

# 4Q & Full Year 2015 Earnings



NASDAQ: TGEN



# **Participants**

#### John Hatsopoulos

Co-Chief Executive Officer, Director

#### Benjamin Locke

Co-Chief Executive Officer

#### Robert Panora

President & Chief Operating Officer

#### **David Garrison**

Chief Financial Officer

#### **Ariel Babcock**

Director, Investor Relations





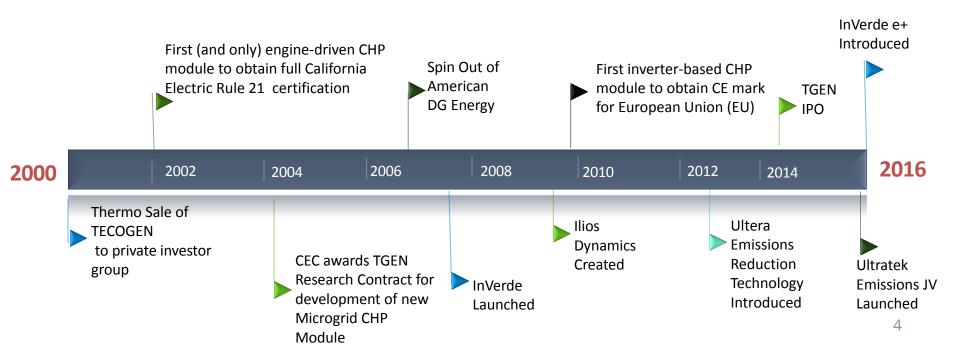
# Safe Harbor Statement

This presentation includes forward-looking statements within the meaning of Section 27-A of the Securities Act of 1933, and Section 21-E of the Securities Exchange Act of 1934. Such statements include declarations regarding the intent, belief, or current expectations of the Company and its management. Prospective investors are cautioned that any such forward looking statements are not guarantees of future performance, and involve a number of risks and uncertainties that can materially and adversely affect actual results as identified from time to time in the Company's SEC filings. Forward looking statements provided herein as of a specified date are not hereby reaffirmed or updated.



# Leading Manufacturer of Clean Energy Solutions

Leading provider of cost efficient, clean and reliable products for power production, heating and cooling which, through patented technology, nearly eliminate criteria pollutants and significantly reduce a customer's carbon footprint. With over 2,300 units shipped, Tecogen technology is revolutionizing distributed generation for customers in the \$40B small-to-mid size Combined Heat & Power ("CHP") market segment.



## Cogen FY 2015 Financial Achievements:

a growing company in a growing industry

**REVENUE** 

**Advanced Modular CHP Systems** 

11% Y/Y growth in total FY2015 Revenue of \$21.4 driven by:

- 16.6% growth in Product revenue from >45% growth in Cogeneration sales
- 6.2% growth in Service revenue

**GROSS MARGIN** 

35.6% FY2015 combined gross margin vs 33.1% FY2014 and >35% gross margin goal, a 250 bps improvement driven by:

- 260 bps improvement in Product gross margins to 29%
- 290 bps improvement in Service gross margin to 41.4%

**BACKLOG** 

- Backlog up 17% Y/Y: \$11.6M as of Dec. 31, 2015 vs. \$9.9M prior year end backlog
- Consistently delivering on stated goal of backlog above \$10M
- Backlog sales driven by demand for Cogeneration products

**GROSS PROFIT** 

19% Y/Y growth in total FY2015 gross profit of \$7.6M driven by strong margin improvement from ongoing cost saving initiatives and product price improvement



#### **ILIOS UPDATE**

- Process initiated to acquire the remaining minority stake via private placement exchange offer
- Strong sales pipeline and sales traction in new markets including Atlanta, NYC, Puerto Rico, the UK and Hawaii.
- Launch of new Split Air Sourced Heat Pump

#### **SALES**

- Addition of several new sales associates, already generating solid new traction and backlog growth
- Exclusive selling agreement with gas company partner signed; setting the model for future similar selling agreements
- Expanded to multiple new territories including addition of Florida sales office and Brooklyn-area service center

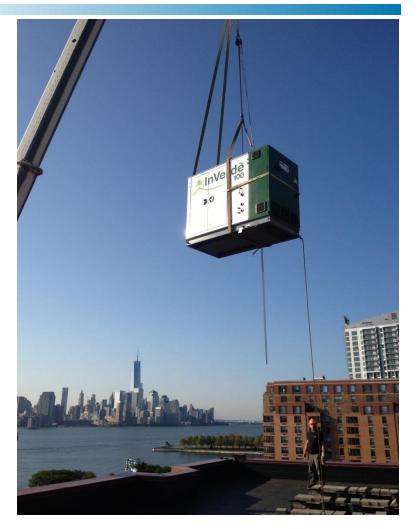
#### **SERVICE**

- Installation revenue for FY2015 up 8% driven by traction in turnkey initiatives
- Total Service revenue growth for FY2015 of 6.2%
- Service gross margin improvement driven by the increasing percentage of sites that were Tecogen turnkey installation projects



## **Operational Success**

- Launch of the new InVerde e+ with key competitive advantages
- Formation of 'ULTRATEK' joint venture to bring Ultera emissions control to the automotive space





## >10% Growth in Units Shipped 2015 vs. 2014

End Market	Units Shipped*
Multi-Unit Residential	30
Hospitality	12
Industrial	18
Education	9
Health Care	7
Recreation	3
Other**	7













Honeywell











DoubleTree

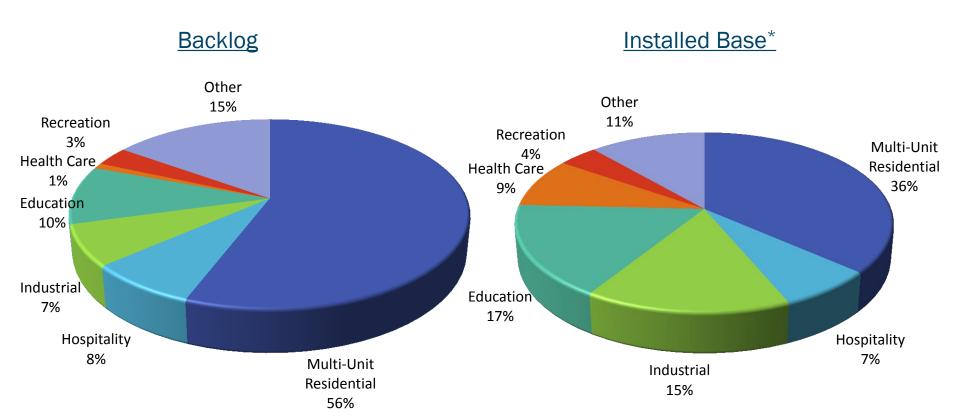
BY HILTON

<sup>\*</sup>Units Shipped for the period 01/01/2015 thru 12/31/2015.40 2015 Earnings Call

<sup>\*\*</sup>Includes office buildings, museums, and equipment sold to engineering partner firms for installation in undisclosed locations



## Sales & Backlog



Total 2015 year end Product and Installation Backlog of \$11.6M vs. \$9.9M at year end 2014.

<sup>\*</sup>Approximate recently installed base by end market.



# Tecogen: Introducing the InVerde et

#### **New e+ Features**

- Best in class 33% electrical efficiency
- DC input option allows for seamless integration with battery or renewable installations
- Unique micro-grid system allowing for full operation during blackouts as well as Demand Response operation (redundancy) Remote monitoring and long term servicing driven by new GE Equipment Insight cloudbased real-time data analytics
- Rapid black-start capability meets the National Fire Protection Association Type 10 **Emergency Power Supply** System standard

\$ (000s) / yr	Competitor 65 kW Microturbine	Competitor 200 kW Fuel Cell	Tecogen InVerde	
Revenue Energy Delivered	\$87	\$207	\$137	
Recurring Costs Fuel/Maintenance	\$60	\$161	\$86	
Installed Cost	\$162	\$1,264	\$219	
Simple Payback (Years)	6.03	27.50	4.24	
Black Start operation control	Batteries (\$ not included)	Batteries (\$ not included)	Standard	

Source: EPA Catalog of CHP Technologies



#### **Target Customer**

Multi-Unit Residential, Hotels, Hospitals, Schools, Athletic Clubs, Industrial applications in need of efficient critical power supply.



# **Ultera Update**

- Renewable Biogas

   Ultera retrofit installed and operating successfully at Eastern Municipal Water District in Perris, CA
- Generator Retrofits –
   Order for multiple retrofit kits for natural gas generators shipped in 4Q15



# Tecogen:

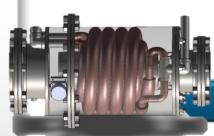
### **ULTERA:**

Vehicle Market Opportunity

emissions

#### Advantages

- Pollution Control Uncomprimising reduction of both CO and NOx without altering engine performance
- Retrofit Advantage Allows for noninvasive emissions control solution with no vehicle or engine modifications required, bypassing lengthy model-year design process
- Flexible Operating Range 2 stage treatment process permits wider range of engine operation, ensuring effective emissions control under real-world driving conditions





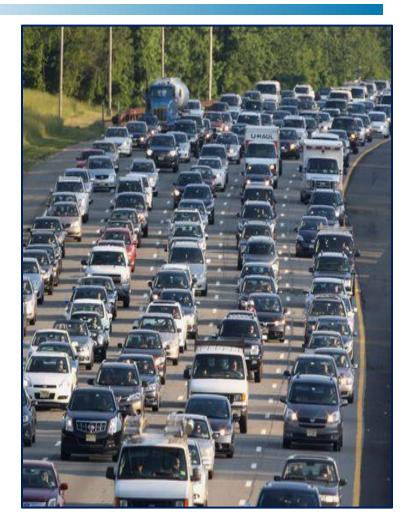
- Health Risk ~53k early deaths in USA annually related to vehicle
- Increased Public Awareness Recent VW scandal highlighted emissions irregularities
- Vehicle Testing Protocols better replicating real-world driving conditions likely to be adopted
- Regulatory Impact Planned phasedin tightening of vehicle emissions standards in USA, Europe, Japan and Korea creates global urgency





# ULTRATEK: EMISSIONS JOINT VENTURE

- "ULTRATEK" joint venture launched in Dec. 2015 to develop Ultera for gasoline powered vehicle applications
- Total initial investment from ULTRATEK strategic partners of \$6M to support development initiative
- AVL California Technology Center contracted for third party testing and validation
- Added research team that includes key Tecogen personnel and expert consultants
- Focused on initial base line testing of equipment on a vehicle – testing at both AVL facility in CA and Tecogen HQ in MA





## **Financial Metrics**

Revenues, Margins, Growth

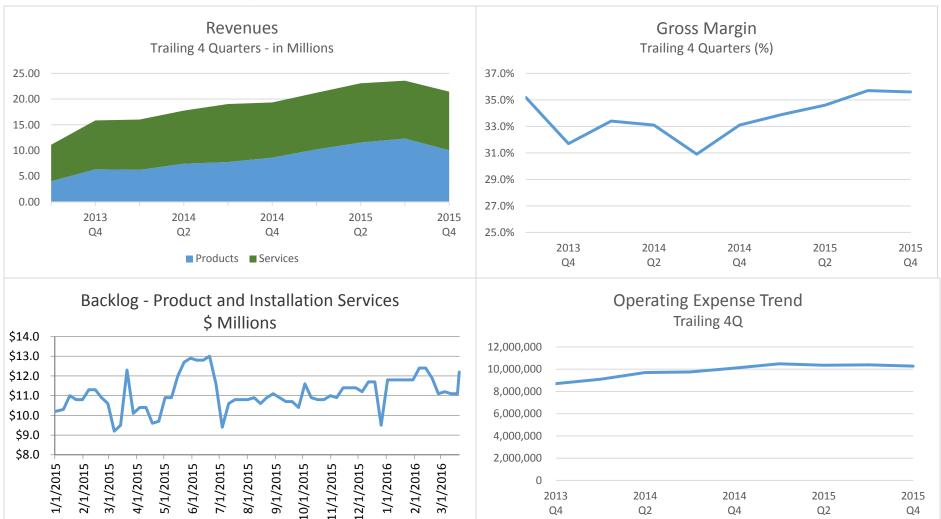
#### Tecogen Revenue Model & Outlook

- Three revenue streams
  - Product sales
  - Long-term service contracts
     provide stable ongoing revenue
  - Turnkey Installation through Tecogen service operations
- Targeting stable book-to-bill ratio of 1-1.5x
- Deliver ongoing expense improvement from lean manufacturing initiatives
- Targeting Gross Margins 35-40%
- Quarterly Backlog >\$10M
- Cash-flow positive by mid-2016

	For the Full Year Ended Dec. 31, 2015	Dec. 31, 2014	Y/Y Growth	% of Total Revenue
REVENUE				
Cogeneration	7,882,838	5,364,810	46.9%	36.8%
Chiller & Heat Pump	2,172,399	3,260,224	-33.4%	10.1%
Total Product Revenue	10,055,237	8,625,034	16.6%	46.9%
Service & Parts	7,832,181	7,438,125	5.3%	36.5%
Installation Services	3,555,239	<u>3,279,505</u>	8.4%	16.6%
Total Service Revenue	11,387,420	10,717,630	6.2%	53.1%
Total Revenue	\$21,442,657	\$19,342,664	10.9%	
Gross Profit	\$ 7,633,226	\$ 6,399,064	19.3%	
GROSS MARGIN				
Product Gross Margin	29.0%	26.4%	9.9%	
Service Gross Margin	41.4%	38.5%	7.7%	
Gross Margin	35.6%	33.1%	7.6%	



### **Consistent Financial Progress**





## Outlook

- Continue to deliver on Gross Margin improvement via cost saving, pricing and efficiency initiatives. Targeting combined gross margin 35-40%.
- Maintain product and installation backlog above \$10M.
- Maintain stable Operating Expense of ~\$10M on a trailing 12 month basis.





# Closing Remarks



# **Appendix**

 Management Bios

Corporate
 Structure

Contacts





## **Management Team**

#### John Hatsopoulos,

Co-Chief Executive Officer & Board Member

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

#### Benjamin Locke,

Co-Chief Executive Officer

- Co-CEO since 2014, joined the company as General Manager in June of 2013.
- Prior to Tecogen, served as Director of Business
   Development and Governmental Affairs at Metabolix from
   2001. Served as Vice President of Research at Innovative Imaging Systems prior to Metabolix.

#### David Garrison,

Chief Financial Officer, Secretary & Treasurer

- Chief Financial Officer since 2014.
- Over 20 years of manufacturing experience in the role of CFO. Both public and private companies from a variety of industries including medical device, defense and consumer products.

#### Robert Panora,

**Chief Operating Officer & President** 

- COO and President since the Company's organization in 2000; COO of Ilios, subsidiary of Tecogen, since inception in 2009
- General Manager of Tecogen's Product Group since 1990 and Manager of Product Development, Engineering Manager, and Operations Manager of the Company since 1984



# **Corporate Relationship**

### Manufacturer/Supplier



Advanced Modular CHP Systems

Manufacturer of natural-gas fueled, engine driven, CHP products that include cogeneration modules, chillers, and heat pumps.



Subsidiary of Tecogen, developed and distributes ultra-high efficiency heating products for commercial and industrial applications utilizing advanced thermodynamic principles.

#### Distributor/Customer



On-Site Utility™ offering electricity, heat, hot water and cooling to commercial, institutional and industrial customers.





Majority-owned subsidiary of American DG Energy; established to expand the on-site utility business into the UK and Europe.



## **Contact Information**



#### **Company Information**

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#### Contact

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