

Which fantasy businesses in Hollywood Movies use the most energy?

1

WAYNE ENTERPRISES - THE DARK KNIGHT



The batmobile is definitely Batman's most famous toy. And while there have been several iterations of Bruce Wayne's signature ride over the years, we're focusing on the Nolan-era version from the 2008 blockbuster The Dark Knight. The most impressive aspect is the engine. This monster is described as "more powerful than turbine jet engines" and is capable of reaching up to 10,000 horsepower -- more than six times more powerful than a Bugatti Chiron!

Total energy: 7547 kWh

Total cost per hour: £999.28

2

INGEN – JURASSIC PARK



Located off the west coast of Costa Rica, Jurassic Park is the brain-child of John Hammond and the InGen Corporation. Keeping a theme park of any description up and running with power is a costly endeavour, but add dinosaurs to the equation and things get a little more complicated. E.ON Energy has crunched the numbers and discovered that by their estimations, a Jurassic Park-style Island would use an astonishing 445,145,419 kWh annually.

Total energy: 50,815 kWh

Total cost per hour: £6,727.91

3

WEYLAND-YUTANI CORPORATION - ALIEN



Originally designed as an interstellar cruiser, the USSCSS Nostromo was refitted by the Weyland-Yutani Corporation as a commercial hauler between Thebus, an outer rim planet, and Earth

The Nostromo hauls a mile-long refinery which can process at least 20 million tons of raw oil in transit. In order for the ship to move such heavy cargo, its original engines were replaced with two immensely powerful Rolls-Royce N66 Cyclone engines, generating a total of 131,660 kN of thrust when running at full power.

To put that into perspective, a Boeing 747 produces 1008 kN of thrust from its four engines, which takes 7.03 GJ of power.

For the USSCSS Nostromo to travel, it would take an impressive 918.22 GJ of power or 255,000 kWh. This gives it more power than 130 Boeing 747s!

Total energy: 255,000 kWh

Total cost per hour: £33,762

4

PAN PACIFIC DEFENCE CORPS - PACIFIC RIM



When gigantic interdimensional monsters are rising from the sea and attacking major cities, humanity needs to come together to defend themselves against the common threat.

The world's top minds came together and built 300-foot mechs to fight the invaders. Named Jaegers, these colossal weapons called for the collective resources of every nation to build and maintain, and as you can guess, they take a lot of energy to run.

To get an idea of how much power is produced by Gipsy Danger, we'll use the world's most powerful nuclear power station as a reference. The Tokyo Electric Power Company (TEPCO) nuclear power station produces the most energy at 7,965 mW - and as most reactors are only 4 meters tall, there would be no trouble fitting it inside a gigantic mech.

Although the Jaegers are likely to have more advanced power cores to match their futuristic weaponry, at nearly 8000mW (8 million kWh), it still packs a punch. Total energy: 8 million kWh Total cost per hour: £1,059,200

Total energy: 7547 kWh

Total cost per hour: £999.28

5

THE MACHINES - THE MATRIX



Okay, so TECHNICALLY this isn't a business, but for argument's sake we're going to treat the race of highly advanced machines with artificial intelligence as if they're a company. After all, businesses aren't really a thing in The Matrix.

Robots obviously need a power source, so with the sun off-limits, they created pods to harvest the energy created from human bodies. With the entire race enslaved and a digital matrix to keep everyone busy, the artificial beings have created themselves a seemingly endless power source -- but exactly how much energy are they generating?

The average energy burned by an adult in a day is 2500 for men and 2000 for women. That equates to 120W and 97W respectively. If we take an average of 97W, this gives us an idea of how much energy each body is producing daily. The Matrix is set in 2199 and it's referenced that at this time there are 6.5 billion 'human batteries' occupying the pods. This means that roughly 698,750 mW of energy is being produced every single day

Total energy: 29,114,583 kWh

Total cost per hour: £3,854,770.79

6

S.H.I.E.L.D. - MCU



As law enforcement, espionage and counter-terrorism specialists, S.H.I.E.L.D. have protected the earth from threats, both human and alien, from the shadows for years. Under the directorship of Nick Fury, S.H.I.E.L.D. not only formed The Avengers but have developed some of the most powerful and extraordinary technology the earth has ever seen.

The Helicarrier is roughly based on a Nimitz Class Carrier, with a length of 333 meters and a mass of over 97,000 tons. This gives us a rough estimate of the size of the rotas, which adds up to a total rota area of 4000m².

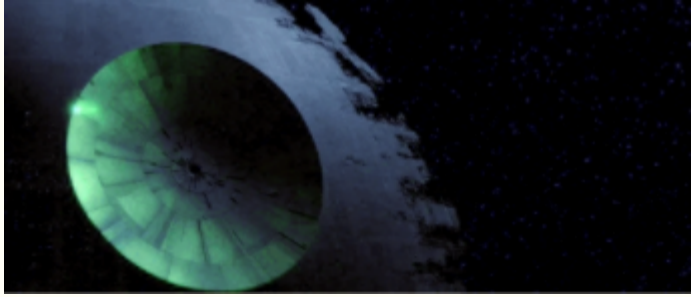
Using these statistics, Wired did the math and discovered that it would take a whopping 317 gigawatts of power just to make the Helicarrier float! It's no wonder Nick Fury was interested in the Tesseract's unlimited energy potential.

Total energy: 317 million kWh

Total cost per hour: £41,970,800

7

THE GALACTIC EMPIRE - STAR WARS



The Death Star's main weapon is powered by eight 'kyber crystals' which work together to form the superlaser, giving it the stopping power to turn worlds to dust. To figure out how much energy such a terrifying weapon uses, we've had to use some physics. If, for example, Earth was the next target of the superlaser, the minimum amount of energy needed to completely destroy it is the same as the planet's gravitational binding energy - an incredible 2.24×10^{32} Joules.

To give that statistic a little more emphasis, it would take a week's worth of the Sun's total energy output to mimic the devastation of the Death Star's superlaser. If we want to be even more specific, that equates to $6.2830687831e+11$ Watts (whatever that means). As it took roughly 3 seconds to destroy Alderaan, that adds up to a mind-boggling 1,884,920,634,930 watts... Total energy per laser beam: Nearly 2 trillion watts Total cost per laser beam: £249,563,492.07*

*If you wanted to destroy your enemies for a solid hour, it would set you back a mere £299 billion - the equivalent of funding the UK's military for nearly 7 years.

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Unsurprisingly, it seems that we're still nowhere near capable of the incredible things in Hollywood films. However, it's interesting to see the science behind some of the most memorable scenes in movie history.

Whether your business focuses on battling interdimensional aliens, harvesting humans or destroying planets, it's crucial to make sure you're keeping your energy costs to a minimum. Get a free quote at **Business Electricity Prices** to see how much you can save, then you can get back to powering your dinosaur-based theme park.