

GENIE ENERGY LTD.



2019 ANNUAL REPORT



Dear Fellow Stockholders,

I am pleased to report that Genie had a very good year in 2019.

We achieved solid growth – increasing full year GAAP revenue by over 12% compared to 2018. Our economic topline growth was even more impressive. Orbit Energy, our majority-owned U.K. energy supply business, the results of which are not consolidated, generated an additional \$30.8 million in revenue. Our customer base (as measured by RCEs and inclusive of Orbit) grew by 46% over the course of the year, and we significantly upped our returns to stockholders – paying out \$15.2 million in aggregate to shareholders through dividends on our common and preferred stocks and in common stock repurchases.

The macro environment in 2020 now looks much different than it did last year. Although we are not immune to economic dislocation and market turmoil, it's worth considering the strengths and resilience of our business model, operations and finances:

- We have substantially diversified our retail energy supply markets in recent years. We have invested to expand into new states and territories domestically and entered three overseas markets. Within the U.S., we now serve customers in fourteen states and the District of Columbia. Our retail energy supply business overseas is expanding in the U.K., Finland and Japan. Overall, we are now better able to handle regulatory, weather and market events and anomalies than ever before in our history.
- Genie has a liquid and unleveraged balance sheet. We reported over \$31 million in cash and over \$40 million in net working capital at December 31, 2019. Our non-current liabilities totaled just \$3 million. Our limited leverage affords us flexibility as we consider how to best weather any potential short-term disruptions and position the Company for long term growth.
- Our 'supply chains' are, in essence, the wholesale electricity and natural gas markets, whose operations have proven durable even in the most stressful times. They are rightly considered core and essential businesses by all governments and are widely expected to continue functioning as usual.
- Bad debt risk for our core domestic energy supply business is substantially mitigated by purchase of receivables (POR) programs in most of the areas in which we operate. Under POR programs, the incumbent utilities purchase our receivables in return for a specified, fixed percentage of our revenue.
- Wholesale commodity prices for electricity and natural gas declined throughout much of 2019 and have fallen further already this year. Although pricing does impact our topline, we are agnostic about the direction of energy prices and their impact on our bottom line absent extreme price volatility. Over the years, we have proven our ability to operate profitably in both gradually rising and falling commodity price environments.

We can't yet know the full impact that the COVID-19 pandemic and related public health safeguards will have on our operations in 2020. At this point, we have had to suspend customer acquisition through certain channels, and we may see net attrition of our customer base at least through the duration of shelter-in-place public health safeguards. We are working to mitigate the impact by adjusting our customer acquisition channel mix.

While meeting these challenges, we have not lost sight of our longer-term growth opportunities.

Here in the U.S., we have a sizable opportunity to build our customer base in Texas. We entered this, the nation's largest deregulated electricity market, last year. We are also exploring additional expansion opportunities in several new states.

Overseas, we plan to leverage our electricity supply business in Finland – Lumo Energia – to expand into an additional Scandinavian country in 2020 while we continue to drive growth in the U.K. and Japan.

In all of our markets, Genie Energy is working to meet the current challenges and generate value for our stockholders. Our progress would not be possible without the dedication and hard work of our employees. I very much appreciate all that they are doing to keep our businesses running smoothly under trying circumstances.

All in all, our outlook is bright even in these uncertain times, and I look forward to reporting to you on our progress throughout the coming year.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Stein', with a long horizontal flourish extending to the right.

Michael Stein  
Chief Executive Officer

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, 2019,

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**

(State or other jurisdiction of  
incorporation or organization)

**45-2069276**

(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  
Series 2012-A Preferred stock, par value \$.01 per share

New York Stock Exchange  
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, if any, every Interactive Data File required to be submitted 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 such files). Yes  No

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

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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, 2019 (the last business day of the registrant's most recently completed second fiscal quarter) of the Class B common stock of \$10.65 per share, as reported on the New York Stock Exchange, was approximately \$191.3 million.

As of March 12, 2020, the registrant had outstanding 24,763,416 shares of Class B common stock and 1,574,326 shares of Class A common stock. Excluded from these numbers are 1,041,957 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 19, 2020, 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 a global provider of energy services and through its various subsidiaries, supplies electricity, and natural gas to residential and small business customers in the United States, Europe and Asia. In addition, through its Genie Energy Services division, the Company provides commercial and industrial brokerage, consultative services and designs, supplies and installs commercial solar solutions.

The Company owns 99.3% of its subsidiary, Genie Energy International Corporation (“GEIC”), which owns 100% of Genie Retail Energy (“GRE”), 100% of Genie Retail Energy International LLC (“GREI”), 100% of Genie Energy Services (“GES”) and 97% of Genie Oil and Gas, Inc. (“GOGAS”).

GRE, owns and operates retail energy providers, (“REPs”), including IDT Energy, Inc. (“IDT Energy”), Residents Energy, LLC (“Residents Energy”), Town Square Energy, LLC and Town Square Energy East, LLC (“collectively, “TSE”), Southern Federal Power (“SFP”) and Mirabito Natural Gas, (“Mirabito”). GRE’s REP businesses resell electricity and natural gas to residential and small business customers primarily in the Eastern and Midwestern United States.

GREI holds the Company’s 73.0% interest in its joint venture that serves retail customers in the United Kingdom (“U.K.”) and its wholly-owned venture in Japan and its an 89.0% controlling interest in Lumo Energia Oyj (“Lumo”), a REP serving residential customers in Finland.

GES oversees Diversegy LLC (“Diversegy”), a retail energy advisory and brokerage company that serves commercial and industrial customers throughout the U.S. and manages our 60.0% controlling interest in Prism Solar Technology, Inc. (“Prism”), a solar solutions company that is engaged in U.S. based manufacturing of solar panels, solar installation design and project management.

GOGAS is an oil and gas exploration company and owns an interest in a contracted drilling services operation. GOGAS holds an 86.1% interest in Afek Oil and Gas, Ltd. (“Afek”), an oil and gas exploration project in the Golan Heights in Northern Israel. GOGAS also holds controlling interests in inactive oil and gas projects. GOGAS also holds a 37.5% interest in a contracting drilling services company in Israel (“Atid 613”).

As of December 31, 2019, GREI a subsidiary of GRE that holds our REP business outside of North America and GES, a subsidiary of GRE that holds Diversegy, Genie Solar Energy and out interest in Prism, have outstanding deferred stock units granted to officers, employees and a contractor that represent an aggregate interest of 4.0% and 4.5% of the equity of GREI and GES, respectively. The deferred stock units are subject to vesting up to 2020.

#### **REPORTABLE SEGMENTS**

In the first quarter of 2019, we revised our reportable segments in connection with the acquisition of Lumo and continued expansion in Japan and the U.K. The Company now treats GRE International as a separate reportable segment. It includes our overseas retail energy supply businesses, currently consisting of our interest in Lumo, Genie Japan and in the U.K., our interest in Shoreditch Energy Limited (“Shoreditch”). There are no other changes in other reportable segments.

The change in reportable segments did not result in the reallocation of the Company’s existing goodwill.

We now have four reportable business segments: GRE, GRE International, GES, and GOGAS. Our reportable segments are distinguished by types of service, customers and customer geography. Financial information by segment and geographic areas is presented in “Note 18 — 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](http://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 (<https://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

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 October 2011, we were spun-off by IDT and became an independent public company listed on the New York Stock Exchange.

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.

In November 2016, GRE purchased Retail Energy Holdings, LLC, which operates REPs under the brand name Town Square Energy. The acquisition expanded GRE's serviceable markets into Connecticut, Massachusetts, New Hampshire, Rhode Island and new territories in Ohio.

In July 2017, through a joint venture with Energy Global Investments Pty Ltd. GRE launched Shoreditch, to open electricity and natural gas service to residential and small business customers in the U.K.

In August 2017, GRE acquired Mirabito Natural Gas, a commercial supplier located in Florida. The acquisition expanded GRE's serviceable markets into Florida.

In November 2017, Afek suspended its exploratory program in Northern Israel after complimentary analysis of the results from its completed wells did not identify commercially producible quantities of oil or natural gas.

In May 2018, GRE acquired Smile Energy G.K. (subsequently renamed as Genie Japan), a Japanese company licensed to provide electricity to end-use costumers in Japan and in February 2019, began enrolling customers in Japan.

In October 2018, Genie acquired a 60.0% interest in Prism, a solar solutions company that is engaged in U.S.-based manufacturing of solar panels, solar installation design and project management. On April 12, 2019, Prism's restructured its ownership. The Company now holds a 60.0% interest on Plus EnerG, Inc. ("Plus EnerG") which owns 100% of Prism.

In January 2019, GRE acquired an 80.0% interest in Lumo, a provider of electricity to residential customers in Finland with approximately 32,000 residential customers in Finland.

## RECENT DEVELOPMENTS

In July 2019, we started enrolling customers in state of Texas under the name Southern Federal.

In November 2019, GRE International acquired additional 9.0% ownership in Lumo increasing our total ownership to 89.0%.

## DIVIDENDS

We pay a quarterly dividend on both of our common and preferred stock. The aggregate dividends paid in the year ended December 31, 2019 on our Class A and Class B common stock (the “Common Stock”) was \$8.1 million, as follows:

- On March 23, 2019, we paid a quarterly Base Dividend of \$0.075 per share on our Common Stock for the fourth quarter of 2018 to stockholders of record at the close of business on February 6, 2019.
- On May 31, 2019, we paid a quarterly Base Dividend of \$0.075 per share on our Common Stock for the first quarter of 2019 to stockholders of record at the close of business on May 20, 2019.
- On August 23, 2019, we paid a quarterly Base Dividend of \$0.075 per share on our Common Stock for the second quarter of 2019 to stockholders of record at the close of business on August 16, 2019.
- On November 29, 2019, we paid a quarterly Base Dividend of \$0.075 per share on our Common Stock for the third quarter of 2019 to stockholders of record at the close of business on November 18, 2019.

On March 11, 2020, our Board of Directors declared a quarterly dividend of \$0.075 per share on our Class A common stock and Class B common stock for the fourth quarter of 2019 to stockholders of record as of the close of business on March 24, 2020. The dividend will be paid on or about April 3, 2020.

The aggregate dividends paid in the year ended December 31, 2019 on our Preferred Stock was \$1.5 million, as follows:

- On February 15, 2019, we paid a quarterly Base Dividend of \$0.1594 per share on our Preferred Stock for the fourth quarter of 2018 to stockholders of record at the close of business on February 6, 2019 of our Preferred Stock.
- On May 15, 2019, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the first a quarter of 2019 to stockholders of record at the close of business on May 6, 2019 of our Preferred Stock.
- On August 15, 2019, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the second quarter of 2019 to stockholders of record at the close of business on August 6, 2019 of our Preferred Stock.
- On November 15, 2019, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the third quarter of 2019 to stockholders of record as of the close of business on November 6, 2019.

On February 18, 2020, we paid a quarterly Base Dividend of \$0.1594 per share on the Preferred Stock for the fourth quarter of 2019 to stockholders of record at the close of business on February 6, 2020 in the aggregate amount of \$0.4 million.

## BUSINESS

### Genie Retail Energy

#### *Overview*

GRE is comprised of REPs and related businesses. GRE’s REP businesses purchase electricity and natural gas on the wholesale markets and resell these commodities to their residential and business customers in deregulated markets in the U.S. The positive difference between the net sales price of electricity and natural gas sold to its customers and the cost of their electricity and natural gas supplies and related costs are the REP businesses’ gross profits.

GRE’s U.S. REP businesses operate in certain utility territories within the deregulated retail energy markets of fourteen states in the U.S.: Connecticut, Delaware, Illinois, Maryland, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Florida, Rhode Island and Texas, as well as in Washington, D.C. As part of our ongoing business development efforts, we evaluate additional opportunities in new jurisdictions to accelerate growth of our customer base and to reduce operational and regulatory risk associated with geographical concentration.



GRE's REP businesses operate under several brand names including IDT Energy, Residents Energy, Town Square Energy, Southern Federal Power and Mirabito. GRE's diverse offerings, in both the electricity and natural gas markets included either variable rate or fixed rate offerings or both. In GRE's domestic jurisdiction, its REPs offer green electricity offerings. Green electricity supply is 100% matched with renewable energy certificates, or RECs that reflect the generation of electricity from renewable sources.

Historically, GRE's REP businesses have expanded organically — adding new customers through customer acquisition programs at a rate faster than customers lost through attrition or churn — as well as through acquisitions of other REPs and books of business. New customers are generally acquired through a combination of marketing and sales channels including door-to-door solicitation, telemarketing, online and digital marketing, direct mail, and by competitive bidding for exclusive contracts awarded by certain municipalities, where authorized by state laws. The contracts award participating residents' electricity supply to a single supplier at a fixed price.

GRE evaluates its customers based both in terms of the numbers of commodity meters it serves and the number of Residential Customer Equivalents ("RCEs") that comprise its customer base. Customer churn is a significant factor in the REP business, with monthly churn rates for GRE's REPs averaging between four and seven percent per month. Customer churn tends to decrease when commodity prices fall, when weather-driven consumption decreases, when the price to REP customers decreases relative to competitors including the incumbent utility provider, or when the REPs incentivize customer tenure. Customer churn tends to increase when commodity prices rise, when weather driven consumption increases or spikes, or when the price to REP customers increases relative to the prices charged by competitors including incumbent utility providers. Newly acquired customers have higher rates of churn than longer-term customers.

GRE's revenue comprises approximately 90.9% and 97.9% of our total consolidated revenue in 2019 and 2018, respectively. In 2019, GRE generated revenue of \$286.6 million comprised of \$246.7 million from sales of electricity, \$39.9 million from sales of natural gas, and a minimal amount of other revenue, as compared with revenue of \$274.4 million in 2018, comprised of \$227.9 million from the sales of electricity, \$46.6 million from the sales of natural gas and a minimal amount of other revenue. Electricity sales have been a more significant portion of GRE's business in recent years.

GRE's REP revenue is seasonal. Approximately 46.9% and 50.3% of our natural gas revenues in 2019 and 2018, respectively, were generated during the first quarter, when the demand for heating peaks. Although the demand for electricity is not as seasonal as natural gas, approximately 31.8% and 29.5% of total revenues from electricity sales in 2019 and 2018, respectively, were generated in the third quarter when the demand for cooling peaks.

Variations in weather can significantly impact GRE's financial result. For example, a polar vortex resulted in unusually sustained cold weather in the first quarter of 2014. This increased demand was characterized by extraordinarily large spikes in the prices of wholesale electricity and natural gas in the markets where GRE's REPs and other retail providers purchase their supply.

As of December 31, 2019, GRE serviced 370,000 meters (297,000 electric and 73,000 natural gas), as compared to 315,000 meters (245,000 electric and 70,000 natural gas) as of December 31, 2018. The increase in meters served was driven by the impact of a municipal aggregation deal in New Jersey which added approximately 35,000 meters as well as the shift in our customer mix related to channel, product and geography.

#### *REP Industry Overview*

REPs operate in deregulated retail energy markets in the US. REPs purchase electricity and natural gas on the wholesale markets and resell the commodities to their customers, who may include homeowners, renters and small to mid-sized commercial and governmental operations and institutions. Generally, incumbent local utilities continue to handle electricity and natural gas distribution, billing, and collections. The utilities remit the proceeds collected for the commodity supply portion of their bills less certain fees to the REPs.

REPs generally have no significant fixed assets and low levels of capital expenditure. Their cost of revenues is incurred to purchase electricity and natural gas in their respective wholesale markets and other factors. Selling, general and administrative expenses are primarily related to customer acquisition, customer retention, billing and purchase of receivables, or POR, fees paid to the utilities, and program management.

As of December 31, 2019, there were thirty U.S. states in which there is some level of energy deregulation. We currently market in all the states where there is residential deregulation covering both electricity and natural gas. We are in the process of applying for licenses or setting up operations in additional states and are constantly evaluating entrance into new markets.

Some competitors in certain REP market have engaged in unfair business practices to sign up new customers which creates an unfavorable impression about our industry on consumers, regulators or political bodies. Further, such practices can lead to regulatory action, such as the recent New York PSC Order and other regulatory proceedings and investigations the Company is subject to in several states, that can negatively impact us and the industry.

#### *Customers; Marketing*

The services of GRE's U.S. REPs — IDT Energy, Residents Energy, Town Square Energy, Southern Federal Power and Mirabito — are made available to customers under several offerings with distinct terms and conditions. The offerings include variable rate programs whose prices change month-to-month, fixed contracts whose unit price remains the same for the agreed upon term and renewable contracts. A significant portion of our customer base is enrolled in variable rate, 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 is determined by GRE.

As of December 31, 2019, customers on variable rate products constituted approximately 47.0% of our electric load, with the balance from customers on fixed rate agreements. For our variable rate product, the amount we charge to our customers reflects the underlying commodity cost plus a markup. For fixed rate customers, we offer a per unit price for a specific duration of time. When the contract term end, the customer either automatically convert to a variable rate or to a new fixed rate offer.

Variable rate products are available to all customers in all states served by GRE's REPs except for Connecticut. 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, or RECs, that reflect the generation of electricity from sources such as hydro-electric wind, solar and biomass.

The electricity and natural gas we sell through all of our offerings are metered and delivered to customers by the local utilities. The utilities also provide billing and collection services for the majority of our customers. For a small number of customers, we perform our own billing and collection. Additionally, GRE's REPs' receivables are, in many states, purchased by the utilities in whose areas we operate for a percentage of their face value (over the course of 2019, the associated cost was approximately 1.0% of GRE's revenue) in exchange for the utility receiving a first priority lien in the customer receivable without recourse against the REP. As a result, in these states, credit risk is mitigated. These are referred to as purchase of receivables, or POR, programs. At December 31, 2019, 90.8% of GRE's net accounts receivables were under a POR program.

Certain utilities in Connecticut, Ohio, New York, Pennsylvania, Illinois, Washington, D.C., Massachusetts 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. Certain utilities in Delaware, Illinois, New Hampshire, Ohio and Rhode Island do not offer POR but they do offer consolidated billing. In Florida and Texas, there is no POR and we bill customers directly.

GRE targets 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 prevailing market rates.

We 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.

## *Procurement and Management of Gas and Electric Supply*

GRE's REPs are 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, those REPs purchase electricity and natural gas from BP at market rate plus a fee. The obligations to BP are secured by a first security interest in deposits or receivables from utilities in connection with their purchase of the REPs' 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 June 7, 2018 to cover all domestic GRE REPs, and is scheduled to terminate on November 30, 2020. Our 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 all of the territories in which we operate. GRE acquires green renewable energy conversion rights or attributes and REC's to satisfy the load requirements for these customers.

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's 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 ISOs 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's REPs purchase is equal to the amount necessary to service its customers' demands at any specific point in time. GRE's REPs are charged or credited for balancing the electricity and natural gas purchased and sold for their account by their suppliers and the LDCs. GRE's REPs manage the differences between the actual electricity and natural gas demands of their customers and their 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, and/or ISOs.

### *Competition*

As an operator of REPs, GRE competes with the local utility companies in each of the markets in which 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 as well as smaller independent operators. Competition with the utilities and REPs impacts GRE's gross margins, customer acquisition rates and exposes GRE to customer churn.

REPs and utilities offering fixed rate products or guaranteed pricing often are unable to change their sell rates offered to customers in response to underlying commodity price volatility. In a downward moving commodity cost environment, variable rate REPs typically become more competitive as they benefit from the lag that utilities experience in reducing their sell rate to reflect the lower commodity costs, and they may benefit from decreases in margin pressure, improvements in the customer acquisition environment, and lower rates of churn. In a rising commodity cost environment, REPs that offer variable rate products, and reflect real-time commodity costs, will typically become less competitive with fixed rate providers, experience increased margin pressure, a more challenging customer acquisition environment and higher rates of customer churn.

Increasing our market share depends in part on our ability to persuade more customers to switch from other providers to one of our REPs at a higher rate than our customers churn 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.

### *Regulation*

REPs such as ours must be licensed in each state and utility service territory in which they operate. Each is subject to the rules and regulations governing the operations of REPs in each jurisdiction.

Although the rates charged by GRE's REPs are not regulated in the same way as the rates of utility companies, the manner in which the REPs market to potential customers, and the relationships between the REPs and their customers, are heavily regulated. GRE's REPs must also comply with various quarterly and/or annual reporting requirements in order to maintain their eligibility to provide service. In certain jurisdictions the REPs are required to publish product offers with the applicable regulatory commissions, or in the public domain, generally on a website established for such purpose. In addition to the regulations that govern the relationships between GRE's REPs and their customers, GRE's REPs also maintain specific Terms & Conditions or Terms of Service for each product in each jurisdiction that customers must agree to be bound by.

As discussed more fully below in Item Note 15 of the Consolidated Financial Statements included in this Annual Report on Form 10-K, the Company is party to legal proceedings that arise in the ordinary course of business including those with utility commissions or other government regulatory or law enforcement agencies.

As of December 31, 2019, GRE's REPs operate in fourteen states and District of Columbia. 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 State of New Hampshire, the State of Rhode Island, the State of Connecticut, the State of Florida, the Commonwealth of Massachusetts, the State of Delaware, the State of Maine, the State of Texas, 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 by 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. We may be subject to new laws, orders or regulations or the revision or interpretation of existing laws, orders or regulations.

### *New York Public Service Commission Orders*

In December 2017, the New York Public Service Commission ("PSC") held an evidentiary hearing to assess the retail energy market in New York. On December 12, 2019, following the completion of the post-hearing briefings in the proceedings, the PSC issued an order adopting changes to the New York retail energy market, effective May 11, 2020 ("2020 Order"). The 2020 Order limits the types of services energy retailer marketers may offer new customers or renewals, in terms of pricing for non-renewable commodities, and renewable product offerings. Although the Company is working to ensure that its products and services are fully compatible with the 2020 Order, such compliance may adversely impact customer acquisition and renewal revenue and profitability. The Company is evaluating its options, both by itself and in tandem with other industry participants, to challenge or petition for additional clarity and changes to the 2020 Order. As of December 31, 2019, New York represented 24.4% of GRE's total meters served and 18.6% of the total residential customer equivalents ("RCEs") of GRE's customer base. For the years ended December 31, 2019 and 2018, New York gross revenues were \$63.2 million and \$74.2 million, respectively.

On December 16, 2016, the PSC issued an order (the "2016 Order") prohibiting REPs to service to customers enrolled in New York's utility low-income assistance programs. Temporary stays of the 2016 Order expired, and REPs were required to return service of their low-income customers to the relevant local incumbent utility on the modified schedule set forth in the PSC's 2016 Order. The 2016 Order required GRE's REPs to transfer customer accounts comprising approximately 18,700 meters, representing approximately 10,600 RCEs, to their respective incumbent utilities in the three months ended March 31, 2018.

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.

### *Employees*

As of March 2, 2020, GRE employed 163 full time employees, 69 of whom are located in the Jamestown, New York office, 50 of whom are located in our New Jersey office, 11 of whom are located in our Arizona office, 32 of whom are located in the Florida office performing customer acquisition and 1 is located in Texas with SFP.

### **GRE International**

GRE International is comprised of REPs operating in Japan, in Finland, through our 89.0% interest in Lumo, and in the United Kingdom, through a joint venture. GRE's REP businesses purchase electricity on the wholesale markets and resell these commodities to their residential customers through both variable rate and fixed rate programs.

GRE International's REP businesses operate under several brand names including Lumo Energia, Genie Energy Japan, and Orbit Energy. Lumo and Genie Energy Japan resell electricity, while Orbit supplies both electricity and natural gas.

GRE International accounts for its investments in Orbit Energy under equity method of account.

As of December 31, 2019 GRE International's REPs, including Shoreditch served 127,000 meters, an increase from 8,000 meters as of December 31, 2018. The increase was primarily a result of the acquisition of Lumo in January 2019 as well as growth in Lumo and Shoreditch. The Company also started the commercial operations of Genie Japan in second quarter of 2019. As of December 31, 2019, RCEs for GRE International was 65,000 primarily from the increase in meters served as discussed above.

### *International Expansion*

In January 2019, the Company acquired a controlling interest in Lumo Energia, a Helsinki based provider of electricity to residential customers in Finland. At the time of the acquisition, Lumo was serving 32,000 customers. In November 2019, the Company acquired additional 9.0% interest in Lumo, increasing its total ownership to 89.0%.

On June 7, 2018, our subsidiary Genie Japan, LLC, acquired Smile Energy G.K., ("Genie Japan"). Genie Japan is a Japanese company licensed to provide electricity to customers in Japan. In first quarter of 2019, the Genie Energy Japan started the commercial operations in Japan.

On July 17, 2017, we entered into a definitive agreement with Energy Global Investments Pty Ltd ("EGC") to launch a joint venture to offer electricity and natural gas service to residential and small business customers in the United Kingdom under the Orbit Energy brand. As of December 31, 2019, GEUK's ownership of the venture is 73.0%.

### *Lumo Energia Oyj*

Lumo was founded in 2015 and began servicing customers in 2016. Lumo operates in the Finnish electricity market, which is part of the Nordic electricity market. The Company acquired 80.0% controlling interest of Lumo in January 2019 and increased its ownership to 89.0% in November 2019. Lumo operates in all of Finland and sells electricity primarily to private consumers and small businesses.

The Nordic electricity system utilizes a mixture of generation sources, where hydro, nuclear and wind power are the main sources of electricity. The Nordic region has many energy intensive industries and a large share of electricity heated houses, resulting in a consumption profile that is higher than in the rest of the European Union ("EU"). Electricity consumption is highly dependent on weather factors, with lower electricity demand in the summer and increased consumption in wintertime. The Nordic countries have a higher share of renewable energy production compared to the rest of EU with over half of the electricity production generated from hydropower.

Similar to the U.S. REPs, REPs in Finland generally have no significant fixed assets and low levels of capital expenditure. Their cost of revenue is incurred through the purchase electricity and natural gas in their respective wholesale markets. Selling, general and administrative expenses are primarily related to customers acquisitions, customer retention, billing and collections.



Lumo's revenue is seasonal. Approximately 64.1% of total revenues in 2019 were generated in the winter (31.4% in first quarter of 2019 and 32.7% in the fourth quarter of 2019) when the demand for heating is high.

### *Marketing*

Lumo acquires customers primarily through branded and affiliated websites. On affiliated websites, customers often select the cheapest products with an offer for one to three months. On Lumo's branded site the most popular products are a market price product or variable and fixed term products (6 or 12 months). Lumo's marketing efforts focus on digital channels such as search engine marketing, social media, display and email marketing. These digital channels are designed to drive traffic to Lumo's branded website.

### *Acquisition and Management of Electric Supply*

The Nordic electricity market consists of various marketplaces that are "time windows" for physical trading in electricity: the day-ahead market, the intra-day market and the balancing market. In the Nordic countries, the vast majority of trading is done on the day-ahead market (spot market), and the "system price", which is the common Nordic price for all hours of the next following 24-hour period, is crucial for price formation within the other time windows (the intra-day and balancing markets and the financial market for long-term contracts).

The intra-day market is primarily a correction market, where participants have the opportunity to trade into balance, including adjusting any earlier trading. The intra-day market closes one hour before the delivery hour. The balancing market is trading in automatic and manual reserves used by the Nordic transmission system operators ("TSOs") in order to maintain power balance during the hour of operation. Nord Pool Spot is responsible for the day-ahead market and the intra-day market, while the TSOs are responsible for the balancing market.

For risk management purposes, in 2019, Lumo employs put and call options as hedges against unfavorable fluctuations in market prices of electricity.

### *Competition*

There are ninety three registered REPs in Finland. These are composed of energy producers, affiliated companies of local grid companies and private companies. In recent years, there has been more mergers of REPs which generated larger REPs.

Though it has been possible to choose your electricity supplier, many still have not done this and take their contracts from local grid company's affiliate REPs which have the advantage of name recognition. Most new REPs seek to build market share with aggressive pricing. The main focus of Lumo is to gain new customers, upgrading these customers to better margin products while controlling churn and balancing growth and profitability.

### *Regulation*

Each REP in Finland must be registered with Finnish Energy Authority in order to be able to operate. Although REPs enjoy certain freedom with respect to their operations (i.e. marketing and pricing), they must comply with various regulations and laws, including Finnish Energy authority rules and regulation governing electricity supply pricing, marketing, types of offerings and contracts, as well as general guidelines set forth in the Finnish Electricity Market Law.

### *Genie Energy Japan*

The Japanese electricity market became deregulated in April 2016. Presently, there are approximately 600 REPs licensed in Japan. REPs purchase electricity on the wholesale markets and resell the commodities to their customers, who may include homeowners, renters and small to mid-sized commercial and governmental operations and institutions. The local utilities continue to handle electricity transmission and distribution, line maintenance and meter reading with the REP's responsible for invoicing the customer and collecting payments for both the commodity and transmission and distribution portions of the services. The REPs remits the transmission and distribution portion of the bill to the utilities.

Similar to U.S. REPs, REPs in Japan generally have no significant fixed assets and low levels of capital expenditure. Their cost of revenues is incurred to purchase electricity and natural gas in their respective wholesale markets and other factors. Selling, general and administrative expenses are primarily related to customer acquisition, customer retention, billing, and collections.

Genie Japan operates in nine of the ten deregulated electric utility territories in Japan, with Okinawa being the only territory where it does not operate. Genie Japan offers both variable rate and fixed rates to customers.

### *Marketing*

New customers are acquired through a combination of marketing and sales channels including door-to-door solicitation, telemarketing, affinity partner sales, and online and digital marketing. Products are made available to customers under several offerings with distinct terms and conditions. Similar to the U.S., a significant portion of new customers are enrolled in variable rate programs via automatically renewing or month-to-month agreements, which enable us to adjust the cost of electricity to the rates charged to our customers. The frequency and degree of these rate adjustments is not restricted by regulation.

### *Acquisition and Management of Electric Supply*

Genie Japan procures electricity for its customers through forward monthly supply transactions from wholesale electricity providers, as well as day-ahead spot electricity purchases on Japan Electric Power Exchange (“JEPX”). Currently, Genie Japan is acquiring electricity with four wholesale electricity supply companies. A third party vendor performs the scheduling of our forward supply purchases and makes purchases, or sales, on our behalf for any additional electricity needed for our customers on the day ahead JEPX market.

The electricity for our customers is scheduled through Organization for Cross-regional Coordination of Transmission Operators, Japan (“OCCTO”), which coordinates with the nine electric utility companies for the transmission and delivery of our electricity supply.

Our electricity purchases that are less, or greater, than our customers actual usage is settled through purchases, or sales, respectively, in the balancing market. Each of the nine utility companies will perform this balance service for the actual load of our customer and the supply delivered. The utilities invoices Genie Japan on a monthly basis for additional charge, or credit, resulting from these balancing.

For risk management purposes, Genie Japan utilize forward physical delivery contracts for portions of our purchases of electricity to reduce price risks.

### *Competition*

Presently, there are approximately 600 REPs licensed in Japan. In some territories, competitor REPs are affiliated with local utilities. Genie Japan also competes with several large vertically integrated energy companies as well as smaller independent operators. Some of the REPs only operate regionally, while others, like Genie Japan, sell throughout Japan.

Many of the REPs pricing structure have a variable component that is based on an energy cost indexes from 3 or 6 months prior, while Genie Japan pricing is based on future market expectations. In a downward moving commodity cost environment, our pricing typically become more competitive as we benefit from the lag that other REPs experience in reducing their sell rate to reflect the lower commodity costs, and we may benefit from decreases in margin pressure, improvements in the customer acquisition environment, and lower rates of churn. In a rising commodity cost environment, our variable rate products reflect real-time commodity costs, will typically become less competitive, in the short-term with other REPs, and we may experience increased margin pressure, a more challenging customer acquisition environment and higher rates of customer churn.

Genie Japan products were designed to be the most competitive for higher electricity use customers. Our pricing product offers increasing percentage of savings the more electricity a customer uses, while the pricing structure of other REPs have tiered pricing structure with higher pricing for the higher monthly usage tiers. Increasing our market share depends in part on our ability to find those higher use customers and persuade the pricing advantage of our price product versus the incumbent utility pricing. Other REPs, have certain advantages such as name recognition, financial strength and long-standing relationships with customers. Persuading potential customers to switch to Genie Japan requires significant marketing and sales operations.

## *Regulation*

REPs such as Genie Japan, must acquire a license from the Ministry of Economy, Trade and Industry (“METI”) regulate the industry has one set of regulations and rules that govern the operations of REPs for the entire country.

Although the rates charged by REPs are not regulated by the METI in the same way as the rates of utility companies, the manner in which the REPs market to potential customers, and the relationships between the REPs and their customers, are regulated through REP guidelines published by METI. Genie Japan must also comply with various monthly and annual reporting requirements to METI in order to maintain their eligibility to provide service. REPs are also required to collect from end users the Renewable Energy Generation Promotion Levy and remit this to the Green Investment Promotion Organization.

## *United Kingdom*

GRE international holds a 73.0% interest in Shoreditch, which operates Orbit Energy, a REP that operates in the U.K.

The Gas Act of 1986 led to the privatisation of British natural gas market while the Electricity Act of 1989 provided for the privatization of the electricity industry. The residential energy market was opened to competition between 1996 and 1999.

Orbit was incorporated in 2015 and is licensed to sell both electricity and natural gas in the U.K. The Company acquired controlling interest in July 2017. Orbit started its commercial operations in January 2018. Orbit operates in the mainland U.K. excluding Northern Ireland serving primarily residential customers. Orbit provides customers with a choice of fixed-price contracts, typically ranging in jurisdiction from one to three years, with the majority taking one-year fixed-price contracts. Orbit also provides variable price products to its customer. At December 31, 2019, approximately 30.0% of customers were on a variable price product. A small portion of the Orbit’s customers are on a government mandated price cap.

## *Marketing*

Orbit is using a wide range of marketing tools to acquire new customers including door-to-door sales, venue sales, telephone and digital through price comparison engines. Majority of the customers are acquired through the use of third-party marketing and sales companies. The Company also utilizes an in-house marketing and sales team which acquired approximately 20.0% of Orbit’s customers. Orbit is primarily targeting customers who are on a relatively high tariff with their existing suppliers presenting target customers with potential savings compared to their current suppliers.

Orbit bills its customers directly with the majority of its customers receiving their statements of account on a quarterly basis.

## *Procurement and Management of Gas and Electricity*

Similar to U.S. REPs, REPs in the U.K. generally have no significant fixed assets and low levels of capital expenditure. Their cost of revenues is incurred to purchase electricity and natural gas in their respective wholesale markets and other factors. Selling, general and administrative expenses are primarily related to customer acquisition, customer retention, billing, and collections.

Similar to the GRE REPs, Orbit does not own electrical power generation, transmission, or distribution facilities, or natural gas production, pipeline or distribution facilities. Orbit has an exclusive contract with Shell U.K. Limited to provide electricity and natural gas to Orbit until June 2027. However, Orbit has the ability to purchase electricity from other sources through Shell, if lower costs are available.

Orbit currently contracts with the National Grid of U.K. and seven distribution companies that delivers electricity to fourteen regions in the U.K.

Orbit also contracts with CNG Energy Ltd. to ship the natural gas from injection point to the customers. CNG is primarily an intermediary between Orbit and the gas pipeline companies.



### *Competition*

GRE competes with other independent energy providers. More than 70.0% of the market is dominated by the “Big 6” energy companies in the U.K. with the rest of the market served by small and mid-size energy supplier similar to Orbit.

REPs compete on price, customer service, ease of switching service providers and other ancillary services.

### *Regulation*

The energy market in the U.K. is regulated by the Office of Gas and Electricity Markets (“OFGEM”). OFGEM is a non-ministerial government department and an independent National Regulatory Authority, recognized by European Union Directives. The OFGEM’s role was originally defined in the privatisation statutes (Gas Act of 1986 and Electricity Act of 1989) but was significantly changed by the Utilities Act of 2000, which gave OFGEM a new primary duty of protecting consumers wherever appropriate by promoting effective competition. One of its key secondary duties is to protect the interests of low-income customers. OFGEM regulates minimum levels of standards and how an energy company communicates with its customer like timing of invoicing, price change communication, information that is provided on invoices, compensation and levels of smart meter installation. OFGEM also set a maximum price that a REP can charge a customer if the customer has not actively chosen a tariff or if they are on a variable tariff. U.K. REPs are required to provide a variety of report to OFGEM including customer complaints, meter read performance and tariffs by customers to collect data on topics of interest or to check on compliance with the licence conditions. Inspection by OFGEM is done through these reports and monitoring public information like customer feedback on social media. In addition, OFGEM conducts quarterly review with our Orbits account manager. OFGEM also has the power to carry out ad-hoc inspections.

### *Employees*

As of March 2, 2020, GRE International, including Shoreditch employed 100 full time employees, 15 of whom are located in Finland, 20 of whom are located in our Japan office and 65 of whom are located in U.K.

### **Genie Energy Services**

GES is comprised of businesses that market and provide energy solutions. GES currently consists of (i) our controlling interest in Prism (ii) Diversegy and (iii) Genie Solar Energy.

### *Prism Solar Technologies*

The Company acquired a 60.0% controlling interest in Prism in October 2018. On April 12, 2019, Prism restructured its ownership. The Company now holds 60.0% interest in Plus EnerG which owns 100% of Prism. Prism is a solar solutions company engaged in solar panel manufacturing, solar installation design and project management. In the U.S., Prism’s solar panels are used in residential, office and commercial buildings. Residential applications include solar sun rooms (solariums), skylights, canopies and sun decks. Prism’s solar panels are used in the construction of parking canopies, electric vehicle car ports, parking structures, vertically mounted on buildings and many other custom applications.

Certain of Prism’s solar panels are designed with high efficiency N-type silicon solar cell technology designed into bifacial solar modules. This technology results in a reduction in the average cost per kilowatt hour. Elements of the technology that Prism uses are protected under patent application. The glass-on-glass design of the solar panels increases the durability and lifetime value of the solar panels. Unlike traditional solar modules, where photo-voltaic (“PV”) cells can only use the sunlight that strikes the front of the module, Prism’s bifacial modules generate energy on both sides, capturing a substantial amount of light scattered from clouds and surrounding surfaces. In traditional modules this additional light is not converted into electricity. Prism’s solutions are especially valuable when Prism’s modules are mounted over highly reflective backgrounds, such as white roof, snow, sand, or other light-colored surfaces.

### *Solar Industry Overview*

Products and services in this industry consist of silicon modules and cells, thin-film modules and cells and other modules cells. The demand for solar panel manufacturing is impacted by government programs, commodity prices and international trade.

Solar energy is one of the fastest growing forms of renewable energy with numerous economic and environmental benefits that make it an attractive complement to and/or substitute for traditional forms of energy generation. In recent years, the price of PV solar power systems, and accordingly the cost of producing electricity from such systems, has dropped to levels that are competitive with or even below the wholesale price of electricity in many markets. The rapid price decline that PV solar energy has experienced in recent years has opened new possibilities to develop systems in some locations with limited or no financial incentives. The fact that a PV solar power system requires no fuel provides a unique and valuable hedging benefit to owners of such systems relative to traditional energy generation assets. Once installed, PV solar power systems can function for 25 or more years with relatively less maintenance or oversight compared to traditional forms of energy generation. In addition to these economic benefits, solar energy has substantial environmental benefits. For example, PV solar power systems generate no greenhouse gas and other emissions and use no or minimal amounts of water compared to traditional forms of electricity generation. Worldwide solar markets continue to develop, aided by the above factors as well as demand elasticity resulting from declining industry average selling prices, both at the module and system level, which make solar power more affordable.

The solar industry continues to be characterized by intense pricing competition, both at the module and system levels. In particular, module average selling prices in the United States and several other key markets have experienced an accelerated decline in recent years, and module average selling prices are expected to continue to decline globally to some degree in the future. In the aggregate, we believe manufacturers of solar cells and modules have significant installed production capacity, relative to global demand, and the ability for additional capacity expansion. We believe the solar industry may from time to time experience periods of structural imbalance between supply and demand (i.e., where production capacity exceeds global demand), and that such periods will put pressure on pricing. Additionally, intense competition at the system level may result in an environment in which pricing falls rapidly, thereby further increasing demand for solar energy solutions but constraining the ability for project developers, EPC companies, and vertically-integrated solar companies such as Prism to sustain meaningful and consistent profitability. In light of such market realities, we are focusing on our strategies and points of differentiation, which include our advanced module and system technologies, our manufacturing process, our vertically-integrated business model, our financial viability, and the sustainability of our modules and systems.

Multiple markets within the United States, exemplify favorable characteristics for a solar market, including (i) sizeable electricity demand, particularly around growing population centers and industrial areas; (ii) strong demand for renewable energy generation; and (iii) abundant solar resources. In those areas and applications in which these factors are more pronounced, our PV solar energy solutions compete favorably on an economic basis with traditional forms of energy generation. The market penetration of PV solar is also impacted by certain state and federal support programs, including the current 30% federal investment tax credit, as described under “Support Programs.” We have significant experience and a market leadership position in developing, engineering, constructing, and maintaining utility-scale power plants in the United States, particularly in California and other southwestern states, and increasingly in southeastern states. Currently, our solar projects in the United States account for a majority of the advanced stage pipeline of projects that we are either currently constructing or expect to construct.

#### *Customers; Marketing*

The services of GES — Diversegy and Prism — are made available to customers via multiple channels and under several offerings. The majority of our customer base consists of medium to large commercial customers who are looking to be more efficient with their energy consumption. Our sales channels and marketing activities include a direct sales force, commission-only referral agents, telemarketing, digital marketing and radio advertising.

#### *Sources of Material and Manufacturing*

We have designed our manufacturing processes to produce high quality products that meet our customers’ requirements at competitive costs. The Company employs a mix of outsourced manufacturing through high quality contract manufacturers and direct manufacturing capabilities in its Highland, New York facility.

We source our raw materials through a portfolio of component manufacturers and invest resources in continued cost-reduction effort. In all cases we seek a second and third source so as to limit dependence on any single suppliers.

At Genie Solar Energy and Prism, customers have the choice of buying their solar systems either by paying for the system themselves or by financing it with third parties. GES is responsible for sales, manufacturing, project management of the installation, and collection of payment from the customers.

### *Competition*

The market for solar electric power technologies is competitive and continually evolving. In the last year, we faced increased competition, resulting in price reductions in the market and reduced margins, which may continue and could lead to loss of market share. Our solar power products and systems compete with many competitors in the solar power market, including, but not limited to Canadian Solar Inc., Hanwha QCELLS Corporation, JA Solar Holdings Co., Kyocera Corporation, LG Corporation, Jinko Solar, NRG Energy, Inc., Panasonic Corporation, Sharp Corporation, SunRun, Inc., Tesla, Inc., Trina Solar Ltd., Vivint, Inc., LONGi Solar, REC Group, Hyundai Heavy Industries Co. Ltd., and Yingli Green Energy Holding Co. Ltd. and First Solar, Inc.

We also face competition from resellers that have developed related offerings that compete with our product and service offerings, or have entered into strategic relationships with other existing solar power system providers. We compete for limited government funding for research and development contracts, customer tax rebates and other programs that promote the use of solar, and other renewable forms of energy with other renewable energy providers and customers.

In addition, universities, research institutions, and other companies have brought to market alternative technologies, such as thin-film solar technology, which compete with our PV technology in certain applications. Furthermore, the solar power market in general competes with other energy providers such as electricity produced from conventional fossil fuels supplied by utilities and other sources of renewable energy such as wind, hydro, biomass, solar thermal, and emerging distributed generation technologies such as micro-turbines, sterling engines and fuel cells.

### *Research and Development*

Prism devotes substantial resources to research and development with the objective of developing new products and systems, adding new features to existing products and systems and reducing unit costs of our products and systems. Our development strategy is to identify features, products, and systems that reduce the cost and improve the effectiveness of our solutions for our customers. The Company measures the effectiveness of our research and development by metrics including product unit cost, efficiency, reliability, power output, and ease of use.

### *Regulation*

#### *Federal government support for renewable energy*

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (i) reducing the U.S. federal corporate rate from 35% to 21%; (ii) requiring companies to pay a one-time transition tax on certain unrepatriated earnings (where applicable) of foreign subsidiaries; (iii) generally eliminating the U.S. federal income tax on dividends received from foreign subsidiaries; (iv) requiring current inclusion in the U.S. federal taxable income of certain earnings of controlled foreign corporations; (v) eliminating the corporate alternative minimum tax (“AMT”) and changing how existing AMT credits may be realized; (vi) creating the base erosion anti-abuse tax (“BEAT”), a new minimum tax; (vii) creating a new limitation on the deductible interest expense; and (viii) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

The U.S. federal government provides an uncapped investment tax credit, or “Federal ITC,” that allows a taxpayer to claim a credit of 30% of qualified expenditures for a residential or commercial solar generation facility. The Tax Act did not make any changes to the existing laws surrounding tax credits for renewable energy. The Federal ITC is currently scheduled to be reduced to 26% for solar generation facility construction that begins on or after January 1, 2020 and to 22% for solar generation facility construction that begins on or after January 1, 2021. A permanent 10% Federal ITC is available for non-residential solar generation facility construction that begins on or after January 1, 2022.

### *U.S. state government support for renewable energy*

Many states offer a personal and/or corporate investment or production tax credit for renewable energy facilities, which is additive to the Federal ITC. Further, more than half of the states, and many local jurisdictions, have established property tax incentives for renewable energy facilities that include exemptions, exclusions, abatements and credits. Certain of our renewable energy facilities in the U.S. have been financed with a tax equity financing structure, whereby the tax equity investor is a member holding equity in the limited liability company that directly or indirectly owns the solar generation facility or wind power plant and receives the benefits of various tax credits.

Many state governments, utilities, municipal utilities and co-operative utilities offer a rebate or other cash incentive for the installation and operation of a renewable energy facility for energy efficiency measures. Capital costs or “up-front” rebates provide funds to solar customers based on the cost, size or expected production of a customer’s renewable energy facility. Performance-based incentives provide cash payments to a system owner based on the energy generated by their renewable energy facility during a pre-determined period, and they are paid over that time period. Some states also have established FIT programs that are a type of performance-based incentive where the system owner-producer is paid a set rate for the electricity their system generates over a set period of time.

There are 40 states that have a regulatory policy known as net metering. Net metering typically allows our customers to interconnect their on-site solar generation facilities to the utility grid and offset their utility electricity purchases by receiving a bill credit at the utility’s retail rate for energy generated by their solar generation facility in excess of electric load that is exported to the grid. At the end of the billing period, the customer simply pays for the net energy used or receives a credit at the retail rate if more energy is produced than consumed. Some states require utilities to provide net metering to their customers until the total generating capacity of net metered systems exceeds a set percentage of the utilities’ aggregate customer peak demand.

Many states also have adopted procurement requirements for renewable energy production. There are 29 states that have adopted a renewable portfolio standard (“RPS”) that requires regulated utilities to procure a specified percentage of total electricity delivered to customers in the state from eligible renewable energy sources, such as solar and wind power generation facilities, by a specified date. To prove compliance with such mandates, utilities must procure and retire RECs. System owners often are able to sell RECs to utilities directly or in REC markets.

RPS programs and targets have been one of the key drivers of the expansion of solar and wind power and are expected to continue to contribute to solar and wind power installations in many areas of the United States. In addition to the 29 states with RPS programs, eight other states have non-binding goals supporting renewable energy.

### *Diversegy*

Diversegy is a commercial energy advisory firm helping clients to reduce costs, mitigate risk, and improve their bottom lines through the development and implementation of energy utilization and sourcing strategies. Diversegy works with customers to lower their energy supply costs, reduce their consumption with LED upfitting and other means, as well as provide on- and off-site generation with solar.

Diversegy accounts for 0.6% and 16.2% of the Company’s consolidated revenue and GES segment’s revenue, respectively. Diversegy operates as an energy broker and advisor to industrial, commercial and municipal across deregulated energy markets in the U.S. Most of our customers are enrolled in multi-year contracts that have a fixed rate with our partner suppliers. The supplier is fully responsible for risk management, billing and collections. Diversegy receives commissions from the supplier for the referral either as an upfront payments or as a residual over the life of the customers’ contract.

The Company markets its services through an in-house sales force as well as independent third-party brokers. The Company markets its services through an in-house sales force as well as independent third-party brokers.

As of December 31, 2019 the Company had 1,018 customers representing approximately 1,700,000 MWh in power and 3,000,000 decatherms of total deal volume under contract.

### *Genie Solar Energy*

Genie Solar Energy is a sales and general contracting organization. Genie Solar Energy sells rooftop solar system to commercial and industrial clients who benefit by either lower consumption, lower cost of energy and by accruing financial benefits from their respective states and the U.S government for investing in renewable energy. Genie Solar Energy acquires the customers, manages the procurement of materials and labor involved in installing the solar system and arranges for third party financing when the customer requires it.

### *Employees*

As of March 2, 2020, GES employed 21 full time employees, 9 of whom are located in our New Jersey office and 12 of whom are working for Prism.

### **Genie Oil and Gas, Inc.**

GOGAS is an oil and gas exploration company and owns an interest in a contracted drilling services operation. GOGAS holds an 86.1% interest in Afek Oil and Gas, Ltd. (“Afek”), an oil and gas exploration project in the Golan Heights in Northern Israel. GOGAS also holds controlling interests in inactive oil and gas project. Until September 2018, GOGAS owned Atid Drilling Ltd., a drilling services company operating in Israel (“Atid). In September 2018, the Company divested a majority interest in Atid in exchange for a 37.5% interest in Atid 613, a newly formed drilling services company in Israel.

### *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. The license was subsequently extended to April 2018.

In February 2015, Afek began drilling its first exploratory well in Northern Israel’s Golan Heights. Afek completed drilling five wells in the Southern portion of its license area. In addition, Afek has undertaken well flow tests in multiple target zones within two of the completed wells. The results of the exploration program in this portion of the license area confirmed the presence of significant hydrocarbons in the basin, but the Afek concluded that the resource was likely not commercially viable given current and forecasted market conditions and other constraints, and that the greatest potential for commercial development lies in an area further north within the license area than any of the five completed exploratory wells.

In 2017, Afek turned its operational focus to the Northern region of its license area. The data analyzed suggested that the Southern block resources may extend Northward at depths potentially sufficient to have induced a greater level of maturation of the resource. To validate this hypothesis, in 2017, Afek drilled an exploratory well a site in the Northern portion of its license area. The company announced in November 2017 that the preliminary analysis of results from its completed Ness 10 exploratory well in Northern Israel suggests that the well’s target zone does not contain commercially producible quantities of oil or natural gas and that it was suspending drilling operations pending further analysis.

In light of the analysis received, Afek determined that, based on current information, it did not have a clear path to demonstrate probable or possible reserves in the license area over the next 12 to 18 months. Since there was substantial doubt regarding the economic viability of the well, in the three months ended December 31, 2017, Afek wrote off the \$6.5 million of capitalized exploration costs incurred. At this time, no further exploration activity is contemplated. Subsequent analysis indicates that a zone within the well contains evidence of hydrocarbons at levels sufficient to warrant additional testing. Accordingly, Afek requested and received a renewal of its exploratory license from the Ministry of Energy for the Northern portion of its former license area. The final testing on an existing well is expected to take place within the next two quarters.

### *Drilling Services*

In September 2018, the Company divested a majority interest in Atid in exchange for a 37.5% interest in Atid 613. Atid 613 is an on-shore drilling services venture based in Israel serving customers in a variety of fields including oil and gas exploration, water resource development and mineral exploration.



## *Employees*

As of March 2, 2020, GOGAS employed 2 employees. Afek also retains 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.

## **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.

## **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 and GRE International**

*The REP business is highly competitive, and we may be forced to reduce 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 do not change their rates offered to customers immediately in response to increased prices for the underlying commodities.

Conversely, in a downward moving commodity cost environment, GRE's REPs variable rate plans 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. As we enter new international markets, we will face additional competitive environment. If GRE is not successful in convincing customers to switch both domestically and internationally, 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.*

In December 2017, the New York Public Service Commission ("PSC") held an evidentiary hearing to assess the retail energy market in New York. On December 12, 2019, following the completion of post-hearing briefings in the proceedings, the PSC issued an order adopting changes to the New York retail energy market, effective May 11, 2020 ("2020 Order"). The 2020 Order limits the types of services energy retailer marketers may offer new customers or renewals, in terms of pricing for non-renewable commodities, and renewable product offerings. Although the Company is working to ensure that its products and services are fully compatible with the 2020 Order,

such compliance may adversely impact customer acquisition and renewal revenue and profitability. The Company is evaluating its options, both by itself and in tandem with other industry participants, to challenge or petition for additional clarity and changes to the 2020 Order. As of December 31, 2019, New York represented 24.4% of GRE's total meters served and 18.6% of the total residential customer equivalents ("RCEs") of GRE's customer base. For the years ended December 31, 2019, gross revenue from New York were \$63.2 million and \$74.2 million, respectively.

In December 2019, Connecticut's Public Utility Regulatory Authority (PURA) issued a Proposed Final Decision that would require electric suppliers to return all of their "Hardship Customers" to the local utility company by March 1, 2020. In January 2020, PURA issued a Proposed Final Decision containing new marketing standards for electric suppliers to comply with. The supplier industry has filed opposition to both PURA decisions.

Certain states such as Illinois, Maine, Connecticut and Rhode Island have recently passed or are considering new legislation, rules or regulation which could impose constraints on marketing practices and customer renewal procedures adversely affecting customer acquisition, renewals and revenue. The REP industry is working with government representatives, legislators, and advocacy interest groups to lobby for alternative legislation that would more effectively protect customer interests while preserving the competitive structure of deregulated markets. We also seek to expand and diversify into new markets with regulatory structures that are more favorable to the competitive retail supply of energy.

*Fixed Rate Products or Guaranteed Pricing Programs could result in losses or decreased profits if GRE fails to estimate future 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 or changes in the regulatory environment. 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. During the year ended December 31, 2019, GRE's meters enrolled in offerings with fixed rate characteristics constituted approximately 53.0% and 17% of GRE's electric and natural gas load, respectively. Fixed rate products are becoming a greater part of our offering, and such products may be mandated by regulators.

However, it is difficult to predict future commodity costs. Any shortfalls resulting from the risks associated with fixed rate 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 in part on its ability to enter new markets.*

We have recently entered the U.K. and Japanese markets, in addition to the Finnish market in the beginning of 2019. New markets, both domestic and international, are evaluated 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 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, and as discussed in the Risk Factor entitled "*The Company's business is subject to the risks of international operations*" 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.

*The Company is subject to laws and regulations worldwide, changes to which could increase the Company's costs and individually or in the aggregate adversely affect the Company's business.*

As the Company is expanding its operations geographically, including operations in international jurisdictions, the Company is subject to laws and regulations affecting its domestic and international operations in a number of areas. These U.S. and foreign laws and regulations affect the Company's activities including, but not limited to, our pricing structure and marketing activities.

Compliance with these laws, regulations and similar requirements may be onerous and expensive, and they may be inconsistent from jurisdiction to jurisdiction, further increasing the cost of compliance and doing business. Any such costs, which may rise in the future as a result of changes in these laws and regulations or in their interpretation, could individually or in the aggregate make the Company's products and services less attractive to the Company's customers, delay the introduction of new products in one or more regions, or cause the Company to change or limit its business practices. The Company has implemented policies and procedures designed to ensure compliance with applicable laws and regulations, but there can be no assurance that the Company's employees, contractors, or agents will not violate such laws and regulations or the Company's policies and procedures.

*The Company's business is subject to the risks of international operations.*

As the Company grows its international operations, it may derive a significant portion of its revenue and earnings from such operations. Compliance with applicable U.S. and foreign laws and regulations, such as import and export requirements, anti-corruption laws, tax laws, foreign exchange controls and cash repatriation restrictions, data privacy requirements, environmental laws, labor laws and anti-competition regulations, increases the costs of doing business in foreign jurisdictions. Although the Company has implemented policies and procedures to comply with these laws and regulations, a violation by the Company's employees, contractors, or agents could nevertheless occur. In some cases, compliance with the laws and regulations of one country could violate the laws and regulations of another country. Violations of these laws and regulations could materially adversely affect the Company's brand, international growth efforts and business.

The Company also could be significantly affected by other risks associated with international activities including, but not limited to, learning new markets, adopting to different cultural norms and practices, economic and labor conditions, increased duties, taxes and other costs and political instability. The Company is also exposed to credit and collectability risk on its trade receivables with customers in certain international markets. There can be no assurance the Company can effectively limit its credit risk and avoid losses.

*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 and other regulatory proceedings and investigations the Company is subject to in several states, 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. Repeats of the circumstances 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.



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 \$5.0 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. From time to time, IDT Energy is also subject to inquiries, investigation or action from public utility commissions or other governmental regulatory or law enforcement agencies related to compliance of its practices with statutory or regulatory schemes. These matters are more fully discussed in Note 15 of the Notes to Consolidated Financial Statements included in this Annual Report on Form 10-K, including that IDT Energy entered into a settlement in connection with the three putative class actions, and with multiple regulators and governmental bodies terminating litigation with no admission of liability or finding of wrongdoing by IDT Energy.

IDT Energy does not believe that it was at fault or acted in any way improperly with respect to the events of winter 2014 or in connection with any other practices that are subject to investigation or litigation. 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 litigation 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 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 both domestically and internationally 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, PJM Shell, Energia Suomi and Astmax. 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. Certain of GRE's REPs have a Preferred Supplier Agreement with BP pursuant to which we purchase electricity and natural gas at market rate plus a fee. The agreement has been modified and extended since 2009, and is scheduled to terminate on November 30, 2020 subject to renewal by agreement of the parties. 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 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.

*The REP business depends on maintaining the licenses in the states in which 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, including, but not limited to, legislatures potentially seeking to restrict the activities of REPs 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 on Form 10-K. 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 or of those we operate for certain of our customers.*

To be successful, we need to continue to have available, for our and our customers' used, 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. As such, there is a risk of a security breach or disruption of the system we operated, including possible unauthorized access to our and our customers' proprietary or classified information. We are also subject to breaches of our network resulting in unauthorized utilization of our services or products, which subject us to the costs of providing those products or services, which are likely not recoverable. The secure maintenance and transmission of our and our customers' information is a critical element of our operations. Our information technology and other systems that maintain and transmit customer 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 or our customers' information may be lost, disclosed, accessed or taken without the customers' consent or our product and service may be used without payment.

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 sponsored by state or other interests. We may be unable to anticipate all potential types of attacks or intrusions or to implement adequate security barriers or other preventative measures. Certain of our business units have been the subject of attempted and successful cyber-attacks in the past. We have researched the situations and do not believe any material internal or customer information has been compromised.

Network disruptions, security breaches and other significant failures of the above-described systems could (i) disrupt the proper functioning of our networks and systems and therefore our operations or those of certain of our customers; (ii) result in the unauthorized use of our services or products without payment, (iii) result in the unauthorized access to, and destruction, loss, theft, misappropriation or release of proprietary, confidential, sensitive or otherwise valuable information of ours or our customers, including trade secrets, which others could use to compete against us or for disruptive, destructive or otherwise harmful purposes and outcomes; (iv) require significant management attention or financial resources to remedy the damages that result or to change our systems and processes; (v) subject us to claims for contract breach, damages, credits, fines, penalties, termination or other remedies; or (vi) result in a loss of business, damage our reputation among our customers and the public generally, subject us to additional regulatory scrutiny 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.

*Public health threats could have an adverse effect on the Company's operations and financial results.*

In December 2019, a new Coronavirus, now known as CONVID-19, which has proved to be highly contagious, emerged in Wuhan, China. We are actively monitoring the recent coronavirus outbreak and its potential impact on operations. Although our operations are mainly in the United States, we have assets outside of the United States. Due to both known and unknown risks, including quarantines, closures and other restrictions resulting from the outbreak, our operations may be adversely impacted. While we do not expect that the outbreak will have material adverse effect on our business at this time, we are unable to accurately predict the impact that coronavirus will have due to various uncertainties, including the ultimate geographic spread of the virus, the severity of the disease, the duration of the outbreak, and actions that may be taken by governmental authorities. For all these reasons we may incur expenses or delays relating to such events outside of our control, which could have a material adverse impact on our business.

## Risks Related to Genie Energy Services

*Competition in solar markets globally and across the solar value chain is intense, and could remain that way for an extended period of time. An increased global supply of PV modules has caused and may continue to cause structural imbalances in which global PV module supply exceeds demand, which could have a material adverse effect on our business, financial condition, and results of operations.*

In the aggregate, we believe manufacturers of solar cells and modules have significant installed production capacity, relative to global demand, and the ability for additional capacity expansion. We believe the solar industry may from time to time experience periods of structural imbalance between supply and demand (i.e., where production capacity exceeds global demand), and that such periods will continue to put pressure on pricing. We believe the solar industry is currently in such a period, due in part to recent developments in China, which include feed-in-tariff reductions causing deferment of in-country project development. During the past several years, industry average selling prices per watt have declined, at times significantly, both at the module and system levels, as competitors have reduced prices to sell inventories worldwide. There may be additional pressure on global demand and average selling prices in the future resulting from fluctuating demand in certain major solar markets such as China. If our competitors reduce module pricing to levels near or below their manufacturing costs, or are able to operate at minimal or negative operating margins for sustained periods of time, or if demand for PV modules does not grow sufficiently to justify the current production supply, our business, financial condition, and results of operations could be adversely affected.

*If PV solar and related technologies are not suitable for widespread adoption at economically attractive rates of return or if sufficient additional demand for solar modules, related technologies, and systems does not develop or takes longer to develop than we anticipate, our net sales and profit may flatten or decline and we may be unable to sustain profitability.*

In comparison to traditional forms of energy generation, the solar energy market continues to be at a relatively early stage of development and depend on certain government subsidies to be attractive to customers. If utility-scale PV solar technology proves unsuitable for widespread adoption at economically attractive rates of return or if additional demand for solar modules and systems fails to develop sufficiently or takes longer to develop than we anticipate, we may be unable to grow our business or generate sufficient net sales to sustain profitability. In addition, demand for solar modules, related technologies, and systems in our targeted markets may develop to a lesser extent than we anticipate. Many factors may affect the viability of widespread adoption of utility-scale PV solar technology in our targeted markets, as well as the demand for solar modules and systems generally.

*The reduction, modification or elimination of government incentives could cause our revenue to decline and harm our financial results.*

The market for on-grid applications, where solar power is used to supplement a customer's electricity purchased from the utility network or sold to a utility under tariff, depends in large part on the availability and size of government mandates and economic incentives because, at present, the cost of solar power generally exceeds retail electric rates in many locations and wholesale peak power rates in some locations. Incentives and mandates vary by geographic market. Various government bodies in most of the countries where we do business have provided incentives in the form of feed-in tariffs, rebates, and tax credits and other incentives and mandates, such as renewable portfolio standards and net metering, to end-users, distributors, system integrators and manufacturers of solar power products to promote the use of solar energy in on-grid applications and to reduce dependency on other forms of energy. These various forms of support for solar power are subject to change (as, for example, occurred in 2015 with Nevada's decision to change net energy metering; and in 2017 with California's adoption of new time-of-use rates that reduced the price paid to solar system owners for mid-day electricity production), and are expected in the longer term to decline. Even changes that may be viewed as positive (such as the extension at the end of 2015 of U.S. tax credits related to solar power) can have negative effects if they result, for example, in delaying purchases that otherwise might have been made before expiration or scheduled reductions in such credits. Governmental decisions regarding the provision of economic incentives often depend on political and economic factors that we cannot predict and that are beyond our control. The reduction, modification or elimination of grid access, government mandates or economic incentives in one or more of our customer markets would materially and adversely affect the growth of such markets or result in increased price competition, either of which could cause our revenue to decline and materially adversely affect our financial results.

*The loss of the Prism's major customer could significantly reduce the net sales for our solar solutions business and negatively impact its results of operations.*

Prism currently generates most of its revenues from its major customer. The loss of this major customer, its decision not to issue or reduce orders, our or their inability to perform under the contract, or their default in payment could significantly reduce our net sales and/or adversely impact our operating results. While our contract with our major customer has certain expectations of volume commitments, such expectations are not binding or guaranteed such reduction in volume of modules to be sold under the contract, could decrease the expected revenue under these contracts. Although we believe that we can mitigate this risk, in part, by reallocating modules to other customers if the need arises, we may be unable, in whole or in part, to do so on similar terms or at all.

*We may be unable to profitably provide new solar offerings or achieve sufficient market penetration with such offerings.*

We may expand our portfolio of offerings to include solutions that build upon our core competencies but for which we have not had significant historical experience, including variations in our traditional product offerings or other offerings related to commercial and industrial customers and community solar. We cannot be certain that we will be able to ascertain and allocate the appropriate financial and human resources necessary to grow these business areas. We could invest capital into growing these businesses but fail to address market or customer needs or otherwise not experience a satisfactory level of financial return. Also, in expanding into these areas, we may be competing against companies that previously have not been significant competitors, such as companies that currently have substantially more experience than we do in the residential, commercial and industrial, or other targeted offerings. If we are unable to achieve growth in these areas, our overall growth and financial performance may be limited relative to our competitors and our operating results could be adversely impacted.

*An increase in interest rates or tightening of the supply of capital in the global financial markets (including a reduction in total tax equity availability) could make it difficult for customers to finance the cost of a PV solar power system and could reduce the demand for our modules or systems and/or lead to a reduction in the average selling price for such offerings.*

Customers may depend on debt and/or equity financing to fund the initial capital expenditure required to develop, build, and/or purchase a PV solar power system. As a result, an increase in interest rates, or a reduction in the supply of project debt financing or tax equity investments (including reductions due to a change in tax related incentives that benefit tax equity investors, such as the reduction of the U.S. corporate income tax rate to 21% under the Tax Act, which could reduce the value of these incentives), could reduce the number of solar projects that receive financing or otherwise make it difficult for our customers or our systems business to secure the financing necessary to develop, build, purchase, or install a PV solar power system on favorable terms, or at all, and thus lower demand for our solar modules, which could limit our growth or reduce our net sales. See the Risk Factor entitled "The reduction, elimination, or expiration of government subsidies, economic incentives, tax incentives, renewable energy targets, and other support for on-grid solar electricity applications, or other adverse public policies, such as tariffs or other trade remedies imposed on solar cells and modules, could negatively impact demand and/or price levels for our solar modules and systems and limit our growth or lead to a reduction in our net sales, thereby adversely impacting our operating results" for additional information. In addition, we believe that a significant percentage of our customers install systems as an investment, funding the initial capital expenditure through a combination of equity and debt. An increase in interest rates and the reduction of the U.S. corporate income tax rate as described above could lower an investor's return on investment in a system, increase equity return requirements, or make alternative investments more attractive relative to PV solar power systems and, in each case, could cause these customers to seek alternative investments.

*We face intense competition from manufacturers of crystalline silicon solar modules, as well as other thin film solar modules; if global supply exceeds global demand, it could lead to a further reduction in the average selling price for PV solar modules, which could reduce our net sales and adversely affect our results of operations.*

The solar and renewable energy industries are highly competitive and are continually evolving as participants strive to distinguish themselves within their markets and compete with the larger electric power industry. Within the global PV solar industry, we face intense competition from crystalline silicon solar module manufacturers and other thin film solar module manufacturers. Existing or future solar module manufacturers might be acquired by



larger companies with significant capital resources, thereby further intensifying competition with us. In addition, the introduction of a low cost disruptive technology could adversely affect our ability to compete, which could reduce our net sales and adversely affect our results of operations.

*Problems with product quality or performance may cause us to incur significant and/or unexpected contractual damages and/or warranty and related expenses, damage our market reputation, and prevent us from maintaining or increasing our market share.*

We perform a variety of quality and life tests under different conditions upon which we base our assessments and warranty. However, if our products perform below expectations, we could experience significant warranty and related expenses, damage to our market reputation, and erosion of our market share.

If any of the assumptions used in estimating our warranties prove incorrect, we could be required to accrue additional expenses, which could adversely impact our financial position, operating results, and cash flows. Although we have taken significant precautions to avoid a manufacturing excursion from occurring, any manufacturing excursions, including any commitments made by us to take remediation actions in respect of affected modules beyond the stated remedies in our warranties, could adversely impact our reputation, financial position, operating results, and cash flows.

Any widespread product failures may damage our market reputation, cause our net sales to decline, require us to repair or replace the defective products or provide financial remuneration, and result in us taking voluntary remedial measures beyond those required by our standard warranty terms to enhance customer satisfaction, which could have a material adverse effect on our operating results.

*Our failure to protect our intellectual property rights may undermine our competitive position, and litigation to protect our intellectual property rights or defend against third-party allegations of infringement may be costly.*

Protection of our proprietary processes, methods, and other technology is critical to our business. Failure to protect and monitor the use of our existing intellectual property rights could result in the loss of valuable technologies. We rely primarily on patents, trademarks, trade secrets, copyrights, and contractual restrictions to protect our intellectual property. We regularly file patent applications to protect certain inventions arising from our R&D and are currently pursuing such patent applications in various countries in accordance with our strategy for intellectual property in that jurisdiction. Our existing patents and future patents could be challenged, invalidated, circumvented, or rendered unenforceable. Our pending patent applications may not result in issued patents, or if patents are issued to us, such patents may not be sufficient to provide meaningful protection against competitors or against competitive technologies.

We also rely on unpatented proprietary manufacturing expertise, continuing technological innovation, and other trade secrets to develop and maintain our competitive position. Although we generally enter into confidentiality agreements with our associates and third parties to protect our intellectual property, such confidentiality agreements are limited in duration and could be breached and may not provide meaningful protection for our trade secrets or proprietary manufacturing expertise. Adequate remedies may not be available in the event of unauthorized use or disclosure of our trade secrets and manufacturing expertise. In addition, others may obtain knowledge of our trade secrets through independent development or legal means. The failure of our patents or confidentiality agreements to protect our processes, equipment, technology, trade secrets, and proprietary manufacturing expertise, methods, and compounds could have a material adverse effect on our business. In addition, effective patent, trademark, copyright, and trade secret protection may be unavailable or limited in some foreign countries, especially any developing countries into which we may expand our operations. In some countries, we have not applied for patent, trademark, or copyright protection.

*Several of our key raw materials and components are either single-sourced or sourced from a limited number of suppliers, and their failure to perform could cause manufacturing delays and impair our ability to deliver solar modules to customers in the required quality and quantities and at a price that is profitable to us.*

Our failure to obtain raw materials and components that meet our quality, quantity, and cost requirements in a timely manner could interrupt or impair our ability to manufacture our solar modules or increase our manufacturing costs. Several of our key raw materials and components are either single-sourced or sourced from a limited number of suppliers. As a result, the failure of any of our suppliers to perform could disrupt our supply chain and adversely

impact our operations. In addition, some of our suppliers are smaller companies that may be unable to supply our increasing demand for raw materials and components as we expand our business. We may be unable to identify new suppliers or qualify their products for use on our production lines in a timely manner and on commercially reasonable terms. A constraint on our production may result in our inability to meet our capacity plans and/or our obligations under our customer contracts, which would have an adverse impact on our business. Additionally, reductions in our production volume may put pressure on suppliers, resulting in increased material and component costs.

*Existing regulations and policies and changes to these regulations and policies may present technical, regulatory, and economic barriers to the purchase and use of solar power products, which may significantly reduce demand for our products and services.*

The market for electric generation products is heavily influenced by federal, state and local government laws, regulations and policies concerning the electric utility industry in the United States and abroad, as well as policies promulgated by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of customer-owned electricity generation, and changes that make solar power less competitive with other power sources could deter investment in the research and development of alternative energy sources as well as customer purchases of solar power technology, which could in turn result in a significant reduction in the demand for our solar power products.

*We may not realize the anticipated benefits of past or future business combinations or acquisition transactions, and integration of business combinations may disrupt our business and management.*

We have made several acquisitions in prior years, including the acquisition of Prism Solar Technologies, and in the future we may acquire additional companies, project pipelines, products, or technologies or enter into joint ventures or other strategic initiatives. We may not realize the anticipated benefits of such business combinations or acquisitions, and each transaction has numerous risks, which may include the following:

- difficulty in assimilating the operations and personnel of the acquired or partner company;
- difficulty in effectively integrating the acquired products or technologies with our current products or technologies;
- difficulty in achieving profitable commercial scale from acquired technologies;
- difficulty in maintaining controls, procedures, and policies during the transition and integration;
- disruption of our ongoing business and distraction of our management and associates from other opportunities and challenges due to integration issues;
- inability to retain key technical and managerial personnel of the acquired business;
- inability to retain key customers, vendors, and other business partners of the acquired business;
- inability to achieve the financial and strategic goals for the acquired and combined businesses, as a result of insufficient capital resources or otherwise;
- potential impairment of our relationships with our associates, customers, partners, distributors, or third-party providers of products or technologies;
- potential failure of the due diligence processes to identify significant issues with product quality, legal and financial liabilities, among other things;
- potential inability to assert that internal controls over financial reporting are effective;

Mergers and acquisitions of companies are inherently risky, and ultimately, if we do not complete the integration of acquired businesses successfully and in a timely manner, we may not realize the anticipated benefits of the acquisitions to the extent anticipated, which could adversely affect our business, financial condition, or results of operations. In addition, we may seek to dispose of our interests in acquired companies, project pipelines, products, or technologies. We may not recover our initial investment in such interests, in part or at all, which could adversely affect our business, financial condition, or results of operations.

## 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 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.

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

Our contract drilling and 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' success depends on contractors, equipment, key employees and certain strategic partners and their limited availability could result in increased costs and possibly material delays and our efforts may be severely disrupted if we lose their services.*

The costs for our operations may be more expensive than planned or there could be delays in our operating plans. 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. Further, 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. 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. The unexpected loss of the services of one or more of these people, and the ability to find suitable replacements within a reasonable period of time thereafter, could have a material adverse effect on our operations.

*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.



*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.

### **Risk Related to Our Financial Condition and Reporting**

*We had a material weakness in our internal control over financial reporting in previous years and cannot assure you that additional material weaknesses will not be identified in the future.*

We previously identified a material weakness in our internal control and if we fail to maintain an effective system of internal control in the future, this could result in loss of investor confidence and adversely impact our stock price.

We reported in our Annual Report on Form 10-K as of December 31, 2018, a material weakness in internal control related to an application, which the Company uses to process a wide variety of functions for GRE related to customer enrollment, customer programs and price plans, rebate programs, sales commissions, invoicing, and invoice payment information. During 2019, we completed the remediation measures related to the material weakness and concluded that our internal control over financial reporting was effective as of December 31, 2019. Completion of remediation does not provide assurance that our remediation or other controls will continue to operate properly.

In addition, in evaluating the effectiveness of our internal control over financial reporting as of December 31, 2013, management identified material weaknesses in our internal control environment over financial reporting and those material weaknesses were successfully remediated. In evaluating the effectiveness of our internal control over financial reporting as of September 30, 2016, management identified material weaknesses in our internal control over financial reporting and those material weaknesses were successfully remediated by December 31, 2016. Also, as of December 31, 2016, management review controls associated with the completeness and accuracy of computations relating to domestic and foreign income tax accounts and disclosures were not effective. In evaluating the effectiveness of our internal control over financial reporting as of March 31, 2017, June 30, 2017 and September 30, 2017, management identified material weaknesses in our internal control over financial reporting and those material weaknesses, along with the 2016 material weakness, were successfully remediated by December 31, 2017.

While we aim to work diligently to ensure a robust internal control that is devoid of significant deficiencies and material weaknesses, given the complexity of the accounting rules, we may, in the future, identify additional significant deficiencies or material weaknesses in our disclosure controls and procedures and internal control over financial reporting. Any failure to maintain or implement required new or improved controls, or any difficulties we encounter in their implementation, could result in additional significant deficiencies or material weaknesses, cause us to fail to meet our periodic reporting obligations or result in material misstatements in our financial statements. Any such failure could also adversely affect the results of periodic management evaluations and annual auditor attestation reports regarding the effectiveness of our internal control over financial reporting required under Section 404 of the Sarbanes-Oxley Act of 2002 and the rules promulgated under Section 404. The existence of a material weakness could result in errors in our financial statements that could result in a restatement of financial statements, cause us to fail to meet our reporting obligations and cause investors to lose confidence in our reported financial information, leading to a decline in our stock price. See Item 9A Controls and Procedures for a further discussion of our assessment of our internal controls over financial reporting.

### **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 7,097,356 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 5,523,030 shares of our Class B common stock), representing approximately 70% of the combined voting power of our outstanding capital stock, as of March 9, 2020. 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. Our lease for our office space at 520 Broad Street expires in April 2025 and is for 8,631 square feet and includes two parking spots per thousand square feet of space leased. The annual base rent is \$198,513. We have the right to terminate the lease upon four months' notice and upon early termination Genie will pay a penalty equal to 25% of the portion of the rent due over the course of the remaining term. Upon expiration of the lease, we have the right to renew the lease for another 5 years on substantially the same terms, with a 2% increase in the rental payments.

GRE's Jamestown, New York offices are located at 3315 North Main Street where we lease approximately 12,000 square feet of space. GRE's Florida office is located in Holiday, Florida where we lease approximately 4,350 square feet. GRE's Arizona office is located in Chandler, Arizona where we lease approximately 3,300 square feet. GRE's Texas office is located in Houston, Texas where we lease approximately 4,200 square feet.

Prism's manufacturing plant and offices are located at 180 South Street, Highland, New York, where we own approximately 93,000 square feet, subject to mortgages by Catskill Hudson Bank and Strategic Funding Source, Inc. Prism currently rents our 18,050 square feet of space to various tenants. The book value of the properties were included in the GES segment.

Genie Energy's Tokyo, Japan offices are located at PMO Hamamatsucho 8F, 2-5-5 Hamamatsucho Minato-ku, Tokyo 105-0013 where we lease approximately 2,023 square feet of space. Lumo's Helsinki, Finland office are located at Teollisuuskatu 21 00510, Helsinki, Finland where we lease approximately 3,143 square feet of space. Shoreditch's U. K. offices are located at Suite 2.01 — The White Collar Factory, 1 Old Street Yard, London EC1Y 8AF where we lease approximately 830 square feet of space.

#### **Item 3. Legal Proceedings.**

Certain legal proceedings in which we are involved are discussed in the Notes to Consolidated Financial Statements — Notes 15, *Legal and Regulatory Proceedings*, in this Annual Report on Form 10-K, which is incorporated by reference.

#### **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, 2019		
First Quarter . . . . .	\$ 10.55	\$ 6.00
Second Quarter . . . . .	\$ 11.00	\$ 8.06
Third Quarter . . . . .	\$ 11.98	\$ 6.54
Fourth Quarter. . . . .	\$ 8.54	\$ 6.82
Fiscal year ended December 31, 2018		
First Quarter . . . . .	\$ 5.29	\$ 4.09
Second Quarter . . . . .	\$ 5.83	\$ 3.82
Third Quarter . . . . .	\$ 6.36	\$ 4.95
Fourth Quarter. . . . .	\$ 8.83	\$ 5.08

On March 9, 2020, there were 305 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 13, 2020, the last sales price reported on the New York Stock Exchange for the Class B common stock was \$5.90 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.

	<u>High</u>	<u>Low</u>
Fiscal year ended December 31, 2019		
First Quarter . . . . .	\$ 8.36	\$ 7.27
Second Quarter . . . . .	\$ 8.92	\$ 7.91
Third Quarter . . . . .	\$ 8.85	\$ 8.25
Fourth Quarter. . . . .	\$ 9.22	\$ 8.56
Fiscal year ended December 31, 2018		
First Quarter . . . . .	\$ 7.72	\$ 7.02
Second Quarter . . . . .	\$ 7.52	\$ 6.85
Third Quarter . . . . .	\$ 7.86	\$ 7.32
Fourth Quarter. . . . .	\$ 7.79	\$ 6.54

On March 9, 2019, 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 13, 2020, the last sales price reported on the New York Stock Exchange for the Series 2012-A Preferred Stock was \$7.65 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 11 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, 2019, and which is incorporated by reference herein.

### Performance Graph of Stock

We are a smaller reporting company as defined by Rule 12b-2 of the Securities and Exchange Act of 1934 and are not required to provide the information under this item.

### 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, 2019.

	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 <sup>(1)</sup>
October 1 – 31, 2019 . . . . .	—	\$ —	—	6,426,522
November 1 – 30, 2019 . . . . .	281,915 <sup>(2)</sup>	\$ 8.234	261,722	6,164,800
December 1 – 31, 2019 . . . . .	—	\$ —	—	6,164,800
<b>Total . . . . .</b>	<b>281,915</b>	<b>\$ 8.234</b>		

- (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) Includes 20,193 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.

We are a smaller reporting company as defined by Rule 12b-2 of the Securities and Exchange Act of 1934 and are not required to provide the information under this item.

### 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 are comprised of Genie Retail Energy (“GRE”), Genie Retail Energy International (“GRE International”), Genie Energy Services (“GES”) and Genie Oil & Gas (“GOGAS”)

GRE owns and operates retail energy providers (“REPs”), including IDT Energy, Residents Energy, Town Square Energy (“TSE”), Southern Federal and Mirabito Natural Gas. GRE’s REP businesses resell electricity and natural gas primarily to residential and small business customers, with the majority of the customers in the Eastern United States.

GRE International holds the Company’s 73.0% interest in its joint venture that serves retails customers in the United Kingdom (“U.K.”) and its wholly-owned venture in Japan and its 89.0% controlling interest in Lumo Energia Oyj (“Lumo”), a REP serving residential customers in Finland.

In the first quarter of 2019, we revised our reportable segments in connection with the Lumo acquisition. We separated GRE International from GRE as a separate reportable segment including all REPs outside of North America. GRE International, currently includes Lumo, Genie Japan and our interest in Shoreditch Energy Limited (“Shoreditch”), the venture through which we operate in the U.K.

GES holds Diversegy, a retail energy advisory and brokerage company that serves commercial and industrial customers throughout U.S. and our 60.0% controlling interest in Prism Solar. Prism is a solar solutions company that is engaged in U.S. based manufacturing of solar panels, solar installation design and solar energy project management.

We also operate (and own 97.0% of the equity of) GOGAS, an oil and gas exploration company and hold a minority interest in a contracted drilling services company (“Atid 613”). GOGAS’ four exploration projects are inactive. GOGAS holds an 86.1% interest in Afek Oil and Gas (“Afek”), an oil and gas exploration project in Golan Heights in Northern Israel. Until September 2018, GOGAS also owned Atid, a drilling services company operating in Israel.

As of December 31, 2019, Genie Retail Energy International, LLC (“GREI”), a subsidiary of GRE that holds our REP business outside of North America, and GES, a subsidiary of GRE that holds Diversegy, Genie Solar and our interest in Prism, had issued outstanding deferred stock units granted to officers, employees and a contractor that represented an aggregate interest of 4.0% and 4.5% of the equity of GREI and GES, respectively. The deferred stock units are scheduled to vest up to 2020.

As part of our ongoing business development efforts, we 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.

### **Genie Retail Energy**

GRE operates REPs that resell electricity and/or natural gas to residential and small business customers in Connecticut, Delaware, Illinois, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Florida, Texas, Rhode Island, and Washington, D.C. GRE’s revenues represented approximately 90.9% and 97.9% of our consolidated revenues in the years ended December 31, 2019 and 2018, respectively

GRE’s cost of revenues consists primarily of natural gas and electricity purchased for resale. Certain of GRE’s REPs are party to an Amended and Restated Preferred Supplier Agreement with BP Energy Company, or BP, which is in effect through November 30, 2021. Those REPs 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, PJM, ISO New England and MISO for electric transmission and distribution. GRE’s cost of revenues includes scheduling costs, ISO fees, pipeline costs and utility service charges for the purchase of these services.

For risk management purposes, GRE's REPs utilize 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 cost of revenues. The impact of these options and swaps on cost of revenues is relatively small in comparison to the purchases of gas and electricity for resale.

The electricity transmission and distribution operators perform real-time load balancing for each of the electrical power grids in which GRE's REPs operate. Similarly, the utility or the local distribution company, or LDC, performs load balancing for each of the natural gas markets in which GRE's REPs operate. Load balancing ensures that the amount of electricity and natural gas that GRE's REPs purchase is equal to the amount necessary to service their customers' demands at any specific point in time. GRE's REPs manage 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, and electricity transmission and distribution operators. Suppliers and the LDC's charge or credit GRE for balancing the electricity and natural gas purchased and sold for its account.

Local utilities generally meter and deliver electricity and natural gas to GRE's REPs' customers. The local utilities also provide billing and collection services on GRE's REPs behalf for most of customers and certain local utilities offer purchase of receivables, or POR, programs. GRE's REPs receive the proceeds less the utility's fees for purchase of receivables billing and other ancillary services, where applicable.

Volatility in the electricity and natural gas markets affects the wholesale cost of the electricity and natural gas that GRE's REPs sell to customers. GRE's REPs may not always choose to pass along increases in costs to their customers for various reasons including competitive pressures and for overall customer satisfaction. In addition, GRE's REPs offer fixed rate products or guaranteed pricing and may be unable to change their sell rates offered to fixed rate and guaranteed pricing customers in response to volatility in the prices of the underlying commodities. This can adversely affect GRE's gross margins and results of operations. Alternatively, increases in GRE's REPs rates charged to customers may lead to increased customer churn.

GRE's REPs' 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. Selling, 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 REPs' 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. Unseasonable temperatures in other periods may also impact demand levels. 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 46.9% and 50.3% of GRE's natural gas revenues for the relevant years were generated in the first quarter of 2019 and 2018, 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 31.8% and 29.5% of GRE's electricity revenues for the 2019 and 2018, respectively, were generated in the third quarters of those years. GRE's REPs' revenues and operating income are subject to material seasonal variations, and the interim financial results are not necessarily indicative of the estimated financial results for the full year.

#### *Concentration of Customers and Associated Credit Risk*

GRE's REPs reduce their customer credit risk by participating in purchase of receivable programs for a majority of their receivables. In addition to providing billing and collection services, some utility companies purchase those REPs' receivables and assume all credit risk without recourse to those REPs for those purchased receivables. GRE's REPs primary credit risk with respect to those purchased receivables 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 during certain periods, 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):

	<u>Year ended December 31,</u>	
	<u>2019</u>	<u>2018</u>
Con Edison . . . . .	na%	11%
na — less than 10% of consolidated revenue in the period		

There was no single utility company that accounted for 10% or greater of our consolidated gross trade accounts receivable at December 31, 2019 or 2018).

*Class Action Lawsuits*

Although GRE endeavors to maintain best sales and marketing practices, such practices have been the subject of certain class action lawsuits.

In 2014, three separate putative class-action lawsuits were filed against GRE and certain of its affiliates, alleging unlawful sales and marketing practices. The Company denies any basis for those allegations or wrongdoing. On July 5, 2017, we entered into a settlement of all three actions to further its efforts to address its customers’ concerns and on October 18, 2018, the Court entered a final order approving the Settlement Agreement. Under the Settlement Agreement, we agreed to pay certain amounts to resolve the lawsuits and obtain a release of claims. The period for class members to make claims has expired, and as of the second quarter 2019, we paid all remaining liabilities related to the class-action lawsuit for total payments of \$5.0 million.

On October 5, 2018, two named plaintiffs filed a putative class action complaint against IDT Energy alleging violations of the Telephone Consumer Protection Act, 47 U.S.C. § 227 et seq. in connection with its telemarketing practices. IDT Energy denies the allegations in the complaint, which it believes to be meritless and is vigorously defending this action. On October 31, 2019 the court granted IDT Energy’s motion to bifurcate individual from class claims to expedite discovery and dispositive motions related to the named plaintiffs. On January 9, 2020, the Court granted IDT Energy’s motion for summary judgment to dismiss one of the named plaintiffs for lack of personal jurisdiction. Based upon the Company’s assessment of this matter, a loss based on the merits is not considered probable, nor is the amount of loss, if any, estimable as of December 31, 2019.

See Notes 15, *Legal and Regulatory Proceedings*, in this Annual Report on Form 10-K, which is incorporated by reference.

*Agency and Regulatory Proceedings*

From time to time, the Company responds to inquiries or requests for information or materials from public utility commissions or other governmental regulatory or law enforcement agencies related to investigations under statutory or regulatory schemes. The Company cannot predict whether any of those matters will lead to claims or enforcement actions or whether the Company and the regulatory parties will enter into settlements before a formal claim is made. See Notes 15, *Legal and Regulatory Proceedings*, in this Annual Report on Form 10-K, which is incorporated by reference, for further detail on agency and regulatory proceedings.

*New York Public Service Commission Orders*

In December 2017, the New York Public Service Commission (“PSC”) held an evidentiary hearing to assess the retail energy market in New York. On December 12, 2019, following the completion of post-hearing briefings in the proceedings, the PSC issued an order adopting changes to the New York retail energy market, effective May 11, 2020 (“2020 Order”). The 2020 Order limits the types of services energy retailer marketers may offer new customers or renewals, in terms of pricing for non-renewable commodities, and renewable product offerings. Although the Company is working to ensure that its products and services are fully compatible with the 2020 Order, such compliance may adversely impact customer acquisition and renewal revenue and profitability. The Company is evaluating its options, both by itself and in tandem with other industry participants, to challenge or petition for additional clarity and changes to the 2020 Order. There is insufficient basis to deem any loss probable or to assess the amount of any possible loss based on the changes instituted by the 2020 Order. As of December 31, 2019,

New York represented 24.4% of GRE's total meters served and 18.6% of the total residential customer equivalents ("RCEs") of GRE's customer base. For the years ended December 31, 2019 and 2018, gross revenue from New York was \$63.2 million and \$74.2 million, respectively.

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.

#### *Public Utilities Commission of Ohio*

In August and November of 2017, the Public Utilities Commission of Ohio ("PUCO") commenced investigations into the marketing and enrollment practices of our subsidiary Town Square Energy, LLC in connection with allegedly misleading and deceptive table top marketing campaigns. Town Square and the PUCO entered into a settlement agreement which was approved by the PUCO on February 27, 2019. Under the terms of the agreement, Town Square paid a forfeiture of \$0.2 million to the State of Ohio. In addition, Town Square will work with the PUCO and take steps to ensure full compliance with PUCO rules and orders, including updating customers, providing the PUCO with updated information, and submitting quarterly reports for a one-year period. In connection with the foregoing, the Company accrued \$0.2 million in third quarter of 2018. As of December 31, 2019, Town Square in Ohio represented 0.2% of GRE's total meters served and 0.2% of the total residential customer equivalents of GRE's customer base. For the years ended December 31, 2019 and 2018, Town Square in Ohio gross revenues were \$0.6 million and \$1.4 million, respectively.

#### *State of Connecticut Public Utilities Regulatory Authority*

On September 19, 2018, the State of Connecticut Public Utilities Regulatory Authority ("PURA") commenced an investigation into Town Square following customer complaints of allegedly misleading and deceptive sales practices on the part of Town Square. The Connecticut Office of Consumer Counsel has joined in the investigation. Although Town Square denies any basis for those complaints and any wrongdoing on its part, it is cooperating with the investigation and responding to subpoenas for discovery. As of December 31, 2019, Town Square's Connecticut customer base represented 9.5% of GRE's total meters served and 10.6% of the total residential customer equivalents of GRE's customer base. For the years ended December 31, 2019 and 2018, Town Square's gross revenues from sales in Connecticut were \$35.6 million and \$24.8 million, respectively. As of December 31, 2019, no claims or demands have been made against Town Square by either agency, and there is insufficient basis to deem the loss probable or to assess the amount of any possible loss.

#### *State of Illinois Office of the Attorney General*

In response to complaints that IDT Energy enrolled consumers without their express consent and misrepresented the amount of savings those consumers would receive, the Office of the Attorney General of the State of Illinois ("IL AG") has been investigating the marketing practices of IDT Energy and has alleged violations of the Consumer Fraud and Deceptive Business Practices Act, 815 ILCS 505/1 *et seq.* and the Illinois Telephone Solicitations Act, 815 ILCS 413/1 *et seq.* Shortly thereafter, the Illinois Commerce Commission ("IL ICC") commenced a similar investigation. Although IDT Energy denies any wrongdoing in connection with those allegations, the parties (including the IL ICC) settled the matter pursuant to a court approved consent decree that includes restitution payments in the amount of \$3.0 million, temporary suspension of all marketing activities directed at new customers through December 1, 2020, and implementation of various compliance and reporting procedures.

In third quarter of 2018, the Company recorded a liability of \$3.0 million recorded as a reduction of electricity revenues in the consolidated statement of operations. As of December 31, 2019, Illinois represented 3.3% of GRE's total meters served and 1.9% of the total residential customer equivalents of GRE's customer base. For the years ended December 31, 2019 and 2018, IDT Energy's gross revenues from sales in Illinois were \$10.1 million and \$16.5 million, respectively.



## **GOGAS**

*Afek Oil and Gas, Ltd.*

Afek held an exclusive exploration license covering a portion of the southern portion of the Golan Heights in Northern Israel. Under that license and related permits issued by Israel's Northern District Planning and Building Committee, between 2015 and 2017, Afek completed drilling five exploratory wells in the Southern region of its license area, and one well in the Northern portion of its license area. In November 2017, Afek announced that the preliminary analysis of results from the completed well at the Northern site suggested that the well's target zone does not contain commercially producible quantities of oil or natural gas, and that it was suspending drilling operations pending further analysis. Subsequent analysis indicates that a zone within the well contains evidence of hydrocarbons at levels sufficient to warrant additional testing. Accordingly, Afek requested and received a renewal of its exploratory license from the Ministry of Energy for the Northern portion of its former license area. The final testing on an existing well is expected to take place within the next two quarters.

### **GOGAS Inactive Projects**

*Genie Mongolia, American Shale, LLC, Israel Initiatives Ltd.*

GOGAS formerly operated oil shale exploration projects in Mongolia, Colorado and Israel.

## **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 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.

### **Revenue Recognition**

*Revenues from Sale of Electricity and Natural Gas*

In January 1, 2018, we adopted Accounting Standard Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* (referred to as "ASC 606").

Variable quantities in requirements contracts are considered to be options for additional goods and services because the customer has a current contractual right to choose the amount of additional distinct goods. Revenue from the single performance obligation to deliver a unit of electricity and/or natural gas is recognized as the customer simultaneously receives and consumes the benefit. Utility companies offer purchase of receivable, or POR, programs in most of the service territories in which we operate, and GRE's REPs participate in POR programs for a majority of their receivables. We estimate variable consideration related to our REPs' rebate programs using the expected value method and a portfolio approach. Our estimates related to rebate programs are based on the terms of the rebate program, the customer's historical electricity and natural gas consumption, the customer's rate plan, and a churn factor. Taxes that are imposed on our sales and collected from customers are excluded from the transaction price.

We recognize the incremental costs of obtaining a contract with a customer as an asset if it expects the benefit of those costs to be longer than one year. We determined that certain sales commissions to acquire customers meet the requirements to be capitalized. For GRE, we apply a practical expedient to expense costs as incurred for sales commissions to acquire customers as the period would have been one year or less. Incremental customer acquisition cost of Lumo are capitalized and amortized over eighteen months. These costs and the related amortization are recorded within sales and marketing expenses. Total capitalized customer acquisition costs to obtain a contract was \$0.8 million for the year ended December 31, 2019. At December 31, 2019, capitalized customer acquisition cost of

\$0.6 million and \$0.1 million were included in other current assets and other assets, respectively, on the consolidated balance sheet. The Company continuously monitors its customer relationship periods to ensure compliance with the application of the standard.

#### *Revenues from Sale of Solar Panels*

Our revenue from sales of solar panels are recognized at a point in time following the transfer of control of the solar panels to the customer, which typically occurs upon shipment or delivery depending on the terms of the underlying contracts. For sales contracts that contain multiple performance obligations, such as the shipment or delivery of solar modules, we allocate the transaction price to each performance obligation identified in the contract based on relative standalone selling prices, or estimates of such prices, and recognize the related revenue as control of each individual product is transferred to the customer, in satisfaction of the corresponding performance obligations.

#### **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 \$2.6 million at December 31, 2019 and \$2.0 million at December 31, 2018. 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.

#### **Acquisitions**

The purchase price of each acquisition we consummate is allocated to the net assets acquired based on estimates of their fair values at the date of the acquisition. Any purchase price in excess of these net assets is recorded as goodwill. The allocation of purchase price in certain cases may be subject to revision based on the final determination of fair values during the measurement period, which may be up to one year from the acquisition date. Results of operations of acquired companies are included in our results of operations as of the respective acquisition dates.

The accounting for business combinations requires estimates and judgment as to expectations for future cash flows of the acquired business, and the allocation of those cash flows to identifiable intangible assets, in determining the estimated fair value for assets acquired and liabilities assumed. The fair values assigned to tangible and intangible assets acquired and liabilities assumed are based on management's estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. If the actual results differ from the estimates and judgments used in these estimates, the amounts recorded in the financial statements could result in a possible impairment of the intangible assets and goodwill, require acceleration of the amortization expense of finite lived intangible assets, or the recognition of additional consideration which would be expensed.

#### **Goodwill**

Our goodwill balances were \$12.1 million and \$11.1 million at December 31, 2019 and 2018, respectively. 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.

In the fourth quarter of 2019, we revised our reportable segments in connection with the acquisition of Lumo and continuous expansion of activities in Japan and the U.K. Specifically, the Company now treats GRE International as a separate reportable segment which includes overseas retail energy supply businesses, currently consisting of interests in Lumo, Genie Japan and the Company's share of operations of Shoreditch. There are no other changes in other reportable segments. The change in reportable segments did not result in the reallocation of the Company's existing goodwill. Segment information from the prior year's financial statements have been reclassified in order to conform to the current year's presentation.

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 fair value of the reporting unit is estimated using discounted cash flow methodologies, as well as considering third party market value indicators. Calculating the fair value of the reporting units 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.

We performed our annual goodwill impairment test as of October 1, 2019. In reviewing goodwill for impairment, we have the option, for any or all of our reporting units that carry goodwill — to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not (i.e. greater than 50%) that the estimated fair value of a reporting unit is less than its carrying amount. If we elect to perform a qualitative assessment and determines that an impairment is more likely than not, we then required to perform the quantitative impairment test, otherwise no further analysis is required. We also may elect not to perform the qualitative assessment and, instead, proceed directly to quantitative impairment test. The ultimate outcome of the goodwill impairment review for a reporting unit should be the same whether we choose to perform the qualitative assessment or proceeds directly to the quantitative impairment test. In 2019, we elected to perform a qualitative analysis for our GRE and GRE International reporting units as of October 1, 2019. The Company determined, after performing a qualitative analysis, that there was no evidence that it is more likely than not that the fair value of any identified reporting unit was less than the carrying amounts, therefore, it was not necessary to perform a quantitative impairment test. We determined, after performing qualitative analysis, that there was no evidence that it is more likely than not that the fair value of any identified reporting unit was less than the carrying amounts, therefore, it was not necessary to perform a quantitative impairment test. We performed quantitative impairment analysis for Prism reporting unit. As a result of this test, we concluded that the carrying value Prism reporting unit exceeded its fair value of reporting unit including the allocated goodwill. Therefore, we recognized a goodwill impairment charge of \$0.4 million. There is no goodwill allocated to other reporting units as of October 1, 2019.

The determination of the fair value of our reporting units is based on an income approach, that utilizes discounted cash flows for each reporting unit and other Level 3 inputs as specified in the fair value hierarchy in ASC Topic 820, *Fair Value Measurements and Disclosure*. Under the income approach, we determine fair value based on the present value of the most recent cash flow projections for the reporting unit as of the date of the analysis and calculate a terminal value utilizing a terminal growth rate. The significant assumptions under this approach include, among others: income projections, which are dependent on future sales, new customers, customer behavior, competitor pricing, operating expenses, the discount rate, and the terminal growth rate. The cash flows used to determine fair value are dependent on a number of significant management assumptions such as the expectations of future performance and the expected future economic environment, which are partly based upon our historical experience. The estimates are subject to change given the inherent uncertainty in predicting future results. Additionally, the discount rate and the terminal growth rate are based on judgment of the rates that would be utilized by a hypothetical market participant.

### **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 \$44.8 million and \$41.2 million at December 31, 2019 and 2018, respectively. We employ a tax strategy that enables us to currently deduct losses from our foreign subsidiaries against our profitable U.S. operations and we assess the realizability of deferred taxes quarterly. Because of our current projections, we concluded that we meet the criteria of more likely than not in order to utilize our deferred federal income tax assets in the foreseeable future and have released the valuation on the assets that we will utilize.

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

Information regarding new accounting pronouncement are included in Note — *Description of Business and Summary of Significant Accounting Policies*, to the Consolidated Financial Statements included in this Annual Report on Form 10-K,

## 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, 2019 compared to Year Ended December 31, 2018

#### *Genie Retail Energy Segment*

(amounts in thousands)	Year ended December 31,		Change	
	2019	2018	\$	%
Revenues:				
Electricity . . . . .	\$ 246,685	\$ 227,883	\$ 18,802	8.3%
Natural gas . . . . .	39,926	46,560	(6,634)	(14.2)
Total revenues . . . . .	286,611	274,443	12,168	4.4
Cost of revenues . . . . .	205,986	199,036	6,950	3.5
Gross profit . . . . .	80,625	75,407	5,218	6.9
Selling, general and administrative . . . . .	53,449	46,419	7,030	15.1
Income from operations . . . . .	\$ 27,176	\$ 28,988	\$ (1,812)	(6.3)

*Revenues.* GRE's electricity revenues increased in 2019 compared to 2018. The increase in electricity revenues in 2019 compared to 2018 was the result of increases in electricity consumption, average consumption per meter, as well as slight increase in the average price charged to customers. Electricity consumption by GRE's REPs' customers increased 7.3% in 2019 compared to 2018. The increase in electricity consumption reflected an increase in average electricity consumption per meter, which increased by 9.5% in 2019 compared to 2018. The average rate per kilowatt hour sold slightly increased by 0.9% in 2019 compared to 2018. The increase in electricity revenues in 2019 compared to 2018 also includes the impact of a \$1.7 million reversal in 2018 of estimated payments to customers for the settlement of the class action lawsuits described above. The increase also includes \$3.0 million reduction to electricity revenues in 2018 for estimated payments to customers related to the investigation in Illinois.

GRE's natural gas revenues decreased in 2019 compared to 2018. The decrease in natural gas revenues in 2019 compared to 2018 was a result of decreases in average meters served and natural gas consumptions partially offset by increases in average rate per them sold and average consumption per meter. Natural gas consumption of GRE's

REP's customers decreased by 15.3% in 2019 compared to 2018. Average meters served, decreased 18.2% in 2019 compared to 2018. The average rate per therm sold increased 1.2% in 2019 compared to 2018. Average consumption per meter increased by 3.5% in 2019 compared to 2018.

(in thousands)	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
Meters at end of quarter:					
Electricity customers. . . . .	297	314	307	277	245
Natural gas customers. . . . .	73	74	71	67	70
Total meters. . . . .	<u>370</u>	<u>388</u>	<u>378</u>	<u>344</u>	<u>315</u>

Gross meter acquisitions in 2019 were 308,000 compared to 197,000 in 2018.

Gross meter acquisitions in 2019 includes the impact of a municipal aggregation deal in New Jersey which added approximately 35,000 meters. Meters served increased by 55,000 or 17.5% from December 31, 2018 to December 31, 2019. In 2019, average monthly churn decreased to 5.3% compared to 6.5% in 2018. The reduction in churn reflects the impact of a shift in our customer mix related to channel, product and geography.

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.

(in thousands)	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
RCEs at end of quarter:					
Electricity customers. . . . .	248	266	259	243	195
Natural gas customers. . . . .	61	61	59	57	58
Total RCEs . . . . .	<u>309</u>	<u>327</u>	<u>318</u>	<u>300</u>	<u>253</u>

RCEs increased 22.1% at December 31, 2019 compared to December 31, 2018 primarily due to the acquisition of relatively higher consumption meters in recent quarters.

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

(amounts in thousands)	Year ended December 31,		Change	
	2019	2018	\$	%
Cost of revenues:				
Electricity . . . . .	\$ 180,161	\$ 166,733	\$ 13,428	8.1%
Natural gas . . . . .	25,825	32,303	(6,478)	(20.1)
Total cost of revenues . . . . .	<u>\$ 205,986</u>	<u>\$ 199,036</u>	<u>\$ 6,950</u>	<u>3.5</u>

	Year ended December 31,		Change
	2019	2018	%
Gross margin percentage:			
Electricity . . . . .	27.0%	26.8%	0.2%
Natural gas . . . . .	35.3%	30.6%	4.7%
Total gross margin percentage . . . . .	<u>28.1%</u>	<u>27.5%</u>	<u>0.6%</u>

Cost of revenues for electricity increased in 2019 compared to 2018 primarily because of increases in electricity consumption and average unit cost of electricity. Electricity consumption by GRE's REPs' customers increased 7.3% in 2019 compared to 2018. The average unit cost of electricity increased by 0.9% in 2019 compared to 2018. Gross margin on electricity sales was flat in 2019 compared to 2018.

Cost of revenues for natural gas decreased in 2019 compared to 2018 primarily because of decreases in total natural gas consumption and average unit cost of natural gas partially offset by an increase in average consumption per

meter by GRE's REPs customers. Natural gas consumption by GRE's REPs' customers decreased by 15.3% in 2019 compared to 2018. The average unit cost of natural gas decreased 5.5% in 2019 compared to 2018. Gross margin on natural gas sales increased 15.1% in 2019 compared to 2018 because the increase in the average rate charged to customers increased more than the average unit cost of natural gas.

*Selling, General and Administrative.* The increase in selling, general and administrative expense in 2019 compared to 2018 was primarily due to increase in customer acquisition costs related to increased pace of customer acquisition activities and the increase in gross customer additions. Commission expense increased \$6.1 million in 2019 compared to 2018. As a percentage of GRE's total revenues, selling, general and administrative expense increased from 16.9% in 2018 to 18.6% in 2019.

#### *GRE International*

GREI holds the Company's 73.0% interest in our joint venture in the United Kingdom ("U.K."), our wholly-owned subsidiary in Japan, which recently launched commercial operations, and our 89.0% controlling interest in Lumo, a REP serving residential customers in Finland.

(amounts in thousands)	Year Ended December 31,		Change	
	2019	2018	\$	%
Revenue . . . . .	\$ 16,595	\$ —	\$ 16,595	nm%
Cost of revenue . . . . .	16,267	—	16,267	nm
Gross profit . . . . .	328	—	328	nm
Selling, general and administrative expenses . . . . .	8,461	1,201	7,260	604.5
Loss from operations . . . . .	\$ (8,133)	\$ (1,201)	\$ (6,932)	577.2%
Equity in net loss of joint venture . . . . .	\$ 4,440	\$ 2,990	\$ 1,450	48.5%

nm — not meaningful

We account for our investments in Shoreditch under the equity method of accounting. Under this method we record our share in the net income or loss of Shoreditch. Therefore, revenue generated, and expenses incurred are not reflected in our consolidated revenue and expenses.

Meters served by GRE International's REPs, including Shoreditch increased to 127,000 at December 31, 2019 from 8,000 at December 31, 2018 primarily as a result of the acquisition of Lumo in January 2019 as well as growth at Lumo and Shoreditch. The Company also started the commercial operations of Genie Japan in second quarter of 2019.

RCEs at December 31, 2019 increased to 65,000 from 4,000 at December 31, 2018 primarily from the increase in meters served as discussed above.

*Revenue and Cost of Revenue.* GRE International's revenues and cost of revenue in 2019 primarily pertains to the operations of Lumo.

*Equity in net loss of joint venture.* We account for our ownership interest in Shoreditch using the equity method since we have the ability to exercise significant influence over Shoreditch's operating and financial matters, although we do not control Shoreditch. As of December 31, 2019, the book value the Company's investment in Shoreditch was reduced to nil as a result of the Company's share in accumulated losses of Shoreditch using the equity method of accounting, and as result, the Company did not recognize a certain portion of its share in net losses Shoreditch in 2019 as the Company has no obligation to fund the Shoreditch losses. The Company's share in Shoreditch's net loss in 2019 was \$4.4 million compared to \$3.0 million in 2018. The increase is primarily due to increase in operating losses of Shoreditch as it continued to grow its operations.



## GES Segment

The GES segment is composed of Prism, in which we acquired 60.0% controlling interest in October 2018 and Diversegy.

(amounts in thousands)	Year Ended December 31,		Change	
	2019	2018	\$	%
Revenue . . . . .	\$ 12,085	\$ 5,696	\$ 6,389	112.2%
Cost of revenue . . . . .	10,139	4,597	5,542	120.6
Gross profit . . . . .	1,946	1,099	847	77.1
Selling, general and administrative expenses . . . . .	4,234	2,042	2,192	107.3
Research and development . . . . .	207	39	168	430.8
Impairment of goodwill . . . . .	400	—	400	nm
Loss from operations . . . . .	\$ (2,895)	\$ (982)	\$ (1,913)	194.8

*Revenue.* GES's revenues increased in 2019 compared to 2018. The increase in revenue was the result of our acquisition of a controlling interest in Prism in October 2018. Revenue from Prism in 2019 was \$10.1 million compared to \$3.3 million for the period from October 26, 2019 to December 31, 2018. Revenue from Diversegy includes commissions, entry fees and other fees from our energy brokerage and marketing services businesses.

*Cost of Revenue.* Cost of revenues increased in 2019 compared to 2018 primarily as a result of our acquisition of a controlling interest in Prism in October 2018. Cost of Revenue from Prism in 2019 was \$8.9 million compared to \$3.3 million for the period from October 26, 2018 to December 31, 2018. Cost of revenue related to Diversegy consists of commission expense.

*General and Administrative.* General and administrative expense increased in 2019 compared to 2018 primarily because of the acquisition of Prism partially offset by a decrease in operating expenses of Diversegy.

*Impairment of Goodwill.* In the fourth quarter of 2019, we recognized impairment charge of \$0.4 million against the goodwill previously recognized when we acquired a controlling interest in Prism in October 2018.

## GOGAS Segment

(amounts in thousands)	Year Ended December 31,		Change	
	2019	2018	\$	%
Revenue . . . . .	\$ —	\$ 170	\$ (170)	nm%
General and administrative expense . . . . .	1,028	3,716	(2,688)	(72.3)
Exploration . . . . .	—	244	(244)	nm
Impairment of equipment . . . . .	—	2,742	(2,742)	nm
Loss from operations . . . . .	\$ 1,028	\$ 6,532	\$ 5,504	84.3%
Equity in net loss of Atid 613 . . . . .	\$ 291	\$ 440	\$ (149)	(33.9)%

nm — not meaningful

*Revenue.* Revenue recognized in 2018 includes fees related to drilling services performed by Atid in July and August 2018.

*General and Administrative.* General and administrative expense decreased in 2019 compared to 2018 primarily because of decrease in payroll and related expenses and depreciation expense, primarily due to our divestiture of a controlling interest in Atid in third quarter of 2018.

*Exploration.* Exploration expense in 2018 was primarily incurred in the wrap-up of the suspended drilling operations at Afek. Subsequent analysis indicates that a zone within the well contains evidence of hydrocarbons at levels sufficient to warrant additional testing. Accordingly, Afek requested and received a renewal of its exploratory license from the Ministry of Energy for the Northern portion of its former license area. The final testing on an existing well is expected to take place within the next two quarters.

*Impairment of Assets.* In 2018, we recorded an impairment of assets of \$2.7 million related to the decision to divest our majority interest in Atid.

## Corporate

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

(amounts in thousands)	Year Ended December 31,		Change	
	2019	2018	\$	%
General and administrative expense and loss from operations . . . . .	\$ 5,295	\$ 8,295	\$ (3,000)	(36.2)%

The decrease in Corporate general and administrative expense in 2019 compared to 2018 was primarily due to a decrease in stock-based compensation partially offset by an increase in professional and consulting fees. Stock-based compensation decreased \$3.4 million in 2019 compared to 2018. As a percentage of our consolidated revenues, Corporate general and administrative expense decreased from 3.0% in 2018 to 1.7% in 2019.

## Consolidated

*Selling, General and Administrative.* Corporate general and administrative decreased in 2019 compared to 2018 primarily because of decreases stock-based compensation partially offset by increase in severance expenses.

Stock-based compensation expense included in consolidated selling, general and administrative expense was \$1.1 million and \$4.5 million in 2019 and 2018, respectively. At December 31, 2019, aggregate unrecognized compensation cost related to non-vested stock-based compensation was \$1.1 million. The unrecognized compensation cost is recognized over the expected service period.

As a percentage of our consolidated revenues, selling, general and administrative expense decreased from 22.0% in 2018 to 23.0% in 2019.

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

(amounts in thousands)	Year Ended December 31,		Change	
	2019	2018	\$	%
Income from operations . . . . .	\$ 9,825	\$ 11,978	\$ (2,153)	(18.0)%
Interest income . . . . .	448	557	(109)	(19.6)
Interest expense . . . . .	(530)	(401)	(129)	(32.2)
Equity in the net loss of equity method investees . . . . .	(4,830)	(3,430)	(1,400)	(40.8)
Gain on extinguishment of liability . . . . .	—	164	(164)	nm
Other income, net . . . . .	1,066	156	910	583.3
(Provision for) benefit from income taxes . . . . .	(4,600)	12,376	(16,976)	(137.2)
Net income . . . . .	1,379	21,400	(20,021)	(93.6)
Net loss attributable to noncontrolling interests . . . . .	2,796	1,385	1,411	101.9
Net income attributable to Genie Energy Ltd. . . . .	\$ 4,175	\$ 22,785	\$ (18,610)	(81.7)%

nm — not meaningful

*Interest Expense.* The increase in interest expense in 2019 compared to 2018 was primarily due to interest expense related to notes payable by Prism which we acquired a controlling interest in October 2018.

*Other Income, net.* Other expense, net in 2019 and 2018 consisted primarily foreign currency transaction gains and losses.

*Provision for Income Taxes.* The benefit from income taxes in 2018 was primarily due to the release the of valuation allowance of deferred tax assets of \$15.1 million due to reduction in spending on oil and gas exploration and the profitable outlook for the Company. The provision for income taxes in 2019 resulted from realization of deferred tax assets to offset the taxable income generated by GRE.

*Net Loss Attributable to Noncontrolling Interests.* The change in the net loss attributable to noncontrolling interests in 2019 compared to 2018 was primarily due to increase in net loss attributable to noncontrolling interest related to Prism which we acquired 60.0% in October 2018, and Lumo, which the Company acquired controlling interest in January 2019, partially offset by a decrease in net loss of Afek and Citizens Choice Energy, a variable interest entity that operates a REP.

## LIQUIDITY AND CAPITAL RESOURCES

### General

We currently expect that our cash flows from operations in the next twelve months and the \$31.2 million balance of unrestricted cash and cash equivalents that we held at December 31, 2019 will be sufficient to meet our currently anticipated cash requirements for at least the period from January 1, 2020 to March 16, 2021.

At December 31, 2019, we had working capital (current assets less current liabilities) of \$40.8 million.

(amounts in thousands)	Year ended December 31,	
	2019	2018
<b>Cash flows provided by (used in):</b>		
Operating activities . . . . .	\$ 15,752	\$ 19,374
Investing activities . . . . .	(5,773)	(2,938)
Financing activities . . . . .	(15,623)	(4,155)
Effect of exchange rate changes on cash and cash equivalents . . . . .	1	(11)
<b>(Decrease) increase in cash and cash equivalents . . . . .</b>	<b>\$ (5,643)</b>	<b>\$ 12,270</b>

### *Operating Activities*

Cash provided by operating activities was \$15.8 million and \$19.4 million in the years ended December 31, 2019 and 2018, respectively. Net income after non-cash adjustments decreased cash flows by \$15.5 million for 2019 compared to \$21.4 million in 2018. The decrease is primarily the result of losses incurred by Prism and Lumo in which we acquired controlling interests in October 2018 and January 2019, respectively.

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. Changes in working capital increased cash flows by \$4.5 million for 2019, compared to 2018. Changes in other assets decreased cash flows by \$1.1 million for 2019, compared to 2018.

GRE's REPs are party to an Amended and Restated Preferred Supplier Agreement with BP Energy Company, or BP, which is to be in effect through November 30, 2020. The obligations to BP are secured by a first security interest in deposits or receivables from utilities in connection with their purchase of the REPs' customer's receivables, and in any cash deposits or letters of credit posted in connection with any collateral accounts with BP. In addition, the REPs must pay an advance payment of \$2.5 million to BP each month that BP will apply to the next invoiced amount due to BP. The 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, 2019, we were in compliance with such covenants. At December 31, 2019, restricted cash — short-term of \$1.6 million and trade accounts receivable of \$47.8 million were pledged to BP as collateral for the payment of trade accounts payable to BP of \$14.9 million at December 31, 2019.

From time to time, we receive inquiries or requests for information or materials from public utility commissions or other governmental regulatory or law enforcement agencies related to investigations under statutory or regulatory schemes, and we respond to those inquiries or requests. We cannot predict whether any of those matters will lead to claims or enforcement actions.

### *Investing Activities*

On January 2, 2019, we completed the purchase of an 80.0% controlling interest in Lumo. We paid the sellers a total of €1.6 million (equivalent to \$1.9 million at that time). The Company contributed €1.3 million (equivalent to \$1.5 million at that time) as a capital loan to fund Lumo's working capital requirements. We also provided Lumo with

a secured loan for €2.0 million (equivalent to \$2.3 million at that time) to pay off and replace its remaining debt. In November 2019, we acquired additional 9.0% interest in Lumo for \$0.2 million increasing our total interest to 89.0%

The remaining 11.0% noncontrolling interest retained by the sellers is subject to restrictions, which will lapse over a period of up to three years following the Lumo Closing Date, subject to employment and service conditions.

The Company has a conditional continuing call option to purchase a portion or the entire noncontrolling interest from the sellers during the period beginning at the third anniversary of the Lumo Closing Date and ending three years later.

The sellers of Lumo, as a group, have a one-time option to sell a portion or all of their noncontrolling interest to the Company, which subject to certain conditions, may be exercised on one occasion only, at any time during the two-year period beginning at the fourth anniversary of the closing date of the acquisition.

On July 17, 2017, the Company's subsidiary, GEUK, entered into a definitive agreement to launch Shoreditch, a joint venture to offer electricity and natural gas service to residential and small business customers in the U. K., using the trade name Orbit Energy. In 2019 and 2018, the Company contributed \$2.7 million and \$1.3 million, respectively, to Shoreditch, which increased GEUK's total contribution to \$8.0 million as of December 31, 2019. The Company owns 73.0% of the equity of Shoreditch.

Our capital expenditures were \$0.4 million and \$0.6 million in 2019 and 2018, respectively. We had purchase commitments of \$138.3 million at December 31, 2019, of which \$102.1 million was for future purchases of electricity. We currently anticipate that our total capital expenditures in the year ending December 31, 2020 will be between \$0.5 million and \$1.0 million.

#### *Financing Activities*

In each of 2019 and 2018, we paid aggregate Base Dividends per share of \$0.6376 on our Series 2012-A Preferred Stock. The aggregate preferred stock dividends paid in each of 2019 and 2018 were \$1.5 million. On February 18, 2020, we paid a quarterly Base Dividend of \$0.1594 per share on our Series 2012-A Preferred Stock for the fourth quarter of 2019 to stockholders of record as of the close of business on February 6, 2020.

In 2019 and 2018, we paid aggregate dividends per share of \$0.30, to stockholders of our Class A common stock and Class B common stock. The aggregate dividends paid in 2019 and 2018 were \$1.4 million and \$7.7 million, respectively. On March 11, 2020, our Board of Directors declared a quarterly dividend of \$0.075 per share on our Class A common stock and Class B common stock for the fourth quarter of 2019 to stockholders of record as of the close of business on March 24, 2020. The dividend will be paid on or about April 3, 2020.

In 2019, we received proceeds of \$1.4 million from the exercise of stock options for which we issued 205,350 shares of our Class B common stock. There were no stock option exercises in 2018.

On March 11, 2013, our Board of Directors approved a program for the repurchase of up to an aggregate of 7.0 million shares of our Class B common stock. In 2019, the Company acquired 731,869 Class B common stock under the stock repurchase program for an aggregate amount of \$5.6 million. There were no repurchases under this program in 2018. At December 31, 2019, 6.2 million shares remained available for repurchase under the stock repurchase program.

On November 28, 2019, Genie Japan entered into a Loan Agreement with Tokyo Star Bank for a ¥100.0 million (equivalent to \$0.9 million) short-term credit facility. Genie Japan provided a letter of credit issued by JPMorgan Chase amounting to ¥100.0 million (equivalent to \$0.9 million) as collateral. The outstanding principal amount incurs interest at Tokyo Star Bank's short-term prime rate plus 0.25% per annum. Interest is payable monthly and all outstanding principal and any accrued and unpaid interest is due on the maturity date of May 13, 2020. At December 31, 2019, \$0.9 million was outstanding under the loan agreement. At December 31, 2019 the effective interest rate was 3.0%.

On April 4, 2017, GRE, IDT Energy, and other GRE subsidiaries entered into a Credit Agreement with Vantage Commodities Financial Services II, LLC ("Vantage"), for a \$20.0 million revolving loan facility. The borrowers consist of the Company's subsidiaries that operate REP businesses, and those subsidiaries' obligations are guaranteed by GRE. The borrowers have provided as collateral a security interest in their receivables, bank accounts, customer

agreements, certain other material agreements and related commercial and intangible rights. The outstanding principal amount incurs interest at LIBOR plus 4.5% per annum. Interest is payable monthly and all outstanding principal and any accrued and unpaid interest is due on the maturity date of April 3, 2020. At December 31, 2019 and 2018 \$2.5 million was outstanding under the revolving line of credit. At December 31, 2019 and 2018, the effective interest rate was 6.41% and 7.24% per annum, respectively. 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. To date, the Company is in compliance with such covenants. The borrowers intend to extend or renegotiate this agreement. We cannot assure we will be able to do so under acceptable terms, however, we don't expect a significant impact on our liquidity.

On December 5, 2019, the Company entered into the first amendment of Credit Agreement with JPMorgan Chase Bank ("Credit Agreement") to extend the maturity date to December 31, 2020. The Company continues to have the aggregate principal amount of \$5.0 million credit line facility ("Credit Line"). The Company pays a commitment fee of 0.1% per annum on unused portion of the Credit Line as specified in the Credit Agreement. The borrowed amounts will be in the form of letters of credit which will bear interest of 1.0% per annum. The Company will also pay a fee for each letter of credit that is issued equal to the greater of \$500 or 1.0% of the original maximum available amount of the letter 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 \$5.1 million. As of, December 31, 2019, JP Morgan Chase Bank issued \$1.8 million letters of credit from the Credit line. As of December 31, 2019, none of the letters of credits were drawn upon. At December 31, 2019, the cash collateral of \$5.2 million was included in restricted cash — short-term in the consolidated balance sheet.

In December 11, 2019, Prism obtained a term sheet from Catskill Hudson Bank to refinance the 5.95% notes payable described above that was due in November 2019. Under the term sheet, the outstanding balance of notes payable of \$0.8 million at December 31, 2019 will be payable in equal monthly installments for period of ten years. The outstanding principal amount incurs fixed interest at 4.75% per annum. The notes payable are secured by Prism's commercial property in Highland, New York. At December 31, 2019, \$0.8 million was outstanding under notes payable.

In 2019, we paid \$0.5 million to repurchase 48,197 shares of our Class B common stock, and, in 2018, we paid \$0.9 million to repurchase 149,058 shares of our Class B common stock tendered by our employees 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.

#### *Series 2012-A Preferred Stock*

At December 31, 2019, there were 2.3 million shares of our Series 2012-A Preferred Stock issued and outstanding with an aggregate liquidation preference of \$19.7 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.

## CONTRACTUAL OBLIGATIONS AND OTHER COMMERCIAL COMMITMENTS

The following table quantifies our future contractual obligations and other commercial commitments at December 31, 2019:

### *Payments Due by Period*

<u>(amounts in millions)</u>	<u>Total</u>	<u>Less than 1 year</u>	<u>1 – 3 years</u>	<u>4 – 5 years</u>	<u>After 5 years</u>
Purchase obligations . . . . .	\$ 102,105	\$ 63,083	\$ 37,275	\$ 1,747	\$ —
Renewable energy credits purchase obligations . . . . .	36,158	15,808	17,177	3,173	—
Revolving credit loan payable <sup>(1)</sup> . . . . .	2,514	2,514	—	—	—
Notes payable . . . . .	893	116	173	173	431
Loan payable . . . . .	921	921	—	—	—
Operating leases . . . . .	3,176	632	793	446	1,305
Other liabilities <sup>(2)(3)(4)</sup> . . . . .	120	120	—	—	—
<b>TOTAL CONTRACTUAL OBLIGATIONS<sup>(5)(6)(7)</sup></b> . . . . .	<b>\$ 145,887</b>	<b>\$ 83,194</b>	<b>\$ 55,418</b>	<b>\$ 5,539</b>	<b>\$ 1,736</b>

- (1) The above table includes principal outstanding at December 31, 2019 plus estimated interest and fees.
- (2) The above table does not include amounts related to call option in the amount of \$0.3 million in connection with the acquisition of Smile Energy due to the uncertainty of the amount and/or timing of any such payments.
- (3) The above table does not include amounts related to call option and a put option related to the noncontrolling interest in connection with the acquisition of Lumo due to the uncertainty of the amount and/or timing of any such payments.
- (4) The above table does not include the financing made available to New Atid of up to \$0.4 million due to the uncertainty of the amount and/or timing of any financing to be provided.
- (5) The above table does not include an aggregate of \$12.5 million in performance bonds at December 31, 2019 due to the uncertainty of the amount and/or timing of any payments.
- (6) The above table does not include an aggregate of \$1.8 million in letters of credit issued by JP Morgan Chase to the Company as of December 31, 2019 due to the uncertainty of the amount and/or timing of any payments. None of the letters of credit were used as of December 31, 2019.
- (7) The above table does not include our unrecognized income tax benefits for uncertain tax positions at December 31, 2019 of \$0.4 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.

## 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 certain utility companies and for various states in order to comply with the states’ financial requirements for retail energy providers. At December 31, 2019, the Company had outstanding aggregate performance bonds of \$13.7 million and \$1.8 million of unused letters of credit.



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

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934 and are not required to provide the information under this item.

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 2019 had remained the same as in 2018, due to changes in the price of natural gas and electricity, our gross profit from electricity sales would have decreased by \$0.8 million in 2019 and our gross profit from natural gas sales would have decreased by \$2.0 million in 2019.

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 cost of revenue in our consolidated statements of operations. Refer to Note 4 — *Derivative Instruments*, for details of the hedging activities.

## **Item 8. Financial Statements and Supplementary Data.**

Our Consolidated Financial Statements and supplementary data and the report of the independent registered public accounting firm 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**

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, 2019. 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 (“COSO”).

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, 2019. Based on our evaluation, our principal executive officer and principal financial officer concluded that the disclosure controls and procedures were effective as such dates.

As disclosed in Part II Item 9A Controls and Procedures in our Annual Report on Form 10-K for the year ended December 31, 2018, we identified a material weakness in internal control related to change management process and segregation of duties within applications and databases used by the Company to process and record transactions related to customer enrollment, customer programs and price plans, rebate programs, sales commissions, invoicing, and invoice payment information.

During 2019, management implemented our previously disclosed remediation plan that included: (i) implementation of a new software development toolkit and change managements process; (ii) revamp of the internal roles and privileges infrastructure with enhanced access controls; (iii) installation of a new database monitoring protocol with monitoring reports reviewed by an independent reviewer, and; (iv) developed and implemented compensating controls to independently validate the data within the application.

During the fourth quarter of 2019, we completed our testing of the operating effectiveness of the implemented controls and found them to be effective. As a result, we have concluded the material weakness has been remediated as of December 31, 2019.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2019 has been audited by BDO USA LLP, an independent registered public accounting firm, as stated in their report which appears herein.

#### **Acquisition of Lumo**

We acquired a controlling interest in Lumo in January 2019. Management has excluded the operations of this business from our evaluation of, and conclusion on, the effectiveness of our internal controls over financial reporting as of December 31, 2019. Lumo constituted 5.1% and 4.4% of our total assets and net assets, respectively, as of December 31, 2019, and 4.8% of our consolidated revenue and 6.0% of the sum of our cost of revenue and operating expenses, respectively, for the year then ended. Management plans to fully integrate the operations of this business into its assessment of the effectiveness of our internal control over financial reporting in 2020.

#### **Changes in Internal Control over Financial Reporting**

Except for the changes in connection with our implementation of the remediation plan discussed above, there have been no other changes in our internal control over financial reporting (as defined in Rules 13a-15(f) or 15d-15(f) of the Exchange Act) that occurred during the period that have materially affected, or are reasonably likely to materially affect, the Company's 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

Michael Stein — Chief Executive Officer

Avi Goldin — Chief Financial Officer

#### **Directors**

Howard S. Jonas — Chairman of the Board 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, 2019, 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](http://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, 2019, 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, 2019, 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, 2019, 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, 2019, 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 Reports of Independent Registered Public Accounting Firms on Consolidated Financial Statements

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, 10.04 and 10.05 are management contracts or compensatory plans or arrangements.

(b) Exhibits.

Exhibit Number	Description of Exhibits
3.01 <sup>(1)</sup>	Amended and Restated Certificate of Incorporation of the Registrant.
3.02 <sup>(2)</sup>	Amended and Restated Certificate of Designation of Series 2012-A Preferred Stock of the Registrant.
3.03 <sup>(3)</sup>	Amended and Restated By-Laws of the Registrant.
4.02*	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934
10.01 <sup>(4)</sup>	Third Amended and Restated Employment Agreement, effective as of November 1, 2017, between the Registrant and Howard S. Jonas.
10.02 <sup>(*)</sup>	Amendment No. 1 to the Third Amended and Restated Employment Agreement between the Registrant and Howard S. Jonas, dated as March 15, 2019.
10.03 <sup>(5)</sup>	Restricted Stock Agreement between the Registrant and Howard Jonas, dated August 7, 2017.
10.04 <sup>(6)</sup>	Second Amended and Restated Employment Agreement, effective as of January 1, 2018, between the Registrant and Avi Goldin.
10.06 <sup>(8)</sup>	2011 Stock Option and Incentive Plan of Genie Energy Ltd.
10.07 <sup>(1)</sup>	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
23.02*	Consent of Marcum 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.
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/A, filed November 6, 2017.

(5) Incorporated by reference for Form 10-K, filed March 16, 2020.

- (6) Incorporated by reference to Form 10-Q, filed November 9, 2017.
- (7) Incorporated by reference to Form 8-K/A, filed January 2, 2018.
- (8) Incorporated by reference to Form 10-12G/A, filed October 27, 2011.

**Item 16. Form 10-K Summary**

None.



## 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/ Michael Stein  
Chief Executive Officer

Date: March 16, 2020

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	March 16, 2020
<u>/s/ Michael Stein</u> Michael Stein	Chief Executive Officer (Principal Executive Officer)	March 16, 2020
<u>/s/ Avi Goldin</u> Avi Goldin	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 16, 2020
<u>/s/ James A. Courter</u> James A. Courter	Vice Chairman of the Board and Director	March 16, 2020
<u>/s/ W. Wesley Perry</u> W. Wesley Perry	Director	March 16, 2020
<u>/s/ Alan B. Rosenthal</u> Alan B. Rosenthal	Director	March 16, 2020
<u>/s/ Allan Sass</u> Allan Sass	Director	March 16, 2020

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING

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

### Opinion on Internal Control over Financial Reporting

We have audited Genie Energy Ltd.'s (the "Company's") internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheet of the Company as of December 31, 2019, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows for the year ended December 31, 2019, and the related notes and our report dated March 16, 2020 expressed an unqualified opinion thereon.

### Basis for Opinion

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 "Management's Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. 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.

As indicated in the accompanying "Management's Report on Internal Control over Financial Reporting", management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Lumo Energia Oyj ("Lumo"), which was acquired on January 2, 2019, and which is included in the consolidated balance sheet of the Company as of December 31, 2019, and the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows for the year then ended. Lumo constituted 5% of total assets and net assets as of December 31, 2019 and 5% of net revenues for the year then ended. Management did not assess the effectiveness of internal control over financial reporting of Lumo because of the timing of the acquisition which was completed on January 2, 2019. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Lumo.

### Definition and Limitations of Internal Control over Financial Reporting

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.

/s/ BDO USA, LLP

Woodbridge, New Jersey

March 16, 2020

**GENIE ENERGY LTD.**

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of  
Genie Energy Ltd.  
Newark, New Jersey

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Genie Energy, Ltd. (the “Company”) as of December 31, 2019, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows for the year ended December 31, 2019, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019, and the results of its operations and its cash flows for the year ended December 31, 2019, 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) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) and our report dated March 16, 2020 expressed an unqualified opinion thereon.

### Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ BDO USA LLP

We have served as the Company’s auditor since 2019.

BDO USA, LLP  
Woodbridge, New Jersey  
March 16, 2020

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors  
Genie Energy LTD.

### Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Genie Energy LTD. and Subsidiaries (the “Company”) as of December 31, 2018, and the related consolidated statements of operations, comprehensive income, equity and cash flows for the year then ended, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018, and the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Marcum LLP

Marcum LLP

We served as the Company’s auditor from June 29, 2018 through August 20, 2019.

New York, NY  
March 18, 2019



**GENIE ENERGY LTD.**

**CONSOLIDATED BALANCE SHEETS**

(in thousands, except per share amounts)	December 31	
	2019	2018
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents .....	\$ 31,242	\$ 41,601
Restricted cash – short-term .....	6,792	1,653
Trade accounts receivable, net of allowance for doubtful accounts of \$2,631 and \$2,003 at December 31, 2019 and 2018, respectively .....	49,822	35,920
Inventory .....	16,632	9,893
Prepaid expenses .....	6,318	6,167
Other current assets .....	2,133	2,670
<b>TOTAL CURRENT ASSETS</b> .....	<b>112,939</b>	<b>97,904</b>
Property and equipment, net .....	3,607	4,301
Goodwill .....	12,135	11,082
Other intangibles, net .....	6,837	6,321
Investment in equity method investees .....	675	2,208
Restricted cash – long-term .....	520	943
Deferred income tax assets, net .....	12,154	15,625
Other assets .....	7,377	8,480
<b>TOTAL ASSETS</b> .....	<b>\$ 156,244</b>	<b>\$ 146,864</b>
<b>LIABILITIES AND EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Loans payable .....	\$ 921	\$ —
Current portion of notes payable .....	116	923
Trade accounts payable .....	24,387	18,508
Accrued expenses .....	26,116	25,242
Contract liability .....	13,426	1,137
Income taxes payable .....	1,591	1,463
Due to IDT Corporation .....	381	234
Short-term revolving line of credit .....	2,514	—
Other current liabilities .....	2,704	3,279
<b>TOTAL CURRENT LIABILITIES</b> .....	<b>72,156</b>	<b>50,786</b>
Long-term notes payable .....	777	—
Long-term revolving line of credit .....	—	2,516
Other liabilities .....	2,381	900
<b>TOTAL LIABILITIES</b> .....	<b>75,314</b>	<b>54,202</b>
Commitments and contingencies (Note 15 and Note 16)		
<b>EQUITY:</b>		
Genie Energy Ltd. stockholders' equity:		
Preferred stock, \$0.01 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, 2019 and 2018 .....	19,743	19,743
Class A common stock, \$0.01 par value; authorized shares – 35,000; 1,574 shares issued and outstanding at December 31, 2019 and 2018 .....	16	16
Class B common stock, \$0.01 par value; authorized shares – 200,000; 25,785 and 25,544 shares issued and 24,755 and 25,294 shares outstanding at December 31, 2019 and 2018, respectively .....	258	255
Additional paid-in capital .....	139,615	136,629
Treasury stock, at cost, consisting of 1,030 and 250 shares of Class B common at December 31, 2019 and 2018, respectively .....	(7,675)	(1,624)
Accumulated other comprehensive income .....	2,519	2,591
Accumulated deficit .....	(59,671)	(53,939)
Total Genie Energy Ltd. stockholders' equity .....	<b>94,805</b>	<b>103,671</b>
Noncontrolling interests:		
Noncontrolling interests .....	(13,875)	(11,009)
<b>TOTAL EQUITY</b> .....	<b>80,930</b>	<b>92,662</b>
<b>TOTAL LIABILITIES AND EQUITY</b> .....	<b>\$ 156,244</b>	<b>\$ 146,864</b>

See accompanying notes to consolidated financial statements.

**GENIE ENERGY LTD.**

**CONSOLIDATED STATEMENTS OF OPERATIONS**

(in thousands, except per share data)	Year ended December 31,	
	2019	2018
<b>REVENUES:</b>		
Electricity . . . . .	\$ 263,091	\$ 227,883
Natural gas . . . . .	39,926	46,560
Other . . . . .	12,274	5,866
Total revenues . . . . .	<u>315,291</u>	<u>280,309</u>
Cost of revenues . . . . .	<u>232,392</u>	<u>203,762</u>
<b>GROSS PROFIT</b> . . . . .	<b>82,899</b>	<b>76,547</b>
<b>OPERATING EXPENSES AND LOSSES:</b>		
Selling, general and administrative <sup>(i)</sup> . . . . .	72,467	61,544
Exploration . . . . .	—	244
Research and development expense . . . . .	207	39
Impairment of assets . . . . .	400	2,742
Income from operations . . . . .	<u>9,825</u>	<u>11,978</u>
Interest income . . . . .	448	557
Interest expense . . . . .	(530)	(401)
Equity in the net loss in equity method investees . . . . .	(4,830)	(3,430)
Gain on extinguishment of liability . . . . .	—	164
Other income, net . . . . .	1,066	156
Income before income taxes . . . . .	<u>5,979</u>	<u>9,024</u>
(Provision for) benefit from income taxes . . . . .	(4,600)	12,376
<b>NET INCOME</b> . . . . .	<b>1,379</b>	<b>21,400</b>
Net loss attributable to noncontrolling interests . . . . .	2,796	1,385
<b>NET INCOME ATTRIBUTABLE TO GENIE ENERGY LTD.</b> . . . . .	<b>4,175</b>	<b>22,785</b>
Dividends on preferred stock . . . . .	(1,481)	(1,481)
<b>NET INCOME ATTRIBUTABLE TO GENIE ENERGY LTD. COMMON STOCKHOLDERS</b> . . . . .	<b>\$ 2,694</b>	<b>\$ 21,304</b>
Earnings per share attributed to Genie Energy Ltd. common stockholder		
Basic . . . . .	<u>\$ 0.10</u>	<u>\$ 0.85</u>
Diluted . . . . .	<u>\$ 0.10</u>	<u>\$ 0.83</u>
Weighted-average number of shares used in calculation of earnings per share		
Basic . . . . .	<u>26,607</u>	<u>25,154</u>
Diluted . . . . .	<u>27,464</u>	<u>25,695</u>
Dividends declared per common share . . . . .	<u>\$ 0.30</u>	<u>\$ 0.30</u>
(i) Stock-based compensation included in selling, general and administrative expenses . . . . .	<u>\$ 1,102</u>	<u>\$ 4,523</u>

See accompanying notes to consolidated financial statements.

**GENIE ENERGY LTD.**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**

<b>(in thousands)</b>	<b>Year ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
<b>NET INCOME</b> .....	<b>\$ 1,379</b>	<b>\$ 21,400</b>
<b>Other comprehensive income:</b>		
Foreign currency translation adjustments .....	(519)	3
<b>COMPREHENSIVE INCOME</b> .....	<b>860</b>	<b>21,403</b>
Comprehensive loss attributable to noncontrolling interests .....	<b>3,243</b>	<b>930</b>
<b>COMPREHENSIVE INCOME ATTRIBUTABLE TO GENIE ENERGY LTD.</b> .....	<b>\$ 4,103</b>	<b>\$ 22,333</b>

See accompanying notes to consolidated financial statements.

**GENIE ENERGY LTD.**

**CONSOLIDATED STATEMENTS OF EQUITY (in thousands)**

	Genie Energy Ltd. Stockholders											
	Preferred Stock		Class A Common Stock		Class B Common Stock		Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Income	Accumulated Deficit	Noncontrolling Interests	Total Equity
			Shares	Amount	Shares	Amount						
BALANCE AT DECEMBER 31, 2017	2,322	\$ 19,743	1,574	\$ 16	23,601	\$ 236	\$ 130,870	\$ (2,428)	\$ 3,045	\$ (67,469)	\$ (16,885)	\$ 67,128
Dividends on preferred stock	—	—	—	—	—	—	—	—	—	(1,481)	—	(1,481)
Dividends on common stock (\$0.30 per share)	—	—	—	—	—	—	—	—	—	(7,774)	—	(7,774)
Restricted Class B common stock purchased from employees	—	—	—	—	—	—	—	(889)	—	—	—	(889)
Stock-based compensation	—	—	—	—	439	4	3,721	—	—	—	—	3,725
Sale of class B common stock and warrants	—	—	—	—	1,152	12	4,295	1,693	—	—	—	6,000
Purchases of equity of subsidiary	—	—	—	—	42	—	(4,140)	—	—	—	4,140	—
Class B common stock issued for GRE deferred stock units	—	—	—	—	310	3	1,883	—	—	—	—	1,886
Non controlling interest from acquisition of prism	—	—	—	—	—	—	—	—	—	—	2,667	2,667
Other comprehensive loss	—	—	—	—	—	—	—	—	(454)	—	454	—
Net income for the year ended December 31, 2018	—	—	—	—	—	—	—	—	—	22,785	(1,385)	21,400
<b>BALANCE AT DECEMBER 31, 2018</b>	<b>2,322</b>	<b>19,743</b>	<b>1,574</b>	<b>16</b>	<b>25,544</b>	<b>255</b>	<b>136,629</b>	<b>(1,624)</b>	<b>2,591</b>	<b>(53,939)</b>	<b>(11,009)</b>	<b>92,662</b>
Adoption of ASU 2018-07	—	—	—	—	—	—	312	—	—	(312)	—	—
Dividends on preferred stock	—	—	—	—	—	—	—	—	—	(1,481)	—	(1,481)
Dividends on common stock (\$0.30 per share)	—	—	—	—	—	—	—	—	—	(8,114)	—	(8,114)
Purchase of Lumo	—	—	—	—	—	—	—	—	—	—	410	410
Restricted Class B common stock purchased from employees	—	—	—	—	—	—	—	(467)	—	—	—	(467)
Stock-based compensation	—	—	—	—	36	1	1,102	—	—	—	—	1,103
Options issued to Howard S. Jonas	—	—	—	—	—	—	325	—	—	—	—	325
Exercise of stock options	—	—	—	—	205	2	1,405	—	—	—	—	1,407
Repurchase of Class B common stock from stock repurchase program	—	—	—	—	—	—	—	(5,584)	—	—	—	(5,584)
Purchase of equity of subsidiary	—	—	—	—	—	—	(158)	—	—	—	(33)	(191)
Other comprehensive loss	—	—	—	—	—	—	—	—	(72)	—	(447)	(519)
Net income for the year ended December 31, 2019	—	—	—	—	—	—	—	—	—	4,175	(2,796)	1,379
<b>BALANCE AT DECEMBER 31, 2019</b>	<b>2,322</b>	<b>\$ 19,743</b>	<b>1,574</b>	<b>\$ 16</b>	<b>25,785</b>	<b>\$ 258</b>	<b>\$ 139,615</b>	<b>\$ (7,675)</b>	<b>\$ 2,519</b>	<b>\$ (59,671)</b>	<b>\$ (13,875)</b>	<b>\$ 80,930</b>

See accompanying notes to consolidated financial statements.

**GENIE ENERGY LTD.**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

(in thousands)	Year ended December 31,	
	2019	2018
<b>OPERATING ACTIVITIES</b>		
Net income	\$ 1,379	\$ 21,400
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	3,627	2,062
Deferred income taxes	3,471	(13,483)
Provision for doubtful accounts receivable	658	904
Stock-based compensation	1,102	4,523
Gain on sale disposal of property and equipment	—	(18)
Gain on extinguishment of liability	—	(164)
Impairment of goodwill	400	—
Impairment of assets	—	2,742
Equity in the net loss of equity method investees	4,830	3,430
Change in assets and liabilities, net of effect of acquisition:		
Trade accounts receivable	(12,041)	7,817
Inventory	(6,739)	(4,764)
Prepaid expenses	(124)	219
Other current assets and other assets	1,137	2,726
Trade accounts payable, accrued expenses and other current liabilities	5,506	(7,846)
Contract liability	12,271	547
Due to IDT Corporation	147	20
Income taxes payable	128	(741)
Net cash provided by operating activities	15,752	19,374
<b>INVESTING ACTIVITIES</b>		
Capital expenditures	(404)	(584)
Investments in notes receivable	(214)	—
Proceeds from disposal of property	—	62
Payment for acquisition of license in Japan	—	(745)
Cash transferred to Atid 613	—	(209)
Payment for acquisition, net of cash acquired	(2,044)	(250)
Repayment of notes receivable	124	94
Investments in equity method investees	(3,235)	(1,306)
Net cash used in investing activities	(5,773)	(2,938)
<b>FINANCING ACTIVITIES</b>		
Dividends paid	(9,595)	(9,256)
Purchases of Class B common stock	(5,584)	—
Repayment of short-term debt – Lumo Energia	(2,260)	—
Repayment of notes payable	(45)	(10)
Proceeds from exercise of stock options	1,407	—
Proceeds from sales of Class B common stock and warrants	—	6,000
Proceeds from loan	921	—
Repurchases of Class B common stock from employees	(467)	(889)
Net cash used in financing activities	(15,623)	(4,155)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	1	(11)
Net (decrease) increase in cash, cash equivalents and restricted cash	(5,643)	12,270
Cash, cash equivalents and restricted cash at beginning of year	44,197	31,927
<b>Cash, cash equivalents and restricted cash at end of year</b>	<b>\$ 38,554</b>	<b>\$ 44,197</b>
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION</b>		
Cash payments made for interest	\$ 529	\$ 400
Cash payments made for income taxes	\$ 702	\$ 1,771
<b>SUPPLEMENTAL SCHEDULE OF NON-CASH FINANCING AND INVESTING ACTIVITIES</b>		
Class B common stock issued for GRE deferred stock units	\$ —	\$ 1,886
Purchase of equity of subsidiary (Note 12)	\$ —	\$ (4,140)
Carrying value of assets contributed to Atid 613 (Note 2)	\$ —	\$ 1,000

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 Genie Energy International Corporation (“GEIC”), which owns 100% of Genie Retail Energy (“GRE”), 100% of Genie Energy International LLC (“GRE International” or “GREI”), 100% of Genie Energy Services (“GES”), and 97.0% of Genie Oil and Gas, Inc. (“GOGAS”). The “Company” in these financial statements refers to Genie, GRE, GRE International, GES and GOGAS, and their respective subsidiaries, on a consolidated basis.

GRE, owns and operates retail energy providers (“REPs”), including IDT Energy, Inc. (“IDT Energy”), Residents Energy, LLC (“Residents Energy”), Town Square Energy, LLC and Town Square Energy East, LLC (collectively, “TSE”), Southern Federal Power, LLC (“Southern Power”) and Mirabito Natural Gas (“Mirabito”). GRE’s REP businesses resell electricity and natural gas primarily to residential and small business customers in the Eastern and Midwestern United States.

GRE International holds the Company’s 73.0% interest in its joint venture that serves retail customers in the United Kingdom (“U.K.”) under the name Orbit Energy, and its wholly-owned venture in Japan, which recently launched commercial operations. In January 2019, the Company acquired an 80.0% controlling interest in Lumo Energia Oyj (“Lumo”), a REP serving residential customers in Finland (see Note 2). In November 2019, the Company increased its interest in Lumo to 89.0%.

GES oversees Diversegy LLC (“Diversegy”), a retail energy advisory and brokerage company that serves commercial and industrial customers throughout the United States (“U.S.”) and manages GRE’s 60.0% interest in Prism Solar Technology, Inc. (“Prism”) (see Note 2), a solar solutions company that is engaged in U.S. based manufacturing of solar panels, solar installation design and solar energy project management.

GOGAS is an oil and gas exploration company and owns an interest in a contracted drilling services operation. GOGAS holds an 86.1% interest in Afek Oil and Gas, Ltd. (“Afek”), an inactive oil and gas exploration project in the Golan Heights in Northern Israel, and controlling interests in inactive oil and gas projects. GOGAS also holds a 37.5% interest in a contracting drilling services company in Israel (“Atid 613”) (see Note 2).

##### *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. Unseasonal temperatures in other periods may also impact demand levels. 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 46.9% and 50.3% of GRE’s natural gas revenues for the relevant years were generated in the first quarters of 2019 and 2018, 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 31.8% and 29.5% of GRE’s electricity revenues for the relevant years were generated in the third quarters of 2019 and 2018, respectively. GRE’s REPs’ revenues and operating income are subject to material seasonal variations, and the interim financial results are not necessarily indicative of the estimated financial results for the full year.

##### *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



## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### **Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

subsidiaries and the variable interest entity in which the Company is the primary beneficiary (see Note 13). All significant intercompany accounts and transactions between the consolidated entities are eliminated. See Note 2, *Acquisitions and Divestment*, for details of the new subsidiaries included in the consolidation.

#### ***Equity Method 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 periodically evaluates its equity method investments 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 is recorded, and a new basis in the investment is established.

#### ***Use of Estimates***

The preparation of consolidated 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. Significant estimates affecting amounts reported or disclosed in the consolidated financial statements include revenues, accounts receivables, allowances for doubtful accounts receivable, net realizable value of inventories, valuation of intangible assets, depreciation and amortization periods for long-lived assets, valuation allowances recorded against deferred tax assets, the valuation of stock-based compensation, valuation of derivative instruments, valuation of debt instruments and loss contingencies. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the current circumstances. Actual results may differ from those estimates.

#### ***Revenue Recognition***

##### *Revenues from the Sale of Electricity and Natural Gas*

Revenue from the single performance obligation to deliver a unit of electricity and/or natural gas is recognized as the customer simultaneously receives and consumes the benefit. Variable quantities in requirements contracts are considered to be options for additional goods and services because the customer has a current contractual right to choose the amount of additional distinct goods. The Company records unbilled revenues for the estimated amount customers will be billed for services rendered from the time meters were last read to the end of the respective accounting period. The unbilled revenue is estimated each month based on available per day usage data, the number of unbilled days in the period adjusted for seasonality-based cooling and heating degree-days and historical trends.

Utility companies offer purchase of receivable, or POR, programs in most of the service territories in which the Company operates, and GRE’s REPs participate in POR programs for a majority of their receivables. The Company estimates variable consideration related to its rebate programs using the expected value method and a portfolio approach. The Company’s estimates related to rebate programs are based on the terms of the rebate program, the customer’s historical electricity and natural gas consumption, the customer’s rate plan, and a churn factor. Taxes that are imposed on the Company’s sales and collected from customers are excluded from the transaction price.

The Company recognizes the incremental costs of obtaining a contract with a customer as an asset if it expects the benefit of those costs to be longer than one year. The Company determined that certain sales commissions to acquire customers meet the requirements to be capitalized. For GRE, the Company applies a practical expedient to expense costs as incurred for sales commissions to acquire customers as the period would have been one year or less. Incremental customer acquisition cost of Lumo are capitalized and amortized over eighteen months. These costs and the related amortization are recorded within sales and marketing expenses. Total capitalized customer acquisition costs to obtain a contract was \$0.8 million for the year ended December 31, 2019. At December 31, 2019, customer acquisition costs of \$0.6 million and \$0.1 million were included in other current assets and other assets, respectively, on the consolidated balance sheet. The Company continuously monitors its customer relationship periods to ensure compliance with the application of the standard.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

*Revenues from Sale of Solar Panels*

The revenue from sales of solar panels are recognized at a point in time following the transfer of control of the solar panels to the customer, which typically occurs upon shipment or delivery depending on the terms of the underlying contracts. For sales contracts that contain multiple performance obligations, such as the shipment or delivery of solar panels, we allocate the transaction price to each performance obligation identified in the contract based on relative standalone selling prices, or estimates of such prices, and recognize the related revenue as control of each individual product is transferred to the customer, in satisfaction of the corresponding performance obligations.

Revenues from sales of solar panels are included under the Other Revenues in the consolidated statements of income.

The following table shows the Company's revenues disaggregated by pricing plans offered to customers:

	<u>Electricity</u>	<u>Natural Gas</u>	<u>Other</u>	<u>Total</u>
	(in thousands)			
<b>For the year ended December 31, 2019</b>				
Fixed rate . . . . .	\$ 108,523	\$ 4,001	\$ —	\$ 112,524
Variable rate . . . . .	154,568	35,925	—	190,493
Other . . . . .	—	—	12,274	12,274
Total . . . . .	<u>\$ 263,091</u>	<u>\$ 39,926</u>	<u>\$ 12,274</u>	<u>\$ 315,291</u>
<b>For the year ended December 31, 2018</b>				
Fixed rate . . . . .	\$ 77,383	\$ 2,781	\$ —	\$ 80,164
Variable rate . . . . .	150,500	43,779	—	194,279
Other . . . . .	—	—	5,866	5,866
Total . . . . .	<u>\$ 227,883</u>	<u>\$ 46,560</u>	<u>\$ 5,866</u>	<u>\$ 280,309</u>

The following table shows the Company's revenues disaggregated by non-commercial and commercial channels:

	<u>Electricity</u>	<u>Natural Gas</u>	<u>Other</u>	<u>Total</u>
	(in thousands)			
<b>For the year ended December 31, 2019</b>				
Non-Commercial Channel . . . . .	\$ 232,511	\$ 33,979	\$ —	\$ 266,490
Commercial Channel . . . . .	30,580	5,947	—	36,527
Other . . . . .	—	—	12,274	12,274
Total . . . . .	<u>\$ 263,091</u>	<u>\$ 39,926</u>	<u>\$ 12,274</u>	<u>\$ 315,291</u>
<b>For the year ended December 31, 2018</b>				
Non-Commercial Channel . . . . .	\$ 217,019	\$ 43,383	\$ —	\$ 260,402
Commercial Channel . . . . .	10,864	3,177	—	14,041
Other . . . . .	—	—	5,866	5,866
Total . . . . .	<u>\$ 227,883</u>	<u>\$ 46,560</u>	<u>\$ 5,866</u>	<u>\$ 280,309</u>

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

***Contract Liabilities***

Certain revenue contracts in GES includes provisions that require advance payment from customers. These advance payments received under revenue contracts are recognized as revenue as the Company satisfies the performance obligations to the other party. A portion of the transaction price allocated to the performance obligations to be satisfied in the future periods is recognized as contract liability.

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
	<b>(in thousands)</b>	
Contract liability, beginning . . . . .	\$ 1,137	\$ 205
Recognition of revenue included in the beginning of year contract liability . .	<b>(635)</b>	(205)
Additions during the period, net of revenue recognized during the period. . .	<b>12,924</b>	1,137
Contract liability, end . . . . .	<b>\$ 13,426</b>	<b>\$ 1,137</b>

The increase in contract liabilities primarily related to a significant advance payment by a customer to purchase solar panels, which the Company expects to deliver in 2020.

***Oil and Gas Exploration***

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.

***Cash, Cash Equivalents and Restricted Cash***

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

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported in the consolidated balance sheet that equals the total of the same amounts reported in the consolidated statement of cash flows:

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
	<b>(in thousands)</b>	
Cash and cash equivalents. . . . .	\$ 31,242	\$ 41,601
Restricted cash – short-term included in other current assets. . . . .	<b>6,792</b>	1,653
Restricted cash – long-term . . . . .	<b>520</b>	943
Total cash, cash equivalents, and restricted cash . . . . .	<b>\$ 38,554</b>	<b>\$ 44,197</b>

Restricted cash — short-term includes amounts set aside in accordance with the Amended and Restated Preferred Supplier Agreement with BP Energy Company (“BP”) (see Note 16) and Credit Agreement with JPMorgan Chase (see Note 9). Restricted cash — long-term includes Afek’s security deposits for its exploration license from the Government of Israel, and its customs and other import duties for the import of exploration equipment.

***Trade Accounts Receivable, Net***

Trade accounts receivable, net is reported in the balance sheet as gross outstanding amounts adjusted for doubtful accounts.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

***Inventories***

Inventory consists of natural gas, renewable energy credits and solar panels.

*Natural Gas*

Natural gas inventory is stored at various third parties' underground storage facilities and is stated at lower of cost or net realizable value. Company's natural gas inventory was valued at weighted average cost, which was based on the purchase price of the natural gas and the cost to transport, plus or minus injections or withdrawals.

*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 the lower of cost and net realizable value. Gains and losses from the sale of renewable energy credits are recognized in cost of revenues when the credits are transferred to the buyer.

*Solar Panels*

Inventories related to solar panels are stated at the lower of cost or net realizable value. The cost is determined using the first-in, first-out basis and includes both the costs of acquisition and the costs of manufacturing. These costs include direct material, direct labor, and indirect manufacturing costs.

The Company regularly reviews the cost of inventories against their estimated net realizable value and records write-downs if any inventories have costs in excess of their net realizable values. The Company also regularly evaluates the quantities and values of inventories, in light of current market conditions and trends among other factors and records write-downs for any quantities in excess of demand or for any obsolescence. This evaluation considers the use of modules in the systems business, expected demand, anticipated sales prices, strategic raw material requirements, new product development schedules, the effect new products might have on the sale of existing products, product obsolescence, product merchantability, and other factors. Market conditions are subject to change, and actual consumption of our inventory could differ from forecasted demand.

Inventories consisted of the following:

	December 31,	
	2019	2018
	(in thousands)	
Natural gas . . . . .	\$ 1,052	\$ 1,116
Renewable credits . . . . .	14,940	8,654
Solar Panels:		
Finished goods . . . . .	424	40
Raw materials . . . . .	216	83
Total solar panels inventory . . . . .	640	123
Totals . . . . .	\$ 16,632	\$ 9,893

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)

##### *Long-lived Assets*

Property, plant and equipment — net is stated at historical cost less accumulated depreciation and any impairment. The Company provides for depreciation using a straight-line method over estimated useful life of the assets. Any leasehold improvements are amortized over the lesser of the lease term or the useful life. The cost of major additions and improvements are capitalized, while maintenance and repair costs that do not improve or extend the lives of the respective assets are charged to operations as incurred.

The estimated useful life of property plant and equipment as follows:

	<u>Years</u>
Building and improvements	4 – 27
Machinery and equipment	2 – 9
Computer software and development	2 – 5
Computers and computer hardware	2 – 5
Office equipment and other	5 – 7

The fair value of patents and trademarks, non-compete agreements and customer relationships acquired in a business combination accounted for under the purchase method are amortized over their estimated useful lives as follows: patents and trademarks are amortized on a straight-line basis over 5 to 20-year period; non-compete agreements are amortized on a straight-line basis over 2 to 3-year term; and customer relationships are amortized ratably over the 2 or 9 year period.

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 excess of carrying value over fair value of the assets. 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.

##### *Acquisitions*

Results of operations of acquired companies are included in the Company's results of operations as of the respective acquisition dates. The purchase price of each acquisition is allocated to the net assets acquired based on estimates of their fair values at the date of the acquisition. Any purchase price in excess of these net assets is recorded as goodwill. The allocation of purchase price in certain cases may be subject to revision based on the final determination of fair values during the measurement period, which may be up to one year from the acquisition date.

##### *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.

In the first quarter of 2019 the Company revised its reportable segments in connection with the acquisition of Lumo and continuous expansion of activities in Japan and the U.K. Specifically, the Company now treats GRE International as a separate reportable segment which includes overseas retail energy supply businesses, currently consisting of interests in Lumo, Genie Japan and the Company's share of operations of Shoreditch. There are no

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### **Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

other changes in other reportable segments. The change in reportable segments did not result in the reallocation of the Company's existing goodwill. Segment information from the prior year's financial statements have been reclassified in order to conform to the current year's presentation (see Note 18).

The Company has four reportable segments with five underlying reporting units: GRE, GRE International, Prism and Diversegy, which are in the GES segment, and GOGAS.

The fair value of the reporting unit is estimated using discounted cash flow methodologies, as well as considering third party market value indicators. Calculating the fair value of the reporting units 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 performed its annual goodwill impairment test as of October 1, 2019. In reviewing goodwill for impairment, the Company has the option, for any or all of its reporting units that carry goodwill — to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not (i.e. greater than 50%) that the estimated fair value of a reporting unit is less than its carrying amount. If the Company elects to perform a qualitative assessment and determines that an impairment is more likely than not, the Company is then required to perform the quantitative impairment test, otherwise no further analysis is required. The Company also may elect not to perform the qualitative assessment and, instead, proceed directly to quantitative impairment test. The ultimate outcome of the goodwill impairment review for a reporting unit should be the same whether the Company chooses to perform the qualitative assessment or proceeds directly to the quantitative impairment test.

The determination of the fair value of our reporting units is based on an income approach, that utilizes discounted cash flows for each reporting unit and other Level 3 inputs as specified in the fair value hierarchy in ASC Topic 820, *Fair Value Measurements and Disclosure*. Under the income approach, we determine fair value based on the present value of the most recent cash flow projections for the reporting unit as of the date of the analysis and calculate a terminal value utilizing a terminal growth rate. The significant assumptions under this approach include, among others: income projections, which are dependent on future sales, new customers, customer behavior, competitor pricing, operating expenses, the discount rate, and the terminal growth rate. The cash flows used to determine fair value are dependent on a number of significant management assumptions such as the expectations of future performance and the expected future economic environment, which are partly based upon our historical experience. The estimates are subject to change given the inherent uncertainty in predicting future results. Additionally, the discount rate and the terminal growth rate are based on judgment of the rates that would be utilized by a hypothetical market participant.

#### ***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 and GRE International 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 "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 (cont.)**

In addition to the above, GRE and GRE International utilize 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 and GRE International apply the normal purchase and normal sale accounting treatment to its forward physical delivery contracts, thereby these contracts are not adjusted to fair value. GRE and GRE International also apply the normal purchase and normal sale accounting treatment to forward contracts for the physical delivery of electricity in nodal energy markets that result in locational marginal pricing charges or credits, since this does not constitute a net settlement, even when legal title to the electricity is conveyed to the ISO during transmission. Accordingly, GRE and GRE International recognize revenue from customer sales, and the related cost of revenues, at the contracted price, as electricity and natural gas is delivered to retail customers.

#### ***Shipping and Handling Fees and Costs***

Amounts billed to customers for shipping and handling are included in revenues. The related minimal amount of shipping and freight charges incurred by the Company are included in cost of goods sold. Distribution and handling costs of \$0.3 million and \$0.1 million were recorded in selling, general and administrative expense during the years ended December 31, 2019 and 2018, respectively.

#### ***Foreign Currency***

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 is 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, 2019 and 2018, advertising expense included in selling, general and administrative expense was \$4.1 million and \$2.4 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.

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

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

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 and warrants using the treasury stock method, unless the effect of such increase is anti-dilutive.

The weighted-average number of shares used in the calculation of basic and diluted earnings per share attributable to the Company's common stockholders consists of the following:

	<b>Year ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
	<b>(in thousands)</b>	
Basic weighted-average number of shares . . . . .	\$ 26,607	\$ 25,154
Effect of dilutive securities		
Stock options and warrants . . . . .	718	130
Non-vested restricted Class B common stock . . . . .	139	411
Diluted weighted-average number of shares . . . . .	\$ 27,464	\$ 25,695

The following shares were excluded from the diluted earnings per share computations because they were anti-dilutive:

<b>(in thousands)</b>	<b>Year ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
Stock options . . . . .	126	341

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

***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. Compensation cost for awards is recognized using the straight-line method over the requisite service period, which approximates the vesting period. Stock-based compensation is included in selling, general and administrative expense. Forfeitures are recognized as incurred.

***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 and restricted cash 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's REPs reduce their customer credit risk by participating in purchase of receivable, or POR, programs for a majority of their receivables. In addition to providing billing and collection services, certain utility companies purchase those REPs' receivables and assume all credit risk without recourse to those REPs for those purchased receivables. GRE's REPs' primary credit risk with respect to those purchased receivables 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 during certain period, 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):

	<b>Year ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
Con Edison . . . . .	<b>na%</b>	11%

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

There was no single utility company accounted for 10% or greater of the Company's consolidated gross trade accounts receivable at December 31, 2019 or 2018.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)**

***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	Additions (deductions)	Balance at end of period
<b>Year ended December 31, 2019</b>				
Reserves deducted from accounts receivable:				
Allowance for doubtful accounts . . . . .	\$ 2,003	\$ 658	\$ (30)	\$ 2,631
<b>Year ended December 31, 2018</b>				
Reserves deducted from accounts receivable:				
Allowance for doubtful accounts . . . . .	\$ 1,099	\$ 904	\$ —	\$ 2,003

***Reclassifications***

Certain amounts from the prior year’s financial statements have been reclassified in order to conform to the current year’s presentation.

***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 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 May 2014, the Financial Accounting Standards Board (“FASB”) issued ASC 606. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that core principle, an entity should 1) identify the contract(s) with a customer, 2) identify the performance obligations in the contract, 3) determine the transaction price, 4) allocate the transaction price to the

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)

performance obligations in the contract, and 5) recognize revenue when (or as) the entity satisfies a performance obligation. This update became effective for all annual periods and interim reporting periods beginning after December 15, 2017. The Company adopted Topic 606 as of January 1, 2018 using the modified retrospective method. See discussion above under Revenue Recognition, for further details.

In January 2016, the FASB issued ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, 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 adopted the amendments in this ASU on January 1, 2018. This ASU did not have a significant impact on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, 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. Subsequent to the issuance of ASU 2016-02, in July 2018, the FASB issued Accounting Standards Update No. 2018-10, *Codification Improvements to Topic 842, Leases ("ASU 2018-10")* and Accounting Standards Update No. 2018-11, *Leases (Topic 842): Targeted Improvements ("ASU 2018-11")*. The amendments in ASU 2018-10 clarify, correct or remove inconsistencies in the guidance provided under ASU 2016-02 related to sixteen specific issues identified. The amendments in ASU 2018-11 provide entities with an additional (and optional) transition method to adopt the new leases standard. Under the new transition method, an entity initially applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Consequently, an entity's reporting for the comparative periods presented in the financial statements in the period of adoption will continue to be in accordance with ASC 840, *Leases ("ASC 840")*. An entity that elects this additional (and optional) transition method must provide the required disclosures under ASC 840 for all periods that continue to be in accordance with ASC 840. ASU 2018-11 also provides lessors with a practical expedient, by class of underlying asset, to not separate nonlease components from the associated lease component and, instead, to account for those components as a single component if certain criteria are met. The effective date and transition requirements for these two standards are the same as the effective date and transition requirements of ASU 2016-02. The standards were effective for the Company beginning after December 15, 2018.

The Company adopted Topic 842 as of January 1, 2019 using a modified retrospective transition method. The financial results reported in periods prior to January 1, 2019 are not adjusted. The Company also elected the package of practical expedients, which among other things, does not require reassessment of lease classification. As most of the Company's leases do not provide an implicit rate, we used our collateralized incremental borrowing rate based on the information available at the lease implementation date in determining the present value of the lease payments. At January 1, 2019, the Company recognized \$2.4 million of ROU assets related to the Company's operating leases. The ROU was included in other assets in the consolidated balance sheet. The Company also recognized \$0.4 million and \$2.0 million of current and noncurrent lease liabilities, included in other current liabilities and other liabilities in the consolidated balance sheets.

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)

In June 2016, the FASB issued ASU No. 2016-13, *Measurement of Credit Losses on Financial Instruments*, that changes the impairment model for most financial assets and certain other instruments. For receivables, loans and other instruments, entities will be required to use a new forward-looking “expected loss” model that generally will result in the earlier recognition of allowance for losses. For available-for-sale debt securities with unrealized losses, entities will measure credit losses in a manner similar to current practice, except the losses will be recognized as allowances instead of reductions in the amortized cost of the securities. In addition, an entity will have to disclose significantly more information about allowances, credit quality indicators and past due securities. The new provisions will be applied as a cumulative-effect adjustment to retained earnings. The Company will adopt the new standard on January 1, 2023. The Company is currently evaluating the requirements of this guidance and has not yet determined the impact of its adoption on the Company’s consolidated financial position, results of operations and cash flows.

In November 2016, the FASB issued ASU No. 2016-18, *Restricted Cash*, that includes specific guidance on the classification and presentation of changes in restricted cash and cash equivalents in the statement of cash flows. The amendments in this ASU require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Amounts generally described as restricted cash or restricted cash equivalents will be included with cash and cash equivalents when reconciling the beginning of the period and end of the period total amounts shown on the statement of cash flows. The ASU will be applied using a retrospective transition method to each period presented. The Company adopted the amendments in this ASU on January 1, 2018. Certain amounts from the prior year’s statements of cash flows have been reclassified in order to conform to the 2018 presentation. The adoption did not have a material impact on the Company’s consolidated balance sheets and results of operations.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations*, to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. Under the current guidance, there are three elements of a business — inputs, processes, and outputs. While an integrated set of assets and activities (collectively referred to as a “set”) that is a business usually has outputs, outputs are not required to be present. In addition, all the inputs and processes that a seller uses in operating a set are not required if market participants can acquire the set and continue to produce outputs, for example, by integrating the acquired set with their own inputs and processes. The amendments in this ASU provide a screen to determine when a set is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This screen reduces the number of transactions that need to be further evaluated. If the screen is not met, the amendments in this ASU (1) require that to be considered a business, a set must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output and (2) remove the evaluation of whether a market participant could replace missing elements. The amendments provide a framework to assist entities in evaluating whether both an input and a substantive process are present. The framework includes two sets of criteria to consider that depend on whether a set has outputs. Although outputs are not required for a set to be a business, outputs generally are a key element of a business; therefore, the FASB has developed more stringent criteria for sets without outputs. Lastly, the ASU narrows the definition of the term output. The new standard will be effective for all annual periods beginning after December 15, 2017. Early adoption was permitted. The Company adopted ASU 2017-01 effective January 1, 2018. The Company accounted for the Smile Energy G.K. (“Smile Energy”) acquisition as an asset acquisition (see Note 2, *Acquisitions and Divestitures*). The adoption did not have a material impact on the Company’s consolidated balance sheets, results of operations and cash flows, other than the impact discussed above.

In June 2018, the FASB issued ASU No. 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting*, to simplify several aspects of the accounting for nonemployee share-based payment transactions by expanding the scope of Topic 718, Compensation — Stock Compensation, to include share-based payment transactions for acquiring goods and services from nonemployees. An entity should apply the requirements of Topic 718 to nonemployee awards except for specific guidance on inputs to an option pricing model and the attribution of cost (that is, the period of time



## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 1 — Description of Business and Summary of Significant Accounting Policies (cont.)

over which share-based payment awards vest and the pattern of cost recognition over that period). The amendments specify that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards. The amendments also clarify that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under Topic 606, Revenue from Contracts with Customers. The Company adopted this ASU on January 1, 2019. The Company recorded additional \$0.3 million to accumulated deficit on January 1, 2019. There was no impact on the consolidated statements of operations and consolidated statements of cash flows.

In August 2018, the FASB issued ASU No. 2018-13, *Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement*, that eliminates certain disclosure requirements for fair value measurements for all entities, requires public entities to disclose certain new information and modifies some disclosure requirements. The amendments in this ASU are effective for the Company on January 1, 2020. Early application is permitted. The guidance on changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 measurements, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively. All other amendments should be applied retrospectively. The Company does not expect the adoption of the ASU to have a significant impact on the consolidated financial statements.

In November 2018, the FASB issued ASU No. 2018-17, *Targeted Improvements to Related Party Guidance for Variable Interest Entities*, that changes how entities apply the variable interest entity ("VIE") guidance evaluate decision-making fees. The ASU provides guidance on whether these fees represent a variable interest, an entity considers indirect interests held through related parties under common control on a proportionate basis rather than in their entirety. When evaluating whether decision-making fees are a variable interest, indirect interest will be evaluated in a similar manner to how they are considered when identifying the primary beneficiary of a VIE. The new guidance in this ASU are effective for the Company on January 1, 2020. Early adoption was permitted. The Company does not expect the adoption of the ASU to have a significant on the consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*. The ASU eliminates certain exceptions and adds guidance to reduce complexity in accounting for income taxes. Specifically, this guidance: (1) removes the intraperiod tax allocation exception to the incremental approach; (2) removes the ownership changes in investments exception in determining when a deferred tax liability is recognized after an investor in a foreign entity transitions to or from the equity method of accounting and applies this provision on a modified retrospective basis through a cumulative-effect adjustment to retained earnings at the beginning of the period of adoption; and (3) removes the exception to using the general methodology for calculating income taxes in an interim period when a year-to-date loss exceeds the anticipated loss for the year. The ASU also simplifies accounting principles by making other changes, including requiring an entity to: (1) evaluate whether a step-up in tax basis of goodwill relates to a business combination or a separate transaction; (2) make a policy election to not allocate consolidated income taxes when a member of a consolidated tax return is not subject to income tax and to apply this provision retrospectively to all periods presented; and (3) recognize a franchise tax (or similar tax) that is partially based on income as an income-based tax and apply this provision either retrospectively for all periods presented or on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. The provisions of this guidance (except as specifically mentioned above) are to be applied prospectively upon their effective date. The ASU is effective for annual reporting periods beginning after December 15, 2020, and interim periods within those years. Early adoption is permitted but requires simultaneous adoption of all provisions of this guidance. The Company is currently evaluating the requirements of this guidance and has not yet determined the impact of its adoption on the Company's consolidated financial position, results of operations and cash flows.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 — Acquisitions and Divestiture**

*Acquisition of Lumo Energia, Oyj*

On January 2, 2019 (the “Lumo Closing Date”), the Company completed the purchase of an 80.0% controlling interest in Lumo Energia Oyj (“Lumo”), a Finnish public limited company. The Company paid the sellers a total of €1.6 million (equivalent to \$1.9 million at closing). The Company contributed €1.3 million (equivalent to \$1.5 million at closing) as a capital loan to fund Lumo’s working capital requirements. The Company also provided Lumo with a secured loan for €2.0 million (equivalent to \$2.3 million at closing) to pay off and replace Lumo’s remaining debt. The secured loan matures in 4 years and bears interest at annual rate of 4.0%, payable monthly. The Company also issued 176,104 shares of its class B common stock to certain of the sellers which are subject to restrictions (the “Lumo Restricted Shares”). The Lumo Restricted Shares are subject to vesting conditions related to employment and services to be provided by the recipients of up to two years following the Lumo Closing Date. The Lumo Restricted Shares are accounted for as a share-based compensation and is amortized to the consolidated statement of income over the vesting period of two years.

Of the remaining 20.0% noncontrolling interest retained by the sellers, 12.5% is subject to restrictions, which will lapse over a period of up to three years following the Lumo Closing Date, subject to employment and service conditions.

The Company has a conditional continuing call option to purchase a portion or the entire noncontrolling interest from the sellers during the period beginning at the third anniversary of the Lumo Closing Date and ending three years later.

The sellers, as a group, have a one-time option to sell a portion or all of their noncontrolling interest to the Company, which subject to certain conditions, may be exercised on one occasion only, at any time during the two-year period beginning at the fourth anniversary of the Lumo Closing Date.

The Company recorded revenue for Lumo of approximately \$15.2 million in its consolidated statements of operations and comprehensive income for the year ended December 31, 2019. The net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it is in the process of being integrated into the Company’s operations.

The impact of the acquisition’s purchase price allocations on the Company’s consolidated balance sheet and the acquisition date fair value of the total consideration transferred were as follows:

<b>(in thousands)</b>	
Cash . . . . .	\$ 1,539
Trade accounts receivable . . . . .	2,520
Other current assets . . . . .	411
Intangible assets:	
Trademark (5-year useful life) . . . . .	294
Non-compete agreements (3-year useful life) . . . . .	34
Customer relationship (2-year useful life) . . . . .	1,924
Goodwill . . . . .	1,744
Other assets . . . . .	95
Accounts payable and other current liabilities . . . . .	(2,403)
Short-term debts . . . . .	(2,260)
Other liabilities . . . . .	(97)
Noncontrolling interest . . . . .	(410)
<b>Net assets</b> . . . . .	<u>\$ 3,391</u>

GENIE ENERGY LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 2 — Acquisitions and Divestiture (cont.)

(in thousands)

Supplemental information

Cash paid to Sellers. . . . .	\$	1,869
Cash contributed to Lumo. . . . .		1,522
Total consideration . . . . .	\$	<u>3,391</u>

Goodwill was allocated to the GRE International segment. Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected revenue and cost synergies of the combined company and assembled workforce. Goodwill recognized as a result of the acquisition is not deductible for income tax purposes.

During the fourth quarter of 2019, the Company obtained information relevant to determining the fair value of minority interest related to the acquisition of Lumo and adjusted its' purchase price allocation. Based on this information, the Company reduced the allocation of the purchase price in noncontrolling interest by \$0.5 million with corresponding adjustments to goodwill and intangible assets.

In November 2019, the Company acquired additional 9.0% interest in Lumo increasing the aggregate ownership to 89.0% for \$0.2 million.

*Acquisition of Prism*

Prism is a solar solutions company that is engaged in U.S.-based panel manufacturing, installation design and project management. Prism's solar panels feature high efficiency N-type silicon solar cells designed into bifacial solar modules which result in systems with a reduction in the average cost per kilowatt hour, while their glass-on-glass design increases the durability and lifetime value of Prism's panels.

Between August and October 2018, the Company extended an aggregate of \$1.3 million bridge loans to Prism. The bridge loans, which were secured by a subordinated security interest in Prism's assets as well as a second mortgage and assignment of rents on Prism's plant and facility, bore fixed annual interest rate of 12.0%.

On October 25, 2018, the Company acquired a 60.0% controlling interest in Prism in exchange for a total consideration of \$4.0 million, which included (i) the conversion of \$1.4 million of principal amount of bridge loans, including accrued interest, into equity of Prism, (ii) a \$1.1 million cash contribution to Prism, and (iii) an obligation to fund Prism an additional \$1.5 million within 60 days.

The Company recorded revenue for Prism of approximately \$10.1 million and \$3.3 million in its consolidated statements of operations and comprehensive income for year ended December 31, 2019 and 2018, respectively. The net income or loss attributable to this acquisition cannot be identified on a stand-alone basis because it is in the process of being integrated into the Company's operations.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 — Acquisitions and Divestiture (cont.)**

The impact of the acquisition's purchase price allocations on the Company's consolidated balance sheet and the acquisition date fair value of the total consideration transferred were as follows:

<b>(in thousands)</b>	
Cash . . . . .	\$ 931
Trade accounts receivable . . . . .	11
Inventories . . . . .	1,142
Other current assets . . . . .	260
Property plant and equipment (19-year weighted average useful life) . . . . .	3,564
Intangible assets:	
Trademark (10-year useful life) . . . . .	320
Patent (10-year useful life) . . . . .	370
Customer contract (3-year useful life) . . . . .	1,600
Goodwill . . . . .	804
Accounts payable accrued expenses . . . . .	(1,723)
Notes payable – current portion . . . . .	(63)
Other current liabilities . . . . .	(1,164)
Notes payable – net of current portion . . . . .	(885)
Noncontrolling interest . . . . .	(2,667)
<b>Net assets</b> . . . . .	<u>\$ 2,500</u>

<b>(in thousands)</b>	
<b>Supplemental information</b>	
Cash contributed to Prism . . . . .	\$ 899
Notes receivable from Prism, including accrued interest, converted to Prism's equity . . . . .	1,351
Cash payment to previous equity holders of Prism . . . . .	250
	<u>2,500</u>
Notes payable issued to Prism . . . . .	1,500
<b>Total considerations</b> . . . . .	<u>\$ 4,000</u>

Goodwill was allocated to the GES segment. Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected revenue and cost synergies of the combined company and assembled workforce. Goodwill recognized as a result of the acquisition is not deductible for income tax purposes.

During the first quarter of 2019, the Company obtained information relevant to determining the fair value of certain intangible assets related to the acquisition of Prism and adjusted its' purchase price allocation. Based on this information, the Company recognized an increased allocation of the purchase price to intangibles of \$0.3 million with a corresponding decrease to goodwill.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 — Acquisitions and Divestiture (cont.)**

Prism’s noncurrent notes payable consisted of the following:

	<b>December 31, 2018</b>	<b>October 25, 2018</b>
	<b>(in thousands)</b>	
5.95% note payable, due in monthly payments of \$7,184 including interest, through November 2019 when the balloon payment is due, collateralized by Prism’s assets. . . . .	\$ 893	\$ 918
20.00% demand note payable, uncollateralized . . . . .	30	30
	923	948
Less: Current maturities . . . . .	923	63
Noncurrent portion . . . . .	\$ —	\$ 885

On April 12, 2019, Prism restructured its ownership. The Company now holds a 60.0% interest in Plus EnerG, Inc. (“Plus EnerG”) which owns 100% of Prism.

In December 11, 2019, the Company refinanced the 5.95% notes payable from Catskill Hudson Bank described above that was due in November 2019. The outstanding balance of notes payable of \$0.8 million at December 31, 2019 will be payable in equal monthly installments for period of ten years. The outstanding principal amount incurs fixed interest at 4.75% per annum. The notes payable are secured by Prism’s commercial property in Highland, New York. At December 31, 2019, \$0.8 million was outstanding under notes payable with \$0.1 million included in the current portion of notes payables.

Prism’s noncurrent notes payable consisted of the following as of December 31, 2019 (in thousands):

4.75% notes payable . . . . .	\$ 863
Less: Current portion . . . . .	86
Total . . . . .	\$ 777

The annual maturities of the Term Loan, as of December 31, 2019, are as follows (in thousands):

2020. . . . .	\$ 86
2021. . . . .	86
2022. . . . .	86
2023. . . . .	86
2024. . . . .	86
Thereafter . . . . .	433
Total . . . . .	\$ 863

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 — Acquisitions and Divestiture (cont.)**

*Divestiture of Majority Interest in Atid Drilling Ltd.*

Following the Company’s decision to suspend oil and gas exploration drilling activities at its Afek subsidiaries, in June 2018, the Company initiated a plan to sell primarily all of Atid Drilling Ltd’s (“Atid”) assets and liabilities. In 2018, the Company recorded a write-down to fair value of Atid’s net assets in the amounts of \$2.7 million. On September 1, 2018, Genie Israel Holdings Ltd., a wholly-owned subsidiary of GOGAS (“Genie Israel”) contributed to Atid 613, the equity of Atid with net book value of \$1.0 million in exchange for 37.5% interest in Atid 613. The remaining interests in Atid 613 are held by Howard Jonas, the Company’s Chairman (37.5%) and by Geoffrey Rochwarger, the Company’s former Vice Chairman (25.0%) and the Chief Executive Officer of Atid 613.

Genie Israel also entered into a Shareholder Agreement with Atid 613’s other shareholders to govern certain issues regarding management of the new company. Under the Shareholder Agreement, among other things, Genie Israel has agreed to make available Atid 613 working capital financing up to \$0.4 million (“Credit Facility”). The credit Facility bears a variable interest rate as defined in the Shareholder Agreement. As of December 31, 2019, the outstanding balance of Credit Facility was nil.

Genie Israel accounts for its investments in the newly formed contracted drilling services company in Israel using the equity method of accounting.

*Pro Forma Results (unaudited)*

The following unaudited pro forma financial information summarizes the results of operations for the years ended December 31, 2019 and 2018 as if the acquisitions of Lumo and Prism and divestiture of a majority interest Atid, had been completed as of the beginning of 2018 and 2017, respectively. The pro forma results are based upon certain assumptions and estimates, and they give effect to actual operating results prior to the acquisitions and adjustments to reflect (i) the change in depreciation expense and intangible assets amortization, (ii) timing of recognition for certain expenses that will not be recurring in the post-acquisition period, (iii) impairment of assets related to Atid, and (iv) income taxes at a rate consistent with the Company’s statutory rate at the date of the acquisitions. No effect has been given to other cost reductions or operating synergies. As a result, these pro forma results do not necessarily represent results that would have occurred if the acquisitions had taken place on the basis assumed above, nor are they indicative of the results of future combined operations.

	<b>Year ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
	<b>(in thousands)</b>	
Total revenues . . . . .	\$ <b>293,694</b>	\$ 281,847
Net income . . . . .	<b>217,746</b>	21,524
Net income attributable to Genie Energy Ltd. common stockholders . . . . .	<b>20,634</b>	22,511
Earnings per share attributable to Genie energy Ltd. common stockholders		
Basic . . . . .	<b>0.81</b>	0.89
Diluted. . . . .	<b>0.80</b>	0.88



**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 3 — Fair Value Measurements**

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

<u>(in thousands)</u>	<u>Level 1<sup>(1)</sup></u>	<u>Level 2<sup>(2)</sup></u>	<u>Level 3<sup>(3)</sup></u>	<u>Total</u>
<b>December 31, 2019</b>				
<b>Assets:</b>				
Derivative contracts. . . . .	\$ 5	\$ 322	\$ —	\$ 327
<b>Liabilities:</b>				
Derivative contracts. . . . .	\$ 1,569	\$ 410	\$ —	\$ 1,979
<b>December 31, 2018</b>				
<b>Assets:</b>				
Derivative contracts. . . . .	\$ 1,107	\$ 467	\$ —	\$ 1,574
<b>Liabilities:</b>				
Derivative contracts. . . . .	\$ 2,100	\$ 248	\$ —	\$ 2,348

- (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.

*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, trade receivables, due to IDT Corporation and accounts payable.* At December 31, 2019 and 2018, the carrying amount of these assets and liabilities approximated fair value due to short-term nature. The fair value estimate for restricted cash — short-term and long-term were classified as Level 1 and other current assets, due to IDT Corporation and other current liabilities were classified as Level 2 of the fair value hierarchy.

*Other assets, revolving line of credit and notes payable.* At December 31, 2019 and 2018, other assets included notes receivable. At December 31, 2019, the outstanding balance of the sellers of Lumo's one-time option was not significant and was included in other liabilities account in the consolidated balance sheet. The carrying amounts of the note receivable, revolving line of credit and notes payable 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.

The following table presents the items measured at fair value on a non-recurring basis:

<u>(in thousands)</u>	<u>Level 1<sup>(1)</sup></u>	<u>Level 2<sup>(2)</sup></u>	<u>Level 3<sup>(3)</sup></u>	<u>Total</u>
<b>December 31, 2019</b>				
Impairment of goodwill . . . . .	\$ —	\$ —	\$ 400	\$ 400
<b>December 31, 2018</b>				
Impairment of assets (Atid) . . . . .	\$ —	\$ —	\$ 2,742	\$ 2,742

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 3 — Fair Value Measurements (cont.)**

The Company did not have any transfers of assets or liabilities between Level 1, Level 2 or Level 3 of the fair value measurement hierarchy during the years ended December 31, 2019 and 2018.

The primary non-recurring fair value estimates typically involve business acquisitions (Note 2) which involve a combination of Level 2 and Level 3 inputs, goodwill impairment testing (Note 8), which involves Level 3 inputs, and asset impairments (Note 2) which utilize Level 3 inputs.

**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 economic 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, 2019 and 2018, GRE’s swaps and options were traded on the New York Mercantile Exchange.

GRE International’s swaps and options were traded through counterparties.

The summarized volume of GRE’s outstanding contracts and options at December 31, 2019 was as follows (MWh — Megawatt hour and Dth — Decatherm):

<b>Settlement Dates</b>	<b>Commodity</b>	
	<b>Electricity (In MWH)</b>	<b>Natural Gas (In Dth)</b>
First quarter 2020 . . . . .	186,005	359,710
Second quarter 2020 . . . . .	95,000	138,920
Third quarter 2020 . . . . .	85,000	105,702
Fourth quarter 2020 . . . . .	44,680	83,051
First quarter 2021 . . . . .	—	79,500
Second quarter 2021 . . . . .	—	60,400
Third quarter 2021 . . . . .	—	45,700
Fourth quarter 2021 . . . . .	—	38,450
First quarter 2022 . . . . .	—	28,600
Second quarter 2022 . . . . .	—	16,450
Third quarter 2022 . . . . .	—	2,850
Fourth quarter 2022 . . . . .	—	1,450

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 4 — Derivative Instruments (cont.)**

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

<u>Asset Derivatives</u>	<u>Balance Sheet Location</u>	<u>December 31,</u>	
		<u>2019</u>	<u>2018</u>
<u>(in thousands)</u>			
<b>Derivatives not designated or not qualifying as hedging instruments:</b>			
Energy contracts and options <sup>(1)</sup> . . . . .	Other current assets	\$ 324	\$ 1,116
Energy contracts and options . . . . .	Other assets	<u>3</u>	<u>458</u>
<b>Total derivatives not designated or not qualifying as a hedging instruments – Assets . . . . .</b>		<b><u>\$ 327</u></b>	<b><u>\$ 1,574</u></b>
 <b>Liability Derivatives</b>			
<b>Derivatives not designated or not qualifying as hedging instruments:</b>			
Energy contracts and options <sup>(1)</sup> . . . . .	Other current liabilities	\$ 1,909	\$ 2,028
Energy Contracts and options . . . . .	Other liabilities	<u>70</u>	<u>320</u>
<b>Total derivatives not designated or not qualifying as a hedging instruments – Liabilities . . . . .</b>		<b><u>\$ 1,979</u></b>	<b><u>\$ 2,348</u></b>

(1) The Company classifies derivative assets and liabilities as current based on the cash flows expected to be incurred within the following 12 months.

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

<u>(in thousands)</u>	<u>Location of Loss Recognized on Derivatives</u>	<u>Amount of Loss Recognized on Derivatives</u>	
		<u>Year ended December 31,</u>	
		<u>2019</u>	<u>2018</u>
Derivatives not designated or not qualifying as hedging instruments . . . . .	Right-of-Use (“ROU”) assets		
Energy contracts and options . . . . .	Cost of revenues	<u>\$ 24,810</u>	<u>\$ 2,013</u>

**Note 5 — Leases**

The Company entered into operating lease agreements primarily for offices in domestic and foreign locations where it has operations with lease periods expiring between 2020 and 2030. The Company has no finance leases.

The Company determine if a contract is a lease at inception. Operating lease assets and liabilities are included on our consolidated balance sheet beginning January 1, 2019. Right-of-Use (“ROU”) assets were included under other assets in the consolidated balance sheet. The current portion of the operating lease liabilities were included in other current liabilities and the noncurrent portion is included in other liabilities in the consolidated balance sheet.

ROU assets and operating lease liabilities are recognized at the present value of the future lease payments at the lease commencement date. The interest rate used to determine the present value of the future lease payments is the incremental borrowing rate, because the interest rate implicit in most of our leases is not readily determinable. The incremental borrowing rate is estimated to approximate the interest rate on a fully collateralized and fully amortizing borrowing with maturity date the same length of the lease that is based on information available at the lease commencement date. ROU assets also include any prepaid lease payments and lease incentives. The lease terms

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 5 — Leases (cont.)**

include periods under options to extend or terminate the lease when it is reasonably certain that we will exercise that option. The Company use the base, non-cancelable, lease term when determining the lease assets and liabilities. Operating lease expense is recognized on a straight-line basis over the lease term.

<b>(in thousands)</b>	<b>December 31, 2019</b>
ROU assets .....	\$ 2,357
Current portion of operating lease liabilities .....	479
Noncurrent portion of operating lease liabilities .....	1,917
Total .....	\$ 2,396

At December 31, 2019, the weighted average remaining lease term is 7.3 years and the weighted average discount rate is 6.5%.

Supplemental cash flow information for ROU assets and operating lease liabilities for the year ended December 31, 2019 is as follows:

<b>(in thousands)</b>	
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating activities .....	\$ 883
ROU assets obtained in the exchange for lease liabilities	
Operating leases .....	\$ 301

Future lease payments under operating leases as of December 31, 2019 were as follows:

<b>(in thousands)</b>	
2020 .....	632
2021 .....	551
2022 .....	242
2023 .....	221
2024 .....	225
Thereafter .....	1,305
Total future lease payments .....	3,176
Less imputed interest .....	780
Total operating lease liabilities .....	\$ 2,396

Rental expenses under operating leases were \$0.9 million and \$0.7 million in the years ended December 31, 2019 and 2018, respectively.

A portion of the Prism facility is being rented out to other tenants. The rent income generated from the lease contracts are not significant to the consolidated financial statements.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 5 — Leases (cont.)**

As of December 31, 2018, prior to adoption of ASU 2016-02, the approximate future minimum rental payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year were:

Future lease payments under operating leases as of December 31, 2019 were as follows:

<b>(in thousands)</b>	
2019.....	527
2020.....	428
2021.....	377
2022.....	217
2023.....	221
Thereafter .....	1,530
Total operating lease liabilities .....	<u>\$ 3,300</u>

**Note 6 — Investments in Equity Method Investees**

*Investment in Shoreditch Energy Limited*

On July 17, 2017, the Company’s subsidiary, Genie Energy UK Ltd. (“GEUK”), entered into a definitive agreement with Energy Global Investments Pty Ltd (“EGC”) to launch Shoreditch Energy Limited (“Shoreditch”), a joint venture to offer electricity and natural gas service to residential and small business customers in the United Kingdom, using the trade name Orbit Energy (the “JV Agreement”). In 2019 and 2018, the Company contributed \$2.7 million and \$1.3 million, respectively, to Shoreditch, which increased GEUK’s total contribution to \$8.0 million as of December 31, 2019. The Company owns 73.0% of the equity.

EGC has several significant participation rights in the management of Shoreditch that limits GEUK’s ability to direct the activities that most significantly impact Shoreditch’s economic performance. GEUK, therefore, accounts for its ownership interest in Shoreditch using the equity method since GEUK has the ability to exercise significant influence over its operating and financial matters, although it does not control Shoreditch.

In 2018, the Company extended a total of \$0.2 million in loans to EGC (“EGC Loan”), in connection with EGC’s contribution to Shoreditch. The EGC Loan, which is secured by EGC’s interest in Shoreditch, bears a fixed annual interest rate of 2.0% and is due, together with the principal amount on September 17, 2023. As of December 31, 2019, the outstanding balance, including accrued interest, of the EGC Loan was \$0.2 million.

The following table summarizes the change in the balance of GEUK’s investment in Shoreditch (in thousands):

	<b>For the year ended</b>	
	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
	<b>(in thousands)</b>	
Balance, beginning of period .....	\$ 1,679	\$ 3,450
Capital contributions.....	2,735	1,306
Foreign currency translation adjustment.....	26	(87)
Equity in the net loss.....	<u>(4,440)</u>	<u>(2,990)</u>
Balance, end of period .....	<u>\$ —</u>	<u>\$ 1,679</u>

At December 31, 2019, the Company’s maximum exposure to loss as a result of its involvement with Shoreditch was its nil, excluding the balance of EGC Loan, since there were no other arrangements, events or circumstances that could expose the Company to additional loss.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 6 — Investments in Equity Method Investees (cont.)**

*Investment in New Atid 613*

As discussed in Note 2, *Acquisitions and Divestitures*, in September 2018, the Company divested a majority interest in Atid in exchange for 37.5% interest in Atid 613 which the Company accounts for using equity method of accounting.

The following table summarizes the change in the balance of the Company's investment in Atid 613 for the years ended December 31, 2019 and 2018:

	December 31	
	2019	2018
	(in thousands)	
Balance, beginning of period . . . . .	\$ 529	\$ —
Capital contributions . . . . .	—	1,000
Equity in net loss . . . . .	(291)	(440)
Foreign currency translation adjustments . . . . .	36	(31)
Balance, end of period . . . . .	\$ 274	\$ 529

On August 12, 2019, the Company, together with the other shareholders of Atid 613 signed a Funding Agreement to provide aggregate loans to Atid 613 in an amount of up to New Israeli Shekel or NIS 5.1 million (equivalent to \$1.5 million), including the Company's commitment to extend up to NIS1.9 million (equivalent to \$0.5 million) of such amount. In August 2019, the Company extended NIS 0.8 million (equivalent to \$0.2 million) in loans. The loans which are secured by Atid 613's assets bear no interest until March 1, 2020 and 5.5% after that date.

At December 31, 2019, there were \$0.2 million loan receivables from Atid 613, included in other current assets in the Company's consolidated balance sheet.

Atid 613 charge the Company for a portion certain of their employees that provide service to the Company. For the year ended December 31, 2019 and 2018, Atid 613 charged the Company \$0.6 million and \$0.7 million, respectively. At December 31, 2019 and 2018, the Company owed Atid 613, \$0.1 million and immaterial, respectively.

The Company also issued letters of credit in favor of Atid 613 of up to \$0.8 million. At December 31, 2019, the letters of credit are not drawn upon.

**Note 7 — Property and Equipment**

	December 31,	
	2019	2018
	(in thousands)	
Land . . . . .	\$ 230	\$ 230
Building and improvements . . . . .	2,349	2,291
Manufacturing equipment . . . . .	1,434	1,403
Computer software . . . . .	2,549	2,229
Computers and computer hardware . . . . .	244	237
Office equipment and other . . . . .	146	270
	6,952	6,660
Less: accumulated depreciation . . . . .	(3,345)	(2,359)
Property and equipment, net . . . . .	\$ 3,607	\$ 4,301

Depreciation expense of property and equipment was \$1.1 million and \$0.8 million in the years ended December 31, 2019 and 2018, respectively.



**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 8 — Goodwill and Other Intangibles**

The table below reconciles the change in the carrying amount of goodwill for the period from January 1, 2018 to December 31, 2019:

	GRE	GRE International	GES	Total
	(in thousands)			
Balance at January 1, 2018 . . . . .	\$ 9,998	\$ —	\$ —	\$ 9,998
Acquisition of Prism (see Note 2) . . . . .	—	—	1,084	1,084
Balance at December 31, 2018 . . . . .	<b>9,998</b>	—	1,084	11,082
Acquisition of Lumo (see Note 2) . . . . .	—	1,744	—	1,744
Prism acquisition purchase price allocation adjustment (see Note 2) . . . . .	—	—	(280)	(280)
Impairment of Prism goodwill . . . . .	—	—	(400)	(400)
Cumulative translation adjustment . . . . .	—	(11)	—	(11)
Balance at December 31, 2019 . . . . .	<b>\$ 9,998</b>	<b>\$ 1,733</b>	<b>\$ 404</b>	<b>\$ 12,135</b>

The Company performed its annual goodwill impairment test as of October 1, 2019. The Company elected to perform a qualitative analysis for its GRE and GRE International reporting units. The Company determined, after performing a qualitative analysis, that there was no evidence that it is more likely than not that the fair value of any identified reporting unit was less than the carrying amounts, therefore, it was not necessary to perform a quantitative impairment test. The Company performed quantitative impairment analysis for Prism reporting unit as a result of lower than expected results of operations in 2019. As a result of this test, the Company concluded that the carrying value Prism reporting unit exceeded its fair value of reporting unit including the allocated goodwill. Therefore, the Company recognized a goodwill impairment charge of \$0.4 million.

The table below presents information on the Company's other intangible assets:

	Weighted Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Net Balance
		(in thousands)		
December 31, 2019				
Patents and trademarks . . . . .	17.1 years	\$ 3,842	\$ (560)	\$ 3,282
Non-compete agreement . . . . .	1.6 years	148	(126)	22
Customer relationships . . . . .	3.9 years	6,706	(3,941)	2,765
Licenses . . . . .	10.0 years	895	(127)	768
<b>TOTAL</b> . . . . .		<b>\$ 11,591</b>	<b>\$ (4,754)</b>	<b>\$ 6,837</b>
December 31, 2018				
Trademark . . . . .	17.3 years	\$ 3,470	\$ (288)	\$ 3,182
Non-compete agreement . . . . .	2.0 years	115	(112)	3
Customer relationships . . . . .	4.0 years	4,612	(2,334)	2,278
Licenses . . . . .	10.0 years	895	(37)	858
<b>TOTAL</b> . . . . .		<b>\$ 9,092</b>	<b>\$ (2,771)</b>	<b>\$ 6,321</b>

Amortization expense of intangible assets (including minimal amount reported in cost of revenues) was \$2.5 million and \$1.3 million in the years ended December 31, 2019 and 2018, respectively. The Company estimates that amortization expense of intangible assets will be \$2.0 million, \$1.0 million, \$0.5 million, \$0.5 million, \$0.4 million and \$2.4 million in the years ending December 31, 2020, 2021, 2022, 2023, 2024 and 2025 and thereafter, respectively.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 9 — Debt**

*Loan with Tokyo Star Bank*

On November 28, 2019, Genie Japan entered into a Loan Agreement with Tokyo Star Bank for a ¥100.0 million (equivalent to \$0.9 million) short-term credit facility. Genie Japan provided a letter of credit issued by JPMorgan Chase amounting to ¥100.0 million (equivalent to \$0.9 million) as collateral. The outstanding principal amount incurs interest at Tokyo Star Bank’s short-term prime rate plus 0.25% per annum. Interest is payable monthly and all outstanding principal and any accrued and unpaid interest is due on the maturity date of May 13, 2020. At December 31, 2019 \$0.9 million was outstanding under the loan agreement. At December 31, 2019 the effective interest rate was 3.0%.

*Revolving Line of Credit with Vantage Commodities*

On April 4, 2017, GRE, IDT Energy, and other GRE subsidiaries entered into a Credit Agreement with Vantage Commodities Financial Services II, LLC (“Vantage”) for a \$20 million revolving loan facility. The borrowers consist of the Company’s subsidiaries that operate REP businesses, and those subsidiaries’ obligations are guaranteed by GRE. The borrowers have provided as collateral a security interest in their receivables, bank accounts, customer agreements, certain other material agreements and related commercial and intangible rights. The outstanding principal amount incurs interest at LIBOR plus 4.5% per annum. Interest is payable monthly and all outstanding principal and any accrued and unpaid interest is due on the maturity date of April 3, 2020. 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. To date, we are in compliance with such covenants. At December 31, 2019 and 2018, \$2.5 million was outstanding under the revolving line of credit. At December 31, 2019 and 2018, the effective interest rate was 6.41% and 7.24% per annum, respectively.

*Credit Agreement with JPMorgan Chase Bank*

On December 5, 2019, the Company entered into the first amendment of the Credit Agreement with JPMorgan Chase Bank (the “Credit Agreement”) to extend the maturity date to December 31, 2020. The Company continues to have the aggregate principal amount of \$5.0 million credit line facility (“Credit Line”). The Company pays a commitment fee of 0.1% per annum on unused portion of the Credit Line as specified in the Credit Agreement. The borrowed amounts will be in the form of letters of credit which will bear interest of 1.0% per annum. The Company will also pay a fee for each letter of credit that is issued equal to the greater of \$500 or 1.0% of the original maximum available amount of the letter 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 \$5.1 million. As of, December 31, 2019, JP Morgan Chase Bank issued \$1.8 million letters of credit from the Credit line. As of December 31, 2019, none of the letters of credits were drawn upon. At December 31, 2019, the cash collateral of \$5.2 million was included in restricted cash — short-term in the consolidated balance sheet.

**Note 10 — Income Taxes**

The components of income before income taxes are as follows:

	<b>Year ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
	<b>(in thousands)</b>	
Domestic . . . . .	\$ 23,894	\$ 15,246
Foreign . . . . .	<b>(17,915)</b>	(6,222)
<b>INCOME BEFORE INCOME TAXES.</b> . . . . .	<b>\$ 5,979</b>	<b>\$ 9,024</b>

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 10 — Income Taxes** (cont.)

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

	December 31,	
	2019	2018
	(in thousands)	
Deferred income tax assets:		
Bad debt reserve . . . . .	\$ 701	\$ 543
Accrued expenses . . . . .	1,093	2,629
State taxes . . . . .	80	91
Charitable contributions . . . . .	173	189
Net operating loss . . . . .	49,055	46,632
ROU assets . . . . .	521	—
Lease liability . . . . .	(474)	—
Stock options and restricted stock . . . . .	520	519
Depreciation . . . . .	5,241	6,209
Total deferred income tax assets . . . . .	56,910	56,812
Valuation allowance . . . . .	(44,756)	(41,187)
<b>DEFERRED INCOME TAX ASSETS, NET</b> . . . . .	<b>\$ 12,154</b>	<b>\$ 15,625</b>

The Company recognizes a valuation allowance against deferred tax assets to the extent that it believes that the deferred tax assets are not more likely than not to be realized. In making such a determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If the Company determines that it would be able to realize its deferred tax assets in the future in excess of their net recorded amount, the Company would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes. The Company released a portion of the valuation allowance of \$15.0 million in 2018 to reflect the anticipated utilization of the U.S. deferred tax assets. The company maintains the valuation allowance on the foreign deferred tax assets as well as the deferred tax assets relating to the nonconsolidated U.S. entities.

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

	Year ended December 31,	
	2019	2018
	(in thousands)	
Current:		
Federal . . . . .	\$ —	\$ —
State and local . . . . .	(1,129)	(1,107)
Foreign . . . . .	—	—
	(1,129)	(1,107)
Deferred:		
Federal . . . . .	(2,808)	13,609
State and local . . . . .	(663)	(126)
Foreign . . . . .	—	—
	(3,471)	13,483
<b>(PROVISION FOR) BENEFIT FROM INCOME TAXES</b> . . . . .	<b>\$ (4,600)</b>	<b>\$ 12,376</b>

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 10 — Income Taxes** (cont.)

The differences between (provision for) benefit from income taxes expected at the U.S. federal statutory income tax rate and income taxes provided are as follows:

	Year ended December 31,	
	2019	2018
	(in thousands)	
U.S. federal income tax benefit at statutory rate . . . . .	\$ (1,256)	\$ (1,895)
Valuation allowance . . . . .	(3,569)	15,113
Nondeductible expense . . . . .	175	(12)
Foreign tax rate differential . . . . .	13	1,493
Other . . . . .	567	(1,174)
State and local income tax, net of federal benefit . . . . .	(530)	(1,149)
<b>(PROVISION FOR) BENEFIT FROM INCOME TAXES . . . . .</b>	<b>\$ (4,600)</b>	<b>\$ 12,376</b>

At December 31, 2019, the Company had U.S. federal and state net operating loss carry-forwards of approximately \$21.1 million and \$131.8 million, respectively. These carry-forward losses are available to offset future U.S. federal and state taxable income and are not subject to Section 382 limitations. The federal net operating loss carry-forwards will start to expire in 2034. The state net operating loss carry-forwards will start to expire in 2030, with the year loss expiring in 2038.

At December 31, 2019, the Company had foreign net operating loss carry-forwards of approximately \$121.5 million, of which \$104.6 million will not expire.

The Company includes certain entities that are not included in the Company's consolidated tax return. The entities have separate U.S. federal and state net operating loss carry-forwards of \$35.5 million that begin to expire in 2025. The NOL of \$30.8 million related to Prism, and may be subject to Internal Revenue Code Section 382 limitation at time of utilization. Current year losses of \$2.5 million will not expire.

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

	Balance at beginning of period	Additions charged to costs and expenses	Deductions	Balance at end of period
	(in thousands)			
<b>Year ended December 31, 2019</b>				
Reserves for valuation allowances deducted from deferred income taxes, net . . . . .	\$ 41,187	\$ 3,569	\$ —	\$ 44,756
<b>Year ended December 31, 2018</b>				
Reserves for valuation allowances deducted from deferred income taxes, net . . . . .	\$ 48,337	\$ 7,963	\$ (15,113)	\$ 41,187

The table below summarizes the change in the balance of unrecognized income tax benefits:

	Year ended December 31,	
	2019	2018
	(in thousands)	
Balance at beginning of period . . . . .	\$ 433	\$ 558
Additions based on tax positions related to the current period . . . . .	84	98
Lapses of statutes of limitations . . . . .	(134)	(223)
<b>Balance at end of period . . . . .</b>	<b>\$ 383</b>	<b>\$ 433</b>

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 10 — Income Taxes (cont.)

All of the unrecognized income tax benefits at December 31, 2019 and 2018 would have affected the Company's effective income tax rate if recognized. The Company does not expect the total amount of unrecognized income tax benefits to significantly increase or decrease within the next twelve months.

In the years ended December 31, 2019 and 2018, the Company recorded minimal amount of interest on income taxes. At December 31, 2019 and 2018, accrued interest included in current income taxes payable was minimal.

The Company currently remains subject to examinations of its tax returns as follows: U.S. federal tax returns for 2016 to 2019, state and local tax returns generally for 2015 to 2019 and foreign tax returns generally for 2015 to 2019.

#### Note 11 — 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 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 100% of the Liquidation Preference plus accrued and unpaid dividends.

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.

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 11 — Equity (cont.)

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, 2019, the Company paid aggregate cash dividends of \$0.30 per share on its Class A common stock and Class B common stock, equal to \$8.1 million in total dividends paid. In the year ended December 31, 2018, the Company paid aggregate cash dividends of \$0.30 per share on its Class A common stock and Class B common stock, equal to \$7.4 million in total dividends paid. On March 11, 2020, the Company's Board of Directors declared a quarterly dividend of \$0.075 per share on the Company's Class A common stock and Class B common stock for the fourth quarter of 2019 to stockholders of record as of the close of business on March 24, 2020. The dividend will be paid on or about April 3, 2020.

In each of the years ended December 31, 2019 and 2018, the Company paid aggregate cash dividends of \$0.6376 per share on its Preferred Stock, equal to \$1.5 million in dividends paid. On February 15, 2020, the Company paid a quarterly Base Dividend of \$0.1594 per share on its Preferred Stock for the fourth quarter of 2019 to stockholders of record as of the close of business on February 6, 2020.

The Delaware Corporation Law allows companies to declare dividends out of its "Surplus," which is calculated by deducting the par value of the company's stock from the difference between total assets less total liabilities. The Company elected to record dividends declared against accumulated deficit.

#### *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 2019, the Company acquired 731,869 Class B common stock under the stock repurchase program for an aggregate amount of \$5.6 million. There were no repurchases under the program in the years ended December 31, 2018. At December 31, 2019, 6.2 million shares remained available for repurchase under the stock repurchase program.

In the year ended December 31, 2019, the Company paid \$0.5 million to repurchase 48,197 shares of its Class B common stock. In the year ended December 31, 2018, the Company paid \$0.9 million to repurchase 149,000 shares of its Class B common stock. These shares were tendered by the Company's employees to satisfy tax withholding obligations in connection with the lapsing of restrictions on awards of restricted stock. Such shares were repurchased by the Company based on their fair market value on the trading day immediately prior to the vesting date.

As of December 31, 2019 and 2018, the Company held 1.0 million and 0.2 million shares of treasury stock, respectively, with respective costs of \$7.7 million and \$1.6 million and a weighted averages of \$7.46 and \$6.51 per share, respectively.

#### *Repurchase Right on 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 former Chief Executive Officer. Pursuant to these agreements, among other things, in 2014, the Company sold an aggregate of 3.6 million shares of the Company's Class B common stock to Mr. Jonas 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). Upon certain terminations of Mr. Jonas' employment by the Company, 0.6 million of the Class B shares are subject to repurchase by the Company at \$6.82 per share, which repurchase right lapsed on December 31, 2019.



**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 11 — Equity (cont.)**

*Sales of Shares and Warrants*

On June 8, 2018, the Company sold to Howard S. Jonas, the Chairman of the Company’s Board of Directors and a principal owner, (1) 1,152,074 shares of the Company’s Class B common stock, at a price of \$4.34 per share for an aggregate sales price of \$5.0 million, and (2) warrants to purchase an additional 1,048,218 shares of the Company’s Class B common stock at an exercise price of \$4.77 per share for an aggregate exercise price of \$5.0 million. The warrants will expire in June 2023. In addition, on June 12, 2018, the Company sold to a third-party investor (1) 230,415 treasury shares of the Company’s Class B common stock, at a price of \$4.34 per share for an aggregate sales price of \$1.0 million, and (2) warrants to purchase an additional 209,644 shares of the Company’s Class B common stock at an exercise price of \$4.77 per share for an aggregate exercise price of \$1.0 million. As of December 31, 2019, there were outstanding 1,257,862 warrants to purchase the Company’s Class B common stock at \$4.77 per share which will expire on in June 2023.

*Purchases of Equity of Subsidiary*

In June 2018, an entity affiliated with Lord (Jacob) Rothschild exercised its option to exchange its 5% equity interest in GOGAS for 41,667 shares of the Company’s Class B common stock. The fair value of the shares of Class B common stock at the time of the exchange was \$0.2 million. The Company’s ownership of GOGAS increased from 92% to 97% upon the completion of the exchange.

**Note 12 — Stock-Based Compensation**

*Stock-Based Compensation Plan*

The Company’s 2011 Stock Option and Incentive Plan (as amended, the “Plan”) is intended to provide incentives to executives, employees, directors and consultants of the Company. Incentives available under the Plan 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 7, 2018 and May 8, 2019, the Company’s stockholders approved amendments to the Plan to reserve an additional 974,199 shares and 372,000 shares of the Company’s Class B common stock, respectively, for issuance thereunder. At December 31, 2019, the Company had 2.7 million shares of Class B common stock reserved for award under the Plan and 503,000 shares were available for future grants.

*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:

	<b>Number of Non-vested Shares</b>	<b>Weighted- Average Grant Date Fair Value</b>
	<b>(in thousands)</b>	
Non-vested shares at December 31, 2018 . . . . .	367	\$ 5.46
Granted . . . . .	199	6.50
Vested . . . . .	(158)	5.61
Forfeited . . . . .	(163)	6.38
<b>NON-VESTED SHARES AT DECEMBER 31, 2019</b> . . . . .	<b>245</b>	<b>\$ 5.59</b>

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 12 — Stock-Based Compensation (cont.)**

At December 31, 2019, there was \$1.0 million of total unrecognized compensation cost related to non-vested restricted stock. The total unrecognized compensation cost is expected to be recognized over a weighted-average period of 1.4 years. The total grant date fair value of shares vested in the years ended December 31, 2019 and 2018 was \$0.4 million and \$0.4 million, respectively. The Company recognized compensation cost related to the vesting of the restricted stock of \$1.0 million and \$3.4 million in the years ended December 31, 2019 and 2018, respectively.

*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.

On February 11, 2019, the Company granted options to Howard S. Jonas to purchase 126,176 shares of the Company's Class B common stock at an exercise price of \$8.05 per share in lieu of a cash bonus of \$0.3 million earned in previous periods. These options vest in three equal annual installments beginning on February 11, 2020.

The fair value of stock options granted in the years ended December 31, 2019 and 2018 were estimated on the date of the grant using a Black-Scholes valuation model and the assumptions in the following table (dollar amount in thousands).

	December 31,	
	2019	2018
Average risk-free interest rate . . . . .	2.5%	2.6%
Expected dividend yield . . . . .	3.7	6.9
Expected volatility . . . . .	52.7	55.8
Expected term . . . . .	<b>4 years</b>	5.0 years
Weighted-average grant date fair value of options granted . . . . . \$	2.6	\$ 1.3

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, 2018 . . . . .	635	\$ 5.83	3.5	\$ 434
Granted . . . . .	126	8.05		
Exercised . . . . .	(205)	6.85		
Cancelled/Forfeited . . . . .	—	—		
<b>OUTSTANDING AT DECEMBER 31, 2019 . . . . .</b>	<b>556</b>	<b>\$ 5.96</b>	<b>3.1</b>	<b>\$ 1,065</b>
<b>EXERCISABLE AT DECEMBER 31, 2019 . . . . .</b>	<b>468</b>	<b>\$ 6.69</b>	<b>2.2</b>	<b>\$ 544</b>

The total intrinsic value of options exercised during the years ended December 31, 2019 and 2018 was \$0.8 million and minimal, respectively. At December 31, 2019, there was no unrecognized compensation cost related to non-vested stock options. The Company recognized \$0.1 million and minimal compensation cost related to the vesting of the options in the years ended December 31, 2019 and 2018, respectively. Cash received from option exercises was \$1.4 million for the year ended December 31, 2019. There was no exercises for the year ended December 31, 2018.

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### **Note 12 — Stock-Based Compensation (cont.)**

##### *Subsidiary Equity Grants*

On May 5, 2015, the Compensation Committee of the Company's Board of Directors approved the grant of deferred stock units in GRE representing an aggregate of 3.9% of the outstanding equity in GRE to certain of the Company's officers and employees with three-year vesting period. GRE has the right to issue shares of the Company's Class B common stock or pay cash to satisfy its obligations to issue common stock of GRE upon the vesting of the deferred stock units.

In August 2018, the Company issued 310,467 shares of the Company's Class B common stock in exchange for the final vesting of deferred stock units of GRE. The aggregate fair value of the shares of the Company's Class B common stock issued was \$1.9 million. The Company acquired 128,865 shares of Class B Common Stock with aggregate cost of \$0.8 million, tendered by the Company's officers and employees to satisfy tax withholding obligations related to the vesting of the deferred stock units.

The Company recognized aggregate compensation cost related to the vesting of the deferred stock units and other subsidiary equity interests that was \$1.1 million in the year ended and December 31, 2018. There was no compensation cost recognized for the year ended December 31, 2019. At December 31, 2019, there was no unrecognized compensation cost related to non-vested subsidiary equity interests.

##### *GES and GREI Equity Grants*

In August 2017, GREI, which holds the Company's interests in ventures in the U. K., Japan and Finland, granted deferred stock units in GREI representing an aggregate of 4.0% of the outstanding equity in GREI to certain of the Company's officers and a consultant. The deferred stock units vest in equal amounts on the first, second and third anniversaries of the date of grant. The cost is being recognized on a straight-line basis over the requisite service period, which approximates the vesting period. GREI recognized compensation costs related to the vesting of the GREI deferred stock units of \$0.1 million the years ended December 31, 2019 and 2018. At December 31, 2019, the unrecognized compensation cost relating to these grants was minimal.

In August 2017, GES, a subsidiary of GRE that holds holds Diversegy, Genie Solar Energy and Prism, granted deferred stock units in GES representing an aggregate of 4.5% of the outstanding equity in GES to certain of the Company's officers and a consultant. 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 GES deferred stock units on the date of grant was minimal, which is being recognized on a straight-line basis over the requisite service period, which approximates the vesting period.

#### **Note 13 — Variable Interest Entity**

Citizens Choice Energy, LLC ("CCE") is a REP that resells electricity and natural gas to residential and small business customers in the State of New York. The Company does not own any interest in CCE. Since 2011, the Company has provided CCE with substantially all of the cash required to fund its operations. The Company determined that it has the power to direct the activities of CCE that most significantly impact its economic performance and it has the obligation to absorb losses of CCE that could potentially be significant to CCE on a stand-alone basis. The Company therefore determined that it is the primary beneficiary of CCE, and as a result, the Company consolidates CCE within its GRE segment. The net income or loss incurred by CCE 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.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 13 — Variable Interest Entity (cont.)**

Net income (loss) related to CCE and aggregate net funding repaid to (provided by) the Company were as follows:

	Year ended December 31,	
	2019	2018
	(in thousands)	
Net loss . . . . .	\$ (490)	\$ (1,197)
Aggregate provided by repaid to the Company, net . . . . .	\$ (649)	\$ (809)

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

	December 31,	
	2019	2018
	(in thousands)	
<b>ASSETS</b>		
Cash and cash equivalents . . . . .	\$ 250	\$ 70
Trade accounts receivable . . . . .	586	623
Prepaid expenses and other current assets . . . . .	381	411
Other assets . . . . .	359	359
<b>TOTAL ASSETS</b> . . . . .	<b>\$ 1,576</b>	<b>\$ 1,463</b>
<b>LIABILITIES AND NONCONTROLLING INTERESTS</b>		
Current liabilities . . . . .	\$ 467	\$ 513
Due to IDT Energy . . . . .	2,598	1,949
Noncontrolling interests from CCE . . . . .	(1,489)	(999)
<b>TOTAL LIABILITIES AND NONCONTROLLING INTERESTS</b> . . . . .	<b>\$ 1,576</b>	<b>\$ 1,463</b>

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

**Note 14 — Accumulated Other Comprehensive Income**

The accumulated balances for other comprehensive income were as follows:

(in thousands)	Foreign currency translation
Balance at December 31, 2017 . . . . .	\$ 3,045
Other comprehensive income attributable to Genie . . . . .	(454)
Balance at December 31, 2018 . . . . .	2,591
Other comprehensive loss attributable to Genie . . . . .	(72)
<b>Balance at December 31, 2019</b> . . . . .	<b>\$ 2,519</b>

**Note 15 — Legal and Regulatory Proceedings**

**Legal Proceedings**

On October 5, 2018, named plaintiffs Scott Mackey and Daniel Hernandez filed a putative class action complaint against IDT Energy in the United States District Court for the Northern District of Illinois alleging violations of the Telephone Consumer Protection Act, 47 U.S.C. § 227 et seq. The named plaintiffs filed the suit on behalf of: (1) a putative Cell Phone class consisting of all persons in the U.S. to whom IDT Energy and/or a third party acting on IDT Energy's behalf allegedly made one or more telemarketing calls promoting IDT Energy's goods or services

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 15 — Legal and Regulatory Proceedings (cont.)

to their cellular telephone number through the use of an automatic telephone dialing system or an artificial or prerecorded voice within the four year period preceding the filing of the complaint and (2) a putative Do-Not-Call class consisting of all persons in the U.S. who allegedly received more than one call from IDT Energy and/or some party acting on IDT Energy's behalf promoting IDT Energy's goods or services in a 12-month period on their cellular phone or residential telephone line and whose number appears on the National Do-Not-Call registry within the four year period preceding the filing of the complaint. On October 31, 2019, the court granted IDT Energy's motion to bifurcate individuals and class claims to expedite discovery and dispositive motion related to the named plaintiffs for lack of personal jurisdictions. On January 9, 2020, the court granted IDT Energy's motion for summary judgement to dismiss one of the named plaintiffs for lack of personal jurisdiction. IDT Energy denies the allegations in the complaint, which it believes to be meritless and plans to vigorously defend this action. Based upon the Company's preliminary assessment of this matter, a loss is not considered probable, nor is the amount of loss, if any, estimable as of December 31, 2019.

On March 13, 2014, July 2, 2014 and July 15, 2014, named plaintiffs in Pennsylvania, New York and New Jersey commenced three separate putative class-action lawsuits against IDT Energy, GRE, GEIC, and Genie (collectively, "IDTE") contending, among other things, that they and other former and current customers of IDTE were injured as a result of IDTE's allegedly unlawful sales and marketing practices. The Company denied any basis for those allegations and/or wrongdoing. On July 5, 2017, the Company entered into a settlement of all three actions to further its efforts to address its customers' concerns. On July 31, 2018, the Magistrate Court issued a report and recommendation recommending approval of the settlement and reduction of the attorneys' fees. On October 18, 2018, the Court entered a final order approving the Settlement Agreement.

Under the Settlement Agreement, the Company has agreed to pay certain amounts to resolve the lawsuits and obtain a release of claims that were, or could have been, asserted in the lawsuits or that are related to, or arise out of the conduct alleged in the lawsuits or similar conduct, wherever it may have occurred. The settlement payment includes payments to customers who timely made a claim, class counsel, and the named plaintiffs, as well as the cost of a claims administrator for administrating the claims process. The period for class members to make claims has since expired, and in second quarter of 2019, the Company paid all remaining liabilities related to the class-action lawsuit for a total payment of \$5.0 million.

For the year ended December 31, 2018, the Company reversed \$1.7 million of revenue reduction recorded in prior year and reversed \$1.7 million of legal settlement that was included in the selling, general and administrative expenses in the statement of operations.

On July 23, 2019, the Chapter 7 Trustee of the Aspurity Holdings, LLC bankruptcy filed an adversary complaint against Diversified Trading Company, LLC (f/k/a Kreiger Enterprises, LLC, "Kreiger") and its subsidiaries and affiliates in connection with a note payable by Kreiger to Aspurity. GRE purchased Retail Energy Holdings, LLC ("REH") which owns the TSE entities (which were subsidiaries of Kreiger prior to the purchase) from Kreiger in November 2016. One of the several counts in the complaints alleges that as subsidiaries of Kreiger at the time, REH and TSE, together with several other defendants, guaranteed Kreiger's obligations under the note. The Trustee was seeking combined damages of unpaid principal of approximately \$16.0 million with unpaid accrued interest. The Company denies all allegations in the complaint and does not believe that REH or the TSE entities are liable for Kreiger's obligations to Aspurity. On February 6, 2020, REH and the Trustee agreed to settle the dispute (withdrawal with full releases), subject to court approval, in exchange for payment of \$0.2 million by REH, the Company has accrued \$0.2 million in the fourth quarter of 2019.

In addition to the matters disclosed 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.

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 15 — Legal and Regulatory Proceedings (cont.)

##### *Agency and Regulatory Proceedings*

From time to time, the Company receives inquiries or requests for information or materials from public utility commissions or other governmental regulatory or law enforcement agencies related to investigations under statutory or regulatory schemes, and the Company responds to those inquiries or requests. The Company cannot predict whether any of those matters will lead to claims or enforcement actions or whether the Company and the regulatory parties will enter into settlements before a formal claim is made.

##### *New Jersey Attorney General and New Jersey Board of Public Utilities*

On May 22, 2018, IDT Energy entered into a Consent Order with the New Jersey Attorney General and the New Jersey Board of Public Utilities to resolve an investigation related to IDT Energy's pricing and business practices during the winter of 2014. Under the terms of the Consent Order, IDT Energy agreed to make payments totaling \$1.4 million, including \$1.2 million in restitution to consumers who received electricity and/or natural gas supply from IDT Energy in January, February and/or March of 2014. IDT Energy will also implement certain modifications to its sales, marketing and customer service processes, along with additional compliance and reporting requirements. In the third quarter of 2017, the Company accrued \$1.5 million for this matter. IDT Energy has made full payment of the amount agreed upon in the Consent Order to a settlement administrator, who will process the restitution payments.

##### *New York Public Service Commission Orders*

In December 2017, the New York Public Service Commission ("PSC") held an evidentiary hearing to assess the retail energy market in New York. On December 12, 2019, following the completion of post-hearing briefings in the proceedings, the PSC issued an order adopting the changes to the New York retail energy market, effective May 11, 2020 ("2020 Order"). The 2020 Order limits the types of services energy retailer marketers may offer new customers or renewals, in terms of pricing for non-renewable commodities, and renewable product offerings. Although the Company is working to ensure that its products and services are fully compatible with the 2020 Order, such compliance may adversely impact customer acquisition and renewal revenue and profitability. The Company is evaluating its options, both by itself and in tandem with other industry participants, to challenge or petition for additional clarity and changes to the 2020 Order. There is insufficient basis to assess the amount of any possible loss based on the changes instituted by the 2020 Order. For the year ended December 31, 2019 and 2018, New York gross revenues was \$63.2 million and \$74.2 million, respectively.

On December 16, 2016, the PSC issued an order (the "2016 Order") prohibiting REPs to service to customers enrolled in New York's utility low-income assistance programs. Temporary stays of the 2016 Order expired, and REPs were required to return service of their low-income customers to the relevant local incumbent utility on the modified schedule set forth in the PSC's 2016 Order. The 2016 Order required GRE's REPs to transfer customer accounts comprising approximately 18,700 meters to their respective incumbent utilities in the three months ended March 31, 2018.

##### *Public Utilities Commission of Ohio*

In August and November of 2017, the Public Utilities Commission of Ohio ("PUCO") commenced investigations into the marketing and enrollment practices of the Company's subsidiary Town Square Energy, LLC. The PUCO's investigations arose from customer complaints that representatives of Town Square allegedly engaged in misleading and deceptive sales practices in connection with Town Square's table top marketing campaign. Town Square and the PUCO entered into a settlement agreement which was approved by the PUCO on February 27, 2019. Under the terms of the agreement, Town Square paid a forfeiture fee of \$0.2 million to the State of Ohio. In addition, Town Square agreed to work with the PUCO and take steps to ensure full compliance with PUCO rules and orders, including updating customers, providing the PUCO with updated information, and submitting quarterly reports for a one-year period. In connection with the foregoing, the Company accrued \$0.2 million in third quarter of 2018.



## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 15 — Legal and Regulatory Proceedings (cont.)

For the years ended December 31, 2019 and 2018, Town Square in Ohio gross revenues were \$0.6 million and \$1.4 million, respectively.

##### *State of Connecticut Public Utilities Regulatory Authority*

On September 19, 2018, the State of Connecticut Public Utilities Regulatory Authority (“PURA”) commenced an investigation into Town Square following customer complaints of allegedly misleading and deceptive sales practices on the part of Town Square. The Connecticut Office of Consumer Counsel has joined in the investigation. Although Town Square denies any basis for those complaints and any wrongdoing on its part, it is cooperating with the investigation and responding to subpoenas for discovery. For the years ended December 31, 2019 and 2018, Town Square’s gross revenues from sales in Connecticut were \$35.6 million and \$24.8 million, respectively. As of December 31, 2019, no claims or demands have been made against Town Square by either agency, and there is insufficient basis to deem the loss probable or to assess the amount of any possible loss.

In December 2019, Connecticut’s Public Utility Regulatory Authority (PURA) issued a Proposed Final Decision that would require electric suppliers to return all of their “Hardship Customers” to the local utility company by March 1, 2020. In January 2020, PURA issued a Proposed Final Decision containing new marketing standards for electric suppliers to comply with. The supplier industry has filed opposition to both PURA decisions.

##### *State of Illinois Office of the Attorney General*

In response to complaints that IDT Energy enrolled consumers without their express consent and misrepresented the amount of savings those consumers would receive, the Office of the Attorney General of the State of Illinois (“IL AG”) has been investigating the marketing practices of IDT Energy and has alleged violations of the Consumer Fraud and Deceptive Business Practices Act, 815 ILCS 505/1 *et seq.* and the Illinois Telephone Solicitations Act, 815 ILCS 413/1 *et seq.* Shortly thereafter, the Illinois Commerce Commission (“IL ICC”) commenced a similar investigation. Although IDT Energy denies any wrongdoing in connection with those allegations, the parties (including IL ICC) settled the matter pursuant to a court approved consent decree that includes restitution payments in the amount of \$3.0 million, temporary suspension of all marketing activities directed at new customers through December 31, 2020, and implementation of various compliance and reporting procedures.

In third quarter of 2018, the Company recorded a liability of \$3.0 million recorded as a reduction of electricity revenues in the consolidated statement of operations. For the years ended December 31, 2019 and 2018, IDT Energy’s gross revenues from sales in Illinois were \$10.1 million and \$16.5 million, respectively.

##### *Other Informal Reviews or Investigations*

From time to time regulators will initiate informal reviews or issue subpoenas for information as means to evaluate the Company and its subsidiaries’ compliance with applicable laws, rule, regulations and practices.

The Massachusetts Department of Public Utilities opened an informal review and information requests to determine whether the disproportionate number of low-income customers of Town Square, Residents Energy and several other energy retailers in the industry evidences a pattern of misconduct. As of December 31, 2019, no claims or demands have been made against Town Square or Residents Energy by the agency, and there is insufficient basis to deem any loss probable or to assess the amount of any possible loss.

On October 25, 2019, the Office of the IL AG notified Residents Energy (by way of subpoena) that it is conducting an investigation to assess compliance with the Illinois Consumer Fraud and Deceptive Business Practices Act. The notice was issued in the form of a subpoena in the course of the foregoing. Residents Energy denies any wrongdoing on its part. As of December 31, 2019, no claims or demands have been made against Residents Energy by the IL AG, and there is insufficient basis to deem any loss probable or to assess the amount of any possible loss.

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 16 — Commitments and Contingencies

##### *Purchase Commitments*

The Company had purchase commitments of \$138.3 million at December 31, 2019, of which \$102.1 million was for future purchases of electricity. The purchase commitments outstanding at December 31, 2019 are expected to be paid as follows (in thousands):

2020.....	\$	78,890
2021.....		39,182
2022.....		15,270
2023.....		4,281
2024.....		640
Total payments .....	\$	<u>138,263</u>

In 2019, the Company purchased \$27.6 million and \$16.1 million of electricity and renewable energy credits, respectively, under these purchase commitments.

##### *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, 2019, GRE had commitments to purchase renewable energy credits of \$36.2 million.

##### *Performance Bonds and Unused Letters of Credit*

GRE has performance bonds issued through a third party for certain utility companies and for the benefit of various states in order to comply with the states' financial requirements for REPs. At December 31, 2019, GRE had aggregate performance bonds of \$12.5 million outstanding and unused letters of credit of \$1.8 million.

##### *BP Energy Company Preferred Supplier Agreement*

Certain of GRE's REPs are party to an Amended and Restated Preferred Supplier Agreement with BP, which is to be in effect through November 30, 2021. Under the agreement, the REPs purchase electricity and natural gas at market rate plus a fee. The obligations to BP are secured by a first security interest in deposits or receivables from utilities in connection with their purchase of the REP's customer's receivables, and in any cash deposits or letters of credit posted in connection with any collateral accounts with BP. In addition, the REPs must pay in advance payment of \$2.5 million to BP each month that BP will apply to the next invoice amount due to BP. The 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, 2019, the Company was in compliance with such covenants. At December 31, 2019, restricted cash — short-term of \$1.6 million and trade accounts receivable of \$47.8 million were pledged to BP as collateral for the payment of trade accounts payable to BP of \$14.9 million at December 31, 2019.

#### Note 17 — Related Party Transactions

On June 8, 2018, the Company sold shares of its Class B common stock and warrants to purchase shares of its Class B common stock to Howard S. Jonas (see Note 11).

The Company was formerly a subsidiary of IDT Corporation ("IDT"). On October 28, 2011, the Company was spun-off by IDT. The Company entered into various agreements with IDT prior to the spin-off including an agreement for certain services to be performed by the Company and IDT. Also, the Company provides specified administrative services to certain of IDT's foreign subsidiaries. Howard Jonas is the Chairman and controlling stockholder of IDT.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 17 — Related Party Transactions (cont.)**

The Company leases office space and parking in New Jersey and Israel from Rafael Holdings, Inc. (“Rafael”) Howard S. Jonas is the Chairman of the Board of Directors, Chief Executive Officer and controlling stockholder of Rafael. The leases expire in April 2025.

The charges for services provided by IDT to the Company, and rent charged by Rafael, net of the charges for the services provided by the Company to IDT, are included in “Selling, general and administrative” expense in the consolidated statements of operations.

	Year ended December 31,	
	2019	2018
	(in thousands)	
Amount IDT charged the Company . . . . .	<b>\$ 1,142</b>	\$ 1,340
Amount the Company charged IDT . . . . .	<b>\$ 160</b>	\$ 355
Amount Rafael charged the Company . . . . .	<b>\$ 222</b>	\$ 161

The following table presents the balance of receivables and payables to IDT and Rafael:

	December 31,	
	2019	2018
	(in thousands)	
Due to IDT . . . . .	<b>\$ 434</b>	\$ 267
Due from IDT . . . . .	<b>\$ 45</b>	\$ 33
Due to Rafael . . . . .	<b>\$ —</b>	\$ —

The Company had notes receivable outstanding from employees aggregating \$0.1 million and \$0.2 million at December 31, 2019 and 2018, respectively, which were included in “Other assets” in the accompanying consolidated balance sheet.

The Company had minimal transactions with Zedge, Inc. (“Zedge”) related to certain employees of the Company providing services to Zedge. Zedge was a subsidiary of IDT and was spun-off in June 2016 and Howard Jonas is a current director. There is minimal amount due from Zedge at December 31, 2019 and 2018.

On August 31, 2018, the Company settled an option issued to an employee to purchase shares of the Company’s various subsidiaries with a net book value of \$1.0 million and was included as other liabilities in the consolidated balance sheet. The Company paid the employee \$0.8 million and recognized a gain from extinguishment of liability of \$0.2 million for the year ended December 31, 2018.

From 2012 to 2015, the Company extended a series of loans to an employee with an aggregate principal amount of \$0.5 million (“Promissory Notes”). The Promissory Notes bore interest equivalent to a minimum rate, in effect from time to time required by local regulations. The Notes and the related unpaid accrued interest were due on May 1, 2019. On August 31, 2018, the Company entered into a Loan Modification Agreement with the employee to restructure the Promissory Notes with outstanding balance of \$0.5 million including \$0.1 million of accrued interest. Based on the Loan Modification Agreement, the employee will pay \$0.4 million and the remaining outstanding balance of \$0.1 million of the Promissory Notes and the related accrued interest will be restated in a single promissory note (“New Note”). The New Note requires scheduled payments starting on December 31, 2020 until December 31, 2052. The New Note bears the same interest as the Promissory Notes and will be compounded annually. The Company recorded minimal amounts of interest income for the years ended December 31, 2019 and 2018 related to the Promissory Notes and New Notes. The outstanding balance of the New Notes, including accrued interest was \$0.1 million as of December 31, 2019.

## GENIE ENERGY LTD.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### **Note 17 — Related Party Transactions (cont.)**

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 IGM received commissions and fees from payments made by the Company (including payments from third party brokers). The Company paid a total of \$0.3 million for the years ended December 31, 2019 and 2018 related to premium of various insurance policies that were brokered by IGM. There was no outstanding payable to IGM as of December 31, 2019. 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 18 — Business Segment and Geographic Information**

In the first quarter of 2019 the Company revised its reportable segments in connection with the acquisition of Lumo and continuous expansion of activities in Japan and the U.K. Specifically, the Company now treats GRE International as a separate reportable segment which includes overseas retail energy supply businesses, currently consisting of interests in Lumo, Genie Japan and the Company’s share of operations of Shoreditch. There are no other changes in other reportable segments.

The Company has four reportable business segments: GRE, GRE International, GES and GOGAS. GRE owns and operates REPs, including IDT Energy, Residents Energy, TSE, Southern Federal and Mirabito. Its REP businesses resell electricity and natural gas to residential and small business customers in the Eastern and Midwestern United States. GRE International, operates REPs in Japan and Finland and manages the Company’s share in operations of Shoreditch in the U.K. GES designs, manufactures and distributes solar panels and also offers energy brokerage and advisory services. The GOGAS segment is comprised of the Company’s 86.1% interest in Afek, an oil and gas exploration project in the Golan Heights in Northern Israel, whose operations have been suspended. GOGAS segment also owns inactive oil shale projects and an equity investments in Atid 613. 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 cost of revenues.

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.

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 18 — Business Segment and Geographic Information (cont.)**

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

	<u>GRE</u>	<u>GRE International</u>	<u>GES</u>	<u>GOGAS</u>	<u>Corporate</u>	<u>Total</u>
	(in thousands)					
<b>Year ended December 31, 2019</b>						
Revenues . . . . .	\$ 286,611	\$ 16,595	\$ 12,085	\$ —	\$ —	\$ 315,291
Income (loss) from operations . . .	27,176	(8,133)	(2,895)	(1,028)	(5,295)	9,825
Depreciation and amortization . . .	703	1,819	1,047	57	1	3,627
Impairment of goodwill . . . . .	—	—	(400)	—	—	(400)
Equity in the net loss of equity method investees . . . . .	—	4,440	—	291	99	4,830
<b>Year ended December 31, 2018</b>						
Revenues . . . . .	\$ 274,443	\$ —	\$ 5,696	\$ 170	\$ —	\$ 280,309
Income (loss) from operations . . .	28,988	(1,201)	(982)	(6,532)	(8,295)	11,978
Depreciation and amortization . . .	1,538	1	178	345	—	2,062
Exploration . . . . .	—	—	—	244	—	244
Write-off of capitalized exploration costs . . . . .	—	—	—	2,742	—	2,742
Equity in the net loss of Shoreditch . . . . .	—	2,990	—	440	—	3,430

Total assets and investment in equity method investees for the business segments of the Company were as follows:

<u>(in thousands)</u>	<u>GRE</u>	<u>GRE International</u>	<u>GES</u>	<u>GOGAS</u>	<u>Corporate</u>	<u>Total</u>
	(in thousands)					
<b>Total assets:</b>						
December 31, 2019 . . . . .	\$ 105,937	\$ 11,468	\$ 19,383	\$ 10,873	\$ 8,583	\$ 156,244
December 31, 2018 . . . . .	113,918	3,654	11,519	15,375	2,398	146,864
<b>Investments in equity method investees:</b>						
December 31, 2019 . . . . .	\$ —	\$ —	\$ —	\$ 275	\$ 400	\$ 675
December 31, 2018 . . . . .	—	1,679	—	529	—	2,208

*Geographic Information*

Revenues from customers located outside of the United States were, which are located primarily in Finland, Japan and Israel were as follows:

	<u>United States</u>	<u>Foreign Countries</u>	<u>Total</u>
	(in thousands)		
Year ended December 31, 2019 . . . . .	\$ 16,595	\$ —	\$ 16,595
Year ended December 31, 2018 . . . . .	—	170	170

**GENIE ENERGY LTD.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 18 — Business Segment and Geographic Information** (cont.)

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

	United States	Foreign Countries	Total
	(in thousands)		
<b>December 31, 2019</b>			
Long-lived assets, net . . . . .	\$ 17,498	\$ 4,440	\$ 21,938
Total assets . . . . .	143,738	12,506	156,244
<b>December 31, 2018</b>			
Long-lived assets, net . . . . .	\$ 20,529	\$ 1,409	\$ 21,938
Total assets . . . . .	141,336	5,528	146,864

**Note 19 — Subsequent Event**

In the first quarter of 2020, Lumo paid off its term loan to GREI in exchange for additional shares which resulted in GREI's interest in Lumo increasing to 92.5%.

On February 18, 2020, named Plaintiff Danelle Davis filed a putative class action complaint against Residents Energy and GRE in United States District Court for the District of New Jersey alleging violation of the Telephone Consumer Protection Act, 47 U.S.C. § 227 et seq. IDT Energy denies the allegations in the complaint which it to be meritless and plans to vigorously defend this action. Based upon the Company's preliminary assessment of this matter, a loss is not considered probable, nor is the amount of loss, if any, estimable.