

# **ZERO EMISSIONS VEHICLE REPOWER ACCREDITATION SCHEME (ZEVAS) GUIDANCE NOTES FOR THE COMPANY AUDIT PROCESS**

## Glossary of Terms

Term	Definition
Clean Air Zone (CAZ) or Ultra-Low Emission Zone (ULEZ) or Low Emission Zone (LEZ)	A designated area governed by a protocol (the Scheme) to reduce emissions from internal combustion engine light & heavy-duty vehicles.
CAZ Scheme Operator	The organisation which manages transport within a designated clean air zone (CAZ) area or region of the UK.
Zero Emission Vehicle Repower Company Approval Certificate (ZEVRC)	A ZEVRC is issued to a repower manufacturer who has passed the ZEVRC company approval process.
Zero Emission Vehicle Repower Product Approval Certificate (ZEVRPC)	A ZEVRPC is issued to a repower manufacturer whose system or technology has passed the ZEVRC product approval process. The ZEVRPC defines the range and scope of those vehicles which are approved for the adaptation(s).
Repower adaptation	The powertrain conversion, assembly of repower components or other as yet unspecified technologies which when installed on a vehicle make it a zero-tailpipe emissions vehicle, including zero emissions heating. The repower adaptation will make the vehicle compliant with the requirements of a CAZ, ULEZ or LEZ in respect of reduced exhaust emissions (i.e., by removing all tailpipe emissions).
Zero Emission Vehicle (ZEV)	A vehicle with no tailpipe emissions or emissions from cooling or heating devices used to control the internal temperature of the vehicle.
Zero Emission Bus (ZEB)	A bus with no tailpipe emissions or emissions from cooling or heating devices used to control the internal passenger compartment temperature of the bus.
Zero Emission Bus (ZEB) Certificate	A certificate issued for a zero emission bus, specific to make and model, that demonstrates the “well to wheel” GHG emissions performance (gCO <sub>2</sub> e/km), energy efficiency (kW/km) and electric range (km) when tested over the representative bus test cycle.

<p>Bus Service Operators Grant (BSOG) and Zero emission bus (ZEB) incentive</p>	<p>The Bus Service Operators Grant (BSOG) is a discretionary grant paid to eligible transport operators to help them recover some of their fuel costs and used to incentivise the introduction of low carbon and zero emission buses.</p> <p>Operators of vehicles that hold a zero emission bus certificate may be eligible for a 22p per kilometre rate of BSOG for those vehicles.</p> <p>Eligible buses must:</p> <ul style="list-style-type: none"> <li>▪ meet the normal BSOG rules</li> <li>▪ demonstrate zero tailpipe emissions</li> <li>▪ have no internal combustion engine (for example, electric and hydrogen buses)</li> </ul> <p>This will need to be verified by certification, which builds on the existing testing and certification process for the Low Carbon Emissions Bus (LCEB) incentive.</p> <p>Vehicles for which operators receive the ZEB incentive are not eligible for any other incentives.</p>
<p>Approval</p>	<p>Approval is granted when a manufacturer has demonstrated compliance with the requirements of the ZEVRAS through successful audit and further that the nominated repower adaptation has been demonstrated to satisfy the ZEVRAS Code of Practice (repower technical requirements).</p>
<p>Technical requirements</p>	<p>Specification of repower adaptation to be met by a vehicle repower in approved tests carried out by an accredited test facility under a defined and witnessed protocol.</p>
<p>Approved Manufacturer</p>	<p>A commercial organisation which develops, produces and supplies repower adaptation(s) for application to vehicles, having demonstrated that it meets the Scheme company and Code of Practice technical requirements.</p>
<p>Authorised Supplier</p>	<p>An organisation contracted by the Approved Manufacturer to supply repower adaptations. Where a repower adaptation requires component supply, fitting and testing, the Authorised Supplier is required to supply all necessary parts, fitting kits or other items to permit the successful repowering adaptation. The Authorised Supplier may also be the Approved Manufacturer.</p>

Authorised Installer	An organisation authorised by the Approved Manufacturer to install Approved Adaptations and/or to be responsible for this activity to the satisfaction of the Approved Manufacturer (may also be the Approved Manufacturer or Authorised Supplier). Where appropriate safeguards are in place to ensure the satisfactory performance of the repower adaptation, the Approved Manufacturer may permit the purchaser of the repower adaptation to carry out installation, subject to notification and approval by a Certification Body.
Certification Body	An organisation appointed to approve the technical performance of repower adaptations and to undertake supplier company audits granting Certification as appropriate to Approved Manufacturers.
Certification	Process of audit and inspection through which manufacturers of repower adaptations may be approved and certified having demonstrated their compliance with all the scheme requirements.
Zero Emissions Repower Vehicle Certificate (ZERVC)	A ZERVC is issued to an individual vehicle which has been fitted with an approved repower adaptation, supplied by a manufacturer who has met the requirements of the certification process.
Audit	On-site inspection and assessment carried out by an approved Certification Body as part of the company approval process, and repeated typically once every year in order to maintain company certification.
ZEVRA Company Audit Checklist	The ZEVRA Company Audit Checklist (Checklist) is the controlled document published by an approved Certification Body to provide guidance to repower adaptation manufacturers of the evidence which will be required to meet the requirements of the Scheme. The Checklist also provides the basis of and working document for audits of Approved Manufacturers.
DVSA	The Driver and Vehicle Standards Agency responsible for in service vehicle testing and compliance in the UK.
Authorised Examiner	An individual, commercial organisation or other responsible body appointed by DVSA to carry out initial compliance checks of emissions abatement adaptations fitted to vehicles.
Vehicle telematics system	An electronic system of datalogger and transmitter that is fitted to a vehicle and can record and transmit vehicle and/or engine operational parameters so that remote analysis is possible for an individual vehicle or group of vehicles.

## Who is included within the scope of this document?

- Companies applying, for the first time, for approved manufacturer status for Zero Emission Vehicle Repower Accreditation Scheme (ZEVAS) compliant repower adaptations.
- Companies whose initial approval as manufacturer of ZEVAS compliant adaptations has fallen due for renewal (normally annually).

## Outline of the certification process

There are two stages to certification as a manufacturer of ZEVAS compliant repower adaptations:-

1. The ZEVAS (Company Audit) company approval process as described here.
2. The ZEVAS (Adaptations) Code of Practice (technical requirements) product approval process, which are described in further documents available on the ZEVAS web pages hosted on the Energy Saving Trust (EST) website.

It is necessary to satisfy both sets of requirements to achieve certified status for the supply of repower adaptations, and so to be able to supply to vehicle operators.

## The Process

The prospective applicant should read this document and the attached ZEVAS assessment checklist to determine whether they meet all the requirements of the scheme. The applicant should also ensure that the company is ready for the ZEVAS Company Audit process to take place. Clarification may be obtained from the recognised certification body, namely Energy Saving Trust regarding the scheme requirements.

When ready, the applicant should contact certification body, details listed at the end of this document, to arrange for the ZEVAS Company Audit to take place. The certification body will endeavour to conduct this audit within 10 days of receipt of the request made directly by the applicant. The company audit will normally take place at the registered office of the applicant but may be conducted at another acceptable venue by mutual agreement.

In advance of the company audit, the applicant is advised to gather the information outlined in the checklist to ensure that all information is available. In any case, it will be necessary to ensure that all relevant information is available on the day of the audit.

After completion of the company audit, the auditor will make a recommendation as to whether certification should be granted and will inform the applicant accordingly. The findings of the auditor will be subject to review by the certification body. Provided that no further evidence is required, the certification body will inform the applicant of whether their application has been successful. The certification body will normally aim to notify the applicant of this decision within 10 working days of completion of the audit.

Where any aspect of the company audit is found to be non-compliant, a corrective action request will be raised. It is possible for approval to be given with corrective action requests in place, dependent on the seriousness of the non-compliance. Corrective action requests are categorised as major or minor non-compliances and will have a timescale for re-inspection stated.

## **Right of Appeal**

If the applicant is refused approval under the ZEVRAS company approval process, they will have a right of appeal. This appeal must be submitted in writing not more than 28 calendar days after the company audit process has been completed, to the certification body that carried out the initial audit. Formal appeals will be considered by the certification body in conjunction with a relevant independent body.

Should further expense be incurred as part of the appeal process, for instance, by a repeat of the company audit, the applicant will be liable for these further expenses.

## **Audit fees**

Scheme stakeholder namely the UK Government Department for Transport has appointed an independent certification body, namely the Energy Saving Trust (EST) to carry out the audit of companies and to take responsibility for approval of repower adaptations. Contact details for the approved certification body are listed on the operating authority website. This organisation will charge the company being certified for their work, and it is the responsibility of the company being certified to pay these fees. Companies are advised to check with the certification body for the respective charges and services offered.

It should be noted that the cost of certification will depend upon the complexity of the certification and the effort required.

Company audits are renewable annually, at which time a further audit fee will be payable by the applicant. Further details may be found in the certification body Terms and Conditions. Please note that additional activity as a result of appeals against audit decisions may be chargeable (please see separate section on appeals).

## **Publication of audit results**

The details of audit results are commercially confidential and not published.

The contact details of companies which have received approval under the ZEVRAS approval process will be published on the EST website within lists of approved manufacturers. Companies may inform their customers of this approval once notification is received and refer to the EST website for confirmation of this status.

Companies whose approval is subsequently withdrawn will be removed both from the website and lists of approved manufacturers. Companies without approval, or whose approval has been withdrawn must not infer to potential customers that they have approval and must

remove all references to past approval from their publicity material, documentation and web sites as soon as possible.

In the absence of a DVSA vehicle inspection process for a repowered vehicle, ZEVRAS approved companies are required to record their vehicle repowers and issue a unique vehicle conversion certificate. Approved companies shall submit their complete repowered vehicle log on a regular basis for the certification body to collate into the ZEVRAS repowered vehicle database and upload to the CAZ Vehicle Checker database for the purposes of compliance within charging CAZ, ULEZ or LEZ automatic number plate recognition (ANPR) systems.

Approved ZEVRAS companies will be issued a vehicle installation certificate template and vehicle conversion log template once approved. These shall be completed by the approved company and submitted to comply with the scheme rules.

The DVSA shall continue to administer the VTP05 process for vehicle alterations that continues to be the minimum legal requirement associated with a vehicle repower. The ZEVRAS shall align with VTP05 procedures and processes where appropriate.

## **Information requirements**

The following information shall be produced by all companies seeking certification to supply repower adaptations under the ZEVRAS Company Audit Process. Evidence should be in the form of documentation, where appropriate. The auditor may request copies of relevant documents.

### **Evidence that the applicant is an identifiable legal entity**

- For UK applicants, this may be a sole trader, a group of individuals trading in partnership, or a corporate body such as a limited company or limited liability partnership.
- Otherwise the applicant must be a company established in a member state of the European Union or European Economic Area.

### **Financial information**

The applicant shall provide, as a minimum, the following information, taken from the last two sets of audited accounts;

- Details of turnover for the last two years
- Audited balance sheet for the last two years

Companies that have been recently formed and do not have this information, or partnerships and sole traders not required to publish their accounts may still apply. Additional information may be sought in this instance. All non-public information supplied to support an application will be treated in the strictest confidence. Applicants should be aware that CAZ, ULEZ or LEZ

operating authorities are public sector organisations and must adhere to the requirements of the Freedom of Information Act 2000 the Environmental Information Regulations 2004.

## **Terms & Conditions of business**

As part of the company audit, the applicant must provide a copy of the current Terms & Conditions of Business. Any subsequent changes to the Terms & Conditions must be notified, as soon as possible, to the certification body.

## **Product/public liability insurance**

The applicant shall hold suitable product/public liability insurance arranged with a reputable insurer providing a minimum of £5,000,000 (five million pounds) cover for any one occurrence in respect of its business activities and the equipment that it supplies or fits to vehicles.

The applicant shall provide a copy of the valid insurance certificate and, if requested, further information such as a current policy booklet or insurance schedule relating to the required cover. This must be available at the time of audit and any subsequent re-assessment visit.

## **Employer liability insurance**

An applicant having one or more employees is required to hold suitable Employers' Liability Insurance with a reputable insurer, providing a minimum of £5,000,000 (five million pounds) cover for any one occurrence.

The applicant must provide a copy of the valid insurance certificate and, if requested, further information such as a current policy booklet or insurance schedule relating to the required cover. This must be available at the time of audit and any subsequent re-assessment visit.

## **Parts and labour warranty**

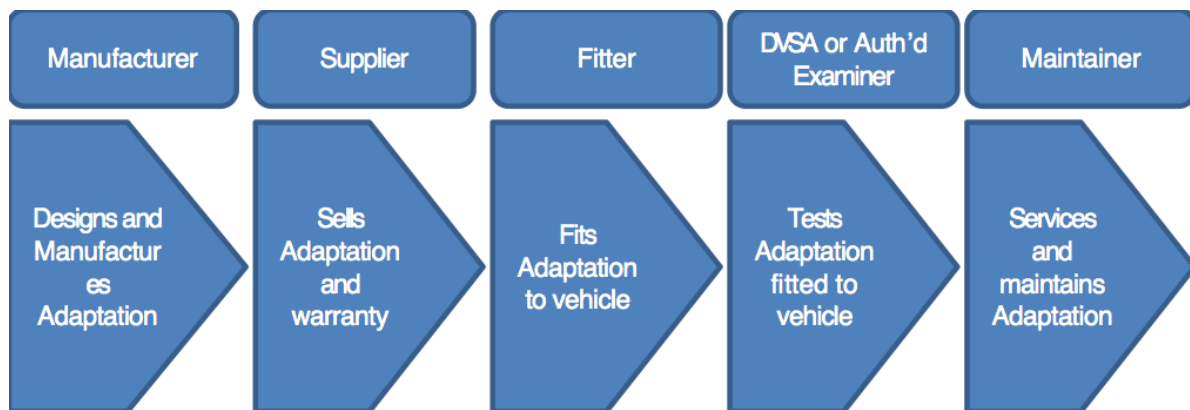
The manufacturer of ZEVRAS repower adaptations shall provide an in-service warranty, covering both technical performance & function and quality of manufacture & installation for a minimum of two years from the date of supply. This warranty shall provide full cover for parts, labour and relevant on-site support costs.

## **Quality standards**

The applicant shall hold a UKAS (or EU equivalent) accredited ISO 9001:2015 or International Automotive Task Force (IATF) 16949:2016 certificate. This is in order to demonstrate that it possesses the ability to consistently supply products that satisfy customer expectations, regulatory requirements and the ZEVRAS certification requirements. The applicant will be responsible for ensuring that all employees, agents or sub-contractors carrying out activities on its behalf are made aware of and comply with the ZEVRAS requirements. Where the applicant already holds an accredited ISO9001:2015 or IATF16949:2016 certificate, the QA audit may be simplified.



### The supply chain and certification responsibilities



A number of organisations may be involved in the manufacture, sale, fitting and maintenance of the repower adaptation. Manufacturers may undertake all these procedures themselves, or employ sub-contractor organisations, factors or service providers. It is the responsibility of the manufacturer presenting the repower adaptation for certification to demonstrate that its quality processes ensure that the entirety of the supply chain meets the ZEVRA requirements and that these processes assure that the applicant's own staff and any organisations it employs, are able to meet the full requirements of the certification. Evidence of these processes will be assessed as part of the company audit.

### **Performance monitoring, reporting and record-keeping.**

The repower adaptation manufacturer's processes shall ensure that suitable records are kept at each stage of the process to enable it to demonstrate that compliance with the certification and warranty requirements are being met throughout the life of the product. This may include purchase invoice and sales invoice information for a period of 7 years from first approval of the adaptation.

The certification body will require access to these records to perform their audit duties. Some of this information may be reported to the operating authority. This information will remain confidential, subject to the requirements of the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.

## **CAZ, ULEZ or LEZ scheme operator access to data**

Energy Saving Trust will require basic reporting of sales figures and warranty claim statistics to monitor performance of the overall scheme. In the event of customer issues or complaints with equipment, disputes about the eligibility of vehicles, or appeals and representations about CAZ, ULEZ or LEZ penalties, CAZ scheme operators may from time to time require certified repower adaptation manufacturers to provide specific information about equipment fitted to vehicles, warranty and maintenance issues and the dates and times of such work. This information will remain confidential, subject to the requirements of the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.

## **Overview and assessment of repowered vehicle telematics system**

Energy Saving Trust will conduct an overview assessment of the repower adaptation manufacturer's vehicle telematics system to ensure it meets the requirements according to the ZEV-RAS Code of Practice current at the time of the assessment or re-assessment.

## **Management of the sales process**

### **Delivery times**

All repower adaptation manufacturers are required to give a lead-time and delivery date when taking an order for product. The delivery date must be stated on the order acknowledgement document. Evidence of this and whether this commitment was achieved for a sample of orders may be checked at the company re-assessment audit (see below). Whilst it is understood that delivery times may occasionally be extended for good reason, repeated failure to meet quoted delivery times may lead to a corrective action request being raised.

### **Customer satisfaction**

The auditor will expect to see a process for handling customer complaints and evidence that, where these have arisen, they have been resolved satisfactorily.

A similar process for handling and recording warranty claims, including nomination of responsible staff and record keeping procedures, must be in place and will form part of the initial and re-assessment audit.

## **Non-compliant products**

The repower adaptation manufacturer shall have procedures in place for dealing with goods that are faulty or outside specification. This will include identification of positions of staff

responsible for dealing with such occurrences. The abatement adaptation manufacturer must also ensure that any authorised suppliers or installers have similar procedures in place. Evidence of this will be required at the time of audit.

## **Reassessment audits and conformity of production**

All ZEVRAS approved manufacturers shall undergo a periodic re-assessment audit. This will normally take place annually as a matter of course and will consist of verification that the approved manufacturer continues to meet the ZEVRAS requirements.

The conformity of production assessment will verify the existence of satisfactory arrangements and procedures for ensuring effective control so that the repower adaptation, when in production, conforms to the approved type. This will be applicable for all assembly plants identified in the ZEVRAS Information Document.

Certification to ISO9001:2015 and/or IATF 16949:2016 shall remain valid.

In-service compliance of the repower adaptation will be monitored by means of periodic vehicle inspections and in-service data recording and monitoring. Any apparent non-conformity will be investigated, and this may require visits to audit the relevant manufacturer's conformity of production procedures. The costs and expenses of such visits will be borne by the manufacturer.

It should be noted that where a ZEVRAS approved manufacturer has generated a significant number of complaints or appears not to be upholding the certification standards of the Scheme, then reassessment audits may be scheduled more frequently than annually, at the discretion of the certification body. Re-assessment audits may also be triggered by the ZEVRAS companies' disciplinary process. Details of this process are given at the end of this document. The fees for the re-assessment audit will be charged to the approved manufacturer in accordance with the certification body fees schedule.

## **Key Performance Indicators**

A requirement for the award of certification under the Scheme is that certain Key Performance Indicators (KPIs) are recorded and monitored and that actions are taken to ensure that the approved manufacturer continues to meet the targets set. These will be checked at scheduled re-assessment audits and may also be re-examined if significant complaints are raised against the company.

KPIs are devised to ensure that a good level of customer service is provided by all certified manufacturers and to assist vehicle operators in achieving CAZ, ULEZ or LEZ compliance for their vehicles in the most convenient manner. Failure to meet the set KPIs may trigger additional re-assessment audit visits.

The KPIs are to be agreed between the applicant and the certification body at the time of the first audit.

The required KPIs are set out below:

KPI	Explanation	Actual Measurement
<p>Stated/Quoted Delivery Time</p>	<p>Repower adaptation manufacturers must provide a stated delivery time on each purchase order raised, when confirming the customer's intention to order an emissions reduction system for their vehicle.</p> <p>The purchase order must also show the date on which the document was raised.</p> <p>The words 'Anticipated Delivery Date' must be clearly printed and labelled on the purchase order/order acknowledgement and a copy provided to the customer.</p>	<p>A repower adaptation manufacturer audit will examine purchase orders and invoices and assess the actual dates of delivery against the 'anticipated delivery date'.</p> <p>The audit will assess an appropriate sample of the purchase orders. The purchase orders to be analysed will be selected at random.</p> <p>It is advisable that all purchase orders and invoices are easily accessible to the auditors, in order to expedite the measurement of this KPI.</p> <p>The audit will reveal the extent to which delivery of repower systems has exceeded the commitment made to the customer. It will also reveal any areas for improvement, with the aim of improving the experience for the customers.</p>

<p>Issues related to vehicle inspection conducted by the relevant enforcement authorities e.g. DVSA VTP05 processes.</p>	<p>Information will be gathered from DVSA inspections when conducted and communicated centrally through DVSA management to the certification body and/or scheme operating authority.</p>	<p>DVSA are able to provide a reason for the failure of a vehicle inspection.</p> <p>Failure reasons are collated by DVSA and passed to operating authority for monitoring purposes.</p>
<p>Warranty claims</p>	<p>Repower adaptation manufacturers must record the number of warranty claims made by customers, and the reason for such claims.</p> <p>The warranty records must identify the date the claim was raised, the age of the repower adaptation when the claim was raised, type of vehicles fitted and the resolution outcome and date.</p> <p>Outright failures which require replacement of equipment must be specifically recorded.</p>	<p>A repower adaptation manufacturer audit will examine warranty claims.</p> <p>The audit will assess failure levels, and the time taken to resolve issues.</p> <p>The company quality processes will be checked for the approaches adopted to learning from such issues</p>

<p>Customer complaints</p>	<p>Vehicle repower adaptation manufacturers must record the number of customer complaints they receive.</p> <p>The complaints records must identify the date the complaint was raised, the nature of the complaint and the resolution outcome and date.</p> <p>CAZ, ULEZ or LEZ scheme operators, the certification body and DVSA will also record any formal complaints received.</p>	<p>A repower adaptation manufacturer audit will examine customer complaints.</p> <p>The audit will assess complaint levels, and cross check these complaints with formal complaints received by CAZ, ULEZ or LEZ scheme operators.</p> <p>The approved manufacturer quality assurance process will be checked for the approaches adopted to learning from any such issues</p>
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### **ZEVNAS certified manufacturers disciplinary process**

In order to ensure that all ZEVNAS approved manufacturers of vehicle repower adaptations perform to a high standard, a disciplinary process has been developed which allows consistently poorly performing companies to be assessed and which could ultimately lead to the loss of ZEVNAS approved status.

CAZ, ULEZ or LEZ scheme operators and the certification body will monitor feedback such as complaints from (but not necessarily limited to) customers, DVSA and other sources regarding ZEVNAS approved manufacturer performance. This will be assessed, and poor performance will lead to reassessment audits.

Any subsequent findings at the reassessment audit will raise Corrective Action Requests (CARs) that could be classified as major or minor. An appropriate close-out plan and timeframe for closure of the CAR(s) will be agreed and if not met will lead to escalation and potential suspension or withdrawal of certification.

### **Certification Bodies**

Certification under the Scheme for manufacturers able to supply vehicle repower adaptations and the technical approval of the performance of such adaptations is obtained by presenting the necessary evidence to the authorised certification body.

### **Audit checklist**

The company certification audit checklist is published by the certification body to provide guidance to manufacturers of vehicle repower adaptations of the evidence which must be

furnished at the initial audit prior to securing certification and at reassessment audits needed to maintain certification.