

Draft Positions for Durability Matrix

	Air Pollutant	CO ₂ /Energy Consumption	Range
HEV	<ul style="list-style-type: none"> • Draft EU Position: [5 year] or [100,000 km] must meet applicable standards (draft EU position) • EVE Group View: some consideration at WLTP & other areas for higher threshold (EVE Group view) • EVE Group View: View that WLTP durability requirement for ICE and HEV should be the same (EVE Group view) • Draft Japan Position: <ul style="list-style-type: none"> • Tested after 80,000 km running at type approval in Japan • Japan needs scientific data when discussing the influence of battery durability 	<ul style="list-style-type: none"> • Draft EU Position: Max [+10%] from certified values for 100,000 km or 5 years • EVE Group View: some consideration at WLTP & other areas for higher threshold • EVE Group View: HEV CO₂ emission durability lifetime should always be the same as air pollutant durability lifetime • Draft Japan Position: to determine with discussion under EVE IWG collaborating with WLTP SG-EV 	X
PHEV	<ul style="list-style-type: none"> • EVE Group view: PHEV should always have same air pollutant durability lifetime requirement as HEV (EVE Group view) <p>Draft Japan Position:</p> <ul style="list-style-type: none"> • Tested after 80,000 km running at type approval in Japan 	<ul style="list-style-type: none"> • EVE Group View: PHEV should always have same CO₂ emission durability lifetime requirement as HEV • Draft EU View: greater than 90% charge depleting values within [5 years] or [100,000 km] • Draft Japan View: to determine with 	<p>Equivalent all-electric range (measured amount of mileage that is powered by electricity in the battery on WLTP cycle) ... definition to come from WLTP</p> <ul style="list-style-type: none"> • Draft EU View: <ul style="list-style-type: none"> ○ Guarantee customer durability ○ Set comparable conditions to evaluate overall vehicle

	<ul style="list-style-type: none"> Japan needs scientific data when discussing the influence of battery durability 	<p>discussion under EVE IWG collaborating with WLTP SG-EV</p>	<p>performance (draft EU view)</p> <ul style="list-style-type: none"> EVE Group View: <ul style="list-style-type: none"> Want to ensure minimum number of ICE km displaced by all electric operation Seems to be most important range durability aspect <p>All-electric range (Range before first ICE start)</p> <ul style="list-style-type: none"> EU Group View: some concern about requiring durability for this value, since some manufacturers have ICE operate in certain conditions regardless of battery condition (i.e. above 80 km/h)
<p>PEV</p>	<p>X</p>	<ul style="list-style-type: none"> Draft EU position is that this criteria is not needed EVE Group View: <ul style="list-style-type: none"> Only reason to establish energy consumption requirement for PEV is if there will be an associated requirement to assess/include upstream emissions 	<ul style="list-style-type: none"> Draft EU Position - greater than [90%] certified range for [5 years] or [100,000 km] (draft EU position) EVE Group View <ul style="list-style-type: none"> PEV should always have same range durability lifetime requirement as durability requirement for other architectures Consider longer durability requirement for PEV range (i.e. [80% or 70%] at 150,000 km or 200,000 km; 8 or 10 years;) consider defining durability requirement as a function of base range, perhaps within a threshold (i.e. [80 km to 350 km] base range) Draft Japan Position: <ul style="list-style-type: none"> to determine with discussion under EVE IWG collaborating with



[] – square brackets note items that need to be firmly defined at some point

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