SYSTEM ACTIVE

CDL Game 09: Tesla Battery Management & 500-Mile Route Optimization

Esports-to-CDL Operational Briefing
FMCSA ELDT Compliant Protocol



Gemini Notebook

LEGACY CLASS 8 DIESEL



MECHANICAL SHIFTING



FUEL VOLUME



TRADITIONAL BRAKING

NEXT-GEN EV LOGISTICS



MANAGING RAW ELECTRICAL ENERGY



BATTERY STATE-OF-CHARGE

CLASS:
8

POWERTRAIN:
3 Electric Motors

POWER OUTPUT:
~1070 hp / 800 kW

GROSS COMBINED WEIGHT (GCW):
82,000 lbs

RANGE VARIANT:
500-mile long-range

GOAL: TRAIN RAW RECRUITS TO SAFELY MANAGE IMMENSE KINETIC ENERGY AND HIT STRICT EFFICIENCY TARGETS IN A 500-MILE SIMULATED ENVIRONMENT.

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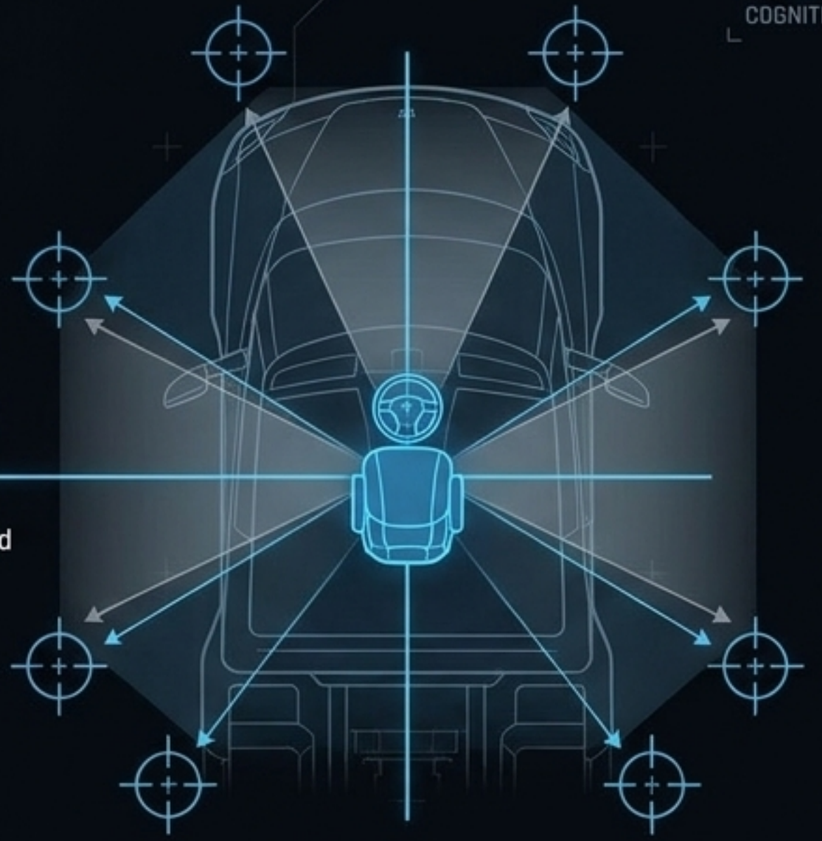
FIELD OF VIEW: 360° VIRTUAL
COGNITIVE LOAD: RECALIBRATING



TRADITIONAL LEFT-HAND DRIVE CAB

SYMMETRY & SIGHTS

Cognitive shift required to operate an 82k lb vehicle from the centerline.



HW4 SENSOR ARRAY

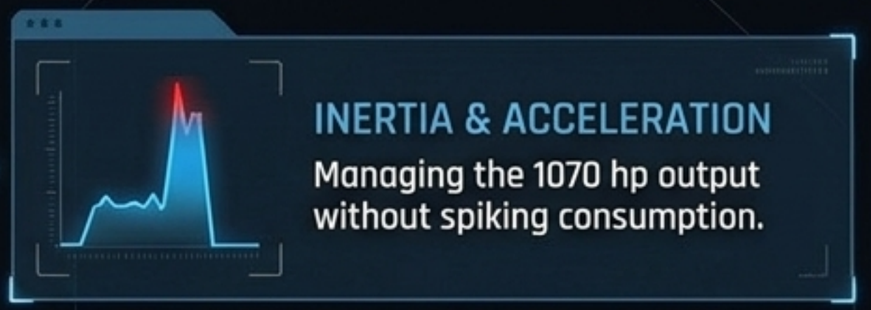
TESLA SEMI
CENTRAL SEATING

⚠ Game 09 physically replicates this central-seat field of view, forcing trainees to unlearn left-side biases and utilize digital camera feeds for spatial management.

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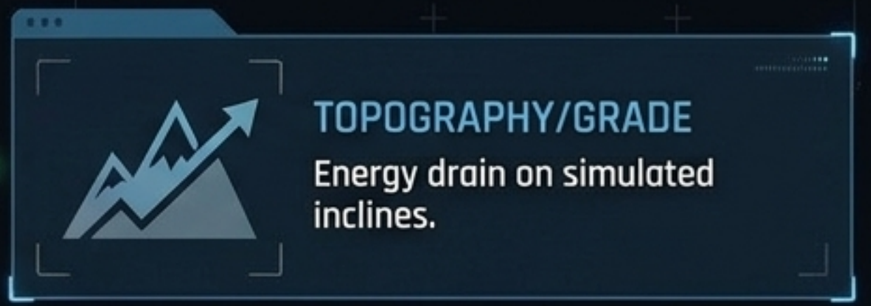
ENERGY DRAIN





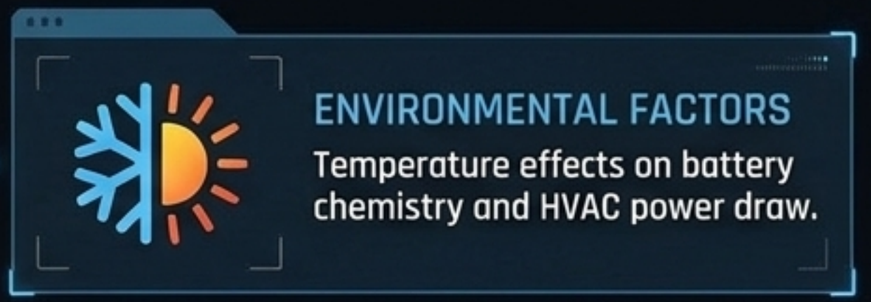
INERTIA & ACCELERATION

Managing the 1070 hp output without spiking consumption.



TOPOGRAPHY/GRADE

Energy drain on simulated inclines.



ENVIRONMENTAL FACTORS

Temperature effects on battery chemistry and HVAC power draw.

Success in Game 09 is not just reaching the destination; it is arriving with mathematical precision.

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Federal Alignment: ELDT Topic 16 (Skid Control/Recovery/Jackknifing)

TRADITIONAL AIR-BRAKE SEQUENCE



TESLA REGENERATIVE BRAKING



THE RISK

Improper lift-off in slick conditions can trigger an EV jackknife.



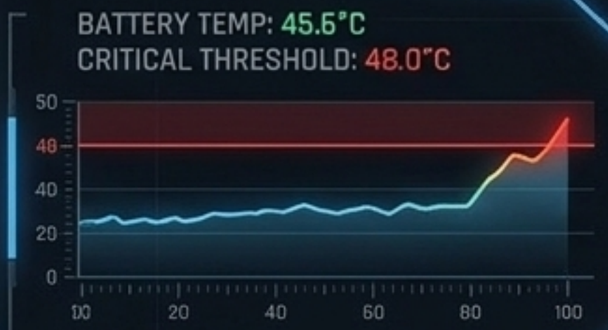
THE GAME 09 SOLUTION

Trainees master ‘one-pedal’ modulation, learning to maximize kinetic recovery while maintaining trailer alignment without engaging friction brakes.



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ELDT Topic 18 (Malfunctions) & Topic 20 (Maintenance)





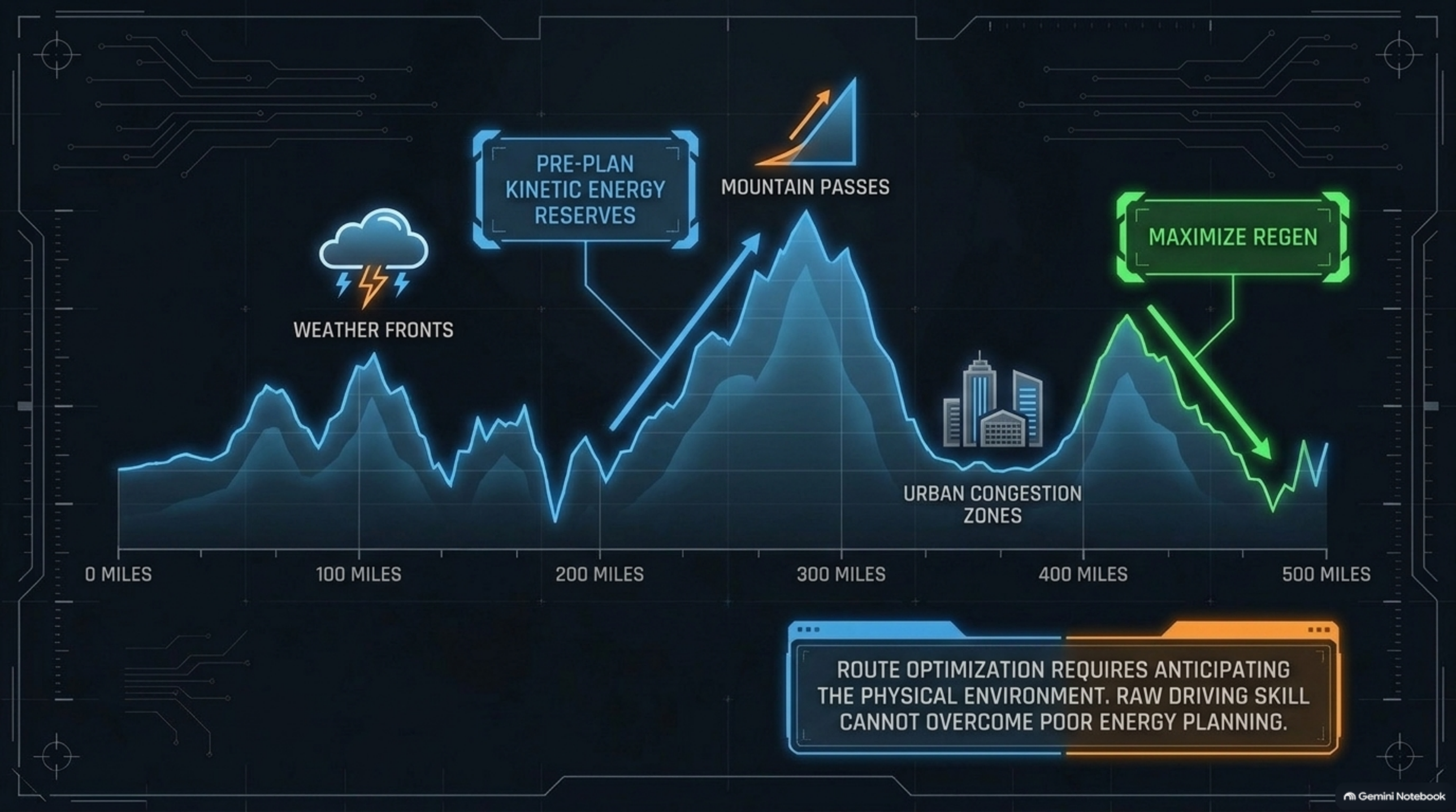
SYSTEM ALERT
CHECK DIAGNOSTICS

Thermal Telemetry:
Monitoring battery temperature graphs. Early detection of thermal throttling.

System Alerts:
Simulating over-the-air (OTA) diagnostic flags and sensor anomalies.

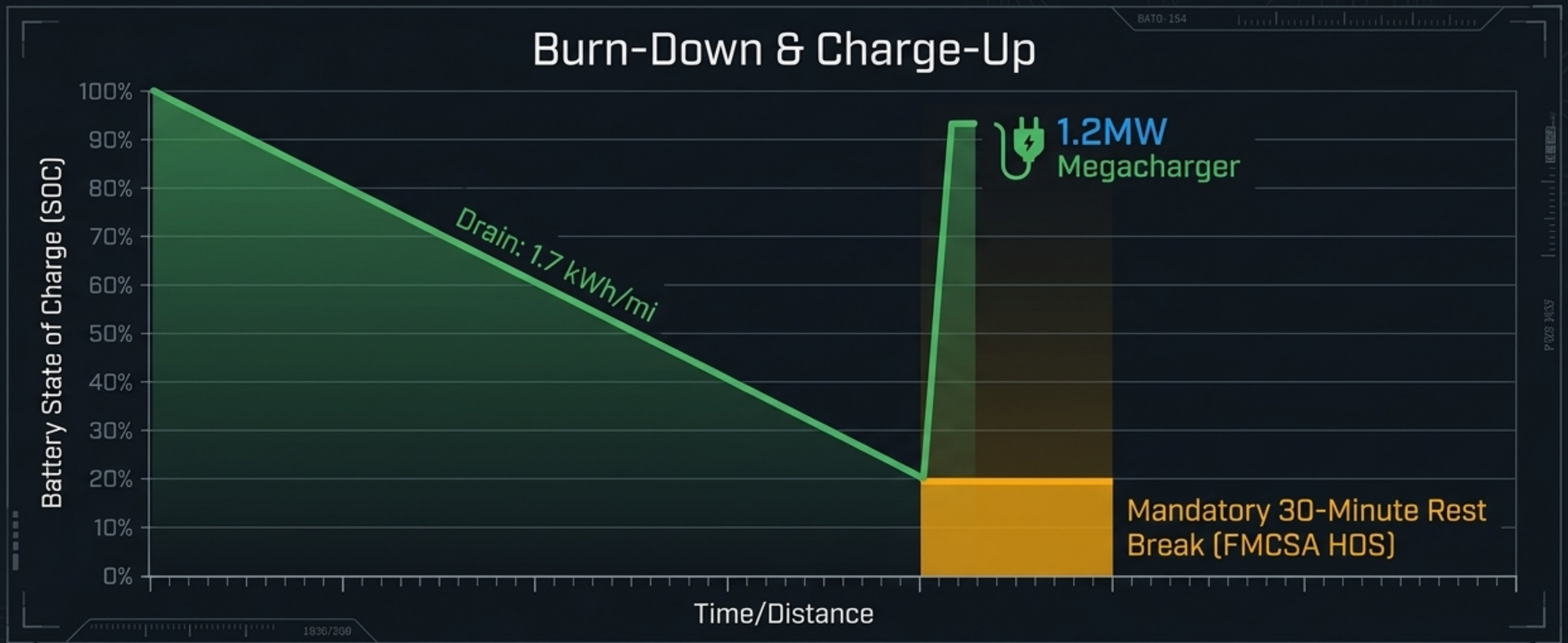
Players must actively monitor and verbally diagnose simulated battery health variations to prevent complete system shutdowns during the 500-mile run.

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ROUTE OPTIMIZATION REQUIRES ANTICIPATING THE PHYSICAL ENVIRONMENT. RAW DRIVING SKILL CANNOT OVERCOME POOR ENERGY PLANNING.

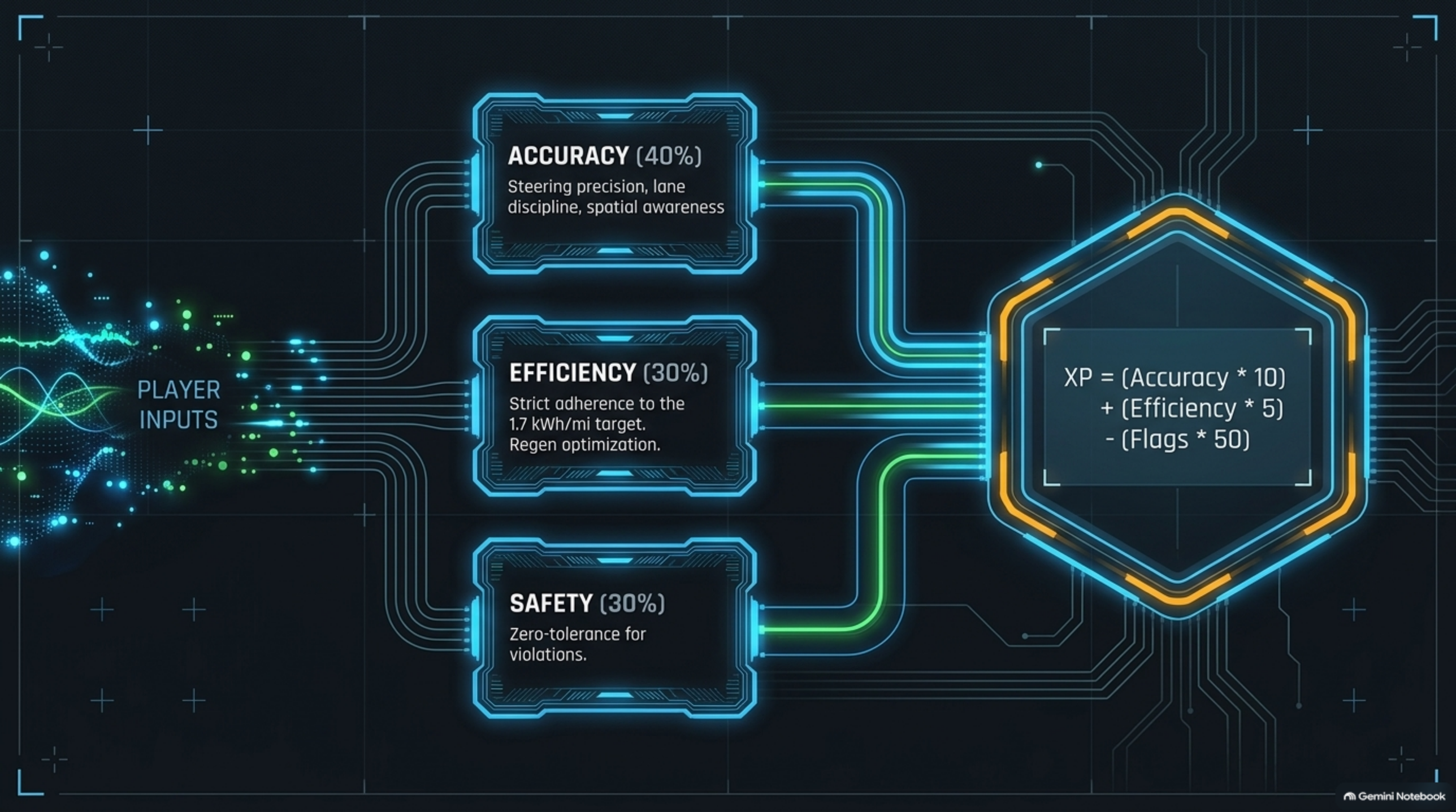
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The 1.2MW Pit Stop.

Game 09 synchronizes the Tesla Megacharger logistics with FMCSA HOS requirements. 30 minutes to charge perfectly overlaps with the 30 minutes to rest. Efficiency is legally codified.

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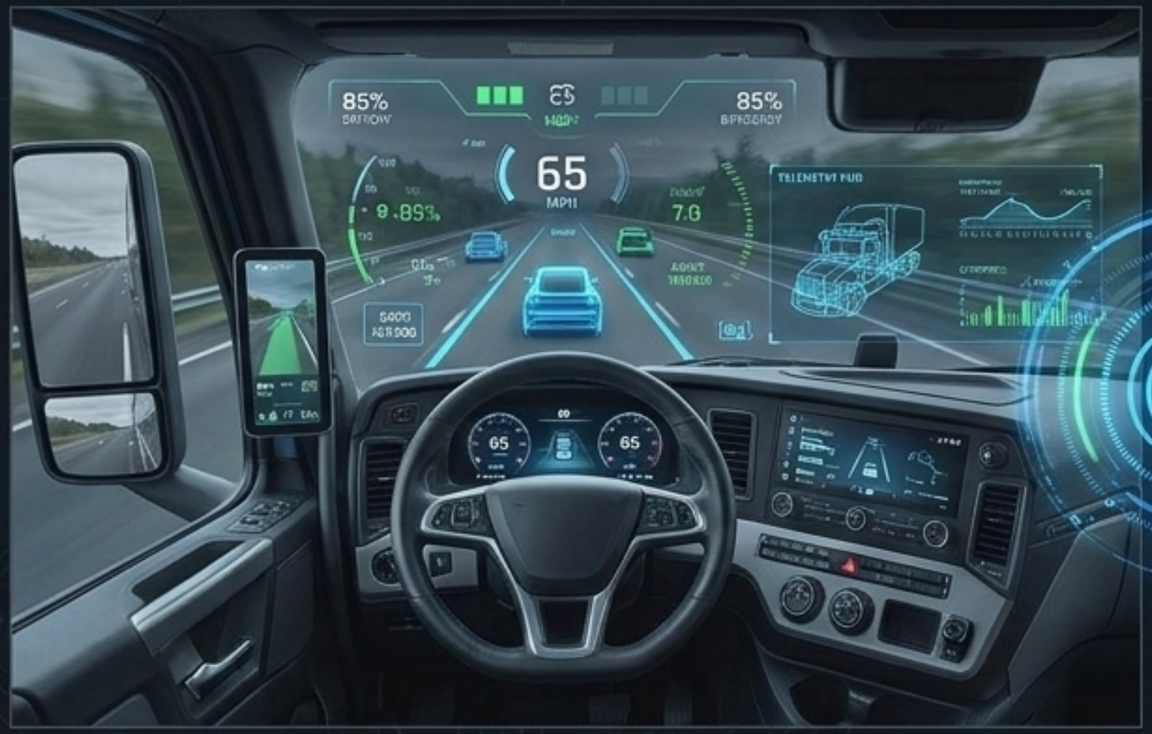


Platinum is not a high score.
It is a verified, federally compliant commercial operator.

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Beyond the Cab: The Remote Trucking Layer

GAME 09: IN-CAB MASTER



GAME 10: REMOTE CONTROL CENTER



Level 2 ADAS (FSD Supervised) with human-in-the-loop backup.

Managing 100-400ms signal latency and packet loss.

Emergency Stop (E-Stop) reaction mandates (<0.8s).

Game 09 builds the battery and systems master.
Game 10 places them in the control center.

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