Fall
2025

Lewiston History Mysteries

Niagara Falls Helped Tesla Realize Childhood Dream

Visited Niagara Falls Many Times and Transformed the World

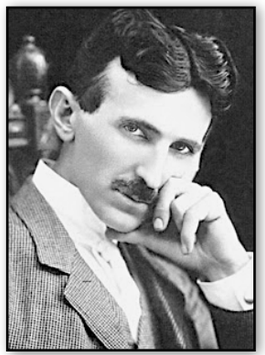
Nikola Tesla's connection with Niagara Falls represents one of the most significant achievements in the history of science and engineering and helped usher in the modern age of electricity.

A Childhood Dream

In 1871 in Serbia, at age 15, Tesla was bedridden with malaria. While looking at an image of Niagara Falls he imagined the cascading water powering a massive wheel that could energize factories and cities — a revolutionary concept at a time before electricity was harnessed.

The young inventor vowed to make his vision a reality in America. Working with George Westinghouse, his childhood dreams came true and his groundbreaking work permanently changed the way human civilization functioned.

Tesla was brilliant but eccentric. He could memorize entire books, design complex machines mentally, and speak eight languages, yet his hypersensitivity made everyday experiences overwhelming.



Nikola Tesla (1856-1943) was born in Croatia and is considered one of history's greatest scientific minds. In 1884, at age 28, he immigrated to the United States and became a naturalized citizen. He invented the system that transmitted electricity over long distances, enabling development of large scale hydropower production at Niagara Falls and other locations throughout the world.

Tesla and Niagara Falls

The story of Tesla and Niagara Falls began in earnest in 1893 when a special commission was seeking proposals for developing hydroelectric power at the falls. The commission considered Thomas Edison's direct current (DC), but it proved impractical for long-distance power transmission. Tesla's alternating current (AC), efficiently transmitted electricity over long distances and it emerged as the clear solution.

Despite immense engineering challenges, the first transmission of power from Niagara Falls took place on November 16, 1896, when electricity was sent to Buffalo, New York, some 25 miles away. This achievement marked a turning point in the history of electrical distribution. The success of the Niagara project definitively proved the superiority of Tesla's AC system.

The impact of Tesla's work at Niagara Falls was transformative. The abundant, cheap electricity generated by the falls powered the industrial development of the region. But more importantly, the Niagara Falls installation became a model for electrical distribution worldwide, benefiting billions of people. Its success demonstrated that hydroelectric power could be both practical and economical on a large scale.

Tesla frequently visited the falls during construction, taking great pride in seeing his childhood dream realized. He would often stand near the falls, contemplating the raw power of nature being harnessed through his innovation.

The project also highlighted his vision for the future of electricity. He saw the falls not just as a power source, but as a symbol of free, abundant energy available to all humanity. This aligned with his broader philosophy about electricity being a natural resource that should benefit everyone, not just the wealthy or privileged.

Today, the original Adams Power Plant Transformer House in Niagara Falls, NY, stands as a National Historic Landmark, commemorating this pivotal achievement in electrical engineering. Tesla died penniless in 1943, but the project remains a testament to Tesla's genius and his ability to transform visionary ideas into practical reality.

These Five Men Made a Decision That Changed the World

In 1893, the five men on the International Niagara Falls Power Commission were tasked with determining how hydropower at the falls would be developed.

Would the electricity be distributed using Thomas Edison's direct current (DC) or Nikola Tesla's alternating current (AC)?

They chose Tesla because they felt that AC was better at transporting electricity over long distances — and the world was forever changed.

Working with George Westinghouse, Tesla's blueprint not only succeeded but set the standard for the entire world. Candles and kerosene lamps quickly became obsolete.

Today, when you flip a switch to turn a light on, or turn on your television or washing machine, you can thank Nikola Tesla for inventing the electrical system that provides you power instantly and safely.

From left to right: Prof. E. Mascart, Prof. W. C. Unwin, William Thomson (Lord Kelvin), Dr. Coleman Sellers, Col. Theodore Turrettini.