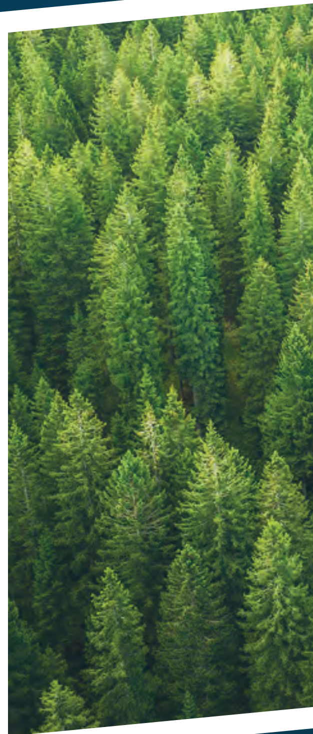
2019

ANNUAL REPORT



VISION

Energizing a sustainable world.

MISSION

Leading the quest to change the world as the trusted sustainability partner creating valued, single-sourced, efficient energy solutions delivered with passion, expertise, teamwork and a relentless focus on customer satisfaction.

VALUES

Ameresco's values shape our culture and the way we conduct business. Our values are aligned with CARING about our stakeholders and are instrumental in guiding every aspect of our business.

AMERESCO

Bringing Long-Term Value to Customers Since 2000

Ameresco (NYSE:AMRC) is a leading energy services company with a comprehensive portfolio of energy efficiency and renewable energy solutions. Our technical independence coupled with our advanced technology portfolio allows us to integrate best-in-class solutions for the unique needs of each customer.

We provide energy efficiency services, distributed generation, analytics, supply management, and innovative facility renewal all with practical financial solutions. Our team of technical experts deliver measurable cost savings through customized efficiency measures. Whether focused on securing infrastructure upgrades, meeting sustainability goals, or creating resiliency, our customers benefit from a single provider of comprehensive energy solutions.

Drawing from decades of experience, Ameresco develops tailored energy projects for federal and local governments, education, healthcare, commercial, industrial, and public housing sectors across North America and the United Kingdom.

2019 Revenue of **$867M** | **$2.3B** Project Backlog in 2019 | **$1.1B** O&M Backlog in 2019

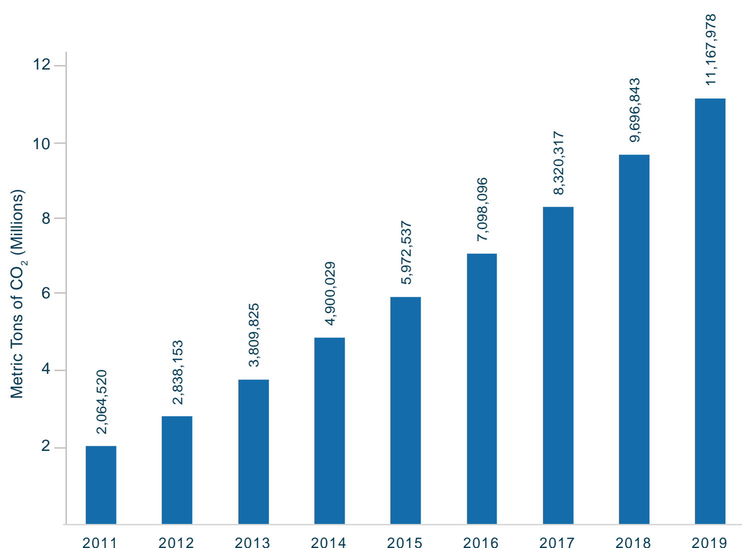
Energy Assets in Operation: **260 MWe** | Energy Assets in Development & Construction: **321 MWe**

Note: All numbers as of December 31, 2019.

Your Trusted Sustainability Partner

Ameresco is leading the quest to change the world as the trusted sustainability partner creating valued, single-sourced, efficient energy solutions delivered with passion, expertise, teamwork, and a relentless focus on customer satisfaction. In pursuit of energizing a sustainable world, Ameresco is proud that, in 2019, our renewable energy assets and customer projects delivered a **carbon offset equivalent to 11,167,978 metric tons of CO_2.**

Aggregate Metric Tons of CO_2 Avoided Per Year



2019 Carbon Offset is Equal to One of...

Greenhouse gas emissions from **27,712,104,218 miles driven** by an average passenger vehicle.

Carbon dioxide emissions from **1,288,712 homes' energy use** for one year.

Carbon sequestered by **14,584,861 acres of U.S. forests** in one year.

Note: Data estimates based on assets owned and operating, and customer projects as of 12/31/2018 to represent carbon impact through 2019.

Letter from the CEO

Dear Shareholders,

Ameresco ended 2019 with record results across several key metrics, and I would like to thank our employees for their focus, dedication, and execution in delivering these results. Our clients throughout the country continue to reach out and demand clean and resilient energy sources. Our investments in cutting edge advanced energy technologies and engineering talent positioned us to deliver the best and most flexible solutions for our customers. These differentiators resulted in considerable positive momentum in both contracted backlog, awarded backlog, and assets in development as we head into 2020.

During the year, our team did an outstanding job in leveraging the strength of every business unit to deliver on all facets: we grew our total backlog to $2.3 billion and our assets in development by 80% to record levels, we converted a great number of major awards to contracts as expected, and we executed on our contracted backlog which enabled us to realize record revenue. We now look forward to taking advantage of the game-changing industry advancements.

The economics of advanced technologies have dramatically improved and are now a key driver for renewable energy, energy efficiency, CHP, microgrids, and energy storage projects. Over the last decade, the cost of these advanced technologies has dropped significantly, making many installations and upgrades economical for our customers.

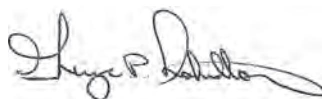
As we look to the future, it is clear that the trend is moving towards a low or carbon free environment and away from fossil fuels. Ameresco is well positioned to take advantage of this trend, as we work closely with customers, providing them with best-in-class advanced technology solutions that fit their unique needs. We are also seeing the growing demand for resiliency. The high-profile grid shutdowns in California demonstrate the negative economic impact of grid instability and power supply interruptions. While the military has proved to be an important early adopter of resiliency solutions, we are increasingly experiencing utilities, municipalities, hospitals, higher education, and corporations seek solutions that will enable them to rapidly rebound from ever-increasing, widespread interruptions.

Our mission is to lead the quest in creating a more sustainable world.

Moving forward we will be reporting more ESG (environmental, social, and governance) related data to both our customers and investors. We are proud to report that in 2019 alone, Ameresco's renewable energy assets and customer projects delivered a carbon offset equivalent to over 11 million metric tons of CO_2. This is equivalent to the carbon absorbed by almost 15 million acres of forests in one year.

We are entering 2020 with outstanding long-term visibility, a great competitive advantage, and the internal resources in place to benefit from this fast-growing market. I would once again, like to thank both our employees, for their dedication, hard work, and relentless execution, and our customers, for giving us the opportunity to work with them, for them, and beside them. I would also like to extend our gratitude to our stockholders for their ongoing support. As we march forward, we will do everything possible to create as much value for all of our stakeholders in 2020 and beyond.

Sincerely,



George P. Sakellaris, PE

Chairman of the Board of Directors
President and Chief Executive Officer

Project Highlights

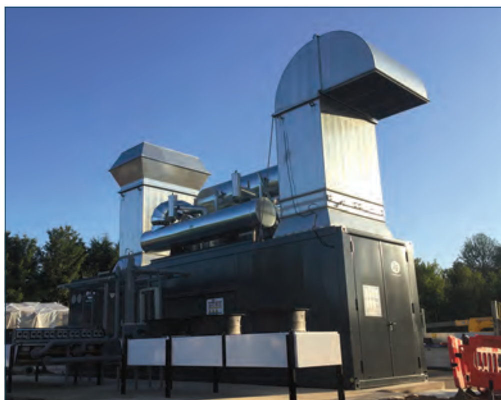
Portsmouth Naval Shipyard, ME

Under the $58 million task order awarded by the U.S. Navy, Ameresco is implementing an energy resiliency project at the Portsmouth Naval Shipyard (PNSY) in Kittery, Maine. This project expands on the long-term partnership between Ameresco's Federal Solutions team and the U.S. Navy at PNSY. This Energy Savings Performance Contract (ESPC), issued as a task order on the Department of Energy's Super ESPC contract, features on-site generation, battery storage, and microgrid controls to address the Navy's priority of maximizing energy security at the Shipyard while reducing energy costs. The ESPC structure leverages project savings to secure third-party financing, allowing the Navy to avoid contributing up-front funding during implementation.

Phoenix 91st Avenue Wastewater Treatment Plant, AZ

The 91st Avenue Renewable Natural Gas (RNG) plant located in Phoenix, Arizona is the largest wastewater treatment biogas-to-RNG facility of its kind in the United States and is capable of producing nearly 700,000 Dekatherms of "green gas" annually. Ameresco's processing plant beneficially utilizes an untapped energy resource by "cleaning" raw biogas generated at the historic 91st Ave WWTP (owned by the cities of Phoenix, Glendale, Mesa, Scottsdale, and Tempe) into a renewable energy fuel that, through the displacement of fossil fuel, provides valuable environmental benefits (the reduction of 44,621 metric tons carbon equivalent or the same as removing 70,452 cars from the road annually).

National Health System Wexham Park Hospital, UK



Ameresco completed a £7.5 million energy infrastructure and maintenance contract for NHS Wexham Park Hospital, a 588-bed acute care hospital, serving the town of Slough and the surrounding area of Berkshire, United Kingdom. The Energy Savings Performance Contract (ESPC) included replacement of the hospital's existing 1960s-era steam boilers and distribution system with a high efficiency gas fired 1.5 MWe Combined Heat and Power (CHP) plant. The CHP plant displaces 90% of grid electricity and provides 75% of the hospital's total heat requirement. Supported by a 15-year operations and maintenance (O&M) contract, Ameresco will deliver the hospital £700,000 in annual energy savings over the contract term.

Project Highlights

Newmarket IESO Battery Storage, ON, Canada

Ameresco worked with Ontario's Independent Electricity System Operator (IESO) to design and build two battery energy storage systems (BESS) on Newmarket – Tay Power Distribution Ltd's distribution grid. Ameresco owns, operates, and maintains both facilities, with a total capacity of 4 MW / 16 MWh. This project provides critical time-shifting of energy consumption and production and demonstrates the value of ancillary services. By integrating the solid-state lithium-ion batteries for the grid interconnected battery energy storage system, the facility is able to absorb power during periods of excess energy supply and provide it back to the grid when energy demand is high.

New York City Housing Authority (NYCHA), NY

Ameresco was found best qualified under New York City Housing Authority's (NYCHA's) first round RFP for its large Energy Performance Contracting (EPC) program and is currently completing work on its second large EPC award. Valued at over $100 million, it's the largest single public housing EPC ever approved by the U.S. Department of Housing and Urban Development (HUD), Ameresco is completing LED upgrades, heating, heating control, ventilation, domestic hot water, and related work in 13 NYCHA properties (nearly 15,000 apartments). Ameresco, with three others, has recently been awarded a task order contract for additional work under NYCHA's $400 million Indefinite Delivery Indefinite Quantity (IDIQ) EPC program.

Texas A&M University System, TX

Ameresco maintained the long-standing partnership as a pre-qualified ESCO for the Texas A&M University System. Ameresco has been competitively selected to perform work at four of the system's 11 universities, where projects have included a $14.5M energy project with Prairie View A&M University and a $14.3M energy reduction and modernization project at West Texas A&M University. At Texas A&M University – Corpus Christi, Ameresco completed a $6.9M ESPC project throughout the campus, as well as three separate design-build contracts focused on the university's central plant. Most recently, Ameresco was selected to implement a building automation system retrofit at Texas A&M University in College Station, TX.

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

FORM 10-K

(Mark One)

☑ **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**

For the transition period from ___________ to ___________.

Commission File Number: 001-34811

Ameresco, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**04-3512838**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
111 Speen Street, Suite 410 Framingham, Massachusetts	**01701**
(Address of Principal Executive Offices)	(Zip Code)

(508) 661-2200
(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 A Common Stock, par value $0.0001 per share	New York Stock Exchange

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth 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 pursuent 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 common equity held by non-affiliates computed by reference to the price at which the common equity was last sold on the New York Stock Exchange on June 28, 2019, the last business day of the registrant's most recently completed second fiscal quarter, was $322,112,989.

Indicate the number of shares outstanding of each of the registrant's classes of common stock as of the latest practicable date.

Class	Shares outstanding as of March 2, 2020
Class A Common Stock, $0.0001 par value per share	29,380,395
Class B Common Stock, $0.0001 par value per share	18,000,000

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement for our 2020 annual meeting of stockholders are incorporated by reference into Part III.

AMERESCO, INC.
TABLE OF CONTENTS

		Page
	PART I	
ITEM 1.	BUSINESS	1
ITEM 1A.	RISK FACTORS	7
ITEM 1B.	UNRESOLVED STAFF COMMENTS	22
ITEM 2.	PROPERTIES	22
ITEM 3.	LEGAL PROCEEDINGS	22
ITEM 4.	MINE SAFETY DISCLOSURES	22
	PART II	
ITEM 5.	MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES	23
ITEM 6.	SELECTED FINANCIAL DATA	24
ITEM 7.	MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	26
ITEM 7A.	QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	45
ITEM 8.	FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA	47
ITEM 9.	CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE	103
ITEM 9A.	CONTROLS AND PROCEDURES	103
ITEM 9B.	OTHER INFORMATION	103
	PART III	
ITEM 10.	DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE	104
ITEM 11.	EXECUTIVE COMPENSATION	104
ITEM 12.	SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS	104
ITEM 13.	CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE	105
ITEM 14.	PRINCIPAL ACCOUNTANT FEES AND SERVICES	105
	PART IV	
ITEM 15.	EXHIBITS AND FINANCIAL STATEMENT SCHEDULES	105
SIGNATURES		106
EXHIBIT INDEX		108

NOTE ABOUT FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended ("the Exchange Act"). All statements, other than statements of historical fact, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans, objectives of management, expected market growth and other characterizations of future events or circumstances are forward-looking statements. These statements are often, but not exclusively, identified by the use of words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "estimate," "target," "project," "predict" or "continue," and similar expressions or variations. These forward-looking statements include, among other things, statements about:

- our expectations as to the future growth of our business and associated expenses;
- our expectations as to revenue generation;
- the future availability of borrowings under our revolving credit facility;
- the expected future growth of the market for energy efficiency and renewable energy solutions;
- our backlog, awarded projects and recurring revenue and the timing of such matters;
- our expectations as to acquisition activity;
- the impact of any restructuring;
- the uses of future earnings;
- our intention to repurchase shares of our Class A common stock;
- the expected energy and cost savings of our projects; and
- the expected energy production capacity of our renewable energy plants.

These forward-looking statements are based on current expectations and assumptions that are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially and adversely from the future results expressed or implied by such forward-looking statements. Risks, uncertainties and factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section titled "Risk Factors," set forth in Item 1A of this Annual Report on Form 10-K and elsewhere in this report. The forward-looking statements in this Annual Report on Form 10-K represent our views as of the date of this Annual Report on Form 10-K. Subsequent events and developments may cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so and undertake no obligation to do so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Annual Report on Form 10-K.

Item 1. Business

Company Overview

Founded in 2000, Ameresco, Inc. is a leading independent provider of comprehensive energy services, including energy efficiency, infrastructure upgrades, energy security and resilience, asset sustainability and renewable energy solutions for businesses and organizations throughout North America and Europe. Ameresco's sustainability services include capital and operational upgrades to a facility's energy infrastructure and the development, construction, ownership and operation of renewable energy plants. Ameresco has successfully completed energy saving, environmentally responsible projects with federal, state and local governments, healthcare and educational institutions, housing authorities, and commercial and industrial customers. With its corporate headquarters in Framingham, MA, Ameresco has more than 1,100 employees across more than 70 offices providing local expertise in the United States, Canada, and the United Kingdom.

Strategic acquisitions of complementary businesses and assets have been an important part of our historical development. Since inception, we have completed numerous acquisitions, which have enabled us to broaden our service offerings and expand our geographical reach.

Our principal service is the development, design, engineering and installation of projects that reduce the energy and operations and maintenance ("O&M") costs of our customers' facilities. These projects generally include a variety of measures that incorporate innovative technology and techniques, customized for the facility and designed to improve the efficiency of major building systems, such as heating, ventilation, cooling and lighting systems, while enhancing the comfort and usability of the buildings. Such measures may include a combination of the following: water reclamation, light-emitting diode ("LED") lighting, smart metering, intelligent micro-grids, battery storage, combined heat and power ("CHP") or the installation of renewable energy, such as solar photovoltaic ("PV"). We also offer the ability to incorporate analytical tools that provide improved building energy management capabilities and enable customers to identify opportunities for energy cost savings. We typically commit to customers that our energy efficiency projects will satisfy agreed upon performance standards upon installation or achieve specified increases in energy efficiency. In most cases, the forecasted lifetime energy and operating cost savings of the energy efficiency measures we install will defray all or almost all of the cost of such measures. In many cases, we assist customers in obtaining third-party financing, grants or rebates for the cost of constructing the facility improvements, resulting in little or no upfront capital expenditure by the customer. After a project is complete, we may operate, maintain and repair the customer's energy systems under a multi-year O&M contract, which provides us with recurring revenue and visibility into the customer's evolving needs.

We also serve certain customers by developing and building small-scale renewable energy plants located at or close to a customer's site. Depending upon the customer's preference, we will either retain ownership of the completed plant or build it for the customer. Most of our small-scale renewable energy plants to date consist of solar PV installations and plants constructed adjacent to landfills, that use landfill gas ("LFG") to generate energy. We have also designed and built, as well as own, operate and maintain, plants that utilize biogas from wastewater treatment processes. Our largest renewable energy project that we operate for a customer uses biomass as the primary source of energy. In the case of most of the plants that we own, the electricity, thermal energy or processed renewable gas fuel generated by the plant is sold under a long-term supply contract with the customer, which is typically a utility, municipality, industrial facility or other purchaser of large amounts of energy. For information on how we finance the projects that we own and operate, please see the disclosures under Note 2, "Summary of Significant Accounting Policies", Note 9, "Long-Term Debt" and Note 11, "Investment Funds" to our Consolidated Financial Statements appearing in Item 8 of this Annual Report on Form 10-K.

As of December 31, 2019, we had backlog of approximately $1,107.6 million in expected future revenues under signed customer contracts for the installation or construction of projects, which we sometimes refer to as fully-contracted backlog. We also had been awarded projects for which we had not yet signed customer contracts, which we sometimes refer to as awarded projects, with estimated total future revenues of an additional $1,160.4 million. As of December 31, 2018, we had backlog of approximately $726.6 million in expected future revenues under signed customer contracts for the installation or construction of projects. We also had been awarded projects for which we had not yet signed customer contracts, with estimated total future revenues of an additional $1,241.4 million. As of December 31, 2017, we had backlog of approximately $572.5 million in expected future revenues under signed customer contracts for the installation or construction of projects. We also had been awarded projects for which we had not yet signed customer contracts with estimated total future revenues of an additional $1,199.0 million. The contracts reflected in our fully-contracted backlog typically have a construction period of 12 to 36 months and we typically expect to recognize revenue for such contracts over the same period. Where we have been awarded a project, but have not yet signed a customer contract for that project, we would not begin recognizing revenue unless and until a

customer contract has been signed and we treat the project as fully-contracted backlog. Recently, awarded projects typically have been taking 12 to 24 months from award to having a signed contract and thus convert to fully-contracted backlog. It may take longer, however, depending upon the size and complexity of the project. Generally, the larger and more complex the project, the longer it takes to take it from award to signed contract. Historically, approximately 90% of our awarded projects ultimately have resulted in a signed contract.

See “We may not recognize all revenues from our backlog or receive all payments anticipated under awarded projects and customer contracts” and “In order to secure contracts for new projects, we typically face a long and variable selling cycle that requires significant resource commitments and requires a long lead time before we realize revenues” in Item 1A, Risk Factors of this Annual Report on Form 10-K.

Revenues generated from backlog, which we refer to as project revenues, were $611.1 million, $545.1 million and $506.6 million for the twelve months ended December 31, 2019, 2018 and 2017, respectively.

We also expect to realize recurring revenues both from long-term O&M contracts and from energy output sales for renewable energy operating assets that we own. In addition, we expect to generate revenues from the sale of photovoltaic solar energy products and systems (“integrated-PV”) and other services, such as consulting services and enterprise energy management services. Information about revenues from these other service and product offerings may be found in Note 20, “Business Segment Information” of our Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K, which information is incorporated herein by reference.

Ameresco’s Lines of Business

Projects

Our principal service is energy efficiency projects, which entails the design, engineering and installation of, and assisting with the arranging of financing for an ever-increasing array of innovative technologies and techniques to improve the energy efficiency, and control the operation, of a building’s energy- and water- consuming systems. In certain projects, we also design and construct for a customer a central plant or cogeneration system providing power, heat and/or cooling to a building, or a small-scale plant that produces electricity, gas, heat or cooling from renewable sources of energy. Our projects generally range in size and scope from a one-month project to design and retrofit a lighting system to a more complex 30-month project to design and install a central plant or cogeneration system or other small-scale plant. Projects we have constructed or are currently working on include designing, engineering and installing energy conservation measures across school buildings; large, complex energy conservation and energy security projects for the federal government; and municipal-scale street lighting projects incorporating smart-city controls.

O&M

After an energy efficiency or renewable energy project is completed, we often provide ongoing O&M services under a multi-year contract. These services include operating, maintaining and repairing facility energy systems such as boilers, chillers and building controls, as well as central power and other small-scale plants. For larger projects, we frequently maintain staff on-site to perform these services.

Energy Assets

Our service offering also includes the sale of electricity, processed renewable gas fuel, heat or cooling from the portfolio of assets that we own and operate.

We have constructed and are currently designing and constructing a wide range of renewable energy plants using LFG, wastewater treatment biogas, solar, biomass, other bio-derived fuels, wind and hydro sources of energy. Most of our renewable energy projects to date have involved the generation of electricity from solar PV and LFG or the sale of processed LFG. We purchase the LFG that otherwise would be combusted or vented, process it, and either sell it or use it in our energy plants. We have also designed and built, as well as own, operate and maintain, plants that take biogas generated in the anaerobic digesters of wastewater treatment plants and turn it into renewable natural gas that is either used to generate energy on-site or that can be sold through the nation’s natural gas pipeline grid. Where we own and operate energy producing assets, we typically enter into a long-term power purchase agreement (“PPA”) for the sale of the energy.

As of December 31, 2019, we owned and operated 99 small-scale renewable energy plants and solar PV installations. Of the owned plants, 23 are renewable LFG plants, 2 are wastewater biogas plants, and 74 are solar PV installations. The 99 small-

scale renewable energy plants and solar PV installations that we own have the capacity to generate electricity or deliver renewable gas fuel producing an aggregate of more than 259 megawatt equivalents.

Other

Our service and product offerings also include integrated-PV and consulting and enterprise energy management services.

Customer Arrangements

For our energy efficiency projects, we typically enter into energy savings performance contracts ("ESPCs"), under which we agree to develop, design, engineer and construct a project and also commit that the project will satisfy agreed upon performance standards that vary from project to project. These performance commitments are typically based on the design, capacity, efficiency or operation of the specific equipment and systems we install. Depending on the project, the measurement and demonstration may be required only once, upon installation, based on an analysis of one or more sample installations, or may be required to be repeated at agreed upon intervals generally over periods of up to 25 years. We often assist these customers in identifying and obtaining financing, through rebate programs, grant programs, third-party lenders and other sources.

Under our contracts, we typically do not take responsibility for a wide variety of factors outside of our control and exclude or adjust for such factors in commitment calculations. These factors include variations in energy prices and utility rates, weather, facility occupancy schedules, the amount of energy-using equipment in a facility and the failure of the customer to operate or maintain the project properly. Typically, our performance commitments apply to the aggregate overall performance of a project rather than to individual energy efficiency measures. Therefore, to the extent an individual measure underperforms, it may be offset by other measures that overperform during the same period. In the event that an energy efficiency project does not perform according to the agreed upon specifications, our agreements typically allow us to satisfy our obligation by adjusting or modifying the installed equipment, installing additional measures to provide substitute energy savings or paying the customer for lost energy savings based on the assumed conditions specified in the agreement. Many of our equipment supply, local design and installation subcontracts contain provisions that enable us to seek recourse against our vendors or subcontractors if there is a deficiency in our energy reduction commitment. See "We may have liability to our customers under our ESPCs if our projects fail to deliver the energy use reductions to which we are committed under the contract" in Item 1A, Risk Factors.

The projects that we perform for governmental agencies are governed by particular qualification and contracting regimes. Certain states require qualification with an appropriate state agency as a precondition to performing work or appearing as a qualified energy service provider for state, county and local agencies within the state. For example, the Commonwealth of Massachusetts and the states of Colorado and Washington pre-qualify energy service providers and provide contract documents that serve as the starting point for negotiations with potential governmental clients. Most of the work that we perform for the federal government is performed under indefinite delivery, indefinite quantity ("IDIQ") agreements between government agencies and us or our subsidiaries. These IDIQ agreements allow us to contract with the relevant agencies to implement energy projects, but no work may be performed unless we and the agency agree on a task order or delivery order governing the provision of a specific project. The government agencies enter into contracts for specific projects on a competitive basis. We and our subsidiaries and affiliates are currently party to an IDIQ agreement with the U.S. Department of Energy expiring April 2022, which may be extended through December 2023.

Sales and Marketing

Our sales and marketing approach is to offer customers customized and comprehensive energy efficiency solutions tailored to meet their economic, operational and technical needs. The sales, design and construction process for energy efficiency and renewable energy projects recently has been averaging from 18 to 54 months. We identify project opportunities through referrals, requests for proposals ("RFPs"), conferences and events, website, online campaigns, telemarketing and repeat business from existing customers. Our direct sales force develops and follows up on customer leads. As of December 31, 2019, we had 135 employees in direct sales.

In preparation for a proposal, our team typically conducts a preliminary audit of the customer's needs and requirements, and identifies areas to enhance efficiencies and reduce costs. We collect and analyze the customer's utility bill and other data related to energy use. If the bills are complex or numerous, we often utilize Ameresco's enterprise energy management software tools to scan, compile and analyze the information. Our experienced engineers visit and assess the customer's current energy systems and infrastructure. Through our knowledge of the federal, state, local governmental and utility environment, we assess

the availability of energy, utility or environmental-based payments for usage reductions or renewable power generation, which helps us optimize the economic benefits of a proposed project for a customer. Once awarded a project, we perform a more detailed audit of the customer's facilities, which serves as the basis for the final specifications of the project and final contract terms.

For renewable energy plants that are not located on a customer's site or use sources of energy not within the customer's control, the sales process also involves the identification of sites with attractive sources of renewable energy and obtaining necessary rights and governmental permits to develop a plant on that site. For example, for LFG projects, we start with gaining control of a LFG resource located close to the prospective customer. For solar and wind projects, we look for sites where utilities are interested in purchasing renewable energy power at rates that are sufficient to make a project feasible. Where governmental agencies control the site and resource, such as a landfill owned by a municipality, the customer may be required to issue an RFP to use the site or resource. Once we believe we are likely to obtain the rights to the site and the resource, we seek customers for the energy output of the potential project, with whom we can enter into a long-term PPA.

Customers

In 2019, we served customers throughout the United States, Canada, the United Kingdom ("U.K."), and Greece. Historically, including for the years ended December 31, 2019, 2018 and 2017, approximately 75% of our revenues have been derived from federal, state, provincial or local government entities, including public housing authorities and public universities. Our federal customers include various divisions of the U.S. federal government. The U.S. federal government, which is considered a single customer for reporting purposes, constituted 33.2%, 31.3% and 32.0% of our consolidated revenues for the years ended December 31, 2019, 2018 and 2017, respectively. For the year ended December 31, 2019, our largest 20 customers accounted for approximately 62.7% of our total revenues. Other than the U.S. federal government, no one customer represented more than 10% of our revenues during this period.

See "Provisions in our government contracts may harm our business, financial condition and operating results" in Item 1A, Risk Factors for a discussion of special considerations applicable to government contracting.

Competition

While we face significant competition from a large number of companies, we believe few offer the objective technical expertise and full range of services that we provide.

Our principal competitors for our core business include Constellation NewEnergy (and Exelon Company), Energy Systems Group, Honeywell, Johnson Controls, NORESCO, Schneider Electric, Siemens Building Technologies, and Trane. We compete primarily on the basis of our comprehensive, independent offering of energy efficiency and renewable energy services and the breadth and depth of our expertise.

For renewable energy plants, we compete primarily with many large independent power producers and utilities, as well as a large number of developers of renewable energy projects. In the LFG market, our principal competitors include national project developers and owners of landfills who self-develop projects using LFG from their landfills. In the solar PV market, our principal competitors are Borrego Solar, BlueWave Solar, Citizens Energy, Clean Energy Collective, Nexamp, SunPower Corp., Solect Energy, and Syncarpha Capital. We compete for renewable energy projects primarily on the basis of our experience, reputation and ability to identify and complete high quality and cost-effective projects.

For O&M services, our principal competitors are EMCOR Group, Comfort Systems USA, Honeywell, Johnson Controls and Veolia. In this area, we compete primarily on the basis of our expertise and quality of service.

See "We operate in a highly competitive industry, and our current or future competitors may be able to compete more effectively than we do, which could have a material adverse effect on our business, revenues, growth rates and market share" in Item 1A, Risk Factors for further discussion of competition.

Regulatory

Various regulations affect the conduct of our business. Federal and state legislation and regulations enable us to enter into ESPCs with government agencies in the United States. The applicable regulatory requirements for ESPCs differ in each state and between agencies of the federal government.

Our projects must conform to all applicable electric reliability, building and safety, and environmental regulations and codes, which vary from place to place and time to time. Various federal, state, provincial and local permits are required to construct an energy efficiency project or renewable energy plant.

Renewable energy projects are also subject to specific governmental safety and economic regulation. States and the federal government typically do not regulate the transportation or sale of LFG unless it is combined with and distributed with natural gas, but this is not uniform among states and may change from time to time. States regulate the retail sale and distribution of natural gas to end-users, although regulatory exemptions from regulation are available in some states for limited gas delivery activities, such as sales only to a single customer. The sale and distribution of electricity at the retail level is subject to state and provincial regulation, and the sale and transmission of electricity at the wholesale level is subject to federal regulation. While we do not own or operate retail-level electric distribution systems or wholesale-level transmission systems, the prices for the products we offer can be affected by the tariffs, rules and regulations applicable to such systems, as well as the prices that the owners of such systems are able to charge. The construction of power generation projects typically is regulated at the state and provincial levels, and the operation of these projects also may be subject to state and provincial regulation as "utilities." At the federal level, the ownership and operation of, and sale of power from, generation facilities may be subject to regulation under the Public Utility Holding Company Act of 2005 ("PUHCA"), the Federal Power Act ("FPA"), and Public Utility Regulatory Policies Act of 1978 ("PURPA"). However, because all of the plants that we have constructed and operated to date are small power "qualifying facilities" under PURPA, they are subject to less regulation under the FPA, PUHCA and related state utility laws than traditional utilities.

If we pursue projects employing different technologies or with a single project electrical capacity greater than 20 megawatts, we could become subject to some of the regulatory schemes which do not apply to our current projects. In addition, the state, provincial and federal regulations that govern qualifying facilities and other power sellers frequently change, and the effect of these changes on our business cannot be predicted.

LFG power generation facilities require an air emissions permit, which may be difficult to obtain in certain jurisdictions. See "Compliance with environmental laws could adversely affect our operating results" in Item 1A, Risk Factors. Renewable energy projects may also be eligible for certain governmental or government-related incentives from time to time, including tax credits, cash payments in lieu of tax credits, and the ability to sell associated environmental attributes, including carbon credits. Government incentives and mandates typically vary by jurisdiction.

Some of the demand reduction services we provide for utilities and institutional clients are subject to regulatory tariffs imposed under federal and state utility laws. In addition, the operation of, and electrical interconnection for, our renewable energy projects are subject to federal, state or provincial interconnection and federal reliability standards also set forth in utility tariffs. These tariffs specify rules, business practices and economic terms to which we are subject. The tariffs are drafted by the utilities and approved by the utilities' state, provincial or federal regulatory commissions.

Employees

As of December 31, 2019, we had a total of 1,127 employees in offices located in 39 states, the District of Columbia, four Canadian provinces and the U.K.

Seasonality

See "Our business is affected by seasonal trends and construction cycles, and these trends and cycles could have an adverse effect on our operating results" in Item 1A, Risk Factors and "Overview — Effects of Seasonality" in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations" for a discussion of seasonality in our business.

Segments and Geographic Information

Financial information about our domestic and international operations and about our segments may be found in Note 16, "Geographic Information" and 20, "Business Segment Information" respectively, of our Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K, which information is incorporated herein by reference.

Additional Information

Ameresco was incorporated in Delaware in 2000 and is headquartered in Framingham, Massachusetts.

Periodic reports, proxy statements and other information are available to the public, free of charge, on our website, www.ameresco.com, as soon as reasonably practicable after they have been filed with the Securities and Exchange Commission

("SEC"), and through the SEC's website, www.sec.gov. We include our website address in this report only as an inactive textual reference and do not intend it to be an active link to our website. None of the material on our website is part of this Annual Report on Form 10-K.

Executive Officers

The following is a list of our executive officers, their ages as of March 1, 2020 and their principal positions.

Name	Age	Position (s)
George P. Sakellaris	73	Chairman of the Board of Directors, President and Chief Executive Officer
David J. Anderson	59	Executive Vice President and Director
Michael T. Bakas	51	Executive Vice President, Distributed Energy Systems
Nicole A. Bulgarino	47	Executive Vice President and General Manager, Federal Solutions
David J. Corrsin	61	Executive Vice President, General Counsel and Secretary and Director
Louis P. Maltezos	53	Executive Vice President
Spencer Doran Hole	51	Senior Vice President and Chief Financial Officer
Mark A. Chiplock	50	Vice President of Finance and Chief Accounting Officer

George P. Sakellaris: Mr. Sakellaris has served as chairman of our board of directors and our president and chief executive officer since founding Ameresco in 2000.

David J. Anderson: Mr. Anderson has served as our executive vice president as well as a director, since 2000 and oversees business development, government relations, strategic marketing and communications, as well as several U.S. business units and U.K. operations.

Michael T. Bakas: Mr. Bakas has served as our executive vice president, distributed energy systems, since November 2017. Mr. Bakas previously served as our senior vice president, renewable energy, from March 2010 to September 2017 and our vice president, renewable energy from 2000 to February 2010.

David J. Corrsin: Mr. Corrsin has served as our executive vice president, general counsel and secretary, as well as a director, since 2000.

Nicole A. Bulgarino: Ms. Bulgarino has served as our executive vice president and general manager of federal solutions since May 2017. Ms. Bulgarino previously served as our senior vice president and general manager of federal solutions from May 2015 to May 2017; vice president and general manager of federal solutions from February 2014 to May 2015; vice president, federal group operations from December 2012 to February 2014; director, implementation from May 2010 to December 2012; and senior engineer from June 2004 to May 2010.

Louis P. Maltezos: Mr. Maltezos has served as executive vice president since April 2009 and oversees Central and Northwest Regions and Canada operations. Mr. Maltezos has also served as the chief executive officer of Ameresco Canada since September 2015 and served as the president of Ameresco Canada from September 2014 to September 2015.

Spencer Doran Hole: Mr. Hole has served as our Senior Vice President and Chief Financial Officer since July 2019. Prior to joining Ameresco, Mr. Hole served as Chief Executive Officer, North America and Group Vice President - Strategy at ReneSola Ltd., a manufacturer and supplier of green energy products, since November 2017 and served as the Chief Financial Officer for the US division of ReneSola since December 2016. Prior to joining ReneSola, Mr. Hole was the founder of Coast to Coast Advisors, an independent financial consultancy practice, assisting investor, lender and developer clients with financing and asset sales. Mr. Hole also served as the Chief Financial Officer of Pristine Sun LLC, a small-scale solar developer, from November 2015 through April 2016, and as a Director at Deutsche Bank from April 2007 through October 2015.

Mark A. Chiplock: Mr. Chiplock has served as Vice President of Finance and Chief Accounting Officer since July 2019. Prior to that, Mr. Chiplock served as our Interim Chief Financial Officer and Treasurer from October 2018 through July 2019 and as our Corporate Controller from June 2014 to December 2019. Prior to Ameresco, he served as Vice President, Finance of GlassHouse Technologies, a data center infrastructure consulting firm, from June 2012 to May 2014.

Item 1A. Risk Factors

Our business is subject to numerous risks. We caution you that the following important factors, among others, could cause our actual results to differ materially from those expressed in forward-looking statements made by us or on our behalf in filings with the SEC, press releases, communications with investors and oral statements. Any or all of our forward-looking statements in this Annual Report on Form 10-K and in any other public statements we make may turn out to be wrong. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in the discussion below will be important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may differ materially from those anticipated in forward-looking statements. We undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent required by applicable law. You should, however, consult any further disclosure we make in our reports filed with the SEC.

Risks Related to Our Business

If demand for our energy efficiency and renewable energy solutions does not develop as we expect, our revenues will suffer and our business will be harmed.

We believe, and our growth plans assume, that the market for energy efficiency and renewable energy solutions will continue to grow, that we will increase our penetration of this market and that our revenues from selling into this market will continue to increase over time. If our expectations as to the size of this market and our ability to sell our products and services in this market are not correct, our revenues will suffer and our business will be harmed.

In order to secure contracts for new projects, we typically face a long and variable selling cycle that requires significant resource commitments and requires a long lead time before we realize revenues.

The sales, design and construction process for energy efficiency and renewable energy projects recently has been taking from 18 to 54 months on average, with sales to federal government and housing authority customers tending to require the longest sales processes. Our existing and potential customers generally follow extended budgeting and procurement processes, and sometimes must engage in regulatory approval processes related to our services. Our customers often use outside consultants and advisors, which contributes to a longer sales cycle. Most of our potential customers issue an RFP, as part of their consideration of alternatives for their proposed project. In preparation for responding to an RFP, we typically conduct a preliminary audit of the customer's needs and the opportunity to reduce its energy costs. For projects involving a renewable energy plant that is not located on a customer's site or that uses sources of energy not within the customer's control, the sales process also involves the identification of sites with attractive sources of renewable energy, such as a landfill or a favorable site for solar PV, and it may involve obtaining necessary rights and governmental permits to develop a project on that site. If we are awarded a project, we then perform a more detailed audit of the customer's facilities, which serves as the basis for the final specifications of the project. We then must negotiate and execute a contract with the customer. In addition, we or the customer typically need to obtain financing for the project.

This extended sales process requires the dedication of significant time by our sales and management personnel and our use of significant financial resources, with no certainty of success or recovery of our related expenses. A potential customer may go through the entire sales process and not accept our proposal. All of these factors can contribute to fluctuations in our quarterly financial performance and increase the likelihood that our operating results in a particular quarter will fall below investor expectations. These factors could also adversely affect our business, financial condition and operating results due to increased spending by us that is not offset by increased revenues.

We may not recognize all revenues from our backlog or receive all payments anticipated under awarded projects and customer contracts.

As of December 31, 2019 and December 31, 2018, we had backlog of approximately $1,107.6 million and $726.6 million, respectively, in expected future revenues under signed customer contracts for the installation or construction of projects, which we sometimes refer to as fully-contracted backlog; and we also had been awarded projects for which we do not yet have signed customer contracts with estimated total future revenues of an additional $1,160.4 million and $1,241.4 million, respectively .

Our customers have the right under some circumstances to terminate contracts or defer the timing of our services and their payments to us. In addition, our government contracts are subject to the risks described below under "Provisions in government contracts may harm our business, financial condition and operating results." The payment estimates for projects that have been awarded to us but for which we have not yet signed contracts have been prepared by management and are based upon a number

of assumptions, including that the size and scope of the awarded projects will not change prior to the signing of customer contracts, that we or our customers will be able to obtain any necessary third-party financing for the awarded projects, and that we and our customers will reach agreement on and execute contracts for the awarded projects. We are not always able to enter into a contract for an awarded project on the terms proposed. As a result, we may not receive all of the revenues that we include in the awarded projects component of our backlog or that we estimate we will receive under awarded projects. If we do not receive all of the revenue we currently expect to receive, our future operating results will be adversely affected. In addition, a delay in the receipt of revenues, even if such revenues are eventually received, may cause our operating results for a particular quarter to fall below our expectations.

Our business depends in part on federal, state, provincial and local government support for energy efficiency and renewable energy, and a decline in such support could harm our business.

We depend in part on legislation and government policies that support energy efficiency and renewable energy projects that enhance the economic feasibility of our energy efficiency services and small-scale renewable energy projects. This support includes legislation and regulations that authorize and regulate the manner in which certain governmental entities do business with us; encourage or subsidize governmental procurement of our services; encourage or in some cases require other customers to procure power from renewable or low-emission sources, to reduce their electricity use or otherwise to procure our services; and provide us with tax and other incentives that reduce our costs or increase our revenues. Without this support, on which projects frequently rely for economic feasibility, our ability to complete projects for existing customers and obtain project commitments from new customers could be adversely affected.

A substantial portion of our earnings are derived from the sale of renewable energy certificates ("RECs") and other environmental attributes, and our failure to be able to sell such attributes could materially adversely affect our business, financial condition and results of operation.

A substantial portion of our earnings are attributable to our sale of renewable energy certificates ("RECs") and other environmental attributes generated by our energy assets. These attributes are used as compliance purposes for state-specific or U.S. federal policy.

We own and operate solar PV installations which derive a significant portion of their revenues from the sale of solar renewable energy certificates ("SRECs"), which are produced as a result of generating electricity. The value of these SRECs is determined by the supply and demand of SRECs in the states in which the solar PV installations are installed. Supply is driven by the amount of installations and demand is driven by state-specific laws relating to renewable portfolio standards.

We also own and operate renewable natural gas plants that may deliver biofuels into to the nation's natural gas pipeline grid. Such biofuel may qualify for certain environmental attribute mechanisms, such as renewable identification numbers ("RINs") which are used for compliance purposes under the Renewable Fuel Standard ("RFS") program. The RFS is a U.S. federal policy that requires transportation fuel to contain a minimum volume of renewable fuel. The U.S. Environmental Protection Agency ("EPA") administers the RFS program and may periodically undertake regulatory action involving the RFS, including annual volume standards for renewable fuel.

We sometimes seek to sell forward a portion of our SRECs and other environmental attributes under contracts to fix the revenues from those attributes for financing purposes or hedge against future declines in prices of such environmental attributes. If our renewable energy facilities do not generate the amount of renewable energy attributes sold under such forward contracts or if for any reason the renewable energy we generate does not produce SRECs or other environmental attributes for a particular state, we may be required to make up the shortfall of SRECs or other environmental attributes under such forward contracts through purchases on the open market or make payments of liquidated damages.

RECs are created through state law requirements for utilities to purchase a portion of their energy from renewable energy sources and changes in state laws or regulation relating to RECs may adversely affect the availability of RECs or other environmental attributes and the future prices for RECs or other environmental attributes, which could have an adverse effect on our business, financial condition and results of operations.

A significant decline in the fiscal health of federal, state, provincial and local governments could reduce demand for our energy efficiency and renewable energy projects.

Historically, including for the years ended December 31, 2019 and 2018, more than 75% of our revenues have been derived from sales to federal, state, provincial or local governmental entities, including public housing authorities and public universities. We expect revenues from this market sector to continue to comprise a significant percentage of our revenues for the foreseeable future. A significant decline in the fiscal health of these existing and potential customers may make it difficult for them to enter into contracts for our services or to obtain financing necessary to fund such contracts, or may cause them to seek to renegotiate or terminate existing agreements with us. In addition, if there is a partial or full shutdown of any federal, state, provincial or local governing body this may adversely impact our financial performance.

Provisions in our government contracts may harm our business, financial condition and operating results.

A significant majority of our fully-contracted backlog and awarded projects is attributable to customers that are governmental entities. Our contracts with the federal government and its agencies, and with state, provincial and local governments, customarily contain provisions that give the government substantial rights and remedies, many of which are not typically found in commercial contracts, including provisions that allow the government to:

- terminate existing contracts, in whole or in part, for any reason or no reason;
- reduce or modify contracts or subcontracts;
- decline to award future contracts if actual or apparent organizational conflicts of interest are discovered, or to impose organizational conflict mitigation measures as a condition of eligibility for an award;
- suspend or debar the contractor from doing business with the government or a specific government agency; and
- pursue criminal or civil remedies under the False Claims Act, False Statements Act and similar remedy provisions unique to government contracting.

Under general principles of government contracting law, if the government terminates a contract for convenience, the terminated company may recover only its incurred or committed costs, settlement expenses and profit on work completed prior to the termination. If the government terminates a contract for default, the defaulting company is entitled to recover costs incurred and associated profits on accepted items only and may be liable for excess costs incurred by the government in procuring undelivered items from another source. In most of our contracts with the federal government, the government has agreed to make a payment to us in the event that it terminates the agreement early. The termination payment is designed to compensate us for the cost of construction plus financing costs and profit on the work completed.

In ESPCs for governmental entities, the methodologies for computing energy savings may be less favorable than for non-governmental customers and may be modified during the contract period. We may be liable for price reductions if the projected savings cannot be substantiated.

In addition to the right of the federal government to terminate its contracts with us, federal government contracts are conditioned upon the continuing approval by Congress of the necessary spending to honor such contracts. Congress often appropriates funds for a program on a September 30 fiscal-year basis even though contract performance may take more than one year. Consequently, at the beginning of many major Governmental programs, contracts often may not be fully funded, and additional monies are then committed to the contract only if, as and when appropriations are made by Congress for future fiscal years. Similar practices are likely to also affect the availability of funding for our contracts with Canadian, as well as state, provincial and local government entities. If one or more of our government contracts were terminated or reduced, or if appropriations for the funding of one or more of our contracts is delayed or terminated, our business, financial condition and operating results could be adversely affected.

Our senior credit facility, project financing term loans and construction loans contain financial and operating restrictions that may limit our business activities and our access to credit.

Provisions in our senior credit facility, project financing term loans and construction loans impose customary restrictions on our and certain of our subsidiaries' business activities and uses of cash and other collateral. These agreements also contain other customary covenants, including covenants that require us to meet specified financial ratios and financial tests.

We have a $115 million revolving senior secured credit facility that matures June 2024, subject to the quarter end ratio covenant described below. This facility may not be sufficient to meet our needs as our business grows, and we may be unable to extend or replace it on acceptable terms, or at all. Under the revolving credit facility we are required to maintain a maximum ratio of total funded debt to EBITDA (as defined in the agreement) of less than 3.25 to 1.0. We are also required to maintain a

debt service coverage ratio (as defined in the agreement) of at least 1.5 to 1.0. EBITDA for purposes of the facility excludes the results of certain renewable energy projects that we own and for which financing from others remains outstanding.

In addition, our project financing term loans and construction loans require us to comply with a variety of financial and operational covenants.

Although we do not consider it likely that we will fail to comply with any material covenants for the next twelve months, we cannot assure that we will be able to do so. Our failure to comply with these covenants may result in the declaration of an event of default and cause us to be unable to borrow under our credit facility. In addition to preventing additional borrowings under this facility, an event of default, if not cured or waived, may result in the acceleration of the maturity of indebtedness outstanding under it or the applicable project financing term loan, which would require us to pay all amounts outstanding. If an event of default occurs, we may not be able to cure it within any applicable cure period, if at all. Certain of our debt agreements also contain subjective acceleration clauses based on a lender deeming that a “material adverse change” in our business has occurred. If these clauses are implicated, and the lender declares that an event of default has occurred, the outstanding indebtedness would likely be immediately due and owing. If the maturity of our indebtedness is accelerated, we may not have sufficient funds available for repayment or we may not have the ability to borrow or obtain sufficient funds to replace the accelerated indebtedness on terms acceptable to us or at all.

The LIBOR calculation method may change and LIBOR is expected to be phased out after 2021.

Our senior credit facility and certain of our project financing term loans permit or require interest on the outstanding principal balance to be calculated based on LIBOR. On July 27, 2017, the U.K. Financial Conduct Authority (the "FCA") announced that it will no longer require banks to submit rates for the calculation of LIBOR after 2021. In the meantime, actions by the FCA, other regulators, or law enforcement agencies may result in changes to the method by which LIBOR is calculated. At this time, it is not possible to predict the effect of any such changes or any other reforms to LIBOR that may be enacted in the U.K. or elsewhere.

The projects we undertake for our customers generally require significant capital, which our customers or we may finance through third parties, and such financing may not be available to our customers or to us on favorable terms, if at all.

Our projects for customers are typically financed by third parties. For small-scale renewable energy plants that we own, we typically rely on a combination of our working capital and debt to finance construction costs. If we or our customers are unable to raise funds on acceptable terms when needed, we may be unable to secure customer contracts, the size of contracts we do obtain may be smaller or we could be required to delay the development and construction of projects, reduce the scope of those projects or otherwise restrict our operations. Any inability by us or our customers to raise the funds necessary to finance our projects could materially harm our business, financial condition and operating results.

Project development or construction activities may not be successful, and we may make significant investments without first obtaining project financing, which could increase our costs and impair our ability to recover our investments.

The development and construction of small-scale renewable energy plants and other energy infrastructure projects involve numerous risks. We may be required to spend significant sums for preliminary engineering, permitting, legal and other expenses before we can determine whether a project is feasible, economically attractive or capable of being built. In addition, we will often choose to bear the costs of such efforts prior to obtaining project financing, prior to getting final regulatory approval and prior to our final sale to a customer, if any.

Successful completion of a particular project may be adversely affected by numerous factors, including: failures or delays in obtaining desired or necessary land rights, including ownership, leases and/or easements; failures or delays in obtaining necessary permits, licenses or other governmental support or approvals, or in overcoming objections from members of the public or adjoining land owners; uncertainties relating to land costs for projects; unforeseen engineering problems; access to available transmission for electricity generated by our small-scale renewable energy plants; construction delays and contractor performance shortfalls; work stoppages or labor disruptions and compliance with labor regulations; cost over-runs; availability of products and components from suppliers; adverse weather conditions; environmental, archaeological and geological conditions; and availability of construction and permanent financing.

If we are unable to complete the development of a small-scale renewable energy plants or fail to meet one or more agreed target construction milestone dates, we may be subject to liquidated damages and/or penalties under the Engineering Procurement and Construction agreement or other agreements relating to the power plant or project, and we typically will not be able to recover our investment in the project. We expect to invest a significant amount of capital to develop projects whether

owned by us or by third parties. If we are unable to complete the development of a project, we may write-down or write-off some or all of these capitalized investments, which would have an adverse impact on our net income in the period in which the loss is recognized.

Our business is affected by seasonal trends and construction cycles, and these trends and cycles could have an adverse effect on our operating results.

We are subject to seasonal fluctuations and construction cycles, particularly in climates that experience colder weather during the winter months, such as the northern United States and Canada, or at educational institutions, where large projects are typically carried out during summer months when their facilities are unoccupied. In addition, government customers, many of which have fiscal years that do not coincide with ours, typically follow annual procurement cycles and appropriate funds on a fiscal-year basis even though contract performance may take more than one year. Further, government contracting cycles can be affected by the timing of, and delays in, the legislative process related to government programs and incentives that help drive demand for energy efficiency and renewable energy projects. As a result, our revenues and operating income in the third and fourth quarter are typically higher, and our revenues and operating income in the first quarter are typically lower, than in other quarters of the year. As a result of such fluctuations, we may occasionally experience declines in revenue or earnings as compared to the immediately preceding quarter, and comparisons of our operating results on a period-to-period basis may not be meaningful.

We may have exposure to additional tax liabilities and our effective tax rate may increase or fluctuate, which could increase our income tax expense and reduce our net income.

Our provision for income taxes is subject to volatility and could be adversely affected by changes in tax laws or regulations, particularly changes in tax incentives in support of energy efficiency. For example, certain deductions relating to energy efficiency have expiration dates which could significantly alter the existing tax code, including the removal of these credits prior to their scheduled expiration. The 30% investment tax credit ("ITC") relating to the installation of solar power expired on December 31, 2019, after which it will fall to 26 percent in 2020, 22 percent in 2021, and 10 percent in 2022 and future years. If these or other deductions and credits expire without being extended, or otherwise are reduced or eliminated, our effective tax rate would increase, which could increase our income tax expense and reduce our net income.

Our tax rate has historically been significantly impacted by the IRC Section 179D deduction. This deduction is related to energy efficient improvements we provide under government contracts. Section 179D was extended through December 31, 2020 as part of the Tax Extender and Disaster Relief Act of 2019 which became law on December 20, 2019. There is no assurance that Section 179D will continue to be extended retroactively or otherwise and were the deduction not available it would significantly affect our tax rate.

In addition, like other companies, we may be subject to examination of our income tax returns by the U.S. Internal Revenue Service and other tax authorities; our U.S. federal tax returns for 2015 through 2018 are subject to audit by federal, state and foreign tax authorities. Though we regularly assess the likelihood of adverse outcomes from such examinations and the adequacy of our provision for income taxes, there can be no assurance that such provision is sufficient and that a determination by a tax authority will not have an adverse effect on our net income.

Changes in the laws and regulations governing the public procurement of ESPCs could have a material impact on our business.

We derive a significant amount of our revenue from ESPCs with our government customers. While federal, state and local government rules governing such contracts vary, such rules may, for example, permit the funding of such projects through long-term financing arrangements; permit long-term payback periods from the savings realized through such contracts; allow units of government to exclude debt related to such projects from the calculation of their statutory debt limitation; allow for award of contracts on a "best value" instead of "lowest cost" basis; and allow for the use of sole source providers. To the extent these rules become more restrictive in the future, our business could be harmed.

Failure of third parties to manufacture quality products or provide reliable services in a timely manner could cause delays in the delivery of our services and completion of our projects, which could damage our reputation, have a negative impact on our relationships with our customers and adversely affect our growth.

Our success depends on our ability to provide services and complete projects in a timely manner, which in part depends on the ability of third parties to provide us with timely and reliable products and services. In providing our services and completing

our projects, we rely on products that meet our design specifications and components manufactured and supplied by third parties, as well as on services performed by subcontractors.We also rely on subcontractors to perform substantially all of the construction and installation work related to our projects; and we often need to engage subcontractors with whom we have no experience for our projects.

If any of our subcontractors are unable to provide services that meet or exceed our customers' expectations or satisfy our contractual commitments, our reputation, business and operating results could be harmed. In addition, if we are unable to avail ourselves of warranty and other contractual protections with providers of products and services, we may incur liability to our customers or additional costs related to the affected products and components, which could have a material adverse effect on our business, financial condition and operating results. Moreover, any delays, malfunctions, inefficiencies or interruptions in these products or services could adversely affect the quality and performance of our solutions and require considerable expense to establish alternate sources for such products and services. This could cause us to experience difficulty retaining current customers and attracting new customers, and could harm our brand, reputation and growth.

We may have liability to our customers under our ESPCs if our projects fail to deliver the energy use reductions to which we are committed under the contract.

For our energy efficiency projects, we typically enter into ESPCs under which we commit that the projects will satisfy agreed-upon performance standards appropriate to the project. These commitments are typically structured as guarantees of increased energy efficiency that are based on the design, capacity, efficiency or operation of the specific equipment and systems we install. Our commitments generally fall into three categories: pre-agreed, equipment-level and whole building-level. Under a pre-agreed efficiency commitment, our customer reviews the project design in advance and agrees that, upon or shortly after completion of installation of the specified equipment comprising the project, the pre-agreed increase in energy efficiency will have been met. Under an equipment-level commitment, we commit to a level of increased energy efficiency based on the difference in use measured first with the existing equipment and then with the replacement equipment upon completion of installation. A whole building-level commitment requires future measurement and verification of increased energy efficiency for a whole building, often based on readings of the utility meter where usage is measured. Depending on the project, the measurement and verification may be required only once, upon installation, based on an analysis of one or more sample installations, or may be required to be repeated at agreed upon intervals generally over periods of up to 25 years.

Under our contracts, we typically do not take responsibility for a wide variety of factors outside our control and exclude or adjust for such factors in commitment calculations. These factors include variations in energy prices and utility rates, weather, facility occupancy schedules, the amount of energy-using equipment in a facility, and failure of the customer to operate or maintain the project properly. We rely in part on warranties from our equipment suppliers and subcontractors to back-stop the warranties we provide to our customers and, where appropriate, pass on the warranties to our customers. However, the warranties we provide to our customers are sometimes broader in scope or longer in duration than the corresponding warranties we receive from our suppliers and subcontractors, and we bear the risk for any differences, as well as the risk of warranty default by our suppliers and subcontractors.

Typically, our performance commitments apply to the aggregate overall performance of a project rather than to individual energy efficiency measures. Therefore, to the extent an individual measure underperforms, it may be offset by other measures that overperform during the same period. In the event that an energy efficiency project does not perform according to the agreed-upon specifications, our agreements typically allow us to satisfy our obligation by adjusting or modifying the installed equipment, installing additional measures to provide substitute energy savings, or paying the customer for lost energy savings based on the assumed conditions specified in the agreement. However, we may incur additional or increased liabilities or expenses under our ESPCs in the future. Such liabilities or expenses could be substantial, and they could materially harm our business, financial condition or operating results. In addition, any disputes with a customer over the extent to which we bear responsibility to improve performance or make payments to the customer may diminish our prospects for future business from that customer or damage our reputation in the marketplace.

We may assume responsibility under customer contracts for factors outside our control, including, in connection with some customer projects, the risk that fuel prices will increase.

We typically do not take responsibility under our contracts for a wide variety of factors outside our control. We have, however, in a limited number of contracts assumed some level of risk and responsibility for certain factors — sometimes only to the extent that variations exceed specified thresholds — and may also do so under certain contracts in the future, particularly in our contracts for renewable energy projects. For example, under a contract for the construction and operation of a

cogeneration facility at the U.S. Department of Energy Savannah River Site in South Carolina, a subsidiary of ours is exposed to the risk that the price of the biomass that will be used to fuel the cogeneration facility may rise during the 19-year performance period of the contract. Several provisions in that contract mitigate the price risk. In addition, although we typically structure our contracts so that our obligation to supply a customer with LFG, electricity or steam, for example, does not exceed the quantity produced by the production facility, in some circumstances we may commit to supply a customer with specified minimum quantities based on our projections of the facility's production capacity. In such circumstances, if we are unable to meet such commitments, we may be required to incur additional costs or face penalties. Despite the steps we have taken to mitigate risks under these and other contracts, such steps may not be sufficient to avoid the need to incur increased costs to satisfy our commitments, and such costs could be material. Increased costs that we are unable to pass through to our customers could have a material adverse effect on our operating results.

Our business depends on experienced and skilled personnel and substantial specialty subcontractor resources, and if we lose key personnel or if we are unable to attract and integrate additional skilled personnel, it will be more difficult for us to manage our business and complete projects.

The success of our business and construction projects depend in large part on the skill of our personnel and on trade labor resources, including with certain specialty subcontractor skills. Competition for personnel, particularly those with expertise in the energy services and renewable energy industries, is high. In the event we are unable to attract, hire and retain the requisite personnel and subcontractors, we may experience delays in completing projects in accordance with project schedules and budgets. Further, any increase in demand for personnel and specialty subcontractors may result in higher costs, causing us to exceed the budget on a project. Either of these circumstances may have an adverse effect on our business, financial condition and operating results, harm our reputation among and relationships with our customers and cause us to curtail our pursuit of new projects.

Our future success is particularly dependent on the vision, skills, experience and effort of our senior management team, including our executive officers and our founder, principal stockholder, president and chief executive officer, George P. Sakellaris. If we were to lose the services of any of our executive officers or key employees, our ability to effectively manage our operations and implement our strategy could be harmed and our business may suffer.

If we cannot obtain surety bonds and letters of credit, our ability to operate may be restricted.

Federal and state laws require us to secure the performance of certain long-term obligations through surety bonds and letters of credit. In addition, we are occasionally required to provide bid bonds or performance bonds to secure our performance under energy efficiency contracts. In the future, we may have difficulty procuring or maintaining surety bonds or letters of credit, and obtaining them may become more expensive, require us to post cash collateral or otherwise involve unfavorable terms. Because we are sometimes required to have performance bonds or letters of credit in place before projects can commence or continue, our failure to obtain or maintain those bonds and letters of credit would adversely affect our ability to begin and complete projects, and thus could have a material adverse effect on our business, financial condition and operating results.

We operate in a highly competitive industry, and our current or future competitors may be able to compete more effectively than we do, which could have a material adverse effect on our business, revenues, growth rates and market share.

Our industry is highly competitive, with many companies of varying size and business models, many of which have their own proprietary technologies, competing for the same business as we do. Many of our competitors have longer operating histories and greater resources than us, and could focus their substantial financial resources to develop a competitive advantage. Our competitors may also offer energy solutions at prices below cost, devote significant sales forces to competing with us or attempt to recruit our key personnel by increasing compensation, any of which could improve their competitive positions. Any of these competitive factors could make it more difficult for us to attract and retain customers, cause us to lower our prices in order to compete, and reduce our market share and revenues, any of which could have a material adverse effect on our financial condition and operating results. We can provide no assurance that we will continue to effectively compete against our current competitors or additional companies that may enter our markets.

In addition, we may also face competition based on technological developments that reduce demand for electricity, increase power supplies through existing infrastructure or that otherwise compete with our products and services. We also encounter competition in the form of potential customers electing to develop solutions or perform services internally rather than engaging an outside provider such as us.

We may be unable to complete or operate our projects on a profitable basis or as we have committed to our customers.

Development, installation and construction of our energy efficiency and renewable energy projects, and operation of our renewable energy projects, entails many risks, including:

- failure to receive critical components and equipment that meet our design specifications and can be delivered on schedule;
- failure to obtain all necessary rights to land access and use;
- failure to receive quality and timely performance of third-party services;
- increases in the cost of labor, equipment and commodities needed to construct or operate projects;
- permitting and other regulatory issues, license revocation and changes in legal requirements;
- shortages of equipment or skilled labor;
- unforeseen engineering problems;
- failure of a customer to accept or pay for renewable energy that we supply;
- weather interferences, catastrophic events including fires, explosions, earthquakes, droughts and acts of terrorism; and accidents involving personal injury or the loss of life;
- labor disputes and work stoppages;
- mishandling of hazardous substances and waste; and
- other events outside of our control.

Any of these factors could give rise to construction delays and construction and other costs in excess of our expectations. This could prevent us from completing construction of our projects, cause defaults under our financing agreements or under contracts that require completion of project construction by a certain time, cause projects to be unprofitable for us, or otherwise impair our business, financial condition and operating results.

Our small-scale renewable energy plants may not generate expected levels of output.

The small-scale renewable energy plants that we construct and own are subject to various operating risks that may cause them to generate less than expected amounts of processed LFG, electricity or thermal energy. These risks include a failure or degradation of our, our customers' or utilities' equipment; an inability to find suitable replacement equipment or parts; less than expected supply of the plant's source of renewable energy, such as LFG or biomass; or a faster than expected diminishment of such supply. Any extended interruption in the plant's operation, or failure of the plant for any reason to generate the expected amount of output, could have a material adverse effect on our business and operating results. In addition, we have in the past, and could in the future, incur material asset impairment charges if any of our renewable energy plants incurs operational issues that indicate that our expected future cash flows from the plant are less than its carrying value. Any such impairment charge could have a material adverse effect on our operating results in the period in which the charge is recorded.

We have not entered into long-term offtake agreements for a portion of the output from our small-scale renewable energy plants and a portion of the related RINs are not subject to long term contracts.

We have not entered into long-term offtake agreements for a portion of the output from our small-scale renewable energy plants, particularly LFG plants, and we are required to sell the processed LFG or electricity produced by the facility at wholesale prices, which are exposed to market fluctuations and risks. Similarly, we have not entered into long-term agreements with respect to the RINs for which the production and sale of such biofuel may qualify. The failure to sell such processed LFG, electricity or the related RINs at a favorable price, or at all could have a material adverse effect on our business and operating results.

We may not be able to replace expiring offtake agreements with contracts on similar terms. If we are unable to replace an expired offtake agreement with an acceptable new contract, we may be required to remove the small-scale renewable energy plant from the site or, alternatively, we may sell the assets to the customer.

We may not be able to replace an expiring offtake agreement with a contract on equivalent terms and conditions, including at prices that permit operation of the related facility on a profitable basis. If we are unable to replace an expiring offtake agreement with an acceptable new revenue contract, the affected site may temporarily or permanently cease operations or we may be required to sell the power produced by the facility at wholesale prices which are exposed to market fluctuations and risks. In the case of a solar photovoltaic installation that ceases operations, the offtake agreement terms generally require that we remove the assets, including fixing or reimbursing the site owner for any damages caused by the assets or the removal of such assets. Alternatively, we may agree to sell the assets to the site owner, but the terms and conditions, including price, that we would receive in any sale, and the sale price may not be sufficient to replace the revenue previously generated by the small-scale renewable energy plant.

We plan to expand our business in part through future acquisitions, but we may not be able to identify or complete suitable acquisitions.

Historically, acquisitions have been a significant part of our growth strategy. We plan to continue to use acquisitions of companies or assets to expand our project skill-sets and capabilities, expand our geographic markets, add experienced management, increase our product and service offerings and add to our energy producing asset portfolio. However, we may be unable to implement this growth strategy if we cannot identify suitable acquisition candidates, reach agreement with acquisition targets on acceptable terms or arrange required financing for acquisitions on acceptable terms. In addition, the time and effort involved in attempting to identify acquisition candidates and consummate acquisitions may divert the attention and efforts of members of our management from the operations of our company.

Any future acquisitions that we may make could disrupt our business, cause dilution to our stockholders and harm our business, financial condition or operating results.

If we are successful in consummating acquisitions, those acquisitions could subject us to a number of risks, including:

- the purchase price we pay could significantly deplete our cash reserves or result in dilution to our existing stockholders;
- we may find that the acquired company or assets do not improve our customer offerings or market position as planned;
- we may have difficulty integrating the operations and personnel of the acquired company;
- key personnel and customers of the acquired company may terminate their relationships with the acquired company as a result of the acquisition;
- we may experience additional financial and accounting challenges and complexities in areas such as tax planning and financial reporting;
- we may incur additional costs and expenses related to complying with additional laws, rules or regulations in new jurisdictions;
- we may assume or be held liable for risks and liabilities (including for environmental-related costs) as a result of our acquisitions, some of which we may not discover during our due diligence or adequately adjust for in our acquisition arrangements;
- our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing geographically or culturally diverse enterprises;
- we may incur one-time write-offs or restructuring charges in connection with the acquisition;
- we may acquire goodwill and other intangible assets that are subject to amortization or impairment tests, which could result in future charges to earnings; and
- we may not be able to realize the cost savings or other financial benefits we anticipated.

These factors could have a material adverse effect on our business, financial condition and operating results.

We may be required to write-off or impair capitalized costs or intangible assets in the future, or we may incur restructuring costs or other charges, each of which could harm our earnings.

In accordance with generally accepted accounting principles in the United States, we capitalize certain expenditures and advances relating to our acquisitions, pending acquisitions, project development costs, interest costs related to project financing and certain energy assets. In addition, we have considerable unamortized assets. From time to time in future periods, we may be required to incur a charge against earnings in an amount equal to any unamortized capitalized expenditures and advances, net of any portion thereof that we estimate will be recoverable, through sale or otherwise, relating to: (i) any operation or other asset that is being sold, permanently shut down, impaired or has not generated or is not expected to generate sufficient cash flow; (ii) any pending acquisition that is not consummated; (iii) any project that is not expected to be successfully completed; and (iv) any goodwill or other intangible assets that are determined to be impaired.

In response to such charges and costs and other market factors, we may be required to implement restructuring plans in an effort to reduce the size and cost of our operations and to better match our resources with our market opportunities. As a result of such actions, we would expect to incur restructuring expenses and accounting charges which may be material. Several factors could cause a restructuring to adversely affect our business, financial condition and results of operations. These include potential disruption of our operations, the development of our small-scale renewable energy projects and other aspects of our business. Employee morale and productivity could also suffer and result in unintended employee attrition. Any restructuring would require substantial management time and attention and may divert management from other important work. Moreover, we could encounter delays in executing any restructuring plans, which could cause further disruption and additional unanticipated expense.

See also Note 2, “Summary of Significant Accounting Policies” and Note 5, “Goodwill and Intangible Assets”, to our Consolidated Financial Statements appearing in Item 8 of this Annual Report on Form 10-K.

We need governmental approvals and permits, and we typically must meet specified qualifications, in order to undertake our energy efficiency projects and construct, own and operate our small-scale renewable energy projects, and any failure to do so would harm our business.

The design, construction and operation of our energy efficiency and small-scale renewable energy projects require various governmental approvals and permits, and may be subject to the imposition of related conditions that vary by jurisdiction. In some cases, these approvals and permits require periodic renewal. We cannot predict whether all permits required for a given project will be granted or whether the conditions associated with the permits will be achievable. The denial of a permit essential to a project or the imposition of impractical conditions would impair our ability to develop the project. In addition, we cannot predict whether the permits will attract significant opposition or whether the permitting process will be lengthened due to complexities and appeals. Delay in the review and permitting process for a project can impair or delay our ability to develop that project or increase the cost so substantially that the project is no longer attractive to us. We have experienced delays in developing our projects due to delays in obtaining permits and may experience delays in the future. If we were to commence construction in anticipation of obtaining the final, non-appealable permits needed for that project, we would be subject to the risk of being unable to complete the project if all the permits were not obtained. If this were to occur, we would likely lose a significant portion of our investment in the project and could incur a loss as a result. Further, the continued operations of our projects require continuous compliance with permit conditions. This compliance may require capital improvements or result in reduced operations. Any failure to procure, maintain and comply with necessary permits would adversely affect ongoing development, construction and continuing operation of our projects.

In addition, the projects we perform for governmental agencies are governed by particular qualification and contracting regimes. Certain states require qualification with an appropriate state agency as a precondition to performing work or appearing as a qualified energy service provider for state, county and local agencies within the state. For example, the Commonwealth of Massachusetts and the states of Colorado and Washington pre-qualify energy service providers and provide contract documents that serve as the starting point for negotiations with potential governmental clients. Most of the work that we perform for the federal government is performed under IDIQ agreements between a government agency and us or a subsidiary. These IDIQ agreements allow us to contract with the relevant agencies to implement energy projects, but no work may be performed unless we and the agency agree on a task order or delivery order governing the provision of a specific project. The government agencies enter into contracts for specific projects on a competitive basis. We and our subsidiaries and affiliates are currently party to an IDIQ agreement with the U.S. Department of Energy expiring in 2022, which may be extended through December 2023. We are also party to similar agreements with other federal agencies, including the U.S. Army Corps of Engineers and the U.S. General Services Administration. If we are unable to maintain or renew our IDIQ qualification under the U.S. Department of Energy program for ESPCs, or similar federal or state qualification regimes, our business could be materially harmed.

Many of our small-scale renewable energy projects are, and other future projects may be, subject to or affected by U.S. federal energy regulation or other regulations that govern the operation, ownership and sale of the facility, or the sale of electricity from the facility.

PUHCA and the FPA regulate public utility holding companies and their subsidiaries and place constraints on the conduct of their business. The FPA regulates wholesale sales of electricity and the transmission of electricity in interstate commerce by public utilities. Under PURPA, all of our current small-scale renewable energy projects are small power "qualifying facilities" (facilities meeting statutory size, fuel and filing requirements) that are exempt from regulations under PUHCA, most provisions of the FPA and state rate and financial regulation. None of our renewable energy projects are currently subject to rate regulation for wholesale power sales by the Federal Energy Regulatory Commission ("FERC") under the FPA, but certain of our projects that are under construction or development could become subject to such regulation in the future. Also, we may acquire interests in or develop generating projects that are not qualifying facilities. Non-qualifying facility projects would be fully subject to FERC corporate and rate regulation, and would be required to obtain FERC acceptance of their rate schedules for wholesale sales of energy, capacity and ancillary services, which requires substantial disclosures to and discretionary approvals from FERC. FERC may revoke or revise an entity's authorization to make wholesale sales at negotiated, or market-based, rates if FERC determines that we can exercise market power in transmission or generation, create barriers to entry or engage in abusive affiliate transactions or market manipulation. In addition, many public utilities (including any non-qualifying facility generator in which we may invest) are subject to FERC reporting requirements that impose administrative burdens and that, if violated, can expose the company to civil penalties or other risks.

All of our wholesale electric power sales are subject to certain market behavior rules. These rules change from time to time, by virtue of FERC rulemaking proceedings and FERC-ordered amendments to utilities' or power pools' FERC tariffs. If we are deemed to have violated these rules, we will be subject to potential disgorgement of profits associated with the violation and/or suspension or revocation of our market-based rate authority, as well as potential criminal and civil penalties. If we were to lose market-based rate authority for any non-qualifying facility project we may acquire or develop in the future, we would be required to obtain FERC's acceptance of a cost-based rate schedule and could become subject to, among other things, the burdensome accounting, record keeping and reporting requirements that are imposed on public utilities with cost-based rate schedules. This could have an adverse effect on the rates we charge for power from our projects and our cost of regulatory compliance.

Wholesale electric power sales are subject to increasing regulation. The terms and conditions for power sales, and the right to enter and remain in the wholesale electric sector, are subject to FERC oversight. Due to major regulatory restructuring initiatives at the federal and state levels, the U.S. electric industry has undergone substantial changes over the past decade. We cannot predict the future design of wholesale power markets or the ultimate effect ongoing regulatory changes will have on our business. Other proposals to further regulate the sector may be made and legislative or other attention to the electric power market restructuring process may delay or reverse the movement towards competitive markets.

If we become subject to additional regulation under PUHCA, FPA or other regulatory frameworks, if existing regulatory requirements become more onerous, or if other material changes to the regulation of the electric power markets take place, our business, financial condition and operating results could be adversely affected.

Compliance with environmental laws could adversely affect our operating results.

Costs of compliance with federal, state, provincial, local and other foreign existing and future environmental regulations could adversely affect our cash flow and profitability. We are required to comply with numerous environmental laws and regulations and to obtain numerous governmental permits in connection with energy efficiency and renewable energy projects, and we may incur significant additional costs to comply with these requirements. If we fail to comply with these requirements, we could be subject to civil or criminal liability, damages and fines. Existing environmental regulations could be revised or reinterpreted and new laws and regulations could be adopted or become applicable to us or our projects, and future changes in environmental laws and regulations could occur. These factors may materially increase the amount we must invest to bring our projects into compliance and impose additional expense on our operations.

In addition, private lawsuits or enforcement actions by federal, state, provincial and/or foreign regulatory agencies may materially increase our costs. Certain environmental laws make us potentially liable on a joint and several basis for the remediation of contamination at or emanating from properties or facilities we currently or formerly owned or operated or properties to which we arranged for the disposal of hazardous substances. Such liability is not limited to the cleanup of contamination we actually caused. Although we seek to obtain indemnities against liabilities relating to historical contamination

at the facilities we own or operate, we cannot provide any assurance that we will not incur liability relating to the remediation of contamination, including contamination we did not cause.

We may not be able to obtain or maintain, from time to time, all required environmental regulatory approvals. A delay in obtaining any required environmental regulatory approvals or failure to obtain and comply with them could adversely affect our business and operating results.

International expansion is one of our growth strategies, and international operations will expose us to additional risks that we do not face in the United States, which could have an adverse effect on our operating results.

We generate a portion of our revenues from operations outside of the United States, mainly in Canada and the United Kingdom. International expansion is one of our growth strategies, and we expect our revenues and operations outside of the United States will expand in the future. These operations will be subject to a variety of risks that we do not face in the United States, and that we may face only to a limited degree in Canada, the United Kingdom and Greece, including:

- building and managing highly experienced foreign workforces and overseeing and ensuring the performance of foreign subcontractors;
- increased travel, infrastructure and legal and compliance costs associated with multiple international locations;
- additional withholding taxes or other taxes on our foreign income, and tariffs or other restrictions on foreign trade or investment;
- imposition of, or unexpected adverse changes in, foreign laws or regulatory requirements, many of which differ from those in the United States;
- increased exposure to foreign currency exchange rate risk;
- longer payment cycles for sales in some foreign countries and potential difficulties in enforcing contracts and collecting accounts receivable;
- difficulties in repatriating overseas earnings;
- general economic conditions in the countries in which we operate; and
- political unrest, war, incidents of terrorism, or responses to such events.

We also continue to evaluate the potential effect of the United Kingdom's planned departure from the European Union ("EU") (commonly referred to as Brexit) on our business operations and financial results. On January 29, 2020, the European Parliament approved the U.K.'s withdrawal from the EU. The U.K. officially left the EU on January 31, 2020. Following its departure, the U.K. entered into a transition period that is scheduled to last until December 31, 2020 during which period of time the U.K.'s trading relationship with the EU is expected to remain largely the same while the two parties negotiate a trade agreement as well as other aspects of the U.K.'s relationship with the EU. Brexit could adversely affect European or worldwide political, regulatory, economic or market conditions and could contribute to instability in global political institutions, regulatory agencies and financial markets.

Our overall success in international markets will depend, in part, on our ability to succeed in differing legal, regulatory, economic, social and political conditions. We may not be successful in developing and implementing policies and strategies that will be effective in managing these risks in each country where we do business. Our failure to manage these risks successfully could harm our international operations, reduce our international sales and increase our costs, thus adversely affecting our business, financial condition and operating results.

Changes in utility regulation and tariffs could adversely affect our business.

Our business is affected by regulations and tariffs that govern the activities and rates of utilities. For example, utility companies are commonly allowed by regulatory authorities to charge fees to some business customers for disconnecting from the electric grid or for having the capacity to use power from the electric grid for back-up purposes. These fees could increase the cost to our customers of taking advantage of our services and make them less desirable, thereby harming our business, financial condition and operating results. Our current generating projects are all operated as qualifying facilities. FERC regulations under the FPA confer upon these facilities key rights to interconnection with local utilities, and can entitle qualifying facilities to enter into power purchase agreements with local utilities, from which the qualifying facilities benefit. Changes to these federal laws and regulations could increase our regulatory burdens and costs, and could reduce our revenues.

State regulatory agencies could award renewable energy certificates or credits that our electric generation facilities produce to our power purchasers, thereby reducing the power sales revenues we otherwise would earn. In addition, modifications to the pricing policies of utilities could require renewable energy systems to charge lower prices in order to compete with the price of electricity from the electric grid and may reduce the economic attractiveness of certain energy efficiency measures.

Some of the demand-reduction services we provide for utilities and institutional clients are subject to regulatory tariffs imposed under federal and state utility laws. In addition, the operation of, and electrical interconnection for, our renewable energy projects are subject to federal, state or provincial interconnection and federal reliability standards that are also set forth in utility tariffs. These tariffs specify rules, business practices and economic terms to which we are subject. The tariffs are drafted by the utilities and approved by the utilities' state and federal regulatory commissions. These tariffs change frequently and it is possible that future changes will increase our administrative burden or adversely affect the terms and conditions under which we render service to our customers.

Our activities and operations are subject to numerous health and safety laws and regulations, and if we violate such regulations, we could face penalties and fines.

We are subject to numerous health and safety laws and regulations in each of the jurisdictions in which we operate. These laws and regulations require us to obtain and maintain permits and approvals and implement health and safety programs and procedures to control risks associated with our projects. Compliance with those laws and regulations can require us to incur substantial costs. Moreover, if our compliance programs are not successful, we could be subject to penalties or to revocation of our permits, which may require us to curtail or cease operations of the affected projects. Violations of laws, regulations and permit requirements may also result in criminal sanctions or injunctions.

Health and safety laws, regulations and permit requirements may change or become more stringent. Any such changes could require us to incur materially higher costs than we currently have. Our costs of complying with current and future health and safety laws, regulations and permit requirements, and any liabilities, fines or other sanctions resulting from violations of them, could adversely affect our business, financial condition and operating results.

We are subject to various privacy and consumer protection laws.

Our privacy policy is posted on our website, and any failure by us or our vendor or other business partners to comply with it or with federal, state or international privacy, data protection or security laws or regulations could result in regulatory or litigation-related actions against us, legal liability, fines, damages and other costs. We may also incur substantial expenses and costs in connection with maintaining compliance with such laws. For example, commencing in May 2018, the General Data Protection Regulation (the "GDPR") became fully effective with respect to the processing of personal information collected from individuals located in the European Union. The GDPR created new compliance obligations and significantly increases fines for noncompliance. Although we take steps to protect the security of our customers' personal information, we may be required to expend significant resources to comply with data breach requirements if third parties improperly obtain and use the personal information of our customers or we otherwise experience a data loss with respect to customers' personal information. A major breach of our network security and systems could have negative consequences for our business and future prospects, including possible fines, penalties and damages, reduced customer demand for our services, and harm to our reputation and brand.

If our subsidiaries default on their obligations under their debt instruments, we may need to make payments to lenders to prevent foreclosure on the collateral securing the debt.

We typically set up subsidiaries to own and finance our renewable energy projects. These subsidiaries incur various types of debt which can be used to finance one or more projects. This debt is typically structured as non-recourse debt, which means it is repayable solely from the revenues from the projects financed by the debt and is secured by such projects' physical assets, major contracts and cash accounts and a pledge of our equity interests in the subsidiaries involved in the projects. Although our subsidiary debt is typically non-recourse to Ameresco, if a subsidiary of ours defaults on such obligations, or if one project out of several financed by a particular subsidiary's indebtedness encounters difficulties or is terminated, then we may from time to time determine to provide financial support to the subsidiary in order to maintain rights to the project or otherwise avoid the adverse consequences of a default. In the event a subsidiary defaults on its indebtedness, its creditors may foreclose on the collateral securing the indebtedness, which may result in our losing our ownership interest in some or all of the subsidiary's assets. The loss of our ownership interest in a subsidiary or some or all of a subsidiary's assets could have a material adverse effect on our business, financial condition and operating results.

We are exposed to the credit risk of some of our customers.

Most of our revenues are derived under multi-year or long-term contracts with our customers, and our revenues are therefore dependent to a large extent on the creditworthiness of our customers. During periods of economic downturn, our exposure to credit risks from our customers increases, and our efforts to monitor and mitigate the associated risks may not be effective in reducing our credit risks. In the event of non-payment by one or more of our customers, our business, financial condition and operating results could be adversely affected.

Fluctuations in foreign currency exchange rates can impact our results.

A portion of our total revenues are generated outside of the United States in currencies including Canadian dollars, British pound sterling and Euros. Changes in exchange rates between the currencies in which we generate revenues, may adversely affect our operating results.

A failure of our information technology ("IT") and data security infrastructure could adversely impact our business and operations.

We rely upon the capacity, reliability and security of our IT and data security infrastructure and our ability to expand and continually update this infrastructure in response to the changing needs of our business. As we implement new systems, they may not perform as expected. We also face the challenge of supporting our older systems and implementing necessary upgrades. If we experience a problem with the functioning of an important IT system or a security breach of our IT systems, including during system upgrades and/or new system implementations, the resulting disruptions could have an adverse effect on our business.

We and certain of our third-party vendors receive and store personal information in connection with our human resources operations and other aspects of our business. Despite our implementation of security measures, our IT systems, like those of other companies, are vulnerable to damages from computer viruses, natural disasters, unauthorized access, cyber attack and other similar disruptions, and we have experienced such incidents in the past. Any system failure, accident or security breach could result in disruptions to our operations. A material network breach in the security of our IT systems could include the theft of our intellectual property, trade secrets, customer information, human resources information or other confidential matter. Although past incidents have not had a material impact on our business operations or financial performance, to the extent that any disruptions or security breach results in a loss or damage to our data, or an inappropriate disclosure of confidential, proprietary or customer information, it could cause significant damage to our reputation, affect our relationships with our customers, lead to claims against the Company and ultimately harm our business. In addition, we may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future. See the discussion of GDPR in the above risk factor "We are subject to various privacy and consumer protection laws" for an example of new regulations impacting IT risk.

Risks Related to Ownership of Our Class A Common Stock

The trading price of our Class A common stock is volatile.

The trading price of our Class A common stock is volatile and could be subject to wide fluctuations. In addition, if the stock market in general experiences a significant decline, the trading price of our Class A common stock could decline for reasons unrelated to our business, financial condition or operating results. Some companies that have had volatile market prices for their securities have had securities class actions filed against them. If a suit were filed against us, regardless of its merits or outcome, it would likely result in substantial costs and divert management's attention and resources. This could have a material adverse effect on our business, operating results and financial condition.

Holders of our Class A common stock are entitled to one vote per share, and holders of our Class B common stock are entitled to five votes per share. The lower voting power of our Class A common stock may negatively affect the attractiveness of our Class A common stock to investors and, as a result, its market value.

We have two classes of common stock: Class A common stock, which is listed on the NYSE and which is entitled to one vote per share, and Class B common stock, which is not listed on the any security exchange and is entitled to five votes per share. The difference in the voting power of our Class A and Class B common stock could diminish the market value of our Class A common stock because of the superior voting rights of our Class B common stock and the power those rights confer.

For the foreseeable future, Mr. Sakellaris or his affiliates will be able to control the selection of all members of our board of directors, as well as virtually every other matter that requires stockholder approval, which will severely limit the ability of other stockholders to influence corporate matters.

Except in certain limited circumstances required by applicable law, holders of Class A and Class B common stock vote together as a single class on all matters to be voted on by our stockholders. Mr. Sakellaris, our founder, principal stockholder, president and chief executive officer, owns all of our Class B common stock, which, together with his Class A common stock, represents approximately 80% of the combined voting power of our outstanding Class A and Class B common stock. Under our restated certificate of incorporation, holders of shares of Class B common stock may generally transfer those shares to family members, including spouses and descendants or the spouses of such descendants, as well as to affiliated entities, without having the shares automatically convert into shares of Class A common stock. Therefore, Mr. Sakellaris, his affiliates, and his family members and descendants will, for the foreseeable future, be able to control the outcome of the voting on virtually all matters requiring stockholder approval, including the election of directors and significant corporate transactions such as an acquisition of our company, even if they come to own, in the aggregate, as little as 20% of the economic interest of the outstanding shares of our Class A and Class B common stock. Moreover, these persons may take actions in their own interests that you or our other stockholders do not view as beneficial.

Though we may repurchase shares of our Class A common stock pursuant to our recently announced share repurchase program, we are not obligated to do so and if we do, we may purchase only a limited number of shares of Class A common stock.

On May 5, 2016, we announced a stock repurchase program under which the Company is currently authorized to repurchase, in the aggregate, up to $17.6 million of our outstanding Class A common stock. However, we are not obligated to acquire any shares of our Class A common stock, and holders of our Class A common stock should not rely on the share repurchase program to increase their liquidity. The amount and timing of any share repurchases will depend upon a variety of factors, including the trading price of our Class A common stock, liquidity, securities laws restrictions, other regulatory restrictions, potential alternative uses of capital, and market and economic conditions. We intend to purchase through open market transactions or in privately negotiated transactions, in accordance with applicable securities laws and regulatory limitations. We may reduce or eliminate our share repurchase program in the future. The reduction or elimination of our share repurchase program, particularly if we do not repurchase the full number of shares authorized under the program, could adversely affect the market price of our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters is located in Framingham, Massachusetts, where we occupy approximately 26,000 square feet under a lease expiring on June 30, 2025. We occupy nine regional offices in Phoenix, Arizona; Islandia, New York; Oak Brook, Illinois; Columbia, Maryland; Charlotte, North Carolina; Knoxville, Tennessee; Tomball, Texas; Spokane, Washington and Richmond Hill, Ontario, each less than 25,000 square feet, under lease or sublease agreements. In addition, we lease space, typically less space, for 74 field offices throughout North America and the U.K. We also own 99 small-scale renewable energy plants throughout North America, which are located on leased sites or sites provided by customers. We expect to add new facilities and expand existing facilities as we continue to add employees and expand our business into new geographic areas.

Item 3. Legal Proceedings

In the ordinary conduct of our business we are subject to periodic lawsuits, investigations and claims. Although we cannot predict with certainty the ultimate resolution of such lawsuits, investigations and claims against us, we do not believe that any currently pending or threatened legal proceedings to which we are a party will have a material adverse effect on our business, results of operations or financial condition.

For additional information about certain proceedings, please refer to Note 15, “Commitments and Contingencies”, to our Consolidated Financial Statements included in this report, which is incorporated into this item 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

Our Class A common stock trades on the New York Stock Exchange under the symbol "AMRC".

As of March 2, 2020, and according to the records of our transfer agent, there were 10 shareholders of record of our Class A common stock. A substantially greater number of holders of our Class A common stock are "street name" or beneficial holders, whose shares are held of record by banks, brokers, and other financial institutions.

Our Class B common stock is not publicly traded and is held of record by George P. Sakellaris, our founder, principal stockholder, president and chief executive officer, as well as the Ameresco 2017 Annuity Trust, of which Mr. Sakellaris is trustee and the sole beneficiary.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain earnings, if any, to finance the growth and development of our business and do not expect to pay any cash dividends for the foreseeable future. Our revolving senior secured credit facility contains provisions that limit our ability to declare and pay cash dividends during the term of that agreement. Payment of future dividends, if any, will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments, provisions of applicable law and other factors our board of directors deems relevant.

Stock Performance Graph

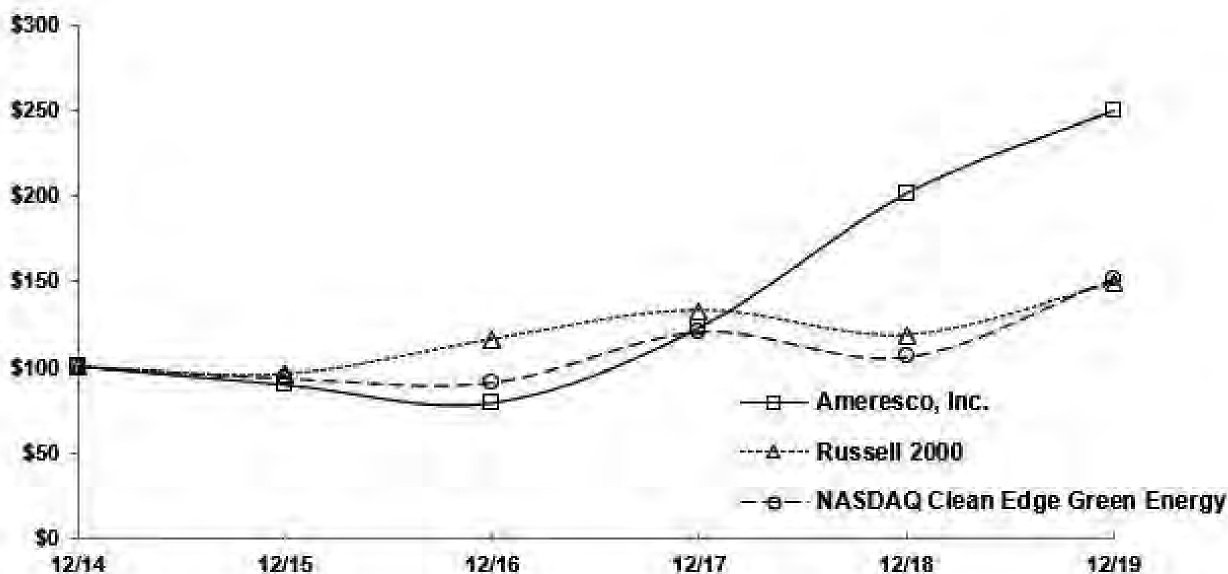
The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 (the "Securities Act") or the Exchange Act, except to the extent that we specifically incorporate it by reference into such filing.

The following graph compares the cumulative total return attained by shareholders on our Class A common stock relative to the cumulative total returns of the Russell 2000 index and the NASDAQ Clean Edge Green Energy index. An investment of $100 (with reinvestment of all dividends) is assumed to have been made in our Class A common stock on December 31, 2014, and in each of the indexes on December 31, 2014 and its relative performance is tracked through December 31, 2019.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN*

Among Ameresco, Inc., the Russell 2000 Index
and the NASDAQ Clean Edge Green Energy Index

*$100 invested on December 31, 2014 in our Class A common stock or December 31, 2014 in respective index, including reinvestment of dividends. Fiscal year ending December 31, 2019.



	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
Ameresco, Inc.	$100.00	$72.46	$64.70	$56.94	$89.03	$145.96	$250.00
Russell 2000 Index	$100.00	$104.89	$100.26	$121.63	$139.44	$124.09	$148.49
NASDAQ Clean Edge Green Energy Index	$100.00	$107.02	$114.81	$113.17	$155.32	$140.36	$150.90

Shareholder returns over the indicated period should not be considered indicative of future shareholder returns.

Issuer Purchases of Equity Securities

The following table provides information as of and for the quarter ended December 31, 2019 regarding shares of our Class A common stock that were repurchased under our stock repurchase program authorized by the Board of Directors on April 27, 2016 (the "Repurchase Program"):

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
October 1, 2019 - October 31, 2019	—	$ —	—	$ 5,907,722
November 1, 2019 - November 30, 2019	300	13.94	300	5,903,540
December 1, 2019 - December 31, 2019	—	—	—	5,903,540
Total	300	$ 13.94	300	$ 5,903,540

Under the Repurchase Program, we are authorized to repurchase up to $17.6 million of our Class A common stock. Stock repurchases may be made from time to time through the open market and privately negotiated transactions. The amount and timing of any share repurchases will depend upon a variety of factors, including the trading price of our Class A common stock, liquidity, securities laws restrictions, other regulatory restrictions, potential alternative uses of capital, and market and economic conditions. The Repurchase Program may be suspended or terminated at any time without prior notice, and has no expiration date.

Item 6. Selected Financial Data

You should read the following selected consolidated financial data in conjunction with Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes appearing in Item 8 "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K. We prepare our financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP").

We derived the consolidated statements of income data for the years ended December 31, 2019, 2018, and 2017 and the consolidated balance sheets data as of December 31, 2019 and 2018 from our audited consolidated financial statements appearing in Item 8 of this Annual Report on Form 10-K. We derived the consolidated statements of income data for the years ended December 31, 2016 and 2015, and the consolidated balance sheets data as of December 31, 2017, 2016, and 2015, from our audited consolidated financial statements that are not included in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results to be expected in any future period.

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(in thousands, except per share data)				
Consolidated Statements of Income Data:					
Revenues	$ 866,933	$ 787,138	$ 717,152	$ 651,227	$ 630,832
Cost of revenues	698,815	613,526	572,994	516,883	513,768
Gross profit	168,118	173,612	144,158	134,344	117,064
Selling, general and administrative expenses	116,504	114,513	107,570	110,568	110,007
Operating income	51,614	59,099	36,588	23,776	7,057
Other expenses, net	15,061	16,709	7,871	7,409	6,765
Income before provision for income taxes	36,553	42,390	28,717	16,367	292
Income tax (benefit) provision	(3,748)	4,813	(4,791)	4,370	4,976
Net income (loss)	40,301	37,577	33,508	11,997	(4,684)
Net loss attributable to redeemable non-controlling interests	4,135	407	3,983	35	5,528
Net income attributable to common shareholders	$ 44,436	$ 37,984	$ 37,491	$ 12,032	$ 844
Net income per share attributable to common shareholders:					
Basic	$ 0.95	$ 0.83	$ 0.82	$ 0.26	$ 0.02
Diluted	$ 0.93	$ 0.81	$ 0.82	$ 0.26	$ 0.02
Weighted average common shares outstanding:					
Basic	46,586	45,729	45,509	46,409	46,494
Diluted	47,774	46,831	45,748	46,493	47,665

	As of December 31,				
	2019	2018	2017	2016	2015
	(in thousands)				
Consolidated Balance Sheets Data:					
Cash and cash equivalents	$ 33,223	$ 61,397	$ 24,262	$ 20,607	$ 21,645
Current assets	425,192	310,969	287,078	226,061	263,698
Federal ESPC receivable(1)	230,616	293,998	248,917	158,209	125,804
Energy assets, net	579,461	459,952	356,443	319,758	244,309
Total assets	1,374,013	1,161,634	983,951	797,281	723,440
Current liabilities	336,647	222,630	202,142	190,602	179,723
Long-term debt, less current portion	266,181	219,162	173,237	140,593	100,490
Federal ESPC liabilities(1)	245,037	288,047	235,088	133,003	122,040
Total stockholders' equity	$ 428,856	$ 376,875	$ 336,620	$ 294,306	$ 287,409

(1) Federal ESPC receivable represents the amount to be paid by various federal government agencies for work performed and earned by the Company under specific ESPCs. The Company assigns certain of its rights to receive those payments to third-party investors that provide construction and permanent financing for such contracts. Federal ESPC liabilities represent the advances received from third party investors under agreements to finance certain energy savings performance contract projects with various federal government agencies. Upon completion and acceptance of the project by the government, typically within 24 - 36 months of

construction commencement, the ESPC receivable from the Government and corresponding related ESPC liability is eliminated from our consolidated balance sheets. Until recourse to us ceases for the ESPC receivables transferred to the investor, upon final acceptance of the work by the Government customer, we remain the primary obligor for financing received.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes and other financial information included in Item 8 of this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Report, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should review the "Risk Factors" included in Item 1A of this Annual Report on Form 10-K for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

Ameresco is a leading provider of energy efficiency solutions for facilities throughout North America and Europe. We provide solutions that enable customers to reduce their energy consumption, lower their operating and maintenance costs and realize environmental benefits. Our comprehensive set of services includes upgrades to a facility's energy infrastructure and the construction and operation of small-scale renewable energy plants.

In addition to organic growth, strategic acquisitions of complementary businesses and assets have been an important part of our historical development. Since inception, we have completed numerous acquisitions, which have enabled us to broaden our service offerings and expand our geographical reach.

Energy Savings Performance and Energy Supply Contracts

For our energy efficiency projects, we typically enter into ESPCs, under which we agree to develop, design, engineer and construct a project and also commit that the project will satisfy agreed-upon performance standards that vary from project to project. These performance commitments are typically based on the design, capacity, efficiency or operation of the specific equipment and systems we install. Our commitments generally fall into three categories: pre-agreed, equipment-level and whole building-level. Under a pre-agreed energy reduction commitment, our customer reviews the project design in advance and agrees that, upon or shortly after completion of installation of the specified equipment comprising the project, the commitment will have been met. Under an equipment-level commitment, we commit to a level of energy use reduction based on the difference in use measured first with the existing equipment and then with the replacement equipment. A whole building-level commitment requires demonstration of energy usage reduction for a whole building, often based on readings of the utility meter where usage is measured. Depending on the project, the measurement and demonstration may be required only once, upon installation, based on an analysis of one or more sample installations, or may be required to be repeated at agreed upon intervals generally over up to 25 years.

Under our contracts, we typically do not take responsibility for a wide variety of factors outside of our control and exclude or adjust for such factors in commitment calculations. These factors include variations in energy prices and utility rates, weather, facility occupancy schedules, the amount of energy-using equipment in a facility and the failure of the customer to operate or maintain the project properly. Typically, our performance commitments apply to the aggregate overall performance of a project rather than to individual energy efficiency measures. Therefore, to the extent an individual measure underperforms, it may be offset by other measures that overperform during the same period. In the event that an energy efficiency project does not perform according to the agreed-upon specifications, our agreements typically allow us to satisfy our obligation by adjusting or modifying the installed equipment, installing additional measures to provide substitute energy savings or paying the customer for lost energy savings based on the assumed conditions specified in the agreement. Many of our equipment supply, local design and installation subcontracts contain provisions that enable us to seek recourse against our vendors or subcontractors if there is a deficiency in our energy reduction commitment. See "We may have liability to our customers under our ESPCs if our projects fail to deliver the energy use reductions to which we are committed under the contract" in Item 1A, Risk Factors in this Annual Report on Form 10-K.

Payments by the federal government for energy efficiency measures are based on the services provided and the products installed, but are limited to the savings derived from such measures, calculated in accordance with federal regulatory guidelines and the specific contract's terms. The savings are typically determined by comparing energy use and other costs before and after

the installation of the energy efficiency measures, adjusted for changes that affect energy use and other costs but are not caused by the energy efficiency measures.

For projects involving the construction of a small-scale renewable energy plant that we own and operate, we generally enter into long-term contracts to supply the electricity, processed LFG, heat or cooling generated by the plant to the customer, which is typically a utility, municipality, industrial facility or other large purchaser of energy. The rights to use the site for the plant and purchase of renewable fuel for the plant are also obtained by us under long-term agreements with terms at least as long as the associated output supply agreement. Our supply agreements typically provide for fixed prices or prices that escalate at a fixed rate or vary based on a market benchmark. See "We may assume responsibility under customer contracts for factors outside our control, including, in connection with some customer projects, the risk that fuel prices will increase" in reference Item 1A, Risk Factors in this Annual Report on Form 10-K.

Project Financing

To finance projects with federal governmental agencies, we typically sell to third-party lenders our right to receive a portion of the long-term payments from the customer arising out of the project for a purchase price reflecting a discount to the aggregate amount due from the customer. The purchase price is generally advanced to us over the implementation period based on completed work or a schedule predetermined to coincide with the construction of the project. Under the terms of these financing arrangements, we are required to complete the construction or installation of the project in accordance with the contract with our customer, and the liability remains on our consolidated balance sheets until the completed project is accepted by the customer. Once the completed project is accepted by the customer, the financing is treated as a true sale and the related receivable and financing liability are removed from our consolidated balance sheets.

Institutional customers, such as state, provincial and local governments, schools and public housing authorities, typically finance their energy efficiency and renewable energy projects through either tax-exempt leases or issuances of municipal bonds. We assist in the structuring of such third-party financing.

In some instances, customers prefer that we retain ownership of the renewable energy plants and related energy assets that we construct for them. In these projects, we typically enter into a long-term supply agreement to furnish electricity, gas, heat or cooling to the customer's facility. To finance the significant upfront capital costs required to develop and construct the plant, we rely either on our internal cash flow or, in some cases, third-party debt. For project financing by third-party lenders, we typically establish a separate subsidiary, usually a limited liability company, to own the energy assets and related contracts. The subsidiary contracts with us for construction and operation of the project and enters into a financing agreement directly with the lenders. Additionally, we will provide assurance to the lender that the project will achieve commercial operation. Although the financing is secured by the assets of the subsidiary and a pledge of our equity interests in the subsidiary, and is non-recourse to Ameresco, Inc., we may from time to time determine to provide financial support to the subsidiary in order to maintain rights to the project or otherwise avoid the adverse consequences of a default. The amount of such financing is included on our consolidated balance sheets.

Effects of Seasonality

We are subject to seasonal fluctuations and construction cycles, particularly in climates that experience colder weather during the winter months, such as the northern United States and Canada, or at educational institutions, where large projects are typically carried out during summer months when their facilities are unoccupied. In addition, government customers, many of which have fiscal years that do not coincide with ours, typically follow annual procurement cycles and appropriate funds on a fiscal-year basis even though contract performance may take more than one year. Further, government contracting cycles can be affected by the timing of, and delays in, the legislative process related to government programs and incentives that help drive demand for energy efficiency and renewable energy projects. As a result, our revenues and operating income in the third and fourth quarter are typically higher, and our revenues and operating income in the first quarter are typically lower, than in other quarters of the year. As a result of such fluctuations, we may occasionally experience declines in revenues or earnings as compared to the immediately preceding quarter, and comparisons of our operating results on a period-to-period basis may not be meaningful.

Our annual and quarterly financial results are also subject to significant fluctuations as a result of other factors, many of which are outside our control. See "Our business is affected by seasonal trends and construction cycles, and these trends and cycles could have an adverse effect on our operating results" in Item 1A, Risk Factors in this Annual Report on Form 10-K.

Backlog and Awarded Projects

Total construction backlog represents projects that are active within our ESPC sales cycle. Our sales cycle begins with the initial contact with the customer and ends, when successful, with a signed contract, also referred to as fully-contracted backlog. Our sales cycle recently has been averaging 18 to 42 months. Awarded backlog is created when a potential customer awards a project to Ameresco following a request for proposal. Once a project is awarded but not yet contracted, we typically conduct a detailed energy audit to determine the scope of the project as well as identify the savings that may be expected to be generated from upgrading the customer's energy infrastructure. At this point, we also determine the subcontractor, what equipment will be used, and assist in arranging for third party financing, as applicable. Recently, awarded projects have been taking an average of 12 to 24 months to result in a signed contract and convert to fully-contracted backlog. It may take longer, however, depending upon the size and complexity of the project. Historically, approximately 90% of our awarded backlog projects have resulted in a signed contract. After the customer and Ameresco agree to the terms of the contract and the contract becomes executed, the project moves to fully-contracted backlog. The contracts reflected in our fully-contracted backlog typically have a construction period of 12 to 36 months and we typically expect to recognize revenue for such contracts over the same period. Fully-contracted backlog begins converting into revenues generated from backlog over time using cost based input methods once construction has commenced. See "We may not recognize all revenues from our backlog or receive all payments anticipated under awarded projects and customer contracts" and "In order to secure contracts for new projects, we typically face a long and variable selling cycle that requires significant resource commitments and requires a long lead time before we realize revenues" in Item 1A, Risk Factors in our Annual Report on Form 10-K.

As of December 31, 2019, we had fully-contracted backlog of approximately $1,107.6 million in expected future revenues under signed customer contracts for the installation or construction of projects. We also had been awarded projects for which we had not yet signed customer contracts with estimated total future revenues of an additional $1,160.4 million. As of December 31, 2018, we had fully-contracted backlog of approximately $726.6 million in future revenues under signed customer contracts for the installation or construction of projects. We also had been awarded projects for which we had not yet signed customer contracts with estimated total future revenues of an additional $1,241.4 million.

We define our 12-month backlog as the estimated amount of revenues that we expect to recognize in the next twelve months from our fully-contracted backlog. As of December 31, 2019 and 2018, our 12-month backlog was $564.4 million and $360.5 million, respectively.

As of December 31, 2019, we had O&M backlog of approximately $1,142.3 million in expected future revenues under signed multi-year customer contracts for the delivery of O&M services. As of December 31, 2018, we had O&M backlog of approximately $934.2 million in expected future revenues under signed multi-year customer contracts for the delivery of O&M services.

Assets in development, which represents the potential design/build project value of small-scale renewable energy plants that have been awarded or for which we have secured development rights, was approximately $681.0 million and $424.7 million as of December 31, 2019 and 2018, respectively.

Financial Operations Overview

Revenues

We derive revenues principally from energy efficiency projects, which entails the design, engineering and installation of equipment and other measures that incorporate a range of innovative technology and techniques to improve the efficiency and control the operation of a facility's energy infrastructure; this can include designing and constructing for a customer a central plant or cogeneration system providing power, heat and/or cooling to a building, or other small-scale plant that produces electricity, gas, heat or cooling from renewable sources of energy. We also derive revenue from: long-term O&M contracts; energy supply contracts for renewable energy operating assets that we own; integrated-PV; and consulting and enterprise energy management services.

Historically, including for the years ended December 31, 2019, and 2018, approximately 75% of our revenues have been derived from federal, state, provincial or local government entities, including public housing authorities and public universities.

Cost of Revenues and Gross Margin

Cost of revenues include the cost of labor, materials, equipment, subcontracting and outside engineering that are required for the development and installation of our projects, as well as pre-construction costs, sales incentives, associated travel, inventory obsolescence charges, amortization of intangible assets related to customer contracts, and, if applicable, costs of

procuring financing. A majority of our contracts have fixed price terms; however, in some cases we negotiate protections, such as a cost-plus structure, to mitigate the risk of rising prices for materials, services and equipment.

Cost of revenues also include costs for the small-scale renewable energy plants that we own, including the cost of fuel (if any) and depreciation charges.

As a result of certain acquisitions, we have intangible assets related to customer contracts; these are amortized over a period of approximately one to eight years from the respective date of acquisition. This amortization is recorded as a cost of revenues in the consolidated statements of income. Amortization expense for the year ended December 31, 2019 related to customer contracts was not significant.

Gross margin, which is gross profit as a percent of revenues, is affected by a number of factors, including the type of services performed. Renewable energy projects that we own and operate typically have higher margins than energy efficiency projects, and revenue in the United States typically have higher margins than in Canada due to the typical mix of products and services that we sell there. In addition, gross margin frequently varies across the construction period of a project. Our expected gross margin on, and expected revenues for, a project are based on budgeted costs. In some cases, actual costs incurred, or expected to be incurred, exceed the budgeted costs. In this case, we will adjust the revenue accordingly as a result of a slower progress-towards-completion estimate on a lower project gross margin estimate. From time to time, a portion of the contingencies reflected in budgeted costs are not incurred due to strong execution. In that case, and generally at or near project completion, we recognize revenues for which there is no further corresponding cost of revenues. As a result, gross margin tends to be backloaded for projects with strong execution; this explains the gross margin improvement that occurs from time to time at project closeout.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include salaries and benefits, project development costs, and general and administrative expenses not directly related to the development or installation of projects.

Salaries and benefits. Salaries and benefits consist primarily of expenses for personnel not directly engaged in specific project or revenue generating activity. These expenses include the time of executive management, legal, finance, accounting, human resources, information technology and other staff not utilized in a particular project. We employ a comprehensive time card system which creates a contemporaneous record of the actual time by employees on project activity.

Project development costs. Project development costs consist primarily of sales, engineering, legal, finance and third-party expenses directly related to the development of a specific customer opportunity. This also includes associated travel and marketing expenses.

General and administrative expenses. These expenses consist primarily of rents and occupancy, professional services, insurance, unallocated travel expenses, telecommunications, office expenses, depreciation and amortization of intangible assets not related to customer contracts. Professional services consist principally of recruiting costs, external legal, audit, tax and other consulting services. For the years ended December 31, 2019 and 2018, we recorded amortization expense of $0.9 million and $1.1 million, respectively, related to customer relationships, non-compete agreements, technology and trade names.

Other Expenses, Net

Other expenses, net, includes gains and losses from derivatives, interest income and expenses, amortization of deferred financing costs, net, and foreign currency transaction gains and losses. Interest expense will vary periodically depending on the amounts drawn on our revolving senior secured credit facility and the prevailing short-term interest rates.

Provision or Benefit for Income Taxes

The provision or benefit for income taxes is based on various rates set by federal and local authorities and is affected by permanent and temporary differences between financial accounting and tax reporting requirements.

Critical Accounting Policies and Estimates

This discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expense and related disclosures. The most significant estimates with regard to these consolidated financial statements relate to our estimates of final construction contract profit in accordance with

accounting for long-term contracts under the revenue recognition requirements of contracts with our customers, allowance for doubtful accounts, inventory reserves, realization of project development costs, leases, fair value of derivative financial instruments, accounting for business acquisitions, stock-based awards, impairment of long-lived assets and goodwill, income taxes, self insurance reserves and potential liability in conjunction with certain commitments and contingencies. Actual results could differ from those estimates.

Such estimates and assumptions are based on historical experience and on various other factors that management believes to be reasonable under the circumstances. Estimates and assumptions are made on an ongoing basis, and accordingly, the actual results may differ from these estimates under different assumptions or conditions.

The following are critical accounting policies that, among others, affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

On January 1, 2018, we adopted ASU 2014-09, "Revenue from Contracts with Customers" (Topic 606) using the modified retrospective method applied to those contracts which were not completed as of December 31, 2017. Results for reporting periods beginning January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for the prior periods. We recorded an adjustment to retained earnings on January 1, 2018 due to the cumulative impact of adopting Topic 606. See Note 3 "Revenue from Contracts with Customers" for the required disclosures related to the impact of adopting this standard and a discussion of updated policies related to revenue recognition discussed below.

We derive revenues from energy efficiency and renewable energy products and services. Energy efficiency products and services include the design, engineering, and installation of equipment and other measures to improve the efficiency, and control the operation, of a facility's energy infrastructure. Renewable energy products and services include the construction of small-scale plants that produce electricity, gas, heat or cooling from renewable sources of energy, the sale of such electricity, gas, heat or cooling from plants that we own, and the sale and installation of solar energy products and systems. Below is a description of our primary lines of business.

Projects - Our principal service relates to energy efficiency projects, which entails the design, engineering and installation of, and assisting with the arranging of financing for an ever-increasing array of innovative technologies and techniques to improve the energy efficiency, and control the operation, of a building's energy and water consuming systems. In certain projects, we also designed and constructed for a customer a central plant or cogeneration system providing power, heat and/or cooling to a building, or a small-scale plant that produces electricity, gas, heat or cooling from renewable sources of energy.

Under Topic 606 requirements, we recognize revenue from the installation or construction of projects over time using the cost-based input method. We use the total costs incurred on the project relative to the total expected costs to satisfy the performance obligation.

When the estimate on a contract indicates a loss, or claims against costs incurred reduce the likelihood of recoverability of such costs, we record the entire estimated loss in the period the loss becomes known.

Operations & Maintenance ("O&M") - After an energy efficiency or renewable energy project is completed, we often provide ongoing O&M services under a multi-year contract. These services include operating, maintaining and repairing facility energy systems such as boilers, chillers and building controls, as well as central power and other small-scale plants. For larger projects, we frequently maintain staff on-site to perform these services.

Maintenance revenue uses the input method to recognize revenue. In most cases, O&M fees are fixed annual fees. Because we are on-site to perform O&M services, the services are typically a distinct series of promises, and those services have the same pattern of transfer to the customer (i.e., evenly over time), we record the revenue on a straight-line basis. Some O&M service contract fees are billed on time expended. In those cases, revenue is recorded based on the time expended in that month.

Energy Assets - Our service offerings also include the sale of electricity, processed renewable gas fuel, heat or cooling from the portfolio of assets that we own and operate. We have constructed and are currently designing and constructing a wide range of renewable energy plants using LFG, wastewater treatment biogas, solar, biomass, other bio-derived fuels, wind and hydro sources of energy. Most of our renewable energy projects to date have involved the generation of electricity from solar PV and LFG or the sale of processed LFG. We purchase the LFG that otherwise would be combusted or flared, processes it, and either sell it or use it in our energy plants. We also design and build, as well as own, operate and maintain, plants that take biogas

generated in the anaerobic digesters of wastewater treatment plants and turn it into renewable natural gas that is either used to generate energy on-site or that can be sold through the nation's natural gas pipeline grid. Where we own and operate energy producing assets, we typically enter into a long-term power purchase agreement ("PPA") for the sale of the energy. Many of our energy assets also produce environmental attributes, including RECs and RINs. In most cases, we sell these attributes under separate agreements with third parties other than the PPA customer.

We recognize revenues from the sale and delivery of the energy output from renewable energy plants, over time as produced and delivered to the customer, in accordance with specific PPA contract terms. Environmental attributes revenue is recognized at a point in time, when the environmental attributes are transferred to the customer in accordance with the transfer protocols of the attribute market that we operate in. In those cases where environmental attributes are sold to the same customer as the energy output, we record revenue monthly for both the energy output and the environmental attributes output, as generated and delivered to the customer.

Other - Our service and product offerings also include integrated-PV and consulting and enterprise energy management services.

We recognize revenues from delivery of engineering, consulting services and enterprise energy management services over time. For the sale of solar materials, revenue is recognized at a point in time when we have transferred physical control of the asset to the customer upon shipment.

To the extent a contract is deemed to have multiple performance obligations, we allocate the transaction price of the contract to each performance obligation using its best estimate of the standalone selling price of each distinct good or service in the contract.

Billings in excess of cost and estimated earnings represents advanced billings on certain construction contracts. Costs and estimated earnings in excess of billings represent certain amounts under customer contracts that were earned and billable but not invoiced.

Results for reporting periods beginning January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported under Accounting Standards Codification ("ASC") 605, Revenue Recognition.

Project Development Costs

We capitalize as project development costs only those costs incurred in connection with the development of energy efficiency and renewable energy projects, primarily direct labor, interest costs, outside contractor services, consulting fees, legal fees and associated travel, if incurred after a point in time when the realization of related revenue becomes probable. Project development costs incurred prior to the probable realization of revenues are expensed as incurred.

Energy Assets

Energy assets consist of costs of materials, direct labor, interest costs, outside contract services, deposits and project development costs incurred in connection with the construction of small-scale renewable energy plants that we own. These amounts are capitalized and amortized to cost of revenues in our consolidated statements of income on a straight line basis over the lives of the related assets or the terms of the related contracts.

We capitalize interest costs relating to construction financing during the period of construction. Capitalized interest is included in energy assets, net, in our consolidated balance sheets. Capitalized interest is amortized to cost of revenues in our consolidated statements of income on a straight line basis over the useful life of the associated energy asset. The amount of interest capitalized for the years ended December 31, 2019 and 2018 was $3.0 million and $3.8 million, respectively.

Routine maintenance costs are expensed in the current year's consolidated statements of income to the extent that they do not extend the life of the asset. Major maintenance, upgrades and overhauls are required for certain components of our assets. In these instances, the costs associated with these upgrades are capitalized and are depreciated over the shorter of the remaining life of the asset or the period until the next required major maintenance or overhaul.

We evaluate our long-lived assets for impairment as events or changes in circumstances indicate the carrying value of these assets may not be fully recoverable. Examples of such triggering events applicable to our assets include a significant decrease in the market price of a long-lived asset or asset group or a current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset or asset group.

We evaluate recoverability of long-lived assets to be held and used by estimating the undiscounted future cash flows associated with the expected uses and eventual disposition of those assets. When these comparisons indicate that the carrying value of those assets is greater than the undiscounted cash flows, we recognize an impairment loss for the amount that the carrying value exceeds the fair value.

From time to time, we have applied for and received cash grant awards from the U.S. Treasury Department (the "Treasury") under Section 1603 of the American Recovery and Reinvestment Act of 2009 (the "Act"). The Act authorized the Treasury to make payments to eligible persons who place in service qualifying renewable energy projects. The grants are paid in lieu of investment tax credits. All of the cash proceeds from the grants were used and recorded as a reduction in the cost basis of the applicable energy assets. If we dispose of the property, or the property ceases to qualify as specified energy property, within five years from the date the property is placed in service, then a prorated portion of the Section 1603 payment must be repaid.

We last received a Section 1603 grant during the year ended December 31, 2014. No further Section 1603 grant payments are expected to be received as the program has expired.

For tax purposes, the Section 1603 payments are not included in federal and certain state taxable income and the basis of the property is reduced by 50% of the payment received. Deferred grant income of $6.1 million and $6.6 million in the accompanying consolidated balance sheets at December 31, 2019 and 2018, respectively, represents the benefit of the basis difference to be amortized to income tax expense over the life of the related property.

Leases

We adopted Accounting Standard Update ("ASU") 2016-02, Leases (Topic 842) as of January 1, 2019 and, along with the standard, elected to take the practical expedient that the Company will not reassess lease classifications at adoption. Accordingly, the Company's sales-leaseback arrangements entered into as of December 31, 2018 will remain under the previous guidance. See Note 7 and 8 for additional information on these sale-leasebacks.

All significant lease arrangements are recognized at lease commencement. Operating lease right-of-use ("ROU") assets and lease liabilities are recognized at commencement. An ROU asset and corresponding lease liability are not recorded for leases with an initial term of 12 months or less (short-term leases) as the Company recognizes lease expense for these leases as incurred over the lease term.

ROU assets represent the Company's right to use an underlying asset during the reasonably certain lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. The Company uses its incremental borrowing rate, which is updated annually or when a significant event occurs that would indicate a significant change in rates, based on the information available at commencement date, in determining the present value of lease payments. The operating lease ROU asset also includes any lease payments related to initial direct cost and prepayments and excludes lease incentives. Lease expense is recognized on a straight-line basis over the lease term. The Company has lease agreements with lease and non-lease components, which are accounted for as a single component. See Note 8 for additional discussion on the Company's leases.

Impairment of Goodwill and Intangible Assets

We have classified as goodwill the amounts paid in excess of fair value of the net assets (including tax attributes) of companies acquired in purchase transactions. We have recorded intangible assets related to customer contracts, customer relationships, non-compete agreements, trade names and technology, each with defined useful lives. We assess the impairment of goodwill and intangible assets that have indefinite lives on an annual basis (December 31st) and whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable.

Goodwill is reviewed for impairment annually and whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. The process of evaluating the potential impairment of goodwill requires significant judgment. We regularly monitor current business conditions and other factors including, but not limited to, adverse industry or economic trends, restructuring actions and projections of future results. We estimate the reporting unit's fair value and compare it with the carrying value of the reporting unit, including goodwill. If the fair value is greater than the carrying value of its reporting

unit, no impairment is recorded. Fair value is determined using both an income approach and a market approach. The estimates and assumptions used in our calculations include revenue growth rates, expense growth rates, expected capital expenditures to determine projected cash flows, expected tax rates and an estimated discount rate to determine present value of expected cash flows. These estimates are based on historical experiences, our projections of future operating activity and our weighted-average cost of capital.

Acquired intangible assets other than goodwill that are subject to amortization include customer contracts and customer relationships, as well as software/technology, trade names and non-compete agreements. The intangible assets are amortized over periods ranging from one to fifteen years from their respective acquisition dates. We evaluate the intangible assets for impairment consistent with, and part of, their long-lived assets evaluation, as discussed in Energy Assets above.

Impairment of Long-Lived Assets

We use the guidance prescribed in ASC 360, Property, Plant and Equipment, for the proper testing and valuation methodology to ensure we record any impairment when the carrying amount of a long-lived asset is not recoverable equivalent to an amount equal to its fair market value.

We review long-lived asset groups for potential impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Examples of such triggering events applicable to our asset groups include a significant decrease in the market price of a long-lived asset group or a current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset group, among others.

Should an asset group be identified as potentially impaired based on the defined criteria, an impairment test is performed that includes a comparison of the estimated undiscounted cash flows of the asset as compared to the recorded value of the asset. If these estimates or their related assumptions change in the future, an impairment charge may be required against these assets in the reporting period in which the impairment is determined.

Derivative Financial Instruments

We account for our interest rate swaps and commodity swaps as derivative financial instruments. As required under Generally Accepted Accounting Principles ("GAAP"), derivatives are carried on our consolidated balance sheets at fair value. The fair value of our interest rate and commodity swaps are determined based on observable market data in combination with expected cash flows for each instrument.

We follow the guidance which expands the disclosure requirements for derivative instruments and hedging activities.

In the normal course of business, we utilize derivative contracts as part of our risk management strategy to manage exposure to market fluctuations in interest rates and natural gas prices. These instruments are subject to various credit and market risks. Controls and monitoring procedures for these instruments have been established and are routinely reevaluated. Credit risk represents the potential loss that may occur because a party to a transaction fails to perform according to the terms of the contract. The measure of credit exposure is the replacement cost of contracts with a positive fair value. We seek to manage credit risk by entering into financial instrument transactions only through counterparties that we believe to be creditworthy. Market risk represents the potential loss due to the decrease in the value of a financial instrument caused primarily by changes in interest rates and natural gas prices. We seek to manage market risk by establishing and monitoring limits on the types and degree of risk that may be undertaken. As a matter of policy, we do not use derivatives for speculative purposes.

We are exposed to interest rate risk through our borrowing activities. A portion of our project financing includes twelve credit facilities that utilize a variable rate swap instrument. We are also exposed to commodity price risk through our variable rate commodity swap instruments. We have two commodity swaps as of December 31, 2019.

In June 2018, the Company entered into a term loan agreement, discussed in Note 9, that contained an interest make-whole provision. In August 2018, the Company signed a joinder to the above agreement, which added another series of notes to the term loan that also contained an interest make-whole provision. The Company determined that these provisions fulfill the requirements of embedded derivative instruments that were required to be bifurcated from the host agreement. The fair value of these make-whole provisions was determined based on available market data and a with and without model.

The following tables present a listing of all our active derivative instruments as of December 31, 2019 ($ in thousands):

Active Interest Rate Swap	Effective Date	Expiration Date	Initial Notional Amount ($)	Status
11-Year, 5.77% Fixed	October 2018	October 2029	$ 9,200	Designated
15-Year, 5.24% Fixed	June 2018	June 2033	10,000	Designated
3-Year, 2.46% Fixed	March 2018	December 2020	17,100	Not Designated
10-Year, 4.74% Fixed	June 2017	December 2027	14,100	Designated
15-Year, 3.26% Fixed	February 2023	December 2038	14,084	Designated
7-Year, 2.19% Fixed	February 2016	February 2023	20,746	Designated
8-Year, 3.70% Fixed	March 2020	June 2028	14,643	Designated
8-Year, 3.70% Fixed	March 2020	June 2028	10,734	Designated
8-Year, 1.71% Fixed	October 2012	March 2020	9,665	Designated
8-Year, 1.71% Fixed	October 2012	March 2020	7,085	Designated
15-Year, 5.30% Fixed	February 2006	February 2021	3,256	Designated
15.5-Year, 5.40% Fixed	September 2008	March 2024	13,081	Designated

Active Commodity Swap	Effective Date	Expiration Date	Initial Notional Amount (Volume)	Commodity Measurement	Status
1-Year, $2.68 MMBtu Fixed	May 2019	April 2020	437,004	MMBtus	Not Designated
1-Year, $2.70 MMBtu Fixed	May 2020	April 2021	435,810	MMBtus	Not Designated

Other Derivatives	Classification	Effective Date	Expiration Date	Fair Value ($)
Interest make-whole provisions	Liability	June/August 2018	December 2038	$ 918

We entered into each of the interest rate and commodity swap contracts as an economic hedge.

We recognize all derivatives in our consolidated financial statements at fair value.

We recognize the fair value of derivative instruments designated as hedges in our consolidated balance sheets and any changes in the fair value are recorded as adjustments to other comprehensive income if the hedges operate effectively.

Income Taxes

We provide for income taxes based on the liability method. We provide for deferred income taxes based on the expected future tax consequences of differences between the financial statement basis and the tax basis of assets and liabilities calculated using the enacted tax rates in effect for the year in which the differences are expected to be reflected in the tax return.

We account for uncertain tax positions using a "more-likely-than-not" threshold for recognizing and resolving uncertain tax positions. The evaluation of uncertain tax positions is based on factors that include, but are not limited to, changes in tax law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, new audit activity and changes in facts or circumstances related to a tax position. We evaluate uncertain tax positions on a quarterly basis and adjust the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions. Our liabilities for an uncertain tax position can be relieved only if the contingency becomes legally extinguished through either payment to the taxing authority or the expiration of the statute of limitations, the recognition of the

benefits associated with the position meet the "more-likely-than-not" threshold or the liability becomes effectively settled through the examination process. We consider matters to be effectively settled once the taxing authority has completed all of its required or expected examination procedures, including all appeals and administrative reviews, we have no plans to appeal or litigate any aspect of the tax position and we believe that it is highly unlikely that the taxing authority would examine or re-examine the related tax position. We also accrue for potential interest and penalties, related to unrecognized tax benefits in income tax expense.

We have presented all deferred tax assets and liabilities as noncurrent on our consolidated balance sheets as of December 31, 2019, and 2018, respectively.

Stock-Based Compensation Expense

Our stock-based compensation expense results from the issuances of shares of restricted common stock and grants of stock options to employees, directors, outside consultants and others. We recognize the costs associated with option grants using the fair value recognition provisions of ASC 718, *Compensation — Stock Compensation*. Generally, ASC 718 requires the value of all stock-based payments to be recognized in the statement of income based on their estimated fair value at date of grant amortized over the grants' respective vesting periods. For the years ended December 31, 2019 and 2018, we recorded stock-based compensation expense of approximately $1.6 million and $1.3 million, respectively, in connection with stock-based payment awards. The compensation expense is categorized as a portion of general and administrative expenses in the accompanying consolidated statements of income. Stock-based compensation expense is also recognized in association with employee stock purchases related to the Company's Employee Stock Purchase Plan.

Stock Option Grants

We have granted stock options to certain employees and directors under our 2010 stock incentive plan and at December 31, 2019, 5,717 shares were available for grant under that plan. We have also granted stock options to certain employees and directors under our 2000 stock incentive plan; however, we will grant no further stock options or restricted stock awards under that plan.

Stock options issued under our 2000 stock incentive plan generally expire if not exercised within ten years after the grant date. Under the terms of our 2010 stock incentive plan, all options expire if not exercised within ten years after the grant date. During 2011, we began awarding options which typically vest over a five year period on an annual ratable basis. If the employee ceases to be employed for any reason before vested options have been exercised, the employee generally has three months to exercise vested options or they are forfeited. Certain option grants have performance conditions that must be achieved prior to vesting and are expensed based on the expected achievement at each reporting period.

We follow the fair value recognition provisions of ASC 718 requiring that all stock-based payments to employees, including grants of employee stock options and modifications to existing stock options, be recognized in the consolidated statements of income based on their fair values, using the prospective-transition method.

We use the Black-Scholes option pricing model to determine the weighted-average fair value of options granted and record stock-based compensation expense utilizing the straight-line method.

The determination of the fair value of stock-based payment awards utilizing the Black-Scholes model is affected by the stock price and a number of assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. The following table sets forth the significant assumptions used in the model during 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Expected dividend yield	—%	—%	—%
Risk-free interest rate	1.60%-2.39%	2.71%-3.00%	1.96%-2.36%
Expected volatility	43%-44%	43%-45%	46%
Expected life	6.5 years	6.5 years	6.5 years

We will continue to use our judgment in evaluating the expected term, volatility and forfeiture rate related to our own stock-based compensation on a prospective basis, and incorporating these factors into the Black-Scholes pricing model. Higher volatility and longer expected lives result in an increase to stock-based compensation expense determined at the date of grant. These expenses will affect our cost of revenues as well as our selling, general and administrative expenses.

As of December 31, 2019, we had $9.5 million of total unrecognized stock-based compensation expense related to employee and director stock options. We expect to recognize this cost over a weighted-average period of 2.7 years after December 31, 2019. This expense is categorized as a portion of selling, general and administrative expenses in the accompanying consolidated statements of income.

Recent Accounting Pronouncements

See Note 2 of the "Notes to Consolidated Financial Statements" for a discussion of recent accounting standards.

Results of Operations

On January 1, 2018, the Company adopted new accounting guidance on revenue from contracts with customers, using the modified retrospective method applied to contracts that were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under that guidance, while prior period amounts are not adjusted and continue to be reported in accordance with the previous guidance. See Note 3, *Revenue From Contracts with Customers,* of Notes to Consolidated Financial Statements for further details.

The following table sets forth certain financial data from the consolidated statements of income expressed as a percentage of revenues for the periods indicated (in thousands):

	Year Ended December 31,			
	2019		2018	
	Dollar Amount	% of Revenues	Dollar Amount	% of Revenues
Revenues	$ 866,933	100.0 %	$ 787,138	100.0%
Cost of revenues	698,815	80.6 %	613,526	77.9%
Gross profit	168,118	19.4 %	173,612	22.1%
Selling, general and administrative expenses	116,504	13.4 %	114,513	14.5%
Operating income	51,614	6.0 %	59,099	7.5%
Other expenses, net	15,061	1.7 %	16,709	2.1%
Income before (benefit) provision for income taxes	36,553	4.2 %	42,390	5.4%
Income tax (benefit) provision	(3,748)	(0.4)%	4,813	0.6%
Net income	$ 40,301	4.6 %	$ 37,577	4.8%
Net loss attributable to redeemable non-controlling interests	$ 4,135	0.5 %	$ 407	0.1%
Net income attributable to common shareholders	$ 44,436	5.1 %	$ 37,984	4.8%

Revenues

The following table sets forth a comparison of our revenues for the periods indicated (in thousands):

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Revenues	$ 866,933	$ 787,138	$ 79,795	10.1%

Total revenues increased by $79.8 million, or 10.1%, from 2018 to 2019 primarily due to a $41.1 million increase in revenues from our U.S. Federal segment, a $30.7 million increase in revenues from our U.S. Regions segment, a $7.0 million increase from All Other, and a $2.0 million increase in revenues from our Non-solar Distributed Generation ("DG") segment. These increases were partially offset by a $1.1 million decrease in revenues from our Canada segment.

Cost of Revenues and Gross Margin

The following table sets forth a comparison of our cost of revenues and gross profit for the periods indicated (in thousands):

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Cost of revenues	$ 698,815	$ 613,526	$ 85,289	13.9%
Gross margin %	19.4%	22.1%		

Cost of revenues. Total cost of revenues increased $85.3 million, or 13.9%, from 2018 to 2019 due primarily to an increase in project revenues from our U.S. Federal and U.S. Regions segments.

Gross margin. Gross margin decreased from 22.1% in 2018 to 19.4% in 2019. The decrease in gross margin is primarily due to an increase in lower margin projects in our U.S. Regions and Federal segments and lower margin energy and incentive revenue in our Non-Solar DG segment.

Selling, General and Administrative Expenses

The following table sets forth a comparison of our selling, general and administrative expenses for the periods indicated (in thousands):

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Selling, general and administrative expenses	$ 116,504	$ 114,513	$ 1,991	1.7%

Selling, general and administrative expenses increased $2.0 million or 1.7% to $116.5 million from $114.5 million from 2018 to 2019 primarily due to an increase in salaries and benefits of $4.3 million resulting from increased headcount partially offset by a gain of $2.2 million recognized on the deconsolidation of a variable interest entity.

Other Expenses, Net

Other expenses, net, includes gains and losses from derivatives transactions, foreign currency transactions, interest expense, interest income and amortization of deferred financing costs, net. Other expenses, net, decreased from 2018 to 2019 by $1.6 million primarily due to favorable foreign exchange rate fluctuations realized.

Income Before Taxes

Income before taxes decreased from 2018 to 2019 by $5.8 million primarily due to the reasons described above.

Provision (Benefit) for Income Taxes

The provision (benefit) for income taxes is based on various rates set by federal, state, provincial and local authorities and is affected by permanent and temporary differences between financial accounting and tax reporting requirements. During 2019, we recognized an income tax benefit of $(3.7) million, equivalent to an effective tax rate of (10.3)%. The effective tax rate decreased for 2019 as compared to 2018 primarily due to the availability of Section 179D energy efficiency deduction which was retroactively extended for 2018 and 2019 on December 20, 2019. During 2018, we recognized an income tax provision of $4.8 million, equivalent to an effective tax rate of 11.4%.

The principal reasons for the difference between the statutory rate and the estimated annual effective rate for 2019 related to our recognizing a tax benefit of approximately $29.7 million associated with energy related credits and deductions available under the U.S. Tax Code for 2019 as well as a deduction available under Section 179D of the Tax Code for 2019 and 2018. In December 2019, the Code Section 179D Commercial Buildings Energy Efficiency Tax Deduction was retroactively extended for 2018 and 2019, and through the end of 2020. Because of the timing of the extension the impact of the 2018 Section 179D deduction was not reflected in the 2018 tax provision but was instead reflected in 2019.

Net Income

Net income increased $2.7 million to a net income of $40.3 million for the twelve months ended December 31, 2019 compared to a net income of $37.6 million for the same period of 2018 for the reasons discussed above. Basic income per share for the twelve months ended December 31, 2019 was $0.95 per share, an increase of $0.12 per share, compared to the

same period of 2018. Diluted income per share for the twelve months ended December 31, 2019 was $0.93 per share, an increase of $0.12 per share, compared to the same period of 2018.

Business Segment Analysis (in thousands)

We report results under ASC 280, *Segment Reporting*. Our reportable segments for the year ended December 31, 2019 are U.S. Regions, U.S. Federal, Canada and Non-Solar Distributed Generation " Non-Solar DG". Our U.S. Regions, U.S. Federal and Canada segments offer energy efficiency products and services, which include: the design, engineering and installation of equipment and other measures to improve the efficiency and control the operation of a facility's energy infrastructure; renewable energy solutions and services, which include the construction of small-scale plants that we own or develop for customers that produce electricity, gas, heat or cooling from renewable sources of energy; and O&M services. Our Non-Solar DG segment primarily sells electricity, processed renewable gas fuel, heat or cooling, produced from renewable sources of energy, other than solar, and generated by small-scale plants that we own. This segment also performs O&M services for customer-owned small-scale plants. The "All Other" category offers enterprise energy management services, consulting services and integrated-PV. These segments do not include results of other activities, such as corporate operating expenses not specifically allocated to the segments.

U.S. Regions

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Revenues	$ 365,060	$ 334,344	$ 30,716	9.2 %
Income before taxes	$ 15,925	$ 20,543	$ (4,618)	(22.5)%

Revenues for the U.S. Regions segment increased by $30.7 million, or 9.2%, to $365.1 million for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to an increase in project revenues attributable to the quantity of projects and timing of revenue recognized as a result of the phase of active projects versus the prior year.

Income before taxes for the U.S. Regions segment decreased by $4.6 million, or 22.5%, for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to the increase in lower margin projects and operating expenses in 2019.

U.S. Federal

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Revenues	$ 287,426	$ 246,309	$ 41,117	16.7%
Income before taxes	$ 40,553	$ 36,332	$ 4,221	11.6%

Revenues for the U.S. Federal segment increased by $41.1 million, or 16.7%, to $287.4 million for the twelve months ended December 31, 2019 compared to the same period of 2018, primarily due to timing of revenue recognized as a result of the phase of active projects.

Income before taxes for the U.S. Federal segment increased by $4.2 million, or 11.6%, to $40.6 million for the twelve months ended December 31, 2019 compared to the same period of 2018, primarily due to an increase in revenues described above and decrease in operating expenses attributed to lower project development costs.

Canada

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Revenues	$ 37,910	$ 38,982	$ (1,072)	(2.7)%
Income (loss) before taxes	$ 1,771	$ (2,746)	$ 4,517	164.5 %

Revenues for the Canada segment decreased $1.1 million, or 2.7%, to $37.9 million for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to a decrease in project revenues related to slower progression of certain active projects.

Income (loss) before taxes for the Canada segment increased $4.5 million, or 164.5%, to an income of $1.8 million for the twelve months ended December 31, 2019 compared to a loss of $2.7 million for the same period of 2018 primarily due to a decrease in operating expenses attributed to lower salaries and benefits and project development costs, lower interest expenses and favorable foreign currency exchange rate fluctuations.

Non-Solar DG

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Revenues	$ 84,683	$ 82,655	$ 2,028	2.5 %
Income before taxes	$ 3,813	$ 13,412	$ (9,599)	(71.6)%

Revenues for the Non-Solar DG segment increased $2.0 million, or 2.5%, to $84.7 million for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to an increase in project and operations and maintenance revenue partially offset by a decrease in energy and incentive revenue.

Income before taxes for the Non-Solar DG segment decreased by $9.6 million, or 71.6%, to $3.8 million for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to the increase in lower margin project revenues and lower margin energy and incentive revenue attributed to lower pricing realized from the sale of certain environmental attributes.

All Other

	Year Ended December 31,		Dollar	Percentage
	2019	2018	Change	Change
Revenues	$ 91,854	$ 84,848	$ 7,006	8.3 %
Income before taxes	$ 8,647	$ 5,264	$ 3,383	64.3 %
Unallocated corporate activity	$ (34,156)	$ (30,415)	$ (3,741)	(12.3)%

Revenues from all other segments increased $7.0 million, or 8.3%, to $91.9 million for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to an increase in integrated-PV revenues attributed to sales to customers for oilfield microgrid applications.

Income before taxes from all other segments increased $3.4 million to income of $8.6 million for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to the increase in revenues described above.

Unallocated corporate activity includes all corporate level selling, general and administrative expenses and other expenses not allocated to the segments. We do not allocate any indirect expenses to the segments.

Corporate activity increased by $3.7 million, or 12.3%, to $34.2 million for the twelve months ended December 31, 2019 compared to the same period of 2018 primarily due to an increase in salary and benefit costs and insurance costs.

Liquidity and Capital Resources

Sources of liquidity. Since inception, we have funded operations primarily through cash flow from operations, advances from Federal ESPC projects and various forms of debt.

The changes in cash and cash equivalents for the years ended December 31, 2019 and 2018 were as follows:

	Year Ended December 31,	
	2019	2018
Cash flows used in operating activities	$ (196,293)	$ (53,201)
Cash flows used in investing activities	(142,223)	(133,206)
Cash flows provided by financing activities	317,419	224,511
Effect of exchange rate changes on cash	447	(295)
Net increase (decrease) in cash and cash equivalents	$ (20,650)	$ 37,809

We believe that cash and cash equivalents, and availability under our revolving senior secured credit facility, combined with our access to credit markets, will be sufficient to fund our operations through at least March 2021 and thereafter.

Proceeds from our Federal ESPC projects are generally received through agreements to sell the ESPC receivables related to certain ESPC contracts to third-party investors. We use the advances from the investors under these agreements to finance the projects. We are the primary obligor for financing received, but only until final acceptance of the work by the customer. At this point recourse to us ceases and the ESPC receivables are transferred to the investor. The transfers of receivables under these agreements do not qualify for sales accounting until final customer acceptance of the work, so the advances from the investors are not classified as operating cash flows. Cash draws that we receive under these ESPC agreements were $199.4 million during the year ended December 31, 2019, and are recorded as financing cash inflows. The use of the cash received under these arrangements is to pay project costs classified as operating cash flows, totaled $(188.1) million during the year ending December 31, 2019. Due to the manner in which the ESPC contracts with the third-party investors are structured, our reported operating cash flows are materially impacted by the fact that operating cash flows only reflect the ESPC contract expenditure outflows and do not reflect any inflows from the corresponding contract revenues. Upon acceptance of the project by the federal customer the ESPC receivable and corresponding ESPC liability are removed from our consolidated balance sheets as a non-cash settlement. See Note 2, “Summary of Significant Accounting Policies”, to our Consolidated Financial Statements appearing in Item 8 of this Annual Report on Form 10-K.

Our service offering also includes the development, construction and operation of small-scale renewable energy plants. Small-scale renewable energy projects, or energy assets, can either be developed for the portfolio of assets that we own and operate or designed and built for customers. Expenditures related to projects that we own are recorded as cash outflows from investing activities. Expenditures related to projects that we build for customers are recorded as cash outflows from operating activities as cost of revenues.

Capital expenditures. Our total capital expenditures were $140.6 million and $129.6 million for the the year ended December 31, 2019 and 2018, respectively. Additionally, we invested $1.3 million in acquisitions for the twelve months ended December 31, 2019, and we invested $3.6 million in acquisitions for the year ended December 31, 2018. Included in our capital expenditures are the purchases of solar PV projects in development for $8.5 million and $72.9 million for the years ended December 31, 2019 and 2018, respectively . We currently plan to invest approximately $200.0 million to $250.0 million in capital expenditures in 2020, principally for the construction or acquisition of new renewable energy plants.

Cash flows from operating activities. Operating activities used $196.3 million of net cash during 2019. In 2019, we had net income of $40.3 million, which is net of non-cash compensation, depreciation, amortization, deferred income taxes and other non-cash items totaling $36.5 million. Net increases in costs and estimated earnings in excess of billings, accounts receivable including retainage, inventory, prepaid expenses and other current assets and net decreases in other liabilities and income taxes payable used $140.4 million. These uses of cash were offset by net decreases in project development costs and other assets and an increase in accounts payable and accrued expenses, and billings in excess of cost and estimated earnings which provided $55.4 million. Federal ESPC receivables used $188.1 million. As described above, Federal ESPC operating cash flows only reflect the ESPC expenditure outflows and do not reflect any inflows from the corresponding contract revenues, which are recorded as cash inflows from financing activities due to the timing of the receipt of cash related to the assignment of the ESPC receivables to the third-party investors.

Operating activities used $53.2 million of net cash during 2018. In 2018, we had a net income of $37.6 million, which is net of non-cash compensation, depreciation, amortization, deferred income taxes and other non-cash items totaling $42.1 million. Net increases in project development costs and other assets and net decreases in other liabilities used $12.9 million. These uses of cash were offset by net decrease in accounts receivable including retainage, inventory, costs and estimated earnings in excess of billings, prepaid expenses and other current assets and an increase in accounts payable, accrued expenses and other current liabilities, billings in excess of cost and estimated earnings and income taxes payable which provided $35.6 million. Federal ESPC receivables used $155.5 million.

Cash flows from investing activities. Cash used for investing activities totaled $142.2 million during 2019 and consisted of capital investments, net of grant proceeds, of $134.0 million related to the development and acquisition of renewable energy plants, $6.7 million related to purchases of other property and equipment, acquisitions of businesses of $1.3 million and contributions to equity investments of $0.3 million.

Cash used for investing activities totaled $133.2 million during 2018 and consisted of capital investments of $125.7 million related to the development and acquisition of renewable energy plants, $3.9 million related to purchases of other property and equipment and $3.6 million related to acquisitions of renewable energy businesses.

Cash flows from financing activities. Net cash provided by financing activities totaled $317.4 million during 2019 and included repayments of $28.4 million on long-term debt, payments of $1.7 million relating to financing fees and $0.1 million for the repurchase of stock. These uses of financing cash were offset by proceeds from our senior secured credit facility of $73.3 million and long-term debt financings of $43.9 million, contributions from redeemable non-controlling interests of $21.4 million and proceeds from exercises of options which provided $7.4 million. Proceeds from Federal ESPC projects and energy assets provided $201.6 million in cash.

Net cash provided by financing activities totaled $224.5 million during 2018 and included repayments of $36.4 million on long-term debt, payments of $4.1 million relating to financing fees, $1.8 million for the repurchase of stock and net payments on our senior secured credit facility of $0.9 million. These uses of financing cash were offset by proceeds from long-term debt financings of $88.1 million, proceeds from sale-leaseback financings of $5.1 million, contributions from redeemable non-controlling interests of $4.8 million and proceeds from exercises of options which provided $7.2 million. Proceeds from Federal ESPC projects and energy assets provided $162.5 million in cash.

We currently plan additional financings of $125.0 million to $175.0 million in 2020 to fund the construction or acquisition of new renewable energy plants as discussed above.

We may also, from time to time, finance our operations through issuance or offering of equity or debt securities.

Senior Secured Credit Facility — Revolver and Term Loan

On June 28, 2019, we entered into a fourth amended and restated bank credit facility with three banks. The new credit facility replaces and extends our existing credit facility, which was scheduled to expire on June 30, 2020. The amended revolving credit and term loan facility mature on June 28, 2024, when all amounts will be due and payable in full. The Company expects to use the new credit facility for general corporate purposes of the Company and its subsidiaries, including permitted acquisitions, refinancing of existing indebtedness and working capital. The amendment increased the aggregate amount of the revolving commitments from $85,000 to $115,000 through an extended June 28, 2024 maturity date, increased the term loan from $40,000 to $65,000 to reduce the outstanding revolving loan balance by the same amount and extend the maturity date from June 30, 2020 to June 28, 2024, and increased the total funded debt to EBITDA covenant ratio from a maximum of 3.00 to 3.25. The total commitment under the amended credit facility (revolving credit, term loan and swing line) is $185,000.

The credit facility consists of a $115 million revolving credit facility and a $65 million term loan. The revolving credit facility may be increased by up to an additional $25 million at our option if lenders are willing to provide such increased commitments, subject to certain conditions. Up to $20 million of the revolving credit facility may be borrowed in Canadian dollars, Euros and Pounds Sterling. We are the sole borrower under the credit facility. The obligations under the credit facility are guaranteed by certain of our direct and indirect wholly owned domestic subsidiaries and are secured by a pledge of all of our and such of our subsidiary guarantors' assets, other than the equity interests of certain subsidiaries and assets held in non-core subsidiaries (as defined in the agreement). At December 31, 2019 and 2018, $62.6 million and $41.5 million, was outstanding under the term loan, respectively. At December 31, 2019 and 2018, $50.0 million and $1.7 million was outstanding under the revolving credit facility, respectively. At December 31, 2019 funds of $29.1 million was available for the revolving credit facility.

The interest rate for borrowings under the credit facility is based on, at our option, either (1) a base rate equal to a margin of 0.5% or 0.25%, depending on our ratio of Total Funded Debt to EBITDA (each as defined in the agreement), over the highest of (a) the federal funds effective rate, plus 0.50% , (b) Bank of America's prime rate and (c) a rate based on the London interbank deposit rate ("LIBOR") plus 1.50%, or (2) the one-, two- three- or six-month LIBOR plus a margin of 2.00% or 1.75%, depending on our ratio of Total Funded Debt to EBITDA. A commitment fee of 0.375% is payable quarterly on the undrawn portion of the revolving credit facility. At December 31, 2019, the interest rate for borrowings under the revolving credit facility was 4.52% and the weighted average interest rate for borrowings under the term loan was 4.27%.

The revolving credit facility does not require amortization of principal. The term loan requires quarterly principal payments of $1.2 million, with the balance due at maturity. All borrowings may be paid before maturity in whole or in part at our option without penalty or premium, other than reimbursement of any breakage and deployment costs in the case of LIBOR borrowings.

The credit facility limits our ability to, among other things: incur additional indebtedness; incur liens or guarantee obligations; merge, liquidate or dispose of assets; make acquisitions or other investments; enter into hedging agreements; pay dividends and make other distributions and engage in transactions with affiliates, except in the ordinary course of business on an arms' length basis.

Under the credit facility, we may not invest cash or property in, or loan to, our non-core subsidiaries in aggregate amounts exceeding 49% of our consolidated stockholders' equity. In addition, under the credit facility, we and our core subsidiaries must maintain the following financial covenants:

- a ratio of total funded debt to EBITDA of less than 3.25 to 1.0 as of the end of each fiscal quarter ending June 30, 2024 and thereafter; and
- a debt service coverage ratio (as defined in the agreement) of at least 1.5 to 1.0.

Any failure to comply with the financial or other covenants of the credit facility would not only prevent us from being able to borrow additional funds, but would constitute a default, permitting the lenders to, among other things, accelerate the amounts outstanding, including all accrued interest and unpaid fees, under the credit facility, to terminate the credit facility, and enforce liens against the collateral.

The credit facility also includes several other customary events of default, including a change in control, permitting the lenders to accelerate the indebtedness, terminate the credit facility, and enforce liens against the collateral.

Project Financing

Construction and Term Loans. We have entered into a number of construction and term loan agreements for the purpose of constructing and owning certain renewable energy plants. The physical assets and the operating agreements related to the renewable energy plants are generally owned by wholly owned, single member "special purpose" subsidiaries of the Company. These construction and term loans are structured as project financings made directly to a subsidiary, and upon commercial operations and achieving certain milestones in the credit agreement, the related construction loan converts into a term loan. While we are required under GAAP to reflect these loans as liabilities on our consolidated balance sheets, they are generally non-recourse and not direct obligations of Ameresco, Inc. As of December 31, 2019, we had outstanding $204.5 million in aggregate principal amount under these loans with maturities at various dates from 2020 to 2039. Effective interest rates, after consideration for our interest rate swap contracts, ranged from 0% to 9.41%. As of December 31, 2018, we had outstanding $179.9 million in aggregate principal amount under these loans with maturities at various dates from 2020 to 2038. Effective interest rates, after consideration for our interest rate swap contracts, ranged from 4.38% to 9.89% as of December 31, 2018.

The Company's project financing facilities contain various financial and other covenant requirements which include debt service coverage ratios and total funded debt to EBITDA, as defined. Any failure to comply with the financial or other covenants of the Company's projects financings would result in inability to distribute funds from the wholly-owned subsidiary to the Company or constitute an event of default in which the lenders may have the ability to accelerate the amounts outstanding, including all accrued interest and unpaid fees.

As of December 31, 2019 and 2018, the Company's debt, excluding financing leases, consisted of the following:

	Commencement Date	Maturity Date	Balance as of December 31,	
			2019	2018
Senior secured credit facility, interest at varying rates monthly in arrears	June 2015	June 2024	$112,216	$ 43,074
Variable rate term loan payable in semi-annual installments	January 2006	February 2021	625	936
Variable rate term loan payable in semi-annual installments	January 2006	June 2024	6,609	7,426
Term loan payable in quarterly installments	March 2011	March 2021	831	1,464
Term loan payable in monthly installments	October 2011	June 2028	3,649	3,843
Variable rate term loan payable in quarterly installments	October 2012	June 2020	28,217	30,674
Variable rate term loan payable in quarterly installments	September 2015	March 2023	15,976	17,208
Term loan payable in quarterly installments	August 2016	June 2031	3,769	3,925
Term loan payable in quarterly installments	March 2017	March 2028	3,521	3,945
Term loan payable in monthly installments	April 2017	April 2027	22,553	22,081
Term loan payable in quarterly installments	April 2017	February 2034	2,706	2,735
Variable rate term loan payable in quarterly installments	June 2017	December 2027	11,740	12,915
Variable rate term loan payable in quarterly installments	February 2018	August 2022	15,645	21,475
Term loan payable in quarterly installments	June 2018	December 2038	28,583	30,069
Variable rate term loan payable in semi-annual installments	June 2018	June 2033	9,003	9,668
Variable rate term loan payable in monthly/quarterly installments	October 2018	October 2029	9,092	9,072
Long term finance liability in semi-annual installments	July 2019	July 2039	3,841	—
Long term finance liability in semi-annual installments	November 2019	November 2039	8,794	—
Term loan payable in quarterly installments	December 2019	December 2021	27,226	—
Total construction and term loans			$314,596	$220,510

Federal ESPC liabilities. We have arrangements with certain third-parties to provide advances to us during the construction or installation of projects for certain customers, typically federal governmental entities, in exchange for our assignment to the lenders of our rights to the long-term receivables arising from the ESPCs related to such projects. These financings totaled $245.0 million and $288.0 million in principal amounts at December 31, 2019 and 2018, respectively. Under the terms of these financing arrangements, we are required to complete the construction or installation of the project in accordance with the contract with our customer, and the liability remains on our consolidated balance sheets until the completed project is accepted by the customer.

Sale-Leaseback/Finance Liabilities. During the first quarter of 2015, we entered into an agreement with an investor which gives us the option to sell and contemporaneously lease back solar photovoltaic ("solar PV") projects. This agreement expired on June 30, 2018. During the year ended December 31, 2017, we sold twelve solar PV projects and in return received $47.2 million as part of this arrangement. Additionally, we sold and contemporaneously leased back one solar PV project to a separate investor, not a party to the master lease agreement, under a new agreement during the year ended December 31, 2017, and in return received $2.0 million. In August 2018, we entered into an agreement with an investor which gives us the option to sell and contemporaneously lease back solar PV projects through August 2019 up to a maximum funding amount of $100 million. During the year ended December 31, 2018, we sold two solar PV projects and in return received $4.9 million as part of this arrangement.

During the year ended December 31, 2019, we amended the August 2018 agreement with the investor to extend the end date of the agreement to November 24, 2019, and we sold three projects and in return received $13.7 million. In accordance with Topic 842, Leases, these transactions were accounted for as failed sales as we retain control of the underlying assets. We recorded the proceeds received from the transactions as long term financing facilities with interest rates ranging from 0% to 0.28%, as a result of tax credits which were transferred to the counterparties. As of December 31, 2019, approximately $81 million remained available under the lending commitment although this full amount is not expected to be used.

In January 2020, we amended the August 2018 agreement with the investor to extend the end date of the agreement to November 24, 2020 and increase the maximum funding amount up to $150 million. While we are required under GAAP to reflect these lease payments as liabilities on our consolidated balance sheets, they are generally non-recourse and not direct obligations of Ameresco, Inc., except that Ameresco, Inc. has guaranteed certain obligations relating to taxes and project warranties, operation and maintenance.

Contractual Obligations

The following table summarizes our significant contractual obligations and commitments as of December 31, 2019 (in thousands):

	Payments due by Period				
	Total	Less than One Year	One to Three Years	Three to Five Years	More than Five Years
Senior Secured Credit Facility:					
Revolver	$ 50,073	$ —	$ —	$ 50,073	$ —
Term Loan	62,563	4,875	14,625	43,063	—
Project Financing:					
Construction and term loans	204,470	60,097	75,534	22,331	46,508
Federal ESPC liabilities(1)	245,037	—	245,037	—	—
Interest obligations(2)	81,691	17,449	26,753	16,432	21,057
Financing lease liabilities	28,497	4,997	9,431	1,802	12,267
Operating leases	55,234	9,153	14,115	9,375	22,591
Total	$ 727,565	$ 96,571	$ 385,495	$ 143,076	$ 102,423

(1) Federal ESPC arrangements relate to the installation and construction of projects for certain customers, typically federal governmental entities, where we assign to third-parties our right to customer receivables. We are relieved of the liability, without making a payment, when the project is completed and accepted by the customer. We typically expect to be relieved of the liability between one and three years from the date of project construction commencement. The table does not include, for our Federal ESPC liability arrangements, the difference between the aggregate amount of the long-term customer receivables sold by us to the third-party and the amount received by us from the third party for such sale.

(2) For both the revolving and term loan portions of our senior secured credit facility, the table above assumes that the variable interest rate in effect at December 31, 2019 remains constant for the term of the facility.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under SEC rules, such as relationships with unconsolidated entities or financial partnerships, which are often referred to as structured finance or special purpose entities, established for the purpose of facilitating financing transactions that are not required to be reflected on our balance sheets. The Company from time to time issues letters of credit and performance bonds, with their third-party lenders, to provide collateral.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to changes in interest rates and foreign currency exchange rates because we finance certain operations through fixed and variable rate debt instruments and denominate our transactions in U.S. and Canadian dollars and British pounds sterling ("GBP"). Changes in these rates may have an impact on future cash flows and earnings. We manage these risks through normal operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments.

Interest Rate Risk

We had cash and cash equivalents totaling $33.2 million as of December 31, 2019 and $61.4 million as of December 31, 2018. Our exposure to interest rate risk primarily relates to the interest expense paid on our senior secured credit facility.

Derivative Instruments

We do not enter into financial instruments for trading or speculative purposes. However, through our subsidiaries we do enter into derivative instruments for purposes other than trading purposes. Certain of the term loans that we use to finance our renewable energy projects bear variable interest rates that are indexed to short-term market rates. We have entered into interest rate swaps in connection with these term loans in order to seek to hedge our exposure to adverse changes in the applicable short-term market rate. In some instances, the conditions of our renewable energy project term loans require us to enter into interest rate swap agreements in order to mitigate our exposure to adverse movements in market interest rates. All but one of the interest rate swaps that we have entered into qualify and have been designated as fair value hedges. We have also entered into two commodity swap contracts in order to hedge our exposure to adverse changes in the short-term market rates of natural gas, which have not been designated for hedge accounting. See Notes 2, 18 and 19 of "Notes to Consolidated Financial Statements" included in Item 8 of this Annual Report on Form 10-K.

We have also entered into term loan agreements that contain interest make-whole provisions that qualify as embedded derivatives that are required to be bifurcated from their host term loan agreement and valued separately. These derivatives cannot be hedged. See Notes 2, 18 and 19 of "Notes to Consolidated Financial Statements" included in Item 8 of this Annual Report on Form 10-K.

By using derivative instruments, we are subject to credit and market risk. The fair market value of the interest rate and commodity swaps are determined by using valuation models whose inputs are derived using market observable inputs, including interest rate yield curves, and reflects the asset or liability position as of the end of each reporting period. When the fair value of a derivative contract is positive, the counterparty owes us, thus creating a receivable risk for us. We are exposed to counterparty credit risk in the event of non-performance by counterparties to our derivative agreements. We minimize counterparty credit (or repayment) risk by entering into transactions with major financial institutions of investment grade credit rating. The fair value of these make-whole provisions was determined based on available market data and a with and without model.

Our exposure to market interest rate risk is not hedged in a manner that completely eliminates the effects of changing market conditions on earnings or cash flow.

Foreign Currency Risk

We have revenues, expenses, assets and liabilities that are denominated in foreign currencies, principally the Canadian dollar and British pound sterling. Also, a significant number of employees are located in Canada and the U.K., and our subsidiaries in those countries transact business in those respective currencies. As a result, we have designated the Canadian dollar as the functional currency for Canadian operations. Similarly, the GBP has been designated as the functional currency for our operations in the U.K. When we consolidate the operations of these foreign subsidiaries into our financial results, because

we report our results in U.S. dollars, we are required to translate the financial results and position of our foreign subsidiaries from their respective functional currencies into U.S. dollars. We translate the revenues, expenses, gains, and losses from our Canadian and U.K. subsidiaries into U.S. dollars using a weighted average exchange rate for the applicable fiscal period. We translate the assets and liabilities of our Canadian and U.K. subsidiaries into U.S. dollars at the exchange rate in effect at the applicable balance sheet date. Translation adjustments are not included in determining net income for the period but are disclosed and accumulated in a separate component of consolidated equity until sale or until a complete or substantially complete liquidation of the net investment in our foreign subsidiary takes place. Changes in the values of these items from one period to the next which result from exchange rate fluctuations are recorded in our consolidated statements of changes in stockholders' equity as accumulated other comprehensive loss. For the year ended December 31, 2019, due to the strengthening of the GBP and CAD versus the U.S. dollar, our foreign currency translation resulted in a gain of $1.4 million which we recorded as a decrease in accumulated other comprehensive loss. For the year ended December 31, 2018, the weakening of the GBP versus the U.S. dollar, our foreign currency translation resulted in a loss of $0.3 million, which we recorded as an increase in accumulated other comprehensive loss. As a consequence, gross profit, operating results, profitability and cash flows are impacted by relative changes in the value of the Canadian dollar and GBP. We have not repatriated earnings from our foreign subsidiaries, but have elected to invest in new business opportunities there. See Note 10, "Income Taxes" to our consolidated financial statements appearing in Item 8 of this Annual Report on Form 10-K. We do not hedge our exposure to foreign currency exchange risk.

Item 8. Financial Statements and Supplementary Data

AMERESCO, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)

	December 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents (including amounts in VIEs of $4,666 and $1,255, respectively)	$ 33,223	$ 61,397
Restricted cash (including amounts in VIEs of $586 and $156, respectively)	20,006	16,880
Accounts receivable, net (including amounts in VIEs of $532 and $374, respectively)	95,863	85,985
Accounts receivable retainage, net	16,976	13,516
Costs and estimated earnings in excess of billings (including amounts in VIEs of $1,125 and $498, respectively)	202,243	86,842
Inventory, net	9,236	7,765
Prepaid expenses and other current assets (including amounts in VIEs of $108 and $190, respectively)	29,424	11,571
Income tax receivable	5,033	5,296
Project development costs	13,188	21,717
Total current assets	425,192	310,969
Federal ESPC receivable	230,616	293,998
Property and equipment, net (including amounts in VIEs of $1,266 and $0, respectively)	10,104	6,985
Energy assets, net (including amounts in VIEs of $142,456 and $122,641, respectively)	579,461	459,952
Goodwill	58,414	58,332
Intangible assets, net	1,614	2,004
Operating lease assets (including amounts in VIEs of $6,511 and $0, respectively)	32,791	—
Other assets (including amounts in VIEs of $1,662 and $1,613, respectively)	35,821	29,394
Total assets	$ 1,374,013	$ 1,161,634
LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portions of long-term debt and financing lease liabilities (including amounts in VIEs of $2,252 and $1,712, respectively)	$ 69,969	$ 26,890
Accounts payable (including amounts in VIEs of $2,006 and $234, respectively)	202,416	134,330
Accrued expenses and other current liabilities (including amounts in VIEs of $2,203 and $4,146, respectively)	31,356	35,947
Current portions of operating lease liabilities (including amounts in VIEs of $102 and $0, respectively)	5,802	—
Billings in excess of cost and estimated earnings	26,618	24,363
Income taxes payable	486	1,100
Total current liabilities	336,647	222,630
Long-term debt and financing lease liabilities, less current portions and net of deferred financing fees (including amounts in VIEs of $24,654 and $26,461, respectively)	266,181	219,162
Federal ESPC liabilities	245,037	288,047
Deferred income taxes, net	115	4,352
Deferred grant income	6,885	6,637
Long-term portions of operating lease liabilities, less current portions (including amounts in VIEs of $6,180 and $0, respectively)	29,101	—
Other liabilities (including amounts in VIEs of $1,171 and $2,131, respectively)	29,575	29,212
Commitments and contingencies (Note 15)		
Redeemable non-controlling interests	31,616	14,719

The accompanying notes are an integral part of these consolidated financial statements.

AMERESCO, INC.

CONSOLIDATED BALANCE SHEETS — (Continued)

(in thousands, except share amounts)

	December 31, 2019	December 31, 2018
Stockholders' equity:		
Preferred stock, $0.0001 par value, 5,000,000 shares authorized, no shares issued and outstanding at December 31, 2019 and 2018	$ —	$ —
Class A common stock, $0.0001 par value, 500,000,000 shares authorized, 31,331,345 shares issued and 29,230,005 shares outstanding at December 31, 2019, 30,366,546 shares issued and 28,275,506 shares outstanding at December 31, 2018	3	3
Class B common stock, $0.0001 par value, 144,000,000 shares authorized, 18,000,000 shares issued and outstanding at December 31, 2019 and 2018	2	2
Additional paid-in capital	133,688	124,651
Retained earnings	314,459	269,806
Accumulated other comprehensive loss, net of income taxes	(7,514)	(5,949)
Less - treasury stock, at cost, 2,101,340 shares at December 31, 2019, and 2,091,040 shares at December 31, 2018	(11,782)	(11,638)
Total stockholder's equity	428,856	376,875
Total liabilities, redeemable non-controlling interests and stockholders' equity	$ 1,374,013	$ 1,161,634

The accompanying notes are an integral part of these consolidated financial statements.

AMERESCO, INC.
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share amounts)

	Year Ended December 31,		
	2019	2018	2017
Revenues	$ 866,933	$ 787,138	$ 717,152
Cost of revenues	698,815	613,526	572,994
Gross profit	168,118	173,612	144,158
Selling, general and administrative expenses	116,504	114,513	107,570
Operating income	51,614	59,099	36,588
Other expenses, net	15,061	16,709	7,871
Income before (benefit) provision for income taxes	36,553	42,390	28,717
Income tax (benefit) provision	(3,748)	4,813	(4,791)
Net income	40,301	37,577	33,508
Net loss attributable to redeemable non-controlling interests	4,135	407	3,983
Net income attributable to common shareholders	$ 44,436	$ 37,984	$ 37,491
Net income per share attributable to common shareholders:			
Basic	$ 0.95	$ 0.83	$ 0.82
Diluted	$ 0.93	$ 0.81	$ 0.82
Weighted average common shares outstanding:			
Basic	46,586	45,729	45,509
Diluted	47,774	46,831	45,748

The accompanying notes are an integral part of these consolidated financial statements.

AMERESCO, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Net income	$ 40,301	$ 37,577	$ 33,508
Other comprehensive income (loss):			
Unrealized (loss) gain from interest rate hedges, net of tax effect of $(984), $(12) and $(35), respectively	(2,944)	(73)	310
Foreign currency translation adjustment	1,379	(250)	655
Total other comprehensive income (loss)	(1,565)	(323)	965
Comprehensive income	38,736	37,254	34,473
Comprehensive loss attributable to redeemable non-controlling interests	4,135	407	3,983
Comprehensive income attributable to common shareholders	$ 42,871	$ 37,661	$ 38,456

The accompanying notes are an integral part of these consolidated financial statements.

AMERESCO, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE NON-CONTROLLING INTERESTS AND STOCKHOLDERS' EQUITY
(in thousands, except share amounts)

	Redeemable Non-Controlling Interests	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive Loss	Total Stockholders' Equity
		Shares	Amount	Shares	Amount			Shares	Amount		
Balance, December 31, 2016	$ 6,847	27,706,866	$ 3	18,000,000	$ 2	$ 112,926	$194,353	1,298,418	$ (6,387)	$ (6,591)	$ 294,306
Cumulative impact from the adoption of ASU No. 2016-09 (Note 2)	—	—	—	—	—	—	4,000	—	—	—	4,000
Exercise of stock options, net	—	401,031	—	—	—	1,977	—	—	—	—	1,977
Stock-based compensation expense	—	—	—	—	—	1,293	—	—	—	—	1,293
Open market purchase of common shares	—	(574,848)	—	—	—	—	—	574,848	(3,412)	—	(3,412)
Unrealized gain from interest rate hedge, net	—	—	—	—	—	—	—	—	—	310	310
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	655	655
Contributions from redeemable non-controlling interests	7,762	—	—	—	—	—	—	—	—	—	—
Distributions to redeemable non-controlling interests	(288)	—	—	—	—	—	—	—	—	—	—
Net (loss) income	(3,983)	—	—	—	—	—	37,491	—	—	—	37,491
Balance, December 31, 2017	10,338	27,533,049	3	18,000,000	2	116,196	235,844	1,873,266	(9,799)	(5,626)	336,620
Cumulative impact from the adoption of ASU No. 2014-09 (Note 2)	—	—	—	—	—	—	(4,454)	—	—	—	(4,454)
Cumulative impact from the adoption of ASU No. 2017-12 (Note 2)	—	—	—	—	—	—	432	—	—	(486)	(54)
Exercise of stock options, net	—	908,851	—	—	—	6,696	—	—	—	—	6,696
Stock-based compensation expense	—	—	—	—	—	1,258	—	—	—	—	1,258
Employee stock purchase plan	—	51,380	—	—	—	501	—	—	—	—	501
Open market purchase of common shares	—	(217,774)	—	—	—	—	—	217,774	(1,839)	—	(1,839)
Unrealized gain from interest rate hedge, net	—	—	—	—	—	—	—	—	—	413	413
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	(250)	(250)
Contributions from redeemable non-controlling interests	5,198	—	—	—	—	—	—	—	—	—	—
Distributions to redeemable non-controlling interests	(410)	—	—	—	—	—	—	—	—	—	—
Net (loss) income	(407)	—	—	—	—	—	37,984	—	—	—	37,984
Balance, December 31, 2018	14,719	28,275,506	3	18,000,000	2	124,651	269,806	2,091,040	(11,638)	(5,949)	376,875
Cumulative impact from the adoptions of ASU - No. 2018-02 (Note 2)	—	—	—	—	—	—	217	—	—	(217)	—
Exercise of stock options, net	—	915,834	—	—	—	6,742	—	—	—	—	6,742
Stock-based compensation expense	—	—	—	—	—	1,620	—	—	—	—	1,620
Employee stock purchase plan	—	48,965	—	—	—	675	—	—	—	—	675
Open market purchase of common shares	—	(10,300)	—	—	—	—	—	10,300	(144)	—	(144)
Unrealized loss from interest rate hedge, net	—	—	—	—	—	—	—	—	—	(2,727)	(2,727)
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	1,379	1,379
Contributions from redeemable non-controlling interests	21,835	—	—	—	—	—	—	—	—	—	—
Distributions to redeemable non-controlling interests	(803)	—	—	—	—	—	—	—	—	—	—
Net (loss) income	(4,135)	—	—	—	—	—	44,436	—	—	—	44,436
Balance, December 31, 2019	31,616	29,230,005	$ 3	18,000,000	$ 2	$ 133,688	$314,459	2,101,340	$(11,782)	$ (7,514)	$ 428,856

The accompanying notes are an integral part of these consolidated financial statements.

AMERESCO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Cash flows from operating activities:			
Net income	40,301	37,577	$ 33,508
Adjustments to reconcile net income to net cash flows from operating activities:			
Depreciation of energy assets	35,543	27,305	21,648
Depreciation of property and equipment	2,987	2,167	2,394
Amortization of deferred financing fees	2,229	2,193	1,620
Amortization of intangible assets	909	1,057	1,451
Accretion of ARO and contingent consideration	137	—	—
Provision for (recovery of) bad debts	(216)	610	77
Loss (gain) on disposal / sale of assets	(2,160)	298	(103)
Net gain from derivatives	(1,068)	(121)	(271)
Stock-based compensation expense	1,620	1,258	1,293
Deferred income taxes	(3,346)	5,517	(4,527)
Unrealized foreign exchange loss (gain)	(130)	1,816	(1,406)
Changes in operating assets and liabilities:			
Accounts receivable	(8,499)	9,772	1,870
Accounts receivable retainage	(3,370)	3,774	1,279
Federal ESPC receivable	(188,060)	(155,539)	(157,538)
Inventory, net	(1,471)	373	3,966
Costs and estimated earnings in excess of billings	(106,696)	8,015	(46,730)
Prepaid expenses and other current assets	(18,397)	6,763	(2,471)
Project development costs	8,120	(8,659)	(3,007)
Other assets	1,056	(3,499)	111
Accounts payable, accrued expenses and other current liabilities	43,531	2,938	19,652
Billings in excess of cost and estimated earnings	2,662	2,866	(2,168)
Other liabilities	(1,625)	(783)	(540)
Income taxes payable	(350)	1,101	(5,678)
Cash flows from operating activities	(196,293)	(53,201)	(135,570)
Cash flows from investing activities:			
Purchases of property and equipment	(6,674)	(3,943)	(2,851)
Purchases of energy assets, net of grant proceeds	(133,954)	(125,673)	(85,559)
Proceeds from sale of assets of a business	—	—	2,777
Acquisitions, net of cash received	(1,294)	(3,590)	(2,409)
Contributions to equity investment	(301)	—	—
Cash flows from investing activities	$ (142,223)	$ (133,206)	$ (88,042)

The accompanying notes are an integral part of these consolidated financial statements.

AMERESCO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS — (Continued)
(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Cash flows from financing activities:			
Payments of financing fees	(1,666)	(4,073)	(2,877)
Proceeds from exercises of options and ESPP	7,417	7,197	1,977
Repurchase of common stock	(144)	(1,839)	(3,412)
Proceeds (payments) from senior secured credit facility, net	73,347	(900)	12,547
Proceeds from long-term debt financings	43,883	88,115	48,483
Proceeds from Federal ESPC projects	199,358	158,237	165,013
Proceeds for energy assets from Federal ESPC	2,277	4,236	3,993
Proceeds from sale-leaseback financings	—	5,145	51,204
Contributions from redeemable non-controlling interests, net	21,372	4,788	7,473
Payments on long-term debt	(28,425)	(36,395)	(54,164)
Cash flows from financing activities	317,419	224,511	230,237
Effect of exchange rate changes on cash	447	(295)	654
Net (decrease) increase in cash and cash equivalents, and restricted cash	(20,650)	37,809	7,279
Cash, cash equivalents, and restricted cash, beginning of year	97,914	60,105	52,826
Cash, cash equivalents, and restricted cash, end of year	$ 77,264	$ 97,914	$ 60,105
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ 17,467	$ 15,563	$ 11,675
Cash paid for income taxes	$ 3,897	$ 2,257	$ 5,782
Non-cash Federal ESPC settlement	$ 242,519	$ 101,557	$ 66,921
Accrued purchases of energy assets	$ 34,871	$ 15,005	$ 7,335
Conversion of revolver to term loan	$ 25,000	$ 25,000	$ —

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets to the total of the same such amounts shown above:

	Year Ended December 31,		
	2019	2018	2017
Cash and cash equivalents	$ 33,223	$ 61,397	$ 24,262
Short-term restricted cash	20,006	16,880	15,751
Long-term restricted cash included in other assets	24,035	19,637	20,092
Total cash and cash equivalents, and restricted cash	$ 77,264	$ 97,914	$ 60,105

The accompanying notes are an integral part of these consolidated financial statements.

1. DESCRIPTION OF BUSINESS

Ameresco, Inc. (including its subsidiaries, the "Company") was organized as a Delaware corporation on April 25, 2000. The Company is a provider of energy efficiency solutions for facilities throughout North America and Europe. The Company provides solutions, both services and products, that enable customers to reduce their energy consumption, lower their operating and maintenance costs and realize environmental benefits. The Company's comprehensive set of solutions includes upgrades to a facility's energy infrastructure and the construction and operation of small-scale renewable energy plants. It also sells certain photovoltaic ("PV") equipment worldwide. The Company operates in the United States, Canada, United Kingdom and Europe.

The Company is compensated through a variety of methods, including: 1) direct payments based on fee-for-services contracts (utilizing lump-sum or cost-plus pricing methodologies); 2) the sale of energy from the Company's energy assets; and 3) direct payment for PV equipment and systems.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company, its subsidiaries and certain contracts in which the Company has a controlling financial interest and five investment funds formed to fund the purchase and operation of solar energy systems, which are consolidated with the Company as variable interest entities ("VIE"). The Company uses a qualitative approach in assessing the consolidation requirement for VIEs. This approach focuses on determining whether the Company has the power to direct the activities of the VIE that most significantly affect the VIE's economic performance and whether the Company has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE. For all periods presented, the Company has determined that it is the primary beneficiary in all of its operational VIEs. The Company evaluates its relationships with the VIEs on an ongoing basis to ensure that it continues to be the primary beneficiary. All significant intercompany accounts and transactions have been eliminated. Gains and losses from the translation of all foreign currency financial statements are recorded in accumulated other comprehensive loss, net, within stockholders' equity. The Company prepares its consolidated financial statements in conformity with the accounting principles generally accepted in the United States of America ("GAAP").

Use of Estimates

GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. The most significant estimates and assumptions used in these consolidated financial statements relate to management's estimates of final construction contract profit in accordance with accounting for long-term contracts, allowance for doubtful accounts, inventory reserves, realization of project development costs, leases, fair value of derivative financial instruments, accounting for business acquisitions, stock-based awards, impairment of goodwill and long-lived assets, asset retirement obligations ("AROs"), income taxes, self insurance reserves and potential liability in conjunction with certain commitments and contingencies. Actual results could differ from those estimates.

The Company is self-insured for employee health insurance. The maximum exposure in fiscal year 2019 under the plan was $150 per covered participant, after which reinsurance takes effect. The liability for unpaid claims and associated expenses, including incurred but not reported claims, is determined by management and reflected in the Company's consolidated balance sheets in accrued expenses and other current liabilities. The liability is calculated based on historical data, which considers both the frequency and settlement amount of claims. The Company's estimated accrual for this liability could be different than its ultimate obligation if variables such as the frequency or amount of future claims differ significantly from management's assumptions.

Cash and Cash Equivalents

Cash and cash equivalents includes cash on deposit, overnight repurchase agreements and amounts invested in highly liquid money market funds. Cash equivalents consist of short term investments with original maturities of three months or less. The Company maintains its accounts with financial institutions and the balances in such accounts, at times, exceed federally insured limits. This credit risk is divided among a number of financial institutions that management believes to be of high quality. The carrying amount of cash and cash equivalents approximates its fair value measured using level 1 inputs per the fair value hierarchy as defined in Note 18.

Restricted Cash

Restricted cash consists of cash and cash equivalents held in an escrow account in association with construction draws for energy savings performance contracts ("ESPC"), construction of energy assets, operations and maintenance ("O&M") reserve accounts, cash collateralized letters of credit as well as cash required under term loans to be maintained in debt service reserve accounts until all obligations have been indefeasibly paid in full. These accounts are primarily invested in highly liquid money market funds. The carrying amount of the cash and cash equivalents in these accounts approximates its fair value measured using level 1 inputs per the fair value hierarchy as defined in Note 18. Restricted cash also includes funds held for clients, which represent assets that, based upon the Company's intent, are restricted for use solely for the purposes of satisfying the obligations to remit funds to third parties, primarily utility service providers, relating to the Company's enterprise energy management services. As of December 31, 2019 and 2018, the Company classified the non-current portion of restricted cash of $24,035 and $19,637, respectively, in other assets on its consolidated balance sheets.

Accounts Receivable

Accounts receivable are stated at the amount management expects to collect from outstanding balances. An allowance for doubtful accounts is provided for those accounts receivable considered to be uncollectible based upon historical experience and management's evaluation of outstanding accounts receivable. Bad debts are written off against the allowance when identified.

Changes in the allowance for doubtful accounts are as follows:

	Year Ended December 31,		
	2019	2018	2017
Allowance for doubtful accounts, beginning of period	$ 2,765	$ 3,315	$ 7,836
Charges (recovery) to costs and expenses, net	(216)	610	81
Account write-offs and other	(289)	(1,160)	(4,602)
Allowance for doubtful accounts, end of period	$ 2,260	$ 2,765	$ 3,315

Accounts Receivable Retainage

Accounts receivable retainage represents amounts due from customers, but where payments are withheld contractually until certain construction milestones are met. Amounts retained typically range from 5% to 10% of the total invoice. The Company classifies as a current asset those retainages that are expected to be billed in the next twelve months. As of December 31, 2019 and 2018, no amounts were determined to be uncollectible.

Inventory

Inventories, which consist primarily of PV solar panels, batteries and related accessories, are stated at the lower of cost ("first-in, first-out" method) or net realizable value (determined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation). Provisions have been made to reduce the carrying value of inventory to the net realizable value.

Prepaid Expenses

Prepaid expenses consist primarily of short-term prepaid expenditures that will amortize within one year.

Federal ESPC Receivable

Federal ESPC receivable represents the amount to be paid by various federal government agencies for work performed and earned by the Company under specific ESPCs. The Company assigns certain of its rights to receive those payments to third-parties that provide construction and permanent financing for such contracts. Upon completion and acceptance of the project by the government, typically within 24 to 36 months of construction commencement, the assigned ESPC receivable from the government and corresponding ESPC liability are eliminated from the Company's consolidated financial statements.

Project Development Costs

The Company capitalizes as project development costs only those costs incurred in connection with the development of energy projects, primarily direct labor, interest costs, outside contractor services, consulting fees, legal fees and travel, if incurred after a point in time where the realization of related revenue becomes probable. Project development costs incurred

prior to the probable realization of revenue are expensed as incurred. The Company classifies as a current asset those project development efforts that are expected to proceed to construction activity in the twelve months that follow. The Company periodically reviews these balances and writes off any amounts where the realization of the related revenue is no longer probable. Project development costs of $1,080 and $639 were included in other long-term assets as of December 31, 2019 and 2018, respectively.

Property and Equipment

Property and equipment consists primarily of office and computer equipment, and is recorded at cost. Major additions and improvements are capitalized as additions to the property and equipment accounts, while replacements, maintenance and repairs that do not improve or extend the life of the respective assets, are expensed as incurred. Depreciation and amortization of property and equipment are computed on a straight-line basis over the following estimated useful lives:

Asset Classification	Estimated Useful Life
Furniture and office equipment	Five years
Computer equipment and software costs	Three to five years
Leasehold improvements	Lesser of term of lease or five years
Automobiles	Five years
Land	Unlimited

Gains or losses on disposal of property and equipment are reflected in selling, general and administrative expenses in the consolidated statements of income.

Energy Assets

Energy assets consist of costs of materials, direct labor, interest costs, outside contract services, deposits and project development costs incurred in connection with the construction of small-scale renewable energy plants that the Company owns. These amounts are capitalized and amortized to cost of revenues in the Company’s consolidated statements of income on a straight line basis over the lives of the related assets or the terms of the related contracts.

The Company capitalizes interest costs relating to construction financing during the period of construction. Capitalized interest is included in energy assets, net, in the Company’s consolidated balance sheets. Capitalized interest is amortized to cost of revenues in the Company’s consolidated statements of income on a straight line basis over the useful life of the associated energy asset. The amount of interest capitalized for the years ended December 31, 2019, 2018 and 2017 was $2,966, $3,817 and $4,256, respectively.

Routine maintenance costs are expensed in the current year’s consolidated statements of income to the extent that they do not extend the life of the asset. Major maintenance, upgrades and overhauls are required for certain components of the Company’s assets. In these instances, the costs associated with these upgrades are capitalized and are depreciated over the shorter of the remaining life of the asset or the period until the next required major maintenance or overhaul.

Included in energy assets are financing lease assets and accumulated depreciation of financing lease assets. For additional information see the Sale-Leaseback section below and Note 8.

The Company evaluates its long-lived assets for impairment as events or changes in circumstances indicate the carrying value of these assets may not be fully recoverable. Examples of such triggering events applicable to the Company’s assets include a significant decrease in the market price of a long-lived asset or asset group or a current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset or asset group.

The Company evaluates recoverability of long-lived assets to be held and used by estimating the undiscounted future cash flows before interest associated with the expected uses and eventual disposition of those assets. When these comparisons indicate that the carrying value of those assets is greater than the undiscounted cash flows, the Company recognizes an impairment loss for the amount that the carrying value exceeds the fair value.

From time to time, the Company has applied for and received cash grant awards from the U.S. Treasury Department (the “Treasury”) under Section 1603 of the American Recovery and Reinvestment Act of 2009 (the “Act”). The Act authorized the Treasury to make payments to eligible persons who place in service qualifying renewable energy projects. The grants are paid in lieu of investment tax credits. All of the cash proceeds from the grants were used and recorded as a reduction in the cost

basis of the applicable energy assets. If the Company disposes of the property, or the property ceases to qualify as specified energy property, within five years from the date the property is placed in service, then a prorated portion of the Section 1603 payment must be repaid.

The Company last received a Section 1603 grant during the year ended December 31, 2014. No further Section 1603 grant payments are expected to be received as the program has expired and no repayments will be required.

During the year ended December 31, 2019, the Company received grant proceeds of $784 from the Canadian government in connection with the construction of one of the Company's energy assets in Canada.

For tax purposes, the Section 1603 payments are not included in federal and certain state taxable income and the basis of the property is reduced by 50% of the payment received. Deferred grant income of $6,086 and $6,637 in the accompanying consolidated balance sheets at December 31, 2019 and 2018, respectively, represents the benefit of the basis difference to be amortized to income tax expense over the life of the related property.

The Company has historically received cash rebates from utility companies, which were accounted for as reductions in the book value of the related energy assets. The rebates were one-time payments based on the cost and efficiency of the installed units, and are earned upon installation and inspection by the utility. The payments are not related to, or subject to adjustment based on, future operating performance. No rebates were received during the years ended December 31, 2019, 2018 and 2017.

Deferred Financing Fees

Deferred financing fees relate to the external costs incurred to obtain financing for the Company. Deferred financing fees are amortized over the respective term of the financing using the effective interest method, with the exception of the Company's revolving credit facility and construction loans, as discussed in Note 9, for which deferred financing fees are amortized on a straight-line basis over the term of the agreement. Deferred financing fees are presented on the consolidated balance sheets as a reduction to long-term debt and capital lease liabilities.

Goodwill and Intangible Assets

The Company has classified as goodwill the amounts paid in excess of fair value of the net assets (including tax attributes) of companies acquired in purchase transactions. The Company has recorded intangible assets related to customer contracts, customer relationships, non-compete agreements, trade names and technology, each with defined useful lives. The Company assesses the impairment of goodwill and intangible assets that have indefinite lives on an annual basis (December 31st) and whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable.

Goodwill is reviewed for impairment annually and whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. The process of evaluating the potential impairment of goodwill requires significant judgment. The Company regularly monitors current business conditions and other factors including, but not limited to, adverse industry or economic trends, restructuring actions and projections of future results. The Company estimates the reporting units fair value and compares it with the carrying value of the reporting unit, including goodwill. If the fair value is greater than the carrying value of its reporting unit, no impairment is recorded. Fair value is determined using both an income approach and a market approach. The estimates and assumptions used in the Company's calculations include revenue growth rates, expense growth rates, expected capital expenditures to determine projected cash flows, expected tax rates and an estimated discount rate to determine present value of expected cash flows. These estimates are based on historical experiences, the Company's projections of future operating activity and its weighted-average cost of capital. If the fair value is less than the carrying value, an impairment loss is recognized for the amount that the carrying amount of a reporting unit, including goodwill, exceeds its fair value, limited to the total amount of goodwill allocated to that reporting unit. The impairment charge would be recorded to earnings in the consolidated statements of income. Judgment is required in determining whether an event has occurred that may impair the value of goodwill or identifiable intangible assets.

Acquired intangible assets other than goodwill that are subject to amortization include customer contracts and customer relationships, as well as software/technology, trade names and non-compete agreements. The intangible assets are amortized over periods ranging from one to fifteen years from their respective acquisition dates. The Company evaluates its intangible assets for impairment consistent with, and part of, their long-lived assets evaluation, as discussed in Energy Assets above.

See Notes 4 and 5 for additional disclosures.

Leases

As of January 1, 2019, the Company adopted Accounting Standard Update ("ASU") 2016-02, Leases (Topic 842) and, along with the standard, elected to take the practical expedient that the Company will not reassess lease classifications at adoption. Accordingly, the Company's sales-leaseback arrangements entered into as of December 31, 2018 will remain under the previous guidance. See Note 7 and 8 for additional information on these sale-leasebacks.

All significant lease arrangements are recognized at lease commencement. Operating lease right-of-use ("ROU") assets and lease liabilities are recognized at commencement. An ROU asset and corresponding lease liability are not recorded for leases with an initial term of 12 months or less (short term leases) as the Company recognizes lease expense for these leases as incurred over the lease term.

ROU assets represent the Company's right to use an underlying asset during the reasonably certain lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. The Company uses its incremental borrowing rate, which is updated annually or when a significant event occurs that would indicate a significant change in rates, based on the information available at commencement date, in determining the present value of lease payments. The operating lease ROU asset also includes any lease payments related to initial direct cost and prepayments and excludes lease incentives. Lease expense is recognized on a straight-line basis over the lease term.

The Company has historical leases under ASC 840, Leases, which may have lease and non-lease components. Upon adoption of Topic 842, the Company has elected to continue to account for these historical leases as a single component, as permitted by Topic 842. As of January 1, 2019, as it relates to all prospective leases, the Company allocates consideration to lease and non-lease components based on pricing information in the respective lease agreement, or, if this information is not available, the Company makes a good faith estimate based on the available pricing information at the time of the lease agreement. See Note 8 for additional discussion on the Company's leases.

Other Assets

Other assets consist primarily of notes and contracts receivable due to the Company from various customers and non-current restricted cash. Other assets also include the fair value of derivatives determined to be assets, the non-current portions of project development costs, accounts receivable retainages, sale-leaseback deferred loss and deferred contract costs.

Asset Retirement Obligations

The Company recognizes a liability for the fair value of required asset retirement obligations ("AROs") when such obligations are incurred. The Company records, as liabilities, the fair value of the AROs on a discounted basis when incurred and reasonably estimated which is typically at the time the assets are installed or operating. Over time, the liabilities increase due to the change in present value, and initial capitalized costs are depreciated over the useful life of the related assets. Upon satisfaction of the ARO conditions, any difference between the recorded ARO liability and the actual retirement cost incurred is recognized as an operating gain or loss in the consolidated statements of income. See Note 7 for additional disclosures on the Company's AROs.

Federal ESPC Liabilities

Federal ESPC liabilities, for both projects and energy assets, represent the advances received from third-parties under agreements to finance certain ESPC projects with various federal government agencies. For projects related to the construction or installation of certain energy savings equipment or facilities developed for the government customer, upon completion and acceptance of the project by the government, typically within 24 to 36 months of construction commencement, the ESPC receivable from the government and corresponding ESPC liability is eliminated from the Company's consolidated balance sheets. Until recourse to the Company ceases for the ESPC receivables transferred to the investor, upon final acceptance of the work by the government customer, the Company remains the primary obligor for financing received.

For small-scale energy assets developed for a government customer that the Company owns and operates, upon final acceptance of the work by the government customer, the Company remains the primary obligor for financing received until the liability is eliminated from the Company's consolidated balance sheets as contract payments assigned by the customer are transferred to the investor.

Sale-Leaseback

The Company has previously entered into sale-leaseback arrangements that provided for the sale of solar photovoltaic ("solar PV") projects to a third-party investor and the simultaneous leaseback of the projects, which the Company then operates and maintains, recognizing revenue through the sale of the electricity and solar renewable energy credits generated by these projects.

In sale-leaseback arrangements, the Company first determines whether the solar PV project under the sale-leaseback arrangement is "integral equipment." A solar PV project is determined to be integral equipment when the cost to remove the project from its existing location, including the shipping and reinstallation costs of the solar PV project at the new site, including any diminution in fair value, exceeds 10% of the fair value of the solar PV project at the time of its original installation. When the leaseback arrangement expires, the Company has the option to purchase the solar PV project for the then fair market value or, in certain circumstances, renew the lease for an extended term. All solar PV projects sold to date under the sale-leaseback program have been determined by the Company not to be integral equipment as the cost to remove the project from its existing location would not exceed 10% of its original fair value.

For solar PV projects that the Company has determined not to be integral equipment, the Company then determines if the leaseback should be classified as a capital lease or an operating lease. All solar PV projects sold to date under the sale-leaseback program have been determined by the Company to be capital leases. For leasebacks classified as capital leases, the Company initially records a capital lease asset and capital lease obligation in its consolidated balance sheets equal to the lower of the present value of the Company's future minimum leaseback payments or the fair value of the solar PV project. For capital leasebacks, the Company defers any gain or loss, representing the excess or shortfall of cash received from the investor compared to the net book value of the asset in the Company's consolidated balance sheets at the time of the sale. The Company records the long term portion of any deferred gain or loss in other liabilities and other assets, respectively, and the current portion of any deferred gain and loss in accrued expenses and other current liabilities and prepaid expenses and other current assets, respectively, in its consolidated balance sheets and amortizes the deferred amounts over the lease term in cost of revenues in its consolidated statements of income.

In accordance with the Company's adoption of Topic 842, sale-leaseback transactions shall be accounted for as a financing liability on a prospective basis as the Company retains control of the underlying assets. As these transactions meet the criteria of a failed sale, the proceeds received in prospective transactions, as of January 1, 2019, are accounted for as a long term financing liability with interest rates determined based upon the underlying details of each specific transaction. See Note 8 and Note 9 for further discussion and details of sale lease-back and financing liability transactions.

Other Liabilities

Other liabilities consist primarily of the long-term portion of deferred revenue related to multi-year operation and maintenance contracts which expire at various dates through 2033. Other liabilities also include the fair value of derivatives and the long-term portions of sale-leaseback deferred gains. See Note 19 for additional derivative disclosures.

Revenue Recognition

The Company derives revenues from energy efficiency and renewable energy products and services. Energy efficiency products and services include the design, engineering, and installation of equipment and other measures to improve the efficiency, and control the operation, of a facility's energy infrastructure. Renewable energy products and services include the construction of small-scale plants that produce electricity, gas, heat or cooling from renewable sources of energy, the sale of such electricity, gas, heat or cooling from plants that the Company owns, and the sale and installation of solar energy products and systems. Below is a description of the Company's primary lines of business.

Projects - The Company's principal service relates to energy efficiency projects, which entails the design, engineering and installation of, and assisting with the arranging of financing for an ever-increasing array of innovative technologies and techniques to improve the energy efficiency, and control the operation, of a building's energy- and water- consuming systems. In certain projects, the Company also designs and constructs for a customer a central plant or cogeneration system providing power, heat and/or cooling to a building, or a small-scale plant that produces electricity, gas, heat or cooling from renewable sources of energy.

Under ASU 2014-09, Revenue from Contracts with Customers (Topic 606) the Company recognizes revenue from the installation or construction of projects over time using the cost-based input method. The Company uses the total costs incurred on the project relative to the total expected costs to account for the satisfaction of the performance obligation.

When the estimate on a contract indicates a loss, or claims against costs incurred reduce the likelihood of recoverability of such costs, the Company records the entire estimated loss in the period the loss becomes known.

Operations & Maintenance ("O&M") - After an energy efficiency or renewable energy project is completed, the Company often provides ongoing O&M services under a multi-year contract. These services include operating, maintaining and repairing facility energy systems such as boilers, chillers and building controls, as well as central power and other small-scale plants. For larger projects, the Company frequently maintains staff on-site to perform these services.

Maintenance revenue is recognized using the input method to recognize revenue. In most cases, O&M fees are fixed annual fees. Because the Company is on-site to perform O&M services, the services are typically a distinct series of promises, and those services have the same pattern of transfer to the customer (i.e., evenly over time), the Company records the revenue on a straight-line basis. Some O&M service contract fees are billed on time expended. In those cases, revenue is recorded based on the time expended in that month.

Energy Assets - The Company's service offerings also includes the sale of electricity, processed renewable gas fuel, heat or cooling from the portfolio of assets that the Company owns and operates. The Company has constructed and is currently designing and constructing a wide range of renewable energy plants using landfill gas ("LFG"), wastewater treatment biogas, solar, biomass, other bio-derived fuels, wind and hydro sources of energy. Most of the Company's renewable energy projects to date have involved the generation of electricity from solar PV and LFG or the sale of processed LFG. The Company purchases the LFG that otherwise would be combusted or vented, processes it, and either sells it or uses it in its energy plants. The Company has also designed and built, as well as owns, operates and maintains, plants that take biogas generated in the anaerobic digesters of wastewater treatment plants and turns it into renewable natural gas that is either used to generate energy on-site or that can be sold through the nation's natural gas pipeline grid. Where the Company owns and operates energy producing assets, the Company typically enters into a long-term power purchase agreement ("PPA") for the sale of the energy. Many of the Company's energy assets also produce environmental attributes, including renewable energy credits ("RECs") and Renewable Identification Numbers ("RINs"). In most cases, the Company sells these attributes under separate agreements with third parties other than the PPA customer.

The Company recognizes revenues from the sale and delivery of the energy output from renewable energy plants, over time as produced and delivered to the customer, in accordance with specific PPA contract terms. Environmental attributes revenue is recognized at a point in time, when the environmental attributes are transferred to the customer in accordance with the transfer protocols of the environmental attributes market that the Company operates in. In those cases where environmental attributes are sold to the same customer as the energy output, the Company records revenue monthly for both the energy output and the environmental attribute output, as generated and delivered to the customer. The Company has determined that certain power purchase agreements contain a lease component in accordance with ASC 840, Leases, prior to adoption of Topic 842. The Company recognized $8,189, $7,238 and $3,409 of operating lease revenue under these agreements during the years ended December 31, 2019, 2018 and 2017, respectively.

Other - The Company's service and product offerings also include integrated-PV and consulting and enterprise energy management services.

The Company recognizes revenues from delivery of engineering, consulting services and enterprise energy management services over time. For the sale of solar materials, revenue is recognized at a point in time when the Company has transferred physical control of the asset to the customer upon shipment.

To the extent a contract is deemed to have multiple performance obligations, the Company allocates the transaction price of the contract to each performance obligation using its best estimate of the standalone selling price of each distinct good or service in the contract.

Billings in excess of cost and estimated earnings represents advanced billings on certain construction contracts. Costs and estimated earnings in excess of billings represent certain amounts under customer contracts that were earned and billable but not invoiced.

Results for reporting periods beginning January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported under ASC 605, Revenue Recognition.

Cost of Revenues

Cost of revenues include the cost of labor, materials, equipment, subcontracting and outside engineering that are required for the development and installation of projects, as well as preconstruction costs, sales incentives, associated travel, inventory obsolescence charges, amortization of intangible assets related to customer contracts, and, if applicable, costs of procuring financing. A majority of the Company's contracts have fixed price terms; however, in some cases the Company negotiates protections, such as a cost-plus structure, to mitigate the risk of rising prices for materials, services and equipment.

Cost of revenues also include the costs of maintaining and operating the small-scale renewable energy plants that the Company owns, including the cost of fuel (if any) and depreciation charges.

Income Taxes

The Company provides for income taxes based on the liability method. The Company provides for deferred income taxes based on the expected future tax consequences of differences between the financial statement basis and the tax basis of assets and liabilities calculated using the enacted tax rates in effect for the year in which the differences are expected to be reflected in the tax return.

The Company accounts for uncertain tax positions using a "more-likely-than-not" threshold for recognizing and resolving uncertain tax positions. The evaluation of uncertain tax positions is based on factors that include, but are not limited to, changes in tax law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, new audit activity and changes in facts or circumstances related to a tax position. The Company evaluates uncertain tax positions on a quarterly basis and adjusts the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions.

The Company's liabilities for uncertain tax positions can be relieved only if the contingency becomes legally extinguished through either payment to the taxing authority or the expiration of the statute of limitations, the recognition of the benefits associated with the position meet the "more-likely-than-not" threshold or the liability becomes effectively settled through the examination process.

The Company considers matters to be effectively settled once the taxing authority has completed all of its required or expected examination procedures, including all appeals and administrative reviews; the Company has no plans to appeal or litigate any aspect of the tax position; and the Company believes that it is highly unlikely that the taxing authority would examine or re-examine the related tax position. The Company also accrues for potential interest and penalties, related to unrecognized tax benefits in income tax expense.

The Company has presented all deferred tax assets and liabilities as net and noncurrent on its consolidated balance sheets as of December 31, 2019 and 2018, respectively.

See Note 10 for additional information on the Company's income taxes.

Foreign Currency

The local currency of the Company's foreign operations is considered the functional currency of such operations. All assets and liabilities of the Company's foreign operations are translated into U.S. dollars at year-end exchange rates. Income and expense items are translated at average exchange rates prevailing during the year. Translation adjustments are accumulated as a separate component of stockholders' equity. Foreign currency translation gains and losses are reported in the consolidated statements of comprehensive income. Foreign currency transaction gains and losses are reported in the consolidated statements of income.

Financial Instruments

Financial instruments consist of cash and cash equivalents, restricted cash, accounts and notes receivable, long-term contract receivables, accounts payable, accrued expenses, financing lease assets and liabilities, contingent considerations, short- and long-term borrowings, make-whole provisions, interest rate swaps, and commodity swaps. Because of their short maturity, the carrying amounts of cash and cash equivalents, restricted cash, accounts and notes receivable, accounts payable, accrued expenses, certain contingent considerations, and short-term borrowings approximate fair value.

Stock-Based Compensation Expense

Stock-based compensation expense results from the issuance of shares of restricted common stock and grants of stock options to employees, directors, outside consultants and others. The Company recognizes the costs associated with restricted stock option grants, and employee stock purchases made via the Company's Employee Stock Purchase Plan (the "ESPP") using the fair value recognition provisions of ASC 718, Compensation - Stock Compensation, on a straight-line basis over the vesting period of the awards. Certain option grants have performance conditions that must be achieved prior to vesting and are expensed based on the expected achievement at each reporting period. Stock-based compensation expense is also recognized in association with employee stock purchases related to the Company's ESPP.

Stock-based compensation expense is recognized based on the grant-date fair value. The Company estimates the fair value of the stock-based awards, including stock options, using the Black-Scholes option-pricing model. Determining the fair value of stock-based awards requires the use of highly subjective assumptions, including the fair value of the common stock underlying the award, the expected term of the award and expected stock price volatility.

The assumptions used in determining the fair value of stock-based awards represent management's estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors change, and different assumptions are employed, the stock-based compensation could be materially different in the future. The risk-free interest rates are based on the U.S. Treasury yield curve in effect at the time of grant, with maturities approximating the expected life of the stock options.

The Company has no history of paying dividends. Additionally, as of each of the grant dates, there was no expectation that the Company would pay dividends over the expected life of the options. The expected life of the awards is estimated based upon the period stock option holders will retain their vested options before exercising them. The Company uses historical volatility as the expected volatility assumption required in the Black-Scholes model.

The Company recognizes compensation expense for only the portion of options that are expected to vest. If there are any modifications or cancellations of the underlying invested securities or the terms of the stock option, it may be necessary to accelerate, increase or cancel any remaining unamortized stock-based compensation expense. As a result of the adoption of ASU 2016-09, Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting, during fiscal year 2017, no significant changes were made to the Company's accounting for forfeitures. Upon adoption the Company recorded a $4,000 deferred tax asset and corresponding credit to retained earnings for excess tax benefits that had not previously been recognized because the related tax deductions had not reduced taxes payable.

The Company also accounts for equity instruments issued to non-employee directors and consultants at fair value. All transactions in which goods or services are the consideration received for the issuance of equity instruments are accounted for based on the fair value of the equity instruments to be issued. The measurement date of the fair value of the equity instrument issued is the grant date, which is the date that the Company and the grantee reach a mutual understanding of the key terms and conditions of the award.

No awards to individuals who were not either an employee or director of the Company occurred during the years ended December 31, 2019, 2018 and 2017.

Fair Value Measurements

The Company follows the guidance related to fair value measurements for all of its non-financial assets and non-financial liabilities, except for those recognized at fair value in the financial statements at least annually. These assets include goodwill and long-lived assets measured at fair value for impairment assessments, and non-financial assets and liabilities initially measured at fair value in a business combination.

The Company's financial instruments consist of cash and cash equivalents, restricted cash, accounts and notes receivable, long-term contract receivables, accounts payable, accrued expenses, financing lease assets and liabilities, contingent considerations, short- and long-term borrowings, make-whole provisions, interest rate swaps, and commodity swaps. Because of their short maturity, the carrying amounts of cash and cash equivalents, restricted cash, accounts and notes receivable, accounts payable, accrued expenses, certain contingent considerations, and short-term borrowings approximate fair value. The carrying value of long-term variable-rate debt approximates fair value. As of December 31, 2019, the carrying value of the Company's long-term debt exceeds its fair value of $309,377 by approximately $1,869. Fair value of the Company's debt is based on quoted market prices or on rates available to the Company for debt with similar terms and maturities, which are level two inputs of the fair value hierarchy, as defined in Note 18.

The Company accounts for its interest rate swaps and commodity swaps as derivative financial instruments in accordance with the related guidance. Under this guidance, derivatives are carried on the Company's consolidated balance sheets at fair value. The fair value of the Company's interest rate and commodity swaps are determined based on observable market data in combination with expected cash flows for each instrument. The Company accounts for its make-whole provision features as embedded derivatives in accordance with related guidance. Under this guidance, the derivative is bifurcated from its host contract and recorded on the Company's consolidated balance sheets at fair value. The fair value of the Company's make-whole provisions are determined based on observable market data and a with and without model.

The consideration for the Company's acquisitions often includes future payments that are contingent upon the occurrence of a particular event. The Company records a contingent consideration obligation for such contingent consideration payments at fair value on the acquisition date. The Company estimates the acquisition date fair value of contingent consideration obligations through valuation models that incorporate probability adjusted assumptions related to the achievement of the milestones and the likelihood of making related payments. Each period the Company revalues the contingent consideration obligations associated with the acquisition to fair value and records changes in the fair value within the selling, general and administrative expenses line in our consolidated statements of income. Increases or decreases in the fair value of the contingent consideration obligations can result from changes in assumed discount periods and rates, changes in the assumed timing and amount of revenue and expense estimates and changes in assumed probability with respect to the attainment of certain financial and operational metrics, among others. Significant judgment is employed in determining these assumptions as of the acquisition date and for each subsequent period. Accordingly, future business and economic conditions, as well as changes in any of the assumptions described above, can materially impact the fair value of contingent consideration recorded at each reporting period. However, deferred consideration related to certain holdbacks and completion payments are considered short-term in nature. These amounts are recorded at full value and are only revalued if one of those underlying assumptions changes.

See Note 18 for additional information related to fair value measurements.

Share Repurchase Program

In April 2016, the Company's Board of Directors authorized the repurchase of up to $10,000 of the Company's Class A common stock from time to time on the open market or in privately negotiated transactions. The Company's Board of Directors authorized an increase in the Company's share repurchase authorization to $15,000 of the Company's Class A common stock in February 2017 and to $17,553 of the Company's Class A common stock in August 2019. The timing and amount of any shares repurchased will be determined by the Company's management based on its evaluation of market conditions and other factors. Any repurchased shares will be available for use in connection with its stock plans and for other corporate purposes. The repurchase program has and will be funded using the Company's working capital and borrowings under its revolving line of credit. The Company accounts for share repurchases using the cost method. Under this method, the cost of the share repurchase is recorded entirely in treasury stock, a contra equity account. During the year ended December 31, 2019, the Company repurchased 10.3 shares of common stock in the amount of $144, net of fees of immaterial amounts. During the year ended December 31, 2018, the Company repurchased 218 shares of common stock in the amount of $1,839, net of fees of $9.

Derivative Financial Instruments

In the normal course of business, the Company utilizes derivatives contracts as part of its risk management strategy to manage exposure to market fluctuations in interest and commodity rates. These instruments are subject to various credit and market risks. Controls and monitoring procedures for these instruments have been established and are routinely reevaluated. Credit risk represents the potential loss that may occur because a party to a transaction fails to perform according to the terms of the contract. The measure of credit exposure is the replacement cost of contracts with a positive fair value. The Company seeks to manage credit risk by entering into financial instrument transactions only through counterparties that the Company believes to be creditworthy.

Market risk represents the potential loss due to the decrease in the value of a financial instrument caused primarily by changes in interest rates and commodity prices. The Company seeks to manage market risk by establishing and monitoring limits on the types and degree of risk that may be undertaken. As a matter of policy, the Company does not use derivatives for speculative purposes. The Company considers the use of derivatives with all financing transactions to mitigate risk.

The Company recognizes cash flows from derivative instruments as operating activities in the consolidated statements of cash flows. The Company recognizes all changes in fair value on interest rate swaps designated as effective cash flow hedges in the Company's consolidated statements of comprehensive income. Changes in fair value on derivatives not designated as hedges are recognized in the Company's consolidated statements of income.

In July 2018, the Company made a prepayment on one of its term loans that had a related interest rate swap that was designated as a hedging instrument, which was canceled and de-designated as a hedge instrument. The Company does not have a history of prepaying its debt facilities and is not planning a prepayment or a forced prepayment of any of the Company's hedged debt facilities. See Note 19 for additional information concerning the de-designation of this interest rate swap.

In June 2018, the Company entered into a term loan agreement, discussed in Note 9, that contained an interest make-whole provision. In August 2018, the Company signed a joinder to the above agreement, which added another series of notes to the term loan that also contained an interest make-whole provision. The Company determined that these provisions fulfill the requirements of an embedded derivative instrument that were required to be bifurcated from its host agreement. The instrument is revalued periodically and the changes in fair value are recognized as either gains or losses in other expenses, net in the Company's consolidated statements of income.

See Notes 18 and 19 for additional information on the Company's derivative instruments.

Earnings Per Share

Basic earnings per share is calculated using the Company's weighted-average outstanding common shares, including vested restricted shares. When the effects are not anti-dilutive, diluted earnings per share is calculated using the weighted-average outstanding common shares; the dilutive effect of convertible preferred stock, under the "if converted" method; and the treasury stock method with regard to warrants and stock options; all as determined under the treasury stock method.

	Year Ended December 31,		
	2019	2018	2017
Net income attributable to common shareholders	$ 44,436	$ 37,984	$ 37,491
Basic weighted-average shares outstanding	46,586	45,729	45,509
Effect of dilutive securities:			
Stock options	1,188	1,102	239
Diluted weighted-average shares outstanding	47,774	46,831	45,748

For the years ended December 31, 2019, 2018 and 2017, 806, 692 and 2,560 shares of common stock, respectively, related to stock options were excluded from the calculation of dilutive shares since the inclusion of such shares would be anti-dilutive.

Variable Interest Entities

Certain contracts are executed jointly through partnership and joint venture arrangements with unrelated third parties. The arrangements are often formed for the single business purpose of executing a specific project and allow the Company to share risks and/or secure specialty skills required for project execution.

The Company evaluates each partnership and joint venture at inception to determine if it qualifies as a VIE under ASC 810, Consolidation. A variable interest entity is an entity used for business purposes that either (a) does not have equity investors with voting rights or (b) has equity investors who are not required to provide sufficient financial resources for the entity to support its activities without additional subordinated financial support. Upon the occurrence of certain events outlined in ASC 810, the Company reassesses its initial determination of whether the partnership or joint venture is a VIE.

The Company also evaluates whether it is the primary beneficiary of each VIE and consolidates the VIE if the Company has both (a) the power to direct the economically significant activities of the entity and (b) the obligation to absorb losses of, or the right to receive benefits from, the entity that could potentially be significant to the VIE. The Company considers the contractual agreements that define the ownership structure, distribution of profits and losses, risks, responsibilities, indebtedness, voting rights and board representation of the respective parties in determining whether it qualifies as the primary beneficiary. The Company also considers all parties that have direct or implicit variable interests when determining whether it is the primary beneficiary. When the Company is determined to be the primary beneficiary, the VIE is consolidated. As required by ASC 810, management's assessment of whether the Company is the primary beneficiary of a VIE is continuously performed.

The Company generally aggregates the disclosures of its VIEs based on certain qualitative and quantitative factors including the purpose and design of the underlying VIEs, the nature of the assets in the VIE, and the type of involvement the Company has with the VIE including its role and type of interest held in the VIE. As of December 31, 2019, all the VIEs that make up the Company's investment funds are similar in purpose, design, and the Company's involvement and, as such, are aggregated in one disclosure. See Note 11 and 12 for additional disclosures.

Equity Method Investment

The Company has entered into four joint ventures and has determined they are not the primary beneficiaries using the methodology previously described for variable interest entities. The Company does not consolidate the operations of these joint ventures and treats the joint ventures as equity method investments. See Note 11 for additional information on the Company's equity method investments.

Redeemable Non-Controlling Interests

In each of September 2015, June 2017, June 2018, October 2018 and December 2019, the Company formed an investment fund with a different third party investor which granted the applicable investor ownership interests in the net assets of certain of the Company's renewable energy project subsidiaries. The Company currently has five such investment funds each with a different third party investor.

The Company entered into these agreements in order to finance the costs of constructing energy assets which are under long-term customer contracts. The Company has determined that these entities qualify as VIEs and that it is the primary beneficiary in the operational partnerships for accounting purposes. Accordingly, the Company will consolidate the assets and liabilities and operating results of the entities in its consolidated financial statements. The Company will recognize the investors' share of the net assets of the subsidiaries as redeemable non-controlling interests in its consolidated balance sheets.

The Company has determined that the provisions in the contractual arrangements represent substantive profit-sharing arrangements. The Company has further determined that the appropriate methodology for attributing income and loss to the redeemable non-controlling interests each period is a balance sheet approach referred to as the hypothetical liquidation at book value ("HLBV") method. Under the HLBV method, the amounts of income and loss attributed to the redeemable non-controlling interests in the consolidated statements of income reflect changes in the amounts the investors would hypothetically receive at each balance sheet date under the liquidation provisions of the contractual agreements, assuming the net assets of this funding structure were liquidated at recorded amounts. The investors' non-controlling interest in the results of operations of this funding structure is determined as the difference in the non-controlling interest's claim under the HLBV method at the start and end of each reporting period, after taking into account any capital transactions, such as contributions or distributions, between the Company's subsidiaries and the investors. The use of the HLBV methodology to allocate income to the redeemable non-controlling interest holders may create volatility in the Company's consolidated statements of income as the application of HLBV can drive changes in net income available and loss attributable to the redeemable non-controlling interests from quarter to quarter.

The Company classified the non-controlling interests with redemption features that are not solely within the control of the Company outside of permanent equity on its consolidated balance sheets. The redeemable non-controlling interests will be reported using the greater of their carrying value at each reporting date as determined by the HLBV method or the estimated redemption values in each reporting period.

See Notes 11 and 12 for additional disclosures.

Recent Accounting Pronouncements

Intangibles-Goodwill and Other

In August 2018, the FASB issued ASU No. 2018-15, Intangibles - Goodwill and Other - Internal-Use-Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract, which clarifies the accounting for implementation, setup, and upfront costs and aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The new standard is effective for the interim and annual periods beginning after December 15, 2019, with early adoption permitted, and can be applied either retrospectively or prospectively. The Company adopted this guidance as of January 1, 2019 and the adoption did not have an impact on the Company's consolidated financial statements.

Derivatives and Hedging

In April 2019, the FASB issued ASU No. 2019-04, Codification Improvements to Topic 326, Financial Instruments - Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments, which, among other things, clarifies some areas around partial-term fair value hedges, interest rate risk, the amortization of fair value hedge basis adjustments and their disclosure, and some clarification of some matters related to transitioning to ASU No. 2017-12, which was adopted by the

Company during the year ended December 31, 2018. For those that have already adopted ASU No. 2017-12, the new standard is effective the first annual period beginning after the issuance date of ASU No. 2019-04, or as of January 1, 2020 for the Company, with early adoption permitted. The Company is currently evaluating the impact of ASU No. 2019-04 on its consolidated financial statements, but does not expect that the adoption of this guidance will have a significant impact on its consolidated financial statements.

Fair Value Measurement

In August 2018, the FASB issued ASU 2018-13 Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement, which modifies the disclosure requirements on fair value measurements. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The Company is currently evaluating the impact ASU 2018-13 on its consolidated financial statements, but does not expect that the adoption of this guidance will have a significant impact on its consolidated financial statements.

Leases

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). The guidance in this ASU supersedes the leasing guidance in Topic 840, Leases. Under the new guidance, the Company is electing to only recognize lease assets and lease liabilities 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. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years.

On January 1, 2019, the Company adopted ASU 2016-02 using the modified retrospective approach of applying the new standard at the adoption date. See Note 8 for the impact of the adoption and the new disclosures required by this standard.

In March 2019, the FASB issued ASU No. 2019-01, Leases (Topic 842): Codification Improvements, which provides clarification and improvements to the previous issued guidance. The standard is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. The Company is currently evaluating the impact of ASU 2019-01 on its consolidated financial statements, but does not expect that the adoption of this guidance will have a significant impact on its consolidated financial statements.

Accumulated Other Comprehensive Income

In February 2018, the FASB issued ASU No. 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, to allow entities to reclassify the income tax effects of tax reform legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act") on items within accumulated other comprehensive income to retained earnings. ASU 2018-02 is effective for fiscal years and interim periods within those years beginning after December 15, 2018, and early adoption is permitted. The Company adopted the guidance as of January 1, 2019. Upon adoption, the Company recognized an increase to retained earnings and a corresponding increase to accumulated other comprehensive loss of $217.

Consolidations

In October 2018, the FASB issued ASU No. 2018-17, Consolidation (Topic 810), Targeted Improvements to Related Party Guidance for Variable Interest Entities, which aligns the evaluation of whether a decision maker's fee is a variable interest with the guidance in the primary beneficiary test by requiring the decision maker to consider an indirect interest in a VIE held by related party under common control on a proportionate basis. The new standard is effective interim and annual periods beginning after December 15, 2019, with early adoption permitted. The Company is currently evaluating the impact of ASU 2018-17 on its consolidated financial statements, but does not expect that the adoption of this guidance will have a significant impact on its consolidated financial statements.

Credit Losses

In June 2016, the FASB issued ASU 2016-13, Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (ASU 2016-13), and a subsequent amendment to the initial guidance, ASU 2018-19 Codification Improvements to Topic 326, Financial Instruments—Credit Losses (collectively, Topic 326). Topic 326 requires measurement and recognition of expected credit losses for financial assets held, which include, but are not limited to, trade and other receivables. The new standard is effective for fiscal years beginning after December 15, 2019. The Company is currently

evaluating the impact of this guidance on its consolidated financial statements, but does not expect that the adoption of this guidance will have a significant impact on its consolidated financial statements.

Income Taxes

In December 2019, the FASB issued ASU No. 2019-12, Simplifying the Accounting for Income Taxes, which simplifies the accounting for income taxes, eliminates certain exceptions within ASC 740, Income Taxes, and clarifies certain aspects of the current guidance to promote consistency among reporting entities. ASU 2019-12 is effective for the Company for the fiscal year beginning after December 15, 2020. The Company is currently evaluating the impacts of the provisions of ASU 2019-12 on its financial statements and disclosures.

3. REVENUE FROM CONTRACTS WITH CUSTOMERS

Adoption

On January 1, 2018, the Company adopted ASU 2014-09, Revenue from Contracts with Customers, (Topic 606) using the modified retrospective method applied to those contracts which were not completed as of December 31, 2017. Results for reporting periods beginning January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for the prior period. The Company recorded a net decrease to beginning retained earnings of $4,454 on January 1, 2018 due to the cumulative impact of adopting Topic 606, as detailed below.

	January 1, 2018		
	As Reported	606 Adjustments	Adjusted Balances
Assets:			
Costs and estimated earnings in excess of billings	$ 104,852	$ (9,194)	$ 95,658
Prepaid expenses and other current assets	14,037	4,343	18,380
Deferred income taxes, net	—	1,003	1,003
Liabilities:			
Accrued expenses and other current liabilities	23,260	1,190	24,450
Deferred income taxes, net	584	(584)	—
Shareholders' Equity:			
Retained earnings	235,844	(4,454)	231,390

In accordance with Topic 606, the disclosure of the impact of adoption to the Company's consolidated statements of income and balance sheets was as follows:

	Impact of changes in accounting policies					
	12/31/2019			12/31/2018		
	As Reported	Balances without adoption of Topic 606	Effect of Change Higher/ (Lower)	As Reported	Balances without adoption of Topic 606	Effect of Change Higher/ (Lower)
Revenues	$ 866,933	$ 871,409	$ (4,476)	$ 787,138	$ 784,316	$ 2,822
Cost of revenues	698,815	701,397	(2,582)	613,526	610,229	3,297
Gross profit	168,118	170,012	(1,894)	173,612	174,087	(475)
Operating expenses:						
Selling, general and administrative expenses	116,504	116,504	—	114,513	114,513	—
Operating income	51,614	53,508	(1,894)	59,099	59,574	(475)
Other expenses, net	15,061	15,061	—	16,709	16,709	—
Income before provision for income taxes	36,553	38,447	(1,894)	42,390	42,865	(475)
Income tax (benefit) provision	(3,748)	(3,256)	(492)	4,813	4,998	(185)
Net income	40,301	41,703	(1,402)	37,577	37,867	(290)
Net loss attributable to redeemable non-controlling interests	4,135	4,135	—	407	407	—
Net income attributable to common shareholders	$ 44,436	$ 45,838	$ (1,402)	$ 37,984	$ 38,274	$ (290)
Basic income per share	$ 0.95	$ 0.98	$ (0.03)	$ 0.83	$ 0.84	$ (0.01)
Diluted income per share	$ 0.93	$ 0.96	$ (0.03)	$ 0.81	$ 0.82	$ (0.01)

	December 31, 2019			December 31, 2018		
	As Reported	Balances without adoption of Topic 606	Effect of Change Higher/ (Lower)	As Reported	Balances without adoption of Topic 606	Effect of Change Higher/(Lower)
Assets:						
Costs and estimated earnings in excess of billings	$ 202,243	$ 213,091	$ (10,848)	$ 86,842	$ 93,214	$ (6,372)
Prepaid expenses and other current assets	29,424	25,776	3,648	11,571	10,644	927
Liabilities:						
Accrued expenses and other current liabilities	31,356	30,147	1,209	35,947	34,877	1,070
Deferred income taxes, net	115	2,378	(2,263)	4,352	6,123	(1,771)
Shareholders' Equity:						
Retained earnings	314,459	320,605	(6,146)	269,806	274,550	(4,744)

The impact in revenue recognition due to the adoption of Topic 606 is primarily from the timing of revenue recognition for uninstalled materials, amortization of contract acquisition costs over the contract term, and timing of revenue recognition from renewable energy credits. See Note 2 for a summary of the Company's significant policies for revenue recognition.

Disaggregation of Revenue

The following table provides information about disaggregated revenue by line of business and geographical region, by reportable segments, for the year ended December 31, 2019.

	US Regions	U.S. Federal	Canada	Non-Solar DG	All Other	Total
Line of Business						
Year ended December 31, 2019						
Project revenue	$ 321,973	$ 240,656	$ 27,995	$ 9,221	$ 11,219	$ 611,064
O&M revenue	15,753	41,599	5	9,183	169	66,709
Energy assets	24,897	3,652	3,306	65,365	822	98,042
Other	2,437	1,519	6,604	914	79,644	91,118
Total revenues	$ 365,060	$ 287,426	$ 37,910	$ 84,683	$ 91,854	$ 866,933
Geographical Regions						
Year ended December 31, 2019						
United States	$ 364,987	$ 287,426	$ 3,007	$ 84,683	$ 75,302	$ 815,405
Canada	—	—	34,830	—	201	35,031
Other	73	—	73	—	16,351	16,497
Total revenues	$ 365,060	$ 287,426	$ 37,910	$ 84,683	$ 91,854	$ 866,933

The following table provides information about disaggregated revenue by line of business and geographical region, by reportable segments, for the year ended December 31, 2018.

	US Regions	U.S. Federal	Canada	Non-Solar DG	All Other	Total
Line of Business						
Year ended December 31, 2018						
Project revenue	$ 296,226	$ 202,286	$ 29,571	$ 4,550	$ 12,420	$ 545,053
O&M revenue	17,814	39,250	37	8,135	—	65,236
Energy assets	18,442	4,062	2,604	69,599	1,069	95,776
Other	1,862	711	6,770	371	71,359	81,073
Total revenues	$ 334,344	$ 246,309	$ 38,982	$ 82,655	$ 84,848	$ 787,138
Geographical Regions						
Year ended December 31, 2018						
United States	$ 334,344	$ 246,309	$ 2,557	$ 82,655	$ 68,883	$ 734,748
Canada	—	—	36,425	—	303	36,728
Other	—	—	—	—	15,662	15,662
Total revenues	$ 334,344	$ 246,309	$ 38,982	$ 82,655	$ 84,848	$ 787,138

For the years ended December 31, 2019 and 2018, approximately 92% and 93%, respectively, of revenue is recognized over time, and the remainder is for products and services transferred at a point in time.

Contract Balances

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers:

	December 31, 2019	December 31, 2018
Accounts receivable, net	$ 95,863	$ 85,985
Accounts receivable retainage, net	16,976	13,516
Contract Assets:		
Costs and estimated earnings in excess of billings	202,243	86,842
Contract Liabilities:		
Billings in excess of cost and estimated earnings	32,178	30,706

Accounts receivable retainage represents amounts due from customers, but where payments are withheld contractually until certain construction milestones are met. Amounts retained typically range from 5% to 10% of the total invoice. The Company classifies as a current asset those retainages that are expected to be billed in the next twelve months. Unbilled revenue, presented as costs and estimated earnings in excess of billings, represent amounts earned and billable that were not invoiced at the end of the fiscal period.

Contract assets represent the Company's rights to consideration in exchange for services transferred to a customer that have not been billed as of the reporting date. The Company's rights to consideration are generally unconditional at the time its performance obligations are satisfied.

At the inception of a contract, the Company expects the period between when it satisfies its performance obligations, and when the customer pays for the services, will be one year or less. As such, the Company has elected to apply the practical expedient which allows the Company to not adjust the promised amount of consideration for the effects of a significant financing component, when a financing component is present.

When the Company receives consideration, or such consideration is unconditionally due, from a customer prior to transferring goods or services to the customer under the terms of a sales contract, the Company records deferred revenue, which represents a contract liability. Such deferred revenue typically results from billings in excess of costs incurred and advance payments received on project contracts. As of December 31, 2019 and 2018, the Company classified $5,560 and $6,342, respectively, as a non-current liability, included in other liabilities on the consolidated balance sheets, for those performance obligations expected to be completed beyond the next twelve months.

The increase in contract assets for the year ended December 31, 2019 was primarily due to revenue recognized of $535,021, offset in part by billings of approximately $431,717. The increase in contract liabilities was primarily driven by the receipt of advance payments from customers, and related billings, exceeding recognition of revenue as performance obligations were satisfied. For the year ended December 31, 2019, the Company recognized revenue of $75,070, and billed customers $73,675 that was previously included in the beginning balance of contract liabilities. Changes in contract liabilities are also driven by reclassifications to or from contract assets as a result of timing of customer payments.

The decrease in contract assets for the year ended December 31, 2018 was primarily due to billings of approximately $510,470, offset in part by revenue recognized of $485,143. The increase in contract liabilities was primarily driven by the receipt of advance payments from customers, and related billings, exceeding recognition of revenue as performance obligations were satisfied. For the year ended December 31, 2018, The Company recognized revenue of $95,318, and billed customers $80,007, that was previously included in the beginning balance of contract liabilities. Changes in contract liabilities are also driven by reclassifications to or from contract assets as a result of timing of customer payments.

Contracts are often modified for a change in scope or other requirements. The Company considers contract modifications to exist when the modification either creates new or changes the existing enforceable rights and obligations. Most of the Company's contract modifications are for goods or services that are not distinct from the existing performance obligations. The effect of a contract modification on the transaction price, and the measure of progress for the performance obligation to which it relates, is recognized as an adjustment to revenue (either as an increase or decrease) on a cumulative catchup basis.

The Company elected to utilize the modified retrospective transition practical expedient which allows the Company to evaluate the impact of contract modifications as of the adoption date rather than evaluating the impact of the modifications at the time they occurred prior to the adoption date.

Performance obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account in ASC Topic 606. Performance obligations are satisfied as of a point in time or over time and are supported by contracts with customers. For most of the Company's contracts, there are multiple promises of goods or services. Typically, the Company provides a significant service of integrating a complex set of tasks and components such as design, engineering, construction management, and equipment procurement for a project contract. The bundle of goods and services are provided to deliver one output for which the customer has contracted. In these cases, the Company considers the bundle of goods and services to be a single performance obligation. The Company may also promise to provide distinct goods or services within a contract, such as a project contract for installation of energy conservation measures and post-installation O&M services. In these cases the Company separates the contract into more than one performance obligation. If a contract is separated into more than one performance obligation, the Company allocates the total transaction price to each performance obligation in an amount based on the estimated relative standalone selling prices of the promised goods or services underlying each performance obligation.

Backlog - The Company's remaining performance obligations (hereafter referred to as "backlog") represent the unrecognized revenue value of the Company's contract commitments. The Company's backlog may vary significantly each reporting period based on the timing of major new contract commitments and the backlog may fluctuate with currency movements. In addition, our customers have the right, under some circumstances, to terminate contracts or defer the timing of the Company's services and their payments to us. At December 31, 2019, the Company had backlog of approximately $2,249,970. Approximately 28%, of our December 31, 2019 backlog is anticipated to be recognized as revenue in the next twelve months and the remaining, thereafter. The remaining performance obligations relate primarily to the energy efficiency and renewable energy construction projects, including the long-term O&M services related to these projects. The long-term services have varying initial contract terms, up to 25 years.

The Company has applied the practical expedient for certain revenue streams to exclude the value of remaining performance obligations for (i) contracts with an original expected term of one year or less or (ii) contracts for which the Company recognizes revenue in proportion to the amount it has the right to invoice for services performed.

Contract acquisition costs

In connection with the adoption of Topic 606, the Company is required to account for certain acquisition costs over the life of the contract, consisting primarily of commissions. Commission costs are incurred commencing at contract signing. Commission costs are allocated across all performance obligations and deferred and amortized over the contract term on a progress towards completion basis.

As of December 31, 2019 and 2018, included in other assets in the accompanying consolidated balance sheets, the Company capitalized $1,735 and $927, respectively, in commission costs related to contracts that were not completed. For contracts that have a duration of less than one year, the Company follows a practical expedient and expenses these costs when incurred. During the years ended December 31, 2019 and 2018, the amortization of commission costs related to contracts were not material and have been included in the accompanying consolidated statements of income.

The Company analyzed the impact of adoption of Topic 606 on the Company's project development costs and determined no change in the Company's accounting policy was required**.** During the years ended December 31, 2019 and 2018, $35,172 and $15,672, respectively, of project development costs were recognized in the consolidated statements of income on projects that converted to customer contracts.

No impairment charges in connection with the Company's commission costs or project development costs were recorded during the years ended December 31, 2019 and 2018.

4. BUSINESS ACQUISITIONS AND RELATED TRANSACTIONS

The Company accounts for acquisitions using the acquisition method in accordance with ASC 805, Business Combinations. The purchase price for each has been allocated to the assets based on their estimated fair values at the date of

each acquisition as set forth in the table below. The excess purchase price over the estimated fair value of the net assets, which are calculated using level 3 inputs per the fair value hierarchy as defined in Note 18, acquired has been recorded as goodwill. Intangible assets, if identified, have been recorded and are being amortized over periods ranging from one to fifteen years. See Note 5 for additional information.

Determining the fair value of certain assets and liabilities assumed is judgmental in nature and often involves the use of significant estimates and assumptions. Certain amounts below are provisional based on our best estimates using information available as of the reporting date. The Company is waiting for information to become available to finalize its valuation of certain elements of these transactions. Specifically, the assigned values for energy assets, intangibles, and goodwill are provisional in nature and subject to change upon the completion of the final valuation of such elements.

In January 2019, the Company completed an acquisition of a Massachusetts based solar operations and maintenance firm for consideration of $1,294. The pro-forma effects of this acquisition on the Company's operations are not material.

In December 2018, the Company completed an acquisition of certain assets of Washington, DC based mechanical, electrical, plumbing, and fire protection design company, JVP Engineers, P.C. The consideration consisted of $2,326, of which, $1,901 has been paid to date. The remaining balance is attributed to a contingent consideration holdback related to the collection of certain receivables and will be be paid 15 months from the completion of the acquisition. No debt was assumed or cash acquired in the transaction. The pro-forma effects of this acquisition on the Company's operations are not material. During the year ended December 31, 2018, the Company had a measurement period adjustment of $197, which was recorded as a reduction to goodwill.

In December 2018, the Company completed an acquisition of certain assets of the Hawaii-based building science and design engineering consulting firm, Chelsea Group Limited. The consideration consisted of $1,691 of cash and potential contingent consideration of up to $2,000 based upon meeting certain future revenue targets over the next 5 years. The final purchase price is subject to a net working capital adjustment, dependent on the level of working capital at the acquisition date, that has not been finalized yet. The fair value of the contingent consideration was $555 as of the date of acquisition. No debt was assumed or cash acquired in the transaction. The pro-forma effects of this acquisition on the Company's operations are not material. The value of the contingent consideration increased by $44 during the year ended December 31, 2018 to a ending balance of $599 as of December 31, 2018. The value of the contingent consideration increased by $79 during the year ended December 31, 2019 to a ending balance of $678 as of December 31, 2019. See Note 18 for additional information on contingent consideration.

In January 2017, the Company acquired two solar PV projects currently under construction as well as associated construction loan agreements with a bank for use in providing non-recourse financing for these acquired solar PV projects currently under construction. The Company paid $2,409 to acquire the assets under construction, and assumed $5,635 of associated non-recourse financing.

A summary of the cumulative consideration paid and the allocation of the purchase price of all of the acquisitions in each respective year is as follows:

	2019	2018	2017
Accounts receivable	$ 232	$ 1,015	$ —
Prepaid expenses and other current assets	2	12	256
Property and equipment and energy assets	315	—	7,788
Intangibles	500	680	—
Goodwill	337	2,845	—
Accounts payable	30	67	—
Accrued Exp.	1	—	—
Deferred Revenue	61	—	—
Purchase price	$ 1,294	$ 4,619	$ 8,044
Total, net of cash received	$ 1,294	$ 4,619	$ 8,044
Debt assumed	$ —	$ —	$ 5,635
Total fair value of consideration	$ 1,294	$ 4,619	$ 2,409

The results of the acquired assets since the dates of the acquisitions have been as presented in the accompanying consolidated statements of income, consolidated statements of comprehensive income and consolidated statements of cash flows.

For the year ended December 31, 2019, the Company had an additional measurement period adjustment of $628 related to a 2018 acquisition which was recorded as a reduction to goodwill and included a $398 reduction in the holdback contingency discussed further in Notes 5 and 15.

For the year ended December 31, 2019, in order to expand its portfolio of energy assets, the Company acquired nine solar projects from two separate developers and is under definitive agreement to acquire ten additional solar projects. For the year ended December 31, 2018, the Company acquired twelve solar projects from two separate developers and at December 31, 2018 was under definitive agreement to acquire six additional solar projects, three of which were subsequently acquired in 2019, and one of which was amended and will no longer be acquired.

The Company has concluded that in accordance with ASC 805, Business Combinations, these acquisitions in 2019 and 2018 did not constitute a business as the assets acquired in each case could be considered a single asset or group of similar assets that made up substantially all of the fair market value of the acquisitions. See Note 7 for additional disclosures on these asset acquisitions.

5. GOODWILL AND INTANGIBLE ASSETS

The changes in the carrying value of goodwill attributable to each reportable segment are as follows:

	U.S. Regions	U.S. Federal	Canada	Other	Total
Balance, December 31, 2017	24,759	3,375	3,494	24,507	56,135
Goodwill acquired during the year	1,611	1,234	—	—	2,845
Currency effects	—	—	(277)	(371)	(648)
Balance, December 31, 2018	26,370	4,609	3,217	24,136	58,332
Goodwill acquired during the year	337	—	—	—	337
Re-measurement adjustments	(2)	(628)	—	—	(630)
Currency effects	—	—	152	223	375
Balance, December 31, 2019	26,705	3,981	3,369	24,359	58,414
Accumulated Goodwill Impairment Balance, December 31, 2018	$ —	$ —	$ (1,016)	$ —	$ (1,016)
Accumulated Goodwill Impairment Balance, December 31, 2019	$ —	$ —	$ (1,016)	$ —	$ (1,016)

In accordance with ASC 350, goodwill was tested for impairment as of December 31, 2019, 2018 and 2017 at the reporting unit level under the income approach which uses, in part, a discounted cash flow method and a peer-based guideline method, and a risk-adjusted weighted average cost of capital. No impairment was recorded in the December 31, 2019, 2018 or 2017 assessments. Based on the Company's goodwill impairment assessment, all of its reporting units with goodwill had estimated fair values as of December 31, 2019 and 2018 that exceeded their carrying values by at least 15% and 20%, respectively. During the course of the valuation analysis it was determined that although the fair value of the Company's Federal reporting unit exceeded the carrying amount of this reporting unit, the carrying value of the reporting unit was negative as of December 31, 2019. The Federal reporting unit had goodwill of $3,981 as of December 31, 2019.

The gross carrying amount and accumulated amortization of intangible assets are as follows:

	As of December 31,	
	2019	2018
Gross Carrying Amount		
Customer contracts	$ 7,904	$ 7,818
Customer relationships	12,749	12,082
Non-compete agreements	3,037	3,013
Technology	2,732	2,710
Trade names	544	541
	26,966	26,164
Accumulated Amortization		
Customer contracts	7,844	7,668
Customer relationships	11,236	10,302
Non-compete agreements	3,037	3,013
Technology	2,704	2,651
Trade names	531	526
	25,352	24,160
Intangible assets, net	$ 1,614	$ 2,004

Amortization expense related to customer contracts is included in cost of revenues in the consolidated statements of income. Amortization expense related to customer relationships, non-compete agreements, technology and trade names is included in selling, general and administrative expenses in the consolidated statements of income.

Customer contracts are amortized ratably over the period of the acquired customer contracts ranging in periods from approximately one to eight years. All other intangible assets are amortized over periods ranging from approximately four to fifteen years, as defined by the nature of the respective intangible asset.

Separable intangible assets that are not deemed to have indefinite lives are amortized over their useful lives. The Company annually assesses whether a change in the life over which the Company's assets are amortized is necessary or more frequently if events or circumstances warrant. No changes to useful lives were made during the years ended December 31, 2019, 2018 and 2017.

Amortization expense for the years ended December 31, 2019, 2018 and 2017 is as follows:

	Year Ended December 31,		
	2019	2018	2017
Customer contracts	$ 90	$ 30	$ 31
Customer relationships	806	973	1,244
Non-compete agreements	1	3	42
Technology	12	47	128
Trade names	—	4	6
Total intangible amortization expense	$ 909	$ 1,057	$ 1,451

Amortization expense for the intangible assets related to customer contracts for the next five succeeding fiscal years is immaterial. Amortization expense for the intangible assets related to customer relationships, non-compete agreements, technology and trade names for the next five succeeding fiscal years is as follows:

	Estimated Amortization Included in Selling, General and Administrative Expenses
2020	628
2021	318
2022	140
2023	129
2024	127
Thereafter	212
	$ 1,554

6. PROPERTY AND EQUIPMENT

Property and equipment consists of the following:

	December 31, 2019	December 31, 2018
Furniture and office equipment	$ 6,108	$ 6,118
Computer equipment and software costs	27,380	23,781
Leasehold improvements	4,062	3,990
Automobiles	1,995	1,373
Land	2,991	1,454
Property and equipment, gross	42,536	36,716
Less - accumulated depreciation	(32,432)	(29,731)
Property and equipment, net	$ 10,104	$ 6,985

Depreciation expense on property and equipment for the years ended December 31, 2019, 2018 and 2017 was $2,987, $2,167 and $2,394, respectively, and is included in selling, general and administrative expenses in the accompanying consolidated statements of income.

7. ENERGY ASSETS

Energy assets consist of the following:

	December 31, 2019	December 31, 2018
Energy assets	$ 767,331	$ 619,707
Less - accumulated depreciation and amortization	(187,870)	(159,756)
Energy assets, net	$ 579,461	$ 459,951

Included in energy assets are financing lease assets and accumulated depreciation of financing lease assets. Financing lease assets consist of the following:

	December 31, 2019	December 31, 2018
Financing lease assets	$ 42,402	$ 42,402
Less - accumulated depreciation and amortization	(6,268)	(4,139)
Financing lease assets, net	$ 36,134	$ 38,263

Depreciation and amortization expense on the above energy assets, net of deferred grant amortization, for the years ended December 31, 2019, 2018 and 2017 was $35,543, $27,305 and $21,648, respectively, and is included in cost of revenues in the accompanying consolidated statements of income. Included in these depreciation and amortization expense totals are depreciation and amortization expense on financing lease assets of $2,129, $2,090, and $1,305 for the years ended December 31, 2019, 2018 and 2017, respectively.

The Company capitalizes interest costs relating to construction financing during the period of construction. Capitalized interest is included in energy assets, net in the Company's consolidated balance sheets. Capitalized interest is amortized to cost of revenues in the Company's consolidated statements of income on a straight line basis over the useful life of the associated energy asset. There was $2,966 and $3,817 of interest capitalized for the twelve months ended December 31, 2019 and 2018, respectively.

As of December 31, 2019 and 2018, there are three ESPC asset projects which are included within energy assets, net on the Company's consolidated balance sheets. The Company controls and operates the assets as well as obtains financing during the construction period of the assets. As the Company has an obligation to the customer for performance of the asset, the Company records a liability associated with these energy assets, although, the customer is responsible for payments to the lender based on the energy asset's production. As of December 31, 2019 and 2018, the liabilities recognized in association with these assets were $10,243 and $9,863, respectively, of which $827 and $354, respectively, has been classified as the current portion and is included in accrued expenses and other current liabilities and the remainder is included in other liabilities in the accompanying consolidated balance sheets.

For the year ended December 31, 2019, in order to expand its portfolio of energy assets, the Company acquired nine energy projects, which did not constitute businesses under the new guidance. The Company acquired and closed on nine solar projects from two developers for a total purchase price of $8,519. The purchase price included deferred consideration of $6,059, included in accrued expenses and other current liabilities on the accompanying consolidated balance sheets, will be paid upon final completion of the respective projects throughout 2020. As of December 31, 2019, the Company has paid $2,460 to the developers of the projects. The Company also has a definitive agreement to purchase an additional ten solar projects from a developer for a total purchase price of $13,902, of which, the Company has paid $366 to the developers of the projects.

For the year ended December 31, 2018, in order to expand its portfolio of energy assets, the Company acquired and closed on twelve solar projects from two developers for a total purchase price of $72,921. The purchase price included deferred consideration of $5,437 that will be paid upon final completion of the respective projects and throughout 2019. As of December 31, 2018, the Company has paid $62,116 to the developers of the projects. As of December 31, 2019, deferred purchase price consideration of $1,178, included in accrued expenses and other current liabilities on the accompanying consolidated balance sheets, remains outstanding on the projects previously closed in 2018.

As of December 31, 2019, the Company had $852 in ARO assets recorded in project assets, net of accumulated depreciation, and $941 in ARO liabilities recorded in accrued expenses and other current liabilities and other liabilities. During

the year end December 31, 2019, the Company recorded $45 of depreciation expense related to the ARO assets and $44 in accretion expense to the ARO liability, which is reflected in the accretion of ARO and contingent consideration on the consolidated statements of cash flows. As of December 31, 2018, the Company had $897 in ARO assets recorded in project assets, net of accumulated depreciation, and $897 in ARO liabilities recorded in accrued expenses and other current liabilities and other liabilities. During the year end December 31, 2018, the Company recorded $0 of depreciation expense related to the ARO assets and $0 in accretion expense to the ARO liability. The Company's current ARO liabilities relate to the removal of equipment and pipelines at certain renewable gas projects and obligations related to the decommissioning of certain solar facilities.

8. LEASES

On January 1, 2019, the Company adopted Topic 842, using the modified retrospective approach. The Company elected the package of practical expedients available in the standard and as a result, did not reassess the lease classification of existing contracts or leases or the initial direct costs associated with existing leases. The Company has also elected the practical expedient to not separate lease components and non-lease components and will account for the leases as a single lease component for all classes of leases.

As a result of the adoption of Topic 842, the Company recognized an increase in lease ROU assets of $31,639, current portions of operating lease ROU liabilities of $5,084 and an increase to long-term portions of operating lease liabilities of $28,480, as of January 1, 2019. There was no net impact to the consolidated statements of income or retained earnings for the adoption of Topic 842. No impairment was recognized on the ROU asset upon adoption. The adoption adjustments for the Company's outstanding operating and financing leases are detailed as follows:

	As of January 1, 2019		
	As Reported	842 Adjustment	Adjusted Balances
Operating Leases:			
Operating lease assets	$ —	$ 31,639	$ 31,639
Current portions of operating lease liabilities	—	5,084	5,084
Long-term portions of operating lease liabilities	—	28,480	28,480
Total operating lease liabilities	$ —	$ 33,564	$ 33,564
Weighted-average remaining lease term			10 years
Weighted-average discount rate			6.0%
Financing Leases:			
Energy assets, net	$ 38,263	$ —	$ 38,263
Current portions of financing lease liabilities	4,956	—	4,956
Long-term financing lease liabilities, less current portions and net of deferred financing fees	28,407	—	28,407
Total financing lease liabilities	$ 33,363	$ —	$ 33,363
Weighted-average remaining lease term			18 years
Weighted-average discount rate			11.7%

The Company enters into a variety of operating lease agreements through the normal course of its business including certain administrative offices. The leases are long-term, non-concealable real estate lease agreements, expiring at various dates through fiscal 2028. The agreements generally provide for fixed minimum rental payments and the payment of utilities, real estate taxes, insurance and repairs. The Company also leases certain land parcels related to our energy projects, expiring at various dates through fiscal 2045. The office and land leases make up a significant portion of the Company's operating lease activity. Many of these leases have one or more renewal options that allow the Company, at it's discretion, to renew the lease for six months to seven years. Only renewal options that the Company believed were likely to be exercised were included in our lease calculations. Many land leases include minimum lease payments that increase when the related project becomes operational. In these cases, the commercial operation date was estimated by the Company and used to calculate the estimated minimum lease payments. Rent and related expenses for the years ended December 31, 2019, 2018 and 2017 was $8,179, $6,463 and $6,362, respectively.

The Company also enters into leases for IT equipment and service agreements, automobiles, and other leases related to our construction projects such as equipment, mobile trailers and other temporary structures. The Company utilizes the portfolio approach for this class of lease. These leases are either short-term in nature or immaterial.

A portion of the Company's real estate leases are generally subject to annual changes in the Consumer Price Index ("CPI"). The Company utilized each lease's minimum lease payments to calculate the lease balances upon transition. The subsequent

increases in rent based on changes in CPI were excluded and will be excluded for future leases from the calculation of the lease balances, but will be recorded to the consolidated statement of income as part of our operating lease costs.

The Company has elected the practical expedient to not separate lease and non-lease components for existing leases for real estate and land leases. The Company has historical leases under ASC 840, Leases, which may have lease and non-lease components. Upon adoption of Topic 842, the Company has elected to continue to account for these historical leases as a single component, as permitted by Topic 842. As of January 1, 2019, as it relates to all prospective leases, the Company will allocate consideration to lease and non-lease components based on pricing information in the respective lease agreement, or, if this information is not available, the Company will make a good faith estimate based on the available pricing information at the time of the lease agreement.

The discount rate was calculated using an incremental borrowing rate based on financing rates on secured comparable notes with comparable terms and a synthetic credit rating calculated by a third party. The Company elected to apply the discount rate using the remaining lease term at the date of adoption.

The Company has a number of leases that are classified as financing leases, which relate to transactions that are considered sale-leasebacks under ASC 840. See the sale-leaseback section below for additional information on the Company's financing leases.

Supplemental balance sheet information related to leases at December 31, 2019 is as follows:

	December 31, 2019
Operating Leases:	
Operating lease assets	$ 32,791
Current operating lease liabilities	5,802
Long-term portions of operating lease liabilities	29,101
Total operating lease liabilities	$ 34,903
Weighted-average remaining lease term	11 years
Weighted-average discount rate	6.3%
Financing Leases:	
Energy assets, net	$ 36,134
Current portions of financing lease liabilities	4,997
Long-term financing lease liabilities, less current portions and net of deferred financing fees	23,500
Total financing lease liabilities	$ 28,497
Weighted-average remaining lease term	17 years
Weighted-average discount rate	11.8%

The costs related to our leases are as follows:

	Year ended December 31, 2019
Operating Lease:	
Operating lease costs	$ 7,460
Financing Lease:	
Amortization expense	2,129
Interest on lease liabilities	3,630
Total lease costs	$ 13,219

The Company's estimated minimum future lease obligations under our leases are as follows:

	Operating Leases	Financing Leases
Year ended December 31,		
2020	$ 7,768	$ 8,078
2021	6,340	6,775
2022	5,775	5,173
2023	4,486	3,686
2024	3,668	2,585
Thereafter	21,220	24,215
Total minimum lease payments	$ 49,257	$ 50,512
Less: interest	14,354	22,015
Present value of lease liabilities	$ 34,903	$ 28,497

Sale-Leaseback

During the first quarter of 2015, the Company entered into an agreement with an investor which gives the Company the option to sell and contemporaneously lease back solar PV projects. This agreement expired on June 30, 2018. Additionally, the Company sold and contemporaneously leased back one solar PV project to another investor, not a party to the master lease agreement, under a new agreement during the year ended December 31, 2017. During August 2018, the Company entered into an agreement with an investor which gives the Company the option to sell and contemporaneously lease back solar PV projects through August 2019 up to a maximum funding amount of $100,000. During the year ended December 31, 2018, the Company sold and contemporaneously leased back two solar PV projects. See below for a summary of solar PV project sales by fiscal year:

Year Ended	# Solar PV Projects Sold (actual #'s)	Sale Price	Deferred Gain Recorded	Deferred Loss Recorded	Financing Lease Asset/ Liability Recorded	Initial Lease Term (years)	Minimum Lease Payment	Maximum Lease Payment
Year-ended December 31, 2017	13	$ 51,204	$ 4,625	$ 1,204	$ 22,934	10-20	$ 4	$ 510
Year-ended December 31, 2018	2	$ 5,145	$ 574	$ —	$ 2,625	20	$ 3	$ 144

During the year ended December 31, 2019, the Company amended the August 2018 agreement with the investor to extend the end date of the agreement to November 24, 2019. During the year ended December 31, 2019, the Company sold three projects and in return received $13.7 million. In accordance with Topic 842, Leases, the 2019 transactions were accounted for as failed sales as the Company retains control of the underlying assets. The Company recorded the proceeds received from the transactions as long term financing facilities with interest rate ranging from 0% to 0.28%, as a result of tax credits which were transferred to the counterparty. See Note 9 for additional information on these finance facilities. As of December 31, 2019, approximately $81 million remained available under the lending commitment.

In January 2020, the Company amended the August 2018 agreement with the investor to extend the end date of the agreement to November 24, 2020 and increase the maximum funding amount up to $150 million.

A summary of amounts related to sale leasebacks in the Company's consolidated balance sheets is as follows:

	December 31, 2019	December 31, 2018
Financing lease assets, net	$ 36,134	$ 38,263
Deferred loss, short-term, net	115	115
Deferred loss, long-term, net	1,801	1,917
Total deferred loss	$ 1,916	$ 2,032
Financing lease liabilities, short-term	4,997	4,956
Financing lease liabilities, long-term	23,500	28,407
Total financing lease liabilities	$ 28,497	$ 33,363
Deferred gain, short-term, net	345	345
Deferred gain, long-term, net	5,463	5,808
Total deferred gain	$ 5,808	$ 6,153

Upon adoption of Topic 842, the Company elected to take the practical expedient and will not reassess lease classifications at adoption. Accordingly, these sales-leasebacks will remain under the previous guidance.

9. LONG-TERM DEBT

Long-term debt comprised the following:

	Commencement Date	Maturity Date	Acceleration Clause[2]	Rate as of December 31,	Balance as of December 31,	
				2019	2019	2018
Senior secured credit facility, interest at varying rates monthly in arrears	June 2015	June 2024	NA	4.270%	$112,216	$ 43,074
Variable rate term loan payable in semi-annual installments	January 2006	February 2021	Yes	4.158%	625	936
Variable rate term loan payable in semi-annual installments	January 2006	June 2024	Yes	3.908%	6,609	7,426
Term loan payable in quarterly installments	March 2011	March 2021	Yes	7.250%	831	1,464
Term loan payable in monthly installments.	October 2011	June 2028	NA	6.110%	3,649	3,843
Variable rate term loan payable in quarterly installments	October 2012	June 2020	NA	5.408%	28,217	30,674
Variable rate term loan payable in quarterly installments	September 2015	March 2023	NA	4.408%	15,976	17,208
Term loan payable in quarterly installments	August 2016	June 2031	NA	4.950%	3,769	3,925
Term loan payable in quarterly installments	March 2017	March 2028	NA	5.000%	3,521	3,945
Term loan payable in monthly installments.	April 2017	April 2027	NA	4.500%	22,553	22,081
Term loan payable in quarterly installments	April 2017	February 2034	NA	5.610%	2,706	2,735
Variable rate term loan payable in quarterly installments	June 2017	December 2027	NA	4.358%	11,740	12,915
Variable rate term loan payable in quarterly installments	February 2018	August 2022	Yes	9.408%	15,645	21,475
Term loan payable in quarterly installments	June 2018	December 2038	Yes	5.150%	28,583	30,069
Variable rate term loan payable in semi-annual installments	June 2018	June 2033	Yes	3.958%	9,003	9,668
Variable rate term loan payable in monthly/ quarterly installments	October 2018	October 2029	Yes	4.600%	9,092	9,072
Long term finance liability in semi-annual installments[3]	July 2019	July 2039	NA	0.280%	3,841	—
Long term finance liability in semi-annual installments[3]	November 2019	November 2039	NA	—%	8,794	—
Term loan payable in quarterly installments	December 2019	December 2021	Yes	6.500%	27,226	—
Financing leases[1]					28,497	33,363
					343,093	253,873
Less - current maturities					69,969	26,890
Less - deferred financing fees					6,943	7,821
Long-term debt					$266,181	$219,162

[1]Financing leases do not include approximately $22,015 in future interest payments

[2]These agreements have acceleration causes that, in the event of default, as defined, the payee has the option to accelerate payment terms and make due the remaining principal and the required interest balance according to the agreement

[3] These agreements are sale-leaseback arrangements that provides for the sale of solar PV projects to a third party investor and the simultaneous leaseback of the projects. In accordance with Topic 842, Leases, these transactions are accounted for as a failed sale as the Company retains control of the underlying assets and as such, are classified as financing liabilities. The low interest rates are the results of tax credits which were transferred to the coutnerparty.

Aggregate maturities of long-term debt for the years ended December 31, are as follows:

2020	$ 69,969
2021	36,930
2022	29,940
2023	32,719
2024	105,732
Thereafter	70,458
Debt Discount	(2,655)
	$ 343,093

Senior Secured Credit Facility - Revolver and Term Loan

On June 28, 2019, we entered into a fourth amended and restated bank credit facility with three banks. The new credit facility replaces and extends our existing credit facility, which was scheduled to expire on June 30, 2020. The amended revolving credit and term loan facility mature on June 28, 2024, when all amounts will be due and payable in full. The Company expects to use the new credit facility for general corporate purposes of the Company and its subsidiaries, including permitted acquisitions, refinancing of existing indebtedness and working capital. The amendment increased the aggregate amount of the revolving commitments from $85,000 to $115,000 through an extended June 28, 2024 maturity date, increased the term loan from $40,000 to $65,000 to reduce the outstanding revolving loan balance by the same amount and extend the maturity date from June 30, 2020 to June 28, 2024, and increased the total funded debt to EBITDA covenant ratio from a maximum of 3.00 to 3.25. The total commitment under the amended credit facility (revolving credit, term loan and swing line) is $185,000.

The credit facility consists of a $115,000 revolving credit facility and a $65,000 term loan. The revolving credit facility may be increased by up to an additional $25,000 at the Company's option if lenders are willing to provide such increased commitments, subject to certain conditions. Up to $20,000 of the revolving credit facility may be borrowed in Canadian dollars, Euros or pounds sterling. The Company is the sole borrower under the credit facility. The obligations under the credit facility are guaranteed by certain of the Company's direct and indirect wholly owned domestic subsidiaries and are secured by a pledge of all of the Company's and such subsidiary guarantors' assets, other than the equity interests of certain subsidiaries and assets held in non-core subsidiaries (as defined in the agreement). At December 31, 2019 and 2018, $62,563 and $41,500, excluding debt discounts, was outstanding under the term loan, respectively. At December 31, 2019 and 2018, $50,073 and $1,696, excluding debt discounts, was outstanding under the revolving credit facility, respectively. At December 31, 2019 funds of $29,144 were available for borrowing under the revolving credit facility. At December 31, 2019, the Company had $13,090 in letters of credit outstanding.

The interest rate for borrowings under the credit facility is based on, at the Company's option, either (1) a base rate equal to a margin of 0.5% or 0.25%, depending on the Company's ratio of total funded debt to EBITDA (as defined in the agreement), over the highest of (a) the federal funds effective rate, plus 0.50% , (b) Bank of America's prime rate and (c) a rate based on the London interbank deposit rate ("LIBOR") plus 1.50%, or (2) the one-, two- three- or six-month LIBOR plus a margin of 2.00% or 1.75%, depending on the Company's ratio of total funded debt to EBITDA, as defined. A commitment fee of 0.375% is payable quarterly on the undrawn portion of the revolving credit facility. At December 31, 2019, the interest rate for borrowings under the revolving credit facility was 4.70% and the weighted average interest rate for borrowings under the term loan was 3.99%.

The revolving credit facility does not require amortization of principal. The term loan requires quarterly principal payments of $1,219, with the balance due at maturity. All borrowings may be paid before maturity in whole or in part at the Company's option without penalty or premium, other than reimbursement of any breakage and deployment costs in the case of LIBOR borrowings.

The credit facility limits the Company's and its subsidiaries' ability to, among other things: incur additional indebtedness; incur liens or guarantee obligations; merge, liquidate or dispose of assets; make acquisitions or other investments; enter into

hedging agreements; pay dividends and make other distributions and engage in transactions with affiliates, except in the ordinary course of business on an arms' length basis.

Under the credit facility, the Company and its subsidiaries may not invest cash or property in, or loan to, the Company's non-core subsidiaries in aggregate amounts exceeding 49% of the Company's consolidated stockholders' equity. In addition, under the credit facility, the Company and its core subsidiaries must maintain the following financial covenants:

- a ratio of total funded debt to EBITDA, as defined, of less than 3.25 to 1.0 as of the end of each fiscal quarter ending June 28, 2024 and thereafter; and
- a debt service coverage ratio (as defined in the agreement) of at least 1.5 to 1.0.

Any failure to comply with the financial or other covenants of the credit facility would not only prevent the Company from being able to borrow additional funds, but would constitute a default, permitting the lenders to, among other things, accelerate the amounts outstanding, including all accrued interest and unpaid fees, under the credit facility, to terminate the credit facility, and enforce liens against the collateral.

The credit facility also includes several other customary events of default, including a change in control of the Company, permitting the lenders to accelerate the indebtedness, terminate the credit facility, and enforce liens against the collateral.

For purposes of the Company's senior secured facility: EBITDA, as defined, excludes the results of certain renewable energy projects that the Company owns and for which financing from others remains outstanding; total funded debt, as defined, includes amounts outstanding under both the term loan and revolver portions of the senior secured credit facility plus other indebtedness, but excludes non-recourse indebtedness of project company subsidiaries; and debt service, as defined, includes principal and interest payments on the indebtedness included in total funded debt other than principal payments on the revolver portion of the facility.

At December 31, 2019 funds of $29,144 are available for borrowing under the revolving credit facility.

July 2019 Long Term Finance Liability

In July 2019, the Company closed on one solar PV project under the Company's master lease agreement, as discussed in Note 8, with a twenty-year term. In accordance with Topic 842, Leases, this transaction was accounted for as a failed sale as the Company retains control of the underlying assets. The proceeds received from the transaction were recorded by the Company as a long term financing facility with an interest rate of 0.28%, as a result of tax credits which were transferred to the counterparty. The principal and interest payments are due in semi annual installments and the long term finance facility matures on July 16, 2039, with all remaining unpaid amounts outstanding under the agreement due at that time. At December 31, 2019, $3,841 was outstanding under the long term finance liability.

November 2019 Long Term Finance Liability

In November 2019, the Company closed on two solar PV projects under the Company's master lease agreement, as discussed in Note 8, with a twenty-year term. In accordance with Topic 842, Leases, this transaction was accounted for as a failed sale as the Company retains control of the underlying assets. The proceeds received from the transaction were recorded by the Company as a long term financing facility with an interest rate of 0.00%, as a result of tax credits which were transferred to the counterparty. The principal and interest payments are due in semi annual installments and the long term finance facility matures on November 8, 2039, with all remaining unpaid amounts outstanding under the agreement due at that time. At December 31, 2019, $8,794 was outstanding under the long term finance liability.

December 2019 Term Loan

In December 2019, the Company entered into a loan agreement at a fixed rate of 6.5% for gross proceeds of $27,473, for use in providing non-recourse financing for purchase of solar PV modules. Principal and interest amounts are due in quarterly installments beginning in March 2020. The term loan matures on December 31, 2021. At December 31, 2019, $26,970 was outstanding under the term loan, net of debt discounts and deferred financing fees.

10. INCOME TAXES

The components of income before income taxes are as follows:

	Year Ended December 31,		
	2019	2018	2017
Domestic	$ 34,700	$ 46,542	$ 29,792
Foreign	1,853	(4,152)	(1,075)
Income before (benefit) provision for income taxes	$ 36,553	$ 42,390	$ 28,717

The components of the (benefit) provision for income taxes are as follows:

	Year Ended December 31,		
	2019	2018	2017
Current:			
Federal	$ 109	$ (1,888)	$ (1,055)
State	474	1,176	671
Foreign	(1)	30	161
	582	(682)	(223)
Deferred:			
Federal	(4,794)	2,662	(6,683)
State	202	2,530	1,853
Foreign	262	303	262
	$ (4,330)	$ 5,495	$ (4,568)
	$ (3,748)	$ 4,813	$ (4,791)

The Company's deferred tax assets and liabilities result primarily from temporary differences between financial reporting and tax recognition of depreciation, energy efficiency and NOL carryforwards.

Deferred tax assets and liabilities consist of the following:

	December 31,	
	2019	2018
Deferred tax assets:		
Compensation accruals	$ 1,745	$ 3,489
Reserves	2,739	2,940
Other	9,398	127
Net operating losses	14,355	10,010
Interest rate swaps	1,604	666
Energy efficiency	35,939	28,911
Interest limitation	5,148	3,292
Deferred revenue	1,635	1,943
Gross deferred income tax assets	72,563	51,378
Valuation allowance	(8,583)	(7,931)
Total deferred income tax assets	$ 63,980	$ 43,447
Deferred tax liabilities:		
Depreciation	$ (51,579)	$ (37,107)
Deferred effect of derivative liability and ASU 2016-09 adoption	(328)	(475)
Canadian capital cost, allowance and amortization	(2,919)	(1,974)
United Kingdom goodwill amortization	(781)	(755)
Outside basis difference	(8,488)	(7,488)
Total deferred income tax liabilities	(64,095)	(47,799)
Deferred income tax liabilities, net	$ (115)	$ (4,352)

The Company recorded a valuation allowance in the amount of $8,583 and $7,931 as of December 31, 2019 and 2018, respectively, related to the following items: 1) The Company recorded a valuation allowance on a deferred tax asset relating to interest rate swaps in the amount of $122 and $184 as of December 31, 2019 and 2018, respectively. The deferred tax asset represents a future capital loss which can only be recognized for income tax purposes to the extent of capital gain income. Although the Company anticipates sufficient future taxable income, it is more likely than not that it will not be of the appropriate character to allow for the recognition of the future capital loss. 2) As of December 31, 2019 and 2018, the Company recorded a valuation allowance on a deferred tax asset relating to a foreign net operating loss in the amount of $8,169 and $7,500, respectively. It is more likely than not that the Company will not generate sufficient taxable income at the foreign subsidiary level to utilize the net operating loss. 3) The Company recorded a valuation allowance on a deferred tax asset relating to a state net operating loss of $292 and $247 at one of its subsidiaries as of December 31, 2019 and 2018, respectively. It is more likely than not that the Company will not generate sufficient taxable income at the subsidiary level to utilize the net operating loss.

The provision for income taxes is based on the various rates set by federal and local authorities and is affected by permanent and temporary differences between financial accounting and tax reporting requirements.

The principal reasons for the difference between the statutory rate and the estimated annual effective rate for 2019 related to the Company's recognizing a tax benefit of approximately $29.7 million associated with energy related credits and deductions available under the U.S. Tax Code for 2019 as well as a deduction available under Section 179D of the Tax Code for 2019 and 2018. In December 2019, the Code Section 179D Commercial Buildings Energy Efficiency Tax Deduction was retroactively extended for 2018 and 2019, and through the end of 2020. Because of the timing of the extension the impact of the 2018 Section 179D deduction was not reflected in the 2018 tax provision but was instead reflected in 2019.

The following is a reconciliation of the effective tax rates:

	Year Ended December 31,		
	2019	2018	2017
Income before (benefit) provision for income taxes	$ 36,553	$ 42,390	$ 28,717
Federal statutory tax expense	$ 7,676	$ 8,902	$ 10,048
State income taxes, net of federal benefit	2,140	3,071	1,584
Net state impact of deferred rate change	(53)	174	327
Non deductible expenses	150	982	1,473
Impact of reserve for uncertain tax positions	(925)	879	42
Stock-based compensation expense	(169)	(441)	116
Energy efficiency preferences	(12,699)	(8,636)	(6,416)
Foreign items and rate differential	56	(41)	139
Redeemable non-controlling interests	1,101	70	1,579
Tax rate change	—	—	(13,948)
Valuation allowance	205	641	424
Miscellaneous	(1,230)	(788)	(159)
	$ (3,748)	$ 4,813	$ (4,791)
Effective tax rate:			
Federal statutory rate expense	21.0 %	21.0 %	35.0 %
State income taxes, net of federal benefit	5.9 %	7.2 %	5.5 %
Net state impact of deferred rate change	(0.1)%	0.4 %	1.1 %
Non deductible expenses	0.4 %	2.3 %	5.1 %
Impact of reserve for uncertain tax positions	(2.5)%	2.1 %	0.1 %
Stock-based compensation expense	(0.5)%	(1.0)%	0.4 %
Energy efficiency preferences	(34.7)%	(20.4)%	(22.3)%
Foreign items and rate differential	0.2 %	(0.1)%	0.5 %
Redeemable non-controlling interests	3.0 %	0.2 %	5.5 %
Tax rate change	— %	— %	(48.6)%
Valuation allowance	0.6 %	1.5 %	1.5 %
Miscellaneous	(3.6)%	(1.8)%	(0.5)%
	(10.3)%	11.4 %	(16.7)%

A reconciliation of the beginning and ending balances of the total amounts of gross unrecognized tax benefits is as follows:

	Year Ended December 31,	
	2019	2018
Balance, beginning of year	$ 1,600	$ 600
Additions for current year tax positions	—	300
Additions for prior year tax positions	—	900
Settlements paid to tax authorities	—	—
Reductions of prior year tax positions	(1,200)	(200)
Balance, end of year	$ 400	$ 1,600

At December 31, 2019 and 2018, the Company had approximately $400 and $1,600, respectively, of total gross unrecognized tax benefits.

Of the total gross unrecognized tax benefits as of December 31, 2019 and 2018, $80 and $705, respectively, (both net of the federal benefit on state amounts) represent the amount of unrecognized tax benefits that, if recognized, would favorably affect the effective income tax rate in any future periods.

At December 31, 2019 the Company had a federal net operating loss carryforwards of approximately $34,090 which has an indefinite life, state net operating loss carryforwards of approximately $45,260, which will expire from 2018 through 2034 and an interest deduction carryforward of approximately $19,659 which has an indefinite life. At December 31, 2019 the Company had Canadian net operating loss carryforwards of approximately $25,939, which will expire for tax years 2018 through 2028.

The Company does not accrue U.S. tax for foreign earnings that it considers to be permanently reinvested outside the United States. Consequently, the Company has not provided any withholding tax on the unremitted earnings of its foreign subsidiaries. As of December 31, 2019, the amount of earnings for which no repatriation tax has been provided is estimated to be $0.

At December 31, 2019 the company had a federal tax credit carryforward of approximately $35,024 which will expire at various times through 2039.

The tax years 2015 through 2019 remain open to examination by major taxing jurisdictions. The Company accounts for interest and penalties related to uncertain tax positions as part of its provision for federal and state income taxes. The (decrease) increase included in tax expense for the years end December 31, 2019, 2018 and 2017 was $19, $(50) and $60, respectively.

11. INVESTMENT FUNDS

In each of September 2015, June 2017, June 2018, October 2018, and December 2019 the Company formed an investment fund with third party investors which granted the applicable investor ownership interests in the net assets of certain of the Company's renewable energy project subsidiaries. The Company currently has five such investment funds each with a different third party investor.

The Company consolidates the investment funds, and all inter-company balances and transactions between the Company and the investment funds are eliminated in its consolidated financial statements. The Company determined that the investment funds meet the definition of a VIE. The Company uses a qualitative approach in assessing the consolidation requirement for VIEs that focuses on determining whether the Company has the power to direct the activities of the VIE that most significantly affect the VIE's economic performance and whether the Company has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE.

The Company has considered the provisions within the contractual arrangements that grant it power to manage and make decisions that affect the operation of these VIEs, including determining the solar energy systems and associated long term customer contracts to be sold or contributed to the VIEs, and installation, operation and maintenance of the solar energy systems. The Company considers that the rights granted to the other investors under the contractual arrangements are more protective in nature rather than participating rights. As such, the Company has determined it is the primary beneficiary of the VIEs for all periods presented. The Company evaluates its relationships with VIEs on an ongoing basis to ensure that it continues to be the primary beneficiary.

Under the related agreements, cash distributions of income and other receipts by the funds, net of agreed-upon expenses and estimated expenses, tax benefits and detriments of income and loss, and tax benefits of tax credits, are assigned to the funds' investor and Company's subsidiaries as specified in contractual arrangements. Certain of these arrangements have call and put options to acquire the investor's equity interest as specified in the contractual agreements. See Note 12 for additional information on the call and put options.

A summary of amounts related to the investment funds in the Company's consolidated balance sheets for the years ending December 31, 2019 and 2018 is as follows:

	2019[1]	2018[1]
Cash	$ 4,666	$ 1,255
Restricted cash	586	156
Accounts receivable	532	374
Costs and estimated earnings in excess of billings	1,125	498
Prepaid expenses and other current assets	108	190
Property and equipment, net	1,266	—
Energy assets, net	142,456	122,641
Operating lease asset	6,511	—
Other assets	1,662	1,613
Accounts payable	2,006	234
Accrued liabilities	2,203	4,146
Current lease liabilities	102	—
Current portions of long-term	2,252	1,712
Long-term debt, net of deferred financing costs	24,654	26,461
Long-term lease liabilities	6,180	—
Other long-term liabilities	1,171	2,131

[1]The amounts in the above table are reflected in parenthetical references on the Company's consolidated balance sheets. See the Company's consolidated balance sheets for additional information.

Other Variable Interest Entities

The Company executes certain contracts jointly with third parties through various forms of joint ventures. Although the joint ventures own and hold the contracts with the clients, the services required by the contracts are typically performed by the Company and the Company's joint venture partners, or by other subcontractors under subcontracting agreements with the joint ventures. Many of these joint ventures are formed for a specific project. The assets of the Company's joint ventures generally consist almost entirely of cash and land, and the liabilities of our joint ventures generally consist almost entirely of amounts due to the joint venture partners.

The Company follows guidance on the consolidation of VIEs that requires companies to utilize a qualitative approach to determine whether it is the primary beneficiary of a VIE. The process for identifying the primary beneficiary of a VIE requires consideration of the factors that indicate a party has the power to direct the activities that most significantly impact the joint ventures economic performance, including powers granted to the joint ventures program manager, powers contained in the joint venture governing board and, to a certain extent, a company's economic interest in the joint venture. The Company analyzes its joint ventures and classifies them as either:

- a VIE that must be consolidated because the Company is the primary beneficiary or the joint venture is not a VIE and the Company holds the majority voting interest with no significant participative rights available to the other partners; or
- a VIE that does not require consolidation and is treated as an equity method investment because the Company is not the primary beneficiary or the joint venture is not a VIE and the Company does not hold the majority voting interest.

Many of the joint ventures are deemed to be VIEs because they lack sufficient equity to finance the activities of the joint venture.

In January 2019, the Company entered into a joint venture with one other party to co-own an entity whose purpose is owning and leasing a parcel of land and attached structures to third-party entities. The joint venture has no employees and is controlled by the board of directors made up of representatives from both companies. Prior to January 2019, the Company had determined it was the primary beneficiary of the VIE and fully consolidated the entity. Upon the formation of the joint venture, the Company determined it was no longer the primary beneficiary, based on the assessment of considerations referenced above, and deconsolidated the VIE and recorded the Company's investment in the joint venture as an equity method investment. With the deconsolidation of the VIE and the recognition of the equity method investment the Company recognized a gain of $2,160

in operating income and recorded an equity method investment of $1,361 in other assets. In addition, the Company has loaned the joint venture $1,506 and made an initial contribution at its formation in exchange for 50% of the shares in the joint venture.

Unconsolidated joint ventures are accounted for under the equity method. For those joint ventures, the Company's investment balances for the joint venture are included in other assets on the consolidated balance sheets and the Company’s pro rata share of net income or loss is included in operating income. The Company’s investments in equity method joint ventures on the consolidated balance sheets as of December 31, 2019 and 2018 was a net asset of $1,292 and $0, respectively. During the years ended December 31, 2019 and 2018, the Company recognized expense of $183 and $0, respectively, from equity method joint ventures.

12. NON-CONTROLLING INTERESTS AND EQUITY

Redeemable Non-controlling Interest

The Company’s wholly owned subsidiary with a membership interest in the investment fund formed in the third quarter of 2015 has the right, beginning on the fifth anniversary of the final funding of the variable rate construction and term loans due 2023 and extending for six months, to elect to require the non-controlling interest holder to sell all of its membership units to the Company’s wholly owned subsidiary, a call option. The Company’s investment fund, which was formed in the third quarter of 2015, also includes a right, beginning on the sixth anniversary of the final funding and extending for one year, for the non-controlling interest holder to elect to require the Company’s wholly owned subsidiary to purchase all of its membership interests in the fund, a put option.

The Company’s wholly owned subsidiary with a membership interest in the investment fund formed in the second quarter of 2017 has the right, beginning on the fifth anniversary of the final funding of the non-controlling interest holder and extending for six months, to elect to require the non-controlling interest holder to sell all of its membership units to the Company’s wholly owned subsidiary, a call option. The Company’s investment fund formed in the second quarter of 2017 also includes a right, beginning on the sixth anniversary of the final funding and extending for one year, for the non-controlling interest holder to elect to require the Company’s wholly owned subsidiary to purchase all of its membership interests in the fund, a put option.

The Company’s wholly owned subsidiary with a membership interest in the investment fund formed in the second quarter of 2018 has the right, beginning on the fifth anniversary of the investment fund’s final project being placed into service and extending for six months, to elect to require the non-controlling interest holder to sell all of its membership units to the Company’s wholly owned subsidiary, a call option. The Company’s investment fund formed in the second quarter of 2018 also includes a right, upon the expiration of the call option and extending for six months, for the non-controlling interest holder to elect to require the Company’s wholly owned subsidiary to purchase all of its membership interests in the fund, a put option.

The Company’s wholly owned subsidiary with a membership interest in the investment fund formed in the fourth quarter of 2018 has the right, beginning on the fifth anniversary on the last projects placed in-service date and extending for six months, to elect to require the non-controlling interest holder to sell all of its membership units to the Company’s wholly owned subsidiary, a call option. The Company’s investment fund formed in the fourth quarter of 2018 also includes a right, upon the expiration of the call option and extending for six months, for the non-controlling interest partner to elect to require the Company’s wholly owned subsidiary to purchase all of its membership interests in the fund, a put option.

The Company’s wholly owned subsidiary with a membership interest in the investment fund formed in the fourth quarter of 2019 has the right, beginning on the fifth anniversary on the last projects placed in-service date and extending for six months, to elect to require the non-controlling interest holder to sell all of its membership units to the Company’s wholly owned subsidiary, a call option. The Company’s investment fund formed in the fourth quarter of 2019 also includes a right, beginning six months after the fifth anniversary of the final funding and extending for one year, for the non-controlling interest partner to elect to require the Company’s wholly owned subsidiary to purchase all of its membership interests in the fund, a put option.

The purchase price for two of the investment funds investors’ interests under the call options is equal to the fair market value of such interest at the time the option is exercised. The purchase price for two of the investment funds investor’s interests under the call options is equal to the greater of (i) the fair market value of such interests at the time the option is exercised or (ii) 7% of the investors’ contributed capital balance at the time the option is exercisable. The purchase price for the remaining investment fund investor’s interests under the call options is equal to the greater of (i) the fair market value of such interests at the time the option is exercised or (ii) 5% of the investors’ contributed capital balance at the time the option is exercisable.The

call options are exercisable beginning on the date that specified conditions are met for each respective fund. None of the call options are expected to become exercisable prior to 2021.

The purchase price for two of the funds investors' interests in the investment funds under the put options is the lessor of fair market value at the time the option is exercised and a specified amount, ranging from $659 - $917. The purchase price for the two remaining funds investors' interest in the investment funds under the put options is the sum of (i) the fair market value at the time the option is exercised, and (ii) the closing costs incurred by the investor in connection with the exercise of the put option. The purchase price for the remaining fund investors' interest in the investment funds under the put options is the lessor of fair market value at the time the option is exercised and the sum of (i) 5% of the investors' contributed capital balance at the time the option is exercisable, and (ii) the fair market value of any unpaid tax law change losses incurred by the investor in connection with the exercise of the put option. The put options for the investment funds are exercisable beginning on the date that specified conditions are met for each respective fund. The put options are not expected to become exercisable prior to 2022.

Because the put options represents redemption features that are not solely within the control of the Company, the non-controlling interests in these funds are presented outside of permanent equity. Redeemable non-controlling interests are reported using the greater of their carrying value at each reporting date (which is impacted by attribution under the HLBV method) or their estimated redemption value in each reporting period. At both December 31, 2019 and 2018, redeemable non-controlling interests were reported in the accompanying consolidated balance sheets at their carrying value of $31,616 and $14,719, respectively, as the carrying value at each reporting period was greater than the estimated redemption value.

13. STOCK INCENTIVE PLAN

Common and Preferred Stock

The Company has authorized 500,000 shares of Class A common stock, par value $0.0001 per share, 144,000 shares of Class B common stock, par value $0.0001 per share, and 5,000 shares of Preferred Stock, par value $0.0001 per share. The rights of the holders of the Company's Class A common stock and Class B common stock are identical, except with respect to voting and conversion. Each share of the Company's Class A common stock is entitled to one vote per share and is not convertible into any other shares of the Company's capital stock. Each share of the Company's Class B common stock is entitled to five votes per share, is convertible at any time into one share of Class A common stock at the option of the holder of such share and will automatically convert into one share of Class A common stock upon the occurrence of certain specified events, including a transfer of such shares (other than to such holder's family members, descendants or certain affiliated persons or entities). The Company's Board of Directors is authorized to fix the rights and terms for any series of preferred stock without additional shareholder approval.

In 2000, the Company's Board of Directors approved the Company's 2000 Stock Incentive Plan (the "2000 Plan") and between 2000 and 2010 authorized the Company to reserve a total of 28,500 shares of its then authorized common stock, par value $0.0001 per share ("Common Stock") for issuance under the 2000 Plan. The 2000 Plan provided for the issuance of restricted stock grants, incentive stock options and nonqualified stock options. The Company will grant no further stock options or restricted awards under the 2000 Plan.

The Company's 2010 Stock Incentive Plan (the "2010 Plan"), was adopted by the Company's Board of Directors in May 2010 and approved by its stockholders in June 2010. The 2010 Plan provides for the grant of incentive stock options, non-statutory stock options, performance-based stock options, restricted stock awards and other stock-based awards. Upon its effectiveness, 10,000 shares of the Company's Class A common stock were reserved for issuance under the 2010 Plan. As of December 31, 2019, the Company had granted options to purchase 5,217 shares of Class A common stock under the 2010 Plan.

The Company's 2017 Employee Stock Purchase Plan ("ESPP") permits eligible employees to purchase up to an aggregate of 200 shares of the Company's Class A common stock. This plan commenced December 1, 2017 and was most recently amended on August 2018. The ESPP allows participants to purchase shares of common stock at a 5% discount from the fair market value of the stock as determined on specific dates at six-month intervals. During the years ended December 31, 2019 and 2018, the Company issued 49 and 51 shares, respectively, under the ESPP. As of December 31, 2019, the amount that had been withheld from employees for future purchases under the ESPP is $0.1 million. As of December 31, 2018, the amount that had been withheld from employees for future purchases under the ESPP was immaterial.

Stock Option Grants

The Company has granted stock options to certain employees and directors, including its principal and controlling stockholder, under the 2000 Plan. The Company has also granted stock options to certain employees and directors under the 2010 Plan. At December 31, 2019, 5,717 shares were available for grant under the 2010 Plan.

The following table summarizes the collective activity under the 2000 Plan and the 2010 Plan:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2016	3,971	7.300		
Granted[1]	390	6.061		
Exercised	(401)	4.935		
Forfeited	(41)	6.421		
Expired	(85)	10.157		
Outstanding at December 31, 2017	3,834	7.367		
Granted[1]	518	10.878		
Exercised	(909)	7.367		
Forfeited	(87)	4.726		
Expired	(51)	9.146		
Outstanding at December 31, 2018	3,305	8.050		
Granted[1]	1,330	14.026		
Exercised	(916)	7.362		
Forfeited	(210)	8.070		
Expired	(4)	9.904		
Outstanding at December 31, 2019	3,505	$ 10.524	6.60	$ 24,455
Options exercisable at December 31, 2019	1,528	$ 8.757	4.01	$ 13,356
Expected to vest at December 31, 2019	1,977	$ 11.889	8.76	$ 11,098

(1) Grants are related to the 2010 Plan.

The aggregate intrinsic value of stock options exercised during the years ended December 31, 2019, 2018 and 2017 was $7,154, $5,588 and $808, respectively.

During the year ended December 31, 2019, a total of 916 shares were issued upon the exercise of options under the 2000 and 2010 Plan at an average price of 7.362 per share. Cash received from option exercises under all stock-based payment arrangements, net, for the years ended December 31, 2019, 2018 and 2017 was $6,742, $6,696 and $1,977, respectively.

Stock options issued under our 2000 Plan generally expire if not exercised within ten years after the grant date. Under the terms of our 2010 stock incentive plan, all options expire if not exercised within ten years after the grant date. During 2011, the Company began awarding options which typically vest over a five year period on an annual ratable basis. From time to time, the Company awards options providing for vesting over three years, with one-third vesting on each of the first three anniversaries of the grant date. During the year ending December 31, 2019, the Company granted 1,000 common stock options to certain employees and directors under its 2010 Stock Incentive Plan, which have a contractual life of ten years and vest based upon the achievement of specific performance goals over a three years. If the employee ceases to be employed by the Company for any reason before vested options have been exercised, the employee has 90 days to exercise options that have vested as of the date of such employee's termination or they are forfeited.

During August and September 2019, the Company's Chief Executive Officer ("CEO"), who is also a significant shareholder of the Company, exercised a nonqualified option to purchase 600 shares of the Company's Class A common stock. Due to an administrative oversight, in November 2019, the Company paid the required withholding taxes of $2,292 to the

Internal Revenue Service on the compensation element resulting from such exercise without a corresponding withholding from the CEO. Accordingly, the Company recorded a reimbursement due from the CEO as of December 31, 2019 of $2,292, which has been included in prepaid expenses and other current assets in the accompanying balance sheet. In January 2020, the Company received payment in full from the CEO.

The Company uses the Black-Scholes option pricing model to determine the weighted-average fair value of options granted. The Company will recognize the compensation cost of stock-based awards on a straight-line basis over the vesting period of the award.

The determination of the fair value of stock-based payment awards utilizing the Black-Scholes model is affected by the stock price and a number of assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. The following table sets forth the significant assumptions used in the model during 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Expected dividend yield	—%	—%	—%
Risk-free interest rate	1.60%-2.39%	2.71%-3.00%	1.96%-2.36%
Expected volatility	43%-44%	43%-45%	46%
Expected life	6.5 years	6.5 years	6.5 years

The Company will continue to use judgment in evaluating the expected term and volatility related to the stock-based compensation on a prospective basis, and incorporating these factors into the Black-Scholes pricing model. The Company records forfeitures as they occur. Higher volatility and longer expected lives result in an increase to stock-based compensation expense determined at the date of grant.

The weighted-average fair value of stock options granted during the years ended December 31, 2019, 2018 and 2017, under the Black-Scholes option pricing model was $6.33, $5.20 and $2.93, respectively, per share. For the years ended December 31, 2019, 2018 and 2017, the Company recorded stock-based compensation expense of approximately $1,620, $1,258, and $1,293, respectively, in connection with stock-based payment awards and including expense in connection with the ESPP. The compensation expense is categorized as a portion of selling, general and administrative expenses in the accompanying consolidated statements of income. As of December 31, 2019, there was approximately $9,486 of unrecognized compensation expense related to non-vested stock option awards that is expected to be recognized over a weighted-average period of 2.7 years.

14. EMPLOYEE BENEFITS

The Company has salary reduction/profit sharing plans under the provisions of Section 401(k) of the Internal Revenue Code. The plans cover all employees who have completed the minimum service requirement, as defined by the plans. The plans require the Company to contribute 100% of the first six percent of base compensation that a participant contributes to the plans. Matching contributions made by the Company were $5,452, $4,957, and $3,832 for the years ended December 31, 2019, 2018 and 2017, respectively.

The Company has a Group Personal Pension Plan (GPPP) for employees in the U.K., established in 2016, whereby eligible employees may contribute a portion of their compensation, subject to their age and other limitations established by HM Revenue & Customs. The plan requires the Company to contribute 100% of the first six percent of base compensation that a participant contributes to the plans. Matching contributions made by the Company were $190, $161, and $344 for the years ended December 31, 2019, 2018 and 2017, respectively.

The Company has a Registered Retirement Savings Plan (RRSP) for employees in Canada, whereby eligible employees may contribute a portion of their compensation. The plan requires the Company to contribute 100% of the first six percent of base compensation that a participant contributes to the plans. Matching contributions made by the Company were $356, $351, and $774 for the years ended December 31, 2019, 2018 and 2017, respectively.

15. COMMITMENTS AND CONTINGENCIES

The Company from time to time issues letters of credit and performance bonds, with their third-party lenders, to provide collateral.

The Company has future lease commitments which do not yet meet the criteria of a ROU asset or ROU liability as of December 31, 2019, for certain business offices. These commitments total $721 as of December 31, 2019 and relate to payments through 2026.

Legal Proceedings

The Company also is involved in a variety of claims and other legal proceedings generally incidental to its normal business activities. While the outcome of any of these proceedings cannot be accurately predicted, the Company does not believe the ultimate resolution of any of these existing matters would have a material adverse effect on its financial condition or results of operations.

Commitments as a Result of Acquisitions

In May 2018, the Company completed an acquisition which provided for a $425 cash consideration holdback contingent upon the Company collecting certain acquired receivables, which was subsequently reduced to $0 as of December 31, 2019 in connection with the measurement period adjustment discussed in Note 5.

In August 2018, the Company completed an acquisition which provided for a revenue earn-out contingent upon the acquired business meeting certain cumulative revenue targets over the next five years. The Company evaluated financial forecasts of the acquired business and concluded that the fair value of this earn-out was approximately $555 upon acquisition. The fair value was $599 as of December 31, 2018 and $678 as of December 31, 2019, and is recorded in the other liabilities on the consolidated balance sheets. The contingent consideration will be paid yearly, commencing in 2021, if any of the cumulative revenue targets are achieved and the fair value of the earn-out will be periodically re-evaluated and adjustments will be recorded as needed. See Notes 4 and 18 for additional information.

In November 2018, the Company completed an asset acquisition of certain lease options, which provided for a payout if the lease option is exercised and if certain financial metrics are achieved. The Company evaluated the the acquired lease options and concluded that the fair-value of this contingent liability was approximately $363 as of December 31, 2018, which was subsequently increased to $378 as of December 31, 2019 and is recorded in accrued expenses and other current liabilities and other liabilities on the consolidated balance sheets. Payments will be made when milestones are achieved. The contingent liability will be periodically re-evaluated and adjustments will be recorded as needed. See Note 18 for additional information.

16. GEOGRAPHIC INFORMATION

The Company attributes revenues to customers based on the location of the customer. Information as to the Company's operations in different geographical areas is as follows:

	December 31,	
	2019	2018
Long-lived assets:		
United States	$ 564,047	$ 443,385
Canada	24,684	22,107
Other	834	1,445
Total long-lived assets	$ 589,565	$ 466,937

	Year Ended December 31,		
	2019	2018	2017
Revenues:			
United States	$ 815,405	$ 734,748	$ 665,793
Canada	35,031	36,728	42,186
Other	16,497	15,662	9,173
Total revenues	$ 866,933	$ 787,138	$ 717,152

17. OTHER EXPENSES, NET

The components of other expenses, net, are as follows:

	Year Ended December 31,		
	2019	2018	2017
Gain on derivatives	$ (1,068)	$ (121)	$ (271)
Interest expense, net of interest income	13,841	13,132	8,086
Amortization of deferred financing fees, net	2,229	1,894	1,350
Foreign currency transaction (gain) loss	59	1,804	(1,294)
Other expenses, net	$ 15,061	$ 16,709	$ 7,871

Estimated amortization expense for existing deferred financing fees for the next five succeeding fiscal years is as follows:

	Estimated Amortization
2020	1,484
2021	1,083
2022	881
2023	674
2024	532

18. FAIR VALUE MEASUREMENT

The Company recognizes its financial assets and liabilities at fair value on a recurring basis (at least annually). Fair value is defined as the price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Three levels of inputs that may be used to measure fair value are as follows:

Level 1: Inputs are based upon unadjusted quoted prices for identical instruments traded in active markets.

Level 2: Inputs are based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Inputs are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. The fair values are therefore determined using model-based techniques that include option pricing models, discounted cash flow models, and similar techniques.

The following table presents the input level used to determine the fair values of the Company's financial instruments measured at fair value on a recurring basis:

		Fair Value as of December 31,	
	Level	2019	2018
Assets:			
Interest rate swap instruments	2	$ 15	$ 733
Commodity swap instruments	2	198	33
Total assets		$ 213	$ 766
Liabilities:			
Interest rate swap instruments	2	$ 6,236	3,187
Commodity swap instruments	2	—	70
Interest make-whole provisions	2	918	1,808
Contingent consideration liabilities	3	678	599
Total liabilities		$ 7,832	$ 5,664

The fair value of the Company's interest rate swaps was determined using cash flow analysis on the expected cash flow of the contract in combination with observable market-based inputs, including interest rate curves and implied volatilities. As part of this valuation, the Company considered the credit ratings of the counterparties to the interest rate swaps to determine if a credit risk adjustment was required.

The fair value of the Company's commodity swaps was determined using a cash flow analysis on the expected cash flow of the contract in combination with observable forward price inputs obtained from a third-party pricing source. As part of this valuation, the Company considered the credit ratings of the counterparties to the commodity swaps to determine if a credit risk adjustment was required.

The fair value of the Company's make-whole provisions were determined by comparing them against the rates of similar debt instruments under similar terms without a make-whole provision obtained from various highly rated third-party pricing sources.

The fair value of the Company's contingent consideration liabilities were determined by evaluating the acquired asset's future financial forecasts and evaluating which, if any, of the cumulative revenue targets, financial metrics and/or milestones are likely to be met. The Company has classified contingent consideration related to certain acquisitions within Level 3 of the fair value hierarchy because the fair value is derived using significant unobservable inputs, which include discount rates and probability-weighted cash flows. The Company determined the fair value of its contingent consideration obligations based on a probability-weighted income approach derived from financial performance estimates and probability assessments of the attainment of certain targets. The Company establishes discount rates to be utilized in its valuation models based on the cost to borrow that would be required by a market participant for similar instruments. In determining the probability of attaining certain technical, financial and operation targets, the Company utilizes data regarding similar milestone events from our own experience, while considering the inherent difficulties and uncertainties in developing a product. On a quarterly basis, the Company reassesses the probability factors associated with the financial, operational and technical targets for its contingent consideration obligations. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period.

The key assumptions as of December 31, 2019, related to the contingent consideration from the acquisition of certain assets of Chelsea Group Limited, used in the model include a discount rate of 18% for purposes of discounting the low and base case scenarios associated with achievement of the financial based earn-out. The probabilities assigned to these scenarios were 50% for both the low and base case scenarios. An increase or decrease in the probability of achievement of any scenario could result in a significant increase or decrease to the estimated fair value of the contingent consideration liability.

The following table sets forth a summary of changes in fair value of contingent liabilities classified as Level 3 for the year ended December 31, 2019 and 2018:

	Year Ended	
	December 31, 2019	December 31, 2018
Contingent consideration liabilities balance at the beginning of year	$ 599	$ —
Contingent consideration issued in connection with acquisitions	—	555
Loss on change in fair value	79	44
Contingent consideration liabilities balance at the end of year	$ 678	$ 599

The fair value of financial instruments is determined by reference to observable market data and other valuation techniques, as appropriate. The only category of financial instruments where the difference between fair value and recorded book value is notable is long-term debt. At December 31, 2019 and 2018, the fair value of the Company's long-term debt was estimated using discounted cash flows analysis, based on the Company's current incremental borrowing rates for similar types of borrowing arrangements which are considered to be level two inputs. There have been no transfers in or out of level two or three for the years ended December 31, 2019 and 2018. Based on the analysis performed, the fair value and the carrying value of the Company's long-term debt, excluding financing leases, are as follows:

	December 31, 2019		December 31, 2018	
	Fair Value	Carrying Value	Fair Value	Carrying Value
Long-term debt value (Level 2)	$ 309,377	$ 307,508	$ 211,823	$ 212,687

The Company is also required periodically to measure certain other assets at fair value on a nonrecurring basis, including long-lived assets, goodwill and other intangible assets. The Company determined the fair value used in its annual goodwill impairment analysis with its own discounted cash flow analysis. The Company has determined the inputs used in such analysis as Level 3 inputs. There were no assets recorded at fair value on a non-recurring basis at December 31, 2019 or 2018.

19. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

At December 31, 2019 and 2018, the following table presents information about the fair value amounts of the Company's derivative instruments:

	Derivatives as of December 31,			
	2019		2018	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives Designated as Hedging Instruments:				
Interest rate swap contracts	Other assets	$ 15	Other assets	$ 703
Interest rate swap contracts	Other liabilities	$ 6,210	Other liabilities	$ 3,187
Derivatives Not Designated as Hedging Instruments:				
Interest rate swap contracts	Other assets	$ —	Other assets	$ 30
Commodity swap contracts	Other assets	$ 198	Other assets	$ 33
Interest rate swap contracts	Other liabilities	$ 26	Other liabilities	$ —
Commodity swap contracts	Other liabilities	$ —	Other liabilities	$ 70
Interest make-whole provisions	Other liabilities	$ 918	Other liabilities	$ 1,808

All but three of the Company's freestanding derivatives were designated as hedging instruments as of December 31, 2019 and all but four of the Company's derivatives were designated as hedging instruments as of December 31, 2018.

The following tables present information about the effects of the Company's derivative instruments on the consolidated statements of income and consolidated statements of comprehensive income:

	Location of (Gain) Loss Recognized in Net Income	Amount of (Gain) Loss Recognized in Net Income for the Year Ended December 31,		
		2019	2018	2017
Derivatives Designated as Hedging Instruments:				
Interest rate swap contracts	Other expenses, net	$ 71	$ (196)	$ (271)
Derivatives Not Designated as Hedging Instruments:				
Interest rate swap contracts	Other expenses, net	$ 56	$ (308)	$ —
Commodity swap contracts	Other expenses, net	$ (234)	$ 36	$ —
Interest make-whole provisions	Other expenses, net	$ (890)	$ 337	$ —

	Year Ended December 31, 2019
Derivatives Designated as Hedging Instruments:	
Accumulated loss in AOCI at the beginning of the period	$ (1,824)
Cumulative impact from the adoption of ASU No. 2018-02	(217)
Unrealized loss recognized in AOCI	(2,630)
Gain reclassified from AOCI to other expenses, net	(71)
Accumulated loss in AOCI at the end of the period	$ (4,742)

In March 2010, the Company entered into a fourteen-year interest rate swap contract under which the Company agreed to pay an amount equal to a specified fixed rate of interest times a notional amount, and to in turn receive an amount equal to a specified variable rate of interest times the same notional principal amount. The swap covered an initial notional amount of approximately $27,900 variable rate note at a fixed interest rate of 3.74% and expired in December 2024. This swap was designated as a hedge in March 2013. During the second quarter of 2014, this swap was de-designated and re-designated as a hedge as a result of a partial pay down of the associated hedged debt principal. As a result $566 was reclassified from accumulated other comprehensive loss and recorded as a reduction to other expenses, net in the Company's consolidated statements of income (loss) during the second quarter of 2014. During the second quarter 2018, this swap was de-designated as a hedge as a result of the expected pay down of the associated hedged debt principal. As a result, $34 was reclassified from accumulated other comprehensive loss and recorded to other expenses, net in the Company's consolidated statements of income during the second quarter 2018. In the third quarter of 2018, the expected pay down of the hedged debt principal occurred and the balance of the related hedge was written off. This resulted in a decrease of other liabilities of $252 in the Company's consolidated balance sheets and a corresponding decrease in other expenses, net in the Company's consolidated statements of income.

In the third quarter of 2018, the Company adopted ASU 2017-12 Derivatives and Hedging (Topic 815), which resulted in an increase to retained earnings of $432 and accumulated other comprehensive loss of $486 to remove the cumulative effect of hedging ineffectiveness previously recognized in earnings, as of July 1, 2018, for contracts designated as hedging instruments that were outstanding at the beginning of the third quarter 2018. Upon adoption of the ASU, the impact to reclassify the ineffectiveness of the Company's hedge instruments in connection with prior periods was recorded. Accordingly, the Company's consolidated statement of changes in redeemable non-controlling interests and stockholders' equity for the years ended December 31, 2019 and 2018, reflect the adoption of ASU 2017-12.

The followings tables present a listing of all the Company's active derivative instruments as of December 31, 2019:

Active Interest Rate Swap	Effective Date	Expiration Date	Initial Notional Amount ($)	Status
11-Year, 5.77% Fixed	October 2018	October 2029	$ 9,200	Designated
15-Year, 5.24% Fixed	June 2018	June 2033	10,000	Designated
3-Year, 2.46% Fixed	March 2018	December 2020	17,100	Not Designated
10-Year, 4.74% Fixed	June 2017	December 2027	14,100	Designated
15-Year, 3.26% Fixed	February 2023	December 2038	14,084	Designated
7-Year, 2.19% Fixed	February 2016	February 2023	20,746	Designated
8-Year, 3.70% Fixed	March 2020	June 2028	14,643	Designated
8-Year, 3.70% Fixed	March 2020	June 2028	10,734	Designated
8-Year, 1.71% Fixed	October 2012	March 2020	9,665	Designated
8-Year, 1.71% Fixed	October 2012	March 2020	7,085	Designated
15-Year, 5.30% Fixed	February 2006	February 2021	3,256	Designated
15.5-Year, 5.40% Fixed	September 2008	March 2024	13,081	Designated

Active Commodity Swap	Effective Date	Expiration Date	Initial Notional Amount (Volume)	Commodity Measurement	Status
1-Year, $2.68 MMBtu Fixed	May 2019	April 2020	437,004	MMBtus	Not Designated
1-Year, $2.70 MMBtu Fixed	May 2020	April 2021	435,810	MMBtus	Not Designated

Other Derivatives	Classification	Effective Date	Expiration Date	Fair Value ($)
Interest make-whole provisions	Liability	June/August 2018	December 2038	$ 918

20. BUSINESS SEGMENT INFORMATION

The Company reports results under ASC 280, Segment Reporting. The Company’s reportable segments for the year ended December 31, 2019 are U.S. Regions, U.S. Federal, Canada and Non-Solar Distributed Generation (“Non-Solar DG”). The Company’s U.S. Regions, U.S. Federal and Canada segments offer energy efficiency products and services which include the design, engineering and installation of equipment and other measures to improve the efficiency and control the operation of a facility’s energy infrastructure, renewable energy solutions and services which include the construction of small-scale plants that the Company owns or develops for customers that produce electricity, gas, heat or cooling from renewable sources of energy and O&M services. The Company’s Non-Solar DG segment sells electricity, processed renewable gas fuel, heat or cooling, produced from renewable sources of energy, other than solar, and generated by small-scale plants that the Company owns and O&M services for customer owned small-scale plants. The Company’s U.S. Regions segment also includes certain small-scale solar grid-tie plants developed for customers. The “All Other” category offers enterprise energy management services, consulting services and the sale of solar PV energy products and systems which we refer to as integrated-PV. These segments do not include results of other activities, such as corporate operating expenses not specifically allocated to the segments. Certain reportable segments are an aggregation of operating segments. For the years ended December 31, 2019, 2018 and 2017 unallocated corporate expenses were $34,156, $30,415 and $27,195, respectively.

For the years ended December 31, 2019, 2018 and 2017 more than 75% of the Company’s revenues have been derived from federal, state, provincial or local government entities, including public housing authorities and public universities. The U.S. federal government, which is considered a single customer for reporting purposes, constituted 33.2%, 31.3% and 32.0% of the Company’s consolidated revenues for the years ended December 31, 2019, 2018 and 2017, respectively. Revenues from the U.S. federal government are included in the Company’s U.S. Federal segment.

The reports of the Company’s chief operating decision maker do not include assets at the operating segment level.

An analysis of the Company's business segment information and reconciliation to the consolidated financial statements is as follows:

	U.S. Regions	U.S. Federal	Canada	Non-Solar DG	All Other	Total Consolidated
2019						
Revenues	$ 365,060	$ 287,426	$ 37,910	$ 84,683	$ 91,854	$ 866,933
Interest income	166	208	—	82	68	524
Interest expense	5,858	831	691	5,242	—	12,622
Depreciation and intangible asset amortization	9,934	3,427	1,386	21,359	1,603	37,709
Unallocated corporate activity	—	—	—	—	—	(34,156)
Income before taxes, excluding unallocated corporate activity	15,925	40,553	1,771	3,813	8,647	70,709
2018						
Revenues	334,344	246,309	38,982	82,655	84,848	787,138
Interest income	9	126	—	147	—	282
Interest expense	6,188	1,045	1,917	6,172	22	15,344
Depreciation and intangible asset amortization	5,578	2,772	1,155	18,101	1,542	29,148
Unallocated corporate activity	—	—	—	—	—	(30,415)
Income (loss) before taxes, excluding unallocated corporate activity	20,543	36,332	(2,746)	13,412	5,264	72,805
2017						
Revenues	290,196	229,146	43,803	79,220	74,787	717,152
Interest income	2	44	1	83	—	130
Interest expense	2,672	1,056	1,927	3,389	38	9,082
Depreciation and intangible asset amortization	2,974	2,623	1,178	15,259	1,881	23,915
Unallocated corporate activity	—	—	—	—	—	(27,195)
Income before taxes, excluding unallocated corporate activity	13,865	29,261	1,751	8,115	2,920	55,912

Information as to the Company's revenues by service and product lines is as follows:

	Year Ended December 31,		
	2019	2018	2017
Project	$ 611,064	$ 545,053	$ 506,550
Energy Assets	98,042	95,776	69,241
O&M	66,709	65,236	60,574
Integrated-PV	47,953	41,349	38,796
Other Services	43,165	39,724	41,991
Total Revenues	$ 866,933	$ 787,138	$ 717,152

21. QUARTERLY INFORMATION (Unaudited)

The following tables set forth selected unaudited consolidated statements of income data for each of the most recent eight quarters ended December 31, 2019. Operating results for any quarter are not necessarily indicative of results for any future period.

	Three Months Ended,			
	March 31	June 30	September 30	December 31
2019				
Revenues	$ 150,112	$ 198,183	$ 212,026	$ 306,612
Gross profit	$ 32,632	$ 43,139	$ 44,693	$ 47,654
Net income attributable to common shareholders	$ 4,147	$ 9,216	$ 8,870	$ 22,203
Net income per share attributable to common shareholders:				
Basic	$ 0.09	$ 0.20	$ 0.19	$ 0.47
Diluted	$ 0.09	$ 0.19	$ 0.19	$ 0.46
Weighted average common shares outstanding:				
Basic	46,293	46,387	46,555	47,101
Diluted	47,654	47,681	47,693	48,061
2018				
Revenues	$ 167,410	$ 196,982	$ 205,375	$ 217,371
Gross profit	$ 35,473	$ 42,776	$ 46,162	$ 49,201
Net income attributable to common shareholders	$ 6,988	$ 8,702	$ 10,701	$ 11,593
Net income per share attributable to common shareholders:				
Basic	$ 0.15	$ 0.19	$ 0.23	$ 0.25
Diluted	$ 0.15	$ 0.19	$ 0.23	$ 0.24
Weighted average common shares outstanding:				
Basic	45,373	45,470	45,854	46,114
Diluted	45,994	46,406	46,944	47,327

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Ameresco, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Ameresco, Inc. and Subsidiaries (the Company) as of December 31, 2019 and 2018 and the related consolidated statements of income, comprehensive income, changes in redeemable non-controlling interest and stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on the criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

Basis for Opinion

The Company's management is responsible for these financial statements, 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 Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's financial statements and an opinion on the Company's internal control over financial reporting based on our audits. 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 audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements 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 audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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/ RSM US LLP

We have served as the Company's auditor since 2010.

Boston, Massachusetts

March 4, 2020

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this annual report, or the evaluation date. Disclosure controls and procedures are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our management, after evaluating the effectiveness of our disclosure controls and procedures as of the evaluation date, concluded that as of the evaluation date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control over Financial Reporting

Our management, with the participation of our principal executive officer and principal financial officer, is responsible for establishing and maintaining adequate internal control over our financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act as a process designed by, or under the supervision of, a company's principal executive and principal financial officers and effected by our board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

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

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control - Integrated Framework (2013).

Based on this assessment and those criteria, our management concluded that, as of December 31, 2019, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report, which appears under Item 8.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting, other than those stated above, during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information concerning our executive officers is set forth under the heading "Executive Officers" at the end of Item 1 in Part I of this report.

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, and persons performing similar functions. A copy of the code of business conduct and ethics is posted on the Investor Relations section of our website, which is located at www.ameresco.com. In addition, we intend to post on our website all disclosures that are required by law or applicable NYSE listing standards concerning any amendments to, or waivers from, any provision of the code. We include our website address in this report only as an inactive textual reference and do not intend it to be an active link to our website. None of the material on our website is part of this Annual Report on Form 10-K.

The response to the remainder of this item is incorporated by reference from the discussion responsive thereto in the sections titled "Corporate Governance" and "Stock Ownership - Section 16(a) Beneficial Ownership Reporting Compliance" contained in the definitive proxy statement for our 2020 annual meeting of stockholders.

Item 11. Executive Compensation

The response to this item is incorporated by reference from the discussion responsive thereto in the sections titled "Executive Compensation and Related Information" and "Corporate Governance" contained in the definitive proxy statement for our 2020 annual meeting of stockholders.

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

Equity Compensation Plan Information

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2019:

Equity Compensation Plan Information

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders[1][2]	3,505,000	$ 10.524	5,785,049
Equity compensation plans not approved by security holders	—	—	—
Total	3,505,000	$ 10.524	5,785,049

(1) Consists of our 2000 stock incentive plan and our 2010 stock incentive plan and our 2017 employee stock purchase plan.

(2) Consists of 5,717,228 shares of our class A common stock remaining available for future issuance are under our 2010 stock incentive plan and 99,655 shares of our class A common stock remaining available for future issuance under our 2017 employee stock purchase plan, including shares subject to purchase during the current purchase period. In addition to being available for future issuance upon exercise of options that may be granted after December 31, 2019, shares under our 2010 stock incentive plan may instead be issued in the form of stock appreciation rights, restricted stock, restricted stock units and other stock-based awards.

The response to the remainder of this item is incorporated by reference from the discussion responsive thereto in the section titled "Stock Ownership" contained in the definitive proxy statement for our 2020 annual meeting of stockholders.

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

The response to this item is incorporated by reference from the discussion responsive thereto in the sections titled "Certain Relationships and Related Person Transactions" and "Corporate Governance" contained in the definitive proxy statement for our 2020 annual meeting of stockholders.

Item 14. Principal Accountant Fees and Services

The response to this item is incorporated by reference from the discussion responsive thereto in the section titled "Proposal 2 - Ratification of the Selection of our Independent Registered Public Accounting Firm" contained in the definitive proxy statement for our 2020 annual meeting of stockholders.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) *Consolidated Financial Statements.*

The following consolidated financial statements of Ameresco, Inc. are filed in Item 8 of this Annual Report on Form 10-K:

Consolidated Balance Sheets as of December 31, 2019 and December 31, 2018 . . . 47

Consolidated Statements of Income for the years ended December 31, 2019, December 31, 2018 and December 31, 2017. . . . 49

Consolidated Statements of Comprehensive Income for the years ended December 31, 2019, December 31, 2018 and December 31, 2017 . . . 49

Consolidated Statements of Changes in Redeemable Non-Controlling Interest and Stockholders' Equity for the years ended December 31, 2019, December 31, 2018 and December 31, 2017. . . . 50

Consolidated Statements of Cash Flows for the years ended December 31, 2019, December 31, 2018 and December 31, 2017 . . . 51

Notes to Consolidated Financial Statements. . . . 53

Report of Independent Registered Public Accounting Firm . . . 101

(2) *Financial Statement Schedules.*

Schedules are omitted because they are not applicable, or are not required, or because the information is included in the consolidated financial statements and notes thereto.

(3) *Exhibits.*

The exhibits filed or furnished with this report or that are incorporated herein by reference are set forth in the Exhibit Index immediately preceding such exhibits, which Exhibit Index is incorporated herein by reference.

SIGNATURE

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMERESCO, INC.

Date: March 4, 2020

By: /s/ George P. Sakellaris

George P. Sakellaris
President and Chief Executive Officer

SIGNATURES

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

Signature	Title	Date
/s/ George P. Sakellaris George P. Sakellaris	Chairman of the Board of Directors, President and Chief Executive Officer (Principal Executive Officer)	March 4, 2020
/s/ Spencer Doran Hole Spencer Doran Hole	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	March 4, 2020
/s/ Mark Chiplock Mark Chiplock	Vice President and Chief Accounting Officer (Principal Accounting Officer)	March 4, 2020
/s/ David J. Anderson David J. Anderson	Director	March 4, 2020
/s/ David J. Corrsin David J. Corrsin	Director	March 4, 2020
/s/ Douglas I. Foy Douglas I. Foy	Director	March 4, 2020
/s/ Thomas S. Murley Thomas S. Murley	Director	March 4, 2020
/s/ Nickolas Stavropoulos Nickolas Stavropoulos	Director	March 4, 2020
/s/ Jennifer L. Miller Jennifer L. Miller	Director	March 4, 2020
/s/ Joseph W. Sutton Joseph W. Sutton	Director	March 4, 2020
/s/ Frank V. Wisneski Frank V. Wisneski	Director	March 4, 2020

Exhibit Index

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of Ameresco, Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K dated July 27, 2010 and filed with the Commission on July 30, 2010 (file no. 001-34811) and incorporated herein by reference.
3.2	Amended and Restated By-Laws of Ameresco, Inc. (as further amended May 22, 2014). Filed as Exhibit 3.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2014 and filed with the Commission on July 31, 2014 (file no. 011-34811) and incorporated herein by reference. Filed as Exhibit 3.1 to our Registration Statement on Form S-1 (pre-effective amendment no. 4; reg. no. 333-165821) and incorporated herein by reference.
4.1	Specimen Certificate evidencing shares of Class A common stock. Filed as Exhibit 4.1 to our Registration Statement on Form S-1 (pre-effective amendment no. 4; reg. no. 333-165821) and incorporated herein by reference.
4.16*	Description of Ameresco, Inc. Securities Registered under Section 12 of the Exchange Act
10.1.1	Third Amended and Restated Credit and Security Agreement dated June 30, 2015 among Ameresco, Inc., certain guarantors party thereto, certain lenders party thereto from time to time and Bank of America, N.A. as Administrative Agent. Filed as Exhibit 10.1 to our Current Report on Form 8-K dated June 30, 2015 and filed with the Commission on July 2, 2015 (file no. 001-34811) and incorporated herein by reference.
10.2.1+	Ameresco, Inc. 2000 Stock Incentive Plan. Filed as Exhibit 10.6 to our Registration Statement on Form S-1 (reg. no. 333-165821) and incorporated herein by reference.
10.2.2+	Form of Incentive Stock Option Agreement granted under Ameresco, Inc. 2000 Stock Incentive Plan. Filed as Exhibit 10.7 to our Registration Statement on Form S-1 (reg. no. 333-165821) and incorporated herein by reference.
10.2.3+	Form of Non-Qualified Stock Option Agreement granted under Ameresco, Inc. 2000 Stock Incentive Plan. Filed as Exhibit 10.8 to our Registration Statement on Form S-1 (reg. no. 333-165821) and incorporated herein by reference.
10.3.1+	Ameresco, Inc. 2010 Stock Incentive Plan. Filed as Exhibit 10.10 to our Registration Statement on Form S-1 (pre-effective amendment no. 4; reg. no. 333-165821) and incorporated herein by reference.
10.3.2+	Form of Incentive Stock Option Agreement granted under Ameresco, Inc. 2010 Stock Incentive Plan. Filed as Exhibit 10.11 to our Registration Statement on Form S-1 (pre-effective amendment no. 4; reg. no. 333-165821) and incorporated herein by reference.
10.3.3+	Form of Director Stock Option Agreement granted under Ameresco, Inc. 2010 Stock Incentive Plan. Filed as Exhibit 10.12 to our Registration Statement on Form S-1 (pre-effective amendment no. 4; reg. no. 333-165821) and incorporated herein by reference.
10.4.1+	Form of Indemnification Agreement entered into between Ameresco, Inc. and each non-employee director. Filed as Exhibit 10.6.1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2010 and filed with the Commission on March 31, 2011 (file no. 001-34811) and incorporated herein by reference.
10.4.2+	Form of Indemnification Agreement entered into between Ameresco, Inc. and each employee director. Filed as Exhibit 10.6.2 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2010 and filed with the Commission on March 31, 2011 (file no. 001-34811) and incorporated herein by reference.
10.5.1+	Ameresco, Inc. 2017 Employee Stock Purchase Plan, as amended. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2018 and filed with the Commission on August 8, 2018 (file no. 001-34811) and incorporated herein by reference.

Exhibit Number	Description
10.6.1+	Ameresco, Inc. Executive Management Team Additional Annual Incentive Performance Program. Filed as Exhibit 10.2 to our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2017 and filed with the Commission on August 9, 2017 (file no. 001-34811) and incorporated herein by reference.
10.7+	Agreement between the Ameresco, Inc. and John R. Granara, III, dated December 17, 2018. Filed as Exhibit 10.1 to our Current Report on Form 8-k dated December 18, 2018 and filed with the Commission on December 20, 2018 (file no. 001-34811) and incorporated herein by reference.
21.1*	Subsidiaries of Ameresco, Inc.
23.1*	Consent of RSM US LLP.
31.1*	Principal Executive Officer Certification required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Principal Financial Officer Certification required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following consolidated financial statements from Ameresco, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2019, formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheets (ii) Consolidated Statements of Income, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statement of Changes in Redeemable Non-Controlling Interests and Stockholders' Equity, (v) Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements.

* Filed herewith.

** Furnished herewith.

\+ Identifies a management contract or compensatory plan or arrangement in which an executive officer or director of Ameresco participates.

++ Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Securities and Exchange Commission.

DIRECTORS

George P. Sakellaris
Chairman, President and Chief Executive Officer, Ameresco

David J. Anderson
Executive Vice President, Ameresco

David J. Corrsin
Executive Vice President, General Counsel and Secretary, Ameresco

Douglas I. Foy
President, Serrafix Corporation

Spencer Doran Hole
Senior Vice President and Chief Financial Officer, Ameresco

Jennifer L. Miller
Chief Business Sustainability Officer (Retired), Sappi North America

Thomas S. Murley
Principal, Two Lights Energy Advisors LLC

Nickolas Stavropoulos
President and Chief Operating Officer (Retired), Pacific Gas and Electric Company

Joseph W. Sutton
Chief Executive Officer, Sutton Ventures Group

Frank V. Wisneski
Partner (Retired), Wellington Management Company

CORPORATE HEADQUARTERS

Ameresco Inc.
111 Speen Street
Suite 410
Framingham, MA 01701
508.661.2200
ameresco.com

STOCK LISTING

Our common stock is traded on the New York Stock Exchange under the symbol AMRC.

Transfer Agent
American Stock Transfer and Trust
New York, NY

EXECUTIVE OFFICERS

George P. Sakellaris
Chairman, President and Chief Executive Officer

David J. Anderson
Executive Vice President

Michael T. Bakas
Executive Vice President, Distributed Energy Systems

Nicole A. Bulgarino
Executive Vice President and General Manager, Federal Solutions

Mark A. Chiplock
Vice President and Chief Accounting Officer

David J. Corrsin
Executive Vice President, General Counsel and Secretary

Spencer Doran Hole
Senior Vice President and Chief Financial Officer

Louis P. Maltezos
Executive Vice President

SHAREHOLDER INFORMATION

Copies of all SEC filings, including our 10-K, are available on our website under the Investor Relations section.

GENERAL INFORMATION

Ameresco Inc.
1-866-AMERESCO
info@ameresco.com

Printed on recycled paper.

© 2020 Ameresco, Inc. Ameresco and the Ameresco logo, the orb symbol and the tagline
"Green. Clean. Sustainable." are registered in the U.S. Patent and Trademark Office. All rights reserved.