

Risk Factors

Thanks to PTT's continued risk management efforts, the risk factors disclosed in the past year have been reasonably well managed. Besides, new risk factors have been identified and managed under the current year's risk management plan. Therefore, PTT continues to improve this Risk Factors section to better reflect risks associated with petroleum and related industries. Apart from the risk factors directly related to its business in general, other risk factors are described below.

1. Strategic Risks

1.1 Management of PTT Group

Because PTT has steadily expanded its investment through assorted business groups, the management of PTT affiliates has become more complicated. Without effective and efficient management, PTT and its affiliates might apply inconsistent strategies and end up competing among themselves, thereby compromising its own overall business performance.

As a result, the Company has focused on the management of PTT Group, whereby PTT executives have been appointed presidents or senior executives of PTT affiliates for consistency in policies, strategies, and business directions and closer supervision of business expansion. In addition, executives of PTT and its affiliates have taken part in drafting a master strategic plan as a guideline for developing business plans for each group.

1.2 Personnel Management System in Support of Business Expansion

In response to continued domestic and international business expansion and the enhanced competitiveness for greater business opportunities, PTT must adequately prepare its resources, especially its people. If human resource management and business expansion do not align, PTT's business performance and competitiveness are bound to decline.

Likewise, the Company manages its human resources under a group structure to maximize the sharing of talents and experience, thereby allowing human resource staff to develop plans for training and development and relying on competency-based management and career management.

2. Business Risks

2.1 Gas Sales Agreements and Take-or-Pay Conditions

Each gas sales agreement specifies a minimum annual contractual quantity for PTT as a buyer; otherwise, it is required to pay for the volume not taken during that contract year under the take-or-pay condition. Nevertheless, PTT may take the pre-paid gas in later years as make-up gas if it has already paid the minimum contracted amount for the year in question. Problems arising from the take-or-pay requirement or the ability to receive make-up gas might degrade PTT's financial and operating performance.

To efficiently manage its purchase of gas under take-or-pay conditions, PTT ensures that its own sales agreements contain similar conditions. Moreover, it constantly monitors the gas demand and revises the days on which PTT begins receiving contracted gas to be produced in future to ensure that the supply of gas corresponds to the customers' ability to receive gas and the construction completion date for gas transmission pipelines.

2.2 Risks Associated with Sourcing of Natural Gas

To remain prepared for future gas demand, PTT has been sourcing additional gas supplies from both domestic sources and Myanmar through several new gas purchase agreements, as well as LNG (liquefied natural gas). It cannot absolutely confirm that these development projects and new sources under signed contracts will be delivering gas by the contractual dates or that the LNG supplier will indeed deliver the gas as planned. This could affect gas users in any sector: power, industrial, or transport. In addition, delays in GSP (gas separation plant) projects could affect PTT Group's petrochemical projects.

Nevertheless, measures are in place for these potential problems, as PTT constantly keeps updated on gas producers' construction projects to pinpoint completion dates. In the meantime, it coordinates with other current gas producers to prepare supplementary capacities at all times during these periods just in case the new gas gets into the transmission system late.

2.3 Fee Changes for Gas Supply Procurement, Distribution, and Throughput Tariffs

Today's pipeline throughput tariffs and fees for the procurement and distribution of natural gas were approved by the National Energy Policy Council (NEPC), announced in the first NEPC announcement of 2001, which covered the criteria for calculating the tariffs for the expanded network under the amended Third Gas Pipeline Master Plan, 2001 - 2011, approved by the Cabinet. These criteria are subject to revision every five years or with significant changes in economic and social developments.

With recent changes in energy and economic circumstances, the Company constantly closely monitored such circumstances and revised investment plans for the expansion of its gas pipeline networks under the Master Plan to efficiently align with the increased call for gas. On June 19, 2007, the

Cabinet concurred with an NEPC resolution on the revision of Master Plan No. 3 (additional amendment), 2001 - 2011, for use as the framework for the construction of future gas pipeline systems. At an NEPC meeting of October 18, 2007, a decision was reached for pipeline throughput tariff calculation, whereby the Minister of Energy was assigned to deliberate and endorse the new criteria, to be implemented at a proper time. The Minister of Energy has given his consent to these criteria.

2.4 Product Price Fluctuation

Reflecting world market prices, the prices for products of PTT and its affiliates in domestic and foreign markets – namely natural gas, condensate, crude oil, refined petroleum products, and petrochemicals – have recently proved highly volatile because of factors beyond the Company's control, thereby affecting PTT's business, financial standing, planning, investment, and operating performance.

To alleviate this risk, PTT has focused on optimizing risk management for PTT Group as a whole by appointing an oil price risk management team within the group. Today, the group is engaged in both short-term and long-term derivatives contracts with its business partners, with price, volume, and time targets for suitable risk management in line with business plans. Each such engagement is supported by the physical volume of PTT oil products to manage the costs of buying and selling for the group.

2.5 Government Action Creating Potential Conflicts of Interest with Shareholders

PTT's retention of its state-enterprise status with the Ministry of Finance serving as the major shareholder does not always result in its maximum profitability. The government has previously leveraged, and can still leverage, PTT to achieve national social or economic objectives. As long as this status remains, PTT may respond to government policies in favor of taking actions for profitability or other business objectives.

2.6 Transfer of Former Authority, Privileges, and Benefits of PTT Plc. (Provided under PTT Act and State Enterprise Corporatization Act) to PTT Plc. Authority Regulation Board

With the publication of a decree on the authority, privileges, and benefits of PTT Plc. (No. 2) B.E. 2550 (2007) in the Royal Gazette on February 16, 2007, with effect from March 18, 2007, below were the essences of this decree:

1. Revoke the authority, privileges, and benefits formerly provided to PTT Plc., namely the privileges and benefits as a virtual concessionaire under the Petroleum Act B.E. 2521 (1978) (Section 8); the privileges of PTT Plc. properties not subject to liability under execution (Section 5, Royal Decree on the Authority, Privileges, and Benefits B.E. 2544 (2001)); and the authority to expropriate properties under the law on real-estate expropriation (Section 38, Petroleum Authority of Thailand Act B.E. 2521 (1978)).

2. Transfer the authority, privileges, and benefits of PTT Plc. under the Petroleum Authority of Thailand Act, including the survey and designation of petroleum transmission pipeline rights of way, and pipeline laying under, over, or through individuals' properties, to the PTT Plc. Authority Regulation Board, who will announce stipulated criteria and terms and conditions for implementation in the Royal Gazette.

3. The PTT Plc. Authority Regulation Board is chaired by the Permanent Secretary of Energy along with a representative of the Ministry of Interior, a representative of the Council of State, up to three experts appointed by the Minister of Energy, and the Director-General of the Energy Policy and Planning Office serving as secretary to the Board.

As for the necessity for issuing this decree, the government cited that PTT now commanded enough business potential and competitiveness with others in the petroleum business.

This board has issued four announcements, already published in the Royal Gazette, namely those dealing with:

- Criteria and conditions for construction and maintenance of petroleum transmission pipeline systems
- Its own identification cards and Board-appointed subcommittee members' identification cards
- Deliberation of the compensation for operating in the petroleum transmission pipeline rights of way
- Other conditions for survey leading to the construction of petroleum transmission pipeline systems.

On December 11, 2007, an Energy Business Act B.E. 2550 (2007) was promulgated under which the nation's natural gas business included PTT's gas transmission pipeline network. Once this law came into effect, an Energy Business Regulatory Board would be appointed by His Majesty the King to provide oversight of the energy business, mainly electricity and natural gas, and ensure that they comply with the spirit of the law, which included the authority to define criteria for service pricing by authorized parties and their application of land and other real estates. In the transitory provision of this act indicates that a decree on the authority, privileges, and benefits of PTT Plc. B.E. 2544 (2001), amended by another decree (No. 2) is further effective until PTT get the license according to an Energy Business Act.

2.7 Risks Associated with Litigation in Administrative Court concerning Transformation and Privatization of Petroleum Authority of Thailand

On August 31, 2006, the Foundation for Consumers and its parties of five sued the Prime Minister, the Cabinet, and the Minister of Energy in the Supreme Administrative Tribunal, asking it to revoke two royal decrees issued under the State Enterprise Corporatization Act B.E. 2542 (1999) in the transformation of the Petroleum Authority of Thailand into PTT Plc. These consisted of a royal decree on the authority, privileges, and benefits of PTT Plc. B.E. 2544 (2001) and a timeline for the revocation of laws concerning the Petroleum Authority of Thailand Act B.E. 2544 (2001).

It was on December 14, 2007 that the tribunal issued its verdict on this case:

(1) That the four defendants – namely the Cabinet, the Prime Minister, the Minister of Energy, and PTT – jointly conduct the following:

(a) Divide properties that belonged to the state's public use and the rights to the land used for pipeline transmission systems

(b) Isolate the authority and privileges of the state's public authority from those of PTT.

These were to be completed before the appointment of the Energy Business Regulators.

(2) That the five plaintiffs' accusation be rejected for the revocation of the decree on the authority, privileges, and benefits of PTT Plc. B.E. 2544 (2001), amended by another decree (No. 2, B.E. 2550 (2007)) and a decree stating the timeline for the termination of the Petroleum Authority of Thailand Act B.E. 2544 (2001).

PTT later filed an update on the progress made against the tribunal's ruling, with a summary of the Petroleum Authority of Thailand's properties and their values as of September 30, 2001, to be allocated to the Ministry of Finance. It also clarified its letter sent to the Department of Treasury, in which it submitted a list of divided properties along with a signed memorandum of understanding over their jointly determined criteria of compensation for using such properties, payable to the Ministry of Finance.

3. Project Execution Risks

3.1 Development of Gas Transmission System, Gas Separation Plants, and Petrochemical Plants

The key factors for PTT's successful business expansion include a continued rise in natural gas consumption, the ability to expand its gas transmission system and create value, a greater reach of its gas transmission system to customers, its gas separation capacity, and the success in building PTT Group's

petrochemical plants, which rely on natural gas for their processes. Projects may experience delays for assorted reasons, including delays in identifying construction contractors, procurement of long-lead items, getting approval from the government, and the preparation of environmental impact assessment (EIA) reports. Delays in project completion could compromise PTT's financial and operating performance.

Therefore, the Company pays close attention to critical path management, that is, tackling the tasks most critical to each project's timing and success. These include accelerated hiring of construction contractors; close monitoring of the procurement of construction materials; development of measures to reduce environmental impacts; monitoring and analysis of impacts on project management; appointment of a community relations task group to develop plans for public participation; and preparation of plans and measures to minimize the potential impacts of project delays.

4. Operation Risks

4.1 Commercial Risks Associated with Operations

Hazards are inherent to the exploration, production, and transportation of natural gas, crude oil, petrochemicals, and refined products, including fires, explosions, oil spills, well blowouts, gas pipeline leaks, dispersion of hazardous gases, terrorist activities, natural disasters, actions of external parties, and other unforeseeable events. These hazards could prove detrimental to PTT's personnel, assets, environment, business operation, reputation, financial standing, and business opportunities.

PTT therefore takes risk management seriously by adopting preventive maintenance measures for its production facilities and instituting emergency and crisis response preparedness measures. Like other companies in the petroleum and petrochemical industries, it has taken out insurance to protect its major operating assets against risks and business interruption.

4.2 Environmental and Safety Regulations

All our business operations must comply with relevant laws and regulations concerning the impact on the environment and safety. Currently, domestic laws and regulations are more lenient than those of industrialized countries. However, future changes, including those to the enforcement of such laws and regulations, may limit PTT's operation or significantly raise operating costs. Besides, community acceptance or rejection of any operation could harm its future business and ability to generate revenue.

To address these risks, PTT monitors and analyzes the impacts of changes in environmental and safety laws and regulations on its operation. It also closely coordinates with government agencies, applies available information to develop work plans and response measures, and ensures ongoing community relations activities in operating areas.

5. Financial Risks

5.1 Fluctuation of the Baht

Since PTT and its affiliates have outstanding foreign loans, changes in the exchange rate between the Baht and the US Dollar directly and indirectly affected the majority of PTT's revenue, consequently affecting its bottom line. Therefore, the fluctuation of the Baht and the government's economic policies affect its consolidated financial and operating performance.

To alleviate this, PTT has balanced its foreign loans in proportion to its revenue from foreign currencies (in short, taking a natural hedge) while managing its foreign currency deposits and purchasing foreign currencies forward to match the quantity of foreign currencies required for loan repayment and for imported natural gas and crude oil. PTT has developed a treasury and credit policy for use as a common guideline for PTT Group, incorporating the requirement to institute risk management to handle risks to PTT's financial standing.

5.2 Financial Support to Affiliated Companies

In the past and during the latest Asian economic crisis, PTT provided financial support to its affiliates under a shareholder support agreement and coordinated with the executives, creditors, and other major shareholders of these affiliates on debt restructuring. Despite the improved performance of most affiliates since 2003, PTT cannot ensure that these companies would be able to repay their loans to PTT; that they would avoid more financial problems; or that they would not need PTT's financial support in the future. The financial conditions of PTT affiliates affect its own financial and operating performance.

To address this, PTT has not only played a leading role in promoting debt restructuring among its affiliates, but also issued a policy to refrain from incurring new obligations unless necessary and beneficial to its own long-term success. In such cases, it will consider providing short-term loans or commercial loans, or both, and is convinced that this policy will fortify the financial conditions of PTT companies.

5.3 Acquisition of Funds for Plan Execution

The businesses of PTT – in particular, petroleum exploration and production, natural gas transmission, and the petrochemical business – require massive capital investments. Although PTT closely monitors and manages risks, the actual investment capital required may deviate from project plans due to factors beyond its control, potentially affecting the success and capital costs of PTT projects.

As a rule, PTT adheres to a 1 : 1 debt-to-equity ratio and a net debt-to-EBITDA ratio of up to 2 : 1 when securing investment capital and continuously monitors changes in factors affecting the sourcing of investment capital. Therefore, PTT believes it can secure sufficient and suitable funds for future business expansion.