



Energy Efficiency case study

As part of its efforts to reduce emissions in line with a commitment to achieving global carbon neutrality, Ubisoft has been spearheading new developments in energy-efficiency for its games, exploring how player-facing “Eco-Modes” can help dial down the associated emissions generated by players enjoying its titles around the world.

The work began with a pilot run for multiplayer action game *For Honor*. After rolling out a Performance Mode for players in 2024, Ubisoft Montreal considered how it could apply its experience of finetuning the game’s graphics to explore additional energy savings.

The team started by extensively testing how far they could dial down *For Honor*’s energy draw without affecting gameplay, finding that an impressive 25 - 30% energy reduction could be achieved while maintaining a steady framerate of 30 FPS.

With these encouraging results established, the mode was rolled out as a customisable, in-game setting with tiered options that gave players choice over the extent of the optimisations. The mode won Best Green Tech at the 2024 Playing for the Planet Awards, allowing the team to celebrate the recognition as a positive marketing moment for the game, eight years into its life cycle.

The success of this mode was followed up by another with *Star Wars Outlaws*, after a post-launch power usage report from Microsoft revealed that Massive Entertainment’s open world adventure was drawing around 75% of the console’s power when in the pause menu, compared to the industry standard of 55 - 60%.

Given that *Star Wars Outlaws*’ pause menu features static graphics, the team was able to reduce its framerate to 1 FPS without any noticeable compromise. The resulting mode shrunk the menu’s energy draw to just 18 - 20% of total available power on console.

The learnings and successes generated from each new mode pioneered by Ubisoft’s development teams are informing and enhancing future rollouts of energy-efficiency features across its portfolio of titles, enabling an aggregation of associated emissions savings across the entirety of its games business.

High Player Engagement

For Honor

95%

of players retained For Honor's Eco-Mode as active after it was switched to the default mode in the game

30,000

views of For Honor's X post announcing its Best Green Tech win at the 2024 Playing for the Planet Awards

Low Environmental Impact

Star Wars Outlaws

55 - 60%

reduction in power use during the pause menu compared to when Eco-Mode is disabled

51g CO₂

saved for every hour players spend in the Pause Menu with Eco-Mode enabled

Key takeaways

Set energy-efficiency features as default to maximise engagement

Only 5% of players decided to "opt-in" to For Honor's Eco Mode at first, but once it was set as the default mode, only 5% felt compelled to "opt-out".

Quick wins come with few compromises

Massive Entertainment were able to harness Star Wars Outlaws' existing design structure for high impact energy-efficiency optimisations without affecting the production value of the title, and taking up little developer time in the process.

Energy-efficient games are a product of collaboration across the value chain

Ubisoft Montreal and Massive Entertainment were equipped with the authority and capacity to roll out Eco-Modes for their games thanks to both the mandate from Ubisoft's leadership, and the data telemetry provided by the Xbox Sustainability team and its toolkit.



Sophie Barteau

**Digital Sustainability Program Manager
Ubisoft Montréal**

"Energy-efficient features are an important step toward making gaming more sustainable without compromising the player experience.

By integrating options that reduce energy consumption, we show how small design choices can create a significant impact when scaled across millions of players."