# **Autoliitto ry AL-Sport EcoRun rules**

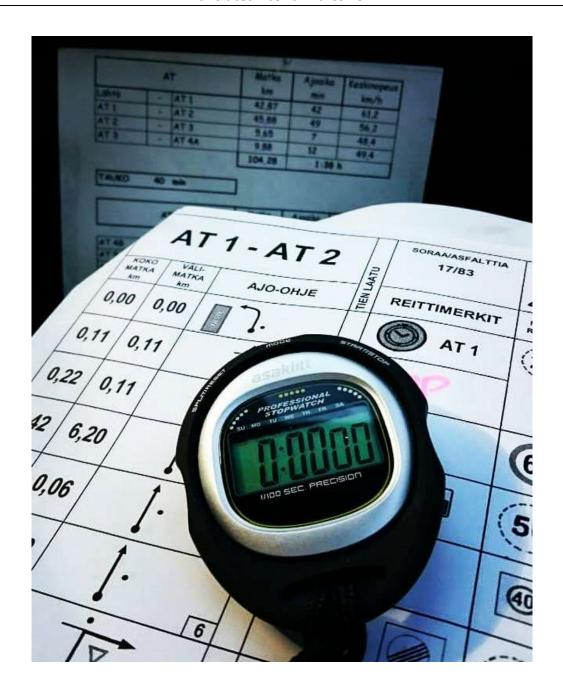






2024

**Translated EcoRun rules 2024** 





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# **GENERAL**

Translated rules for the 2024 EcoRun Cup and NEC.

This translation Finnish to English is made by using translator tool. Because of a different sentence structure in Finnish, some translated sentences can be misunderstood. The interpretation of the rules is primarily based on the Finnish language. In case of disputes, the Finnish language is dominant.

## 1. Competition rules

The Autoliitto ry (AL-Sport) is the national organisation for the EcoRun race in Finland. EcoRun races are organized following these AL-Sport EcoRun rules as well as the instructions and added regulations issued by the organizer. Competitions are announced:

Autoliitto ry AL-Sport competition calendar ( <a href="https://www.autoliitto.fi/toiminta/al-sport-autourheilu/kilpailukalenteri/">https://www.autoliitto.fi/toiminta/al-sport-autourheilu/kilpailukalenteri/</a> )

The purpose of the EcoRun race is to complete the given route, within the given schedule in varying road and driving conditions with the lowest possible energy consumption. EcoRun races are run on public roads, under normal traffic conditions, seeing all traffic rules.

The order of compliance with the rules and regulations is:

- 1. AL-Sport EcoRun rules
- 2. Competition-specific rules in the invitation to the competition or as an attachment/link to it
- 3. Additional competition provisions

The Nordic EcoRun Championship (NEC) competitions held in Finland follow the rules of the national EcoRun Cup.

## 2. Competitors and licenses

The competitor pair consists of a driver (1-driver) and a co-driver (2-driver). The driver must have a driving licence. The co-driver must be 15 years old in the calendar year in question. The 1-driver entered in the registration information is a responsible member of the competitor pair and is entered in the results as a driver and the 2-driver as a co-driver.

Cup competitions are open to anyone who has a valid competitor license or familiarization license issued by the Autoliitto ry (AL-Sport) or AKK-Motorsport ry or other country ASN. A competition-specific introductory licence can be bought from the competition venue (competition office).







Foreign competitors must notify the sport manager of AL-Sport's EcoRun sports group in advance of their participation in AL-Sport EcoRun Cup competitions or competitions to receive Finnish AL-Sport EcoRun Cup points.

Nordic Championship (NEC) races in Finland are licensed by AL-Sport. When going abroad, you must have AKK's National card. We cannot grant access licences to non-Finnish citizens. Foreign competitors must have a competitor license issued by the ASN of their own country. The license must be like the one in which Finns compete, i.e. a national license or lighter limited license for this purpose, such as AKK's AS-T limited basic license.

#### 3. Race cars

The competition is run with factory-built, standard-condition passenger cars registered for public traffic, which must follow the provisions of the Road Traffic Act of the country in which they are registered. Cars must be inspected, and liability insurance must be valid.

Aerodynamic changes to cars, such as taping seams, removing body parts, or other changes made to reduce air resistance, such as turning the side mirrors parallel to the side of the car, are prohibited. If the car has retrofitted spoilers or chassis lowering, they must be intended for the car model in question and in the case of lowering, also have undergone a modification inspection.

The race car can be your own or borrowed. If the driver or co-driver is not the owner or holder of the car, the owner or holder of the car must have written permission to use the car in an economy race. Race cars can also be provided by race organizers.

The race cars are divided into two different Cup series, Refuelled and Rechargeable.

## Refuelled (Tankattavat)

(B+D) petrol, diesel class. The category also includes hybrids (HEVs) and mild hybrids, as well as ethanol gasoline (E85). E85 cars are using 98E5 or 95E10 in the race
 Gas (CNG) and plug-in hybrid (PHEV) cars can participate in the refuelling category under certain conditions. For more information, see section 31.2 Refuelling instructions, page 23.

### Rechargeable (Ladattavat)

(BEV) battery electric cars

The invitation to the competition must say whether the energy consumed in the competition is stated from the car's instrument cluster or from the meter of the refuelling or charging device, or a combination of both:

The energy used can be calculated according to the energy refuelled and/or externally charged in the car. Electricity consumption can also be calculated based on, for example, battery







capacity. Fuel/energy consumption can also be viewed from the car's own consumption meter or some other meter.

The race car must be able to complete the race route without added refuelling, unless it has been specifically stated in the race invitation that the race includes intermediate refuelling/charging facilities.

The tyre size must be by the car's registration certificate. If the tyre size differs from what is told in the registration certificate, it must comply with the regulations, or it must have been inspected for the tyre size in question.

The rims and any hubcaps on them must be approved for road traffic. A type of hubcaps or rims with full coverage flat shape "Full Moon" is not approved unless it is part of the original factory equipment of the vehicle in question.

The make of tires is free. The tyres must follow the current regulations of the Road Traffic Act and road conditions, as well as general inspection requirements, such as tread depths. The largest allowable tyre pressure must not exceed 0.5bar above the highest recommendation given for the car model and tyre size in question. The structural pressure of the tyre must not be exceeded.

If, for reason, the manufacturer's recommended pressure is not found for the car model, a maximum pressure of 2.8bar applies.

The tyre pressure measurement is conducted under the conditions and temperature prevailing during the measurement. The competitor must consider the effect of temperature on tire pressure.

# BEFORE THE COMPETITION

### 4. Competition invitations

EcoRun races take place with competition permits issued by AL-Sport. The invitation to the competition must be published to the competitors no later than six (6) weeks before the competition.

The invitations to the competition contain competition-specific instructions and talk about the competition and its arrangements. The invitations also include registration instructions and schedules. Invitations can always be found on the website of the competition in question.

## 5. Registration for the competition

Competition-specific registration procedures are specified in the invitations to the competition. Registration must be made by the date told in the invitation to the competition.

The indicated car can be exchanged for another only with the permission of the organizer. The replacement must be applied for from the organiser before the preliminary inspection. At the end of the registration period, the car may only be exchanged in the same class for which it was originally entered. The organizer has the possibility to charge 35,00 € for changing the car.

The replacement of another instructor can be made free of charge if approved by the competition director.







Registration can be cancelled based on an acceptable reason. If the cancellation is made within the registration period, the participation fee will be refunded in full.

For late registration, the organisers can charge a maximum double entry fee.

Information about those who have registered for EcoRun competitions may be published before the start of the race, for the purpose of supporting the race and its interest, in publications and media releases of AL-Sport and the organizer. By registering for the competition, the participant also understands that the results of the competition may be published in AL-Sport's publications for the purpose supporting the competition and its interest.

By registering for the competition, I consent to the fact that I can be photographed in the competition and that pictures or videos may be published in AL-Sport publications (e.g. websites, media releases, social media, YouTube and print magazines) for purposes supporting the interest of the competition and AL-Sport's activities.

More information about AL-Sport's privacy policy can be found at: https://www.autoliitto.fi/tietosuoja/AL-Sportin-tietosuojaseloste/

## 6. Entry fees and insurance

The entry fee shown by the organizer will be paid in the ways and according to the schedule specified in the invitation to the competition. Proof of payment of the entry fee must be presented no later than when registering on the day of the competition.

The entry fee will be refunded if:

- Registration not accepted
- There will be no competition
- Those who have registered will have to be eliminated from the competition
- Registration is cancelled before the end of the registration period

The organiser's liability insurance is included in the competition licence granted by AL-Sport. The competitor takes part in the competition at his/her own risk.

### 7. Competition entries and start list

The starting list will be notified to the competitors no later than two days after the end of the registration period online and to the email address or addresses shown in the registration.

## 8. Added provisions

The competition management has the right, if circumstances so require, to postpone, cancel or suspend the competition or to issue added orders and instructions necessary for the performance of the competition.

Any changes to the competition between the publication of the invitation and the start of the competition shall be published as added provisions. Added provisions may also be adopted during the competition. The observer shall be informed of any added provisions issued.

Any added provisions shall be published dated, numbered, and signed by the Director of the Competition. Added regulations and instructions are available on the official notice board of the







competition. In addition, they are also distributed directly to competitors against receipt, unless this is technically impossible during the competition.

# ACTIVITIES AT THE COMPETITION SITE BEFORE THE START

## 9. Registration at the competition venue

Registration takes place at the competition office. When registering, the driver's driving licence, race licenses (introductory licences are sold) and car registration information (and licence) as well as entry fees are checked.

Late registration is possible at the competition office with the permission of the competition management.

The competition office has a clock showing the official competition time (preferably radio-controlled time or mobile network time). The competition office or invitation to the competition must tell which time measurement system is used.

Competitors will be handed over the competition material at the competition office upon registration. The participants will meet at the starting point for a director meeting following the invitation or competitor announcement. In connection with the meeting, the competition organiser will provide a brief account of the competition event. Either the driver or co-driver must attend the instructor meeting.

### 10. Competition material

- 1. A road book showing the distances between stations, the route signs needed for orienteering and some of the speed limits in force at the time the road book was made. In the road book, the direction of the arrow indicates the direction of travel and is supplemented with additional information about the intersection. If there are discrepancies in these, the direction of the arrow is decisive. The size of the road book can be A4 or A5 (A4 is recommended). The track master may have entered mandatory stops in the road book that must be observed even if they are not marked in the terrain.
- 2. Time card(s) on which officials record visits to checkpoints or other competitive performances. The competitor may not make their own markings, corrections or changes to the cards. The cards must be kept with you throughout the competition, unless otherwise specified by the organizer.
  - If some other (electronic) tracking is used in the competition. Competitors do not enter their visit times at the station on the time card, but are given a separate calculation card on which they can make their own time tracking.
- 3. Driving order, i.e. race schedule.
- 4. A route card on which route inspection markings are made. The competitor must enter the information on the station plates of unmanned route inspection stations on the route card. Fixed destinations along the route are also used as route stations, such as the Route Station. road signs, street signs, house numbers, etc. At manned stations, officials make markings.





- 5. Inspection and refuelling card (for initial and final refuelling, electric charges are marked on the same or separate card).
- 6. Map showing the route of the competition and public inspection posts. A map is not mandatory, but recommended.
- 7. Competition numbers, as well as possible competition marks and advertising stickers.

## 11. Competition numbers and advertisements

The number of ads varies by competition. Competitors affix the competition number, which may include a serial advertisement, to the door or rear side window (A4) before the pre-inspection. Advertisements provided by the race organizer and stickers for easier identification of the race car cannot be refused. The aim is to avoid advertisements that are attached to the car's paintwork.

A competitor may place their own advertisements in the car subject to the following restrictions:

- 1. rear side windows A4 mode for race number (changes will be announced in the invitation)
- 2. The ad does not obscure the ads placed by the organizer
- 3. the advertisement does not violate Finnish law and good practice
- 4. Political ads are banned
- 5. The advertising of alcoholic beverages and tobacco products is prohibited

The appropriateness and regularity of advertisements are checked during pre-inspections and can also be inspected during intermediate and final inspections.

## 12. Pre-roadworthiness test

The pre-inspection is conducted after registration, either at the departure point or during refuelling. There may be a separate schedule for the inspection.

A car that has not been approved during the preliminary inspection can be brought in for a reinspection as soon as the required repair has been conducted.

During the preliminary inspection, the condition of the car and the following are visually inspected:

- Competition numbers and organizer advertisements
- Equipment required by the Road Traffic Act and the Vehicle Decree.
- Car documentation of the standard tyre size in relation to the tyres under the car.
- The car must have a re-registration certificate if an abnormal tyre size so requires.
- Car documentation of tyre size and tyre type specific tyre pressure recommendations.
- Tyre pressure (spot checks)
- If GPS tracking is used in the competition, it is recommended that they be installed in connection with the Pre-inspection. Removal of equipment immediately after finishing.

## 13. Departure refuelling and recharging of output energy

See section 31 of the rules. Fuel refuelling and electric car charging in competition, as procedures differ from class to class.

Start, intermediate and final refuelling and charging are competitive events.







# COURSE OF THE COMPETITION

### 14. Start of the race

The departure can be a public event. Departure takes place every two minutes in the order showed in the departure list, following the schedule indicated in the invitation. If the competition schedule changes from the schedule of the invitation to the competition, this will be announced on the official notice board of the competition.

#### 15. Race route

The total length of the races in national competitions is typically around 200–400 km. Ideally, the route of all classes should be the same, but the charging and refuelling points of cars of different classes may change the length of the routes in these classes. The floor value of the race route is the class B+D race distance.

There are one or more breaks in competitions. The route of the race will be showed in the road book and on the map. The road book is the dominant way to show the route.

The competitor must follow the indicated route according to the timetable and other requirements drawn up by the organizer. Race performance and driving style are watched at public and secret points along the route.

### 16. Time control (TC) and checkpoint stations

The control stations at which cars must stop must be chosen in such a way as not to disturb other traffic.

The competition can use checkpoints manned by the organizer, unmanned stations (such as stations that require QR code scanning) or GPS tracking system control.

Only repairs or other maintenance ordered or allowed by the organiser are permitted in the station area. The race cars are located in the station area:

- At refuelling and testing points
- At checkpoints (time control and route stations)
- during breaks

Manned time control and checkpoints start working approximately 15 minutes before the ideal arrival time of the first car and close 30 minutes after the ideal arrival time of the last car.

The location of an unmanned time control station can be showed either exclusively by road book markings or by road book markings + target sign (plate 2). Manned time control stations are marked with a target mark (plate 2) at the point where a stop is needed. The size of the signs is A4 or, preferably, A3.







Time control stations (manned and unmanned) are usually marked with three target signs (plate 1, 2 and 3). At the point where you must stop, there is a plate 2. The size of the signs is A4 or A3. A time control station may also be marked with only one target mark (plate 2), in which case the exact station area is not defined.

At manned route inspection station, a yellow advance sign (plate 4) and a red target sign (plate 5) are used. Plates to be used at control stations:



Plate No 1 (yellow) = Time control station (TC) starts



Plate No 2 (red) = Time control Station (TC)



Plate No 3 (amber) = Station area ends



Plate No 4 (yellow) = the station area begins (route inspection or intermediate roadworthiness test)



Plate No 5 (red) =
Route inspection station, intermediate survey



Plate No 6 (red) = Mandatory stop

### 16.1. Time control stations (TC station)

The location of the time control station is shown in the road book and on the map. It can be manned or unmanned. Competitors can also take turns acting as TC station staff.

The competitor is obliged to calculate his arrival time at each station on the basis of the driving time indicated on the time card (or additional order) (= the so-called own minute within which the station must be reached).

When the start of the station area is marked, the competitor can wait for the start of their own minute before the start of the station area. If the station area is not marked, the competitor may wait for the start of his own minute in the vicinity of the TC station, but not hindering other competitors.







When using unmanned time control stations and GPS tracking, the distance from the station area to the actual TC station is always at least 150 meters. At a manned time controls, the TC station area begins near the TC station.

The competitor must not prevent those behind from seeing the station area or station sign.

The competitor is allowed to arrive at the TC station area in the earlier minute to wait for his own minute and turn off the engine. Contestants are allowed to look at the official clock of the occupied station.

#### 16.2 Manned TC Station

If a competitor, due to a queue or traffic jam at the station or in its immediate vicinity, cannot get a vehicle to the station, the co-driver can retrieve the time entry on foot. At the control station, the time is taken at the time of presentation of the time card (= when the card is in the station person's hand). The time is recorded in the station minutes and time card as hours and full minutes, which is entered, for example, in the station minutes. 23:57.

If an error has occurred in the recording of the time, the station personnel must be notified at once, if necessary, in writing. When the trustee detects and corrects an error, he or she verifies the correction with his initials on the time card and station record.

The departure time from the time control station is arrival time + 1 minute. If two competitors arrive at the TC station at the same minute, the station staff will give them different start times. The competitor is obliged to wait for their own departure time in the station area, or in its immediate vicinity, when the station area is not precisely defined. Leaving too early will be punished (see 25. Error rates).

The departure time for the next leg is marked on the time card in the appropriate box: "DEPARTURE" in hours and full minutes, e.g. 23:58.

A race performance will be disqualified if the competitor has not visited the time control station or visits the stations in the wrong order, or if the total delay minutes between start and finish exceed 30 minutes.

#### 16.3 Unmanned TC

When using GPS tracking, the pair of competitors do not record their visit times at the station on the time card but are given a separate calculation card on which they can make their own visit time tracking.

At unmanned TC stations, you must stop and wait for a new departure minute. However, the car must remain stationary in the station area for at least five seconds. You will leave for the next period at the start of the next equal minute, but at the earliest when your scheduled departure time has been reached. Leaving in advance is punishable (see 25. Error rates).







If two competitors are at the station at the same time, the latter must leave a one-minute start interval between the first and the first one. The GPS tracker automatically logs your departure time one minute later.

The vehicle must remain <u>fully stationary</u> in the station area for at least five seconds. Even the small movement of a car is interpreted as a departure in GPS tracking!

A visit to the station can also be verified by picking up a label, stamp, or code (e.g. a tag) from the station. QR code and sending it to the server).

The inspection site, refuelling areas, departure, and breaks are also time control stations.

### 16.4. Route inspection stations

The competition includes route checkpoints, as well as driving observation stations in unannounced locations.

- 1. At a manned route inspection station, the competitor must stop at the station plate (plate 3) and present his route card.
- 2. At an unmanned route inspection station, the competitor must mark the sign, sign, etc. at the station, on the route card. information and may be done without stopping.
- 3. GPS trackers can track driving the right route, so they can handle all route checks.

#### 17. Breaks

At the discretion of the organizer, the competition may have several breaks or compilation breaks, during which the platoon, which has been stretched during the competition, is assembled again to start at equal intervals. The organizer uses the arrival TC to mark the correct start times for the competitors from the break. Timekeeping at the break station is conducted in the same way as at other time control stations.

The break can also be early arrival, in which case you can arrive at the break station before your own minute. Advance leave can be shortened to EV (ennakkovapaa in Finnish) or EAA (early arrival allowed) in the road book, driving order (race schedule) or time card. The finish is early arrival, unless otherwise told in the rules of the competition.

During breaks in the competition, the competitor has the opportunity, under the supervision of the organizer, to conduct necessary repair or maintenance measures. The competitor must ask the organizer to check and approve the repair or maintenance before it begins.

(A necessary repair or maintenance operation is one that is necessary for road safety or the safe operation of the car and cannot wait for the completion of the race).

## 18. Race performance and driving rules

Throughout the race, each competitor must strictly see the current traffic rules. Exceptional care should be taken in settlement area.

A race car with both pilots must visit all checkpoints in the order shown in the road book and be marked on the time or route card (or GPS tracker) writing down the visit or arrival and start time. Missing or incorrect entry may result in disqualification.







Road-specific speed limits must be strictly seen. The maximum permitted speeds entered in the road book are valid at the time the road book was made, but they may have changed. The lowest speed limit must be seen whether it is marked with a traffic sign in the terrain or only in the road book. Exceeding the permitted speed will result in a penalty and will be notified to the competitor in writing after reaching the finish line on the official notice board, as well as any other events that have caused error rates.

The lights must be used during the race following the Road Traffic law. During dusk and darkness, a car stopped on the roadside must have its parking lights switched on. The side mirrors must be in their normal position of use when driving during the race.

If the lights or license plate of the car are covered with snow or dirt during the race. They must be cleaned by the competitor during the next break, if possible, in those circumstances.

The organiser of the competition may place signs or other signs showing turning or driving directly at difficult orienteering points or destinations deviating from the road book, for example. "Attention!" These signs can also be found in the road book. After drawing up the road book, the posted signs are communicated to competitors with added regulations.

The track master may mark a mandatory stop in the road book to indicate the "STOP" text. The "STOP + vertex triangle" or just the "STOP" text marked in the road book is a mandatory stop for competitors. A clear stop must be conducted in a place with an unobstructed view of the intersecting road. It must be possible to check the stop on video. The car should be at a complete standstill for at least 3 seconds. If no stopping can be detected from the video, error rates will be judged.

The engine must always run when the vehicle is in motion and both crew members must be in the car outside the station areas. If the car is stopped, the engine may also be stopped. If the engine stops while driving, the car should be stopped as soon as possible. It is forbidden to start the engine by towing. Gear neutral is allowed if the engine is running.

However, start-stop systems and hybrids behave according to their own "nature".

During the competition, special tasks may be arranged for the competitors. Special tasks are performed by race cars and are included in the schedule.

In case of a flat tyre, the tyre change can be conducted at once in a suitable place. A flat tyre with rims must be carried with you throughout the race. During the race, no other items may be removed from the car. Maintenance outside the car, such as washing glasses and lanterns, is allowed by drivers without breaking seals, also along the route.

Outside help may only be used to return the derailed car to the road in case of an accident, as well as for work ordered and supervised by the race management. Towing or pushing the car is otherwise prohibited.

In case of an accident, the competitor must at once help the injured person. Based on a proven written application, lost time, up to a maximum of 30 minutes, can be considered for driving time.







## 19. Monitoring of competition performance

The organizer watches the competitors' performance (driving style and speeds) along the route, even at secret observation points. Driving performance can also be watched with GPS tracking. If sanctions are imposed for violations, the supervision must cover all competitors at the same control point.

#### 19.1. Intermediate roadworthiness test

During the race, the organizer may conduct any inspection or measurement of the participants' cars. Only approved cars are allowed to continue racing. If sealing or identification markings placed on the car are used in the competition, their absence or rupture may lead to disqualification from the race performance.

### 20. Suspension of competition

Competitors must at once notify the nearest inspection post or competition office of their suspension and must at once remove or cover up the competition numbers.

## 21. Final refuelling

In the final refuelling, the fuel and energy used on the race route are detected. Refuelling procedures in various categories are described in section 31 of the rules. Refuelling and charging in competition, as procedures differ from class to class.

During refuelling, no one should be in the car. Waving the car is forbidden – the organizers' refuelers are also not allowed to wave the car.

### 22. Final roadworthiness test

The final inspection takes place in connection with the final refuelling. The inspection will decide whether the competition numbers and the organiser's advertisements are in place and the seals are intact. The sealing of the refuelling hatch is stated by the refuelling manager.

The organizer of the competition can take any car for a full and detailed inspection.

If there is an irregularity in the car, it may lead to the disqualification of the competition and the organiser may oblige the competitor to pay any costs caused by the inspection.

### 23. Return of competition material

Competition papers, such as time and route cards, GPS trackers and refuelling and inspection cards, will be handed over to the result calculation according to the instructions of the organisers.

Recyclable competition numbers must be returned.

### 24. Penalties

- 1. A competition shall not be accepted if:
  - The car does not meet point 3. Race cars terms and conditions
  - Registration at the competition venue is delayed or the pair of competitors are eliminated
  - the participation fee has not been paid







#### 2. The right of departure shall be refused:

- The fuel for the initial refuelling has not been paid
- The competitor obscures or removes the organizer's advertisements or competition numbers
- The crew or car does not meet the conditions of the roadworthiness test;
- The contestant is more than 10 minutes late for the START

#### 3. Disqualification may result in:

- The absence of 1 or 2 driver in the car moving during the race. As an exception, a short transfer can be made at the refueling / charging point without another driver to expedite refueling or charging.
- pushing or moving the car in violation of the rules
- lack of race numbers during the competition
- Losing or changing the markings of a time, refuelling or route card
- violation or neglect of the general rules of order of the competition
- exceeding the speed limit by 20 km/h or more
- Missing entry in time card
- unauthorised maintenance or repair at an inspection station or violation of station area regulations
- incorrect race performance or exceeding the delay limit (30 minutes)
- deficiencies or irregularities detected during the mid-term or final roadworthiness test;

### 4. Exclusion

• A competitor who violates the AL-Sport EcoRun rules or behaves in an unsportsmanlike manner may be excluded from the competition by the race director or observer.







# PROFIT AND LOSS ACCOUNTING BASES

As a rule, the results are calculated based on energy charges and refuelling volumes. The organisers make assumptions about the amount of fuel and energy contained in the cars when they arrive at their point of departure and proceed with refuelling and charging in a way that is supposed to be a good starting point for obtaining reliable information on the fuel and energy used on the route.

Fuel or energy consumption can also be verified with the car's own meters, but this must be told in the invitation to the competition or its appendix/link. (For electric BEV cars it is mandatory to read consumption from the instrument cluster).

If specifically told in the invitation to the competition, the consumption figures of the cars can also be read and reset when entering the break. For example, in a two-day competition, it may be necessary to do this.

The car's own consumption meter readings must also be recorded when the results are calculated based on energy charging or refuelling volumes.

In the Rechargeable Cup, if the break is longer than 25 minutes, the consumption must be read as a precaution when entering the break. Do not reset the consumption read in this case!

If necessary, the profit and loss accounting principles will be specified in the invitation to the competition.

#### 25. Error rates:

a)	arriving too early at the TC station area and/or			
	presenting a time card	= 3 %		
b)	Being late for a time control station = 2 % / Started minute			
c)	too early departure from the TC station area	= 3 %		
d)	exceeding the speed limit by 5-9 km/h	= 3 %		
e)	exceeding the speed limit by 10–14 km/h	= 6 %		
f)	exceeding the speed limit by 15–19 km/h	= 10 %		
g)	failure to stop at a STOP sign or "STOP" in a road book	= 5 %		
h)	Rectification of the traffic divider from the wrong side	= 10 %		
i)	crossing of a solid yellow line	= 5 %		
j)	Driving through red traffic lights	= 10 %		
k)	Other traffic offence detected by the organiser	= 3 %		
l)	Lack of marking of the route inspection post	= 15 %		
m)	Starting refuelling volume of less than 5 litres (petrol			
	refuelling in categories B, D, HEV and PHEV) (only in races			
	where this is used)	= 3 %		
n)	Entering the TC station area from the wrong direction	= 3 %		
o)	Exceedance of the guide value for tyre pressure	= 2 %		

#### 26. Results

The results of the competition will be announced separately for each Cup class.







**The result of refuelled Cup** is announced in corrected for the CO2 coefficient. CO2 coefficients can be found in section 31 of the rules. (Fuel refuelling and electric car charging in competition).

The rechargeable Cup category uses a mass-corrected result. The calculation formula for electric cars is: consumption+((1600-curb weight)/1600)\*consumption\*0,3 (Consumption in the formula refers to kWh/100km)

The results include penalties, i.e. error rates.

The results of both Cups are published in terms of consumption, as is typical for the class, according to the propulsion material (liters or kWh per 100 km) over the distance between start and finish. The result shall be expressed to three decimal places.

The conversion factors used for profit and loss accounting can be found in paragraph 31 of the rules. (Fuel refuelling and electric car charging in competition). The coefficients are agreed for the whole season, although the density of fuels and, due to variations in density, energy content also vary according to the season.

## 27. Objections

Objections to the competition events and the decision of the race management must be made in writing no later than 30 minutes at the finish line. Objections to the list of results shall be lodged within 15 minutes of publication of the results. The objection fee is 100 €. If the objection is accepted, the objection fee will be refunded.

## 28. Award Ceremony

The number of winners will be announced on the official notice board. At a minimum, class winners will be rewarded. The organizer may also decide to award honorary, team and other prizes.

Prizes will be awarded after the competition has ended.







## 29. AL-Sport EcoRun Cup

The AL-Sport EcoRun Cup consists of two series, **Refuelling** and **Rechargeable**. The winners will be found at the end of the season. Cup series points are awarded for each race run. Results from competitions held during the season minus one (-1) are counted in the final points. If two or fewer competitions have been held, then points from all competitions will be considered.

The driver and co-driver collect their own points. The same person can collect points during the season as both driver and co-driver.

#### Points for the AL-Sport EcoRun Cup race is awarded as follows:

- 1. 100 points
- 2. 90
- 3. 80
- 4. 70
- 5. 60
- 6. 50
- 7. 40
- 8. 30
- 9. 20
- 10. 10

#### 29.1 Season winner

The winner of the season is the one with the most points at the end of the season. Cup races run during the season are considered for final points, minus the worst/unrun race if there have been at least three races during the season.

If at the end of the season the championship points are tied, then the solution is looked for in the following order:

- 1- Most first, second, third ... places during the season (the worst result is disregarded if three or more cup races have been run).
- 2- Who has the fewest penalty percentages from the races of the season that were accepted for final points. Has driven "cleaner".
- 3- The least fuel or electricity consumed in total in the races of the season that were accepted for final points. (Total amount, **not** L/100km or kWh/100km)
- 4- Which is in the first, second, ... in the competition received more points.
- 5- After the top three, in the event of a tie, shared positions are applied.

### 29.2 AL-Sport EcoRun Cup Trophies

The Autoliitto ry will award the winners of the AL-Sport EcoRun Cup season at an award ceremony organised by AL-Sport. AKK-Motorsport ry also rewards regional champions according to its own system.







# **ORGANISATION OF COMPETITIONS**

## 30. AL-Sport EcoRun Races

Licensed competitions include national cup competitions. Cup competitions can also be regional championships of motorsport (AKK-Motorsport ry).

Training competitions, competitions between sections and clubs do not need to be separately requested from AL-Sport, but a notification to AL-Sport is sufficient.

AL-Sport grants competition permits and charges an annually determined competition licence fee, which includes the organizer's liability insurance. There are no competition licence fees for practice competitions and competitions between departments and members.

Disputes between the organiser and the competitor concerning competition events are primarily resolved by the observer of each competition, but the highest decision-making power is exercised by the sport group appointed for the sport. The sport group draws up rules annually and, if necessary, specifies the rules during the year.

### 30.1 Application for competition authorisation and competitions for the following year

Competition permit application, link to website: <a href="https://www.autoliitto.fi/toiminta/al-sport-autourheilu/">https://www.autoliitto.fi/toiminta/al-sport-autourheilu/</a> (Found under "Material bank"). Must be duly completed and sent to AL-Sport signed by an observer no later than seven (7) weeks before the competition. Competition permit fees are charged for licensed competitions.

#### AL-sport EcoRun 50.00 €

 Next year's competitions must be applied for online, by the end of April this year. Link to site: <a href="https://www.autoliitto.fi/toiminta/al-sport-autourheilu/kilpailukalenteri/">https://www.autoliitto.fi/toiminta/al-sport-autourheilu/kilpailukalenteri/</a>. (The form on the website can be found below the competition calendar).

#### 30.2 AL-Sport EcoRun officials and AKK-Motorsport ry's trustee license requirements

Composition of the competition jury:

- According to the decision of the AL-Sport committee (16.10.2010), one external observer (independent of the organizer) is sufficient up to the Cup level, who reports to AL-Sport and the organizers of the competition.
- There is nothing to prohibit the use of a jury (chairman of the jury + two judges) also in national competitions. The chairman of the jury has the same reporting obligation as the observer.
- Report form can be requested from AL-Sport.

Licensing requirements for officials in a national competition:

Observer/Chairman of the Jury: Basic rally official license (AKK-Motorsport ry)

Bench: Basic trustee license

Race Director: Basic Rally Operator License

Inspector: Basic technical trustee license(recommendation).







• It is recommended that experienced and knowledgeable persons be appointed as the secretary of the competition, to handle the result calculation and refuelling.

Nordic EcoRun Championship (NEC) competitions held in Finland follow the same jury composition and trustee license requirement as national cup competitions.

# Fuel refuelling and electric car charging in competitions.

## 31. Refuelling and charging in the race

The invitation to the competition explains what kind of energy consumption specifications will be used in the competition. The energy used can be figured out according to the energy refuelled and externally charged in the car, but it can also be specified in the invitation to the competition that, for example, electricity consumption is calculated based on the nominal battery capacity. Cars' own consumption meters and other specifications of fuel and energy used can also be used if this is told in the invitation to the competition.

It is not obligatory to refuel cars that can be refuelled, but fuel consumption can be verified using the cars' own consumption meters or other methods. The procedure will be written down in the invitation to the competition. Cars to be refuelled can also come with a full tank to the competition venue if this is told in the invitation to the competition, in which case the first refuelling run will not be driven.

During breaks, cars can be charged, and this can be ignored if the cars' own consumption meters or other similar methods are used to verify energy consumption. In this case, the kWh/100 km reading given by the car's own meter must be looked at the finish, intermediate charging must not affect the race result.

If, on the other hand, the race result is produced by comparing the battery level at the start, break and finish, all charges made on the race route must be included as a result factor in the calculation. In this case, the aim is not to fully charge the batteries, but to relate the charged energy to changes in the battery level.

If the break during the race is so long that the car resets the consumption meter, the organiser must be informed of this in advance. In this case, the consumption is read when arriving at the break and the organizer calculates the consumption weighted by the distance travelled.

The car must be able to cope with the race route with extra fuel or energy during breaks or breaks if the organisers have created the opportunity to do so.







## 31.1. Conversion factors for different forms of energy:

	Unit	Energy value (kWh)	CO2 coefficient	N.B!
B (95E10 and 98E5)	1	8,684	23,5	
E85 No separate category!	I	(6,389 if 85 % ethanol) 8,684 (same value as 95E10 and 98E5 used)	23,5	Range 16.35- 23.5. Using a gasoline value of 23.5 because the mixture ratio is difficult to find.
D	I	9,937	26,6	
CNG No separate class!	kg	11,194	27,14	
Electricity	Kwh	1	-	







### 31.2. Instructions for refuelling (B + D + E85 + HEV + PHEV + CNG):

Two-stage refuelling includes a refuelling loop or, alternatively, a defined waiting time between refuelling's.

A competitor with an E85 can fill up with any fuel that is valid for it. In practice, however, 98 E5 or 95 E10 petrol is what makes the most sense to use in competition.

#### **CNG** and PHEV cars in competition:

Gas cars (CNG) can take part in the category of refuelling if the gas (CNG) tank is empty, and the use of the car is based only on petrol. The fuel tank must be sufficient for the entire race distance.

Rechargeable Hybrids (PHEVs) can take part in the refuelling category if there <u>is no</u> externally charged energy left in the driving battery intended for electric-only driving. In which case the vehicle runs as a standard hybrid (HEV) or with the internal combustion engine (D+B).

In the latter first refuelling, where the consumption measurement begins, it must be possible to verify from the car's instrument cluster that the amount of charged electric driving of the PHEV car or the amount of gas run of the CNG car is 0 km, or 0 %.

When there is no starting refuelling and the consumption is only read from the car's own consumption meter, the amount of charged electric driving of the PHEV car or gas run of the CNG car at the starting point must be 0 km, or 0 %.

However, it is typical for rechargeable (PHEV) cars that they may accumulate electricity in the driving battery while driving, which is why it is acceptable to have accumulated electric driving during the race distance at the finish line. Charging the car during the race is not allowed.

It is the competitor's responsibility to ensure that the instrument cluster of the CNG and PHEV cars is able to verify that the gas or charged electricity has been used up, and in this respect, it does not give an advantage over other cars in the refuelling class in the initial situation. The competitor must be able to show these things from the car to the race official.

The competitor is also responsible for ensuring that the CNG or PHEV car is suitable for the refuelling category. The race management may disqualify an unsuitable car from the competition.

### Initial refuelling

The starting refuelling in the race is driven from the competition office/departure point according to the route provided by the organiser as a transfer. Departure refuelling is two- or single-stage. Refuelling can take place at different gas stations and does not have to be the same for starting and final refuelling. The competitor pays for all refuelling himself, unless otherwise told in the invitation to the competition. The invitation to the competition will write down the method of departure refuelling.







When arriving for the first refuelling, the car's tank must hold at least 5 litres of fuel. If the tank holds less than 5 litres of fuel (refuelling 1 + 2), the competitor will be penalized with a percentage increase (see section 25 of the rules of the sport. Error rates), which is calculated for total consumption. The is no penalty in competition where is no first refuelling and tank is filled before race. Please read the race invitation for refuelling details!

The wheel closest to the car's tank must be in the longitudinal and lateral directions with an accuracy of five centimetres in the same position during all refuelling. The drive-through refuelling trestle is not moved, but is always in the same place, which is marked on the base, so that the trestle can be placed again in the same place if necessary.

All refuelling of the race cars will be conducted by the representative(s) of the organizer. During refuelling, no one should be in the car. It is forbidden to swing the car during refuelling.

### Refuelling 1:

- Always 5 minutes per car. The time begins with the first press of the pistol.
- The organizer's representative(s) will refuel the car on level ground. The amount of fuel refuelled, and any depreciation are recorded to two decimal places, the initials of the refueler and the place of refuelling are entered in both the refuelling report and the roadworthiness test/refuelling card.
- The competitor pays for their fuel, after which the so-called fuel is driven. refuelling loop as a transition.
- If told in the invitation to the competition, the first refuelling can be skipped, and the race can be completed with a full tank.

### Refuelling 2:

- Always 5 minutes per car.
- The organizers always refuel the car with the closest wheel of the tank filling truck raised.
- At the end of the first refuelling, 0.3-1 litres of fuel can be removed from the tank to prevent overflow.
- Refuelling markings are made in the same way as in Refuelling 1.
- After approved refuelling, the fuel filler hole can be sealed.

After refuelling (removal and payment), the pair of competitors move to a time check station, from where the competitors are sent forward to the route every two minutes. The starting order of the race can be according to the race numbers or in the order in which the cars from the starting refuelling are transferred to the time control station.

#### Final refuelling

The race ends with a two-stage final refuelling. Refuelling can be at different gas stations and does not have to be the same as for starting refuelling.

Refuelling 3: (always 5 minutes per car) The organiser(s) refuel the car on level ground, after which the so-called refuelling loop marked in the road book is driven. The refuelling run is part of the competition. Each competitor pays for the fuel themselves, unless otherwise told in the invitation.







Refuelling 4: (always 5 minutes per car) The organizers always refuel the nearest bike in the tank filler with the nearest wheel raised.

The race ends with an approved stage 4 refuelling. The refuelling manager decides the approval. After stage 4 of the refuelling, the competitors move to the finish line according to the instructions of the organizers.

The fuel used in the competition is the combined amount of fuel refuelled in stage 3 and stage 4 minus the possible depreciation of stage 2. Fuel used (+ penalties) is the result criterion.

### 31.3 Charging instructions for battery-electric vehicles (BEVs):

The competitors handle charging their car before the start of the race. The starting and finishing places of cars may be separate places than in other classes. It is recommended that BEVs take to the route before other competitors – especially if the cars are being charged at rest areas. The route can be arranged to pass through the main starting point so that all classes follow the same route in the race.

The main recommendation is not to charge the cars at the finish line to obtain the race result. Charging during the break makes electric cars, despite their 20% shorter route, have a longer race time than in other classes. If the cars are not charged at the finish line, the BEV class can arrive an hour later, and their energy consumption can be calculated at the same time as the other classes. The procedure can be, for example: Following:

- The car's own instrument cluster shows the energy used on the route. In some cars, energy is only shown as total energy consumption after zeroing, while in others it is reported as consumption per 100 km. Others, on the other hand, give both results.
- For some cars, a mobile app is available to provide more exact information to monitor consumption.

If cars are charged during the race for result calculation, the goal is to find out the energy consumption with one or two short charges. The procedure can be, for example: Following:

- In cars, the battery level is checked before departure.
  - Charge level in %
  - o Reserve level as remaining mileage
  - Charge level as remaining amount of energy.
- A pause is a mandatory charging pause. <u>Before charging</u>, the battery level is checked following the previous point <u>and after charging</u>.
- If the instrument cluster shows the consumption kWh/100 km and charging during the race does not interfere with this, then the energy calculation is not needed.

Electric cars don't go for refuelling runs.



