TELKONET INC
Form 10-K
April 01, 2009

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, 2008

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)	(IRS Employee Identification No.)

20374 Seneca Meadows Parkway
Germantown, MD 20876
(Address of principal executive offices)

(240) 912-1800
(Issuer's telephone number)

Securities Registered pursuant to section 12(g) of the Act: None

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

Check 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See the definition of “accelerated filer and large accelerated filer” in Rule 12b-2 of the Exchange Act.

o Large Accelerated Filer o Accelerated Filer x Non-Accelerated Filer

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

Aggregate market value of the voting stock held by non-affiliates of the registrant as of March 30, 2009: $11,790,502.

Number of outstanding shares of the registrant’s par value $0.001 common stock as of March 30, 2009: 93,058,566.

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PART I

ITEM 1. DESCRIPTION OF BUSINESS.

GENERAL

Business

Telkonet, Inc., formed in 1999 and incorporated under the laws of the state of Utah, is a “clean technology” company that develops and manufactures proprietary energy efficiency and smart grid networking technology. The Company’s patented Recovery Time™ energy management technology and Series 5™ power grid networking technology are innovative clean technology products that have helped position the Company as a leading clean technology provider.

The Telkonet SmartEnergy™ (TSE) and Networked Telkonet SmartEnergy™ (NTSE) platforms incorporate Recovery Time™, an energy management technology that continuously monitors climate conditions to automatically adjust a room’s temperature to account for the presence or absence of an occupant in an effort to save energy while at the same time ensuring occupant comfort. This technology is particularly attractive to our customers in the hospitality area and owners of multi-dwelling units who are continually seeking ways to reduce costs without impacting customer satisfaction. By reducing energy usage automatically when a space is not being utilized, our customers can realize a significant cost savings without diminishing occupant comfort.

Telkonet's wholly-owned subsidiary, EthoStream, LLC, operates one of the largest hospitality high-speed Internet access (HSIA) networks in the United States. Although this business is successful in its own right, its significant customer base in the hospitality industry (i.e. more than 2,500 properties that represent 210,000 rooms) has created an opportunity for Telkonet to market its energy efficiency solutions more successfully. It also provides a marketing opportunity for the Company’s more traditional HSIA offerings, including the Telkonet iWire System. The iWire System offers a fast and cost effective way to deliver commercial high-speed broadband access from an IP “platform” using a building’s existing electrical infrastructure to convert virtually every electrical outlet into a high-speed data port without the installation of additional wiring or major disruption of business activity. EthoStream represents a significant portion of Telkonet's hospitality growth and market share (described in detail in the Segment Reporting section).

Telkonet's Series 5 system uses powerline communications technology (PLC) to transform a site’s existing internal electrical infrastructure into an IP network backbone. With its powerful 200 Mbps chip, the system offers a new competitive alternative in grid communications, enabling local area network (LAN) infrastructure for command and control, monitoring and grid management, transforming a traditional power management system into a “smart grid” that delivers electricity in a manner that saves energy, reduces cost and increases reliability. The company’s PLC platform provides a compelling solution for substation automation, power generation, renewable facilities, manufacturing, and research environments, by providing a rapidly-deployed, low cost alternative to structured cable or fiber. By leveraging the existing electrical wiring within a facility to transport data, Telkonet’s PLC solutions enable facilities to deploy sensing and control systems to locations without the need for new network wiring, and without the security risks entailed with wireless.

The Company's subsidiary MSTI Holdings, Inc. (MSTI) offers quadruple play ("Quad-Play") services to multi-tenant unit ("MTU") and multi-dwelling unit ("MDU") residential, hospitality and commercial properties. These Quad-Play services include video, voice, high-speed Internet and wireless fidelity ("WiFi") access.

The Company's headquarters is located at 20374 Seneca Meadows Parkway in Germantown, Maryland 20876. Telkonet’s reports that are filed pursuant to the Securities Exchange Act of 1934 are posted on the Company's website:

www.telkonet.com.

The highlights and business developments for the twelve months ended December 31, 2008 include the following:

- Consolidated revenue growth of 45% driven by increased sales activity in the Clean Technology energy management product segment, including Telkonet SmartEnergy™ (TSE) and Networked Telkonet SmartEnergy™ (NTSE).

- Recognition as Top 25 in Deloitte's 2008 Nationwide Technology Fast 500 Program.

- Shipments of more than 65,000 rooms' worth of energy management installations throughout 2008.

- The addition of over 400 new hospitality customers throughout 2008, bringing the total number of hotel customers supported by the EthoStream Hospitality Network to over 2,500 properties (representing 210,000 rooms).

- The release of Telkonet's Series 5 AV 200 Mbps-based PLC platform, targeting utilities and grid communications.

- The introduction and initial sales of Telkonet’s next-generation energy management solution, NTSE.

- The award of a $1.7M contract with Red Lion hotels to provide a comprehensive wired and wireless HSIA solution and customer support to all of the Red Lion corporate-owned properties, totaling 5,400-plus rooms in 30 hotels across the United States.

- The award of a contract with New York University, the largest private university in the United States, to install the first phase of a networked energy efficiency program in two student-occupied residence halls.

- The signing of an exclusive two-year energy management contract extension with West coast-based Cool Control Plus hospitality energy efficiency program.

- Entered into a relationship with the ESCO operating Nevada’s hospitality energy efficiency program.

- Transition of all former SSI activities from Las Vegas to Telkonet’s Milwaukee, WI offices.

- Reduction in operating expenses of -17% on a consolidated basis in 2008.

- Completion of several military base energy management installations with one of the largest ESCOs in the United States.

- Completion of a franchise wide rollout of energy management products with the entire InTown Suites franchise.

Segment Reporting

We classify our operations in two reportable segments: the Telkonet Segment and the MST Segment.

Telkonet Segment (“Telkonet”)

Telkonet provides integrated, centrally-managed energy management and SmartGrid networking solutions that improve energy efficiency and reduce the demand for new energy generation. The Company's energy management systems, aimed at the hospitality, commercial, government, healthcare and education markets, are dynamically lowering HVAC costs in over 140,000 rooms, and are an integral part of various utilities' green energy efficiency and rebate programs.

Primarily targeting SmartGrid and utility applications, Telkonet's patented powerline communications (PLC) platform delivers cost-effective, robust networking, with real-time online monitoring and maintenance capabilities, increasing the reliability and energy efficiency across the entire utility grid.

The Company employs direct and indirect sales channels in all areas of its business. With a growing value-added reseller (VAR) network, Telkonet continues to broaden its reach throughout the industry. Direct sales efforts are focused on the hospitality industry through Telkonet's wholly-owned subsidiary, EthoStream. With a recognized brand and strong customer loyalty, EthoStream continues to grow its Hospitality Network and expand beyond limited and economy properties into the full-service hospitality market.

Telkonet's direct sales efforts target the utility, education, commercial and government market segments. Taking advantage of legislation, including the Energy Independence and Security Act (EISA) of 2007 and the Energy Policy Act of 2005, Telkonet has focused its sales efforts in areas with available public funding and incentives, such as rebate programs offered by Utilities to the hospitality industry. Telkonet has developed a strategic growth plan to meet the needs of this emerging industry.

Product Strengths

Telkonet's entry into the Clean Technology space has been driven by its energy efficiency product offerings. According to the International Energy Agency, each $1 invested in energy efficiency removes the need, on average, to spend more than $2 on creating new supply. This knowledge alone is renewing interest in energy management and reducing the reliance on new energy generation and consumption.

Telkonet’s new NTSE system, which delivers intelligent energy management control with an integrated, networked platform, has been developed in direct cooperation with utilities and their Demand Response (DR) program interests. For example, the Brattle Group’s recent assessment of DR, called the Power of Five Percent, concluded that if DR could reduce peak demand by 5% it would produce a benefit stream over twenty years with a projected present value of $66 billion. This represents a significant increase over their previous projection of $35 billion, based on increased peak energy costs and decreased technology costs.

Telkonet’s differentiated approach to energy management, with its patented Recovery Time™ technology, delivers significant benefits over competing technologies, including the following:

- Maximum energy savings by evaluating each room’s environmental conditions, including room location, window placement, dry vs. humid climate, weather conditions, and condition of heating, ventilation and air conditioning (HVAC) equipment,
- Longer life and reduced maintenance of HVAC units through effective equipment monitoring,
- Increased occupant comfort,
- Speed and ease of installation, and
- Wide range of HVAC system compatibility.

Based on these advanced product features and capabilities, Telkonet has won significant competitive contracts in the utility, military and educational space, including Noresco, NYU and the Cool Control Plus Program. Forming key partnerships with utility rebate programs has enabled Telkonet to outpace its competition in the commercial occupancy-based energy management market.

Telkonet's new NTSE system has evolved the Company’s strategic vision, moving past traditional energy efficiency and energy management to bring SmartGrid controls to the edge of the grid. Using wired and wireless technologies to network-enable in-room energy controls provides greater granularity of control and real-time performance monitoring. Additionally, network control maximizes energy efficiency and savings. Finally, integrating in-room management into a Utility's DR programs has significantly enhanced the NTSE proposition. With the first year of sales completed, Telkonet has recognized 143% growth in its energy management product segment and expects increased growth in 2009.

Given our nation's population growth and the exponential increase in the number of power-hungry digital components in our digital economy, additional infrastructure must be built, whether it is Smart or not. According to the Brattle Group, investments of $1.5 trillion will be required from 2010 to 2030 to pay for this infrastructure. The SmartGrid can be the most affordable alternative to building out by building less and saving more energy. It will clearly require investments that are not typical for utilities. However, these investments will far outweigh the costs as some utilities are already discovering.

There is growing agreement among federal and state policymakers, business leaders and other key stakeholders around the concept that a SmartGrid is not only needed but well within reach. Short term, a smarter grid will function more efficiently, delivering the expected level of service cost-effectively while offering considerable societal benefits such as less impact on our environment. Longer term, the SmartGrid will spur a transformation similar to the impact of the Internet on how we live, work, play and learn.

Telkonet is positioned to play a pivotal role in SmartGrid. The development of an industrial PLC product for use within the utility space has introduced a competitive alternative to the local area network (LAN) options. By capitalizing on the shortcomings of previously available offerings, Telkonet has gained traction and opened up a new market segment.

Telkonet's Series 5 PLC platform includes the following key features:

- Multiple physical interfaces, including RS232, RS485 and Ethernet, enabling a wide range of different devices to be networked,
- Multiple Utility-centric protocols supported, including DNP3, Modbus and IP,
- Granular QOS support over traditional communications,
- Ability to withstand extended temperature ranges and harsh outdoor environments,
- Stringent security features,
- Support for both AC and DC applications,
- Significant speed performance with AV chipset, and
- Flexible connection technology that avoids interruption of service through inductive coupling.

Telkonet's EthoStream division continues to cement its market leadership in the hospitality HSIA space. With strong, established customer and vendor relationships, including Choice Hotels International, Wyndham Hospitality, Destination Hotels and Resorts, and Worldmark by Wyndham (formerly Trendwest Resorts), EthoStream has demonstrated the continued strength of its brand through 2008. Winning competitive bids such as the corporate rollout of the Red Lion properties, EthoStream has expanded beyond its economy and limited service roots to enter the more lucrative segment of full-service hospitality.

EthoStream Gateway Servers (EGS) provide industry-leading HSIA technology to the hospitality industry, with advanced features based on in-house product design and development, including the following:

- Dual ISP bandwidth aggregation for faster overall speed,
- ISP redundancy to eliminate network downtime,
- Enhanced Quality of Service (QoS), and
- Real-time meeting room scheduling.

EthoStream's 24/7 U.S.-based Support Center employs a dedicated, in-house support team that uses integrated, web-based centralized management tools enabling proactive support. The Support Center has continued its growth over the last year. These corporate strengths, along with established relationships with some of the largest hospitality franchises, continue to set EthoStream apart.

Looking ahead, EthoStream's core growth will come from two key areas:

- New customer growth within the full-service hospitality market and through additional preferred vendor agreements with franchisors, and
- Ongoing sales to current customers through integration of additional in-room technologies such as lighting, minibars, media centers and energy management products.

Industry Outlook

The National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce, has been chartered under Energy Independence and Security Act 2007 (EISA) to identify and evaluate existing standards, measurement methods, technologies and other support toward SmartGrid adoption. The agency will also be preparing a report to Congress recommending areas where standards need to be developed. These types of initiatives reinforce the need for Telkonet's platform and technology.

It is estimated that SmartGrid enhancements will ease congestion and increase utilization, sending 50% to 300% more electricity through existing energy corridors. Telkonet is focusing on the strength of its technology to target key initiatives within the SmartGrid environment. Through key relationships with original equipment manufacturers (OEMs) and Utilities, Telkonet has been recognized as a leading technology provider.

Telkonet is a member of Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Corporation (NERC). These industry-leading groups are defining the standards for tomorrow's Smart Grid platforms. Comprised of U.S. electrical grid operations and subject to oversight by the U.S. Federal Energy Regulatory Commission and governmental authorities in Canada, the technologies tested and approved by these groups create the foundation for utility decisions.

Competition

Telkonet has greatly increased its market potential by evolving its energy management products with two significant developments:

- Increased HVAC system compatibility with the broadest range of HVAC equipment, and
- Advancing Telkonet SmartEnergy™ to a networked energy management platform.

Telkonet's products are Energy Star-certified and incorporate its patented Recovery Time™ technology. Although this technology provides Telkonet with significant competitive advantage in the occupancy-based energy efficiency space, competing technologies are available. These technologies would include the less automated standard available within energy management of static set point temperature, predictive based methodologies and standard building automation systems utilizing sensor and zone time-based architectures. In addition to its competitive benefits over these methodologies, Telkonet has added functionality and techniques of these methods to its offering as well to provide customers with more broad capabilities.

Telkonet's Series 5 product line has targeted smart grid communications with proprietary technological advancements. Telkonet's strengths in the grid communication space include fast implementation, existing customer relationships and proven performance. Our challenges include the introduction of a new technology into a competitive environment, entry into a fledgling market, the significant sales cycle involved in a highly regulated environment and the consumer education required and cultivating relationships with manufacturers and VARs to assist Telkonet in its distribution strategy.

Management has focused its sales and marketing efforts primarily on opportunities within the clean technology space in the commercial and industrial, government, education, healthcare and hospitality sectors, concentrating on markets with public funding from government and utilities in the form of grants, loans, tax breaks, incentives and rebates. Telkonet devotes significant resources to establishing relationships with both value-added resellers in these markets as well as third-party manufacturers, Utilities and energy service companies (ESCOs). These relationships enable Telkonet to reach a larger audience, as well as to offer increased value through complete packaged solutions. These sales and distribution channels continue to drive Telkonet's clean technology growth, generating greater product recognition.

Raw Materials

Telkonet has not experienced any significant or unusual problems in the purchase of raw materials or commodities. While Telkonet is dependent, in certain situations, on a limited number of vendors to provide certain raw materials and components, it has not experienced significant problems or issues purchasing any essential materials, parts or components. Telkonet obtains the majority of its raw materials from the following suppliers: Arrow Electronics,

Avnet Electronics Marketing, Digi-Key Corporation, Intellon Corporation, and Versa Technology. In addition, Superior Manufacturing Services, a U.S. based company, provides substantially all the manufacturing and assembly requirements for Telkonet iWire System™ and ATR Manufacturing, a Chinese based company, provides substantially all the manufacturing requirements for the Telkonet SmartEnergy™ products.

Customers

Telkonet is neither limited to, nor reliant upon, a single or narrowly segmented consumer base from which it derives its revenues. Presently, Telkonet is not dependent on any particular customer under contract. Telkonet's primary focus is in the hospitality, commercial, education, healthcare and government markets.

Revenue from two (2) major customer approximated $6,375,182 or 31% of total revenues for the year ending December 31, 2008. Revenue from one (1) major customer approximated $1,436,838 or 10% of total revenues for the year ending December 31, 2007.

Intellectual Property

Telkonet has applied for patents that cover the unique technology integrated into the Telkonet iWire SystemTM and Series 5 product suite. Telkonet also continues to identify, design and develop enhancements to its core technologies that will provide additional functionality, diversification of application and desirability for current and future users of the Telkonet iWire SystemTM and Series 5 product suite. Following is a description of the material patents held by the Company:

In December 2003, Telkonet received approval from the U.S. Patent and Trademark Office for its "Method and Apparatus for Providing Telephonic Communication Services" Patent No.: 6,668,058. This invention covers the utilization of an electrical power grid, for a concentration of electrical power consumers, and use of existing consumer power lines to provide for a worldwide voice and data telephony exchange.

In December 2005, the United States Patent and Trademark Office issued Patent No: 6,975,212 titled "Method and Apparatus for Attaching Power Line Communications to Customer Premises". The patent covers the method and apparatus for modifying a three-phase power distribution network in a building in order to provide data communications by using a PLC signal to an electrical central location point of the power distribution system. Telkonet's Coupler technology enables the conversion of electrical outlets into high-speed data ports without costly installation, additional wiring, or significant disruption of business activity. The Coupler is an integral component of the Telkonet iWire SystemTM and Series 5 product suites.

In August 2006, the United States Patent and Trademark Office issued Patent No: 7,091,831, titled "Method and Apparatus for Attaching Power Line Communications to Customer Premises". The patented technology incorporates a safety disconnect circuit breaker into the Telkonet Coupler, creating a single streamlined unit. In doing so, installation of the Telkonet iWire System ™ is faster, more efficient, and more economical than with separate disconnect switches, delivering optimal signal quality. The Telkonet Integrated Coupler Breaker patent covers the unique technique used for interfacing and coupling its communication devices onto the three-phase electrical systems that are predominant in commercial buildings.

In January 2007, the United States Patent and Trademark Office issued Patent No: 7,170,395 titled "Methods and Apparatus for Attaching Power Line Communications to Customer Premises" for Delta phase power distribution system applications, which are prevalent in the maritime industry, shipboard systems, along with that of heavy industrial plants and facilities.

The Company acquired certain intellectual property in the SSI acquisition, including, but not limited to, Patent No: 5,395,042, titled "Apparatus and Method for automatic climate control," which was issued by the United States Patent Trademark Office in March 1995. This invention calculates and records the amount of time needed for the thermostat to return the room temperature to the occupant's set point once a person re-enters the room.

In addition to the foregoing, Telkonet currently has multiple patent applications under examination, and intends to file additional patent applications covering a wide range of technologies, including that of improved network topologies and techniques for imposing LANs over existing wired infrastructure.

Telkonet has also filed multiple Patent Cooperation Treaty (PCT) patent applications, which have been used to file national patent applications in foreign jurisdictions including the European Union, Japan, China, Russia, India and others.

Notwithstanding the issuance of these patents, there can be no assurance that any of Telkonet's current or future patent applications will be granted, or, if granted, that such patents will provide necessary protection for the Company's technology or its product offerings, or be of commercial benefit to the Company.

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 (RF) emissions if the manufacturer complies with certain equipment authorization procedures, technical requirements, marketing restrictions and product labeling requirements.

In January 2003, Telkonet received FCC approval to market the Telkonet iWire SystemTM product suite. 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. An independent, FCC-certified testing lab has verified the Company's Gateway complies with the FCC technical requirements for Class A digital devices. No further testing of this device is required and the device may be manufactured and marketed for commercial use.

In March 2005, Telkonet received final certification of its Telkonet iWire SystemTM product suite from European Union (EU) authorities, which certification was required before Telkonet could sell and permanently install the Telkonet iWire SystemTM in EU countries. As a result of the certification, the Telkonet iWire SystemTM that will be sold and installed in EU countries will bear the Conformite Europeene (CE) mark, a symbol that demonstrates that the product has met the EU's regulatory standards and is approved for sale within the EU.

In June 2005, Telkonet received the National Institute of Standards and Technology (NIST) Federal Information Processing Standard (FIPS) 140-2 validation for the Gateway. In July 2005, Telkonet received FIPS 140-2 validation for the eXtender and iBridge. The U.S. federal government requires, as a condition to purchasing certain information processing applications, that such applications receive FIPS 140-2 validation. U.S. federal agencies use FIPS 140-2 compliant products for the protection of sensitive information. As a result of the foregoing validations, as of July 2005, all of Telkonet's powerline carrier products have satisfied all governmental requirements for security certification and are eligible for purchase by the U.S. federal government. In addition to the foregoing, Canadian provincial authorities use FIPS 140-2 compliant products for the protection of sensitive designate information. The Communications-Electronics Security Group (CESG) also has stated that FIPS 140-2 compliant products meet its security criteria for use in data traffic categorized as "Private." CESG is part of the United Kingdom's National Technical Authority for Information Assurance, which is a government agency responsible for validating the security of information processing applications for the government of the United Kingdom, financial institutions, healthcare organizations, and international governments, among others.

In November 2005, Telkonet received the Norma Official Mexicana (NOM) certification, enabling Telkonet to sell the iWire SystemTM product suite in Mexico.

Future products designed by the Company will require testing for compliance with FCC and CE compliance. Moreover, if in the future, the FCC or EU changes its technical requirements, further testing and/or modifications may be necessary in order to achieve compliance.

Research and Development