

# Summaries of considerations for a standalone vs separate GTR on in-vehicle power determination

## Considerations in Selecting a Standalone GTR vs Annex to GTR No. 15

### Background

The current mandate under which EVE operates was issued in 2016. Among other actions, it authorizes the development of an amendment to UN GTR No. 15 for system power determination. The mandate also lays out a timeline for this task to be completed by November 2019.

At the October 2017 EVE meeting in Vienna, Andre pointed out that the EVE also has the option of pursuing this task as a standalone GTR rather than an Annex to GTR No. 15. This approach could offer several potential advantages, such as the ability for the procedure to be used for purposes beyond the WLTP (for example, for consumer information or taxation), and the ability for contracting parties to vote or adopt the GTR independently of their status with respect to GTR No. 15.

The current mandate specifically authorizes an amendment to GTR No. 15 and does not explicitly authorize a standalone GTR. However, it has been suggested that the mandate could easily be modified.

At the June 2018 GRPE meeting in Geneva, several contracting parties (US, Canada, EU) supported pursuing a standalone GTR. Japan continued to support an Annex as the only option currently authorized by the mandate, also stating that it does not see clear demand for a standalone GTR despite the positions of the other parties. Japan has also previously suggested that an Annex is the most practical option given the time available.

At the June 2018 WP.29 meeting, Canada and Sweden continued to support a standalone GTR, while Japan stated that it was still considering its position and requested more time to consider the advantages and disadvantages. EVE was tasked to prepare an informal document on the two options to be presented at AC.3 in November 2018.

### Considerations

(in no particular order. This is just a list of considerations that have been formally or informally expressed at various times and places)

1. The current mandate specifies an amendment to GTR No. 15 and may need to be modified to permit development of a standalone GTR.
2. The timeline in the current mandate assumes development of an amendment to GTR No. 15. Developing a standalone GTR may require more time and effort than an amendment. The contracting parties should consider the possibility that selecting a standalone GTR may impact the current timeline and level of effort, and that the timeline authorized in the mandate may need to be modified.

3. A standalone GTR separates power determination from WLTP, and therefore offers the possibility for contracting parties to vote on or adopt the procedure independently of their status with respect to GTR No. 15.

4. GTR No. 15 concerns measuring of emissions and energy consumption, while the power determination test procedure concerns measuring of power. Some have expressed the sentiment that GTR No. 15 is therefore not the most appropriate place to introduce matter concerning the measuring of power.

5. For conventional and pure electric vehicles, GTR No. 15 currently delegates power determination to UN Regulation 85, rather than incorporating its own unique procedure. For this reason, some have expressed the sentiment that the most consistent approach would be to develop the HEV power determination procedure as an annex/"Part B" to UN Regulation 85, rather than an amendment to GTR No. 15. The same reasoning could support pursuing a standalone GTR rather than an amendment.

6. Embedding the power determination procedure into GTR No. 15 would increase the size and complexity of an already very large and complex GTR.

7. If there is intent or expectation that contracting parties may choose to use the procedure for purposes outside the scope of GTR No. 15, that is, other than for downscaling and classification, then embedding it into GTR No. 15 limits its accessibility for such purposes.

8. OICA has expressed the position that the current mandate is concerned specifically with WLTP's need for a classification and downscaling procedure that is applicable to HEVs, and not with other purposes outside of this scope. OICA therefore supports an amendment to GTR No. 15.

9. OICA has also stated that EVE's decision to base the power determination procedure on the ISO procedure, and the validation testing performed by Japan as part of this process, were specific to satisfying the downscaling and classification needs of WLTP. OICA feels that, if the decision is to instead develop a standalone GTR that might be used for other purposes outside of this limited context, it calls into question whether the ISO procedure was the appropriate basis, and would call for additional consideration and validation, i.e. to more fully evaluate the ISO procedure in the light of any specific proposed uses for a standalone GTR (such as consumer information or taxation). For example, the purpose of downscaling and classification favors identifying what could be considered a "minimum maximum power," while the purpose of consumer information favors identifying an absolute maximum power. Also, the ISO procedure only identifies a single power value applicable to WLTP and does not develop a power curve that may be more informative in other contexts. OICA would wish to further evaluate these issues if a standalone GTR were selected.

From the 17<sup>th</sup> GRPE the June meeting report. The outcome of the discussion was that the Secretary of GRPE offered to prepare an informal document on each of the options discussed (i.e. (1) a standalone GTR as proposed by André and (2) an annex to UN GTR No. 15 as recommended by Japan) and that the document would be presented at the next session of AC.3 in November.

The following is a collection of notes from the meeting, with documents as references

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UN GTR No. 15 (Worldwide harmonized Light vehicle Test Procedures (WLTP) – Phase 2) (agenda item 18.6)

*Documentation: ECE/TRANS/WP.29/AC.3/39*

*ECE/TRANS/WP.29/2016/29*

*ECE/TRANS/WP.29/2016/73*

*ECE/TRANS/WP.29/AC.3/44*

146. The representative of the Netherlands, Chair of GRPE, requested guidance from AC.3 on the development of power system determination for Off-Vehicle Charge Hybrid Electric Vehicle (OVC-HEV) and Non Off-Vehicle Charge Hybrid Electric Vehicle (NOVC-HEV). During its June 2018 session, GRPE expressed the will to modify the existing mandate so that the provisions on system power determination would be included in an annex of UN GTR No. 15. Most contracting parties would prefer to have system power determination as a standalone UN GTR.
147. The representatives of Canada and Sweden confirmed their preference for the standalone UN GTR.
148. The representative of Japan was still considering its position and requested more time to assess the benefits and drawbacks of having system power determination as a standalone UN GTR or as an Annex to UN GTR No. 15.
149. The Secretary of GRPE offered to prepare an informal document on each option that would be presented at the next session of AC.3 in November 2018.

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The following is from document EVE-26-08e at the 26<sup>th</sup> EVE meeting and summarizes the EVE IWG PROs and CONS of a stand-alone or annexed GTR.

## **Standalone or w/ R.85 GTR pros and cons**

Pros	Importance rating					Cons	Importance rating				
	1	2	3	4	5		1	2	3	4	5
Could facilitate easier usage by contracting parties for non-WLTP reasons in future (i.e. information or taxation)	1	2	3	4	5	1. no clear demand from any contracting party other than WLTP	1	2	3	4	5
Simpler to implement in domestic legislation afterwards	1	2	3	4	5	Battery durability work could be affected by more resources focused on this GTR	1	2	3	4	5
3.Would allow contracting parties to clearly vote on this test procedure, without making any broader statement on WLTP	1	2	3	4	5	3.likely to be more work to develop standalone GTR than Annex to GTR No. 15	1	2	3	4	5
4.	1	2	3	4	5	Possibly more work to implement in domestic legislation	1	2	3	4	5
5.	1	2	3	4	5	May impact timelines of procedure (possibly risk final GTR approved by AC.3 in Nov 2019)	1	2	3	4	5
6.	1	2	3	4	5	6.	1	2	3	4	5
7.	1	2	3	4	5	7.	1	2	3	4	5
<b>Total added rating</b>						<b>Total added rating</b>					

## Appendix GTR Pros and Cons

Pros	Importance rating					Cons	Importance rating				
1. Clear that procedure was initially developed and intended only for cycle classification and downscaling	1	2	3	4	5	1.	1	2	3	4	5
2. Makes it clear that if contracting party doesn't use WLTP, then no need to use this procedure for classification and downscaling	1	2	3	4	5	2.	1	2	3	4	5
3. Helpful for contracting parties not concerned with other, non-WLTP uses	1	2	3	4	5	3.	1	2	3	4	5
4.	1	2	3	4	5	4.	1	2	3	4	5
5.	1	2	3	4	5	5.	1	2	3	4	5
<b>Total added rating</b>						<b>Total added rating</b>					

## Notes of a few statements and views that have been discussed

- *Power determination for conventional vehicles is a standalone GTR, and not part of the WLTP procedure.*
- *An annex to WLTP implies that the authors did not intend for the procedure to be used for reasons other than the WLTP.*
- *Current GTR very large, and some members are concerned about making the WLTP overly large/complex*
- *Some members think that because the GTR is so large that an additional ~20 page annex is small in comparison*
- *Likely to be same difficulty/ease of transposing into European legislation between both formats*
- *Standalone may be easier for transposition into 1958 agreement, though not clear if transposition into 1958 agreement would be needed*  
*Agreement between Japan and EU normally most important aspect concerning ease (or difficulty) of transposition*