



SHELL ECO-MARATHON UNITED STATES 2022

OFFICIAL RULES
CHAPTER II



Shell Eco-marathon • 2022

BRILLIANT MINDS COMING TOGETHER TO BUILD A LOWER-CARBON WORLD

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FOREWORD



Dear Shell Eco-marathon participants, friends and enthusiasts,

Welcome to Shell Eco-marathon United States 2022! The heritage of Shell Eco-marathon is that it is first and foremost a track event, and we know that there's nothing quite like designing and building your own ultra-energy-efficient car and then putting it to the test on an actual racetrack against other teams from all over the world.

In 2022, after a two-year break from the tracks, we are excited to enable that feeling once again with the return of physical competitions – a platform to come together, test vehicles and celebrate.

From April 10 – 13, 2022, our first Shell Eco-marathon Mini Event comes to Indianapolis, Indiana gathering teams from all over North America vying to push the boundaries of energy efficiency.

There will be prizes available for each energy and vehicle category, as well as selected Off-Track Award categories; including Vehicle Design, Technical Innovation supported by Southwest Research Institute and Safety supported by DuPont.

I would like to remind you that all activities related to your Shell Eco-marathon project must be carried out by the registered Teams and its Participants. The Organizers reserve the right to withhold technical inspection approval for Teams who show substantial knowledge gaps over the design of their vehicle and the functional principles of its component parts.

Remember that you must be prepared for the competition and arrive with your vehicles ready for technical inspection. Therefore, it is highly important to:

- Read the [Shell Eco-marathon 2022 Official Rules, Chapter I](#) carefully. The document presents all technical and safety rules applied to both Prototype and Urban Concept classes.
- [Watch the Tech Tips on YouTube](#). The videos explain the technical rules in an easy-to-understand way.
- Read this document carefully. The Chapter II Rules include logistics information you need ahead of Shell Eco-marathon United States 2022.
- Come prepared! Your car should be ready for technical inspection upon arrival. All required documentation listed in [Article 58 of the Chapter I Rules](#) should be printed and ready.

I look forward to seeing you from April 10 – 13, 2022 in Indianapolis!

Gilles Vanier

Shell Eco-marathon Technical Director

1. GENERAL

The rules provided herein for Shell Eco-marathon United States 2022 should be read in conjunction with the Shell Eco-marathon 2022 Official Rules, Chapter I, and all other rules and instructions of the Organiser, together called the Competition Rules, and apply during the entire duration of the participants' presence onsite.

Where terms have already been defined in the Shell Eco-marathon 2022 Official Rules, Chapter I, the same shall apply for Shell Eco-marathon United States 2022 Rules, Chapter II.

By fact of their entry, Participants accept all provisions these Competition Rules and agree to abide by all decisions made by the Organisers. The Organisers reserve the right to add, modify or delete any Article of the Competition Rules.

All decisions made by the Organisers are final and binding.

Shell Oil Company (which is incorporated and registered in the United States, address: 150 N. Dairy Ashford, Houston, TX. 77566), hereafter known as "Event Organiser" or "Organiser" is the organiser of Shell Eco-marathon United States 2022, the "Event".

The Event will be open to participants from April 10 - 13, 2022 at the Indianapolis Motor Speedway in Indianapolis, Indiana (the "Site"). The Site is owned by Indianapolis Motor Speedway, LLC (incorporated and registered in the United States, address: 4790 West 16th Street, Indianapolis, IN 46222), hereafter known as "Site Owner".

Teams will have access to the paddock from Sunday, April 10 at 12:00 p.m. (noon) after they have checked in and received HSSE induction and must clear their garage in the paddock area by Wednesday, April 13 at 7:00 p.m. at the latest. Access to any part of the Site will NOT be authorised on Thursday, April 14, 2022.

Shell Eco-marathon United States 2022 will NOT be open to the public, walk-in visitors or team guests. **Only officially registered team members are invited and allowed on-site.**

ARTICLE 200: PARTICIPANTS

Teams will be allowed to bring a maximum of **10** participants to the competition, including chaperones and faculty advisors. All participating team members must be:

- (i) Registered in the logistics phase on the registration portal;
- (ii) Affiliated with the competing institute, whether as a student or faculty. Legitimate chaperones, such as parents, are accepted. Children of faculty will NOT be considered team members;
- (iii) Over the age of 16.
 - a. 14 and 15-year-olds must be accompanied by at least one adult per two underage members, in addition to the faculty advisors or adult team manager. Appropriate supervision plans detailing how the safety and welfare of the children will be ensured, must be agreed with the Organiser at ecomarathonamericas@shell.com prior to the competition.
 - b. No one under the age of 16 will be allowed to stay at the campsite, with no exceptions.

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Only these 10 registered team members will receive accreditation to access the paddock area. The team manager, driver and reserve driver will be given an additional wristband upon registration at technical inspection.

Each team is responsible for all costs and expenses associated with participating in the event (i.e. travel to/from the Site, hotel accommodations, meals, vehicle costs, shipping and freight for vehicle, etc.)

The Team Manager is the Team's sole official liaison with the Organiser. The Team Manager must be a student. If all team members are underage, the faculty advisor may also be the Team Manager. All information will be addressed to him/her. For the purposes of the Event, he/she will be responsible for speaking on behalf of the Team.

The Organiser will provide the following for the teams:

- Participant wristbands to access the paddock area (proving they have checked in and attended the HSSE induction, 1 per team member);
- Paddock passes (badges and lanyards, 1 per team member);
- Two yellow armbands for start/finish access;
- Wristbands for campsite access, if applicable;
- Participant goodie bags (1 per team member);
- Vehicle stickers (see Appendix I in the [Shell Eco-marathon 2022 Official Rules, Chapter I](#));
- Team Manager, driver and reserve driver wristbands equipped with individual RFID codes, to be collected at the technical inspection front desk.

ARTICLE 201: DRIVERS

Drivers must be at least 16 years old on the day of the competition. In all cases, drivers must be students of the educational institution in question. Proof of enrolment must be provided upon request. A driving license is not mandatory.

ARTICLE 202: MANDATORY DOCUMENTS

At participant check-in, on Sunday, April 10 from 12:00 p.m. – 5:00 p.m. and Monday, April 11 from 8:00 a.m. to 12:00 p.m. (noon), the Organiser will verify with the Team Manager that all required documents have been submitted online prior to the event via the registration website or e-mail. The Organisers will not authorise entry to the Event if the online registration requirements have not been successfully submitted. Any missing documents must be handed in at participant check-in on-site for the team to receive credentials.

The mandatory documents are the following:

- The **Terms & Conditions of Participation** signed by each of the registered Team Members (minors must have their waivers signed by a parent or guardian and notarised.)
- The **Institutional Waiver** signed by an individual authorised to sign legal documents on behalf of the school (student signatures will not be accepted.)
- The **Enrolment Attestation Form** signed by an individual authorised to sign legal documents on behalf of the school (student signatures will not be accepted.)

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ARTICLE 203: ORDERING MANDATORY EQUIPMENT

This article applies to Teams that do not yet have the required equipment. The following item is mandatory and must be purchased via the Event Organiser. Please contact ecomarathonamericas@shell.com to place an order prior to the event. The following materials will also be sold on-site during the Event (teams must pay with a credit card; no cash or checks will be accepted.)

Fuel tanks (gasoline, diesel, and ethanol)

These tanks are mandatory and shall not be modified.

- Prototype: 100 or 250 cc
- Urban Concept: 100, 250 or 350 cc

ARTICLE 204: INSURANCE

The Organiser has as a standard procedure and liability insurance for large scale events.

Damages concerning theft or other damage occurring to teams' vehicles, personal belongings and/or equipment are not covered by this insurance policy.

Damages coming from inappropriate behaviour will not be covered.

Personal injuries are also not covered by this insurance policy. Teams are urged to get sufficient insurance coverage both for themselves and their vehicles for the duration of the Event.

The Organiser shall not be held liable in the event of unauthorised use of the track (this includes the main track and the test track) outside the regularly scheduled hours for testing and competition, or in any case of unauthorised driving outside the stipulated areas (see [Article 19 of the Chapter I Rules](#)).

ARTICLE 205: DAMAGES NOT COVERED BY THE ORGANISERS

Any damage caused by participants to track facilities and surroundings and/or to Shell Eco-marathon facilities and/or the Site shall be charged to the teams having caused said damage. Notwithstanding any other right and remedies available to the Organiser, the Organiser reserves the right to deduct or set off any such damages from the prize money (if applicable) (see [Article 241](#) and [Article 242](#)), but liability shall not be limited to this amount.

ARTICLE 206: DROP OUT POLICY

Teams that wish to drop-out from the competition must inform the Organiser by March 10, 2022. Lack of warning before dropping out will result in a suspension of their institution from Shell Eco-marathon competitions globally for one year.

ARTICLE 207: STUDENT MEALS

Participants are responsible for purchasing their meals. Indianapolis Motor Speedway food vendors may be open during the event, further details to be confirmed in due course. Teams are welcome to order food from outside the venue and have it delivered to the Indianapolis Motor Speedway address.

ATMs are available on-site.

ARTICLE 208: DISQUALIFICATION

The Organiser shall have the right, at their discretion, to disqualify any Team that is displaying unsafe behavior or behavior that goes against the spirit of the competition. Other penalties may be applied as described in Article 8 of the Chapter I Rules.

2. HEALTH, SAFETY, SECURITY AND ENVIRONMENT (HSSE)

The Organiser is determined to achieve GOAL ZERO, NO HARM, NO LEAKS. Goal Zero means carrying out this event safely so that we ensure there is no harm to people, no damages to assets, and no detriment to the environment.

To achieve this and fulfill our duty of care to our participants and visitors, the Organiser will work with all relevant agencies (including local government, national regulators and venue related stakeholders) to put plans, policies and procedures in place to manage risk and potential emergency situations that arise.

The Organiser will ensure that these procedures and policies are communicated to the teams and compliance with all the rules, including safe driving, general behavior and sporting rules, will be **mandatory for everyone**. All participants must comply with the safety measures and notify the Organiser about any anomalies or incidents.

Participants are required to play their part in achieving Goal Zero by applying the Health, Safety, Security and Environment (HSSE) Golden Rules.

The three HSSE Golden Rules are, YOU and I:

- Comply with the law, standards and procedures;
- Intervene in unsafe and non-compliant situations; and
- Respect our neighbours.

The Organiser will monitor and manage the event using a Safety Team who will be easily identifiable. The purpose of the Safety Team is to promote good practices, challenge unsafe conditions and behaviors, and assist the teams any way that they can. If a participant is asked for cooperation by the Safety Team, they should treat this with seriousness and comply with all reasonable requests.

Team managers shall be responsible for enforcing the following regulations, which are drafted in the best interests of all participants and the success of the event, with the participants in their team. Any regulatory non-compliances will be subject to the penalties stated in [Article 8 of Chapter I](#).

Teams understand and agree that approval in the Technical Inspection does not constitute or imply that any vehicle is deemed valid or safe enough to operate on any public road, and only accredits them to operate on the Event Site track for testing or competition purposes.

Health is also a main concern. If you are currently under medication, please bring enough medicine for the duration of the Event.

COVID-19

The Organisers appreciate that teams wish to understand what COVID-19 controls will be in place at the Event. The fast-evolving nature of the Omicron variant in the US means that it is not possible at this time to define these controls. It is our intention to issue guidance, as a supplementary addendum to Chapter II as soon as possible. Teams will be duly notified once further guidance is available.

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ARTICLE 209: SMOKING

The Organiser draws participants' attention to the fact that smoking is extremely harmful to health. In addition, the event type (like a car-racing competition) requires the handling and storage of dangerous components and fluids such as gasoline, diesel, hydrogen and other fuel materials.

Smoking (including the use of electronic cigarettes) is only allowed in the external designated smoking areas.

ARTICLE 210: DRUGS AND NARCOTICS

The Organiser forbids the use and distribution of narcotics, including marijuana or any illegal substances, for anyone attending or participating in this event.

U.S. Federal law forbids the distribution and the consumption of narcotics. Law enforcement officers may intervene anywhere on the premises for narcotic searches. In addition to legal prosecutions from the authorities, any drug and narcotics related breach of the regulations will be treated as a 3rd infraction of the Team (see [Article 8 of Chapter I](#)), even if no prior violation has occurred.

ARTICLE 211: ALCOHOL

Alcohol consumption by any participant is not allowed at any time on-site.

The Organiser reserves the right to intervene and remove any person(s) found to be, in their sole and absolute determination, in a state unfit to participate from the site. Any behavior deemed by the Organiser to be unfit and/or inappropriate may be subject to the penalties laid out in [Article 8 of Chapter I](#) up to and including, immediate team disqualification even if no prior violation has occurred.

ARTICLE 212: COMMERCIAL TRANSPORT OF DANGEROUS GOODS

Commercial transport of Dangerous Goods is a risk if not correctly packed or handled. If the goods are hidden, declared incorrectly, left undeclared, packed or labelled incorrectly, health and safety is severely compromised. Commercial freight transportation regulations have increased significantly worldwide within the last couple of years requiring Shell Eco-marathon student teams to seek and understand the current restrictions/regulations, and the ramifications for non-compliance.

Agility Fairs & Events Logistics is the Global Freight Partner for Shell Eco-marathon. Their global expertise will assist you in identifying any shipping restrictions/regulations for any chemicals and selected batteries. They will outline the process of packing and shipping your Shell Eco-marathon vehicle crates through commercial carriers to Shell Eco-marathon events worldwide.

Shipping Dangerous Goods such as batteries, pressurised containers or flammable liquids is heavily regulated internationally as improper packing can have catastrophic consequences. As per [Article 24j](#) teams are required to seek early guidance regarding the shipment of any Dangerous Goods from their commercial freight company or from our global freight partner, Agility Fairs & Events. Teams may contact Agility at SEMUstudents@agility.com.

If teams are using air freight to ship their vehicle, they are advised to ship their batteries separately from their main crate by sea to minimise risks and to avoid having their whole crate being designated as 'Dangerous Goods'.

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We require the following documentation from **all teams shipping commercially**, i.e. not taking the competition vehicle to the venue in their own cars, to show that care has been taken to pack the goods safely. There are two forms of documentation we accept:

- Dangerous Goods certificate from an official Dangerous Goods packer stating that the crate has been packed according to international safety standards.

Or

- A Shipping Form + Dangerous Goods Packing Declaration which requires a person of authority at your institution to confirm that
 - (i) They have thoroughly checked the packing of your crates and it is safe to be transported via Commercial Transportation.
 - (ii) They will undertake any financial and legal liabilities that might arise from incidents caused by failures to pack Dangerous Goods safely.

The forms of documentation we accept differ based on the type of freight you are using to transport your crate.

AIR FREIGHT	SEA FREIGHT	ROAD FREIGHT
<ul style="list-style-type: none"> ■ <i>Only</i> Dangerous Goods certificate allowed if there are Dangerous Goods in the crate ■ If you have no Dangerous Goods in your crate, we will accept the Dangerous Goods Packing Declaration <i>provisionally</i>. We will check on site and if this is a false declaration, penalties up to disqualification will be levied. 	<ul style="list-style-type: none"> ■ Dangerous Goods certificate or ■ Dangerous Goods Packing Declaration 	<ul style="list-style-type: none"> ■ Dangerous Goods Packing Declaration

Teams must upload their Dangerous Goods documentation to the registration portal as part of the logistics registration phase, before the crate gets picked up by their off-shore freight forwarder. The penalty applied to Teams who bypass the requirements for commercially shipping Dangerous Goods may be considered as the third infraction according to Article 8 of Chapter I.

More information on Dangerous Goods can be found in the Dangerous Goods Shipping Guide. The template for the Dangerous Goods Packing Declaration can be found in the here.

ARTICLE 213: MOVING PROTOTYPE AND URBAN CONCEPT VEHICLES

In all places other than on the track, all Prototype and Urban Concept vehicles must be moved without the use of the engine. They must be manually pushed or pulled by an accompanying team member **wearing gloves**. This also applies to the pit lane and the paddock area.

When a vehicle is pushed or pulled, the speed must not exceed a walking pace and the vehicle must never be out of the control of the team members.

ARTICLE 214: TEST TRACK

By exception to [Article 213](#) a dedicated test track is available for testing purposes when the main track is also opened for practice or competition. It is forbidden to use the test track when the main track is closed during the day and/or at night.

The number of vehicles allowed on the test track is limited; this is under the control of the Track Marshals. The safety team can restrict this number further in case of specific circumstances.

Only vehicles having passed safety inspection and in full working order e.g. complete chassis and body together and Drivers with full protective equipment will be allowed on the test track.

The Organiser would like to point out that the test track is of a reduced length and width as compared to the main track. Therefore, Teams must ensure that they keep a low speed and have total control of their vehicles at all times when on the test track.

ARTICLE 215: PEDESTRIANS

Except for the Track Marshals or any other person duly authorized by them and under their control, no pedestrian is allowed on the track. Track reconnaissance is forbidden. However, the Organiser understands the need for teams to view the track. A suitable time will be designated for this, which will be advised during the mandatory briefing.

ARTICLE 216: PARTICIPANT DRONES

Unmanned aerial vehicles (UAVs), commonly known as drones, belonging to any private individual Participant, may not be used nor overfly any of the site.

3. PADDOCK SAFETY

ARTICLE 217: PADDOCK ACCESS

The Paddock will be open to teams:

From 12:00 p.m. to 6:00 p.m. on Sunday, April 10, for participants with the appropriate accreditation, after check-in and HSSE induction.

From 8:00 a.m. to 6:00 p.m. from Monday, April 11 to Wednesday, April 13. All teams and equipment must be out of the Paddock spaces by Wednesday, April 13, at 6:00 p.m.

The paddock will be closed between 6:00 p.m. and 8:00 a.m. This means that the paddock area remains closed overnight, and nobody is allowed into this area during this time. Power will be turned off to the paddocks overnight.

ARTICLE 218: TOOLS AND WORK EQUIPMENT

The Organiser will verify that tools and work equipment teams bring to a Shell Eco-marathon event meet National or Local Standards. All power tools must be good working order and any safety features must be in place. During the event, the Safety Team will patrol the paddock area to ensure teams are working in a safe manner. The following tools and equipment must have certification to prove that they are in a good working order as deemed by the Organiser:

- Electrical equipment: this must be properly rated for the United States and have a suitable test certificate to show that it is fit for use. During the event, the safety team will be patrolling the paddock to check for compliance.
- Teams are required to have approval from the Safety Team to use any small cutting or grinding equipment. Safety guards protecting the cutting wheel must be in place and fixed for use. Heavy duty cutting and grinding must be done by the welding team provided by the Organisers.
- No welding work is to be carried out in the paddocks. Teams are not authorized to bring their own welding equipment to the event site. Any welding equipment found will be confiscated for the duration of the event.
- All electrical equipment used must be properly fused. All cables must be in good condition for the equipment. High wattage electrical appliances must not be plugged into a multiple plug strip. If you are using a multi plug strip, each must have internal overcurrent protection. (see [Article 24j of the Chapter I Rules](#));
- Only approved universal adaptors are to be used for all appliances and power tools;
- All air compressors must have a suitable test certificate.

In the event the Organiser deems any equipment is unsafe, the Organiser reserves the right to not permit the equipment to be used.

ARTICLE 219: COMPLETE PADDOCK AREA HOUSEKEEPING

The Organiser requires participants to exercise care in their paddock space or garage, particularly in the following aspects:

- No drilling, cutting, welding or grinding work is to be carried out in the paddocks. Teams are not authorised to bring their own welding equipment to the Event Site or the campsite. Any welding equipment found will be

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confiscated for the duration of the event. Welding must be done outside by the designated professionals provided by the Organiser in the designated area:

- The welding service is only for minor modifications or repairs and not intended for teams to have their vehicle completed only upon arrival at the event. All teams must go through Technical Inspection before accessing welding services. Vehicles requiring major modifications must have Technical Director approval;
- Vehicles with internal combustion engines are not permitted to run their engines in the paddocks. This may only be done in designated areas outside the building.
- Lift stands or appropriate raised platforms should be used for vehicle tuning and repairs;
- Use duct tape to secure any cords or cables lying on the pit floor;
- Hazardous (toxic/flammable/solvent) products should be clearly segregated, labelled and stored in appropriate conditions.
- Cooking or other preparation of food is strictly forbidden in the paddock. Consumption of food and drinks in the paddock should be avoided.

ARTICLE 220: PROTECTIVE EQUIPMENT AND MATERIALS

Teams share responsibility for safety matters and are required to provide adequate safety gear ('Personal Protection Equipment') including but not limited to the following for use at the Event:

- Safety glasses for all participants (disposable types are permitted) or impact-resistant glasses or goggles when necessary;
- Hearing protection for all participants (approved ear plugs or muffs);
- Dust masks when required for work generating airborne particles;
- Gloves for general work (leather or canvas). If unsure on the usage of gloves, contact a Shell safety representative;
- Gloves for handling fuel or motor oil made of chemical resistant material (nitrile gloves are recommended);
- Closed shoes must be worn at all time in the paddock and track area (sandals and flip-flops will not be permitted).

Note any requirement for COVID-19 protective equipment will be communicated separately.

ARTICLE 221: FIRE SAFETY

The Organiser stresses that teams must take managing fire risks with utmost seriousness. Any improper fuel storage or poorly mitigated fire risks deemed to contribute to an unsafe condition will lead to the removal and disposal of the offending items. At the Event, teams will be briefed on rules and guidelines for fire safety. Team managers will be required to ensure that their team strictly adheres to the rules and guidance provided.

The Organiser will provide fire extinguishers for the paddock area.

ARTICLE 222: ELECTRICAL SAFETY

Teams must ensure that the tools and equipment that they bring to the Event are safe for use in the US (120/240V, 60Hz) and without defects. Example of defects include but are not limited to: damaged plugs, exposed wires and malfunctioning parts. If the equipment is rated for a different voltage, please use it with an appropriate voltage adaptor.

The Safety team will be patrolling the paddocks to inspect the equipment to ensure compliance. In the event the Organisers are of the view that such tools and equipment is/are unsafe, the Organisers have the sole and absolute right to confiscate the item for return at the end of the Event.

Additionally, teams must comply with the following regulations:

- Fire blankets or lithium polymer battery bags must be used when charging lithium batteries (see [Article 24h](#)); and only chargers specifically made for the type of battery should be used. Programmable chargers should be set at the right setting before charging. Batteries must not be left to charge unattended.
- All electrical equipment used must be properly fused. All cables must be in good condition and appropriate for the equipment it is intended for. High wattage electrical appliances must not be plugged into a multiple plug strip. If you are using a multi plug strip, each must have internal overcurrent protection. (see [Article 24j](#)). Multiple plug sockets cannot be connected.

ARTICLE 223: ON-SITE WELDING RULES

On-site welding and heavy duty cutting/grinding will only be performed by a professional group arranged by the Organiser. The welding service is only for minor modifications or repairs and not intended for teams to have their vehicle completed immediately after arrival to the event. All teams must go through technical inspection before accessing welding services. Vehicles requiring major modifications must have Technical Director approval.

ARTICLE 224: SAFETY DATA SHEETS (SDS)

Except for approved race fuels or energy sources, upon request by the Organisers, all teams should be able to provide the SDS of any products they use in their garages, e.g. solvents, cleaning agents, chemicals, etc. These should be stored with the materials and must be available on request.

ARTICLE 225: EMERGENCY EXITS

Fire and emergency exits must be kept clear at any time from any obstructing equipment or vehicles.

ARTICLE 226: WASTE MANAGEMENT

Participants are responsible for the cleanliness of their garages and the immediate area surrounding their garage. The Organisers will put in place a sorted waste collection system at the Site. Participants are required to sort their waste and to place it in the appropriate containers and bins. Teams are reminded to adopt a green approach at this Event, to recycle and reuse items, and avoid wastage.

All unused and waste liquid chemicals/lubricants must be surrendered at the waste collection point at the end of the Event. It must not be disposed of by pouring down the sink or drain or discarded in the paddocks.

4. COMPETITION/PRACTICE

ARTICLE 227: DEFINITION OF COMPETITION

Prototype and Urban Concept vehicles will use the same track, at different times, during practice and competition.

Definition: For the attempt to be valid, teams must complete 4 laps in a maximum time of 40 minutes for a total distance of 10 miles (16 km). The time requirement for Prototype and Urban Concept vehicles is the same.

Urban Concept: The driver must stop once per lap. The stopping point will be specified by a panel or a specific road-marking under the control of a Track Marshal. It must be a full stop of the wheels and must take place at the specified point unless other vehicles have already stopped and no space is available on the track to do so. In case of disrespect of the designated place for this stop, or a 'rolling stop,' the concerned attempt will be invalid.

Attempt: Each team will be limited to a maximum of five attempts. The best result will be retained for the final classification.

An attempt is counted when the vehicle crosses the start line. Even if the vehicle stops near the start line, a new start will not be granted for the attempt in question.

Results: All results are considered temporary until the official results are published on the Shell Eco-marathon website after the Event.

In the event of any disputes, all decisions made by the Race Director are binding and final.

Winners: The winner of the competition will be the team with the highest energy efficiency result in their vehicle class and energy category, within the valid attempts as defined above. The winners will be announced on the last day of the Event, during the Awards Ceremony.

Prizes are awarded separately for both Prototype and Urban Concept, and for the three energy categories available: Internal Combustion Engine, Battery Electric and Hydrogen Fuel Cell. Refer to the table in [Article 241](#) for the amounts awarded.

ARTICLE 228: START AND FINISH OF COMPETITION

Only vehicles which have passed technical and safety inspection will be allowed in the queue to access the filling point and starting line.

The vehicle may be accompanied by a maximum of three participants, including the driver, who have the appropriate ID badges, wristbands and armbands. Once the vehicle has left the starting line, all non-driving participants must leave the starting area.

The starting area is dedicated for the driver to take his/her place in the vehicle in safe conditions, and to close the vehicle body. It is forbidden to work on the vehicle in this area. In case of difficulties in starting the vehicle, a maximum of two minutes will be granted to try again, after which time the team must return the vehicle to the paddock for repairs. Teams must re-join at the end of the queue when they would like to attempt again. No equipment will be tolerated in the starting area, e.g. heater system, trolley, toolbox, etc.

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Drivers must wait for a signal from the flag bearer (green flag) before starting and must carefully enter the track at the merging point on the track/pit lane. It is forbidden to cross the solid demarcation line separating the track and the starting lane.

At the start line: Vehicles will start one by one. Vehicles must be at a full stop and are not allowed any outside assistance during starting. Any pushing of the vehicle is prohibited.

At the finish line: Competitors are not allowed to work on their vehicles prior to inspection of the vehicle by the Inspectors. Inspectors/marshals are the only people authorised to fill or top up the tank.

ARTICLE 229: RFID TAG ATTRIBUTION

Up to three RFID wristbands will be attributed to each team: one for the team manager, and one for each driver.

This tag is your reference for:

- Briefing presence control.
- Technical inspection access, process, and final status.
- Competition access, race queue entrance, and start and finish measurement.

ARTICLE 230: TIMEKEEPING

All vehicles will be equipped with an extra-flat electromagnetic transponder that will be fitted after technical inspection using adhesive tape or similar, inside or outside the vehicle according to the vehicle's characteristics.

Should there be any malfunction of the transponder midway through an attempt, the attempt will be voided and a new attempt will be awarded, given that this is duly verified by the Organisers as per Article 6 and Article 7 of the Chapter I Rules.

The transponder must be returned to the technical team as part of Participant check-out at the end of the Event.

ARTICLE 231: TRACK ACCESS CONDITIONS

Track access is authorised for qualified Prototype and Urban Concept vehicles, only during official opening hours according to the competition schedule. For other conditions, please refer to Article 13 in the Chapter I Rules.

ARTICLE 232: DRIVING UNDER THE INFLUENCE OF NARCOTICS

Any narcotic-related breach of the regulations by Drivers will be treated at least as a 2nd infraction of the Team; even if no prior violation has occurred. In addition, the affected Driver will immediately be banned from accessing the Track. The Reserve Driver may substitute the Main Driver if she/he is eligible to drive.

Any second narcotic-related infraction will lead to the immediate disqualification of the entire Team.

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ARTICLE 233: RACE DIRECTOR AND MARSHALS

The Race Director will be assisted by his team of track marshals, who will ensure that all Shell Eco-marathon rules are complied with on the track. The decision of the Race Director to disqualify or dismiss a team from the competition for non-compliance to competition rules shall be final and binding.

ARTICLE 234: BREAKDOWNS AND OTHER INCIDENTS

If, due to an incident, the race is stopped and the red flag used, all vehicles on the track at that time will receive a replacement attempt.

For other details, please refer to Article 18 in the [Chapter I Rules](#).

ARTICLE 235: MANDATORY BRIEFING

The morning briefing is mandatory for the team manager and the drivers (main driver and reserve driver.) You must scan your RFID tag for presence control. If the team manager is not present at this briefing the vehicle will not be authorized on track for the entire day. Only the drivers attending the briefing will be authorized on track for the entire day.

ARTICLE 236: ENERGY CONSUMPTION CHECKS

A maximum of three participants per team including the driver may be present at the start and finish lines with their vehicle during the energy consumption check performed by the technical team at the end of a valid attempt.

ARTICLE 237: PANEL INFORMATION

The Organiser recognises the need for teams to communicate with drivers using panel boards along the track. A dedicated panelling area is designated for this. Only two participants wearing a dedicated safety vest or armband supplied by the Organiser shall be allowed in said paneling area at any time. Paneling outside this area is forbidden.

5. REGIONAL CHAMPIONSHIP

ARTICLE 238: DEFINITION OF REGIONAL CHAMPIONSHIP

Definition: The Shell Eco-marathon Regional Championship 2022 is for Urban Concept teams only. Should the competition take place, it will require teams to complete a set number of laps, to be confirmed at the mandatory drivers' briefing. The competition will only be carried out if a minimum of eight eligible teams are competing.

ARTICLE 239: WORLD CHAMPIONSHIP SERIES RULES CHAPTER III

Teams interested in competing in the Shell Eco-marathon Regional Championship must refer to the Shell Eco-marathon 2022 World Championship Rules, Chapter III. Should the competition take place, it will be announced to the eligible teams in due course. The Organisers reserve the right to modify, postpone or cancel the competition for any reason including for reasons of force majeure, such as health and safety concerns.

6. PROVISIONAL COMPETITION SCHEDULE

Note: In compliance with the competition rules, the Organisers reserve the right to make any changes that may prove necessary. Exact timings will be available in due course. The schedule for the day will be confirmed every morning during the mandatory technical and safety briefing and will be posted on screens throughout the paddock area. Should there be further changes, the most current schedule will be the one posted on the screens.

SUNDAY, APRIL 10, 2022

- Campsite open
- Participant Check-in open (afternoon)
- Team Paddocks open

MONDAY, APRIL 11, 2022

- Campsite open
- Participant Check-in open (morning)
- Team Paddocks open
- Technical Inspection open
- Mandatory technical and safety briefing (Team Managers and Drivers only)
- Track open for practice – by category

TUESDAY, APRIL 12, 2022

- Campsite open
- Team Paddocks open
- Technical Inspection open (morning only)
- Mandatory technical and safety briefing (Team Managers and Drivers only)
- Track open for practice – by category
- Track open for competition – by category

WEDNESDAY, APRIL 13, 2022

- Campsite open
- Team Paddocks open
- Mandatory technical and safety briefing (Team Managers and Drivers only)
- Track open for competition
- Regional Championship*
- Participant check-out open
- Awards Ceremony

*To be confirmed at the event.

7. TROPHIES, PRIZES AND AWARDS

ARTICLE 240: TRAVEL SAFETY STIPEND

A stipend of \$500 will be given to the team with the best travel safety plan. A travel safety plan describes how you will ensure that your travel to and from the event is as safe as possible. The report must not exceed 8 pages, using a minimum font size of 10 points.

Teams will be expected to answer the following questions in your application:

- Before you travel, what considerations do you need to make for the trip?
- What modes of travel are available to you? What are the risks associated with your choice of transport? How do you plan to mitigate these risks?
- What is your mental checklist regarding health and safety as you travel?

If you're driving:

- Human error is a significant factor in most accidents. How can you reduce the risk of a costly driving mistake by ensuring you are physically and mentally prepared?
- How do you ensure that you drive a fit-for-purpose, properly equipped, well-maintained vehicle?

Previous stipend winners cannot re-apply using the same plan. Submission must be clearly different from previous winning applications. Applications must include only the Team identification number (ID) and the Team name on the cover. Do not include any personal information within the applications, for example, please do not include personal names or contact details.

Applications for the Travel Safety Stipend must be made in the English language and the required documents must be uploaded to the [Shell Eco-marathon registration website](#) as part of the logistics phase of registration.

The stipend winner will be announced at the Awards Ceremony at the event. This stipend will be added to the Team's prize money (if applicable) as per [Article 241](#).

ARTICLE 241: ON-TRACK AWARDS

All on-track prizes are awarded separately for both Prototype and Urban Concept.

	ON-TRACK PRIZE
Internal Combustion Winner	\$ 1,500
Internal Combustion 2 nd place	\$ 1,000
Internal Combustion 3 rd place	\$ 500
Battery Electric Winner	\$ 1,500
Battery Electric 2 nd place	\$ 1,000
Battery Electric 3 rd place	\$ 500

	ON-TRACK PRIZE
Hydrogen Fuel Cell Winner	\$ 1,500
Hydrogen Fuel Cell 2 nd place	\$ 1,000
Hydrogen Fuel Cell 3 rd place	\$ 500

ARTICLE 242: OFF-TRACK AWARDS AT THE EVENT

The following three categories of the Off-Track Awards, described in Articles 100, 101 and 102 of the [Chapter I Rules](#), are available at on-track events only. Submissions for these awards must be made via the registration portal.

	OFF-TRACK PRIZE
Vehicle Design Award	\$ 1,000
Technical Innovation Award supported by SwRI	\$ 1,000
Safety Award supported by DuPont	\$ 1,000

Teams applying for these awards may be visited by the judges during the event and are required to make a Team Member available to them at their request. The judges, comprised of subject-matter experts from Shell and technical partners, may ask further questions, wish to see evidence, or discuss the Team's submission in more detail.

ARTICLE 243: CERTIFICATES

Individual result certificates will be issued to the registered participants on the condition that the vehicle passed technical inspection or achieved a valid result. These certificates will be available for download from the registration portal shortly after the competition for up to three years.

ARTICLE 244: TRANSFER OF PRIZES

No substitution or transfer of prizes is allowed. The Organiser reserves the right to award alternate prizes in the event a prize is unavailable. The Organiser also reserve the right to not award any prize.

8. MISCELLANEOUS TERMS AND CONDITIONS

ARTICLE 245: PERSONAL DATA

Terms as set out in the [Shell Eco-marathon Privacy Notice](#) governs and covers the Organisers' processing of any personal data collected by the Organiser and/or shared by the Participant as part of the Competition and on the [Shell Eco-marathon registration platform](#).

Any personal information processed by the Organiser is for the purpose of facilitating your participation in and association with the Competition.

ARTICLE 246: THIRD PARTY RIGHTS

By entering, each Team warrants and represents that its vehicle and/or its design is original and does not infringe, defame or otherwise violate the rights and/or property of any third party; does not violate any laws or regulations; and does not utilise, use or infringe the property of any third party including the property and rights of another Team without express written permission to do so. Each Team further warrants that the possession, exploitation, use or distribution by that Team of any intellectual property including without limitation patents, copyrights, designs, trade or service marks, whether registered or not, shall not infringe or misappropriate the intellectual property right of any third party. Each Team shall indemnify the Organisers and its parent, affiliate and subsidiary companies against any costs, loss or damage suffered or incurred by the Organisers and its parent, affiliate and subsidiary companies as a result of any claim that the use by a Team thereof infringes the intellectual property right of any third party.

ARTICLE 247: PHOTOGRAPHY AND VIDEOGRAPHY RIGHTS

The Participant is aware that photo, audio and video recordings will be made throughout the event and that these recordings may be used commercially for advertising or promotional purposes. You may be recognisable in such photo, film, audio and video recordings, or in any such materials that you submit to the Organisers during and after the event. Accordingly, the Organiser will apply your voluntary consent as provided in the Film and Photography Marketing Consent form in order to use, process and share (if necessary) such materials. Please see the terms as set out in the [Shell Eco-marathon Privacy Notice](#) if you desire to withdraw your consent at any time.

In all physically held on-track events, the Participant is aware that they may choose not to appear in such photos and videos by requesting so at check-in, following which they will be given an additional unique lanyard. This will be used as a visual indicator to all photographers/videographers on site to that effect.

ARTICLE 248: RELEASE FROM LIABILITY

The Organiser, its parent Royal Dutch Shell plc and all of its and their respective officers, directors, employees, shareholders, representatives and agents shall have no liability and will be held harmless by participants and institutions for any claim, action, liability, loss, injury or damage to any participant, Institutions and/or any other person or entity, including personal injury or death to any person or damage to personal or real property, due in whole or in part, directly or indirectly by reason of participation in this contest, or the acceptance, possession, use or misuse of a stipend and/or a prize (including any travel or related activity).

Without prejudice to the aforesaid, participants and institutions acknowledge that they will read, understand, accept and execute the Terms and Conditions of Participation document provided by Shell in order to participate in the Event.