

Tecogen Inc. [TGEN]
Second-Quarter 2016 Earnings Conference call
Wednesday, August 10, 2016, 11:00 AM ET

Company Participants:

Ariel Babcock; Director, IR

John Hatsopoulos; Co-CEO

Benjamin Locke; Co-CEO

Robert Panora; President and COO

David Garrison; CFO, Secretary and Treasurer

Analysts and Investors:

Alex Blanton; Clear Harbor Asset Management

Michael Zuk; Oppenheimer & Co.

Presentation:

Operator: Good morning and welcome to the Tecogen second-quarter 2016 earnings conference call. (Operator Instructions) There will be an opportunity for you to ask questions at the end of today's presentation. (Operator instructions) For your information, this conference is being recorded.

A recording of this conference call will be available for playback approximately one hour after the end of the call and will remain available until Wednesday, August 17, 2016. Individuals may access the recording by dialing 877-344-7529 from inside the United States, 855-669-9658 from Canada, or 412-317-0088 from outside the US. Enter the replay conference number, which is 10090426, followed by the pound sign.

Now I would like to introduce Ariel Babcock, Tecogen's Director of Investor Relations. Ms. Babcock, please go ahead.

Ariel Babcock: Good day, and thank you all for joining us on our second-quarter earnings conference call.

Speaking on the call today are John Hatsopoulos and Benjamin Locke, our Co-CEOs. Also joining us today with prepared remarks are David Garrison, Tecogen's Chief Financial Officer, and Robert Panora, our President and Chief of Operations.

During the call, we will be referencing slides posted on the Investor Relations section of our website at Tecogen.com.

Before we begin, I would like to remind you that this presentation includes forward-looking statements within the meaning of Section 27A of the Securities and Exchange Act of 1933, and

Section 21E of the Securities and 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 the actual results as identified from time to time in the Company's SEC filings. Forward-looking statements provided are as of the specified date and not reaffirmed or updated at any time.

I will now turn it over to John Hatsopoulos, Co-CEO, for some opening remarks. John?

John Hatsopoulos: Good morning, ladies and gentlemen. As you notice from our press release, our backlog continues to grow dramatically. Last year, (inaudible) at the end of the second quarter, the backlog of orders was \$9.3 million. At the end of the quarter that we are reporting, the backlog was \$14.1 million, which is something like better than 50%. And right now it stands at \$15.9 million, which is an increase of 70% over a year ago.

The second major event that is taking place right now is the technology on emissions. We put up a release yesterday giving an update to our partnership on emissions. And this is a group that is funded, at least in the beginning, outside of Tecogen, quite a bit of money for us to do the studies. And we are grateful to our friends at Volkswagen. They're bringing to the attention of the world the problems of automobiles.

It was weird that yesterday we put up this press release, and I guess nobody cared. I don't think anybody read it. But Bob Panora, when his turn comes, will give you an update. With that, I'd like to ask Ben Locke, who is my partner -- and Ben as you all know, is in charge of operations, of sales, and whatever else, is involved in running the Company. Ben?

Benjamin Locke: Thanks, John. So I'd like to start off our call just to remind those who might be new to the Company about Tecogen's core business model as shown on slide 4: heat, power, and cooling that is cheaper, cleaner, and more reliable. Our proprietary technology for improving efficiency, emissions, and grid resiliency is truly disruptive to the traditional methods of heating, cooling, and powering buildings and infrastructure. Tecogen's clean energy technology has been revolutionizing distributed generation for residential, commercial, and industrial customers for over two decades.

Technology development and product innovation are our most valuable assets, offering significant competitive advantages and product differentiation. We have made tremendous achievements so far this year on this front. I'd strongly encourage anyone who missed our first-quarter conference call in May to look back at those remarks for a more complete picture of our newest product, the InVerde e+.

So turning to slide 5, before I go into the actual earning results for the quarter, I'd like to take a few minutes to highlight our year-to-date progress and describe the very important and strategic steps we have taken to set the stage for future growth.

First, we continue to strengthen our core product offering with the introduction of the new InVerde e+ and the implementation of the GE Equipment Insight mobile remote monitoring system in the first quarter. It is important that we continue to improve on our products in order to maintain our competitive advantage in the CHP market.

The new e+ with improved efficiency, better economics, quieter operation, lower turn-down, and rapid black start for emergency standby capability along with other improvements reinforces our goal of providing our customers with the most advanced clean energy technology available.

With regard to our GE partnership, the GE Equipment Insight system is now available to all new project customers and is also being offered to existing customers as a retrofit where appropriate. Equipment Insight allows both customers and our Tecogen service experts the ability to monitor and analyze equipment performing time. Giving customers a portal and dashboard to instantly view savings and operating metrics reinforces the equipment's value proposition, driving what we hope will be the customer's loyalty and repeat and referral business.

This constant access and data monitoring also gives our service technicians a more robust tool for proactive maintenance and monitoring, driving improvement in fleet utilization while streamlining service activity. The GE platform also allows overall fleet view of real-time operation of our installed systems, an important tool for service center managers when allocating service department resources.

After a deliberate and careful launch of the platform, we are now rapidly ramping up deployment of the GE system. Initial response has been positive, and we expect to continue refining the dashboard and displayed metrics based on feedback from both customers and service personnel. Bob will talk in a bit more detail on both these topics later in the call.

Turning to sales, the sales team has been hard at work cultivating key project partners in an effort to develop a roster of repeat customers. I'd like to take a moment just to discuss the product sales cycle.

Our equipment is often a new energy solution concept for customers. Educating customers and potential partners about the mechanics and benefits of cogeneration and differentiating product features Tecogen offers is a primary focus of initial customer development conversations and is often time consuming. This customer relationship development process has been a key focus for management as we work to cultivate partners that can deliver repeat business.

Recent project win announcements from partners like National Mechanical, the multinational ESCO we are working with on a number of school projects, and a New Jersey property developer all demonstrate that this time and effort on behalf of sales team laid the solid partnership foundation that's beginning to pay off.

Additionally, the gas company selling agreement for Ilios heat pumps and TECOCHILL chillers earlier this year is another example of our efforts to develop repeat business. Encouraging gas customers to install Tecogen gas-powered equipment offers significant value to the gas company customers while ensuring a steady demand for gas from the gas company.

Tecogen equipment can also help gas companies grow their customer base by offering customers a gas-powered solution for their energy needs, reducing the demand on the electric grid. Additionally, Tecogen's ultra-clean, gas-powered solutions help displace electricity demand from large facilities and developments, a good thing for any region where electricity is still predominantly produced by oil or coal.

We continue to engage with other potential partners for similar gas company selling arrangements.

And TTcogen -- as I've discussed extensively in the past, Tecogen had been actively pursuing partnerships that would help us expand our product portfolio, bring in new technological advantages, especially in the engine category, or expand into new geographies or verticals.

The joint venture announced with the Czech Republic-based TEDOM was the culmination of that effort. With the addition of the TEDOM product portfolio, Tecogen quadrupled our addressable market for cogeneration products and added a key biofuels capability. I'll spend some more time discussing TTcogen in greater detail later in the presentation, but we are already seeing success of this venture, as was demonstrated by the sale of our first micro 35kW unit announced last week.

The final area, as John alluded to, that holds exciting potential for the Company is in the development of emissions technology for automotive applications. As recent press release indicated, our joint venture company, ULTRATEK, completed its first phase of testing of the Ultra emissions reduction technology on a gas-powered, light-duty vehicle this spring. The result conclusively proved that Tecogen-Ultra emissions technology was highly effective in reducing pollutants from the test vehicle in excess of currently available emissions control technology.

Tecogen and the initial strategic investors all participated in a recent round of additional funding for the company, and the team is looking forward to the launch of Phase II testing later this month. Bob will elaborate further on the progress being made at ULTRATEK, but suffice to say that we are incredibly excited about the opportunity that the team is putting here.

So turning to slide 6, I will review the key financial metrics for our Company: revenues, margin, and sales backlog.

Our revenues were \$5.7 million for the quarter compared to \$6.4 million the second quarter of last year. There are several contributing factors to the market conditions we've seen recently such as customers taking a longer time to sign contracts, and delays in site readiness, and interruptions in some of the incentive programs.

I am pleased to report a key incentive program in New Jersey has come off hiatus and are again accepting new applications. Additionally, we are actively engaging in other regions that are planning new incentive programs that will help future sales initiatives.

On a positive note, service revenues increased 7.9% over the prior-year period as a result of a rebound in installation activity as prior project delays abate.

Our gross profit for the quarter was approximately \$2.1 million compared to \$2.14 million for the second quarter of 2015, a respectable demonstration of the effectiveness of cost of sales reduction initiatives when considering the differences in topline revenues year on year.

While total revenues fell somewhat short of expectations, revenues have posted steady quarter-over-quarter growth when compared to both first quarter of 2016 and fourth quarter of 2015. And we anticipate this upward trend in revenues to continue in the coming quarters.

Our operating expense for the quarter was approximately \$2.49 million compared to \$2.44 million in the second quarter of 2015. Our goal is to deliver full-year operating expense near \$10 million. We continue to believe our efforts to keep OpEx contained is paying off and we are on track to reach this goal.

Our overall gross margin was 37% compared to 33.5% in the second quarter of 2015. Gross margins benefited from product cost reduction initiatives, but these improvements were offset by a write-down related to the retirement of the first-generation InVerde line.

Service margins improved significantly as installation activity rebounded and installation profitability benefited from recent corrective actions. In general, we are seeing encouraging progress from the installation team as we get more experience in different types of projects and more projects are completed on budget. Dave will talk more about other influencing factors in the margin numbers later in this call.

Moving on to backlog on slide 7. As John mentioned, backlog at the end of the second quarter was \$14.1 million, well ahead of the Company's goal to maintain backlog above \$10 million. As of last Friday, August 5, backlog of products and installations was an even more encouraging \$15.9 million. I'd like to note that this backlog is for Tecogen products only and excludes any orders received by TTCogen for the TEDOM equipment. The backlog for TTCogen is starting to grow, and we expect to give more detail on it in the coming quarters as it becomes material to Tecogen revenues.

The recent backlog growth is being driven by continued demand for installation services as well as strong sales traction of the InVerde e+. The sales team has been executing well and closing orders with key customers. This strong backlog sets us up to deliver what we expect will be compelling results over the next several quarters.

I'd like now to talk again about the TTCogen joint venture in a bit more detail. As you can see on slide 8, TTCogen is our newest joint venture launched in mid-May in conjunction with TEDOM, the Czech Republic-based expert in CHP. For those unfamiliar with TEDOM, they are one of Europe's largest combined heat and power manufacturers and have been a stalwart of the CHP industry for 25 years. The recently launched joint venture will take advantage of Tecogen's expert sales and service networks to bring TEDOM's CHP products to the United States markets.

On slide 9, you can see that the addition of these new products from TEDOM significantly expands the addressable market for our combined heat and power product portfolio extending out to as high as 4 megawatts.

As the slide indicates, the Department of Energy projects 85 gigawatts of addressable CHP market, and the US government is targeting 40 gigawatt deployment by 2020. This joint venture now gives our product portfolio that can address a larger share of this projection.

As you can see on slide 10, the TEDOM product portfolio stretches from 35kW all the way up to multi-megawatt units and can utilize a wide array of fuels including natural gas, renewable biogas, and LPG. Similar to Tecogen's long history of cogeneration innovation, TEDOM has refined the packaged CHP concept in Europe and has an extensive portfolio of sites that demonstrate their capability in a wide range of markets.

We expect the initial sales success with the TEDOM product portfolio to come from the smaller sized micro 35kW units as was demonstrated by the recent sale. These quiet and compact units to 138-resident building in New York, we expect to be the first of many new orders of this kind.

The customer that we announced was familiar with Tecogen equipment, but had a facility that was undersized for our existing product line. The order is an excellent demonstration of exactly the synergies that were contemplated when we launched this joint venture. The sales team was able to convert a lost opportunity into a new sale.

Longer term, the renewable biogas capability of the TEDOM equipment can open up entirely new opportunities for Tecogen as waste-to-energy mandates like New York's Zero Waste initiative become more prominent across the country, the market for large-scale, biogas CHP systems is expected to grow.

Europe has had similar waste to energy initiatives in place for many years for a variety of organic byproducts such as farm and municipal solid waste streams. With over 100 systems in operation in Europe using a variety of biogas sources, the TEDOM equipment is perfectly suited for these programs as they expand throughout the United States. Tecogen will be well-positioned with significant advantages in these markets.

For a more complete summary of the structure of the joint venture and the growth opportunities it presents, I'd encourage you to review the remarks we made on May 24 on our joint venture launch call and visit our new website www.ttcogen.com for further information about the TEDOM product portfolio and its capabilities.

I'd like to make one last quick note before handing the call over to Bob. In the first quarter, we initiated the process to acquire the remaining minority stake in Ilios via a private placement exchange offer. As of May 2, this process was completed and Ilios is now fully integrated into Tecogen.

If you are carefully watching our SEC filings, you may have noticed an S-3 filed in early July. This was related to the registration of Tecogen shares that were issued to Ilios shareholders. I

welcome those early investors in our efficient gas heat pump to the Tecogen family of long-term investors.

With that, I'd like to turn it over to Bob for a more detailed discussion of our technology development followed by Dave with more details of our financials. I'll then wrap up with some final remarks before we take questions. Bob?

Robert Panora: Good morning, and thank you, Ben. In our last call, I discussed several important product introductions which Ben has talked about briefly. I'll elaborate a little bit more.

The first was an internet-based communication system, the GE Insight system that Ben reviewed a few slides with. The GE Insight technology allows us to upgrade our existing communication system with one having many advantages that one would expect to see in a state-of-the-art internet tool.

For example, machine operating parameters can be viewed, as Ben said, in real-time and historically, but on multiple devices; not just a PC, but also smartphones and tablets through apps. These data records can be manipulated in various ways for analyzing trends in the performance of the system and organized in standard or custom reports that the user may want to make for himself. Our service personnel and customers can utilize the information to (inaudible) to Tecogen products operating at their peak efficiency and utilization.

Over the past few months, we have been refining the system features and creating a dashboard which will include feedback relative to the system's financial benefit to the host facility. This is a highly valuable feature for our customers providing assurance of the system's fundamental value when they purchased it.

In the last call, I discussed the introduction of our updated InVerde 100 KW CHP module. This unit is branded the InVerde e+ and has a number of important features that distinguish it in the CHP market. As I discussed in our last call, the e+ is more efficient and significantly quieter than its predecessor. In addition, the e+ has an advance inverter that will enhance its utilization in microgrid and demand response applications.

I want to elaborate on the microgrid and demand response features in more detail. The e+ has a more powerful engine, generator, and inverter than the original InVerde. As such, it can operate at 25% higher in output than its [nameplate] for extended periods. The system, therefore, becomes a perfect tool for utility demand response programs.

These are programs where the utility compensates the distributor generation owner for supporting the electric grid during critical periods of high electric usage. As these programs only provide compensation for the electricity in excess of the CHP nameplate, the e+ is uniquely qualified to participate in these lucrative utility programs.

The other important feature incorporated into e+ design is its ability to accept electrical input from a DC source and seamlessly blend this power into the (inaudible) output. There are two

primary applications for this feature. One is to combine the CHP module output with a solar PV array, and the other is to do likewise but with a battery source.

In the case of a photovoltaic solar system, the solar PV output can be kept operational during the late and early periods of the day when dedicated solar inverters have difficulty maintaining operation. This also allows the solar system to supply power in outage periods, becoming, therefore, a participant in the microgrid operation.

Our vision for supplementary battery usage has two elements. First, we see a one- to two-hour battery as a method of increasing system availability to nearly 100%. During periods of routine service, technicians can simply stop the engine and generator, complete the service, then restart.

With the battery supporting the system, the power would have continued uninterrupted while this work was completed. Had the service been done without the battery, the monthly utility demand charge incurred by this simple one- to two-hour interruption would be \$2,000 to \$4,000 in our primary markets.

Likewise, nuisance trips which occur from time to time can usually be reset within this one- to two-hour window, avoiding the same type of financial penalty for what would be otherwise an insignificant event.

The second element of the battery, which could be much smaller in this case, would be to assure seamless operation in an outage. The battery would provide the power surge to the connected loads if the CHP was impaired at that critical moment. And by impaired, I am referring to normal condition of being stopped or idling at a low-power setting when the outage occurs.

At present, we are reviewing battery companies for drastic cost reduction achieved in the battery industry. A compact battery utilized, as I have described, has become or is about to become economically feasible.

We are very excited about the e+ product overall and its potential, and I wish to add that Tecogen's InVerde production is now 100% e+.

I will conclude my prepared remarks with a product report on the Ultera emissions technology focusing on this vehicle work. ULTRATEK, of course, is the 50%-owned Tecogen subsidiary formed in January whose purpose is to demonstrate the emissions after-treatment process on gasoline-powered vehicles. This work has been funded primarily by strategic investors in Europe, and of course, is related to the heightened awareness of pollution brought on by the Volkswagen scandal.

In our last call, I pointed out that this story has not subsided and that it was still actively being reported. Now three months later, that assessment remains accurate as the fallout continues to expand to more brands and additional countries.

For the Ultera process, of course -- I'll say this for gasoline, a category that has not been implicated in any improper testing. However, there is growing awareness that the pollution

output measured in controlled laboratory drive cycles significantly under-represents the true emissions output of vehicles in real-world driving. As such, there is an expectation that the certification process will be altered in some aspect to correct this shortcoming.

The Ultera strengths are well-suited to this issue because the system provides robust performance, especially in extreme [edges] of operation, that being high acceleration, deceleration, heavy loading, and so forth. Our proof of concept testing was completed in early spring at the AVL facility in California in which a new light-duty vehicle was extensively tested while operating in standard and some not so standard test cycles.

The testing, as we reported, went very well. Typical test results for the EPA drive cycle, which is called US06, are provided in slide 14. As shown in the table to the right, CO emissions from the test vehicle reduced in this test by 94%, while the reduction in non-methane organic gases, NMOG, was 81%. We also observed a 12% NOx benefit in this particular test run.

Summarizing, this first phase of testing, we can say conclusively after numerous repeated test runs that the chemistry behaved as we expected and without adverse impact on fuel economy and also conformed exactly to our natural gas experience.

We should mention that this vehicle that we tested was compliant in all respects relative to its current government certification. Our process was able to improve upon these baseline results per the aforementioned percentages. This impact is dramatically displayed in slides 15 and 16 where the same test run data is presented in real time.

Looking first at slide 15, the chart on the left reports the engine speed in blue as it runs through the EPA test cycle. In red, we see how carbon monoxide changes with time during the cycle as it would normally exhaust into the environment. We know CO spikes are more prominent as a vehicle changes speed.

This chart on the right reports the same test run, but downstream measuring the CO after our secondary Ultera cleanup has happened. In this test run, 94% of the CO, again, [that's] is in red, that would have been expelled into the environment is destroyed.

Slide 14 -- I'm sorry, the next slide displays the NMOG output occurring simultaneously in the same test. Again, we see spikes coinciding with speed changes. Looking at the impact of the Ultera device in additional cleanup, we see the spikes highly reduced with a net impact, if you add everything up, being 81% reduction.

The impact on the Ultera process on non-methane organic acids is actually very important to the vehicle certification process as it's one of the primary ingredients in creating Ozone. The EPA, therefore, in its latest standards, has decided to group NMOG and NOx as a single category as we have done in our table that we just showed on the right.

In the past week -- I'm going to move onto the funding -- in the past week, we have announced two important events related to ULTRATEK. First, the Company received additional funding

from the investors in Tecogen totaling \$4 million. As our cash balance is currently \$6.2 million, our spending to date is \$800,000.

This week, a second announcement is that we will begin the second phase of vehicle testing at AVL this month in a couple weeks. This will involve two vehicles: one with a European emissions package not sold here; the other European, but with a US-certified emissions system.

In this second round testing, we are taking our better understanding of the vehicle application to improve the design of the device. This would involve better sizing to match the vehicle, faster response to the (inaudible) condition, which one can see in the slides is quite dynamic, and better formulation of the device relative to chemistry.

With regard to our selection of test vehicles, we are most interested in vehicle types that are both strategically important to the industry, but also problematic relative to their pollution levels. To help us gain insight into the auto industry and where compliance is more difficult, we were fortunate to find online US EPA certification test results for all 2016 vehicles. There are more than 500 of them in the list.

The data, which has only been partially reviewed, suggests that high-power density engines valued for their very light weight and high gas mileage may be challenged relative to emissions. Some references to this can be found in the scientific literature and the certification data appears to support this. As such, the two vehicle models selected fit this profile. If our assumption turns out to be correct, these tests will be compelling showcases for the technology.

We plan about six weeks of testing with some flexibility, and of course, we look forward to updating our findings to you at the right time.

That concludes my discussion. I will turn over now to David Garrison to discuss financial performance of the Company.

David Garrison: Thanks, Bob. Reviewing the highlights from the year-over-year financial results. Total revenues declined compared to the prior-year period, although on a sequential basis, the Company posted modest improvement over the first-quarter 2016 revenue results. While chiller sales continued their rebound, cogeneration sales fell short of last year's mark.

Total service revenue continued its steady growth delivering well over half of our total company revenues in the quarter. Service revenue was helped by a pickup in install activity. We expect this pickup inactivity to continue.

Revenue from the long-term contracted maintenance and service agreements accounts for over one-third of the total company's revenues providing a reliable annuity-like revenue stream. This stable revenue should only continue to grow as the install base and fleet of operating hours grows helping to smooth the impact of the cyclical sales resulting that are typical in our industry.

Cost of sales was helped by the product mix, although this benefit was offset by various charges related to the closeout of old supplier contracts and inventory write-downs, both items related to the elimination of the first-generation InVerde product line and the shift towards the new e+.

Service costs also showed improvement, primarily benefiting from improved pricing and experience in our installation group and continued focus on operational effectiveness with our maintenance and service experts.

Combined gross margins posted 350 basis points of improvement over last year's second-quarter benefiting from the improvements in service gross margin, which more than offset the impact of lower product gross margins. Gross margins and expense reduction programs continue as management focuses on using cash resources in a thoughtful manner.

Starting with the chart in the upper left corner, total revenue for the trailing four-quarter period is \$19.7 million, a year-over-year decline. While the quarter revenues have shown some volatility, revenue trends have been improving over the past six months, and we expect longer-term growth to continue, benefiting from our recent selling product and joint venture initiatives.

The chart in the upper right illustrates the smooth gross margin trend. As you can see, on a trailing four-quarter basis, management delivered a gross margin of 36%, just above the lower end of our targeted range of 35% to 40%. We expect cost control and sales initiatives to continue to deliver margins within this stated range.

In the lower right is a chart of our operating expenses. Management's plans to lower operating expenses have begun to produce results. We believe that 2015 will prove to be our Op expense peak as the team continues to tighten spending and move the Company towards profitability. Our goal of delivering approximately \$10 million in operating expense for the full year remains in place.

Finally, in the lower left, the backlog chart plots our weekly backlog, currently at \$15.9 million as of Friday, August 5. This backlog is well ahead of management's goal to exceed \$10 million in product and turnkey service revenue. As a reminder, the backlog does not include the service contract revenues that are more than one-third of our total annual revenues in 2015 and continue to show consistent growth in 2016.

I'd also note that due to the structure of TTcogen joint venture, the sales of the TEDOM products by the TTcogen team were also not reflected in Tecogen's backlog numbers.

Again, the targets of the Company: management plans to continue to meet its goal to deliver improving gross margins in the 35% to 40% range, maintain a backlog of product and installation sales above \$10 million, and deliver stable operating expenses of approximately \$10 million on a 12-month basis.

And now I turn it back to Ben for closing remarks.

Benjamin Locke: Thanks, Dave. So in closing, we're responding aggressively to the changing market conditions that we've seen that drive our product sales, and our effort to build long-term relationships with key customers is starting to pay off, as is evidenced by our strong backlog. We expect this backlog to result in compelling topline revenue results in the coming quarters.

We are continuously working on new and innovative products to improve our competitive advantages as evidenced by the new InVerde e+. The e+ provides customers with superior economics and operation compared to any other CHP product in its class. And the additional functionality of the GE system not only enhances our service capability, but allows customers the ability to see how their equipment is performing and the savings associated with it.

We expect to introduce additional product improvements in the coming quarters that will further differentiate us as the best CHP system in our class. We believe some of the delays in product orders have gradually relented, and the restarting of various incentive programs have helped alleviate some of these issues. And eventually, we expect to bring topline revenues back where we want them.

Similar to the Ilios gas company partnership, we continue to look at strategic partnerships that can help enhance sales of our products. And as our install base continues to grow, we expect to see our service revenues continue trending upward.

We also expect rapid growth of the TTcogen sales efforts, starting with the smaller 35kW units, but eventually leading to sales of larger units and taking advantage of the expanding biogas markets.

We'll also continue our concerted efforts to reduce our operating expenses to establish a baseline for achieving profitability in the coming quarters.

Lastly, we are very excited about the technology development Bob mentioned about ULTRATEK and expect to have more developments on the emissions system in the coming quarters.

With that, I'd like to turn it over to the operator for any questions.

Questions & Answers:

Operator: (Operator Instructions) Alex Blanton, Clear Harbor AM.

Alex Blanton: Well, good morning. I want to ask questions about ULTRATEK because, as you mentioned, the press release didn't result in any movement in the stock at all. But in that press release, you say: Vastly improving emissions performance when compared to currently available emissions control technologies. You're talking about the pollution control devices on automobiles currently, correct?

Robert Panora: That's right.

Alex Blanton: So your device improves on that vastly, correct?

Robert Panora: Yes, yes.

Alex Blanton: All right. And the miles per gallon are not negatively impacted. It says, did not increase the fuel usage, so there's no penalty in terms of efficiency from using this device, correct?

Robert Panora: That's correct.

Alex Blanton: All right. Now, does this mean that if a, let's say, Volkswagen or some other automobile company were to use this device, they would install it in addition to what they have?

Robert Panora: That's correct.

Alex Blanton: It would be an additional device hung on the car, correct?

Robert Panora: That's right. That's right.

Alex Blanton: And this would cost how much?

Robert Panora: We haven't projected that yet. We believe it'll be relatively inexpensive as it involves nothing exotic other than the stuff that vehicles have in them today, such as radiator-type heat exchangers and [in catalyst] element. So it's very familiar stuff that gets added; sheet metal and so forth. So I don't think the cost is going to be significant relative to the benefit. Certainly it's not like a fuel cell or something that is really a whole different ballgame as far as cost goes.

Alex Blanton: Okay, so the cost benefit equation is relatively good is what you're saying?

Robert Panora: That's right.

Alex Blanton: It's not something that they would say, well, it would be nice, but it costs too much. Now, do you envision ULTRATEK making this product?

Robert Panora: We have talked a lot about different things we might do. My opinion -- and I don't think it's a settled issue within the Company yet -- but my opinion is that we ask if the people who license the technology and their vendors would be the appropriate people to do that work [in any volume] (inaudible).

Alex Blanton: Wait, could you be a little more clear there? Are you saying that ULTRATEK would license the technology?

Benjamin Locke: I think what we're saying, Alex, is there are a number of different directions this could go, as you can imagine. And certainly, one of the possibilities could be ULTRATEK making them. And what Bob was saying is another possibility that's being strongly considered is

a partnership with the folks that are in their industry. And that doesn't necessarily have to be with an automotive group. There is, of course, many supporting industries that support the automotive industry, especially in the exhaust emissions area, that could be a potential partnership.

So it's a topic of discussion which way to go. As you can imagine, each has their pluses and minuses. And it's something that we haven't decided yet, but certainly we're giving it more consideration as the results are coming back very encouraging.

John Hatsopoulos: This is John Hatsopoulos. Let me add something that I don't think we've stressed in the past. Because of our experience at Thermo Electron where people would try to [stole] some patents from Thermo Electron and then challenge us to [shew] them -- that's a long story, but it's not worth reporting right now.

But what we've done is we have patented -- we have insured these patents with Lloyd's of London. And even though it cost us quite a bit of money, Llyod's of London is committed to defend our patents worldwide without us having to pay for it because, as you know, legal fees on defending patents are extremely expensive.

Alex Blanton: Well, I [have said] that. But what I would like to ask next is, is there a compelling reason in terms of emission requirements that cannot be met by current technology for automobile companies to be forced, in effect, to adopt your equipment in order to meet these requirements?

Robert Panora: Yes, let me explain. What happened with the Volkswagen scandal -- and I mentioned this in my talk -- is that it really exposed the testing method, which is an old drive cycle that simulates driving on a flat surface, relatively softer acceleration perhaps than you and I would do driving. And therefore, the people who measure emissions in vehicles that are actually moving about in the city and driving around and so forth with onboard systems measure significantly higher emissions than these tests say.

So that's what's really happened here is the Volkswagen scandal -- that's how they got caught, in fact, was that type of system -- it really put a pressure now on the regulators to make a test protocol that cleans up this shortcoming where they're designing a test that's repeated for over 30 years that they know exactly at 32.2 seconds, the engine's going to accelerate and so on and so forth. So that's the problem that the vehicle manufacturers have, that what they thought they had was technology that could easily pass the test. The test might change, and many in the industry think that's a certainty.

Alex Blanton: Okay, so what you're saying is that the current emissions requirements are not being met by the current technology because (multiple speakers) --

Robert Panora: Yes, the automakers would say, we're asked to pass that specific test that you saw on my graph, and so we do meet it. And so that's technically true, legally true. But the effect is that the pollution in cities today should be much lower than it is, and this has always

been the criticism of people -- environmentalists that you got a test here, but it really isn't doing what it's supposed to.

The other thing that's happening, Alex, is that in 2017 through 2025, the standards are changing, and they're changing in two respects. One is the certification for different types of vehicles, how they're classified is more strict. But the thing that's really doing to drive a problem is that the vehicles have to meet a fleet average that's going down, down, down, down every year. But today, you can sell 80% of your vehicles in the ordinary emissions class. But in 2025 -- actually sooner -- it's closer to 90% are going to have to meet this -- be classified as super clean.

And so the vehicles today, like the ones I described, can meet the ordinary emissions standard and be sold as an ordinary low-emission vehicle. But you can only sell 10% of your product on that category in 2025, so all those vehicles that couldn't be upgraded into the better categories will be left behind. So there's the issue. Those are the two issues.

Alex Blanton: One more question. You said -- you were reading from a slide, 94% reduction and 81% reduction. I assume that it said on the slide from what, but I could not find the slides on your website, so I'm sure it was from what. 94% from what?

Robert Panora: Yes, let me explain. So if you look what we've done in our experiment where we're showing in the left-hand chart exactly the CO that would have come out of that vehicle into the environment with its own primary factory-installed system. All those red lines there on the left, those are all the CO that goes out into the atmosphere. It would come out of the tailpipe.

Alex Blanton: I can't see that because I can't find the slides.

Benjamin Locke: The slides are on the website, Alex.

Robert Panora: They're on there now.

Alex Blanton: I was not able to find them.

Benjamin Locke: They're in the Investor Relations part, but keep going.

Robert Panora: So the slide on the left is exactly what would have been expelled into the atmosphere from that vehicle. However, the tailpipe is now, instead of going into the atmosphere, it goes into the ULTRATEK device. So if you measure what actually escapes through the ULTRATEK device, it goes from, say, 100% -- using a base number of 100% -- to 6%. So that improvement -- that's the improvement. The same with the NMOG. So we're actually improving the vehicle -- not the engine, the vehicle's after-treatment process over 90%.

Alex Blanton: Thank you.

Robert Panora: Does that make sense, I hope?

Alex Blanton: Thank you.

Operator: (Operator instructions)

Michael Zuk, Oppenheimer.

Michael Zuk: Good morning, gentlemen. A technical question regarding the installed InVerde fleet. What potential is there to upgrade the installed InVerde fleet to the new InVerde e+ fleet? I mean, is that a big potential market, or are you looking at that? Or where do you stand?

Robert Panora: There are -- the hundreds of InVerdes out there that are the old style, there's no reason to touch them. They work fine. They were installed with the understanding they're not going to have a battery or solar input, so that's fine. So there's no reason to touch them.

In 10 years, they'll wear out, or 15 years, if they wear out -- whatever the lifecycle is -- you can put the new InVerde e+ cabinet in its place, the green box. So there's no reason to touch them. They work fine.

Michael Zuk: So that potential replacement market then is based on obsolescence or wear-out of the unit and not because it's a better technology?

Robert Panora: That's right. I mean, the efficiency's better. The sound levels are better, all that sort of thing. But these customers bought the units knowing the efficiency was what it was, and they're not going to run out and buy a new one just because it's gone up 5% (inaudible) 5%. That'd be great if they did, but they (multiple speakers) --

Benjamin Locke: Yes, there might be some opportunities where some of the more sophisticated customers that maybe have had some of the original InVerdes that they've already paid themselves off. So there could be some opportunities, Mike, to -- believe me, I'm always trying to be opportunistic about these things.

But as Bob says, there's no compelling reason for them from a technology standpoint. The old InVerdes run great. They're great products. Very reliable. It's just that we've got this better product now that we're going to start rolling out.

Michael Zuk: If a customer expands their facility, will the new InVerde e+ integrate with the old InVerdes?

Benjamin Locke: Absolutely. Absolutely. A very important part when we developed this product that it be able to be integrated with the existing product line.

Michael Zuk: Okay. And then one question for Dave. How much was the write-down on the obsolete inventory?

David Garrison: Well, we don't disclose that exact number, but I can tell you that it did make our product margins fall to where they ended up from the normal range that we expected to be in.

Benjamin Locke: Yes, it's a one-time thing. I didn't like having to do it, but I think I'll take the benefit of that, absolutely, if there's a better product that we think is going to give real good margins going forward. So we had to do it. We got it over with, and now we're on with the new product that's going to do quite well for us.

Michael Zuk: So in actuality, the quarter was a little bit better because we had this one-off write-down. So from an operating standpoint, we're headed in the right direction and on the right track, and we should just, should we say, put aside the one-off charge?

Benjamin Locke: Yes, going forward, it's just going to be the e+.

Michael Zuk: Very good. That's very helpful. Thanks.

Operator: (Operator instructions) If there are no more questions, I would like to thank everyone for participating. This concludes today's conference call. You may now disconnect. Have a great day.