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Swiss Confederation

Federal Department of Finance FDF

**Federal Office for Customs and Border Security FOCBS**  
Foundations Directorate

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## **Annex 1**

# **to the EETS- and NETS-Provider-Ordinance FOCBS**

### **Technical and Operational Requirements for EETS Provider**

## CONTENTS

1	Overview .....	3
1.1	Purpose of the document.....	3
1.2	List of changes .....	3
1.3	Supplements.....	4
1.4	Terms and abbreviations .....	4
2	Technical specifications .....	7
2.1	Recording systems used by the EETS provider .....	7
2.2	Transmission of the contract data of the on-board units.....	7
2.3	Communication with the FOCBS's EETS systems.....	8
2.4	Registration of EETS users and their vehicles .....	8
2.5	Recording and declaring the chargeable trip.....	9
2.6	Assessment decisions and billing .....	10
2.7	Complaints by EETS users.....	11
2.8	Transmission of blocked OBES.....	11
2.9	Adjustments to the LSV A EETS system by the EETS provider .....	12
2.10	Key performance indicators (KPIs) .....	13
2.11	Exception list type whitelist .....	13
3	Operational specifications .....	15
3.1	Financial capacity .....	15
3.2	Quality assurance system.....	16
3.3	Risk management plan .....	16
3.4	Implementation concept.....	17
4	Approval procedure .....	18
4.1	Level 1 – Eligibility test .....	18
4.2	Level 2 – Testing in test environment/interfaces .....	19
4.3	Level 3 – Trial operation .....	19
4.4	Level 4 – Pilot operation .....	20

## Technical and Operational Requirements for EETS Provider

### 1 Overview

#### 1.1 Purpose of the document

This document and its supplements contain

- the technical and operational specifications for the LSVVA toll domain for the EETS provider for approval and permanent fulfilment,
- the quality criteria with the key performance indicators to be measured, and
- the specifications for the approval procedure to be carried out and for the repetition of individual approval steps to maintain the approval.

#### 1.2 List of changes



Version	Date	Section	Change
2.0	01.03.2020		First published version
2.1	21.08.2020	2.1 (6) 2.2 (7) 2.4 (16) 2.5 (21) 2.6 (25)	Resolution for setting the trailer weight Time limit for modification or deactivation Resolution of vehicle weight collection Minimum distance after exit Clarification billing period (15 calendar days)
2.2	01.01.2022	various	Renaming of the Federal Customs Administration (FCA) to the Federal Office for Customs and Border Security (FOCBS)
3.0	01.09.2024	various	Changes to the technical and operational requirements in line with the legal basis of the LSVVA III system
3.1	01.12.2024	3.1	Letter b) Conditions for the financial guarantee in normal operation

## Technical and Operational Requirements for EETS Provider

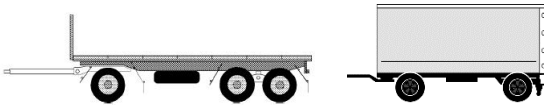
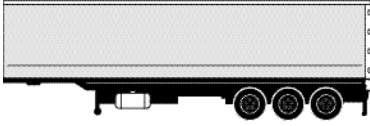
### 1.3 Supplements

Supplement	
[1]	Supplement 1 to annex 1: EETS Provider KPIs
[2]	Supplement 2 - No longer valid
[3]	Supplement 3 to annex 1: EETS Provider Interface
[4]	Supplement 4 to annex 1: Implementation Concept Template - Level 1
[5]	Supplement 5 - No longer valid
[6]	Supplement 6 to annex 1: EETS Provider Interface Test Specification - Level 2
[7]	Supplement 7 to annex 1: Trial Operation Specification - Level 3
[8]	Supplement 8 to annex 1: Pilot Operation Specification - Level 4

### 1.4 Terms and abbreviations

Term/Abbreviation	Meaning
Lorries	<p>Lorries are heavy motor vehicles for transporting goods (categories N<sub>2</sub> or N<sub>3</sub>) with a maximum of nine seats, including the driver.</p>  <p>In principle, lorries with a permissible total weight of more than 3.5t are subject to the charge; for exceptions, see Article 2 of the HVCO.</p>
Articulated lorries	<p>Articulated lorries are motor vehicles which are designed to tow semi-trailers.</p> <p>Only the permissible total weight of the articulated lorry is decisive for classification as a heavy or light vehicle.</p>  <p>In principle, articulated lorries with a permissible total weight of more than 3.5t are subject to the charge; for exceptions, see Article 2 of HVCO.</p>
Trailers	<p>Trailers are non-self-propelled vehicles designed to be towed by other vehicles to which they are connected via a suitable coupling device.</p> <p>In principle, trailers for transporting goods with a permissible total weight of over 3.5t (classes O<sub>3</sub> and O<sub>4</sub>) are subject to the charge; for exceptions, see Article 2 of the HVCO.</p>

## Technical and Operational Requirements for EETS Provider

Term/Abbreviation	Meaning
Standard trailers	<p>Standard trailers are trailers whose towing device (drawbar) on the trailer can pivot vertically.</p> 
Semi-trailers	<p>Semi-trailers are trailers which are coupled to a motor vehicle (articulated lorry) in such a way that they partially rest on it. A substantial part of the weight of the trailer and its load is carried by the towing vehicle.</p> 
EETS	European Electronic Toll Service. Service for international road haulage to levy and pay road traffic fees (tolls) in various European countries.
EETS provider	A service provider accredited by the FOCBS for the LSVA with its approved EETS OBE.
LSVA toll domain	<p>The area in which the LSVA journey data must be recorded. These area covers the Swiss and Liechtenstein territories, the enclaves of Büsingen and Campione d'Italia as well as the airport road in Basel and the access roads from and to the border customs plazas located on foreign territory: Basel/Weil am Rhein motorway, Basel/St. Louis motorway, Laufenburg, Stein/Bad Säkingen and Chiasso Brogeda Autostrada.</p>
EETS journey	<p>The journey of a vehicle in the LSVA toll domain subject to a charge is recorded via EETS. An EETS journey begins upon entry into the LSVA toll domain and ends when the vehicle exits the LSVA toll domain.</p> <p><i>Note on Swiss EETS users:</i>  <i>If the EETS Provider activates the service for the LSVA in the EETS OBE within the LSVA toll domain, the EETS journey begins without entering the LSVA toll domain. If the EETS Provider deactivates the service for the LSVA in the EETS OBE within the LSVA toll domain, the EETS journey ends without an exit from the EETS toll domain.</i></p>
EETS user	The EETS user applies EETS to record the LSVA for a vehicle subject to the charge.
Swiss EETS user	A Swiss EETS User applies EETS to a vehicle registered in Switzerland or the Principality of Liechtenstein.
Foreign EETS user	A foreign EETS User applies EETS to a vehicle registered neither in Switzerland nor in the Principality of Liechtenstein.
EETS contract	The unambiguous identification of a contractual relationship between an EETS provider approved for the EETS and an EETS User for a single vehicle.
Holder	Holder specifically refers to the (natural or legal) person who has de jure power of disposal over the vehicle and who uses the vehicle or lets it be used.

## Technical and Operational Requirements for EETS Provider

Term/Abbreviation	Meaning
EETS OBE	On-board equipment; the On-board system supplied by the EETS provider to record the EETS journey.
Vehicle registration number	Registration number on the number plate including country code.
Simplified trailer declaration	The driver declares only the presence of a trailer on the EETS OBE.
Trailer weight declaration	The driver declares the presence of a trailer on the EETS OBE, indicating the total permissible weight of the trailer and the trailer type.
PAN	Personal Account Number
whitelist	List of vehicles for which the EETS provider accepts contractual responsibility towards the FOCBS.
blacklist	List of vehicles for which the EETS provider no longer accepts contractual responsibility towards the FOCBS.
Interface test	The interface test is the integration test of the EETS provider back office System into the FOCBS's EETS system.
Assessment	Assessment is understood to mean the procedure by which the amount of LSVA to be paid is determined from the individual pieces of information presented (weights, distances recorded, etc.). Provided sufficient information is available, an ordinary assessment can be conducted. Ideally, this will be an automatic procedure that does not involve any manual steps. If there is not enough information for an ordinary assessment, the assessment will be made at the discretion of the FOCBS.
eVV	Electronic assessment decision (eVV = elektronische Veranlagungs-Verfügung)
LSVA	Leistungsabhängige Schwerverkehrsabgabe (Performance related heavy vehicle charge law, SVAG; SR <a href="#">641.81</a> )
HVCO	Ordinance on a Performance-related Heavy Vehicle Charge (Heavy Vehicle Charge Ordinance, <a href="#">SVAV</a> ); SR 641.811
FCA	Federal Customs Administration (Toll Charger of the LSVA) replaced by Federal Office for Customs and Border Security (FOCBS) at 01.01.2022
FOCBS	Federal Office for Customs and Border Security (Toll Charger of the LSVA)

### Note:

The terms relating to vehicles correspond to the Swiss "Ordinance on the Technical Requirements for Road Vehicles (RVTRO) of 19 June 1995 (as at 1 June 2022)" (available in French, German and Italian).

## Technical and Operational Requirements for EETS Provider

### 2 Technical specifications

#### 2.1 Recording systems used by the EETS provider

Specification	Description
1) Declaration of conformity	The EETS provider shall have the EC declaration or certificate which attests the conformity of the EETS-OBE used.
2) EETS OBE personalization	The EETS provider shall personalize the EETS OBE it provides to the EETS user to the registered vehicle. The EETS provider shall use the PAN as the unique key to the registered vehicle (vehicle data) with the corresponding vehicle holder (holder data).
3) EETS OBE assignment	The assignment of EETS OBE (PAN), vehicle and vehicle registration number of the vehicle subject to tolls, to each other shall always be unambiguous at all times during the EETS journey.
4) Functionality of the EETS OBE	The EETS provider shall ensure its EETS OBE functions correctly for recording the LSVA. This concerns in particular the recording of the route travelled by the EETS user in the LSVA toll domain. Functionality is measured using the KPI according to specification 35) KPI no. 3: Position data for the EETS journey.
5) EETS OBE recording capability	The user interface of the EETS OBE shall clearly indicate to the EETS user whether or not it is capable of recording in the LSVA toll domain. In particular, the EETS OBE's capability to record shall be permanently visible to the EETS user as a status (green = capable of recording).
6) EETS OBE user interface	The EETS user (driver) shall be able to enter via the EETS OBE user interface all information necessary for a trailer declaration, including either the information for a simplified trailer declaration or trailer weight declaration with indication of weight (trailerMaxLadenWeight) and trailer type (trailerTyp). The weight shall be indicated in one of the following resolutions: <ul style="list-style-type: none"><li>• 10 kg rounded down</li><li>• 100 kg rounded up</li><li>• 1000 kg rounded up</li></ul> The EETS user shall be able to see all information regarding the current trailer declaration status on the user interface of the EETS OBE.

#### 2.2 Transmission of the contract data of the on-board units

Specification	Description
7) DSRC contract data	Specification no longer applies
8) Activation of new DSRC contract data	Specification no longer applies

## Technical and Operational Requirements for EETS Provider

### 2.3 Communication with the FOCBS's EETS systems

Specification	Description
9) Interfaces	The EETS provider's system shall have the interface specified by the FOCBS in accordance with specification 11), and operate them in accordance with the FOCBS's specifications.
10) DSRC interface	Specification no longer applies
11) Back office interface	In order to exchange data with the FOCBS, the EETS provider's IT system shall have a back office interface in accordance with Supplement 3. The test procedure for verifying the back office interface is defined in Supplement 6.
12) Time standard	All time data transmitted between the FOCBS and the EETS provider as part of the data exchange shall be given in UTC.
13) Unique vehicle identification	During an EETS journey, the vehicle and thus also the vehicle holder shall be uniquely identifiable via the vehicle registration number.
14) Securing the back office interface	The back office interface between the FOCBS and the EETS provider shall be secured in accordance with the FOCBS's security requirements. These are defined in Supplement 3.

### 2.4 Registration of EETS users and their vehicles

Specification	Description
15) EETS user	<p>The EETS provider shall register the holder data of foreign EETS users according to the registration certificate (COUNCIL DIRECTIVE 1999/37/EC) and keep this up to date.</p> <p>For the registration, holder data is prioritised as follows: C3 above C2 above C1.</p> <p>The information shall include all three subheadings Cx.1 (name or company name), Cx.2 (first name(s) or (if applicable) initials) and Cx.3 (address in the country of registration when the certificate was issued).</p> <p><i>Remark on Swiss EETS user:</i> <i>The EETS Provider never has to transmit holder data on Swiss EETS user (see requirement 22) and therefore does not have to register for the FOCBS.</i></p>
16) Vehicle data	<p>The EETS provider shall register the vehicle data in accordance with the registration certificate (COUNCIL DIRECTIVE 1999/37/EC). Where EETS users collect the vehicle data themselves, the EETS provider will check the accuracy of the data collected. The EETS provider keeps the vehicle data up to date based on information obtained from the EETS user.</p> <p>At least the following categories shall be registered</p> <ul style="list-style-type: none"> <li>F2: Total weight (vehicleMaxLadenWeight)</li> <li>F3: Total weight of the vehicle combination (vehicleTrainMaximumWeight)</li> <li>V9: Emission class (euroValue)</li> </ul>

## Technical and Operational Requirements for EETS Provider

Specification	Description
	<p>P3: Type of fuel or power source together with the registration number (licencePlateNumber) and country code (countryCode).</p> <p>When using the trailer declaration with weight indication and trailer type according to specification 6), the following category shall also be registered:</p> <p>G: Unladen/net weight (vehicleWeightUnladen)</p> <p>The EETS provider collects the weights with 10 kg resolution rounded down.</p>

### 2.5 Recording and declaring the chargeable trip

Specification	Description
17) Transmission of EETS journey declaration	<p>The EETS journey declaration consists of the registered vehicle data, the position data to describe the route travelled in the LSVA toll domain and the trailer data declared by the EETS user on the EETS OBE, including the corresponding position data.</p> <p>The EETS Provider shall transmit to the FOCBS on its own initiative all data concerning an EETS journey, separately for each EETS journey.</p> <p>The latter also applies if several EETS journeys take place on one calendar day.</p> <p>In the case of a one-day EETS journey, the data shall be transmitted to the FOCBS within 24 hours of the start of the EETS journey.</p> <p>For EETS journeys lasting several days, the data for the first calendar day shall be transmitted in accordance with the time specifications for a one-day EETS journey, and then within 24 hours from midnight of the day in question for each subsequent calendar day.</p> <p>This also applies to calendar days on which the vehicle does not move inside the LSVA toll domain.</p> <p>After 10 days without contact with the EETS OBE and without leaving the LSVA toll domain, the EETS Provider shall discontinue the EETS journey declaration. If contact is made again, he shall resume the EETS journey declaration.</p> <p>The detailed requirements for the data elements and the transmission of the EETS journey declaration are defined in Supplement 3.</p>
18) Coordinate system	<p>Position data for the EETS journey shall be based on the WGS84 coordinate system.</p> <p>For details see: NIMA TR8350.2, Third Edition – Amendment 1, January 2000, Department of Defense – World Geodetic System 1984, Its Definition and Relationships with Local Geodetic Systems, issued by the National Imaging and Mapping Agency (NIMA), US Department of Defense.</p>
19) Accuracy of position data	<p>The position data transmitted by the EETS provider shall describe the route travelled by the EETS user in such a way</p>

## Technical and Operational Requirements for EETS Provider

Specification	Description
	<p>that the FOCBS can calculate the distance travelled directly from the position data by means of vector calculation without using a road map.</p> <p>The deviation of the travelled distance determined in this way from the distance actually travelled shall not exceed +/- 4%.</p> <p>The declared position data shall include all sections of the self-driven trip, irrespective of whether this takes place on or off a defined road, in a car park or within a private area.</p> <p>The accuracy of the position data is measured using the KPI according to specification 35) (KPI no. 3: Position data for the EETS journey).</p>
20) Removal of redundant position data	The transmitted position data should not include any multiple positions of immobile vehicles (e.g. resting positions, vehicles in traffic jams, etc.).
21) Border recognition	<p>The EETS journey declaration shall contain sufficient position data before entering the LSVA toll domain and after leaving the LSVA toll domain for the FOCBS to be able to unambiguously identify that the border was crossed and the point at which it was crossed.</p> <p>The volume of position data outside the LSVA toll domain for this identification should be as low as possible.</p> <p>Consequently, the data transmission shall not contain any positions with a distance greater than 5km beyond the border of the LSVA toll domain (reference border according to Maps of Switzerland, <a href="http://www.geo.admin.ch">www.geo.admin.ch</a>). After the exit, however, the position data should contain a minimum distance of 1km.</p>
22) Transmission of holder data	<p>If a technical request is made by the FOCBS, the EETS provider shall also supply the correct holder data of a foreign EETS user for each EETS journey within 12 hours.</p> <p>The technical request and holder data response are defined in Supplement 3.</p> <p><i>Remark on Swiss EETS user:</i> <i>The EETS provider never has to transmit holder data on Swiss EETS user.</i></p>

### 2.6 Assessment decisions and billing

Specification	Description
23) Assessment	<p>For each EETS journey of a foreign EETS user, the FOCBS makes the electronic assessment decision, together with the charge claim, available to the EETS provider for collection on the back office interface (BillingDetailsADU).</p> <p>The EETS provider shall collect the assessments at least once a day and confirm their receipt to the FOCBS within 24 hours.</p> <p>The technical provision and confirmation of the assessment are defined in Supplement 3.</p> <p>By confirming receipt, the EETS provider accepts the decision with effect for the EETS users.</p> <p>The EETS provider shall make the assessment immediately available to the EETS user.</p>

## Technical and Operational Requirements for EETS Provider

Specification	Description
	<p>The EETS Provider must be able to process a subsequent BillingDetailsADU for a confirmed BillingDetailsADU for at least 70 days.</p> <p><i>Remark on Swiss EETS user:</i>  <i>The EETS provider does not receive an assessment decision for EETS journeys by Swiss EETS user.</i></p>
24) Daily claim	<p>The FOCBS supplies the EETS provider with a daily aggregation of assessments confirmed by the EETS provider on the back office interface. This forms the daily claim (PaymentClaimADU).</p> <p>The technical provision and confirmation of the daily claim are defined in Supplement 3.</p> <p>The EETS provider shall collect the daily claim at least once a day and confirm its receipt within 24 hours.</p>
25) Billing	<p>Twice a month the FOCBS prepares an invoice for the EETS provider. As a collective invoice, it includes all LSWA amounts levied via this EETS provider during the billing period (15 calendar days), based on the daily claims confirmed by the corresponding EETS provider (specification 24).</p> <p>The EETS provider is automatically informed of the availability of a new invoice and must download the invoice from the FOCBS portal in electronic form. The EETS provider must register as a FOCBS business partner in the portal provided for this purpose.</p>

### 2.7 Complaints by EETS users

Specification	Description
26) Complaints by EETS users	<p>The EETS provider examines the complaints of foreign EETS users in accordance with the approval contract.</p> <p>If this results in a correction of the assessment, the EETS provider will be provided with a corrected assessment for collection on the back office interface, together with a reference to the original assessment (see BillingDetailsADU, specification 23).</p> <p>The amount in the BillingDetailsADU corresponds to the difference between the corrected and the original assessment.</p>

### 2.8 Transmission of blocked OBEs

Specification	Description
27) Transmission of exception list (type blacklist)	Specification no longer applies
28) Maintenance of the exception list (type blacklist)	Specification no longer applies

## Technical and Operational Requirements for EETS Provider

### 2.9 Adjustments to the LSVA EETS system by the EETS provider

Specification	Description
29) Adjustment to the EETS provider's back office	<p>The EETS provider shall analyse the impact of planned software or hardware changes to its EETS system back office will have on the collection of the LSVA. If functional effects or quality level effects are to be expected, the provider shall record the planned changes with a functional description, together with the results of the impact analysis, and report them to the FOCBS.</p> <p>In addition, the EETS provider shall describe the measures taken to avoid or reduce the risk of adverse effects on the LSVA toll domain.</p>
30) New EETS OBE	<p>New EETS OBE types are devices in which, relative to devices currently approved in the LSVA toll domain, functional units have been replaced by new units or components for compliance with specifications (e.g. GNSS receiver, mainboard, etc.).</p> <p>The EETS provider shall report the planned use of a new EETS OBE to the FOCBS. A description shall be given of the differences between the new EETS OBE and the approved types (specifications). If it is a completely new type, this shall be indicated accordingly.</p> <p>As a further part of the notification, the EETS provider shall describe at the software concept level the similarities and differences in data collection and transmission for the LSVA toll domain relative to the approved EETS OBE.</p>
31) Software change to approved EETS OBE	<p>For planned software changes to an approved EETS-OBE, the EETS Provider shall analyse the impact on data collection and transmission for the LSVA toll domain. If functional effects or quality level effects are to be expected, the provider shall record the planned changes with a functional description, together with the results of the impact analysis, and report them to the FOCBS.</p> <p>In addition, the EETS provider shall describe the measures taken to avoid or reduce the risk of adverse effects on the LSVA toll domain.</p>
32) Other changes	<p>For changes to the EETS provider's system that are not included in specifications 29), 30) and 31), the EETS provider shall analyse their impact on the collection of the LSVA and notify the FOCBS of the planned changes. When doing so, it shall submit the impact analysis and risk avoidance or mitigation measures to the FOCBS.</p>

## Technical and Operational Requirements for EETS Provider

### 2.10 Key performance indicators (KPIs)

Specification	Description
33) KPI no. 1: Vehicle data	1)
34) KPI no. 2: Holder data	Specification no longer applies
35) KPI no. 3: Position data for the EETS journey	1)
36) KPI no. 4: EETS provider data delivery	1)
37) KPI no. 5: Timely transmission of FOCBS messages	1)
38) KPI no. 6: DSRC transaction rate	Specification no longer applies
1) The detailed specifications with descriptions for all KPIs are contained in Supplement 1.	

### 2.11 Exception list type whitelist

Specification	Description
39) Exception list content (type whitelist)	<p>The exception list of type whitelist contains all vehicles and their vehicle registration number that are equipped with an EETS OBE approved for the LSVA toll domain and have an EETS contract from the EETS Provider that is valid for the LSVA toll domain.</p> <p>The detailed requirements for the content of the exception list type whitelist are defined in Supplement 3.</p>
40) Transmission of exception list (type whitelist)	<p>The EETS provider transmits up to 4 exception lists of type whitelist to the BAZG every day, so that these are activated at 05:00, 09:00, 13:00 and 17:00 Swiss local time.</p> <p>The FOCBS will activate a successful transmitted exception list after it has been received.</p> <p>The FOBS only activates one exception list per activation time (date + time).</p> <p>The FOCBS will ignore a transmitted exception list if its activation time (date + time) is older than that of the currently active exception list.</p> <p>Without transmission of an updated exception list, the last transmitted one remains valid.</p> <p>The detailed requirements and rules for the transmission of the exception list type whitelist are defined in Supplement 3.</p>
41) Delete a vehicle from the exemption list (type whitelist)	<p>The vehicle and its vehicle registration number shall only be deleted from the exception list type whitelist after the status for the LSVA toll domain has been set to "blocked" in the EETS OBE (no longer a valid EETS contract for the LSVA toll domain).</p> <p>If an EETS OBE is not accessible for more than 10 days and therefore cannot be set to "blocked" status, the vehicle can be deleted from the exception list (whitelist) after these 10 days.</p> <p><u>Foreign EETS user:</u></p> <p>If a vehicle of a foreign EETS user has been deleted from the exception list (whitelist type) after entering the LSVA toll domain, the EETS provider shall transmit declaration data for this vehicle until it leaves the LSVA toll domain.</p> <p><u>Swiss EETS user:</u></p>

## Technical and Operational Requirements for EETS Provider

Specification	Description
	From the day after deletion from the exception list (whitelist type), the EETS provider no longer shall provide declaration data for the vehicle of the Swiss EETS user.

## Technical and Operational Requirements for EETS Provider

### 3 Operational specifications

#### 3.1 Financial capacity

The role as an EETS provider for the LSVA requires financial capacity. For this reason, the EETS provider shall demonstrate to the FOCBS both during the approval procedure and during regular operation that it has sufficient liquidity to pay its users' LSVA debts.

The EETS provider must provide proof of liquidity as follows:

a) During the approval procedure:

- The EETS provider shall submit to the FOCBS an up-to-date business plan for the LSVA business (at least 4 years, including balance sheet and income statement).
- The EETS provider shall provide the FOCBS with its audit report, including the balance sheet and income statement for the financial year and the previous financial year. The annual accounts shall be drawn up in accordance with recognised international accounting standards.  
If the EETS Provider is new to the market and cannot yet submit an audit report, the audit reports of the majority shareholders or partners must be provided.
- The EETS provider shall disclose its ownership structure (shareholders/partners) to the FOCBS with official documentation.

b) During regular operation:

- The EETS Provider must pay the invoices issued by the FOCBS within the payment period of 30 days in accordance with Art. 52 para. 3 of the HVCO<sup>1</sup>.
- An EETS Provider shall be obliged to provide a financial guarantee as soon as it has accumulated 10 days of delays in payment over a period of 12 consecutive invoices. Each day on which the EETS Provider is or has been in delay with the payment of the invoiced amount due shall be deemed to be a day of delay.

Schematic diagram:

Consecutive invoices with the number of days in delay per invoice															invoice #	
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
+1	+1	0	+2	+1	0	-2	0	+2	+1	+2	0	-1	+5	-3		Days of delay
Consecutive measurement periods over 12 invoices															Days of delay in total	
	1	2	3	4	5	6	7	8	9	10	11	12				<b>9</b>
		1	2	3	4	5	6	7	8	9	10	11	12			<b>13</b>
			1	2	3	4	5	6	7	8	9	10	11	12		<b>13</b>

- The delay begins on the day after the payment deadline expires. It ends as soon as the payment has been received by the FOCBS.

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<sup>1</sup> Ordinance of 27 March 2024 on the Performance-Related Heavy Vehicle Charge (Heavy Vehicle Charge Ordinance [HVCO]; [SR 641.811](#))

## Technical and Operational Requirements for EETS Provider

- The amount of the financial guarantee is calculated based on the average of the last 12 invoice amounts, which is then doubled.
- The EETS provider must provide the financial guarantee either as a general debt guarantee or as a cash deposit in an account designated by the FOCBS within 15 days of the FOCBS request.
- The general debt guarantee must be issued by a bank or insurance company based in Switzerland. This bank or insurance company must be under the supervision of the Swiss Financial Market Supervisory Authority FINMA or listed in the directory of private insurance institutions under federal supervision.
- The financial security will be cancelled if, for 12 consecutive invoices, the days in payment delay do not exceed 4 days, but not before one year after the financial security was provided.
- If significant changes occur with regard to the confirmed ownership structure, it shall notify the FOCBS immediately without being requested to do so. Significant changes to the confirmed ownership structure are a change in the voting or capital share of 10% or more and attaining a capital or voting majority ( $\geq 50\%$ ).

### 3.2 Quality assurance system

The EETS provider is certified in accordance with EN ISO 9001 or an equivalent standard.

Any EETS provider holding certification other than EN ISO 9001 shall be able to demonstrate the equivalence of its quality assurance certification with EN ISO 9001.

### 3.3 Risk management plan

The EETS provider shall have a permanent risk management plan which covers toll collection in all toll areas in which it operates.

The management plan shall consider the main risks facing the provision of EETS, such as

- interruption of business operations (interruption of the information processing chain),
- cash flow/liquidity risk,
- economic slowdown,
- increasing competition,
- loss of reputation,
- difficulties in achieving the necessary levels of service,
- liability,
- changes in regulations/legislation.

The management plan shall specify in detail the avoidance and mitigation measures to be taken to counter these risks.

The EETS provider shall provide the FOCBS with the current, approved risk management plan at least every three years.

## **Technical and Operational Requirements for EETS Provider**

### **3.4 Implementation concept**

The EETS provider must document the implementation of the technical specifications and the processes required to collect the LSVAs in a concept. In particular, the concept must describe how the functions for the LSVAs are to be integrated into its EETS system.

If the EETS provider intends to make changes to its EETS system, it must update the implementation concept and submit it to the FOCBS, together with the corresponding notification of change.

If the FOCBS has any plans to change the technical specifications, the EETS provider must also update the implementation concept and submit it to the FOCBS.

## **Technical and Operational Requirements for EETS Provider**

### **4 Approval procedure**

The following principle applies to the approval procedure:

- The obligation and responsibility to demonstrate compliance with the conditions for approval lies with the EETS Provider.

Moreover, the following conditions apply

- The specifications for the individual stages in the approval procedure apply both to the initial approval of an EETS provider and, after approval has been granted, to the mandatory repetition of approval stages.
- An existing approval procedure must be completed before a new approval procedure is launched for a new EETS OBE of the same EETS provider.
- The EETS provider shall provide the documents in PDF/A format. Microsoft Office formats are also acceptable for additional attachments such as transaction logs.
- The EETS provider shall submit the approval application in one of the official Swiss languages. The documents that evidence compliance with the approval requirements can also be sent to the FOCBS in English.
- The FOCBS informs the EETS Provider in writing of the result of its assessment and the further procedure at each approval level.

#### **4.1 Level 1 – Eligibility test**

The aim of the eligibility test is to demonstrate that

- the operational requirements are met,
- the declaration of conformity exists for the on-board units which the EETS provider wishes to have approved, and
- the technical requirements can be met.

The EETS provider shall submit the following documents to the FOCBS with the application form

- the business plan for establishing the EETS for the LSVA (see 3.1a),
- the current audit report (see 3.1a),
- the current ownership structure (see 3.1a),
- the quality assurance system certificate (see 3.2),
- the current risk management plan (see 3.3),
- the implementation concept (see 0),
- list of on-board units (EETS OBE) to be approved, with precise type designation and corresponding declarations of conformity.

## **Technical and Operational Requirements for EETS Provider**

The EETS provider will receive an email containing information on the documents to be submitted with the application. The FOCBS may entrust third parties with the task of reviewing the documents.

### **4.2 Level 2 – Testing in test environment/interfaces**

The aim of the interface test is to verify that the interfaces have been implemented in accordance with the FOCBS's specifications.

As a prerequisite for these tests, the EETS provider's system shall be fully installed and all interfaces to the FOCBS's EETS system shall be operational.

The back office interface tests are carried out by the EETS provider as a self-test under its own responsibility and at its own risk in the test environment made available by the FOCBS. The test environment enables the EETS provider to carry out all tests in accordance with Supplement 6. The EETS provider supplies the FOCBS with its test report with the underlying test logs.

Interface test process:

1. Exchange of back office certificates for tests.
2. Performance of the back office test.

### **4.3 Level 3 – Trial operation**

The aim of the trial operation is to check that the FOCBS's requirements are properly met by the entire process chain of the EETS provider's system. Both the functionality and the operability of the system have to be demonstrated in real time.

During the trial operation, the FOCBS is the EETS provider's customer, i.e. the EETS user who receives the electronic assessment decision from the provider. The trial operation is conducted in a FOCBS's test environment without the LSVA being levied. There are no charge demands and therefore no financial transactions between the FOCBS (in the roles of toll charger and EETS user) and the EETS provider.

The test cases are carried out by the EETS provider. The test cases to be performed are defined in Supplement 7. The EETS provider shall supply the FOCBS with a test plan which includes the test dates. The test trips should be completed within a month. If the EETS provider is planning a longer execution period, this shall be explained and justified in the test plan.

The FTA supports the EETS provider according to its role in the test specifications. The FOCBS reserves the right to participate in the execution of the EETS provider's test cases.

The EETS provider may not use any vehicles subject to the LSVA for the test trips.

The EETS provider shall document the execution of the test cases in test logs. The documentation in the test logs shall include the effective execution of the EETS journeys and all test results, including verification of the assessed charge as well as any anomalies and deficiencies that may have been identified.

The EETS Provider's test report shall contain the list of deficiencies identified (including any deficiencies identified by the FOCBS) as well as the measures taken or proposed to rectify them and the associated deadlines. In principle, any deficiencies identified must be rectified prior to pilot operation, unless otherwise agreed between the FOCBS and the EETS Provider.

## **Technical and Operational Requirements for EETS Provider**

The EETS provider supplies the FOCBS with its test report with the underlying test logs. The FOCBS assesses the test report.

### **4.4 Level 4 – Pilot operation**

The aim of the pilot operation is to demonstrate compliance with the EETS provider's system performance specifications during live operation.

The pilot operation is carried out solely with the operational systems of the FOCBS and the EETS provider using vehicles which are subject to the LSVA.

During the pilot operation, a predetermined minimum number of EETS journeys is carried out by a small number of the EETS provider's EETS users within a defined period. If the EETS provider anticipates a longer execution period, this shall be explained and justified to the FOCBS before the pilot is launched. The FOCBS may extend the execution period. The specifications are defined in Supplement 8.

During the pilot operation, the compliance of the EETS provider's system with the intended key performance indicators (KPIs) for the pilot operation is verified. Furthermore, observations are made as to whether other unwanted anomalies occur in the EETS provider's system during the pilot operation. The EETS provider shall report any irregularities in the pilot operation to the FOCBS.

The EETS Provider shall record the vehicles used during the pilot phase. After the pilot operation has been carried out, it shall compile a test report based on the records. The test report shall contain the list of anomalies and deficiencies detected (including any deficiencies detected by the FOCBS and reported to the EETS Provider) as well as the measures taken or proposed to rectify them and the associated deadlines. The test report and the KPIs measured by the FOCBS are assessed by the FOCBS.