<table>
<thead>
<tr>
<th>Year</th>
<th>Features</th>
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| 2001-2002 | • Inception and early development  
                   • Application to all manufacturers |
| 2003 | • Accounting for redesign cadence |
| 2004-2006 | • Integration of compliance, effects, and benefit-cost methods  
                   • Accounting for shared engines and transmissions  
                   • Representation of attribute-based light truck standards  
                   • Application of social cost of carbon (SCC)  
                   • Maximization of estimated net benefits  
                   • Probabilistic uncertainty analysis (Monte Carlo method) |
| 2007-2009 | • Attribute-based passenger car standards  
                   • “Synergy” factors to adjust mpg estimates for technology pairings |
| 2010 | • FFV credits  
                   • Accounting for manufacturers’ multiyear product planning |
| 2011-2012 | • Initial use of full vehicle simulations  
                   • Accounting for BEV and PHEV charging  
                   • Applying technology-specific estimates of changes in consumer value  
                   • Estimating generation and use of CAFE credits  
                   • Estimating potential for market-driven fuel economy increases  
                   • Estimating changes in highway fatalities due to changes in vehicle mass |
| 2013-2016 | • Wide application of full vehicle simulation  
                   • Accounting for shared vehicle platforms  
                   • Attribute-based standards for heavy-duty (class 2b and 3) pickups and vans |
| 2017-2020 | • Simulation of compliance with attribute-based CO2 standards  
                   • Refinements to compliance credit calculations  
                   • Estimating impacts on new vehicle sales and used vehicle retirement  
                   • Estimating changes in annual mileage accumulation (VMT)  
                   • Estimating employment impacts  
                   • Estimating health impacts of criteria pollutant emissions |
| 2021 | • Inclusion of 400- and 500-mile BEVs, and HCR engines with cylinder deactivation  
                   • Accounting for both CAFE and CO2 standards jointly (rather than only separately)  
                   • Accounting for ZEV mandates applicable in California and the “Section 177” states  
                   • Accounting for California “Framework” agreement with specific OEMs  
                   • Estimating impacts and monetized damages of highway vehicle crashes that do not result in fatalities |