

Low Temp Test procedure for EVs

Revised ACEA EV proposal taking discussions and feedback of SG EV meeting on February 13th and JPN proposal into account

Status: 18.02.2020

Pure electric vehicles

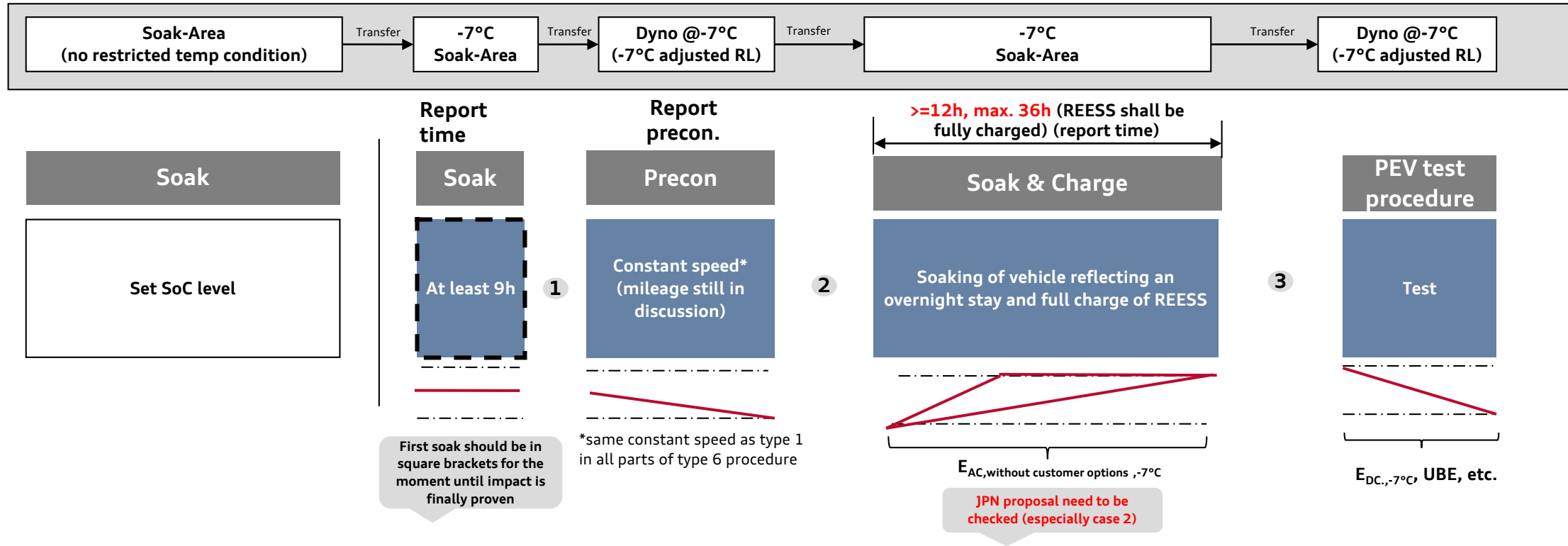
ACEA TF EV Low Temp Test Procedure proposal

Status: 18.02.2020

Test Procedure (PEV) – Shortened Test Procedure or Consecutive Cycle Procedure

Proposal for -7°C Procedure – Base procedure with no customer preconditioning action

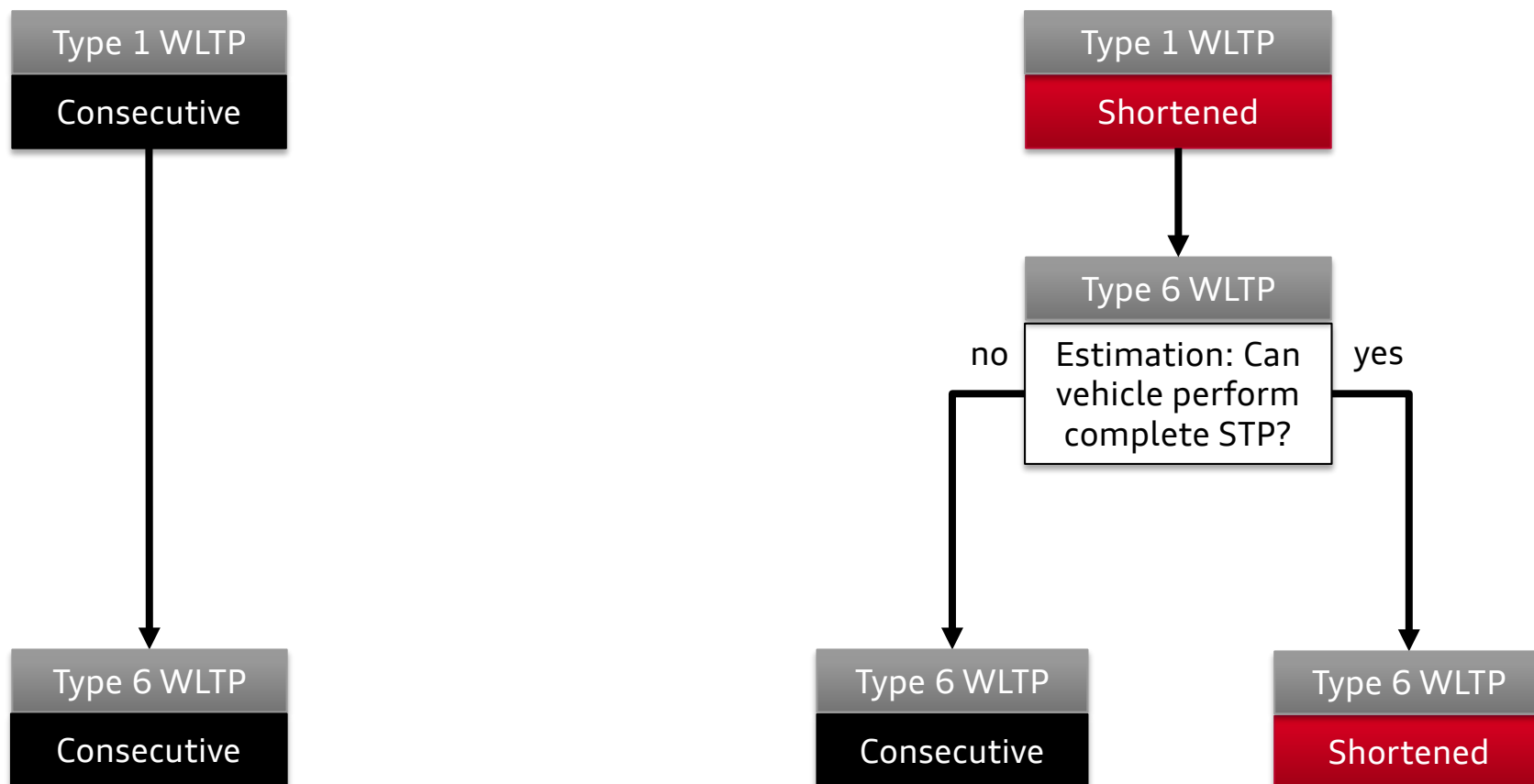
Proposal ACEA TF EV (revised version based on SG EV meeting on February 13th):



- 1 Leaving soak (-7°C) until starting PreCon test in test cell (-7/23°C): max.: [40] min (transfer: max. [20] min, preparation on dyno: max. [20] min)
→ Without any unjustified delay
- 2 End test cycle (-7°C) and placing in soak (-7°C): max.: [30] min where max. [20] min for transfer
→ without any unjustified delay, connecting to grid within max. [30] min
- 3 Leaving soak (-7°C) until starting test in test cell (-7/23°C): max.: [40] min (transfer: max. [20] min, preparation on dyno: max. [20] min)
→ Without any unjustified delay; vehicle shall not receive unjustified exposure to temperatures higher than -7°C; in case that is unavoidable, this shall not be longer than [20] min
→ Note: only max. [30] min between different tests on the dyno shall not be exceeded (only related to dyno warm-up)

Test Procedure (PEV) – Procedure determination

Procedure selection flow chart – option 1 (with existing procedures)



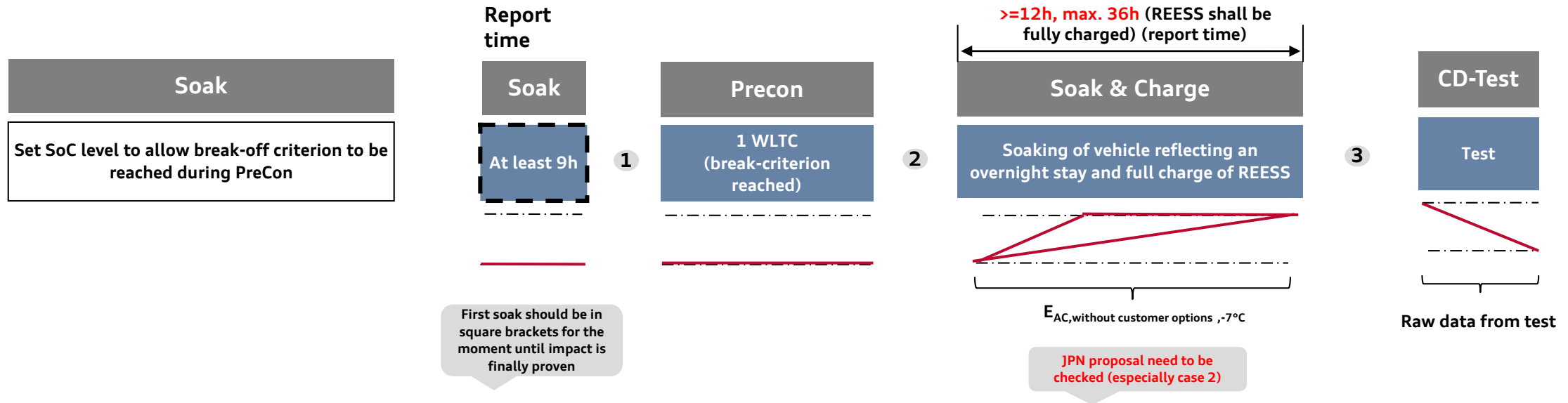
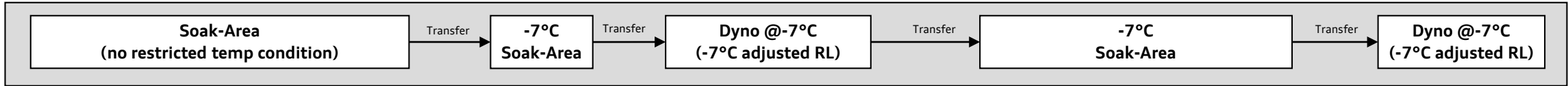
(N)OVC-HEVs

ACEA TF EV Low Temp Test Procedure proposal
Status: 18.02.2020

Test Procedure (OVC-HEV) – Charge Depleting Test

Proposal for -7°C Procedure – Base procedure with no customer based preconditioning action

Proposal ACEA TF EV (revised version based on SG EV meeting on February 13th):

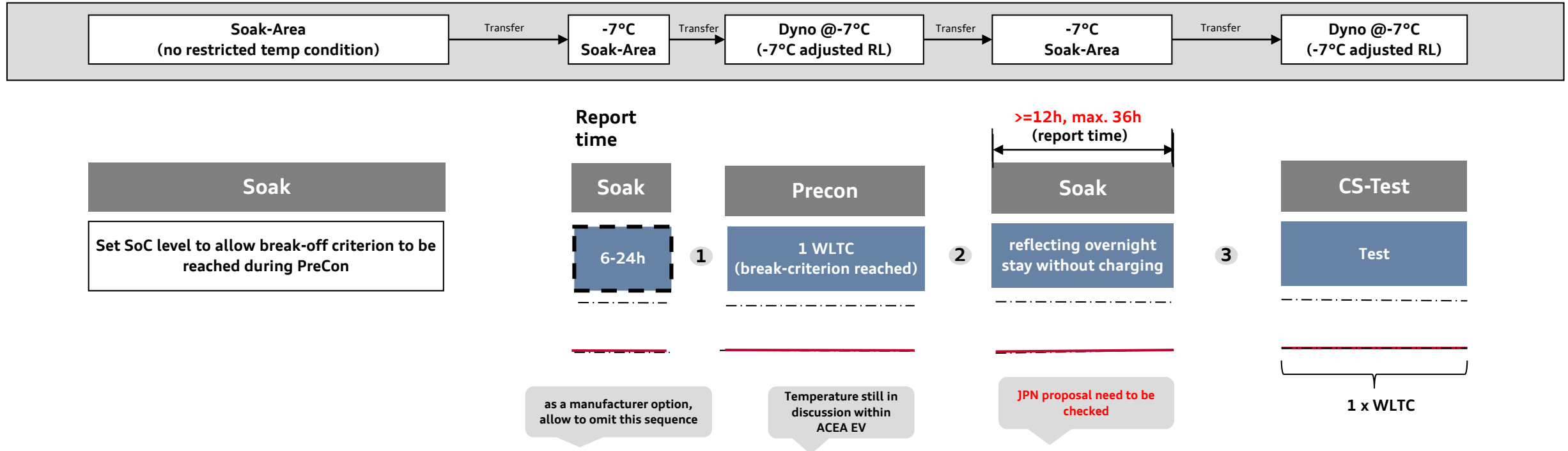


- 1** Leaving soak (-7°C) until starting PreCon test in test cell (-7/23°C): max.: [40] min (transfer: max. [20] min, preparation on dyno: max. [20] min)
→ Without any unjustified delay
- 2** End test cycle (-7°C) and placing in soak (-7°C): max.: [30] min where max. [20] min for transfer
→ without any unjustified delay, connecting to grid within max. [30] min
- 3** Leaving soak (-7°C) until starting test in test cell (-7/23°C): max.: [40] min (transfer: max. [20] min, preparation on dyno: max. [20] min)
→ Without any unjustified delay; vehicle shall not receive unjustified exposure to temperatures higher than -7°C; in case that is unavoidable, this shall not be longer than [20] min
→ Note: only max. [30] min between different tests on the dyno shall not be exceeded (only related to dyno warm-up)

Test Procedure ((N)OVC-HEV) – Charge Sustaining Test

Proposal for -7°C Procedure

ACEA proposal Charge-Sustaining Test (revised version based on SG EV meeting on February 13th):



- 1 Leaving soak (-7°C) until starting PreCon test in test cell (-7/23°C): max.: [40] min (transfer: max. [20] min, preparation on dyno: max. [20] min)
→ Without any unjustified delay
- 2 End test cycle (-7°C) and placing in soak (-7°C): max.: [30] min where max. [20] min for transfer
→ without any unjustified delay
- 3 Leaving soak (-7°C) until starting test in test cell (-7/23°C): max.: [40] min (transfer: max. [20] min, preparation on dyno: max. [20] min)
→ Without any unjustified delay; vehicle shall not receive unjustified exposure to temperatures higher than -7°C; in case that is unavoidable, this shall not be longer than [20] min
→ Note: only max. [30] min between different tests on the dyno shall not be exceeded (only related to dyno warm-up)