

# 2010 NAIAS - World Premiere FT-CH Concept

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**2010 NAIAS – World Premiere FT-CH Concept**

**Riverview Ballroom**

**January 11, 2010**

**Remarks delivered by Irv Miller, Group Vice President, Environmental and Public Affairs**

## **Jim Lentz, President, Toyota Motor Sales, U.S.A., Inc**

(Irv Miller introduction)

Ladies and Gentlemen, good morning.

And thank you all for coming.

As challenging as the past year-and-half has been...and for all the uncertainty that remains...

- I believe there are few of us here today...
- who don't believe our economy and our industry...
- will emerge, stronger and smarter...
- and more vital than ever before.

One reason why I am so confident of this...

- is how steadfastly we have focused...
- on the pressing issues of the moment...
- while never losing sight of our future.

Nowhere is this more important...

- than with our duty and commitment...
- to provide true...sustainable mobility.

Which is the focus of our press conference today.

Ladies and gentlemen...it is my pleasure to turn the meeting over to our president...Jim Lentz....Jim...  
(Jim Lentz)

Thanks Irv. Good morning everyone.

Welcome to the show...

- thankful—end of 2009...
- and hopeful— beginning of 2010.

Imagine if you would, ... that a very strange thing happens tonight.

While we're fast asleep...all the cars on earth ... completely disappear.

Unaware, you come out in the morning to get in your car and it's gone...there's nothing there...and no sign that it ever existed.

And you're not alone. Your neighbors experience the same thing...and you find out from the news that the same thing has happened to every car and truck...all over the world.

What would you do? How would you get to work?

How would you get the kids to school? ... or get rushed to the hospital?

Suddenly...the American Way of life that we enjoy...is completely gone.

(Pause)

Travel would be extremely difficult...commerce strained...and limited options ... would become a way of life.

In short, our world would be turned upside down.

OK ...let's snap out this imaginary nightmare now...and come back to the present where everything is just fine.

Your reliable car will start...keep you warm...and take you home to your loved ones.

Think for a moment...about the CRUCIAL role the automobile plays in our lives.

No other product in American life... does so much for us.

It's the key connection to our lifestyle...and to our world.

And since we can't live without it,...we need to figure out a way to live with it...in harmony with our environment... and our planet.

To accomplish this... the automobile must not be changed. It must be re-invented.

One...of many alternatives...is through what is commonly called the electrification of the automobile.

By far, the single-most successful example of this ...has been the gas-electric hybrid.

It's no secret that the conventional hybrid...will soon be Toyota's core powertrain technology. And we strongly believe...it will become the core technology of our entire industry.

Last year, Toyota sold a combined... 530 thousand (529,696) Toyota and Lexus gas-electric hybrids, worldwide...more than 195 thousand units (195,545) ... right here in the US.

Early this decade, our goal is to sell a million hybrids per year globally.

In fact, early this decade, we will launch eight all-new hybrid models.

These will not include next-generation versions of current hybrids.

Instead, they will be...all-new dedicated hybrid vehicles...or all-new hybrid versions of existing gas-engine models.

The heart of hybrid technology is its battery.

Since the early stages of development of the first-generation Prius in the early 90's...Toyota has been committed to in-house R&D... of advanced nickel-metal hydride batteries.

Through three generations of Prius...and a total of 7 full-hybrid models...we have systematically reduced size, weight and cost...while improving energy density, quality and reliability.

Make no mistake...Toyota is all-in, with advanced batteries ...and fully intends to raise the stakes in the years to come.

Toyota's joint-venture partnership with Panasonic... has been a key element of its success in the advancement of hybrid technology.

Later this year, Panasonic EV Energy... "PEVE"... will have three separate... fully operational production facilities... with a combined capacity... of more than one million units per year.

Moving the promise of electrification one step further... Toyota recently kicked-off its global demonstration program... involving approximately 600 Prius plug-in hybrid electric vehicles.

As we speak... 150 "PHVs" are starting to arrive in the U.S., where they will be placed in regional clusters with select partners... for market/consumer analysis and technical demonstration.

The Prius PHV introduces Toyota's first-generation lithium-ion "drive" battery... built on a dedicated assembly line... at PEVE's Teiho production facility.

When fully charged, the vehicle is capable of... a maximum electric-only driving range... of about 13 miles between charges... with the ability to achieve highway speeds... of more than 60 mph in electric-only mode.

For longer distances, the Prius PHV reverts to "hybrid mode" and operates like a regular Prius.

This ability to utilize all-electric power for short trips... or hybrid power for longer drives... alleviates the issue of limited cruising range ... encountered with pure-electric vehicles.

All program vehicles will be equipped with data retrieval/communication devices... which will monitor activities such as... how often the vehicle is charged and when;... whether the batteries are depleted or being topped-off during charging;... trip duration... and all-EV driving range, combined mpg... and so on.

As it becomes available, data from the program vehicles... will be posted to a dedicated web site.

This in-use, readily available data will help consumers understand... how the vehicles are being used... and how they're performing.

We believe this demonstration program is a necessary next-step in societal preparation... in that it allows us to inform and educate customers... on the electrification of the automobile in general... and the introduction of plug-in hybrid technology, in particular.

We are moving quickly... with the development of PHV technology... well-beyond our demonstration program.

Already, we are under-way... with advanced battery R&D programs with nickel-metal... lithium-ion... and beyond lithium... for a wide variety of applications... in hybrids, PHVs, BEVs and fuel-cell vehicles.

About 20 years ago, Toyota began serious R&D... on building a practical and affordable hydrogen hybrid fuel cell vehicle.

It's been a long road. But Toyota operates with a long view.

We are fully committed to bringing hydrogen fuel-cells... to global markets... in 2015. And recent developments are encouraging.

Not only have technical advancements moved at a rapid pace...engineers have made great strides in cost reduction targets...in both materials and manufacturing.

Our latest model...The Toyota Fuel Cell Hybrid Vehicle-“Advanced”...began its own national demonstration program late last year.

Over the course of the three-year program, ...more than 100 vehicles will be placed...in an effort to demonstrate the technology’s performance,...reliability and practicality in everyday use.

Recently field-tested in southern California by two national laboratories... at the behest of the U.S. Department of Energy... the FCHV-advanced confirmed a single-tank fuel range 431 miles.

In combined city and highway driving... from Santa Monica to San Diego...the FCHV logged 68 miles-per kilogram of hydrogen...the rough equivalent of 68 miles per gallon.

To put this into perspective...that’s a range equivalent to the Highlander hybrid...at more than double the MPG...with zero emissions...other than water vapor.

Our hope...is that through this demonstration program... through the coordinated efforts of our industry...government, universities...and energy companies...a practical hydrogen re-fueling infrastructure can be developed...that can keep pace with the arrival...of this truly breakthrough technology.

In 1997, Toyota introduced the RAV4 EV, battery-electric vehicle in California. Nearly 1,500 (1,484) of these 100-mile range... large-battery electric-vehicles... were either sold or leased over the duration of the program.

Shortly thereafter... we started a modest demonstration program...with a small-battery, all-electric ...urban commuter, called the e-com.

This concept addressed the idea of the “on-demand” city-station car...similar to the Zip-car business model... that is fast becoming popular... in large urban areas.

Although much shorter in range,...the e-com program addressed a specific mobility niche... at a much more affordable price than the RAV4-EV.

However, at the time...the market...the consumer...and consumer’s environmental mind-set... were not ready to buy-in... to the whole battery-electric concept.

Both programs came...and quickly went.

But times have changed. And for the better.

So much so that... Toyota will bring a lithium-ion...battery-electric vehicle to market...in model-year, 2012.

Last year, Toyota toured the FT-EV concept on the global auto show circuit. This year, the FT-EV2 makes the rounds.

Both vehicles mirror the e-com’s small, urban-commuter concept.

There is no doubt that battery technology ...has progressed significantly...in the time since the RAV4 EV and e-com programs.

But major challenges still remain.

The cost of lithium ion batteries...needs to be reduced significantly...or a more affordable alternative developed.

Like hydrogen fuel cells,...battery-electrics will require... the creation of infrastructure...for re-charging, on the go.

And then there is range. Even at 100 miles,...BEVs...as a primary mode of transportation...do not yet offer what most consumers see...as true mobility.

Toyota believes...these are hurdles that will be cleared.

Which is why, for the last decade...our focus has been to concentrate... on a comprehensive advanced technology strategy...including BEVs, PHVs, and fuel cells.

Common to all-three is the move to electrification...and how lessons learned from conventional hybrid R&D... have given us a leg-up on all three.

Which brings us back again...to conventional hybrids...our core powertrain technology...and...not too surprisingly...the car behind door number one.

Ladies and gentlemen...the Toyota FT-CH concept.

(REVEAL)

One of the things we hear often...is that we need to offer... a wider variety of hybrid choices.

The FT-CH captures the essence... of a very specific concept that our dealers...and our customers have asked for.

The “CH” stands for compact hybrid...as in compact class....and it’s a concept that can best be defined... by comparing it with the mid-size class Prius.

Styled by Toyota’s European Design and Development center...E-D-Squared ...the FT-CH captures the spirit and functionality... of a car that thrives in the inner-city environment ...“Sized-right”...to be nimble, responsive and maneuverable.

It rides on a wheelbase...that is about 6 inches shorter than Prius.

It is 22 inches shorter in overall length... yet loses less-than-an-inch... in overall width.

In spite of its compact external dimensions...FT-CH was designed...for maximum passenger comfort... and interior roominess.

Lighter in weight... and even more fuel-efficient than Prius... the concept is designed to target a lower price point than Prius...thus, appealing to a younger, less-affluent buyer demographic.

The FT-CH was also designed to capture... the vivid, high-energy style of what has come to be called...the 8-bit generation.

Introduced in the late 70s and early 80's,...8-bit microprocessor technology...dominated the budding home video game industry.

Anyone here remember "Contra"? No?

How-bout "Mega-Man-2"?

"Mario Bros-3"? Hmmm. I thought so.

Today, 8-bit is considered a specific retro-style...that is embraced by such things as... 8-bit genre music... and 8-bit inspired art.

It's all meant to be fun and innovative... colorful and stylish...which is precisely how the ED<sup>2</sup> studio... envisioned the FT-CH concept.

As most of you know,...the launch last year of the third-generation Prius... was a huge success for us...especially in light of economic conditions.

Now in its third generation,...it is hard to argue with the notion... that Prius has become a universal icon... for hybrid technology.

I am happy to announce today... that Toyota Motor Sales is developing a Prius family ...."marketing strategy" for North America...that will take full advantage of the Prius brand equity.

The strategy is still taking shape...and obviously it will require additional models...to qualify as a family.

But the FT-CH is definitely a concept...among others... that we are considering.

Thank you for joining us this morning. I will now turn the meeting back-over to Irv Miller.

(Irv Miller)

Thanks, Jim.

Before we adjourn, I'd like to remind everyone...that our press kit this year is actually a dedicated web site called... sustainable mobility dot-com.

The site went live at 10:00... and will provide downloadable information...images and video... on everything covered in today's press conference...and much more.

As you depart today, please pickup a jump drive which will take you immediately to the website.

Please note that our concept vehicle is very fragile...in fact I think the paint is still wet...so you won't be able to open the doors or climb inside.

So...let's give our still photographers a minute to grab a few quick shots...after which you are free to come up and take a closer look at the FT-CH concept.

Thank you all for joining us this morning...and enjoy the show.