



Energy Efficiency Reimagined

NASDAQ: TGEN

First Quarter 2019 Earnings Review  
May 14, 2019


# Participants



**Benjamin Locke**

 Chief Executive Officer

**Robert Panora**

 President & Chief Operating Officer

**Bonnie Brown**

 Chief Accounting Officer

# 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.

# Earnings Call Agenda



## Benjamin Locke

- Tecogen Overview
- Q1 '19 Financial Overview
- Strategic Achievements

## Bonnie Brown

- Financial Review

## Robert Panora

- Ultera Emissions Update

## Benjamin Locke

- Closing comments




## Q&A



# Advanced Modular Cogeneration 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

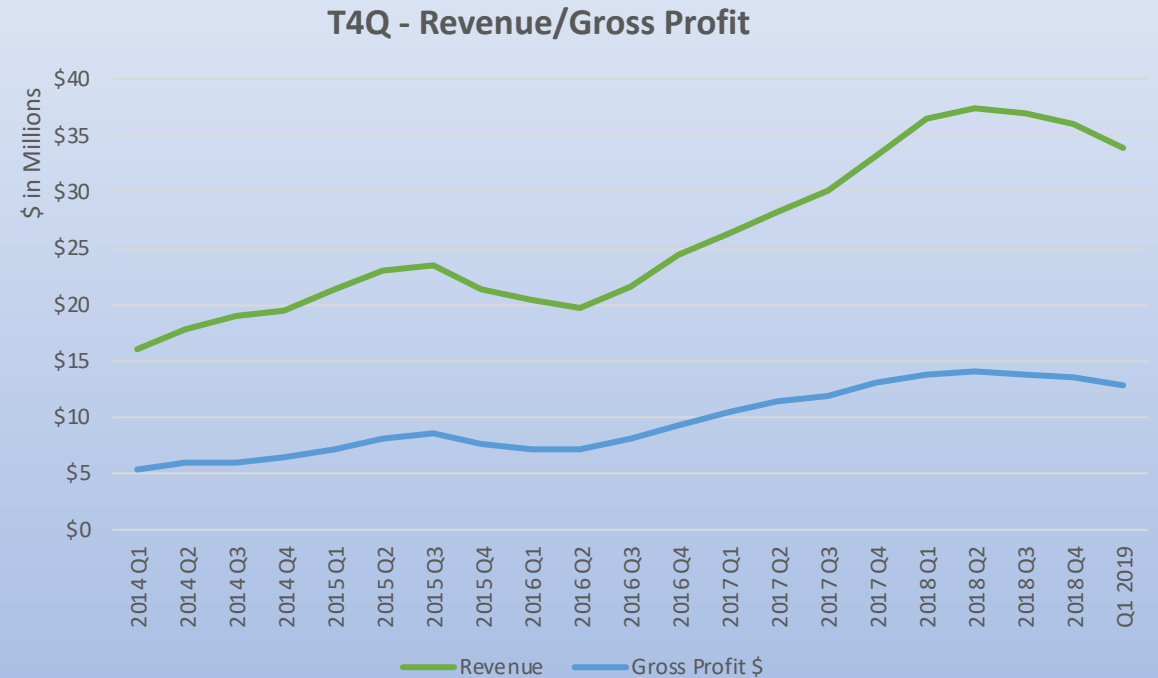


All of Tecogen's equipment is powered by efficient natural gas equipped with Tecogen's patented Ultra Emission Control

# Q1 2019 Financial Results



- Working capital of \$16.2 million compared to \$13 million at year end 2018
- 1Q'19 revenues of \$8.2 million
- Net loss of \$3.3 million includes goodwill impairment loss of \$3.7 million
- Gain on sale of assets \$1.1 million
- Adjusted EBITDA\* of \$678K for 1Q'19 compared to \$304K for 1Q'18
- 1Q'19 Gross margin of 36% compared to 38% in 1Q'18



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

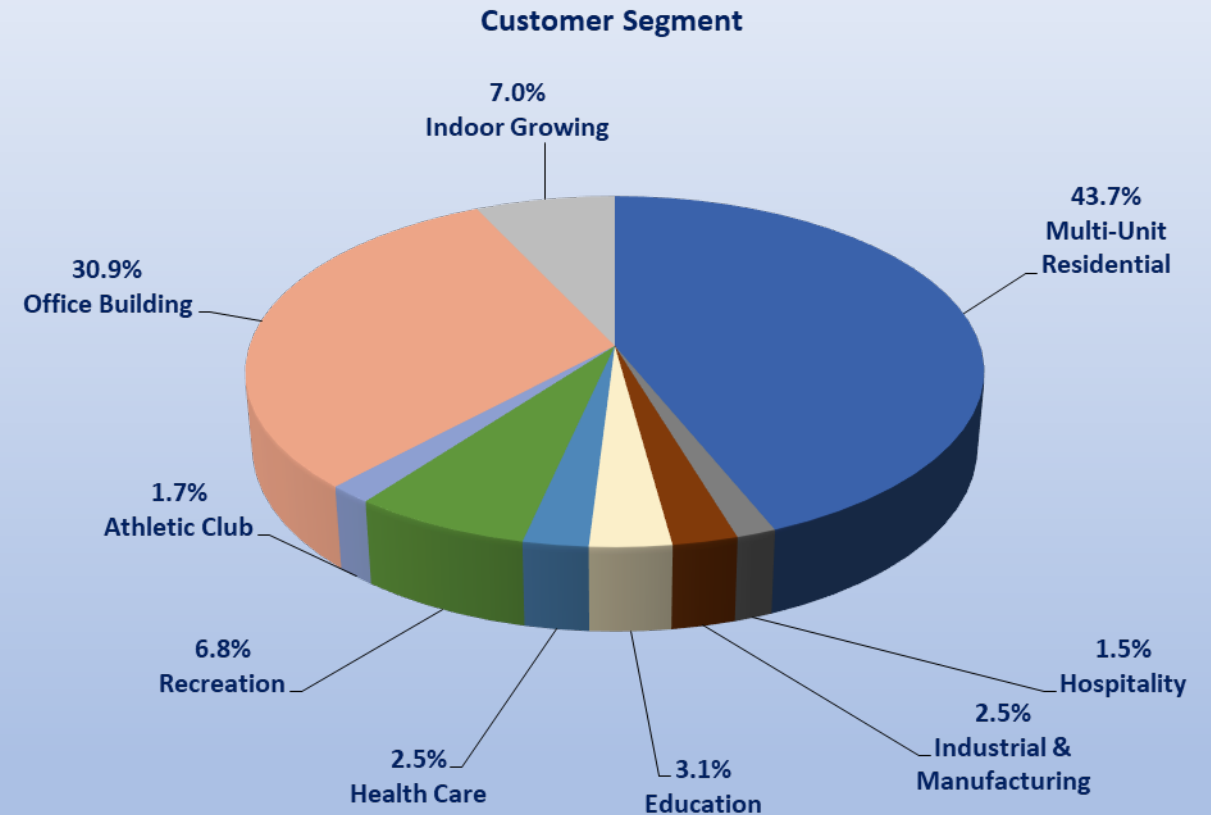
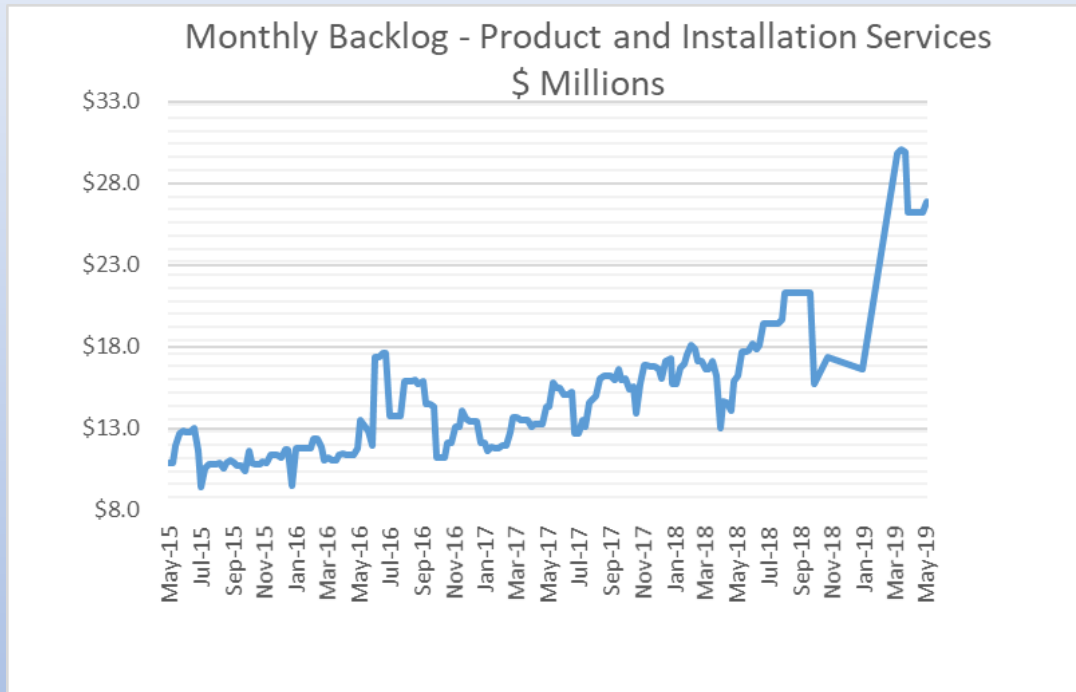
# Q1 2019 Adjusted EBITDA of \$678K



| <i>\$ in thousands</i>                        | 1Q'19         | 1Q'18         | YoY Change     | % Chg          |
|---|---------------|---------------|----------------|----------------|
| <b>Revenue</b>                                |               |               |                |                |
| Products                                      | \$ 3,025      | \$ 3,674      | \$ (649)       |                |
| Service                                       | 3,911         | 4,719         | (808)          |                |
| Energy Production                             | 1,241         | 1,783         | (542)          |                |
| <b>Total Revenue</b>                          | <b>8,177</b>  | <b>10,175</b> | <b>(1,999)</b> | <b>-20%</b>    |
| <b>Gross Profit</b>                           |               |               |                |                |
| Products                                      | \$ 1,081      | \$ 1,264      | \$ (183)       |                |
| Service                                       | 1,437         | 1,937         | (500)          |                |
| Energy Production                             | 441           | 637           | (196)          |                |
| <b>Total Gross Profit</b>                     | <b>2,959</b>  | <b>3,838</b>  | <b>(879)</b>   | <b>-23%</b>    |
| <b>Gross Margin: %</b>                        |               |               |                |                |
| Products                                      | 36%           | 34%           | 1%             |                |
| Service                                       | 37%           | 41%           | -4%            |                |
| Energy Production                             | 36%           | 36%           | 0%             |                |
| <b>Total Gross Margin</b>                     | <b>36%</b>    | <b>38%</b>    | <b>-2%</b>     |                |
| <b>Operating Expenses</b>                     |               |               |                |                |
| General & administrative                      | \$ 2,655      | \$ 2,790      | \$ (134)       | -5%            |
| Selling                                       | 693           | 675           | 18             | 3%             |
| Research and development                      | 345           | 302           | 43             | 14%            |
| <b>Sub-total</b>                              | <b>3,694</b>  | <b>3,767</b>  | <b>-73</b>     | <b>-2%</b>     |
| Gain on sale of assets                        | (1,081)       | -             | (1,081)        |                |
| Goodwill impairment                           | 3,693         | -             | 3,693          |                |
| <b>Net income without goodwill impairment</b> | <b>\$ 413</b> | <b>\$ 21</b>  | <b>\$ 392</b>  | <b>1890.1%</b> |
| <b>Adjusted EBITDA</b>                        | <b>\$ 678</b> | <b>\$ 304</b> | <b>\$ 374</b>  | <b>123.3%</b>  |

- 🌀 Consistently Strong Gross Margins
- 🌀 Goodwill Impairment Loss, Q1 2019
- 🌀 Investing in R&D and Sales Activities

# Product and Installation Backlog



**Current Backlog of \$ 26.9 million**  
**Product backlog: \$13.0 mm, Install backlog \$13.9 mm**



# Strategic Achievements



Adjusted product mix to emphasize chiller sales



Less competition,  
Well defined channels to market

Established ADG sites as solid investment assets



Enabled selective sale to strengthen balance sheet

Forklift Emissions program with Cat/Mitsubishi



Potential for fleet forklift conversion to Ultra emissions

Financial Stability



Zero debt with cash available for business growth

Tecogen positioned for growth in core business while building value of Ultra emissions technology

# Q1 2019 Financial Metrics: Revenues, Margins and Profitability



- 📌 Revenue of \$8.2 million
- 📌 Maintained profitability of \$413K for the quarter after the elimination of goodwill impairment
- 📌 Gain on sale of energy production assets of \$1.1 million
- 📌 Gross margin of 36% within management's guidance
- 📌 Decrease in G&A expense while increasing sales and R&D investment
- 📌 Strong backlog of \$26 million

| \$ in thousands                                      | Quarter Ended March 31, |                  | YoY Growth  | % of Total Rev |
|--|-------------------------|------------------|-------------|----------------|
|  | 2019                    | 2018             |             |                |
| <b>Revenue</b>                                       |                         |                  |             |                |
| Cogeneration   | \$ 1,819                | \$ 1,764         | 3%          | 22%            |
| Chiller  | 1,205                   | 1,909            | -37%        | 15%            |
| Total Product Revenue                                | 3,025                   | 3,674            | -18%        | 37%            |
| Service Contracts and Parts                          | 2,355                   | 2,314            | 2%          | 29%            |
| Installation Services                                | 1,556                   | 2,406            | -35%        | 19%            |
| Total Service Revenue                                | 3,911                   | 4,719            | -17%        | 48%            |
| Energy Production                                    | 1,241                   | 1,783            | -30%        | 15%            |
| <b>Total Revenue</b>                                 | <b>\$ 8,177</b>         | <b>\$ 10,175</b> | <b>-20%</b> | <b>100%</b>    |
| <b>Cost of Sales</b>                                 |                         |                  |             |                |
| Products   | \$ 1,943                | \$ 2,409         | -19%        |                |
| Services   | 2,475                   | 2,783            | -11%        |                |
| Energy Production                                    | 800                     | 1,146            | -30%        |                |
| <b>Total Cost of Sales</b>                           | <b>\$ 5,218</b>         | <b>\$ 6,338</b>  | <b>-18%</b> |                |
| <b>Gross Profit</b>                                  | <b>\$ 2,959</b>         | <b>\$ 3,838</b>  | <b>-23%</b> | <b>36%</b>     |
| Net income (loss) attributable to Tecogen Inc.       | \$ (3,280)              | \$ 21            |             |                |
| Net income attributable to Tecogen w/o GW impairment | \$ 413                  | \$ 21            |             |                |
| <b>Gross Margin</b>                                  |                         |                  |             |                |
| Products   | 36%                     | 34%              |             |                |
| Services   | 37%                     | 41%              |             |                |
| Aggregate Products and Services                      | 36%                     | 38%              |             |                |
| Energy Production                                    | 36%                     | 36%              |             |                |
| Overall  | 36%                     | 38%              |             |                |

# Adjusted EBITDA\* Reconciliation



## Q1 2019 and 2018 Comparative Net income (loss) to Adjusted EBITDA Reconciliation

- EBITDA: Interest, taxes, depreciation & amortization
- Non-cash adjustments
  - Stock based compensation
  - Unrealized loss on investment securities
  - Goodwill impairment
- Non-recurring expenses
  - Merger related expenses finalized in 2018

Consistently reaching positive levels of adjusted EBITDA\*

| Non-GAAP financial disclosure                  | Q1 2019            | Q1 2018           |
|--|--------------------|-------------------|
| Net Income (loss) attributable to Tecogen Inc. | \$ (3,280,077)     | \$ 20,759         |
| Interest expense, net                          | 27,494             | 14,085            |
| Depreciation & amortization, net               | 168,244            | 199,181           |
| Income tax expense                             | (8,169)            | -                 |
| <b>EBITDA</b>                                  | <b>(3,092,508)</b> | <b>234,025</b>    |
| Stock based compensation                       | 38,035             | 40,416            |
| Unrealized loss on investment securities       | 39,361             | 19,681            |
| Merger related expenses                        | -                  | 9,610             |
| Goodwill impairment                            | 3,693,198          | -                 |
| <b>Adjusted EBITDA*</b>                        | <b>\$ 678,086</b>  | <b>\$ 303,732</b> |

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

# Emissions Technology Update – MCFA Forklift



- Received second sample set of alternative engine retuning software from MCFA
- Extensive forklift drive testing completed
  - NOx emissions 20% of factory system
  - CO emissions 12% of factory system
- Results consistent with program goal of near-zero certification
- Reviewed results with MCFA last week
- Our recommendation (awaiting MCFA response)
  - Seek certification of bare engine with Ultera to “near zero” California standard
  - Return truck to MCFA for their further evaluation



**Test Summary of MCFA Forklift Truck Testing**

|   | NOx<br>[g/kw-hr] | CO<br>[g/kw-hr] |
|---|------------------|-----------------|
| MCFA - Drive Test w/Factory Emissions System      | 1.67             | 0.49            |
| MCFA - Drive Test w/Ultera                        | 0.34             | 0.06            |
| Relative Emissions Output (Ultera/Factory System) | 20%              | 12%             |

# Emissions Technology Update (2)



## Southern California generator retrofit program (project footnote)

- Only natural gas engines permitted to current (2010) regs without operating exemption
- Application is noteworthy in light of recent developments in California
  - Distributed loads in terrain of high fire risk requires frequent de-energization of power lines in high winds
  - Ultra retrofit to standard gen-set effective solution to mitigate risk without negative environmental impact

## Ultra Automotive Catalyst Development

- On road Ultra development work with outside research institute progressing
- Focus is alternative catalyst formulation
- Program is on schedule to conclude in Q2

## Ultra Project approved by SoCal District Pump Project

- Project approved for new natural gas driven pump procurement
- 800 horsepower engines, requires 2x scaleup of system
- Formal sole-source bid documents submitted



Natural Gas Generator Upfitted with Ultra in Southern California (LA County)

# Market Outlook



## 🌱 Indoor Agriculture Growth Opportunity

- 🌱 Proven cost/benefit of Tecochill
- 🌱 NY/NJ recreational cannabis approval expands opportunity

## 🌱 Expand/Upgrade chiller product portfolio

- 🌱 Tecochill: Water-cooled AC systems
- 🌱 Tecofrost: Ammonia refrigeration systems
- 🌱 Roof-Top (RT) system: Legacy air-cooled 50 ton AC system

## 🌱 Third Party Project Finance Partnerships

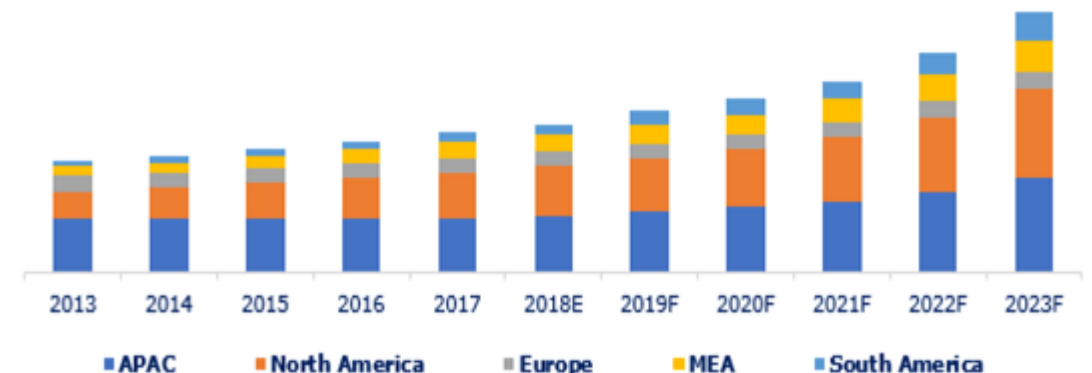
- 🌱 Low cost of capital, able to use tax advantages
- 🌱 Provides customers with multiple project finance options
- 🌱 Provides capital for large projects (Manhattan data center)
- 🌱 Additional projects in development

## 🌱 Increasing focus on microgrids for resiliency

- 🌱 “Smart Inverter” Certification requirements
- 🌱 “Smart Inverter” requirements expanding to other states

*“Chiller Market Report, published by Allied Market Research, forecasts that the global market was valued at \$8,784 million in 2015 and is expected to reach \$11,542 million at 4.1% CAGR by 2022.”*

Global HVAC Chillers Market Size, By Region, By Value, 2013-2023F



# Closing Comments



## **Tecogen Key Value Proposition Remains:**

- Use plentiful and affordable natural gas efficiently and cleanly to meet energy needs of large facilities
- Tecogen cogeneration systems have necessary certifications and functionality to participate in new, revenue generating utility support programs
- Tecogen is only manufacturer of natural gas engine chillers, with significant new market potential for indoor growing and ammonia refrigeration systems
- Ultra emissions technology successfully implemented on many engine platforms and has potential for significant upside.



# Q&A



## Company Information

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