ASIS MODEL UNITED NATIONS 2026

Al Saad Indian School, Al Ain

FIA WMSC STUDY GUIDE

Committee	FIA World Motor Sport Council (WMSC) (Special Committee)
Agenda	Drafting the 2030 Sustainability Regulations: Transitioning to 100% Sustainable Synthetic Fuels without Compromising Engine Performance
Prepared by	ASIS MUN Policy Department

I. Introduction to the Committee

The **Fédération Internationale de l'Automobile (FIA)**, founded in 1904 and headquartered in Paris, is the governing body of world motor sport and the federation of motoring organisations worldwide. The **World Motor Sport Council (WMSC)** is the FIA body responsible for international four-wheel motor sport. Chaired by the FIA President, it is made up of elected representatives of the FIA's member clubs and national sporting authorities (ASNs), together with members by right, such as the heads of key FIA commissions.

The WMSC meets several times a year to approve rules, regulations, safety standards and the international sporting calendar, covering every level from karting to Formula One. Its decisions apply to all FIA championships and are enforced through the **FIA International Sporting Code**, with penalties ranging from fines and grid penalties to disqualification and the loss of championship points.

In this committee, delegates represent the **eleven Formula One teams** competing in 2026 and must argue from their team's interests. In reality, Formula One rules are first agreed in the **F1 Commission**, where the teams, the FIA and Formula One Management vote, and are then approved by the WMSC. This committee combines both steps: teams debate and draft the regulations, which the committee adopts as the WMSC.

This session focuses on extending the use of **100% sustainable fuels** across FIA championships by 2030 without compromising engine performance, reliability or fair competition. Formula One switched to 100% sustainable fuels in 2026, and the FIA World Endurance Championship (WEC) has used a 100% renewable fuel since 2022. The agenda asks how these fuels can be made the standard across motor sport, in line with the FIA's commitment to reach net zero carbon by 2030.

II. Understanding the Agenda

A. Definition and Scope

Under FIA rules, a **sustainable fuel** is made from **Advanced Sustainable Components (ASCs)**, which come from:

- **Non-food biomass**, such as agricultural residues and waste materials.
- **Renewable fuels of non-biological origin**, known as **e-fuels** or **synthetic fuels**, made from green hydrogen and captured carbon dioxide.
- **Municipal waste** that meets sustainability thresholds.

The agenda refers to "synthetic fuels", but in practice motor sport uses both **e-fuels** (synthetic) and **advanced biofuels** (made from waste and residues). WEC's current fuel, for example, is bio-based. Delegates should decide whether the 2030 regulations should require synthetic e-fuels specifically, or any certified sustainable fuel.

FIA Net Zero 2030 is the FIA's commitment, set out in its Environmental Strategy (2020–2030), to reach net zero carbon emissions by 2030, with interim reductions of 20% by 2025 and 50% by 2030 compared with 2019.

The scope of the agenda includes:

- **Technical regulations** for fuel composition, energy content and performance parity across different engines (Formula One V6 turbo-hybrid, WEC endurance engines, rally engines).

- **Supply security**: the availability of certified fuels at every event worldwide.
- **Cost control**, so that fuel costs do not disadvantage smaller teams and privateers.
- **Engine durability and reliability** under high loads with new fuel chemistry.
- **Balance between pathways**: sustainable fuels compared with electrification (Formula E, hybrid systems).
- **Alignment with FIA environmental goals** while preserving motor sport's role as a showcase for road-car technology.

B. Why the Issue Must Be Addressed

- **Cost:** sustainable racing fuels are far more expensive than fossil racing fuels. In 2025, Formula One team bosses warned that the 2026 fuels could cost several times as much as previous fuels, with figures of up to around USD 300 per litre reported in the media (The Race, 2025; ESPN, 2025). Without cost controls, smaller teams and lower categories could be hit hardest.
- **Limited production:** global production of e-fuels is still at pilot scale. The Haru Oni pilot plant in Chile, which supplies Porsche, was designed to produce around 130,000 litres a year in its first phase (Invest Chile, 2024). Scaling up requires large investments in renewable electricity, green hydrogen and carbon capture.
- **Supplier concentration:** some championships rely on a single fuel supplier. TotalEnergies, for example, supplies the whole WEC, European Le Mans Series and Asian Le Mans Series grids. A production or logistics failure could disrupt entire championships.

C. Focus 1: Technical Feasibility and Engine Performance

Sustainable fuels must match fossil racing fuels on power, energy content, combustion stability, throttle response and engine life.

- **Drop-in compatibility:** sustainable fuels are designed to replace fossil fuels without changes to the engine, so in principle they can also be used in existing road cars (FIA, 2024).
- **Energy-based limits:** from 2026, Formula One limits fuel by energy flow rather than mass, with a cap of 3,000 megajoules per hour, which rewards teams that extract the most energy from each unit of fuel (FIA, 2026 Formula 1 Power Unit Regulations).
- **Proven in endurance racing:** TotalEnergies' Excellium Racing 100, introduced in WEC at the 1000 Miles of Sebring in March 2022, has been used by the entire grid with very different engines. TotalEnergies states that it reduces greenhouse gas emissions by at least 65% compared with its fossil equivalent.
- **Cleaner combustion:** sustainable fuels can reduce particulate emissions, but teams must adjust ignition timing and engine mapping to maximise efficiency.

Recent developments

- **Fuel certification:** the FIA worked with the Zemo Partnership to develop the **Sustainable Racing Fuel Assurance Scheme (SRFAS)**, which uses independent verification to trace each component through the supply chain and confirm the fuel's sustainability and emissions performance.
- **WEC from 2026:** TotalEnergies' Excellium Racing evo, produced from waste and residues at its La Mède biorefinery in France, became the official fuel of WEC, including the 24 Hours of Le Mans, and of the European and Asian Le Mans Series.

- **E-fuels in racing:** Porsche has used e-fuel from the Haru Oni plant in the Porsche Mobil 1 Supercup and at events such as the Goodwood Festival of Speed.

D. Focus 2: Supply Chain Security and Production Scaling

The transition requires secure supply chains that can deliver certified fuel to more than 20 Grand Prix venues, around eight WEC rounds and many regional championships every year.

- **Scaling production:** e-fuel synthesis needs large amounts of renewable electricity, green hydrogen and carbon capture, all capital-intensive with long lead times. The first phase of Haru Oni alone required an investment of tens of millions of dollars.
- **Global logistics:** fuels must be shipped to circuits in many countries without contamination or degradation, with certified storage at each venue.
- **Certification:** the SRFAS requires lifecycle carbon accounting from production to use, verified by a third party.
- **Equal access:** where a championship has a single supplier, all competitors must receive fuel of identical specification at the same price.
- **Multiple suppliers in Formula One:** Formula One teams work with several energy partners, which spreads supply risk but makes it harder to guarantee equal performance and cost.

III. Major Conventions and Frameworks

1. **FIA International Sporting Code:** governs all FIA championships, including technical appendices on fuel specifications, homologation and compliance testing.
2. **FIA Environmental Strategy 2020–2030:** commits the FIA to net zero by 2030, with a 20% reduction by 2025 and 50% by 2030 compared with 2019.
3. **UN Sports for Climate Action Framework:** both the FIA and Formula One are signatories, committing to align their efforts with the Paris Agreement.
4. **UN Sustainable Development Goals:** especially SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action).
5. **2026 Formula One Technical and Power Unit Regulations:** require 100% sustainable fuel made from Advanced Sustainable Components.
6. **Sustainable Racing Fuel Assurance Scheme (SRFAS):** the FIA's certification scheme for sustainable racing fuels.
7. **EU Renewable Energy Directive (RED):** the European methodology for calculating lifecycle greenhouse gas emissions, used to certify fuels such as Excellium Racing.

IV. Past Action

- **2020:** the FIA adopted its Environmental Strategy 2020–2030 with a net zero target.
- **2022:** WEC became the first FIA world championship to run its whole grid on a 100% renewable fuel.
- **2024:** the FIA published its framework for certified 100% sustainable fuels and the 2026 Formula One regulations.

- **2026:** Formula One began racing on 100% sustainable fuel, and WEC moved to Excellium Racing evo.

V. Team Positions

In 2026, Formula One introduced new power units that combine a 1.6-litre V6 turbo engine running on 100% sustainable fuel with a much larger electrical share. Each team's engine supplier shapes its interests in this debate.

Team	2026 power unit	Points to consider
Mercedes	Mercedes (works team)	Engine manufacturer with a long-standing fuel partnership with Petronas; invested heavily in the 2026 fuel and engine rules.
Ferrari	Ferrari (works team)	Engine manufacturer with a long-standing fuel partnership with Shell; supplies engines to other teams.
Red Bull Racing	Red Bull Ford (works team)	Builds its own engines for the first time, in partnership with Ford; ExxonMobil is a long-standing fuel and lubricants partner.
Aston Martin	Honda (works partnership)	Works partner of Honda from 2026; Saudi Aramco, a major investor in synthetic fuels, is a key partner.
Audi	Audi (works team)	Entered Formula One in 2026 after taking over the Sauber team; a new manufacturer with a strong interest in road-car relevance.
McLaren	Mercedes (customer)	Customer team; depends on its supplier for engine and fuel development, so cost and equal access are key concerns.
Williams	Mercedes (customer)	Customer team with a smaller budget; likely to support cost controls on fuel.
Alpine	Mercedes (customer)	Switched from its own Renault engines to Mercedes customer engines in 2026.
Haas F1 Team	Ferrari (customer)	One of the smallest teams; sensitive to any rise in running costs.
Racing Bulls	Red Bull Ford (customer)	Sister team of Red Bull Racing, sharing its engine supplier.
Cadillac	Ferrari (customer)	New team from 2026, backed by General Motors, with plans to build its own engine later; needs stable and affordable rules.

Works teams (manufacturers) have invested in fuel and engine development and may favour rules that reward that investment. **Customer teams** rely on their suppliers and are likely to prioritise cost caps, equal fuel access and stability.

Regional context

Formula One races on every inhabited continent except Africa. Europe hosts most teams and the main sustainable fuel production, the Middle East hosts four races (Bahrain, Saudi Arabia, Qatar and Abu Dhabi) and major energy partners, and fuel must be delivered reliably to venues across Asia-Pacific and the Americas. These logistics affect cost and supply security for every team.

VI. Key Challenges

- **Affordability:** keeping fuel costs manageable for smaller teams and national championships.
- **Scale:** production of e-fuels remains far below what full adoption across motor sport and road transport would require.
- **Supply security:** reliance on a few suppliers or plants creates the risk of disruption.
- **Verification:** sustainability claims must be independently checked to avoid "greenwashing".
- **Fairness:** different fuels and suppliers can create performance differences between competitors.
- **Choosing a pathway:** balancing investment between sustainable fuels and electrification.

VII. Possible Areas of Debate

1. **Mandatory timelines:** whether all FIA championships, including regional and junior series, should be required to use 100% certified sustainable fuel by set dates, with penalties for non-compliance.
2. **Fuel cost cap:** whether the WMSC should set a maximum price per litre for sustainable racing fuels.
3. **Multiple certified suppliers:** whether each championship should be required to have more than one certified supplier.
4. **Performance parity:** whether sustainable fuels must deliver energy and power equivalent to conventional fuels, and how engine changes should be allowed.
5. **Supply emergencies:** whether teams should receive temporary exemptions if certified fuel is unavailable at a venue.
6. **Fuels versus electrification:** whether the WMSC should support both pathways equally or prioritise one.
7. **Equal supply:** whether all competitors must have equal access to identical fuel at the same price.
8. **E-fuels or biofuels:** whether the 2030 regulations should require synthetic e-fuels specifically, or accept any certified sustainable fuel.

VIII. Guiding Questions

1. What should count as a "sustainable fuel" in the 2030 regulations, and who should certify it?
2. How can the WMSC keep costs fair for smaller teams and national championships?
3. How should the WMSC protect championships from supply disruptions?
4. How can performance and competitive balance be maintained across different fuels and engines?

5. How should motor sport's fuel strategy relate to the wider automotive shift towards electrification?
6. How do your team's engine supplier, budget and partnerships shape its priorities?

IX. Key Terms

Term	Meaning
Sustainable fuel	Fuel made entirely from Advanced Sustainable Components, as defined by the FIA.
Advanced Sustainable Components (ASCs)	Fuel components from non-food biomass, waste or renewable non-biological sources.
E-fuel (synthetic fuel)	Fuel made from green hydrogen and captured carbon dioxide using renewable electricity.
Advanced biofuel	Fuel made from waste, residues or non-food crops.
Drop-in fuel	A fuel that can replace a fossil fuel without changes to the engine.
Net zero	Balancing the greenhouse gases emitted with those removed from the atmosphere.
Lifecycle emissions	Total emissions from producing, transporting and using a fuel.
Homologation	Official approval that a part or product meets the regulations.
ASN	A national sporting authority recognised by the FIA to govern motor sport in its country.
Greenwashing	Making misleading claims about environmental benefits.

X. Committee Procedure

- This committee follows the **ASIS MUN 2026 Rules of Procedure (ROP)**. Where this guide and the ROP differ, the ROP applies.
- **Position papers** are compulsory and must be submitted to the Executive Board during the **first committee session**. Maximum two pages, excluding the bibliography, in the format given in **Appendix A of the ROP**. Wikipedia must not be cited.
- **Working papers** may have up to 5 authors and are voted on by simple majority. Only a passed working paper can be developed into a draft resolution.
- **Draft resolutions** may have a maximum of **3 authors per bloc** and must follow the format in **Appendix C of the ROP**. The committee opening line is *The FIA World Motor Sport Council,*
- **Voting on draft resolutions:** a draft resolution passes with a **two-thirds majority of Yes over No votes** (abstentions are not counted), unless the Chair announces a different threshold before voting procedure. Draft resolutions are voted on by roll call.
- **Mandate:** the WMSC approves the sporting and technical regulations of FIA championships. In this committee, delegates represent Formula One teams, and resolutions take the form of draft regulations and policies: fuel standards, timelines, cost controls, supply rules and penalties. They cannot bind national governments.

- **Use of AI** by delegates is allowed but results in a deduction of marks, with a greater deduction for paperwork.

XI. Conclusion

The move to sustainable fuels is one of the biggest changes in the history of motor sport. The FIA has committed to net zero by 2030, Formula One has raced on 100% sustainable fuel since 2026, and WEC has run its entire grid on renewable fuel since 2022. Major problems remain: production must grow rapidly, supply chains must reach events around the world, and costs are far higher than for conventional fuel. The WMSC must balance environmental progress with fair competition, innovation with affordability, and exciting racing with protecting the planet. Delegates must now write rules that keep combustion-engine racing relevant while moving the sport towards the FIA's 2030 net zero goal.

XII. References

1. FIA (2020), Environmental Strategy 2020–2030. https://www.fia.com/sites/default/files/fia_environmental_strategy_v4_web.pdf
2. FIA (2024), "A new era of sustainable fuel: FIA introduces major step to provide certified 100% sustainable fuel for all." https://www.fia.com
3. FIA (2024), 2026 Formula 1 Technical Regulations. https://www.fia.com/regulations
4. FIA, Purpose Driven: Environment. https://purposedriven.fia.com/page/environment
5. Formula 1 (2026), "2026 Regulations Explained: Advanced Sustainable Fuels." https://www.formula1.com
6. The Race (2025), "$300 per litre? F1 teams braced for 'ridiculous' rise in fuel costs for 2026." https://www.the-race.com
7. ESPN (2025), "F1's sustainable fuel switch is more expensive than expected – Toto Wolff." https://www.espn.co.uk/f1
8. Invest Chile (2024), "E-fuel from Chile hits the racetrack with Porsche." https://blog.investchile.gob.cl/e-fuel-porsche
9. TotalEnergies, TotalEnergies and the WEC. https://competition.totalenergies.com/en/auto/endurance/wec/totalenergies-and-wec
10. Zemo Partnership, Sustainable Racing Fuel Assurance Scheme. https://www.zemo.org.uk
11. UNFCCC, Sports for Climate Action Framework. https://unfccc.int/climate-action/sectoral-engagement/sports-for-climate-action

Note on the preparation of this guide

Artificial intelligence (AI) tools were used in the preparation of this study guide. The content has been reviewed by the ASIS MUN Policy Department, but delegates should verify key facts and figures against the original sources before using them in debate or in their position papers.

If you find any errors, please email **asis.mun@student.bhavansalain.com**.