

EV Postprocessing For WLTP Phase 2

FOR SG EV MEETING, 25TH OF APRIL 2016

PARIS





EV POSTPROCESSING FOR OVC-HEV

EV POSTPROCESSING OVC-HEV CD(1)

ACEA								_									•	•						
step 1	Determination of used elec. en. $\Delta E_{REESS,s,p}$, driven dist. $d_{driven,s,p}$, usable battery en. UBE and recharged en. E_{AC} , CO2, pollutant emissions, AER	$\Delta E_{\text{REESS,j}}$ E_{cycle}					ירח 'דחח_	M _{CO2} CD	M _{i CD,j}	PN _{CD,i}		or ju	PM _{CD.c}	d	UBE		E _{AC}		(K _{co2})					AER
step 2	Calculation of relative electric energy change for each cycle.	ΔE _{REESS,j} E _{cycle}	REEC,c	high.	(mid)	cycle for vehicle	For each test and																	
step 3	Determination of the transition and confirmation cycle and $\ensuremath{R_{\text{CDC}}}$		REEC,c	N ,veh	R _{CDC}	and high.	low,	test for vehicle	For each															
step 4	$n_{\text{veh},\text{L}}$ and $n_{\text{veh},\text{H}}$ comparision, interpolation check			N ,veh		n,veh,L	n tugu.	and	low, (mid)	test for vehicle	For each													
step 5	Calculation of combined emission values for each cycle								M _{i cD,j}	PN _{CD,i}	M _{i CD c}	PN _{cn}	and high.	(mid)	vehicle	test and								
step 6	Emission averaging and pass/fail-check for each cycle									, chilolana	M; CD c ave	PN	PMCD.C.ave	and high.	(mid)	vehicle	test and							
step 7	AER _{city} calculation (alternative to WLTCcity measurement) and averaging.	$\Delta E_{\text{REESS},j}$										·		d	UBE	AER _{city}	and high.	(mid)	vehicle	For each test for				
step 8	Calculation of phasespecific and cyclespecific UFs													d				UF	ailu high.	(mid)	vehicle	phase for	For each test and	
step 9	Calculation of electric energy consumption (@ mains)	ΔE _{REESS,j}		n _{,veh}		n _{veh_L}								d			E _{AC}	UF		EC _{AC,CD}	EC _{AC,w} .	high.	(mid)	test for vehicle
step 10	Charge-depleting CO_2 calculation			n _{,veh}		n _{veh_L}	, ערי	Mont on a			nıgn.	vehicle	K _{CO2}	and high.	(mid)	vehicle	For each	UF	(K _{co2})			Mco2,cd		
step 11	Charge-depleting fuel consumption calculation			N ,veh		n _{veh_L}	- u, u, j	Mong on a	M _{i cd,j}									Ę	high.	and	vehicle Iow.	For each test for	FC _{CD}	



EV POSTPROCESSING OVC-HEV CD(2)



Note:

The AER interpolation first has to be checked with a criteria that depends on $R_{CDA} \rightarrow$ slide for CD & CS merging Same $n_{veh_{-L}}$ and $n_{veh_{-H}}$ is necessary if more than one charge-depleting test shall be averaged. UF coefficients not shown in this figure, but of course necessary.



EV POSTPROCESSING OVC-HEV CD+CS(1)





EV POSTPROCESSING OVC-HEV CD+CS(2)





EV POSTPROCESSING FOR PEV (STP)



EV POSTPROCESSING PEV (STP)

step 1	Determination of used electric energy $\Delta E_{REESS,s,p}$, driven distances $d_{driven,s,p}$, usable battery energy UBE and recharged energy E_{AC}	ΔE	d	UBE	E _{AC}					Sim De	olified tailed	schen descr	natic iptior	figure. 1 in the
step 2	Calculation of weighting factors	ΔE		UBE		К		GTR draft. No focus on phase or cyclespecific visualisati						
step 3	Calculation of electric energy consumption (@REESS)	ΔE	d	UBE		К	EC _{DC}	EC _{DC,CD}	(COPv	alues	only fo	or Eur pu	opean rpose.
step 4	Calculation of pure electric range			UBE			EC _{DC}	LJ	PER					
step 5	Calculation of electric energy consumption (@ mains)				E _{AC}				PER	EC				
step 6	Averaging of tests and declared value								PER	EC	PER _{WLTC} PER _p	$\frac{EC_{WLTC}}{EC_{p}}$		1
step 7	Adjustment of electric energy consumption for COP							EC _{DC,CD}		EC		EC _{WLTC}	AF	EC _{DC,COP}
step 8	Final results (vehicle low and high) for the interpolation and intermediate rounding										PER _{WLTC} PER _p	$\frac{EC_{WLTC}}{EC_{p}}$		EC _{DC,COP}
step 9	Interpolation for individual vehicle values										PER_{ind}	EC _{ind}		EC _{DC,COP}



Thank you for your attention www.acea.be

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