the Treaty, (**) country which has not ratified the Treaty but which applies it provisionally. Azerbaijan, Belarus, Kazakhstan, Tajikistan, Russian Federation, Ukraine, Uzbekistan are in the WTO accession process.

26 In its present form, the non-discriminatory treatment obligation exists only in relation to existing investments. The adoption of a Supplementary Treaty that would extend this obligation to ensure non-discriminatory treatment also in the pre-investment phase (the so-called “Making of Investments” stage) has been discussed by the Contracting Parties but the process was put on hold following the suspension of the respective investment negotiations in the WTO and OECD.


30 Article 2, para.1(a).

31 Article 3, para. 5 of the UNFCCC provides: “Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.” The Protocol provides that its parties “shall strive to implement policies and measures ...in such a way as to minimize adverse effects, including... effects on international trade” (Article 2 of the Kyoto Protocol).
32 See Article 603(2) of NAFTA.

33 Signed upon the political initiative of Venezuela by Barbuda, Bahamas, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Jamaica, Grenadines, St. Lucia, St. Kitts and Nevis, Suriname, Venezuela. The text of the agreement is accessible in English at the website www.guyana.org/spanish/petro_agreement.html.

34 Generally applicable trade rules apply, however, to trade in energy products.

35 The Ministerial Declaration of Punta del Este included natural resource subject in the negotiations: “Negotiations shall aim to achieve the fullest liberalisation of trade in natural resource-based products, including in their processed and semi-processed forms. The negotiations shall aim to reduce or eliminate tariff and non-tariff measures, including tariff escalation.” Ministerial Declaration of the Uruguay Round, GATT Doc. No. MIN(86)/6 (20 September 1986).

36 Note by the Secretariat, Summary of statements and proposals made concerning negotiations on natural resource-based products, MTN.GNG/NG3/8, 13 November 1987, para. 5.

37 See MTN.GNG/NG3/19, 5 July 1990, para. 7.

38 See MTN.GNG/NG3/1, 26 February 1987, para. 10-11.

39 See MTN.GNG/NG3/11, 10 August 1989, para. 5.

40 Note by the Secretariat, Summary of statements and proposals made concerning negotiations on natural resource-based products, MTN.GNG/NG3/8, 13 November 1987, para. 5.


42 This is valid at least in electricity and gas; although gas can be transported in liquefied form by vessels, this mode of transportation is not very widespread as it is very expensive.

43 Exports would be considered domestic products and thus should not be favoured.

44 Id. See discussion on energy taxes and border tax adjustments in Section 3.5.

45 Id.


48 Id., para. 8.126.

49 Id., paras. 8.123, 8.124 and 8.126.
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50 Id., para. 105.

51 Para. 8.125 of the Panel Report.

52 Para. 112 of the Appellate Body Report.


54 Para. 130 of the Appellate Body Report.

55 Article XI states: “No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licenses or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.”


57 GATT, Article XI:2(a).

58 Article 3.

59 Accessed at http://www.opec.org/library/FAQs/PetrolIndustry/q8.htm. OPEC is concerned that factors outside of its control may disrupt this stability. This includes taxation, which now constitutes the largest part of the price of oil products in some countries.


61 Article XVII.1(a) of GATT states: “Each contracting party undertakes that if it establishes or maintains a State enterprise, wherever located, or grants to any enterprise, formally or in effect, exclusive or special privileges, such enterprise shall, in its purchases or sales involving either imports or exports, act in a manner consistent with the general principles of non-discriminatory treatment prescribed in this Agreement for governmental measures affecting imports or exports by private traders.”


63 See the definition at http://www.wto.org/english/thewto_e/whatis_e/eol/e/wto05/wto5_10.htm#note1.

64 Id.

65 GATT Article XVII.1(b).

66 Article XVII.1(b) states: “(b) The provisions of subparagraph (a) of this paragraph shall be understood to require that such enterprises shall, having due regard to the other provisions of this Agreement,
make any such purchases or sales solely in accordance with commercial considerations,* including price, quality, availability, marketability, transportation and other conditions of purchase or sale, and shall afford the enterprises of the other contracting parties adequate opportunity, in accordance with customary business practice, to compete for participation in such purchases or sales.”


68 Services Sectoral Classification List, MTN.GNS/W/120.

69 See, for instance, the communication of the United States to the Committee on Specific Commitments, the S/CSC/W/27, 18 May 2000.

70 See Energy Services, Background Note by the WTO Secretariat, S/C/W/52, 9 September 1998: 2.


73 See Background Note by WTO Secretariat, supra note 70, and Zarrilli (2003): 42–43.

74 Third-party access (TPA) means that third parties, often competitors of the generation, supply and distribution of the transmission facility owner, are entitled to use such facilities, either only for unused capacity, or on the basis of fair sharing of existing capacity, against a reasonable fee and on practical technical conditions.

75 Article VIII applies also to cases of exclusive service suppliers, when a Member authorises or establishes a small number of service suppliers and substantially prevents competition among those suppliers.


77 Article 1.1(a)(1)(iii) of the SCM Agreement.

78 Article 1.1(a)(1)(iv) of the SCM Agreement provides that there is a financial contribution if “a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above.”

79 “...financial contribution” by a government or public body confers a ‘benefit’, and therefore constitutes a ‘subsidy’ within the meaning of Article 1 of the SCM Agreement, when it confers an
advantage on the recipient relative to applicable commercial benchmarks, *i.e.*, when it is provided on terms that are more advantageous than those that would be available to the recipient on the market.” *Canada – Aircraft*, Panel Report, para. 9.120.

80 Article 2.3 of the SCM Agreement.

81 See Part III of the SCM Agreement.

82 Article 19 of the SCM Agreement.

83 Article 7 of the SCM Agreement.

84 This is contrary to what some developed countries, most notably the United States, proposed when negotiating the TRIMs Agreement.

85 “The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”

86 GATS Article IV (2)(c).

87 Article XIX.

88 WT/WGTTT/W/9.

89 WT/WGTTT/W/10.


91 The "model type" includes all automobiles which share major design characteristics that both influence fuel economy and are easily recognisable by consumers. Id. para. 5.18.

92 Id. para. 5.24.

93 Id. para. 5.25.

94 Id. para. 5.26.

95 The Appellate Body said: “...the wording of the term ‘directly competitive or substitutable’ implies that the competitive relationship between products is not to be analyzed exclusively by reference to current consumer preferences. In our view, the word ‘substitutable’ indicates that the requisite relationship may exist between products that are not, at a given moment, considered by consumers to be substitutes but which are, nonetheless, capable of being substituted for one another”. *Korea – Taxes on Alcoholic Beverages*, Report of the Panel, adopted 17 February 1999, WT/DS75/R, para. 10.40.

97 Taxes levied on goods or services used directly or indirectly in making the product.


99 The SCM Agreement defines: “Inputs are deemed physically incorporated if such inputs are used in the production process and are physically present in the product exported, even though such input does not need to be present in the final product in the same form in which it entered the production process.”

100 Footnote 61 to the SCM Agreement.

101 See discussion of German programmes in support of renewable energy in Droege et al. (2004).

102 United States – Measures Treating Export Restraints as Subsidies, Panel Report, WT/DS194/R, 29 June 2001, 8.29. Alternatively, the Panel in the United States – Export Restraints elaborated that “both the act of entrusting and that of directing therefore necessarily carry with them the following three elements: (i) an explicit and affirmative action, be it delegation or command; (ii) addressed to a particular party; and (iii) the object of which action is a particular task or duty.”

103 See more detailed discussion of compatibility of energy dual pricing with WTO rules in Selivanova (2004a).

104 Id.

105 Id.

106 Id.


108 See more detailed elaboration on this issue in Selivanova (2004b).

109 See Appleton (2005): 371. OECD countries use the voluntary labelling to promote energy efficiency and reduce emissions. For instance, the Nordic Swan labelling schemes set criteria for oil burners. The EU proof of origin schemes for electricity from renewable sources is mandatory and constitutes a technical regulation.

110 Mandatory requirements are called technical regulations, voluntary requirements are standards. Procedures of conformity assessment of goods with standards and regulations include procedures for sampling, testing, inspection, evaluation, verification and assurance of conformity; registration, accreditation and approval.

111 See Kommerskollegium/Swedish National Board of Trade (2004).

112 Article 2.2 of the TBT Agreement.


115 See Section 3.4 of the present paper.

116 Gibbs (2003): 20. This estimate was made before Saudi Arabia joined the WTO.

117 Saudi Arabia is an example of a non-Member country that has reportedly experienced pressure by WTO Members, during the process of accession negotiations, to undertake a commitment to eliminate dual energy pricing. According to the terms of the accession of Saudi Arabia to the WTO, Saudi Arabia undertook some specific commitment with respect to the pricing of gas. Saudi Arabia used to set NGL prices 30 percent lower than the export prices charged for those products. As a result of the WTO negotiations, the law setting this policy was repealed. The WTO Members required that pricing on natural gas liquid used as feedstock by domestic users be commercially based. The regulation adopted in the course of WTO accession reform provided for a negotiated pricing structure based on international market prices that ensured the full recovery of production costs and a reasonable profit. The formula for domestic NGL prices is adjusted for the following cost-based and other commercial considerations: cost savings in infrastructure; commercial advantage associated with long-term contracts; commercial value of reduced volatility; commercial value of large-volume purchases; cost savings in marketing. In conclusion, Saudi Arabia reconfirmed that NGLs are available to all users within Saudi Arabia on a non-discriminatory basis, whether Saudi or non-Saudi. The Working Party Report of Saudi Arabia (WT/ACC/SAU/61) is accessible at http://www.wto.org/english/thewto_e/acc_e/completeacc_e.htm.

118 For instance, Russia has refused to concede to demands of the EU and the US to abolish its dual pricing policies, although it confirmed its intention to raise domestic prices for energy in accordance with its own reform strategy.

119 The WTO Secretariat has prepared guidelines for the accession negotiations, referring to the existing practice. See Technical Note on the Accession Process, Note by the Secretariat, WT/ACC/10/Rev.3, 28 November 2005.

120 For instance, Jackson-Vanik clause in the United States.
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