

GENIE ENERGY LTD.



2015 ANNUAL REPORT



Fellow Stockholders,

I write this at a time of great challenge, but also one of great opportunity for our company. We have made extraordinary progress over the past year, but must meet the current challenges head on in order to realize Genie Energy's tremendous potential.

Just one year ago, our Afek subsidiary embarked on an ambitious exploratory drilling program in Northern Israel's Golan Heights. Since then, we have come a long way toward our goal of evaluating the resource to support the declaration of an oil and gas discovery under Israel's Petroleum law. Afek has completed five exploratory wells and commenced a well flow test program that will tell us a great deal about the commercial potential of the resource. I am extremely proud of the enormous effort put forth by everyone involved.

Genie Retail Energy, or GRE, which owns our REP businesses, successfully emerged from the devastating impact of the Polar Vortex that hit much of our service area during early 2014. GRE has expanded into the Midwest with the opening of operations in Illinois, navigated the changed marketplace and returned to net meter growth. Today, GRE is executing on its plans for further geographic expansion as well as initiatives to diversify its sources of revenue and growth and improve its competitive position.

But GRE now faces a new challenge. New York's Public Service Commission has proposed a regulatory initiative which would significantly curtail consumer choice throughout New York and restrict the scope of offerings available from retail energy providers which could have an impact on our customer base. We continue to hope and advocate for common sense to prevail, so that the proposal as finally implemented will serve to weed out the few bad actors in the industry while preserving consumers' ability to choose from a wide variety of retail energy options and providers.

As you can see, each of our key business units has tremendous potential that needs focus and effort to realize. We continue to look for ways to turn the potential into reality and maximize stockholder value, balancing short, medium and long term needs and prospects on both sides of our business. These include investing in organic growth, finding new opportunities that can be accretive or strategic to current operations and constantly re-thinking our strategic focus and how our different operations may complement or impact one another. We do not shy away from bold moves when they are in the best interests of our stockholders.

I am energized by the exciting prospects for both of our core businesses, and can't wait to get to work every day. It's always a pleasure to work with Genie's extraordinary and committed management team and stockholders. Thank you for your continued investment.

A handwritten signature in black ink that reads 'Howard A. Jonas'. The signature is written in a cursive, flowing style.

Howard Jonas
Chairman and CEO

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, 2015,
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 or organization)

(I.R.S. Employer
Identification No.)

520 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 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, 2015 (the last business day of the registrant's most recently completed second fiscal quarter) of the Class B common stock of \$10.47 per share, as reported on the New York Stock Exchange, was approximately \$163 million.

As of March 8, 2016, the registrant had outstanding 23,058,559 shares of Class B common stock and 1,574,326 shares of Class A common stock. Excluded from these numbers are 201,017 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 5, 2015, is incorporated by reference into Part III of this Form 10-K to the extent described therein.

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Genie Energy Ltd.

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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.

BUSINESS OVERVIEW

Genie Energy Ltd. is comprised of the following two businesses:

Genie Retail Energy, (GRE), which acts through various subsidiaries, resells electricity and natural gas to residential and small business customers operating primarily in the Mid-Atlantic and Midwestern United States. It also provides brokerage and advisory services to large commercial customers in deregulated markets. Since its inception in 2004, GRE has grown to become one of the nation’s largest independent retail energy providers, which are commonly referred to as “REPs”.

Genie Oil and Gas, Inc., (GOGAS), is an oil and gas exploration company. GOGAS projects include an oil and gas exploration project in Israel operated by its subsidiary, Afek Oil and Gas, Ltd. In 2013, the Government of Israel awarded Afek an exclusive three year petroleum exploration license covering 396.5 square kilometers in the southern portion of the Golan Heights. We are in the process of submitting our work plan for the subsequent exploration phases and once submitted, Israel’s National Infrastructure, Energy and Water Ministry is expected to extend our license. Pursuant to that license, Afek is conducting an exploratory drilling program of up to ten wells throughout its license area, as well as a well flow test program. The results of the exploration program to date are consistent with our original theory and demonstrate the existence of significant hydrocarbon resources, although there are still unknowns that will impact the commercial viability of the resource.

CORPORATE STRUCTURE

Genie Energy Ltd., a Delaware corporation, owns 99.3% of its subsidiary, Genie Energy International Corporation, or GEIC, which owns 100% of GRE, and 92% of GOGAS. GOGAS holds an 86.5% interest in Afek Oil & Gas Ltd., or Afek. In addition, GOGAS has a 98.3% interest in American Shale Oil Corporation, or AMSO, which holds and manages a 41.3% interest in American Shale Oil, L.L.C., or AMSO, LLC, an oil shale development project in Colorado. GOGAS also holds majority interests in two inactive oil and gas projects: an 86.1% interest in Israel Energy Initiatives, Ltd., or IEI, an oil shale development project in Israel, and an 88.4% interest in Genie Mongolia, Inc., an oil shale exploration project in Central Mongolia.

GRE has outstanding deferred stock units granted to directors and employees that represent an interest of 3.9% of the equity of GRE.

REPORTABLE SEGMENTS

We have three reportable business segments: Genie Retail Energy, Afek Oil and Gas, Ltd., 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 in “Note 16—Business Segment Information” in the Notes to our Consolidated Financial Statements in this Annual Report.

GENERAL BUSINESS INFORMATION

Our main offices are located at 520 Broad Street, Newark, New Jersey 07102. Our telephone number 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 (www.genie.com) 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

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 Genie Retail Energy and Genie Oil and Gas in all periods discussed.

In November 2004, IDT Corporation, or IDT, our former corporate parent, launched a retail energy provider business in New York State under the brand name IDT Energy.

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., 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 expenditures as well as certain other funding commitments.

In April 2013, the Government of Israel finalized the award to our subsidiary, Afek, of an exclusive three year petroleum exploration license covering 396.5 square kilometers in the southern portion of the Golan Heights in Northern Israel. The initial term of the license expires in April 2016. Afek is taking the required steps to obtain an extension.

In December 2013, GRE acquired Dallas-based Diversegy, LLC, a retail energy advisory and brokerage company that serves commercial and industrial customers throughout the United States, and Epiq Energy, LLC (now IDT Energy Network, LLC), its network marketing channel.

In April 2014, Israel's Northern District Planning and Building Committee issued a one year exploratory drilling permit to Afek. The permit authorized the company to drill up to ten exploratory wells within its exploratory license area.

In February 2015, Afek began drilling its first exploratory well in Northern Israel's Golan Heights pursuant to its petroleum exploration license.

In October 2015, Afek confirmed the presence of hydrocarbons in its license area based on the data gathered from its exploratory drilling program.

Spin-Off from IDT Corporation

We were formerly a subsidiary of 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.

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. 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.

In subsequent exchange offers concluded in March 2013 and June 2014, we issued an aggregate of 718,108 shares of Series 2012-A Preferred Stock in exchange for an equal number of shares of Class B common stock tendered in the exchange offer.

RECENT DEVELOPMENTS

Afek

In February 2016, Israel's Northern District Planning and Building Committee approved a two-year permit extension for Afek to continue its oil and gas exploratory drilling program. The original one-year permit would have expired in February 2016. Also, in February 2016, Afek initiated a well flow test program within the previously drilled Nes 3 well.

Mongolia

In 2015, GOGAS halted exploration activities in Mongolia and sharpened its strategic focus on the opportunity at Afek. The regulatory environment in Mongolia remains difficult, and the decline in the price of oil has reduced the attractiveness of the opportunity.

IEI

On September 2, 2014, the Jerusalem District Committee for Planning and Building declined to issue IEI a permit to build and operate a pilot drilling project. IEI had an exclusive Shale Oil Exploration and Production License awarded in 2008 by the Israeli Ministry of National Infrastructure that expired in July 2015. IEI continues to evaluate its options to determine the best course of action to move forward to exploit the abundant oil shale resource in Israel. Operations at IEI are currently on hold.

AMSO

On February 23, 2016, Total notified AMSO of its decision not to continue to fund AMSO, LLC. We are currently considering our options with respect to the future of this project. AMSO and Total are obligated to fund certain remediation and reclamation costs.

Dividends

We pay a quarterly dividend on both of our common and preferred stock. The aggregate dividends paid in the year ended December 31, 2015 on our Class A and Class B common stock (the "Common Stock") was \$3 million, as follows:

- On March 31, 2015, we paid a quarterly Base Dividend of \$0.06 per share on our Common Stock for the fourth quarter of 2014 to stockholders of record at the close of business on March 23, 2015.
- On May 22, 2015, we paid a quarterly Base Dividend of \$0.06 per share on our Common Stock for the first quarter of 2015 to stockholders of record at the close of business on May 15, 2015.

On August 6, 2015, the Company announced that its Board of Directors had suspended dividends on the Company's common stock for the current time. However, on January 22, 2016, the Company announced that its Board of Directors approved resuming the quarterly dividend on our Common Stock, and on February 12, 2016, we paid a quarterly Dividend of \$0.06 per share to stockholders of record as of the close of business on February 5, 2016.

The aggregate dividends paid in the year ended December 31, 2015 on our Preferred Stock was \$1.5 million, as follows:

- On February 15, 2015, we paid a quarterly Base Dividend of \$0.1594 per share on our Preferred Stock for the fourth quarter of 2014 to stockholders of record at the close of business on February 5, 2015 of our Preferred Stock.
- On May 15, 2015, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the first a quarter of 2015 to stockholders of record at the close of business on May 6, 2015 of our Preferred Stock.
- On August 14, 2015, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the second quarter of 2015 to stockholders of record at the close of business on August 6, 2015 of our Preferred Stock.

- On November 16, 2015, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the third quarter of 2015 to stockholders of record as of the close of business on November 4, 2015.

On February 16, 2016, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the fourth quarter of 2015 to stockholders of record at the close of business on February 5, 2016, in the aggregate amount of \$0.4 million.

Genie Retail Energy

In November 2004, IDT launched a retail energy provider business in New York State, which has grown its geographic footprint and customer base significantly while diversifying its service offerings. Today, GRE operates two active REP businesses which resell natural gas and electricity to residential and small business customers. IDT Energy operates in eight utility markets in New York, six utility territories in New Jersey, eight utility territories in Pennsylvania, four utility territories in Maryland and one utility territory in each of Washington, D.C. and Illinois. Residents Energy operates in eight utility markets in New York, seven utility markets in Pennsylvania and five utility markets in New Jersey.

As discussed more fully below, on February 23, 2016, the New York Public Service Commission (PSC) issued an order that sought to impose significant new restrictions on REPs operating in New York, including GRE. Depending on the final language of the order and the outcome of legal appeals, as well as our final response to the order with respect to our relationships with our New York customers, the order will likely have a substantial impact upon GRE's operations in New York. As of December 31, 2015, New York represented 53% of GRE's total meters served and 44% of the total residential customer equivalents, or RCEs, of GRE's customer base.

GRE REPs have applications pending to enter into additional utility service areas, primarily natural gas and dual meter territories, in Pennsylvania, Maryland, Washington, D.C. and Illinois. We continue to evaluate additional, deregulation-driven opportunities in other states.

GRE's REP businesses, particularly sales of natural gas, are seasonal businesses. Approximately 64% and 59% of our natural gas revenues in the years ended December 31, 2015 and December 31, 2014, respectively were generated during the first quarter, when the demand for heating was highest. Although the demand for electricity is not as seasonal as natural gas, approximately 30% and 20% of total revenues from electricity sales were generated in the third quarter of 2015 and 2014, respectively.

GRE's revenues represent 100% of our total consolidated revenues since our inception. In the year ended December 31, 2015, GRE generated revenues of \$210 million comprised of \$167 million from sales of electricity, \$41 million from sales of natural gas, and other revenue of \$2 million, as compared with revenues of \$275 million in the year ended December 31, 2014 comprised of \$214 million from the sales of electricity, \$58 million from the sales of natural gas and other revenue of \$3 million. Electricity sales have become a more significant portion of GRE's business in recent years. In addition, in the year ended December 31, 2015, GRE had income from operations of \$13 million, as compared to income from operations of \$4 million in the year ended December 31, 2014.

The weather has a significant impact on GRE's operations. For example, unusually sustained cold weather in the first quarter of 2014 drove increased demand. Coupled with short reserves of natural gas in the wholesale markets and delivery constrictions beyond our control, this caused a significant increase in revenues and direct cost of revenues in the first quarter of 2014. In addition, many electricity generation plants are in fact natural gas fired. The winter's "polar vortex" resulted in extraordinarily large spikes in the prices of wholesale electricity and natural gas in markets where GRE's REPs and other retail providers purchase their supply.

Because of the resulting dramatic increases in wholesale electricity costs, the retail electricity prices that GRE's REPs and many other variable rate electricity suppliers charged to their customers also increased sharply. These retail electricity price increases resulted in large numbers of complaints, regulatory actions, and calls for legislation, regulation and litigation. GRE's subsidiary, IDT Energy, also paid approximately \$5 million in rebates to affected customers in the year ended December 31, 2014. These events adversely affected GRE's REPs customer churn, gross margins and results of operations.

As discussed more fully below in Item 3 "Legal Proceedings" in this Annual Report, IDT Energy reached an agreement in principle on a settlement with the Pennsylvania Attorney General's Office and the Acting Consumer Advocate terminating litigation with no admission of liability or finding of wrongdoing by IDT Energy.

The settlement must be approved by the Pennsylvania Public Utility Commission, which is expected in the second quarter of 2016.

In December 2013, GRE acquired Dallas-based Diversegy, LLC, or Diversegy, a retail energy advisory and brokerage company that serves commercial and industrial customers, and its network marketing channel, Epiq Energy, LLC, or Epiq, since renamed IDT Energy Network, or IDTEN. Diversegy connects large commercial and industrial customers with its portfolio of competitive energy products provided by some of the industry's leading energy suppliers. Diversegy evaluates alternative supply sources based on its customers' usage patterns and risk profiles in order to provide options that benefit their bottom lines. IDTEN provides independent representatives with the opportunity to build sales organizations and to profit from both residential and commercial energy. IDTEN offers its direct marketing representatives the opportunity to earn commissions on energy supply based on the consumption of the customers they bring into the program.

During 2015, we worked to integrate Diversegy and IDTEN into our existing operations and platform. We restructured both organizations so that they are both based in our Newark headquarters. Neither company contributed materially to revenues in 2015, but we expect that Diversegy will contribute positive net income and that IDTEN will contribute to meter growth in 2016.

Industry Overview

GRE operates retail energy providers that operate in states with deregulated retail energy markets. Like other REPs, GRE's REPs purchase electricity and natural gas on the wholesale markets and resell the commodities to its customers, primarily homeowners, renters and small businesses. The incumbent local utilities continue to handle electricity and natural gas distribution, billing, and collections. A portion of the proceeds billed to GRE's REPs customers for the commodity supply is remitted to the REPs.

GRE has no significant fixed assets and low levels of capital expenditure. Its direct cost of revenues is incurred to purchase electricity and natural gas in their respective wholesale markets. Selling, general and administrative expenses are primarily related to customer acquisition, customer retention, billing and purchase of receivables fees paid to the utilities, and program management.

Customers; Marketing

The services of GRE's REPs, IDT Energy and Residents Energy, are made available to customers under several categories of terms and conditions. The large majority of our current customer base is enrolled in variable rate programs, the only programs GRE's REPs offered until 2014, via automatically renewing or month-to-month agreements, which enable us to recover our wholesale costs for electricity and natural gas through adjustments to the rates charged to our customers. The frequency and degree of these rate adjustments are determined by GRE, and are not restricted by regulation.

Variable rate energy supply programs are available to all customers in all states served by GRE's REPs. Likewise, Renewable (Green) energy supply options exist in all markets served by GRE's REPs. Renewable (Green) Electricity supply is 100% matched with renewable energy certificates that reflect the generation of electricity from sources like running water, wind, solar and biomass.

For our variable rate product, the amount we charge to our customers changes with our costs for the underlying commodity. During times of rising costs, the number of complaints made to our call center or to the state regulators may increase. We proactively seek to address customer concerns through rebates and incentives, as well as by providing accurate information and through communications with regulators.

In 2014, we began offering fixed electric rates in select utility territories with rates guaranteed for up to one year. These offerings represent a small but growing portion of our business. GRE's REPs fixed-rate offerings are currently available in seven utility service areas in Pennsylvania, three in New York, three in New Jersey, one in Maryland and one in Illinois.

While GRE's REPs variable rates are not regulated, they, like all GRE's REP programs, are governed by their terms and conditions, which are accepted by all customers. GRE's REPs are required to comply with various reporting requirements in order to maintain eligibility to operate as a REP. Certain jurisdictions require GRE's REPs to

publish its customer offers with the applicable regulatory commission, or in the public domain, generally a website established for such purpose.

The electricity and natural gas we sell are metered and delivered to customers by the local utilities. Consequently, we do not have a maintenance or service staff for customer locations. The utilities also provide billing and collection services for the majority of our customers. For a small number of direct bill customers, we perform our own billing and collection. Additionally, GRE's REPs' receivables are generally purchased by the utilities in whose areas we operate for a percentage of their face value (as of December 31, 2015, approximately 2.0%) in exchange for the utility receiving a first priority lien in the customer receivable without recourse against the REP.

GRE's REP businesses market their energy services primarily through direct marketing methods, including door-to-door sales, outbound telemarketing, network marketing through IDTEN, direct mail and internet signup. As of December 31, 2015, GRE's REPs serviced 392,000 meters (264,000 electric and 128,000 natural gas), as compared to 363,000 meters (234,000 electric and 129,000 natural gas) as of December 31, 2014.

GRE'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 for billing the individual customer and the subsequent collection 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 allows GRE to reflect a true market cost base and adjust its rates to its variable rate customers taking into account its competitors who change their commodity prices at longer intervals.

Utilities in New York, Pennsylvania, Illinois, Washington, D.C. and Maryland offer POR programs, without recourse, that permit customers with past-due balances to remain in the POR and consolidated bill programs. However, utilities in New Jersey generally do not permit customers with past-due balances beyond 120 days to enroll or remain in their POR programs, which means that after a certain amount of time (determined based on the specific commodity), the REP becomes responsible for the billing and collection of the commodity portion of the future invoices for its delinquent customers.

We also regularly monitor other deregulated or deregulating markets to determine if they are appropriate for entry, and may initiate the licensing process in a selected region to facilitate entry into the region contingent upon favorable deregulatory developments.

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. The agreement allows for purchases of electricity and natural gas for customers focused in areas where the utilities have POR programs. 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. The agreement with BP has been amended to cover the territories in which we operate. The agreement was modified and extended on November 19, 2015, and is scheduled to terminate on November 30, 2019. 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.

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

As an owner of REPs, GRE does not own electrical power generation, transmission, or distribution facilities, or natural gas production, pipeline or distribution facilities. GRE's REPs currently contract 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, Maryland and Illinois) and the District of Columbia.

For risk management purposes, GRE REPs utilize forward physical delivery contracts for a portion of their purchases of electricity and natural gas, which are defined as commodity derivative contracts. In addition, GRE's REPs enter 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 GRE REPs operate. Similarly, load balancing is performed by the utilities or local distribution company, or LDC, for each of the natural gas markets in which GRE operates. Load balancing ensures that the amount of electricity and natural gas that GRE purchases is equal to the amount necessary to service its customers' demands at any specific point in time. GRE is charged or credited for balancing the electricity and natural gas purchased and sold for its account by its suppliers and the LDCs. GRE 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.

Diversegy and IDT Energy Network (IDTEN)

Diversegy, which we acquired in December 2013, operates as an energy broker and advisor to industrial, commercial and municipal customers across deregulated energy markets in the United States. Customers of all types and size have the ability to leverage Diversegy's expertise and purchasing power as they evaluate their electricity and natural gas procurement plans. Diversegy allows us to enter more markets around the country as we are not limited to only the markets we operate as a REP, and we are not responsible for assuming the risk associated with procuring and managing the commodity.

IDTEN (formerly Epiq Energy, LLC), which we also acquired in December 2013, has built and operates a network marketing platform that sells GRE's REPs' and Diversegy's services. IDTEN offers an innovative direct sales opportunity to individuals who are seeking to profit from the deregulation of energy in the United States, focusing on residential and small to medium-sized businesses. IDTEN's sales channel has the potential to reach customers our traditional sales channels of door-door marketing and outbound telemarketing has difficulty in reaching. During 2015, IDTEN recruited active independent representatives in states where GRE operates REPs.

Competition

As an operator of REPs, GRE competes with the local utility companies in each of the markets where it provides services and with many other licensed REPs. In some markets, competitor REPs are affiliated with local utilities. GRE also competes with several large vertically integrated energy companies. Some of these competitors are larger and better capitalized than GRE. Competition with the utilities and REPs exposes GRE to customer churn, especially since GRE's residential customers generally do not sign long-term contracts.

REPs and utilities offering fixed rate products or guaranteed pricing often are unable to change their sell rates offered to customers in response to volatility in the prices of the underlying commodities. In times of high commodity prices, REPs like GRE's REPs that offer variable rate products, and reflect real-time commodity costs, may offer variable rates prices which are not competitive with fixed rate providers. Conversely, in a downward moving commodity cost environment, variable rate REPs like GRE's REPs may benefit from the lag that utilities experience in reducing their sell rate to reflect the lower cost base in the commodity markets, and may reflect commodity costs decreases in their offerings and rates.

In the latter part of 2014, GRE began offering a fixed rate plan for up to one year to electric customers in Pennsylvania, New Jersey and Illinois. This was expanded into New York and Maryland in 2015 and represents approximately 16% of the electric customer base.

Increasing our market share depends in part on our ability to persuade more customers to switch to GRE's services than those that churn from us to other providers. Moreover, local utilities and some REPs may have certain advantages such as name recognition, financial strength and long-standing relationships with customers. Persuading potential customers to switch to GRE requires significant marketing and sales operations. If GRE is not successful in convincing customers to switch, our REP businesses, results of operations and financial condition will all be adversely affected.

Regulation

As of December 31, 2015, GRE's REPs operate in eight utility territories in New York, six utility territories in New Jersey, eight utility territories in Pennsylvania, four utility territories in Maryland, one in Washington D.C. and one in Illinois. IDT Energy recently received regulatory approvals to enter nine new utility territories in Pennsylvania and one new territory covering Maryland and Washington D.C. Residents Energy recently received regulatory approval from the Public Utility Commission of Ohio to sell electricity and gas in the state of Ohio and from the Illinois Commerce Commission to sell electricity in the State of Illinois. The State of New York, the Commonwealth of Pennsylvania, the State of New Jersey, the State of Maryland, the State of Illinois, the District of Columbia, the State of Ohio, the federal government, and related public service/utility commissions, among others, establish the rules and regulations for our REP operations.

Like all operators of REPs, GRE is affected by the actions of governmental agencies, mostly on the state level, by the respective state Public Service/Utility 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. GRE's REPs may be subject to new laws, orders or regulations or the revision or interpretation of existing laws, orders or regulations.

If GRE's REPs enter territories outside of the utility regions within which they currently operate in New York, New Jersey, Pennsylvania, Maryland, Illinois and Washington D.C., or territories outside of these states, they would need to be licensed and would be subject to the rules and regulations of such states or municipalities and respective utilities.

As of December 31, 2015, Diversegy was licensed to serve as a broker of electricity in New Jersey, Pennsylvania, Maryland, the District of Columbia, Illinois, Ohio, Rhode Island, New Hampshire, Massachusetts and Delaware, and as a gas broker in New Jersey, Maryland, Ohio, Rhode Island and New Hampshire. IDTEN was licensed as an electricity broker in New Jersey, Illinois, Ohio, the District of Columbia, Maryland and Pennsylvania, and as a gas broker in New Jersey, Ohio, Maryland, Pennsylvania, New Hampshire and the District of Columbia. Both Diversegy and IDTEN serve as brokers in other states that do not require licenses.

Employees

As of March 1, 2016, GRE employed 145 full time employees, 68 of whom are located in the Jamestown, New York office, of which approximately 85% are affiliated with our customer care center, 46 of whom are located in our New Jersey office and 31 of whom are located in the Florida and New York offices performing customer acquisition and support.

Genie Oil and Gas, Inc.

Genie Oil and Gas (GOGAS) is an oil and gas exploration company. GOGAS currently holds our interests in four development projects, two of which are currently inactive and another of which does not currently have a funding source for continued operations: (1) an 86.5% interest in Afek, which operates an exploration project in the southern portion of the Golan Heights in Northern Israel (2) an 88.4% interest in Genie Mongolia, Inc., an inactive oil shale exploration project in Central Mongolia, (3) a 98.3% interest in AMSO, which holds and manages a 41.3% interest in AMSO, LLC, an oil shale development project in Colorado, that is a joint venture with Total, S.A., and (4) an 86.1% interest in IEI, an inactive oil shale development project in Israel's Shfela Basin.

The Genie Mongolia, AMSO, LLC and IEI projects are early stage oil shale projects. 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 we 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 may offer significant economic advantages.

Afek Oil and Gas Ltd.

In April 2013, the Government of Israel finalized the award to Afek of an exclusive three year petroleum exploration license covering 396.5 square kilometers in the southern portion of the Golan Heights. Afek is in the process of submitting its work plan for the subsequent exploration phases and is taking the required steps to seek extension of the license, which is currently scheduled to expire in April 2016. Afek has retained oil and gas exploration professionals and has contracted with internationally recognized vendors to provide the services required for its exploration program. In 2013, Afek completed preliminary geophysical work including electromagnetic surveys and the reprocessing of the 2D seismic data to characterize the subsurface prior to drilling exploration wells. Afek subsequently conducted initial analysis of the acquired data internally and with outside exploration experts.

In early 2014, Afek submitted a permit application to the Northern District Planning and Building Committee to conduct an exploration drilling program to further characterize the resource in its license area. In July, the Northern District Planning and Building Committee voted to approve an up to ten-well exploratory drilling program, and subsequently issued the requisite permits.

In October, 2014, the High Court of Justice in Israel issued an interim order to halt Afek's drilling program until it could rule on a petition filed by the Israel Union for Environmental Defense and some local residents challenging the issuance of the drilling permit. In December 2014, the Court ruled against the petitioners, and lifted its interim order.

In February 2015, Afek began drilling its first exploratory well in Northern Israel's Golan Heights. To date, Afek has completed drilling five wells. In addition, the initial phase of the flow test program is underway which will test multiple target zones within one, or more, of the completed wells. The results of the exploration program to date are consistent with our original theory and demonstrate the existence of significant hydrocarbons in the basin, although there are still unknowns that will impact the commercial viability of the resource. The next step is to execute and analyze the results of flow tests and other data to determine the nature of the hydrocarbons and the potential production methodology and associated costs of potential commercial development. We remain excited about the potential for this project and look forward to gathering more information to determine next steps and the future path. The volume of the resources and to what extent they may be extractable cannot yet be determined. The resources do not constitute proved, probable or possible reserves.

On February 1, 2016, Israel's Northern District Planning and Building Committee approved a two-year permit extension for Afek to continue to conduct its up to ten-well oil and gas exploration program. The original permit was for a one-year period, which commenced in February 2015. This extension is expected to cover the remainder of Afek's ongoing exploratory program in the area covered by its exploratory license issued by Israel's National Infrastructure, Energy and Water Ministry.

Afek incurred exploration expenses of \$6.6 million, \$7.0 million and \$4.0 million in the years ended December 31, 2015, 2014 and 2013, respectively.

Genie Mongolia

In April 2013, Genie Mongolia and the Petroleum Authority of Mongolia entered into an exclusive oil shale development agreement to explore and evaluate the commercial potential of oil shale resources in a 34,470 square kilometer area in Central Mongolia. The five year agreement allows Genie Mongolia to explore, identify and characterize the oil shale resource in the exclusive survey area and to conduct a pilot test using in-situ technology on appropriate oil shale deposits. In September 2014, Genie Mongolia signed a prospecting agreement with the Petroleum Authority of Mongolia covering an additional 25,000 square kilometers in Central Mongolia. In light of the progress achieved by Afek in Northern Israel, we suspended our operations in Mongolia.

Genie Mongolia maintains the rights to the acreage it has acquired, however, it has reduced its operating expenses and is looking to divest its assets in Mongolia.

Genie Mongolia incurred research and development expenses of \$1.7 million, \$2.7 million and \$3.4 million in the years ended December 31, 2015, 2014 and 2013, respectively.

American Shale Oil Corporation

The U.S. Bureau of Land Management, or BLM, effective January 1, 2007, issued to EGL Resources 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. (or EGL). In April 2008, EGL was acquired by AMSO and IDT (and subsequently renamed AMSO, LLC) in exchange for cash of \$5.5 million, certain commitments for future funding of AMSO, LLC's operations and a 1% override on AMSO, LLC's future revenue. 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. As a result of dilution resulting from Total funding certain capital calls for AMSO, AMSO currently holds a 41.3% interest in AMSO, LLC.

According to reports from the United States Geological Service, or USGS, oil shale resources in the United States are estimated at over 4 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, which spans parts of Colorado, Utah and Wyoming, the Piceance Basin of Colorado, and the Uinta Basin of Utah and Colorado. Colorado's Piceance Basin, where AMSO, LLC's RD&D Lease is located, contains some of the richest oil shale resources in the world (as reported by the Department of Energy and USGS sources).

AMSO, LLC's RD&D Lease covers an area of 160 acres. The RD&D Lease had an initial ten-year term beginning on January 1, 2007 and provides for a five-year extension if AMSO, LLC can demonstrate that a process leading to the production of commercial quantities of shale oil is diligently being pursued. In November 2015, AMSO, LLC satisfied the extension criteria, and the RD&D Lease was extended effective on January 1, 2017. 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 plan is to target the mining interval where the illite-rich oil shale is located.

AMSO, LLC is utilizing a team of experienced experts in various fields to conduct research, development and demonstration activities. AMSO, LLC constructed surface oil and gas processing facilities and drilled 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. After modifications were made, in March 2013 AMSO, LLC initiated start-up of the oil shale pilot test. After approximately two weeks of operation, the down-hole electric heater failed. Pilot operations were too short to allow conclusions to be drawn about the ultimate viability of AMSO, LLC's technical approach. AMSO, LLC subsequently decided not to attempt to re-engineer the current downhole electrical heating system. Instead, it initiated a comprehensive review of alternative heating system solutions. From 2013 through 2015, AMSO, LLC continued its review of alternative heating system solutions.

AMSO, LLC incurred \$4.8 million, \$7.8 million and \$8.6 million for research and development in the years ended December 31, 2015, 2014 and 2013, respectively.

On February 23, 2016, Total notified AMSO of its decision not to continue to fund AMSO, LLC. We are currently considering our options with respect to the future of this project. AMSO and Total are obligated to fund certain remediation and reclamation costs.

Israel Energy Initiatives, Ltd.

IEI had an exclusive Shale Oil Exploration and Production License awarded in July 2008 by the Government of Israel. The license covered approximately 238 square kilometers in the south of the Shfela region in central Israel. Under the terms of the license, IEI was to conduct a geological appraisal study across the license area, characterize the resource and select a location for a pilot plant. The initial term of the license was for three years until July 2011. The license was extended until July 2015 when it expired.

IEI began its resource appraisal study in 2009, and completed the field work included in its study in 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, laboratory analyses of samples and other laboratory experiments. The results from the appraisal process, both from field tests and laboratory experiments, confirmed IEI's expectations as to the attractiveness of the oil shale resource in the license area from the standpoint of richness, thickness and hydrology.

In June 2013, IEI submitted its application for the construction and operation of its oil shale pilot test facility to the Jerusalem District Building and Planning Committee. IEI was asked to provide supplements to the environmental impact assessment and a revised application was submitted in November, 2013. In September 2014, the Jerusalem District Building and Planning Committee voted against issuing the pilot plant building and construction permits.

IEI is evaluating whether and how to exploit the abundant oil shale resource in Israel in light of the Committee's decision. Operations at IEI are currently suspended.

IEI incurred \$0.2 million, \$2.6 million and \$3.7 million for research and development in the years ended December 31, 2015, 2014 and 2013, respectively.

Financing

We are considering sales of equity interests in Afek or GOGAS to provide the necessary financing for their activities.

Competition

If GOGAS is successful in 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 (including as to price, availability, refining capacity and other factors).

Regulation

The RD&D Lease held by AMSO, LLC covers an area of 160 acres. The RD&D Lease had an initial ten-year term beginning on January 1, 2007 and provides for a five-year extension if AMSO, LLC can demonstrate that a process leading to the production of commercial quantities of shale oil is diligently being pursued. In November 2015, AMSO, LLC satisfied the extension criteria, and the RD&D Lease was extended effective on January 1, 2017. 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.

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.

Afek holds an exclusive exploration license in Northern Israel's Golan Heights, granted by Israel's National Infrastructure, Energy and Water Ministry. Its up to ten-well exploratory drilling program was approved by the Northern District Planning and Building Committee. The original oil and gas exploration license term expires in April 2016, and Afek is required to file an application to extend the term with the Ministry of Infrastructure, Energy and Water. We believe the extension will be granted. In February 2015, Afek began drilling its first exploratory well. Contingent upon the results of its exploration program, Afek may seek to declare a commercial discovery and apply for a commercial production lease pursuant to Israeli law. 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. On February 1, 2016, Israel's Northern District Planning and Building Committee approved a two-year permit extension for Afek to continue to conduct its up to ten-well oil and gas exploration program. The original permit was for a one-year period, which commenced in February 2015. This extension is expected to cover the remainder of Afek's ongoing exploratory program in the area covered by its exploratory license issued by Israel's National Infrastructure, Energy and Water Ministry.

IEI had an exclusive Shale Oil Exploration and Production License that was extended until July 2015 when it expired. Operations at IEI are currently on hold as IEI evaluates whether and how to exploit the abundant oil shale resource in Israel.

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 us 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, some patents are registered in the name of AMSO, LLC and some patents are registered in the name of Genie IP BV, a Dutch subsidiary of our. AMSO, LLC owns five patents issued in the United States, eighteen patents issued abroad, four 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; patent No. 8,464,792 (US), which expires July 27, 2031; patent No. 8,899,331 (US), granted jointly to AMSO, LLC and LLNS, which expires December 29, 2030; 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; patent No. 606 (Madagascar), granted on April 18, 2014, which expires April 27, 2031; patent registration No. 3590 (Mongolia), granted on April 13, 2012, which expires April 22, 2031; patent No. 32765 (Morocco), granted on November 1, 2011, which expires November 2, 2029; patent registration

No. 2,741,861 (Canada), granted on August 27, 2013, which expires November 2, 2029; patent registration No. 2,738,920 (Canada), granted jointly to AMSO, LLC and LLNS, which expires September 30, 2029; and patent registration No. CN 102209835 (China), granted on April 16, 2014, which expires November 1, 2029; patent No. 3895 (Mongolia), granted January 28, 2015, which expires March 29, 2031; patent No. 222732 (Israel), granted December 25, 2015, which expires March 29, 2031; Patent No. ZL201180031952.4 (China), granted on January 6, 2016, which expires March 30, 2031; Patent No. 212486 (Israel), granted March 1, 2015, which expires Nov. 2, 2029; Patent No. 216332 (Israel), granted April 1, 2015, which expires May 13, 2030; Patent No. 4102/EXT/2012 (DR Congo), granted June 17, 2014, which expires April 26, 2032; Patent No. 34256 (Morocco), granted May 2, 2013, which expires March 30, 2031; Patent No. 34231 (Morocco), granted May 2, 2013, which expires April 27, 2031; and patent No. 9,127,541 (US), which expires November 2, 2029.

Genie IP B.V. owns Mongolian utility models 2050, 2052, 2053, 2054, 2055, and 2067 which all expire on January 23, 2019. The patents and utility models 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.

Genie IP B.V. has seven published international Patent Cooperation Treaty (PCT) applications, three published Israeli patent applications and additional unpublished patent applications. Some of these patent applications relate to methods and apparatus for oil extraction from shale, some of these patent applications relate to downstream processing of oil extracted from shale, and some of these patent applications relate to techniques for locating and extracting unconventional naturally-occurring oil from a tight formation.

Employees

GOGAS, excluding AMSO, employs 53 employees, while AMSO (including AMSO, LLC) employs 18 full-time employees, including a secondee assigned by Total. AMSO, IEI and Afek 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.

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 Genie Retail Energy

The REP business is highly competitive, and we may be forced to cut prices or incur additional costs.

GRE's REP businesses face 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. Additionally, our experience has shown that utilities don't change their sell rates offered to customers immediately in response to increased prices for the underlying commodities. There is a time lag before utilities increase prices to reflect their increased costs and market prices for commodities.

REPs like IDT Energy that offer variable rate products, and reflect real-time commodity costs, may offer variable rates prices which are not competitive with other fixed rate providers.

Conversely, in a downward moving commodity cost environment, variable rate REPs like IDT Energy may benefit from the lag that utilities experience in reducing their sell rate to reflect the lower cost base in the commodity markets, and may reflect commodity costs decreases in their offerings and rates.

Increasing our market share depends in part on our ability to persuade more customers to switch to GRE's services than those that churn from us to other providers or back to the local utility. Moreover, local utilities and some REPs may have certain advantages such as name recognition, financial strength and long-standing relationships with customers. Persuading potential customers to switch to GRE's REPs requires significant marketing and sales operations. If GRE is not successful in convincing customers to switch, our REP businesses, results of operations and financial condition will all be adversely affected.

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 GRE 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.

On February 23, 2016, the New York PSC issued an order that sought to impose significant new restrictions on REPs operating in New York, including GRE. The restrictions described in the PSC's order, which were to become effective March 4, 2016, would require that all REPs' electricity and natural gas offerings to residential and small business customers include an annual guarantee of savings compared to the price charged by the relevant incumbent utility or, for electricity offerings, provide at least 30% of the supply from renewable sources. Customers not enrolled in a compliant program would be relinquished back to the local utility at the end of their contract period or, for variable price customers operating on month to month agreements, at the end of the current monthly billing cycle.

On March 4, 2016, a group of parties from the REP industry sought and won a temporary restraining order to stay implementation of the most restrictive portions of the PSC's order until a court hearing on April 14, 2016. GRE expects that the REP industry will take additional legal action in response to the order seeking a definitive judicial review of the industry's challenges to the PSC's order.

We are evaluating the potential impact of the PSC's order on our New York operations, while preparing to operate in compliance with any new requirements. Depending on the final language of the order and the outcome of legal appeals, as well as our final response to the order with respect to our relationships with our New York customers, the order will likely have a substantial impact upon GRE's operations in New York. As of December 31, 2015, New York represented 53% of GRE's total meters served and 44% of the total RCEs of GRE's customer base.

In connection with the events described in the Risk Factor below entitled "*Unusual weather conditions may have significant direct and indirect impacts on GRE's business and results of operations*", IDT Energy responded to formal and informal information requests from state utility commissions, state attorneys general, and state legislators related to the wholesale and retail electricity price increases in the winter of 2014. In addition, the Pennsylvania Attorney General's Office and the Acting Consumer Advocate filed a Joint Complaint against IDT Energy with the Pennsylvania Public Utility Commission in connection with such events. Legislators and regulators may enact or modify laws or regulation to prevent the repetition of the price spikes discussed below or address customer complaints that have come to light in connection with those events. Potential regulatory and/or legislative 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.

Fixed Rate Products or Guaranteed Pricing Programs could result in losses or decreased profits if GRE fails to estimate commodity prices accurately.

REPs and utilities offering fixed rate products or guaranteed pricing often are unable to change their sell rates offered to customers in response to volatility in the prices of the underlying commodities. In times of high commodity prices, these fixed rate programs expose us to the risk that we will incur significant unforeseen costs in performing the contracts.

However, it is difficult to predict future commodity costs. Any shortfalls resulting from the risks associated with fixed-price programs will reduce our working capital and profitability. Our inability to accurately estimate the cost of providing services under these programs could have an adverse effect on our profitability and cash flows.

GRE'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 GRE's REP businesses 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 GRE's REP businesses, 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. A failure to identify, become licensed in, and enter new territories may have a material negative impact on our growth, financial condition and results of operations.

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

Competitors in the highly competitive REP market have engaged in unfair business practices to sign up new customers. Competitors engaging in unfair business practices create an unfavorable impression about our industry on consumers, 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. Further, such practices can lead to regulatory action, such as the recent New York PSC Order, that can negatively impact us and the industry.

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.

Unusual weather conditions may have significant direct and indirect impacts on GRE's business and results of operations.

A confluence of issues in January and February 2014 associated with the 2013-2014 winter season's polar vortex resulted in extraordinarily large spikes in the prices of wholesale electricity and natural gas in markets where GRE and other retail providers purchase their supply. In some regions, wholesale prices increased briefly by factors of more than eight times. Because of dramatic increases in wholesale electricity costs, the retail electricity prices that GRE's REPs and many other variable rate electricity suppliers charged to their customers increased sharply in January and February 2014. The unusually cold weather and resultant high energy costs also adversely affected GRE's customer churn and customer acquisition efforts. GRE responded by reducing its target margins in order to mitigate the severity of the commodity price increases on its customers and issued rebates to hard hit customers.

Repeats of the circumstances described above or similar circumstances could similarly harm margins and profitability in the future, and we could find it necessary to take similar or other actions that would have a negative impact on our financial condition and results of operations.

Because our variable pricing plan resulted in increased prices charged to customers, we experienced an increase in customer churn as utilities and fixed price REPs appeared to have more attractive pricing, although those increased churn levels have peaked. A failure to mitigate an increase in churn could result in decreases in meters served and revenues.

GRE has a twelve-month guaranteed rate residential offering in some utility territories, and a new brand, Residents Energy, to focus on marketing and sales of guaranteed rate offerings. We will face greater commodity risk from guaranteed rate offerings, some of which we may not be able to effectively hedge.

The retail electricity price increases discussed above resulted in large numbers of customers filing informal and formal complaints to state utility commissions, state attorneys general and state legislators. IDT Energy was served with several thousand formal and informal customer complaints to state utility commission and state attorneys general related to the winter retail price increases. IDT Energy has responded to each customer complaint it has received and attempted to resolve each complaining customer's concerns. GRE's REPs also paid approximately \$5 million in rebates to affected customers in the year ended December 31, 2014. IDT Energy was not under any obligation to provide such rebates and did so in order to mitigate the impact of the price increases on its customers notwithstanding that the underlying cause of the price increase was beyond GRE's control.

If certain REPs, however, are determined to have acted in a manner that was harmful to customers, the entire industry can suffer due to the reputational harm.

GRE is subject to litigation that may limit its operations.

In connection with the events described in the Risk Factor above entitled "Unusual weather conditions may have significant direct and indirect impacts on GRE's business and results of operations", IDT Energy has also been sued in separate putative class action suits in New York, New Jersey and Pennsylvania, partially related to the price increases during the winter of 2014. These matters are more fully discussed below in Item 3 "Legal Proceedings" in this Annual Report.

IDT Energy does not believe that it was at fault or acted in any way improperly with respect to the events of winter 2014. However, we cannot predict the outcome of putative class action litigation or the impact on us of these or other actions, or whether there will be other impacts from the conditions that existed in winter 2014. Further, although we have taken action to insulate us and our customers from future similar events, we cannot assure that those actions will be effective and we will not be subject to class actions in the future.

Such class action lawsuits or other claims against us could have a material adverse impact on our financial condition, competitive position or results of operations.

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 direct 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 GRE sells to its customers. In our fixed or guaranteed price products, we cannot, and in our variable price products, due to customer or competitive factors, we may not always be able or choose to, pass along increases in costs to our customers. This would have an adverse impact on our margins and results of operations. Alternatively, volatility in pricing for GRE's electricity and natural gas related to the cost of the underlying commodities can lead to increased customer churn. In times of high commodity costs, our variable pricing model and commodity purchasing approach can lead to competitive disadvantages as we must pass along all or some portion of our increased costs to our customers.

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. GRE has a Preferred Supplier Agreement with BP pursuant to which we purchase electricity and natural gas at market rate plus a fee. The agreement was modified and extended on November 19, 2015, and is scheduled to terminate on November 30, 2019. In addition to other advantages of this agreement, we are only required to post security with 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 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 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 GRE’s REP businesses are 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.

GRE’s REP businesses require 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 GRE in particular or any increase in customer complaints regarding GRE’s REP businesses 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. In the aftermath of the polar vortex, several regulatory bodies adopted more aggressive policies toward REPs, including the action against IDT Energy in Pennsylvania described elsewhere in this Annual Report. 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 whom 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.

Our growth strategy depends, in part, on our acquiring complementary businesses and assets and expanding our existing operations, which we may be unable to do.

Our growth strategy is based, in part, on our ability to acquire businesses and assets that are complementary to our existing operations. We may also seek to acquire other businesses. The success of this acquisition strategy will depend, in part, on our ability to accomplish the following:

- identify suitable businesses or assets to buy;
- complete the purchase of those businesses on terms acceptable to us;
- complete the acquisition in the time frame we expect;
- improve the results of operations of the businesses that we buy and successfully integrate their operations into our own; and
- avoid or overcome any concerns expressed by regulators, including antitrust concerns.

There can be no assurance that we will be successful in pursuing any or all of these steps. Our failure to implement our acquisition strategy could have an adverse effect on other aspects of our business strategy and our business in general. We may not be able to find appropriate acquisition candidates, acquire those candidates that we find or integrate acquired businesses effectively or profitably.

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 our 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, Genie Mongolia and IEI may not be able to develop environmentally acceptable and economically viable technology in connection therewith.

Certain of our projects are 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 non-local 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.

On February 25, 2016, Total informed AMSO of its decision not to continue funding AMSO, LLC. As a result, 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 Harold Vinegar, Ph.D. at GOGAS, for his 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 was 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, Afek licenses and Genie Mongolia's agreements.

The RD&D Lease awarded by the BLM to EGL Resources and acquired by AMSO, LLC covers an area of 160 acres. The lease had an initial ten-year term beginning on January 1, 2007 and provides for a five-year extension if AMSO can demonstrate that a process leading to the production of commercial quantities of shale oil is diligently being pursued. In November 2015, AMSO satisfied the extension criteria, and the RD&D Lease was extended effective on January 1, 2017. 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 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 had an exclusive Shale Oil Exploration and Production License that covers approximately 238 square kilometers in the south of the Shfela region in Israel. The license expired in July 2015. Although IEI may apply for a new license, there is no guarantee that a new license would be granted or that the license will not be successfully challenged by environmental or other opposition groups.

In April 2013, the Government of Israel finalized the award to Afek of an exclusive three year petroleum exploration license covering 396.5 square kilometers in the southern portion of the Golan Heights. Because of the dispute as to the status of the Golan Heights, operations under the license may initiate international criticism, sanctions and

boycotts. The political uncertainties surrounding the Golan Heights may result in (i) questions regarding the validity of the license granted to Afek by the State of Israel; (ii) disputed titles to any resources extracted; (iii) possible sanctions on Afek or us or restrictions on sale of any extracted resources; and (iv) possible negative publicity or other adverse public activities or perceptions of Afek and us. In addition, if the Golan Heights are returned to Syria by Israel, the continuation of Afek's license would be in doubt.

In February 2016, Israel's Northern District Planning and Building Committee approved a two-year permit extension for Afek to continue to conduct its up to ten-well oil and gas exploration program. The original permit was for a one-year period, which commenced in February 2015. This extension is expected to cover the remainder of Afek's ongoing exploratory program in the southern portion of the area covered by its exploratory license issued by Israel's National Infrastructure, Energy and Water Ministry. The original oil and gas exploration license term expires in April 2016, and Afek is required to file an application to extend the term with the Ministry of National Infrastructure Energy and Water. We believe the extension will be granted.

In April 2013, Genie Mongolia and the Petroleum Authority of Mongolia entered into an exclusive oil shale development agreement to explore and evaluate the commercial potential of oil shale resources in a 34,470 square kilometer area in Central Mongolia.

In September 2014, Genie Mongolia signed a prospecting agreement with the Petroleum Authority of Mongolia covering an additional 25,000 square kilometers in Central Mongolia. In light of the progress achieved by Afek in Northern Israel, we suspended our operations in Mongolia.

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 and legal challenges. 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).

Emerging markets are subject to greater risks than more developed markets, including significant legal, economic and political risks.

Mongolia does not possess as sophisticated and efficient business, regulatory, power and transportation infrastructures as generally exist in more developed market economies. Particularly, the legal system of Mongolia is less developed than those of more established jurisdictions, which may result in risks such as: the lack of effective legal redress in the courts; a higher degree of discretion on the part of governmental authorities; delays caused by the extensive bureaucracy; the lack of judicial or administrative guidance on interpreting applicable laws and regulations; inconsistencies or conflicts between and within various laws, regulations, decrees, orders and resolutions; and relative inexperience of the judiciary and courts in such matters. As a result, there may be ambiguities, inconsistencies and anomalies in the agreements, licenses and title documents through which Genie Mongolia holds its interests in Mongolia, or the underlying legislation upon which those interests are based. Many laws have been enacted, but in many instances they are neither understood nor enforced and may be applied in an inconsistent, arbitrary or unfair manner.

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. For example, the recent worldwide decrease in oil prices would have a significant negative impact on potential future commercial operations.

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 depends, among other things, 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 and Reporting

We hold significant cash and cash equivalents, restricted cash — short-term, and certificates of deposit that are subject to various market risks.

As of December 31, 2015, we had cash and cash equivalents, restricted cash — short-term, and certificates of deposit of \$58.5 million. As a result of various market risks, the value of these holdings could be materially and adversely affected.

In the past, we identified material weaknesses in our internal control over financial reporting that could have impaired our ability to produce accurate and timely financial statements and potentially cause investors and other users to lose confidence in our published financial data.

Maintaining effective internal control over financial reporting is necessary for us to produce reliable financial statements. In evaluating the effectiveness of our internal control over financial reporting as of December 31, 2013, management identified material weaknesses in our internal control over financial reporting.

These material weaknesses were successfully remediated in 2014. We continue to work to improve our internal control process and diligently review our financial reporting controls and procedures. However, if our remedial measures prove to be insufficient to address the material weaknesses, or if additional material weaknesses or significant deficiencies in our internal control over financial reporting are discovered or occur in the future, our consolidated financial statements may contain material misstatements and we could be required to restate our financial results.

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 our 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 our cash flow and cash balances. If dividends on any shares of the Series 2012-A Preferred Stock are in arrears for six 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 6,915,034 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 5,340,708 shares of our Class B common stock), representing approximately 73% of the

combined voting power of our outstanding capital stock, as of March 10, 2016. 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 520 Broad St., 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. IDT Energy's Florida office is located in Holiday, Florida where we lease approximately 4,350 square feet.

AMSO, LLC's operating office is in Rifle, Colorado. AMSO, LLC is supported by AMSO and other professionals based in our Newark, New Jersey office. 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 and Afek operate out of IDT Corporation's offices in Jerusalem. In addition, Afek maintains a research laboratory located on the campus of Ben Gurion University in Be'er Sheva and Afek rents a warehouses in Bnei Yehuda, in the south part of the Golan.

Item 3. Legal Proceedings.

On March 13, 2014, named plaintiff, Anthony Ferrare, commenced a putative class-action lawsuit against IDT Energy, Inc. in the Court of Common Pleas of Philadelphia County, Pennsylvania. The complaint was served on IDT Energy on July 16, 2014. The named plaintiff filed the suit on behalf of himself and other former and current electric customers of IDT Energy in Pennsylvania with variable rate plans, whom he contends were injured as a result of IDT Energy's allegedly unlawful sales and marketing practices. On August 7, 2014, IDT Energy removed the case to the United States District Court for the Eastern District of Pennsylvania. On October 20, 2014, IDT Energy moved to stay or, alternatively, dismiss the complaint, as amended, by the named plaintiff. On November 10, 2014, the named plaintiff opposed IDT Energy's motion to dismiss and IDT Energy filed a reply memorandum of law in further support of its motion to dismiss. On June 10, 2015, the Court granted IDT Energy's motion to stay and denied its motion to dismiss without prejudice. IDT Energy believes that the claims in this lawsuit are without merit and intends to vigorously defend the action.

On June 20, 2014, the Pennsylvania Attorney General's Office ("AG") and the Acting Consumer Advocate ("OCA") filed a Joint Complaint against IDT Energy, Inc. with the Pennsylvania Public Utility Commission ("PUC"). In the Joint Complaint, the AG and the OCA allege, among other things, various violations of Pennsylvania's Unfair Trade Practices and Consumer Protection Law, the Telemarketing Registration Act and the Pennsylvania PUC's regulations. IDT Energy has reached an agreement in principle on a settlement with the AG and the OCA to terminate the litigation with no admission of liability or finding of wrongdoing by IDT Energy. On August 4, 2015, IDT Energy, the AG, and the OCA filed a Joint Petition to the Pennsylvania PUC seeking approval of the settlement terms. Under the settlement, if approved by the PUC, IDT Energy will agree to issue additional refunds to its Pennsylvania customers who had variable rates for electricity supply in January, February and March of 2014. IDT Energy will also agree to implement certain modifications to its sales, marketing and customer service processes, along with additional compliance and reporting requirements. The settlement must be approved by the Pennsylvania PUC, which is expected in the second quarter of 2016.

On July 2, 2014, named plaintiff, Louis McLaughlin, filed a putative class-action lawsuit against IDT Energy, Inc. in the United States District Court for the Eastern District of New York, contending that he and other class members were injured as a result of IDT Energy's allegedly unlawful sales and marketing practices. The named plaintiff filed the suit on behalf of himself and two subclasses: all IDT Energy customers who were charged a variable rate for their energy from July 2, 2008, and all IDT Energy customers who participated in IDT Energy's rebate program from

July 2, 2008. On December 19, 2014, IDT Energy filed a motion to dismiss the complaint. On December 9, 2015, the Court denied IDT Energy's motion to dismiss without prejudice so as to allow McLaughlin to file an amended complaint. On January 22, 2016, the named plaintiff filed an amended complaint on behalf of himself and all IDT Energy customers in New York State against IDT Energy, Inc., Genie Retail Energy, Genie Energy International Corporation, and Genie Energy Ltd. Subsequently, on February 22, 2016, IDT Energy moved to dismiss the amended complaint. The named plaintiff's opposition papers to the motion to dismiss are due on March 18, 2016 and IDT Energy's reply is due on April 11, 2016. In the meantime, the parties are engaged in limited discovery. IDT Energy believes that the claims in the amended complaint are without merit and intends to vigorously defend the action.

On July 15, 2014, named plaintiff, Kimberly Aks, commenced a putative class-action lawsuit against IDT Energy, Inc. in New Jersey Superior Court, Essex County, contending that she and other class members were injured as a result of IDT Energy's alleged unlawful sales and marketing practices. The named plaintiff filed the suit on behalf of herself and all other New Jersey residents who were IDT Energy customers at any time between July 11, 2008 and the present. On November 6, 2014, the Court denied IDT Energy's motion to dismiss the complaint. The parties are currently engaged in discovery. IDT Energy believes that the claims in this lawsuit are without merit and intends to vigorously defend the action.

In addition to the above, we may from time to time be subject to 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.

	<u>High</u>	<u>Low</u>
Fiscal year ended December 31, 2014		
First Quarter	\$ 11.74	\$ 9.20
Second Quarter	\$ 10.28	\$ 6.76
Third Quarter	\$ 8.75	\$ 6.60
Fourth Quarter.	\$ 7.33	\$ 6.01
Fiscal year ended December 31, 2015		
First Quarter	\$ 8.06	\$ 5.33
Second Quarter	\$ 14.25	\$ 7.85
Third Quarter	\$ 11.40	\$ 8.06
Fourth Quarter.	\$ 14.97	\$ 8.00

On March 10, 2016, there were 174 holders of record of our Class B common stock and one holder 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 14, 2016, the last sales price reported on the New York Stock Exchange for the Class B common stock was \$7.86 per share.

PRICE RANGE OF PREFERRED STOCK

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 Series 2012-A Preferred Stock has been trading on the NYSE.

	<u>High</u>	<u>Low</u>
Fiscal year ended December 31, 2014		
First Quarter	\$ 8.43	\$ 7.90
Second Quarter	\$ 8.37	7.25
Third Quarter	\$ 7.87	7.09
Fourth Quarter	\$ 7.43	5.63
Fiscal year ended December 31, 2015		
First Quarter	\$ 7.25	\$ 6.27
Second Quarter	\$ 7.50	6.80
Third Quarter	\$ 7.12	6.35
Fourth Quarter	\$ 7.92	6.10

On March 10, 2016, there were 4 holders of record of our Series 2012-A Preferred Stock. These numbers do not include the number of persons whose shares are in nominee or in “street name” accounts through brokers. On March 14, 2016, the last sales price reported on the New York Stock Exchange for the Series 2012-A Preferred Stock was \$7.34 per share.

Additional information regarding dividends required by this item is incorporated by reference from the Management’s Discussion and Analysis section in Item 7 to Part II and Note 9 to the Consolidated Financial Statements in Item 8 to Part II of this Annual Report.

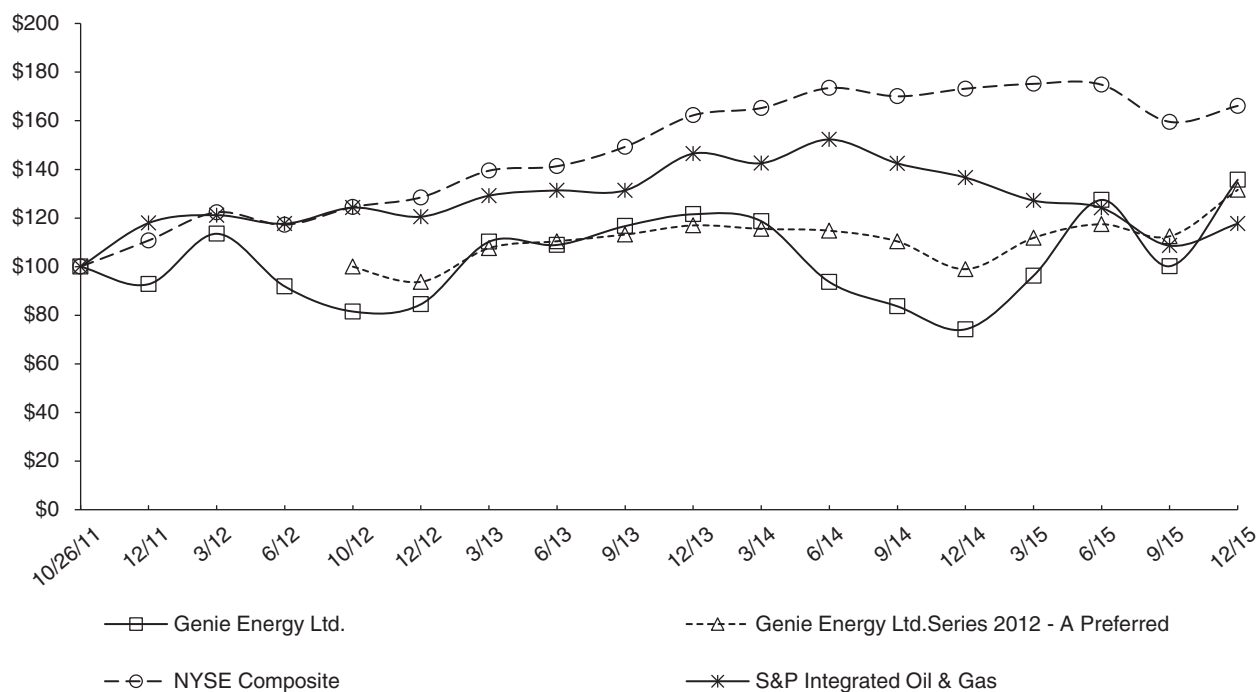
The information required by Item 201(d) of Regulation S-K will be contained in our Proxy Statement for our Annual Stockholders Meeting, which we will file with the Securities and Exchange Commission within 120 days after December 31, 2015, and which is incorporated by reference herein.

Performance Graph of Stock

The line graph below compares the cumulative total stockholder return on our Class B common stock and our Series 2012-A Preferred Stock with the cumulative total return of the New York Stock Exchange Composite Index and the Standard & Poor’s Integrated Oil & Gas Index for the period beginning October 26, 2011 and ending December 31, 2015. The graph and table assume that \$100 was invested on October 26, 2011 (the first day of trading for the Class B common stock) and on October 24, 2012 with respect to the Series 2012-A Preferred Stock (the first day of trading for the Series 2012-A Preferred stock) with the cumulative total return of the NYSE Composite Index and the S&P Integrated Oil & Gas Index, and that all dividends were reinvested. Cumulative total stockholder returns for our Class B common stock, Series 2012-A Preferred Stock, NYSE Composite Index and the S&P Integrated Oil & Gas Index are based on our fiscal year.

COMPARISON OF 50 MONTH CUMULATIVE TOTAL RETURN*

Among Genie Energy Ltd., the NYSE Composite Index
and the S&P Integrated Oil & Gas Index



*\$100 invested on 10/26/11 in stock or 9/30/11 in index, including reinvestment of dividends.
Fiscal year ending December 31.

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	10/26/11	12/11	3/12	6/12	10/12	12/12	3/13	6/13	9/13	12/13	3/14	6/14	9/14	12/14	3/15	6/15	9/15	12/15
Genie Energy Ltd.	100.00	92.79	113.52	91.86	81.55	84.52	110.24	108.93	116.66	121.55	118.69	93.69	83.69	74.23	96.27	127.44	100.18	135.72
Genie Energy Ltd. Series 2012 – A Preferred					100.00	93.75	107.61	110.44	113.18	116.96	115.52	114.78	110.38	98.97	111.83	117.44	112.48	131.60
NYSE Composite.	100.00	110.77	122.34	117.23	124.50	128.48	139.46	141.31	149.27	162.24	165.23	173.46	170.05	173.20	175.18	174.83	159.55	166.11
S&P Integrated Oil & Gas.	100.00	117.94	121.17	117.65	124.26	120.54	129.19	131.33	131.37	146.49	142.55	152.30	142.48	136.63	127.19	124.16	108.64	117.69

Issuer Purchases of Equity Securities

The following table provides information with respect to purchases by us of our shares during the fourth quarter of the year ended December 31, 2015.

	Total Number of Shares Purchased	Average Price per Share	Total Number of Shares Purchased as part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs ⁽¹⁾
October 1 – 31, 2015.	—	\$ —	—	6,896,669
November 1 – 30, 2015.	—	\$ —	—	6,896,669
December 1 – 31, 2015 ⁽²⁾	480	\$ 11.07	—	6,896,669
Total	480	\$ 11.07		

(1) Under our existing stock repurchase program, approved by our Board of Directors on March 11, 2013, we were authorized to repurchase up to an aggregate of 7 million shares of our Class B common stock.

- (2) Consists of shares of Class B common stock that were tendered by employees of ours to satisfy the tax withholding obligations in connection with the lapsing of restrictions on awards of restricted stock. Such shares were repurchased by us based on their fair market value on the trading day immediately prior to the vesting date.

Item 6. Selected Financial Data.

The selected consolidated financial data presented below as of December 31, 2015, 2014 and 2013, and for each of the three years then ended, has been derived from our Consolidated Financial Statements included elsewhere in this Form 10-K, which have been audited by BDO USA, LLP, independent registered public accounting firm. The selected consolidated financial data presented below as of December 31, 2012 and 2011, and for the year ended December 31, 2012 and the five months ended December 31, 2011 has been derived from our Consolidated Financial Statements, which have been audited by Grant Thornton LLP, independent registered public accounting firm. The selected consolidated financial data presented below for the fiscal year ended July 31, 2011 has been derived from our Consolidated Financial Statements, which have been audited by Zwick and Banyai, PLLC, independent registered public accounting firm. The selected consolidated financial data presented below for the five months ended December 31, 2010 is unaudited. The selected consolidated financial data should be read in conjunction with the Consolidated Financial Statements and the Notes thereto and other financial information appearing elsewhere in this Annual Report.

(in thousands, except per share data)	Year ended December 31, 2015	Year ended December 31, 2014	Year ended December 31, 2013	Year ended December 31, 2012	Five Months ended December 31, 2011	Fiscal year ended July 31, 2011	Five Months ended December 31, 2010 (Unaudited)
STATEMENT OF OPERATIONS DATA:							
Revenues	\$ 210,109	\$ 275,031	\$ 279,174	\$ 229,459	\$ 76,783	\$ 196,018	\$ 74,877
Net (loss) income . .	(8,636)	(27,407)	(5,341)	(2,535)	(268)	(2,555)	916
(Loss) earnings per common share – basic	(0.40)	(1.31)	(0.36)	(0.17)	0.04	0.08	0.09
(Loss) earnings per common share – diluted	(0.40)	(1.31)	(0.36)	(0.17)	0.04	0.07	0.08
Cash dividend declared per common share . .	0.12	0.06	—	0.133	0.05	—	—
(in thousands)	December 31, 2015	December 31, 2014	December 31, 2013	December 31, 2012	December 31, 2011	December 31, 2011	December 31, 2011
BALANCE SHEET DATA:							
Total assets	\$ 155,815	\$ 152,928	\$ 158,843	\$ 150,306	\$ 150,306	\$ 150,306	\$ 150,194
Long-term obligations	2,000	—	—	—	—	—	—

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This Annual Report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements that contain the words “believes,” “anticipates,” “expects,” “plans,” “intends” and similar words and phrases. These forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from the results projected in any forward-looking statement. In addition to the factors specifically noted in the forward-looking statements, other important factors, risks and uncertainties that could result in those differences include, but are not limited to, those discussed under Item 1A to Part I “Risk Factors” in this Annual Report. The forward-looking statements are made as of the date of this Annual Report, and we assume no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements. Investors should consult all of the information set forth in this report and the other information set forth

from time to time in our reports filed with the Securities and Exchange Commission pursuant to the Securities Act of 1933 and the Securities Exchange Act of 1934, including our reports on Forms 10-Q and 8-K.

The following discussion should be read in conjunction with the Consolidated Financial Statements and Notes thereto included in Item 8 of this Annual Report.

OVERVIEW

We own 99.3% of our subsidiary, GEIC, which owns 100% of GRE and 92% of GOGAS. Our principal businesses consist of:

- GRE operates REPs, including IDT Energy and Residents Energy, and energy brokerage and marketing services. Its REP businesses resell electricity and natural gas to residential and small business customers primarily in the Eastern United States; and
- GOGAS is an oil and gas exploration company that consists of:
 - an 86.5% interest in Afek, which operates an exploration project in the Golan Heights in Northern Israel, and
 - early stage projects including (1) an 88.4% interest in Genie Mongolia, an oil shale exploration project in Central Mongolia, which is inactive (2) a 98.3% interest in AMSO, which holds and manages a 41.3% interest in AMSO, LLC, an oil shale development project in Colorado, and (3) an 86.1% interest in IEI, an oil shale development project in Israel, which is inactive.

GRE has outstanding deferred stock units granted to officers and employees that represent an interest of 3.9% of the equity of GRE.

As part of our ongoing business development efforts, we continuously seek out new opportunities, which may include complementary operations or businesses that reflect horizontal or vertical expansion from our current operations. Some of these potential opportunities are considered briefly and others are examined in further depth. In particular, we seek out acquisitions to expand the geographic scope and size of our REP businesses, and additional energy exploration projects to diversify our GOGAS unit's operations, among geographies, technologies and resources.

Genie Retail Energy

GRE operates REPs that resell electricity and natural gas to residential and small business customers in New York, New Jersey, Pennsylvania, Maryland, Washington, D.C. and Illinois. GRE's revenues represented 100% of our consolidated revenues in the years ended December 31, 2015, 2014 and 2013.

The positive difference between the net sales price of electricity and natural gas sold to its customers and the sum of the cost of its electricity and natural gas supplies, transmission and ancillary services is GRE's gross profit margin.

GRE's direct cost of revenues consists primarily of natural gas and electricity purchased for resale. As of November 19, 2015, IDT Energy and certain of its affiliates entered into an Amended and Restated Preferred Supplier Agreement with BP pursuant to which IDT Energy purchases electricity and natural gas at a market rate plus a fee. IDT Energy remits a monthly payment for its purchases and related fees. Any outstanding, unpaid balances accrue interest until paid. 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 customers' receivables, and in any cash deposits or letters of credit posted in connection with any collateral accounts with BP. The agreement's termination date is November 30, 2019, except either party may terminate the agreement on November 30, 2018 by giving the other party notice by May 31, 2018. 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.

As an operator of REPs, GRE does not own electrical power generation, transmission, or distribution facilities, or natural gas production, pipeline or distribution facilities. Instead, GRE's REPs contract with various pipeline and distribution companies for natural gas pipeline, storage and transportation services, and utilizes NYISO and PJM for electric transmission and distribution. GRE's direct cost of revenues include scheduling costs, ISO fees,

pipeline costs and utility service charges for the purchase of these services. At December 31, 2015, GRE REPs were members of ISO New England, although GRE has not commenced operations in this territory yet. GRE expects to commence operations in this territory in 2016.

For risk management purposes, GRE utilizes put and call options and swaps as hedges against unfavorable fluctuations in market prices of electricity and natural gas and to reduce exposure from price fluctuations. The put and call options and swaps are recorded at fair value as a current asset or liability and any changes in fair value are recorded in direct cost of revenues. The impact of these options and swaps on direct cost of revenues is relatively small in comparison to GRE's purchases of gas and electricity for resale.

The NYISO and PJM perform real-time load balancing for each of the electrical power grids in which GRE REPs operate. Similarly, the utility or the LDC performs load balancing for each of the natural gas markets in which GRE REPs operate. Load balancing ensures that the amount of electricity and natural gas that GRE REPs purchase is equal to the amount necessary to service its REP customers' demands at any specific point in time. GRE 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 futures deliveries in accordance with the load balancing performed by utilities, LDCs, NYISO and PJM. Suppliers and the LDC's charge or credit GRE for balancing the electricity and natural gas purchased and sold for its account.

The local utilities generally meter and deliver electricity and natural gas to GRE's REP customers. The local utilities provide billing and collection services on GRE's behalf for most of GRE's customers. GRE receives the proceeds less the utility's POR fees and in some cases less fees for billing and other ancillary services.

Volatility in the electricity and natural gas markets affects the wholesale cost of the electricity and natural gas that GRE REPs sell to customers. GRE may not always choose to pass along increases in costs to its customers for various reasons including competitive pressures and to protect overall customer satisfaction. This can adversely affect GRE's gross margins and results of operations. Alternatively, increases in GRE's rates charged to REP customers may lead to increased customer churn.

GRE's selling expense consists primarily of sales commissions paid to independent agents and marketing costs, which are the primary costs associated with the acquisition of customers. General and administrative expense includes compensation, benefits, utility fees for billing and collection, professional fees, rent and other administrative costs.

Seasonality and Weather

The weather and the seasons, among other things, affect GRE's revenues. Weather conditions have a significant impact on the demand for natural gas used for heating and electricity used for heating and cooling. Typically, colder winters increase demand for natural gas and electricity, and hotter summers increase demand for electricity. Milder winters and/or summers have the opposite effect. Natural gas revenues typically increase in the first quarter due to increased heating demands and electricity revenues typically increase in the third quarter due to increased air conditioning use. Approximately 64% and 59% of GRE's natural gas revenues for the relevant years were generated in the first quarter of 2015 and 2014, respectively, when demand for heating was highest. Although the demand for electricity is not as seasonal as natural gas (due, in part, to usage of electricity for both heating and cooling), approximately 30% and 20% of GRE's electricity revenues for the relevant years were generated in the third quarter of 2015 and 2014, respectively. As described below, because of dramatic increases in wholesale electricity prices in January and February 2014, the retail electricity prices that GRE and many other variable rate electricity suppliers charged to their customers also increased sharply. As a result, approximately 45% of GRE's electricity revenues in 2014 were generated in the first quarter of 2014.

Concentration of Customers and Associated Credit Risk

GRE reduces its REP customer credit risk by participating in purchase of receivable programs for a majority of its receivables. In addition to providing billing and collection services, utility companies purchase GRE's receivables and assume all credit risk without recourse to GRE. GRE's primary credit risk is therefore nonpayment by the utility companies. Certain of the utility companies represent significant portions of our consolidated revenues and consolidated gross trade accounts receivable balance and such concentrations increase our risk associated with nonpayment by those utility companies.

The following table summarizes the percentage of consolidated revenues from customers by utility company that equal or exceed 10% of consolidated revenues in the period (no other single utility company accounted for more than 10% of consolidated revenues in these periods):

	Year ended December 31,		
	2015	2014	2013
Con Edison	23%	23%	25%
National Grid USA	12%	na	10%
West Penn Power	na	10%	11%
Penelec	na	na	10%

na – less than 10% of consolidated revenue in the period

The following table summarizes the percentage of consolidated gross trade accounts receivable by utility company that equal or exceed 10% of consolidated gross trade accounts receivable at December 31, 2015 and 2014 (no other single utility company accounted for 10% or greater of our consolidated gross trade accounts receivable at December 31, 2015 or 2014):

December 31	2015	2014
Con Edison	22%	25%

Winter 2014 Price Volatility and Customer Complaints

A confluence of issues in January and February 2014 associated with that winter’s polar vortex that were outside the ability of REPs to control, resulted in extraordinarily large spikes in the prices of wholesale electricity and natural gas in markets where GRE and other retail providers purchase their supply. These issues included sustained, extremely cold weather in much of GRE’s service area, short reserves of natural gas in the wholesale markets, delivery constrictions and unusually volatile commodity trading in the financial markets. Because of dramatic increases in wholesale electricity prices, the retail electricity prices that GRE and many other variable rate electricity suppliers charged to their customers also increased sharply in January and February 2014. These retail electricity price increases resulted in large numbers of customers filing informal and formal complaints to state utility commissions, state attorneys general, and state legislators. IDT Energy was served with several thousand formal and informal customer complaints to state utility commissions and state attorneys general related to the retail price increases. IDT Energy has responded to each customer complaint it has received and attempted to resolve each complaining customer’s concerns. GRE also paid approximately \$5 million in rebates to affected customers in the year ended December 31, 2014. GRE was under no obligation to provide such rebates, but did so in order to mitigate the impact of the price increases on its customers notwithstanding that the underlying cause of the price increase was beyond GRE’s control.

IDT Energy also received, and in most instances, responded to, formal and informal information requests from state utility commissions, state attorneys general, and state legislators related to the wholesale and retail electricity price increases in the winter of 2014. In addition, the Pennsylvania Attorney General’s Office and the Acting Consumer Advocate filed a Joint Complaint against IDT Energy with the Pennsylvania Public Utility Commission in connection with such events. On August 4, 2015, IDT Energy, the Attorney General’s Office, and the Acting Consumer Advocate filed a Joint Petition to the Pennsylvania Public Utility Commission seeking approval of their proposed settlement terms. IDT Energy has also been sued in separate putative class action suits in New York, New Jersey and Pennsylvania, partially related to the price increases during the winter of 2014. These matters are more fully discussed in Item 3 to Part I “Legal Proceedings” in this Annual Report.

IDT Energy does not believe that it was at fault or acted in any way improperly with respect to the events of winter 2014. However, we cannot predict the outcome of the regulatory or putative class action litigation or the impact on us of these or other actions, or whether there will be other impacts from the conditions that existed in winter 2014. As noted above, IDT Energy is a party to a Joint Petition to the Pennsylvania Public Utility Commission seeking approval of proposed terms to settle the Pennsylvania regulatory matter.

New York Public Service Commission's Order

On February 23, 2016, the New York PSC issued an order that sought to impose significant new restrictions on REPs operating in New York, including GRE. The restrictions described in the PSC's order, which were to become effective March 4, 2016, would require that all REPs' electricity and natural gas offerings to residential and small business customers include an annual guarantee of savings compared to the price charged by the relevant incumbent utility or, for electricity offerings, provide at least 30% of the supply from renewable sources. Customers not enrolled in a compliant program would be relinquished back to the local utility at the end of their contract period or, for variable price customers operating on month to month agreements, at the end of the current monthly billing cycle.

On March 4, 2016, a group of parties from the REP industry sought and won a temporary restraining order to stay implementation of the most restrictive portions of the PSC's order until a court hearing on April 14, 2016. GRE expects that the REP industry will take additional legal action in response to the order seeking a definitive judicial review of the industry's challenges to the PSC's order.

We are evaluating the potential impact of the PSC's order on our New York operations while preparing to operate in compliance with any new requirements. Depending on the final language of the order and the outcome of legal appeals, as well as our final response to the order with respect to our relationships with our New York customers, the order will likely have a substantial impact upon GRE's operations in New York. As of December 31, 2015, New York represented 53% of GRE's total meters served and 44% of the total RCEs of GRE's customer base.

Afek Oil and Gas, Ltd.

In April 2013, the Government of Israel finalized the award to Afek of an exclusive three year petroleum exploration license covering 396.5 square kilometers in the southern portion of the Golan Heights. Afek is in the process of submitting its work plan for the subsequent exploration phases and is taking the required steps to seek extension of the license, which is currently scheduled to expire in April 2016. Afek has retained oil and gas exploration professionals and has contracted with internationally recognized vendors to provide the services required for its exploration program. In 2013, Afek completed preliminary geophysical work including electromagnetic survey and the reprocessing of 2D seismic data to characterize the subsurface prior to drilling exploration wells. Afek subsequently conducted initial analysis of the acquired data internally and with outside exploration experts.

In early 2014, Afek submitted a permit application to the Northern District Planning and Building Committee to conduct an exploration drilling program to further characterize the resource in its license area. In July, the Northern District Planning and Building Committee voted to approve an up to ten-well exploratory drilling program, and subsequently issued the requisite permits.

In October, 2014, the High Court of Justice in Israel issued an interim order to halt Afek's drilling program until it could rule on a petition filed by the Israel Union for Environmental Defense and some local residents challenging the issuance of the drilling permit. In December 2014, the Court ruled against the petitioners, and lifted its interim order.

In February 2015, Afek began drilling its first exploratory well in Northern Israel's Golan Heights. To date, Afek has completed drilling five wells. In addition, the initial phase of the flow test program is underway which will test multiple target zones within one, or more, of the completed wells. The next step is to execute and analyze the results of flow tests and other data to determine the nature of the hydrocarbons and the potential production methodology and associated costs of potential commercial development. The volume of the resources and to what extent they may be extractable cannot yet be determined. The resources do not constitute proved, probable or possible reserves.

On February 1, 2016, Israel's Northern District Planning and Building Committee approved a two-year permit extension for Afek to continue to conduct its up to ten-well oil and gas exploration program. The original permit was for a one-year period, which commenced in February 2015. This extension is expected to cover the remainder of Afek's ongoing exploratory program in the area covered by its exploratory license issued by Israel's National Infrastructure, Energy and Water Ministry.

Genie Mongolia

In April 2013, Genie Mongolia and the Petroleum Authority of Mongolia entered into an exclusive oil shale development agreement to explore and evaluate the commercial potential of oil shale resources in a 34,470 square kilometer area in Central Mongolia. The five year agreement allows Genie Mongolia to explore, identify and

characterize the oil shale resource in the exclusive survey area and to conduct a pilot test using in-situ technology on appropriate oil shale deposits. In September 2014, Genie Mongolia signed a prospecting agreement with the Petroleum Authority of Mongolia covering an additional 25,000 square kilometers in Central Mongolia. In light of the progress achieved by Afek in Northern Israel, we suspended our operations in Mongolia.

Investment in American Shale Oil, LLC

AMSO, LLC holds an RD&D Lease awarded by the BLM that covers an area of 160 acres in western Colorado. The RD&D Lease had an initial ten-year term that began on January 1, 2007 and provides for a five-year extension if AMSO can demonstrate that a process leading to the production of commercial quantities of shale oil is diligently being pursued. In November 2015, AMSO satisfied the extension criteria, and the RD&D Lease was extended effective on January 1, 2017. 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.

Except as set forth below, AMSO was responsible for funding 20% of the initial \$50 million of AMSO, LLC's approved expenditures, and is responsible for funding 35% of the approved expenditures between \$50 million and \$100 million, and 40% of the costs of the one-time payment for conversion of AMSO, LLC's RD&D Lease to a commercial lease, in the event AMSO, LLC's application for conversion is approved, with the remaining amounts of such expenditures to be funded by Total. All other expenditures are to be borne in proportion to equity ownership. The percentages for expenditures are subject to adjustment in connection with certain changes in the equity ownership of AMSO LLC. As of December 31, 2015, the cumulative contributions of AMSO and Total to AMSO, LLC were \$82.9 million.

AMSO has the right to decide at each capital call whether or not to fund AMSO, LLC, and will make a determination at each such time. AMSO did not fund the capital calls for any quarter from the fourth quarter of 2013 through the second quarter of 2015. AMSO funded an aggregate of \$0.3 million from the third quarter of 2015 through the first quarter of 2016, which was 28% of its share of the capital calls. In the period from January 2014 through January 2016, Total funded an aggregate of \$4.6 million for AMSO's share of the capital calls that AMSO did not fund. Because of AMSO's decisions not to fund all of its share of AMSO, LLC's expenditures, AMSO's ownership interest in AMSO, LLC was reduced to 41.3% and Total's ownership interest increased to 58.7%. In addition, AMSO's share of future funding of AMSO, LLC up to a cumulative \$100 million was reduced to 28.9% and Total's share increased to 71.1%.

The agreements with Total provide for varying consequences for AMSO's failure to fund its share at different stages of the project, including dilution of AMSO's interest in AMSO, LLC or paying interest to Total for expenditures they fund on behalf of AMSO. Either Total or AMSO may terminate its obligations to make capital contributions and withdraw as a member of AMSO, LLC. Even if AMSO were to withdraw its interest in AMSO, LLC, it will remain liable for its share of expenditures for safety and environmental reclamation related to events occurring prior to its withdrawal.

On February 23, 2016, Total notified AMSO of its decision not to continue to fund AMSO, LLC. We are currently considering our options with respect to the future of this project. AMSO and Total are obligated to fund certain remediation and reclamation costs. We estimate that our share of such costs would be in the range of nil to \$2.0 million.

We account for our ownership interest in AMSO, LLC using the equity method since we have the ability to exercise significant influence over its operating and financial matters, although we do not control AMSO, LLC. AMSO, LLC is a variable interest entity, however, we have determined that we are not the primary beneficiary. AMSO's allocated share of the net loss of AMSO, LLC is included in "Equity in the net loss of AMSO, LLC" in the accompanying consolidated statements of operations. In part because of AMSO's decision not to fund all of its share of AMSO, LLC's expenditures, AMSO, LLC allocates its net loss beginning January 2014 as follows: \$12.1 million of losses were allocated to Total, then it allocates any remaining losses proportionately such that over time AMSO and Total's capital accounts as a percentage of AMSO, LLC's total capital will equal their ownership interests.

Israel Energy Initiatives, Ltd.

IEI had an exclusive Shale Oil Exploration and Production License awarded in July 2008 by the Government of Israel. The license covered approximately 238 square kilometers in the south of the Shfela region in Central Israel. Under the terms of the license, IEI was to conduct a geological appraisal study across the license area, characterize the resource and select a location for a pilot plant. The initial term of the license was for three years until July 2011. The license was extended until July 2015 when it expired. IEI submitted its application for the construction and operation of its oil shale pilot test facility to the Jerusalem District Committee for Planning and Building, and on September 2, 2014, the Committee declined to issue IEI a permit to build and operate a pilot drilling project. IEI is evaluating whether and how to exploit the abundant oil shale resource in Israel in light of the Committee's decision. Operations at IEI are currently suspended.

CRITICAL ACCOUNTING POLICIES

Our financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses as well as the disclosure of contingent assets and liabilities. Critical accounting policies are those that require application of management's most subjective or complex judgments, often as a result of matters that are inherently uncertain and may change in subsequent periods. Our critical accounting policies include those related to the allowance for doubtful accounts, goodwill, oil and gas accounting and income taxes. Management bases its estimates and judgments on historical experience and other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. See Note 1 to the Consolidated Financial Statements in this Annual Report for a complete discussion of our significant accounting policies.

Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts for estimated losses that result from the inability or unwillingness of our customers to make required payments. The allowance for doubtful accounts was \$0.2 million at December 31, 2015 and 2014. Our allowance is determined based on known troubled accounts, historical experience and other currently available evidence. Our estimates of recoverability of customer accounts may change due to new developments, changes in assumptions or changes in our strategy, which may impact our allowance for doubtful accounts balance. We continually assess the likelihood of potential amounts or ranges of recoverability and adjust our allowance accordingly, however, actual collections and write-offs of trade accounts receivable may materially differ from our estimates.

Goodwill

Our goodwill balance of \$3.7 million at December 31, 2015 and 2014 was allocated to our GRE segment. IDT Energy is the reporting unit for our goodwill impairment tests. Goodwill is not amortized since it is deemed to have an indefinite life. It is reviewed annually (or more frequently under various conditions) for impairment using a fair value approach. The goodwill impairment assessment involves estimating the fair value of the reporting unit and comparing it to its carrying amount, which is known as Step 1. If the carrying value of the reporting unit exceeds its estimated fair value, Step 2 is performed to determine if an impairment of goodwill is required. We estimate the fair value of our reporting units using discounted cash flow methodologies, as well as considering third party market value indicators. Goodwill impairment is measured by the excess of the carrying amount of the reporting unit's goodwill over its implied fair value. We have the option to perform a qualitative assessment to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. However, we may elect to perform the two-step quantitative goodwill impairment test even if no indications of a potential impairment exist.

IDT Energy's estimated fair value substantially exceeded its carrying value in Step 1 of our annual impairment tests for the years ended December 31, 2015, 2014 and 2013, therefore it was not necessary to perform Step 2 for these tests. In addition, we do not believe IDT Energy is currently at risk of failing Step 1. In the year ended December 31, 2014, we determined that an impairment of the goodwill from the acquisitions of Diversegy and IDTEN was required. We recorded goodwill impairment of \$3.6 million, which reduced the carrying amount of the goodwill related to Diversegy and IDTEN to zero. Calculating the fair value of the reporting unit, and allocating the estimated fair value to all of the tangible assets, intangible assets and liabilities, requires significant estimates and assumptions

by management. Should our estimates or assumptions regarding the fair value of IDT Energy prove to be incorrect, we may be required to record impairments to our goodwill in future periods and such impairments could be material.

Oil and Gas Accounting

We account for our oil and gas activities under the successful efforts method of accounting. Under this method, the costs of drilling exploratory wells and exploratory-type stratigraphic test wells are capitalized, pending determination of whether the well has found proved reserves. Other exploration costs are charged to expense as incurred. At December 31, 2015, our capitalized exploration costs — unproved oil and gas property were \$26.9 million.

Unproved properties are assessed for impairment, and if considered impaired, are charged to expense when such impairment is deemed to have occurred. The assessment of unproved properties for impairment requires significant estimates and assumptions by management. Should our estimates or assumptions regarding the recoverability of the unproved properties prove to be incorrect, we may be required to record impairments to our unproved properties in future periods and such impairments could be material.

Income Taxes

Our current and deferred income taxes and associated valuation allowance are impacted by events and transactions arising in the normal course of business as well as in connection with special and non-routine items. Assessment of the appropriate amount and classification of income taxes is dependent on several factors, including estimates of the timing and realization of deferred income tax assets, the results of Internal Revenue Service audits of our federal income tax returns, and changes in tax laws or regulations.

The valuation allowance on our deferred income tax assets was \$38.4 million and \$27.7 million at December 31, 2015 and 2014, respectively. Subsequent to the Spin-Off, we initiated a tax strategy that enables us to currently deduct losses from our foreign subsidiaries against our profitable U.S. operations. Because of this strategy, the decrease in pre-tax earnings of GRE in 2012, and our current projections, we concluded that we no longer met the criteria of more likely than not in order to utilize our deferred federal income tax assets in the foreseeable future.

We use a two-step approach for recognizing and measuring tax benefits taken or expected to be taken in a tax return. We determine whether it is more-likely-than-not that, a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. In evaluating whether a tax position has met the more-likely-than-not recognition threshold, we presume that the appropriate taxing authority that has full knowledge of all relevant information will examine the position. Tax positions that meet the more-likely-than-not recognition threshold are measured to determine the amount of tax benefit to recognize in the financial statements. The tax position is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Differences between tax positions taken in a tax return and amounts recognized in the financial statements will generally result in one or more of the following: an increase in a liability for income taxes payable, a reduction of an income tax refund receivable, a reduction in a deferred tax asset, or an increase in a deferred tax liability. We review and adjust our liability for unrecognized tax benefits based on our best estimate and judgment given the facts, circumstances and information available at each reporting date. To the extent that the outcome of these tax positions is different from the amounts recorded, such differences may affect income tax expense and actual tax payments.

RECENTLY ISSUED ACCOUNTING STANDARDS NOT YET ADOPTED

In May 2014, the Financial Accounting Standards Board, or FASB, and the International Accounting Standards Board jointly issued a comprehensive new revenue recognition standard that will supersede most of the current revenue recognition guidance under U.S. GAAP and International Financial Reporting Standards, or IFRS. The goals of the revenue recognition project were to clarify and converge the revenue recognition principles under U.S. GAAP and IFRS and to develop guidance that would streamline and enhance revenue recognition requirements. We will adopt this standard on January 1, 2018. Entities have the option of using either a full retrospective or modified retrospective approach for the adoption of the standard. We are evaluating the impact that the standard will have on our consolidated financial statements.

In July 2015, the FASB issued an Accounting Standards Update, or ASU, that simplifies the subsequent measurement of inventory. The amendments in this ASU do not apply to inventory that is measured using last-in, first-out or the

retail inventory method. The ASU changes the measurement of inventory to the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. We measure GRE's natural gas inventory at weighted average cost. We will adopt the amendments in this ASU on January 1, 2017. We are evaluating the impact that the ASU will have on our consolidated financial statements.

In January 2016, the FASB issued an ASU to provide more information about recognition, measurement, presentation and disclosure of financial instruments. The amendments in the ASU include, among other changes, the following: (1) equity investments (except those accounted for under the equity method or that result in consolidation) will be measured at fair value with changes in fair value recognized in net income, (2) a qualitative assessment each reporting period to identify impairment of equity investments without readily determinable fair values, (3) financial assets and financial liabilities will be presented separately by measurement category and form of financial asset on the balance sheet or the notes to the financial statements, and (4) an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. Entities will no longer be able to recognize unrealized holding gains and losses on equity securities classified as available-for-sale in other comprehensive income. In addition, a practicability exception will be available for equity investments that do not have readily determinable fair values and do not qualify for the net asset value practical expedient. These investments may be measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. Entities will have to reassess at each reporting period whether an investment qualifies for this practicability exception. We will adopt the amendments in this ASU on January 1, 2018. We are evaluating the impact that the ASU will have on our consolidated financial statements.

In February 2016, the FASB issued an ASU related to the accounting for leases. The new standard establishes a right-of-use, or ROU, model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. We will adopt the new standard on January 1, 2019. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. We are evaluating the impact that the new standard will have on our consolidated financial statements.

RESULTS OF OPERATIONS

We evaluate the performance of our operating business segments based primarily on income (loss) from operations. Accordingly, the income and expense line items below income (loss) from operations are only included in our discussion of the consolidated results of operations.

Year Ended December 31, 2015 compared to Year Ended December 31, 2014

Genie Retail Energy Segment

(in millions) Year ended December 31,	2015	2014	Change	
			\$	%
Revenues:				
Electricity	\$ 167.3	\$ 214.5	\$ (47.2)	(22.0)%
Natural gas	40.8	57.9	(17.1)	(29.8)
Other	2.0	2.6	(0.6)	(24.0)
Total revenues	210.1	275.0	(64.9)	(23.6)
Direct cost of revenues	141.0	223.1	(82.1)	(36.8)
Gross profit	69.1	51.9	17.2	33.0
Selling, general and administrative	55.6	44.7	10.9	24.2
Bad debt	—	0.3	(0.3)	(109.3)
Goodwill impairment	—	3.6	(3.6)	(100.0)
Adjustment to estimated contingent payments	—	(0.2)	0.2	100.0
Income from operations	\$ 13.5	\$ 3.5	\$ 10.0	285.1%

Revenues. GRE's electricity revenues decreased in 2015 compared to 2014 because of both a 13.7% decrease in the average rate charged to customers and a 9.6% decrease in electricity consumption. The decrease in the average rate charged to customers was mostly due to a 27.8% decrease in the underlying commodity cost in 2015 compared to 2014. In the first quarter of 2014, there were extraordinarily large spikes in the prices of wholesale electricity and natural gas in markets where GRE and other REPs purchased their supply because of the polar vortex in January and February 2014. The decrease in electricity consumption was the result of a decrease in average meters served, which decreased 3.9% in 2015 compared to 2014, and a 5.9% decrease in average consumption per meter in 2015 compared to 2014. The decrease in average consumption per meter was the result of higher usage in 2014 due to the prolonged cold temperatures as well as the higher levels of churn that followed the polar vortex being concentrated in relatively higher consuming meters.

GRE's natural gas revenues decreased in 2015 compared to 2014 because of a 21.1% decrease in the average rate charged to customers, and a 10.7% decrease in natural gas consumption. The decrease in the average rate charged to customers for natural gas was due to a 37.1% decrease in the underlying commodity cost in 2015 compared to 2014. The decrease in natural gas consumption was the result of a 8.1% decrease in average meters served, as well as a 2.8% decrease in average consumption per meter, in 2015 compared to 2014. Natural gas consumption in 2014 was upwardly affected by the prolonged cold temperatures during the polar vortex in January and February 2014 and the subsequent churn was concentrated in higher consuming meters.

GRE's customer base as measured by meters served consisted of the following:

<u>(in thousands)</u>	<u>December 31,</u> <u>2015</u>	<u>September 30,</u> <u>2015</u>	<u>June 30,</u> <u>2015</u>	<u>March 31,</u> <u>2015</u>	<u>December 31,</u> <u>2014</u>
Meters at end of quarter:					
Electricity customers	264	261	250	232	234
Natural gas customers	128	127	127	126	129
Total meters	392	388	377	358	363

Gross meter acquisitions in 2015 were 275,000 compared to 213,000 in 2014. GRE had success in selling “IDT Energy® SmartBudget” and other offerings with fixed rate characteristics. The increase was also partially due to an intentional slowing of customer acquisitions in 2014 in the territories most impacted by the rising wholesale commodity costs during the effects of the polar vortex. During the second and third quarters of 2014, GRE accelerated acquisitions of new customers in Illinois, and reengaged its marketing efforts in certain Pennsylvania utility territories where it had suspended those activities. Net meters served increased by 29,000 or 8.4% in 2015 compared to a decrease of 64,000 or 15.0% in 2014 due to the increases in gross meter acquisitions and a reduction in customer churn. Average monthly churn decreased from 6.8% in 2014 to 6.3% in 2015, reflecting a return to more normalized churn rates following the unusually high rates recorded in the first and second quarters of 2014 following that winter's polar vortex. Churn rates were also favorably impacted by the successful introduction of the pricing plans with fixed rate characteristics.

GRE has applications pending to enter into additional utility service areas, primarily natural gas and dual meter territories, in various locations in the states where we currently operate and in other jurisdictions. We continue to evaluate additional, deregulation-driven opportunities in order to expand our business geographically.

The average rates of annualized energy consumption, as measured by residential customer equivalents, or RCEs, are presented in the chart below. An RCE represents a natural gas customer with annual consumption of 100 mmbtu or an electricity customer with annual consumption of 10 MWh. Because different customers have different rates of energy consumption, RCEs are an industry standard metric for evaluating the consumption profile of a given retail customer base.

<u>(in thousands)</u>	<u>December 31,</u> <u>2015</u>	<u>September 30,</u> <u>2015</u>	<u>June 30,</u> <u>2015</u>	<u>March 31,</u> <u>2015</u>	<u>December 31,</u> <u>2014</u>
RCEs at end of quarter:					
Electricity customers	178	178	168	158	160
Natural gas customers	81	82	83	83	83
Total RCEs	259	260	251	241	243

The RCE increase at December 31, 2015 compared to December 31, 2014 primarily reflects the increase in electricity customers in New Jersey and Illinois utility territories that have relatively high per meter consumption rates compared to our total customer base.

Other revenue in 2015 and 2014 includes revenue earned by Diversegy, and IDTEN, both of which were acquired in December 2013. Diversegy and IDTEN earn commissions, entry fees and other fees from their retail energy advisory and brokerage business and network marketing business, respectively.

Direct Cost of Revenues and Gross Margin Percentage. GRE's direct cost of revenues and gross margin percentage were as follows:

(in millions) Year ended December 31,	2015	2014	Change	
			\$	%
Direct cost of revenues:				
Electricity	\$ 107.9	\$ 165.6	\$ (57.7)	(34.8)%
Natural gas	30.9	55.0	(24.1)	(43.9)
Other	2.2	2.5	(0.3)	(12.9)
Total direct cost of revenues	\$ 141.0	\$ 223.1	\$ (82.1)	(36.8)%
Year ended December 31,				
	2015	2014	Change	
Gross margin percentage:				
Electricity	35.5%	22.8%	12.7%	
Natural gas	24.3	4.9	19.4	
Other	(9.5)	4.5	(14.0)	
Total gross margin percentage	32.9%	18.9%	14.0%	

Direct cost of revenues for electricity decreased in 2015 compared to 2014 primarily because of the 27.8% decrease in the average unit cost of electricity in 2015 compared to 2014, as well as the 9.6% decrease in electricity consumption in 2015 compared to 2014. Gross margin on electricity sales increased in 2015 compared to 2014 because the average rate charged to customers decreased less than the average unit cost of electricity.

Direct cost of revenues for natural gas decreased in 2015 compared to 2014 primarily because the average unit cost of natural gas decreased 37.1% in 2015 compared to 2014 and natural gas consumption decreased 10.7% in 2015 compared to 2014. Gross margin on natural gas sales increased in 2015 compared to 2014 because the average rate charged to customers decreased less than the average unit cost of natural gas.

Other direct cost of revenues primarily includes commission expense incurred by Diversegy and IDTEN.

Selling, General and Administrative. The increase in selling, general and administrative expense in 2015 compared to 2014 was due to increases in customer acquisition costs and payroll and related expenses. In addition, in 2015, the increase included an accrual of \$2.7 million for regulatory and legal matters including outside counsel fees. These increases were partially offset by a decrease in billing costs in 2015 compared to 2014. As a percentage of GRE's total revenues, selling, general and administrative expense increased from 16.3% in 2014 to 26.5% in 2015.

Bad Debt. GRE's bad debt expense in 2014 was \$0.3 million compared to expense reversal of \$29,000 in 2015. Bad debt expense in 2014 was mostly related to amounts due from a utility company that was under dispute.

Goodwill Impairment. In 2014, our annual goodwill impairment test resulted in the impairment of the goodwill of the Diversegy and IDTEN reporting unit primarily because of continuing losses since the acquisitions of those companies. We recorded goodwill impairment of \$3.6 million in 2014, which reduced the carrying amount of the goodwill related to Diversegy and IDTEN to zero. We estimated the fair value of the reporting unit and compared the estimated fair value to the reporting unit's carrying amount. We measured the fair value of the reporting unit by discounting its estimated future cash flows using an appropriate discount rate. Since the carrying value of the reporting unit including goodwill exceeded the estimated fair value, we performed the required additional steps and determined that the goodwill was fully impaired. Goodwill impairment is not a cash expenditure, therefore the impairment did not impact our liquidity at December 31, 2014, nor will goodwill impairment impact our future liquidity. No impairment was recorded as a result of our 2015 annual impairment test.

Adjustment to Estimated Contingent Payments. In 2014, we reduced our estimate of our contingent payment liability related to our acquisition of Diversegy and IDTEN and recorded a gain of \$0.2 million. The contingent payments include 100% of the gross profit from each closing customer contract during the remainder of the initial term of such contract and 100% of the gross profit from each post-closing customer contract during the initial term of such contract, plus 25% of the gross profit from the first renewal term of such contracts. A closing customer contract is generally a contract in effect at closing, and a post-closing customer contract is generally a contract that became effective within 60 days following the acquisition. We estimated the acquisition date fair value of the contingent payments based on historical gross profits, customer attrition and contract renewals.

Afek Segment

We have an 86.5% interest in Afek, which operates an exploration project in the Golan Heights in Northern Israel. Afek was included in the Genie Oil and Gas segment from its inception until December 31, 2014. Beginning in the first quarter of 2015, Afek is a separate reportable segment. Comparative results have been reclassified and restated as if Afek was a separate segment in all periods presented. Afek does not currently generate any revenues, nor does it incur any direct cost of revenues.

(in millions) Year ended December 31,	2015	2014	Change	
			\$	%
General and administrative expense	\$ 0.8	\$ 0.2	\$ 0.6	351.9%
Research and development	0.1	0.1	—	(56.0)
Exploration	6.6	7.0	(0.4)	(5.6)
Loss from operations.	\$ 7.5	\$ 7.3	\$ 0.2	2.2%

General and Administrative. General and administrative expense increased in 2015 compared to 2014 primarily because of increases in payroll expense and consulting and professional fees.

Exploration. In 2014, Afek was issued a permit by Israel's Northern District Planning and Building Committee to conduct an up to ten-well exploratory drilling program. In connection with a petition from the Israel Union for Environmental Defense and certain local residents, Israel's High Court of Justice issued an interim injunction against Afek, restricting Afek from building installations or changing the surface of the ground until the Court ruled on the petition. In December 2014, the High Court rejected the petition challenging the permits, and lifted its injunction on Afek's exploratory program in Northern Israel. In February 2015, Afek initiated drilling on its first exploratory well pursuant to its up to ten-well exploratory program. To date, Afek has completed drilling five wells and has initiated a well flow test program on one or more of those wells.

Genie Oil and Gas Segment

Genie Oil and Gas does not currently generate any revenues, nor does it incur any direct cost of revenues.

(in millions) Year ended December 31,	2015	2014	Change	
			\$	%
General and administrative expense	\$ 0.7	\$ 1.1	\$ (0.4)	(31.9)%
Research and development	1.9	5.4	(3.5)	(64.4)
Equity in net loss of AMSO, LLC.	0.4	—	0.4	nm
Loss from operations.	\$ 3.0	\$ 6.5	\$ (3.5)	(52.8)%

nm – not meaningful

General and Administrative. General and administrative expense decreased in 2015 compared to 2014 primarily due to decreases in payroll, travel, rent, consulting and professional expenses.

Research and Development. Research and development expense consists of the following:

(in millions)			
Year ended December 31,		2015	2014
Genie Mongolia	\$	1.7	\$ 2.7
IEI		0.2	2.6
Other		—	0.1
Total research and development expense	\$	1.9	\$ 5.4

Genie Mongolia's research and development expense in 2015 and 2014 related to the joint geological survey agreement with the Republic of Mongolia, which was executed in April 2013, to explore certain of that country's oil shale deposits. In 2014, Genie Mongolia acquired approximately 40 kilometers of 2D seismic results and drilled in three different basins within the license areas. Genie Mongolia also continued surface mapping and other geophysical evaluation work within the areas. In light of the progress achieved by Afek, we have suspended our operations in Mongolia.

During 2014, the environmental documents portion of IEI's permit application for the construction and operation of its oil shale pilot test facility was under review by the Ministry of Environment. In addition, as per the required permitting process, IEI continued laboratory work, engineering work and associated preparation of environmental permit applications related to the planned pilot. IEI submitted its application for the construction and operation of its oil shale pilot test facility to the Jerusalem District Committee for Planning and Building, and on September 2, 2014, the Committee declined to issue IEI a permit to build and operate a pilot drilling project. IEI is evaluating whether and how to exploit the abundant oil shale resource in Israel in light of the Committee's decision. Operations at IEI are currently on hold.

Equity in the Net Loss of AMSO, LLC. Equity in the net loss of AMSO, LLC was \$0.4 million in 2015 and nil in 2014. AMSO has the right to decide at each capital call whether or not to fund AMSO, LLC, and will make a determination at each such time. AMSO did not fund the capital calls for any quarter from the fourth quarter of 2013 through the second quarter of 2015. AMSO funded an aggregate of \$0.3 million from the third quarter of 2015 through the first quarter of 2016, which was 28% of its share of the capital calls. In the period from January 2014 through January 2016, Total funded an aggregate of \$4.6 million for AMSO's share of the capital calls that AMSO did not fund. In part because of AMSO's decisions not to fund all of its share of AMSO, LLC's expenditures, AMSO, LLC allocates its net loss beginning January 2014 as follows: \$12.1 million of losses were allocated to Total, then it allocates any remaining losses proportionately such that over time AMSO and Total's capital accounts as a percentage of AMSO, LLC's total capital will equal their ownership interests. AMSO, LLC's net loss was \$5.2 million and \$8.2 million in 2015 and 2014, respectively.

On February 23, 2016, Total notified AMSO of its decision not to continue to fund AMSO, LLC. We are currently considering our options with respect to the future of this project. AMSO and Total are obligated to fund certain remediation and reclamation costs. We estimate that our share of such costs would be in the range of nil to \$2.0 million.

Corporate

Corporate does not generate any revenues, nor does it incur any direct cost of revenues. Corporate costs include unallocated compensation, consulting fees, legal fees, business development expense and other corporate-related general and administrative expense.

(in millions)			Change	
Year ended December 31,		2015	2014	
		\$		%
General and administrative expense and loss from operations	\$	8.9	\$ 15.4	\$ (6.5) (42.0)%

The decrease in Corporate general and administrative expense in 2015 compared to 2014 was mostly due to a decrease in stock-based compensation expense, which decreased to \$4.5 million in 2015 from \$9.7 million in 2014. Stock-based compensation in 2014 related primarily to the December 2013 grant of options to purchase 3.0 million shares of our Class B common stock at an exercise price of \$10.30 per share to Howard Jonas, our Chairman of the Board and Chief Executive Officer, and the subsequent amendment of that compensation arrangement. The options were initially vesting

in five equal annual installments commencing on December 31, 2014. The estimated total value of the options on the grant date was \$19.3 million. In July and August 2014, in connection with our entry into a Second Amended and Restated Employment Agreement with Mr. Jonas, the options were cancelled and Mr. Jonas purchased an aggregate of 3.6 million shares of our Class B common stock. The decrease in Corporate general and administrative expense in 2015 compared to 2014 was also due to a decrease in payroll expense. As a percentage of our consolidated revenues, Corporate general and administrative expense decreased from 5.6% in 2014 to 4.2% in 2015.

Consolidated

Selling, General and Administrative. Pursuant to an agreement between us and IDT, IDT charges us for services it provides, and we charge IDT for services that we provide to certain of IDT's subsidiaries. In 2015 and 2014, the amounts that IDT charged us, net of the amounts that we charged IDT, were \$1.8 million and \$2.9 million, respectively, which were included in consolidated selling, general and administrative expense.

Stock-based compensation expense included in consolidated selling, general and administrative expense was \$5.2 million and \$10.8 million in 2015 and 2014, respectively. The decrease in stock-based compensation expense was primarily due to unrecognized compensation cost that was fully recognized in 2014. At December 31, 2015, aggregate unrecognized compensation cost related to non-vested stock-based compensation was \$12.4 million. The unrecognized compensation cost is recognized over the expected service period.

The following is a discussion of our consolidated income and expense line items below income from operations.

(in millions) Year ended December 31,	2015	2014	Change	
			\$	%
(Loss) income from operations	\$ (5.9)	\$ (25.6)	\$ 19.7	77.0%
Interest income	0.4	0.5	(0.1)	(12.4)
Financing fees	(2.4)	(2.6)	0.2	4.4
Other (expense) income, net	(0.2)	0.4	(0.6)	(149.6)
Provision for income taxes	(0.5)	(0.1)	(0.4)	(452.6)
Net loss	(8.6)	(27.4)	18.8	68.5
Net loss attributable to noncontrolling interests	1.1	0.9	0.2	28.0
Net loss attributable to Genie	\$ (7.5)	\$ (26.5)	\$ 19.0	71.8%

Financing Fees. Financing fees are the volumetric fees charged by BP under the Preferred Supplier Agreement between IDT Energy and BP. Financing fees decreased in 2015 compared to 2014 primarily because of the lower consumption by GRE's customers.

Other (Expense) Income, net. The change in other (expense) income, net in 2015 compared to 2014 was mainly due to the change in foreign currency translation gains (losses), from gains of \$0.4 million in 2014 to losses of \$0.1 million in 2015.

Provision for Income Taxes. The increase in the provision for income taxes in 2015 compared to 2014 was primarily due to the change in state income tax expense in GRE. GRE's income before income taxes and provision for income taxes increased in 2015 compared to 2014. GRE includes IDT Energy, certain limited liability companies and our consolidated variable interest entities. IDT Energy and the limited liability companies are included in our consolidated return. Citizen's Choice Energy, LLC, or CCE, and DAD Sales, LLC, or DAD are our consolidated variable interest entities, which file separate tax returns since we do not have any ownership interest in these variable interest entities. The following table summarizes GRE's aggregate income before income taxes and provision for income taxes:

(in millions) Year ended December 31,	2015	2014
Genie Retail Energy:		
Aggregate income before income taxes	\$ 11.2	\$ 1.2
Aggregate provision for income taxes	\$ (2.1)	\$ (0.4)

Net Loss Attributable to Noncontrolling Interests. The change in the net loss attributable to noncontrolling interests in 2015 compared to 2014 was due to a decrease in the net income of CCE, partially offset by the change in the net loss attributable to noncontrolling interests in GOGAS. CCE is a variable interest entity that is consolidated within our GRE segment. We do not have any ownership interest in CCE, therefore, 100% of the net income or loss incurred by CCE has been attributed to noncontrolling interests. CCE's net income in 2015 was \$0.2 million compared to \$0.8 million in 2014. CCE's net income decreased primarily due to a decrease in gross profit and a reduction in benefit from income taxes.

Year Ended December 31, 2014 compared to Year Ended December 31, 2013

Genie Retail Energy Segment

(in millions) Year ended December 31,	2014	2013	Change	
			\$	%
Revenues:				
Electricity	\$ 214.5	\$ 216.7	\$ (2.2)	(1.0)%
Natural gas	57.9	62.5	(4.6)	(7.4)
Other	2.6	—	2.6	nm
Total revenues	275.0	279.2	(4.2)	(1.5)
Direct cost of revenues	223.1	213.4	9.7	4.5
Gross profit	51.9	65.8	(13.9)	(21.0)
Selling, general and administrative	44.7	39.2	5.5	14.0
Bad debt	0.3	0.8	(0.5)	(61.2)
Goodwill impairment	3.6	—	3.6	nm
Adjustment to estimated contingent payments	(0.2)	—	(0.2)	nm
Income from operations	\$ 3.5	\$ 25.8	\$ (22.3)	(86.3)%

nm – not meaningful

Revenues. GRE's electricity revenues decreased in 2014 compared to 2013 because of a 27.0% decrease in electricity consumption, partially offset by a 35.6% increase in the average rate charged to customers. The decrease in electricity consumption was primarily the result of a decrease in meters served, which decreased 15.0% in 2014 compared to 2013, coupled with a 14.1% decrease in average consumption per meter in 2014 compared to 2013. The increase in the average rate charged to customers was mostly due to a 34.2% increase in the underlying commodity cost in 2014 compared to 2013.

GRE's natural gas revenues decreased in 2014 compared to 2013 because of a 10.5% decrease in natural gas consumption, partially offset by a 3.5% increase in the average rate charged to customers. The decrease in natural gas consumption was primarily the result of a 14.0% decrease in meters served, although average consumption per meter increased 4.0% in 2014 compared to 2013. The increase in the average rate charged to customers for natural gas was due to a 38.0% increase in the underlying commodity cost in 2014 compared to 2013.

The decreases in GRE's meters served in 2014 compared to 2013, and the associated decreases in electricity and natural gas consumption, were significantly impacted by a confluence of issues in January and February 2014 associated with that winter's polar vortex. Sustained, extremely cold weather in much of GRE's service area, short reserves of natural gas in the wholesale markets, delivery constrictions and unusually volatile commodity trading in the financial markets caused extraordinarily large spikes in the prices of wholesale electricity and natural gas in markets where GRE and other REPs purchase their supply. GRE responded by reducing its target margins in order to mitigate the severity of the commodity price increases on its customers and subsequently issued an aggregate of approximately \$5 million in rebates to customers in 2014. The colder weather adversely affected GRE's customer churn, gross margins and results of operations in 2014 compared to 2013.

GRE's customer base as measured by meters served consisted of the following:

(in thousands)	December 31, 2014	September 30, 2014	June 30, 2014	March 31, 2014	December 31, 2013
Meters at end of quarter:					
Electricity customers	234	235	238	256	282
Natural gas customers	129	127	126	135	145
Total meters	363	362	364	391	427

Gross meter acquisitions in 2014 were 213,000 compared to 245,000 in 2013. The decrease was partially due to an intentional slowing of customer acquisition efforts in the territories most impacted by the rising wholesale commodity costs during the effects of the polar vortex. During the second and third quarters of 2014, GRE accelerated acquisitions of new customers in Illinois, and reengaged its marketing efforts in certain Pennsylvania utility territories where it had suspended those activities. In addition, GRE developed and began to trial a twelve-month locked rate residential offering in some utility territories.

Net meters served decreased by 64,000 or 15.0% in 2014 compared to a decrease of 75,000 or 14.9% in 2013 due to the higher levels of customer churn and lower levels of gross meter acquisitions. Average monthly churn increased from 6.3% in 2013 to 6.8% in 2014, as some customers migrated back to the incumbent utility because of the large increase in the rates charged to customers due to the extreme increase in our costs to procure the commodities.

The average rates of annualized energy consumption as measured by RCEs are presented in the chart below.

(in thousands)	December 31, 2014	September 30, 2014	June 30, 2014	March 31, 2014	December 31, 2013
RCEs at end of quarter:					
Electricity customers	160	165	174	198	228
Natural gas customers	83	83	86	90	87
Total RCEs	243	248	260	288	315

The RCE decrease at December 31, 2014 compared to December 31, 2013 primarily reflected the decline in meters served. In addition, the Pennsylvania utility territories hardest hit by the polar vortex had relatively high per meter consumption rates compared to our full customer base, including the new territories we serve in Illinois. They experienced higher than average levels of churn and customer acquisition programs in some of these territories were briefly suspended.

Other revenue in 2014 included revenue earned by Diversegy and IDTEN, both of which were acquired in December 2013. Diversegy and IDTEN earn commissions, entry fees and other fees from their retail energy advisory and brokerage business and network marketing, respectively.

Direct Cost of Revenues and Gross Margin Percentage. GRE's direct cost of revenues and gross margin percentage were as follows:

(in millions)	Change			
Year ended December 31,	2014	2013	\$	%
Direct cost of revenues:				
Electricity	\$ 165.6	\$ 168.9	\$ (3.3)	(2.0)%
Natural gas	55.0	44.5	10.5	23.5
Other	2.5	—	2.5	nm
Total direct cost of revenues	\$ 223.1	\$ 213.4	\$ 9.7	4.5%

nm – not meaningful

Year ended December 31,	2014	2013	Change
Gross margin percentage:			
Electricity	22.8%	22.1%	0.7%
Natural gas	4.9	28.7	(23.8)
Other	4.5	—	4.5
Total gross margin percentage	18.9%	23.6%	(4.7)%

Direct cost of revenues for electricity decreased in 2014 compared to 2013 primarily because of the 27.0% decrease in electricity consumption in 2014 compared to 2013. The decrease in electricity consumption was partially offset by a 34.2% increase in the average unit cost of electricity in 2014 compared to 2013. Gross margin on electricity sales slightly increased in 2014 compared to 2013 because the average rate charged to customers increased more than the average unit cost of electricity. Additionally, 2013 was impacted by the effects of an internal pricing system issue that constrained our ability to make timely adjustments to electric rates in some newer territories, which did not repeat in 2014.

Direct cost of revenues for natural gas increased in 2014 compared to 2013 primarily because the average unit cost of natural gas increased 38.0% in 2014 compared to 2013. The increase in the average unit cost of natural gas was partially offset by a 10.5% decrease in natural gas consumption in 2014 compared to 2013. Gross margin on natural gas sales decreased in 2014 compared to 2013 because the average unit cost of natural gas increased substantially more than the average rate charged to customers.

Other direct cost of revenues primarily includes commission expense incurred by Diversegy and IDTEN.

Selling, General and Administrative. The increase in selling, general and administrative expense in 2014 compared to 2013 was due to increases in payroll, consulting and professional fees and computer software licenses expense, primarily all of which related to the acquisitions of Diversegy and IDTEN. The increase in selling, general and administrative expense in 2014 compared to 2013 was also due to increases in customer acquisition costs and purchase of receivable fees. As a percentage of GRE's total revenues, selling, general and administrative expense increased from 14.1% in 2013 to 16.3% in 2014.

Bad Debt. GRE's bad debt expense in 2014 was \$0.3 million compared to \$0.8 million in 2013. Bad debt expense in 2014 and 2013 was mostly related to amounts due from a utility company that were under dispute.

Goodwill Impairment. In 2014, our annual goodwill impairment test resulted in the impairment of the goodwill of the Diversegy and IDTEN reporting unit primarily because of continuing losses since the acquisitions of those companies. We recorded goodwill impairment of \$3.6 million in 2014, which reduced the carrying amount of the goodwill related to Diversegy and IDTEN to zero. We estimated the fair value of the reporting unit and compared the estimated fair value to the reporting unit's carrying amount. We measured the fair value of the reporting unit by discounting its estimated future cash flows using an appropriate discount rate. Since the carrying value of the reporting unit including goodwill exceeded the estimated fair value, we performed the required additional steps and determined that the goodwill was fully impaired. Goodwill impairment is not a cash expenditure, therefore the impairment did not impact our liquidity at December 31, 2014, nor will goodwill impairment impact our future liquidity.

Adjustment to Estimated Contingent Payments. In 2014, we reduced our estimate of our contingent payment liability related to our acquisition of Diversegy and IDTEN and recorded a gain of \$0.2 million. We estimated the acquisition date fair value of the contingent payments based on historical gross profits, customer attrition and contract renewals.

Afek Segment

Afek was included in the Genie Oil and Gas segment from its inception until December 31, 2014. Beginning in the first quarter of 2015, Afek is a separate reportable segment. Comparative results have been reclassified and restated as if Afek was a separate segment in all periods presented. Afek does not currently generate any revenues, nor does it incur any direct cost of revenues.

(in millions)			Change	
	2014	2013	\$	%
Year ended December 31,				
General and administrative expense	\$ 0.2	\$ 0.1	\$ 0.1	385.3%
Research and development	0.1	0.2	(0.1)	(22.7)
Exploration	7.0	4.0	3.0	72.9
Loss from operations.	\$ 7.3	\$ 4.3	\$ 3.0	71.4%

General and Administrative. General and administrative expense increased in 2014 compared to 2013 primarily because of increases in payroll expense and consulting and professional fees.

Exploration. In 2014, Afek was issued a permit by Israel's Northern District Planning and Building Committee to conduct an up to ten-well exploratory drilling program. In connection with a petition from the Israel Union for Environmental Defense and certain local residents, Israel's High Court of Justice issued an interim injunction against Afek, restricting Afek from building installations or changing the surface of the ground until the Court ruled on the petition. In December 2014, the High Court rejected the petition challenging the permits, and lifted its injunction on Afek's exploratory program in Northern Israel.

Genie Oil and Gas Segment

Genie Oil and Gas does not currently generate any revenues, nor does it incur any direct cost of revenues.

(in millions) Year ended December 31,	2014	2013	Change	
			\$	%
General and administrative expense	\$ 1.1	\$ 1.3	\$ (0.2)	(18.7)%
Research and development	5.4	7.2	(1.8)	(24.8)
Equity in net loss of AMSO, LLC	—	3.2	(3.2)	(100.0)
Loss from operations	\$ 6.5	\$ 11.7	\$ (5.2)	(44.6)%

General and Administrative. General and administrative expense decreased in 2014 compared to 2013 primarily due to decreases in stock-based compensation expense and consulting and professional fees.

Research and Development. Research and development expense consists of the following:

(in millions) Year ended December 31,	2014	2013
Genie Mongolia	\$ 2.7	\$ 3.4
IEI	2.6	3.7
Other	0.1	0.1
Total research and development expense	\$ 5.4	\$ 7.2

Genie Mongolia's research and development expense in 2014 and 2013 related to the joint geological survey agreement with the Republic of Mongolia, which was executed in April 2013, to explore certain of that country's oil shale deposits. In 2014, Genie Mongolia acquired approximately 40 kilometers of 2D seismic results and drilled in three different basins within the license areas. Genie Mongolia also continued surface mapping and other geophysical evaluation work within the areas.

During 2014, the environmental documents portion of IEI's permit application for the construction and operation of its oil shale pilot test facility was under review by the Ministry of Environment. In addition, as per the required permitting process, IEI continued laboratory work, engineering work and associated preparation of environmental permit applications related to the planned pilot.

Equity in the Net Loss of AMSO, LLC. AMSO has the right to decide at each capital call whether or not to fund AMSO, LLC, and will make a determination at each such time. AMSO did not fund the capital calls for any quarter from the fourth quarter of 2013 through the second quarter of 2015. Total funded AMSO's share of the capital calls that AMSO did not fund in an aggregate amount of \$3.6 million through the first quarter of 2015. In part because of AMSO's decisions not to fund all of its share of AMSO, LLC's expenditures, AMSO, LLC allocated its net loss beginning January 2014 as follows: the first \$11.0 million of losses were allocated to Total, then it allocated any remaining losses proportionately such that over time AMSO and Total's capital accounts as a percentage of AMSO, LLC's total capital will equal their ownership interests. As a result, equity in the net loss of AMSO, LLC was nil in 2014, and \$3.2 million in 2013, which was 35% of AMSO, LLC's net loss of \$9.1 million in 2013.

Corporate

Corporate does not generate any revenues, nor does it incur any direct cost of revenues. Corporate costs include unallocated compensation, consulting fees, legal fees, business development expense and other corporate-related general and administrative expense.

(in millions) Year ended December 31,	2014	2013	Change	
			\$	%
General and administrative expense and loss from operations	\$ 15.4	\$ 9.1	\$ 6.3	68.4%

The increase in Corporate general and administrative expense in 2014 compared to 2013 was due to an increase in stock-based compensation. The increase in stock-based compensation was primarily the result of the December 2013 grant of options to purchase 3.0 million shares of our Class B common stock at an exercise price of \$10.30 per share to Howard Jonas and the subsequent amendment of that compensation arrangement. The options were initially vesting in five equal annual installments commencing on December 31, 2014. The estimated total value of the options on the grant date was \$19.3 million. In July and August 2014, in connection with our entry into a Second Amended and Restated Employment Agreement with Mr. Jonas, the options were cancelled and Mr. Jonas purchased an aggregate of 3.6 million shares of our Class B common stock. Because of the equity arrangement with Mr. Jonas, we recorded Corporate stock-based compensation of \$7.9 million and nil in 2014 and 2013, respectively. As a percentage of our consolidated revenues, Corporate general and administrative expense increased from 3.3% in 2013 to 5.6% in 2014.

Consolidated

Selling, General and Administrative. IDT charges us for services it provides pursuant to an agreement, and we charge IDT for services that we provide to certain of IDT’s subsidiaries. In 2014 and 2013, the amounts that IDT charged us, net of the amounts that we charged IDT, were \$2.9 million and \$3.1 million, respectively, which were included in consolidated selling, general and administrative expense.

Stock-based compensation expense included in consolidated selling, general and administrative expense was \$10.8 million and \$4.2 million in 2014 and 2013, respectively. The increase in 2014 compared to 2013 was primarily due to expense from the equity arrangement with Mr. Jonas. At December 31, 2014, aggregate unrecognized compensation cost related to non-vested stock-based compensation was \$13.3 million. The expense from these grants is recognized over the expected service period.

The following is a discussion of our consolidated income and expense line items below income from operations.

(in millions) Year ended December 31,	2014	2013	Change	
			\$	%
(Loss) income from operations	\$ (25.6)	\$ 0.6	\$ (26.2)	nm
Interest income	0.5	0.4	0.1	4.5%
Financing fees	(2.6)	(3.2)	0.6	20.4
Other income (expense), net	0.4	(0.3)	0.7	187.6
Provision for income taxes	(0.1)	(2.8)	2.7	96.6
Net loss	(27.4)	(5.3)	(22.1)	(413.1)
Net loss (income) attributable to noncontrolling interests	0.9	(0.6)	1.5	263.9
Net loss attributable to Genie	\$ (26.5)	\$ (5.9)	\$ (20.6)	(348.7)%

nm – not meaningful

Financing Fees. Financing fees are the volumetric fees charged by BP under the Preferred Supplier Agreement between IDT Energy and BP. Financing fees decreased in 2014 compared to 2013 primarily because of the reduction in consumption by GRE’s customers.

Other Income (Expense), net. The change in other income (expense), net in 2014 compared to 2013 was mainly due to the change in foreign currency translation gains (losses), from losses of \$0.4 million in 2013 to gains of \$0.4 million in 2014. In addition, in 2013, we recorded a loss on disposal of property of \$37,000.

Provision for Income Taxes. The decrease in the provision for income taxes in 2014 compared to 2013 was primarily due to the changes in federal and state income tax expense in GRE. GRE had significant reductions in its income before income taxes and provision for income taxes in 2014 compared to 2013. GRE includes IDT Energy, certain limited liability companies and our consolidated variable interest entities. IDT Energy and the limited

liability companies are included in our consolidated return. CCE and DAD are our consolidated variable interest entities, which file separate tax returns since we do not have any ownership interest in these variable interest entities. The following table summarizes GRE's aggregate income before income taxes and provision for income taxes:

(in millions)	Year ended December 31,	
	2014	2013
Genie Retail Energy:		
Aggregate income before income taxes	\$ 1.2	\$ 22.7
Aggregate provision for income taxes	\$ (0.4)	\$ (9.4)

Net Loss (Income) Attributable to Noncontrolling Interests. The change in the net loss (income) attributable to noncontrolling interests in 2014 compared to 2013 primarily relates to 100% of the net income incurred by CCE, which is a variable interest entity that is consolidated within our GRE segment. We do not have any ownership interest in CCE, therefore, all net income or loss incurred by CCE has been attributed to noncontrolling interests. CCE's net income in 2014 was \$0.8 million compared to \$2.1 million in 2013. CCE's net income decreased primarily due to a decrease in gross profit, partially offset by reduction in income tax expense.

LIQUIDITY AND CAPITAL RESOURCES

General

Historically, we have satisfied our cash requirements primarily through a combination of our existing cash and cash equivalents, GRE's cash flow from operating activities, and sales of equity interests in GOGAS and certain of its subsidiaries. We currently expect that our operations in the next twelve months and the \$47.6 million balance of cash, cash equivalents, and certificates of deposit that we held as of December 31, 2015 will be sufficient to meet our currently anticipated cash requirements for at least the year ending December 31, 2016, including Afek's anticipated substantial expenditures in the year ending December 31, 2016.

We are considering sales of equity interests in Afek or GOGAS to provide the necessary financing for such activities.

At December 31, 2015, we had working capital (current assets less current liabilities) of \$77.1 million.

(in millions)	Year ended December 31,		
	2015	2014	2013
Cash flows (used in) provided by:			
Operating activities	\$ (3.1)	\$ (19.1)	\$ 1.2
Investing activities	(31.6)	(1.8)	3.8
Financing activities	1.6	19.5	(0.9)
Effect of exchange rate changes on cash and cash equivalents	—	(0.6)	0.4
(Decrease) increase in cash and cash equivalents	\$ (33.1)	\$ (2.0)	\$ 4.5

Operating Activities

Cash used in operating activities was \$3.1 million and \$19.1 million in 2015 and 2014, respectively. Cash provided by operating activities was \$1.2 million in 2013. Our cash flow from operations varies significantly from quarter to quarter and from year to year, depending on our operating results and the timing of operating cash receipts and payments, specifically trade accounts receivable and trade accounts payable, including payments relating to our exploration and research and development activities.

CCE and DAD are consolidated variable interest entities. We determined that since the acquisition of the interest in CCE and DAD, we had the power to direct the activities of these entities that most significantly impact their economic performance, and we have the obligation to absorb losses of CCE and DAD that could potentially be significant to CCE and DAD on a stand-alone basis. We therefore determined that we are the primary beneficiary of CCE and DAD, and as a result, we consolidate CCE and DAD within our GRE segment. We provided CCE and DAD with all of the cash required to fund their operations. In 2015 and 2013, CCE and DAD repaid to us

\$1.0 million and \$4.1 million, respectively. In 2014, we provided CCE and DAD with net funding of \$0.3 million to finance their operations.

As of November 19, 2015, IDT Energy and certain of its affiliates entered into an Amended and Restated Preferred Supplier Agreement with BP. The agreement's termination date is November 30, 2019, except either party may terminate the agreement on November 30, 2018 by giving the other party notice by May 31, 2018. 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, and in any cash deposits or letters of credit posted in connection with any collateral accounts with BP. 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. At December 31, 2015, we were in compliance with such covenants. As of December 31, 2015, restricted cash — short-term of \$0.8 million and trade accounts receivable of \$27.0 million were pledged to BP as collateral for the payment of IDT Energy's trade accounts payable to BP of \$8.3 million as of December 31, 2015.

At December 31, 2015, we had an aggregate of \$2.5 million accrued for certain complaints and lawsuits described in Item 3 to Part I of this Annual Report on Form 10-K. In one matter, which is included in this accrual, subject to the approval of the Pennsylvania Public Utility Commission, IDT Energy has agreed to issue additional refunds to its Pennsylvania customers who had variable rates for electricity supply in January, February and March of 2014.

In July 2013, GRE negotiated a settlement of an audit of its New York State sales and use tax for the period from June 2003 through August 2009. As a result, GRE paid \$0.9 million in July 2013. We are subject to audits in various jurisdictions for various taxes. Amounts asserted by taxing authorities or the amount ultimately assessed against us could be greater than accrued amounts. Accordingly, additional provisions may be recorded in the future as estimates are revised or underlying matters are settled or resolved. Imposition of assessments as a result of tax audits could have an adverse effect on our results of operations, cash flows and financial condition.

On February 23, 2016, the New York PSC issued an order that sought to impose significant new restrictions on REPs operating in New York, including GRE. The restrictions described in the PSC's order, which were to become effective March 4, 2016, would require that all REPs' electricity and natural gas offerings to residential and small business customers include an annual guarantee of savings compared to the price charged by the relevant incumbent utility or, for electricity offerings, provide at least 30% of the supply from renewable sources. Customers not enrolled in a compliant program would be relinquished back to the local utility at the end of their contract period or, for variable price customers operating on month to month agreements, at the end of the current monthly billing cycle.

On March 4, 2016, a group of parties from the REP industry sought and won a temporary restraining order to stay implementation of the most restrictive portions of the PSC's order until a court hearing on April 14, 2016. GRE expects that the REP industry will take additional legal action in response to the order seeking a definitive judicial review of the industry's challenges to the PSC's order.

We are evaluating the potential impact of the PSC's order on our New York operations while preparing to operate in compliance with any new requirements. Depending on the final language of the order and the outcome of legal appeals, as well as our final response to the order with respect to our relationships with our New York customers, the order will likely have a substantial impact upon GRE's operations in New York. As of December 31, 2015, New York represented 53% of GRE's total meters served and 44% of the total RCEs of GRE's customer base.

Investing Activities

Our capital expenditures were \$0.3 million, \$1.4 million and \$0.3 million in 2015, 2014 and 2013, respectively. Costs for research and development activities are charged to expense when incurred.

In 2015, 2014 and 2013, we used cash of \$27.0 million, nil and nil, respectively, for investments in Afek's unproved oil and gas property in the Golan Heights in Northern Israel. We had purchase commitments of \$22.4 million at December 31, 2015 that included commitments for capital expenditures and exploration costs. We currently anticipate that our total expenditures for Afek's exploration costs and other capital expenditures in the year ending December 31, 2016 will be between \$15 million and \$20 million.

In 2015 and 2013, cash used for capital contributions to AMSO, LLC was \$0.3 million and \$2.7 million, respectively. No contributions were made in 2014. AMSO has the right to decide at each capital call whether or not to fund AMSO, LLC, and will make a determination at each such time. AMSO did not fund the capital calls

for any quarter from the fourth quarter of 2013 through the second quarter of 2015. AMSO funded an aggregate of \$0.3 million from the third quarter of 2015 through the first quarter of 2016, which was 28% of its share of the capital calls. In the period from January 2014 through January 2016, Total funded an aggregate of \$4.6 million for AMSO's share of the capital calls that AMSO did not fund. Because of AMSO's decision not to fund all of its share of AMSO, LLC's expenditures, AMSO's ownership interest in AMSO, LLC was reduced to 41.3% and Total's ownership interest increased to 58.7%. In addition, AMSO's share of future funding of AMSO, LLC up to a cumulative \$100 million was reduced to 28.9% and Total's share increased to 71.1%.

On February 23, 2016, Total notified AMSO of its decision not to continue to fund AMSO, LLC. We are currently considering our options with respect to the future of this project. AMSO and Total are obligated to fund certain remediation and reclamation costs. We estimate that our share of such costs would be in the range of nil to \$2.0 million.

In December 2013, IDT Energy acquired 100% of the outstanding membership interests of Diversegy and IDTEN. Cash paid for the acquisitions, net of cash acquired, was \$0.8 million. In addition, IDT Energy agreed to additional cash payments of \$1.2 million and contingent payments that were estimated to be \$1.3 million. In 2015 and 2014, we paid an aggregate of \$0.4 million and \$1.1 million, respectively, in scheduled and contingent payments, which is included in financing activities. In addition, in 2014, we reduced our estimate of our contingent payment liability related to our acquisition of Diversegy and IDTEN and recorded a gain of \$0.2 million. At December 31, 2015, there were estimated contingent payments of \$0.4 million remaining to be paid. The contingent payments include 100% of the gross profit from each closing customer contract during the remainder of the initial term of such contract and 100% of the gross profit from each post-closing customer contract during the initial term of such contract, plus 25% of the gross profit from the first renewal term of such contracts. A closing customer contract is generally a contract in effect at closing, and a post-closing customer contract is generally a contract that became effective within 60 days following the acquisition. The acquisition date fair value of the contingent payments was estimated based on historical gross profits, customer attrition and contract renewals.

In 2015, 2014 and 2013, we received \$0.1 million, nil and nil, respectively, for the repayment of notes receivable. In 2015, 2014 and 2013, we entered into notes receivable for an aggregate of nil, \$0.1 million and \$0.8 million, respectively.

In 2015, 2014 and 2013, we used cash of \$8.8 million, \$4.7 million and \$4.3 million, respectively, to purchase certificates of deposits, and nil, nil and \$3,000, respectively, to purchase marketable securities. In 2015, 2014 and 2013, proceeds from maturities of certificates of deposit were \$4.7 million, \$4.3 million and \$2.2 million, respectively, and proceeds from maturities of marketable securities were nil, nil and \$10.4 million, respectively.

Financing Activities

In 2015, 2014 and 2013, we paid aggregate Base Dividends per share of \$0.6376, \$0.6376, and \$0.6099, respectively, on our Series 2012-A Preferred Stock. The aggregate Preferred Stock dividends paid in 2015, 2014 and 2013 were \$1.5 million, \$1.4 million, and \$1.1 million, respectively. On February 16, 2016, we paid a quarterly Base Dividend of \$0.1594 per share on our Series 2012-A Preferred Stock for the fourth quarter of 2015 to stockholders of record as of the close of business on February 5, 2016.

In 2015 and 2014, we paid aggregate dividends per share of \$0.12 and \$0.06, respectively, to stockholders of our Class A common stock and Class B common stock. The aggregate dividends paid in 2015 and 2014 were \$3.0 million and \$1.5 million, respectively. No dividend was declared or paid on our Class A common stock or Class B common stock in 2013. On February 12, 2016, we paid a quarterly dividend of \$0.06 per share on our Class A common stock and Class B common stock for the fourth quarter of 2015 to stockholders of record as of the close of business on February 5, 2016, as we have resumed quarterly dividend payments on our common stock.

On December 17, 2015, GRE, IDT Energy and certain affiliates entered into a Credit Agreement with Maple Bank GmbH for a revolving loan facility. On December 17, 2015, GRE borrowed \$2.0 million under the facility. In February 2016, the German banking regulator, Bafin, closed Maple Bank GmbH due to impending financial over-indebtedness related to tax-evasion investigations. Therefore, the revolving line of credit is not available for future borrowings. The collateral for the revolving loan consists of the borrowers' receivables, the balances in certain bank accounts and certain commercial and intangible rights. Outstanding principal amount incurs interest at LIBOR plus 3.5% per annum. Interest is payable monthly and all outstanding principal and any accrued and unpaid interest

is due on the maturity date of December 17, 2018. The borrowers are required to comply with various affirmative and negative covenants, including maintaining a target tangible net worth during the term of the Credit Agreement. At December 31, 2015, the borrowers were in compliance with all of the covenants.

As of April 23, 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. We are not permitted to withdraw funds or exercise any authority over the required balance in the collateral account. The principal outstanding will bear interest at the lesser of (a) the LIBOR rate multiplied by the statutory reserve rate established by the Board of Governors of the Federal Reserve System plus 1.0% per annum, or (b) the maximum rate per annum permitted by whichever of applicable federal or Texas laws permit the higher interest rate. Interest is payable at least every three months and all outstanding principal and any accrued and unpaid interest is due on the maturity date of April 30, 2016. We pay a quarterly unused commitment fee of 0.08% per annum on the difference between \$25.0 million and the average daily outstanding principal balance of the note. In addition, as of April 23, 2012, GEIC issued a Corporate Guaranty to JPMorgan Chase Bank whereby GEIC unconditionally guarantees the full payment of all indebtedness of ours and IDT Energy under the Loan Agreement. At December 31, 2015, there were no amounts borrowed under the line of credit, and cash collateral of \$10.0 million was included in “Restricted cash — short-term” in the consolidated balance sheet. In addition, at December 31, 2015, letters of credit of \$7.7 million were outstanding.

On July 30, 2014, we entered into a Second Amended and Restated Employment Agreement and a Restricted Stock Sale Agreement with Howard Jonas. Pursuant to these agreements, in July and August 2014, we sold an aggregate of 3.6 million shares of our Class B common stock to Mr. Jonas for an aggregate purchase price of \$24.6 million. The 3.6 million shares of our Class B common stock are subject to repurchase by us at \$6.82 per share upon certain terminations of Mr. Jonas’ employment by us, and such repurchase right lapses as to 0.6 million shares on December 31, 2016, 2017 and 2018.

In 2013, a consolidated variable interest entity distributed \$42,000 to its shareholder, which was classified as a distribution to noncontrolling interests.

In June 2011, GOGAS issued a stock option to Michael Steinhardt at an exercise price of \$5.0 million. The expiration date was April 9, 2015. The expiration date was extended for one month, and on May 9, 2015, the option was exercised. Mr. Steinhardt and an affiliate received interests of approximately 1.5% in each of Afek, Genie Mongolia and IEL. In addition, Mr. Steinhardt and the affiliate received an approximately 1.7% interest in AMSO. The exercise price of \$5.0 million was paid \$2.5 million in cash and \$2.5 million in promissory notes due in November 2015. The notes bear interest at 0.43% per annum, and are secured by 50% of the shares received in the exercise. In November 2015, we received cash of \$0.8 million to repay one-third of the principal amount of the promissory notes. The remaining notes, an aggregate of \$1.7 million, are expected to be repaid in 2016. At December 31, 2015, the notes receivable were included in “Receivables for issuance of equity” in the consolidated balance sheet. In 2013, certain GOGAS subsidiaries sold noncontrolling equity interests for an aggregate of \$0.4 million in cash.

We received proceeds from the exercise of our stock options of \$0.2 million, \$28,000 and \$0.1 million in 2015, 2014 and 2013, respectively.

In November 2010, GOGAS sold a 0.5% equity interest to Rupert Murdoch for \$1.0 million paid with a promissory note. The note was secured by a pledge of the shares issued in exchange for the note. The note accrued interest at 1.58% per annum. We received an aggregate of \$1.1 million for the payment of the principal and accrued interest on the maturity date of November 15, 2015.

In October 2015, GRE paid \$0.2 million to the owner of the limited liability company interests in CCE, and loaned CCE \$0.5 million in exchange for an option to purchase 100% of the issued and outstanding limited liability company interests of CCE for one dollar plus the forgiveness of the \$0.5 million loan. The option expires on October 22, 2023.

In 2015, we paid \$27,000 to repurchase 4,220 shares of our Class B common stock. In 2014, we paid \$0.2 million to repurchase 31,392 shares of our Class B common stock. In 2013, we paid \$0.3 million to repurchase 31,776 shares of our Class B common stock. These shares were tendered by employees of ours to satisfy tax withholding obligations in connection with the lapsing of restrictions on awards of restricted stock. Such shares were repurchased by us based on their fair market value on the trading day immediately prior to the vesting date.

On March 11, 2013, our Board of Directors approved a stock repurchase program for the repurchase of up to an aggregate of 7.0 million shares of our Class B common stock. In 2014, we repurchased 103,331 shares of Class B common stock under this program for an aggregate purchase price of \$0.8 million. There were no repurchases under the program in 2015 and 2013. At December 31, 2015, 6.9 million shares remained available for repurchase under the stock repurchase program.

Exchange Offers and Issuances of Preferred Stock

On November 26, 2012, we initiated an offer to exchange up to 7.15 million outstanding shares of our Class B common stock for the same number of shares of our Series 2012-A Preferred Stock. 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.

On May 22, 2014, we initiated an offer to exchange up to 5.0 million outstanding shares of our Class B common stock for the same number of shares of our Series 2012-A Preferred Stock. The offer expired on June 23, 2014. On June 27, 2014, we issued 404,732 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. As a result of the issuance of additional shares of Series 2012-A Preferred Stock, the aggregate quarterly Base Dividend increased to \$0.4 million from \$0.3 million.

Each share of our Series 2012-A Preferred Stock has a liquidation preference of \$8.50 (the “Liquidation Preference”), and is entitled to receive an annual dividend per share equal to the sum of (i) \$0.6375 (the “Base Dividend”) plus (ii) seven and one-half percent (7.5%) of the quotient obtained by dividing (A) the amount by which the EBITDA for a fiscal year of our retail energy provider business exceeds \$32 million by (B) 8,750,000 (the “Additional Dividend”), payable in cash. EBITDA consists of income (loss) from operations exclusive of depreciation and amortization and other operating gains (losses).

The Series 2012-A Preferred Stock is redeemable, in whole or in part, at our option following October 11, 2017 at 101% of the Liquidation Preference plus accrued and unpaid dividends, and 100% of the Liquidation Preference plus accrued and unpaid dividends following October 11, 2018.

During any period when we have failed to pay a dividend on the Series 2012-A Preferred Stock and until all unpaid dividends have been paid in full, we are prohibited from paying dividends or distributions on our Class B or Class A common stock.

The Base Dividend is payable (if declared by our Board of Directors, and accrued, if not declared) quarterly on each February 15, May 15, August 15 and November 15, and to the extent that there is any Additional Dividend payable with respect to a fiscal year, it will be paid to holders of Series 2012-A Preferred Stock with the May dividend. With respect to the payment of dividends and amounts upon liquidation, dissolution or winding up, the Series 2012-A Preferred Stock is equal in rank to all other equity securities we issue, the terms of which specifically provide that such equity securities rank on a parity with the Series 2012-A Preferred Stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up; senior to our common stock; and junior to all of our existing and future indebtedness.

Each share of Series 2012-A Preferred Stock has the same voting rights as a share of Class B common stock, except on certain matters that only impact our common stock, as well as additional voting rights on specific matters or upon the occurrence of certain events.

Changes in Trade Accounts Receivable and Inventory

Gross trade accounts receivable decreased to \$27.4 million at December 31, 2015 from \$31.7 million at December 31, 2014 reflecting mainly the decrease in our revenues in the three months ended December 31, 2015 compared to the three months ended December 31, 2014.

Inventory of natural gas decreased to \$1.6 million at December 31, 2015 from \$2.5 million at December 31, 2014 due to a 45% decrease in the average unit cost, partially offset by and a 14% increase in quantity at December 31, 2015 compared to December 31, 2014. Inventory at December 31, 2015 and 2014 also included \$9.9 million and \$8.7 million, respectively, in renewable energy credits.

CONTRACTUAL OBLIGATIONS AND OTHER COMMERCIAL COMMITMENTS

The following tables quantify our future contractual obligations and commercial commitments at December 31, 2015:

Contractual Obligations

Payments Due by Period

(in millions)	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years
Commitment to invest in AMSO, LLC ⁽¹⁾	\$ 1.1	\$ 1.1	\$ —	\$ —	\$ —
Purchase obligations	22.4	14.7	7.7	—	—
Renewable energy credits purchase obligations	41.8	13.6	18.1	10.1	—
Revolving credit loan payable ⁽²⁾	2.0	—	2.0	—	—
Operating leases	0.5	0.3	0.2	—	—
Other liabilities ⁽³⁾	0.3	0.3	—	—	—
TOTAL CONTRACTUAL OBLIGATIONS⁽⁴⁾	\$ 68.1	\$ 30.0	\$ 28.0	\$ 10.1	\$ —

- (1) The amount and timing of AMSO's payments to AMSO, LLC is based on the proposed 2016 budget and is subject to change. AMSO has the right to decide at each capital call whether or not to fund AMSO, LLC, and will make a determination at each such time.
- (2) The revolving credit loan payable may need to be repaid prior to its scheduled due date as a result of the closure of the lending bank.
- (3) The above table does not include estimated contingent payments of \$0.4 million in connection with the acquisition of Diversegy and IDTEN due to the uncertainty of the amount and/or timing of any such payments.
- (4) The above table does not include our unrecognized income tax benefits for uncertain tax positions at December 31, 2015 of \$0.6 million due to the uncertainty of the amount and/or timing of any such payments. Uncertain tax positions taken or expected to be taken on an income tax return may result in additional payments to tax authorities. We are not currently able to reasonably estimate the timing of any potential future payments. If a tax authority agrees with the tax position taken or expected to be taken or the applicable statute of limitations expires, then additional payments will not be necessary.

Other Commercial Commitments

Payments Due by Period

(in millions)	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years
Standby letter of credit ⁽¹⁾	\$ 7.7	\$ 4.2	\$ 3.5	\$ —	\$ —

- (1) The above table does not include an aggregate of \$11.9 million in performance bonds at December 31, 2015 due to the uncertainty of the amount and/or timing of any payments.

OFF-BALANCE SHEET ARRANGEMENTS

We do not have any “off-balance sheet arrangements,” as defined in relevant SEC regulations that are reasonably likely to have a current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources, other than the following.

GRE has performance bonds issued through a third party for the benefit of various states in order to comply with the states' financial requirements for retail energy providers. At December 31, 2015, GRE had aggregate performance bonds of \$11.9 million outstanding.

In connection with our Spin-Off in October 2011, we and IDT entered into various agreements prior to the Spin-Off including a Separation and Distribution Agreement to effect the separation and provide a framework for our relationship with IDT after the Spin-Off, and a Tax Separation Agreement, which sets forth the responsibilities of us and IDT with respect to, among other things, liabilities for federal, state, local and foreign taxes for periods before and including the Spin-Off, the preparation and filing of tax returns for such periods and disputes with taxing authorities regarding taxes for such periods. Pursuant to the Separation and Distribution Agreement, among other things, we indemnify IDT and IDT indemnifies us for losses related to the failure of the other to pay, perform or otherwise discharge, any of the liabilities and obligations set forth in the agreement. Pursuant to the Tax Separation Agreement, among other things, IDT indemnifies us from all liability for taxes of IDT with respect to any taxable period, and we indemnify IDT from all liability for taxes of ours with respect to any taxable period, including, without limitation, the ongoing tax audits related to our business.

Item 7A. Quantitative and Qualitative Disclosures about Market Risks.

Our primary market risk exposure is the price applicable to our natural gas and electricity purchases and sales. The sales price of our natural gas and electricity is primarily driven by the prevailing market price. Hypothetically, if our gross profit per unit in 2015 had remained the same as in 2014, our gross profit from electricity sales would have decreased by \$15.2 million in 2015 and our gross profit from natural gas sales would have decreased by \$7.3 million in 2015.

The energy markets have historically been very volatile, and we can reasonably expect that electricity and natural gas prices will be subject to fluctuations in the future. In an effort to reduce the effects of the volatility of the cost of electricity and natural gas on our operations, we have adopted a policy of hedging electricity and natural gas prices from time to time, at relatively lower volumes, primarily through the use of put and call options and swaps. While the use of these hedging arrangements limits the downside risk of adverse price movements, it also limits future gains from favorable movements. We do not apply hedge accounting to these swaps or options, therefore the mark-to-market change in fair value is recognized in direct cost of revenue in our consolidated statements of operations.

The summarized volume of GRE’s outstanding contracts and options at December 31, 2015 was as follows (MWh — Megawatt hour and Dth — Decatherm):

Commodity	Settlement Dates	Volume
Electricity	January 2016	248,000 MWh
Electricity	February 2016	772,800 MWh
Electricity	March 2016	82,800 MWh
Electricity	April 2016	16,800 MWh
Electricity	July 2016	160,000 MWh
Electricity	August 2016	184,000 MWh
Electricity	September 2016	33,600 MWh
Natural gas	February 2016	852,500 Dth
Natural gas	April 2016	200,000 Dth
Natural gas	July 2016	1,110,000 Dth
Natural gas	August 2016	800,000 Dth

Item 8. Financial Statements and Supplementary Data.

Our Consolidated Financial Statements and supplementary data and the reports of the independent registered public accounting firms thereon set forth starting on page F-1 herein are incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our Chief Executive Officer and Chief Financial Officer have evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended), as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2015.

Report of Management on Internal Control over Financial Reporting

We, the management of Genie Energy Ltd. and subsidiaries (the “Company”), are responsible for establishing and maintaining adequate internal control over financial reporting of the Company.

The Company’s internal control over financial reporting is defined in Rule 13a-15(f) and 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, the Company’s principal executive and principal financial officers and effected by the Company’s board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company’s financial statements for external purposes in accordance with generally accepted accounting principles in the United States and includes those policies and procedures that:

1. Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of assets of the Company;
2. Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
3. Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company’s assets that could have a material effect on the financial statements.

Management has assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2015. In making this assessment, the Company’s management used the criteria established in *Internal Control — Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our internal control over financial reporting, as prescribed above, as of December 31, 2015. Based on our evaluation, our principal executive officer and principal financial officer concluded that the Company’s internal control over financial reporting as of December 31, 2015 was effective in all material respects.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

BDO USA, LLP has provided an attestation report on the Company’s internal control over financial reporting as of December 31, 2015.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the fourth quarter of 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

Part III

Item 10. Directors, Executive Officers and Corporate Governance.

The following is a list of our directors and executive officers along with the specific information required by Rule 14a-3 of the Securities Exchange Act of 1934:

Executive Officers

Howard S. Jonas — Chairman of the Board and Chief Executive Officer

Avi Goldin — Chief Financial Officer

Geoffrey Rochwarger — Vice Chairman

Ira Greenstein — President

Michael Jonas — Executive Vice President

Michael Stein — Executive Vice President

Directors

Howard S. Jonas — Chairman of the Board and Chief Executive Officer of the Company

James A. Courter — Vice Chairman of the Board of the Company

W. Wesley Perry — Owner and operator of S.E.S. Investments, Ltd., an oil and gas investment company

Alan B. Rosenthal — Founder and managing partner of ABR Capital Financial Group LLC, an investment fund

Allan Sass — Former President and Chief Executive Officer of Occidental Oil Shale Corporation, a subsidiary of Occidental Petroleum

The remaining information required by this Item will be contained in our Proxy Statement for our Annual Stockholders Meeting, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2015, and which is incorporated by reference herein.

Corporate Governance

We have included as exhibits to this Annual Report on Form 10-K certificates of our Chief Executive Officer and Chief Financial Officer certifying the quality of our public disclosure.

We make available free of charge through the investor relations page of our web site (www.idt.net/ir) our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those 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 reports are electronically filed with the Securities and Exchange Commission. We have adopted codes of business conduct and ethics for all of our employees, including our principal executive officer, principal financial officer and principal accounting officer. Copies of the codes of business conduct and ethics are available on our web site.

Our web site and the information contained therein or incorporated therein are not intended to be incorporated into this Annual Report on Form 10-K or our other filings with the SEC.

Item 11. Executive Compensation.

The information required by this Item will be contained in our Proxy Statement for our Annual Stockholders Meeting, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2015, and which is incorporated by reference herein.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item will be contained in our Proxy Statement for our Annual Stockholders Meeting, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2015, and which is incorporated by reference herein.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item will be contained in our Proxy Statement for our Annual Stockholders Meeting, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2015, and which is incorporated by reference herein.

Item 14. Principal Accounting Fees and Services.

The information required by this Item will be contained in our Proxy Statement for our Annual Stockholders Meeting, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2015, and which is incorporated by reference herein.

Part IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Report:

1. Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting
Report of Independent Registered Public Accounting Firms on Consolidated Financial Statements
Consolidated Financial Statements covered by Report of Independent Registered Public Accounting Firms
2. Financial Statement Schedules.

All schedules have been omitted since they are either included in the Notes to Consolidated Financial Statements or not required or not applicable.
3. The exhibits listed in paragraph (b) of this item. Exhibit Numbers 10.01, 10.03 and 10.04 are management contracts or compensatory plans or arrangements.

(b) Exhibits.

Exhibit Number	Description of Exhibits
3.01 ⁽¹⁾	Amended and Restated Certificate of Incorporation of the Registrant.
3.02 ⁽²⁾	Amended and Restated Certificate of Designation of Series 2012-A Preferred Stock of the Registrant.
3.03 ⁽³⁾	Amended and Restated By-Laws of the Registrant.
10.01 ⁽⁴⁾	Second Amended and Restated Employment Agreement, effective as of July 30, 2014, between the Registrant and Howard S. Jonas.
10.03 ⁽⁵⁾	Amended and Restated Employment Agreement, effective as of August 19, 2014, between the Registrant and Avi Goldin.
10.04 ⁽⁶⁾	Addendum to Amended and Restated Employment Agreement, effective as of April 20, 2015, between the Registrant and Avi Golden.
10.05 ⁽⁷⁾	Employment Agreement, dated June 17, 2015, between the Registrant, Genie Energy E&P Ltd. and Geoffrey Rochwarger.
10.06 ⁽⁸⁾	2011 Stock Option and Incentive Plan of Genie Energy Ltd.
10.07 ⁽¹⁾	Preferred Supplier Agreement between IDT Energy, Inc. and BP Energy Company, dated June 29, 2009, as amended.
21.01*	Subsidiaries of the Registrant.
23.01*	Consent of BDO USA, LLP
31.01*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

Exhibit Number	Description of Exhibits
32.01*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.02*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* filed herewith.

- (1) Incorporated by reference to Form 10-12G/A, filed October 7, 2011.
- (2) Incorporated by reference to Exhibit 99(A)(1)(A) to Schedule TO, filed May 22, 2014.
- (3) Incorporated by reference to Form 8-K filed August 9, 2012.
- (4) Incorporated by reference to Form 8-K, filed August 1, 2014.
- (5) Incorporated by reference to Form 8-K, filed August 25, 2014.
- (6) Incorporated by reference to Form 8-K/A, filed May 14, 2015.
- (7) Incorporated by reference to Form 8-K/A, filed June 23, 2015.
- (8) Incorporated by reference to Form 10-12G/A, filed October 27, 2011.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

GENIE ENERGY LTD.

By: /s/ Howard S. Jonas
**Chairman of the Board and
Chief Executive Officer**

Date: March 15, 2016

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Titles</u>	<u>Date</u>
<u>/s/ Howard S. Jonas</u> Howard S. Jonas	Chairman of the Board and Director and Chief Executive Officer (Principal Executive Officer)	March 15, 2016
<u>/s/ Avi Goldin</u> Avi Goldin	Chief Financial Officer (Principal Financial Officer)	March 15, 2016
<u>/s/ James A. Courter</u> James A. Courter	Vice Chairman of the Board and Director	March 15, 2016
<u>/s/ W. Wesley Perry</u> W. Wesley Perry	Director	March 15, 2016
<u>/s/ Alan B. Rosenthal</u> Alan B. Rosenthal	Director	March 15, 2016
<u>/s/ Allan Sass</u> Allan Sass	Director	March 15, 2016

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Genie Energy Ltd.
Newark, New Jersey

We have audited the internal control over financial reporting of Genie Energy Ltd. (a Delaware corporation) and subsidiaries' (the "Company") as of December 31, 2015, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Internal Control Over Financial Reporting under Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive loss, equity, and cash flows for each of the three years in the period ended December 31, 2015 and our report dated March 15, 2016 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Woodbridge, New Jersey
March 15, 2016

GENIE ENERGY LTD.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Genie Energy Ltd.
Newark, New Jersey

We have audited the accompanying consolidated balance sheets of Genie Energy Ltd. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive loss, equity, and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Genie Energy Ltd. and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control–Integrated Framework (2013)*, and our report dated March 15, 2016 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Woodbridge, New Jersey
March 15, 2016

GENIE ENERGY LTD.

CONSOLIDATED BALANCE SHEETS

December 31 (in thousands)	2015	2014
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 38,786	\$ 71,895
Restricted cash—short-term	10,894	10,609
Certificates of deposit	8,850	4,669
Trade accounts receivable, net of allowance for doubtful accounts of \$182 and \$227 at December 31, 2015 and 2014, respectively	27,222	31,427
Inventory	11,440	11,166
Prepaid expenses	11,328	5,713
Other current assets	6,104	5,430
TOTAL CURRENT ASSETS	114,624	140,909
Property and equipment, net	1,347	1,902
Capitalized exploration costs—unproved oil and gas property	26,878	—
Goodwill	3,663	3,663
Restricted cash—long-term	1,802	1,023
Deferred income tax assets, net	1,642	1,463
Other assets	5,859	3,968
TOTAL ASSETS	\$ 155,815	\$ 152,928
LIABILITIES AND EQUITY		
CURRENT LIABILITIES:		
Trade accounts payable	\$ 12,642	\$ 14,881
Accrued expenses	19,424	10,913
Advances from customers	1,055	403
Income taxes payable	923	543
Due to IDT Corporation	438	542
Energy hedging contracts	2,192	4,003
Other current liabilities	878	797
TOTAL CURRENT LIABILITIES	37,552	32,082
Revolving credit loan payable	2,000	—
Other liabilities	1,566	1,503
TOTAL LIABILITIES	41,118	33,585
Commitments and contingencies		
EQUITY:		
Genie Energy Ltd. stockholders' equity:		
Preferred stock, \$.01 par value; authorized shares—10,000:		
Series 2012-A, designated shares—8,750; at liquidation preference, consisting of 2,322 shares issued and outstanding at December 31, 2015 and 2014	19,743	19,743
Class A common stock, \$.01 par value; authorized shares—35,000; 1,574 shares issued and outstanding at December 31, 2015 and 2014	16	16
Class B common stock, \$.01 par value; authorized shares—200,000; 23,239 and 23,178 shares issued and 23,041 and 22,984 shares outstanding at December 31, 2015 and 2014, respectively	232	232
Additional paid-in capital	124,449	114,322
Treasury stock, at cost, consisting of 198 and 194 shares of Class B common at December 31, 2015 and 2014, respectively	(1,570)	(1,543)
Accumulated other comprehensive income	154	10
Accumulated deficit	(19,647)	(7,759)
Total Genie Energy Ltd. stockholders' equity	123,377	125,021
Noncontrolling interests:		
Noncontrolling interests	(7,013)	(4,678)
Receivable for issuance of equity	(1,667)	(1,000)
Total noncontrolling interests	(8,680)	(5,678)
TOTAL EQUITY	114,697	119,343
TOTAL LIABILITIES AND EQUITY	\$ 155,815	\$ 152,928

See accompanying notes to consolidated financial statements.

GENIE ENERGY LTD.

CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data)	Year ended December 31,		
	2015	2014	2013
REVENUES:			
Electricity	\$ 167,336	\$ 214,511	\$ 216,668
Natural gas	40,757	57,868	62,506
Other	2,016	2,652	—
Total revenues	<u>210,109</u>	<u>275,031</u>	<u>279,174</u>
Direct cost of revenues	<u>141,015</u>	<u>223,094</u>	<u>213,416</u>
GROSS PROFIT	69,094	51,937	65,758
OPERATING EXPENSES, (GAINS) AND LOSSES:			
Selling, general and administrative ⁽ⁱ⁾	66,040	61,372	49,749
Bad debt	(29)	310	800
Research and development	1,985	5,538	7,357
Exploration	6,583	6,971	4,032
Goodwill impairment	—	3,562	—
Adjustment to estimated contingent payments	—	(206)	—
Equity in the net loss of AMSO, LLC	397	—	3,194
(Loss) income from operations	<u>(5,882)</u>	<u>(25,610)</u>	<u>626</u>
Interest income	411	469	449
Financing fees	(2,447)	(2,560)	(3,217)
Other (expense) income, net	<u>(193)</u>	<u>389</u>	<u>(444)</u>
Loss before income taxes	(8,111)	(27,312)	(2,586)
Provision for income taxes	<u>(525)</u>	<u>(95)</u>	<u>(2,755)</u>
NET LOSS	(8,636)	(27,407)	(5,341)
Net loss (income) attributable to noncontrolling interests ..	<u>1,179</u>	<u>921</u>	<u>(562)</u>
NET LOSS ATTRIBUTABLE TO GENIE ENERGY LTD.	(7,457)	(26,486)	(5,903)
Dividends on preferred stock	<u>(1,481)</u>	<u>(1,416)</u>	<u>(1,223)</u>
NET LOSS ATTRIBUTABLE TO GENIE ENERGY LTD.			
COMMON STOCKHOLDERS	\$ (8,938)	\$ (27,902)	\$ (7,126)
Basic and diluted loss per share attributable to Genie Energy			
Ltd. common stockholders:	<u>\$ (0.40)</u>	<u>\$ (1.31)</u>	<u>\$ (0.36)</u>
Weighted-average number of shares used in calculation of			
basic and diluted loss per share	<u>22,135</u>	<u>21,256</u>	<u>19,668</u>
(i) Stock-based compensation included in selling, general and			
administrative expenses	<u>\$ 5,229</u>	<u>\$ 10,758</u>	<u>\$ 4,180</u>

See accompanying notes to consolidated financial statements.

GENIE ENERGY LTD.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(in thousands)	Year ended December 31,		
	2015	2014	2013
NET LOSS	\$ (8,636)	\$ (27,407)	\$ (5,341)
Other comprehensive income (loss):			
Change in unrealized loss on available-for-sale securities, net of tax	—	—	15
Foreign currency translation adjustments	142	(700)	441
Other comprehensive income (loss)	142	(700)	456
COMPREHENSIVE LOSS	(8,494)	(28,107)	(4,885)
Comprehensive loss (income) attributable to noncontrolling interests	1,181	886	(543)
COMPREHENSIVE LOSS ATTRIBUTABLE TO GENIE ENERGY LTD.	\$ (7,313)	\$ (27,221)	\$ (5,428)

See accompanying notes to consolidated financial statements.

GENIE ENERGY LTD.

CONSOLIDATED STATEMENTS OF EQUITY (in thousands)

	Genie Energy Ltd. Stockholders										Noncontrolling Interests		Total Equity
	Preferred Stock		Class A Common Stock		Class B Common Stock		Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Retained earnings	Non controlling Interests	Receivable for issuance of equity	
	Shares	Amount	Shares	Amount	Shares	Amount							
BALANCE AT													
DECEMBER 31, 2012..	1,605	\$13,639	1,574	\$ 16	19,827	\$ 198	\$ 80,196	\$ (204)	\$ 270	\$ 28,375	\$ (3,393)	\$ (1,000)	\$ 118,097
Dividends on preferred stock	—	—	—	—	—	—	—	—	—	(920)	—	—	(920)
Restricted Class B common stock purchased from employees	—	—	—	—	—	—	—	(269)	—	—	—	—	(269)
Stock-based compensation	—	—	—	—	—	—	3,841	—	—	—	—	—	3,841
Restricted stock issued to employees and directors	—	—	—	—	227	3	—	—	—	—	—	—	3
Exercise of stock options	—	—	—	—	13	—	93	—	—	—	—	—	93
Grants of equity of subsidiaries	—	—	—	—	—	—	357	—	—	—	(357)	—	—
Sales of equity of subsidiaries	—	—	—	—	—	—	1,129	—	—	—	(707)	—	422
Issuance of preferred stock of subsidiary ..	—	—	—	—	—	—	(2,000)	—	—	—	2,000	—	—
Issuance of Class B common stock to holders of deferred stock units of subsidiary	—	—	—	—	—	—	1,836	—	—	—	(1,836)	—	—
Distributions to noncontrolling interests	—	—	—	—	—	—	—	—	—	—	(42)	—	(42)
Exchange of Class B common stock for Preferred stock	312	2,664	—	—	(312)	(3)	(2,661)	—	—	—	—	—	—
Other comprehensive income	—	—	—	—	—	—	—	—	475	—	(19)	—	456
Net (loss) income for the year ended December 31, 2013 ..	—	—	—	—	—	—	—	—	—	(5,903)	562	—	(5,341)
BALANCE AT													
DECEMBER 31, 2013..	1,917	16,303	1,574	16	19,755	198	82,791	(473)	745	21,552	(3,792)	(1,000)	116,340

GENIE ENERGY LTD.

CONSOLIDATED STATEMENTS OF EQUITY (in thousands)-(Continued)

	Genie Energy Ltd. Stockholders									Noncontrolling Interests			Total Equity
	Preferred Stock		Class A Common Stock		Class B Common Stock		Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Retained Earnings (Accumulated Deficit)	Non controlling Interests	Receivable for issuance of equity	
	Shares	Amount	Shares	Amount	Shares	Amount							
BALANCE AT													
DECEMBER 31, 2013.	1,917	16,303	1,574	16	19,755	198	82,791	(473)	745	21,552	(3,792)	(1,000)	116,340
Dividends on preferred stock	—	—	—	—	—	—	—	—	—	(1,352)	—	—	(1,352)
Dividends declared on common stock (\$0.06 per share)	—	—	—	—	—	—	—	—	—	(1,473)	—	—	(1,473)
Restricted Class B common stock purchased from employees	—	—	—	—	—	—	—	(224)	—	—	—	—	(224)
Stock-based compensation	—	—	—	—	—	—	10,423	—	—	—	—	—	10,423
Restricted stock issued to employees and directors	—	—	—	—	224	2	—	—	—	—	—	—	2
Exercise of stock options	—	—	—	—	4	—	28	—	—	—	—	—	28
Repurchases of Class B common stock through repurchase program	—	—	—	—	—	—	—	(846)	—	—	—	—	(846)
Sales of Class B common stock to Howard S. Jonas	—	—	—	—	3,600	36	24,516	—	—	—	—	—	24,552
Exchange of Class B common stock for Preferred stock	405	3,440	—	—	(405)	(4)	(3,436)	—	—	—	—	—	—
Other comprehensive loss	—	—	—	—	—	—	—	—	(735)	—	35	—	(700)
Net loss for the year ended December 31, 2014	—	—	—	—	—	—	—	—	—	(26,486)	(921)	—	(27,407)
BALANCE AT													
DECEMBER 31, 2014.	2,322	19,743	1,574	16	23,178	232	114,322	(1,543)	10	(7,759)	(4,678)	(1,000)	119,343
Dividends on preferred stock	—	—	—	—	—	—	—	—	—	(1,481)	—	—	(1,481)
Dividends declared on common stock (\$0.12 per share)	—	—	—	—	—	—	—	—	—	(2,950)	—	—	(2,950)
Restricted Class B common stock purchased from employees	—	—	—	—	—	—	—	(27)	—	—	—	—	(27)
Stock-based compensation	—	—	—	—	—	—	5,095	—	—	—	—	—	5,095
Restricted stock issued to employees and directors	—	—	—	—	36	—	—	—	—	—	—	—	—
Exercise of stock options	—	—	—	—	25	—	174	—	—	—	—	—	174
Exercise of GOGAS stock option	—	—	—	—	—	—	5,979	—	—	—	(979)	(2,500)	2,500
Collection of receivables for issuance of equity	—	—	—	—	—	—	79	—	—	—	—	1,833	1,912
Subsidiary equity grant reclassified to liability	—	—	—	—	—	—	(1,200)	—	—	—	—	—	(1,200)
Payment for option to purchase noncontrolling interests	—	—	—	—	—	—	—	—	—	—	(175)	—	(175)
Other comprehensive income	—	—	—	—	—	—	—	—	144	—	(2)	—	142
Net loss for the year ended December 31, 2015	—	—	—	—	—	—	—	—	—	(7,457)	(1,179)	—	(8,636)
BALANCE AT													
DECEMBER 31, 2015.	2,322	\$19,743	1,574	\$ 16	23,239	\$ 232	\$ 124,449	\$ (1,570)	\$ 154	\$ (19,647)	\$ (7,013)	\$ (1,667)	\$ 114,697

See accompanying notes to consolidated financial statements.

GENIE ENERGY LTD.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	Year ended December 31,		
	2015	2014	2013
OPERATING ACTIVITIES			
Net loss	\$ (8,636)	\$ (27,407)	\$ (5,341)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation	428	132	110
Goodwill impairment	—	3,562	—
Gain on adjustment to estimated contingent payments	—	(206)	—
Deferred income taxes	(180)	(622)	(241)
Provision for doubtful accounts receivable	(29)	310	800
Stock-based compensation	5,229	10,758	4,180
Loss on disposal of property	156	—	37
Equity in the net loss of AMSO, LLC	397	—	3,194
Change in assets and liabilities, net of effect of acquisitions:			
Restricted cash	(1,062)	3,923	(4,713)
Trade accounts receivable	4,234	11,189	(2,679)
Inventory	(274)	(7,822)	(700)
Prepaid expenses	(5,615)	(2,306)	(93)
Other current assets and other assets	(2,346)	(2,664)	(243)
Trade accounts payable, accrued expenses and other current liabilities	3,689	(5,718)	6,883
Advances from customers	652	(700)	(746)
Due to IDT Corporation	(104)	1	(59)
Income taxes payable	380	(1,532)	831
Net cash (used in) provided by operating activities	(3,081)	(19,102)	1,220
INVESTING ACTIVITIES			
Capital expenditures	(324)	(1,437)	(313)
Investments in capitalized exploration costs – unproved oil and gas property	(26,969)	—	—
Capital contributions to AMSO, LLC	(250)	—	(2,700)
Payment for acquisitions, net of cash acquired	—	—	(772)
Repayment of notes receivable	50	—	—
Issuance of notes receivable	—	(82)	(750)
Purchases of certificates of deposit	(8,820)	(4,655)	(4,329)
Proceeds from maturities of certificates of deposit	4,688	4,334	2,205
Purchases of marketable securities	—	—	(3)
Proceeds from maturities of marketable securities	—	—	10,433
Net cash (used in) provided by investing activities	(31,625)	(1,840)	3,771
FINANCING ACTIVITIES			
Dividends paid	(4,431)	(2,825)	(1,131)
Payment for acquisitions	(358)	(1,138)	—
Proceeds from revolving credit loan payable	2,000	—	—
Proceeds from sales of Class B common stock to Howard S. Jonas	—	24,552	—
Distributions to noncontrolling interests	—	—	(42)
Proceeds from sales of equity of subsidiaries	2,500	—	422
Proceeds from exercise of stock options	174	28	93
Collection of receivables for issuance of equity	1,912	—	—
Payment for option to purchase noncontrolling interests	(175)	—	—
Repurchases of Class B common stock	(27)	(1,070)	(269)
Net cash provided by (used in) financing activities	1,595	19,547	(927)
Effect of exchange rate changes on cash and cash equivalents	2	(595)	412
Net (decrease) increase in cash and cash equivalents	(33,109)	(1,990)	4,476
Cash and cash equivalents at beginning of period	71,895	73,885	69,409
Cash and cash equivalents at end of period	\$ 38,786	\$ 71,895	\$ 73,885
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Cash payments made for interest	\$ 10	\$ 3	\$ 12
Cash payments made for income taxes	\$ 49	\$ 2,647	\$ 2,069
SUPPLEMENTAL SCHEDULE OF NON-CASH FINANCING AND INVESTING ACTIVITIES			
Subsidiary equity grant reclassified to liability	\$ 1,200	\$ —	\$ —
Receivables for issuance of equity of subsidiaries	\$ 2,500	\$ —	\$ —
Liabilities incurred for acquisitions	\$ —	\$ —	\$ 2,475

See accompanying notes to consolidated financial statements.

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies

Description of Business

Genie Energy Ltd. (“Genie”), a Delaware corporation, was incorporated in January 2011. Genie owns 99.3% of its subsidiary, Genie Energy International Corporation (“GEIC”), which owns 100% of Genie Retail Energy (“GRE”) and 92% of Genie Oil and Gas, Inc. (“GOGAS”). The “Company” in these financial statements refers to Genie, Genie Retail Energy and Genie Oil and Gas, and their respective subsidiaries, on a consolidated basis.

Genie’s principal businesses consist of the following:

- Genie Retail Energy operates retail energy providers (“REPs”), including IDT Energy, Inc. (“IDT Energy”) and Residents Energy, Inc. (“Residents Energy”), and energy brokerage and marketing services. Its REP businesses resell electricity and natural gas to residential and small business customers primarily in the Eastern United States; and
- Genie Oil and Gas is an oil and gas exploration company that consists of:
 - an 86.5% interest in Afek Oil and Gas, Ltd. (“Afek”), which operates an exploration project in the Golan Heights in Northern Israel, and
 - early stage projects including (1) an 88.4% interest in Genie Mongolia, Inc. (“Genie Mongolia”), an oil shale exploration project in Central Mongolia, which is inactive (2) a 98.3% interest in American Shale Oil Corporation (“AMSO”), which holds and manages a 41.3% interest in American Shale Oil, L.L.C. (“AMSO, LLC”), an oil shale development project in Colorado, and (3) an 86.1% interest in Israel Energy Initiatives, Ltd. (“IEI”), an oil shale development project in Israel, which is inactive.

GRE has outstanding deferred stock units granted to directors and employees that represent an interest of 3.9% of the equity of GRE.

On February 1, 2016, Israel’s Northern District Planning and Building Committee approved a two-year permit extension for Afek to continue to conduct its up to ten-well oil and gas exploration program. The original permit was for a one-year period, which commenced in February 2015. This extension is expected to cover the remainder of Afek’s ongoing exploratory program in the area covered by its exploratory license issued by Israel’s National Infrastructure, Energy and Water Ministry. The exploratory license is set to expire in April 2016, the Company is taking the required steps to seek an extension of this license.

The Company was formerly a subsidiary of IDT Corporation (“IDT”). On October 28, 2011, the Company was spun-off by IDT and became an independent public company through a pro rata distribution of the Company’s common stock to IDT’s stockholders (the “Spin-Off”).

Basis of Consolidation

The method of accounting applied to long-term investments, whether consolidated, equity or cost, involves an evaluation of the significant terms of each investment that explicitly grant or suggest evidence of control or influence over the operations of the investee and also includes the identification of any variable interests in which the Company is the primary beneficiary. The consolidated financial statements include the Company’s controlled subsidiaries and variable interest entities where the Company is the primary beneficiary (see Note 11). All significant intercompany accounts and transactions between the consolidated entities are eliminated.

Accounting for Investments

Investments in businesses that the Company does not control, but in which the Company has the ability to exercise significant influence over operating and financial matters, are accounted for using the equity method. The Company’s

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

investment in AMSO, LLC is accounted for using the equity method. The Company periodically evaluates its equity method investment for impairment due to declines considered to be other than temporary. If the Company determines that a decline in fair value is other than temporary, then a charge to earnings would be recorded, and a new basis in the investment is established.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

Revenue Recognition

Revenues from GRE’s sale of electricity and natural gas are recognized under the accrual method based on deliveries of electricity and natural gas to customers. Revenues from electricity and natural gas delivered but not yet billed are estimated and recorded as accounts receivable. Cash received in advance from customers under billing arrangement is reported as deferred revenue and is included in “Advances from customers” in the accompanying consolidated balance sheets. GOGAS does not yet generate revenues.

In May 2014, the Financial Accounting Standards Board (“FASB”) and the International Accounting Standards Board jointly issued a comprehensive new revenue recognition standard that will supersede most of the current revenue recognition guidance under U.S. GAAP and International Financial Reporting Standards (“IFRS”). The goals of the revenue recognition project were to clarify and converge the revenue recognition principles under U.S. GAAP and IFRS and to develop guidance that would streamline and enhance revenue recognition requirements. The Company will adopt this standard on January 1, 2018. Entities have the option of using either a full retrospective or modified retrospective approach for the adoption of the standard. The Company is evaluating the impact that the standard will have on its consolidated financial statements.

Direct Cost of Revenues

Direct cost of revenues for GRE consists primarily of the cost of natural gas and electricity sold, and also includes scheduling costs, Independent System Operator (“ISO”) fees, pipeline costs and utility service charges. In addition, the changes in the fair value of GRE’s futures contracts, swaps and put and call options are recorded in direct cost of revenues. GOGAS does not yet incur direct cost of revenues as primarily all of its expenses are classified as either research and development or exploration costs.

Research and Development Costs

Research and development costs are incurred primarily by IEI, Afek and Genie Mongolia. Costs for research and development are charged to expense as incurred.

Oil and Gas Exploration Costs

The Company accounts for its oil and gas activities under the successful efforts method of accounting. Under this method, the costs of drilling exploratory wells and exploratory-type stratigraphic test wells are capitalized, pending determination of whether the well has found proved reserves. Other exploration costs are charged to expense as incurred. Unproved properties are assessed for impairment, and if considered impaired, are charged to expense when such impairment is deemed to have occurred. At December 31, 2015 and 2014, the Company had capitalized exploration costs of \$26.9 million and nil, respectively. The Company is in the process of determining if proved reserves have been found. If no proved reserves are found, the related capitalized exploration costs will be expensed.

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

In the consolidated statements of operations, expense relating to Afek's oil and gas exploration activities of \$7.0 million and \$4.0 million in 2014 and 2013, respectively, previously included in "Research and development expense", were reclassified to "Exploration expense" to conform to the current year's presentation.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Marketable Securities

The Company classified its investments in marketable securities as "available-for-sale." Available-for-sale securities are required to be carried at their fair value, with unrealized gains and losses (net of income taxes) that are considered temporary in nature recorded in "Accumulated other comprehensive income" in the accompanying consolidated balance sheets. The Company uses the specific identification method in computing the gross realized gains and gross realized losses on the maturities and sales of marketable securities. The Company periodically evaluated its investments in marketable securities for impairment due to declines in market value considered to be other than temporary. Such impairment evaluations included, in addition to persistent, declining market prices, general economic and Company-specific evaluations. If the Company determined that a decline in market value was other than temporary, then a charge to operations was recorded in "Other (expense) income, net" in the accompanying consolidated statements of operations and a new cost basis in the investment was established.

Inventory

Inventory consists of natural gas, which is stored at various third parties' underground storage facilities, of \$1.6 million and \$2.5 million at December 31, 2015 and 2014, respectively. Inventory also includes renewable energy credits of \$9.8 million and \$8.7 million at December 31, 2015 and 2014, respectively. Natural gas inventory is valued at a weighted average cost, which is based on the purchase price of the natural gas and the cost to transport, plus or minus injections or withdrawals.

In July 2015, the FASB issued an Accounting Standards Update ("ASU") that simplifies the subsequent measurement of inventory. The amendments in this ASU do not apply to inventory that is measured using last-in, first-out or the retail inventory method. The ASU changes the measurement of inventory to the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The Company will adopt the amendments in this ASU on January 1, 2017. The Company is evaluating the impact that the ASU will have on its consolidated financial statements.

Renewable Energy Credits

GRE must obtain a certain percentage or amount of its power supply from renewable energy sources in order to meet the requirements of renewable portfolio standards in the states in which it operates. This requirement may be met by obtaining renewable energy credits that provide evidence that electricity has been generated by a qualifying renewable facility or resource. GRE holds renewable energy credits for both sale and use, and treats the credits as a government incentive to encourage the construction of renewable power plants. Renewable energy credits are valued at cost, which is the purchase price. Gains and losses from the sale of renewable energy credits are recognized in direct cost of revenues when the credits are transferred to the buyer.

Property and Equipment

Computer software and development, computers and computer hardware, laboratory and drilling equipment and office equipment and other are recorded at cost and are depreciated on a straight-line basis over their estimated

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

useful lives, which range as follows: computer software and development—2, 3 or 5 years; computers and computer hardware—5 years, laboratory and drilling equipment—7 years, and office equipment and other —5 or 7 years. Leasehold improvements included in office equipment and other are recorded at cost and are depreciated on a straight-line basis over the term of their lease or their estimated useful lives, whichever is shorter.

Long-Lived Assets

The Company tests the recoverability of its long-lived assets with finite useful lives whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. The Company tests the recoverability based on the projected undiscounted cash flows to be derived from such asset. If the projected undiscounted future cash flows are less than the carrying value of the asset, the Company will record an impairment loss based on the difference between the estimated fair value and the carrying value of the asset. The Company generally measures fair value by considering sale prices for similar assets or by discounting estimated future cash flows from such asset using an appropriate discount rate. Cash flow projections and fair value estimates require significant estimates and assumptions by management. Should the estimates and assumptions prove to be incorrect, the Company may be required to record impairments in future periods and such impairments could be material.

Goodwill and Indefinite Lived Intangible Assets

Goodwill is the excess of the acquisition cost of businesses over the fair value of the identifiable net assets acquired. Goodwill and other indefinite lived intangible assets are not amortized. These assets are reviewed annually (or more frequently under various conditions) for impairment using a fair value approach. The goodwill impairment assessment involves estimating the fair value of the reporting unit and comparing it to its carrying amount, which is known as Step 1. If the carrying value of the reporting unit exceeds its estimated fair value, Step 2 is performed to determine if an impairment of goodwill is required. The fair value of the reporting unit is estimated using discounted cash flow methodologies, as well as considering third party market value indicators. Goodwill impairment is measured by the excess of the carrying amount of the reporting unit's goodwill over its implied fair value. Calculating the fair value of the reporting units, and allocating the estimated fair value to all of the tangible assets, intangible assets and liabilities, requires significant estimates and assumptions by management. Should the estimates and assumptions regarding the fair value of the reporting units prove to be incorrect, the Company may be required to record impairments to its goodwill in future periods and such impairments could be material.

The Company has the option to perform a qualitative assessment to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. However, the Company may elect to perform the two-step quantitative goodwill impairment test even if no indications of a potential impairment exist.

For the impairment test of the Company's indefinite-lived intangible assets, a quantitative impairment test is only necessary if the Company determines that it is more likely than not that an indefinite-lived intangible asset is impaired based on an assessment of certain qualitative factors.

Derivative Instruments and Hedging Activities

The Company records its derivatives instruments at their respective fair values. The accounting for changes in the fair value (that is, gains or losses) of a derivative instrument is dependent upon whether the derivative has been designated and qualifies as part of a hedging relationship and further, on the type of hedging relationship.

Due to the volatility of electricity and natural gas prices, GRE enters into futures contracts, swaps and put and call options as hedges against unfavorable fluctuations in market prices of electricity and natural gas and to reduce exposure from price fluctuations. The Company does not designate its derivative instruments to qualify for hedge accounting, accordingly the futures contracts, swaps and put and call options are recorded at fair value as a current asset or liability and any changes in fair value are recorded in "Direct cost of revenues" in the consolidated statements of operations.

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

In addition to the above, GRE utilizes forward physical delivery contracts for a portion of its purchases of electricity and natural gas, which are defined as commodity derivative contracts. Using the exemption available for qualifying contracts, GRE applies the normal purchase and normal sale accounting treatment to its forward physical delivery contracts, thereby these contracts are not adjusted to fair value. Accordingly, GRE recognizes revenue from customer sales, and the related direct cost of revenues at the contracted price, as electricity and natural gas is delivered to retail customers.

In August 2015, the FASB issued an ASU specifying that entities would not be precluded from applying the normal purchases and normal sales exception to derivative accounting to forward contracts for the physical delivery of electricity in nodal energy markets that result in parties incurring locational marginal pricing charges or credits. The ASU states that the use of locational marginal pricing by an ISO to determine a transmission charge or credit in a nodal energy market would not constitute a net settlement of a forward contract for the purchase or sale of electricity, even when legal title to the electricity is conveyed to the ISO during transmission. As a result, these contracts could meet the physical delivery criterion in U.S. GAAP and qualify for the normal purchases and normal sales exception to derivative accounting if they meet all of the other criteria. This ASU was effective in August 2015. The adoption of this ASU did not affect the Company's financial position, results of operations or cash flows.

Repairs and Maintenance

The Company charges the cost of repairs and maintenance, including the cost of replacing minor items not constituting substantial betterment, to selling, general and administrative expense as these costs are incurred.

Foreign Currency Translation

Assets and liabilities of foreign subsidiaries denominated in foreign currencies are translated to U.S. Dollars at end-of-period rates of exchange, and their monthly results of operations are translated to U.S. Dollars at the average rates of exchange for that month. Gains or losses resulting from such foreign currency translations are recorded in "Accumulated other comprehensive income" in the accompanying consolidated balance sheets. Foreign currency transaction gains and losses are reported in "Other (expense) income, net" in the accompanying consolidated statements of operations.

Advertising Expense

Cost of advertising for customer acquisitions are charged to selling, general and administrative expense in the period in which it is incurred. Most of the advertisements are in print, over the radio, or direct mail. In the years ended December 31, 2015, 2014 and 2013, advertising expense included in selling, general and administrative expense was \$0.9 million, \$0.3 million and \$0.2 million, respectively.

Income Taxes

The Company recognizes deferred tax assets and liabilities for the future tax consequences attributable to temporary differences between the financial statements carrying amounts of existing assets and liabilities and their respective tax bases. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized. The ultimate realization of deferred tax assets depends on the generation of future taxable income during the period in which related temporary differences become deductible. The Company considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in its assessment of a valuation allowance. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date of such change.

In November 2015, the FASB issued an ASU to simplify the presentation of deferred income taxes. The amendments in the ASU require that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position instead of separated into current and noncurrent amounts. The Company adopted the amendments

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

in this ASU on October 1, 2015. As a result, the Company reclassified deferred income tax assets, net of \$1.5 million at December 31, 2014 from current to noncurrent.

The Company uses a two-step approach for recognizing and measuring tax benefits taken or expected to be taken in a tax return. The Company determines whether it is more-likely-than-not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. In evaluating whether a tax position has met the more-likely-than-not recognition threshold, the Company presumes that the position will be examined by the appropriate taxing authority that has full knowledge of all relevant information. Tax positions that meet the more-likely-than-not recognition threshold are measured to determine the amount of tax benefit to recognize in the financial statements. The tax position is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Differences between tax positions taken in a tax return and amounts recognized in the financial statements will generally result in one or more of the following: an increase in a liability for income taxes payable, a reduction of an income tax refund receivable, a reduction in a deferred tax asset, or an increase in a deferred tax liability.

The Company classifies interest and penalties on income taxes as a component of income tax expense.

Contingencies

The Company accrues for loss contingencies when both (a) information available prior to issuance of the financial statements indicates that it is probable that a liability had been incurred at the date of the financial statements and (b) the amount of loss can reasonably be estimated. When the Company accrues for loss contingencies and the reasonable estimate of the loss is within a range, the Company records its best estimate within the range. When no amount within the range is a better estimate than any other amount, the Company accrues the minimum amount in the range. The Company discloses an estimated possible loss or a range of loss when it is at least reasonably possible that a loss may have been incurred.

Earnings Per Share

Basic earnings per share is computed by dividing net income or loss attributable to all classes of common stockholders of the Company by the weighted average number of shares of all classes of common stock outstanding during the applicable period. Diluted earnings per share is determined in the same manner as basic earnings per share, except that the number of shares is increased to include restricted stock still subject to risk of forfeiture and to assume exercise of potentially dilutive stock options using the treasury stock method, unless the effect of such increase is anti-dilutive.

The following shares were excluded from the diluted earnings per share computations because their inclusion would have been anti-dilutive:

(in thousands)	Year ended December 31,		
	2015	2014	2013
Stock options	414	438	3,443
Non-vested restricted Class B common stock	1,852	2,473	265
Shares excluded from the calculation of diluted earnings per share	2,266	2,911	3,708

The diluted loss per share equals basic loss per share in the years ended December 31, 2015, 2014 and 2013 because the Company had a net loss and the impact of the assumed exercise of stock options and vesting of restricted stock would have been anti-dilutive.

An entity affiliated with Lord (Jacob) Rothschild has a one-time option, subject to certain conditions and exercisable between November 2017 and February 2018, to exchange its GOGAS shares for shares of the Company with equal fair value as determined by the parties (see Note 9). The number of shares issuable in such an exchange is not

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

currently determinable. If this option is exercised, the shares issued by the Company may dilute the earnings per share in future periods.

An employee of the Company, pursuant to the terms of his employment agreement, has the option to exchange his equity interests in IEI, Afek, Genie Mongolia and any equity interest that he may acquire in other entities that the Company may create, for shares of the Company. In addition, employees and directors of the Company that were previously granted restricted stock of Afek and Genie Mongolia have the right to exchange the restricted stock, upon vesting of such shares, into shares of the Company's Class B common stock. GRE has the right, at its option, to satisfy its obligations to issue common stock of GRE upon the vesting of the deferred stock units it granted in July 2015 to officers and employees of the Company in shares of the Company's Class B common stock or cash. These exchanges and issuances, if elected, would be based on the relative fair value of the shares exchanged or to be issued. The number of shares of the Company's stock issuable in an exchange is not currently determinable. If shares of the Company's stock are issued upon such exchange, the Company's earnings per share may be diluted in future periods.

Stock-Based Compensation

The Company recognizes compensation expense for grants of stock-based awards to its employees based on the estimated fair value on the grant date. Stock based awards granted to nonemployees are marked-to-market until the vesting of the award. Compensation cost for awards is recognized using the straight-line method over the vesting period. Stock-based compensation is included in selling, general and administrative expense.

Vulnerability Due to Certain Concentrations

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of cash, cash equivalents, restricted cash, certificates of deposit and trade accounts receivable. The Company holds cash, cash equivalents, restricted cash and certificates of deposit at several major financial institutions, which may exceed FDIC insured limits. Historically, the Company has not experienced any losses due to such concentration of credit risk. The Company's temporary cash investments policy is to limit the dollar amount of investments with any one financial institution and monitor the credit ratings of those institutions. While the Company may be exposed to credit losses due to the nonperformance of the holders of its deposits, the Company does not expect the settlement of these transactions to have a material effect on its results of operations, cash flows or financial condition.

GRE reduces its REP customer credit risk by participating in purchase of receivable programs for a majority of its receivables. In addition to providing billing and collection services, utility companies purchase GRE's receivables and assume all credit risk without recourse to GRE. GRE's primary credit risk is therefore nonpayment by the utility companies. Certain of the utility companies represent significant portions of the Company's consolidated revenues and consolidated gross trade accounts receivable balance and such concentrations increase the Company's risk associated with nonpayment by those utility companies.

The following table summarizes the percentage of consolidated revenues from customers by utility company that equal or exceed 10% of consolidated revenues in the period (no other single utility company accounted for more than 10% of consolidated revenues in these periods):

	Year ended December 31,		
	2015	2014	2013
Con Edison	23%	23%	25%
National Grid USA	12%	na	10%
West Penn Power	na	10%	11%
Penelec	na	na	10%

na-less than 10% of consolidated revenue in the period

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

The following table summarizes the percentage of consolidated gross trade accounts receivable by utility company that equal or exceed 10% of consolidated gross trade accounts receivable at December 31, 2015 and 2014 (no other single utility company accounted for 10% or greater of our consolidated gross trade accounts receivable at December 31, 2015 or 2014):

December 31	2015	2014
Con Edison	22%	25%

Allowance for Doubtful Accounts

The allowance for doubtful accounts reflects the Company’s best estimate of probable losses inherent in the accounts receivable balance. The allowance is determined based on known troubled accounts, historical experience and other currently available evidence. Doubtful accounts are written-off upon final determination that the trade accounts will not be collected. The change in the allowance for doubtful accounts was as follows:

(in thousands)	Balance at beginning of period	Additions charged (reversals credited) to expense	Deductions⁽¹⁾	Balance at end of period
Year ended December 31, 2015				
Reserves deducted from accounts receivable:				
Allowance for doubtful accounts	\$ 227	\$ (29)	\$ (16)	\$ 182
Year ended December 31, 2014				
Reserves deducted from accounts receivable:				
Allowance for doubtful accounts	\$ 930	\$ 310	\$ (1,013)	\$ 227
Year ended December 31, 2013				
Reserves deducted from accounts receivable:				
Allowance for doubtful accounts	\$ 130	\$ 800	\$ —	\$ 930

(1) Uncollectible accounts written off.

Fair Value Measurements

Fair value of financial and non-financial assets and liabilities is defined as an exit price, which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The three-tier hierarchy for inputs used to measure fair value, which prioritizes the inputs to valuation techniques used to measure fair value, is as follows:

Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 – quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3 – unobservable inputs based on the Company’s assumptions used to measure assets and liabilities at fair value.

A financial asset or liability’s classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. The assessment of the significance of a particular input to the fair value

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business and Summary of Significant Accounting Policies – (Continued)

measurement requires judgment, and may affect the valuation of the assets and liabilities being measured and their placement within the fair value hierarchy.

Accounting Standards Updates

In January 2016, the FASB issued an ASU to provide more information about recognition, measurement, presentation and disclosure of financial instruments. The amendments in the ASU include, among other changes, the following: (1) equity investments (except those accounted for under the equity method or that result in consolidation) will be measured at fair value with changes in fair value recognized in net income, (2) a qualitative assessment each reporting period to identify impairment of equity investments without readily determinable fair values, (3) financial assets and financial liabilities will be presented separately by measurement category and form of financial asset on the balance sheet or the notes to the financial statements, and (4) an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. Entities will no longer be able to recognize unrealized holding gains and losses on equity securities classified as available-for-sale in other comprehensive income. In addition, a practicability exception will be available for equity investments that do not have readily determinable fair values and do not qualify for the net asset value practical expedient. These investments may be measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. Entities will have to reassess at each reporting period whether an investment qualifies for this practicability exception. The Company will adopt the amendments in this ASU on January 1, 2018. The Company is evaluating the impact that the ASU will have on its consolidated financial statements.

In February 2016, the FASB issued an ASU related to the accounting for leases. The new standard establishes a right-of-use ("ROU") model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The Company will adopt the new standard on January 1, 2019. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. The Company is evaluating the impact that the new standard will have on its consolidated financial statements.

Note 2—Acquisitions

In December 2013, IDT Energy acquired 100% of the outstanding membership interests of Diversegy, LLC ("Diversegy"), a retail energy advisory and brokerage company that serves commercial and industrial customers, and Epiq Energy, LLC, which was subsequently renamed IDT Energy Network ("IDTEN"), a network marketing company that provides independent representatives with the opportunity to build sales organizations and to profit from both residential and commercial energy. Operating results of the acquired entities from the date of acquisition, which were not significant, are included in the Company's consolidated financial statements.

All of the Company's goodwill at December 31, 2015 and 2014 was attributable to the GRE segment. The table below reconciles the change in the carrying amount of goodwill for the period from December 31, 2012 to December 31, 2015:

(in thousands)	
Balance at December 31, 2012	\$ 3,663
Acquisitions	3,686
Balance at December 31, 2013	7,349
Adjustment	(124)
Impairment	(3,562)
Balance at December 31, 2014	3,663
Change in carrying amount	—
Balance at December 31, 2015	<u>\$ 3,663</u>

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 2—Acquisitions – (Continued)

In the year ended December 31, 2014, the annual goodwill impairment test resulted in the impairment of the goodwill of the Diversegy and IDTEN reporting unit primarily because of continuing losses since the acquisitions. The goodwill impairment of \$3.6 million recorded in the year ended December 31, 2014 reduced the carrying amount of the goodwill of the Diversegy and IDTEN reporting unit to zero. The Company estimated the fair value of the reporting unit and compared the estimated fair value to the reporting unit's carrying amount. The Company measured the fair value of the reporting unit by discounting its estimated future cash flows using an appropriate discount rate. Since the carrying value of the reporting unit including goodwill exceeded the estimated fair value, the Company performed the required additional steps and determined that the goodwill was fully impaired.

The following table presents unaudited pro forma information of the Company as if the acquisition occurred as of the beginning of the period:

(in thousands)	Year ended December 31, 2013
Revenues	\$ 280,307
Net loss	\$ (6,408)

Note 3—Fair Value Measurements

The following table presents the balance of assets and liabilities measured at fair value on a recurring basis:

(in thousands)	Level 1 ⁽¹⁾	Level 2 ⁽²⁾	Level 3 ⁽³⁾	Total
December 31, 2015				
Assets:				
Derivative contracts	\$ 373	\$ 1,308	\$ —	\$ 1,681
Liabilities:				
Derivative contracts	\$ 609	\$ 1,583	\$ —	\$ 2,192
December 31, 2014				
Assets:				
Derivative contracts	\$ 1,001	\$ 1,376	\$ —	\$ 2,377
Liabilities:				
Derivative contracts	\$ 440	\$ 3,563	\$ —	\$ 4,003

- (1) quoted prices in active markets for identical assets or liabilities
- (2) observable inputs other than quoted prices in active markets for identical assets and liabilities
- (3) no observable pricing inputs in the market

The Company's derivative contracts consist of natural gas and electricity put and call options and swaps. The underlying asset in the Company's put and call options is a forward contract. The Company's swaps are agreements whereby a floating (or market or spot) price is exchanged for a fixed price over a specified period. The Company's derivatives were classified as Level 1, Level 2 or Level 3. The Level 1 derivatives were valued using quoted prices in active markets for identical contracts. The Level 2 derivatives were valued using observable inputs based on quoted market prices in active markets for similar contracts. The fair value of the Level 3 derivatives was based on the value of the underlying contracts, estimated in conjunction with the counterparty and could not be corroborated by the market.

The Company's subsidiary, GOGAS, issued a stock option in June 2011 to Michael Steinhardt, the Chairman of the Board of IEI, at an exercise price of \$5.0 million. The expiration date was April 9, 2015. The expiration date was extended for one month, and on May 9, 2015, the option was exercised (see Note 9). At December 31, 2014 the fair value of the GOGAS stock option was nil.

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 3—Fair Value Measurements – (Continued)

The following tables summarize the change in the balance of the Company’s assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3). There were no liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) in the years ended December 31, 2015, 2014 or 2013.

(in thousands)	Year ended December 31,		
	2015	2014	2013
Balance, beginning of period	\$ —	\$ 62	\$ —
Total gains (losses) (realized or unrealized) included in earnings in “Direct cost of revenues”	—	(62)	(142)
Purchases, sales, issuances and settlements:			
Purchases	—	—	359
Settlement	—	—	(155)
Balance, end of period	\$ —	\$ —	\$ 62

The amount of total gains for the period included in earnings in “Direct cost of revenues” attributable to the change in unrealized gains or losses relating to assets held at the end of the period	\$ —	\$ —	\$ 62
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Fair Value of Other Financial Instruments

The estimated fair value of the Company’s other financial instruments was determined using available market information or other appropriate valuation methodologies. However, considerable judgment is required in interpreting this data to develop estimates of fair value. Consequently, the estimates are not necessarily indicative of the amounts that could be realized or would be paid in a current market exchange.

Restricted cash—short-term and long-term, certificates of deposit, prepaid expenses, other current assets, advances from customers, due to IDT Corporation and other current liabilities. At December 31, 2015 and 2014, the carrying amount of these assets and liabilities approximated fair value because of the short period to maturity. The fair value estimate for restricted cash—short-term and long-term were classified as Level 1 and certificates of deposit, prepaid expenses, other current assets, advances from customers, due to IDT Corporation and other current liabilities were classified as Level 2 of the fair value hierarchy.

Other assets, revolving credit loan payable and other liabilities. At December 31, 2015 and 2014, other assets included an aggregate of \$1.4 million and \$1.5 million, respectively, in notes receivable. The carrying amounts of the notes receivable, revolving credit loan payable and other liabilities approximated fair value. The fair values were estimated based on the Company’s assumptions, and were classified as Level 3 of the fair value hierarchy.

Note 4—Derivative Instruments

The primary risk managed by the Company using derivative instruments is commodity price risk, which is accounted for in accordance with Accounting Standards Codification 815—Derivatives and Hedging. Natural gas and electricity put and call options and swaps are entered into as hedges against unfavorable fluctuations in market prices of natural gas and electricity. The Company does not apply hedge accounting to these options or swaps, therefore the changes in fair value are recorded in earnings. By using derivative instruments to mitigate exposures to changes in commodity prices, the Company exposes itself to credit risk and market risk. Credit risk is the failure of the counterparty to perform under the terms of the derivative contract. When the fair value of a derivative contract is positive, the counterparty owes the Company, which creates credit risk. The Company minimizes the credit or repayment risk in derivative instruments by entering into transactions with high-quality counterparties. At December 31, 2015 and 2014, GRE’s swaps and options were traded on the New York Mercantile Exchange.

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 4—Derivative Instruments – (Continued)

The summarized volume of GRE’s outstanding contracts and options as of December 31, 2015 was as follows (MWh – Megawatt hour and Dth – Decatherm):

<u>Commodity</u>	<u>Settlement Dates</u>	<u>Volume</u>
Electricity	January 2016	248,000 MWh
Electricity	February 2016	772,800 MWh
Electricity	March 2016	82,800 MWh
Electricity	April 2016	16,800 MWh
Electricity	July 2016	160,000 MWh
Electricity	August 2016	184,000 MWh
Electricity	September 2016	33,600 MWh
Natural gas	February 2016	852,500 Dth
Natural gas	April 2016	200,000 Dth
Natural gas	July 2016	1,110,000 Dth
Natural gas	August 2016	800,000 Dth

The fair value of outstanding derivative instruments recorded as assets in the accompanying consolidated balance sheets were as follows:

<u>December 31 (in thousands)</u>		<u>2015</u>	<u>2014</u>
<u>Asset Derivatives</u>	<u>Balance Sheet Location</u>		
Derivatives not designated or not qualifying as hedging instruments:			
Energy contracts and options	Other current assets	<u>\$ 1,681</u>	<u>\$ 2,377</u>

The fair value of outstanding derivative instruments recorded as liabilities in the accompanying consolidated balance sheets were as follows:

<u>December 31 (in thousands)</u>		<u>2015</u>	<u>2014</u>
<u>Liability Derivatives</u>	<u>Balance Sheet Location</u>		
Derivatives not designated or not qualifying as hedging instruments:			
Energy contracts and options	Energy hedging contracts	<u>\$ 2,192</u>	<u>\$ 4,003</u>

The effects of derivative instruments on the consolidated statements of operations were as follows:

<u>(in thousands)</u>		<u>Amount of Gain (Loss)</u>		
		<u>Recognized on Derivatives</u>		
		<u>Year ended December 31,</u>		
		<u>2015</u>	<u>2014</u>	<u>2013</u>
Derivatives not designated or not qualifying as hedging instruments	Location of Gain (Loss) Recognized on Derivatives			
Energy contracts and options	Direct cost of revenues	<u>\$ (1,772)</u>	<u>\$ (1,674)</u>	<u>\$ 1,177</u>

Note 5—Investment in American Shale Oil, LLC

AMSO, LLC holds a research, development and demonstration lease awarded by the U.S. Bureau of Land Management that covers an area of 160 acres in western Colorado (the “RD&D Lease”). The RD&D Lease had an initial ten-year term that began on January 1, 2007 and provides for a five-year extension if AMSO can demonstrate that a process leading to the production of commercial quantities of shale oil is diligently being

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 5—Investment in American Shale Oil, LLC – (Continued)

pursued. In November 2015, AMSO satisfied the extension criteria, and the RD&D Lease was extended effective on January 1, 2017. 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 in its RD&D Lease. (The acreage numbers that appear in this paragraph are unaudited).

In March 2009, a subsidiary of TOTAL S.A. (“Total”) acquired a 50% interest in AMSO, LLC in exchange for cash paid to the Company 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. Immediately prior to this transaction, all owners of equity interests in AMSO, LLC other than AMSO exchanged their ownership interest for a proportionate share of a 1% override on AMSO, LLC’s future revenue. Following the transaction with Total, AMSO and Total each owned a 50% interest in AMSO, LLC.

On February 23, 2016, Total notified the Company of its decision not to continue to fund AMSO, LLC. The Company is currently considering its options with respect to the future of this project. AMSO and Total are obligated to fund certain remediation and reclamation costs. The Company estimates that its share of such costs would be in the range of nil to \$2.0 million.

Except as set forth below, AMSO was responsible for funding 20% of the initial \$50 million of AMSO, LLC’s approved expenditures, and is responsible for funding 35% of the approved expenditures between \$50 million and \$100 million, and 40% of the costs of the one-time payment for conversion of AMSO, LLC’s RD&D Lease to a commercial lease, in the event AMSO, LLC’s application for conversion is approved, with the remaining amounts of such expenditures to be funded by Total. All other expenditures are to be borne in proportion to equity ownership. The percentages for expenditures are subject to proportional adjustment in connection with certain changes in the equity ownership of AMSO LLC. At December 31, 2015, the cumulative contributions of AMSO and Total to AMSO, LLC were \$82.9 million. AMSO’s allocated share of the net loss of AMSO, LLC is included in “Equity in the net loss of AMSO, LLC” in the accompanying consolidated statements of operations.

AMSO has the right to decide at each capital call whether or not to fund AMSO, LLC, and will make a determination at each such time. AMSO did not fund the capital calls for any quarter from the fourth quarter of 2013 through the second quarter of 2015. AMSO funded an aggregate of \$0.3 million from the third quarter of 2015 through the first quarter of 2016, which was 28% of its share of the capital calls. In the period from January 2014 through January 2016, Total funded an aggregate of \$4.6 million for AMSO’s share of the capital calls that AMSO did not fund. Because of AMSO’s decisions not to fund all of its share of AMSO, LLC’s expenditures, AMSO’s ownership interest in AMSO, LLC was reduced to 41.3% and Total’s ownership interest increased to 58.7%. In addition, AMSO’s share of future funding of AMSO, LLC up to a cumulative \$100 million was reduced to 28.9% and Total’s share increased to 71.1%.

The agreements with Total provide for varying consequences for AMSO’s failure to fund its share at different stages of the project, including dilution of AMSO’s interest in AMSO, LLC or paying interest to Total for expenditures they fund on behalf of AMSO. Either Total or AMSO may terminate its obligations to make capital contributions and withdraw as a member of AMSO, LLC. Even if AMSO were to withdraw its interest in AMSO, LLC, it will remain liable for its share of expenditures for safety and environmental reclamation related to events occurring prior to its withdrawal.

The Company accounts for its ownership interest in AMSO, LLC using the equity method since the Company has the ability to exercise significant influence over its operating and financial matters, although it does not control AMSO, LLC. AMSO, LLC is a variable interest entity, however, the Company has determined that it is not the

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 5—Investment in American Shale Oil, LLC – (Continued)

primary beneficiary, as the Company does not have the power to direct the activities of AMSO, LLC that most significantly impact AMSO, LLC’s economic performance.

The following table summarizes the change in the balance of the Company’s investment in AMSO, LLC:

(in thousands)	Year ended December 31,		
	2015	2014	2013
Balance, beginning of period	\$ (252)	\$ (252)	\$ 242
Capital contributions	250	—	2,700
Equity in net loss of AMSO, LLC	(397)	—	(3,194)
Balance, end of period	\$ (399)	\$ (252)	\$ (252)

At December 31, 2015 and 2014, the liability for equity loss in AMSO, LLC was included in “Accrued expenses” in the consolidated balance sheet.

In part because of AMSO’s decision not to fund all of its share of AMSO, LLC’s expenditures, AMSO, LLC allocates its net loss beginning January 2014 as follows: \$12.1 million of losses were allocated to Total, then it allocates any remaining losses proportionately such that over time AMSO and Total’s capital accounts as a percentage of AMSO, LLC’s total capital will equal their ownership interests.

Summarized balance sheets of AMSO, LLC are as follows:

December 31 (in thousands)	2015	2014
ASSETS		
Cash and cash equivalents	\$ 204	\$ 1,052
Restricted cash and cash equivalents	47	47
Other current assets	85	119
Equipment, net	181	242
Other assets	861	861
TOTAL ASSETS	\$ 1,378	\$ 2,321
LIABILITIES AND MEMBERS’ INTERESTS		
Current liabilities	\$ 654	\$ 1,324
Other liabilities	861	861
Members’ interests	(137)	136
TOTAL LIABILITIES AND MEMBERS’ INTERESTS	\$ 1,378	\$ 2,321

Summarized statements of operations of AMSO, LLC are as follows:

(in thousands)	Year ended December 31,		
	2015	2014	2013
REVENUES	\$ —	\$ —	\$ —
OPERATING EXPENSES:			
General and administrative	403	456	566
Research and development	4,782	7,755	8,601
TOTAL OPERATING EXPENSES	5,185	8,211	9,167
Loss from operations	(5,185)	(8,211)	(9,167)
Other income	—	—	41
NET LOSS	\$ (5,185)	\$ (8,211)	\$ (9,126)

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 6—Property and Equipment

December 31 (in thousands)	2015	2014
Computer software and development	\$ 1,287	\$ 1,038
Computers and computer hardware	221	259
Laboratory and drilling equipment	528	1,195
Office equipment and other	349	365
	2,385	2,857
Less: accumulated depreciation	(1,038)	(955)
Property and equipment, net	\$ 1,347	\$ 1,902

Note 7—Revolving Lines of Credit

On December 17, 2015, GRE, IDT Energy and certain affiliates entered into a Credit Agreement with Maple Bank GmbH for a revolving loan facility. On December 17, 2015, GRE borrowed \$2.0 million under the facility. In February 2016, the German banking regulator, Bafin, closed Maple Bank GmbH due to impending financial over-indebtedness related to tax-evasion investigations. Therefore, the revolving line of credit is not available for future borrowings. The collateral for the revolving loan consists of the borrowers' receivables, the balances in certain bank accounts and certain commercial and intangible rights. Outstanding principal amount incurs interest at LIBOR plus 3.5% per annum. Interest is payable monthly and all outstanding principal and any accrued and unpaid interest is due on the maturity date of December 17, 2018. The borrowers are required to comply with various affirmative and negative covenants, including maintaining a target tangible net worth during the term of the Credit Agreement. At December 31, 2015, the borrowers were in compliance with all of the covenants.

As of April 23, 2012, the Company 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. The Company 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. The Company is not permitted to withdraw funds or exercise any authority over the required balance in the collateral account. The principal outstanding will bear interest at the lesser of (a) the LIBOR rate multiplied by the statutory reserve rate established by the Board of Governors of the Federal Reserve System plus 1.0% per annum, or (b) the maximum rate per annum permitted by whichever of applicable federal or Texas laws permit the higher interest rate. Interest is payable at least every three months and all outstanding principal and any accrued and unpaid interest is due on the maturity date of April 30, 2016. The Company pays a quarterly unused commitment fee of 0.08% per annum on the difference between \$25.0 million and the average daily outstanding principal balance of the note. In addition, as of April 23, 2012, GEIC issued a Corporate Guaranty to JPMorgan Chase Bank whereby GEIC unconditionally guarantees the full payment of all indebtedness of the Company and IDT Energy under the Loan Agreement. At December 31, 2015 and 2014, there were no amounts borrowed under the line of credit, and cash collateral of \$10.0 million was included in "Restricted cash—short-term" in the consolidated balance sheet. In addition, at December 31, 2015 and 2014, letters of credit of \$7.7 million and \$7.6 million, respectively, were outstanding.

Note 8—Income Taxes

The components of (loss) income before income taxes are as follows:

(in thousands)	Year ended December 31,		
	2015	2014	2013
Domestic	\$ 1,517	\$ (14,900)	\$ 9,467
Foreign	(9,628)	(12,412)	(12,053)
LOSS BEFORE INCOME TAXES	\$ (8,111)	\$ (27,312)	\$ (2,586)

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 8—Income Taxes – (Continued)

Significant components of the Company's deferred income tax assets consist of the following:

December 31 (in thousands)	2015	2014
Deferred income tax assets:		
Bad debt reserve	\$ 75	\$ 93
Accrued expenses	3,865	2,940
State taxes	91	78
Charitable contributions	402	330
Net operating loss	26,186	17,473
Stock options and restricted stock	7,752	6,163
Depreciation	1,661	2,089
Total deferred income tax assets	40,032	29,166
Valuation allowance	(38,390)	(27,703)
DEFERRED INCOME TAX ASSETS, NET	\$ 1,642	\$ 1,463

The Company has initiated a tax strategy that enables the Company to deduct losses from its foreign subsidiaries against its profitable U.S. operations. Because of this strategy, the decrease in pre-tax earnings of GRE in 2012, and the Company's current projections, the Company concluded that it no longer met the criteria of more likely than not in order to utilize its deferred federal income tax assets in the foreseeable future. Accordingly, at December 31, 2015 and 2014, only the state portion of GRE deferred tax assets are reflected.

The provision for (benefit from) income taxes consists of the following:

(in thousands)	Year ended December 31,		
	2015	2014	2013
Current:			
Federal	\$ —	\$ —	\$ 1,112
State and local	704	730	1,891
Foreign	—	(12)	(7)
	<u>704</u>	<u>718</u>	<u>2,996</u>
Deferred:			
Federal	19	68	—
State and local	(198)	(691)	(241)
Foreign	—	—	—
	<u>(179)</u>	<u>(623)</u>	<u>(241)</u>
PROVISION FOR INCOME TAXES	\$ 525	\$ 95	\$ 2,755

The differences between income taxes expected at the U.S. federal statutory income tax rate and income taxes provided are as follows:

(in thousands)	Year ended December 31,		
	2015	2014	2013
U.S. federal income tax at statutory rate	\$ (2,840)	\$ (9,559)	\$ (904)
Valuation allowance	2,982	9,564	2,447
Foreign tax rate differential	31	22	48
Other	20	115	66
State and local income tax, net of federal benefit	332	(47)	1,098
PROVISION FOR INCOME TAXES	\$ 525	\$ 95	\$ 2,755

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 8—Income Taxes – (Continued)

At December 31, 2015, the Company had U.S. federal and state net operating loss carry-forwards of approximately \$26.1 million and \$67.2 million, respectively. These carry-forward losses are available to offset future U.S. federal and state taxable income. The federal net operating loss carry-forwards will start to expire in 2032, with the year ended December 31, 2015's loss expiring in 2036. The state net operating loss carry-forwards will start to expire in 2028, with the year ended December 31, 2015's loss expiring in 2036.

At December 31, 2015, the Company had foreign net operating loss carry-forwards of approximately \$52.0 million, of which \$47.4 million will not expire. This carry-forward loss is available to offset future foreign taxable income.

The change in the valuation allowance for deferred income taxes was as follows:

(in thousands)	Balance at beginning of period	Additions charged to costs and expenses	Deductions	Balance at end of period
Year ended December 31, 2015				
Reserves for valuation allowances deducted from deferred income taxes, net	\$ 27,703	\$ 10,687	\$ —	\$ 38,390
Year ended December 31, 2014				
Reserves for valuation allowances deducted from deferred income taxes, net	\$ 16,653	\$ 11,050	\$ —	\$ 27,703
Year ended December 31, 2013				
Reserves for valuation allowances deducted from deferred income taxes, net	\$ 11,861	\$ 4,792	\$ —	\$ 16,653

(in thousands)	Year ended December 31,		
	2015	2014	2013
Balance at beginning of period	\$ 543	\$ 542	\$ 223
Additions based on tax positions related to the current period.	97	209	—
Additions for tax positions of prior periods	10	9	319
Lapses of statutes of limitations	(14)	(217)	—
Balance at end of period	\$ 636	\$ 543	\$ 542

All of the unrecognized income tax benefits at December 31, 2015 and 2014 would have affected the Company's effective income tax rate if recognized. The Company does not expect the total amount of unrecognized tax benefits to significantly increase or decrease within the next twelve months.

In the years ended December 31, 2015, 2014 and 2013, the Company recorded interest on income taxes of \$10,000, \$9,000 and \$9,000, respectively. As of December 31, 2015 and 2014, there was no accrued interest included in current income taxes payable.

The Company currently remains subject to examinations of its tax returns as follows: U.S. federal tax returns for 2012 to 2015, state and local tax returns generally for 2011 to 2015 and foreign tax returns generally for 2011 to 2015.

Note 9—Equity

Class A Common Stock and Class B Common Stock

The rights of holders of Class A common stock and Class B common stock are identical except for certain voting and conversion rights and restrictions on transferability. The holders of Class A common stock and Class B common stock receive identical dividends per share when and if declared by the Company's Board of Directors. In addition, the holders of Class A common stock and Class B common stock have identical and equal priority rights per share in

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 9—Equity – (Continued)

liquidation. The Class A common stock and Class B common stock do not have any other contractual participation rights. The holders of Class A common stock are entitled to three votes per share and the holders of Class B common stock are entitled to one-tenth of a vote per share. Except as required by law or under the terms of the Series 2012-A Preferred Stock (the “Preferred Stock”), the holders of Class A and Class B common stock and the Preferred Stock vote together as a single class on all matters submitted to a vote of the Company’s stockholders. Each share of Class A common stock may be converted into one share of Class B common stock, at any time, at the option of the holder. Shares of Class A common stock are subject to certain limitations on transferability that do not apply to shares of Class B common stock.

Series 2012-A Preferred Stock

Each share of Preferred Stock has a liquidation preference of \$8.50 (the “Liquidation Preference”), and is entitled to receive an annual dividend per share equal to the sum of (i) \$0.6375 (the “Base Dividend”) plus (ii) seven and one-half percent (7.5%) of the quotient obtained by dividing (A) the amount by which the EBITDA for a fiscal year of the Company’s retail energy provider business exceeds \$32 million by (B) 8,750,000 (the “Additional Dividend”), payable in cash. EBITDA consists of income (loss) from operations exclusive of depreciation and amortization and other operating gains (losses). During any period when the Company has failed to pay a dividend on the Preferred Stock and until all unpaid dividends have been paid in full, the Company is prohibited from paying dividends or distributions on the Company’s Class B or Class A common stock.

The Preferred Stock is redeemable, in whole or in part, at the option of the Company following October 11, 2017 at 101% of the Liquidation Preference plus accrued and unpaid dividends, and 100% of the Liquidation Preference plus accrued and unpaid dividends following October 11, 2018.

The Base Dividend is payable (if declared by the Company’s Board of Directors, and accrued, if not declared) quarterly on each February 15, May 15, August 15 and November 15, and to the extent that there is any Additional Dividend payable with respect to a fiscal year, it will be paid to holders of Preferred Stock with the May dividend. With respect to the payment of dividends and amounts upon liquidation, dissolution or winding up, the Preferred Stock is equal in rank to all other equity securities the Company issues, the terms of which specifically provide that such equity securities rank on a parity with the Preferred Stock with respect to dividend rights or rights upon the Company’s liquidation, dissolution or winding up; senior to the Company’s common stock; and junior to all of the Company’s existing and future indebtedness.

Each share of Preferred Stock has the same voting rights as a share of Class B common stock, except on certain matters that only impact the Company’s common stock, as well as additional voting rights on specific matters or upon the occurrence of certain events.

Dividend Payments

In the year ended December 31, 2015, the Company paid aggregate cash dividends of \$0.12 per share on its Class A common stock and Class B common stock, equal to \$3.0 million in total dividends paid. In the year ended December 31, 2014, the Company paid aggregate cash dividends of \$0.06 per share on its Class A common stock and Class B common stock, equal to \$1.5 million in total dividends paid. No dividends were declared or paid on the Company’s Class A common stock and Class B common stock in the year ended December 31, 2013. On February 12, 2016, the Company paid a quarterly dividend of \$0.06 per share on its Class A common stock and Class B common stock for the fourth quarter of 2015 to stockholders of record as of the close of business on February 5, 2016, as the Company has resumed quarterly dividend payments on its common stock.

In the year ended December 31, 2015, the Company paid aggregate cash dividends of \$0.6376 per share on its Preferred Stock, equal to \$1.5 million in total dividends paid. In the year ended December 31, 2014, the Company paid aggregate cash dividends of \$0.6376 per share on its Preferred Stock, equal to \$1.4 million in total Preferred Stock dividends paid. In the year ended December 31, 2013, the Company paid aggregate cash dividends of \$0.6099

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 9—Equity – (Continued)

per share on its Preferred Stock, equal to \$1.1 million in total Preferred Stock dividends paid. On February 16, 2016, the Company paid a quarterly Base Dividend of \$0.1594 per share on its Preferred Stock for the fourth quarter of 2015 to stockholders of record as of the close of business on February 5, 2016.

Stock Repurchases

On March 11, 2013, the Board of Directors of the Company approved a stock repurchase program for the repurchase of up to an aggregate of 7.0 million shares of the Company's Class B common stock. In the year ended December 31, 2014, the Company repurchased 103,331 shares of Class B common stock under this program for an aggregate purchase price of \$0.8 million. There were no repurchases under the program in the years ended December 31, 2015 and 2013. At December 31, 2015, 6.9 million shares remained available for repurchase under the stock repurchase program.

Exchange Offers and Issuances of Preferred Stock

On November 26, 2012, the Company initiated an offer to exchange up to 7.15 million outstanding shares of its Class B common stock for the same number of shares of its Preferred Stock. The offer expired on March 5, 2013. On March 11, 2013, the Company issued 313,376 shares of its Preferred Stock in exchange for an equal number of shares of Class B common stock tendered in the exchange offer.

On May 22, 2014, the Company initiated an offer to exchange up to 5.0 million shares of its outstanding Class B common stock for the same number of shares of its Preferred Stock. The offer expired on June 23, 2014. On June 27, 2014, the Company issued 404,732 shares of its Preferred Stock in exchange for an equal number of shares of Class B common stock tendered in the exchange offer. As a result of the issuance of additional shares of Preferred Stock, the aggregate quarterly Base Dividend increased to \$0.4 million from \$0.3 million.

Sale of Shares to Howard S. Jonas

On July 30, 2014, the Company entered into a Second Amended and Restated Employment Agreement and a Restricted Stock Sale Agreement with Howard S. Jonas, the Company's Chairman of the Board and Chief Executive Officer. Pursuant to these agreements, (a) options to purchase 3.0 million shares of the Company's Class B common stock previously granted to Mr. Jonas, with an exercise price of \$10.30 per share were cancelled, (b) the term of the existing employment agreement between the Company and Mr. Jonas was extended for an additional one year period, expiring on December 31, 2019, and (c) Mr. Jonas committed to purchase an aggregate of 3.6 million shares of the Company's Class B common stock from the Company at a price of \$6.82 per share (the closing price per share of the Class B common stock on the day that the arrangement was approved by the Company's Board of Directors and Compensation Committee). The 3.6 million Class B shares are subject to repurchase by the Company at \$6.82 per share upon certain terminations of Mr. Jonas' employment by the Company, and such repurchase right lapses as to 0.6 million shares on December 31, 2016, 2017 and 2018. On July 30, 2014 and August 4, 2014, the Company sold an aggregate of 3.6 million shares of the Company's Class B common stock to Mr. Jonas for an aggregate purchase price of \$24.6 million. The Company accounted for the change in the equity arrangements with Mr. Jonas as a modification, with an incremental value of nil. Accordingly, the unrecognized compensation cost as of July 30, 2014 of \$17.0 million is being recognized on a straight-line basis over the modified vesting period. The estimated total value of the options on the date of the grant was \$19.3 million.

Sales of Equity of Subsidiaries

Per the terms of his employment agreement, Dr. Harold Vinegar, Chief Scientist of the Company ("Vinegar"), has an option to purchase, at fair value, up to 10% of the GOGAS ventures in which he is a key contributor:

- In November 2008, Vinegar purchased a 10% interest in IEI.

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 9—Equity – (Continued)

- In October 2013, Vinegar purchased a 9.5% interest in Afek.
- In November 2013, Vinegar purchased a 9.8% interest in Genie Mongolia.

In connection with Vinegar's November 2008 purchase of a 10% interest in IEI, the purchase agreement included certain no cost anti-dilution protection as follows. If IEI issues certain of its shares in order to raise capital until the capitalization of IEI equals \$20 million, IEI shall issue to Vinegar additional shares to maintain his 10% interest in IEI. In December 2013, IEI converted its intercompany payable to GOGAS into preferred stock. Pursuant to the anti-dilution protection, IEI issued shares of its preferred stock to Vinegar equal to 10% of \$20 million or \$2.0 million, which the Company recorded as an increase in "Noncontrolling interests" and a corresponding decrease in "Additional paid-in capital".

In November 2010, GOGAS sold a 0.5% equity interest to Rupert Murdoch for \$1.0 million paid with a promissory note. The note was secured by a pledge of the shares issued in exchange for the note. The note accrued interest at 1.58% per annum. The Company received an aggregate of \$1.1 million for the payment of the principal and accrued interest on the maturity date of November 15, 2015.

In connection with the sale by GOGAS in November 2010 of a 5.0% equity interest to an entity affiliated with Lord (Jacob) Rothschild for \$10.0 million, the entity affiliated with Lord Rothschild has a one-time option through November 12, 2017 to exchange its GOGAS shares for shares of the Company with equal fair value as determined by the parties. The number of shares issuable in such an exchange is not currently determinable.

Exercise of GOGAS stock option

GOGAS issued a stock option in June 2011 to Michael Steinhardt at an exercise price of \$5.0 million. The expiration date was April 9, 2015. The expiration date was extended for one month, and on May 9, 2015, the option was exercised. Mr. Steinhardt and an affiliate received interests of approximately 1.5% in each of Afek, Genie Mongolia and IEI. In addition, Mr. Steinhardt and the affiliate received an approximately 1.7% interest in AMSO. The exercise price of \$5.0 million was paid \$2.5 million in cash and \$2.5 million in promissory notes due in November 2015. The notes bear interest at 0.43% per annum, and are secured by 50% of the shares received in the exercise. In November 2015, the Company received cash of \$0.8 million to repay one-third of the principal amount of the promissory notes, and released one-third of the shares securing the remaining notes. The remaining notes, an aggregate of \$1.7 million, are expected to be repaid in 2016. At December 31, 2015, the notes receivable were included in "Receivables for issuance of equity" in the consolidated balance sheet.

Note 10—Stock-Based Compensation

Stock-Based Compensation Plan

The Company's 2011 Stock Option and Incentive Plan is intended to provide incentives to executives, employees, directors and consultants of the Company. Incentives available under the 2011 Stock Option and Incentive Plan may include stock options, stock appreciation rights, limited rights, deferred stock units, and restricted stock. The plan is administered by the Compensation Committee of the Company's Board of Directors. On May 5, 2015, the Company's stockholders approved an amendment and restatement to the Company's 2011 Stock Option and Incentive Plan that increased the number of shares of the Company's Class B common stock available for the grant of awards thereunder by an additional 180,000 shares. At December 31, 2015, the Company had 1.3 million shares of Class B common stock reserved for award under its 2011 Stock Option and Incentive Plan and 0.2 million shares were available for future grants.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 10—Stock-Based Compensation – (Continued)

Restricted Stock

The fair value of restricted shares of the Company's Class B common stock is determined based on the closing price of the Company's Class B common stock on the grant date. Share awards generally vest on a graded basis over three years of service following the grant.

A summary of the status of the Company's grants of restricted shares of Class B common stock is presented below:

	Number of Non-vested Shares (in thousands)	Weighted-Average Grant Date Fair Value
Non-vested shares at December 31, 2014.	73	\$ 9.83
Granted	38	9.95
Vested	(57)	8.18
Forfeited	(2)	10.01
NON-VESTED SHARES AT DECEMBER 31, 2015	52	\$ 11.72

At December 31, 2015, there was \$9.0 million of total unrecognized compensation cost related to non-vested stock-based compensation arrangements, including \$8.5 million relating to the shares purchased by Howard S. Jonas (see Note 9). The total unrecognized compensation cost is expected to be recognized over a weighted-average period of 1.6 years. The total grant date fair value of shares vested in the years ended December 31, 2015, 2014 and 2013 was \$0.5 million, \$2.5 million and \$3.3 million, respectively. The Company recognized compensation cost related to the vesting of the restricted stock of \$3.6 million, \$6.6 million, and \$2.0 million in the years ended December 31, 2015, 2014, and 2013, respectively. The compensation cost related to the vesting of the restricted stock included \$2.8 million and \$5.7 million relating to the shares purchased by Howard S. Jonas in the years ended December 31, 2015 and 2014, respectively.

Effective December 12, 2013, the Company issued 63,917 restricted shares of its Class B common stock to the President of the Company. The restricted shares vest in three years that began in January 2014. The fair value of the restricted shares on the date of the grant was \$0.7 million, which is being recognized on a straight-line basis over the vesting period.

Effective January 6, 2014, the Company issued 29,126 restricted shares of its Class B common stock to Michael Stein, Executive Vice President of the Company, and son-in-law of Howard S. Jonas. The restricted shares vest in three equal annual installments commencing on January 5, 2015. The fair value of the restricted shares on the date of the grant was \$0.3 million, which is being recognized on a straight-line basis over the vesting period.

Stock Options

Option awards are generally granted with an exercise price equal to the market price of the Company's stock on the date of grant. Option awards generally vest on a graded basis over three years of service and have ten-year contractual terms. Expected volatility is based on historical volatility of the Company's Class B common stock and other factors. The Company uses historical data on exercise of stock options, post vesting forfeitures and other factors to estimate the expected term of the stock-based payments granted. The risk free rate is based on the U.S. Treasury yield curve in effect at the time of grant.

The fair value of stock options was estimated on the date of the grant using a Black-Scholes valuation model and the assumptions in the following table. No option awards were granted in the year ended December 31, 2014.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 10—Stock-Based Compensation – (Continued)

	Year ended December 31,	
	2015	2013
ASSUMPTIONS		
Average risk-free interest rate	0.93%	2.07%
Expected dividend yield	—	—
Expected volatility	61.0%	65.6%
Expected term	5.5 years	6.5 years

A summary of stock option activity for the Company is as follows:

	Number of Options (in thousands)	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2014.	438	\$ 6.85	6.3	\$ —
Granted	6	0.01		
Exercised	(25)	6.85		
Cancelled / Forfeited.	(5)	6.85		
OUTSTANDING AT DECEMBER 31, 2015 . .	414	\$ 6.74	5.6	\$ 1,825
EXERCISABLE AT DECEMBER 31, 2015 . .	268	\$ 6.80	5.4	\$ 1,167

The weighted-average grant date fair value of options granted by the Company during the years ended December 31, 2015 and 2013 was \$9.67 and \$6.42, respectively. The total intrinsic value of options exercised during the years ended December 31, 2015, 2014 and 2013 was \$12,000, \$12,000 and \$29,000, respectively. At December 31, 2015, there was \$0.8 million of total unrecognized compensation cost related to non-vested stock options, which is expected to be recognized over a weighted-average period of 1.9 years. The Company recognized compensation cost related to the vesting of the options of \$0.3 million, \$2.5 million and \$0.4 million in the years ended December 31, 2015, 2014 and 2013, respectively.

Grants of Equity of Subsidiaries

On May 5, 2015, the Compensation Committee of the Company's Board of Directors approved the grant of deferred stock units in GRE to certain of the Company's officers and employees. Howard S. Jonas was granted deferred stock units representing 2.8% of the outstanding equity in GRE, Avi Goldin, the Company's Chief Financial Officer and Executive Vice President - Finance was granted deferred stock units representing 0.2% of the outstanding equity in GRE, Michael Stein, the Company's Executive Vice President and the Chief Executive Officer and a Director of GRE was granted deferred stock units representing 0.3% of the outstanding equity in GRE, and other employees were granted deferred stock units representing an aggregate of 0.6% of the outstanding equity in GRE. The deferred stock units vest in equal amounts on the first, second and third anniversaries of the date of grant. The fair value of the GRE deferred stock units on the date of grant was \$3.3 million, which is being recognized on a straight-line basis over the vesting period. At December 31, 2015, the unrecognized compensation cost relating to these grants was \$2.7 million, which is expected to be recognized over a weighted-average period of 1.4 years. The Company recognized aggregate compensation cost related to the vesting of the GRE deferred stock units and other subsidiary equity interests that were granted in prior years of \$1.4 million, \$1.6 million and \$1.8 million in the years ended December 31, 2015, 2014 and 2013, respectively.

In 2014 and 2013, the Company elected to exchange vested deferred stock units of IDT Energy previously granted to employees and directors of the Company for shares of the Company's Class B common stock upon the vesting of the deferred stock units based on the relative fair value of the shares exchanged. Accordingly, in August 2014 and 2013, the Company issued 137,738 and 133,758 shares of the Company's Class B common stock in exchange for 23.6 and 23.6 vested deferred stock units of IDT Energy, respectively. In August 2015, the Company elected to pay cash of

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 10—Stock-Based Compensation – (Continued)

\$1.2 million for the remaining 23.6 deferred stock units of IDT Energy that vested in June and July 2015 based on the estimated fair value of the deferred stock units of IDT Energy.

Note 11—Variable Interest Entities

In 2011, an employee of IDT incorporated Citizens Choice Energy, LLC (“CCE”), which is a REP that resells electricity and natural gas to residential and small business customers in the State of New York. In addition, DAD Sales, LLC (“DAD”) used its network of door-to-door sales agents to obtain customers for CCE. In December 2012, DAD ceased to acquire customers for CCE. The Company provided CCE and DAD with substantially all of the cash required to fund their operations. The Company determined that since the acquisition of the interest in CCE and DAD, it had the power to direct the activities of these entities that most significantly impact their economic performance and it has the obligation to absorb losses of CCE and DAD that could potentially be significant to CCE and DAD on a stand-alone basis. The Company therefore determined that it is the primary beneficiary of CCE and DAD, and as a result, the Company consolidates CCE and DAD within its GRE segment. The Company does not own any interest in CCE or DAD and thus the net income or loss incurred by CCE and DAD was attributed to noncontrolling interests in the accompanying consolidated statements of operations.

In October 2015, GRE paid \$0.2 million to the owner of the limited liability company interests in CCE, and loaned CCE \$0.5 million in exchange for an option to purchase 100% of the issued and outstanding limited liability company interests of CCE for one dollar plus the forgiveness of the \$0.5 million loan. The option expires on October 22, 2023.

Net income (loss) amounts related to CCE and DAD and aggregate net funding repaid to (provided by) the Company to CCE and DAD in order to finance their operations were as follows:

(in thousands)	Year ended December 31,		
	2015	2014	2013
Net income (loss):			
CCE	\$ 201	\$ 763	\$ 2,080
DAD	(167)	(104)	(67)
Aggregate funding repaid to (provided by) the Company, net . . .	950	(266)	4,126

Summarized consolidated balance sheet amounts related to CCE and DAD are as follows:

December 31 (in thousands)	2015	2014
ASSETS		
Cash and cash equivalents	\$ 48	\$ 33
Restricted cash	25	20
Trade accounts receivable	844	1,873
Prepaid expenses	479	480
Other current assets	51	178
Other assets	468	459
TOTAL ASSETS	\$ 1,915	\$ 3,043
LIABILITIES AND NONCONTROLLING INTERESTS		
Current liabilities	\$ 267	\$ 479
Due to IDT Energy	427	1,377
Noncontrolling interests	1,221	1,187
TOTAL LIABILITIES AND NONCONTROLLING INTERESTS	\$ 1,915	\$ 3,043

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 11—Variable Interest Entities – (Continued)

The assets of CCE and DAD may only be used to settle obligations of CCE and DAD, and may not be used for other consolidated entities. The liabilities of CCE and DAD are non-recourse to the general credit of the Company’s other consolidated entities.

Note 12—Accumulated Other Comprehensive Income

The accumulated balances for each classification of other comprehensive income (loss) were as follows:

(in thousands)	Unrealized loss on available- for-sale securities	Foreign currency translation	Accumulated other comprehensive income (loss)	Location of (Gain) Loss Recognized
Balance at December 31, 2012	\$ (15)	\$ 285	\$ 270	
Other comprehensive (loss) income before reclassifications	(55)	460	405	
Amounts reclassified from accumulated other comprehensive income	70	—	70	Interest income
Net other comprehensive income	15	460	475	
Balance at December 31, 2013	—	745	745	
Other comprehensive loss attributable to Genie	—	(735)	(735)	
Balance at December 31, 2014	—	10	10	
Other comprehensive income attributable to Genie	—	144	144	
BALANCE AT DECEMBER 31, 2015 . .	\$ —	\$ 154	\$ 154	

Note 13—Legal and Regulatory Proceedings

On March 13, 2014, named plaintiff, Anthony Ferrare, commenced a putative class-action lawsuit against IDT Energy, Inc. in the Court of Common Pleas of Philadelphia County, Pennsylvania. The complaint was served on IDT Energy on July 16, 2014. The named plaintiff filed the suit on behalf of himself and other former and current electric customers of IDT Energy in Pennsylvania with variable rate plans, whom he contends were injured as a result of IDT Energy’s allegedly unlawful sales and marketing practices. On August 7, 2014, IDT Energy removed the case to the United States District Court for the Eastern District of Pennsylvania. On October 20, 2014, IDT Energy moved to stay or, alternatively, dismiss the complaint, as amended, by the named plaintiff. On November 10, 2014, the named plaintiff opposed IDT Energy’s motion to dismiss and IDT Energy filed a reply memorandum of law in further support of its motion to dismiss. On June 10, 2015, the Court granted IDT Energy’s motion to stay and denied its motion to dismiss without prejudice. IDT Energy believes that the claims in this lawsuit are without merit and intends to vigorously defend the action.

On June 20, 2014, the Pennsylvania Attorney General’s Office (“AG”) and the Acting Consumer Advocate (“OCA”) filed a Joint Complaint against IDT Energy, Inc. with the Pennsylvania Public Utility Commission (“PUC”). In the Joint Complaint, the AG and the OCA allege, among other things, various violations of Pennsylvania’s Unfair Trade Practices and Consumer Protection Law, the Telemarketing Registration Act and the Pennsylvania PUC’s regulations. IDT Energy has reached an agreement in principle on a settlement with the AG and the OCA to terminate the litigation with no admission of liability or finding of wrongdoing by IDT Energy. On August 4, 2015, IDT Energy, the AG, and the OCA filed a Joint Petition to the Pennsylvania PUC seeking approval of the settlement terms. Under the settlement, if approved by the PUC, IDT Energy will agree to issue additional refunds to its Pennsylvania customers who had variable rates for electricity supply in January, February and March of 2014. IDT Energy will also agree to implement certain modifications to its sales, marketing and customer service processes, along with additional compliance and reporting requirements. The settlement must be approved by the Pennsylvania PUC, which is expected in the second quarter of 2016.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 13—Legal and Regulatory Proceedings – (Continued)

On July 2, 2014, named plaintiff, Louis McLaughlin, filed a putative class-action lawsuit against IDT Energy, Inc. in the United States District Court for the Eastern District of New York, contending that he and other class members were injured as a result of IDT Energy's allegedly unlawful sales and marketing practices. The named plaintiff filed the suit on behalf of himself and two subclasses: all IDT Energy customers who were charged a variable rate for their energy from July 2, 2008, and all IDT Energy customers who participated in IDT Energy's rebate program from July 2, 2008. On December 19, 2014, IDT Energy filed a motion to dismiss the complaint. On December 9, 2015, the Court denied IDT Energy's motion to dismiss without prejudice so as to allow McLaughlin to file an amended complaint. On January 22, 2016, the named plaintiff filed an amended complaint on behalf of himself and all IDT Energy customers in New York State against IDT Energy, Inc., Genie Retail Energy, Genie Energy International Corporation, and Genie Energy Ltd. Subsequently, on February 22, 2016, IDT Energy moved to dismiss the amended complaint. The named plaintiff's opposition papers to the motion to dismiss are due on March 18, 2016 and IDT Energy's reply is due on April 11, 2016. In the meantime, the parties are engaged in limited discovery. IDT Energy believes that the claims in the amended complaint are without merit and intends to vigorously defend the action.

On July 15, 2014, named plaintiff, Kimberly Aks, commenced a putative class-action lawsuit against IDT Energy, Inc. in New Jersey Superior Court, Essex County, contending that she and other class members were injured as a result of IDT Energy's alleged unlawful sales and marketing practices. The named plaintiff filed the suit on behalf of herself and all other New Jersey residents who were IDT Energy customers at any time between July 11, 2008 and the present. On November 6, 2014, the Court denied IDT Energy's motion to dismiss the complaint. The parties are currently engaged in discovery. IDT Energy believes that the claims in this lawsuit are without merit and intends to vigorously defend the action.

At December 31, 2015, the Company had an aggregate of \$2.5 million accrued for the complaints and lawsuits described above.

On February 23, 2016, the New York Public Service Commission ("PSC") issued an order that sought to impose significant new restrictions on REPs operating in New York, including GRE. The restrictions described in the PSC's order, which were to become effective March 4, 2016, would require that all REPs' electricity and natural gas offerings to residential and small business customers include an annual guarantee of savings compared to the price charged by the relevant incumbent utility or, for electricity offerings, provide at least 30% of the supply from renewable sources. Customers not enrolled in a compliant program would be relinquished back to the local utility at the end of their contract period or, for variable price customers operating on month to month agreements, at the end of the current monthly billing cycle.

On March 4, 2016, a group of parties from the REP industry sought and won a temporary restraining order to stay implementation of the most restrictive portions of the PSC's order until a court hearing on April 14, 2016. GRE expects that the REP industry will take additional legal action in response to the order seeking a definitive judicial review of the industry's challenges to the PSC's order.

The Company is evaluating the potential impact of the PSC's order on its New York operations, while preparing to operate in compliance with any new requirements. Depending on the final language of the order and the outcome of legal appeals, as well as our final response to the order with respect to our relationships with our New York customers, the order will likely have a substantial impact upon GRE's operations in New York. As of December 31, 2015, New York represented 53% of GRE's total meters served and 44% of the total residential customer equivalents of GRE's customer base.

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

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 14—Commitments and Contingencies

Purchase Commitments

The Company had purchase commitments of \$22.4 million at December 31, 2015. The purchase commitments outstanding at December 31, 2015 are expected to be paid as follows: \$14.7 million in the year ending December 31, 2016, \$6.6 million in the year ending December 31, 2017 and \$1.1 million in the year ending December 31, 2018.

Renewable Energy Credits

GRE must obtain a certain percentage or amount of its power supply from renewable energy sources in order to meet the requirements of renewable portfolio standards in the states in which it operates. This requirement may be met by obtaining renewable energy credits that provide evidence that electricity has been generated by a qualifying renewable facility or resource. At December 31, 2015, GRE had commitments to purchase renewable energy credits of \$41.8 million.

Environmental Remediation Liability

At December 31, 2015, Afek's estimated liability for environmental remediation in the Golan Heights in Northern Israel was \$0.2 million, which is included in "Exploration expense" in 2015 in the accompanying consolidated statement of operations. The estimated liability is expected to increase as Afek continues its up to ten-well exploratory program.

Tax Audits

The Company is subject to audits in various jurisdictions for various taxes. Amounts asserted by taxing authorities or the amount ultimately assessed against the Company could be greater than the accrued amount. Accordingly, provisions may be recorded in the future as estimates are revised or underlying matters are settled or resolved. Imposition of assessments as a result of tax audits could have an adverse effect on the Company's results of operations, cash flows and financial condition.

Letters of Credit

At December 31, 2015, the Company had letters of credit outstanding totaling \$7.7 million primarily for the benefit of regional transmission organizations that coordinate the movement of wholesale electricity and for certain utility companies. The letters of credit outstanding at December 31, 2015 expire as follows: \$4.2 million in the year ending December 31, 2016 and \$3.5 million in the year ending December 31, 2017.

Performance Bonds

GRE has performance bonds issued through a third party for the benefit of various states in order to comply with the states' financial requirements for retail energy providers. At December 31, 2015, GRE had aggregate performance bonds of \$11.9 million outstanding.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 14—Commitments and Contingencies – (Continued)

Lease Commitments

The future minimum payments for operating leases at December 31, 2015 are as follows:

<u>(in thousands)</u>	
Year ending December 31:	
2016.....	\$ 306
2017.....	165
2018.....	14
2019.....	—
2020.....	—
Thereafter	—
Total payments	<u>\$ 485</u>

Rental expense under operating leases was \$1.2 million, \$0.8 million and \$0.6 million in the years ended December 31, 2015, 2014 and 2013, respectively.

Other Contingencies

As of November 19, 2015, IDT Energy and certain of its affiliates entered into an Amended and Restated Preferred Supplier Agreement with BP Energy Company (“BP”). The agreement’s termination date is November 30, 2019, except either party may terminate the agreement on November 30, 2018 by giving the other party notice by May 31, 2018. Under the agreement, 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, and in any cash deposits or letters of credit posted in connection with any collateral accounts with BP. 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. At December 31, 2015, the Company was in compliance with such covenants. At December 31, 2015, restricted cash—short-term of \$0.8 million and trade accounts receivable of \$27.0 million were pledged to BP as collateral for the payment of IDT Energy’s trade accounts payable to BP of \$8.3 million at December 31, 2015.

Note 15—Related Party Transactions

The Company entered into various agreements with IDT prior to the Spin-Off including a Separation and Distribution Agreement to effect the separation and provide a framework for the Company’s relationship with IDT after the Spin-Off, and a Transition Services Agreement, which provides for certain services to be performed by the Company and IDT. These agreements provide for, among other things, (1) the allocation between the Company and IDT of employee benefits, taxes and other liabilities and obligations attributable to periods prior to the Spin-Off, (2) transitional services to be provided by IDT relating to human resources and employee benefits administration, (3) the allocation of responsibilities relating to employee compensation and benefit plans and programs and other related matters, (4) finance, accounting, tax, internal audit, facilities, investor relations and legal services to be provided by IDT to the Company following the Spin-Off and (5) specified administrative services to be provided by the Company to certain of IDT’s foreign subsidiaries.

IDT charges the Company for services it provides pursuant to the Transition Services Agreement. The charges for these services are included in “Selling, general and administrative” expense. In addition, the Company provides services to certain of IDT’s subsidiaries. The charges for these services reduce the Company’s

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 15—Related Party Transactions – (Continued)

“Selling, general and administrative” expense. The amounts IDT charged the Company, and the amounts the Company charged IDT, were as follows:

(in thousands)	Year ended December 31,		
	2015	2014	2013
Amount IDT charged the Company	\$ 2,340	\$ 3,447	\$ 3,348
Amount the Company charged IDT	546	530	285

In addition, the Company entered into a Tax Separation Agreement with IDT, which sets forth the responsibilities of the Company and IDT with respect to, among other things, liabilities for federal, state, local and foreign taxes for periods before and including the Spin-Off, the preparation and filing of tax returns for such periods and disputes with taxing authorities regarding taxes for such periods. Pursuant to the Tax Separation Agreement, among other things, IDT indemnifies the Company from all liability for taxes of IDT with respect to any taxable period, and the Company indemnifies IDT from all liability for taxes of the Company with respect to any taxable period, including, without limitation, the ongoing tax audits related to the Company’s business.

The Company had notes receivable outstanding from employees aggregating \$1.0 million at December 31, 2015 and 2014, which are included in “Other assets” in the accompanying consolidated balance sheet.

The Company obtains insurance policies from several insurance brokers, one of which is IGM Brokerage Corp. (“IGM”). IGM is owned by the mother of Howard S. Jonas and Joyce Mason, the Company’s Corporate Secretary. Jonathan Mason, husband of Joyce Mason and brother-in-law of Howard S. Jonas, provides insurance brokerage services via IGM. Based on information the Company received from IGM, the Company believes that (1) IGM received commissions and fees from payments made by the Company (including payments from third party brokers) in the aggregate amounts of \$14,236, \$13,912 and \$11,074 in the years ended December 31, 2015, 2014 and 2013, respectively, which fees and commissions inured to the benefit of Mr. Mason, and (2) the total payments made by the Company to IGM for various insurance policies were \$143,367, \$140,374 and \$124,149 in the years ended December 31, 2015, 2014 and 2013, respectively. Neither Howard S. Jonas nor Joyce Mason has any ownership or other interest in IGM other than via the familial relationships with their mother and Jonathan Mason.

Note 16—Business Segment Information

The Company owns 99.3% of its subsidiary, GEIC, which owns 100% of GRE and 92% of GOGAS. The Company has three reportable business segments: GRE, GOGAS and Afek. GRE operates REPs, including IDT Energy and Residents Energy, and energy brokerage and marketing services. Its REP businesses resell electricity and natural gas to residential and small business customers primarily in the Eastern United States. GOGAS is an oil and gas exploration company. The GOGAS segment is comprised of early stage oil shale projects including (1) an 88.4% interest in Genie Mongolia, an oil shale exploration project in Central Mongolia, (2) a 98.3% interest in AMSO, which holds and manages a 41.3% interest in AMSO, LLC, an oil shale development project in Colorado, and (3) an 86.1% interest in IEI, an oil shale development project in Israel. The Company has an 86.5% interest in Afek, which operates an oil and gas exploration project in the Golan Heights in Northern Israel. GRE has outstanding deferred stock units granted to officers and employees that represent an interest of 3.9% of the equity of GRE. Corporate costs include unallocated compensation, consulting fees, legal fees, business development expenses and other corporate-related general and administrative expenses. Corporate does not generate any revenues, nor does it incur any direct cost of revenues.

Afek was included in the GOGAS segment from its inception until December 31, 2014. Beginning in the first quarter of 2015, Afek is a separate reportable segment. Comparative results have been reclassified and restated as if Afek was a separate segment in all periods presented.

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 16—Business Segment Information – (Continued)

The Company's reportable segments are distinguished by types of service, customers and methods used to provide their services. The operating results of these business segments are regularly reviewed by the Company's chief operating decision maker.

The accounting policies of the segments are the same as the accounting policies of the Company as a whole. The Company evaluates the performance of its business segments based primarily on income (loss) from operations. There are no significant asymmetrical allocations to segments.

Operating results for the business segments of the Company were as follows:

<u>(in thousands)</u>	<u>GRE</u>	<u>Afek</u>	<u>GOGAS</u>	<u>Corporate</u>	<u>Total</u>
Year ended December 31, 2015					
Revenues	\$ 210,109	\$ —	\$ —	\$ —	\$ 210,109
Income (loss) from operations	13,542	(7,458)	(3,058)	(8,908)	(5,882)
Depreciation	245	104	78	1	428
Research and development	—	63	1,922	—	1,985
Exploration	—	6,583	—	—	6,583
Equity in the net loss of AMSO, LLC.	—	—	397	—	397
Year ended December 31, 2014					
Revenues	\$ 275,031	\$ —	\$ —	\$ —	\$ 275,031
Income (loss) from operations	3,516	(7,294)	(6,479)	(15,353)	(25,610)
Depreciation	24	8	99	1	132
Research and development	—	144	5,394	—	5,538
Exploration	—	6,971	—	—	6,971
Goodwill impairment	3,562	—	—	—	3,562
Equity in the net loss of AMSO, LLC.	—	—	—	—	—
Year ended December 31, 2013					
Revenues	\$ 279,174	\$ —	\$ —	\$ —	\$ 279,174
Income (loss) from operations	25,696	(4,255)	(11,700)	(9,115)	626
Depreciation	15	2	92	1	110
Research and development	—	186	7,171	—	7,357
Exploration	—	4,032	—	—	4,032
Equity in the net loss of AMSO, LLC.	—	—	3,194	—	3,194

There were no revenues from customers located outside of the United States in all periods presented.

Total assets for the business segments of the Company were as follows:

<u>(in thousands)</u>	<u>GRE</u>	<u>Afek</u>	<u>GOGAS</u>	<u>Corporate</u>	<u>Total</u>
Total assets:					
December 31, 2015	\$ 80,177	\$ 38,665	\$ 17,770	\$ 19,203	\$ 155,815
December 31, 2014	78,254	6,243	48,899	19,532	152,928
December 31, 2013	76,691	5,597	36,596	39,959	158,843

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 16—Business Segment Information – (Continued)

Net long-lived assets and total assets held outside of the United States, which are located primarily in Israel, were as follows:

(in thousands)	United States	Foreign Countries	Total
December 31, 2015			
Long-lived assets, net	\$ 763	\$ 646	\$ 1,409
Total assets	<u>114,880</u>	<u>40,935</u>	<u>155,815</u>
December 31, 2014			
Long-lived assets, net	\$ 834	\$ 1,230	\$ 2,064
Total assets	<u>143,897</u>	<u>9,031</u>	<u>152,928</u>
December 31, 2013			
Long-lived assets, net	\$ 352	\$ 377	\$ 729
Total assets	<u>150,315</u>	<u>8,528</u>	<u>158,843</u>

Note 17—Selected Quarterly Financial Data (Unaudited)

The table below presents selected quarterly financial data of the Company for its fiscal quarters in 2015 and 2014:

Quarter Ended (in thousands, except per share data)	Revenues	Direct cost of revenues	(Loss) income from operations	Net (loss) income	Net (loss) income attributable to Genie Energy Ltd.	(Loss) earnings per common share	
						Basic	Diluted
2015:							
December 31	\$ 43,915	\$ 27,815	\$ (3,674)	\$ (4,106)	\$ (3,794)	\$ (0.19)	\$ (0.19)
September 30	52,238	30,420	3,839	2,626	2,845	0.11	0.10
June 30	39,527	25,551	(4,332)	(4,726)	(4,498)	(0.22)	(0.22)
March 31	74,429	57,229	(1,715)	(2,430)	(2,010)	(0.11)	(0.11)
TOTAL	\$ 210,109	\$ 141,015	\$ (5,882)	\$ (8,636)	\$ (7,457)	\$ (0.40)	\$ (0.40)
2014:							
December 31 ⁽¹⁾	\$ 49,687	\$ 36,924	\$ (10,666)	\$ (10,428)	\$ (10,436)	\$ (0.50)	\$ (0.50)
September 30	46,186	28,359	(4,107)	(4,825)	(4,395)	(0.22)	(0.22)
June 30	48,810	37,359	(4,344)	(5,007)	(4,871)	(0.24)	(0.24)
March 31 ⁽²⁾	130,348	120,452	(6,493)	(7,147)	(6,784)	(0.33)	(0.33)
TOTAL	\$ 275,031	\$ 223,094	\$ (25,610)	\$ (27,407)	\$ (26,486)	\$ (1.31)	\$ (1.31)

- (1) In the fourth quarter of 2014, loss from operations includes goodwill impairment of \$3.6 million and gain on adjustment to estimated contingent payments of \$0.2 million.
- (2) Unusually cold weather in the first quarter of 2014 that affected the overall demand for electricity and natural gas for heat caused a significant increase in revenues and direct cost of revenues in the first quarter of 2014 compared to the same period in 2015. The winter's polar vortex resulted in extraordinarily large spikes in the prices of wholesale electricity and natural gas in markets where GRE and other REPs purchased their supply.

DOMESTIC SUBSIDIARIES**Name**

American Shale Oil Corporation (DE)
 American Shale Oil, LLC (DE), Assumed Name in TX: AMSO, LLC
 AMSO Holdings I, Inc. (DE)
 AMSO Holdings, LLC (DE)
 DMS Promotions, LLC (DE)
 Diversegy Consultant Program, LLC (TX)
 Diversegy, LLC (TX)
 Evergreen Gas & Electric, LLC (DE)
 Genie Energy International Corporation (DE)
 Genie Energy Services, LLC (DE)
 Genie Mongolia, Inc. (DE)
 Genie Oil and Gas, Inc. (DE)
 Genie Retail Energy, Inc. (DE)
 Genie Solar Energy LLC (DE)
 IDT Energy, Inc. (DE)
 IDT Energy Network, LLC (DE)
 IntelliMark Services, LLC (DE)
 LED USA, LLC (DE)
 North American Energy, Inc. (DE)
 Residents Energy, LLC (NY)
 Trupro Energy, LLC (CT)
 Virtual Power Hedging, LLC (DE)

FOREIGN SUBSIDIARIES**Name****Country of Formation**

Name	Country of Formation
Genie Dutch Holdings B.V.	Netherlands
Genie Energie B.V.	Netherlands
Genie Energy International (Genie Energy International is a registered trade name)	Netherlands
Genie Energy Israel Ltd.	Israel
Genie IP B.V.	Netherlands
Genie Israel Holdings Ltd.	Israel
Genie Mongolia Holdings B.V.	Netherlands
Genie Oil Shale Mongolia LLC	Mongolia
Afek Oil & Gas Ltd.	Israel
Genie Mongolia B.V.	Netherlands
Israel Energy Initiatives Ltd.	Israel

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Genie Energy Ltd.
Newark, New Jersey

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-177565) of Genie Energy Ltd. of our reports dated March 15, 2016, relating to the consolidated financial statements, and the effectiveness of Genie Energy Ltd.'s internal control over financial reporting, which appear in the Annual Report to Shareholders, which is incorporated by reference in this Annual Report on Form 10-K.

/s/ BDO USA, LLP

Woodbridge, NJ
March 15, 2016

**Certification of Chief Executive Officer
pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Howard S. Jonas, certify that:

1. I have reviewed this Annual Report on Form 10-K of Genie Energy Ltd.;
2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 15, 2016

/s/ Howard S. Jonas

Howard S. Jonas
Chief Executive Officer

**Certification of Principal Financial Officer
pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Avi Goldin, certify that:

1. I have reviewed this Annual Report on Form 10-K of Genie Energy Ltd.;
2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 15, 2016

/s/ Avi Goldin

Avi Goldin
Chief Financial Officer

GENIE ENERGY LTD.

**Certification Pursuant to
18 U.S.C. Section 1350
(as Adopted Pursuant to Section 906 of
the Sarbanes-Oxley Act Of 2002)**

In connection with the Annual Report of Genie Energy Ltd. (the “Company”) on Form 10-K for the annual period ended December 31, 2015 as filed with the Securities and Exchange Commission (the “Report”), I, Howard S. Jonas, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 15, 2016

/s/ Howard S. Jonas

Howard S. Jonas
Chief Executive Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Genie Energy Ltd. and will be retained by Genie Energy Ltd. and furnished to the Securities and Exchange Commission or its staff upon request.

GENIE ENERGY LTD.

**Certification Pursuant to
18 U.S.C. Section 1350
(as Adopted Pursuant to Section 906 of
the Sarbanes-Oxley Act Of 2002)**

In connection with the Annual Report of Genie Energy Ltd. (the “Company”) on Form 10-K for the annual period ended December 31, 2015 as filed with the Securities and Exchange Commission (the “Report”), I, Avi Goldin, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 15, 2016

/s/ Avi Goldin

Avi Goldin

Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Genie Energy Ltd. and will be retained by Genie Energy Ltd. and furnished to the Securities and Exchange Commission or its staff upon request.

