

TELKONET INC
Form 10-K
April 02, 2018

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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2017

Commission file number: 001-31972

TELKONET, INC.

(Exact name of registrant as specified in its charter)

Utah 87-0627421
(State or Other Jurisdiction of Incorporation or Organization) (I.R.S. Employer Identification No.)

20800 Swenson Drive Suite 175, Waukesha, WI 53186
(Address of Principal Executive Offices) (Zip Code)

(414) 302-2299
(Registrant's Telephone Number, Including Area Code)

Securities Registered pursuant to Section 12(b) of the Act: None

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Title of each class Name of each exchange on which registered

None None

Securities Registered pursuant to section 12(g) of the Act: Common Stock, \$.001 par value

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(b) 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 and Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained in this form, and no disclosure will 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. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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. (Check one)

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company
Emerging growth company

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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 Exchange Act)
Yes No

Aggregate market value of the voting stock held by non-affiliates (based upon the closing sale price of \$0.18 per share on the Over the Counter Bulletin Board) of the registrant as of June 30, 2017: \$23,010,819.

Number of outstanding shares of the registrant's par value \$0.001 common stock as of March 22, 2018: 133,695,111.

Parts I and II incorporate information by reference from the Annual Report to Shareholders for the fiscal year ended December 31, 2017. Part III is incorporated by reference from the Proxy Statement for the Annual Meeting of Shareholders to be held on May 31, 2018.

TELKONET, INC.

FORM 10-K

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PART I

ITEM 1. DESCRIPTION OF BUSINESS.

Some of the statements contained in this Annual Report on Form 10-K discuss future expectations, contain projections of results of operations or financial condition or state other “forward-looking” information. Those statements include statements regarding the intent, belief or current expectations of Telkonet, Inc. (“we,” “us,” “our” or the “Company”) and our management team. Words such as “expects,” “anticipates,” “targets,” “goals,” “projects,” “intends,” “plans,” “believes,” “seeks,” “estimates,” “continues,” “may,” and variations of these words, as well as similar expressions, are intended to identify such forward-looking statements. In addition, any statements that refer to projections of our future financial performance, our anticipated growth, trends in our businesses, and other characterizations of future events or circumstances are forward-looking statements. Any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ materially from those projected in the forward-looking statements. These risks and uncertainties include but are not limited to those risks and uncertainties set forth in Item 1A of this report. In light of the significant risks and uncertainties inherent in the forward-looking statements included in this report, the inclusion of such statements should not be regarded as a representation by us or any other person that our objectives and plans will be achieved.

GENERAL

Business

Telkonet, Inc. (the “Company”, “Telkonet”), formed in 1999 and incorporated under the laws of the state of Utah, is the creator of the EcoSmart smart energy management platform, designed to reduce heating, ventilation and air conditioning (“HVAC”) runtimes, reduce energy consumption, and engage users. The platform is deployed primarily in the hospitality, student housing, military barracks, senior living and public housing markets, and is specified by engineers, HVAC professionals, building owners, and building operators.

In October of 2016, the Company, under the direction and authority of the Board of Directors, committed to a plan to offer for sale Ethostream LLC, High-Speed Internet Access (“HSIA”) subsidiary. While EthoStream is one of the largest public HSIA providers in the world, providing services to more than 12.0 million users monthly across a network of approximately 1,800 locations, the Company will focus on its higher growth potential EcoSmart Platform line. As a result of this decision to sell Ethostream LLC, the operating results of Ethostream for the year ended December 31, 2017 and 2016 have been reclassified as discontinued operations and as assets and liabilities held for sale, as applicable, in the consolidated financial statements. The sale closed on March 29, 2017.

Unless otherwise noted, all financial information in this Form 10-K will reflect results from the Company's continuing operations.

ECOSMART

Telkonet's EcoSmart Platform is comprised of four primary pillars:

EcoSmart Product Suite: The suite of intelligent hardware products designed and developed to provide monitoring, management and reporting over individual and grouped energy consumption throughout building environments. Products include thermostats, sensors, switches, and outlets.

EcoCentral: The cloud-based dashboard that provides visualization and remote management of Telkonet's monitoring, reporting and analytics through deployed EcoSmart and integrated products. EcoCentral is the intelligence behind the EcoSmart platform.

EcoCare: Telkonet's professional support and maintenance services including 24/7 monitoring, engineering, analytics, reporting, software and hardware updates, extended warranty, project and relationship management and onsite support. All professional support and maintenance staff reside in Telkonet's headquarters.

EcoSmart Mobile: iOS and Android applications provided by Telkonet to its partners, customers and end users and guests enabling provisioning, management, access and control over EcoSmart deployments and functionality.

The EcoSmart Platform provides comprehensive energy and operational savings, management monitoring, reporting, analytics of a property or individual room by adding intelligence to HVAC runtimes and through integrations with door locks, lighting, window coverings, and more end-user attributes. Telkonet has deployed more than 600,000 intelligent devices worldwide in properties and buildings within the hospitality, military, educational, healthcare and other commercial markets. The EcoSmart Platform is rapidly becoming a leading solution for reducing energy consumption, operational costs and carbon footprints, and eliminating the need for new energy generation in these markets – all while engaging and delighting guests.

Controlling energy consumption can make a significant impact on a building's bottom line, as HVAC costs represent a substantial portion of a facility's overall utility bill. Hospitality is a key market for Telkonet. According to the EPA EnergySTAR Portfolio Manager 2015 analysis, the median hotel uses approximately 187 kBtu/ft² from all energy sources.^[1] On average, America's approximately 47,000 hotels spend \$2,196 per available room each year on energy.^[2] This represents about 3% - 6% of all operating costs and 60% of carbon emissions. Telkonet approaches the opportunity to reduce consumed energy by adding intelligence to a property's HVAC and lighting systems.

Energy is often wasted through the lighting, powering, heating and cooling of unoccupied spaces. These spaces with intermittent occupancy constitute Telkonet's target markets, and our experience, supported by independent research and customer data, suggests these rooms are unoccupied as much as 70% of the time.

EcoSmart Product Suite

EcoTouch Thermostat: As one of the newest additions to Telkonet's suite of hardware, the EcoTouch is an all touch capacitive thermostat interface available in wired and wireless models offering a premium aesthetic. The EcoTouch allows building owners to match the thermostat with the design of their room by changing the color of the outer edge and by selecting between black or white options.

EcoInsight Thermostat: A programmable and controllable wired thermostat with over 125 configurable settings used to control the efficiency of HVAC through the use of environment variables and triggers.

EcoAir Thermostat: A wireless thermostat mirroring the EcoInsight footprint while enabling the relocation of in room controls without the usual construction expense and downtime.

EcoSource Controller: The remote HVAC control device associated with Telkonet's thermostat interfaces allowing control while removing the need for expensive rewiring and construction. The EcoSource may also be used for third-party integrations, monitoring and control scenarios.

EcoSmart VRF Controller: The newest product in the EcoSmart Suite, the VRF Controller works with most of the new variable refrigerant systems coming to market. The devices replace the EcoSource where discrete relays are not available.

EcoConnect Bridge: An Ethernet to Zigbee bridge that serves as the coordinator for all EcoSmart devices connected to the intelligent automation network, managing approximately 30 - 70 device connections each.

EcoCommander Gateway: EcoSmart's network-edge gateway server that provides real-time proactive data aggregation, analytics, reporting and management of the EcoSmart product suite.

EcoSense Occupancy Sensor: A remote occupancy sensor that monitors environments with ultra, high-sensitive sensors designed to detect motion or body heat. All sensors are programmed to ensure accurate occupancy detection. The EcoSense Occupancy Sensor may be hardwired or programmed to communicate wirelessly and may be battery operated or utilize external power.

EcoSwitch Light Switch: An EcoSmart energy management product with the appearance of a traditional 'rocker' light switch. Turning lights off, even for a short time, saves energy and extends lamp life. The EcoSwitch can be used to compose and automate dramatic lighting scenes in a room.

EcoGuard Outlet: An EcoSmart control that acts as the replacement for an in-wall outlet and has the ability to monitor and control the flow of power to one or both outlets. Based on occupancy, it can turn off lamps, televisions, appliances, and any other energy-consuming loads that are plugged in, preventing a property from consuming power in an empty room. The EcoGuard completely disconnects devices from the power supply, preventing lights and other in-room electronics from needlessly consuming energy as well as providing monitoring of energy flow and efficiency when a plug is enabled.

EcoContact Door & Window Sensor: A remote, wireless door/window contact with the ability to provide additional occupancy data and control HVAC operability and other consumption measures when doors or windows are open.

[1] Facility Type: Hotels - https://www.energystar.gov/sites/default/files/tools/DataTrends_Hotel_20150129.pdf

[2] Hotels-Energy Star - [http://www.energystar.gov/sites/default/files/buildings/tools/SPP Sales Flyer for Hospitality and Hotels.pdf](http://www.energystar.gov/sites/default/files/buildings/tools/SPP_Sales_Flyer_for_Hospitality_and_Hotels.pdf)

Several of these devices have been recently released in “Plus” models which provide greater functionality and increased capabilities.

EcoCentral

Telkonet’s EcoSmart Platform is a comprehensive solution for intelligent automation and energy management. The platform has a well-developed upgrade path with the final and complete version of the platform offering real-time control and analytics provided through a cloud computing platform called EcoCentral. EcoCentral derives its name through its ability to direct user resources to where they add the most value. From monitoring equipment operation and determining where engineering efforts are needed and notifying staff when performance is degrading, EcoCentral creates a comprehensive tool for providing insights and access for EcoSmart Platform deployments either individually or across an entire building portfolio.

EcoCare

EcoCare is Telkonet’s professional support services including call, email and chat support, repair and replacement services, periodic reporting, communication with customers’ utility and Internet Service Provider (“ISP”) partners and more. Telkonet provides three packages of EcoCare services as well as allows customers to create their own package of services ala carte. EcoCare allows EcoSmart customers to ensure that they continue to recognize the savings estimated and benefit from the intended return on investment (ROI). Typical EcoCare contracts range from one to five years and have automatic renewal terms built into each individual contract. All support staff is located at Telkonet’s Waukesha, Wisconsin headquarters.

EcoSmart Mobile

Telkonet’s EcoMobile tools provide iOS and Android applications for use by partners, customers, end users or guests. These mobile tools extend the value of the EcoSmart Platform and give greater functionality and more efficient commissioning and deployment abilities to the user. We have identified where, by providing more accessibility, we can create additional charged-for services that increase customer savings, improve guest experience and integrate more fully with customer environments to create a tight relationship with our customers.

Intelligent Energy Management

Telkonet's EcoSmart energy management platform applies and improves building intelligence to deliver energy and cost savings through controlling lighting, plugload and HVAC runtimes. Captured data may be presented on a grouped, property or room-by-room basis, allowing very granular management of in-room energy use and environmental conditions. EcoSmart achieves this by leveraging our device platform, including occupancy sensors and intelligent programmable thermostats connected with packaged terminal air conditioner ("PTAC") controllers or any other terminal equipment HVAC products and managed wireless light switches and in wall electrical plugs to adjust and maintain energy consumption including a room's temperature according to occupancy, eliminating wasteful heating and cooling of unoccupied rooms. All of these can be accomplished from the in-room devices or via any web-connected device, such as smart phones, tablets and laptop computers.

EcoSmart is an energy management platform that delivers optimal, individual room energy savings without compromising occupant comfort, due to a proprietary technology named "Recovery Time".

Recovery Time Technology

EcoSmart's HVAC controls feature Recovery Time, technology designed to maximize energy efficiency without sacrificing occupant comfort. When a room is occupied, the temperature selected by the occupant will be maintained by the EcoSmart system. Once an EcoSmart occupancy sensor determines that the room is unoccupied, the system adjusts the room temperature using Recovery Time. Unlike other systems, Recovery Time technology constantly performs calculations that evaluate how far each individual room's temperature can drift from the occupant's preferred setting ("set-point"), to harvest energy savings while still being able to return to the occupant's set-point within a customer's pre-defined period of time.

When determining the temperature setting, Recovery Time technology considers how long it will take to return the temperature to the occupant's set-point once they return to their room. The temperature will only drift far enough to ensure the system will return to the occupant's preferred temperature setting within minutes upon their return to the room. The specific length of recovery time is selected by property management at the time of the installation; however, it can be altered at any time by management.

How Do Other Systems Work?

In competing systems the occupant chooses their preferred temperature. When the occupant leaves, the thermostat reverts to a set-point of a fixed number of degrees different than the preferred set temperature (lower in winter and higher in summer). In some products temperature gap is a fixed temperature selected by the property owner. Because each occupant room will require different lengths of time to return to the occupant's desired temperature, based on room size and orientation, whether blinds are open, outdoor temperature, sun, and wind, the length of time required for the HVAC to return to temperature can vary dramatically and can often be prohibitive. Additionally, a dirty HVAC filter or coil will reduce heat transfer, increasing that recovery time.

EcoSmart Delivers Room-by-Room Savings

Because each room's environment is unique, Telkonet's approach is likewise unique. Rooms are evaluated independently in real-time to determine its energy efficient temperature, or setback. Recovery Time technology constantly calculates in real-time how far the room temperature can drift, by taking into consideration the environmental characteristics that impact the temperature in the room, including:

- The occupant's preferred temperature setting
- The location of the room within the building
- The window placement – facing the sun or shade
 - If the drapes are open or closed
 - If the climate is dry or humid

The varying weather conditions throughout the day

The condition of the HVAC unit, such as age and efficiency

Through the constant monitoring of the HVAC unit's ability to drive the temperature and the real-time adjustment of the setback temperature, rooms are never excessively hot or cold when an occupant returns to the room. The room will always be just minutes away from an occupant's desired comfort setting. As a result, Recovery Time technology delivers room-by-room, occupant-by-occupant savings. The technology also significantly improves the guest experience, driving loyalty to the property and brand, and decreases service calls.

The EcoSmart Platform maximizes energy reductions while at the same time ensuring occupant comfort, maximizing energy savings and extending equipment life expectancy. The technology is particularly attractive to customers in the hospitality industry, as well as the education, healthcare, public housing and government/military markets, who are constantly seeking ways to reduce costs and meet federal and state mandates without impacting building occupant comfort.

Using standard communication protocols, ensuring widespread adoption and a simple interface, EcoSmart technology may also be integrated with utility controls, property management systems and building automation systems to be used in load shedding initiatives. This feature provides management companies and utilities enhanced opportunities for cost savings, environmental protections and energy management. Additionally, Telkonet's energy management systems qualify for most state and federal energy efficiency and rebate programs.

Competitive Advantages

We believe our intelligent automation platform, with our proprietary Recovery Time technology, delivers extensive differentiation against competing products, including:

- Technology that evaluates each room's environmental conditions results in maximum energy savings;
 - The ability to reduce HVAC runtimes increases overall equipment life;
 - Increased occupant control and comfort, driving brand and property loyalty;
- Multiple thermostat options, including wired and wireless, to fit a brand's image and application;
 - Backlight of thermostat improves the experience for the visually impaired;
- Web-based access with extremely powerful and simple dashboard web interface;
 - Breadth of HVAC system compatibility;
 - Adaptive learning and system programming;
 - Utility-integrated events capabilities;
 - Remote HVAC control network;
 - Expert EcoCare support, staffed in the USA;
 - Plug load, lighting and HVAC controls;
- Extensive 3rd-party integrations, including lighting, door locks, and window treatments;

- Industry standard software and communication protocols, Linux and ZigBee;

- Typical two or three-year ROI; and

- Mobile applications provide installation, remote management and end-user accessibility.

Our open, scalable and standards-based architecture approach allows for truly custom deployments. The EcoSmart Platform integrates seamlessly with back-office management systems, property management systems, building automation systems, and utility demand/response programs, as well as additional third-party network architecture to recognize increased efficiency and savings.

Based on these platform features and capabilities, we've been awarded, and continue to receive, contracts in the hospitality, military, educational, multiple dwelling unit ("MDU"), healthcare and commercial industries. In addition, our relationships with utility-sponsored direct-install and rebate-funded programs provide us with a significant advantage over our competitors in the commercial space.

Given the population growth in the United States and the increasing demand for energy, we forecast additional energy-related infrastructure will be needed. We believe the use of Smart Grid technologies and energy efficiency management platforms are affordable alternatives to building additional power generation through leveraging existing resources and providing enhanced energy savings costs.

Target Markets

Rooms with intermittent occupancy are most commonly found in the following market sectors:

Hospitality: hotels, motels, resorts, timeshares and casinos.

Educational: residence halls, dormitories and other campus living options. Also K-12 environments with distributed and portable classrooms.

Military: residence halls, barracks, apartments and other campus living options.

Health care: medical office buildings, assisted and independent living facilities.

Public Housing: apartments and other public living options.

Industry and Market Overview

According to the U.S. Department of Energy, 44% of all the energy consumed by commercial buildings in the United States is employed to cool, heat, light, or accomplish other functions within commercial buildings.^[3] In an effort to remain competitive and manage expenses, governments, building owners, building tenants, and companies in general are looking for ways to become more efficient both fiscally and environmentally. The American Council for an Energy Efficient Economy reported that the cost of saving one unit of energy through energy efficiency is one-fifth (1/5) the cost required to generate that same unit of energy. As a result, we feel that the growth opportunities in the energy management market are in their infancy.

A 2017 report issued by Navigant Research, titled, “Energy Efficient Buildings Global Outlook”, stated that the global market for energy efficient building technologies is expected to reach nearly \$360.6 billion in 2026.^[4] The report asserts that the Internet-of-Things (“IoT”) is partly responsible for one of the most dramatic changes to the market landscape in its history, and that OEMs and providers are adjusting their strategies to address specific market needs. HVAC has been identified as one of nine key categories.

Telkonet's key industries are all prime candidates for energy management, in part due to their utilizing energy "on-demand" or intermittently. Providing energy, and engaging the equipment to supply it, to those rooms and spaces only when occupied results in significant energy savings in addition to affording longer life and reduced maintenance to the HVAC systems.

Education Industry

Telkonet's fastest expanding market is the higher education industry which we approach with strategic relationships with enterprise energy service companies ("ESCOs") throughout the USA. Telkonet partners with ESCOs to include our EcoSmart energy management platform for deployment within residence halls on university campuses. The ESCOs bundle our technology with other facility improvement measures designed to reduce operating costs across the entire campus, bundling solutions with acceptable ROI and which meet state mandated guidelines. ESCOs also structure self-funding financial transactions called "Performance Contracts" in which the savings are greater than the repayment costs, typically guaranteeing the financial and operational performance in this type of engagement. This type of approach can remove any capital expense barriers and improve adoption.

In addition to an installed base of University of California, Davis, Massachusetts Institute of Technology, Kansas State University, North Carolina State University, University of Notre Dame, US Military Academy at West Point, and Columbia University, we have recently added Texas A&M University-Commerce and additional rooms at New York University.

[3] U.S Energy Information Administration -
www.eia.gov/energyexplained/images/charts/energy_use_commercial_bldgs.jpg

[4] Energy Efficient Buildings: Global Outlook -
<https://www.navigantresearch.com/research/energy-efficient-buildings-global-outlook>

The opportunities in this market are not limited to higher education institutions. According to an NRG Business Energy Advisor report, schools in the United States spend \$8 billion on energy costs annually, with 73% of natural gas use going towards heating and 35% of electricity consumption going towards cooling. While heating and cooling account for only 2 – 4% of district costs, it is an opportunity for significant impact and gain.

We believe that our EcoSmart Platform is an important tool for participants in the education industry seeking to control student-related energy costs. We have focused our sales efforts on members of the education industry who are seeking to expand their energy efficiency initiatives as well as the ESCOs who target the educational marketplace and have thus far had success with at least one school district installing EcoSmart in each classroom throughout the district.

Hospitality Industry

There is a constant balancing act for hotel operators between managing guest comfort and operating margins. The EcoSmart platform's Recovery Time allows operators to manage operation costs yet still provide for a comfortable and engaging guest experience. In fact, the EcoSmart platform individual brands and properties can create a desired guest environment, and still allow for energy savings via the Recovery Time algorithm. Telkonet has proven that the EcoSmart platform can deliver a return on investment in less than three years for hospitality customers.

Government & Military Industry

The Department of Defense ("DOD") is the single largest energy consumer in the United States, accounting for about 90 percent of the federal government's energy use and using over 30,000 giga-watt hours of electricity per year.^[5] Thus, we view this market as strategically significant to Telkonet's interests.

Our energy management platform is already successfully incorporated into the energy initiatives in several military housing sites, military academies and barracks. Telkonet benefited from and continues to make use of government funding and other government contracts to provide EcoSmart for use on military bases and other facilities, helping both the DOD and the government as a whole achieve their long-term energy efficiency goals.

Healthcare Industry

Healthcare organizations currently spend over \$6.5 billion on energy each year, a cost which continues to rise in an effort to meet patient needs.⁶ This is viewed as an emerging market for energy management systems. Although hospitals have many specific regulatory mandates, Telkonet has been working closely with operators and developers of healthcare support facilities, like medical office buildings, assisted living and other similar facilities, to integrate our EcoSmart energy management initiatives into efficiency opportunities supported by state and federal energy programs. For example, hospital energy managers can use energy efficiency strategies to offset high costs caused by growing plug loads and rising energy prices. A typical 200,000-square-foot, 50-bed hospital in the U.S. annually spends \$680,000, or roughly \$13,611 per bed on electricity and natural gas. By increasing energy efficiency, hospitals can improve the bottom line and free up funds to invest in new technologies and improve patient care.

These facilities offer a commercial environment similar to the hospitality or educational housing markets, and the increasing growth of the elderly and assisted living markets presents attractive potential for energy efficiency. This market is expected to grow rapidly over the next several years due to its energy savings capabilities and an aging population.

Utility Industry

We continue to strengthen our focus on our targeted market segments in order to expand market share and take advantage of existing incentives for energy management. We expect continued expansion in the space, specifically in commercial segments due to increasing state and federal programs promoting energy efficiency. Our residential initiatives are also key to the future expansion of Telkonet's EcoSmart programs within the developing Internet-of-Things environment.

^[5] http://en.wikipedia.org/wiki/Energy_usage_of_the_United_States_military

^[6] <https://www.energystar.gov/ia/partners/publications/pubdocs/Healthcare.pdf>

Public Housing

Public housing, which are properties owned and managed by the government, is an additional emerging market for energy management solutions. The tenants occupying these properties must meet specific eligibility requirements, and their utility bills are typically paid for by government programs. Many of the ESCO clients that Telkonet supports today have dedicated teams pursuing opportunities with the owners and operators of government-subsidized housing. The EcoSmart platform is an ideal solution for conserving energy, allowing remote monitoring, and improving guest comfort.

Competition for Markets

We currently compete primarily within commercial and industrial markets, including the hospitality, education, healthcare, public housing, MDU, government, utility and military sectors. Within each target market, we offer savings through our intelligent automation platform. Our products offer significant competitive and complementary benefits when compared with alternative offerings including Building Automation Systems (“BAS”) or Building Management Systems (“BMS”), static temperature occupancy-based systems, scheduling/programmable thermostats and high-efficiency HVAC systems.

We participate in a relatively small competitive field within the hospitality industry, with the majority of the energy management sales handled by fewer than seven manufacturers. The key competitors in the market segment are Inncom by Honeywell and Schneider Electric, with each offering some level of comparable products to our standalone and/or networked products. Telkonet leverages the above-mentioned competitive advantages to successfully compete in these spaces and win business.

The educational space is new to adopt occupancy-based controls. The EcoSmart Platform has been introduced for use within student dormitories, which traditionally had few, if any, controls. More recently we’ve also been requested to install our products into classrooms, which traditionally have been an environment for BAS/BMS. Since the dormitory environment is very similar to the hospitality market, we believe we offer similarly-scaled energy savings. Since the market is still in its infancy, very few comparable offerings have entered the market but competitors within the hospitality segment are beginning to respond. Again, our key differentiators allow us to compete and win business in this space.

The healthcare and government/military markets are very similar in scope, relative to energy management systems. A key differentiator in these environments is the specific implementation being considered. Each market utilizes BAS/BMS for wide scale energy management initiatives. When addressing housing environments, including elderly

care and assisted living facilities and military dormitories or barracks, Telkonet's EcoSmart Platform is able to provide increased energy savings and efficiency. Competitors operating in the BAS/BMS space include Honeywell, Schneider Electric, Johnson Controls, Siemens, Trane and others, many of whom Telkonet partners with to provide a comprehensive and integrated energy management solution to effectively address energy efficiency opportunities in all types of facilities.

Inventory

While we are dependent, in certain situations, on a limited number of vendors to provide certain inventory and components, we've not experienced significant problems or issues purchasing any essential materials, parts or components. We contract the majority of our inventory with ATR Manufacturing, a Chinese company, which provides substantially all the manufacturing requirements for Telkonet's energy management platform.

Customers

We are neither limited to, nor reliant upon, a single or narrowly segmented customer base to derive our revenues. Our current primary focus is in the hospitality, commercial, education, utility, MDU, healthcare and government/military markets and expanding into the consumer market as part of our long term strategic growth.

For the years ended December 31, 2017 and 2016, no single customer represented 10% or more of our revenues.

Intellectual Property

Telkonet has acquired certain intellectual properties, including but not limited to, Patent No. D569, 279, titled “Thermostat.” Patent No. D569279 issued by the USPTO in May 2008 was granted on the ornamental design of a thermostat device and will expire in May of 2022. The expiration of this patent could allow third parties to launch competing products. While we viewed this patent as valuable, we do not view any single patent as material to the Company as a whole.

There can be no assurance that any of our current or future patent applications will be granted, or, if granted, that such patents will provide necessary protection for our technology or our product offerings, or be of commercial benefit to us.

Government Regulation

We are subject to regulation in the United States by the Federal Communications Commission (“FCC”). FCC rules permit the operation of unlicensed digital devices that radiate radio frequency emissions if the manufacturer complies with certain equipment authorization procedures, technical requirements, marketing restrictions and product labeling requirements.

Future products designed by us will require testing for compliance with FCC and European Commission (“EC”) standards. Moreover, if in the future, the FCC or EC changes its technical requirements, further testing and/or modifications may be necessary in order to achieve compliance.

Research & Development

During the years ended December 31, 2017 and 2016, the Company spent \$1,770,597 and \$1,658,640, respectively, on research and development activities. Telkonet continues to invest significantly in research & development to maintain and grow our competitive differentiation and customer value. Key initiatives for 2018 include: improvement to the high-end EcoTouch thermostat’s battery housing to increase adoption; creation of a new gateway hub as a lower-cost alternative to current standards, which will increase potential installations; development of a new thermostat to better compete on price in the premium position; and development of an entirely new product and software platform, which will further differentiate our offering and open new revenue streams.

Additional Information

Employees

As of March 22, 2018, we had 49 full-time employees and 1 part-time employee. We will continue to hire additional personnel as necessary to meet future operating requirements. We anticipate that we may need to hire additional staff in the areas of customer support, field services, engineering, sales and marketing, and administration.

Environmental Matters

We do not anticipate any material effect on our capital expenditures, earnings or competitive position due to compliance with government regulations involving environmental matters.

Discontinued Operations

In October of 2016, the Company decided to offer for sale its Ethostream High-Speed Internet Access (“HSIA”) subsidiary. While EthoStream is one of the largest public HSIA providers in the world, providing services to more than 12.0 million users monthly across a network of approximately 1,800 locations, the Company will focus on its higher growth potential EcoSmart Platform line. The operating results of Ethostream for the years ended December 31, 2017 and 2016 have been reclassified as discontinued operations in the consolidated statements of operations and as of December 31, 2016 as assets and liabilities held for sale in the consolidated balance sheet. The Company closed the sale of EthoStream, LLC on March 29, 2017 and the impact on the Company’s liquidity as a result of the proceeds from the sale is expected to allow for greater strategic investment in marketing and research and development by the Company.

ITEM 1A. RISK FACTORS.

Our results of operations, financial condition and cash flows can be adversely affected by various risks. These risks include, but are not limited to, the principal factors listed below and the other matters set forth in this annual report on Form 10-K. You should carefully consider all of these risks.

Risks Relating to the Ownership of Our Common Stock

The market price of our common stock has been and may continue to be volatile.

The trading price of our common stock has been and may continue to be highly volatile and could be subject to wide fluctuations in response to various factors. Some of the factors that may cause the market price of our common stock to fluctuate include:

· fluctuations in our quarterly financial and operating results or the quarterly financial results of companies perceived to be similar to us;

· changes in estimates of our financial results or recommendations by securities analysts;

· potential deterioration of investor confidence resulting from material weaknesses in our internal control over financial reporting;

· our ability to raise and generate working capital to meet our obligations in the ordinary course of business;

· changes in general economic, industry and market conditions;

· failure of any of our products to achieve or maintain market acceptance;

· changes in market valuations of similar companies;

- failure of our products to operate as advertised;
- success of competitive products;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- announcements by us or our competitors of significant products, contracts, acquisitions or strategic alliances;
- regulatory developments in the United States, foreign countries or both;
- litigation involving our Company, our general industry or both;
- additions or departures of key personnel; and
- investors' general perception of us.

In addition, if the market for technology stocks or the stock market in general experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, financial condition or results of operations. If any of the foregoing occurs, it could cause our stock price to fall and may expose us to class action lawsuits that, even if unsuccessful, could be costly to defend and a distraction to management.

Anti-takeover provisions in our charter documents and Utah law could discourage delay or prevent a change of control of our Company and may affect the trading price of our common stock.

We are a Utah corporation and the anti-takeover provisions of the Utah Control Shares Acquisition Act may discourage, delay or prevent a change of control by limiting the voting rights of control shares acquired in a control share acquisition. In addition, our Amended and Restated Articles of Incorporation and Bylaws may discourage, delay or prevent a change in our management or control over us that shareholders may consider favorable. Among other things, our Amended and Restated Articles of Incorporation and Bylaws:

authorize the issuance of “blank check” preferred stock that could be issued by our board of directors in response to a takeover attempt;

provide that vacancies on our board of directors, including newly created directorships, may be filled only by a majority vote of directors then in office, except a vacancy occurring by reason of the removal of a director without cause shall be filled by vote of the shareholders; and

limit who may call special meetings of shareholders.

These provisions could have the effect of delaying or preventing a change of control, whether or not it is desired by, or beneficial to, our shareholders.

We do not currently intend to pay dividends on our common stock and, consequently, the ability to achieve a return on an investment in our common stock will depend on appreciation in the price of our common stock.

We do not expect to pay cash dividends on our common stock. Any future dividend payments are within the absolute discretion of our board of directors and will depend on, among other things, our results of operations, working capital requirements, capital expenditure requirements, financial condition, contractual restrictions, business opportunities, anticipated cash needs, provisions of applicable law and other factors that our board of directors may deem relevant. We may not generate sufficient cash from operations in the future to pay dividends on our common stock.

Our common stock is thinly traded and there may not be an active trading market for our common stock.

Our common stock is currently quoted on the OTCQB, operated by the OTC Markets Group. However, there is no guarantee that our common stock will be actively traded on the OTCQB, or that the volume of trading will be sufficient to allow for timely trades. Investors may not be able to sell their shares quickly or at the latest market price if trading in our stock is not active or if trading volume is limited. In addition, if trading volume in our common stock is limited, trades of relatively small numbers of shares may have a disproportionate effect on the market price of our common stock.

Our common stock is subject to “Penny Stock” restrictions.

As long as the price of our common stock remains at less than \$5 per share, we will be subject to so-called “penny stock rules” which could decrease our stock’s market liquidity. The Security and Exchange Commission (“SEC”) has adopted regulations which define a “penny stock” to include any equity security that has a market price of less than \$5 per share or an exercise price of less than \$5 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require the delivery to and execution by the retail customer of a written declaration of suitability relating to the penny stock, which must include disclosure of the commissions payable to both the broker/dealer and the registered representative and current quotations for the securities. Finally, the broker/dealer must send monthly statements disclosing recent price information for the penny stocks held in the account and information on the limited market in penny stocks. Those requirements could adversely affect the market liquidity of our common stock. There can be no assurance that the price of our common stock will rise above \$5 per share so as to avoid these regulations.

Further issuances of equity securities may be dilutive to current stockholders.

It is possible that we will be required to seek additional capital in the future. This capital funding could involve one or more types of equity securities, including convertible debt, common or convertible preferred stock and warrants to acquire common or preferred stock. Such equity securities could be issued at or below the then-prevailing market price for our common stock. Any issuance of additional shares of our common stock will be dilutive to existing stockholders and could adversely affect the market price of our common stock.

The exercise of conversion rights, options and warrants outstanding and available for issuance may adversely affect the market price of our common stock.

As of December 31, 2017, we had outstanding employee options to purchase a total of 4,376,474 shares of common stock at exercise prices ranging from \$0.14 to \$1.00 per share, with a weighted average exercise price of \$0.16. As of December 31, 2017, we had warrants outstanding to purchase a total of 250,000 shares of common stock at an exercise price of \$0.20 per share. The exercise of outstanding options and warrants and the sale in the public market of the shares purchased upon such exercise could be dilutive to existing stockholders and could adversely affect the market price of our common stock.

Risks Related to Our Business

The industry within which we operate is intensely competitive and rapidly evolving.

We operate in a highly competitive, quickly changing environment, and our future success will depend on our ability to develop and introduce new products and product enhancements that achieve broad market acceptance in the markets within which we compete. We will also need to respond effectively to new product announcements by our competitors by quickly developing and introducing competitive products.

Delays in product development and introduction could result in:

- loss of or delay in revenue and loss of market share;
- negative publicity and damage to our reputation and the reputation of our product offerings; and
- decline in the average selling price of our products.

We have identified material weaknesses in our internal controls as of December 31, 2017 that, if not properly remediated, could result in material misstatements in our financial statements.

Based on an evaluation of our disclosure of internal controls and procedures as of December 31, 2017, our management has concluded that, as of such date, there were material weaknesses in our internal control over financial reporting related to a lack of segregation of duties, failure to implement adequate internal control over financial reporting and the need for a stronger internal control environment. A material weakness is a control deficiency, or a combination of control deficiencies, in internal control over financial reporting, such that there is a more than a remote likelihood that a material misstatement of annual or interim financial statements would not be prevented or detected. We are engaged in developing a remediation plan designed to address the material weaknesses. As disclosed in Item 9A of Part II of this report, because of the material weaknesses identified by the Company, our consolidated financial statements may contain material misstatements that would require restatement of the Company's financial results in this report. We have taken, and continue to take, the actions discussed in this report to remediate the identified material weaknesses.

Until these material weaknesses in our internal control over financial reporting are remediated, there is reasonable possibility that material misstatements of our annual or interim consolidated financial statements could occur and not be prevented or detected by our internal controls in a timely manner. The Company believes the consolidated financial statements as of December 31, 2017 and 2016 are free of material misstatements.

Government regulation of our products could impair our ability to sell such products in certain markets.

The rules of the FCC permit the operation of unlicensed digital devices that radiate radio frequency emissions if the manufacturer complies with certain equipment authorization procedures, technical requirements, marketing restrictions and product labeling requirements. Differing technical requirements apply to "Class A" devices intended for use in commercial settings, and "Class B" devices intended for residential use to which more stringent standards apply. An independent, FCC-certified testing lab has verified that our product suite complies with the FCC technical requirements for Class A and Class B digital devices. No further testing of these devices is required, and the devices may be manufactured and marketed for commercial and residential use. Additional devices designed by us for commercial and residential use will be subject to the FCC rules for unlicensed digital devices. Moreover, if in the future, the FCC changes its technical requirements for unlicensed digital devices, further testing and/or modifications of devices may be necessary. Failure to comply with any FCC technical requirements could impair our ability to sell our products in certain markets and could have a negative impact on our business and results of operations.

Products sold by our competitors could become more popular than our products or render our products obsolete.

The market for our products and services is highly competitive. Some of our competitors have longer operating histories, greater name recognition and substantially greater financial, technical, sales, marketing and other resources. These competitors may, among other things, undertake more extensive marketing campaigns, adopt more aggressive pricing policies, obtain more favorable pricing from suppliers and manufacturers and exert more influence on the sales channel than we can. As a result, we may not be able to compete successfully with these competitors, and these competitors may develop or market technologies and products that are more widely accepted than those being developed by us or that would render our products obsolete or noncompetitive. We anticipate that competitors will also intensify their efforts to penetrate our target markets. These competitors may have more advanced technology, more extensive distribution channels, stronger brand names, bigger promotional budgets and larger customer bases than we do. These companies could devote more capital resources to develop, manufacture and market competing products than we could. If any of these companies are successful in competing against us, our sales could decline, our margins could be negatively impacted, and we could lose market share, any of which could seriously harm our business, results of operations, and prospects.

We may incur substantial damages due to litigation.

We cannot be certain that our products do not and will not infringe issued patents or other intellectual property rights of others. If it were determined that our products infringe the intellectual property rights of another, we could be required to pay substantial damages or be enjoined from licensing or using the infringing products or technology. Additionally, if it were determined that our products infringe the intellectual property rights of others, we would need to obtain licenses from these parties or substantially re-engineer our products in order to avoid infringement. We might not be able to obtain the necessary licenses on acceptable terms or at all, or to re-engineer our products successfully. Any of the foregoing could cause us to incur significant costs and prevent us from selling our products.

We depend on a small team of senior management and may have difficulty attracting and retaining additional personnel.

Our future success will depend in large part upon the continued services and performance of senior management and other key personnel. If we lose the services of any member of our senior management team, our overall operations could be materially and adversely affected. In addition, our future success will depend on our ability to identify, attract, hire, train, retain and motivate other highly skilled technical, managerial, marketing, purchasing and customer service personnel when they are needed. Competition for these individuals is intense. We cannot ensure that we will be able to successfully attract, integrate or retain sufficiently qualified personnel when the need arises. Any failure to attract and retain the necessary technical, managerial, marketing, purchasing and customer service personnel could have a negative effect on our financial condition and results of operations.

Any acquisitions we make could result in difficulties in successfully managing our business and consequently harm our financial condition.

We may seek to expand by acquiring complementary businesses in our current or ancillary markets. We cannot accurately predict the timing, size and success of our acquisition efforts and the associated capital commitments that might be required. We expect to face competition for acquisition candidates, which may limit the number of acquisition opportunities available to us and may lead to higher acquisition prices. There can be no assurance that we will be able to identify, acquire or profitably manage additional businesses or successfully integrate acquired businesses, if any, without substantial costs, delays or other operational or financial difficulties. In addition, acquisitions involve a number of other risks, including:

- failure of the acquired businesses to achieve expected results;
- diversion of management's attention and resources to acquisitions;
- failure to retain key customers or personnel of the acquired businesses;
- disappointing quality or functionality of acquired equipment and people; and
- risks associated with unanticipated events, liabilities or contingencies.

Client dissatisfaction or performance problems at a single acquired business could negatively affect our reputation. The inability to acquire businesses on reasonable terms or successfully integrate and manage acquired companies, or the occurrence of performance problems at acquired companies, could result in dilution, unfavorable accounting treatment or one-time charges and difficulties in successfully managing our business.

Our inability to obtain capital, use internally generated cash or debt, or use shares of our common stock to finance our operations or future acquisitions could impair the growth and expansion of our business.

Reliance on internally generated cash or debt to finance our operations or complete acquisitions could substantially limit our operational and financial flexibility. The extent to which we will be able or willing to use shares of our common stock to consummate acquisitions will depend on the market value of our common stock which will vary, and our liquidity. Using shares of our common stock for this purpose also may result in significant dilution to our then existing stockholders. To the extent that we are unable to use our common stock to make future acquisitions, our ability to grow through acquisitions may be limited by the extent to which we are able to raise capital through debt or additional equity financings. No assurance can be given that we will be able to obtain the necessary capital to finance any acquisitions or our other cash needs. If we are unable to obtain additional capital on acceptable terms, we may be required to reduce the scope of any expansion or redirect resources committed to internal purposes. In addition to requiring funding for acquisitions, we may need additional funds to implement our internal growth and operating strategies or to finance other aspects of our operations. Our failure to: (i) obtain additional capital on acceptable terms; (ii) use internally generated cash or debt to complete acquisitions because it significantly limits our operational or financial flexibility; or (iii) use shares of our common stock to make future acquisitions, may hinder our ability to actively pursue any acquisitions.

Potential fluctuations in operating results could have a negative effect on the price of our common stock.

Our operating results may fluctuate significantly in the future as a result of a variety of factors, most of which are outside our control, including:

- the level of use of the Internet;
- the demand for high-tech goods;
- the amount and timing of capital expenditures and other costs relating to the expansion of our operations;

price competition or pricing changes in the industry;

technical difficulties or system downtime;

changes in governmental policies;

economic conditions specific to the internet and communications industry; and

general economic conditions.

Our financial results may also be significantly impacted by certain accounting treatment of acquisitions, financing transactions or other matters. Such accounting treatment could have a material impact on our results of operations and have a negative impact on the price of our common stock.

We rely on a limited number of third party suppliers. If these companies fail to perform or experience delays, shortages, or increased demand for their products or services, we may face shortages, increased costs, and may be required to suspend deployment of our products and services.

We depend on a limited number of third party suppliers to provide the components and the equipment required to deliver our solutions. If these providers fail to perform their obligations under our agreements with them or we are unable to renew these agreements, we may be forced to suspend the sale and deployment of our products and services and enrollment of new customers, which would have an adverse effect on our business, prospects, financial condition and operating results.

Our management and operational systems might be inadequate to handle our potential growth.

We may experience growth that could place a significant strain upon our management and operational systems and resources. Failure to manage our growth effectively could have a material adverse effect upon our business, results of operations and financial condition. Our ability to compete effectively and to manage future growth will require us to continue to improve our operational systems, organization and financial and management controls, reporting systems and procedures. We may fail to make these improvements effectively. Additionally, our efforts to make these improvements may divert the focus of our personnel. We must integrate our key executives into a cohesive management team to expand our business. If new hires perform poorly, or if we are unsuccessful in hiring, training and integrating these new employees, or if we are not successful in retaining our existing employees, our business may be harmed. To manage the growth we will need to increase our operational and financial systems, procedures and controls. Our current and planned personnel, systems, procedures and controls may not be adequate to support our future operations. We may not be able to effectively manage such growth, and failure to do so could have a material adverse effect on our business, financial condition and results of operations.

We may be affected if the United States participates in wars or other military action or by international terrorism.

Involvement in a war or other military action or acts of terrorism may cause significant disruption to commerce throughout the world. To the extent that such disruptions result in (i) delays or cancellations of customer orders, (ii) a general decrease in consumer spending on information technology, (iii) our inability to effectively market and distribute our services or products or (iv) our inability to access capital markets, our business and results of operations could be materially and adversely affected. We are unable to predict whether the involvement in a war or other military action will result in any long-term commercial disruptions or if such involvement or responses will have any long-term material adverse effect on our business, results of operations, or financial condition.

Cyber security risks and cyber incidents could adversely affect our business and disrupt operations.

Cyber incidents can result from deliberate attacks or unintentional events. These incidents can include, but are not limited to, gaining unauthorized access to digital systems for purposes of misappropriating assets or sensitive information, corrupting data, or causing operational disruption. The result of these incidents could include, but are not limited to, disrupted operations, misstated financial data, liability for stolen assets or information, increased cyber-security protection costs, litigation and reputational damage adversely affecting customer or investor confidence. We have implemented systems and processes to focus on identification, prevention, mitigation and resolution. However, these measures cannot provide absolute security, and our systems may be vulnerable to cyber-security breaches such as viruses, hacking, and similar disruptions from unauthorized intrusions. In addition, we rely on third party service providers to perform certain services, such as payroll and tax services. Any failure of our systems or third party systems may compromise our sensitive information and/or personally identifiable information

of our employees. While we have secured cyber insurance to potentially cover certain risks associated with cyber incidents, there can be no assurance the insurance will be sufficient to cover any such liability.

Our exposure to the credit risk of our customers and suppliers may adversely affect our financial results.

We sell our products to customers that have in the past, and may in the future, experience financial difficulties. If our customers experience financial difficulties, we could have difficulty recovering amounts owed to us from these customers. While we perform credit evaluations and adjust credit limits based upon each customer's payment history and credit worthiness, such programs may not be effective in reducing our exposure to credit risk. We evaluate the collectability of accounts receivable, and based on this evaluation make adjustments to the allowance for doubtful accounts for expected losses. Actual bad debt write-offs may differ from our estimates, which may have a material adverse effect on our financial condition, operating results and cash flows.

Our suppliers may also experience financial difficulties, which could result in our having difficulty sourcing the materials and components we use in producing our products and providing our services. If we encounter such difficulties, we may not be able to produce our products for our customers in a timely fashion which could have an adverse effect on our results of operations, financial condition and cash flows.

Changes in the economy and credit markets may adversely affect our future results of operations.

Our operations and performance depend to some degree on general economic conditions and their impact on our customers' finances and purchase decisions. As a result of economic events, potential customers may elect to defer purchases of capital equipment items, such as the products we manufacture and supply. Additionally, the credit markets and the financial services industry are subject to change. While the ultimate outcome of these events cannot be predicted, it may have a material adverse effect on our customers' ability to fund their operations thus adversely impacting their ability to purchase our products or to pay for our products on a timely basis, if at all. These and other economic factors could have a material adverse effect on demand for our products, the collection of payments for our products and on our financial condition and operating results.

We may not be able to obtain payment and performance bonds, which could have a material adverse effect on our business.

Our ability to deploy our EcoSmart Suite of products into the energy management initiatives in federally funded or assisted projects may rely on our ability to obtain payment and performance bonds which may be an essential element to work orders for the installation of our products and services. If we are unable to obtain payment and performance bonds in a timely fashion as required by an applicable work order, we may not be entitled to payment under the work order until such bonds have been provided or until such a requirement is expressly waived. In addition, any delays due to a failure to furnish bonds may not entitle us to a price increase for the work or an extension of time to complete the work and may entitle the other party to terminate our work order without liability and to indemnify such party from damages suffered as a result of our failure to deliver the bonds and the termination of the work order. As a result, the failure to obtain bonds where required could negatively impact our business, results of operations, and prospects.

Risks Relating to Our Financial Results and Need for Financing

We have a limited number of shares of common stock available for future issuance which could adversely affect our ability to raise capital or consummate acquisitions.

We are currently authorized to issue 190,000,000 shares of common stock under our Amended Restated and Articles of Incorporation. As of March 2018, we have issued 133,695,111 shares of common stock and have approximately 9,290,060 shares of common stock committed for issuance giving effect to the assumed exercise of all outstanding warrants and options and assumed conversion of preferred stock. Due to the limited number of authorized shares available for issuance and because of the significant competition for acquisitions, we may not be able to consummate an acquisition until we increase the number of shares we are authorized to issue. To facilitate the possibility and

flexibility of raising additional capital or the completion of potential acquisitions, we would need to seek stockholder approval to increase the number of our authorized shares of common stock. We can provide no assurance that we will succeed in amending our Amended and Restated Articles of Incorporation to increase the number of shares of common stock we are authorized to issue.

We have a history of operating losses and an accumulated deficit and may incur losses in the foreseeable future.

Since inception through December 31, 2017, we have incurred cumulative losses of \$119,724,656 and have never generated enough funds through operations to support our business. For the year ended December 31, 2017, we had an operating cash flow deficit of \$3,594,906 from continuing operations. As of December 31, 2017, we have a working capital surplus (current assets in excess of current liabilities) from continuing operations of \$9,480,565. Because of the numerous risks and uncertainties associated with our technology, the industry in which we operate, and other factors, we are unable to predict the extent of any future losses or if we will become profitable. If we are unable to generate sufficient revenues from our operations to meet our working capital requirements, we expect to finance our future cash needs through public or debt financings. We cannot be certain that additional funding will be available on acceptable terms, or at all.

Our business activities might require additional financing that might not be obtainable on acceptable terms, if at all, which could have a material adverse effect on our financial condition, liquidity and our ability to operate going forward.

The actual amount of capital required to fund our operations and development may vary materially from our estimates. If our operations fail to generate the cash that we expect, we may have to seek additional capital to fund our business. If we are required to obtain additional funding in the future, we may have to sell assets, seek debt financing or obtain additional equity capital. In addition, any indebtedness we incur in the future could subject us to restrictive covenants limiting our flexibility in planning for, or reacting to changes in, our business. If we do not comply with such covenants, our lenders could accelerate repayment of our debt or restrict our access to further borrowings.

If we raise funds by selling more stock, your ownership in us will be diluted, and we may grant future investors rights superior to those of the common stock that you hold. If we are unable to obtain additional capital when needed, we may have to delay, modify or abandon some of our expansion plans. This could slow our growth, negatively affect our ability to compete in our industry and adversely affect our financial condition.

Our failure to comply with covenants under debt instruments could trigger prepayment obligations or other penalties.

Our failure to comply with the covenants under our debt instruments could result in an event of default, which, if not cured or waived, could result in us being required to repay these borrowings before their due date or could result in other penalties. If we are forced to refinance these borrowings on less favorable terms, our results of operations and financial condition could be adversely affected by increased costs and rates.

If we fail to remain current on our reporting requirements, we could be removed from the OTC Bulletin Board, which would limit the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market.

Companies trading on the OTC Bulletin Board, such as us, must be reporting issuers under Section 12 of the Securities Exchange Act of 1934, as amended, (the “Exchange Act”), and must be current in their reports under Section 13 of the Exchange Act in order to maintain price quotation privileges on the OTC Bulletin Board. If we fail to remain current on our reporting requirements, we could be removed from the OTC Bulletin Board. As a result, the market liquidity for our securities could be adversely affected by limiting the ability of broker-dealers to sell our securities and the ability of stockholders to sell their securities in the secondary market.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

In October 2013, the Company entered into a lease agreement for 6,362 square feet of commercial office space in Waukesha, Wisconsin for its corporate headquarters with a term expiration of April 30, 2021. On April 7, 2017, the Company executed an amendment to the existing lease to expand another 3,982 square feet, bringing the total leased space to 10,344 square feet, and extend the lease term from May 1, 2021 to April 30, 2026. The commencement date for this amendment was July 15, 2017.

In January 2016, the Company entered into a lease agreement for 2,237 square feet of commercial office space in Germantown, Maryland for its Maryland employees. In November 2017, the Company entered into a second amendment to the lease agreement extending the lease through the end of January 2019.

In May 2017, the Company entered into a lease agreement for 5,838 square feet of floor space in Waukesha, Wisconsin for its inventory warehousing operations. The Waukesha lease expires in May 2023.

ITEM 3. LEGAL PROCEEDINGS.

The Company is subject to legal proceedings and claims which arise in the ordinary course of its business. Although occasional adverse decisions or settlements may occur, the Company believes that the final disposition of such matters should not have a material adverse effect on its financial position, results of operations or liquidity.

ITEM 4. MINE SAFETY DISCLOSURES.

None.

PART II

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

Our common stock is currently quoted on the OTC Bulletin Board under the symbol “TKOI.”

The following table sets forth the quarterly high and low bid prices for our common stock for the years ended December 31, 2017 and 2016.

	High	Low
Year Ended December 31, 2017		
First Quarter	\$0.17	\$0.12
Second Quarter	0.19	0.13
Third Quarter	0.20	0.13
Fourth Quarter	0.16	0.10
Year Ended December 31, 2016		
First Quarter	\$0.24	\$0.13
Second Quarter	0.23	0.18
Third Quarter	0.25	0.18
Fourth Quarter	0.19	0.12

Record Holders

As of March 22, 2018, we had 215 holders of record of our common stock and 133,695,111 shares of our common stock issued and outstanding.

Stock Repurchase Program

During 2017, the board of director’s approved a resolution to repurchase up to an aggregate of ten million shares of the Company’s common stock. A broker agent was approved to transact the purchases. In the fourth quarter of 2017, there were no purchases of the Company common stock made by or on behalf of the Company or any “affiliated purchaser”

(as defined in Rule 10b-18(a)(3) of the Securities Exchange Act of 1934, as amended).

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information concerning securities authorized for issuance pursuant to equity compensation plans approved by the Company's stockholders and equity compensation plans not approved by the Company's stockholders as of December 31, 2017.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	4,626,474	\$ 0.16	1,752,968
Equity compensation plans not approved by security holders	–	–	–
Total	4,626,474	\$ 0.16	1,752,968

Dividend Policy

The Company has never paid dividends on its common stock and does not anticipate paying dividends in the foreseeable future. It is also subject to certain contractual restrictions on paying dividends on its common stock under the terms of its Series A and B preferred stock.

Unregistered Sales of Equity Securities and Use of Proceeds

None.

Issuer Purchases of Equity Securities

None.

ITEM 6. SELECTED FINANCIAL DATA

This item is not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the accompanying financial statements and related notes thereto.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Company to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. On an ongoing basis, the Company evaluates significant estimates used in preparing its consolidated financial statements including those related to revenue recognition and allowances for uncollectible accounts receivable, inventory obsolescence, recovery of long-lived assets, income tax provisions and related valuation allowance, stock-based compensation, and contingencies. The Company bases its estimates on historical experience, underlying run rates and various other assumptions that the Company believes to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results could differ from these estimates. The following are critical judgments, assumptions, and estimates used in the preparation of the consolidated financial statements.

Revenue Recognition

For revenue from product sales, the Company recognizes revenue in accordance with ASC 605-10, "Revenue Recognition" and ASC 605-10-S99 guidelines that require that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred; (3) the selling price is fixed and determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) are based on management's judgments regarding the fixed nature of the selling prices of the products delivered and the collectability of those amounts. Assuming all conditions for revenue recognition have been satisfied, product revenue is recognized when products are shipped and installation revenue is recognized when the services are completed. Provisions for discounts and rebates to customers, estimated returns and allowances, and other adjustments are provided for in the same period the related sales are recorded. The guidelines also address the accounting for arrangements that may involve the delivery or performance of multiple products, services and/or rights to use assets.

Multiple-Element Arrangements (“MEAs”): The Company accounts for contracts that have both product and installation under the MEAs guidance in ASC 605-25. Arrangements under such contracts may include multiple deliverables consisting of a combination of equipment and services. The deliverables included in the MEAs are separated into more than one unit of accounting when (i) the delivered equipment has value to the customer on a stand-alone basis, and (ii) delivery of the undelivered service element(s) is probable and substantially in the Company’s control. Arrangement consideration is then allocated to each unit, delivered or undelivered, based on the relative selling price of each unit of accounting based first on vendor-specific objective evidence (“VSOE”) if it exists, second on third-party evidence (“TPE”) if it exists and on estimated selling price (“ESP”) if neither VSOE or TPE exist.

VSOE – In most instances, products are sold separately in stand-alone arrangements. Services are also sold separately through renewals of contracts with varying periods. The Company determines VSOE based on pricing and discounting practices for the specific product or service when sold separately, considering geographical, customer, and other economic or marketing variables, as well as renewal rates or stand-alone prices for the service element(s).

TPE – If the Company cannot establish VSOE of selling price for a specific product or service included in a multiple-element arrangement, the Company uses third-party evidence of selling price. The Company determines TPE based on sales of comparable amount of similar product or service offered by multiple third parties considering the degree of customization and similarity of product or service sold.

ESP – The estimated selling price represents the price at which the Company would sell a product or service if it were sold on a stand-alone basis. When neither VSOE nor TPE exists for all elements, the Company determines ESP for the arrangement element based on sales, cost and margin analysis, as well as other inputs based on the Company’s pricing practices. Adjustments for other market and Company-specific factors are made as deemed necessary in determining ESP.

Under the estimated selling price method, revenue is recognized in MEAs based on estimated selling prices for all of the elements in the arrangement, assuming all other conditions for revenue recognition have been satisfied. To determine the estimated selling price, the Company establishes the selling price for its products and installation services using the Company’s established pricing guidelines, which the proceeds are allocated between the elements and the arrangement.

When MEAs include an element of customer training, the Company determined it is not essential to the functionality, efficiency or effectiveness of the MEA due to its perfunctory nature in relation to the entire arrangement. Therefore the Company has concluded that this obligation is inconsequential and perfunctory. As such, for MEAs that include training, customer acceptance of said training is not deemed necessary in order to record the related revenue, but is recorded when the installation deliverable is fulfilled. Historically, training revenues have not been significant.

The Company provides call center support services to properties installed by the Company. The Company receives monthly service fees from such properties for its services. The Company recognizes the service fee ratably over the term of the contract. The prices for these services are fixed and determinable prior to delivery of the service. The fair value of these services is known due to objective and reliable evidence from standalone executed contracts. The Company reports such revenues as recurring revenues. Deferred revenue includes deferrals for the monthly support service fees. Long-term deferred revenue represents support service fees to be earned or provided beginning after December 31, 2018. Revenue recognized that has not yet been billed to a customer results in an asset as of the end of the period. As of December 31, 2017 and 2016, there was \$261,800 and \$214,821 recorded within accounts receivable, respectively, related to revenue recognized that has not yet been billed.

Accounts Receivable

Accounts receivable are uncollateralized customer obligations due under normal trade terms. The Company records allowances for doubtful accounts based on customer-specific analysis and general matters such as current assessment of past due balances and economic conditions. The Company writes off accounts receivable when they become uncollectible. Management identifies a delinquent customer based upon the delinquent payment status of an outstanding invoice, generally greater than 30 days past due date. The delinquent account designation does not trigger an accounting transaction until such time the account is deemed uncollectible. The allowance for doubtful accounts is determined by examining the reserve history and any outstanding invoices that are over 30 days past due as of the end of the reporting period. Accounts are deemed uncollectible on a case-by-case basis, at management's discretion based upon an examination of the communication with the delinquent customer and payment history. Typically, accounts are only escalated to "uncollectible" status after multiple attempts at collection have proven unsuccessful.

Inventory Obsolescence

Inventories consist of thermostats, sensors and controllers for Telkonet's EcoSmart product platform. These inventories are purchased for resale and do not include manufacturing labor and overhead. Inventories are stated at the lower of cost or net realizable value determined by the first in, first out (FIFO) method. The Company's inventories are subject to technological obsolescence. Management evaluates the net realizable value of its inventories on a quarterly basis and when it is determined that the Company's carrying cost of such excess and obsolete inventories cannot be recovered in full, a charge is taken against income for the difference between the carrying cost and the estimated realizable amount.

Guarantees and Product Warranties

The Company records a liability for potential warranty claims. The amount of the liability is based on the trend in the historical ratio of claims to sales. The products sold are generally covered by a warranty for a period of one year. In the event the Company determines that its current or future product repair and replacement costs exceed its estimates, an adjustment to these reserves would be charged to earnings in the period such determination is made. During the years ended December 31, 2017 and 2016, the Company experienced approximately between 1% and 3% of returns related to product warranties. As of December 31, 2017 and 2016, the Company recorded warranty liabilities in the amount of \$59,892 and \$95,540, respectively, using this experience factor range.

Income Taxes

The Company accounts for income taxes in accordance with ASC 740-10. Under this method, deferred income taxes (when required) are provided based on the difference between the financial reporting and income tax bases of assets and liabilities and net operating losses at the statutory rates enacted for future periods. The Company has a policy of establishing a valuation allowance when it is more likely than not that the Company will not realize the benefits of its deferred income tax assets in the future.

Stock Based Compensation

We account for our stock based awards in accordance with ASC 718, which requires a fair value measurement and recognition of compensation expense for all share-based payment awards made to our employees and directors, including employee stock options and restricted stock awards.

We estimate the fair value of stock options granted using the Black-Scholes valuation model. This model requires us to make estimates and assumptions including, among other things, estimates regarding the length of time an employee will retain vested stock options before exercising them and the estimated volatility of our common stock price. The fair value is then amortized on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period. Changes in these estimates and assumptions can materially affect the determination of the fair value of stock-based compensation and consequently, the related amount recognized in our consolidated statements of operations.

Recovery of Long -Lived Assets

We review long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable in accordance with ASC 360-10. Recoverability is measured by comparison of the carrying amount to the future net undiscounted cash flows which the assets are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds its fair value.

Contingent Liabilities - Sales Tax

During 2012, the Company engaged a sales tax consultant to assist in determining the extent of its potential sales tax exposure. Based upon this analysis, management determined the Company had probable exposure for certain unpaid obligations, including interest and penalty, of approximately \$1,100,000 including and prior to the year ended December 31, 2011. The Company had approximately \$83,000 and \$275,000 accrued for this exposure as of December 31, 2017 and 2016, respectively.

During the year ended December 31, 2016, the State of Wisconsin performed a sales and use tax audit covering the period from January 1, 2012 through December 31, 2015. The audit resulted in approximately \$120,000 in additional use tax and interest. As of December 31, 2017, the Company paid in full the additional use tax liability and interest associated with the sales and use tax audit.

Prior to 2017, the Company successfully executed and paid in full voluntary disclosure agreements (“VDAs”) in thirty six states totaling approximately \$765,000 and is current with the subsequent filing requirements.

Results of Continuing Operations

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016

Revenues

The table below outlines our product versus recurring revenues from continuing operations for comparable periods:

	Year Ended December 31,				Variance	
	2017		2016			
Product	\$7,798,680	94%	\$7,796,319	94%	\$2,361	0%
Recurring	483,889	6%	459,695	6%	24,194	5%
Total	\$8,282,569	100%	\$8,256,014	100%	\$26,555	0%

Product Revenue

Product revenue principally arises from the sale and installation of EcoSmart energy management platform. The EcoSmart Suite of products consists of thermostats, sensors, controllers, wireless networking products switches, outlets and a control platform.

For the year ended December 31, 2017, product revenue was unchanged when compared to the prior year. Product revenue from the hospitality market decreased \$0.5 million to \$5.6 million for the year ended December 31, 2017 compared to \$6.1 million for the prior year. Product revenue from the residential market decreased \$0.1 million to \$0.5 million for the year ended December 31, 2017 compared to \$0.6 million for the prior year period. Product revenue from the education market increased \$0.6 million to \$1.5 million for the year ended December 31, 2017 compared to \$0.9 million for the prior year. Product revenue attributed to sales from channel partnerships and value added resellers increased \$0.3 million to \$4.5 million for the year ended December 31, 2017 compared to \$4.2 million for the prior year period. Product revenue attributed to sales from channel partnerships and value added resellers as a percentage of total revenue was 59% for the year ended December 31, 2017 compared to 54% for the prior year.

Recurring Revenue

Recurring revenue is attributed to our call center support services. The Company recognizes revenue ratably over the service month for monthly support revenues and defers revenue for annual support services over the term of the service period. Recurring revenue consists of Telkonet's EcoCare service and support program.

For the year end comparison, recurring revenue increased 5% or \$0.02 million to \$0.48 million for the year ended December 31, 2017 compared to \$0.46 million for the year ended December 31, 2016. The primary reasons for the increase are renewals and new sales are greater than cancellation for support services.

Cost of Sales

	Year ended December 31,				Variance	
	2017	2016				
Product	\$4,261,100	55%	\$4,024,675	52%	\$236,425	6%
Recurring	176,131	36%	124,842	27%	51,289	41%
Total	\$4,437,231	54%	\$4,149,517	50%	\$287,714	7%

Costs of Product Revenue

Costs of product revenue include equipment and installation labor related to EcoSmart technology. For the year ended December 31, 2017, product costs increased by 6% compared to the prior year. The Company's strategic decision to increase the use of subcontractors for installations resulted in a \$0.13 million increase for these services. This enabled the Company to cut \$0.25 million in installer salaries, benefits, meals and travel costs. A material cost increase of \$0.13 million was the result of a price increase and the direct expensing of licenses. Inventory adjustments due to slow moving and obsolete inventory accounted for a \$0.13 million increase. An inventory shortage requiring expedited shipping resulted in a \$0.06 million increase in freight expense. Parts and supplies increased \$0.02 million due to custom parts required for several projects.

Costs of Recurring Revenue

Recurring costs are comprised of labor and telecommunication services for our customer service department. For the year ended December 31, 2017, costs of recurring revenue increased by 41% when compared to the prior year. The increase of \$0.05 million was for salaries and benefits due to the Company adding a support services supervisor during the year ended December 31, 2017.

Gross Profit

	Year ended December 31,				Variance	
	2017		2016			
Product	\$3,537,580	45%	\$3,771,644	48%	\$(234,064)	-6%
Recurring	307,758	64%	334,853	73%	(27,095)	-8%
Total	\$3,845,338	46%	\$4,106,497	50%	\$(261,159)	-6%

Gross Profit on Product Revenue

Gross profit for the year ended December 31, 2017 decreased by 6% when compared to the prior year. The actual gross profit percentages decreased to 45% for the year ended December 31, 2017 compared to 48% for the year ended December 31, 2016. Contributing to the 3% decrease in gross profit percentage was an increase in customer discounts given on product sales. Also contributing to the decrease was a \$0.14 million inventory valuation adjustment.

Gross Profit on Recurring Revenue

For the year ended December 31, 2017, our gross profit decreased by 8% when compared to the prior year. The variance was mainly attributed to an increase in support staff wages and benefits as discussed above.

Operating Expenses

	Year ended December 31,		
	2017	2016	Variance
Total	\$7,334,751	\$8,029,808	\$(695,057) -9%

The Company's operating expenses are comprised of research and development, selling, general and administrative expenses and depreciation and amortization expense. During the year ended December 31, 2017, operating expenses decreased by 9% when compared to the prior year as outlined below.

Research and Development

Year ended
December 31,
2012 2016 Variance
&nb