# lecogen:

Energy Efficiency Reimagined NASDAQ: TGEN 2nd Quarter 2018 Earnings Review August 14, 2018

### Participants





### 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

- Introduction
- Why Tecogen
- Second Quarter Review
- Recent Achievements

**Robert Panora** 

Technology Update

Bonnie Brown

Financial Review

Benjamin Locke

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Opportunities and Outlook
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Q&A



# Advanced Modular 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

### Sustained Positive Financial Results



- 2Q '18 Revenues of \$8.5 million
- Record T4Q revenue of \$37.4 million
- Revenue growth on T4Q basis year over year of 32.8%
- Record T4Q gross profit of \$14.1 million
- Sustained step change to profitability originally achieved in 3Q'16
- T4Q Adjusted EBITDA\* of \$803K for 2Q'18 vs. \$817K for 2Q'17
- ADG Energy production revenue contributed
  \$669K to Gross Profit

\*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.



# 2Q'18 Summary of Results

\$ in thousands	2Q'18		2Q'17		YoY Increase (Decrease)			Comments		
Revenue										
Products	\$	2,484	\$	3,116	\$	(633)	-20.3%			
Service		4,461		3,700		761	20.6%	Gaining traction with turnkey installations		
Energy Production		1,508		774		734	94.8%	Full quarter of ADG operations in 2018		
Total Revenue		8,453		7,591		863	11.4%			
Gross Profit							$\smile$			
Products	\$	992	\$	1,150	\$	(159)				
Service		1,500		1,393		108				
Energy Production		669		444		225				
Total Gross Profit		3,160		2,987		174	5.8%	Additional gross profit from increased sales		
Gross Margin: %		$\frown$								
Products		39.9%		36.9%		3.0%		Stronger margins in both cogen and chiller sales		
Service		33.6%		37.6%		-4.0%		Installation business brings tighter profit than contract maintenance		
Energy Production		44.3%		57.3%		-13.0%		Energy production margin is in line with long term expectations		
Total Gross Margin		37.4%		39.3%		-2.0%				
Operating Expenses										
General & administrative	\$	2,751	\$	2,406	\$	344		Q2'18 Includes core operating expenses for ADG's operations		
Selling		635		608		28		Additional selling efforts		
Research and development		410		219		191		R&D activities in connection with the forktruck project		
Total Operating Expenses		3,796		3,232		563	17.4%			
Net loss/Comprehensive loss		(754)		(518)		(236)		Additional R&D and selling expenses account for this difference		
Adjusted EBITDA (see reconciliation)	\$	(330)	\$	64	\$	(394)		See detailed reconciliation		

Strong Q2 revenue growth

Consistently strong gross margin G&A increase from investments in ADG and R&D

# **Other Notable Achievements**



### Products

- Obtained UL 1741SA "smart inverter" certification required in California
- Upgraded Tecopower CHP system with higher efficiency, lower sound, better economics
- Initiated product development efforts to expand Tecogen gas cooling technology offering

### Sales

- Continued orders for cogeneration and chillers for indoor growing facilities
- Additional chiller sales to ice rinks, school system, gas company headquarters
- Project initiated with prominent ESCO to NJ high school system providing microgridenabled CHP system
- Competed engineering design for 1 MW trigeneration system with ESCO partner

### Emissions

- US patent granted for Sulphur resistant catalyst coating
- Japanese patent obtained for Ultera process
- Positive PERC fork-truck results in favorable decision by engine manufacturer to proceed
- Ongoing project with Research Lab partner on catalyst optimization

# Product and Installation Backlog





Quarter-end backlog of \$14.2 million on 6/30/18 versus \$12.7 million on 6/30/17. Backlog as of August 10, 2018 at \$21.3 million

# **Technology Update Topics**



### **Topics of Discussion**

Forklift trucks

Automotive

Miscellaneous

- Patents
- UL 1741 SA

# Forklift Truck Project Update

Tecogen:

- PERC research program successfully completed
- Exceptional test results
  - Near Zero NOx levels achievable with simple engine control tuning (reprogramming)
- Review and demo at Tecogen May 23
  - Manufacturer and PERC
- Manufacturer decision to Move Forward
  - Apply engineering resources to upgrade prototype at Tecogen
  - Return to Manufacturer for operational tests at their facility
- World LPG (Propane) Forum Paper Accepted
  - Presentation October in Houston



	Tecogen	Third-Party
CO	98.8%	91.0 %
THC	N/A	52.1%
NOx	24.3%	29.2%

### Dynamic Test Results (Heavy Lift Tests)

### Miscellaneous



- Automotive
  - Ongoing work at research institute on catalyst optimization
- Japan Patent for Ultera granted
- Patent for Ultera catalyst material granted by USPO
  - Specialized anti-corrosion composite material
  - Successfully used in field trials
  - Critical for many fuels containing sulfur

### 🖏 UL 1741 SA

- InVerde e<sup>+</sup> certification attained in July
- Bellwether in Distributed Generation (DG) relationship with utilities
- Establishes technical foundation for utility command and control of DG resources
- DG units transition to networked resource for grid support and maintenance
- Awaiting Outcome...
  - State of California research application

# 2Q '18 Financial Metrics: Revenues, Margins, Growth

- Four diverse revenue streams providing 11.4% growth year over year
  - Product gross margin grew to 39.9%, showing 8% improvement
  - Long term service contracts provide steady cash flow
  - Turnkey installation included in service operations facilitates both product and service revenue
  - Energy production revenue from ADGE sites provided \$1.5 million of stable and reliable cash flow with gross margin of 44.3%
- Overall gross margin of 37.4%
- Total revenue growth on a T4Q basis of 33%

	Q	uarter Enc	led .	June 30,		
\$ in thousands		2018	2017		YoY Growth	% of Total Rev
Revenue						
Cogeneration	\$	1,289	\$	1,838	-29.9%	15.2%
Chiller		1,195		1,278	-6.5%	14.1%
Total Product Revenue		2,484		3,116	-20.3%	29.4%
Service Contracts and Parts		2,165		2,223	-2.6%	25.6%
Installation Services		2,297		1,477	55.5%	27.2%
Total Service Revenue		4,461		3,700	20.6%	52.8%
Energy Production		1,508		774	94.8%	17.8%
Total Revenue		8,453	\$	7,591	(11.4%)	100.0%
Cost of Sales						
Products	\$	1,492	\$	1,966	-24.1%	
Services		2,962		2,307	28.4%	
Energy Production		840		331	154.0%	
Total Cost of Sales		5,294	\$	4,604	15.0%	
Gross Profit	\$	3,160	\$	2,987	5.8%	37.4%
Net loss attributable to Tecogen Inc.	\$	(754)	\$	(294)	7	
Net loss to 2017 Comprehensive loss	\$	(754)	\$	(518)	\$ (236)	
Gross Margin						
Products		39.9%		36.9%		
Services		33.6%		37.6%		
Aggregate Products and Services		35 9%		37.3%		
Energy Production		44.3%		57.3%		
Overall		37.4%		39.3%		

### **Consistent Financial Progress**





Steady growth in the backlog translates directly to revenue growth

#### ADJUSTED EBITDA\* 2Q '18 Compared to 2Q '17

Adjusted EBITDA	2Q'18	2Q'17		
Non-GAAP financial disclosure				
Net loss attributable to Tecogen Inc.	\$ (754,350)	\$	(293,540)	
Interest & other expense, net	64,014		30,685	
Income tax expense	38,864		-	
Depreciation & amortization, net	187,069		178,595	
EBITDA	(464,403)		(84,260)	
Stock based compensation	38,062		48,842	
Merger related expenses	96,800		99,773	
Adjusted EBITDA	\$ (329,541)	\$	64,355	

\*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**

77 18

**Revenue: Trailing 4 Quarters** 20,000 Thousands 18,000 16,000 14,000 12,000 10,000 8,000 6.000 4,000 2,000 2014 2014 2014 2014 2015 2015 2015 2015 2016 2016 2016 2016 2017 2017 2017 2017 2018 2018 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q1 Q2 Q3 Q4 Q1 Q2 Q3 ■ Product ■ Service ■ Energy

Trailing 4 Quarters (%) 50% 46% 42% G&A and Selling Costs as % of Revenue 38% -Gross Margin 34% 30% 2014 Q2 2014 Q3 2014 Q4 2015 Q2 2015 Q3 2015 Q4 2016 Q1 2016 Q2 2016 Q3 2016 Q4 2017 Q1 2017-02 2015 Q1 2017 Q4 2018 Q1 02 02 g 2017 2018

Energy production revenue acquired in May, 2017

Declining operating costs as a percent of revenue demonstrates scalability with revenue growth

# 2018 Outlook

- Continue highlighting Tecogen as the most cost-effective, economically superior cogeneration technology
- Establish Tecogen's gas engine cooling technology as the best alternative to costly electric cooling technology.
- Take proactive advantage of evolving utility environment via "smart inverter" certification Energy Efficiency Reimagined
- Initiate fork truck follow-on project with partner
- Initiate next phase of vehicle emissions project



### Q&A





### **Company Information**

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