TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513

Operator: Ladies and gentlemen, greetings and welcome to Tecogen First Quarter 2019 Earnings Call. At this time, all participants are in a listen-only mode. A brief question-andanswer session will follow the formal presentation. If anyone should require operator assistance during the program, please push star zero on your telephone keypad. As a reminder, this program is being recorded. It is now my pleasure to introduce your host, Bonnie Brown, CAO, Treasurer and Secretary. Thank you. You may begin.

Bonnie Brown: Thank you. Good morning and thank you all for joining our first quarter 2019 earnings call. On the call with me today are Benjamin Locke, our CEO, and Robert Panora, our President and Chief Operating Officer. Please note this call is being recorded and will be archived on the Investor section of our website following the call. A copy of the press release regarding our first quarter 2019 earnings is also available in the Investor section on our website.

Before we begin, let me briefly cover our Safe Harbor statement. Various remarks we may make about the company's future expectations, plans, and prospects constitute forwardlooking statements for purposes of the Safe Harbor provisions under the Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including those discussed in the company's most recent annual report on Form 10-K and quarterly reports on Form 10-Q under the caption Risk Factors, which are on file with the SEC and available in the Investor section of our website under the heading SEC filings. While we may elect to update forwardlooking statements at some point in the future, we specifically disclaim any obligation to do so. Therefore, you should not rely in any forward-looking statements as representing our views as of any date subsequent to today.

During this call, we will refer to certain financial measures not prepared in accordance with Generally Accepted Accounting Principles, or GAAP. Reconciliation of these non-GAAP financial measures to the most directly comparable GAAP measures is available in our earnings press release and in the Investor section of our website. I'll now turn the call over to Ben for a business update.

Benjamin Locke: Thank you, Bonnie. As the agenda on slide four indicates, I'll start with a brief company overview, followed by a top level review of the company's performance and financial results for the first quarter of 2019 on with recent achievements and accomplishments. Bonnie will then discuss the financials in more detail, followed by Bob who will give an overview of our emissions technology development efforts. I'll then have some final remarks before we take questions.

As always, I'd like to start-off by reminding those who may be new to our company about Tecogen's core business model shown on slide five, 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.

Turning to slide six, the first quarter of 2019 saw revenues of 8.2 million versus 10.2 million in the first quarter of 2018. During the quarter, we closed on the sale of a subset of ADG assets for 5 million cash, which allowed us to reduce debts to essentially zero and significantly improve our working capital to 16.2 million at the end of the quarter. The transaction resulted in a gain of 1.1 million from the sale and a goodwill impairment loss of 3.7 million. This non-cash impairment loss resulted in the bottom line loss for the first quarter of 3.3 million. Bonnie will discuss the accounting of the ADG asset sale in more detail during her discussion. While the

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 4 goodwill impairment loss distorts the actual bottom-line, we were still able to generate 678,000 of adjusted EBITDA in the quarter, further improving our cash position and strengthening our balance sheet. Our gross margin for the quarter was 36% versus 38% in the first quarter of 2018.

Moving on to slide seven, you can see more detail on the quarter. While we are disappointed in the drop in revenues, we're being proactive to increase product sales through the reintroduction of our ammonia chiller package, TecoFrost, which I will discuss later in the call. And though we were able to reduce our operating expenses versus the fourth quarter of 2018, we increased our investment in R&D and sales as we prioritize the market roll-out of TecoFrost and continued development of our Ultera emissions technology, which Bob will discuss shortly.

Moving to slide eight, our backlog is a robust 26.9 million as of yesterday, May 13. Product backlog, which consists of our equipment and associated accessories, stands at 13 million, and the remaining 13.9 million of backlog is in installation services. There are few things I'd like to point out about our backlog. First, we expect at least two-thirds of this backlog to be fulfilled in 2019, giving us a good indication of solid revenues for the rest of the year. And of course, we are constantly adding to the backlog as new projects are added, which will add revenue throughout the year.

Second, our backlog currently does not have any sales of our TecoFrost product that we are relaunching this year. I expect sales of TecoFrost to start later this year, and we are carefully developing several projects to demonstrate key vertical markets for the product. I expect TecoFrost to add a meaningful contribution to the backlog by year-end and ultimately will be a solid product revenue contributor next year. Third, our backlog does include an Ultera engine retrofit project that Tecogen is a design basis and sole supplier of. Bob will talk about this project in a bit more detail later in the call. And lastly, as I've said previously, our backlog consists of product and installation revenues and does not contain recurring maintenance contract revenues, which is a consistent contributor each quarter, as well as our energy services revenue.

Moving to slide nine, I want to reemphasize key achievements for the company and how they relate to our plans going forward. First, as mentioned, we adjusted our sales strategy to have a renewed focus on our chiller product. Tecogen is the only natural gas engine driven chiller manufacturer, and adding to Tecofrost ammonia chiller line will further our product offering for an entirely new market in industrial refrigeration. As I've mentioned, replacing an electric chiller with a Tecochill or Tecofrost accomplishes the same energy savings as co-generation, but with far less competition and, in most cases, with lower capital outlay than an equivalently sized co-generation system. Chillers are also typically specified by engineers and manufacturer's representatives and are therefore more transactional in terms of project closing. Although we

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 6 are starting Tecofrost sales slowly and carefully this year, we expect full U.S. roll-out next year,

and a developing sales plans to ultimately sell Tecofrost more broadly by leveraging our manufacturing partner sales networks in the Americas and Europe.

Next, we increased the productivity and reliability of the sites acquired from American DG in 2017 to the point where we receive significant interest to sell some or all of the assets. Ultimately, we decided to sell a portion of the assets to Sustainable Development Corporation LLC, or SDCL. The sale includes an O&M agreement for Tecogen to continue servicing these sites, so despite the loss in energy revenue, we will benefit from service revenues from SDCL for the life of the contracts. We currently do not have any plan to sell the remaining ADG sites still owned and operated by Tecogen. However, we remain alert to potential acquisition targets in our core business whose value could be increased through Tecogen ownership.

Next, as Bob will talk about in a few minutes, we have made excellent progress with our Ultera emissions technology, most notably through our partnership with Caterpillar Mitsubishi Forklift's of America, or MCFA. As Bob will describe, the work we are currently doing with MCFA is focused on the Mitsubishi engine used in the forklift. The goal of the program is to make this OEM engine a certified near-zero emission engine through the Ultera retrofit. For this project, the engine will result in a certified near-zero emission MCFA forklift, but from a technology development standpoint, achieving this goal demonstrates that an Ultera retrofitted engine TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 7 could be used to make other alternative field--fuel vehicles such as propane or natural gas truck fleets certified to near-zero emissions.

And lastly, with the ADG asset sale and our positive cash flows, we have achieved a degree of financial stability that allows us to execute on our growth plans with zero debt. With that, I'd like to turn the call over to Bonnie who will cover more detail on our financials, followed by Bob who will describe our emissions progress in more detail. Bonnie?

Bonnie Brown: Thank you, Ben. Slide 10 contains some of the highlights of our Q1 2019 yearon-year financial results. Total revenue was 8.2 million for the quarter, with overall gross margin of 36% and gross profit of 3 million for the first quarter of 2019, compared to 38% gross margin and 3.8 million gross profit for Q1 2018. Since we sold a portion of our ADG assets during the quarter, the operating expense section of our P&L deserves some discussion. Our G& A expenses decreased by 5%, while selling R&D costs increased by 3% and 14% respectively as we invest in our future. Operating expenses this quarter also included goodwill impairment charge and a gain on the sale of energy producing assets.

After the sale of these energy producing assets in March of 2019, we performed a goodwill impairment test. As a result of this analysis, the company recorded a goodwill impairment loss of 3.7 million. By way of explanation of this impairment loss, let me start by saying, our goodwill

resulted from our stock to stock merger with ADG in 2017, which account--was accounted for as an acquisition. The assets we acquired in the merger comprise our energy production reporting unit. A goodwill impairment results when the fair value of those assets become less than what we originally paid for them. In this case, that happened due primarily to the sale of assets.

We base our fair value determinations for the reporting unit primarily on the discounted cash flows from those contracts. As time passes, we recognize those cash flows and earnings. However, as the remaining terms under those contracts shorten or assets are sold, the remaining cash flows become less and accordingly so does the fair value of the reporting unit. Since the date of the merger with ADG, we have not added enough new business of this type to offset the reduced cash flows from the remaining existing contracts plus those that were sold. It should be noted that since the date of the merger, Tecogen has recognized gross profit from energy production activities of almost \$5 million.

Net loss attributable to Tecogen for the quarter was 3.280 million, which includes the goodwill impairment loss of 3.693 million. Excluding the goodwill impairment loss, the quarter maintain profitability of \$413,000, compared to Q1 2018, which provided net income of 21,000, resulting in an increase of 397,000 year-over-year. We also realized the gain on the sale of the energy systems of 1.1 million in this quarter, which resides in the operating expense section. As Ben

discussed earlier, our backlog has remained sizable at 27 million as of yesterday, positioning the company for long term growth.

Slide 11 presents the reconciliation of adjusted non-GAAP EBITDA for the first quarter of 2019 compared to 2018, which has been referenced to other presentation in our earnings release. After adding back interest, taxes, depreciation, and amortization to net income a loss attributable to Tecogen, we come to the standard EBITDA, which for the first quarter of 2019 was negative 3.1 million, compared to positive \$234,000 for the first quarter of 2018, with the goodwill impairment accounting for substantially all this difference. After adding back the adjustments of stock-based compensation and mark-to-market adjustment creating unrealized loss on investment security, the goodwill impairment charge and non-recurring merger related expenses from the prior year, we reached adjusted EBITDA, the non-GAAP measure that management uses as an important metric. For Q1 2019, adjusted EBITDA was positive 678,000, compared to 304,000 for the first quarter of '18, an improvement of 374,000. Now, I'll turn the call over to Bob for a technology update.

Robert Panora: Good morning, and thank you, Bonnie. Let me begin with the forklift truck program, and, by the way background, we received our initial funding from the Propane Education and Research Council, PERC, whose members are keenly interested in the technology as being important in maintaining market share relative to battery powered competition.

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 10 Central to the issue is criteria emissions, whose--those pollutants directly relating to human

health and which are of heightened concern in indoor operation.

We are working with MCFA, as Ben said, Mitsubishi Caterpillar Forklift America, a well-known manufacturer in North and South American markets of both electric and propane fork trucks. MCFA agreed to provide custom engine tuning for the test truck, which we would utilize to maximize the effectiveness of the Ultera process, especially in reducing NOx. Engine tuning is an important part of the process and one we routinely use in our Tecogen product line to enhance Ultera performance. Once this software was finalized, the Tecogen MCFA would receive the test truck for evaluation at their facility in Texas.

Since our last call, we completed our testing with the second batch of engine control software and reviewed the results with MCFA. With the second batch, which was an improvement over the first, the tail pipe NOx and CO emissions were improved significantly from our baseline tests of the truck as received from MCFA. NOx and CO emissions in the final tuning setup where onefifth and one-eighth respectively of the standards baseline testing. If we extrapolate this relative improvement to the certification, it appears that we are where we need to be for nearzero certification.

Let me explain what I mean by that. The certification test involves a prescribed dynamic load being imposed on a gear engine in a dynamometer. There is no forklift involved. However, if we obtain the same relative improvement in the certification tests that we obtained in the driving test, we would achieve our near-zero goal. As such, we believe that the demonstration phase of our project is complete, and we can move forward. Our recommendation to MCFA is that we focus on two next steps.

The first would be to return the prototype to their factory facility in Texas for their further evaluation. The other step would be to confirm that the Ultera equipped engine does meet the near zero certification requirement by performing the test for the certification process. That is on a dynamometer in a properly equipped laboratory. We believe the system with perhaps some additional fine tuning would successfully achieve the near zero certification. From this point, the program really has a clear path to commercialization, and isn't aside, the certification, because it's done on the dynamometer and so forth, would apply to any off-road application of that engine such as a, in the airport, a towing vehicle, for example. There are several other Ultera activity–oh, I'm sorry. I skipped ahead. MCFA is planning to review our recommendation with the management in Japan.

First, going on to these other activities, I want to add a footnote concerning our program, whereby we retrofitted a group of standby generators in Southern California with the Ultera

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 12 system. As I reported in our last call, the program concluded successfully. All the generators were permitted to the 2010 regulation, limits until now never achieved by a commercial natural gas engine without some exemption, such as the heat recovery credit our CHP products are granted. So, as the footnote, I want to describe the application. I have not discussed this previously, but I believe, its worth mentioning, considering what's happening in California.

The units are applied to a group of dispersed loads in a train that is vulnerable to woodland and brush fires. The hazard is most acute when high winds sever our overhead power lines, the generators they use to mitigate this problem. During windy periods, the wires are deenergized, and dispersed loads are powered by the generators, which are located next to these loads. The annual operating hours turns out to well exceed the 200 hour limit where the strict emission standard is waived.

In the last call, the question was asked about the relevance of our achievement in permitting these generators. Today, I just want to mention that this application does had relevance given the increased recognition of fire hazards that exist throughout the state in locations that might consider a similar strategy. Ultera equipped generators could cost effectively serve this need if utilities find themselves with this requirement. The Ultera process works particularly well in this application as it relative--it's relatively inexpensive and requires no onsite chemical storage.

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 13 Other low emissions technologies, however, are not well suited to this role. Fuel cells and micro turbines, for example, are slow to come online when needed and are not able to quickly adjust power output in response to load swings, unless supported by battery storage. A standalone battery system would be difficult to implement as the operational requirement would be quite lengthy.

Okay, on a different topic, I mentioned in the last call that we have been notified by Southern California Water district that approval has been granted for the--for an Ultera water pumping project. The plant will utilize the Ultera kits for emissions after treatment applied to a couple of 800 horsepower Caterpillar engines. These will be the largest Ultera kits we have produced and, for the first time, involve a new installation, not a retrofit.

On another topic--oh, we have submitted our formal proposal several weeks ago, which is a sole source with terms and conditions already pre-negotiated. We have a high confidence level that this award will be forthcoming in the next few months for the engineering portion of the project. Lastly, our work with the research institute relating to Ultera applications in light vehicles is progressing. This was the first phase of their work, which relates to custom catalyst formulations and is funded by Tecogen. The testing, which I believe is under way should be completed this quarter. With that, I'll turn the call over to Ben for his final words.

Benjamin Locke: Thanks, Bob. So, moving to slide 14, I want to give a little more color on our core business outlook and how we intend to pick up growth in our product segment. First, we will continue to closely follow the permitting of new cannabis grow facilities in New York, New Jersey, and other states as we anticipate substantial new production, due to recreational use legalization. We have had excellent success demonstrating the value proposition of Tecochill for indoor growing in Massachusetts, Florida, Canada, and Colorado, and we'll continue working with greenhouse designers and consulting engineers to show the long term operational savings of natural gas cooling versus electric.

Next, we are expanding our chiller product portfolio through the reintroduction of the Tecofrost ammonia system. In this case we are modernizing the old Tecofrost system to include more advanced controls and engine technology, as well as the inclusion of our Ultera emissions on the system, which will enable the product to be sold in areas with strict stationary engine emission requirements such as California. Furthering the discussion of expanding our chiller portfolio, it's worth mentioning for the first time our legacy Roof-Top, or RT, chiller product, which is currently our only air cool chiller. Air cool chillers represent the majority of chillers in operation globally, given their relatively low first cost in simple installation. A simple window air conditioning unit is an air cool system. In the past, air cooled chillers were limited to small and midsize buildings with cooling loads typically under 300 tons where the added cost and maintenance of cooling towers for a water source chiller are cost or space prohibitive.

However, increases in air source chiller efficiencies and advances in compressor technology have expanded air cool system sizing to over 300 tons. Modern air sourced chillers are more compact and efficient these days and represent a tremendous opportunity for a gas engine equivalent. And as the chart on slide 14 indicates, global chiller sales are expected to grow consistently in the coming years. Our legacy RT 50 ton air source chiller is a possible alternative in some cases, but the system is technology antiquated and has not been updated in many years. We are now exploring a similar product reboot as we're doing with the Tecofrost but in this case with a novel design that will allow use of modern day chiller technology, such as variable frequency drives, sealed magnetic bearing compressors, and any future refrigerant changes. While I do not expect this development to occur this year, it would be the final piece of our gas engine chiller portfolio and the one with the most growth potential, so worth mentioning as we focus more on gas cooling in the future.

Next, we have developed relationships with several energy service companies that provide third-party financing for project development and subsequent ownership of the asset. As mentioned, we now have a relationship with SDCL for project finance, and the data center project mentioned earlier this quarter is with a different financial product--partner. The financial sophistication of these companies provide the necessary capital for large turnkey projects that would be difficult to finance directly with the building owner.

We have a pipeline of additional opportunities with a few of these financial companies, and we hope to announce them in the coming quarters. And lastly, as I mentioned last quarter, our microgrid enabled inverter system has obtained UL 1741SA, or the smart inverter certification, as required for utility interconnected co-generation systems in California. Having this smart inverter certification will allow Tecogen projects to further assist the utility from a resiliency perspective, offering reactive power control, demand response, and frequency correction. As other states examine resiliency concerns, whether they be utility related, weather related, or as Bob mentioned in recent example in California, forest fire related, we expect a smart inverter certification to be acquired by other states.

Moving to slide 15 and closing, I would like to reiterate the key value proposition of Tecogen's clean reliable distributed generation systems. Our systems use clean and abundant natural gas to produce heating, cooling, and energy that is cheaper, cleaner, and more reliable. Our co-generation systems are designed with the U.S. utility structure in mind in terms of interconnect certifications, microgrid functionality, and a corporation of other distributed generation assets such as battery storage. As we are seeing in California, this functionality is becoming mandatory, and the economic benefits of providing these grid services with clean emissions will ultimately benefit the economics of using Tecogen technology.

Next, Tecogen has no competitors in the gas engine chiller market. We are focusing our efforts on new and existing markets for Tecochill, such as indoor growing, and we will begin selling the Tecofrost into ammonia refrigeration markets later this year, expanding further next year. And we are exploring the development of a gas engine air source chiller. And last, but most consequential in terms of investor upside, we have shown the scalability and effectiveness of our Ultera emissions technology on many engine platforms from General Motors engines to Ford engines, Generac generator engines, Caterpillar engines, and more recently our work with MCFA on the Mitsubishi engine. The result of our retrofit is the same, near-zero emissions on par with the fuel cell. We think our message is reaching a larger investor audience, and I look forward to sharing other updates in our second quarter earnings call later this summer. With that, I'd like to turn it over to the operator for guestions.

Operator: Thank you. Ladies and gentlemen, we will now be conducting our Q&A session. If you would like to ask a question, please push star one on your telephone keypad now. A confirmation tone will indicate your line is in the question queue. You may push star two if you'd like to remove your question from the queue. And for any participant using speaker equipment, it may be necessary to pick up your handset before pushing the star key. One moment while we pull for questions. Our first question comes from the line of Amit Dayal from H.C. Wainwright. You are now live.

Benjamin Locke: Hi, Amit.

Amit Dayal: Hi, good morning. Thank you for taking my questions. Can you talk about a little bit in this--the revenue decline in the first quarter that impacted results a little bit? I know the backlog has been a little weaker, as well. Just trying to get a sense of how we are scaling relative to the rest of the year in terms of putting up sort of a year-over-year improvement?

Benjamin Locke: Yeah, sure, Amit. I understand the question. I certainly--we understood--we expected a little bit of revenue drops by the sale of the ADG assets. But more broadly, growth occurs in spurts, and we've seen some good spurts, and, while we didn't have as much as a growth spurt as me might have hoped this quarter, I don't think it's representative of any other trend. We are continuing to focus on our--on this product roll-out. I think having a third substantial product revenue contributor and the Tecofrost is going to go a long way to get our revenues back up. So, I'm feeling pretty good about where we are. The backlog drop-off wasn't too much. I mean, our backlog last quarter was almost 30 million, and that was very high. It's dropped to 26.9 million, not so much of a drop. If you recall, our guidance was always to have our backlog over 10 million. So, we're well above that. I'm pretty comfortable with our backlog.

As I mentioned, the majority of it is going to be realized this year. So, we see that our revenues for the rest of the year have a very good basis, and we're continually adding to that backlog as TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 19 new projects come along. So, I'm feeling quite good about where we are and where we're going. But, with that said, understanding that we did have this drop in revenue trying to proactively look at the future and get more product revenue going to make up for it. So, I hope that helps to answer your question.

Amit Dayal: Yes, yes. Just excluding Tecofrost, are there any other catalysts that could help the backlog bounce back? I mean, we know you're at a pretty strong level, but just trying to see what are the drivers there that could help to bounce in backlog?

Benjamin Locke: Yeah, sure. Well, I think certainly this smart inverter certification, I think, is going to yield a lot for us. And I don't think I mentioned in my remarks I should have that there is a last stage of this inverter certification, Bob. It's going to occur this summer.

Robert Panora: That's right.

Benjamin Locke: And the final piece of this smart inverter certification is the utility. it's establishing communications with that DG asset with our co-gen equipment. And then that would enable these revenue streams I mentioned of doing this power factor correction to take place. So, I think certainly what's happening in California is--it fits right in with our core technology and being inverter based and having our smart inverter. That bodes well for us.

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 20 Absolutely, in terms of the opportunity for--that Bob has been talking on retrofitting generators, I'm not sure if you've been following the news about the wildfires and the liability, thereof, and the concerns that exist in communities in California of the utility--electric utilities is [inaudible]--.

Robert Panora: --That's right.

Benjamin Locke: Yeah, they're shutting off power when the winds get to above a certain rate. Rather than risk a down power line and resulting \$1 billion forest fire, they're making plans that just terminate power on those lines and leave those communities affected potentially without power. And so certainly this Generac program--that's why Bob gave you the extra detail on that, because that's when these generators could be dispatched to provide power during these high wind storms. And if you had the Ultera on that, you can do so in compliance with all these--the stationary engine requirements for emission.

So, I think there are a lot of drivers working for us, but absolutely, in my opinion, getting a little bit further behind the meter with our products, with our chillers is going to be a very successful way to grow our revenues going forward. And those installations, as I've repeated constantly, just a little bit more transactional when you talk about chiller sales as opposed to co-generation sales, which can sometimes go sideways from a project development standpoint. So, I think TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 21 there's a lot of trends in our favor, not just on co-generation, but on the chiller side and on the emission side.

Amit Dayal: Understood. Just one last one for me maybe on these ADG asset sales, was this primarily to eliminate debt? And you clarified, I guess, there's no more sales of those assets expected. But just wanted to see if that debt elimination was the priority driver behind this if there was any other reason.

Benjamin Locke: Well, it was part of the reason, certainly. I don't like owing people money, and that is costly. So I--eliminating that debt was certainly up there, but really, Amit, I'm looking at the future of growing Tecogen and growing that product base and taking advantage of our competitive advantage, which is we are the only gas engine driven chiller out there. I think using that those resources to develop that is probably the main driver I had for that asset sale, but eliminating debt, of course, was weighing on my mind, as well.

Amit Dayal: I think that's all I have, Ben. Thank you for taking my questions. I'll just get back in queue.

Benjamin Locke: Sure. Thanks, Amit.

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 22 Operator: Thank you. Our next question comes from the line of Craig Irwin with ROTH Capital Partners. You are now live.

Craig Irwin: Hi, good morning, and thanks for taking my questions.

Benjamin Locke: Hi, Craig.

Craig Irwin: So, Ben, I just wanted to ask a couple of questions about the backlog. So 27 million is still very healthy, miles above that 10 million level that you want to maintain. Can you maybe break down the backlog as far as, when we look at the products, what the mix of chillers versus DG systems is? Is there anything on the product side in there for the Ultera emission system that's a piece of that 13 million?

Benjamin Locke: Yeah, sure. So, as I mentioned, that backlog about 13 million of it is products. And as I said last quarter, I wanted to point that out, because products tend to get out the door more quickly, whereas, the installation services can last a little bit longer. It takes a long time to do some of these installations. The product mix, I did not give any color on the chillers versus co-gen. It's a good healthy mix. I don't think there's anything notable in there. Certainly we've seen, particularly last quarter, a bump up in our chiller sales. This quarter we saw a bump up in our co-gen sales. We're going to see these bumps of each of these segments in different

proportions. So, I think giving any color on what the backlog particular proportion is of that day wouldn't be helpful, but except to say that it is co-gen, its chillers, and sprinkling in of what we call engineered accessories that go with it, other good high margin products that have control skids with pumps and expansion tanks and heat exchangers on it. Any piece of equipment that ships specifically for an installation is in that equipment, dominated by co-gen and chillers, but with a smattering of these engineered accessories.

Craig Irwin: Understood, understood. And then I don't know if you're able to share this with us, but can you maybe give us some color on what portion of the backlog you would expect to ship over the remainder of the calendar year? Should we see the vast majority of this backlog shipped? Or is some of it potentially extending into the next fiscal year?

Benjamin Locke: Sure, yeah. I'm expecting about two-thirds of it to go this quarter two-thirds of the entirety of the backlog--.

Robert Panora: --This year.

Benjamin Locke: This year. Well did I say? This quarter? Sorry. No, not this quarter this year. So, about two-thirds of it, Craig, to go this year. The remainder of it, yes, it does go into next year, and if you can believe it, a little bit if it goes in beyond, because we have some new

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 24 construction projects, which is nice that we're the basis of design for, but they've got to dig a big hole in New York City before our equipment can get in there. So, some of the backlog expands out. But to answer your question directly, the majority of it is going to go this year.

Craig Irwin: Understood, understood. And then last question is really a clarification. So, with the year-over-year revenue trend, right? I noticed that product margin is actually up fairly nicely, couple of 100 basis points, and that's with the absence of the chiller revenue that was there last year. I always thought that chillers were a pretty high margin product. Was there anything sort of on the ancillary products side that maybe lifted margins a little bit this quarter? Or is this something more in line that we you should look at as a natural margin on the DG side for the next few quarters?

Benjamin Locke: Yeah. Yeah. I think the margins--we're going to see a little bit--in general, our product margins are generally about the same, that the co-gen, the inverter, the 75, the chillers, they're all--the goal is to have around the same margin on all of them. Some jobs you're going to get a little bit better margin than others. But, in general, I think the margins are all kind of equally weighted, and I don't think there's any particular factor that would lead us to say one product is going to consistently have higher margins than the other.

Craig Irwin: Understand. Great. Well, keep up the progress and thanks for taking my questions.

Benjamin Locke: Alright. Craig, thanks.

Operator: Thank you. Our next question comes from the line of Michael Zuk from Oppenheimer & Company Inc. You are now live.

Michael Zuk: Good morning, Ben and Bob.

Benjamin Locke: Hi, Michael.

Michael Zuk: Two questions, first of all, what's the breakdown on the agricultural systems between cannabis and vegetables?

Benjamin Locke: That's a good question. I don't have that at my fingertips anyways, Mike. I can tell you what's dominated by cannabis almost by far. We do have some other crops without being--mentioning any specific customers lettuce and cucumbers and some such things and other high value crops. But certainly the majority is on the cannabis.

Michael Zuk: Are we going to be focusing additionally on the vegetable side, because that seems to be long-term?

Benjamin Locke: Yeah, absolutely, Mike. And in fact, it's--this work that we're doing on the cannabis stuff, which is all happening quite quickly, as I think you know, it certainly happened very quickly in Massachusetts, and we're trying to keep pace with activities in New York and New Jersey, et cetera, but what it's allowing us to do is interact with these greenhouse designers that--they are sometimes ambivalent about the crop. Their greenhouse designers. And, therefore, are indeed opening up other leads for some of these higher value crops. But the only--a little bit of downside of that and the upside of cannabis is, the cannabis crops got to be located in the state if--and therefore, they're subject to the electric and utility rates of that state, whereas these higher value crops can seek out locations that have good utility rates where perhaps the value proposition of gas cooling isn't as strong.

Yet still, I mean, I think, you're exactly right on a trend there, Mike, these folks are looking at long-term operational costs. Certainly that's what's driving the cannabis industry is not what they can make cannabis for today. It's what they can make cannabis for two years down the road when there's five more competitors, and it's been fully recreational use permitted, and they have very established metrics in terms of volume per unit square foot that they need to make. And so, the Tecogen becomes a very important part of that when they look at their longterm operational costs. So, I say that because that is indeed playing out as some of these other crops are starting to be become [Technical Difficulty] higher value crops. So, again, as not as TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 27 much [Technical Difficulty] working with these greenhouse designers is helping us to find some of them.

Michael Zuk: As a follow up on the ag side, is our technology applicable to fish farming?

Benjamin Locke: Interesting question. I think fish farm [Technical Difficulty]. Hey, Mike, can you hear me okay?

Michael Zuk: And then a final follow-up, with regards to New York City and all of the regulations that are coming in place, how are we addressing our increased sales efforts in New York City?

Benjamin Locke: I'm sorry, Mike. Can you repeat the question? We were having a little background noise there.

Michael Zuk: With the New York City regulations tightening, how are we expanding our sales efforts in New York City?

Benjamin Locke: Yes, yes, sure. New York is an interesting place [Technical Difficulty] the building requirements for coverage, et cetera. Those are all trend [Technical Difficulty] reality

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 28 check. How much do you build [Technical Difficulty]. So, there is an opportunity for us [Technical Difficulty].

Michael Zuk: Well, I appreciate all the efforts, and we look forward to the next quarter.

Benjamin Locke: Okay. Thanks, Mike.

Robert Panora: Thanks Mike.

Benjamin Locke: Operator, can [Technical Difficulty].

Operator: Gentlemen, I'm not quite sure I can personally not hear you too well. You are coming in very choppy.

Benjamin Locke: Okay. Well, [Technical Difficulty].

Operator: I'm sorry, gentlemen, would you mind repeating that?

Benjamin Locke: Operator, if you can [Technical difficulty] next caller, I can handle the next question.

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 29 Operator: Thank you. Our next question comes from the line of Haiden Kohl from Banchi Holdings [ph]. You are now live.

Benjamin Locke: Hi, Hayden. Most importantly, can you hear me okay?

Haiden Kohl: You are breaking up a little bit, Ben. Can you hear me all right?

Benjamin Locke: Yeah, I can hear you just fine. I think our operator was having. some problem [Technical Difficulty]. Please proceed, Haiden.

Haiden Kohl: Yep great. Thanks so much. I just wanted to get a little bit more granular--maybe this is a better question for Bob, Ben, on what's happening with the MCFA fork truck project next, if he can talk about it. And just give us sense for the parts per million improvements and what he kind of thinks is next in commercialization.

Robert Panora: Right. If I--just go back to what I said a few minutes ago. The product was initially to demonstrate the feasibility of it on a--on this MCFA fork truck, and we did it, and it worked the way we wanted it to. So, we've said to MCFA--and that was only about a week ago, we talk to them. We said, look, we think the next step we should--that should be done to the program is we should certify the engine, and once it certified, it certified, we can recertify it if

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 30 there's any changes. That's not hard to do, and that requires them really to do that work. And, at the same time, we're going to send the truck back to them, and their intent is not so much to focus on the emissions, but I think they want to drive it around, make sure it doesn't break that kind of thing.

Haiden Kohl: Okay.

Robert Panora: So, that's the next step I think. In terms of the PPM values, I honestly don't have them at my fingertips, but they're probably in the range of low tens for NOx and maybe a little something similar for CO, but don't quote me on that too much, because I only have the converted values that I showed.

Haiden Kohl: Okay. Okay, great. And I guess otherwise, with this program on the other--on the adjacent sort of parallel side with the medium trucks, and I guess like, you know, you've mentioned the towing unit like at an airport. Has there been any discussions yet that you can comment on alternative vehicles using the same engine?

Robert Panora: No, not with that engine. We have had talks with some of the companies that are in this business, and they're just preliminary stage discussions about our technology. But in terms of this engine, I'm fairly certain it's used for other fork truck manufacturers and probably

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 31 in some of these other vehicles, and that could be a follow-up, but I have not had any discussions like that with MCFA.

Haiden Kohl: Okay, great. Thank you both for taking my questions.

Robert Panora: Thank you.

Operator: Thank you. Ladies and gentlemen, as a reminder, if you'd to ask any questions, please push star one on your telephone keypad now. Our next question comes from the line of Alex Blanton from Clear Harbor Asset Management. You are now live.

Alex Blanton: Hi. Good morning.

Benjamin Locke: Hi, Alex. Thank you. Good morning to you.

Alex Blanton: Yeah, I want to clarify something that was said earlier--an earlier questioner on the backlog. He said the backlog is down, I don't believe that's correct except if you look at March 25, because the December 31 backlog you listed as 16.6 million, which was slightly above the prior year of 15.7. And then you said on March 25 the backlog was 29.9 million, and TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 32 then March 31, the end of the quarter, it was 26 million, and then on May 14 26.9 million. So, it's not really down is it? It's up?

Benjamin Locke: Yes, absolutely. I'm very happy about our backlog to be quite honest with you, Alex. It's got a really good mix of product and installations, and while it's not where it was, as you said, in March whenever it was at 29--.

Alex Blanton: --March 31--March 25--when you go in the fourth quarter, you gave us the March 25 backlog was 29.9, but a few days later at the end of the quarter it was only 26, so you shipped out some stuff in that week. So, it's not really correct to say the backlog is down if you look at quarter ending. It's up substantially, very substantially.

Benjamin Locke: Yes.

Alex Blanton: Alright. And also I wanted you to--on slide 14, there is a very interesting chart there of the worldwide sales of the chiller market, which it--the slide says is, in 2015, was 8.8 billion. Is that correct?

Benjamin Locke: Yeah, yeah. It's a big market, Alex. AC systems globally is huge. And, as you've probably followed commentary yourself, it's mostly--a lot of is in Asia Pacific areas where the

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 33 people don't expect cooling, but now they want cooling. They want to work in an environment that's got temperature control. So, it's a pretty impressive growth.

Alex Blanton: What is included in these numbers? What kinds of--I mean, is this all air conditioning units combined?

Benjamin Lock: Yeah, this is those three segments that I was alluding to on that slide, which is ammonia refrigeration, these water sourced--these water cooled chillers, and these air cooled chillers, of which air cooled chillers really dominate that market. I think I saw maybe 70% of it was air cool, but I don't want to be held to that, except to say, the air cooled segment of those three products, I think, dominates a lot of what you're seeing on this chart.

Alex Blanton: Yes. But what--who are the end users of these? Does this include residential?

Benjamin Locke: This--I believe this is industrial. I don't think this includes your window units. This is industrial chilling.

Robert Panora: Yeah, we would call it commercial.

Benjamin Locke: Commercial, yes.

Robert Panora: We would call it commercial, Alex.

Alex Blanton: This is commercial air conditioners for companies or factories or whatever?

Robert Panora: Yeah, buildings that are office buildings, hotels, hospitals, anything that's larger than a home.

Alex Blanton: Yes. And what is the main technology here that's used--I mean, that you're competing with?

Robert Panora: By far, it's vapor compression, which is a compressor turning like a new refrigerator or your air conditioning at home. It's a compressor being turned by an electric motor. And we are doing the same thing, except we are powering that compressor with an engine.

Alex Blanton: Yes, okay. Well, I just wanted to clarify that, exactly what that was, because-effectively, what portion of this market can you address with your product?

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 35 Benjamin Locke: Yeah, Alex, it's a good question. I see what you're circling around, and I'll just go into very small technical diversion here, which is, our engine is--in our Tecochill product that we've been selling, our engine turns a shaft. And so that requires the compressor that we use for our Tecochill have a shaft, which means it can't be one of these sealed bearings, hermetically sealed compress--super duper fancy compressor technology that you can buy there today, because they don't have a shaft sticking out of it.

We're limited to shaft driven compressor technology, of which it's out there, and of which that's good, and obviously we're working with it, but it's not allowing us to get our hands on these advances and these MagLev compressors that are super efficient, whereas, if we were able to develop an air source unit and use our electrical advantage, our proprietary generator inverter technology, Alex, to power that compressor. Now we're not--now we don't need a shaft drive. Now we can power these electric compressors with our own package. So, that's my long way of saying, Alex, what this could potentially do for us is open up a whole entire new range of modern refrigeration technology available to us commercially and made it up to our proprietary engine generator set, to make an air source chiller that could be a real competitor to electric incumbents, again, in areas where electric prices of a spark spread fits. That's a pretty powerful thing.

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 36 I mean, again, you look at these areas in New York City--or worldwide where electric prices are real high, and they all have electrics. I mean, everybody has electrics and can be able to potentially offer a gas-driven air source chiller that has all the VFD technology and seal bearing technology that exists today, would be pretty compelling. So, maybe that's where you're heading with your question, but I wanted to point out that that's exactly the way I'm thinking, Alex, is that chart represents a huge volume of chillers, some of which we have available today, but some of which I want to develop in the future.

Alex Blanton: Thank you very much.

Benjamin Locke: Thanks, Alex. Nice to hear from you.

Operator: Thank you. Ladies and gentlemen, we have no further questions in queue at this time. I'd like to turn the floor back over to management for closing.

Benjamin Locke: Well, we thank you all for joining the call, and, as always, we'll keep you updated as more events happen, otherwise, we'll talk again at the end of the second quarter. Thank you.

TECOGEN Q1 2019 Earnings Call May-14-2019 Confirmation #13690513 Page 37 Operator: Thank you. Ladies and gentlemen, this does conclude our teleconference for today. You may now disconnect your line at this time. Thank you for your participation and have a wonderful day.