

Report to Colorado PERA Board of Trustees

From Investment Staff

Regarding the
Colorado PERA
Iran-Related
Investment Policy

September 19, 2008





Table of Contents

Section 1	Executive Summary
Section 2	Colorado PERA Iran-Related Investment Policy
Section 3	Review of Staff Activities January 18 – September 19, 2008
Section 4	Company Response Letters
Section 5	List of Iran-Related Companies Meeting Criteria as of September 19, 2008
Section 6	PERA Holdings of Iran-Related Companies Meeting Criteria as of September 19 2008
Section 7	Iran-Related Companies Meeting Criteria as of September 19, 2008, With Purchase Moratorium in Effect
Section 8	Evaluation of Company Responses
Section 9	Information on Companies Meeting Criteria with PERA Holdings

SECTION 1

Executive Summary

Since the last Board Meeting on June 20, 2008, Colorado PERA staff has continued to work diligently to implement the requirements of the *Colorado PERA Iran-Related Investment Policy* (PERA's policy). Specifically, our efforts have focused on the following areas:

- Reviewing reports received from PERA's research provider to continue to update the list of companies meeting PERA's policy criteria (Phase I)
- Monitoring compliance with the moratorium on direct public investments enacted by the Board (Phase III)
- Evaluating responses received from the companies identified as meeting PERA's policy criteria
- Developing a framework for implementing Phase IV of PERA's policy

In total, there are 16 companies that meet the criteria specified in PERA's policy. Of the 16 companies, PERA owns direct public securities issued by eight of the companies. As of June 20, 2008, PERA enacted a moratorium in direct public investments in the eight companies of the 16 that PERA does not currently own. There have been no new companies identified as potentially meeting PERA's policy criteria since the last report to the Board of Trustees.

Evaluating Company Responses

PERA received responses from seven of the 16 companies that have been identified as meeting the criteria specified in PERA's policy. PERA staff has reviewed the company responses. Staff's conclusion is that, in general, the responses received describe well-diversified companies that do not appear to present a material risk to PERA from their current operations in Iran.

The response received from Bow Valley Energy Ltd. warrants individual mention. Bow Valley indicates in their response letter that the company has no interest in reserves, production or revenue derived from Iran. The company also indicates that its Board of Directors has passed a resolution renouncing its investment in Iran. This information indicates that the company should be considered for potential removal from PERA's list of companies identified as meeting the PERA policy criteria. Staff will discuss with the Board of Trustees criteria for potentially removing companies from the PERA list, as appropriate.

Investment Staff Evaluation

Phase IV of PERA's policy requires PERA staff to analyze (1) the available strategies for addressing the risk presented, (2) the materiality of the companies' Iranian operations in relation to their overall operations, and (3) the availability of alternative direct public investments providing similar diversity and return expectations.

Since the last report on PERA's policy, PERA staff has identified and gathered company information for each of the eight companies in which PERA holds direct public securities. Staff believes that this information will assist in performing the analysis required by Phase IV of PERA's policy. The information presented includes company specific information, PERA's separate account exposure, market index weights, oil and gas information, and historical total returns. In summary, the information presented details:

 Certain companies have unique characteristics; some so unique that they cannot be replicated by another public company.

- In total, the eight companies represent approximately 44 percent of the energy sector of the MSCI ACWI ex US index (the investable universe for the international equity asset class) and approximately 57 percent of the energy sector of the MSCI EM index (the investable universe for international equity emerging markets managers).
- Each of the eight companies comprises a significant percentage of their respective country portion of the MSCI ACWI ex US index. The smallest percentage is 13 percent of the respective country weight and the largest percentage is 44 percent of the respective country weight.
- Based on the oil and gas data collected, none of the companies appear to have material
 oil and gas operations in Iran as compared to the company operations as a whole.

PERA's investment staff has also worked with three of PERA's external international equity managers. The managers have presented some initial thoughts on the availability of alternative direct public investments; a representative example is included below:

"We have chosen the stocks that we own because we believe them to be more attractive on a relative basis to the other possible alternatives. Moreover, given that the sector is dominated by a few large companies, we believe that either there are not any attractive alternatives or where they exist, we already own those as well. We believe that the use of substitute stocks for the companies on this list held by your portfolio would potentially have return implications."

PERA staff will continue to work with external investment managers and will continue to gather information related to Phase IV.

Reporting

Staff is providing this *Colorado PERA Iran-Related Investment Policy* Report as of September 19, 2008. This report will be placed on the PERA Web site and forwarded to the Governor and the General Assembly on September 19, 2008.

SECTION 2

Colorado PERA Iran-Related Investment Policy

Adopted January 18, 2008

PERA will initiate a phased strategy to address PERA's direct public investments in foreign companies doing business in the Islamic Republic of Iran. The strategy will address and will include a number of actions, up to and including possible divestment. PERA recognizes the federal government has sole responsibility for the conduct of American foreign policy. PERA is acting out of a fiduciary concern for the welfare of its members' assets which requires a broad horizon and sensitivity to the potential risks posed by investment in Iran.

The United States prohibits loans from U.S. financial institutions and direct investment in the Iranian energy and defense sectors. The U.S. government can also impose economic sanctions on foreign companies investing in Iran's petroleum and natural gas sector. It is widely reported that Iran supports terrorism, supplies explosively formed penetrators for use against our troops in Iraq, continues to develop the infrastructure to support advanced nuclear technology, and that its president publicly calls for the destruction of the State of Israel.

PERA must be managed for the benefit of the members, retirees and beneficiaries, and this policy is developed to address the potential for risk presented by pension fund investments in companies doing business in Iran.

Accordingly, the PERA Board of Trustees adopts a policy consisting of the following phases:

- Phase I: Commencing immediately, staff shall undertake research to identify a list of public companies doing business in Iran which meet the following criteria: (This list will be developed through staff research of publicly available information that may include the retention of external third party researchers and/or other information provided by other public funds, pension systems, and investor organizations.)
 - 1. That have made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20,000,000 or more, in Iran's energy sector; or
 - 2. Are engaged in business with any Iranian organization labeled by the U.S. government as a terrorist organization; or
 - 3. Are engaged in any business that facilitates Iranian acquisition of nuclear, chemical, or biological weapons technology or military equipment.
- Phase II: Upon a company being included on the list that meets the criteria set forth under Phase I in which PERA holds a direct public investment, staff shall within 30 days after identifying such a company, engage such company and ask them to:
 - 1. Provide a detailed description of the nature, extent, duration, and full history of the companies' business activities in Iran;
 - 2. Provide an explanation as to how these activities are consistent with a sound and prudent long-term investment strategy;
 - 3. Report how they are engaging the government of Iran regarding its conduct and how they are mitigating investment risks posed by doing business in Iran;
 - 4. Report whether substantial action has been taken to affect the policies and practices of the government of the Islamic Republic of Iran; and

- 5. Additionally, staff shall, where practical, confer and work with other pension systems and investor organizations regarding information stemming from their engagement with such companies and potentially cooperate in taking joint action in engaging such companies.
- Phase III: Upon a company being included on the list that meets the criteria set forth under Phase I, the Board enacts a moratorium on direct public investments in companies in which PERA currently holds no interest. The moratorium shall apply upon the date that staff determines such a company meets the criteria. The Board shall give 90-days' advance notice before the effective date of any amendment or repeal of this moratorium to the public, the General Assembly, and the Governor.
- Phase IV: Within 90 days after engaging such a company, staff shall evaluate the companies' responses and determine if they have taken sufficient steps to minimize risk to PERA and/or whether additional time is required to effectively engage such company. If not, staff shall analyze:
 - 1. The available strategies for addressing the risk presented;
 - 2. The viability of working with other interested parties and investors to affect the policies and practices of companies with business operations in Iran;
 - 3. The materiality of the company's Iranian operations in regards to their overall operations; and
 - 4. The availability of alternative direct public investments providing similar diversity and return expectations.
- Phase V: Staff shall report to the Board its findings, actions, and recommendations concerning individual companies on the list at every regularly scheduled Board meeting. This report shall be made available to the public and forwarded to the General Assembly and the Governor; provided, however, the first public report shall be made no later than March 21, 2008. Should adequate mitigation of risk not be possible, the PERA Board of Trustees, consistent with its fiduciary obligations and responsibilities, will thereafter direct staff to:
 - 1. Withhold additional or new direct public investments in non-complying companies; and/or
 - 2. Divest current direct public investments in the companies.

Section 3

Review of Staff Activities

January 18-March 21, 2008

- Made initial contact with two independent research providers (January 25)
- Discussed product offering with first research provider (January 29)
 - What could they provide
 - Current clients they are serving with similar needs
 - What would it cost
 - What research is currently available
 - How much customization would be required to meet PERA's criteria
 - How long would it take to obtain a list customized to PERA's criteria
- Agreed to send PERA a proposal and agreement
- Discussed product offering with second research provider (January 29)
 - What could they provide
 - Current clients they are serving with similar needs
 - What would it cost
 - How much customization would be required to meet PERA's criteria
 - How long would it take to obtain a list customized to PERA's criteria
 - Research provider indicated that it would be about three months, or perhaps sooner, to provide a list that met PERA's criteria
- Received proposal from first research provider interviewed that included a sample report and a draft of an agreement for research services (January 30)
- Forwarded job description for Investment Analyst to Human Resources (January 29)
- Posted job announcement in Denver Post and on CFA Web site (beginning February 3)
- Conducted first interviews (February 14, 15, 19, 26, 29, and March 6). Conducted second interviews week of March 10
- Held follow-up conversation with research provider regarding criteria wording (February 7).
 Also discussed inclusion of subsidiaries and nuclear power plants on the list agreed to create a watch list for companies that do not have involvement in Iran
- Signed contract with research provider (February 13)
- Received initial set of reports from research provider (February 15). Prepared detailed list of
 questions related to criteria wording, questions on specific companies on the list and also
 companies excluded from the list (February 25). Held conversation regarding questions and
 definition of "investing in Iran" (February 26)
- Compared JCRC list (initially received in 2007) to research provider list (February 19)

- Evaluated exposure (domestic equity and fixed income) to companies on both the JCRC list and the research provider list as of December 31, 2007 (February 25). Considered needs for creating security identifiers for relevant companies and report description needs
- Conducted conference calls with two large public pension plans to discuss what each fund has done to date (February 13)
- Received updated JCRC list (February 25)
- Received new research provider report (March 3)
- Updated comparison of JCRC list and research provider list (March 7)
- Contacted JCRC to request information regarding JCRC list criteria (March 7)
- PERA contacted by JCRC. JCRC will request AIPAC to follow up on PERA request (March 9)
- Completed initial review of research provider's report and list (March 14)
- Prepared Iran-Related Investment Policy Report for Board of Trustees (March 14–March 20)

March 21 – June 20, 2008

- Sent letters to all 31 companies identified in the March 21, 2008, report as part of Phase II of the Colorado PERA Iran-Related Investment Policy (March 21)
- Enacted a moratorium on three companies identified in the March 21, 2008, report as part of Phase III of the Colorado PERA Iran-Related Investment Policy (March 21)
- Updated the portfolio accounting system to identify securities issued by the three companies meeting the policy criteria with a purchase moratorium in effect (March 21)
- Sent letters to all portfolio managers (internal and external) of actively managed separate account portfolios notifying the managers of the moratorium (March 21)
- Hired Investment Analyst (March 24)
- Conducted conference call with AIPAC regarding their methodology in selecting companies for divestment (March 31)
- Reviewed security holdings and transactions to verify compliance with moratorium (April 1)
- Received new research provider report (April 1). Prepared and sent a detailed list of questions to research provider regarding the findings in their April 1 report (April 8).
 Received response from research provider (April 10)
- Conducted conference call with research provider to further discuss their research (April 11).
 Received follow-up answers from research provider in response to additional questions
 posed during April 11 conference call (April 14). Sent research provider further questions on
 their findings (April 15). Received response from research provider (April 16). Received
 another response from research provider regarding unresolved questions remaining from
 our April 11 conference call (April 17)

- Compared JCRC research (received February 2008) and provider research (April 1) for each company on a project by project basis in an effort to corroborate findings and determine if cited companies meet PERA's policy (April 14–16)
- Used Bloomberg research to determine if each cited company had publicly traded debt or equity (April 17)
- Searched the following Web sites for company activities in Iran in an effort to independently corroborate provided research: U.S. Department of Energy, U.S. Department of State, Congressional Research Service, Library of Congress, Reuters, Bloomberg, and brokerage research sites in addition to the individual Web sites of each cited company (April 18–22)
- Retrieved the annual reports and Forms 20-F (Form filed with the SEC by non-U.S. companies with securities that trade on a U.S. exchange) for each subject company for the years that company was believed to have conducted operations in Iran (April 22)
- Examined annual reports and other SEC filings in order to identify and calculate the value of subject companies' Iran investments (April 24–30)
- Reviewed security holdings and transactions to verify compliance with moratorium (May 1)
- Received new research provider report (May 1). Prepared and sent a detailed list of
 questions to research provider regarding the findings in their May 1 report (May 2).
 Received response from research provider (May 5)
- Prepared and sent a detailed list of questions to AIPAC regarding their research findings;
 also requested an updated research report (if one was available) (May 5)
- Sent e-mails directly to the investor relations departments of those remaining companies that had not yet replied to PERA's engagement letter sent on March 21st (May 6–8)
- Met with PERA's equity and fixed income teams to outline steps necessary to develop a framework for implementing Phase IV of the Iran-Related Investment Policy (May 16 and 21)
- Reviewed security holdings and transactions to verify compliance with moratorium (June 2)
- Received new research provider report (June 2)
- Prepared Iran-Related Investment Policy Report for Board of Trustees (May 29–June 11)

June 20 - September 19, 2008

- Enacted a moratorium on five additional companies identified in the June 20, 2008, report as part of Phase III of the *Colorado PERA Iran-Related Investment Policy* (June 20)
- Sent letters to all portfolio managers (internal and external) of actively managed separate account portfolios notifying the managers of the moratorium (June 20)
- Used Bloomberg research to identify actively traded securities issued by the five additional companies meeting PERA's policy criteria with a purchase moratorium in effect (June 23)
- Updated the portfolio accounting system to identify securities issued by the five additional companies meeting PERA's policy criteria with a purchase moratorium in effect (June 24–26)

- Reviewed security holdings and transactions to verify compliance with moratorium (July 1)
- Received new research provider report (July 1)
- Acquired equity and fixed income index constituent data. Identified the constituent securities
 within these indices issued by the eight companies that met the criteria but do not have a
 purchase moratorium in effect, which will be referred to hereafter as the "eight companies
 with PERA holdings." Calculated the sector and geographical weightings of these
 companies within each respective index (July 2–23)
- Requested that PERA's custodian bank determine the potential active risk associated with removing the eight companies with PERA holdings from the respective equity benchmarks (July 8)
- Read the annual reports, SEC filings, and other public documents issued by each of the eight companies with PERA holdings in order to collect relevant information for each company (July 9–16)
- Used Bloomberg research to identify actively traded securities issued by the eight companies with PERA holdings (July 15–18)
- Updated the portfolio accounting system to identify securities issued by the eight companies with PERA holdings (July 21–24)
- Sent research provider questions on their research (July 22). Received response from provider (July 23)
- Inquired of certain external equity managers regarding preliminary thoughts on potential replacement investments (July 22–August 5)
- Retrieved monthly return data for the fixed income securities of the eight companies with PERA holdings (July 24)
- Gathered, interpreted, converted, and verified oil and gas reserve data for the eight companies with PERA holdings (July 28–August 1)
- Received monthly equity return data from PERA's investment consultant for the eight companies with PERA holdings (July 29)
- Received active risk analysis from custodian bank (July 31)
- Reviewed security holdings and transactions to verify compliance with moratorium (August 1)
- Received new research provider report (August 1)
- Gathered research from major brokerage firms on the eight companies with PERA holdings. Read and synthesized research. Began preparing detailed analyses on these companies in order to better understand their history, structure, risks, opportunities, revenue and profit drivers, and future prospects (August 5–September 10)
- Sent research provider additional questions on their research (August 11). Received response from provider (August 14)
- Reviewed security holdings and transactions to verify compliance with moratorium (September 2)
- Received new research provider report (September 2)

- Evaluated PERA's exposure (equity and fixed income) to the securities of the eight companies with PERA holdings as of the close of business on September 5, 2008 (September 8)
- Prepared Iran-Related Investment Policy Report for Board of Trustees (August 27– September 9)

Section 4

Company Response Letters

In compliance with Phase II of the *Colorado PERA Iran-Related Investment Policy*, on March 21, 2008, PERA sent letters to 31 companies. The letters requested information relating to the criteria specified in Phase I, asked the companies to provide and report on the items specified in Phase II, and also requested information on their business activities within Iran. The letters were sent via Federal Express courier, and PERA received delivery verification notices for each letter. Between May 6 and May 8, 2008, PERA staff sent e-mails directly to the investor relations departments of the companies who had not yet responded. As of September 19, 2008, PERA has received responses from the following 13 companies:

Bow Valley Energy Ltd. 1

China National Offshore Oil Corp. (CNOOC)

ENAP

ENI S.p.A. ¹

INPEX 1

Linde AG

OMV AG

Petroleo Brasileiro S.A. (Petrobras) 1

Repsol YPF, S.A.

Royal Dutch Shell Plc 1

StatoilHydro ASA 1

The Siam Cement PCL

Total S.A. 1

Indicates a company that is listed in Section 5 of this report and is identified as meeting the criteria in PERA's policy.

Section 5

Iran-Related Companies Meeting Criteria as of September 19, 2008

1. Bow Valley Energy Ltd.

Bow Valley Energy Ltd. is a Canadian natural resources company. According to the company's 2007 Annual Information Filing "since its inception in 1996, Bow Valley has been focused principally on sourcing, evaluating, and acquiring international oil and natural gas properties with exploration and exploitation potential....Bow Valley owns oil and natural gas assets in the United Kingdom and Alaska. Bow Valley is engaged in a full-cycle exploration and production program that entails land acquisition, seismic purchase and interpretation, drilling, facilities and pipeline construction, and the production of oil and natural gas."

Bow Valley Energy Ltd meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

2. China Petroleum & Chemical Corporation (Sinopec)

China Petroleum & Chemical Corporation (aka Sinopec) is a Chinese energy and chemical company. "China Petroleum & Chemical Corporation is an energy and chemical company, which through its subsidiaries, engages in integrated oil and gas, and chemical operations in the People's Republic of China. Oil and gas operations consist of exploring for, developing and producing crude oil and natural gas; transporting crude oil, natural gas and products by pipelines; refining crude oil into finished petroleum products, and marketing crude oil, natural gas and refined petroleum products. Chemical operations include the manufacture and marketing of a range of chemicals for industrial uses." ¹

China Petroleum & Chemical Corporation meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

3. ENI S.p.A.

"ENI S.p.A. is an Italy-based company producing, supplying and distributing petroleum and natural gas, as well as producing electricity and offering engineering, construction and petrochemical services. The Company operates in three segments: Exploration and Production, which is involved in the exploration and production of hydrocarbons; Gas and Power, which is involved in all phases of the gas business and electricity generation activities, and Refining and Marketing, which is involved in the refining and marketing of petroleum products." ¹

ENI S.p.A. meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

4. GAIL (India) Limited

GAIL (India) Limited is a natural gas company in India. "The Company operates through its business segments, which include gas transmission, petrochemicals, liquid hydrocarbons, LNG, LPG transmission and marketing, exploration and production (E&P), and coal bed methane (CBM)." ¹

¹ Company description information sourced from Reuters.

² Company description information sourced from Company Web site.

GAIL meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

5. Gazprom OAO

Gazprom OAO is a Russian oil and gas company. "Gazprom OAO and its subsidiaries operate a gas pipeline system. The Company provides production of oil and oil products. It is also an exporter of gas to European countries. Its principal activities include exploration and production of gas; transportation of gas; domestic and export sale of gas; production of crude oil and gas condensate, and processing of oil, gas condensate and other hydrocarbons and sales of refined products. Other activities primarily comprise banking, construction and media. The Company operates through six segments: production of gas, transport, distribution, production of crude oil and gas condensate, refining and other."

Gazprom OAO meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

6. GS Engineering & Construction Corp.

"GS Engineering & Construction Corp., formerly LG Engineering & Construction Co., Ltd., is a Korean company involved in civil, architectural, and environmental engineering. The Company specializes in the construction of oil, gas, and petrochemical plants, and power and electrical plants; the construction of environmental facilities; the construction of commercial and residential buildings, and the provision of remodeling services. It is also engaged in feasibility studies; the gathering, analysis and evaluation of data on proposed projects; consulting services; the operation and maintenance of completed plants; design engineering services, including concept design, reserve design, basic design, detailed design, and production design; procurement services, and facilities-commissioning and start-up services."

GS Engineering & Construction meets criteria (1) - a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

7. INPEX

"INPEX Corporation, headquartered in Tokyo, Japan, is a supplier of oil and natural gas. The Company primarily is engaged in the exploration for, and the development, supply and shipping of natural resources such as petroleum and natural gas. The Company has major exploration projects in Indonesia, Australia, the Timor Sea Joint Petroleum Development Area (JPDA), the Caspian Sea area, the Middle East and South America." ¹

INPEX meets criteria (1) - a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

8. Liquefied Natural Gas Ltd. (LNGL)

"Liquefied Natural Gas Limited is engaged in the development of liquefied natural gas (LNG) production plants to facilitate the production and sale of LNG in Australia." ¹

LNGL meets criteria (1) - a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

¹ Company description information sourced from Reuters.

² Company description information sourced from Company Web site.

9. Lukoil OAO

"Lukoil is a vertically integrated Russian oil and gas company. The main activities of the Company are exploration and production of oil and gas, production of petroleum products and petrochemicals, and marketing of these outputs. Most of the Company's exploration and production activity is located in Russia, and its main resource base is in Western Siberia. Lukoil owns modern refineries, gas processing and petrochemical plants located in Russia, Eastern Europe and near-abroad countries. Most of the Company's production is sold on the international market. Lukoil petroleum products are sold in Russia, Eastern and Western Europe, near-abroad countries and the USA. Lukoil is carrying out international exploration and production projects in Kazakhstan, Egypt, Azerbaijan, Uzbekistan, Saudi Arabia, Iran, Colombia, Venezuela, Cote d'Ivoire, and Iraq." ²

Lukoil meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

10. Petroleo Brasileiro S.A. (Petrobras)

"Petroleo Brasileiro S.A. (Petrobras) is a wholly owned enterprise of the Brazilian Government, which is responsible for all hydrocarbon activities in Brazil. The Company is engaged in a range of oil and gas activities. Petrobras operates in six segments: exploration and production, supply, distribution, gas and power, international and corporate. Its exploration and production segment encompasses exploration, development and production activities in Brazil. The supply segment encompasses refining, logistics, transportation, exportation and the purchase of crude oil, as well as the purchase and sale of oil products and fuel alcohol. In addition, this segment includes the petrochemical and fertilizers division, which includes investments in domestic petrochemical companies and its two domestic fertilizer plants. Its distribution segment represents the oil product and fuel alcohol distribution activities conducted by its wholly owned subsidiary, Petrobras Distribuidora S.A. - BR in Brazil. The gas and power segment encompasses the purchase, sale, transportation and distribution of natural gas produced in or imported into Brazil. In addition, this segment includes the Company's participation in domestic electricity production, including investments in domestic natural gas transportation companies, state-owned natural gas distributors and gas-fired power companies. Its international segment encompasses exploration and production, supply, distribution and gas and power activities conducted in Argentina, Angola, Bolivia, Colombia, Ecuador, Equatorial Guinea, Iran, Libya, Mexico, Mozambique, Nigeria, Paraguay, Peru, the United States, Tanzania, Turkey, Uruguay, and Venezuela. Its corporate segment includes the financial results and those activities not attributable to other segments." 1

Petroleo Brasileiro meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

11. Petroliam Nasional (Petronas)

Petroliam Nasional is the Malaysian national oil company. "Petronas' business has grown to encompass the full spectrum of oil and gas operations, both locally and globally, in the areas of upstream oil and gas exploration and production (E&P) to downstream oil refining; marketing and distribution of petroleum products; trading; gas processing and liquefaction; gas transmission pipeline network operations; marketing of liquefied natural gas (LNG); petrochemical manufacturing and marketing; shipping; and property investment. According to Bloomberg the company is also involved in upstream and downstream ventures in Vietnam,

² Company description information sourced from Company Web site.

¹ Company description information sourced from Reuters.

China, Pakistan, the Philippines, and the Middle East, and has interests in Australia and Argentina." ²

Petroliam Nasional meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

12. Royal Dutch Shell Plc

Royal Dutch Shell Plc is an oil and gas company headquartered in the Netherlands. "Royal Dutch Shell Plc (Shell) is engaged in all principal aspects of the oil and natural gas industry, and also has interests in chemicals and additional interests in power generation and renewable energy (mainly in wind and advanced solar energy). The Company operates in five segments: Exploration & Production, which searches for and recovers oil and natural gas around the world and is active in 38 countries; Gas & Power, which liquefies and transports natural gas, and develops natural gas markets and related infrastructure; Oil Products, which include all of the activities necessary to transform crude oil into petroleum products and deliver these to customers worldwide; Chemicals, which produces and sells petrochemicals to industrial customers globally, and Other Industry Segments and Corporate, which include Renewables and Hydrogen." ¹

Royal Dutch Shell Plc meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

13. Sasol Ltd.

"Sasol Limited is an integrated oil and gas company with substantial chemical interests. Sasol mines coal in South Africa. The Company also has chemical manufacturing and marketing operations in Europe, Asia, and the Americas. Its larger chemical portfolios include monomers, polymers, solvents, olefins, surfactants, surfactant intermediates, comonomers, waxes, phenolics, and nitrogenous products." ¹

Sasol Ltd. meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

14. StatoilHydro ASA

Statoil and NorskHydro ASA merged to become StatoilHydro ASA, a Norwegian oil and gas company, in October 2007. "StatoilHydro ASA is an integrated oil and gas company. The Company's focus is on exploration, development and production of oil and natural gas from the Norwegian Continental Shelf." ¹

StatoilHydro ASA meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

15. Total S.A.

Total S.A. is an oil company headquartered in France. "Total S.A. together with its subsidiaries and affiliates, is an integrated oil and gas company. With operations in more than 130 countries, Total engages in all aspects of the petroleum industry, including upstream operations (oil and gas exploration, development and production, liquefied natural gas) and downstream operations (refining, marketing, and the trading and shipping of crude oil and petroleum products). Total

¹ Company description information sourced from Reuters.

² Company description information sourced from Company Web site.

also produces base chemicals (petrochemicals and fertilizers), cholorochemicals, intermediates, performance polymers, and specialty chemicals for the industrial and consumer markets." ¹

Total S.A. meets criteria (1) – a company that has made an investment on or after August 5, 1996, or in any combination in any 12-month period, of \$20 million or more, in Iran's energy sector.

16. Ulan-Ude Aviation Plant JSC

"Ulan-Ude Aviation Plant JSC is a Russian company specializing in the production of military and civilian helicopters and airplanes." $^{\rm 2}$

Ulan-Ude meets criteria (3) – a company that is engaged in any business that facilitates Iranian acquisition of nuclear, chemical, or biological weapons technology or military equipment.

¹ Company description information sourced from Reuters.

² Company description information sourced from Company Web site.

SECTION 6

PERA Holdings of Iran-Related Companies Meeting Criteria as of September 19, 2008

To develop the following information, PERA used an identification date of September 5, 2008. The following table indicates which companies are (a) on the list meeting the policy criteria, and (b) are or are not held by PERA in separate account portfolios. There have been no new companies identified as meeting PERA's policy criteria since the last report to the Board of Trustees.

Company Name	Date Added to PERA List	Ма	rket Value
Bow Valley Energy Ltd.	March 21		_
China Petroleum & Chemical Corporation (Sind	opec) March 21		_
ENI S.p.A.	March 21	\$	3,150,930
GAIL (India) Ltd.	June 20		_
Gazprom OAO	March 21	\$	38,221,894
GS Engineering & Construction Corp.	March 21		_
INPEX	June 20		_
Liquefied Natural Gas Ltd. (LNGL)	June 20		_
Lukoil OAO	March 21	\$	8,031,260
Petroleo Brasileiro S.A. (Petrobras)	March 21	\$	37,717,234
Petroliam Nasional (Petronas)	March 21		_
Royal Dutch Shell Plc	March 21	\$	35,258,485
Sasol Ltd.	June 20	\$	9,556,906
StatoilHydro ASA	March 21	\$	56,827,601
Total S.A.	March 21	\$	46,863,333
Ulan-Ude Aviation Plant JSC	June 20		_

Section 7

Iran-Related Companies Meeting Criteria as of September 19, 2008, With Purchase Moratorium in Effect

Company Name Date Moratorium Enacted Bow Valley Energy Ltd. March 21 China Petroleum and Chemical Corporation (Sinopec) June 20 GAIL (India) Ltd. June 20 GS Engineering & Construction Corp. March 21 **INPEX** June 20 Liquefied Natural Gas Ltd. (LNGL) June 20 Petroliam Nasional (Petronas) March 21 Ulan-Ude Aviation Plant JSC June 20

Section 8

Evaluation of Company Responses

Phase IV of PERA's policy requires PERA staff to evaluate the company responses and determine if they have taken sufficient steps to minimize risk to PERA. As indicated in Section 4, PERA received responses from seven of the 16 companies identified as meeting the criteria in PERA's Iran-related policy.

In the letter that PERA sent to each company, PERA requested responses to nine separate questions. One of the nine questions asked the company to describe the potential risks associated with business operations in Iran and what steps have been taken to mitigate such risks.

Below is a summary of how each of the companies addressed this particular question:

Bow Valley Energy Ltd.

The company did not address this question specifically.

The company did indicate in their response that: "Bow Valley has no equity interest in oil and gas reserves, production or oil and gas revenue derived from Iran. Bow Valley's economic interest in the Balal project was confined to the recovery of its pre-project, pre-application costs, plus bank charges, to be recovered over the life of the project." The company also indicated: "Bow Valley has now passed a Board of Directors' Resolution wherein we have renounced our investment in Iran and the Company is attempting to quit-claim any residual interest in the Balal project in order to remove our name from the title documents."

Eni S.p.A.

The company did not address this question specifically.

The company did indicate in their response that: "Our operations in Iran represent an immaterial amount of the revenues, profits, assets or capital expenditure of the Eni group."

INPEX

The company's response to this particular question was as follows:

"...We consider that the ... substantial change of the development framework is eventually to cause a substantial step to minimize our risk for our business operations in Iran."

The company has reduced its participation interest in its Iran-related project from 75 percent to 10 percent. This is the substantial change of the development framework referred to above.

In response to another inquiry, the company indicated: "Our asset related to the direct investment in the energy sector in Iran represents only less than 0.5% of our total consolidated assets as of March 31, 2007."

Petroleo Brasileiro S.A. (Petrobras)

The company did not address this question specifically.

The company did indicate in their response: "Please note that we have no revenues in Iran, that assets used in this activity represent less than 0.01% of our total assets and that we have 3 Petrobras employees (out of a total of approximately 60,000 worldwide) working in Iran."

Royal Dutch Shell Plc

The company's response was as follows:

"Given the size and global importance of Iranian hydrocarbon resources, the Group finds it hard to see a future in which production of these resources would not, at some point, play an important role in the global energy supply and demand balance.

Major new projects to deliver hydrocarbon resources to customers can easily take more than 10 years to prepare, and require the completion of a number of phases of feasibility work before any final decision can be taken. It is hard to predict how circumstances in any one country will evolve over that period. Some countries that today appear stable may become less stable and vice versa. It therefore makes sense for Royal Dutch Shell and other international energy companies to prepare a portfolio of possible new energy projects in a variety of different locations"

StatoilHydro ASA

The company did not address this question specifically.

The company did indicate in their response: "These activities are not material to our business, financial condition or results of operations, as the total amount invested in these operations in 2007 represented less than 0.08% of our total assets as of December 31, 2007."

Total S.A.

The company's response to this particular question was as follows:

"Regarding the management of its business, the Group complies with French and international laws, which are applicable to Total, and requires ongoing risk assessment. In particular, we have monitoring systems in place that allow us to review a variety of risk factors on an ongoing basis and provide us with a global assessment of the risks inherent to our global operations. This process leads to the implementation of appropriate mitigating actions and, throughout the process, particular attention is given to the legal and political risks involved.

Although the U.S. Secretary of State has officially designated Iran as a country supporting terrorism and imposes stringent economic sanctions against this country, the ensuing restrictions for business activities do not apply to non-U.S. companies.

Pursuant to the U.S. Iran Sanction Act (ISA), Total was granted a waiver in 1998 by the U.S. government for the application of sanctions on Total's investments in the South Pars gas field in Iran. This waiver, which has not been modified since it was granted, does not address Total's other activities in Iran, although Total has not been notified of any related sanctions.

With respect to the Council Regulation No. 2271/96 of November 22, 1996, adopted by the Council of the European Union that dealt with how to reconcile conflicting statutes in force on a worldwide basis, we have been and currently are legally investing in Iran. Furthermore, we comply with the relevant European decisions applicable to our business.

Moreover, it should be noted that our position is strengthened by the fact that the United Nations Security Council, in its resolutions 1737/2006, 1747/2007, and 1803/2008 aimed at suspending Iran's nuclear enrichment program, established a clear distinction between potentially proliferating forbidden activities and customary authorized industrial activities like those we are conducting.

Total cannot predict interpretations of or the implementation policy of the U.S. government under ISA with respect to its current or future activities in Iran. It is possible that the United States may determine that these or other activities constitute activity prohibited by ISA and will subject Total to sanctions.

Total does not believe that enforcement of ISA, including the imposition of the maximum sanctions under current applicable law and regulations, would have a material adverse effect on its results of operations or financial condition."

Conclusion

Each company that does business in Iran is subject to various risks from an investment perspective. Those risks include the following:

- The possibility that the government of Iran might expropriate assets
- The possibility that an event could occur in the country that would cause damage to the company's assets
- The possibility that sanctions from government organizations could adversely impact the company's future business prospects
- The potential reputational risk that would be associated with having business relationships with a country that is considered by some parts of the world as promoting terrorism

In general, the responses received describe well-diversified companies that do not appear to present a material risk to PERA from their current operations in Iran.

Section 9

Information on Companies Meeting Criteria with PERA Holdings

Phase IV of PERA's policy requires PERA staff to analyze (1) the materiality of a company's Iranian operations in regards to the company's overall operations and (2) the availability of alternative direct public investments providing similar diversity and return expectations.

For each of the eight companies meeting PERA's policy criteria in which PERA has holdings, PERA staff has gathered the following information:

- Company specific information relevant data regarding the company including information that addresses the company's unique characteristics
- Separate account exposure PERA's equity and fixed income exposure as of September 5, 2008
- Index weights the performance for each of PERA's portfolios is benchmarked against broad index measures. The international equity portfolios are benchmarked against the following indices:
 - MSCI All Country World Index excluding US (includes developed and emerging market countries)
 - MSCI Emerging Market Index

These indices are a representation of PERA's investable universe. The sector and country representation are important characteristics that define a company's risk and return expectations. Each of these companies is included in the Energy sector, and each company is a significant portion of their country weight.

PERA staff has gathered information showing the respective weights for each company's securities within the relevant equity index, within the Energy sector of the relevant equity index, and within the country portion of the relevant equity index.

PERA's fixed income portfolios are benchmarked against the following indices:

- Lehman Universal (includes emerging market and high yield fixed income securities as well as the Lehman Aggregate)
- Lehman Aggregate (includes Treasury, government-related, assetbacked, mortgage-backed, and corporate fixed income securities)

PERA has fixed income holdings in four of the companies identified as meeting PERA's policy criteria. For each of these four companies, PERA staff has gathered information showing the respective aggregate weights within the relevant fixed income indices for all of the company's securities.

 Oil and Gas Information – each of these companies provides information on the geographic break-out of their oil and gas reserves. Companies typically disclose proved and unproved reserves as well as the discounted future cash flows relating to proved reserves. Proved reserves are those quantities of petroleum deemed to be recoverable in future years using known techniques. PERA staff has gathered oil and gas reserve data for each company. Crude oil is measured in millions of barrels, which is abbreviated mmbbl. Natural gas is measured in billions of cubic feet, which is abbreviated bcf. The conversion of a company's reserves, whether they be in liquid or gaseous form, into

- crude oil is reported in barrel oil-equivalent or boe units. This report measures barrel oil-equivalent units in millions, which is abbreviated mmboe.
- Historical Equity Total Returns the one-, three-, and five-year total returns for each company's equity securities.

Eni S.p.A.

Company Specific Items

- One of Italy's largest companies
- Eni's Gas and Power business is Europe's largest integrated gas utility business
- World's single largest customer of Gazprom¹
- Company's oil and gas holdings and exploration and production efforts extend into more than 30 countries on five continents
- The Italian government owns about 30 percent of Eni²
- Eni has been present in Iran since 1957³
- Eni currently has ownership interests in four oil/gas fields in Iran and has 1,220 interests worldwide⁴
- Three of the four fields in Iran are producing⁵

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

Equity exposure	\$3,150,930
Fixed income exposure	<u> </u>
Total	\$3,150,930

Index Weights

Equity (data as of July 2, 2008)

The following represent's Eni's portion of the following indices:

MSCI ACWI ex US index	0.6%
Energy sector of MSCI ACWI ex US index	4.4%
Italy portion of MSCI ACWI ex US index	20.8%

Fixed Income

PERA does not own any of Eni's fixed income securities.

² Hoover's, Inc. 2008

¹ Eni 2006 20-F, p. 37

³ Eni 2007 Fact Book, p. 45

⁴ Eni 2007 Fact Book, p. 45

⁵ Eni 2007 Fact Book, p. 45

Oil and Gas Information

In terms of total proved reserves, Eni reports 9.6 percent in the Rest of World category. This category includes Iran and 10 other countries. Discounted future net cash flows associated with this category are a slightly larger portion (12 percent) of the company's overall total.

Proved Reserves (data as of December 31, 2007)

	Proved Hydroca	rbon Reserves ¹	Proved Liquid	ls Reserves ²	Proved Nat. Ga	as Reserves ³
	mmboe	%	mmbbl	%	bcf	%
Italy	747	11.7%	215	6.7%	3,057	16.9%
N. Africa	1,879	29.5%	878	27.3%	5,751	31.8%
W. Africa	1,095	17.2%	725	22.5%	2,122	11.7%
North Sea	617	9.7%	345	10.7%	1,558	8.6%
Caspian Area	1,061	16.7%	753	23.4%	1,770	9.8%
Rest of World ⁴	611	9.6%	211	6.6%	2,291	12.7%
Equity-accounted entities	360	5.7%	92	2.9%	1,541	8.5%
Total	6,370	100.0%	3,219	100.0%	18,090	100.0%

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves⁵ (data as of December 31, 2007)

	€million	%
Italy	10,059	19.0%
N. Africa	16,833	31.8%
W. Africa	8,359	15.8%
North Sea	4,504	8.5%
Caspian Area	6,882	13.0%
Rest of World	6,365	12.0%
Total	53,002	100.0%

Historical Equity Total Returns⁶

Ticker: ENI.IM

1-year 7.7% 3-year 18.9% 5-year | 25.5%

¹ Eni 2007 Fact Book, p. 38 ² Eni 2007 Fact Book, p. 39 ³ Eni 2007 Fact Book, p. 40 ⁴ Iran is included in the "Rest of World" category along with 10 other countries

⁵ Eni 2007 Annual Report, p. 234

⁶ Returns are denominated in U.S. dollars and are as of June 30, 2008.

Gazprom OAO

Company Specific Items

- Russia's largest company
- Russian government owns 50.002 percent¹
- Former Gazprom chairman Dmitri Medvedev was elected President of Russia in 2008; the current CEO of the company is characterized as a Putin ally
- Gazprom accounts for 25 percent of Russia's tax revenues²
- Controls 16 percent of the world's natural gas reserves³
- Controls 62 percent of Russia's natural gas reserves⁴
- World's largest producer of natural gas⁵
- Produces 84 percent of Russia's natural gas⁶
- Operates the largest gas transmission network in the world
- Supplies one-third of Western Europe's natural gas imports⁷
- Has interests in two phases of developing one natural gas field in the Persian Gulf offshore of Iran⁸. Also has exploration projects in seven other countries across three continents9

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

Equity exposure	\$24,047,639
Fixed income exposure	\$14,174,255
Total	\$38,221,894

Index Weights

Equity (data as of July 2, 2008)

The following represents Gazprom's portion of the following indices:

MSCI ACWI ex US index	0.8%
Energy sector of MSCI ACWI ex US index	6.2%
Russia portion of MSCI ACWI ex US index	37.9%

Gazprom 2007 Annual Report, p. 80

² Hoover's, Inc. 2008

³ Gazprom in Figures 2003-2007, p. 5

⁴ Gazprom in Figures 2003-2007, p. 5

⁵ Hoover's, Inc. 2008

⁶ Gazprom in Figures 2003-2007, p. 5

⁷ Gazprom in Questions and Answers, p. 44

⁸ Reuters

⁹ Gazprom in Figures 2003-2007, pp. 24-31

As a Russian company, Gazprom is also part of the MSCI Emerging Markets index. The following represents Gazprom's portion of the following indices:

MSCI EM index	4.1%
Energy sector of MSCI EM index	19.9%
Russia portion of MSCI EM index	37.9%

Fixed Income (data as of July 2, 2008)

Gazprom has issued several fixed income securities that are denominated in U.S. dollars. The following represents Gazprom's portion of the following indices:

Lehman Universal index	0.1%
Foreign Agency portion of Lehman Universal index	4.0%
Russia portion of Lehman Universal index	15.8%
Custom Emerging Market index	3.5%
Foreign Agency portion of Custom Emerging Market index	36.9%
Russia portion of Custom Emerging Market index	16.1%

Oil and Gas Information

Gazprom's public documents only disclose proved reserves located in Russia.

Proved Reserves (Categories A+B+C₁)¹ (data as of December 31, 2007)

		mmboe
Gazprom's Natural Gas Reserves	29.79 trillion cubic meters ²	175,300 ³
Gazprom's Liquid Hydrocarbons Reserves		
Crude Oil	1.51 billion tons⁴	11,022 ⁵
Gas condensate	1.21 billion tons ⁶	8,832 ⁷
	Total Proved Reserves	195,154

Geographical Distribution of Proved Natural Gas Reserves (Categories A+B+C₁)⁸ (data as of December 31, 2007)

		trillion cubic meters	%
	Urals	21.51	72.2%
	Arctic Shelf	4.50	15.1%
<u>.a</u>	Southern FD	2.59	8.7%
Russia	Privolzhski FD	0.80	2.7%
~	Siberian FD	0.27	0.9%
	Other territories	0.12	0.4%
	Total	29.79	100.0%

Historical Equity Total Returns⁹

Ticker: SIBN.RX

1-year	103.9%
3-year	48.8%
5-year	35.8%

 1 The reserves presented here were calculated under the Russian reserve system, which is different than the Securities and Exchange Commission's accepted methodology. The Russian reserves system is based solely on an analysis of the geological attributes of reserves and takes into consideration the actual physical presence of hydrocarbons in geological formations or the probability of such physical presence. Explored reserves are represented by categories A, B, and C_1 ; preliminary estimated reserves are represented by category C_2 ; prospective resources are represented by category C_3 ; and forecasted resources are represented by categories D_1 and D_2 . Explored natural gas reserves in categories A, B, and C_1 are considered to be fully extractable (Gazprom in Figures 2003-2007, p. 15).

² Gazprom in Figures 2003-2007, p. 17

 $^{^3}$ (29.79 trillion m³)(35.315 ft³/1 m³) = 1,052 trillion ft³ (1,052 trillion ft³)(1 billion boe/6 trillion ft³) = **175.3 billion boe** 1 m³ = 35.315 ft³

¹ billion bbls (or boe) of oil = 6 trillion ft³ of natural gas

⁴ Gazprom in Figures 2003-2007, p. 17

⁵ (1.51 billion tons)(7.299 bbl/1 ton of crude oil) = **11.02149 billion bbls or boe**1 ton of crude oil = 7.299 bbl

⁶ Gazprom in Figures 2003-2007, p. 17

 $^{^{7}}$ (1.21 billion tons)(7.299 bbl/1 ton of crude oil) = **8.83179 billion bbls or boe**

⁸ Gazprom in Figures 2003-2007, p. 19

⁹ Returns are denominated in U.S. dollars and are as of June 30, 2008.

Lukoil OAO

Company Specific Items

- Russia's second largest company¹
- Highest proved oil reserves of major international oil and gas companies²
- Vertically integrated as it explores, produces, refines, and sells oil and oil products through its gas station network, which consists of 5,790 stations located throughout Russia, the Baltics, Central and Eastern Europe, and the US³
- 84 percent of Lukoil's sales are outside of Russia⁴
- Owns eight refineries, four of which are in Russia, which accounts for 16 percent of Russia's refining capacity⁵
- ING Bank Eurasia owns 65 percent of the company⁶
- Controls 19 percent of Russia's proved oil reserves⁷
- Accounts for 19 percent of Russia's crude oil production⁸
- Had a 77 percent exploration success rate in 2007⁹
- Has exploration projects in two oil fields in Iran¹⁰ in addition to 13 other exploration projects outside of Russia in seven other countries across three continents¹¹

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

Equity exposure	\$2,698,760
Fixed income exposure	\$5,332,500
Total	\$8,031,260

Index Weights

Equity (data as of July 2, 2008)

The following represents Lukoil's portion of the following indices:

MSCI ACWI ex US index	0.3%
Energy sector of MSCI ACWI ex US index	2.1%
Russia portion of MSCI ACWI ex US index	12.6%

² Lukoil Factbook 2008, p. 11

⁴ Hoover's, Inc. 2008

¹ Hoover's, Inc. 2008

³ Hoover's, Inc. 2008

⁵ Lukoil Analyst Databook 2007, p. 2

⁶ Lukoil 2006 Annual Report, p. 78

⁷ Lukoil Analyst Databook 2007, p. 2

⁸ Lukoil Analyst Databook 2007, p. 2

⁹ Lukoil 2007 Annual Report, p. 27

¹⁰ Lukoil Analyst Databook 2007, p. 30

¹¹ Lukoil 2007 Annual Report, p. 32

As a Russian company, Lukoil is also part of the MSCI Emerging Markets index. The following represents Lukoil's portion of the following indices:

MSCI EM index	1.4%
Energy sector of MSCI EM index	6.6%
Russia portion of MSCI EM index	12.6%

Fixed Income (data as of July 21, 2008)

Lukoil has issued several fixed income securities that are denominated in U.S. dollars. The following represents Lukoil's portion of the following indices:

Lehman Universal index	less than 0.1%
Energy sector of Lehman Universal index	0.6%
Russia portion of Lehman Universal index	1.3%
Custom Emerging Market index	0.3%
Energy sector of Custom Emerging Market index	17.6%
Russia portion of Custom Emerging Market index	1.5%

Oil and Gas Information

In terms of total proved reserves, Lukoil reports 6.6 percent outside of Russia. Based on the disclosures related to international projects, these reserves appear to be located in four countries. Lukoil does not appear to report any proved reserves in Iran.

Proved Reserves

Proved Crude Oil and Natural Gas Reserves¹ (data as of December 31, 2006)

	mmboe	%
Western Siberia	11,234	55.2%
Komi Republic	2,314	11.4%
Ural Region	2,215	10.9%
Volga Region	1,702	8.4%
Northern Timan-Pechora	1,300	6.4%
Other in Russia	245	1.2%
Outside Russia	1,350	6.6%
Total Proved Reserves	20,360	100.0%

-

¹ Lukoil 2006 Annual Report, p. 90

Proved Crude Oil Reserves in International Projects¹ (data as of December 31, 2006)

	mmbbl	%
Azerbaijan	10	1.6%
Kazakhstan	582	95.7%
Egypt	8	1.3%
Uzbekistan	8	1.3%
Total	608	100.0%

Proved Natural Gas Reserves in International Projects² (data as of December 31, 2006)

	bcf	%
Azerbaijan	314	7.1%
Kazakhstan	1,370	30.8%
Uzbekistan	2,758	62.1%
Total	4,442	100.0%

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves³

	million \$	%
Russia	39,426	81.4%
International	6,142	12.7%
Total consolidated companies	45,568	94.0%
Group's share in equity companies	2,888	6.0%
Total	48,456	100.0%

Historical Equity Total Returns⁴

Ticker: LKOH.RR

1-Year	30.2%
3-Year	41.1%
5-Year	40.9%

 ¹ Lukoil Analyst Databook 2007, p. 7
 ² Lukoil Analyst Databook 2007, p. 9
 ³ Lukoil 2007 Annual Report, p. 152
 ⁴ Returns are denominated in U.S. dollars and are as of June 30, 2008.

Petroleo Brasileiro S.A. (Petrobras)

Company Specific Items

- Brazil's largest company¹
- World's sixth largest oil company by market value²
- Vertically integrated oil and gas company with 11 domestic refineries (which accounts for 98 percent of Brazil's refining capacity), 55 owned tankers, and 6,755 gas stations³ (which accounts for 17 percent of the stations in Brazil)⁴
- Originally incorporated as a government monopoly in 1953 but lost monopoly status in 1995 when the Brazilian constitution was amended to authorize the Brazilian government to contract with other energy companies⁵
- Brazilian government owns 55.7 percent of Petrobras' common shares and 32.3 percent of Petrobras' total shares⁶
- In November of 2007, discovered the largest oil and natural gas field in the Americas since 1976. The Tupi field is estimated to contain 8 billion barrels of oil, which almost matches all of Norway's proved oil reserves and could boost the company's reserves by 68 percent⁷
- World leading deepwater extraction technology⁸
- Had a 59 percent exploration success rate in 2007⁹
- Production growth is positive due to the start-up of five new platforms, allowing Petrobras to experience production volumes only attained by eight companies in the world¹⁰
- Currently exploring one oil field in the Persian Gulf offshore of Iran¹¹. Petrobras also has oil and gas exploration and production activities in 19 other countries (including Brazil) across four continents¹²

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

 Equity exposure
 \$34,797,874

 Fixed income exposure
 \$2,919,360

 Total
 \$37,717,234

¹ Petrobras 2007 20-F, p. 21

Petrobras 2007 Annual Report, p. 2

Lehman Brothers, Commodity Credit Spotlight, July 7, 2008, p. 7

⁴ Petrobras 2007 20-F, p. 38

⁵ Petrobras 2007 20-F, p. 20

⁶ Petrobras 2007 20-F, p. 102

⁷ Bloomberg.com, November 8, 2007

⁸ Petrobras 2007 20-F, p. 24

Petrobras 2007 Annual Report, p. 34

¹⁰ Petrobras 2007 Annual Report, p. 2

¹¹ Petrobras 2007 Annual Report, p. 61

¹² Petrobras 2007 Annual Report, p. 54

Index Weights

Equity (data as of July 2, 2008)

The following represents Petrobras' portion of the following indices:

MSCI ACWI ex US index	1.0%
Energy sector of MSCI ACWI ex US index	7.8%
Brazil portion of MSCI ACWI ex US index	29.9%

As a Brazilian company, Petrobras is also part of the MSCI Emerging Markets index. The following represents Petrobras' portion of the following indices:

MSCI EM index	5.2%
Energy sector of MSCI EM index	25.2%
Brazil portion of MSCI EM index	29.9%

Fixed Income (data as of July 21, 2008)

Petrobras has issued several fixed income securities that are denominated in U.S. dollars. The following represents Petrobras' portion of the following indices:

Lehman Universal index	less than 0.1%
Foreign Agency portion of Lehman Universal index	1.5%
Brazil portion of Lehman Universal index	7.6%
Lehman Aggregate index	less than 0.1%
Foreign Agency portion of Lehman Aggregate index	3.5%
Brazil portion of Lehman Aggregate index	8.1%
Custom Emerging Market index	1.2%
Foreign Agency portion of Custom Emerging Market index	12.4%
Brazil portion of Custom Emerging Market index	6.8%

Oil and Gas Information

In terms of total proved reserves, Petrobras reports 7.6 percent outside of Brazil. Based on the disclosures, these reserves appear to be located in eight countries. Petrobras does not appear to report any proved reserves in Iran.

Proved Reserves¹

Proved Crude Oil and Natural Gas Reserves² (data as of December 31, 2007)

	mmboe	%
Brazil	10,814	92.4%
Non-Brazil	890	7.6%
Total Proved Reserves	11,704	100.0%

Proved Crude Oil Reserves³ (data as of December 31, 2007)

	mmbbl	%
Brazil	9,138.5	95.7%
Argentina	118.6	1.2%
Bolivia	30.3	0.3%
Colombia	30.3	0.3%
Ecuador	43.8	0.5%
Peru	98.3	1.0%
United States	26.7	0.3%
Angola	3.8	0.1%
Nigeria	62.5	0.7%
Total	9,552.8	100.0%

Proved Natural Gas Reserves⁴ (data as of December 31, 2007)

	bcf	%
Brazil	10,078.3	80.8%
Argentina	1,057.5	8.5%
Bolivia	1,120.7	9.0%
Colombia	1.3	0.1%
Ecuador	4.2	0.1%
Peru	76.0	0.6%
United States	141.8	1.1%
Total	12,479.8	100.0%

34

¹ These reserve numbers do not include the estimated reserves from the recent Tupi discovery ² Lehman Brothers, Commodity Credit Spotlight, July 7, 2008, p. 10 ³ Petrobras 2007 20-F, p. 23 ⁴ Petrobras 2007 20-F, p. 23

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves¹ (data as of December 31, 2007)

	million USD	%
Brazil	169,853	94.9%
International	9,139	5.1%
Worldwide	178,992	100.0%

Historical Equity Total Returns²

Ticker:	PETR3.BS	PETR4.BS
	(common)	(preferred)
1-Year	137.8%	122.5%
3-Year	82.5%	78.6%
5-Year	78.2%	75.1%

¹ Petrobras 2007 20-F, p. F-139 ² Returns are denominated in U.S. dollars and are as of June 30, 2008.

Royal Dutch Shell Plc

Company Specific Items

- The world's second largest (by market capitalization) publicly traded oil company
- Explores and produces oil and natural gas. Liquefies and transports natural gas. Develops wind power to generate electricity. Converts coal into chemical feedstocks and energy. Extracts bitumen from oil sands in Canada and converts it to synthetic crude oils1
- Has 104,000 employees in 110 countries²
- Shell is the world's largest single-branded fuel retail network, with 46,000 gas stations in 90 countries³
- Operates 40 refineries worldwide⁴
- In 2005, Shell completed development work on offshore fields off Iran. Since then, the fields have been producing with the National Iranian Oil Company responsible for all aspects of the operations. Shell will continue to receive revenues from this project until all of its development costs and the remuneration fee stipulated in the agreement have been recovered, which is expected to occur by 2012⁵
- In 2007, Shell and Repsol, a Spanish oil company, entered into a contract to develop another natural gas field in the Persian Gulf offshore of Iran⁶. In May 2008, Shell announced it was pulling out of the project
- In addition to the one active project in Iran, Shell has exploration and production activities in 36 other countries across six continents8

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

Equity exposure \$35,258,485 Fixed income exposure Total \$35,258,485

Shell 2007 Annual Report and 20-F, p. 1

Shell 2007 Annual Report and 20-F, p. 1

³ Shell 2007 Annual Report and 20-F, p. 1

Shell 2007 Annual Report and 20-F. p. 47

⁵ Shell 2007 Annual Report, p. 31

⁶ Shell 2007 Annual Report, p. 31

⁷ Reuter's

⁸ Shell 2007 Annual Report, p. 19

Index Weights

Royal Dutch Shell has the largest weighting of any company in the energy sector of the MSCI ACWI ex US Index (the company's market capitalization is larger than any other company in the energy sector).

Equity (data as of July 2, 2008)

The following represents Royal Dutch Shell's portion of the following indices:

MSCI ACWI ex US index	1.5%
Energy sector of MSCI ACWI ex US index	11.5%
Dutch portion of MSCI ACWI ex US index	44.0%

Fixed Income

PERA does not own any of Royal Dutch Shell's fixed income securities.

Oil and Gas Information

In terms of total proved reserves, Royal Dutch Shell reports 28.7 percent in the Middle East, Russia, CIS category. Discounted future net cash flows associated with this category are 15.4 percent of the company's total.

Proved Reserves¹

Proved Crude Oil, Natural Gas, and Oil Sands Reserves² (data as of December 31, 2007)

	mmboe	%
Europe	3,482	29.2%
Africa	841	7.1%
Asia Pacific	1,606	13.5%
Middle East, Russia, CIS ³	3,423	28.7%
US	1,100	9.2%
Other Western Hemisphere ⁴	1,485	12.5%
Minority interests share of Shell subsidiaries	(17)	-0.1%
Total Proved Reserves	11,920	100.0%

Amounts include reserves from both Shell subsidiaries and Shell's share of equity-accounted investments

² Shell 2007 Annual Report, pp. 18, 24 ³ Commonwealth of Independent States

⁴ Shell's oil sand reserves were included under "Other Western Hemisphere"

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves¹ (data as of December 31, 2007)

	\$ million	%
Europe	16,561	30.5%
Africa	10,083	18.5%
Asia Pacific	6,680	12.3%
Middle East, Russia, CIS	8,358	15.4%
US	10,235	18.8%
Other Western Hemisphere	2,442	4.5%
Total	54,359	100.0%

Historical Equity Total Returns²

Ticker: RDSB.LN

1-Year	-0.1%
3-Year	9.8%
5-Year	16.6%

¹ Shell 2007 Annual Report, p. 168 ² Returns are denominated in U.S. dollars and are as of June 30, 2008.

Sasol Ltd.

Company Specific Items

- Established in 1950 by the South African government. Listed on the Johannesburg Stock Exchange in 1979 and on the New York Stock Exchange in 2003¹
- South African government owns 8.48 percent²
- Alternative energy company. Sasol mines coal in South Africa and produces natural gas in Mozambique. This coal, together with Mozambican natural gas, is converted into fuels using proprietary technology. This fuel is then marketed through Sasol's network of 391 gas stations (7 percent of South Africa market)³
- The world leader in producing synthetic fuel employing CTL (coal-to-liquid) and GTL (gas-to-liquid) technology⁴
- Proven and probable coal reserves of 4,021 million tons, which are all located in South Africa. For reference, Peabody Energy is the world's largest coal company with proven and probable reserves of 9,000 million tons⁵
- Operates the only inland crude oil refinery in South Africa (three others coastally located and not owned by Sasol)⁶
- Produces crude oil offshore of Gabon and its oil and gas production is located in selected regions around the world, including Mozambique and West Africa⁷
- In partnership with the National Petrochemical Company of Iran, Sasol is constructing a polymer plant in Iran. Signed in 2003, the joint venture expects to have the polymer plant operating by the first quarter of 2008⁸
- Has activities in 30 countries across five continents⁹

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

Equity exposure	\$9,556,906
Fixed income exposure	_
Total	\$9,556,906

¹ Sasol 2007 20-F, p. F-7

² Sasol 2007 20-F, p. 32

³ Sasol 2007 20-F, p. 34

⁴ JP Morgan, African Equity Research, Sasol, Ltd., May 12, 2006, p. 3

⁵ Sasol 2007 20-F, p. 118

⁶ Sasol 2007 20-F, p. 36

⁷ Sasol 2007 20-F, p. F-7

⁸ Sasol 2007 20-F, p. 33

⁹ Sasol 2007 Annual Report, pp. 26-27

Index Weights

Equity (data as of July 2, 2008)

The following represents Sasol's portion of the following indices:

MSCI ACWI ex US index	0.2%
Energy sector of MSCI ACWI ex US index	1.6%
South African portion of MSCI ACWI ex US index	16.0%

As a South African company, Sasol is also part of the MSCI Emerging Markets index. The following represents Sasol's portion of the following indices:

MSCI EM index	1.1%
Energy sector of MSCI EM index	5.1%
South African portion of MSCI EM index	16.0%

Fixed Income

PERA does not own any of Sasol's fixed income securities.

Oil and Gas Information

In terms of total proved reserves, Sasol reports 3.7 percent outside of Mozambique. Discounted future net cash flows associated with the Other Areas category are 27.8 percent of the company's overall total. Since Sasol's involvement in Iran is limited to the construction of a polymer plant, it would appear that Sasol does not have any proved reserves in Iran.

Proved Reserves (data as of June 30, 2007)

	Crude Oil & Condensate Reserves ¹		Natural Gas Reserves ²		Total Reserves	
	mmbbl %		bcf	%	mmboe	%
Mozambique	5.6	39.7%	1,276.6	100.0%	218.2 ³	96.3%
Other Areas	8.5	60.3%	0.0	0.0%	8.5	3.7%
Total	14.1	100.0%	1,276.6	100.0%	226.7	100.0%

40

 $^{^{1}}$ Sasol 2007 20-F, p. G-4 2 Sasol 2007 20-F, p. G-4 3 (1,276 billion ft³)(1 billion boe/6,000 billion ft³) = 0.2126 billion boe or 212.6 million boe 5.6 mmbbl + 212.6 mmboe = **218.2 mmboe**

¹ billion boe = 6 trillion ft³

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves¹ (data as of June 30, 2007)

	South African Rand, million	%
Mozambique	2,969.5	72.2%
Other Areas	1,141.3	27.8%
Total	4,110.8	100.0%

The company also provided geographic information relating to its revenues, operating profit, and assets (data as of June 30, 2007).

	Total		Operating		Total Consolidated	
(South African Rand, million)	Revenue	%	Profit/(Loss)	%	Assets	%
South Africa	91,490	65.3%	22,259	86.9%	70,320	59.5%
Mozambique	899	0.6%	(13)	-0.1%	4,254	3.6%
Nigeria	142	0.1%	(15)	-0.1%	7,288	6.2%
Rest of Africa	5,332	3.8%	729	2.9%	1,038	0.9%
Germany	7,060	5.0%	190	0.7%	7,527	6.4%
Italy	3,154	2.3%	1,108	4.3%	2,615	2.2%
Rest of Europe	12,846	9.2%	459	1.8%	4,802	4.1%
US	10,398	7.4%	779	3.0%	6,418	5.4%
Rest of N. America	912	0.7%	(88)	-0.3%	133	0.1%
South America	1,387	1.0%	(5)	-0.1%	225	0.2%
Southeast Asia and Australasia	1,943	1.4%	214	0.8%	1,626	1.4%
Iran	103	0.1%	(3)	-0.1%	5,804	4.9%
Qatar	19	0.1%	(282)	-1.1%	4,472	3.8%
Rest of Middle East and India	1,573	1.1%	160	0.6%	522	0.4%
Far East	2,950	2.1%	129	0.5%	1,176	1.0%
Total	140,208	100.0%	25,621	100.0%	118,220	100.0%

Source: Sasol 2007 Annual Report, pp. 80-81

Historical Equity Total Returns²

Ticker: SOL.SJ

1-Year	60.8%
3-Year	33.2%
5-Year	44.2%

¹ Sasol 2007 20-F, p. G-6 ² Returns are denominated in U.S. dollars and are as of June 30, 2008.

StatoilHydro ASA

Company Specific Items

- Established in 1972 by the Norwegian government. Listed on the Oslo and New York Stock Exchanges in 2001¹
- Norwegian government owns 62.5 percent of the company²
- Norway's largest oil and gas company³
- Second largest supplier of natural gas to Europe⁴
- World's third largest net seller of crude oil⁵
- In addition to oil and gas exploration, production, processing, and distribution,
 StatoilHydro owns 1,800 gas stations in nine northern European countries⁶
- Has three projects in Iran: (1) StatoilHydro is the operator for three of the planned development phases of an offshore natural gas field in the Persian Gulf, (2) StatoilHydro has an interest in a field close to the Iraqi border that it has explored, and (3) StatoilHydro is currently exploring another field in southwestern Iran⁷
- Has exploration activities in 19 countries outside of Norway across five continents⁸

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

Equity exposure	\$24,684,429
Fixed income exposure	\$32,143,172
Total	\$56,827,601

Index Weights

Equity (data as of July 2, 2008)

The following represents StatoilHydro's portion of the following indices:

MSCI ACWI ex US index	0.3%
Energy sector of MSCI ACWI ex US index	2.2%
Norway portion of MSCI ACWI ex US index	38.2%

¹ StatoilHydro 2007 20-F, p. 5

² StatoilHydro 2007 20-F, p. 138

³ Hoover's, Inc. 2008

⁴ StatoilHydro 2007 20-F. p. 4

⁵ UBS

⁶ Hoover's, Inc. 2008

⁷ StatoilHydro 2007 20-F, pp. 45-46

⁸ StatoilHydro 2007 20-F, p. 10

Fixed Income (data as of July 21, 2008)

StatoilHydro has issued several fixed income securities that are denominated in U.S. dollars. The following represents StatoilHydro's portion of the following indices:

Lehman Universal index	less than 0.1%
Energy sector of Lehman Universal index	1.9%
Norway portion of Lehman Universal index	22.2%
Lehman Aggregate index	less than 0.1%
Energy sector of Lehman Aggregate index	2.0%
Norway portion of Lehman Aggregate index	27.8%
Lehman Corporate index	0.1%
Energy sector of Lehman Corporate index	2.0%
Norway portion of Lehman Corporate index	100.0%

Oil and Gas Information

In terms of total proved reserves, StatoilHydro reports 17.3 percent outside of Norway. Discounted future net cash flows associated with proved reserves outside of Norway are 34.6 percent of the company's overall total.

Proved Reserves

Proved Crude Oil, Liquefied Natural Gas, and Natural Gas Reserves¹ (data as of December 31, 2007)

	mmboe	%
Norway	4,971	82.7%
Outside Norway ²	1,039	17.3%
Total Proved Reserves	6,010	100.0%

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves³ (data as of December 31, 2007)

	NOK million	%
Norway	196,744	65.4%
Outside Norway	104,026	34.6%
Total	300,770	100.0%

StatoilHydro 2007 20-F, p. 221

² In 2007, StatoilHydro had international production from Canada, the U.S. Gulf of Mexico, Venezuela, Algeria, Libya, Angola, Azerbaijan, the United Kingdom, China, and Russia (StatoilHydro 2007 20-F, p. 10) ³ StatoilHydro 2007 20-F, p. 225

Historical Equity Total Returns¹

Ticker: STL.NO

1-Year	24.5%
3 -Year	27.9%
5-Year	40.3%

¹ Returns are denominated in U.S. dollars and are as of June 30, 2008.

Total S.A.

Company Specific Items

- Fourth largest (in terms of market capitalization) publicly traded integrated international oil and gas company in the world¹
- Incorporated in 1924
- Present in 130 countries
- Engages in both upstream (exploration, development, and production) and downstream (refining, marketing, shipping) operations. Total also has interests in the coal mining and power generation sectors
- Owns 16,500 gas stations worldwide²
- Has 96,442 employees³
- Holds largest market share of refining/marketing in Western Europe⁴
- Holds largest market share of marketing in Africa⁵
- Active in Iran since 1954
- Current activities in Iran consist of being reimbursed by the Iranian government for past activities related to two contracts signed in 1995 and 1999 for oil and gas blocks. Total's oil production in Iran for 2007 was approximately 0.5 percent of the company's worldwide production⁶

Separate Account Exposure (data as of September 5, 2008)

PERA's exposure is comprised of the following:

Equity exposure	\$46,863,333
Fixed income exposure	
Total	\$46,863,333

Index Weights

Equity (data as of July 2, 2008)

The following represents Total's portion of the following indices:

MSCI ACWI ex US index	1.1%	
Energy sector of MSCI ACWI ex US index	8.3%	
France portion of MSCI ACWI ex US index	15.1%	

Fixed Income (data as of July 21, 2008)

PERA does not own any of Total's fixed income securities.

¹ Total Factbook 2000-2007, p. 2

² Total Factbook 2000-2007, p. 100 ³ Total Factbook 2000-2007, p. 5

⁴ Total Factbook 2000-2007, p. 100

⁵ Total Factbook 2000-2007, p. 100

⁶ Total Factbook 2000-2007, p. 47

Oil and Gas Information

In terms of total proved reserves, Total reports 14.9 percent in the Rest of World category. Discounted future net cash flows associated with this category are 17 percent of the company's overall total.

Proved Reserves¹ (data as of December 31, 2007)

	mmboe	%
Europe	1,900	18.2%
Africa	3,516	33.6%
N. America	246	2.4%
Asia	634	6.1%
Rest of World	1,555	14.9%
Total	7,851	
Equity affiliates and non-consolidated affiliates	2,598	24.9%
Total Proved Reserves	10,449	100.0%

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves² (data as of December 31, 2007)

	€million	%
Europe	11,958	24.7%
Africa	22,047	45.5%
N. America	1,436	3.0%
Asia	4,800	9.9%
Rest of World	8,223	17.0%
Total	48,464	100.0%

Historical Equity Total Returns³

Ticker: FP.FP

1-Year	8.5%
3-Year	17.6%
5-Year	21.9%

¹ Total Factbook 2000-2007, p. 44 ² Total 2007 20-F, Supplemental Information, p. S-8 ³ Returns are denominated in U.S. dollars and are as of June 30, 2008.