PLAYING FOR THE PLANET™

UBISOFT

Energy Efficiency **Case Studies**

Energy Efficiency Explained

The Mission

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 reduce the associated emissions generated by players enjoying its titles around the world.

The Business Case

Three key benefits secured the business case for investing in energy-efficiency optimisations at Ubisoft:

1 Competitive Advantage

Energy efficiency efforts can not only reduce a studio’s environmental impact but offer a competitive edge, upskilling its studios with new expertise on emerging practices that are likely to become standard in future.

2 Brand Enhancement

By integrating eco-design into its games, Ubisoft enriches their value to players as more accessible, customisable, optimised experiences that can run on lower-end devices, save battery life on portable hardware, and combat growing household energy costs.

3 Emissions Reduction

Minimising the power consumption of its games enables the publisher to pursue effective emission reduction in its Scope 3, Category 11 footprint; one of the chief sources of energy for studios across the industry.

95%

of players have retained For Honor’s Eco-Mode as their active default setting for the game.

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.”

For Honor

How Ubisoft Montreal set a new standard for player-facing Eco-Modes with its long-running multiplayer action game

After rolling out a Performance Mode to *For Honor* 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 frame rate 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.

Approach:

Frontend Eco Mode

Implementation:

Permanent Frame-Rate Reduction

Key Numbers

⬇ 25 - 30%

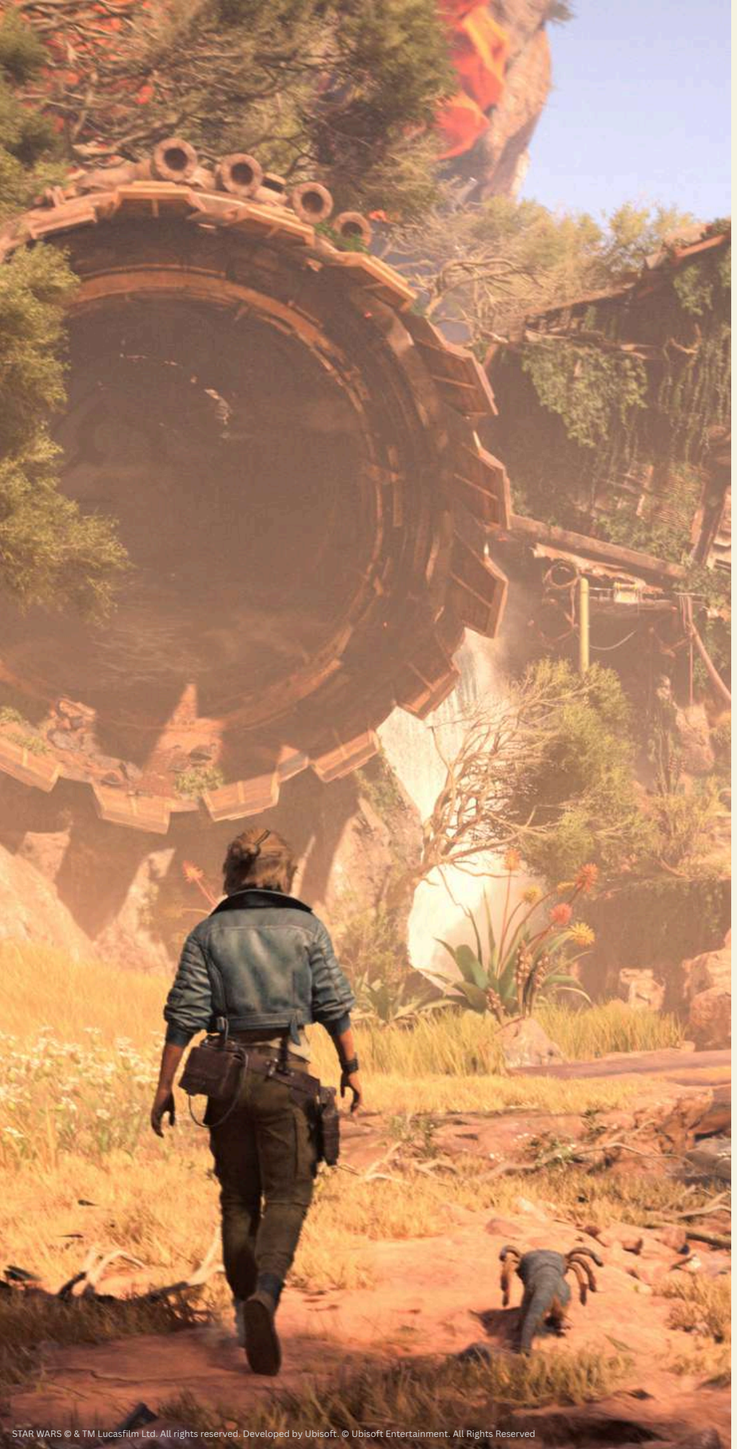
Reduction in energy impact of the game.

5 Months

of development time at Ubisoft Montreal to achieve these results

30,000

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



Star Wars Outlaws™

Inside Massive Entertainment's efforts to dial down the energy footprint of a galaxy far, far away...

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 the *Star Wars* Outlaws™ pause menu features static graphics, the team was able to reduce its framerate to 1 FPS without any noticeable compromise, shrinking it energy draw to just 18 - 20% of total available power.

A post-launch update thus set the game to automatically enable this frame-rate drop after 30 seconds of inactivity, allowing Massive Entertainment to implement this energy-efficiency feature without affecting the player experience in any visible capacity.

Approach:

Backend Feature

Implementation:

Contextual Framerate Reduction

Key Numbers

⬇ 55 - 60%

reduction in energy impact of the game

2 Days

of development time at Massive Entertainment to achieve these results

51g CO2

saved for every hour players spend in the pause menu.

The Learnings

1 Pursue quick wins for high impact

Massive Entertainment were able to harness their game's 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.

2 Prioritise 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.

3 Every game is an opportunity to innovate

Ubisoft determined and pursued a tailored approach for each of its games, dependent on the lead studio, the genre of game, its business model, and other factors. Apply and identify an approach that fits best to the context of your game and its roadmap.

4 Maximise engagement with default settings

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" .

5 The end results are foundations to go further

Ubisoft has implemented tracking processes to measure its impact, adapt its approach, and add new arguments and practices to your studio's growing expertise in the domain of energy efficiency and Eco-Design.

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