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

#### FORM 8-K

#### CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): April 12, 2018 (April 12, 2018)



TECOGEN INC. (Exact Name of Registrant as Specified in Charter)

Delaware (State or Other Jurisdiction of Incorporation)

001-36103 (Commission File Number) 04-3536131 (IRS Employer Identification No.)

45 First Avenue Waltham, Massachusetts (Address of Principal Executive Offices)

02451 (Zip Code)

(781) 522-6020

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (\$230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (\$240.12b-2 of this chapter). Emerging growth company  $\square$ 

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.  $\Box$ 

#### Item 7.01. Regulation FD Disclosure.

From April 12, 2018, Tecogen Inc. (the "Company") intends to present the attached slides to investors during certain conferences, presentations, and meetings. These slides are being furnished as Exhibit 99.01 to this Current Report on Form 8-K.

The information in this Item 7.01 and Exhibit 99.01 to this Form 8-K shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, except as expressly set forth by specific reference in such a filing.

#### Item 9.01 Financial Statements and Exhibits

(d) Exhibits

The following exhibit relating to Item 7.01 shall be deemed to be furnished, and not filed:

Exhibit Description

99.01 Investor Presentation Dated April 12, 2018.

#### SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

#### TECOGEN INC.

By: /s/ Bonnie Brown

April 12, 2018

Bonnie Brown, Chief Accounting Officer

# Tecogen:

Energy Efficiency Reimagined NASDAQ: TGEN

Spring 2018 Investor Presentation

## Safe Harbor Statement



This presentation and accompanying documents contain "forward-looking statements" which may describe strategies, goals, outlooks or other non-historical matters, or projected revenues, income, returns or other financial measures, that may include words such as "believe," "expect," "anticipate," "intend," "plan," "estimate," "project," "target," "potential," "will," "should," "could," "likely," or "may" and similar expressions intended to identify forward-looking statements. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors that may cause our actual results to differ materially from those expressed or implied by such forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Forward-looking statements speak only as of the date on which they are made, and we undertake no obligation to update or revise any forward-looking statements.

In addition to those factors described in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q under "Risk Factors", among the factors that could cause actual results to differ materially from past and projected future results are the following: fluctuations in demand for our products and services, competing technological developments, issues relating to research and development, the availability of incentives, rebates, and tax benefits relating to our products and services, changes in the regulatory environment relating to our products and services, integration of acquired business operations, and the ability to obtain financing on favorable terms to fund existing operations and anticipated growth.

In addition to GAAP financial measures, this presentation includes certain non-GAAP financial measures, including adjusted EBITDA which excludes certain expenses as described in the presentation. We use Adjusted EBITDA as an internal measure of business operating performance and believe that the presentation of non-GAAP financial measures provides a meaningful perspective of the underlying operating performance of our current business and enables investors to better understand and evaluate our historical and prospective operating performance by eliminating items that vary from period to period without correlation to our core operating performance and highlights trends in our business that may not otherwise be apparent when relying solely on GAAP financial measures.

## John Hatsopoulos Co-Founder, Chairman Emeritus, and Director



- Retired President and Vice Chairman of the board of directors of Thermo Electron Corp. (now Thermo Fisher Scientific)
- Developed Thermo's famous 'spinout' strategy, resulting in the spinout of 24 public companies from the parent
- Raised nearly \$5B from 1990 1998 as Thermo's CFO for the parent company and it's various spinout subsidiaries
- Board of Directors of the American Stock Exchange from 1994 – 2000
- Former "Member of the Corporation" of Northeastern University



## **Advanced Modular** Tecogen: **Cogeneration Systems** Heat, Power, and/or Cooling that is Cheaper Industry leading efficiency Cleaner Lower emissions thanks to efficiency and emissions technology More reliable Real time monitoring enables prompt service All of Tecogen's equipment is powered by internal combustion engines that use clean, abundant natural gas and is equipped with Tecogen's patented Ultera emissions system

# Market Leading Products





# Sustainable Competitive Advantage

![](_page_8_Picture_1.jpeg)

![](_page_8_Figure_2.jpeg)

## Born to Innovate

![](_page_9_Picture_1.jpeg)

![](_page_9_Picture_2.jpeg)

# **Deep and Diverse Customer Base**

Tecogen:

![](_page_10_Figure_1.jpeg)

# Substantial Growth Opportunities

![](_page_11_Picture_1.jpeg)

![](_page_11_Figure_2.jpeg)

# Cogeneration: Electricity and Heat

![](_page_12_Picture_1.jpeg)

## Modular and scalable

- Sest in class electrical efficiency
- 60-125 kW, scalable to 1MW+
- S Remote monitoring

## Ideal for

- Locations with many beds and showers: hotels, dormitories, apartment buildings, prisons
- Light manufacturing and industrial facilities with hot water requirements
- · Fitness centers

![](_page_12_Picture_10.jpeg)

![](_page_12_Picture_11.jpeg)

# Chillers (Mechanical CHP): Heating and Cooling

# The only natural gas engine driven chiller on the market

- 30-60% cheaper to operate than equivalent electric chillers
- Three sizes
  - Content of the second secon
  - STx: 15-200 tons, water-cooled
  - DTx: 300-400 tons, water-cooled
- 50-400 tons of cooling capacity
- "Free" waste heat and clean carbon dioxide emissions stream may be repurposed for indoor agriculture applications

![](_page_13_Picture_9.jpeg)

## Ideal for

Tecogen:

- · Hospitals
- Indoor agriculture
- Light manufacturing and industrial facilities with both cooling and heating requirements
- Sports facilities: Swimming pools, ice rinks

![](_page_13_Picture_15.jpeg)

# Water Heaters: Up to 300% Efficiency

# The world's most efficient water heater

- 2-3x the efficiency of a conventional boiler cuts energy consumption and carbon dioxide emissions in half
- Compact natural gas or propane fueled heat pump
- Creates both hot and chilled water simultaneously
- Available in three configurations
  - Vater-source
  - Air-source
  - Air-source "split system:" enables remote installation of air-source evaporator

![](_page_14_Picture_9.jpeg)

Tecogen:

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# Energy Production: On-site Utility

![](_page_15_Picture_1.jpeg)

AMERICAN

**DG ENERGY** 

# Sells heat, power, and/or cooling directly to customer

- Stable source of revenue with robust margins
- Future contracted revenue of over \$50 million (undiscounted)
- Acquired on May 18, 2017

Acquisition creates a vertically integrated clean technology company with a complete end-to-end distributed generation offering – design, manufacturing, financing, installation, and maintenance.

# Emissions Reduction: Criteria Pollutant Elimination

Ultera

**EMISSION CONTROL** 

![](_page_16_Picture_1.jpeg)

## Non-invasive emissions system

- Reduces criteria pollutants (Nox, NMOG, CO) to near zero fuel-cell equivalent levels
- Patent protected and insured
- Installed on virtually all Tecogen equipment
- Simple retrofit to existing engines with no performance loss
- Proven in Tecogen, Ford, GM, Caterpillar, Generac, etc.

South Coast Air Quality Management District (SCAQMD) of southern California has reset its Best Available Control Technology (BACT) standard for non-emergency engine-driven generators to a level that rich-burn engines can only achieve when equipped with Ultera

# Ultera Technologies, Inc. Applying Ultera to Mobile Vehicles

Tecogen:

Wholly-owned subsidiary charged with the effort to commercialize Ultera for non-stationary applications

#### Fork trucks that operate indoors must meet strict emissions standards Affordability, distribution network, and power profile Propane powered make propane the fuel of choice fork trucks Batteries and fuel cells greatly compromise performance Funded in part by the Propane education & research Council (PERC) PROPANE education & research COUNCIL Ultera Test of retrofitted fork truck exceptionally successful EMISSION CONTROL Successful Phase 1 and 2 testing validated proof of Gasoline powered concept Contract in place with research institute to optimize passenger and catalyst formations for gasoline powered engines light duty vehicles Future phases to focus on development of a commercially viable prototype

# Sustained Positive Financial Results

![](_page_18_Picture_1.jpeg)

- Record annual revenue in 2017 of \$33.2 million
- Sustained step change to profitability achieved in 3Q'16
- Six consecutive quarters of positive operational results
- Adjusted EBITDA of \$1.1 million for the year of 2017, \$533K in 4Q'17

Non-GAAP Adjusted EBITDA is defined as net income (loss) attributable to Tecogen Inc., adjusted for interest, depreciation and amortization, stock based compensation expense and one-time merger related expenses. See slide 23 for reconciliation.

![](_page_18_Figure_7.jpeg)

# 4Q and FY'17 Results

![](_page_19_Picture_1.jpeg)

	4Q'17	4Q'16	YoY Chg	FY'17	FY'16	YoY Chg
Revenues	10,264,163	7,111,108	44%	33,202,666	24,490,386	36%
Cost of sales	6,469,082	4,407,486	<u>47%</u>	20,248,262	15,189,708	<u>33%</u>
Gross profit	3,795,081	2,703,622	40%	12,954,404	9,300,678	39%
General and administrative	2,477,998	2,096,131	18%	9,520,497	7,994,361	19%
Selling	713,448	419,171	70%	2,271,826	1,636,704	39%
Research & development	295,864	142,368	<u>108%</u>	<u>936,929</u>	667,064	40%
Total operating costs	<u>3,487,310</u>	2,657,670	<u>31%</u>	12,729,252	10,298,129	24%
Income (loss) from						
operations	307,771	45,952	573%	225,152	(997,451)	N/A
Interest and other income	6,593	2,413	173%	27,626	11,988	130%
Interest expense	(40,056)	<u>(43,809)</u>	<u>-9%</u>	(155,082)	<u>(175,782)</u>	<u>-12%</u>
Consolidated net Income (loss)	274,308	4,556	6220%	97,696	(1,161,245)	<u>N/A</u>
(Income) loss attributable to						
noncontrolling interest	(5,327)	<u>0</u>	<u>N/A</u>	(50,260)	<u>64,962</u>	<u>N/A</u>
Net income (loss)						
attributable to Tecogen Inc.	268,981	4,556	6098%	47,436	(1,096,283)	N/A

# **Contact Information**

![](_page_20_Picture_1.jpeg)

![](_page_20_Picture_2.jpeg)

**Energy Efficiency Reimagined** 

## Company Information

Tecogen, Inc. 45 First Ave Waltham, MA 02451 NASDAQ: TGEN

### Contact

John Hatsopoulos, Chairman Emeritus 781.622.1120 John.Hatsopoulos@Tecogen.com

Jeb Armstrong, Director of Capital Markets 781.466.6413 Jeb.Armstrong@Tecogen.com

# Appendix

![](_page_21_Picture_1.jpeg)

- S Management team
- Directors
- Detailed financial information
- Cogeneration InVerde e+ data
- Cogeneration savings case study
- Tecochill chiller data
- Indoor agriculture
- Ilios water heater data
- Ultera emission technology diagram
- Contract Emission reduction comparison chart
- Standby generator emissions test results
- C AVL car emissions test results
- Sork truck emissions test results

### **Tecogen Inc Company Information**

NASDAQ Ticker	TGEN				
Recent Stock Price	~\$3.05/sh				
52-week Range	\$2.05 - \$4.15/sh				
Shares Outstanding (12/31/17)	24.76 million				
Market Capitalization	~\$76 million				
Ownership of Directors, Officers, and their family trusts (12/31/17)	19.6%				
Long term Debt (12/31/17)	\$850 thousand				
Total Assets (12/31/17)	\$50.7 million				
Member: Russell Microcap ® Index					
	19				

## Management Team

![](_page_22_Picture_1.jpeg)

## Benjamin Locke

#### Chief Executive Officer

- Co-CEO from 2014 to 2018
- Joined company as general manager in 2013
- Director of Business Development at Metabolix from 2001 to 2013
- Previously served as Vice President of Research at Innovative Imaging Systems

## Robert Panora

#### President, COO

- General Manager of Tecogen's product group since 1990
- Manager of Product
  Development, Engineering,
  and Operations since 1984

## Bonnie Brown

#### Chief Accounting Officer

- CFO of American DG Energy from 2015 to merger
- Previously CFO of Tecogen from 2007 to 2014
- Joined Tecogen in 2005 as Controller
- Partner at Sullivan, Bille, PC, a regional accounting firm prior to joining Tecogen

## Jack Whiting

#### General Counsel

- Prior to joining Tecogen in 2018, was VP, General Counsel & Secretary of GeNO LLC (2012-2017), Levitronix LLC (2009-2011), and American Renal Associates (2002-2008)
- Associate General Counsel of Thermo Electron from 1996 to 2002

## **Board of Directors**

![](_page_23_Picture_1.jpeg)

#### Angelina Galiteva

Director, Board Chairwoman

- Chair of the Company since 2005
- Founder and Chair of the Board for the Renewables 100 Policy Institute, a nonprofit entity dedicated to the global advancement of renewable energy solutions since 2008
- Chairperson at the World Council for Renewable Energy and Board member of the Governors of the California ISO

#### Ahmed Ghoniem Director

- Company Director since 2008
- Ronald C. Crane Professor of Mechanical Engineering at MIT
- Director of the Center for 21<sup>st</sup> Century Energy and Head of Energy Science and Engineering at MIT
- Associate Fellow of the American Institute of Aeronautics and Astronautics

#### John Hatsopoulos Director, Chairman Emeritus

- CEO and Director since the Company's organization in 2000
- Co-Founder for Thermo Electron Corp., now Thermo Fisher Scientific (NYSE: TMO)
- As Thermo Electron CFO, grew company from a market capitalization of ~\$100 million in 1980 to over \$2.5 billion

## Keith Davidson

- Company Director since 2016
- President of DE Solutions, a consulting and engineering firm serving the distributed energy markets
- Former Director of the Gas Research Institute and past President of the American Cogeneration Association
- 25 years of experience in energy and environmental technology development and implementation

#### Charles Maxwell

Director, Chair of Audit Committee

- Company Director since 2001
- 40 years of energy sector specific experience with major oil companies and investment banking firms
- Former Senior Energy Analyst with Weeden & Co.
- Board Chairman of American DG Energy, Inc.

#### Deanna Peterson Director

- Company Director since 2017
- Chief Business Officer of AVROBIO since 2016
- Vice President of Business Development at Shire Pharmaceuticals from 2009 to 2015
- Led development, priorization and execution of Shire's overall corporate and business development strategies

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# Year-End 2017 Financial Metrics: Revenues, Margins, Growth

Tecogen:

![](_page_24_Figure_2.jpeg)

![](_page_25_Picture_0.jpeg)

# **Consistent Financial Progress**

![](_page_25_Figure_2.jpeg)

	Year Ended December 31				
\$ in thousands		2017		2016	
Non-GAAP financial disclosure					
Net income (loss) attributable to Tecogen Inc.	\$	47	\$	(1,096)	
Interest expense, net		127		164	
Depreciation & amortization, net		588		264	
EBITDA		763		(668)	
Stock based compensation		184		166	
Merger related expenses		156		0	
Adjusted EBITDA*	\$	1,103	\$	(503)	
(	Qua	rter Ended	De	cember 31	
\$ in thousands	2017		2016		
Non-GAAP financial disclosure					
Net income attributable to Tecogen Inc.	\$	269	\$	5	
Interest expense, net		33		41	
Depreciation & amortization, net		185		65	
EBITDA		487		111	
Stock based compensation		45		49	
Merger related expenses		0		0	
Adjusted EBITDA*	\$	533	\$	160	

\*Adjusted EBITDA is defined as net income (loss) attributable to Tecogen Inc, adjusted for interest, depreciation and amortization, stock based compensation expense and one-time merger related expenses. 23

# **Consistent Financial Progress**

![](_page_26_Picture_1.jpeg)

![](_page_26_Figure_2.jpeg)

## InVerde e+ Data

![](_page_27_Picture_1.jpeg)

- Ideal for markets with commercial electric rates over \$0.12/kWh
- Variable speed operation from 10kW to 125 kW with superior partload efficiency
- Fully scalable to multi-MW system
- Cloud-based real-time performance monitoring
- Indoor and outdoor installation
- Dimensions (indoor 7'6"x4'0"x5'9" / outdoor 7'10"x4'11"x6'4")
- v Weight (indoor 4,300 lbs / outdoor 4,800 lbs)
- Acoustic Level: 69 dBa @ 20'
- Coperating Temperature Range: -4° to 104° F (-20° to 40° C)

#### Smart Inverter Technology

- UL 1741 certified
- Unique CERTS-Microgrid capability enables grid-independent operation
- Only inverter-based CHP system that meets NFPA's Type 10 Emergency Power Supply System rapid blackstart standard
- Demand Response capable for automatic dispatching

![](_page_27_Picture_16.jpeg)

![](_page_27_Picture_17.jpeg)

Energy savings can pay back initial investment in as few as 2-5 years

# Cogeneration Case Study

![](_page_28_Picture_1.jpeg)

### Location: 205 West End Ave, New York City

- What: Two InVerdes that went into service in April, 2016
- Cumulative Savings: \$300 thousand over first 24 months of operation
- Expected Payback Period: 4 to 6 years before NYSERDA rebate
- Total Electric Generation: 2,219 MW-Hours
- S Average Electrical Efficiency: 27.1%
- Total Efficiency: 63.3% with 51.5% of captured heat utilized

Source of Operational Data: NYSERDA DG Integrated Data System

![](_page_28_Figure_10.jpeg)

# **Tecochill Data**

![](_page_29_Picture_1.jpeg)

### Only natural gas engine driven chiller available

- Widely deployed across North America
- Utilizes less than 1% of the electricity of competing electric chillers, which can be supplied by small retail generator (<3kW)</p>
- Contract Contract
- Cloud-based real-time performance monitoring and system control
- Variable engine speed operation for excellent part load performance and longer life

	<b>RT Series</b>	STx Series	DTx Series			
Cooling Capacity (tons)	50	150-200	300-400			
Dimensions						
Length	18'4"	13'10"	14'3"			
Height	7'11"	4'4"	7'0"			
Width	5'6"	6'9"	7'7"			
Operational Weight (lbs)	8,300	11,750	23,650			

![](_page_29_Picture_9.jpeg)

![](_page_29_Picture_10.jpeg)

# Indoor Agriculture

# Rapidly growing market poised for exponential growth

- To grow 5x over five years according to Agrilyst
- Cannabis is primary near-term driver
- Leafy greens, herbs, and tomatoes are also attracting capital
- Typically located near urban centers
- Often have older infrastructure and higher electricity rates
- Tecochill chillers virtually eliminate need to upgrade electrical infrastructure
- Removes heat generated by lighting and dehumidifies the air
- Virtually pure carbon dioxide exhaust can be utilized to help speed plant growth

Tecochill &

Tecochill natural gas powered chillers provide a unique value proposition for indoor farming

![](_page_30_Picture_13.jpeg)

# **Ilios** Data

![](_page_31_Picture_1.jpeg)

#### World's most efficient water heater

- 3 2-3x the efficiency of a conventional boiler
- Can generate 15 to 25 tons of free cooling while producing hot water
- Dimensions: 5'x3'x6'
- Weight: 3,200 lbs

# High Efficiency Water Heater

![](_page_31_Figure_8.jpeg)

# **Ultera Emission Technology**

![](_page_32_Picture_1.jpeg)

Fuel Cell Slayer: Enables internal combustion engine to achieve emissions similar to a fuel cell

![](_page_32_Figure_3.jpeg)

# Stationary Emissions Reduction Comparison

![](_page_33_Picture_1.jpeg)

![](_page_33_Figure_2.jpeg)

# AVL Automotive Emissions Test Results

![](_page_34_Picture_1.jpeg)

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### Ultera Reduction of CO Concentration - US06 Cycle

![](_page_34_Figure_3.jpeg)

# AVL Automotive Emissions Test Results

![](_page_35_Picture_1.jpeg)

### Ultera Reduction of NMHC Concentration - US06 Cycle

![](_page_35_Figure_3.jpeg)

![](_page_35_Figure_4.jpeg)

![](_page_35_Figure_5.jpeg)

# Stand-By Generator Emissions Test Results

![](_page_36_Picture_1.jpeg)

Ultera Performance on Caterpillar 15 Liter Natural Gas Generator

![](_page_36_Figure_3.jpeg)

![](_page_36_Picture_4.jpeg)

# Fork Truck Emissions Test Results

![](_page_37_Picture_1.jpeg)

### Heavy Lift Test: Exceptional Results

- 99% CO reduction
- 58% THC reduction
- 24% NOx reduction

![](_page_37_Figure_6.jpeg)

# Fork Truck Emissions Test Results

![](_page_38_Picture_1.jpeg)

Low NOx Tuning Test (low loading)

![](_page_38_Figure_3.jpeg)