

Plug-In Folly Part 1 by Pat Murphy, Plan Curtail

Part 1: Introduction to Plug-In Folly – The Misrepresentation of the Electric Car	
11	<p>The vision of non-polluting electric cars has been pursued in the US since 1990 – for 25 years. There were two efforts to develop and market electric cars; the first began in 1990 and the second in 2005.</p> <p>During the same time period, Japanese carmakers focused on the development of conventional hybrid technology, producing the first generation Toyota Prius and Honda Insight</p> <p>This presentation provides both a development history and a review of performance measurements and government incentives.</p>
12	<p>The US government has spent billions of dollars of R and D and more billions for incentives for plug-in vehicles. Yet the conventional hybrid is still preferred by those who want to reduce their fuel use and CO₂ emissions.</p>
13	<p>That's the short version of the story--this longer version is instructional because it shows how a focus on untested technology can waste time, dollars and natural resources and divert us from more promising solutions.</p> <p>Over the course of the presentation, we will describe the misleading publicity about electric, fuel cell, and plug-in vehicles and how these campaigns diluted the attention US car manufacturers might have placed on the development of the conventional hybrid.</p>
14	<p>You'll also learn about how our usual way of looking at automobile efficiency—the traditional MPG calculation—does not give us a comprehensive enough look at either fuel use or CO₂ emissions generated to allow us to make good individual and societal decisions about automobiles.</p>

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15	<p>You will understand the use of inaccurate numbers for MPG ratings of plug in vehicles. This led the American Council for an Energy Efficient Economy to complain about the way the window stickers were used as sales tools that obscured the true measurements.</p>	<p>“For purposes of providing consumer information, there is no justification for mischaracterizing emissions information in this way, even temporarily.</p> <p>The label is not, or should not be, a means of boosting sales of a given technology, but should rather be a tool to improve understanding.”</p> <p style="text-align: center;">ACEEE</p>
16	<p>The Story is in Four Parts after this introduction which is Part 1.</p> <p>Part 2 describes the first battery cars</p> <p>Part 3 explains the concept of Miles per Gallon equivalent.</p> <p>Part 4 compares plug in hybrids to battery only cars</p> <p>Part 5 gives some conclusions and forecasts</p>	<p style="color: green;">Contents</p> <ul style="list-style-type: none"> The Battery Electric Car A Look at MPGe Metrics The Plug-In Hybrid Conclusion
17	<p>First we'll talk about the birth of the electric car, America's first attempt to build a hybrid car, the entrance of Japanese built hybrids into the US and the effect of Lithium ion batteries on electric cars.</p>	<p style="color: green;">The Battery Electric Car</p> <ul style="list-style-type: none"> The Birth of the Modern Electric Car America Tries to Build a Hybrid The Hybrid Invasion of the U.S. The Lithium-Ion Battery Rebirth – Tesla & Nissan
18	<p>Next we'll discuss metrics and how various organizations calculated (or miscalculated) MPG equivalence and CO₂ emissions.</p>	<p style="color: green;">A Look at MPGe Metrics</p> <ul style="list-style-type: none"> The Environmental Protection Agency (EPA) Way The Department of Energy (DOE) Way The Union of Concerned Scientists Way Differing Viewpoints on Calculating MPGe MPGe – The CO₂ Way

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19	The third section will cover the development of the plug-in hybrid and the additional confusion about its fuel economy measurements.	<p>The Plug-In Hybrid</p> <ul style="list-style-type: none">Inventing the Plug-In HybridMPGe – Prius ConversionsUnderstanding Charging RoutinesSelling the Car to CongressQuestionable Math
110	And lastly, we'll look at how performance and sales of the electric car and plug-in hybrids have compared to expectations. We'll also give our view of the plug in future.	<p>Conclusion</p> <ul style="list-style-type: none">Plug-In Vehicles – the ScorePower Grid PerspectivesRecommendations