

Discussion Paper

HOW THE TEST CYCLE SHOULD BE ?

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12th WLTP SG EV
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Trigger : cycle modification discussion

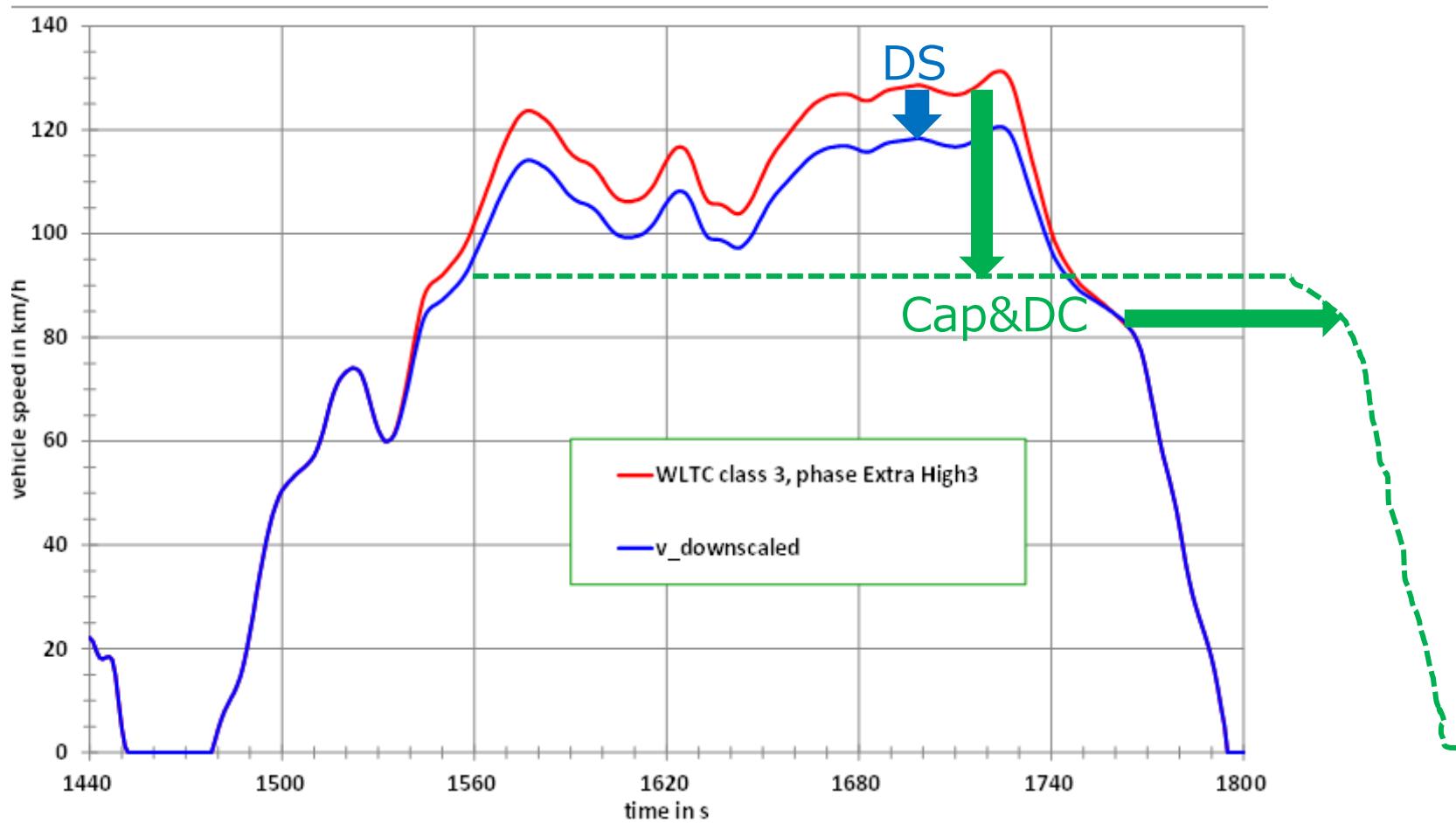
JAMA understanding :

	Priority	How to achieve?
EU	representative value	Cycle should be flexible based on vehicle specification
JPN	compatible value	Cycle should be identical regardless vehicle specification

Available Cycle Modification

DS : downscaling (apply only Ex-High phase)

Cap&DC : cycle maximum speed is same as vehicle maximum speed and compensate the distance



Cycle Modification(each region position)

OK
NG

		conventional			EVs				CO2 reg.	incentive
	Cate. Modify	class1	class2	class3	class1	class2	class3	Class3 (City)		
EU	base								OK	OK Up to each MS
	DS						PEV only		?	?
	Cap & DC	*1							?	?
JPN	base	Few model is available						*2	OK	OK
	DS								NA	NA
	Cap & DC								NA	NA

*1) under the discussion

*2) apply only when the vehicle is not able to follow the target trace

Discussion Points

For EVs,

- ①. Do we really need the classification of EVs (↔) ?
- ②. If yes, system power newly developed is appropriate parameter?
- ③. If system power was developed, how can we find the appropriate threshold of classification ?
- ④. If classified, how can we distinguish between class1 and class3_city cycle ?

	conventional			EVs	
cate. Modify	class1	↔	class2	↔	class3
No				class1 ↔ class2 ↔ class3	①/②/③
DS					④
Cap & DC					PEV only

JAMA has just started to re-consider this fundamental theme

If we re-visit the classification of conventional vehicles (↔), people say we can't grasp the atmosphere. So we give up.

JAMA Proposal

Keep discussion on what we really need for cycle classification/modification and provide clear guideline for EVE IWG by the next GRPE under the current SG EV member with Steven-san.

PS) power curve for gear shift calculation : considering the expected outcome and testing burden, seems to have few possibility to surpass the current gtr text (manufacture recommended shift points).
→ No need to ask EVE IWG for further study.