

Genie Energy Ltd.
Form 10-K
March 21, 2013

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

Annual report pursuant to section 13 or 15(d) of the securities exchange act of 1934 for the fiscal year ended
December 31, 2012, or

Transition report pursuant to section 13 or 15(d) of the securities exchange act of 1934.

Commission File Number: 1-35327

Genie Energy Ltd.

(Exact name of registrant as specified in its charter)

Delaware 45-2069276
(State or other jurisdiction of incorporation (I.R.S. Employer Identification No.)
or organization)

550 Broad Street, Newark, New Jersey 07102
(Address of principal executive offices, zip code)

(973) 438-3500
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Class B common stock, par value \$.01 per share	New York Stock Exchange
Series 2012-A Preferred stock, par value \$.01 per share	New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if

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any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No
The aggregate market value of the voting and non-voting stock held by non-affiliates of the registrant, based on the closing price on June 30, 2012 (the last business day of the registrant's most recently completed second fiscal quarter) of the Class B common stock of \$7.77 per share, as reported on the New York Stock Exchange, was approximately \$118 million.

As of March 13, 2013, the registrant had outstanding 19,498,752 shares of Class B common stock and 1,574,326 shares of Class A common stock. Excluded from these numbers are 44,614 shares of Class B common stock held in treasury by Genie Energy Ltd.

DOCUMENTS INCORPORATED BY REFERENCE

The definitive proxy statement relating to the registrant's Annual Meeting of Stockholders, to be held May 7, 2013, is incorporated by reference into Part III of this Form 10-K to the extent described therein.

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Genie Energy Ltd.

Annual Report on Form 10-K

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Part I

As used in this Annual Report, unless the context otherwise requires, the terms “the Company,” “Genie,” “we,” “us,” and “our” refer to Genie Energy Ltd., a Delaware corporation, and its subsidiaries, collectively.

Item 1. Business.

OVERVIEW

Genie Energy, Ltd., a Delaware corporation, owns 99.3% of its subsidiary, Genie Energy International Corporation, or GEIC, which owns 96.4% of IDT Energy and 92% of Genie Oil and Gas, Inc., or GOGAS. Our principal businesses consist of:

IDT Energy, a retail energy provider, or REP, supplying electricity and natural gas to residential and small business customers in the Northeastern United States; and

Genie Oil and Gas, which is pioneering technologies to produce clean and affordable transportation fuels from the world's abundant oil shale and other conventional and unconventional resources, which consists of (1) American Shale Oil Corporation, or AMSO, which holds and manages a 50% interest in American Shale Oil, L.L.C., or AMSO, LLC, our oil shale project in Colorado, and (2) an 89% interest in Israel Energy Initiatives, Ltd., or IEL, our oil shale project in Israel. In addition, on February 20, 2013, another subsidiary, Genie Israel Oil and Gas Ltd. or GIOG, was awarded an exclusive petroleum license by the Government of Israel covering 396.5 square kilometers in the southern portion of the Golan Heights. The grant of the license is subject to challenge by the competing applicant for the license which may be filed within 30 days of the grant.

We have two reportable business segments: IDT Energy and Genie Oil and Gas. Our reportable segments are distinguished by types of service, customers and methods used to provide their services. Financial information by segment and geographic areas is presented under the heading “Business Segment Information” in the Notes to our Consolidated Financial Statements in this Annual Report.

On January 30, 2012, our Board of Directors changed our fiscal year end from July 31 to December 31, in order to better align our financial reporting with our operational and budgeting cycle and with other industry participants. We previously reported the results for our transitional period in a Transition Report on Form 10-Q for the five months from August 1, 2011 to December 31, 2011.

Our main offices are located at 550 Broad Street, Newark, New Jersey 07102. The telephone number at our headquarters is (973) 438-3500 and our web site is www.genie.com.

We make available free of charge through the investor relations page of our web site (<http://genie.com/investors/sec-filings/>) our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to these reports, and all beneficial ownership reports on Forms 3, 4 and 5 filed by directors, officers and beneficial owners of more than 10% of our equity as soon as reasonably practicable after such material is electronically filed with the Securities and Exchange Commission. We have adopted a Code of Business Conduct and Ethics for all of our employees, including our principal executive officer and principal financial officer. Copies of our Code of Business Conduct and Ethics are available on our web site.

Our web site and the information contained therein or incorporated therein are not incorporated into this Annual Report on Form 10-K or our other filings with the Securities and Exchange Commission.

KEY EVENTS IN OUR HISTORY

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Genie was incorporated in January 2011. References to us in the following discussion are made on a consolidated basis as if we existed and owned IDT Energy and Genie Oil and Gas in all periods discussed.

In November 2004, IDT launched IDT Energy in New York State. IDT Energy currently operates in eight utility markets in New York, six utility territories in New Jersey, eight utility territories in Pennsylvania and four utility territories in Maryland. IDT Energy is evaluating opportunities in several additional areas, including Washington, DC, Illinois and Connecticut.

In March 2008, we formed Israel Energy Initiatives, Ltd., which was awarded an exclusive Shale Oil Exploration and Production License in July 2008 by the Government of Israel.

In April 2008, IDT acquired E.G.L. Oil Shale, L.L.C., which was subsequently renamed American Shale Oil, LLC.

In March 2009, a subsidiary of TOTAL S.A., the world's fifth largest integrated oil and gas company, acquired a 50% interest in AMSO, LLC in exchange for cash paid to us of \$3.2 million and Total's commitment to fund the majority of AMSO, LLC's research, development and demonstration expenditures as well as certain other funding commitments.

On February 20, 2013, the Government of Israel awarded our subsidiary, Genie Israel Oil and Gas, Ltd., an exclusive petroleum exploration license covering 396.5 square kilometers in the Southern portion of the Golan Heights

Spin-Off from IDT Corporation

We were formerly a subsidiary of IDT Corporation, or IDT. On October 28, 2011, we were spun-off by IDT and became an independent public company through a pro rata distribution of our common stock to IDT's stockholders, which we refer to as the Spin-Off. As a result of the Spin-Off, each of IDT's stockholders received: (i) one share of our Class A common stock for every share of IDT's Class A common stock held of record on October 21, 2011, or the Record Date, and (ii) one share of our Class B common stock for every share of IDT's Class B common stock held of record on the Record Date. On October 28, 2011, 1.6 million shares of our Class A common stock, and 21.1 million shares of our Class B common stock were issued and outstanding.

Prior to the Spin-Off, IDT made a capital contribution of \$82.2 million to us. In addition, in connection with the capital contribution received from IDT, the amount due from IDT as of the date of the Spin-Off of \$2.1 million was forgiven.

Exchange Offer and Issuance of Preferred Stock

On August 2, 2012, we initiated an offer to exchange up to 8.75 million outstanding shares of our Class B common stock for the same number of shares of a new series of preferred stock. The exchange offer was made upon the terms and conditions set forth in the Offer to Exchange, and the related Letter of Transmittal, as amended, which were filed with the Securities and Exchange Commission, or SEC. The offer expired on October 10, 2012. On October 11, 2012, we filed a Certificate of Designation with respect to our Series 2012-A Preferred Stock with the Secretary of State of Delaware. On October 17, 2012, we issued 1,604,591 shares of our newly designated Series 2012-A Preferred Stock, par value \$0.01 per share, in exchange for an equal number of shares of Class B common stock tendered in the exchange offer.

RECENT DEVELOPMENTS

Renewed Exchange Offer

On November 26, 2012, we commenced an offer to exchange up to 7,145,409 outstanding shares of our Class B Common Stock for the same number of shares of Series 2012-A Preferred Stock. This was a renewal of the prior offer described above that expired on October 10, 2012. The offer expired on March 5, 2013. On March 11, 2013, we issued 313,376 shares of our Series 2012-A Preferred Stock in exchange for an equal number of shares of Class B common stock tendered in the exchange offer.

Dividends

The aggregate dividends declared in the year ended December 31, 2012 and the five months ended December 31, 2011 were \$3.1 million and \$1.1 million, respectively, and the aggregate dividends paid in the year ended December 31, 2012 was \$4.2 million, as follows:

On January 5, 2012, we paid a cash dividend of \$0.05 per share to stockholders of record at the close of business on December 22, 2011 of our Class A common stock and Class B common stock;

On April 3, 2012, we paid a cash dividend of \$0.033 per share to stockholders of record at the close of business on March 26, 2012 of our Class A common stock and Class B common stock. The dividend paid on April 3, 2012 was for the two-month period of November and December 2011 that represented the period between the end of our prior fiscal quarter and the beginning of the new fiscal quarter in connection with the change in our fiscal year to a calendar year, and represented a pro-rated dividend of 2/3rd of the normal quarterly dividend.

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On May 30, 2012, we paid a cash dividend of \$0.05 per share to stockholders of record at the close of business on May 21, 2012 of our Class A and Class B common stock.

On August 28, 2012, we paid a cash dividend of \$0.05 per share to stockholders of record at the close of business on August 20, 2012 of our Class A and Class B common stock.

On February 15, 2013, we paid a pro-rated Base Dividend of \$0.1317 per share on our Series 2012-A Preferred Stock for the fourth quarter of 2012. The aggregate amount paid was \$0.2 million. In connection with the completion of the exchange offer and issuance of the Series 2012-A Preferred Stock, we have suspended payment of dividends on our Class A and Class B common stock for the foreseeable future.

Further on March 13, 2013, our Board of Directors declared a quarterly Base Dividend of \$0.1594 per share on our Series 2012-A Preferred Stock for the first quarter of 2013. The dividend will be paid on May 15, 2013 to stockholders of record as of the close of business on May 8, 2013.

Loan Agreement with JPMorgan Chase Bank

In April 2012, we and IDT Energy entered into a Loan Agreement with JPMorgan Chase Bank for a revolving line of credit for up to a maximum principal amount of \$25.0 million. The proceeds from the line of credit may be used to provide working capital and for the issuance of letters of credit. We agreed to deposit cash in a money market account at JPMorgan Chase Bank as collateral for the line of credit equal to the greater of (a) \$10.0 million or (b) the sum of the amount of letters of credit outstanding plus the outstanding principal under the revolving note. Outstanding principal and interest is due on April 30, 2013. At December 31, 2012, there were no amounts borrowed or utilized for letters of credit under the line of credit, and cash collateral of \$10.0 million was included in "Restricted cash" in the consolidated balance sheet.

IDT Energy

In November 2004, IDT launched a retail energy business, IDT Energy, which has since experienced significant growth. IDT Energy operates our energy service company that resells natural gas and electricity to residential and small business customers in eight utility markets in New York, six utility territories in New Jersey, eight utility territories in Pennsylvania and four utility territories in Maryland. IDT Energy is evaluating opportunities in several additional areas, including Washington, DC, Illinois and Connecticut.

IDT Energy's business, particularly its sales of natural gas, is a seasonal business. Approximately 47% of IDT Energy's natural gas revenues in the year ended December 31, 2012 was generated during the three months ended March 31, 2012, when the demand for heating was highest as compared to 50% in the same period in the year ended December 31, 2011. The demand for electricity is not as seasonal as natural gas, but is higher during IDT Energy's third quarter when air conditioning usage peaks. Revenues from sales of electricity in the three months ended September 30, 2012 represented approximately 34% of total revenues from electricity sales in the year ended December 31, 2012 as compared to 35% of total revenues from electricity sales in the same period in the year ended December 31, 2011.

In the year ended December 31, 2012, IDT Energy generated revenues of \$229.5 million comprised of \$174.3 million from sales of electricity and \$55.2 million from sales of natural gas, as compared with revenues of \$197.9 million in the year ended December 31, 2011. IDT Energy's revenues represent 100% of our total consolidated revenues since our inception. In addition in the year ended December 31, 2012, IDT Energy had operating income of \$25.0 million, as compared with operating income of \$19.6 million in the year ended December 31, 2011.

Customers

IDT Energy's services are made available to customers under its standard terms and conditions, offering primarily a variable rate via automatically renewing or month-to-month agreements, which enable it to recover its costs for electricity and natural gas through adjustments to the rates charged to its customers. The frequency and degree of these adjustments are determined by IDT Energy, and are not subject to regulation. While IDT Energy's contract rates are not subject to regulation, IDT Energy is required to comply with various reporting requirements in order to maintain eligibility to operate as a REP. Certain jurisdictions require IDT Energy to publish its customer offers with the applicable public service commission, or PSC, as an administrative matter. The electricity and natural gas IDT Energy sells are generally metered and delivered to IDT Energy customers by the local utilities. As such, IDT Energy does not have a maintenance or service staff for customer locations. These utilities also provide billing and collection services for the majority of IDT Energy's customers on its behalf. For a small number of direct bill customers, IDT Energy performs its own billing and collection. Additionally, IDT Energy's receivables are generally purchased by the utilities in whose areas IDT Energy operates for a percentage of their face value (as of December 31, 2012, approximately 98%) in exchange for the utility receiving a first priority lien in the customer receivable without recourse against IDT Energy.

IDT Energy markets its energy services primarily through direct marketing methods, including door-to-door sales, outbound telemarketing, direct mail and Internet signup. As of December 31, 2012, IDT Energy serviced 502,000 meters (331,000 electric and 171,000 natural gas), as compared to 438,000 meters (254,000 electric and 184,000 natural gas) as of December 31, 2011. The New York State Public Service Commission, or NYPSC, as published on its website in April 2012 for natural gas and May 2012 for electric, indicates that approximately 21.0% (electric) and 18.9% (gas) of eligible New York customers participated in the deregulation of the market by migrating from a utility to a REP. In New York, Pennsylvania and New Jersey territories, IDT Energy has captured over 10% of the migrated share.

IDT Energy's strategy is to acquire profitable customers in low-risk markets, specifically where the utilities have adopted a portfolio of REP-friendly, regulatory-driven programs. Key among these programs is purchase of receivables, or POR programs where utilities are contractually obligated to purchase customer receivables at a pre-determined fixed discount. Under POR programs, utilities offer consolidated billing, where the utilities have the responsibility of billing the individual customer and the subsequent collections of the remittances. Additionally, we target markets in which we can procure energy in an efficient and transparent manner. We seek to purchase wholesale energy where there is a real time market that reflects a fair price for the commodity for all participants. This, coupled with IDT Energy's strategy to primarily sell a variable-rate product, allows IDT Energy to reflect a true market cost base and opportunistically vary its rates to its customers taking into account its competitors who are purchasing their commodity at longer intervals.

Utilities in New York, Pennsylvania and Maryland offer POR programs without recourse that permit customers with past-due balances to remain in the POR program. However, utilities in New Jersey generally do not permit customers with past-due balances to enroll in their POR programs, and, in the case of PSE&G, remain in their POR programs, which means that after a certain amount of time (determined based on the specific commodity), IDT Energy becomes responsible for the billing and collection of the commodity portion of the future invoices for its delinquent customers. IDT Energy may switch the customer back to the utility at its choosing; the process can typically be accomplished before IDT Energy needs to send an invoice, however it can take one to two billing cycles to complete.

IDT Energy also regularly monitors other deregulated or deregulating markets to determine if they are appropriate for entry, and may initiate the licensing process in a selected region should deregulated conditions develop favorably.

Acquisition and Management of Gas and Electric Supply

Since 2009, IDT Energy has been party to a Preferred Supplier Agreement with BP Energy Company, or BP, pursuant to which BP is IDT Energy's preferred provider of electricity and natural gas. The agreement allows for purchases of electricity and natural gas for customers in areas where the utilities have POR programs, and includes a one-time inclusion of existing IDT Energy customers not covered by a POR program. Under the arrangement, IDT Energy purchases electricity and natural gas at market rate plus a fee. IDT Energy's obligations to BP are secured by a first security interest in deposits or receivables from utilities in connection with their purchase of IDT Energy's customer's receivables under the applicable POR program, and in any cash deposits or letters of credit posted in connection with any collateral accounts with BP. Effective January 20, 2010, the agreement with BP was amended to cover the territories in which we operate in New Jersey and Pennsylvania. Effective October 1, 2010, the agreement with BP was modified and extended with a new termination date of June 30, 2014, and with an automatic renewal for an additional year unless either party provides written notice to the other party at least six months prior to June 30, 2014 that it will not renew the agreement. IDT Energy's ability to purchase electricity and natural gas under this agreement is subject to satisfaction of certain conditions including the maintenance of certain covenants.

IDT Energy is required to meet certain minimum green energy supply criteria in some of the markets in which it operates. IDT Energy has met those thresholds by acquiring renewable energy certificates (REC's). In addition, IDT Energy offers green energy products to its customers in several territories. IDT Energy acquires green energy conversion rights or attributes and REC's to satisfy the load requirements for these customers.

As a REP, IDT Energy does not own electrical power generation, transmission, or distribution facilities, or natural gas production, pipeline or distribution facilities. Besides BP, IDT Energy currently contracts with Dominion Transmission, Inc., National Fuel Supply, Williams Gas Pipeline and Texas Eastern Transmission and others for natural gas pipeline, storage and transportation services, and utilizes the New York Independent System Operator, Inc., or NYISO, and PJM Interconnection, LLC, or PJM, for electric transmission and distribution. NYISO operates the high-voltage electric transmission network in New York State, and administers and monitors New York's wholesale electricity markets. PJM is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of thirteen states (including New Jersey, Pennsylvania and Maryland) and the District of Columbia.

For risk management purposes, IDT Energy utilizes forward physical delivery contracts for a portion of its purchases of electricity and natural gas, which are defined as commodity derivative contracts. In addition, IDT Energy enters into put and call options as hedges against unfavorable fluctuations in market prices of electricity and natural gas.

The NYISO and PJM perform real-time load balancing for each of the electrical power grids in which IDT Energy operates. Similarly, load balancing is performed by the utilities or local distribution company, or LDC, for each of the natural gas markets in which IDT Energy operates. Load balancing ensures that the amount of electricity and natural gas that IDT Energy purchases is equal to the amount necessary to service its customers' demands at any specific point

in time. IDT Energy is charged or credited for balancing the electricity and natural gas purchased and sold for its account by its suppliers and the LDCs. IDT Energy manages the differences between the actual electricity and natural gas demands of its customers and its bulk or block purchases by buying and selling in the spot market, and through monthly cash settlements and/or adjustments to future deliveries in accordance with the load balancing performed by utilities, LDCs, NYISO and PJM.

Competition

IDT Energy competes with the local utility companies in the areas where it provides service, including the wholly-owned retail subsidiaries of the utilities. Some utilities have affiliated companies that are REPs, and compete in the same markets that IDT Energy operates. IDT Energy also competes with several large vertically integrated energy companies as well as many independent REPs. Some of these competitors or potential competitors may be larger and better capitalized than IDT Energy. The competition with the utilities and REPs exposes IDT Energy to the risk of losing customers, especially since IDTE's residential customers generally do not sign term contracts.

There are many licensed REPs in each of the markets in which we operate. In each major utility service territory there are several REPs serving residential natural gas customers and residential electric customers. While it is unclear whether there will be new entrants in these markets, IDT Energy believes REP competition in the residential market (which represents the principal market focus for IDT Energy) is not as intense as in the commercial and industrial markets because the majority of REPs, unlike IDT Energy, have focused their activities on the commercial and industrial markets, which are comprised of larger customers who prefer to enter into longer term contracts with fixed rates.

Increasing our market share depends in part on our ability to persuade customers to switch to IDT Energy's service. Local utilities have certain advantages such as name recognition, financial strength and long-standing relationships with customers. Persuading potential customers to switch to a new supplier of such an important service is challenging. If IDT Energy is not successful in convincing customers to switch, our REP business, results of operations and financial condition will be adversely affected.

Regulation

IDT Energy currently operates in eight utility markets in New York, six utility territories in New Jersey, eight utility territories in Pennsylvania and four utility territories in Maryland. IDT Energy is in various stages of obtaining licenses in other states and specific utilities within those territories. The State of New York, the Commonwealth of Pennsylvania, the State of New Jersey, the State of Maryland, the federal government, and related public service commissions, among others, establish the rules and regulations for our REP operations. Like all REPs, IDT Energy is affected by the actions of governmental agencies, mostly on the state level by the respective state Public Service Commissions, and other organizations (such as NYISO and PJM) and indirectly the Federal Energy Regulatory Commission, or FERC. Regulations applicable to electricity and natural gas have undergone substantial change over the past several years as a result of restructuring initiatives at both the state and federal levels. IDT Energy may be subject to new laws, orders or regulations or the revision or interpretation of existing laws, orders or regulations. Further, if IDT Energy enters markets outside of the utility regions within which it currently operates in New York, New Jersey, Pennsylvania and Maryland, or markets outside of these states, it would need to be licensed and would be subject to the rules and regulations of such states or municipalities and respective utilities.

Employees

As of March 1, 2013, IDT Energy employs 73 full time employees, 58 of whom are located in the Jamestown, New York office, of which approximately 90% are affiliated with the customer care center.

Genie Oil and Gas, Inc.

Genie Oil and Gas, which is pioneering technologies to produce clean and affordable transportation fuels from the world's abundant oil shale and other conventional and unconventional resources, consists of (1) American Shale Oil Corporation, or AMSO, which holds and manages a 50% interest in American Shale Oil, L.L.C., or AMSO, LLC, our oil shale project in Colorado, and (2) an 89% interest in Israel Energy Initiatives, Ltd., or IEI, our oil shale project in Israel. In addition, in February 2013, another subsidiary, Genie Israel Oil and Gas Ltd., or GIOG, was awarded an exclusive petroleum license by the Government of Israel covering 396.5 square kilometers in the southern portion of the Golan Heights. The grant of the license is subject to challenge by the competing applicant for the license which may be filed within 30 days of the grant.

American Shale Oil Corporation

American Shale Oil Corporation, or AMSO, was formed as a wholly owned subsidiary of ours in February 2008. AMSO's initial entry into the oil shale business occurred in April 2008, when AMSO acquired a 75% equity interest in E.G.L. Oil Shale, L.L.C. (which was subsequently renamed American Shale Oil, LLC, or AMSO, LLC) in exchange for cash of \$2.5 million and certain commitments for future funding of AMSO, LLC's operations. In a separate

transaction in April 2008, IDT acquired an additional 14.9% equity interest in AMSO, LLC in exchange for cash of \$3.0 million, bringing our and IDT's total interest in AMSO, LLC to approximately 90%. In March 2009, a subsidiary of TOTAL S.A., or Total, the world's fifth largest integrated oil and gas company, acquired a 50% interest in AMSO, LLC in exchange for cash paid to us of \$3.2 million and Total's commitment to fund the majority of AMSO, LLC's research, development and demonstration, or RD&D, expenditures as well as certain other funding commitments. Immediately prior to this transaction, all owners (including IDT's 14.9% direct equity interest) other than AMSO exchanged their ownership interest for a proportionate share of a 1% override on AMSO, LLC's future revenue. IDT assigned the cash proceeds of its override interest to the IDT U.S. Oil Shale Charitable Distribution Trust, subject to certain remainder interests retained by Genie. After the consummation of the Total transaction, AMSO owned 50% of AMSO, LLC.

According to the terms of the transaction, AMSO will operate the project during the RD&D phase. Total will provide a majority of the funding during this phase of the project, and technical and financial assistance throughout the RD&D and commercial stages of the project. Total will lead the planning of the commercial development and will assume management responsibilities during the subsequent commercial phase.

Oil shale is an organic-rich, fine-grained sedimentary rock that contains significant amounts of kerogen (a solid mixture of organic chemical compounds) from which liquid hydrocarbons can be extracted. However, extracting oil and gas from oil shale is more complex than conventional oil and gas recovery and is more expensive. Rather than pumping it directly out of the ground in the form of liquid oil, the oil shale can be mined and then heated to a high temperature through a process called surface retorting, with the resultant liquid separated and collected. An alternative which AMSO, LLC and others are researching and developing is in-situ retorting, which involves heating the oil shale to a temperature of approximately 660°F while it is still underground, and then pumping the resulting liquid and/or gases to the surface. In-situ retorting is considered to be less environmentally invasive than surface retorting and can offer significant economic advantages.

According to reports from the United States Department of Energy, or DOE, oil shale resources in the United States are estimated at over 2 trillion barrels, and based on management estimates, could potentially supply the U.S.'s demand for liquid fuel over the next 100 years. The majority of those deposits are found in the Green River Formation of Colorado (Piceance Creek Basin), Utah (Uinta Basin) and Wyoming (Green River and Washakie Basins). In March 2009, the U.S. Geological Survey, or USGS, reported that the total "in-place" oil in the Colorado's Piceance Basin is approximately 1.525 trillion barrels. The majority of those deposits are found in the Green River Formation of Colorado (Piceance Creek Basin), Utah (Uinta Basin) and Wyoming (Green River and Washakie Basins). Colorado's Piceance Basin, where AMSO, LLC's RD&D lease is located as described below, contains some of the richest oil shale resources in the world (as reported by DOE and USGS sources).

In 2005, the U.S. Bureau of Land Management, or BLM, began implementation of the Energy Policy Act passed by Congress, seeking proposals from the private sector to develop the oil shale resources in economically and environmentally responsible ways. In June 2005, nominations were solicited and twenty proposals were submitted, including the proposal of E.G.L. Resources, Inc., or EGL Resources. The proposals, which included technical operational plans, were evaluated by an inter-disciplinary team including representatives from the affected states, as well as the DOE and the Department of Defense. A central feature of EGL Resource's proposal was the then patent pending in-situ oil shale extraction process, Conduction, Convection, Reflux, or CCR, currently AMSO, LLC's U.S. Patent 7,743,826. Further, proposals were subjected to environmental analysis under the terms of the National Environmental Policy Act and brought before public meetings in Colorado and Utah. The BLM issued a Finding of No Significant Impact for EGL Resources' proposed plan of operations; and effective January 1, 2007, EGL Resources received a lease for research, development and demonstration, or RD&D Lease, in western Colorado, which it assigned to its affiliate, E.G.L. Oil Shale, L.L.C. ("EGL"). Out of twenty applications for RD&D Leases submitted, three companies were awarded leases in Colorado to test in-situ technologies (Shell, Chevron and EGL), and one company in Utah (OSEC) was awarded a lease for testing above ground retorting processes. In April 2008, EGL was acquired by AMSO and IDT and subsequently renamed American Shale Oil, LLC.

The RD&D Lease awarded by the BLM to EGL Resources and acquired by AMSO, LLC covers an area of 160 acres. The lease runs for a ten-year period beginning on January 1, 2007, and is subject to an extension of up to five years if AMSO, LLC can demonstrate that a process leading to the production of commercial quantities of shale oil is diligently being pursued. If AMSO, LLC can demonstrate the economic and environmental viability of its technology, it will have the opportunity to submit a one-time payment pursuant to the applicable regulations and convert its RD&D Lease to a commercial lease on 5,120 acres which overlap and are contiguous with the 160 acres covered by its RD&D Lease. AMSO, LLC's initial plan is to target the illite-rich mining interval where the "illite" rich oil shale is located. As technologies are developed to facilitate environmentally sound extraction processes from additional areas

of the oil shale formation, we would expect to pursue the remaining reserves within our commercial lease.

AMSO, LLC is utilizing a team of experienced experts in various fields to conduct research, development and demonstration activities. The team has conducted considerable site characterization, which includes exploration and ground water monitoring wells, coring, logging, and other analysis to further explore, understand and characterize the oil shale resources in its RD&D Lease area. During the third quarter of fiscal 2011, AMSO, LLC continued advanced stage construction work on the surface oil and gas processing facilities while drilling pilot wells for its pilot test in Colorado. The pilot test is intended to confirm the accuracy of several of the key underlying assumptions of AMSO, LLC's proposed in-situ heating and retorting process. In January 2012, AMSO, LLC conducted a fully integrated commissioning test of the above and below ground facilities to determine their readiness for pilot test operations. The underground electric heater did not perform to specifications during the commissioning test. As a result, the manufacturers of the heater undertook extensive modifications and improvements. There were additional problems during a second commissioning test in December 2012. AMSO, LLC conducted a thorough readiness review and additional integrated testing, as well as acquiring additional equipment spares prior to beginning steady state pilot test operations. The preparations were completed and in early March 2013 AMSO, LLC initiated start-up of the oil shale pilot test. Equipment modifications and technical issues are common in projects of the complexity and scope of the AMSO, LLC pilot test, particularly given the extent to which new concepts and applications have been incorporated into the pilot test's design. Upon successful completion of the pilot test, AMSO, LLC will evaluate the appropriate timing to submit an application to convert its research, development and demonstration lease into a commercial lease. AMSO, LLC also expects to design and implement a larger scale demonstration project to further test its process and operations under commercial conditions, and assess scalability to commercial production levels.

Under current regulations, in order for the RD&D Lease to be converted into a commercial lease, AMSO, LLC will have to demonstrate the production of shale oil in commercial quantities, which is defined to mean production of shale oil where there is a reasonable expectation that the expanded operation would provide a positive return after all costs of production have been met, including the amortized costs of the capital investment. The BLM must also determine, following an analysis based on the National Environmental Policy Act, that commercial scale operations can be conducted without unacceptable environmental consequences, and the BLM will have a fair amount of discretion in making this determination. In order to convert the RD&D lease to a commercial lease AMSO, LLC will also have to (a) demonstrate that it consulted with state and local officials to develop a plan for mitigating the socioeconomic impacts of commercial development on communities and infrastructure; (b) submit a nonrecurring conversion payment, which pursuant to applicable rules and regulations, will be equivalent to the greater of \$1,000 per acre or the Fair Market Value (to be determined) of the commercial lease; (c) provide adequate bonding; and (d) conduct commercial operations in accordance with all applicable laws, rules, regulations or stipulations provided for. Further, in determining whether to convert the RD&D Lease into a commercial lease, the BLM will also analyze the commercial viability of shale oil production, which will depend on the market price of competing products at such time. Environmental challenges, however, have led to the BLM to indicate that it intends to issue new regulations, which could affect the commercial royalty rates and potentially the conversion criteria and thereby making conversion to a commercial lease commercially unfeasible or impracticable.

Through the development of its technology and implementation of its plan of operations, AMSO, LLC hopes to provide a significant domestic supply of liquid fuels at a competitive price and with acceptable environmental impacts. AMSO, LLC believes that its technical and operating approaches could minimize the potential for adverse environmental impacts. AMSO, LLC's patented CCR heating process and well layout plan have been, and continue to be, designed to maximize energy efficiency and minimize the number of wells needed and the impact on the surface of the lease area. By targeting the deep illite-rich oil shale under the known aquifers, AMSO, LLC expects to maintain the geologic barriers between retorts and protected water sources, and to minimize the amount of clean water needed for its operations. AMSO, LLC is also working diligently to meet emission standards, reduce carbon dioxide generation through thermal efficiency, and develop methods to sequester carbon dioxide generated during heating operations.

AMSO, LLC's operating office is in Rifle, Colorado. AMSO, LLC is supported by AMSO and Genie professionals based in Newark, New Jersey. AMSO, LLC rents approximately 2,450 square feet of office space and 2,000 square feet of warehouse space in Rifle under operating leases with flexible terms and conditions.

AMSO, LLC incurred \$8.6 million, \$9.2 million, \$25.4 million and \$7.1 million for research and development in the year ended December 31, 2012, the five months ended December 31, 2011, and the years ended July 31, 2011 and 2010, respectively.

Israel Energy Initiatives, Ltd.

Israel Energy Initiatives, Ltd., or IEI, an Israeli company formed in March 2008, holds an exclusive Shale Oil Exploration and Production License awarded in July 2008 by the Government of Israel. The license covers approximately 238 square kilometers in the south of the Shfela region in Israel and grants IEI an exclusive right to demonstrate in-situ technologies for potential commercial shale oil production. Under the terms of the license, IEI is to conduct a geological appraisal study across the license area, characterize the resource and select a location for a pilot plant in which it will demonstrate its in-situ technology. The initial term of the license was for three years until July 2011. The license has been extended until July 2013, and it may be further extended in one year increments until July 2015. Assuming IEI successfully demonstrates a commercially viable and environmentally acceptable technology, IEI intends to apply for a long-term commercial lease from the Israeli government to build and operate a commercial project. According to Israeli law, as long as a license holder operates in compliance with a pre-approved plan, the State of Israel must grant an extension of the initial license term. Further, under the Israeli petroleum law,

long-term leases are typically for a term of 30 years, with a possible extension for an additional 20 years.

IEI believes that Israel presents a unique opportunity for the development of a commercial scale oil shale industry. The country is almost 100% dependent on imported oil for its transportation needs, and energy security is therefore a significant strategic issue, as well as a material burden on the Israeli economy. Compared with other oil shale resources worldwide, IEI believes that the Shfela basin resource is thick, shallow and dry. Short distances in Israel significantly reduce infrastructure and operating costs. Israel has existing complex refining capacity as well as, an existing pipeline infrastructure. IEI believes that environmental concerns are materially mitigated by the fact that the local aquifer is geologically confined and located well below the target oil shale layer and thus is highly unlikely to be contaminated in the proposed process being developed. Further, IEI believes that no direct competition currently exists in Israel for the production of oil from shale.

IEI began its resource appraisal study in the third quarter of calendar 2009, and completed the field work included in its study in late calendar 2011. The resource appraisal was comprised primarily of a drilling operation conducted in the license area. The resource appraisal plan included drilling and coring several wells to depths of approximately 600 meters as well as well logging, analysis of core materials and other geochemical tests, water monitoring and hydrology tests, as well as laboratory analyses of samples and other laboratory experiments. To date, the results from the appraisal process, both from field tests and laboratory experiments, confirm IEI's expectations as to the attractiveness of the oil shale resource in the license area from the standpoint of richness, thickness and hydrology. IEI is continuing permitting and other preparatory work required prior to construction of a pilot plant and operation of a pilot test. The pilot test will provide a basis for determining the technical, environmental and economic viability of IEI's proposed process for extracting oil from the oil shale resource. IEI expects to begin construction of the pilot test in late 2013, barring further permitting, regulatory or litigation driven delays. Despite winning the important petitions as set forth more fully in Item 3 to Part I "Legal Proceedings" in this Annual Report, IEI has not yet been able to obtain all necessary permits for the pilot test. The Government of Israel still has not issued the final regulations required for preparation and submission of an environmental impact statement. The statement is a necessary prerequisite for the submission of a permit application to construct and operate an oil shale pilot test facility. The pilot test will provide a basis for determining the technical, environmental and economic viability of IEI's proposed process for extracting oil and gas from the oil shale resource. We expect continued, significant increases in the expenses reflecting the costs of facility construction, drilling and operations of the IEI pilot test as well as further staffing to support engineering and scientific operations and business development activities. We expect IEI's pilot test to require approximately \$30 million of investment over the next three years.

IEI operates out of IDT's offices in Jerusalem and a field office and workshop near the city of Beit Shemesh. In addition, IEI built and operates a research laboratory located on the campus of Ben Gurion University in Be'er Sheva.

IEI incurred \$7.2 million, \$2.4 million, \$7.8 million and \$5.2 million for research and development in the year ended December 31, 2012, the five months ended December 31, 2011, and the years ended July 31, 2011 and 2010, respectively.

Genie Israel Oil and Gas Ltd.

On February 20, 2013, the Government of Israel awarded Genie Israel Oil and Gas, Ltd. an exclusive petroleum exploration license covering 396.5 square kilometers in the Southern portion of the Golan Heights. The grant of the license is subject to challenge by the competing applicant for the license which may be filed within 30 days of the grant. We believe, based on preliminary analysis and interpretation of existing geological data, that the newly issued license area may contain significant quantities of conventional oil and gas in relatively tight formations, the development of which would entail significantly different technical approaches and project timelines than our other projects. We intend to conduct an exploration program of up to 36 months including geophysical testing, drilling and production tests and analyses to evaluate our preliminary hypothesis.

Other Projects

We are currently actively evaluating several potential exploration and development projects for oil shale and other conventional and unconventional energy resources in other locations. The energy development prospects vary in potential size, applied technology and potential time to commercial production. For example, in June 2012, we signed an agreement with the Republic of Mongolia for a joint geological survey of certain of that country's oil shale deposits. The prospects we are evaluating or pursuing are in various stages of development and it is unclear when or if they will be developed or commercialized or prove to be profitable. However, if one or more of these prospects were to be successfully commercialized, they could be significant in terms of their potential impact on our operations and financial condition, and could materially affect our financial results, future prospects and valuation.

We incurred research and development expenses of \$2.2 million and \$0.2 million for other projects in the year ended December 31, 2012 and the five months ended December 31, 2011, respectively.

Competition

If Genie Oil and Gas is successful developing and producing commercial quantities of oil and gas from oil shale and other conventional and unconventional resources in an environmentally acceptable manner and receives all the necessary regulatory approvals, then, in the commercial production phases of operations, it will likely face competition from conventional and unconventional oil producers, other fossil fuels and other alternative energy providers in marketing and selling refined products and natural gas. Many of the potential competitors, including national oil companies, are larger and have substantially greater resources to be able to withstand the volatility of the oil and gas market (i.e. price, availability, refining capacity, etc.).

Regulation

AMSO, LLC was granted an RD&D Lease by the BLM for 10 years beginning on January 1, 2007 with up to a 5-year extension upon demonstration that a process leading up to the production of commercial quantities of shale oil is diligently pursued. Throughout the term of the RD&D Lease, AMSO, LLC will execute various activities and milestones within the technical phases of its research and development plan with the aim of ultimately converting its RD&D Lease to a long term commercial lease.

In order to execute these activities and milestones, AMSO, LLC must obtain the necessary permitting and comply with the various rules, regulations, and policies spanning multiple regulatory bodies and governmental agencies at various levels. In connection with the site characterization phase (which AMSO, LLC completed) and the pilot phase (which is ongoing), AMSO, LLC has been working to ensure compliance with rules, regulations, and policies of the BLM and the Department of Environmental Protection at the federal level, with the Colorado Division of Reclamation and Mining Service and the Air Pollution Control Division and the Water Control Division of the Colorado Department of Public Health and Environment at the state level, and with Rio Blanco County at the county level. In accordance with the technical and regulatory requirements of the RD&D Lease, in May 2009, AMSO, LLC submitted its in-situ Plan of Development to the BLM. In September 2009, the BLM approved AMSO, LLC's Plan of Development, allowing AMSO, LLC to proceed with implementation, subject to compliance with Colorado's permitting requirements (which AMSO, LLC has satisfied). AMSO, LLC continues to refine its Plan of Development in conjunction with its ongoing operations, and the BLM has approved such modifications.

Although AMSO, LLC has diligently worked to satisfy the regulatory requirements and challenges necessary for implementing the site characterization and initial pilot phase of the project, it is difficult at this time to predict all of the compliance requirements that may be necessary throughout the life of the project.

IEI holds an exclusive Shale Oil Exploration and Production License that was extended until July 2013. While IEI expects the license to be further extended in one year increments until July 2015 (the maximum term of a license under Israeli Law is seven years), IEI may also apply for a new license. However, there is no guarantee the license will be extended as described above or that a new license would be granted. The license is subject to certain conditions and milestones and the failure to achieve those milestones may result in the termination, revocation, suspension or limitation of the license.

In order to execute its plan of operation, IEI must obtain and comply with a large number of permits and authorizations from various government agencies, local authorities and other regulators and interested parties in Israel, such as the District Planning Committee, the Ministry of Environmental Protection, the Israel Defense Forces and many others. IEI believes it has duly met all such requirements to date and will continue to do so in the future, but this may considerably delay our operations. To date, IEI's plans have faced considerable opposition from environmental and local groups, and two separate proceedings have been brought before the Supreme Court of Israel in unsuccessful attempts to stop the project.

In order to execute its long term commercial plan, IEI must obtain a Lease under the Petroleum Law. A Lease is granted for an initial period of up to 30 years, with possible extension for an additional 20 years. Such a lease can be granted if a "Discovery" under the Law is declared by the Petroleum Commissioner during the license period. However, we are unaware of any clear guidelines, criteria or precedent of how that term applies to oil shale.

Genie Israel Oil and Gas, Ltd. holds an exclusive exploration license in the Golan Heights. The International community considers the Golan Heights an internationally disputed territory, and therefore political risk may affect our ability to execute our plan of operations. This may influence local decision makers as well as service providers necessary to our operations.

Intellectual Property

We rely on a combination of patents, copyrights, trademarks, domain name registrations and trade secret laws in the United States and other jurisdictions and contractual restrictions to protect our intellectual property rights and our brand names. All of our employees sign confidentiality agreements. These agreements provide that the employee may not use or disclose our confidential information except as expressly permitted in connection with the performance of his or her duties for us, or in other limited circumstances. These agreements also state that, to the extent rights in any invention conceived of by the employee while employed by us do not vest in the Company automatically by operation

of law, the employee is required to assign his or her rights to us.

In connection with its RD&D process and related technologies, AMSO, LLC owns three patents issued in the United States, five patents issued abroad, two of which are jointly owned with Lawrence Livermore National Security, LLC (“LLNS”), as well as several pending applications, both in the United States and abroad. The issued or allowed patents include patent No. 7,743,826 (US) which expires April 16, 2028, patent No. 7,921,907 (US) which expires January 19, 2027, patent No. 8,162,043 (US) which expires January 19, 2027, application No. 12,779,826 (US) which was allowed on February 19, 2013, patent registration No. 3668 (Mongolia) which expires December 25, 2032, patent registration No. 32691 (Morocco) granted jointly to AMSO, LLC and LLNS on October 1, 2011 which expires September 30, 2029, patent registration No. 3565 (Mongolia), granted jointly to AMSO, LLC and LLNS on April 13, 2012 which expires March 29, 2031, patent No. 508 (Madagascar) granted on December 2, 2011 which expires November 2, 2029, and patent registration No. 3590 (Mongolia) granted on April 13, 2012 which expires April 22, 2031. The patents are directed to in-situ methods and systems for the extraction of oil from shale integral to our technical and operational plans, as well as carbon sequestration in depleted oil shale deposits and down-hole heater technologies. AMSO has also been granted three trademarks in the United States in connection with its operations.

In connection with the operations of its subsidiaries in Israel and Mongolia, GOGAS together with its subsidiaries has several patent applications on methods for improved hydrocarbon recovery from unconventional resources pending, including improvements in both in-situ and ex-situ methods

Employees

AMSO (including AMSO, LLC) employs five full-time employees, including a secondee assigned by Total, while IEI employs approximately 20 full-time employees. AMSO, IEI, Genie Mongolia and GIOG also retain the services of a number of professional consultants, including geologists, hydrologists, drilling and completions engineers, process engineers, environmental experts, permitting consultants, energy experts, legal, and land designation and acquisition consultants.

Industry Segments and Geographic Areas

For disclosure regarding our industry segments and geographic areas, please see Note 16 to our Consolidated Financial Statements in this Annual Report.

Item 1A. Risk Factors.

RISK FACTORS

Our business, operating results or financial condition could be materially adversely affected by any of the following risks as well as the other risks highlighted elsewhere in this document, particularly the discussions about regulation, competition and intellectual property. The trading price of our Class B common stock and Series 2012-A Preferred Stock could decline due to any of these risks.

Risks Related to IDT Energy

The REP business is highly competitive, and we may be forced to cut prices or incur additional costs. IDT Energy faces substantial competition both from the traditional incumbent utilities as well as from other REPs, including REP affiliates of the incumbent utilities in specific territories. As a result, we may be forced to reduce prices, incur increased costs or lose market share, and cannot always pass along increases in commodity costs to customers. We compete on the basis of provision of services, customer service and price. Present or future competitors may have greater financial, technical or other resources which could put us at a disadvantage.

IDT Energy's growth depends on its ability to enter new markets.

New markets for our business are determined based on many factors, which include the regulatory environment, as well as IDT Energy's ability to procure energy in an efficient and transparent manner. We seek to purchase wholesale energy where there is a real time market that reflects a fair price for the commodity for all participants. Once new markets are determined to be suitable for IDT Energy, we will expend substantial efforts to obtain necessary licenses and will incur significant customer acquisition costs and there can be no assurance that we will be successful in new markets. Furthermore, there are regulatory differences between the markets that we currently operate in and new markets, including, but not limited to, exposure to credit risk, additional churn caused by tariff requirements, rate-setting requirements and incremental billing costs.

Unfair business practices or other activities of REPs may adversely affect us.

Competitors in the highly competitive REP market engage in unfair business practices to sign up new customers. Competitors engaging in unfair business practices create an unfavorable impression about our industry on consumers or with regulators or political bodies. Such unfair practices by other companies can adversely affect our ability to grow or maintain our customer base. The successes, failures or other activities of various REPs within the markets that we serve may impact how we are perceived in the market.

Demand for REP services and consumption by customers are significantly related to weather conditions. Typically, colder winters and hotter summers create higher demand and consumption for natural gas and electricity, respectively. Milder than normal winters and/or summers may reduce the demand for our energy services, thus negatively impacting our financial results.

Our current strategy is based on current regulatory conditions and assumptions, which could change or prove to be incorrect.

Regulation over the electricity and natural gas markets has been in flux at the state and federal levels. In particular, any changes adopted by the FERC, or changes in state or federal laws or regulations (including greenhouse gas laws) may affect the prices at which IDT Energy purchases electricity or natural gas for its customers. While we endeavor to pass along increases in energy costs to our customers pursuant to our variable rate customer offerings, we may not always be able to do so due to competitive market forces and the risk of losing our customer base. In addition, potential regulatory changes may impact our ability to use our established sales and marketing channels. Any changes in these factors, or any significant changes in industry development, could have an adverse effect on our revenues, profitability and growth or threaten the viability of our current business model.

Regulatory conditions can affect the amount of taxes and fees we need to pay and our pricing advantages. We are subject to audits in various jurisdictions for various taxes, including income tax, utility excise tax, and sales and use tax. Aggressive stances taken recently by regulators increase the likelihood of our having to pay additional taxes and fees in connection with these audits. In the future, we may seek to pass such charges along to our customers, which could have an adverse impact on our pricing advantages.

Commodity price volatility could have an adverse effect on our cost of revenues and our results of operations. Volatility in the markets for certain commodities can have an adverse impact on our costs for the purchase of the electricity and natural gas that IDT Energy sells to its customers. We may not always choose to pass along increases in costs to our customers to protect overall customer satisfaction. This would have an adverse impact on our margins and results of operations. Alternatively, volatility in pricing for IDT Energy's electricity and natural gas related to the cost of the underlying commodities can lead to increased customer churn.

We face risks that are beyond our control due to our reliance on third parties and our general reliance on the electrical power and transmission infrastructure within the United States.

Our ability to provide energy delivery and commodity services depends on the operations and facilities of third parties, including, among others, BP, NYISO, and PJM. Our reliance on the electrical power generation and transmission infrastructure within the United States makes us vulnerable to large-scale power blackouts. The loss of use or destruction of third party facilities that are used to generate or transmit electricity due to extreme weather conditions, breakdowns, war, acts of terrorism or other occurrences could greatly reduce our potential earnings and cash flows.

The REP business, including our relationship with our suppliers, is dependent on access to capital and liquidity. Our business involves entering into contracts to purchase large quantities of electricity and natural gas. Because of seasonal fluctuations, we are generally required to purchase electricity or natural gas in advance and finance that purchase until we can recover such amounts from revenues. IDT Energy has a Preferred Supplier Agreement with BP pursuant to which BP is our preferred provider of electricity and natural gas. In addition to other advantages of this agreement, we are no longer required to post security with most suppliers other than BP. There can be no assurance that we will be able to maintain the required covenants, that BP will be able to maintain their required credit rating, or that the agreement will be renewed upon its expiration in June 2014. In addition, the security requirements outside of the BP agreement may increase as we enter other markets. Difficulty in obtaining adequate credit and liquidity on commercially reasonable terms may adversely affect our business, prospects and financial conditions.

A revision to certain utility best practices and programs in which we participate and with which we comply could disrupt our operations and adversely affect our results and operations. Certain retail access "best practices" and programs proposed and/or required by state regulators have been implemented by utilities in most of the service territories in which we operate. One such practice is participation in purchase of receivables, or POR, programs under which certain utilities purchase customer receivables for approximately 98% of their face value in exchange for a first priority lien in the customer receivables without recourse against a REP. This program is a key to our control of bad debt risk in our REP business in New York and a similar program is important to us in Pennsylvania. In the event that POR programs or any other best practice or program were to be revised or eliminated by state regulators or the individual utilities, we would need to adjust our current strategy regarding customer acquisition and our focus on the growth of our customer base. We would also need to adjust our current business plan to reduce our exposure to existing customers who may pose a bad debt risk. Any failure to properly respond to changing conditions could adversely affect our results of operations and profitability.

In addition, on June 23, 2008, NYPSC issued its Order Establishing Energy Efficiency Portfolio Standard, or EEPS, and Approving Programs setting a goal of gradually reducing electricity usage by 15% statewide by 2015 and requiring the utilities to file energy efficiency programs consistent with the policies and cost/benefit factors adopted

by the NYPSC. Since 2009, the NYPSC has approved 90 electric and natural gas energy efficiency programs to implement the EEPS policy. We cannot predict the impact of the EEPS on the electricity usage of our customers. There could be an adverse effect on the result of operations of our REP business if the EEPS results in a reduction in the aggregate amount of customer demand.

In New Jersey, customers who are delinquent in paying their invoices are no longer eligible to receive a consolidated utility invoice. A consolidated utility invoice is similar to a purchase of receivables program since the utility has the responsibility to bill the customer and collect the receivable. Instead, those customers are switched to a dual bill arrangement whereby IDT Energy is responsible to bill and collect the commodity portion of the customers' invoices. Once we invoice these customers under a dual bill arrangement, we have bad debt risk associated with that portion of our revenues. Economic conditions, the creditworthiness of our customers in New Jersey and our ability to collect from these customers, among other things, may impact our profitability.

The REP business depends on maintaining the licenses in the states we operate and any loss of those licenses would adversely affect our business, prospects and financial conditions.

IDT Energy requires licenses from public utility commissions and other regulatory organizations to operate its business. Those agencies may impose various requirements to obtain or maintain licenses. Further, certain non-governmental organizations have been focusing on the REP industry and the treatment of customers by certain REPs. Any negative publicity regarding the REP industry in general and IDT Energy in particular could negatively affect our relationship with the various commissions and regulatory agencies and could negatively impact our ability to obtain new licenses to expand operations or maintain the licenses currently held. Any loss of our REP licenses would cause a negative impact on our results of operations, financial condition and cash flow.

The REP business depends on the continuing efforts of our management team and our personnel with strong industry or operational knowledge and our efforts may be severely disrupted if we lose their services.

Our success depends on key members of our management team, the loss of whom could disrupt our business operation. Our business also requires a capable, well-trained workforce to operate effectively. There can be no assurance that we will be able to retain our qualified personnel, the loss of which may adversely affect our business, prospects and financial conditions.

We could be harmed by network disruptions, security breaches, or other significant disruptions or failures of our IT infrastructure and related systems.

To be successful, we need to continue to have available a high capacity, reliable and secure network. We face the risk, as does any company, of a security breach, whether through cyber-attack, malware, computer viruses, sabotage, or other significant disruption of our IT infrastructure and related systems. We face a risk of a security breach or disruption from unauthorized access to our proprietary or classified information on our systems. Certain of our personnel operate in jurisdictions that could be a target for cyber-attacks. The secure maintenance and transmission of our information is a critical element of our operations. Our information technology and other systems that maintain and transmit our information, or those of service providers or business partners, may be compromised by a malicious third party penetration of our network security, or that of a third party service provider or business partner, or impacted by advertent or inadvertent actions or inactions by our employees, or those of a third party service provider or business partner. As a result, our information may be lost, disclosed, accessed or taken without our consent.

Although we make significant efforts to maintain the security and integrity of these types of information and systems, there can be no assurance that our security efforts and measures will be effective or that attempted security breaches or disruptions would not be successful or damaging, especially in light of the growing sophistication of cyber-attacks and intrusions. We may be unable to anticipate all potential types of attacks or intrusions or to implement adequate security barriers or other preventative measures.

Network disruptions, security breaches and other significant failures of the above-described systems could (i) disrupt the proper functioning of these networks and systems and therefore our operations; (ii) result in the unauthorized access to, and destruction, loss, theft, misappropriation or release of our proprietary, confidential, sensitive or otherwise valuable information, including trade secrets, which others could use to compete against us or for disruptive, destructive or otherwise harmful purposes and outcomes; (iii) require significant management attention or financial resources to remedy the damages that result or to change our systems; or (iv) result in a loss of business, damage our reputation or expose us to litigation. Any or all of which could have a negative impact on our results of operations, financial condition and cash flows.

Risks Related to Genie Oil and Gas

We have no current production of oil and gas and we may never have any.

We do not have any current production of oil and gas. We cannot assure you that we will produce or market shale oil or gas at all or in commercially profitable quantities. Our ability to produce and market oil and gas may depend upon our ability to develop and operate our planned projects and facilities, which may be affected by events or conditions that impact the advancement, operation, cost or results of such projects or facilities, including:

- Energy commodity prices relative to production costs;
- The occurrence of unforeseen technical difficulties;
- The outcome of negotiations with potential partners, governmental agencies, regulatory bodies, suppliers, customers or others;
- Changes to existing legislation or regulation governing our current or planned operations;
- Our ability to obtain all the necessary permits to operate our facilities;
- Changes in operating conditions and costs, including costs of third-party equipment or services such as drilling and processing and access to power sources; and
- Security concerns or acts of terrorism that threaten or disrupt the safe operation of company facilities.

In-situ technology for the extraction of oil and gas from oil shale is in its early stages of development and has not been deployed commercially at large scale. AMSO, LLC and IEI may not be able to develop environmentally acceptable and economically viable technology in connection therewith.

Our strategy is substantially predicated on the production and extraction of oil and gas from unconventional resources, defined as any resource other than the traditional oil well. Our initial activity is in the in-situ production of oil and gas from oil shale which is typically more costly and is less established technically than traditional oil and gas production and therefore incurs a higher degree of technology risk. The greater cost increases the risk that we will not be profitable given commodity price fluctuations, assuming we enter into commercial production.

Operating hazards and uninsured risks with respect to the oil and gas operations may have material adverse effects on our operations.

Our research, exploration and, if successful, development and production operations are subject to risks similar to those normally incident to the exploration for and the development and production of oil and gas, including blowouts, subsidence, uncontrollable flows of oil, gas or well fluids, fires, pollution and other environmental and operating risks. These hazards could result in substantial losses due to injury or loss of life, severe damage to or destruction of property and equipment, pollution and other environmental damage and suspension of operations. While as a matter of practice we have insurance against some or all of these risks, such insurance may not cover the particular hazard and may not be sufficient to cover all losses. The occurrence of a significant event adversely affecting any of our operations could have a material adverse effect on us, could materially affect our continued operations and could expose us to material liability.

Genie Oil and Gas' dependence on contractors, equipment and professional services that have limited availability could result in increased costs and possibly material delays in their respective work schedules.

Due to the lack of available technical resources with in-situ hydrocarbon production experience, the costs for our operations may be more expensive than planned or there could be delays in our operating plans. We are also more likely to incur delays in our drilling and operating schedule and we may not be able to meet our required work schedule. Similarly, some of the professional personnel we need for our planned operations are not available in the locations in which we operate or are not available on short notice for work in such location, and, therefore, we may need to use overseas contractors for various projects. Any or all of the factors specified above may result in increased costs and delays in our work schedule.

Genie Oil and Gas will require substantial funds and will need to raise additional capital in the future.

We will need substantial funds to fully execute our research and development activities, and, if those activities are successful we will need additional substantial funds to commence our anticipated commercial operations, if any. Failure to secure adequate funding could adversely affect our ability to advance our strategic plans as currently contemplated and require us to delay, scale back, or shut down our operations.

In January 2011, Total completed funding of its committed capital contributions to AMSO, LLC, and, accordingly, Total has the option to terminate its obligations to make additional capital contributions and withdraw as a member of AMSO, LLC. If Total exercises this option and terminates its future funding, we will need to find other sources of funding or otherwise risk shutting down AMSO, LLC's operations.

Genie Oil and Gas' success depends on the continuing efforts of key personnel and certain strategic partners, and our efforts may be severely disrupted if we lose their services.

Our future success depends, to a significant extent, on our ability to attract and retain qualified technical personnel particularly those with expertise in the oil and gas industry and with in-situ hydrocarbon projects. There is substantial competition for qualified technical personnel, and there can be no assurance that we will be able to attract or retain our qualified technical personnel. Specifically, we heavily rely on the services of the members of the management and technical teams at AMSO, LLC and IEI, including Harold Vinegar, PhD at IEI and Alan Burnham, PhD at AMSO,

LLC, for their technical expertise, assistance in the development of our intellectual property and guidance on building out a pilot/commercial facility for potential commercial production. Specifically, Dr. Vinegar has a long-term employment agreement with us through 2017. In addition, AMSO, LLC is dependent on Total (as discussed more fully in Item 1 to Part I of this Annual Report) for technical expertise, financial support and guidance.

The unexpected loss of the services of one or more of these people and/or the technical expertise and support of certain partners, and the ability to find suitable replacements within a reasonable period of time thereafter, could have a material adverse effect on our operations.

There are uncertainties associated with AMSO, LLC's lease and Genie's IEI and GIOG licenses.

AMSO, LLC's lease for research, development and demonstration, or RD&D Lease, runs for a 10-year period expiring at the end of 2016, with a possible extension of up to five years upon demonstration that a process leading up to the production of commercial quantities of shale oil is diligently being pursued. The terms of the RD&D Lease do not guarantee that the BLM will grant a commercial lease. Further, there is significant environmental opposition to the commercial production of shale oil. Under current regulation, there are numerous conditions and requirements, the evaluation of which is subject to considerable discretion by the BLM, that AMSO, LLC will have to satisfy in order to convert its RD&D Lease into a commercial lease prior to the expiration of the RD&D Lease term. These conditions, which are more fully discussed in in Item 1 to Part I of this Annual Report, require AMSO, LLC to demonstrate, among other things, an economically viable commercial production process which will likely depend upon the prices of competing products, including conventional oil. There can be no assurance that AMSO, LLC will satisfy all of these conditions and requirements. Additionally, there have been proposed changes to the regulations governing commercial leases such as the lease into which AMSO, LLC intends to convert its RD&D Lease. The BLM indicated that it intends to issue new commercial oil shale regulations, which could affect the commercial royalty rates and the conversion criteria. Although the conversion terms of AMSO, LLC's RD&D Lease provide for applicability of the existing regulatory scheme, we cannot assure you that we will not be subjected to more restrictive or less favorable regulations.

IEI holds an exclusive Shfela Oil Exploration and Production License that covers approximately 238 square kilometers in the south of the Shfela region in Israel. The license expires in July 2013. The initial term of the license was for three years until July 2011. The license has been extended, and it may be further extended in one year increments until July 2015 (the maximum term of a license under Israeli Law is seven years). Although the license may be further extended and IEI may also apply for a new license, there is no guarantee the license will be extended, that a new license would be granted or that the license will not be successfully challenged by environmental or other opposition groups. The license is subject to certain conditions and milestones and the failure to reach those milestones may result in the termination, revocation, suspension or limitation of the license. Our ability to construct the pilot plant is dependent on recently enacted permitting regulations, and there is no guarantee that we will be able to obtain the required permits under the new regulations in a timely manner or at all.

In February 2013, the Government of Israel awarded Genie Israel Oil and Gas, Ltd. an exclusive three year petroleum license in the southern portion of the Golan Heights. The grant of the license is subject to challenge by the competing applicant for the license which may be filed within 30 days of the grant. Operations under the license may initiate international criticism, in addition to the regulatory and permitting challenges described above in connection with the Shfela License.

Genie Oil and Gas is subject to regulatory, legal and political risks that may limit its operations. Our operations and potential earnings may be affected from time to time in varying degree by regulatory, legal and political factors including laws and regulations related to environmental or energy security matters, including those addressing alternative and renewable energy sources and the risks of global climate change. Such laws and regulations continue to increase in both number and complexity and affect our operations with respect to, among other things:

- The discharge of pollutants into the environment;
- The handling, use, storage, transportation, disposal and cleanup of hazardous materials and hazardous and nonhazardous wastes;
- The dismantlement, abandonment and restoration of our properties and facilities at the end of their useful lives;
- Restrictions on exploration and production;
- Loss of petroleum rights including key leases, licenses or permits;
- Tax or royalty increases, including retroactive claims;
- Intellectual property challenges that would limit our ability to use our planned in-situ production technologies;
- and
- Political instability, war or other conflicts in areas where we operate.

For example, in March 2011, the Israeli Parliament passed a bill materially increasing the overall taxes, royalties and other fees due to the Israeli government from revenues derived by oil and natural gas producers. The Israeli Income Tax Ordinance was revised accordingly and the amount payable to the government from revenues derived by oil and natural gas producers increased from a maximum of 32% to 52%. This tax will only be imposed once a project has passed certain milestones set forth in the ordinance (when the profits derived from a certain field have reached 150% of the original investment in that field).

AMSO, LLC's RD&D Lease is subject to other third party lease interests. There are other mineral leases which are collocated with AMSO, LLC's lease interests, including the territory designated for AMSO LLC's commercial lease conversion. While some of these other leases are subject to special oil shale stipulations requiring the leaseholders to minimize potential impacts and prevent interference with oil shale development, others are not. Although AMSO, LLC works to coordinate drilling plans and operations with these collocated leaseholders to preserve the integrity of its resource and operations, we cannot guaranty that these collocated leases will not interfere with AMSO LLC's operations.

Regulation of greenhouse gas emissions could increase Genie Oil and Gas' operational costs, cause delays and/or restrict our operations.

The production and processing of oil shale will result in some emission of greenhouse gases. International agreements and national or regional legislation and regulatory measures to limit greenhouse emissions are currently in various phases of discussion or implementation. The Kyoto Protocol and other actual or pending federal, state and local regulations, envision a reduction of greenhouse gas emissions through market-based trading schemes. As a result of these and other potential environmental regulations, if our research and development activities are successful and we eventually begin commercial production, we can expect to incur additional capital, compliance, operating, maintenance and remediation costs. To the extent these costs are not ultimately reflected in the price of the products we sell, our operating results will be adversely affected.

The oil and gas industry is subject to the general inherent industry and economic risks.

The oil and gas business is fundamentally a commodity business. This means that potential future commercial operations and earnings may be significantly affected by changes in oil and gas prices and by changes in margins on gasoline, natural gas and other refined products.

We may be exposed to infringement or misappropriation claims by third parties, which, if determined adversely to us, could cause us to lose significant rights and pay significant damage awards.

Our success also depends largely on our ability to use and develop our technology and know-how without infringing on the intellectual property rights of third parties. The validity and scope of claims relating to our technology involve complex scientific, legal and factual questions and analysis. It is therefore difficult to accurately predict whether or not a third party will assert that we are infringing on its intellectual property or whether it would prevail. Although we are not currently aware of any infringement or of any parties pursuing or intending to pursue infringement claims against us, we cannot assure you that we will not be subject to such claims in the future. Also, in many jurisdictions, patent applications remain confidential and are not published for some period after filing. Thus, we may be unaware of other parties' pending patent applications that relate to our processes. While at present we are unaware of competing patent applications, such applications could potentially surface.

The defense and prosecution of intellectual property suits, patent opposition proceedings and related legal and administrative proceedings can be both costly and time consuming and may significantly divert the efforts and resources of our technical and management personnel. An adverse determination in any such litigation or proceedings to which we may become a party could subject us to significant liability to third parties, require us to seek licenses from third parties, to pay ongoing royalties, to redesign our products, or subject us to injunctions prohibiting the manufacture and sale of our products or the use of our technologies.

Risk Related to Our Financial Condition

We hold significant cash and cash equivalents, restricted cash, certificates of deposit, and marketable securities that are subject to various market risks.

As of December 31, 2012, we had cash and cash equivalents, restricted cash, certificates of deposit, and marketable securities of \$92.9 million. As a result of various market risks, the value of these holdings could be materially and adversely affected.

Risks Related to Our Capital Structure

Holders of our Class B common stock and Series 2012-A Preferred Stock have significantly less voting power than holders of our Class A common stock.

Holders of our Class B common stock and Series 2012-A Preferred Stock are entitled to one-tenth of a vote per share on all matters on which our stockholders are entitled to vote, while holders of our Class A common stock are entitled to three votes per share. As a result, the ability of holders of our Class B common stock and Series 2012-A Preferred Stock to influence our management is limited.

Holders of our Series 2012-A Preferred Stock are entitled to an annual dividend and such payments may have a negative impact on the Company's cash flow.

Holders of our Series 2012-A Preferred Stock are entitled to receive an annual dividend, payable quarterly in cash. The payment of such dividend could have a negative impact on the Company's cash flow and cash balances. If dividends on any shares of the Series 2012-A Preferred Stock are in arrears for 6 or more quarters, whether or not consecutive, holders of the Series 2012-A Preferred Stock shall have the right to elect two (2) additional directors to serve on our Board, and this could have a negative impact on the market price of our equity securities.

We are controlled by our principal stockholder, which limits the ability of other stockholders to affect our management.

Howard S. Jonas, our Chairman of the Board, has voting power over 4,398,112 shares of our common stock (which includes 1,574,326 shares of our Class A common stock, which are convertible into shares of our Class B common stock on a 1-for-1 basis, and 2,823,786 shares of our Class B common stock), representing approximately 73% of the combined voting power of our outstanding capital stock, as of March 19, 2013. Mr. Jonas is able to control matters requiring approval by our stockholders, including the election of all of the directors and the approval of significant corporate matters, including any merger, consolidation or sale of all or substantially all of our assets. As a result, the ability of any of our other stockholders to influence our management is limited.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our headquarters are located at 550 Broad St., Newark, New Jersey. We lease approximately 3,500 square foot space in Newark, New Jersey.

IDT Energy's Jamestown, New York offices are located at 20 West Third Street where we lease approximately 10,000 square feet of space.

AMSO, LLC's operating office is in Rifle, Colorado. AMSO, LLC is supported by AMSO and Genie professionals based in Newark, New Jersey. AMSO, LLC rents approximately 2,450 square feet of office space and 2,000 square feet of warehouse space in Rifle under operating leases with flexible terms and conditions.

IEI operates out of IDT Corporation's offices in Jerusalem and a field office and a warehouse in the city of Beit Shemesh. In addition, IEI built and operates a research laboratory located on the campus of Ben Gurion University in Be'er Sheva.

Item 3. Legal Proceedings.

On August 15, 2010, the Israel Union for Environmental Defense, or the Union, filed a petition with the Supreme Court of Israel against various ministries of the State of Israel and the Jerusalem Regional Committee for Planning and Construction, and naming IEI, as a respondent. The petition sought an order of the Court requiring the respondents to explain the grant of the oil shale exploratory license to IEI and setting aside or cancelling the license. The Union claims that the license was granted without following all requirements imposed by applicable law, particularly regarding environmental impact and compliance with zoning, land use and similar laws and plans. IEI believes that it followed the requirements imposed by the Government of Israel and that it is in compliance with applicable laws and regulatory requirements. On October 29, 2012, the Court denied the petition.

On June 6, 2012, the Union filed another petition with the Supreme Court of Israel, against various ministries of the State of Israel, IEI and other oil and gas exploration companies. The Union sought to cancel the regulations enacted by the Ministry of Energy pursuant to Section 47 of the Israeli Petroleum Law governing the permitting process of oil and gas exploration, and sought to cancel the exploration license granted to IEI. On December 24, 2012, the Supreme Court of Israel rejected the petition.

In addition to the foregoing, we may from time to time be subject to other legal proceedings that arise in the ordinary course of business. Although there can be no assurance in this regard, we do not expect any of those legal proceedings to have a material adverse effect on our results of operations, cash flows or financial condition.

Item 4. Mine Safety Disclosures.

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

PRICE RANGE OF COMMON STOCK

Our Class B common stock trades on the New York Stock Exchange under the symbol "GNE".

The table below sets forth the high and low sales prices for our Class B Common Stock as reported by the NYSE for the fiscal periods indicated which represents the only fiscal periods our Class B Common Stock has been trading on the NYSE.

	High	Low
Fiscal year ended December 31, 2011		
Fourth Quarter	\$10.00	\$6.68
Fiscal year ended December 31, 2012		
First Quarter	\$11.18	\$ 7.87
Second Quarter	\$9.73	\$6.47
Third Quarter	\$7.89	\$6.76
Fourth Quarter	\$7.57	\$5.75

On March 13, 2013, there were 459 holders of record of our Class B common stock and 3 holders of record of our Class A common stock. All shares of Class A common stock are beneficially owned by Howard Jonas. These numbers do not include the number of persons whose shares are in nominee or in "street name" accounts through brokers. On March 20, 2013, the last sales price reported on the New York Stock Exchange for the Class B common stock was \$7.87 per share.

The Series 2012-A Preferred Stock is listed and traded on the NYSE under the symbol "GNEPRA". Trading began on the NYSE on October 24, 2012.

The table below sets forth the high and low sales prices for our Series 2012-A Preferred Stock as reported by the NYSE for the fiscal periods indicated which represents the only fiscal periods our the Series 2012-A Preferred Stock has been trading on the NYSE.

	High	Low
Fiscal year ended December 31, 2012		