

Tesla, Inc. NasdaqGS:TSLA

FQ1 2015 Earnings Call Transcripts

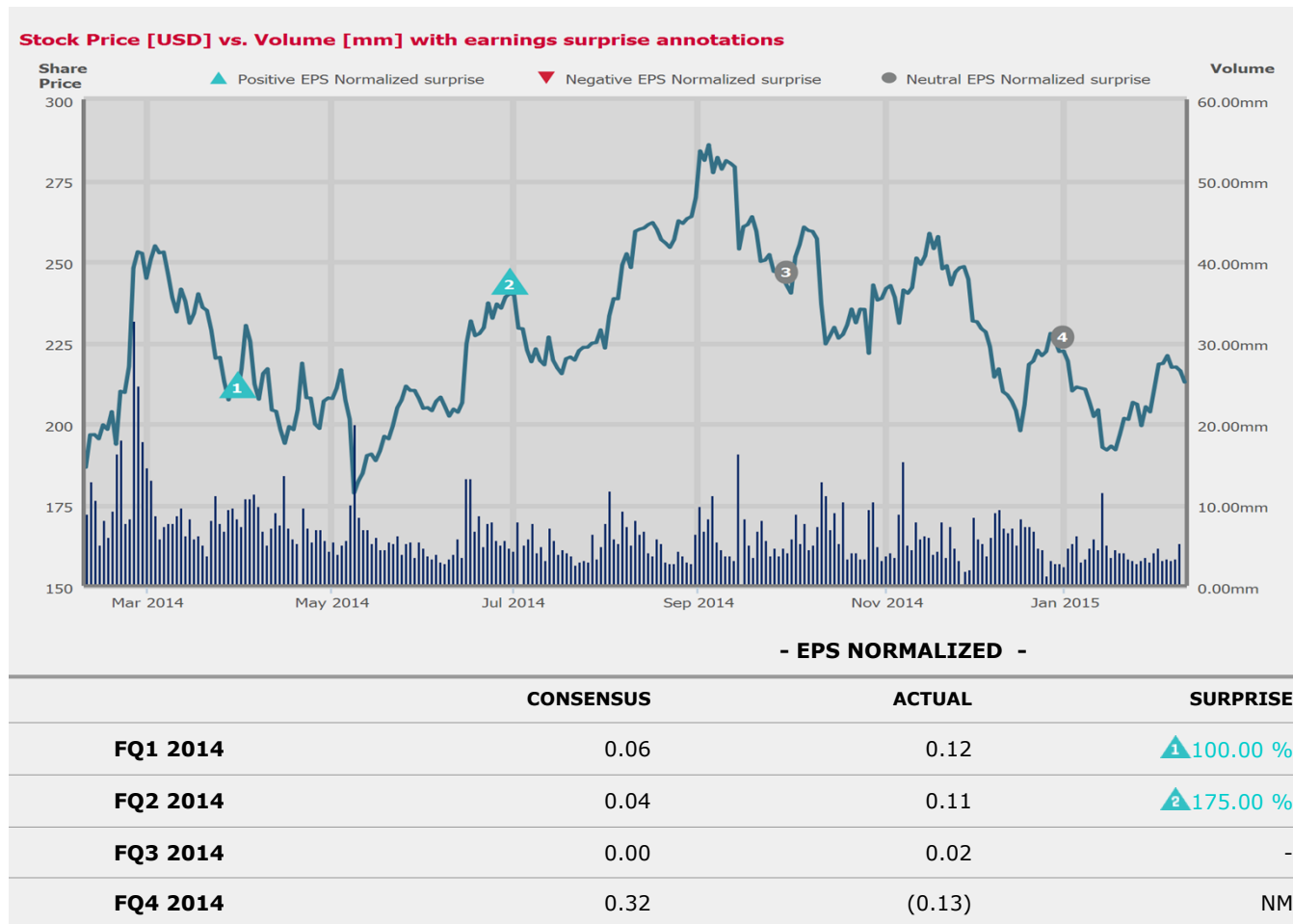
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S&P Capital IQ Estimates

	-FQ1 2015-			-FQ2 2015-	-FY 2015-	-FY 2016-
	CONSENSUS	ACTUAL	SURPRISE	CONSENSUS	CONSENSUS	CONSENSUS
EPS Normalized	(0.49)	(0.36)	NM	(0.04)	0.52	3.76
Revenue (mm)	1044.06	1103.56	▲5.70	1279.55	5708.39	8896.44

Currency: USD

Consensus as of May-06-2015 10:25 PM GMT



Call Participants

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Crédit Suisse AG, Research Division

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Presentation

Operator

Good day, ladies and gentlemen, and thank you for standing by, and welcome to the Tesla Motors First Quarter 2015 Financial Results Q&A Conference Call. [Operator Instructions] As a reminder, today's conference is being recorded. Now it's my pleasure to turn the call over to Mr. Jeff Evanson. Sir, the floor is yours.

Jeff Evanson

Vice President of Investor Relations

Thank you, Huey, and good afternoon, everyone. Welcome to Tesla's first quarter Q&A webcast. I'm joined today by Elon Musk, Tesla Chairman and CEO; J.B. Straubel, our CTO; and Deepak Ahuja, Tesla's CFO.

We announced our financial and operational results today in a shareholder letter that is available at the same link as this webcast. And a replay of the webcast will be available later today at the same link.

The shareholder letter includes GAAP and non-GAAP financial results, as well as reconciliations between the 2. Our non-GAAP measures add back deferred revenue and related expenses for cars delivered where cash has been or will very soon be collected. These non-GAAP results also exclude stock-based comp and noncash interest expense. Revenues and costs associated with cars leased directly through Tesla are treated the same in our GAAP and non-GAAP financial information.

And during our call, we will be discussing our business outlook and making other forward-looking statements, which are based on our predictions and expectations as of today. Actual events or results could differ materially due to a number of risks and uncertainties, including those mentioned in our most recent Form 10-K filed with the SEC.

And now, Huey, if we could you please have the first question.

Question and Answer

Operator

Sure thing. [Operator Instructions] Our first phone question will come from the line of Dan Galves with Crédit Suisse.

Daniel Galves

Crédit Suisse AG, Research Division

So if you -- if we assume Model S volume of 50,000 in 2015, deliveries need to average over 14,000 per quarter in Q3 and Q4. What's the biggest challenge to get there? And do you have order rates today that support that level of volume in the back half?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Sure. So yes, I mean, that's about right. I mean, obviously, with the Model X production ramping up quite heavily in Q4, depending upon how that ramp goes -- and obviously, it's difficult to predict that with perfect clarity. But the -- our volume essentially doubles in Q4. So depending upon how the ramp goes, I do want to emphasize that -- sorry, what sometimes people don't totally appreciate is that there are several thousand unique parts in the car. And if even one of those parts is not available for any reason, then you cannot ship, you cannot scale production. So -- and so it's essentially the production ramp goes according to the unluckiest and worst-performing supplier or part of Tesla. But that said, we do expect to see a significant ramp in Q4 for the X and have something that may be as much as 2x other quarters in Q4. And as far as the demand for that, we do not see that being a problem. There are huge advanced orders for the X, and we see a steady climb in demand for the S.

Daniel Galves

Crédit Suisse AG, Research Division

Okay, got it. And just as a follow-up, you've improved the Model S a whole lot in the last couple of years. Does that make it easier to launch Model X at a high quality level? And does it allow you to move engineering and design resources towards Model 3 faster than you moved resources to Model X?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. In the case of the X, the X ended up having a lot -- being a lot more different than the S than we originally anticipated. So the development took a lot longer, and we were distracted solving all sort of issues with the S during that time, which made it difficult for us to allocate engineering resources to the X when there were issues to be solved with the S. So I think we'll do a lot better with the X and we're paying close attention to some of the things that are different about the X to make sure that they're not an issue, particularly the Falcon Wing door and the second row seats. And yes, so I'm feeling pretty good about things. But because that production ramp just scales exponentially, depending upon where that exponential curve falls across a quarterly boundary, it can actually make quite significant -- make quite a significant effect on the production and deliveries in that quarter. So that's why it's like -- it's easy -- it's a lot easier to predict it sort of continuous than if it's discrete with offshore [ph] quarterly cut-offs. But I really think the X is going to be -- it's really going to be a great car. I just drove the latest prototype today, and it's like, wow, this is by far the best SUV.

Operator

Next question comes from the line of John Lovallo with Bank of America Merrill Lynch.

John Lovallo

BofA Merrill Lynch, Research Division

First question is, do you guys earn 4 or 9 ZEV credits per vehicle? And how many vehicles are participating in your battery swap beta program?

Deepak Ahuja

Chief Financial Officer

The amount of credits, ZEV credits, we earn depends on the size of the pack, different for what we're doing for the 60 versus 85, and now the new ones at 70. That has been varying over time, the amount of ZEV credits we earn. So I'll need to confirm that before I give the official number here.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

The ZEV credits thing, it's not like -- I mean, it sort of moves things by like 2%. It's like not super material. So I'm not sure what the point of your question is.

John Lovallo

BofA Merrill Lynch, Research Division

Well, yes, here's the point of the question is that assuming you guys sell 10,000 vehicles in ZEV states this year, that would mean that you would need 400 programs -- sorry, 400 vehicles involved in this battery swap program if you assume that each of them swapped 25x each, so a minimum of 400 vehicles. So I'm curious if there are 400 vehicles involved in the battery swap program.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Well, I mean, you do realize like ZEV credits don't sell for 100 cents on the dollar. They sell for like \$0.50 or sometimes less. And there are not always customers for the ZEV credits.

John Lovallo

BofA Merrill Lynch, Research Division

Yes, I'm just asking about what you guys are actually earning per vehicle. Okay, and I guess the next...

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

It's not a big deal, yes. And as more of our production goes overseas, obviously, there's no ZEV states overseas. And as our sales increase outside of California or Canada, those are not ZEV states. So this is like -- the ZEV stuff is like an increasingly small part of the picture over time.

Jeffrey B. Straubel

Chief Technology Officer

We have hundreds vehicles in the battery swap pilot program.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes.

Jeffrey B. Straubel

Chief Technology Officer

It's not like 10 or something like that. It's hundreds of vehicles.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. We've steadily increased the invitation list. We've just found like it's -- there just is not a lot of interest in people doing pack swap. So we make the invitations, and we get a very small percentage that actually take us up on the invitation.

John Lovallo*BofA Merrill Lynch, Research Division*

Right. The only point is there's a difference of 5 ZEV credits per vehicle. That was the only point. My second question would be, my the final question, there is some news report saying that SolarCity has said that they're not going to use the 7 kilowatt hour battery. In fact, I think there was a quote from a spokesman -- whether it's true or not, we don't know -- saying that it doesn't make economic sense. I mean, can you guys comment on that, please?

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

Yes. I mean let me just sort of talk more broadly about the response to the power wall and power pack because I don't think that's the really the question you should be asking. But the response has been overwhelming, okay, like crazy. The -- In the course of like less than a week, we've had 38,000 reservations for the power wall, 2,500 reservations for the power pack. The power pack, it should be noted, typically this is bought by utilities or large industrial companies for heavy industrial work. So typically, power pack it's like at least 10 power packs per installation. So if there's 2,500 reservations, it's actually 25,000 power packs. Power wall also is -- we suspect is probably an -- average of number of power packs is probably 1.5 to 2 per installation. So 38,000 reservations is more like 50,000 or 60,000 actual power walls. So I mean, there's like no way that we could possibly satisfy this demand this year. And we're basically like sold out through the middle of next year in the first week. It was just crazy. We had 2,500 requests from companies that want to distribute and install the power wall and power pack. We can't even respond to them. This is -- we have to like triage our response to those who want to be a distributor. So it's like crazy off the hook, yes. And it's just -- it seems to have gone super viral. For the specific case of SolarCity, what they're referring to is that there's 2 versions of the pack -- of the power wall. There's the daily cycling version and there's the power backup version. One's energies optimized and one's daily cycling optimized. So the daily cycling optimized one, the economics, it is true in the U.S. with rare exception, are more expensive than utility. So if somebody wants to do a daily cycling basically go off grid. It's going to be more expensive than being on grid. This doesn't mean that people won't buy it because there are people who want to go off grid on principle, or they just want to be independent. And that's what the SolarCity comment is about.

Jeffrey B. Straubel*Chief Technology Officer*

It might also be worth noting that SolarCity doesn't yet operate in Europe. the main target application for the daily cycling battery pack was actually -- were several markets not in the continental U.S. And particularly, Germany and Australia are very strong markets where it does make economic sense today based on the feed-in tariff and the electricity rate structures in those countries. So SolarCity's comments, I think, need to be put in the regional context.

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

Yes. SolarCity is only operating in the U.S. And the power wall, it will be available from SolarCity and from other installers in both configurations. But if someone is doing a daily cycling application, they're doing it out of -- because they specifically want grid independence. And there's some number of people who will want to do that, and that's good. And it's also important to appreciate like even to say the power backup systems, so that you always have power in the event of a power outage, if -- like let's say that appeals to like 2% of households in the U.S. or 1%. Let's say 1%, that's 1 million households. Like is there one person in 100 care about having battery backup in the event of utility outage? Probably. We couldn't even support a small fraction of that, so -- right now, so it's kind of a moot point.

Operator

Our next question comes from Andrea James with Dougherty and Company.

Andrea Susan James

Dougherty & Company LLC, Research Division

Just to build on the Tesla Energy conversation, what are your revenue and gross margin targets on that business? And how do we look at the 2015 ramp?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Well, I mean, the gross margin revenue obviously is going to change with time. So when it's low volume made in Fremont, it will be relatively low margin. Once we get to Gigafactory up and running and -- high volume and get the economies of scale working, this is just a guess right now, but I mean like maybe it's somewhere around 20%. It's not like -- it's like we just don't have enough information to say exactly that would be, but probably 20% is a reasonable guess. And then in terms of volume, I mean, we're going to try to scale it as fast as we can -- as the slowest manufacturing constraint. So I mean, it's easier to say what's the long term without saying like exactly which quarters it's going to be, and I don't know. But I think we'll see demand for stationary storage as measured in sort of megawatt hours or gigawatts hours to be approximately double that of the car. That's our best guess for long-term demand yet.

Andrea Susan James

Dougherty & Company LLC, Research Division

How do you think about your capacity or even your cost per kilowatt hour? Because it's different than a car, right? The duty load is way different for a stationary storage application. So can you educate us a little bit on how we look at analyzing that business and the difference between that and the energy needs of the car business per pack?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, there's 2 applications which are quite different. One is backup power or peaker -- sort of the equivalent -- on a utility scale of like a peaker plant, which is a high-energy application. And then there's the daily cyclers application. There are different chemistries depending upon which one you have. So the backup power chemistry is quite similar to the car, which is like a nickel cobalt aluminum cathode. The daily cycling control [ph] constituent is nickel manganese cobalt, so there's quite a lot of manganese in there. And there's just one's meant for, call it maybe 60 or 70 cycles per year. And the other one is meant for daily cycling -- daily deep cycling, so it's 365 cycles a year. And the daily cyclers one, I mean, we expected to be able to daily cycle for something on the order of 15 years. Obviously,, the warranty period would be a little bit less than that, but we expect it to be something that's in the kind of 5,000 cycle-range capability, whereas the high-energy pack is more like around the -- maybe depending on how it's used, anywhere from 1,000 to 1,500 cycles. And they have comparable calendar lives. And yes, so that's -- now for the high-energy one, it's important to appreciate that this is actually -- has a lot of interest from utilities, because utilities have to maintain these things called peaker plants and for like when there's like a sharp increase in usage. Like if you can imagine, like the highest-energy day in California on like a hot summer day where there's a heat wave, the energy consumption there is very high compared to a pleasant spring night, where nobody's air conditioning or heating is on or for very little and like commerce is not happening and people are asleep and lights are off. That can be a huge delta. Depending upon the situation, it can be anywhere from like a 5 to 10x difference. So then having a battery pack that can take out those like very sort of weird sharp peaks like the heat wave day. You could either have a battery pack which requires basically no maintenance and doesn't require any fuel, and it's going peak shave those really troublesome days. Or you could have like a power plant that requires fuel and maintenance, and it's got to be -- it's always got to be maintained at it's-- it takes time -- it's not -- you can't just start it up in 3 seconds like it -- you've got have notice. The high-energy pack is actually very economically competitive in those sort of situations. And then the high cycling pack is really great for -- if you've got some sort of wind or solar situation, that's where the high cycling one is really great on the utility scale. I should say like the -- we expect most of our stationary storage sales to be at the utility or heavy industrial scale. It's probably -- again, just a guess because it's early days, 5 to 10x more megawatt hours will be deployed at the utility and heavy industrial scale than at the consumer scale. So the power pack would be the one that's like the

heavy duty, the big production sales one, not so much the power wall. The power wall is great, but it's probably only 10% to 20% the size of the power pack demand.

Jeffrey B. Straubel
Chief Technology Officer

Maybe one point on the cost structure. There's definitely a lot of commonality in the supply chain and even in the manufacturing base on how we do the modules themselves for the Tesla Energy products, along with the vehicle products. So as we ramp up production on the Tesla Energy products, there definitely are benefits to the vehicle costs of energy storage from scale and from just generally moving more material and kilowatt hours through that whole chain. So both businesses benefit each other.

Elon R. Musk
Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. I mean, clearly given the very high demand that we're seeing for Tesla Energy products, we're actually trying to figure out if we can go from like our current production target of like 35 gigawatt hours at cell level and 50 at the pack level in our Nevada plant to maybe 50% more than that or even higher because just the sheer volume of demand here is just staggering. We could easily have the entire Gigafactory just do stationary storage.

Andrea Susan James
Dougherty & Company LLC, Research Division

Right. So you have some capacity. I think you said maybe 15% of your capacity might be reserved for stationary storage. Maybe I've read that in an article somewhere, I'm not sure.

Elon R. Musk
Co-Founder, Chairman, Chief Executive Officer and Product Architect

15 gigawatt hours or 1/3 of the 50 gigawatts hours that's targeted at the pack level, so 15% at the 15 gigawatt hours or roughly 30%.

Andrea Susan James
Dougherty & Company LLC, Research Division

Okay. And you might add now maybe -- you're looking at doing another 50%, in growing the capacity 50%, and you have the space, I guess there in Nevada to do that?

Elon R. Musk
Co-Founder, Chairman, Chief Executive Officer and Product Architect

We do. I don't want to make that a prediction. But that seems like the thing that we should do, so we're investigating that. It seems like the logical thing to do, so we're going to probably try to do that, yes. Because we're fairly confident at this point, that the entire Gigafactory output could just do stationary storage. It's like wow, okay, we need to make cars, too. So we should try to make the factory bigger. That's like the total logic. It's not more complicated than that.

Andrea Susan James
Dougherty & Company LLC, Research Division

But given the choice between making -- sorry, but given the choice between making a pack for a car and making a pack for a stationary storage application, how do you pick which one gets the priority?

Elon R. Musk
Co-Founder, Chairman, Chief Executive Officer and Product Architect

Well, I guess we'd pick cars because we got this whole other plant here in Fremont making cars. So cars would get the priority, yes. That would be the logical priority. And yes, but I mean, it really feels like, man, the stationary storage demand is just nutty like worldwide, it's just crazy.

Jeff Evanson

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Vice President of Investor Relations

Huey, we actually have a question e-mailed in from one of the analysts that is out of the country, so I'll read that -- those next. And it will start with the energy storage questions.

So guys, do our years in R&D work in vehicle batteries contribute benefits into this Tesla Energy business? Where have we've drawn some learnings from the vehicle business for Tesla Energy?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

We've learned a lot about battery packs, I mean obviously, how to make them, and have them last for a long time, and work in high temperature ranges and that kind of thing. I think there are a few points of clarification that should be made with -- regarding the power wall because a lot of people are confused about the whole inverter issue. So there's -- the power wall does include a DC to DC inverter. And that can interface directly with a solar panel installation. And if somebody has a solar panel installation, they already will have a DC to AC inverter for the solar power system. And so no incremental DC to AC inverter is needed. Like in some of the analysis we've seen online by people who think they are experts, they don't seem to realize that there is a DC to DC inverter, and we haven't been, I guess, quite clear about that, which we need to be. But like if you already have a solar installation, or you're going to get one, the DC to AC inverter is already there. That's an important point concerning the cost of the system. And then the operating temperature, it's actually capable of operating at a much wider band of temperature. So we've got to fix that specification that's stated on the website.

Jeffrey B. Straubel

Chief Technology Officer

In general, most of the learnings from the car R&D and engineering carry over. I mean part of why we can do this so quickly and...

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Anywhere the car works, the pack will work. And the car works pretty much everywhere. So -- in fact it does work everywhere, so the pack will work everywhere, obviously.

Jeffrey B. Straubel

Chief Technology Officer

If anything, it's quite over-engineered for a battery pack that doesn't have to move. It gets mounted on your wall. So I think that's going to be a great benefit for reliability and just longevity of the pack.

Jeff Evanson

Vice President of Investor Relations

And one for Deepak. Would you be willing to provide any breakdown of the capital -- the CapEx spending in Q1?

Deepak Ahuja

Chief Financial Officer

The CapEx spending was primarily driven by the capacity expansion that we're doing for Model X, including the tooling spend. And then, of course, we are putting in the new paint shop, which is a very significant investment. That will be ready in Q3. And then we have also had investments in the Gigafactory and our sales and service network. That's probably the order in which we've been spending.

Jeff Evanson

Vice President of Investor Relations

Great. Thank you.

Operator

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Next question comes from Colin Langan with UBS.

Colin Langan

UBS Investment Bank, Research Division

I guess first question is staying on the stationary storage topic. I mean, how do you view the -- you mentioned there's 2 different chemistries. How does that work with the Gigafactory? Does that require all separate lines? Is there any more complexities or all within the same facility? And how do you view your chemistries versus other competitive options out there? There are other people who are bullish on things like zinc and other more basic chemistry?

Jeffrey B. Straubel

Chief Technology Officer

Well, they could still be both be built in the Gigafactory. It doesn't -- we have multiple lines operating in the Gigafactory, so if one line is building nickel cobalt aluminum chemistry and another is building nickel manganese cobalt, that still works just fine. A lot of the cell assembly and then the processes that happen after that are almost identical.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, I mean, they look the same at the module and pack level. You can't really tell by just looking at them.

Jeffrey B. Straubel

Chief Technology Officer

Yes.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

It's just kind of the internal chemical constituents. I mean you can think of like the -- sort of breakdown the problem like -- the cell is a chemical engineering problem. It's like a little can of chemicals. And then the module and pack problem is a mechanical engineering, electrical engineering and software engineering problem. And if you have just like a small number of cells, then as an overall engineering problem, it's like mostly about the cell. But once you get -- have a lot of cells, then it's -- then the intellectual property challenge, the intellectual challenge becomes more at the mechanical, electrical and software level, which is where Tesla does quite well. That's why you don't really see -- like nobody else has like -- has a pack like ours. There -- the cells are relatively generic, but the module and pack is not.

Jeffrey B. Straubel

Chief Technology Officer

Yes. And we've looked at pretty much every chemistry couple that could possibly be relevant for this. We're confident what we're using is going to be the best. But if there's something better, we can also adjust and change over time. So there's a lot of flexibility.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, I mean I'm not sure if like the exact -- the right analogy would be, but like if you had like a laptop and it's like you could say, "Whoa, a laptop's really just like Intel CPU and some Micron DRAM chips." Like, big deal. What's any computer company actually doing? They're doing a lot.

Colin Langan

UBS Investment Bank, Research Division

So what do you view your competitive edge? So it sounds like you think it's the software and electronic integration, the competitive advantage? Because in your presentation, you actually mentioned you encourage other companies that build -- to enter the market as well.

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

Yes. And I think we are -- in terms of the electrical engineering, the mechanical, the software and the overall aesthetics and just having something that really just works and is easy for consumers and utilities and large industrial applications to just order and it just works, and it's just there as a fully integrated system. That's what's the value that Tesla is adding.

Jeffrey B. Straubel*Chief Technology Officer*

I think there's also a substantial benefit to the track record of the automotive fleet. That's something that a lot of the sort of newer start-up companies or different technologies in the space really struggled with, especially in the utility application, where you need to be sure that it's going to work for 15-plus years. And we have a sense of scale and have a great track record on the vehicle fleet that you can really pull from data -- and pull data from and understand how it's going to work.

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

I shouldn't say like we're like wedded to a particular chemistry or anything like that. We just want to use the best chemistry. Like whatever little can that contains a cathode, an anode, a separator and electrolyte, whatever that -- the best constituents of that can are -- that's what we will want to use. So we'd love it if somebody could come up with a better internal chemistry for the cell. But it's worth noting like nobody has sent us anything, a sample cell, that's better than the cell we're producing. So -- or that -- something that we will produce in the Gigafactory. So we'd love it if somebody would do that. They just haven't. And so it's like all these things which are big on promise and short on delivery when it comes to battery chemistry. And it's just a real hard problem. And then hardly a week goes by that there's not some alleged breakthrough in batteries. But what they'll do is they'll cite the power, but not the energy. Or they'll forget to mention that it will only last 50 cycles or uses incredibly exotic raw materials...

Jeffrey B. Straubel*Chief Technology Officer*

Or one component out of the battery pulled separately.

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

Yes, exactly. It's just not like a -- it's not the full picture. So it's not like we don't want a better chemistry to exist than what we're using. We'd love it if there was such a thing. And I'm sure there will be improvements over time, and we'll implement them as soon as they are remotely production-ready.

Colin Langan*UBS Investment Bank, Research Division*

Just one last final of question. Any color on the -- on a financial question, other expenses is up quite a bit. It was \$22.3 million, What was really just driving that in the quarter?

Deepak Ahuja*Chief Financial Officer*

Yes, that was essentially revaluation of primarily our foreign currencies that we had at the end of the quarter. The dollar was particularly strong against foreign currencies there, and it's also, in most cases, unrealized losses. So as the currency moves in Q2 in different directions, that could have an impact as well, a positive impact is what I mean.

Colin Langan*UBS Investment Bank, Research Division*

Okay. So we should kind of consider most of it as onetime in nature because of FX, balance sheet effect [ph]?

Deepak Ahuja

Chief Financial Officer

Yes, they're not related directly to operations. It's simply the revaluation of our currencies into company's items.

Operator

Next question comes from the line of Rod Lache with Deutsche Bank.

Rod Avraham Lache

Deutsche Bank AG, Research Division

A couple questions on stationary storage first. One is it seems like utilities move quite a bit slower than other markets. So I was wondering when you are thinking about the expectations for the trajectory of growth, if you had the capacity today, how long would do you think it would take for you to get to that 15 gigawatt hours? Also related to this business, it seems like you're using third parties for most of the distribution, installation. So if you achieved maybe a 20% gross margin, can you pass along any thoughts on how we should we be thinking in terms of SG&A is allocated?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

I think it's pretty early days to -- I mean, we're being super-speculative at this point. So it's...

Jeffrey B. Straubel

Chief Technology Officer

Yes. Maybe one point on the distributors. We're only focusing on that approach for power wall in most case -- in most cases. So with utilities, we're building those relationships directly. That's not something that is really effective to go through a distribution channel, and it's something we have also been doing for a number of years. It didn't just start last Thursday. And we've built these relationships partially through vehicle infrastructure and charging questions and back and forth, supercharging as well. So there's actually quite a lot of trust built between Tesla and many of the utility companies, which is very helpful to grow that business faster.

Rod Avraham Lache

Deutsche Bank AG, Research Division

And just a clarification on the comment about the fact that a DC/AC inverter is already there for solar. Does the fact that it needs be bidirectional change the nature of the cost? Or not really?

Jeffrey B. Straubel

Chief Technology Officer

No, not in most cases because if you have already solar, typically, the energy to charge the battery can come from the solar panel. So I think maybe one way to think of it is, if the battery pack, the power wall, with its internal DC to DC converter, can act much like a solar panel. It can match voltage with the solar panel array and it can feed power back into that. So the existing inverter doesn't particularly see a big change.

Rod Avraham Lache

Deutsche Bank AG, Research Division

Okay, got it. On the auto business, do you have any preliminary expectations on the mix of the 70D versus 85? Any thoughts on how that affects margins? And lastly, a question for Deepak. In the past, we were able to look at your supplemental information on leasing where you disclose the value of the leases delivered and the value that you're booking this at on the balance sheet, which is presumably your

cost. And it sort of approximated your gross margins, but this quarter, when you do the math, the implied margins were something like 44%, not like 29%, 30%. Is there something unusual there?

Deepak Ahuja

Chief Financial Officer

I'll answer the second one. No, there's nothing unusual in those numbers as the overall. What you're seeing in the supplemental information is the new cars we've delivered. What's coming through ultimately is the cumulative impact of all the leasing that we have done. But to my knowledge, there's nothing else unusual.

Rod Avraham Lache

Deutsche Bank AG, Research Division

Okay. It seems like a pretty high margin, though, when you look at it that way. Anything on the mix, 70D versus 85?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

I mean, it's still pretty early to be predicting mix because you have to distinguish between what's sort of initial demand versus sustained demand. So I mean, it looks like there may be -- going to be comparable number of 70s versus 85s. But it's -- this is difficult to -- this is extrapolating on very little information. And yes, I think a key point I should make before this call ends is we're really optimizing, at this point going forward, we're going to be optimizing for the operational efficiency of the company as opposed to specific quarters. This is -- I feel like what we've done in the past, where we've really had to scramble at the end of quarters and sometimes have not a great customer experience at the end of quarters. It's not really the right thing for the company. And so we're going to be operating more for sort of steady-state efficiency. And that means the quarterly fluctuations could be a little higher, but in the long term, it will be better. So that's an important consideration. Also sort of unlike other car companies, Tesla sales are only recognized when they arrive at the end customer and we've received payment and all the regulatory docs have been processed and all that. So our sales are always kind of true -- they're always true sales. They're not sales to the channel. Whereas the other car companies are -- they're sales to the channel. So it's possible to sort of -- for them to make numbers work, where they're selling to their channel as opposed to end customers. In our case, it's always end customers. And -- as we're shipping to Asia and Europe and across the U.S., it's fairly easy for there to be a plus/minus 5% difference in deliveries just due to logistics issues. So it's not a huge variation, plus/minus 5%, but that's kind of like the -- if a ship is late or early, it can affect the -- there could be 500 cars that are affected, and then that's 5%, so -- which we've seen in the past. So that's an important thing to bear in mind. The number that's much more controllable for us is the production number. So that's -- our production predictions, I think, are, for the vehicles, are -- at least for the Model S, not so much for a new vehicle but for an existing vehicle, our production predictions are a lot more controllable. And then, as I think people have similar drives [ph], demand is different from production. Like there's -- our cars are almost all ordered in advance. So we really don't see any demand issue, but you can sort of see that by the delivery times of the cars on our website. So it's like sometimes people will interpret a quarterly delivery number as somehow being related to demand. This is not the case. This is usually related to like just that's how many -- we produced a certain number, and then we were able to deliver a certain number in the quarter, and so -- and there's so much cars on ships or on trains or on trucks. And so that's -- because Tesla is different from other car companies, applying the other car companies' template can lead to incorrect conclusions about Tesla. Is this making sense, I mean, or [indiscernible]?

Rod Avraham Lache

Deutsche Bank AG, Research Division

Yes, it makes sense.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Okay.

Deepak Ahuja

Chief Financial Officer

Yes, and to add to what Elon said, to be more efficient operationally, we are shipping more by train rather than trucks. It's more cost efficient and creates less damage to the car, gives a better customer experience. So we are taking all these actions.

Rod Avraham Lache

Deutsche Bank AG, Research Division

I guess my question is more geared to trying to assess the effect on ASPs and margins as you're changing the mix a little bit. But I appreciate that.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, I -- to sort of answer your question on margins, I think there's 2 things that are happening. The average sales price is going to decline a little bit, but the -- but our costs are improving as well. So -- and we see that more or less netting out, so that efficiency improvements offset approximately any average selling price change.

Deepak Ahuja

Chief Financial Officer

And if in the process we are growing the market, which we truly are by hitting the right sweet spot, then we are doing the right thing with the 70D. And the 70D has a higher gross margin than the 60, for example. And 60 was just not hitting the market. It just didn't have the right attributes that our customers like. It was a low take rate. And we've got a product which is far more compelling and much more competitive with other cars.

Operator

Our next phone question will come from the line of Colin Rusch with Northland Capital Markets.

Colin William Rusch

Northland Capital Markets, Research Division

As you look at the growth of the organization, the integrity of the culture and the workforce, I know that your employees are extremely motivated. But could you talk about, as you grow, how that's growing and changing and what you're doing to maintain that integrity as we go forward?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

I mean, it is tricky, as companies grow, to maintain a consistent culture. I think we're doing okay. I think as measured, yes, relative to most companies. But we do need to get people to think differently and have an expectation of innovation. And I mean, I think we're doing okay on that front.

Jeffrey B. Straubel

Chief Technology Officer

Yes, I think having a general mix of people that have been here for a very long time and have seen multiple programs and seen the company when it was even much smaller than today and more scrappy and had to go through even tighter financial difficult launches, things like that, really helps maintain that culture. And we try and pair different managers up with new groups so that, that culture sort of infuses throughout.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. And our growth rate, like this year, personnel-wise is sort of, I won't say leveled off, because it's still fairly significant, but it's like our net personnel growth this year will probably be 20% to 30%, which is I think a manageable number for kind of integrating with people that already have kind of the Tesla culture. And I think it's also -- it's a pretty big improvement in productivity. Because we're looking at, let's call it, like if it's up at the upper end of that 30% personnel increase, but 100% increase in vehicle volume. So I think that's a pretty good indicator of productivity improvements, just like how many people do we have and how many cars are we making.

Colin William Rusch

Northland Capital Markets, Research Division

Good. And the second question is really around some of the choices that you made with the battery product and why choosing 10 kW and the size. 220 pound is actually pretty hefty for a garage wall. And then also the battery management system. I think there's a lot of confusion around where it's located and what the real functionality is, as you look at it interfacing with utilities and the signals that you get from the market, in terms of looking at demand trying to offset demand response and some of the other advanced functionalities that are going to be able to be monetized in business models with the product. Can you just clarify where that BMS system is, where it resides and who owns that technology, and why you guys made those choices along with the weight and size choices?

Jeffrey B. Straubel

Chief Technology Officer

Some of the different revenue streams you're talking about are kind of mixed between power pack and power wall. The BMS system lives inside the battery pack in both cases. But with the power pack, in the more utility-sized installations, there, we often will have sort of a site master computer or master controller that controls multiple power packs. And that site controller is what then interfaces to the utility or maybe a commercial customer to sort of run the scheduled charge and discharge that would be appropriate for a given application. On the power wall, it's a bit of a different situation. Still, the BMS lives inside the battery pack. But in some cases, the inverter may be the system that's deciding how to manage energy in the overall house, and that can depend on which type of inverter we're using and how that works. And in terms of the size, we really -- for power wall again, we optimized the size around what was the most common photovoltaic size and also what we felt was kind of the smallest modular increment for backup. And it's pretty key to note here that you can install multiple power walls together. So having 10 kilowatt hours doesn't mean that you can't very easily put in 20 or 30 or 40. And in many cases, I think people will, to have the backup kind of matching that they want to see. But we felt 10 kilowatt hours was the lowest kind of common element. And if you go smaller than that, you start to run into worse economies of scale and more the system that's not related to storage.

Jeff Evanson

Vice President of Investor Relations

Huey, before we go to the next question, I just wanted to give everybody a status update. A lot of important things to talk about on this call, but we are 50 minutes into the call and we still have 7 callers in queue. So just let you guys think about how we manage time here.

Operator

Our next phone question will come from Adam Jonas with Morgan Stanley.

Adam Michael Jonas

Morgan Stanley, Research Division

First question, on the Model S and the release candidates. How many release candidates have you produced? What have been some of the issues with the recent production? And why the slight -- am I seeing a slight further delay by [indiscernible] late 3Q from what I thought was kind of more of an August time horizon for initial deliveries? Anything that kind of might be behind that you'd highlight?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

I think we're past almost sort of answering super-detailed questions about the X ramp. But look, the thing that really matters is not like when do the first deliveries of the X occur, but rather when do significant deliveries of the X occur. And for the S, we had quite a long ramp from -- we had like 6 months from the very first deliveries to significant volume. We're trying to compress that to maybe like 2 months or 3 months for -- at most, cut that in half or more for the X. And we want to make sure we really are delivering a product that has been thoroughly validated in hot and cold weather and through millions of miles of travel and everything. So it would be easy for us to kind of do some initial deliveries in August, that would be pretty easy. But then -- like we don't want to have like -- if we have had door handle issues, like people are aware of that with the S. They don't want to have Falcon Wing door issues with the X. We want to iron everything out, make sure it's good and then deliver at high volume. So effectively, we'd create like a captive fleet and iron out the issues with that captive fleet. They're quite big, several hundred vehicles basically. And maybe that addresses your release candidate question. And just make sure that those several hundred vehicles really work well in all circumstances before we start delivering cars en masse. Because we're going to go from just 1 of our cars to like 1,000 a week pretty fast.

Adam Michael Jonas

Morgan Stanley, Research Division

Okay. And just a second question, in the interest of time, and final question. Apple has kind of still, unofficially perhaps, been making inroads into building up its vehicle engineering and transportation capabilities, according to a lot of sources, and making investments both in physical and human capital. Are you starting to feel a greater sense of competition with Silicon Valley parties versus your ability to attract and retain key software and automotive engineering talent? And if Apple were to get into the electric car business, would you see this as a positive for broader consumer acceptance of electric vehicles?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Actually, I certainly hope Apple gets into the car business. That would be great. But no, we're not really seeing significant attrition of engineers to Apple for anything, car or otherwise. And actually, anyone can like figure this out by just going on LinkedIn. LinkedIn can produce statistics on what the relative flow of people is from one company to another. And I think it's like, something like 5 -- if you look at like the trailing 12 months, I think Tesla's recruited 5x as many people from Apple as Apple has recruited from Tesla. So it's like some fairly high number.

Operator

Our next phone question will come from Brian Johnson with Barclays.

Brian Arthur Johnson

Barclays PLC, Research Division

Just really want to ask about the balance between stationary and automotive. It's not unusual for growth companies to change their focus as they evolve. I think at least one of the stories around PayPal, it was going to be a cryptographic PDA-focused company, until it refocused perhaps through your help, Elon, on web-based payments. It just -- I'm hearing you talk about stationary storage as being able to ramp faster perhaps, although you didn't [ph] answer this kind of maybe with a lower CapEx and OpEx ratio than the auto business. Yet at the same time, auto takes a lot of capital, takes a lot of OpEx. And Sergio Marchionne pointed out there's a lot of value-destroying capital spent in the legacy industry. Is it conceivable that instead of say being 70/30 auto/batteries, it could go the other way?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

It's possible. I mean, this is -- we're, like, really super in guesswork territory here. All we know right now is like we have demand, like, well in excess of our production ramp. So we know like, right now, I think we should work on is trying to increase our production ramp, not trying to increase demand. So

that's kind of like the only thing we know for sure right now. And then if you look really long-term what's the total energy -- like how many battery -- what's the total terawatt hours of installation -- of battery installation that's needed to go to a fully renewable global economy taking into account transportation, current electrical needs, full electrification of transport, electrification of all heating and cooling, and then the current industrial uses and commercial uses of electricity like to go fully electric -- transport is about half the size of everything else. That was sort of our global macro calculations. So ultimately, we think things will get there, it could take a long time, but that's kind of where we think things will end up. And yes, that's where we get to like the kind of 2 billion power pack number. Whether it's made by Tesla or other companies or some combination, that's kind of the number you need to get to go fully electric. But where things -- how things track between now and then, it's difficult to predict.

Brian Arthur Johnson

Barclays PLC, Research Division

In terms of the ROIC, would you be thinking that stationary could be a better ROIC business than say mass market or mass affluent automotive?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

It might. I mean, I'd -- it would be nice to get like maybe a couple of quarters of experience after making the big announcement to really -- before we -- our degree of uncertainty will diminish quite substantially with each passing month. Certainly a year from now, we'd have -- we're going to have like I think a really good idea of it. But it's like super-speculative at this point. But we just know that like, man, there's just no way we can meet the demand that we're seeing right now. And so we've got to scale stationary storage as fast as possible.

Brian Arthur Johnson

Barclays PLC, Research Division

And you mentioned last time that some CapEx was going to product development, in the shareholders' letter, for Model 3 -- Model 3 wasn't in this. Does that mean you might be delaying some Model 3 investments? Or just the other things kind of swamp it?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

It's just the other things kind of swamp it. We need to make sure -- we're doing quite a bit of advanced work on Model 3, but this just doesn't amount to a lot of CapEx.

Deepak Ahuja

Chief Financial Officer

And just to clarify, Model 3 spend in the initial stages is more engineering spend.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

It's like, basically, design studio.

Deepak Ahuja

Chief Financial Officer

Exactly.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Like very early engineering prototypes. It's just not very -- it's just not very cash-intensive.

Deepak Ahuja

Chief Financial Officer

Yes. CapEx comes at a later stage when you have all the designs finalized, you're kicking off tooling again [ph].

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes.

Deepak Ahuja

Chief Financial Officer

So we are in the early stages as to be expected at this point in time.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes.

Jeff Evanson

Vice President of Investor Relations

Well, Brian, you might want to ask the follow-up, does this impact our Model 3 timing, so I'll throw that out.

Brian Arthur Johnson

Barclays PLC, Research Division

Well, go ahead.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Well, I mean, we are hoping to show off the Model 3 in approximately March of next year. Again, don't super hold me to that month, but that's like -- that's our aspiration, and then be in production with Model 3 in the -- I'd like to say mid, but probably closer to the late 2017 time frame. Late 2017 is probably more realistic.

Brian Arthur Johnson

Barclays PLC, Research Division

Okay. And in the meantime, the Gigafactory sounds like it may be ramping up faster. But perhaps, those batteries could go not just to Fremont cars, but to Fremont stationary storage -- or to stationary storage, not necessarily touching Fremont.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. It would just built, actually, it's just right there, not even go to Fremont, really. It would just be built at the kind of Reno factory, or Sparks, technically it's Sparks. The Nevada factory and go from -- ship from there to customers.

Jeffrey B. Straubel

Chief Technology Officer

Yes, starting Q1 next year, that's our plan for all the stationary or all the Tesla Energy products.

Operator

Our next question will come from Ryan Brinkman with JPMorgan.

Ryan J. Brinkman

JP Morgan Chase & Co, Research Division

I have a 2-part question on cash. Firstly, on the last call, you mentioned reaching free cash flow positive in 4Q this year. I'm just wondering, with 1Q behind you, how you think you're tracking relative to that goal? And then secondly, if you could perhaps comment on your capitalization and liquidity overall and the potential for, or desirability of, raising any additional capital.

Deepak Ahuja

Chief Financial Officer

We do expect to be free cash flow positive in Q4, that doesn't change. And as we go along, clearly, we are optimizing for efficiency, which results in increase of our finished goods inventory. It makes sense for us to then establish some asset pipelines of credit, which is backed by our finished goods inventory or raw materials. So we'll take those actions to make sure we have a solid balance sheet.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, I mean I think it's -- yes, I think things are looking pretty good for Q4. But it's hard to predict full quarter exactly because the whole quarterly boundary and where does the sort of the sort of exponential ramp of production fall exactly on that start of Q4 boundary. But it's -- I think it's extremely likely that there's -- that cash flow is really good at the end of Q4.

Operator

Our next phone question will come from the line of Trip Chowdhry with Global Equities Research.

Trip Chowdhry

Global Equities Research, LLC

A quick question, 2 quick questions. First is regarding the residences which may not have the solar panels, and, say, that residence goes and buys 2 power walls. Does that customer have to buy 2 inverters or 1 inverter is sufficient for as many power walls the customer buys?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

It's basically whatever the capability of that inverter is. So typically the inverter would be capable of handling -- 1 inverter is probably capable of handling, depending on the situation, up to maybe 4 or 5 power walls.

Trip Chowdhry

Global Equities Research, LLC

The second question I had was regarding the double-back tour you had in 10 cities, and that was -- our research indicated that it was a very successful event with the reservations and orders really skyrocketing. And I think it was only in Canada and U.S.A. Wondering if you could expand that tour to other continents?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, absolutely. I mean, we have actually -- we just did a big thing in Europe through Germany. And there actually, I think, there is like quite a big a tour happening from Slovenia, I think, through most of Europe. So there's actually quite a lot happening. Actually, our sales in Europe lately have been pretty, pretty great. I mean, like, yes, really strong.

Deepak Ahuja

Chief Financial Officer

And we did the tour in Germany, too -- in Europe, too, sorry, with your motor.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. So the 85D has been a big hit in Europe.

Trip Chowdhry

Global Equities Research, LLC

If I can ask one last question. I was at your Lathrop factory the other day. And there was some interesting construction happening behind it, with huge metallic frames being installed. What kind of production could be happening there? And it seems like the factory size has increased almost 40%. And what is happening there? Any thoughts you can share with us? And that's all for me.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, we're establishing a big casting foundry and machining facility there. And yes, that's intended to support activity in Fremont. So that's -- yes, that's what's happening in Lathrop primarily.

Operator

Our next phone question will come from the line of Patrick Archambault with Goldman Sachs.

Patrick Kenehan Archambault

Goldman Sachs Group Inc., Research Division

Just wanted to build on, I think, Ryan Brinkman's question, on the fourth quarter cash flow guidance. Does that include income from those warehouse facilities to offset leased vehicles? Or is that exclusive of that?

Deepak Ahuja

Chief Financial Officer

Well, our projection, as Elon said, was the end of the quarter, as we ramp up production, we should be free cash flow positive on a pure sense. But frankly, our operations should be looked at without the impact of leasing. And that's a purer measure of operations, which is a lower threshold, I get it, but that's a unique or distinct decision we've made to be in that business.

Jeff Evanson

Vice President of Investor Relations

Hold on a second, Pat. Deepak, do you want to explain about the classification of cash inflows within the statement of cash flows?

Deepak Ahuja

Chief Financial Officer

Sure. Yes, if you look at our Q1 cash flows, for example, we received \$155 million from our, either the warehouse line or banking partners related to our leasing business. But that cash flow does not show up as an offset in our cash flow from operations. It shows up in our financing activities. So our cash flow from operations shows up \$131 million negative. But if you offset that against the \$155 million that we received on the leasing business, we were slightly better than breakeven purely on an operations basis. And so our real cash flow in Q1 was driven by the strong CapEx spend ahead of the Model X launches, the way we tend to look at the business internally.

Patrick Kenehan Archambault

Goldman Sachs Group Inc., Research Division

Okay, I appreciate that clarification. The other quick question I had is just I was a little surprised by the -- I think you guys had obviously very good gross margins this quarter relative to some of the headwinds that you were facing. And I guess I was surprised to see that x ZEV, they go from 26 to 25. With some of the increases in pricing that you're putting through and some of the components that you're buying outside of the U.S. with a stronger dollar now, which -- where there was a little bit of a lag, I understand. I -- it just -- that seemed a bit conservative, and I don't know, maybe it ties back into Rod's earlier point about mix, but I guess that was one area that I was a little surprised.

Deepak Ahuja*Chief Financial Officer*

So just to clarify, the price increase that we've announced is not going to help us in Q2 given our book of business. It's going to primarily affect us in Q3.

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

Yes.

Deepak Ahuja*Chief Financial Officer*

And also in April, for most of April, the dollar was pretty strong. It's just trended in the last week or 10 days or so, and we were continuing to deliver cars. So that strong dollar impact does roll over sequentially into Q2 for us despite the lag effect of good news from a strong dollar. And as we said in the letter, we fully expect the mix impact to be offset by cost reductions that we will achieve. So it's really related to FX that we see the sequential drop.

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

Yes. The FX was really -- that was really a tricky thing to deal with. We had a quite strong European sales. And then the FX impact was quite significant. So obviously, if you've got a car that is, like let's say, 25% gross margin, and you've got -- and you see a 20% change in currency, it's like, wow, okay? That's not super easy to make up that difference.

Deepak Ahuja*Chief Financial Officer*

Yes. And to your point, and maybe this is a broader comment to make, that as we look at our Q1 non-GAAP loss that we have of \$45 million, a big chunk or most of it could be attributed to the dollar strength that has happened over the last 6 months. As we've indicated, our Q1 top line came down by about 3 percentage points. And then we had the \$22 million unrealized losses, from currency. You combine those 2, and there's an offset in gross margin due to lower cost of parts we buy in foreign currencies. But consider this whole mix and you can see the foreign currency change over the last 6 months can explain most of the losses we had in Q1.

Patrick Kennehan Archambault*Goldman Sachs Group Inc., Research Division*

And, yes, maybe just like that last piece is kind of interesting. How much are you able to take advantage of that natural hedge you just described, right? Because you are buying components in currencies that have also depreciated, right? Batteries are one obvious thing. I'm sure you're sourcing a lot of stuff in Mexico. Are you close to optimizing that? Or is that something that can be kind of exercised more?

Elon R. Musk*Co-Founder, Chairman, Chief Executive Officer and Product Architect*

For better or worse, one can look at it as a pro or con depending on the situation, basically, about 60% of the car, maybe a little more than 60%, is U.S. and Canada. So it would -- we may have -- we certainly have, like, lots of, say, European companies that supply us, but they will supply us from plants in the U.S. or Canada or sometimes Mexico. So that's -- this really is a North American built car, like not -- for real. So it's like, as Deepak is saying, it's slightly helpful if the dollar strengthens relative to the yen. But then, since we have, like, quite strong European sales, this is -- I think it's like 5% of our parts or something come from Europe. It's pretty low.

Deepak Ahuja*Chief Financial Officer*

Right.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

So if our sales are 30% in Europe, then obviously there's not as much an offset as one would like. I actually thought it would be higher than that. But it's like -- because I'm looking at the names of the suppliers, but not -- what matters is where -- not the name of the supplier. If their headquarter's in Germany, but where is the plant? So yes. I've got to go into another meeting, so if there are...

Operator

Our next question will come from the line of Brad Erickson with Pacific Crest Securities.

Bradley D. Erickson

Pacific Crest Securities, Inc., Research Division

Just a quick follow-up from the last one on the automotive gross margins. I think just x currency, can you just quickly talk maybe a couple of examples where you're looking to remove more costs from the car itself? I think we can all kind of appreciate there's continued scale advantages over time. But maybe if you could talk about other cost savings opportunities we should be thinking about with both the S and the X, and sort of what inning we're in, in terms of achieving those savings?

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, a big factor is labor hours per vehicle. That has steadily improved. It was sort of quite bad in Q4, particularly with the P85 ramp, P85D ramp. We've made good progress on that in Q1, we'll continue to make good progress on that through the rest of the year. So it's like labor and like direct overhead in the factory.

Deepak Ahuja

Chief Financial Officer

Yes, we're focused across every line item of our COGS, so material cost reductions, freight, both inbound -- we spoke a little bit about outbound freight efficiencies...

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, we had a lot of expediting.

Deepak Ahuja

Chief Financial Officer

Yes.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Because you know there was that big port strike was super-unhelpful. That also hurt pretty badly. It was like the, I think, the worst port strike of the 21st century. And so we're also soldiering through that. So we had like -- had to airfreight a ton of stuff...

Deepak Ahuja

Chief Financial Officer

Exactly right.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

While everyone else was simultaneously trying to airfreight a bunch of stuff.

Deepak Ahuja

Chief Financial Officer

That's right. It cost us \$7 million.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. Just airfreight, yes. So like well, so cutting back on airfreight is really helpful, direct labor hours. The -- just...

Deepak Ahuja

Chief Financial Officer

We continue with several engineering and promotional actions on material costs. It's a long list, not appropriate to go through. But yes, as a company, I think we are focused on Model X. But S is also certainly improving gross margin there, it's part of our priorities.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes.

Operator

And our final question in the phone queue will come from the line of Tyler Frank with Robert W. Baird.

Benjamin Joseph Kallo

Robert W. Baird & Co. Incorporated, Research Division

This is Ben, very quickly, you mentioned the Gigafactory and then a lot of talk about stationary storage and increasing the size of the Gigafactory. Does that change in any way that you're looking at partnerships and bringing partnerships in, and maybe an update on timing there? And then, Elon, you talked about having a fleet of a couple hundred X to get out and test. And you mentioned Model 3 showing it next March. When should we see the Model X in it's final version?

Jeffrey B. Straubel

Chief Technology Officer

Well, no particular change to the partnership model for the Gigafactory. I think as Elon said, it's early days on trying to make some of those changes in direction. But largely, it's just a bigger scope of opportunity for a lot of the people we're already working with. And it is continuing to go well. We're actually beginning to hire operational people at the Gigafactory and beginning to staff up on that ahead of -- starting to train and then ramp up production of the stationary products early next year.

Benjamin Joseph Kallo

Robert W. Baird & Co. Incorporated, Research Division

Just on the Model X, when we could see that?

Jeff Evanson

Vice President of Investor Relations

Elon, do you want to talk about Model X? We've had a number of questions here from investors and Ben's question here about when you'll be able to configure Model X online, when we'll show that to the public, how that will actually deploy.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes. Probably 3 months from now -- no, actually, I'm sorry. We're in May, so it's like -- this is probably July is when we'll ask people to do the configuration. And it will be very similar to the S, like, it's not going to

be super -- no big surprises there. It's very similar to the S. And yes, we certainly have a lot of customers who have been waiting a long time. So there will be quite the need to get the car.

Benjamin Joseph Kallo

Robert W. Baird & Co. Incorporated, Research Division

Good, we look forward to that.

Elon R. Musk

Co-Founder, Chairman, Chief Executive Officer and Product Architect

Yes, I think this is really a great car. I mean, it's like -- because it has like such a low center of mass. I mean, it handles like a sports car even though it's an SUV, with battery packs in the oil pan. And it's got incredible acceleration because there's like basically a performance version of it like there is for the P85D. The performance is just surreal. It's like nothing else is comparable.

Jeff Evanson

Vice President of Investor Relations

Great. Thank you, everyone, for joining us this afternoon, and everybody have a great night. Huey, thanks for your help, and we'll talk to you all next quarter. Bye-bye.

Operator

Ladies and gentlemen, this will conclude today's conference. Thank you for your participation and have a wonderful day.

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