

## Revised Fuel Economy Label Estimates for 2013 Ford C-Max

### What is the New 2013 Ford C-Max Fuel Economy Label Value and How Has It Changed?

Ford Motor Company is voluntarily re-labeling the model year 2013 Ford C-Max hybrid vehicle to match EPA's fuel economy estimates. Figure 1 compares the original and revised label values for the 2013 Ford C-Max.

**Figure 1. Original and Revised Fuel Economy Label Values for 2013 Ford C-Max**

Original 2013 C-Max Label mpg Values			New 2013 Label Values			Change in mpg		
Combined	City	Highway	Combined	City	Highway	Combined	City	Highway
47	47	47	43	45	40	-4	-2	-7

These label values apply to all new 2013 Ford C-Max Hybrids, and would also be appropriate for all 2013 Ford C-Max Hybrids that have been upgraded with new software by Ford.

### Why is the 2013 Ford C-Max Being Re-Labeled?

EPA tested the C-Max after receiving consumer complaints that the vehicle did not achieve the label values of 47 miles per gallon (mpg) for highway, city, and combined driving. EPA acquired a Ford C-Max hybrid, accumulated 4000 miles to break it in, and performed fuel economy tests. Based on the results of these tests, EPA determined that the fuel economy performance of the C-Max was significantly lower than the original label values.

### Why Did the Old C-Max Label Claim Higher Fuel Economy?

Developed in 1977, EPA label regulations allow vehicles with the same engine, transmission and weight class to use the same fuel economy label value data, since,

historically, such vehicle families achieve nearly identical fuel economy performance. Ford based the 2013 Ford C-Max label on testing of the related Ford Fusion hybrid, which has the same engine, transmission and test weight as allowed under EPA regulations. For the vast majority of vehicles this approach would have yielded an appropriate label value for the car, but these new vehicles are more sensitive to small design differences than conventional vehicles because advanced highly efficient vehicles use so little fuel.

In this case, EPA’s evaluation found that the C-Max’s aerodynamic characteristics resulted in a significant difference in fuel economy from the Fusion hybrid.

**What About the 2013 Ford Hybrid Software Upgrade?**

In July 2013, Ford instituted a software upgrade for all of its remaining 2013 hybrids, including C-Max hybrids. This upgrade is also available to all current owners of 2013 Ford hybrids through a voluntary service campaign. Ford has stated that this software upgrade should increase fuel economy.

The re-labeled 2013 C-Max values reflect this software change.

**What About the C-Max Without the Ford Hybrid Software Upgrade?**

As part of its evaluation, EPA also tested a 2013 C-Max without the software upgrade. Figure 2 shows the EPA test results for previously purchased C-Max hybrids that have not received the voluntary software upgrade.

**Figure 2. Original 2013 C-Max Label Values and EPA Values for C-Max Without Software Upgrade**

Original 2013 C-Max Label mpg Values			EPA Values Without Software Upgrade			Change in mpg		
Combined	City	Highway	Combined	City	Highway	Combined	City	Highway
47	47	47	41	42	40	-6	-5	-7

**What About the Accuracy of Other Vehicle Labels?**

This is a new and emerging issue caused by a combination of factors. Because high fuel economy vehicles use so little fuel per mile, relatively small changes in fuel consumption can have a surprisingly large impact on miles per gallon. Advanced manufacturing techniques are making it much easier for automakers to produce vehicles with the same engine and transmission, but with a wider variety of other design changes. The fuel economy of advanced technology vehicles, which involve sophisticated designs and control mechanisms, can be particularly sensitive to small design changes. All of these factors came together in 2013, which was the first year when manufacturers began to market families of hybrid vehicles.

To date, most high-efficiency hybrids have been used in a single vehicle, ensuring a unique and accurate label for those advanced vehicles. The Ford hybrid family is one of only two examples

in the industry where advanced technology vehicles with the same engine, transmission and hybrid components are used across multiple vehicle designs. EPA regulations allow but do not require automakers to generate a label for each design in this circumstance.

With the new Ford C-Max label, each vehicle design within the two high-efficiency hybrid families now has its own label.

Conventional vehicles often share the same engine and transmission across multiple products, but are far less sensitive to the variations among these products and hence have nearly identical fuel efficiency.

## **What Will EPA Do to Make Sure This Does Not Happen Again?**

Looking forward, EPA expects to see greater use of common high efficiency systems across multiple vehicles by manufacturers in order to improve quality and reduce manufacturing costs. EPA welcomes this emerging trend and will be working with consumer advocates, environmental organizations, and auto manufacturers to propose revised fuel economy labeling regulations to ensure that consumers are consistently given the accurate fuel economy information on which they have come to rely.

## **For Additional Information**

For additional information contact:

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