



Energy Efficiency Reimagined

NASDAQ: TGEN

31st Annual Roth Conference

March 19, 2019

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, 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 its various spinout subsidiaries
- 🕒 Board of Directors of the American Stock Exchange from 1994 – 2000
- 🕒 Former "Member of the Corporation" of Northeastern University



Benjamin Locke CEO, Director



- 🕒 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
- 🕒 Led Tecogen to profitability in 2017
- 🕒 Enhanced Tecogen Product Offerings
- 🕒 Expanded addressable markets for Tecogen systems
- 🕒 Developing strategic partnerships and acquisitions for future growth

Tecogen Advanced Modular Energy Systems



Heat, Power, and/or Cooling that is:



Cheaper

Industry leading efficiency and reduced exposure to expensive electricity



Cleaner

Proprietary near-zero emissions technology, GHG reductions



More reliable

Real-time monitoring, blackout protection, and improved grid resiliency



All of Tecogen's equipment is powered by efficient natural gas equipped with Tecogen's patented Ultra Emission Control

Clean Energy Products



Microgrid CHP
Resiliency and Savings



Gas Chillers
Hot and Cold Water



Efficient CHP
Energy Savings



Emissions Reduction
Criteria Pollutant Elimination



Clean Energy and Resiliency From Central Electric Utility

Energy Production
On-site utility



Sustainable Competitive Advantage



Proprietary and patented technology

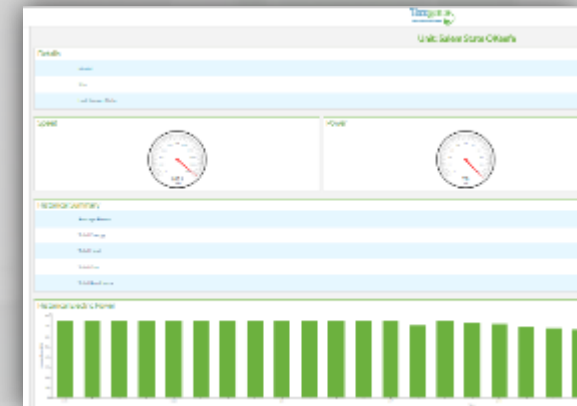
- 🌱 Ultra Emission control
- 🌱 Inverter microgrid architecture
- 🌱 Proprietary PMG technology
- 🌱 Natural gas engine optimization

In-house engineering and installation

Fully integrated on-site service and maintenance

Creates value proposition for customers that drives

- ✓ Revenue Growth
- ✓ Robust Gross Margins
- ✓ Repeat Business



Born to Innovate



George Hatsopoulos, Henry Ford II, Laurance Rockefeller



2013: Patent awarded for Ultra emissions technology

2014: IPO and listing on NASDAQ: TGEN

2016: Roll out of dramatically upgraded InVerde e+

2017: Acquisition of American DG Energy

2018: ETL certification to ANSI/UL 1741 SA for smart inverters

2000: Investor group led by John and George Hatsopoulos acquires Tecogen

2003: First (and only) engine driven CHP module to obtain full California Electric Rule 21 Certification

2008: Roll out of original InVerde cogeneration unit

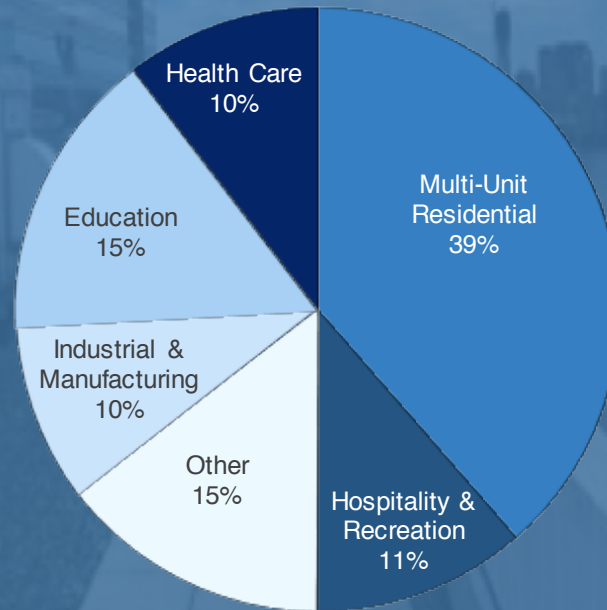
Originally founded as an energy technology R&D center within Thermo Electron Corp. (now Thermo Fisher Scientific)

Diverse Core Customer Base



Broad Sales Pipeline	
✓	Direct Sales Effort
✓	ESCOs
✓	Building Management Companies
✓	Engineering Firms
✓	Energy Efficiency Consultants

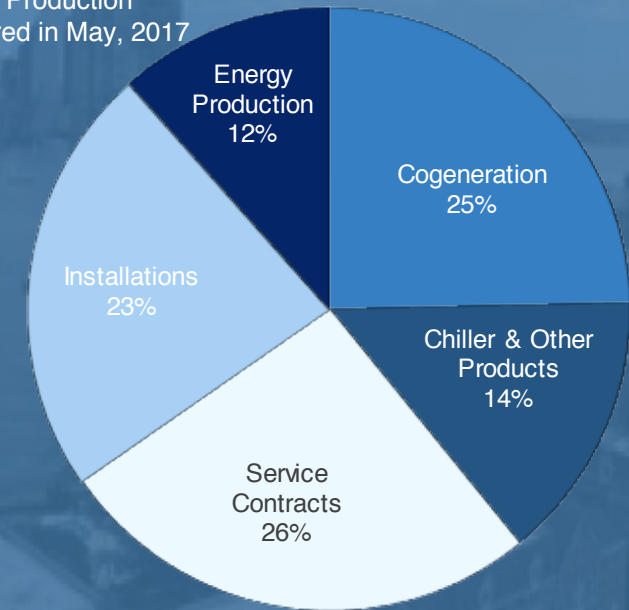
Installed Base at YE '17



Over 3,000 units installed to-date

2017 Revenue by Stream

NOTE: Energy Production revenue acquired in May, 2017



Stable service revenue provide balance to faster growing and more volatile product and installation revenues

Substantial Core Business Growth Opportunities



\$40+ billion market for clean, reliable CHP systems*



Cogeneration (CHP): Electricity and Heat



Modular and scalable

- Best in class electrical efficiency
- 60-125 kW, scalable to 1MW+
- 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

- ✓ Proprietary inverter
- ✓ CERTS certified microgrid system
- ✓ Blackout protection

CA Rule 21 - Certified
 NJDEP - Air Permit Exempt
 NYSIR - Certified

UL 1741 SA	CA Rule 21
Anti-Islanding Protection	X
L/HVRT Low and High Voltage Ride Through	X
L/HFRT Low and High Frequency Ride Through	X
Volt/VAR Mode	X

The pioneer in CHP

Mechanical CHP: Tecochill



The only natural gas engine driven chiller on the market

- 30-60% cheaper to operate than equivalent electric chillers
- 50-400 tons of cooling capacity
- “Free” waste heat and clean carbon dioxide emissions stream may be repurposed for indoor agriculture applications
- Eligible for similar incentives as CHP
- Sales cycle more transactional and predictable

Ideal for

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



Indoor Agriculture



Poised for Exponential Growth

- 🕒 5x growth over five years (Agrilyst)
- 🕒 Cannabis is primary near-term driver
- 🕒 Leafy greens, herbs, and tomatoes are also attracting capital
- 🕒 Typically located near urban centers, high electric rates, available natural gas
- 🕒 Tecochill chillers eliminates need to upgrade electrical infrastructure
- 🕒 Heat recovery for dehumidification
- 🕒 Substantial capital investment in grow facilities

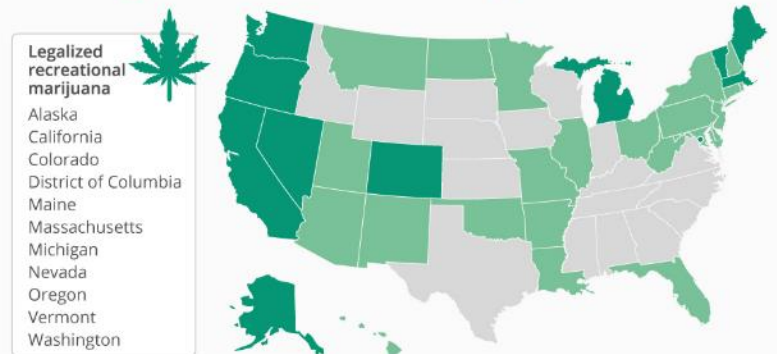


Unique Value Proposition for Indoor Farming

The States Where It's Legal To Smoke Marijuana

Laws on recreational and medical marijuana use in the U.S.*

■ Legalized for recreational & medical use ■ Medical use only



* As of March 8, 2019. Some states not highlighted allow limited medical marijuana access
Source: National Conference of State Legislatures

Mechanical CHP: TecoFrost



Natural Gas Engine Ammonia Refrigeration System

- Successful product in '80s, '90s
- Manufacturing partner – Emerson/Vilter
- Industrial refrigeration market \$24.5 billion by 2024
- 2019 Sales rollout in US at IIAR
- Substantial international sales opportunity with Tecogen/Vilter partners, reps
- Less factory service requirements for operation

Ideal for

- Cold storage
- Food processing (Dairy, meat, poultry)
- Fermentation, wineries, bottling
- Typical hybrid installation with existing electric systems
- Substantial savings in areas with high electric rates



Ultera Emissions: Eliminates Criteria Pollutants



Non-invasive emissions system

- ☞ Reduces criteria pollutants (NO_x, NMOG, CO) to near zero fuel-cell equivalent levels
- ☞ Substantial and growing patent portfolio on core technology
- ☞ Installed on virtually all Tecogen equipment
- ☞ Simple retrofit to existing engines with no performance loss
- ☞ Proven in many engine systems: 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

Ultra Emissions Technology Expansion into Vehicle Markets



AVL



Significant upside for Ultra emissions technology to automotive, truck and fork truck industries



Ultra Emissions Development Status



Propane powered fork trucks



- Fork trucks must meet strict emissions standards
- Affordability, distribution network, and power profile make propane the fuel of choice
- Batteries/ fuel cells greatly compromise performance
- Funded in part by the Propane Council (PERC)
- Test of retrofitted fork truck very successful
- 2H '18 demonstration with fork truck/engine partner Mitsubishi Caterpillar Forklift of America (MCFA)

Gasoline powered passenger and light duty vehicles

- Successful Phase 1 and 2 testing validated proof of concept in light truck, small passenger vehicle
- Contract in place with research institute to optimize catalyst formations for gasoline powered engines
- Future phases to focus on fleet retrofits

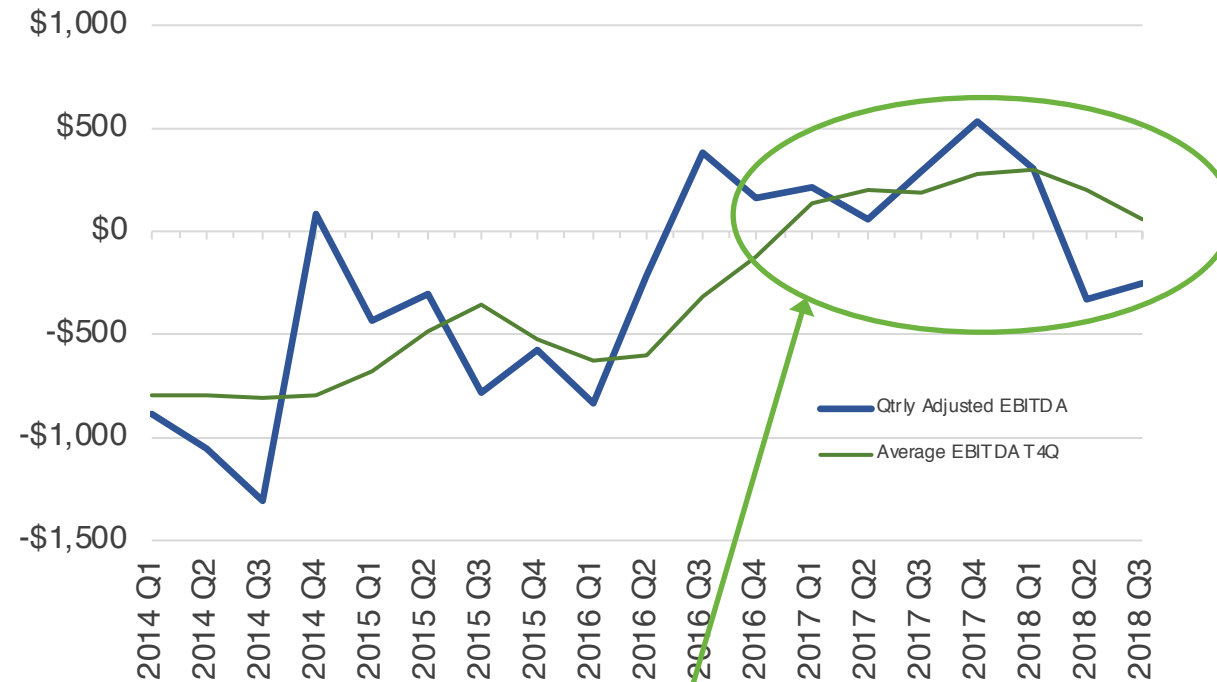


Sustained Positive Financial Results



- 📌 3Q '18 Revenues of \$7.9 million
- 📌 T4Q revenue of \$37 million
- 📌 Revenue growth on T4Q basis year over year of 23%
- 📌 T4Q gross profit of \$13.7 million
- 📌 Sustained step change to profitability originally achieved in 3Q'16
- 📌 T4Q Adjusted EBITDA* of \$248K for 3Q'18

T4Q Adjusted EBITDA
Quarterly with T4Q Average (green line) - \$Thousands



Sustained step change to profitability

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

3Q'18 Summary of Results



<i>\$ in thousands</i>	3Q'18	3Q'17	YoY Increase (Decrease)	Comments	
Revenue					
Products	\$ 2,765,094	\$ 2,425,616	\$ 339,478	14.0%	Highlighted by chiller sales
Service	3,713,770	4,519,467	(805,697)	-17.8%	Decrease in turnkey installations
Energy Production	1,459,820	1,556,115	(96,295)	-6.2%	
Total Revenue	7,938,684	8,501,198	(562,514)	-9.7%	
Gross Profit					
Products	\$ 1,069,747	\$ 887,101	\$ 182,646		Additional gross profit from increased product sales
Service	1,196,560	1,538,013	(341,453)		
Energy Production	616,791	832,917	(216,126)		Energy production was higher than expected in 3Q'17
Total Gross Profit	2,883,098	3,258,031	(374,933)	-11.5%	
Gross Margin: %					
Products	38.7%	36.6%	2.1%		Stronger margins seen in both cogen and chiller sales
Service	32.2%	34.0%	-1.8%		Installation business brings tighter profit than contract maintenance
Energy Production	42.3%	53.5%	-11.3%		Energy production margin is in line with long term expectations
Total Gross Margin	36.3%	38.3%	-2.0%		
Operating Expenses					
General & administrative	\$ 2,582,600	\$ 2,427,352	\$ 155,248		Merger related expenses accounts for about half of this increase
Selling	581,716	503,415	78,301		Additional selling efforts
Research and development	281,094	241,725	39,369		R&D activities in connection with the forklift project
Total Operating Expenses	3,445,410	3,172,492	272,918	8.6%	Additional R&D and selling expenses account for some of this difference
Gain (loss) on marketable securities	19,681	-	19,681		
Adjusted EBITDA (see reconciliation)	\$ (258,655)	\$ 295,755	\$(554,410)		See detailed reconciliation

Strong Q3 product
revenue growth

Consistently strong
gross margin

Investing in our
future

Recent Financial Updates



Site Sale with SDCL: 3/8/19

- 🌱 Sustainable Development Capital LLP
- 🌱 \$7 mm for 8 agreements
- 🌱 Proceeds for continued product expansion
- 🌱 Strengthens balance sheet, eliminates debt

Financial stability to execute on company goals

- ✓ Expand chiller product sales
- ✓ Grow revenue, profitability
- ✓ Ultera value creation

Contact Information



Energy Efficiency Reimagined

Company Information

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Appendix



- Management team
- Board of 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
- Emission reduction comparison chart
- Standby generator emissions test results
- AVL car emissions test results
- Fork truck emissions test results

Tecogen Inc Company Information

NASDAQ Ticker	TGEN
Recent Stock Price	~\$3.85/sh
52-week Range	\$2.30 - \$4.00/sh
Shares Outstanding (06/30/18)	24.82 million
Market Capitalization	~\$96 million
Ownership of Directors, Officers, and their family trusts (06/30/18)	19.6%
Total Assets (06/30/18)	\$51.5 million
Membership: Russell Microcap® Index	

Management Team



Benjamin Locke

Chief Executive Officer

- 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
- Responsible for Tecogen growth and profitability

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



Angelina Galiteva

Director, Board Chairwoman

- Chair of the Company since 2005
- Founder and Chair of the Board for the Renewables 100 Policy Institute, a non-profit 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

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, prioritization and execution of Shire's overall corporate and business development strategies

John Hatsopoulos

Director

- Chairman Emeritus, Retired CEO and Director of the Company organization in 2000 to 2018
- 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

Ahmed Ghoniem

Director

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

Keith Davidson

Director

- 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

Benjamin Locke

Director

- Company Director since 2018
- Joined company as general manager in 2013
- Director of Business Development at Metabolix from 2001 to 2013
- Former Vice President of Research at Innovative Imaging Systems
- Responsible for Tecogen growth and profitability

3Q '18 Financial Metrics: Revenues, Margins, Growth



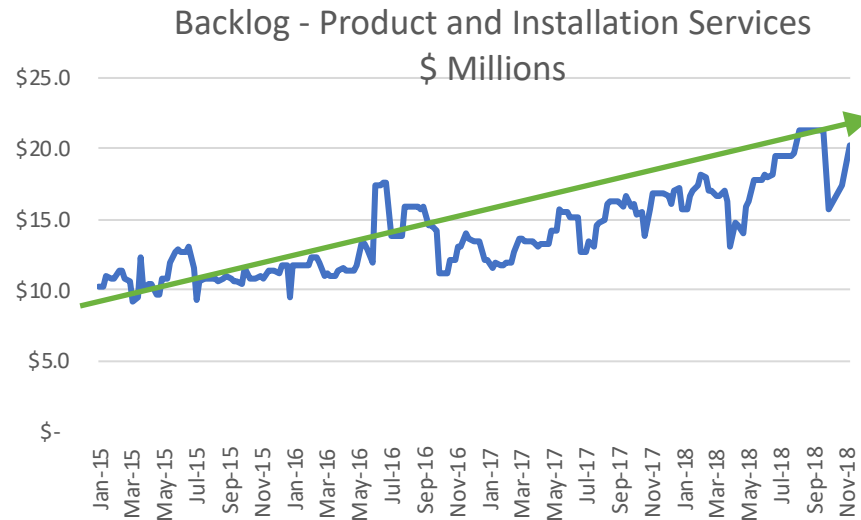
- 🔌 Four diverse revenue streams providing a mix of transactional and annuity like revenue streams
 - 🔌 Product revenue grew 14%, with chillers gaining 89%, year over year
 - 🔌 Product gross margin improved 6% year over year
 - 🔌 Turnkey installation included in service operations facilitates both product and service revenue
 - 🔌 Energy production revenue provided \$1.5 million of stable cash flow with gross margin of 42.3%, exceeding expectations
- 🔌 Overall gross margin of 36.3%, down by 2% year over year
- 🔌 Overall gross margin on a T4Q basis of 37.1%
- 🔌 Total revenue growth on a T4Q basis of 23%

\$ in thousands	Quarter Ended September		YoY Growth	% of Total Rev
	2018	2017		
Revenue				
Cogeneration	\$ 1,664	\$ 1,842	-9.7%	21.0%
Chiller	1,101	583	88.7%	13.9%
Total Product Revenue	2,765	2,426	14.0%	34.8%
Service Contracts and Parts	2,066	2,110	-2.1%	26.0%
Installation Services	1,648	2,410	-31.6%	20.8%
Total Service Revenue	3,714	4,519	-17.8%	46.8%
Energy Production	1,460	1,556	-6.2%	18.4%
Total Revenue	\$ 7,939	\$ 8,501	-6.6%	100.0%
Cost of Sales				
Products	\$ 1,695	\$ 1,539	10.2%	
Services	2,517	2,981	-15.6%	
Energy Production	843	723	16.6%	
Total Cost of Sales	\$ 5,056	\$ 5,243	-3.6%	
Gross Profit	\$ 2,883	\$ 3,258	-11.5%	36.3%
Net loss attributable to Tecogen Inc.	\$ (603)	\$ 27		
Gross Margin				
Products	38.7%	36.6%		
Services	32.2%	34.0%		
Aggregate Products and Services	35.0%	34.9%		
Energy Production	42.3%	53.5%		
Overall	36.3%	38.3%		

Consistent Financial Progress



ADJUSTED EBITDA* 3Q '18 Compared to 3Q '17



Steady growth in the backlog translates to revenue growth

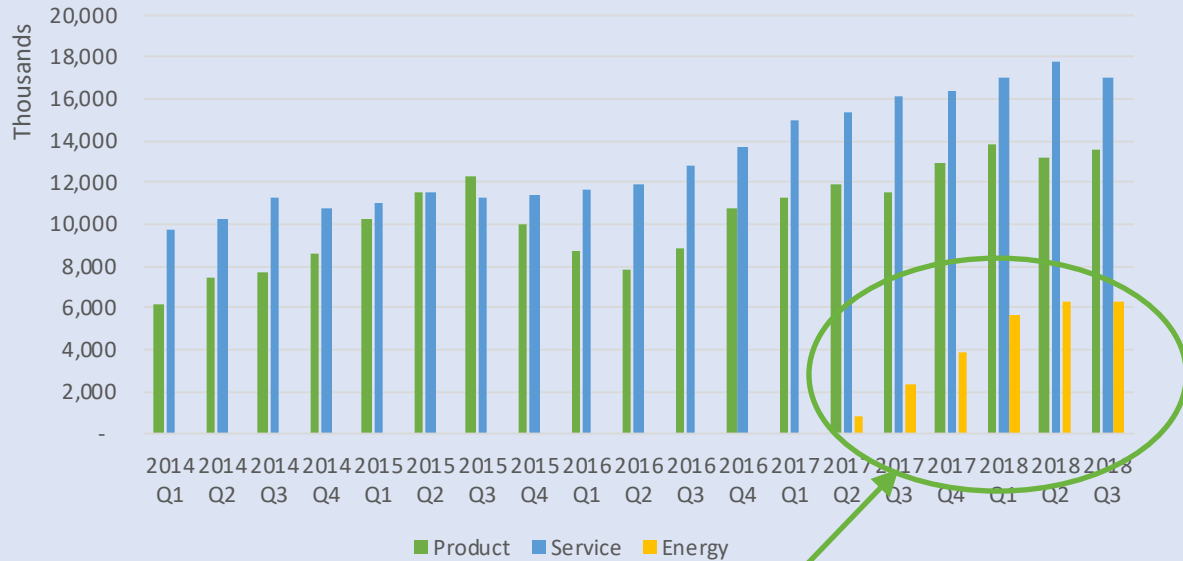
Adjusted EBITDA	3Q'18	3Q'17
Non-GAAP financial disclosure		
Net income (loss) attributable to Tecogen Inc.	\$ (603,037)	\$ 27,211
Interest expense & other expense, net	9,531	30,393
Income tax expense	3,815	-
Depreciation & amortization, net	199,938	160,061
EBITDA	(389,753)	217,665
Stock based compensation	55,330	40,645
Merger related expenses	75,768	37,445
Adjusted EBITDA	\$ (258,655)	\$ 295,755

*Adjusted EBITDA is defined as net income (loss) attributable to Tecogen Inc., adjusted for interest, depreciation and amortization, stock based compensation expense, unrealized gain or loss on equity securities and merger related expenses.

Consistent Financial Progress

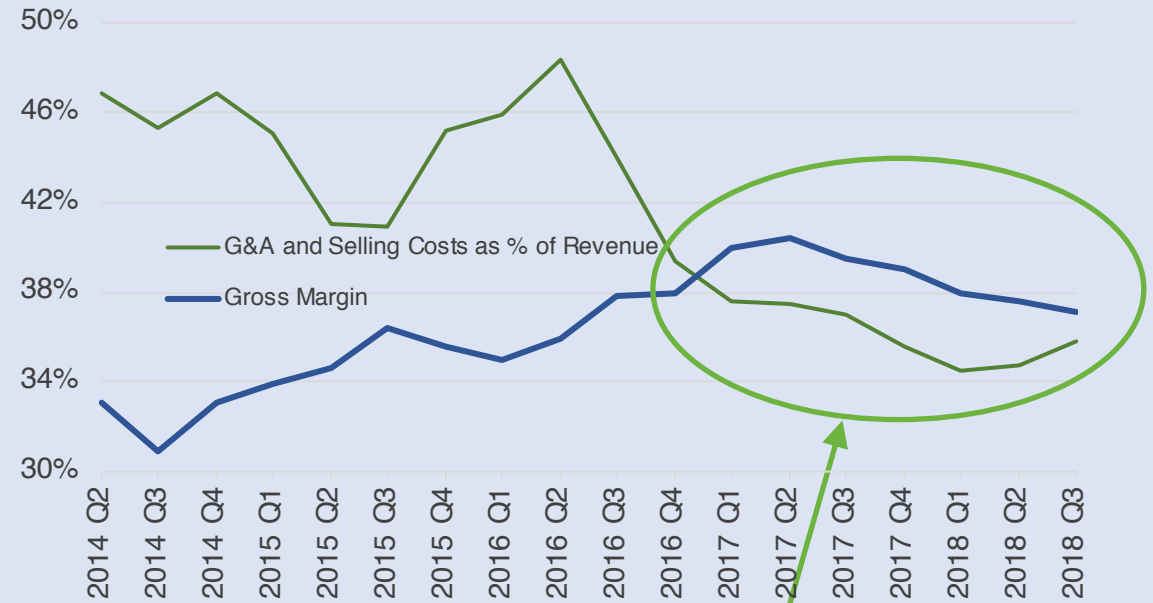


Revenue: Trailing 4 Quarters



Energy production revenue acquired in May, 2017

Trailing 4 Quarters (%)



Declining operating expenses as a percentage of revenue demonstrates scalability with revenue growth

InVerde e+ Data



Best in class efficiency: 33% electrical, 94% overall (LHV)

- ☞ Ideal for markets with commercial electric rates over \$0.12/kWh
- ☞ Variable speed operation from 10kW to 125 kW with superior part-load 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")
- ☞ Weight (indoor 4,300 lbs / outdoor 4,800 lbs)
- ☞ Acoustic Level: 69 dBa @ 20'
- ☞ Operating Temperature Range: -4° to 104° F (-20° to 40° C)

Smart Inverter Technology

- ☞ UL 1741 and UL 2200 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



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

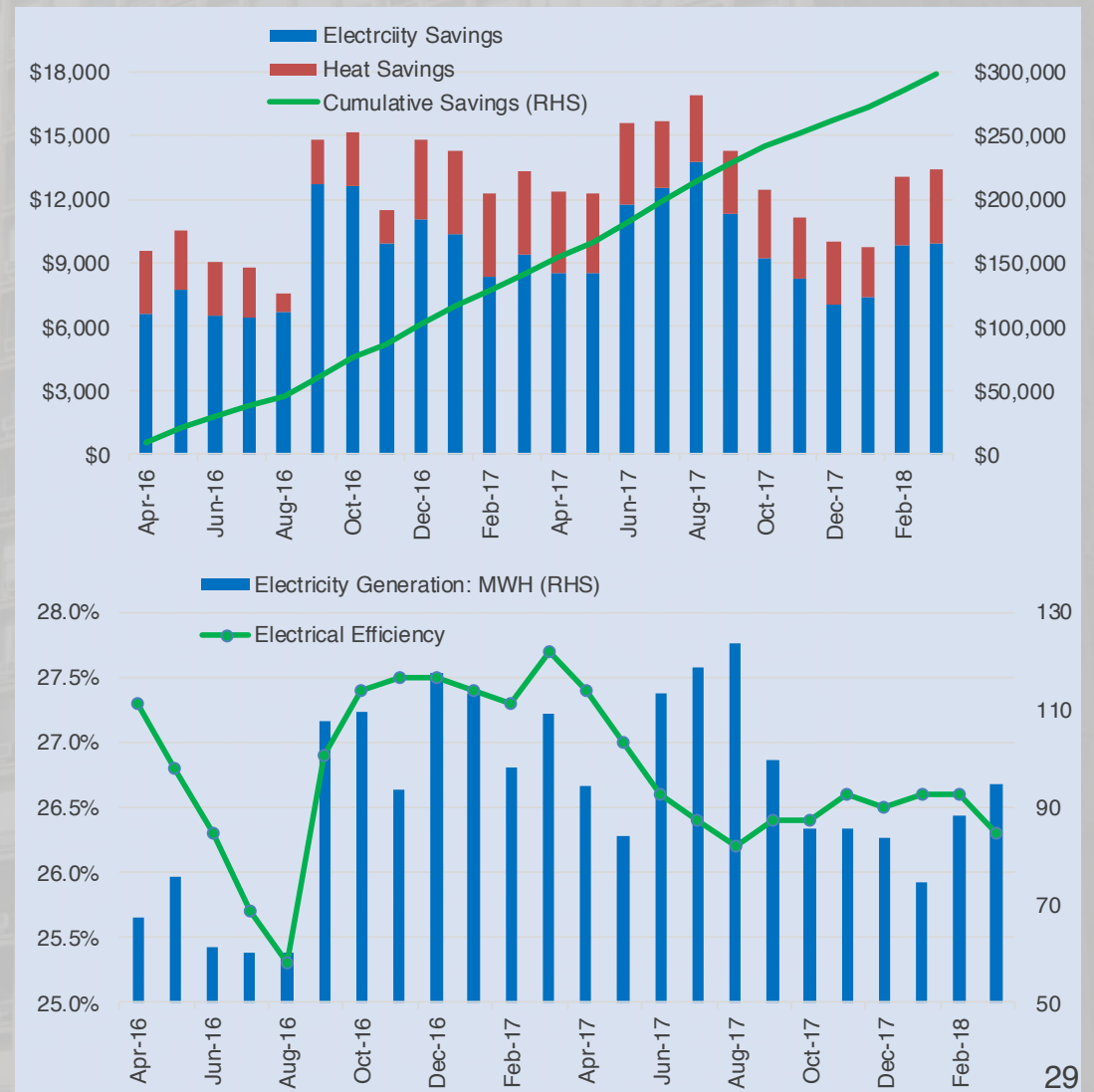
Cogeneration Case Study



Location: 205 West End Ave, New York City

- What: Two InVerde's that went into service in April, 2016
- Cumulative Savings: \$300 thousand over first 24 months of operation
- Expected Payback Period: 4 to 6 years
- Total Electric Generation: 2,219 MW-Hours
- 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



Tecochill Data



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)
- 🕒 Eliminates exposure to on-peak electric demand charges
- 🕒 Cloud-based real-time performance monitoring and system control
- 🕒 Variable engine speed operation for excellent part load performance and longer life



	RT Series	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





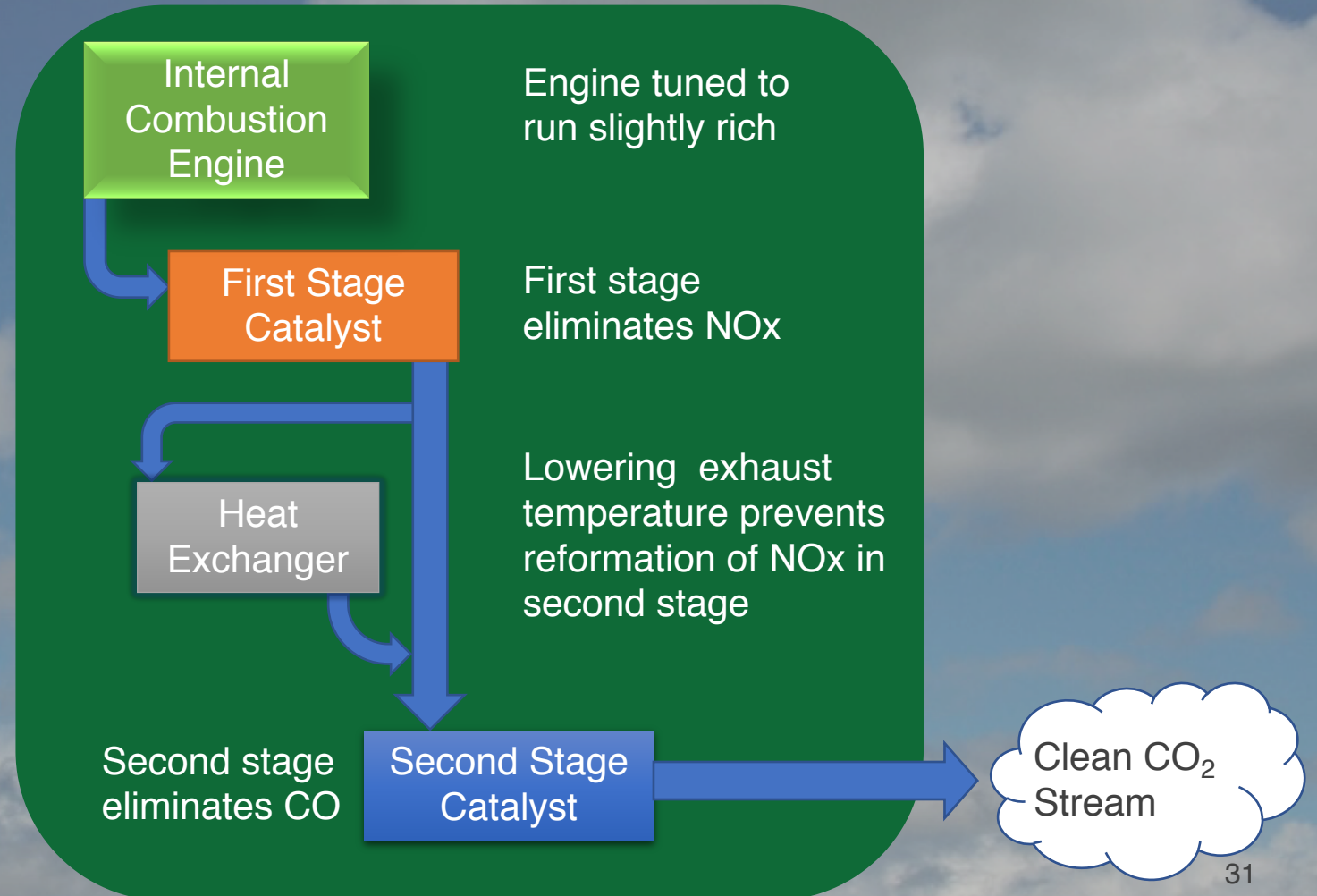
Ultra Emission Technology

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

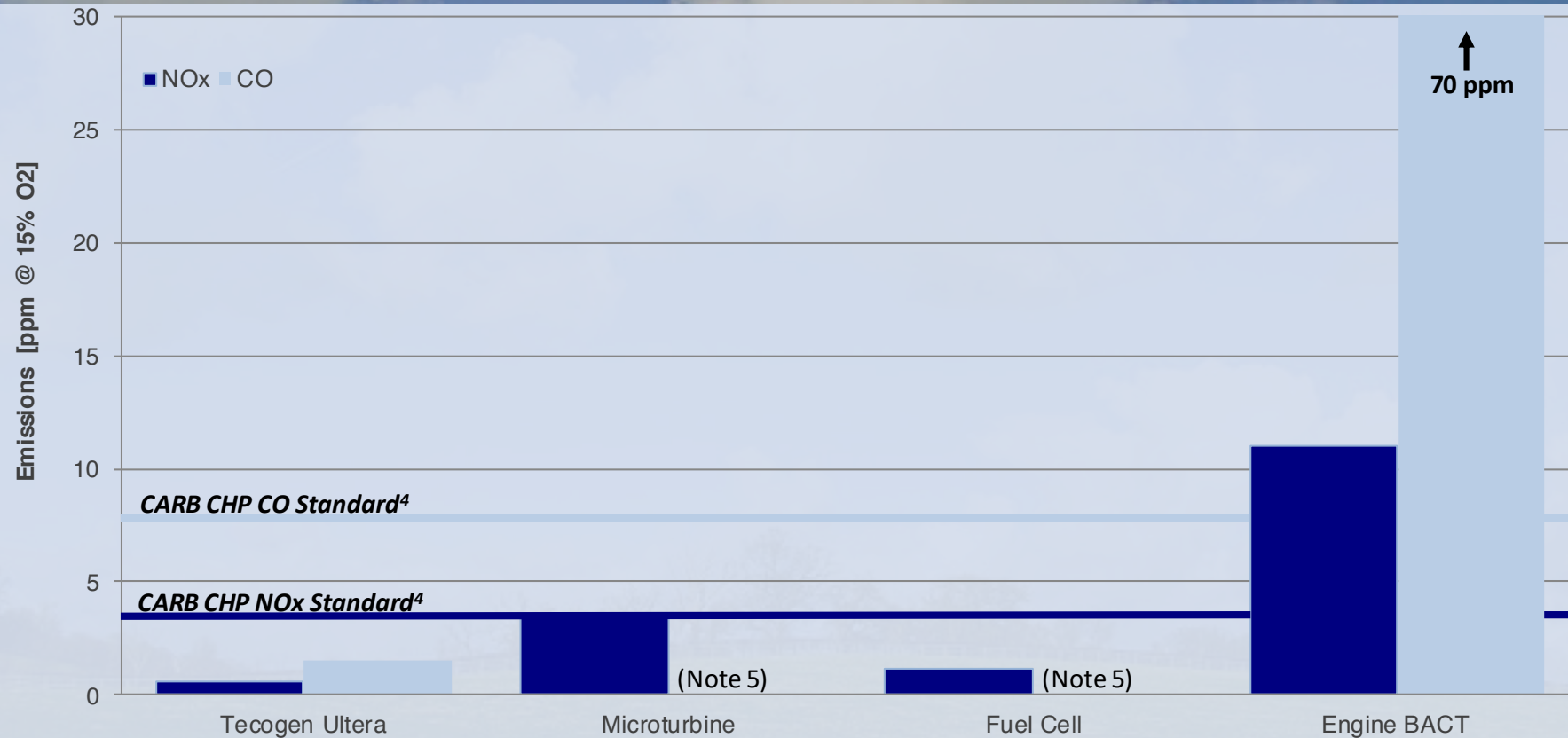
Design fits well within existing fork truck architecture and does not require significant reengineering



Ultra on roof of outdoor InVerde



Stationary Emissions Reduction Comparison

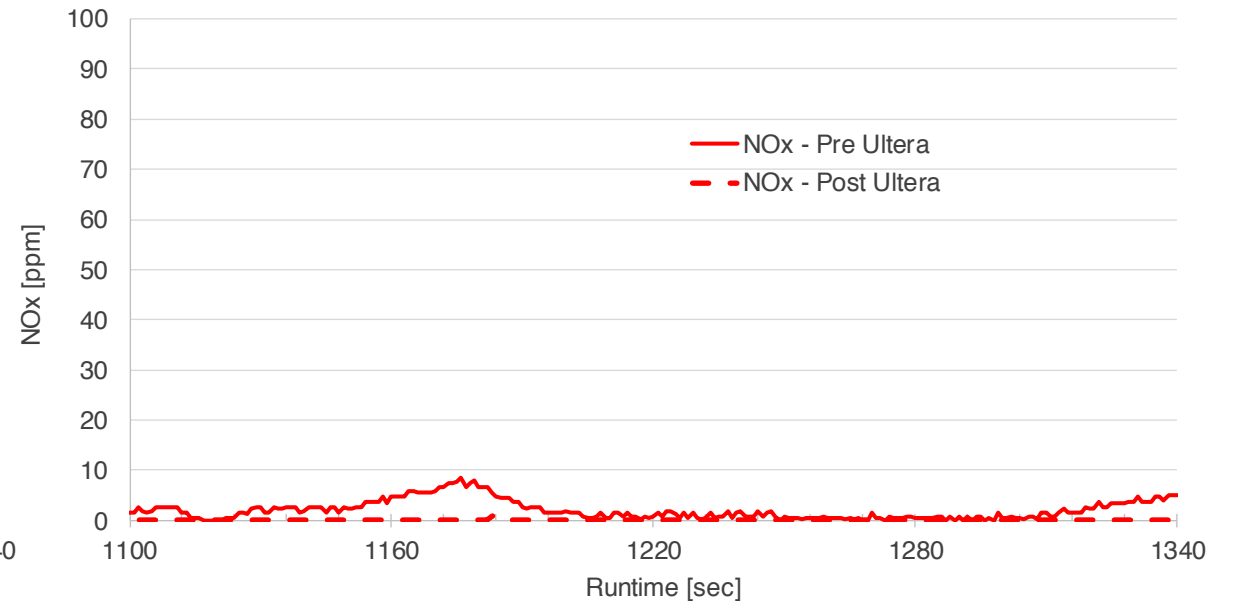
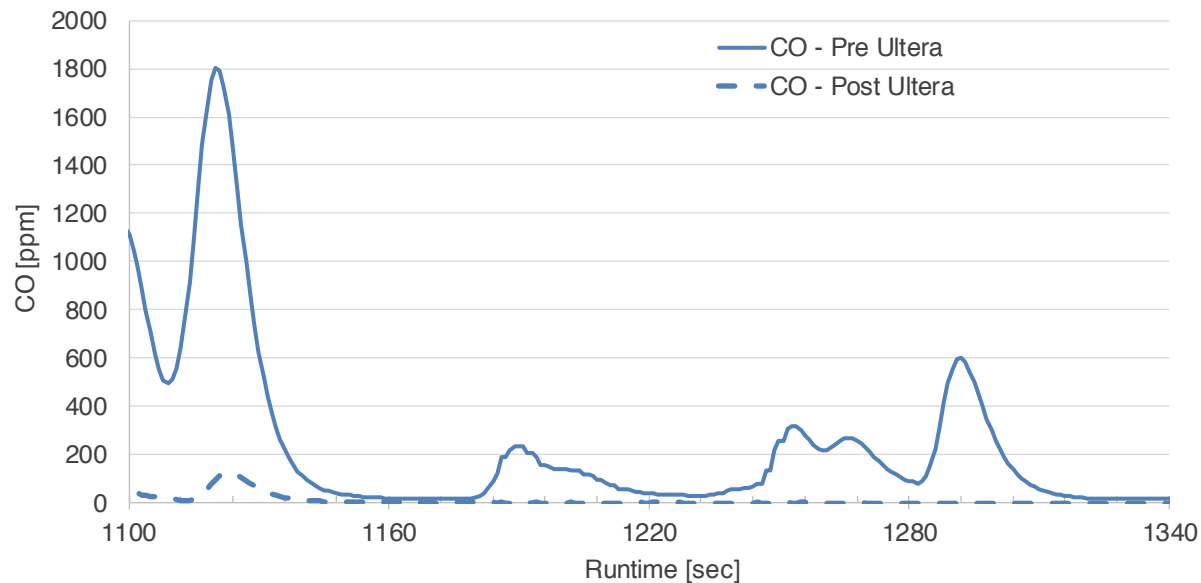


- 1) Tecogen emissions based upon actual third party source test data
- 2) Microturbine and Fuel Cell NOx data from California Energy Commission, Combined Heat and Power Market Assessment 2010, by ICF International
- 3) Stationary engine BACT as defined by SCAQMD prior to reset of BACT to Rule 1110.2 standard on 2/2/18.
- 4) Limits represent CARB 2007 emission standard for Distributed Generation with a 60% (HHV) Overall Efficiency credit
- 5) CO data not available for microturbine and fuel cell

Forklift Truck Emissions Test Results



Low NOx Tuning Test (low loading)



Near-zero NOx levels achieved with simple engine control tuning (reprogramming)