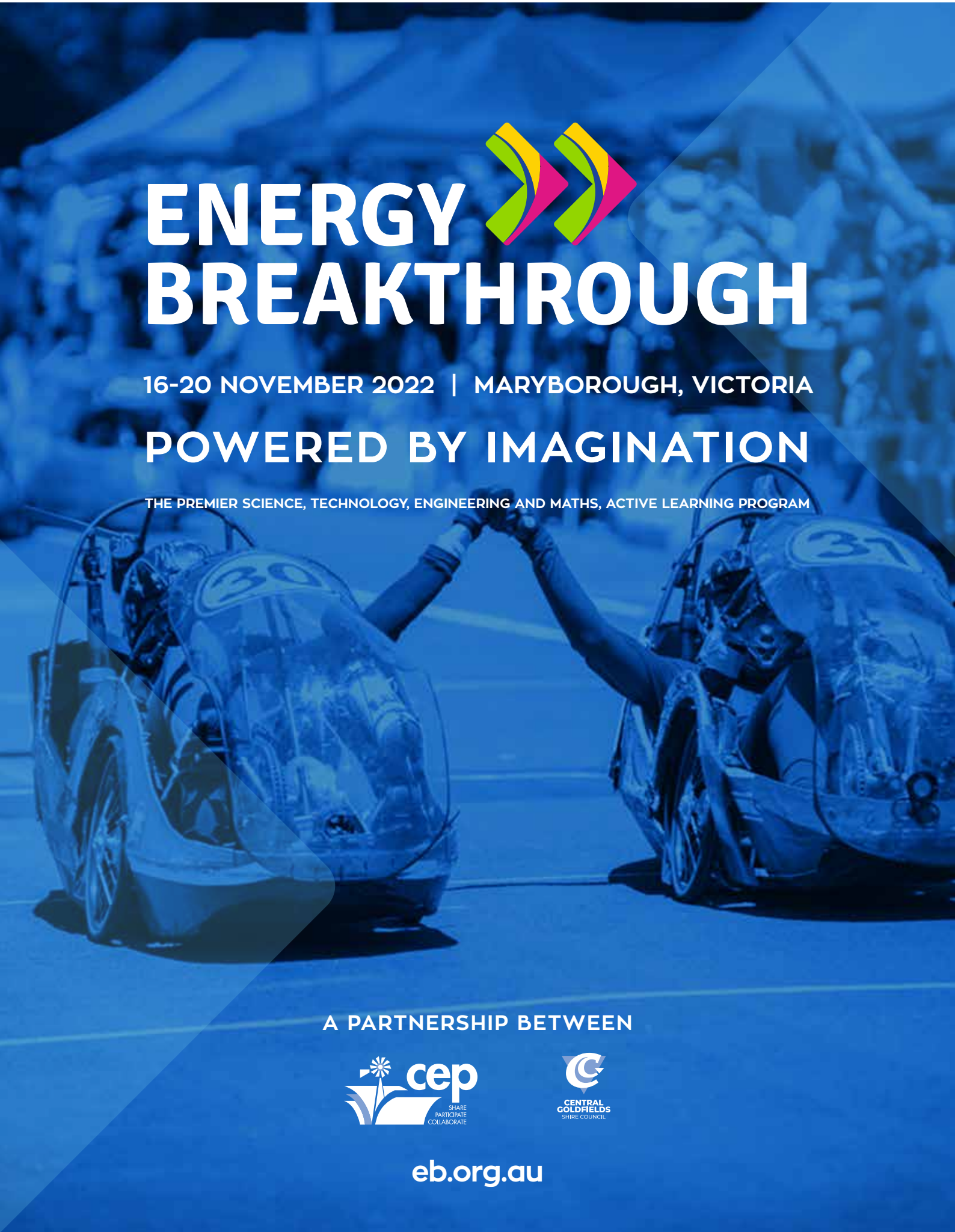
# 2022 SCHOOL'S HANDBOOK
# HPV / EEV



# ENERGY BREAKTHROUGH

16-20 NOVEMBER 2022 | MARYBOROUGH, VICTORIA

## POWERED BY IMAGINATION

THE PREMIER SCIENCE, TECHNOLOGY, ENGINEERING AND MATHS, ACTIVE LEARNING PROGRAM

A PARTNERSHIP BETWEEN

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# 1. OVERVIEW

## Human Powered Vehicles

*Ages:* Open to Primary and Secondary students.

*Classes:* A, B1, B2, C, Open, All-Female

*Challenge:* To work as a team of students to design, build and compete using a vehicle powered solely by human power.

Entrants design, build and compete, using a vehicle powered solely by human power. The event specifications direct the construction of the vehicle – including safety, dimensions, steering regulations, lighting and warning device requirements.

Leading teams can cycle almost 1,000kms in 24 hours, with advanced materials such as carbon fibre, kevlar and titanium infiltrating vehicle designs.

But it's not just about the cutting edge – just the opportunity to participate keeps teams coming back year after year to pedal around the great lakeside circuits!

All entrants are be required to participate in the Trial sections on the street circuits at Maryborough in November (including a nine-hour lights-on period).

There will be a compulsory eight-hour break for primary entrants (Class A) during the night, making the duration of the primary event 14 hours.

## Energy Efficient Vehicles

*Ages:* Open to Secondary students Only

*Classes:*

- Hybrid 1 (C Class): Pedal power, plus one other power source.
- Hybrid 1 (Open Class): Pedal power, plus one other power source.
- Hybrid 2 (Open Class): Two power sources, excluding pedal.
- All-Electric (Open Class): Electric power only.

*Challenge:* To work as a team of students to design, build and compete using an efficient vehicle with limited energy resources.

The Energy Efficient Vehicle (EEV) category most technically difficult challenge at the Energy Breakthrough. Teams often come up with ingenious drive systems that marvel judges. Some are extremely complicated, others are simple – but all are seeking an 'energy breakthrough'.

The category is designed to engage students with current industry trends towards electric vehicles, hybrid, solar, low emission and other alternative fuel vehicles.

Suitable for Trade Training students, those interested in automotive systems, go kart designs and tinkering with motors, both electric and petrol.

The big challenge is seeing how far their limited fuel allocations can carry them in the 24-hour endurance trial (including a nine-hour lights-on period), on a street circuit in Maryborough in November.

# 2. ENTRIES

## 2.1 Classes

Teams will consist of the following numbers of competitors:

**Human Powered Vehicles**

| Class | Year Level | Team Size | Gender Requirements | School Size |
|---|---|---|---|---|
| **A1** | Years 1 - 6 | Min 6 – Max 10 | At least 50% female. | Schools with an enrolment of 200 or less |
| **A2** | Years 1 - 6 | Min 6 – Max 10 | At least 50% female. | Schools with an enrolment of more than 200. |
| **B1** | Years 7 - 8 | Min 6 – Max 8 | At least 50% female. | N/a |
| **B2** | Years 7 - 10 | Min 6 – Max 8 | At least 50% female. | N/a |
| **C** | Years 7 - 12 | Min 6 – Max 8 | At least 50% female. | N/a |
| **All Female** | Years 7 - 12 | Min 6 – Max 8 | Female only | N/a |
| **Open** | Up to Year 12 | Min 6 – Max 8 | No gender requirements. | N/a |

**Energy Efficient Vehicles**

| Class | Year Level | Team Size | Gender Requirements | School Size |
|---|---|---|---|---|
| **Hybrid 1: C Class** | Years 7 - 12 | Min 6 – Max 8 | At least 50% female. | N/a |
| **Hybrid 1: Open Class** | Years 7 - 12 | Min 6 – Max 8 | No gender requirements. | N/a |
| **Hybrid 2: Open Class** | Years 7 - 12 | Min 6 – Max 8 | No gender requirements. | N/a |
| **All-Electric Open Class** | Years 7 - 12 | Min 6 – Max 8 | No gender requirements. | N/a |

## 2.2 Team composition

- All entries are to be team entries and must consist of current school students.
  This is defined as young people enrolled in a school or young people enrolled in a secondary school certificate/program and under 20 years of age as at 31 December.

- Classification for schools entering the A1 and A2 classes will include the TOTAL school enrolment, not the Primary component of a school. This classification will be made by the organisers using information published on each school's website and the MySchools website.
- Team members do not have to all come from the same school, but they must all be current school students. They must have relevant insurance cover through an auspicing school. All team members must have written approval from the Principal of their school.

## 2.3 Categories, Classes and Quotas

| CATEGORY | CLASS | QUOTA |
|---|---|---|
| **HPV Primary** | HPV A1<br>HPV A2 | **90** |
| **HPV Secondary** | HPV All Female B/C | **10** |
| | HPV B1<br>HPV B2<br>HPV C | **65** |
| | HPV Open | **22** |
| **EEV** | All Classes | **30** |

## 2.4 Team composition

- All entries are to be team entries and must consist of current school students (Young people enrolled in a school or young people enrolled in a secondary school certificate/program and under 20 years of age as at 31 December).
- Team members do not have to all come from the same school. They could be part of a scout, church, or other community group, however they must all be current school students and be covered by the group's insurance. Where non-school teams have riders from other schools participating in Energy Breakthrough, they must have written approval from the Principal of the school.
- Non-school teams are encouraged to be auspiced by, or connected to a school or education provider. Where they are not connected to a school or education provider they need to apply for an exemption.
- Teams in the Secondary Human Powered Vehicle, Energy Efficient Vehicle and Tryathlon B/C categories will consist of:
    - a minimum of six (6) and a maximum of eight (8) riders.
    - of whom at least half must be female.
    - except in Open classes where there are no gender requirements.
- Teams in the Human Powered Vehicle A and Tryathlon A categories will consist of:
    - a minimum of six (6) and a maximum of ten (10) riders.
    - of whom at least half must be female.

## 2.5 Category caps, changes and waitlists:

- A maximum of three entries per school will be accepted in any category, except Innovations in Technology, which has no limit. Multi-campus schools may apply to organisers for special consideration on this quota.
- Additional entries from a school will be placed on a waiting list and will be notified if accepted into the event.

- Teams registered in the HPV B or C classes who request a transfer to the HPV Open class will incur a 50 lap penalty in the trial.
- Teams registered in the Tryathlon A or B/C class who request a transfer to the Tryathlon Open class will incur a 15 lap penalty in the endurance trial.
- Only one entry per school will be accepted in the HPV Open and Tryathlon Open classes.
- Schools that have an existing entry in the HPV Open or Tryathlon Open classes will not be able to enter additional teams into this class.
- Schools who won their class overall in the event previous, will be entitled to a guaranteed place for the following year. Team Managers will receive an email to advise of the process. If the team accepts the entry an invoice will be issued. If the overall winner for 2019 of a class does not want their automatic entry, this WILL NOT pass onto the second placed team.
- Correspondence regarding the status of entries on a waiting list will be made directly to a Team Manager only.

### Safety: Scrutineering

All entries must complete scrutineering, which entails a safety inspection to ensure the vehicles are safe and meet all the relevant design specifications.
These checks ensure that the vehicle is safe for the occupant, other teams and spectators.

Where entries do not comply with specifications, or are considered unsafe, scrutineers will provide assistance and/or direction with work required in order to comply.

Schedules and locations for teams to complete scrutineering and other judging assessments will be published prior to the event.

Organisers will assume that teams will have arrived in Maryborough and be available from 12 noon on the day of their assessment. Late arrivals will be accepted only by negotiation.

# 3. ASSESSMENT

## 3.1 Overview

The Energy Breakthrough is unique in that all teams must compete across three areas of assessment: Design and Construction, Display and Presentation and Trials.

All sections **must be attempted,** and points are awarded in the following sections:

| SECTION | SCORE |
|---|---|
| **Design & Construction** | 25% |
| **Display and Presentation** | 25% |
| **Endurance trial** | 50% |
| **Total** | **100%** |

## 3.4 Design and Construction

### 3.4.1 Purpose

The focus of the Design and Construction is to assess the student's **understanding** of the vehicle and the **concepts** involved in its design and construction.

This aspect represents 25% of a team's total score.

Note: A one point improvement in this assessment area can equate to an additional **20 laps** on track in the trial elements, based on historic records.

### 3.4.2 Format

At a scheduled time, each team of students will be asked a series of questions by two or three judges.

These questions are framed in an informal 'workshop-style' discussion, where students can point to various aspects of their vehicle to explain the design and construction concepts to the judges.

The students and judges typically stand around the vehicle during this assessment, which typically takes between 20 mins – 25 mins per team.

**About the Judges**

The judges are all volunteers who are typically:

1. a community representative,
2. a person with an interest in education, technology, and / or engineering, or
3. a past participant of the Energy Breakthrough.

### 3.4.3 Criteria

As part of the Design and Construction assessment, teams will be scored against the following criteria:

- **Effort and input**
    - This is based on issues such as whether the vehicle bought, made from new, modified from the previous year and to what extent the students were involved in the various aspects of design and construction.
    - It is understood that the levels of student involvement in the technical and practical activities related to the design and construction of an entry will vary with age.
    - Teams can show design drawings and models to demonstrate work undertaken by students.
    - Teams who have simply purchased a recumbent bicycle (complete or in kit form) and carried out basic modifications, will not score as well as teams who have built a vehicle from scratch.
    - Consideration will be given to teams who have 'Inherited' a vehicle from previous teams, but who have improved the design and/or construction in some way.
- **Innovation and Quality**
    - How effective/clever the design concepts are,
    - the materials used,
    - construction methods,
    - types of gears, brakes and steering.

- **Understanding**
    - discuss and explain design and construction processes,
    - key design concepts,
    - the materials,
    - components & running set-up.
- **Safety: Design and Understanding**
    - show all rider safety equipment, including each person's gloves, helmets and glasses,
    - discuss the use of restraints,
    - roll bars,
    - rider protection,
    - visibility.
- **Practicality, Stability & On-road Performance**
    - vehicle reliability,
    - handling,
    - lighting.
- **Driver Training and Skills Development**
    - presentation of licences for each team member,
    - skills covered in driver training including driving at night, in the wet, etc.
- **Understanding of Environmental Issues**
    - the relationship between transport and issues including greenhouse, air pollution, electric vehicles, and the importance of renewable energy, etc.
- **Vehicle Weight**
    - Weight is an important factor in efficiency.
    - HPV's and EEV's will be weighed and scored based on their weight compared to other teams.

## 3.5 Display and Presentation

### 3.5.1 Purpose

The purpose of the Display and Presentation is for team members to demonstrate their **knowledge** and **understanding** of their entry and the **story** of their journey throughout the year to the Energy Breakthrough.

This aspect represents 25% of a team's total score.

Note: A one point improvement in this assessment area can equate to an additional **20 laps** on track in the trial elements, based on historic records.

**Display & Presentation changes for 2022**

Following two COVID-19 disrupted years, the Energy Breakthrough is offering a new option for secondary schools in 2022.

This new option is a chance to reinforce the educational aspect of the program by preparing and submitting a Display & Presentation Video Pre-Event.

The aim of both the video and the in-person presentations will be to showcase and emphasise the school's journey over many months leading up to the Energy Breakthrough.

### 3.5.2 Options for Submission

**OPTION A: In-Person At Event**
**Duration: 20 minutes plus 5 – 10 minutes of Q&A**
Each team will be required to present for a maximum of 20 minutes to a panel of judges. This will be followed by 5 - 10 minutes of questions from the judges.

**OPTION B: Video Pre-Event**
**Duration: 10 minutes, plus 5 minutes of Q&A**
Each team will be required to submit a video of a maximum of 10 minutes.
This will be followed by 5 minutes of impromptu questions asked by teachers.

**Notes:**

- Both options still represent 25% of the team's total score.
- All teams must complete either OPTION A **OR** OPTION B (not both).
- Schools completing OPTION B will **not** be scheduled to present 'in-person' at the event.
- Option B is seen as a 'trial' for 2022 and is only an option for HPV Secondary teams and EEV teams.
- Option B is NOT available for HPV Primary, TRYathlon and Innovations In Technology teams in 2022. These teams MUST complete Option A.
- The general information regarding the purpose, criteria and aspects of assessment will remain the same. However, the Video Pre-Event Presentation will be created digitally throughout the year and submitted prior to the event.

## Specific Information - Option A: In-Person At Event

**Space:**
Each team is provided an approximately 4 metre by 4 metre space to present within, with one wall to affix display materials.

**Schedule:**
A specific time for each team to complete their Display & Presentation will be published prior to the event. Each team is allocated time to set up their display prior to their time.

Event schedules will require teams to have arrived and be available from 12 noon on the day of the assessment. Late arrivals will be accepted only by negotiation.

## Specific Information - Option B: Video Pre-Event

**Video Format**
The video is to have all students participating and sharing of the student's work in the visual display.

Students are encouraged to utilise any media skills they have but it is important to understand that it is **criteria of Display and Presentation** that will be assessed and not their **media skills.**

**Impromptu Questions**
The impromptu questions will be supplied by the Education Planning Group, but asked by the teacher.

The questions will be sent to the teacher via email once an expression of interest from the school has been received.

It is expected – based on an honesty policy - that students will NOT have seen the questions before hand.

In the case that there are two teams, then there will be two separate sets of questions provided.

**Submission**
Details and processes for uploading video submissions will be provided to participating schools.

The Energy Breakthrough team will work with schools to ensure that technology is not a barrier to participation for schools.

**Publication**
The top three video presentations will be published on the Energy Breakthrough website. Permission will be sought from the relevant schools prior to publication.

**Deadline:**
All video submissions are to be uploaded by 5.00pm on Friday 28th October.

## General Information (Covers both Options A & B)

**Technology Use & Distractions**

Schools are encouraged to be innovative in their presentations.

However, care needs to be taken to ensure that 'distractions' do not overtake the real purpose, that is, 'students demonstrating their understandings'.

To reduce interference from nearby panels, no public address or small music (CD) systems will be allowed at In-Person At Event Presentations without prior approval of the Display & Presentation Coordinator.

**About the Judges**

The judging panel are all volunteers who typically consists of three members:

4. a community representative,
5. a young person with an interest in education and/ or technology, and
6. an education/teacher representative.

These judges will ask the questions of team members following their formal presentation.

**Participation**

All registered team members are required to participate equally in the presentation.

Teams may choose to include up to two (2) additional students (i.e. support crew) to join their registered team members in their presentations.

However, the presentation roles must still be shared equally by all participating team members.

### 3.5.3 Criteria

The assessment covers both **oral report** and **visual display**.

Judges are asked to look for evidence of:

- Student involvement.
- Levels of participation.
- Team work and enthusiasm.
- Individual contributions.
- Understanding of the project.

It is understood that the levels of student involvement in the technical and practical activities related to the design and building of an entry will vary with age.

## Oral Report

The oral report will be assessed according to:

This oral report should relate to the development of the team entry, including ideas that did not work and why.

**Presentation Style**:

- The introduction and outline of the presentation;
- awareness of the audience;
- style of presentation (reading from notes or reciting);
- clarity of language;
- use of materials,
- diagrams and models covered.

**Team Work**:

- The effectiveness of leader's role; sharing of knowledge and responsibility in the team;
- acknowledgment of individual team members' role;
- team attitude and enthusiasm, and
- the extent to which the presentation reflects the students' own work.

**Knowledge and Understanding**:

- Knowledge of the aims and values of the Energy Breakthrough;
- team planning;
- preparation and training, and
- technical aspects of the development of the vehicle.

**Development of a Story:**

The "story" of the team and the entry throughout the year, including:

- the challenges;
- the preparations;
- the school and community's involvement, and
- the students' achievements.

## Visual

The visual display should include photos, videos, models, prototypes etc to explain the involvement of students, school, community and/or industry in the program and the development of their entry.

The visual display will be judged according to:

**Layout and Organisation**:

The range of visual media and written text depicting:

- vehicle development;
- the arrangement of items;
- the variety of information presented, and
- the acknowledgment of sponsorship/financial support received.

**Quality of Display**:

The effective use of the following to convey messages:

- diagrams and drawings,
- models,
- photos,
- text, etc

## 3.6 The Trials

In this section, the operation of each entry will be tested.

- **Secondary Human Powered** and **Energy Efficient Vehicles** will participate in a practice session and a 24-hour trials on a street circuit in Maryborough. The track is titled the Track 1.
- **Primary HPV** teams will participate in a practice session and 14-hour trial on a street circuit in Maryborough.

### 3.6.1 The Circuits

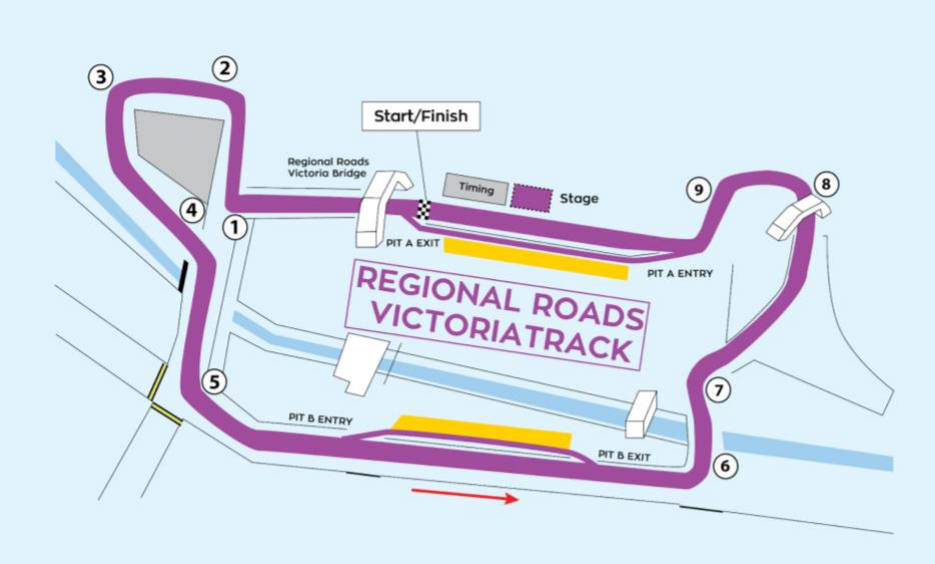
There are two tracks in Princes Park, Maryborough surrounding the beautiful Lake Victoria. On both tracks there are some unlit sections at night, and the sealed surfaces are not "billiard table smooth".

The **Track 1**, shown below, is a challenging 1.76 km street circuit that reflects real-world conditions.

This track will be used for the Secondary HPV, Energy Efficient Vehicle and Pushcart sprint trials.


The **Regional Roads Track**, shown below, is a challenging 1.11 km street circuit that reflects real-world conditions.

This track will be used for the Primary HPV and the Pushcart Endurance trials.




# 4. RIDER TRAINING

There are three key elements to Energy Breakthrough preparation:

- **Technology and design of the vehicle,**
- **Fitness and endurance, and**
- **Vehicle handling skills.**

Participants plan and prepare the first two well. Long hours are dedicated to Design and Construction, diet and physical training plans sometimes rival Olympic efforts. However, time in the vehicle in a range of scenarios is the key to safe vehicle handling.

Manoeuvrability is an extremely important safety issue. Teams will be riding for 14 or 24 hours, so well-planned training programs may prevent accidents when riders are tired.

Riders need to have some experience and training in the demands of the track. It is essential that students are well prepared for the varied conditions and challenges at the event through pre-event track conditions simulation and manoeuvrability practice.

**What should our training program include?**

We recommend that all team members undertake between 1 - 2 hours practice in the competition vehicle.

Practice in many and varied conditions, here are a few areas you should cover:

- **Safety experience**
- **Skid mitigation:** sprinkle sand or gravel on the track turn the wheels into a skid
- **Wet conditions training:** hose your training track down to simulate rain
- **Night riding practice:** come back after dinner
- **Cornering:** chalk some tight corners onto the asphalt
- **Cutting in and out** of 'the pack': use witches hats
- **Passing slower vehicles**: use a bicycle as the other vehicle
- **Defensive driving techniques**: be ready for the unexpected.
- **Pit Procedure:** practice smooth rider changeovers, including fastening seatbelts, adjusting seats and adding drink bottles.
- **Traffic lights and flag signals:** test each other to know what each light and flag colour means.

The traffic lights/flag signals are the main way for Marshals and Traffic Officials to communicate with riders during the trial. During Design and Construction assessment members will be questioned about their knowledge of Traffic Lights/Flag Signals and track Conduct.

## Here are some extra tips to help you prepare:

### Driver position

Each team driver should be able to reach the pedals and be comfortable over their full range of movement, without stretching the leg straight.

Make sure the back is fully supported so that maximum effort can be applied to the pedals without needing extra support gained by pulling back on the steering wheel.

Both mirrors should be adjusted so that a vehicle following close behind – either side – can be clearly seen without undue head movement.

Seat belts must be worn low over the pelvic bone (not high over the waist) and across the chest. The belt should be comfortable, firm and not prone to slipping off the shoulder.

The seat position must ensure that the rider does not slide forward and under the seat belt.

### Corners

A blue line is marked on the track. Vehicles are required to stay on the inside of the track (that is to the left of the blue line) at all times unless overtaking.

When entering a bend, look to where you want the vehicle to go – this will help to pull you through in a smooth curve.

### Mirrors

You must always be using your mirrors to know what is behind you, or if you are going to be overtaken, and to be aware of other vehicles around you.

Finally, if you are planning to move from one side of the track to the other, give a quick glance over your shoulder to avoid moving into the path of another vehicle.

### Steering the vehicle

Use a light grip on the steering wheel or levers; push the pedals from the hips, back and shoulders, with relaxed arms. This will allow you to steer smoothly and keep a straight line.

## VicRoads Log Book

With the help of VicRoads, an optional Log Book has been prepared for students to record their training and preparation.

This is available from the 'School Zone' section of the website.

## VicRoads Participant Licence

All team members are required to present their Licence to the VicRoads station at the start of Scrutineering & Design and Construction process at Maryborough.

This is available from the 'School Zone' section of the website.

# HUMAN POWERED VEHICLES (HPV)
# PRIMARY

## WEDNESDAY 16 NOVEMBER

**1.00 pm – 5.00pm** **Registration open**
Location: Administration Centre

**3.30pm – 6.00pm** **Design and Construction and Scrutineering**
Location: Display & Presentation marquees

## THURSDAY 17 NOVEMBER

**9.00 am** **Registration opens**
Location: Administration Centre

**9.00 am – 5.00pm** **Display and Presentations**
Location: Display & Presentation marquees

**8.30 am – 5.30pm** **Design and Construction and Scrutineering**
Location: Display & Presentation marquees

**6.00pm** **Rider Briefing & Team Managers' Briefing**
Location: In front of Regional Roads Track Stage

**6.30 pm – 8.30 pm** **Practice Session**

## FRIDAY 18 NOVEMBER

**11.00 am** **Team Managers' Briefing**
Location: Rear of Regional Roads Track Stage

**11.00 am** **Assembly of Starting Grid**
Location: Front Straight, Regional Roads Track

**12 noon** **HPV A Trial Start**
Location: VicRoads Track

**8.00 pm** **Compulsory HPV A Break**

## SATURDAY 19 NOVEMBER

**6.00 am** **HPV A Restart**
Location: Pit Lane, Regional Roads Track

**12 noon** **HPV A Trial Finish**

**3.30 pm** **Presentation Ceremony (Primary)**
Location: Stage near Display & Presentation marquees

NOTES:

- This timetable is subject to amendments
- Specific schedules for each team's assessments will be published prior to the event.
- All Track activities are on the Regional Roads Track.
  All teams should have arrived and registered by 12noon on Thursday.

# HUMAN POWERED VEHICLES (HPVS)
# SECONDARY

## THURSDAY 17 NOVEMBER

**All Day** Teams arrive and set up camp

**9.00 am** **Registration opens**
Location: Administration Centre

## FRIDAY 18 NOVEMBER

**All Day** Teams arrive, register, set up camp, set up displays etc.

**8.00 am - 6.00 pm** **Scrutineering, Design and Construction**
Location: Design & Construction Marquees

**9.00 am - 6.00 pm** **Display and Presentation**
Location: Display & Presentation marquees

**5.00 pm** **Spirit of Competition – Team Captain's Meeting**
Location: Hospitality Marquee, Track 1 front straight.

**5.30 pm** **Team Managers' Meeting**
Location: Hospitality Marquee, Track 1 front straight

**7.15 pm** **Assembly for Night Practice**
Location: Pit Lane, Track 1

**7.30 pm – 9.30 pm** **Night Practice**

## SATURDAY 19 NOVEMBER

**9.00 am** **Scrutineering Re-Checks**
Location: Design & Construction Marquees

**12:00 pm** **Assembly of Starting Grid**
Location: Front straight, Track 1

**1.00 pm** **Start of 24-hour Trial**

## SUNDAY 20 NOVEMBER

**1.00 pm** **Finish of Trial**

**2.00 pm** **Presentations** (Secondary)
Location: Stage near Display & Presentation marquees

**Afternoon** Pack up and depart.

NOTES:

- This timetable is subject to amendments
- Specific schedules for each team's assessments will be published prior to the event.
- All Track activities are on the Track 1.
- All teams should have arrived and registered by 12noon on Friday.
- Teams may stay overnight on the Sunday after the event to ensure that the team travels home safely.

# ENERGY EFFICIENT VEHICLES (EEVS)

## THURSDAY 17 NOVEMBER

**All Day** Teams arrive and set up camp

**9.00 am** **Registration opens**
Location: Administration Centre

## FRIDAY 18 NOVEMBER

**All Day** Teams arrive, register, set up camp, set up displays etc.

**8.00 am - 6.00 pm** **Scrutineering, Design and Construction**
Location: Design & Construction Marquees

**9.00 am - 6.00 pm** **Display and Presentation**
Location: Display & Presentation marquees

**5.00 pm** **Spirit of Competition – Team Captain's Meeting**
Location: Hospitality Marquee, Track 1 front straight.

**5.30 pm** **Team Managers' Meeting**
Location: Hospitality Marquee, Track 1 front straight

**7.15 pm** **Assembly for Night Practice**
Location: Pit Lane, Track 1

**7.30 pm – 9.30 pm** **Night Practice**

## SATURDAY 19 NOVEMBER

**9.00 am** **Scrutineering Re-Checks**
Location: Design & Construction Marquees

**10.00 am** **Vehicle Fuel-Up**
Location: Pit Lane, Track 1

**12:00 pm** **Assembly of Starting Grid**
Location: Front straight, Track 1

**1.00 pm** **Start of 24-hour Trial**

## SUNDAY 20 NOVEMBER

**1.00 pm** **Finish of Trial**

**2.00 pm** **Presentations** (Secondary)
Location: Stage near Display & Presentation marquees

**Afternoon** Pack up and depart.

NOTES:

- This timetable is subject to amendments
- Specific schedules for each team's assessments will be published prior to the event.
- All Track activities are on the Track 1.
- All teams should have arrived and registered by 12noon on Friday.
- Teams may stay overnight on the Sunday after the event to ensure that the team travels home safely.