

ATN International, Inc.  
Form 10-K  
February 28, 2019  
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

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FORM 10 K

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(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, 2018

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 No. 001 12593

ATN INTERNATIONAL, INC.

(Exact name of registrant as specified in its charter)

Delaware	47 0728886
(State or other jurisdiction of	(I.R.S. Employer
incorporation or organization)	Identification No.)
500 Cummings Center	
Beverly, Massachusetts	01915
(Address of principal executive offices)	(Zip Code)

(978) 619 1300

(Registrant's telephone

number, including area code)

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

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Title of Each Class	Name of each exchange on which registered
Common Stock, par value \$.01 per share	The Nasdaq Stock Market LLC

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

(Title of each class)

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 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 Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the 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 pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☐

The aggregate market value of Common Stock held by non-affiliates of the registrant as of June 29, 2018, was approximately \$575 million based on the closing price of the registrant's Common Stock as reported on the Nasdaq Global Select Market.

As of February 28, 2019, the registrant had 16,003,345 outstanding shares of Common Stock, \$.01 par value.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement for the 2019 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

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Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters\

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SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10 K (this “Report”) contains forward-looking statements relating to, among other matters, our future financial performance and results of operations; the estimated timeline for increase in revenues from our customers in the U.S. Virgin Islands following Hurricanes Irma and Maria (the “Hurricanes”); the competitive environment in our key markets, demand for our services and industry trends; the pace of expansion and improvement of our telecommunications network and renewable energy operations including our level of estimated future capital expenditures and our realization of the benefits of these investments and their impact on our customers; the anticipated timing of our build schedule and energy production of our India renewable energy projects; our pipeline of additional solar capacity; expectations regarding our revenue, expenses and financial performance; our compliance with requirements for certain grants and programs; the impact of new accounting pronouncements; our satisfaction of performance obligations; the impact of litigation; the sufficiency of our cash and our expectations regarding capital expenditures; and management’s plans and strategy for the future. These forward-looking statements are based on estimates, projections, beliefs, and assumptions and are not guarantees of future events or results. Actual future events and results could differ materially from the events and results indicated in these statements as a result of many factors, including, among others, (1) the general performance of our operations, including operating margins, revenues, capital expenditures, and the future growth and retention of our major customers and subscriber base and commercial and industrial demand for solar power; (2) our ability to maintain favorable roaming arrangements and satisfy the needs and demands of our major wireless customers; (3) our ability to efficiently and cost-effectively upgrade our networks and IT platforms to address rapid and significant technological changes in the telecommunications industry; (4) government regulation of our businesses, which may impact our Federal Communications Commission (“FCC”) and other telecommunications licenses or our renewables business; (5) our reliance on a limited number of key suppliers and vendors for timely supply of equipment and services relating to our network infrastructure; (6) our ability to restore our networks and services to our customers in the U.S. Virgin Islands in an efficient and timely manner and to obtain governmental or other support necessary to fully restore services in the U.S. Virgin Islands; (7) our ability to receive financial support from the government for our rebuild in the U.S. Virgin Islands and the timing of such support; (8) economic, political and other risks facing our operations; (9) the loss of or an inability to recruit skilled personnel in our various jurisdictions, including key members of management; (10) our ability to find investment or acquisition or disposition opportunities that fit the strategic goals of the Company; (11) the occurrence of weather events and natural catastrophes; (12) increased competition; (13) the adequacy and expansion capabilities of our network capacity and customer service system to support our customer growth; (14) our continued access to capital and credit markets; and (15) the risk of currency fluctuation for those markets in which we operate in. Statements are based on our management’s beliefs and assumptions, which in turn are based on currently available information. These assumptions could be proven inaccurate.

You should keep in mind that any forward looking statement made by us in this Report or elsewhere speaks only as of the date on which we make it. New risks and uncertainties arise from time to time, and it is impossible for us to predict these events or how they may affect us. In any event, these and other important factors may cause actual results to differ materially from those indicated by our forward looking statements, including those set forth in Item 1A of this Report under the caption “Risk Factors.” We have no duty to, and do not intend to, update or revise the forward looking statements made by us in this Report after the date of this Report, except as may be required by law.

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In this Report, the words “the Company”, “we,” “our,” “ours,” “us” and “ATN” refer to ATN International, Inc. and its subsidiaries. This Report contains trademarks, service marks and trade names that are the property of, or licensed by, ATN and its subsidiaries.

References to dollars (\$) refer to U.S. dollars unless otherwise specifically indicated.

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PART I

ITEM 1. BUSINESS

Overview

We are a holding company that, directly and through our subsidiaries, owns and operates telecommunications and renewable energy businesses in North America, India, Bermuda and the Caribbean. We were incorporated in Delaware in 1987, began trading publicly in 1991 and spun off more than a half of our operations to stockholders in 1998. Since that time, we have engaged in many strategic acquisitions and investments to help grow our operations, using the cash generated from our established operating units to re-invest in our existing businesses and to make strategic investments in earlier stage businesses. We look for businesses that offer growth opportunities or potential strategic benefits, but that require additional capital investment in order to execute on their business plans. We hold controlling positions with respect to some of our investments and minority positions in others. These strategic investments frequently offer a product and service development component in addition to the prospect of generating returns on our invested capital. For a discussion of the risks involved in our investment strategy, see “Risk Factors—We are actively evaluating investment, acquisition and other strategic opportunities, which may affect our long term growth prospects.” We have identified three operating segments to manage and review our operations, and to facilitate investor presentations of our results, as follows:

- U.S. Telecom. In the United States, we offer wireless and wireline services. We offer wholesale wireless voice and data roaming services to national, regional, local and selected international wireless carriers in rural markets located principally in the Southwest and Midwest United States. We also provide retail wireless, wireline services and wholesale long distance voice services to telecommunications carriers in the areas in which we offer wireline services.
- International Telecom. Our international wireless services include voice and data services to retail customers in Bermuda, Guyana and the U.S. Virgin Islands. Our international wireline services include voice and data services in Bermuda, the Cayman Islands, Guyana and the U.S. Virgin Islands, as well as video services in Bermuda, the Cayman Islands, and the U.S. Virgin Islands. In addition, we offer wholesale long distance voice services to other telecommunications carriers in the countries in which we offer international wireline services.
- Renewable Energy. In India, we provide distributed generation solar power to corporate, utility and municipal customers. Through November 6, 2018, we also provided distributed generation solar power in the United States in Massachusetts, California and New Jersey.



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The following chart summarizes the operating activities of our principal subsidiaries, the segments in which we report our revenue and the markets we served as of December 31, 2018:

Segment	Services	Markets	Tradenames
U.S. Telecom	Wireless	United States (rural markets)	Choice, Choice NTUA Wireless, Commnet, WestNet, Geoverse
International Telecom	Wireline	United States	Essexel, Deploycom
	Wireline	Bermuda, Cayman Islands, Guyana, U.S. Virgin Islands	Fireminds, GTT+, One, Logic, Viya
	Wireless	Bermuda, Guyana, U.S. Virgin Islands	GTT+, One, Viya
	Video Services	Bermuda, Cayman Islands, U.S. Virgin Islands	Logic, One, Viya
Renewable Energy	Solar	India	Vibrant Energy

As a holding company, we provide management, technical, financial, regulatory, and marketing services to our subsidiaries and typically receive a management fee equal to a percentage of their revenues, which is eliminated in consolidation.

Our principal corporate offices are located at 500 Cummings Center, Beverly, Massachusetts, 01915. The telephone number at our principal corporate offices is (978) 619 1300.

## Strategy

The key elements of our strategy consist of the following:

- **Target Under served Markets or Industries Where We Can Compete Successfully.** We operate our telecommunications businesses primarily in smaller, rural or under served markets where we believe we are or will be one of the leading providers of telecommunications services. We take a long-term view and are willing to consider more difficult operating or political environments. Our businesses typically have or develop strong local brand identities that help them become leaders in the markets they serve. By providing access to low-cost capital, leveraging local brand identities and market knowledge and supplementing the business with senior management and other expertise at the holding company level, we strive to improve and expand our product and service offerings in the locations we serve in order to better satisfy customer needs, expand our customer bases and revenues and ensure the business is efficient and economically viable. More recently, we have made multiple investments in earlier stage businesses in all three operating segments (U.S. and International Telecom and Renewable Energy) that we believe have the potential to provide a platform for future organic and strategic growth. Additionally, these investments, some of which are non-controlling investments, can provide a variety of benefits that enhance the potential to expand our business, including providing an entry point into emerging sectors of our existing businesses, as well as enhancing our product offerings, providing visibility into newer technologies and establishing and enhancing strategic relationships.
- **Collaborate with Local Management.** We believe that strong local management enhances our close relationship with customers and reduces risk. Wherever feasible, we seek to partner with local investors, owners or management teams who have demonstrated a successful track record or have extensive knowledge of the industry or markets in which we operate, and who have local credibility. By maintaining these relationships and leveraging our

comprehensive management experience and technical and financial expertise, we can assist the local management teams in further improving operations and growing their businesses.

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· Maintain a Disciplined Earnings Oriented Approach. We carefully assess the potential for cash flow stability and growth when we evaluate the performance of our subsidiaries, new investment opportunities and prospective acquisitions or dispositions. In managing our more mature businesses, we seek to solidify our brands, improve customer satisfaction, add new services, control costs and preserve cash flow. In managing newer, early stage businesses, we seek to invest capital to improve our competitive position, increase our market share and generate strong long-term revenue and cash flow potential. We consider new investments, acquisitions and dispositions on a disciplined, return on investment basis. In addition, we have been increasingly willing to make non-controlling investments in earlier stage businesses that we consider strategically relevant, and which may offer long-term growth potential for us, either individually, or as research and development businesses that can support our operating subsidiaries in new product and service development and offerings.

### Recent Acquisitions

#### U.S. Telecom

In July 2016, we acquired certain telecommunications fixed assets and the associated operations in the western United States. Results of operations for the business are included in the U.S. Telecom segment and are not material to our historical results of operations.

#### International Telecom

During 2016, we completed the acquisitions of One Communications and Viya (the “2016 International Telecom Acquisitions”).

#### One Communications (formerly KeyTech Limited)

On May 3, 2016, we completed our acquisition of a controlling interest in One Communications Ltd. (formerly known as KeyTech Limited, “One Communications”), a publicly held Bermuda company listed on the Bermuda Stock Exchange (“BSX”) that provides broadband and video services and other telecommunications services to residential and enterprise customers in Bermuda and the Cayman Islands (the “One Communications Acquisition”).

#### Viya (formerly Innovative)

On July 1, 2016, we completed an acquisition of all of the membership interests of Caribbean Asset Holdings LLC (“CAH”), the holding company for the group of companies operating video services, Internet, wireless and landline services in the U.S. Virgin Islands, British Virgin Islands and St. Maarten (collectively, “Viya”) (the “Viya

Transaction”). In April 2017, the U.S. Virgin Islands operations and our existing wireless operations rebranded their tradenames from “Innovative” and “Choice,” respectively, to “Viya.” Subsequent to the Viya Transaction, we sold the acquired businesses in St. Maarten and the British Virgin Islands, as further described in “Dispositions” below.

## Renewable Energy

### Vibrant Energy

On April 7, 2016, we completed our acquisition of a solar power development portfolio in India (the “Vibrant Energy Acquisition”). The business operates under the name Vibrant Energy. We also retained several employees in India who are employed by us to oversee the development, construction and operation of Indian solar projects. These projects are initially located in the states of Andhra Pradesh and Telangana and are based on a commercial and industrial business model, similar to the operating model we followed for our renewable energy operations in the United States, which we sold in November 2018.

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Platform and Minority Investments

U.S. Telecom

During the second quarter of 2018, we invested in a new platform, based in the United States, to develop in-building wireless network technology that enables building owners to capitalize on the growing demand for better indoor wireless solutions. Also during the second quarter of 2018, we provided funding for another new platform, based in the United States, seeking to “build to suit” large scale fiber networks to serve the telecommunications and content provider industries in need of lower latency long haul fiber transit services.

International Telecom

In 2017, we completed our investment in a technology solutions business based in Bermuda that provides a variety of cloud-based managed services and information technology solutions for enterprise-hosted software applications.

In 2017 we also made a minority investment in an Australian-based tower operator.

Dispositions

U.S. Telecom

On March 8, 2017, we completed the sale of our integrated voice and data communications and wholesale transport businesses in New England and New York (the “Sovernet Transaction”). This disposition did not qualify as discontinued operations because the disposition did not represent a strategic shift that has a major effect on our operations and financial results.

International Telecom

On August 18, 2017, we completed the sale of the Viya cable operations located in the British Virgin Islands.

On January 3, 2017, we completed the sale of the Viya cable operations located in St. Maarten.

On December 15, 2016, we transferred control of our subsidiary in Aruba to another stockholder in a nonreciprocal transfer.

These dispositions do not qualify as discontinued operations because the dispositions did not represent a strategic shift that had a major effect on our operations and financial results.

#### Renewable Energy (U.S. Operations)

On November 6, 2018, we completed the sale of our U.S. solar business that owned and managed distributed generation solar power projects operated under the Ahana name in Massachusetts, California and New Jersey (the “U.S. Solar Operations”). The transaction had a total value of approximately \$122.6 million, which included a cash purchase price of \$65.3 million and the assumption of approximately \$55.0 million in debt, and is subject to certain other post-closing adjustments (the “U.S. Solar Transaction”). Approximately \$6.5 million of the purchase price will be held in escrow for a period of twelve months after the closing to secure our indemnification obligations. We recorded a gain of \$12.4 million upon the completion of the sale.

#### Our Telecommunications Services

In addition to managing and reviewing our results by operating segment, we also evaluate our results by service, namely wireless and wireline telecommunications, as well as renewable energy. We provide mobile wireless voice and data communications services in the United States, Bermuda, Guyana and the Caribbean. Our revenues from

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wireless services were approximately 44% of our consolidated revenues for fiscal year 2018. The U.S. portion of our business constitutes a significant portion of our consolidated revenue from wireless services. Our revenues from U.S. wireless services were approximately 24%, 29% and 32% of our consolidated revenues for the years ended December 31, 2018, 2017 and 2016, respectively. Our U.S. wireless service revenues have historically had high operating margins and therefore have contributed a large percentage to our operating income.

Our wireline services include operations in Guyana, Bermuda, the U.S. Virgin Islands, the Cayman Islands, and mainland United States. Our revenues from wireline services were approximately 51%, 47% and 42% of our consolidated revenues for fiscal years 2018, 2017 and 2016, respectively.

### U.S. Telecom Segment

#### Wireless Services

Services. In the United States, we provide wholesale wireless voice and data roaming services in rural markets to national, regional, local and selected international wireless carriers. Our largest wholesale networks are located principally in the western United States. We also offer wireless voice and data services to retail customers in certain rural markets already covered by our wholesale networks.

The revenue and profits of our U.S. wholesale wireless business are primarily driven by the number of sites and base stations in operation, the amount of voice and data traffic that each of these sites generates, and the rates we receive from our carrier customers on that traffic. Many of our sites are located in popular tourist and seasonal visitor areas, which has resulted in higher wholesale revenues in those areas during the summer months.

We currently have roaming agreements with 39 United States based wireless service providers and, as of December 31, 2018, had roaming arrangements with each of the four U.S. national wireless network operators: Verizon Wireless, AT&T, Sprint and T Mobile. Other than the agreements with the national carriers, our standard roaming agreements are usually terminable within 90 days. Occasionally, we may agree or strategically decide to lower rates or build a new mobile network at a specified location as part of a long term roaming agreement to offer our roaming partner pricing certainty in exchange for priority designation with respect to their customers' wireless traffic. Once we complete building a rural network, we then benefit from the use of that network under existing roaming agreements with other international, national, regional, and local carriers to supplement our initial revenues. In 2018, the four national wireless service providers together accounted for a substantial portion of our wholesale wireless revenues, with AT&T and Verizon accounting for an aggregate of 17% of our total consolidated revenue for the year.

Network and Operations. Our roaming network offers mobile communications service through a digital wireless voice and data network that utilizes multiple cellular mobile technologies including UMTS/HSPA, CDMA/EvDO and LTE that often will be deployed at a single cell site location in order to maximize revenue opportunities. We provide wireless communications network products and services with owned and leased spectrum primarily in the 700 megahertz (MHz), 800 megahertz (MHz) and 1900 megahertz (MHz) spectrum ranges. In 2018, we continued the efforts to upgrade our cell sites with advanced 4G LTE technology throughout our service areas. Our networks comprise base stations and radio transceivers located on owned or leased towers and buildings, telecommunications switches and owned or leased transport facilities. We design and construct our network in a manner that will provide high-quality service to substantially all types of compatible wireless devices. Network reliability is carefully considered and redundancy is employed in many aspects of our network design.

Route diversity, redundant equipment, ring topologies and the use of emergency standby power are used to enhance network reliability and minimize service disruptions from any particular network element failure. We operate high-capacity, carrier-class digital wireless switching systems that are capable of serving multiple markets through a

single mobile telephone switching office. Centralized equipment used for network and data management is located in high-availability facilities supported by multiple levels of power and network redundancy. Our systems are designed to incorporate Internet Protocol (IP) packet-based Ethernet technology, which allows for increased data capacity and a



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more efficient network. Interconnection between the mobile telephone switching office and the cell sites utilizes Ethernet technology over fiber or microwave links for virtually all of our 4G LTE sites.

As of December 31, 2018, we owned and operated a total of 1,045 domestic base stations on 482 owned and leased sites, a Network Operations Center (or “NOC”), a switching center, and presence in numerous leased data centers designed to support network virtualization and provide network resiliency. Our NOC provides dedicated, 24 hour, year round monitoring of our network to ensure quality and reliable service to our customers. In 2018, we continued to expand and improve our network, adding 58 new base stations and approximately 8 new sites and upgraded approximately 15 sites to more advanced 4G LTE data technology. We will continue to deploy 4G LTE technology to enable more network capacity. In addition, we plan to test and commercially deploy Voice Over LTE (“VoLTE”) technology over the next few years. VoLTE technology allows customers to utilize a 4G LTE network for both voice and data services, and the migration of our wholesale and retail subscribers to the more efficient 4G technology from 2G/3G technologies will result in increased spectrum availability.

**Competition.** We compete with wireless service providers that operate networks in our markets and offer wholesale roaming services. However, the most significant competitive challenge we face in our U.S. wholesale wireless business is the extent to which our carrier customers choose not to roam on our networks or elect to build or acquire their own infrastructure in a market in which we operate, reducing or eliminating their need for our services in those markets. We address this competitive threat mainly by providing a service that would be more costly for the carrier to provide itself, or, at least, a less attractive expenditure than alternative investments in its network or business.

Occasionally, we have entered into buildout projects with existing carrier customers to help the carrier accelerate the buildout of a given area. Pursuant to these arrangements, we agree to incur the cost of building and operating a network in a newly designated area meeting specified conditions. In exchange, the carrier agrees to license us spectrum in that area and enter into a contract with specific pricing and term. These arrangements typically include a purchase right in favor of the carrier to purchase that portion of the network for a predetermined price, depending on when the option to purchase is exercised. In July 2018, we completed the previously disclosed sale of approximately 100 cell sites, which, generated approximately \$13.9 million of wholesale revenue during the year ended December 31, 2018. We did not receive any additional cash proceeds at closing from the sale and recorded a gain on the sale of \$15.2 million.

Our ability to maintain appropriate capacity and relevant technology to respond to our roaming partners’ needs also shapes our competitive profile in the markets in which we operate. We believe that currently available technologies and appropriate capital additions will allow sufficient capacity on our networks to meet anticipated demand for voice and data services over the next few years. However, increasing demand for high-speed data may require the acquisition of additional spectrum licenses to provide sufficient capacity and throughput.

## Wireline Services

**Sales and Marketing.** Our wholesale transport and capacity customers are predominately communications carriers such as local exchange carriers, wireless carriers, internet service providers and interstate integrated providers.

**Competition.** Our wholesale competitors include Level 3 and Verizon Communications, other regional wholesale providers and cable television companies that operate fiber optic networks.

On March 8, 2017, we completed the sale of our integrated voice and data communications and wholesale transport business in New England and New York.



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### International Telecom Segment

#### Wireless Services

We provide wireless voice and data service to retail and business customers in Bermuda under the “One” brand name, in Guyana under the “GTT” brand name and in the U.S. Virgin Islands under the “Viya” brand name. We also provide roaming services for many of the largest U.S. providers’ customers visiting these locations. As of December 31, 2018, we had approximately 300,000 wireless subscribers in our International Telecom segment and over 87% of those subscribers were on prepaid plans.

**Products and Services.** In Bermuda, a majority of our customers subscribe to one of our postpaid plans, which allow customers to select a plan with voice minutes, text messaging, a given amount of data and other features that recur on a monthly basis, which services are billed at the end of the service period. In our other markets, a substantial majority of our customers subscribe to our prepaid plans, which require customers to purchase an amount of voice minutes, text messages or data prior to use. In most markets, we also provide certain homes and businesses with fixed wireless services including high speed internet.

**Network.** We currently operate multiple advanced wireless voice and data technologies in our international markets in the 700, 850, 900, 1800, 1900 and 2500 MHz frequency bands, including GSM/EDGE, UMTS/HSPA+, and LTE. We have extensive backbone facilities linking our sites, switching facilities and international interconnection points. Out-of-territory connectivity is provided by leased and owned undersea fiber based interconnections.

**Sales and Marketing.** We maintain retail stores in our markets and allow customers to pay their bills and “top up”, or add additional minutes to their prepaid plans, through payment terminals at local stores, business centers or our website, by purchase of prepaid calling cards, or via mobile or web-based apps. We advertise frequently through print and electronic media and radio station spots and we sponsor various events and initiatives. Our handsets, prepaid cards and prepaid accounts are also sold through independent dealers that we pay on a commission basis.

**Handsets and Accessories.** We offer a diverse line of wireless devices and accessories designed to meet both the personal and professional needs of our customers. Our device assortment includes a wide range of smartphones including those featuring the Android™ and iOS™ operating systems in addition to a full line of feature phones, wireless hot spots and various wireless solutions for small businesses. To complement our phone offerings, we sell a complete range of original equipment manufacturer and after market accessories that allow our customers to personalize their wireless experience, including phone protection, battery charging solutions and Bluetooth hands free kits.

**Competition.** We believe we compete for wireless retail customers in our international properties based on features, price, technology deployed, network coverage (including through roaming arrangements), quality of service and customer care. We compete against Digicel, which is a large mobile telecommunications company in the Caribbean region, and in some markets, against one or more U.S. national operators.

#### Wireline Services

**Voice services.** We offer voice services that include local exchange, regional and long distance calling and voice messaging services in Bermuda, Guyana, the U.S. Virgin Islands, and in other smaller markets in the Caribbean and the United States. As of December 31, 2018, we had an aggregate of approximately 171,000 access lines in service in our markets, which represent both residential and commercial subscribers. Across our international businesses, residential customers account for approximately three-quarters of the wireline local telephone service revenue while

commercial customers account for approximately one quarter.

In Guyana, we are the exclusive licensed provider of domestic wireline local and long distance voice and data services into and out of the country, and in the U.S. Virgin Islands, we are the incumbent local exchange carrier and sole fixed telephony provider. With respect to our international long distance business, we also collect payments from foreign carriers for handling international long distance calls originating from the foreign carriers' countries and

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terminating on our network. We also make payments to foreign carriers for international calls originating on one of our networks and terminating in the foreign carrier's countries and collect from our subscribers or a local originating carrier a rate that is market-based or set by regulatory tariff.

**Internet services.** We offer high-speed Internet services with varying speeds to address different customer needs and price requirements in our various markets. As of December 31, 2018, we had approximately 120,000 Internet customers across our markets.

**Video services.** We also offer video service over our coaxial cable and fiber-optic networks in our international markets. In the U.S. Virgin Islands we are the only authorized video services operator and are a provider of video services to customers in Bermuda. As of December 31, 2018, we had approximately 42,000 video customers across our markets. We have several offerings available to our video customers, including basic and tiered local and cable TV channels grouped into various content categories, such as news, sports and entertainment.

**Network.** All of our fixed access lines are digitally switched from our switching centers in the U.S. Virgin Islands, Bermuda and Guyana. Our switching centers provide dedicated monitoring of our network to ensure quality and reliable service to our customers.

In the U.S. Virgin Islands, we deliver our services via a hybrid fiber coaxial ("HFC") cable network and continue to transition our traditional copper network to our voice, video and data services on this network. The HFC network gives us expanded Internet access coverage to more than 95% of homes in the U.S. Virgin Islands with speeds up to 100 Mbps for residential customers. Following Hurricanes Irma and Maria in 2017 (collectively, the "Hurricanes"), service to our customers over the HFC network was impacted due to both the loss of power and damage to our network. While we have substantially completed remediation efforts to our network, it may take significant time to return to pre-hurricane revenue levels.

Our international voice and data networks are linked with the rest of the world principally through undersea fiber optic cables. In Guyana we co own the Suriname Guyana Submarine Cable System with Telesur, the government owned telecommunications provider in Suriname, that provides us with more robust redundancy, the capacity to meet growing data demands in Guyana, and the opportunity to provide new and enhanced services such as Internet service. We also lease capacity on certain satellites to provide both international and local backhaul services.

**Sales and Marketing.** Our businesses utilize four key sales channels: stores, telesales, business-to-business ("B2B") channels and residential sales (inbound). The telesales department makes outbound calls to existing customers to promote bundling and other upgrade opportunities and our B2B sales channel focuses on selling data and voice products to business and government accounts. Certain residential sales are made through inbound communications to customer service representatives who assist with a wide range of inquiries and sell different product offerings to help retain customers or improve their service with upgrades or bundles. Our revenues for our wireline services are derived from installation charges for new lines, monthly line charges, data and video services and value added services, such as hosting or enterprise voice and data solutions. For our voice wireline services, rates differ for residential and commercial customers and in certain markets, may be set by regulatory authorities.

Competition. We compete with a limited number of other providers, including Digicel, with respect to various products. In 2016, we acquired our wireline businesses in Bermuda and the U.S. Virgin Islands in order to provide us with greater scale in those markets and the capability to offer a “quad play” of connectivity: high speed internet, mobility, video and voice services. In 2017, our competition in Bermuda made substantial additional wireline network investments and began offering video services and competitive high speed internet services. We believe our breadth of services and local economies of scale provide us with a strong competitive position and the ability to win and retain an economically viable share of those markets.

In Guyana, we have the exclusive right to provide domestic fixed and international voice and data services, pursuant to a license from the Government of Guyana. As the initial term of our license was scheduled to expire in December 2010, we notified the Government of Guyana of our election to renew our exclusive license for an additional 20 year term expiring in 2030 and received return correspondence from the Government that our exclusive license had

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been renewed until such time that new legislation is implemented with regard to the Government's intention to introduce competition into the sector. We believe, however, our exclusive license continues to be valid unless and until such time as we enter into an alternative agreement with the Government. See “—Guyana Regulation—Regulatory Developments” and “Risk Factors—Our exclusive license to provide local exchange and international voice and data services in Guyana is subject to significant political and regulatory risk.”

### Impact of Hurricanes

During September 2017, the economy, our customer base and our operations in the U.S. Virgin Islands were severely impacted by the Hurricanes. Our wireless and wireline networks as well as our commercial operations were severely damaged by these storms. As a result of the significant damage to the wireline network and the lack of consistent commercial power in the territory, we were unable to provide most of our wireline services, which comprise the majority of our revenue in this business, subsequent to the Hurricanes and through a majority of 2018.

During the year ended December 31, 2017, we recorded a net pre-tax loss within our consolidated statement of operations of \$4.0 million. This loss consisted of \$35.4 million for the write off of damaged assets, net of insurance recoveries of \$34.6 million which were received in February 2018. This loss also included \$3.2 million of additional operating expenses that were specifically incurred to address the impact of the Hurricanes.

During the year ended December 31, 2018, we received \$15.5 million in additional funding from the Federal Communications Commission's ("FCC") Universal Service Fund ("USF") to further subsidize our operations in the U.S. Virgin Islands that was recorded as revenue. This level of additional funding is not expected to continue in future periods.

During the years ended December 31, 2017 and 2018, we spent \$8.6 million and \$80.2 million, respectively, for network restoration and resiliency enhancements that allowed the reconnection of a significant majority of affected households and businesses. We believe that the wireline network restoration work is substantially complete, however, returning our revenue to pre-Hurricane levels may take significant time as a result of population movements, the economic impact the Hurricanes had on the market, and our subscriber base's appetite for continued wireline services.

### Renewable Energy Services

#### United States

On November 6, 2018, we completed the sale of our U.S. Solar Operations. The transaction had a total value of approximately \$122.6 million, which included a cash purchase price of \$65.3 million and the assumption of approximately \$57.3 million in debt, and was subject to certain other post-closing adjustments. Approximately \$6.5 million of the purchase price is being held in escrow for a period of twelve months after the closing to secure our indemnification obligation and we recorded a gain of \$12.4 million.

Prior to the sale of the U.S. Solar Operations, we owned and operated 29 commercial solar projects at 60 sites with an aggregate 46.93 megawatts DC peak (“MWp”) of electricity generating capacity. We owned these sites through various indirect subsidiaries that were formed for the purpose of financing the development of, and owning and operating, the sites.

Services. Historically, our U.S. solar projects were in the “commercial and industrial” (“C&I”) sector of the solar market, which is distinguished from utilities and residential customers. Our customers or “offtakers” included high credit quality corporate entities, utilities, schools, and municipalities, which purchased electricity from us under the terms of long term power purchase agreements (“PPAs”). In the future, we may develop a new project portfolio of U.S. facilities through additional investments with offtakers with strong credit ratings in markets that offer favorable government policies to encourage renewable energy projects and where our projects can generate electricity at a cost that is less than or equal to the price of purchasing power from traditional energy sources. We contract with utilities through



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an interconnection agreement to export excess energy generated by our Facilities to another offtaker and/or the utility electrical grid.

**Infrastructure.** Prior to the sale of the U.S. Solar Operations, our Facilities were comprised of rooftop, ground mounted and elevated solar support structure photovoltaic (“PV”) installations. Our facilities were located on our customers’ buildings, parking structures, landfill sites and other locations pursuant to leases or easements granted to us by our customers. These facilities used crystalline silicon PV modules mounted in ballasted, tracking or roof penetrating fixed tilt configurations.

### International

On April 7, 2016, we acquired a solar power development portfolio in India and since that time, have been constructing distributed generation solar power projects in the states of Andhra Pradesh and Telangana based on a commercial and industrial business model, similar to our U.S. renewable energy operations. As of December 31, 2018, we have five power evacuating solar projects (each, a “Facility”) each with capacity ranging from 7.5 to 11.5 megawatts DC peak (“MWp”). We have an additional 4 MWp under construction that will expand one of our existing Facilities and expect to add a sixth Facility by mid- 2019. We currently have a pipeline of acquisition opportunities and new construction capacity of up to an additional 300MWp. Solar projects are capital intensive and the greatest challenge to increasing our operating portfolio is our ability to secure third party debt to fund the installation of the additional capacity. Our strategy is also to seek third party equity capital in order to build a larger portfolio and achieve economies of scale and diversification benefits. Our ability to expand our business will also depend on, among other things, our ability to acquire the required land for the new capacity, our ability to secure agreements to sell the power on terms that our financing sources consider to be bankable, our willingness to compete with local solar businesses who may be willing to build projects with a lower risk/return profile than ours, and the need to further strengthen our systems and processes to manage the ensuing growth opportunities. For a discussion of the risks associated with executing our short and long term growth plans in India, see “Risk Factors—Risks Related to Our Renewable Energy Segment.”

**Market Opportunity.** We believe solar power in India is an attractive investment opportunity for our Renewable Energy business due to the large unmet demand for electricity, coupled with ideal weather conditions for solar energy and the continued low cost to build, due to decreases in solar panel pricing and the decreasing cost of debt.

We consider India to be an attractive market for solar power without the need to rely on governmental subsidies. While we currently expect the landscape for solar power to change over time in India, and potentially materially as the market matures, we believe that the core principal behind our investment in our Indian solar business, that solar power can compete with fossil fuels on a level playing field for the long-term, remains valid.

**Services.** We own our Facilities through various Special Purpose Entities. We sell electricity to C&I customers and do not expect to sell power directly to residential customers in India. Our target C&I customers or “offtakers” for our initial Facilities are corporate entities, including banks, manufacturers, hotel groups, and hospital groups, which purchase electricity from us under the terms of PPAs. We focus on customers that have high credit ratings or that we otherwise believe to present limited credit risk. The PPA terms agreed upon with our initial customer base are typically five years in duration, with an option to extend for another five years and priced at rates with annual rate escalators, allowing customers to secure electricity at predictable and stable prices over the duration of their long term contract. As such, we believe the PPAs provide us with high quality contracted cash flows, which, although our customers may terminate the PPAs with one-year notice, we nevertheless expect will continue over their average remaining life. Our PPAs typically have penalties for the non-delivery of power and therefore, we typically try to

enter into binding PPAs late in the development process when the connection date of the solar farm can be predicted with greater confidence. On the other hand, if the offtaker fails to take the agreed quantum of power, we can levy a penalty equal to the loss of revenue we incurred due to such failure on the part of the offtaker. In the event of non-payment, current regulations allow us to sell power to any commercial or industrial customer within 500 kilometers of our grid connection and we would seek to sell the allotted power to a different customer.

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In developing each solar project, we use in-house resources for development, engineering and project management and hire third party EPC contractors to construct our Facilities. We actively manage their performance through our in-house technical and quality assurance team. To date, we have financed the construction of our Facilities mainly with internal equity and intercompany debt and following the completion of construction, our goal is to secure project debt financing for each completed Facility and to use those proceeds towards the construction of additional Facilities in 2019.

Infrastructure. Our existing Facilities are located on land that we own and are comprised of ground mounted solar photovoltaic (“PV”) installations. The majority of our Facilities are single-axis tracking systems to increase the generating capability of our Facilities. For a more detailed discussion of the risks associated with land procurement and ownership in India, see “Risk Factors—Risks Related to Our Renewable Energy Segment.” We manage our Facilities through third party operation and maintenance (“O&M”) contracts and our corporate staff tracks the data and services provided by the third-party service provider. Our internal asset management team is hands-on and works closely with third-party vendor partners to maintain performance.

We depend on a limited number of key suppliers for the PV modules that we purchase for installation at our Facilities, with the majority of facilities constructed with Tier 1 PV modules supplied by GCL Systems, a Tier 1 Chinese module supplier. Typically, the PV modules carry materials and workmanship warranties of 10 years in duration, with power warranties for a 25 year useful life.

Competition. We compete with traditional electric power industry; however, our primary competitors are other solar energy companies that may have greater financial resources or brand name recognition than we do, disadvantaging our ability to attract new customers. The solar energy industry is highly competitive and there are low barriers to entry for companies with sufficient financial resources. However, we believe that the availability of expansion capital from third party financing sources, rather than competition from third parties, is the major risk factor that inhibits our achieving our near-term goals for our Renewable Energy segment. Over the longer term, some of our competitors may have advantages over us in terms of larger size, access to expansion capital, internal access to solar panels and greater operational, financial, technical, management, lower cost of capital or other resources. See “Risk Factors — Risks Related to Our Renewable Energy Segment — We face significant competition from traditional and renewable energy companies.”

## Employees

As of December 31, 2018, we had approximately 1,700 employees, of whom approximately 600 were employed in the United States (including in the U.S. Virgin Islands). At the holding company level, we employ our executive management team and staff. Approximately half of our Guyana and U.S. Virgin Island full time work forces are represented by unions. In addition, approximately 19% of our Bermuda fulltime workforce is also represented by unions. We believe we have good relations with our employees.

## Regulation

### Telecom Regulation

Our wireless and wireline telecommunications and video services operations are subject to extensive governmental regulation in each of the jurisdictions in which we provide services. Our wireless and wireline operations and our video services operations in the United States and the U.S. Virgin Islands are governed by the Communications Act of 1934, as amended (“Communications Act”), the implementing regulations adopted thereunder by the FCC, including the Telecommunications Act of 1996, as well as judicial and regulatory decisions interpreting and implementing the Communications Act, and other federal, state, and local statutes and regulations. Our operations are also governed by certain foreign laws and regulations.

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The following summary of regulatory developments and legislation does not purport to describe all present and proposed federal, state, local, and foreign regulation and legislation that may affect our businesses. Legislative or regulatory requirements currently applicable to our businesses may change in the future and legislative or regulatory requirements may be adopted by those jurisdictions that currently have none. Any such changes could impose new obligations on us that would adversely affect our operating results.

### U.S. Federal Telecom Regulation

#### Wireless Services

The FCC regulates, among other things; the licensed and unlicensed use of radio spectrum; the ownership, lease, transfer of control and assignment of wireless licenses; the ongoing technical, operational and service requirements applicable to such licenses; the timing, nature and scope of network construction; the provision of certain services, such as enhanced 911 (“E 911”); and the interconnection of communications networks in the United States.

**Licenses.** We provide our wireless services pursuant to various commercial mobile radio services (“CMRS”) licenses (including cellular, broadband Personal Communications Services (“PCS”), 600 MHz Band, 700 MHz Band, Advanced Wireless Service (“AWS”), and Broadband Radio Service (“BRS”) licenses granted by the FCC), pursuant to special temporary authority (“STA”) to use certain BRS spectrum for which we do not hold a license, and pursuant to leases of spectrum from FCC licensed operators. Some of these licenses and STAs are site based while others cover specified geographic market areas, e.g., Cellular Market Areas (“CMAs”) and Basic Trading Areas (“BTAs”), as defined by the FCC. The specific radio frequencies, the authorized spectrum amounts, and certain of the technical and service rules vary depending on the licensed service. The FCC generally allocates CMRS licenses through periodic auctions, after determining how many licenses to make available in particular frequency ranges, the applicable service rules, and the terms on which the license auction will be conducted. Such licenses are also available via secondary market mechanisms, using procedures and regulations set forth by the FCC. There is no certainty as to when additional spectrum will be made available for wireless broadband services, the amount of spectrum that might ultimately be made available, the timing of any future auction of spectrum, the likely configuration of any such additional spectrum and conditions that might apply to it, the usability of any of this spectrum for wireless services competitive with our services or by us, or the likelihood that we will acquire spectrum licenses made available in any future auction.

**Construction Obligations.** The FCC conditions licenses on the satisfaction of certain obligations to construct networks covering a specified geographic area or population by specific dates. The obligations vary depending on the licensed service. Failure to satisfy an applicable construction requirement can result in the assessment of fines and forfeitures by the FCC, a reduced license term, or automatic license cancellation. We are substantially in compliance with the applicable construction requirements that have arisen for the licenses we currently hold and expect to meet our future construction requirements as well. In particular, we have met the first build out requirement with respect to our 700 MHz Band licenses, with the second build out deadline (which requires coverage to 70 percent of each license area) coming due in June 2019. If we fail to meet the first build out requirement applicable to any 600 MHz Band license (coverage to 40 percent of the population in the license area within six years of license grant), the license term for that license will be reduced by two years. If we fail to meet the end-of term build out requirement applicable to any individual 600 MHz Band license (coverage to 75 percent of the population in the license area by the end of the license term), that license will terminate automatically and we will lose the ability to regain it.

**License Renewals.** Our FCC licenses generally expire between 2019 and 2030 and are renewable upon application to the FCC. License renewal applications may be denied if the FCC determines, after appropriate notice and hearing, that renewal would not serve the public interest, convenience, or necessity. At the time of renewal, if we can demonstrate that we have provided “substantial” service during the past license term and have complied with the Communications Act and applicable FCC rules and policies, the FCC will award a renewal expectancy to us and will generally renew

our existing licenses without considering any competing applications. If we do not receive a renewal expectancy, the FCC will accept competing applications for the license and conduct a comparative hearing. In that situation, the FCC may award the license to another applicant. While our licenses have been renewed regularly by the FCC in the past, there can be no assurance that all of our licenses will be renewed in the future.

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The FCC may deny license applications and, in extreme cases, revoke licenses if it finds that an entity lacks the requisite qualifications to be a licensee. In making that determination, the FCC considers whether an applicant or licensee has been the subject of adverse findings in a judicial or administrative proceeding involving felonies, the possession or sale of unlawful drugs, fraud, antitrust violations, or unfair competition, employment discrimination, misrepresentations to the FCC or other government agencies, or serious violations of the Communications Act or FCC regulations. To our knowledge, there are no activities and no judicial or administrative proceedings involving either us or the licensees in which we hold a controlling interest that would warrant such a finding by the FCC.

**License Acquisitions.** Prior FCC approval typically is required for transfers or assignments of a controlling interest in any license or construction permit, or of any rights thereunder. The FCC may approve or prohibit such transactions altogether, or approve such transactions subject to certain conditions such as divestitures or other requirements. Non-controlling minority interests in an entity that holds an FCC license generally may be bought or sold without FCC approval, subject to any applicable FCC notification requirements. The FCC permits licensees to lease spectrum to third parties under certain conditions, subject to prior FCC approval, or in some instances, notification to the FCC. These mechanisms provide additional flexibility for wireless providers to structure transactions and create additional business and investment opportunities.

The FCC no longer caps the amount of CMRS spectrum in which an entity may hold an attributable interest and now engages in a case by case review of proposed wireless transactions, including spectrum acquired via auction, to ensure that the proposed transaction serves the public interest and would not result in a rule violation or an undue concentration of market power. The FCC utilizes a spectrum aggregation screen to determine whether a proposed secondary market transaction requires additional scrutiny. The FCC in June 2014 adopted an order that updated the spectrum screen. The FCC's order continued the FCC's policy of conducting a case by case analysis of a combined entity's spectrum screen holdings for proposed transactions, revised its existing spectrum screen to reflect the current suitability and availability of spectrum for mobile wireless services, and adopted certain limitations with respect to the purchase and transfer of 600 MHz spectrum. A transaction will be reviewed by the FCC for potential competitive effects if it will result in the acquiring entity having (1) total spectrum holdings generally exceeding approximately one-third of the total amount of suitable and available spectrum in any county; or (2) over 68 MHz of spectrum under 1 GHz. The FCC's additional scrutiny would also be triggered if a proposed transaction results in a material change in the post transaction market share in a particular market as measured by the Herfindahl Hirschman Index. We are well below the spectrum aggregation screen in the majority of geographic areas in which we hold or have access to licenses, and thus we may be able to acquire additional spectrum either from the FCC in an auction or from third parties in private transactions in most locations in which we operate. However, we are approaching or could trigger the spectrum screen if we attempt to acquire additional spectrum in the U.S. Virgin Islands. Similarly, our competitors may be able to strengthen their operations by making additional acquisitions of spectrum in our markets or by further consolidating the industry.

**Other Requirements.** The Communications Act and the FCC's rules impose a number of additional requirements upon wireless service providers. A failure to meet or maintain compliance with the Communications Act and/or the FCC's rules may subject us to fines, forfeitures, penalties or other sanctions.

Wireless licensees must satisfy a variety of FCC requirements relating to technical and reporting matters. Licensees must often coordinate frequency usage with adjacent licensees and permittees to avoid interference between adjacent systems. In addition, the height and power of transmitting facilities and the type of signals emitted must fall within specified parameters. For certain licensed services, a variety of incumbent government and non-government operations may have to be relocated before a licensee may commence operations, which may trigger the incurrence of relocation costs by the incoming licensee.

The radio systems towers that we own and lease are subject to Federal Aviation Administration and FCC regulations that govern the location, marking, lighting, and construction of towers and are subject to the requirements of the National Environmental Policy Act, National Historic Preservation Act, and other environmental statutes enforced by the FCC. The FCC has also adopted guidelines and methods for evaluating human exposure to radiofrequency field emissions from radio equipment. We believe that all of our radio systems on towers that we own or lease comply in all material respects with these requirements, guidelines, and methods.



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The FCC has adopted requirements for cellular, PCS and other CMRS providers to implement basic 911 and E-911 services. These services provide state and local emergency service providers with the ability to better identify and locate 911 callers using wireless services, including callers using special devices for the hearing impaired. Because the implementation of these obligations requires that the local emergency services provider have certain facilities available, our specific obligations are set on a market by market basis as emergency service providers request the implementation of E-911 services within their locales. As part of an E-911 initiative, the FCC adopted stronger rules regarding E-911 location accuracy and continues to evaluate the potential for improving location accuracy for 911 calls. The extent to which we are required to deploy E-911 services will affect our capital spending obligations. Federal law limits our liability for uncompleted 911 calls to a degree commensurate with wireline carriers in our markets.

The FCC also has adopted rules requiring wireless carriers and certain other text messaging service providers to provide text-to-911 service and an automatic “bounce back” text message to consumers who try to text 911 where text to 911 is not available, indicating the unavailability of such services. Like E-911 services, the obligation to provide these services is largely tied to requests from emergency service providers for these services. We are currently in compliance with all public safety answering point requests we have received. The FCC has also sought further comment regarding additional regulations pertaining to the provision of text to 911 service.

In addition to CMRS licenses, our wireless business relies on FCC-licensed spectrum for “Common Carrier Fixed Point to Point Microwave” referred to as common carrier microwave. We currently operate over 250 licensed microwave links. Common carrier microwave stations are generally used in a point-to-point configuration for cellular site backhaul connections or to connect points on the telephone network that cannot be connected using standard wireline or fiber optic cable because of cost or terrain. The majority of our license grants are for a period of ten years. The FCC grants license renewal applications in the ordinary course.

The FCC established a Wireless Emergency Alerts (“WEA”) system that allows CMRS providers to transmit emergency alerts to the public. This system is voluntary. We are opting in to the service and are currently providing it to all of our retail wireless customers where technically feasible. The rules governing participation contain many requirements, such as alert logging, maximum message lengths, alerts regarding threats to police officers, and support for non-English messages. Many of these requirements are not yet effective or will change over the next 12 months. We are monitoring these effective dates and plan to fully comply with the rules.

The FCC’s rules require CMRS providers to offer “roaming” services to other providers. Roaming enables one provider’s customers to obtain service from another provider when the customer is using their wireless device in an area served by the second provider. These rules apply to voice, messaging, and data services, including Internet access, although the roaming rules vary somewhat among these services. We are obligated to offer roaming, and we have the right to seek roaming from other providers, on reasonable terms and conditions. The FCC has identified a variety of factors that are relevant to whether an offer to provide roaming is reasonable, including the price, terms and conditions, and whether the two providers’ networks are technologically compatible. Changes in the FCC’s roaming regulations may affect the terms under which we provide roaming services to third parties and may affect our ability to secure roaming arrangements with other CMRS providers on behalf of our retail wireless customers.

We are obligated to pay certain annual regulatory fees and assessments to support FCC wireless industry regulation, as well as fees supporting federal universal service programs, number portability, regional database costs, centralized telephone numbering administration, telecommunications relay service for the hearing impaired and application filing fees. These fees are subject to change periodically by the FCC and the manner in which carriers may recoup these fees from customers is subject to various restrictions.

## Wireline Services

The Communications Act encourages competition in local telecommunications markets by removing barriers to market entry and imposing on non-rural incumbent local exchange carriers (“ILECs”) various requirements related to, among other things, interconnection, access to unbundled network elements, co-location, access to poles, ducts, conduits,

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and rights of way, wholesale and resale obligations, and telephone number portability. Our ILEC operations in the U.S. Virgin Islands through Viya are exempt from most of such federal requirements pursuant to a rural exemption.

While, to date, the FCC has declined to classify interconnected voice-over Internet protocol (“VoIP”) service as a telecommunications service or information service, it has imposed a number of consumer protection and public safety obligations on interconnected VoIP providers, relying in large part on its general ancillary jurisdiction powers. To the extent that we provide interconnected VoIP service, we are subject to a number of these obligations.

The FCC recently completed several related proceedings in which it adopted actions to help expedite the deployment of wireline network infrastructure. Those actions include adopting rules to facilitate the attachment of new facilities to utility poles and eliminating or reducing requirements to provide notice of service discontinuance. We expect these FCC actions will facilitate our ability to expand our wireless network coverage. However, these FCC decisions have been appealed in federal circuit court, and we cannot predict with any certainty the likely timing or outcome of any court actions.

### Video Services

Video services systems are regulated by the FCC under the Communications Act. The FCC regulates our programming selection through local broadcast TV station mandatory carriage obligations, constraints on our retransmission consent negotiations with local broadcast TV stations, and limited regulation of our carriage negotiations with cable programming networks. The FCC and federal laws also impose rules governing, among other things, leased cable set-top boxes, our ability to collect and disclose subscribers’ personally identifiable information, access to inside wiring in multiple dwelling units, cable pole attachments, customer service and technical standards, and disability access requirements. Failure to comply with these regulations could subject us to penalties. The FCC is examining whether it should modernize its video regulations and already has updated or eliminated some requirements, but we cannot predict whether and to what extent the FCC will continue to pursue deregulation in this space.

### Wireless and Wireline Services

**Universal Service.** In general, all telecommunications providers are obligated to contribute to the federal Universal Service Fund (“USF”), which is used to promote the availability of wireline and wireless telephone service to individuals and families qualifying for federal assistance, households located in rural and high cost areas, and to schools, libraries, and rural health care providers. Contributions to the federal USF are based on end-user interstate and international telecommunications revenue. Some states have similar programs that also require contribution. The FCC has suggested that it may examine the way in which it collects carrier contributions to the USF, including a proposal to base collections on the number of telephone numbers or network connections in use by each carrier, and some states have changed or are considering changing their contribution methodologies. We contribute to the USF as required by the rules throughout the U.S., and receive funds from the USF for providing service in rural areas of the United States, including the U.S. Virgin Islands. The collection of USF fees and distribution of USF support is under continual review by state and federal legislative and regulatory bodies, and changes to these programs could affect our revenues. We are subject to audit by the Universal Service Administration Company (“USAC”) with respect to our contributions and our receipts of universal service funding. We believe we are substantially compliant with all FCC and state regulations related to the receipt and collection of universal service support.

In November 2011, the FCC released an order reforming the USF program. As part of the USF reforms, the FCC ordered the creation of two new replacement funds, the Connect America Fund and the Mobility Fund, both of which require the use of USF funds for broadband and voice services. These funds are intended to provide targeted financial support to areas that are unserved or under served by voice and broadband service providers. We and our subsidiaries

pay into, and certain of our subsidiaries receive funding from, these funds. We cannot predict the impact of any changes in the amounts we pay or receive in USF funds or whether such a change will occur in the future.

In July 2012, the FCC initiated the application process for the Mobility Fund I program, a reverse auction for a one time distribution of up to \$300 million intended to stimulate third and fourth generation wireless coverage in

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unserved and under served geographic areas. A number of our subsidiaries participated in the Mobility Fund I reverse auction on September 27, 2012 and bid successfully for approximately \$21.7 million in one time support to expand voice and broadband networks in certain geographic areas in order to offer either 3G or 4G coverage. These subsidiaries have completed the construction of the facilities funded by this support and have finalized the submissions necessary to receive their final payments.

In August 2018, we were awarded \$79.9 million over 10 years under the Connect America Fund Phase II Auction. The funding requires we provide fixed broadband and voice services to certain eligible areas in the United States. We are subject to operational and reporting requirements under the program. We expect to begin receiving the funding in 2019 and will record the amounts received as revenue in our financial statements.

Our business in the U.S. Virgin Islands also benefits from USF support. Our U.S. Virgin Islands wireline business has historically received, and continues to receive, annual support of approximately \$16.4 million. In addition, after the devastation caused by the Hurricanes in September 2017, the FCC provided approximately \$9.7 million in recovery support in November 2017, and an additional \$7.3 million in recovery support in August 2018. The FCC has an ongoing proceeding in which it has proposed to allocate USF funding of up to \$18.65 million per year (inclusive of the \$16.4 million per year currently allocated to Viya) for 10 years to fixed voice and broadband providers in the U.S. Virgin Islands. In this proceeding, the FCC has asked questions about how to award this funding. Specifically, the FCC has asked for public comment regarding which entity or entities should be eligible for the funding and how it should be allocated among eligible recipients. Viya has urged the FCC to maintain support to Viya at or above the current level of \$16.4 million per year for a period of no less than ten years. The FCC's proceeding remains open at this time and we cannot predict its outcome.

**Intercarrier Compensation.** Under federal and state law, telecommunications providers are sometimes required to compensate one another for originating and terminating traffic for other carriers. Consistent with these provisions, we currently receive compensation from other carriers and also pay compensation to other carriers. In October 2011, the FCC, significantly revised its intercarrier compensation regime such that most of these compensation obligations ceased by July 1, 2017, and most remaining obligations will cease by July 1, 2020. As a result, this type of intercarrier compensation is no longer material to our business.

**Net Neutrality.** In January 2018, the FCC released a decision rescinding various "net neutrality" requirements governing how broadband Internet access providers were permitted to offer broadband service. As a result, under the current approach, broadband Internet access providers must publicly disclose detailed information regarding their service offerings, Internet traffic management processes, and other practices affecting broadband customers, but are otherwise largely limited in their ability to block, throttle, or prioritize specific types of Internet traffic. The FCC also held that states are prohibited from enacting their own versions of these or similar requirements. Various Internet content providers, numerous states, and several advocacy groups have challenged the FCC's 2018 decision in federal appeals court. Among other things, the challengers argue that the court should reinstate previous rules regulating broadband providers' treatment of Internet traffic on their networks, and that the FCC lacked authority to prohibit states from adopting state regulations. We cannot predict with any certainty the likely timing or outcome of this court challenge. In the meantime, several states have adopted, or are considering, net neutrality requirements of their own. Some of these are currently subject to legal challenge by broadband providers and/or the United States government in federal district court. We cannot predict with any certainty the likely timing or outcome of these or future challenges.

**Telecommunications Privacy Regulations.** We are subject to federal regulations relating to privacy and data security that impact all parts of our business. On April 3, 2017, the President signed into law a bill that nullified privacy rules adopted by the FCC in October 2016, which would have imposed certain transparency, consumer choice, data security, and data breach notification requirements on telecommunications providers, including broadband Internet providers. However, certain other federal statutory and regulatory privacy and data security requirements continue to

apply to our telecommunications services. Other parts of our business are subject to the privacy and data security oversight by other federal regulators, including the Federal Trade Commission. Generally, attention to privacy and data security requirements is increasing. We believe that we comply with all currently applicable requirements, but we cannot predict future changes of law in this area or the impact of any such changes on our businesses.

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CALEA. Under certain circumstances, federal law also requires telecommunications carriers to provide law enforcement agencies with capacity and technical capabilities to support lawful wiretaps pursuant to the Communications Assistance for Law Enforcement Act ("CALEA"). Federal law also requires compliance with wiretap related record keeping and personnel related obligations. We are in compliance with all such requirements currently applicable to us. The FCC has adopted rules that apply CALEA obligations to high-speed Internet access and VoIP services. Maintaining compliance with these law enforcement requirements may impose additional capital spending obligations on us to make necessary system upgrades.

### Obligations Due to Economic Stimulus Grants

One of our subsidiaries has received awards from the Broadband Technology Opportunities Program ("BTOP") of the U.S. Department of Commerce ("DOC") pursuant to the American Recovery and Reinvestment Act of 2009 ("ARRA"). As a BTOP sub-recipient, we are subject to the various terms and conditions included in the agency's Notice of Funds Availability published in the Federal Register on July 9, 2009. We are also required to comply with other terms and conditions of the individual DOC grants. We believe we are currently in material compliance with all BTOP and DOC requirements applicable to our grants.

### U.S. State Regulation

#### Wireless Services

Federal law preempts state and local regulation of the entry of, or the rates charged by, any CMRS provider. As a practical matter, we are free to establish wireless rates and offer new wireless products and services and are subject to only a minimum level of state regulatory requirements. The states in which we operate maintain nominal oversight jurisdiction. For example, although states do not have the authority to regulate the entry or the rates charged by CMRS providers, states may regulate the "other terms and conditions" of a CMRS provider's service. Most states still maintain some form of jurisdiction over complaints as to the nature or quality of services and as to billing issues. A number of state authorities have initiated actions or investigations of various wireless carrier practices. The outcome of these proceedings is uncertain and could require us to change certain of our practices and ultimately increase state regulatory authority over the wireless industry. States and localities assess on wireless carriers taxes and fees that may equal or even exceed federal obligations.

The location and construction of our wireless transmission towers and antennas are subject to state and local environmental regulation, as well as state or local zoning, land use and other regulation. Before we can put a system into commercial operation, we must obtain all necessary zoning and building permit approvals for the cell site and tower locations. The time needed to obtain zoning approvals and requisite state permits varies from market to market and state to state. Likewise, variations exist in local zoning processes. If zoning approval or requisite state permits cannot be obtained, or if environmental rules make construction impossible or infeasible on a particular site, our network design might be adversely affected, network design costs could increase and the service provided to our customers might be reduced.

The FCC recently completed several related proceedings in which it adopted actions to help expedite the deployment of wireless network infrastructure. Those actions include limiting state and local regulations governing the construction of towers and the installation of small cells and other facilities within and outside public rights-of-way when the FCC determines those regulations can be barriers to deployment. Among other things, the FCC established new shorter shot clocks for completion of local reviews of small wireless facility applications and eliminated federal environmental and historic preservation review of small wireless facilities. We expect these FCC actions to facilitate our ability to expand our wireless network coverage.

U.S. Virgin Islands Regulation

Virgin Islands Public Service Commission

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In addition to the regulations described above, our operations in the U.S. Virgin Islands are also subject to the U.S. Virgin Islands Public Utilities Code, pursuant to which the Virgin Islands Public Service Commission (“PSC”) regulates certain telecommunications and cable TV services that Viya provides in the U.S. Virgin Islands. Among other things, the PSC establishes the rates and fees that we may charge local exchange residential and enterprise customers in the U.S. Virgin Islands. The PSC is required by U.S. Virgin Islands law to review local utility rates every five years. In June 2016, the PSC adopted an order increasing the rates and fees that we may charge subject to certain conditions and future obligations. We believe that we have satisfied these requirements. In addition, certain of our subsidiaries entered into a transfer of control agreement with the PSC on July 1, 2016, which imposes certain operational and reporting obligations on the Viya companies. The PSC currently is evaluating our compliance with certain of these requirements. Although we believe that we comply with all such requirements, some of which were temporarily waived by the PSC as a result of the Hurricanes in September 2017, we cannot predict the outcome of this proceeding. Further, as a condition to Viya’s receipt of USF funds from the FCC, the PSC is required to certify on an annual basis that Viya is in compliance with certain eligible telecommunication carrier (“ETC”) obligations. We believe that we comply with all such obligations but cannot predict the outcome of future PSC proceedings relating to Viya’s ETC status.

Our subsidiaries provide cable TV service in the U.S. Virgin Islands pursuant to two franchises granted by the PSC. Each franchise was renewed in July 2015 by an order issued by the PSC, but the PSC has not yet issued new franchise agreements memorializing these renewals. We cannot predict what requirements will be included in the renewed franchise agreements. However, we understand that the renewed franchise agreements will likely contain substantially similar terms and conditions as the prior franchise agreements, including a 15-year term. We also believe that the renewed franchise agreements will exclude prior language permitting the PSC to regulate our cable rates. The FCC is considering whether it should place new limits on the powers of local cable franchising authorities such as the PSC, but we cannot predict what, if any, action the FCC will take or how any such changes will impact our business.

The PSC is reviewing the damage to our network caused by the Hurricanes, as well as our efforts to restore telecommunications and video services in the U.S. Virgin Islands and maintain compliance with our communications regulatory obligations under U.S. Virgin Islands laws during our restoration efforts. We do not know what, if any, action the PSC will take in the course of this review.

## Virgin Islands Research and Technology Park

Our video and wireless companies in the U.S. Virgin Islands also receive tax benefits as qualifying participants in the U.S. Virgin Islands’ Research & Technology Park (“RTPark”) program. RTPark was chartered with the goal of promoting technology-based economic development in the territory and offering attractive economic incentives to companies that contribute to the development of the Virgin Islands through local employment and sourcing, as well as significant contributions to both the economy and the non-profit sectors of the community. As part of the program, our participating entities currently receive a 100% tax exemption applied against gross receipts and excise taxes as well as a 90% exemption against income taxes. These benefits resulted in tax exemptions of approximately \$2.7 million during the year ended December 31, 2018. In order to qualify, we are required to maintain certain capital investments over the first five years of the agreement, pay monthly management fees of 0.4% of tenant company revenue, make

annual charitable contributions to the University of the Virgin Islands, purchase products and services locally when feasible and provide in-kind services to RTPark.

#### Guyana Regulation

Our subsidiary, Guyana Telephone & Telegraph Limited (“GTT”), in which we hold an 80% interest, is subject to regulation in Guyana under the provisions of GTT’s License from the Government of Guyana, the Guyana Public Utilities Commission Act of 1999 as amended (or “PUC Law”) and the Guyana Telecommunications Act 1990 (or “Telecommunications Law”). The Public Utilities Commission of Guyana (or “PUC”) is an independent statutory body with the principal responsibility for regulating telecommunications rates and services in Guyana. The Ministry of Telecommunications, an agency of the Government of Guyana, has formal authority over telecommunications licensing and related issues.

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**Licenses.** GTT provides domestic fixed (both wireline and wireless) and international voice and data services in Guyana pursuant to a license from the Government of Guyana granting GTT the exclusive right to provide the following: public telephone, radio telephone, and pay telephone services; domestic fixed services (both wireline and wireless); international voice and data services; sale of advertising in any telephone directories; and switched or non-switched private line service. The license, which was issued in December 1990, had an initial 20 year term. Pursuant to the license, GTT also provides mobile wireless telephone service in Guyana on a non exclusive basis pursuant to an initial twenty-year term. In November 2009, GTT notified the Government of its election to renew both the exclusive and non-exclusive license grants for an additional 20 year term expiring in 2030. In exercising this option, GTT reiterated to the Government that GTT and the Company would be willing to voluntarily relinquish the exclusivity aspect of GTT's licenses, but only as part of an alternative agreement with the Government. On December 15, 2010, the Government, through the Office of the President, sent a letter to GTT indicating that GTT's license was renewed until such time as a new legislative and regulatory regime to reform the telecommunications sector in Guyana is brought into force; however, GTT formally notified the Government that it is entitled to an unconditional renewal of both the exclusive and non exclusive license grants for an additional period of twenty years or until such time as GTT and the Company enter into an alternative agreement with the Government.

**PUC Law and Telecommunications Law.** The PUC Law and the Telecommunications Law provide the general framework for the regulation of telecommunications services in Guyana. As a general matter, the PUC has authority to regulate GTT's domestic and international telecommunications services and rates and to require GTT to supply certain technical, administrative and financial information as it may request. The PUC claims broad authority to review and amend any of GTT's programs for development and expansion of facilities or services, although GTT has challenged the PUC's view on the scope of its authority. For a description of recent actions of the PUC, see Note 14 to the Consolidated Financial Statements included in this Report.

**Regulatory Developments.** In 2016, the Government of Guyana passed new telecommunications legislation introducing material changes to many features of Guyana's existing telecommunications regulatory regime with the intention of introducing additional competition into Guyana's telecommunications sector. The legislation that passed, however, has not yet been implemented and does not include a provision that permits other telecommunications carriers to receive licenses automatically upon signing of the legislation, nor does it have the effect of terminating our exclusive license. Instead, the legislation, as passed, requires the Minister of Telecommunications to conduct further proceedings and issue implementing orders to enact the various provisions of the legislation. We have met with the Government of Guyana, including as recently as December 2018, to discuss modifications of our exclusivity rights and other rights under our existing agreement and license. However, there can be no assurance that those discussions will be concluded before the Government issues new licenses as contemplated by the legislation or at all, or that they will satisfactorily address the Company's contractual exclusivity rights. Although we believe that we would be entitled to damages or other compensation for any involuntary termination of our contractual exclusivity rights, we cannot guarantee that we would prevail in a proceeding to enforce our rights or that our actions would effectively halt any unilateral action by the Government

**FCC Rule Making and International Long Distance Rates.** The actions of foreign telecommunications regulators, especially the FCC in the United States, can affect the settlement or termination rate payable by foreign carriers to GTT for incoming international voice calls. While the FCC continues to monitor and evaluate termination rate levels and benchmarks, we cannot predict when and if the FCC will further reduce settlement rates or the effect lower rates will have on revenue in our International Telecom segment.

## **Bermuda Regulation**

In Bermuda, we were historically subject to Bermuda's Telecommunications Act of 1986 that authorized us to use spectrum to deliver services under our "Class B" license. In 2013, the Regulatory Authority implemented the Electronic

Communications Act of 2011 (“ECA”), which allows communications service providers to enter new lines of business and introduces competition in the sector. As the government of Bermuda reforms the local telecommunications market, it has imposed regulatory and other fees and adopted additional regulation that have increased the regulatory costs incurred by, and could otherwise impact, our Bermuda operations. In 2019, the Regulatory Authority is expected to

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conduct a review of the market as required by the ECA. We cannot now accurately predict the impact to the competitive position of our Bermuda business or limitations that such actions will have on our ability to grow.

### Renewable Energy Services Regulation

#### India Regulation

##### The Electricity Act, 2003

The Electricity Act, 2003, (the “Electricity Act”), regulates and governs the generation, transmission, distribution, trading and use of electricity in India. Under the Electricity Act, the transmission, distribution and trade of electricity are regulated activities that require licenses from the Central Electricity Regulatory Commission, State Electricity Regulatory Commissions, or “SERCs”, or the joint commission (constituted by an agreement entered into by two or more state governments or the central government in relation to one or more state governments, as the case may be).

In terms of the Electricity Act, any generating company may establish, operate and maintain generating stations without obtaining a license if it complies with prescribed technical standards relating to grid connectivity. The generating company is required to establish, operate and maintain generating stations, tie-lines, sub-stations and dedicated transmission lines.

Further, the generating company may supply electricity to any licensee or even directly to consumers, subject to availing open access to the transmission and distribution systems and payment of transmission charges, including wheeling charges and open access charges, as may be determined by the relevant electricity regulatory commission. In terms of the Electricity Act, open access means the non-discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system, by any licensee or consumer or a person engaged in generation in accordance with the regulations specified by the relevant electricity regulatory commission.

The relevant electricity regulatory commission is empowered, among other things, to determine or adopt the tariff for supply of electricity from the generating company to a distribution licensee (such as the distribution utility companies), for transmission of electricity, wheeling of electricity and retail sale of electricity. However, the relevant electricity regulatory commission may, in case of shortage of supply of electricity, fix the minimum and maximum tariffs for sale or purchase of electricity under agreements between a generating company and a licensee or between licensees, for a period not exceeding one year, to ensure reasonable prices of electricity. While determining the tariff, commissions are required to be guided by, among other things, the promotion of co-generation and generation of electricity from renewable sources of energy.

The Electricity (Amendment) Bill, 2014 was introduced in the lower house of the Indian Parliament to amend certain provisions of the Electricity Act. Among other things, the amendment empowers the Indian government to establish and review a national renewable energy policy, tariff policy and electricity policy. Further, the Indian government may, in consultation with the state governments, notify policies and adopt measures for promotion of renewable energy generation including through tax rebates, generation-linked incentives, creation of a national renewable energy fund, development of the renewable industry and for effective implementation and enforcement of such measures.

Generating companies are also required to ensure compliance with certain other regulations, including the Central Electricity Authority (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) Regulations, 2011.

The National Electricity Policy, 2005

The Indian government approved the National Electricity Policy on February 12, 2005, in accordance with the provisions of the Electricity Act. The National Electricity Policy, 2005 has material effects on our business since it provides the policy framework to the central and state Electricity Regulatory Commissions in developing the power

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sector, supplying electricity and protecting interests of consumers and other stakeholders, while keeping in view the availability of energy resources, technology available to exploit such resources, economics of generation using different resources and energy security issues. The National Electricity Policy emphasizes the need to promote generation of electricity based on non-conventional sources of energy.

### Central Electricity Regulatory Commission (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2012

The Central Electricity Regulatory Commission announced the Central Electricity Regulatory Commission (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2012 (the “Tariff Regulations”), which prescribe the criteria that may be taken into consideration by the SERCs while determining the tariff for the sale of electricity generated from renewable energy sources that include, among other things, return on equity, interest on loan capital and depreciation. Accordingly, such tariffs cannot be determined independently by renewable energy power producers such as our company. Pursuant to the Tariff Regulations, the Central Electricity Regulatory Commission is required to determine the rate of return on equity which may be adopted by the SERCs to determine the generic tariff, keeping in view the overall risk and prevalent cost of capital, which factors are also to be taken into consideration by SERCs while determining the tariff rate. The Tariff Regulations prescribe that the normative return on equity shall be 20% per annum for the first 10 years and 24% per annum from the 11th year onward.

The Tariff Regulations also provide the mechanism for sharing of carbon credits from approved clean development mechanism projects between renewable energy power producers and the concerned beneficiaries. Under the Tariff Regulations, the project developer is entitled to retain 100% of the gross proceeds on account of clean development mechanism project benefits in the first year following the date of commercial operation of the generating station. Subsequently, in the second year, the share of the beneficiaries is increased to 10% and then progressively increased by 10% every year until it reaches 50%, after which the clean development mechanism project proceeds are to be shared equally between the generating company and the beneficiaries.

### MNRE

The Ministry of New and Renewable Energy (“MNRE”) in India has been facilitating the implementation of programs harnessing renewable power, renewable energy for industrial and commercial applications and development. The ministry is focused on a mix of subsidies, fiscal incentives, preferential tariffs, market mechanisms and affirmative actions such as renewable purchase obligations by way of legislation and policies. It has introduced the generation-based incentive scheme to support small grid solar projects, pursuant to which the MNRE will pay incentives to the state utilities when they directly purchase solar power from project developers. One such incentive is exemption of customs and excise duties on all rooftop Solar PV Power Projects with a minimum capacity of 100 kw.

### Renewable Purchase Obligations

The Electricity Act promotes the development of renewable sources of energy by requiring the SERCs to ensure grid connectivity and the sale of electricity generated from renewable sources. In addition, it requires the SERCs to specify, for the purchase of electricity from renewable sources, a percentage of the total consumption of electricity within the area of a distribution licensee, which are known as RPOs. Pursuant to this mandate, most of the SERCs have specified solar and non-solar RPOs in their respective states. In terms of the RPO regulations, RPOs are required to be met by obligated entities (that is, distribution licensees, captive power plants and open access consumers) by purchasing renewable energy, either by entering into PPAs with renewable energy power producers or by purchasing renewable energy certificates. The RPO regulations require the obligated entities to purchase power from renewable energy power producers such as our company. In the event of default by an obligated entity in any fiscal year, the SERCs may direct the obligated entity to deposit an amount determined by the relevant SERC, into a fund to be utilized for, among other things, the purchase of renewable energy certificates. Additionally, pursuant to the Electricity Act, a defaulting obligated entity may also be liable to pay a penalty as determined by the SERCs.



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In May 2015, the Supreme Court of India upheld a regulation that made it compulsory for captive power plants and open access consumers to purchase electricity to fulfill their RPOs. This judgment is expected to boost the demand for renewable energy by captive players and also improve the marketability of renewable energy certificates in India.

### Available Information

Our website address is [www.atni.com](http://www.atni.com). The information on our website is not incorporated by reference in this Report and you should not consider information provided on our website to be part of this Report. Investors may access, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, plus amendments to such reports as filed or furnished pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, through the SEC's electronic data gathering, analysis and retrieval system ("EDGAR"), via electronic means on the SEC's website at [www.sec.gov](http://www.sec.gov), or through the "Financials & Filings" portion of the "Investor Relations" section of our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. In addition, paper copies of these documents may be obtained free of charge upon request by writing to us at 500 Cummings Center, Beverly, Massachusetts 01915, Attention: Investor Relations, by calling us at (978) 619-1300 or by emailing us at [ir@atni.com](mailto:ir@atni.com).

We have adopted a written Code of Ethics that applies to all of our employees and directors, including, but not limited to, our principal executive officer, principal financial officer, and principal accounting officer or controller, or persons performing similar functions. Our Code of Ethics, along with our Compensation Committee Charter, Audit Committee Charter and Nominating and Corporate Governance Committee Charter, are available at the Corporate Governance section of our website. We intend to make any disclosure required under the SEC rules regarding amendments to, or waivers from, our Code of Ethics on our website.

## ITEM 1A. RISK FACTORS

In addition to the other information contained in, or incorporated by reference into, this Report, you should carefully consider the risks described below that could materially affect our business, financial condition, or future results. These risks are not the only risks facing us. Additional risks and uncertainties not presently known to us or that we currently believe are immaterial also may materially adversely affect our business, financial condition and/or results of operations.

### Risks Related to our U.S. Telecom Segment

A significant portion of our U.S. wholesale wireless revenue is derived from a small number of customers.

A substantial portion of our U.S. Wireless revenue is generated from four national wireless service providers. Our U.S. wholesale wireless revenues accounted for approximately 20.1% of our consolidated revenues in 2018.

Our relationships with our roaming customers generally are much more financially significant for us than for our customers. Frequently, our relationships with our roaming customers do not require them to "prefer" our networks or require them to send us a minimum amount of traffic. Instead, roaming customers may choose to utilize other networks, if available, for their subscribers' roaming use. If our markets currently included in our roaming partners' home calling areas are instead subject to the imposition of additional roaming charges or if we fail to keep any of our roaming customers satisfied with our service offerings or economic terms, we could lose their business, experience less roaming traffic or be unable to renew or enter into new agreements with these customers on beneficial terms (including pricing), resulting in a substantial loss of revenue, which would have a material adverse effect on our

results of operations and financial condition. In addition, if these customers build or acquire wireless networks in our service areas, we would lose revenue. Should any of these customers take such actions over a significant portion of the areas we serve, it may have a material adverse effect on our results of operations and financial condition.

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We may have difficulty meeting the growing demand for data services.

Demand for smartphones and data services continues to grow across all of our wireless markets and our value to our customers in some markets depends in part on our network's ability to provide high quality and high capacity network service to smartphone devices. Indeed, much of the revenue growth in our wireless businesses in the past few years has been attributable to increased demand for data services. However, if data usage increases faster than we anticipate and exceeds the then available capacity of any of our networks, our costs to deliver roaming services may be higher than we anticipate. In the United States, the dearth of available spectrum and or non-transparent spectral allocation practices in our industry means that we cannot guarantee that we will be able to acquire additional spectrum at a reasonable cost or at all to ensure our ability to maintain or grow our business and traffic volumes. As demand for advanced mobile data services continues to grow, we may have difficulty satisfying our retail and wholesale customers' demand for these services without substantial upgrades and additional capital expenditures and operating expenses, which could have an adverse effect on our results of operations and financial condition.

### Risks Relating to Our International Telecom Segment

Changes in USF funding could have an adverse impact on our financial condition or results of operations.

Viya, our subsidiary operating video services, Internet, wireless and landline services in the U.S. Virgin Islands, currently receives high-cost USF support in the U.S. Virgin Islands of approximately \$16.4 million per year. The FCC has proposed in response to the damage caused by the Hurricanes to allocate \$18.65 million per year for 10 years in the U.S. Virgin Islands to wireline voice and broadband providers and this amount is inclusive of the USF funding currently received by Viya. The FCC has not yet determined which entities will be eligible for this funding or what standards will be used to allocate the funding. Any reduction in the amount of USF funding allocated to Viya in this proceeding could negatively affect our efforts to build and maintain networks in the U.S. Virgin Islands and our ability to provide services supported by USF funds, which could adversely affect the revenues of our International Telecom segment.

We may have difficulty securing video services content from third parties desirable to our customers on terms and conditions favorable to us.

We have secured licensing agreements with numerous content providers to allow our various video services businesses to offer a wide array of popular programming to our subscribers. Typically, we make long-term commitments relating to these rights in advance even though we cannot predict the popularity of the services or ratings the programming will generate. License fees may be negotiated for a number of years and may include provisions requiring us to pay part of the fees even if we choose not to distribute such programming.

The success of our video services operations depends on our ability to access an attractive selection of video programming from content providers on terms and pricing favorable to us. Our ability to provide movies, sports and other popular programming is a major factor that attracts subscribers to our services. Our inability to provide the content desired by our subscribers on satisfactory terms or at all could result in reduced demand for, and lower revenue from, our cable operations that may not offset the typically large subscription fees that we pay for these services. In certain cases, we may not have satisfactory contracts in place with the owners of our distributed content, leading to such parties' desire for increased renewed contractual pricing or leading to disputes with such parties including claims for copyright or other intellectual property infringement.

The cost of obtaining programming associated with providing our video services is significant. The terms of many of our programming contracts are for multiple years and provide for future increases in the fees we must pay. In addition, local over-the-air television stations are increasingly seeking substantial fees for retransmission of their stations over our cable networks. Historically, we have absorbed increased programming costs in large part through increased prices to our customers. We cannot assure that competitive and other marketplace factors will permit us to continue to pass through these costs or that we are able to renew programming agreements on comparable or favorable terms. Also, programming in the Caribbean typically includes Latin American or Spanish programming, while our subscribers

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typically prefer content in English. To the extent that we are unable to reach acceptable agreements with programmers or obtain desired content, we may be forced to remove programming from our line-up, which could result in a loss of customers and materially adversely affect our results of operations and financial condition.

Our exclusive license to provide local exchange and international voice and data services in Guyana is subject to significant political and regulatory risk.

Since 1991, our subsidiary Guyana Telephone and Telegraph, Ltd. (“GTT”) has operated in Guyana pursuant to a license from the Government of Guyana to be the exclusive provider of domestic fixed and international voice and data services pursuant to a license with an initial term ending in December 2010, which was renewable at our sole option for an additional 20-year term. In November 2009, we notified the Government of Guyana of our election to renew our exclusive license for an additional 20-year term expiring in 2030. On December 15, 2010, we received correspondence from the Government of Guyana indicating that our license had been renewed until such time that new legislation is in place with regard to the Government’s intention to expand competition within the sector; however, we believe our exclusive license continues to be valid unless and until such time as we enter into an alternative agreement with the Government.

In 2016, the Government of Guyana passed new telecommunications legislation introducing material changes to many features of Guyana’s existing telecommunications regulatory regime with the intention of introducing additional competition into Guyana’s telecommunications sector. The legislation that passed, however, has not yet been implemented and does not have the effect of terminating our exclusive license. Instead the legislation as passed requires the Minister of Telecommunications to conduct further proceedings and issue implementing orders to put into effect the various provisions of the legislation. We have met with the Government of Guyana to discuss modifications of the Company’s exclusivity rights and other rights under its existing agreement and license. However, there can be no assurance that those discussions will be concluded before the Government issues new licenses as contemplated by the legislation or at all, or that they will satisfactorily address the Company’s contractual exclusivity rights. Although we believe that we would be entitled to damages or other compensation for any involuntary termination of our contractual exclusivity rights, we cannot guarantee that we would prevail in a proceeding to enforce our rights or that our actions would effectively halt any unilateral action by the Government.

We are dependent on GTT for approximately 23% of our total consolidated revenues. A loss of exclusivity on international voice and data service would result in a reduction in the international call traffic and as a result, a loss in that portion of our wireline revenue. Any modification, early termination or other revocation of the exclusive domestic fixed and international voice and data license could materially adversely affect our revenues and profits and diminish the value of our investment in Guyana.

## Risks Related to Our Renewable Energy Segment

Our Facilities have a limited operating history.

All of our Facilities have limited operating histories. Our expectations about the performance of these Facilities are based on assumptions and estimates made without the benefit of a lengthy operating history. There can be no assurance that our Facilities will perform as anticipated or projected and the failure of these Facilities to perform as we expect could have a material adverse effect on the financial condition, results of operations and cash flows of our Renewable Energy segment.

Our revenues are dependent on the performance and effectiveness of our PPAs.

The cash flow from our PPAs is significantly affected by our ability to collect payments from offtakers under our PPAs. If for any reason our PPA customers are unable or unwilling to fulfill their related contractual obligations or if they refuse to accept delivery of power or otherwise terminate or breach such agreements, such non payment could have a material adverse effect on our revenues from the Renewable Energy segment. In addition, our inability to perform our obligations under the PPAs could also have a material adverse effect on these revenues. For instance, our inability to

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meet certain operating thresholds or performance measures under certain of our PPAs within specified time periods exposes us to the risk of covering the cost of any shortfall or early termination by such customer.

Certain of our PPAs provide for early termination for a variety of reasons, including in the event that (a) an offtaker is unable to appropriate government funds, (b) there is a change of law that substantially reduces the value of utility credits, (c) termination for convenience, (d) change of control in the managing structure of the offtaker, (e) insolvency of the offtaker, or (f) any change in the credit worthiness of the offtaker. While we would be entitled to a termination fee (typically set at the terminal value of the PPA) in most cases, the termination fee might not be a sufficient substitute for the payments otherwise due under the PPAs. There can be no assurances that such appropriations will be made or timely made in any given year or that tax or other incentives will continue to be available for the purchase of solar energy. However, we have the option to sell the power to the grid and claim Average Pooled Purchase Price ("APPC") in the event of early termination while we are looking for alternate buyers or offtakers to sign a new PPA contract. In the event a PPA for one or more of our projects is terminated or payments are not made (or not made in a timely manner) pursuant to such provisions, it could materially and adversely affect our results of operations from the Renewable Energy segment and our financial condition. We cannot provide any assurance that PPAs containing such provisions will not be terminated or, in the event of termination, we will be able to enter into a replacement PPA. Moreover, any replacement PPA may be on terms less favorable to us than the PPA that was terminated.

India is undergoing rapid governmental and regulatory change, which may have both short and long term material adverse impacts on our operations and ability to execute our strategic growth plans.

The government of Prime Minister Narendra Modi in India has expressed its intention to cut down on corruption and tax avoidance wherever possible and in parallel with its anti-corruption measures, the Indian government is also looking to encourage foreign investment in India. Some of these changes have had a significant impact on our operations in India in the short-term. For instance, India is currently a predominately cash economy, with millions of people having no bank accounts and transacting solely in cash. On November 8, 2016, the Indian government removed the 500 (approximately equal to \$7.60 at the time) and 1,000 rupee notes from circulation and replaced them with new 2,000 rupee notes. This step was taken to remove money from the black market economy with a view to reducing corruption, increasing tax receipts, and moving India to a modern, non-cash economy. While we have very limited cash transactions in India (mostly in relation to the payment of employee travel and subsistence expenses), much of the construction team employed by our sub-contractors is paid in cash, often on a daily basis. With the removal of 500 and 1,000 rupee notes from circulation, our sub-contractors have struggled to source the cash required to pay their labor, resulting in many of the workers responsible for our ongoing solar Facility construction failing to continue to show up to the worksite. To remedy the situation, our sub-contractors have been opening bank accounts on behalf of their workers to enable them to receive their compensation electronically; however, the construction of our solar farms in India has met with substantial delays as a result.

Further, our business model in India is predicated on the availability of "open access" rules, which allow our customers to buy their electricity from us, rather than from traditional utility providers. Any major policy changes issued by the Indian government to current open access rules, or other major policy changes, particularly when implemented in such a short time frame, could impair the development or operations of our solar projects and may adversely impact our ability to construct our power project portfolio or maintain operations, once constructed.

Land title in India can be uncertain and difficult to procure.

There is no central title registry for real property in India and the documentation of land records in India has not been fully computerized. Property records in India are generally maintained at the state and district level and in local languages, and are updated manually through physical records. Therefore, property records may not be available online for inspection or may not be updated in a timely manner, may be illegible, untraceable, incomplete or inaccurate in certain respects, or may have been kept in poor condition, which may impede title investigations or our ability to rely on such property records. Furthermore, title to land in India is often fragmented, and in many cases, land may have multiple owners. Title may also suffer from irregularities, such as non-execution or non-registration of conveyance deeds and inadequate stamping, and may be subject to encumbrances that we are unaware of. As a result, potential disputes or claims over title to the land on which our power projects are or will be constructed may arise. Any real estate issues



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could impair the development or operations of our solar projects and any defects in, or irregularities of, title may result in a loss of development or operating rights over the land that may adversely impact our ability to construct our power project portfolio or maintain operations, once constructed. Further, the government may exercise its rights of eminent domain, or compulsory acquisition in respect of land on which our projects are or will be located. Any of this may adversely affect our business, results of operations and cash flows in the future. For instance, in one such state a PIL (Public Interest Litigation) has been filed in the courts against the acquisition of large parcels of land by the solar power generation companies. Any such litigation may result in new regulations, adversely affecting our project construction and operation.

We may not be able to timely and effectively construct our developed solar project portfolio.

The development and construction of solar projects involve numerous risks and uncertainties and require extensive research, planning and due diligence. We have already incurred, and may continue to incur, significant costs for land and interconnection rights, regulatory approvals, preliminary engineering, permits, and legal and other expenses before we can determine whether a solar project is economically, technologically or otherwise feasible.

Our ability to realize profits in our investment may depend greatly on our ability to achieve the following:

- accurately identify and prioritize geographic markets for entry, both in terms of market demand and viability of solar conditions and grid connection;
- manage local operations, capital investment or component sourcing in compliance with regulatory requirements;
- procure land at cost-effective prices and on terms favorable to us;
  - procure equipment and negotiate favorable payment and other terms with suppliers;
- obtain grid interconnection rights;
- successfully complete construction prior to the expiration of any procured grid interconnection rights;
- secure reliable and enforceable EPC and O&M resources; and
- sign PPAs or other arrangements on a long-term basis on terms that are favorable to us.

Construction of our solar projects may be also be adversely affected by circumstances outside of our control, including inclement weather, adverse geological and environmental conditions, a failure to receive regulatory approvals on schedule or third-party delays in providing supplies and other materials. Any construction setbacks or delays could have a material adverse effect on our ability to obtain, maintain and perform under the PPAs we seek to procure and could result in financial penalties under these agreements and/or the termination of such agreements, which could have a material adverse impact on our prospects and results of operations in our Renewable Energy segment.

We are reliant on India's infrastructure to deliver power and any failure or technical challenges may lead to delays or other impediments that may have an adverse effect on our operations or financial condition.

India has a target of installing 175 GW of renewable energy capacity by March 2022, of which it is intended that 100 GWp will be solar power capacity. New capacity additions have historically been lower than the targeted capacity. If the government fails to reach its targeted solar capacity, it will likely result in a slowdown in our growth opportunities and adversely affect our ability to achieve our long term business objectives, targets and goals. Moreover, due to the intermittent nature of most forms of renewable energy generation, significant renewable energy generation capacity on a limited area of grid infrastructure can cause technical challenges to keep the grid in balance. Such technical issues could result in a grid company looking to turn down the export capacity of one of our solar projects for a limited or extended period, or the grid company incurring additional costs in order to manage its grid infrastructure, and looking to recharge such costs to renewable energy generators. Such actions by a grid operator could have a material adverse impact on our prospects and results of operations in our Renewable Energy segment.

For distributing power to an offtaker, we generally rely on transmission lines and other transmission and distribution facilities that are owned and operated by the respective state governments or public entities. In absence of such transmission and distribution networks, we may engage contractors to build transmission lines and other related infrastructure. In such a case, we will be exposed to additional costs and risks associated with developing transmission

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lines and other related infrastructure, such as the ability to obtain right of way from land owners for the construction of our transmission lines, which may delay and increase the costs of our projects. We may not be able to secure access to the available transmission and distribution networks at reasonable prices, in a timely manner or at all.

In some instances, we are required to distribute power to customers across long distances from our project sites. Any constraints or limited access to transmission and distribution networks, could curtail the transmission and dispatch of the full output of our projects and we may have to suspend producing electricity during the period when electricity cannot be transmitted, thereby reducing the net power generation of our projects. Any such curtailment of our power projects' output levels will reduce our electricity output and limit operational efficiencies, which in turn could have an adverse effect on our business, results of operations and cash flows.

Our ability to realize the benefits of our investment in India may be delayed and our growth prospects depend to a significant extent on the availability of additional funding options with acceptable terms.

We require a significant amount of cash to fund the installation and construction of our projects in India and other aspects of our operations, and have planned to incur debt or acquire additional equity funding in the future to complement our investment. We may also require additional cash due to changing business conditions or other future developments, including any investments or acquisitions we may decide to pursue in order to remain competitive. We intend to evaluate third-party financing options, including any bank loans, equity investors, financial leases and securitization. However, we cannot guarantee that we will be successful in obtaining additional suitable sources of financing on a timely basis or at all, or on terms or at costs that are acceptable to us, which may materially adversely affect our ability to continue construction and expand our operations in India. In addition, rising interest rates could adversely impact our ability to secure financing on favorable terms.

We face significant competition from traditional and renewable energy companies.

We face significant competition in the markets in which we operate. Our competitors may have greater operational, financial, technical and management expertise or other resources than we do and may be able to achieve better economies of scale and lower cost of capital, allowing them to sell electricity at more competitive rates. Our local competitors are likely to be funded from Indian sources of capital, and so will not have to factor foreign currency movements into their target returns, which may also enable them to sell electricity at more competitive rates. Our competitors may also have a more effective or established localized business presence or a greater appetite for risk (for example in relation to equipment warranties) and greater willingness or ability to operate with little or no operating margins for sustained periods of time. Our market position depends on our financing, development and operational capabilities, reputation and track record. Any increase in competition or reduction in our competitive capabilities could have a significant adverse impact on the margins we generate from our solar projects. We cannot assure that we will be able to compete effectively, and our failure to do so could result in an adverse effect on our business, results of operations and cash flows in our Renewable Energy segment.

#### Other Risks Related to Our Businesses

Failure of network or information technology systems, including as a result of security breaches, could have an adverse effect on our business.

We are highly dependent on our information technology (“IT”) systems for the operation of our network, our facilities delivery of services to our customers and compilation of our financial results. Failure of these IT systems, through cyberattacks, breaches of security, or otherwise, may cause disruptions to our operations. There can be no assurance that we will be able to successfully prevent a material security breach stemming from future cyberattacks. Our inability to operate our network, facilities and back office systems as a result of such events, even for a limited period of time, may result in significant expenses and impact the timely and accurate delivery of our services or other information. Other risks that may also cause interruptions in service or reduced capacity for our customers include power loss, capacity limitations, software defects and breaches of security by computer viruses, break ins or otherwise. Disruptions in our networks and the unavailability of our services or our inability to efficiently and effectively complete necessary technology or systems upgrades or conversions could lead to a loss of customers, damage to our reputation and violation

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of the terms of our licenses and contracts with customers. Additionally, breaches of security may lead to unauthorized access to our customer or employee information processed and stored in, and transmitted through, our IT systems. We may be required to expend significant additional resources to modify our protective measures or to investigate and remediate vulnerabilities or other exposures arising from operational and security risks, including notification under data privacy laws and regulations, and we may be subject to litigation, regulatory penalties and financial losses. These failures could also lead to significant negative publicity, regulatory problems and litigation.

Storms and changes in meteorological conditions may materially disrupt our operations.

Many of the areas in which we operate have experienced severe weather conditions over the years including hurricanes, tornadoes, blizzards, fires, damaging storms and floods. Some areas in which we operate may also be at risk of earthquakes. Such events may materially disrupt and adversely affect our business operations, such as the ongoing impacts of the Hurricanes in the U.S. Virgin Islands in 2017, which we assessed caused damage and losses to our wireline and wireless networks in excess of \$35.4 million. Major hurricanes also passed directly over Bermuda in 2003, 2014 and 2016, causing major damage to our network and to the island's infrastructure. Guyana has suffered from severe rains and flooding in the past as well. These types of events can also cause major disruption and harm to the communities and markets we serve, which can have a material adverse effect on our business. We cannot be sure that these types of events will not have an impact in the future or that we can procure insurance coverage against these types of severe weather events under reasonable business terms and conditions, or that any insurance coverage we are able to maintain will adequately compensate us for all damage and economic losses resulting from natural catastrophes. In addition, it may take significant time to return to pre-storm levels following any such storm or meteorological event. If we are unable to restore service on a timely and cost-effective basis, it could harm our reputation and have a material adverse effect on our business, financial condition or results of operations through continued loss of revenue and customer attrition to our competitors.

The electricity produced and revenues generated by a solar electric generation facility is highly dependent on suitable solar and associated weather conditions and our solar panels and inverters could be damaged by severe weather, such as hailstorms or tornadoes. In addition, replacement and spare parts for key components may be difficult or costly to acquire or may be unavailable. Unfavorable weather and atmospheric conditions could reduce the output of our facilities and lead to a loss of revenue from our offtakers.

In addition, rising ocean temperatures in the Atlantic Ocean may result in the intensification of hurricanes over time. If the frequency of more intense hurricanes increases in the Atlantic Ocean and Caribbean Sea, the likelihood of significant damage also increases, including in locations where we operate. After major events such as hurricanes, which can cause significant destruction to the power grid, our ability to access sites and facilities, obtain fuel and receive sufficient fuel supplies in order to provide power for stand-by generators is severely limited, and in many cases, is not possible for extended periods of time. Our ability to access ports in order to obtain relief and supplies for affected areas will also likely be significantly hampered for extended periods of time.

Regulatory changes may impose restrictions that adversely affect us or cause us to incur significant unplanned costs in modifying our business plans or operations.

We are subject to U.S. federal, state and local regulations and foreign government regulations, all of which are subject to change. As new laws and regulations are issued or discontinued, we may be required to materially modify our business plans or operations. We cannot be certain that we can do so in a cost effective manner. Our operations in the United States are subject to the Communications Act. The interpretation and implementation of the provisions of the Communications Act and the FCC rules implementing the Communications Act continue to be heavily debated and may have a material adverse effect on our business. Also, although comprehensive legislation has not yet been introduced, there have been indications that Congress may substantially revise the Telecommunications Act of 1996

and other regulations in the next few years. Our international operations are subject to similar regulations, the interpretation and implementation of which are also often debated, and which may have a material adverse effect on our business. Our interpretation of our obligations may differ from those of regulatory authorities. Both federal and state regulators, as well as international regulators, require us to pay various fees and assessments, file periodic reports and comply with various

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rules regarding our consumer marketing practices and the contents of our bills, on an on-going basis. If we fail to comply with these requirements, we may be subject to fines or potentially be asked to show cause as to why our licenses to provide service should not be revoked.

The loss of certain licenses could adversely affect our ability to provide wireless and broadband services.

In the United States, wireless licenses generally are valid for ten years from the effective date of the license, although recently-issued 600 MHz licenses were issued for a slightly longer initial term to account for the need for broadcast television incumbents to vacate the spectrum before the new wireless licensees could construct. Licensees may renew their licenses (including renewal of 600 MHz licenses) for additional ten year periods by filing renewal applications with the FCC. Our 600 MHz wireless licenses all expire in 2029. Our other wireless licenses in the U.S. expire between 2019 and 2030. We intend to renew our licenses expiring this year, and the renewal applications are subject to FCC review and are put out for public comment to ensure that the licensees meet their licensing requirements and comply with other applicable FCC mandates. Failure to file for renewal of these licenses or failure to meet any licensing requirements could lead to a denial of the renewal application and thus adversely affect our ability to continue to provide service in that license area. Furthermore, our compliance with regulatory requirements, such as E-911 and CALEA requirements, may depend on the availability of necessary equipment or software.

In our international markets, telecommunications licenses are typically issued and regulated by the applicable telecommunications ministry. The application and renewal process for these licenses may be lengthy, require us to expend substantial renewal fees, and/or be subject to regulatory or legislative uncertainty, such as we are experiencing in Guyana, as described above. Failure to comply with these regulatory requirements may have an adverse effect on our licenses or operations and could result in sanctions, fines or other penalties.

Rapid and significant technological changes in the telecommunications industry may adversely affect us.

Our industry faces rapid and significant changes in technology that directly impact our business, including the following:

- evolving industry standards;
- requirements resulting from changing regulatory regimes;
- the allocation of radio frequency spectrum in which to license and operate wireless services;
- ongoing improvements in the capacity and quality of digital technology;
- changes in end user requirements and preferences;
- convergence between video and data services;
- development of data and broadband capabilities and rapidly expanding demand for those capabilities
- migration to new generation services such as “5G” network technology;
- introduction of new telecom delivery platforms such as next generation satellite services, including SDN and IMS services; and.
- consolidation among service providers within the industry.

For us to keep pace with these technological changes and remain competitive, at a minimum we must continue to make significant capital expenditures to add to our networks’ capacity, coverage and technical capability. For example, we have spent considerable amounts adding higher speed and capacity mobile data services to many of our networks

in recent years and we think it likely that more such expenditures, including adding LTE mobile data and 5G fixed wireless access services technologies, will be needed over the next few years.

We cannot predict the effect of technological changes on our business. Alternative or new technologies may be developed that provide communications services superior to those available from us, which may adversely affect our business. For example, to accommodate the demand from our wireless customers for next generation advanced wireless products such as high speed data and streaming video, we may be required to purchase additional spectrum, however, we have had difficulty finding spectrum for sale or on terms that are acceptable to us. In addition, usage of wireless voice or broadband services in excess of our expectations could strain our capacity, causing service disruptions and



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result in higher operating costs and capital expenditures. In each of our markets, providing more and higher speed data services through our wireless or wireline networks may require us to make substantial investments in additional telecommunications transport capacity connecting our networks to the Internet, and in some cases such capacity may not be available to us on attractive terms or at all. Failure to provide these services or to upgrade to new technologies on a timely basis and at an acceptable cost could have a material adverse effect on our ability to compete with carriers in our markets.

We rely on a limited number of key suppliers and vendors for timely supply of handsets, accessories, equipment and services relating to our network or Facility infrastructure. If these suppliers or vendors experience problems or favor our competitors, we could fail to obtain sufficient quantities of the products and services we require to operate our businesses successfully.

We depend on a limited number of suppliers and vendors for equipment and services relating to our handset lineup, network infrastructure, solar equipment and our back office IT systems infrastructure. If these suppliers experience interruptions or other problems delivering these network components and other equipment on a timely basis, our subscriber or revenue growth and operating results could suffer significantly.

We source wireless devices for our retail wireless businesses from a small number of handset resellers and to a lesser extent, equipment manufacturers and depend on access to compelling devices at reasonable prices on primary and secondary markets for these devices, as well as timely delivery of devices to meet market demands. The inability to provide a competitive device lineup could materially impact our ability to attract new customers and retain existing customers. We are also reliant upon a limited number of network equipment manufacturers, including Ericsson and Nokia and a limited number of solar equipment manufacturers, including GCL for photovoltaic modules and Satcon for inverters.

We are also dependent on the ability of our solar equipment manufacturers to fulfill the warranties on our solar equipment, which typically range from 5 to 25 years in length, in the event of equipment malfunction. If these suppliers cease operations or for some reason default on their warranties, we would have to bear the expense of repairing or replacing any faulty equipment. Our business, financial condition, results of operations and cash flows could be materially adversely affected if we cannot make claims under warranties covering our Facilities. If it becomes necessary to seek alternative suppliers and vendors, we may be unable to obtain satisfactory replacement suppliers or vendors on economically attractive terms on a timely basis.

Changes in our relationships with our vendors, changes in tax policy or trade relations, interruptions in our supply chain or increased commodity or supply chain costs could adversely affect our results of operations.

A number of our equipment suppliers and vendors are based outside the United States, with China serving as one of our primary non-U.S. sources for our international telecommunications and solar equipment. Because a large portion of our equipment is sourced, directly or indirectly, from outside the United States, major changes in tax policy or trade relations, such as the disallowance of tax deductions for imported products or the imposition of additional tariffs or duties on imported products, could adversely affect our business, results of operations, effective income tax rate, liquidity and net income.

We are actively evaluating investment, acquisition and other strategic opportunities, which may affect our long term growth prospects.

We actively evaluate acquisition, investment, business divestitures and combinations, and other strategic opportunities, both domestic and international, in telecommunications, energy related and other industries, including in areas that may not be seen by the broader market as timely today. We may focus on opportunities that we believe have

potential for long term organic and strategic growth or that may otherwise satisfy our return and other investment criteria. Any acquisition or investment that we might make outside of the telecommunications or solar industries would pose the risk inherent in our entering into a new, unrelated business, including the ability of our holding company management team to effectively oversee the management team of such operations. Similarly, there are risks inherent in

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the sale of a business or assets, including the potential of a transaction's failing to close due to last minute negotiations, regulatory issues, or other unpredictable matters that can be costly and disruptive to our operations. There can be no assurance as to whether, when or on what terms we will be able to invest in, acquire or divest any businesses or assets or that we will be able to successfully integrate the business or realize the perceived benefits of any acquisition or strategic investment. Any such transactions may be accomplished through the payment of cash, issuance of shares of our capital stock or incurrence of additional debt, or a combination thereof. As of December 31, 2018, we had approximately \$193.3 million in cash, cash equivalents, restricted cash, and short term investments and approximately \$91.0 million of long term debt. How and when we deploy our balance sheet capacity will figure prominently in our longer term growth prospects and stockholder returns.

Increased competition may adversely affect growth, require increased capital expenditures, result in the loss of existing customers and decrease our revenues.

We face competition in the markets in which we operate. For example:

- In the United States, our greatest competitive risk to our wholesale wireless business is the possibility that our current roaming customers may elect to build or enhance their own networks within the rural markets in which we currently provide service, which is commonly known as "over building." If our roaming customers, who generally have greater financial resources and access to capital than we do, determine to over build our network, their need for our roaming services will be significantly reduced or eliminated.
- In Bermuda and the Caribbean, we compete primarily against Digicel, a large mobile telecommunications company in the Caribbean region, and other larger providers such as Liberty Global, a multinational telecommunications company.
- In our solar power business, we face competition from traditional utilities and renewable energy companies. Many of our competitors are larger with greater resources and are less dependent on third parties for the sourcing of equipment or operation and maintenance of their solar facilities.

Over the last decade, an increase in competition in many areas of the telecommunications industry has contributed to a decline in prices for communication services, including mobile wireless services, local and long distance telephone service and data services. Increased competition in the industry may further decrease prices. In addition, increased competition in the telecommunications and renewable energy industries could reduce our customer base, require us to invest in new facilities and capabilities and result in reduced revenues, margins and returns.

Our International Telecom segment operates mainly in island locations, where a limited number of providers maintain strong competition in these small markets. In several of our markets, we hold a dominant position as the local incumbent carrier and in others we may have a competitive advantage in our ability to bundle some combination of voice, data, video and wireless services. Increased competition, whether from new entrants or increased capital investment by our competitors in their existing networks, will make it more difficult for us to attract and retain customers in our small markets, which could result in lower revenue and cash flow from operating activities.

General economic factors, domestically and internationally, may adversely affect our business, financial condition and results of operations.

General economic factors could adversely affect demand for our products and services, require a change in the services we sell or have a significant impact in our operating costs. Energy costs are historically volatile and are subject to fluctuations arising from changes in domestic and international supply and demand, labor costs,

competition, market speculation, government regulations, or weather conditions. Rapid and significant changes in these and other commodity prices may affect our sales and profit margins. General economic conditions can also be affected by the outbreak of war, acts of terrorism, or other significant national or international events.

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In addition, an economic downturn in markets in which we currently operate or in the global market may lead to slower economic activity, increased unemployment, concerns about inflation, decreased consumer confidence and other adverse business conditions that could have an impact on our businesses. For example, among other things

- a decrease in tourism could negatively affect revenues and growth opportunities from operations in the islands and in a number of areas covered by U.S. rural and wholesale wireless operations that serve tourist destinations;
- an increase in “bad debt”, or the amounts that we have to write off of our accounts receivable could result from our inability to collect subscription fees from our subscribers; and
- we rely on the population of Guyanese living abroad who initiate calls to Guyana or are responsible for remittances to relatives living in Guyana. A prolonged economic downturn in the U.S. or Canadian economies could affect inbound calling and, therefore, our revenue in Guyana.

The impact, if any, that these events might have on us and our business, is uncertain.

Our operations are subject to economic, political, currency and other risks that could adversely affect our revenues or financial position.

Our operations may face adverse financial consequences and operational problems due to political or economic changes, such as changes in national or regional political or economic conditions, laws and regulations that restrict repatriation of earnings or other funds, or changes in foreign currency exchange rates. As new laws and regulations are issued or discontinued to implement an agenda set by the current U.S. administration, we may be required to materially modify our business plans or operations. Any of these changes could adversely affect our revenues or financial position.

In India in particular, our exposure to the fluctuation in the value of the rupee will have a direct impact on our ability to meet expected returns projected in U.S. dollars or make payment on any debt denominated in U.S. dollars. Any further currency fluctuation could have a material adverse impact on our ability to realize the returns we projected in making such investments.

Our ability to recruit and retain experienced management and technical personnel could adversely affect our results of operations and ability to maintain internal controls.

The success of our business depends on the ability of our executive officers and the officers of our operating units to develop and execute on our business plan, and to identify and pursue new opportunities and product innovations, as well as on our ability to attract and retain these officers and other highly qualified technical and management personnel. If our executive officers and the officers of our operating units are not able to execute on our business plan, this could adversely affect our business, financial condition and results of operations. Furthermore, we believe that there is, and will continue to be, strong competition for qualified personnel in the communications and energy industries and in our markets, and we cannot be certain that we will be able to attract and retain the personnel necessary for the development of our business. We rely heavily on local management to run our operating units. Many of the markets in which we operate are small and remote, making it difficult to attract and retain talented and qualified managers and staff in those markets. The loss of key personnel or the failure to attract or retain personnel with the sophistication to run complicated telecommunications or solar equipment, networks and systems could have a material adverse effect on our business, financial condition and results of operations. We do not currently maintain “key person” life insurance on any of our key employees and none of the executives at our parent company have executed employment agreements.

In addition, cultural differences abroad and local practices of conducting business in our foreign operations may not be in line with the business practices, recordkeeping and ethics standards in the United States. In order to continue to ensure compliance with foreign and U.S. laws, accounting standards and our own corporate policies, we have

implemented financial and operational controls, created an internal audit team responsible for monitoring and ensuring compliance with our internal accounting controls, and routinely train our employees, vendors and consultants. However, having substantial foreign operations also increases the complexity and difficulty of developing, implementing and

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monitoring these internal controls and procedures. If we are unable to manage these risks effectively, it could have a material adverse effect on our business, financial condition and results of operations.

### Risks Related to Our Capital Structure

Our debt instruments include restrictive and financial covenants that limit our operating flexibility.

The credit facilities that we and our subsidiaries maintain include certain financial and other covenants that, among other things, restrict our ability to take specific actions, even if we believe such actions are in our best interest. These include restrictions on our ability to do the following:

- incur additional debt;
- create liens or negative pledges with respect to our assets;
- pay dividends or distributions on, or redeem or repurchase, our capital stock;
- make investments, loans or advances or other forms of payments;
- issue, sell or allow distributions on capital stock of specified subsidiaries;
- enter into transactions with affiliates; or
- merge, consolidate or sell our assets.

Any failure to comply with the restrictions of the credit facilities or any subsequent financing agreements may result in an event of default. Such default may allow our creditors to accelerate the repayment of the related debt and may result in the acceleration of the repayment of any other debt to which a cross acceleration or cross default provision applies. In addition, these creditors may be able to terminate any commitments they had made to provide us with further funds.

Our founder is our largest stockholder and will continue to exert significant influence over us.

Cornelius B. Prior, Jr., our founder and the father of our Chairman and Chief Executive Officer, together with related entities, affiliates and family members (including our Chairman and Chief Executive Officer), beneficially owns approximately 27% of our outstanding Common Stock. As a result, he is able to exert significant influence over all matters presented to our stockholders for approval, including election and removal of our directors and change of control transactions. His interests may not always coincide with the interests of other holders of our Common Stock.

Low trading volume of our stock may limit our stockholders ability to sell shares and/or result in lower sale prices.

For the three months prior to February 1, 2019, the average daily trading volume of our Common Stock was approximately 68,000 shares. As a result, our stockholders may have difficulty selling a large number of shares of our Common Stock in the manner or at a price that might be attainable if our Common Stock were more actively traded. In addition, the market price of our Common Stock may not be reflective of its underlying value.

We may not pay dividends in the future.

Our stockholders may receive dividends out of legally available funds if, and when, they are declared by our Board of Directors. We have consistently paid quarterly dividends in the past, but may cease to do so or decrease the dividend amount at any time. Our credit facility sets certain limitations on our ability to pay dividends on, or repurchase, our capital stock. We may incur additional indebtedness in the future that may further restrict our ability to declare and

pay dividends. We may also be restricted from paying dividends in the future due to restrictions imposed by applicable state laws, our financial condition and results of operations, capital requirements, management's assessment of future capital needs and other factors considered by our Board of Directors.



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## ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

## ITEM 2. PROPERTIES

We lease approximately 21,000 square feet of office space at 500 Cummings Center, Beverly, MA 01915 for our corporate headquarters. Worldwide, we utilize the following approximate square footage of space for our operations:

Type of space	U.S. Telecom	International Telecom	Renewable Energy
Office	65,038	287,503	5,720
Retail stores	16,177	27,290	—
Technical operations	115,631	1,933,296	—

All of the above locations are leased except for the office and technical space within our International Telecom segment, which we own. As of December 31, 2018, we operated twelve retail stores in our U.S. Telecom segment and nineteen retail stores in our International Telecom segment.

Our offices and technical operations are in the following locations:

U.S. Telecom	International Telecom	Renewable Energy
Little Rock, AR	Georgetown, Guyana	Hyderabad, India
Castle Rock, CO	Bermuda	Singapore
Atlanta, GA	U.S. Virgin Islands	
	Cayman Islands	

Within our telecommunications operations, we globally own 277 towers, lease an additional 376 towers and have five switch locations within rented locations. In addition, our renewable energy operations own 52MW commercial solar projects at 5 sites. We consider our owned and leased properties to be suitable and adequate for our business operations.

## ITEM 3. LEGAL PROCEEDINGS

Our Guyana subsidiary, Guyana Telephone & Telegraph, Ltd. (“GTT”) holds an exclusive license to provide domestic fixed services and international voice and data services in Guyana. The license, whose initial term of twenty years expired at the end of 2010, allowed for GTT at its sole option, to extend the term for an additional twenty years, until December 2030. GTT exercised its extension right, in accordance with the terms of its License and its agreement with the Government of Guyana, in November 2009.

In 2016, the Government of Guyana passed new telecommunications legislation introducing material changes to many features of Guyana’s existing telecommunications regulatory regime with the intention of introducing additional

competition into Guyana's telecommunications sector. The legislation that passed, however, has not yet been implemented and does not include a provision that permits other telecommunications carriers to receive licenses automatically upon signing of the legislation, nor does it have the effect of terminating the Company's exclusive license. Instead the legislation as passed requires the Minister of Telecommunications to conduct further proceedings and issue implementing orders to enact the various provisions of the legislation. We have met with the Government of Guyana, including as recently as December 2018 to discuss modifications of the Company's exclusivity rights and other rights under its existing agreement and license. However, there can be no assurance that those discussions will be concluded before the Government issues new licenses as contemplated by the legislation or at all, or that they will satisfactorily address our contractual exclusivity rights. Although the Company believes that it would be entitled to

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damages or other compensation for any involuntary termination of its contractual exclusivity rights, it cannot guarantee that the Company would prevail in a proceeding to enforce its rights or that its actions would effectively halt any unilateral action by the Government.

In November 2007, Caribbean Telecommunications Limited (“CTL”) filed a complaint in the U.S. District Court for the District of New Jersey against GTT and ATN claiming breach of an interconnection agreement for domestic cellular services in Guyana and related claims. CTL asserted over \$200 million in damages. GTT and ATN moved to dismiss the complaint on procedural and jurisdictional grounds. On January 26, 2009, the court granted the motions to dismiss the complaint on the grounds asserted. In November 2009 and again in April 2013, CTL filed and then abandoned a similar claim against GTT and the PUC in the High Court of Guyana. CTL once more filed a similar claim against the Company in December 2017, seeking damages of \$25 million; however, this matter was dismissed in May 2018. CTL made an untimely filing for an appeal thereafter, which the court subsequently denied. The Company continues to believe this claim is without merit and intends to vigorously defend against it.

On May 8, 2009, Digicel filed a lawsuit in Guyana challenging the legality of GTT’s exclusive license rights under Guyana’s constitution. Digicel initially filed this lawsuit against the Attorney General of Guyana in the High Court. On May 13, 2009, GTT petitioned to intervene in the suit in order to oppose Digicel’s claims and that petition was granted on May 18, 2009. GTT filed an answer to the charge on June 22, 2009, and the case is pending. We believe that any legal challenge to GTT’s exclusive license rights granted in 1990 is without merit, and we intend to vigorously defend against such a legal challenge.

GTT has filed several lawsuits in the High Court of Guyana asserting that Digicel is engaged in international bypass in violation of GTT’s exclusive license rights, the interconnection agreement between the parties, and the laws of Guyana. GTT is seeking injunctive relief to stop the illegal bypass activity and punitive damages caused thereby. Digicel filed counterclaims alleging that GTT has violated the terms of the interconnection agreement and Guyana laws. These suits, filed in 2010 and 2012, have been consolidated with Digicel’s constitutional challenge described above and is scheduled to proceed to trial in the second quarter of 2019. GTT intends to vigorously prosecute these matters.

GTT is also involved in several legal claims regarding its tax filings with the Guyana Revenue Authority dating back to 1991 regarding the deductibility of intercompany advisory fees as well as other tax assessments. Should GTT be held liable for any of the disputed tax assessments, totaling \$44.1 million, the Company believes that the Government of Guyana would then be obligated to reimburse GTT for any amounts necessary to ensure that GTT’s return on investment was no less than 15% per annum for the relevant periods.

## ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

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## PART II

## ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our Common Stock, \$.01 par value, is listed on the Nasdaq Global Select Market under the symbol "ATNI." The number of holders of record of Common Stock as of February 28, 2019 was 87.

## Issuer Purchases of Equity Securities in the Fourth Quarter of 2018

On September 19, 2016, our Board of Directors authorized the repurchase of up to \$50.0 million of our common stock from time to time on the open market or in privately negotiated transactions (the "2016 Repurchase Plan"). As of December 31, 2018, we have \$37.7 million remaining authorized to be repurchased under the 2016 Repurchase Plan.

The following table reflects the repurchases by the Company of its Common Stock during the quarter ended December 31, 2018:

Period	(a) Total Number of Shares Purchased (1)	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares that May be Purchased Under the Plans or Programs
October 1, 2018 — October 31, 2018	11,479	(1) \$ 79.44	(1) —	\$ 37,690,086
November 1, 2018 — November 30, 2018	87,245	(2) 84.25	(2)	\$ 37,690,086
December 1, 2018 — December 31, 2018	—	—	—	\$ 37,690,086

(1) Consists of 11,479 shares purchased on October 2, 2018, October 6, 2018, October 19, 2018, and October 31, 2018 from our executive officers and other employees who tendered these shares to the Company to satisfy their tax withholding obligations incurred in connection with the exercise of stock options and the vesting of restricted stock awards at such date. These shares were not purchased under the plan discussed above. The price paid per share was the closing price per share of our Common Stock on the Nasdaq Stock Market on the date those shares were purchased

(2) Consists of 87,245 shares purchased on November 9, 2018, November 12, 2018 and November 30, 2018 from our executive officers and other employees who tendered these shares to the Company to satisfy their tax withholding obligations incurred in connection with the exercise of stock options and the vesting of restricted stock awards at such date. These shares were not purchased under the plan discussed above. The price paid per share was the closing price per share of our Common Stock on the Nasdaq Market on the date those shares were purchased

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Stock Performance Graph

The graph below matches ATN International's cumulative 5-Year total shareholder return on common stock with the cumulative total returns of the Russell 2000 index, the S&P Smallcap 600 index, and the NASDAQ Telecommunications index. The graph tracks the performance of a \$100 investment in our common stock and in each index (with the reinvestment of all dividends) from 12/31/2013 to 12/31/2018.

	12/13	12/14	12/15	12/16	12/17	12/18
ATN International	100.00	121.70	143.24	149.34	104.64	136.92
Russell 2000	100.00	104.89	100.26	121.63	139.44	124.09
S&P Smallcap 600	100.00	105.76	103.67	131.20	148.56	135.96
NASDAQ Telecommunications	100.00	102.75	100.20	106.61	130.48	130.76

The stock price performance included in this graph is not necessarily indicative of future stock price performance

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## ITEM 6. SELECTED FINANCIAL DATA

You should read the selected financial data in conjunction with our “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our Consolidated Financial Statements for the years ended December 31, 2018, 2017 and 2016 and the related Notes to those Consolidated Financial Statements included in this Report. The historical results set forth below are not necessarily indicative of the results of future operations. Period to period comparisons are also significantly affected by our significant acquisitions. See Notes 5 to the Consolidated Financial Statements included in this Report for a more detailed discussion of our recent acquisitions and discontinued operations.

The selected Consolidated Income Statement data for the years ended December 31, 2018, 2017 and 2016 and the selected Consolidated Balance Sheet data as of December 31, 2018 and 2017 are derived from our Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K. The selected Consolidated Income Statement data for the years ended December 31, 2015 and 2014 and the selected Consolidated Balance Sheet data as of December 31, 2016, 2015 and 2014 are derived from our Consolidated Financial Statements not included in this Annual Report on Form 10-K.

	Year ended December 31,				
	2018	2017	2016	2015	2014
	(In thousands, except per share data)				
Income Statement Data					
Revenue	\$ 451,207	\$ 481,193	\$ 457,003	\$ 355,369	\$ 336,347
Operating expenses	390,184	425,885	405,733	276,774	250,771
Income from operations	61,023	55,308	51,270	78,595	85,576
Other income (expense):					
Interest income	1,811	1,613	1,239	588	788
Interest expense	(7,973)	(8,838)	(5,362)	(3,180)	(1,208)
Other, net(1)	(1,119)	(530)	(1,773)	(19,802)	1,012
Other income (expense), net	(7,281)	(7,755)	(5,896)	(22,394)	592
Income from continuing operations before income taxes	53,742	47,553	45,374	56,201	86,168
Income (benefit) provisions	18,870	(1,341)	21,160	24,137	28,148
Income from continuing operations	34,872	48,894	24,214	32,064	58,020
Income from discontinued operations, net of tax	—	—	—	1,092	1,102
Net income	34,872	48,894	24,214	33,156	59,122
Net income attributable to non controlling interests, net of tax	(15,057)	(17,406)	(12,113)	(16,216)	(10,970)
Net income attributable to ATN International, Inc. Stockholders	\$ 19,815	\$ 31,488	\$ 12,101	\$ 16,940	\$ 48,152
Net income per weighted average basic share attributable to ATN International, Inc. Stockholders:					
Continuing operations	1.24	1.95	0.75	0.99	2.96
Discontinued operations	—	—	—	0.07	0.07
Total	1.24	1.95	0.75	1.06	3.03
Net income per weighted average diluted share attributable to ATN					

International, Inc. Stockholders:					
Continuing operations	1.24	1.94	0.75	0.98	2.94
Discontinued operations	—	—	—	0.07	0.07
Total	1.24	1.94	0.75	1.05	3.01
Dividends per share applicable to common stock	0.68	1.02	1.32	1.22	1.12

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	2018 (In thousands)	2017	2016	2015	2014
Balance Sheet Data (as of December 31,):					
Cash, restricted cash, and short term investments	\$ 193,300	\$ 226,966	\$ 297,595	\$ 398,346	\$ 371,394
Assets of discontinued operations	—	—	—	—	175
Working capital	135,116	181,223	217,264	384,137	347,305
Fixed assets, net	626,852	643,146	647,712	373,503	369,582
Total assets	1,107,304	1,205,605	1,198,218	945,004	925,030
Short term debt (including current portion of long term debt)	4,688				