

Proposed Tiered Certification Requirements for OVCC Conversion Systems

Tier [†]	Number of systems that can be sold in the tier ¹	Requirements prior to sale in the tier	Action items to proceed to next tier
1	0-10	1. Application (see below for items to be included) 2. Engineering analysis showing no impact on emissions (specifically canister purge and cold starts) 3. Submit durability test plan ² and initial durability data (component and in-use) ³ 4. System Warranty 3yr/50K mi 5. Installation Warranty 3yr/50K mi 6. ARB approval of engineering analysis & submittal prior to exemption/sale	1. Conduct emission tests. 2. Develop process for compliance with OBD. 3. Maintain record of sales/installations. 4. Durability test plan begins for their vehicle ³
2	11-100	1. Application for Tier 2 2. Emission test data 3. Show that durability testing has begun ³ 4. Show of readiness indicators set and no OBD MIL/ DTC during emission tests 5. OBD compliance plan 6. System warranty: 5yr/75K mi 7. ARB may perform confirmatory testing to verify emission test data. If requested, provide test vehicle. 8. ARB approval of submittal prior to exemption/sale	1. Start OBD compliance process. 2. Maintain record of sales/installations. 3. Continue durability testing
3	101+	1. Application for Tier 3 2. Durability test data to vehicle useful life ³ 3. Battery durability/test data 4. OBD approval 5. System warranty: 5yr/75K mi or remaining OEM warranty, whichever is longer 6. ARB approval of submittal prior to exemption/sale	1. ARB will begin in-use testing. If requested, conversion manufacturers provide converted vehicles ³ . 2. Maintain record of sales/installations.

Tier 1 Application includes the following requirements: 1) Company information; 2) Description of system; 3) Installation/maintenance procedures; 4) Label; 5) Owner's manual; 6) Manufacturer/installer installation records

The number of systems sold is the total cumulative number of systems for the manufacturer irrespective of system types/designs, vehicle model-years, and vehicle models.

[†] The tiered system ends and is no longer available for any manufacturer after a cumulative total from all manufacturers reaches 5000 vehicle conversion kits⁴. For the 5001st vehicle conversion and all conversions after, all manufacturers must meet the full certification requirements in the regulation. OBD compliance flexibility is still available under the OBD regulations.

¹ The experimental permit process allows manufacturers to produce a prototype system and test up to 5 vehicles. Manufacturers must apply for the permits and the vehicles cannot be sold.

² Plan must be for useful life of vehicle.

³ Up to 5 vehicles temporarily needed for in-use testing.

⁴ 5000 vehicles would be about 5% of HEVs. Currently, there are 100,000 HEVs are in CA.