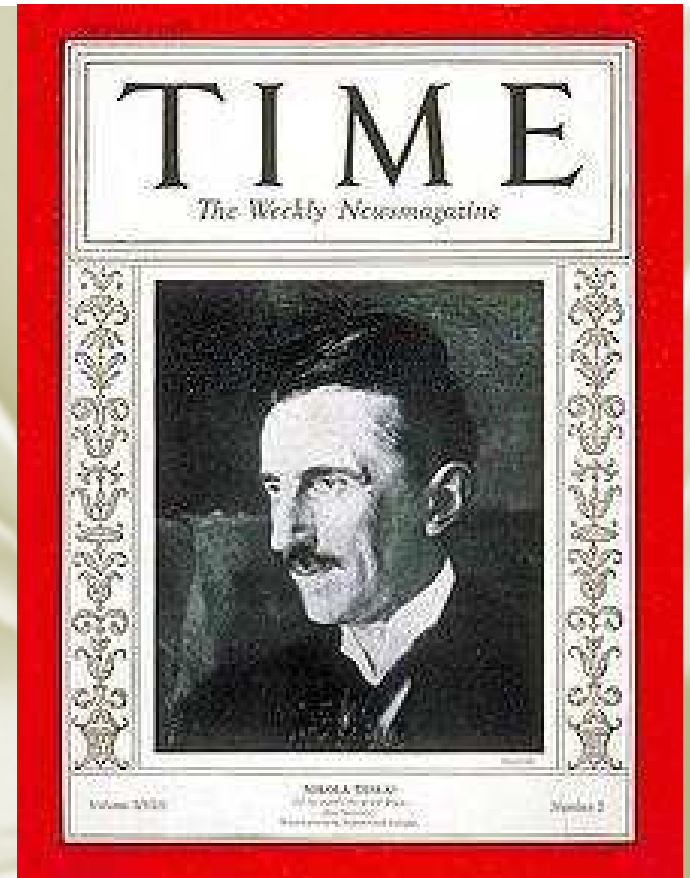


Nikola Tesla Road Name

Planning Committee
City of Hamilton
October 6, 2015



Presenters: Nikola Tesla Educational Corporation

Agenda

1

- q NTEC Proposal
- q Benefits for City of Hamilton
- q Nikola Tesla, his life and inventions
- q Nikola Tesla Educational Corporation (NTEC)
- q Petition
- q Vision for the Future

Nikola Tesla Expwy/Drive

2

- q We propose renaming mostly the elevated portion of Burlington Street commencing at QEW and ending east of Ottawa
- q Lower level remains Burlington St. - Least disruptive... no address changes!
- q Why Burlington Street? Because of its association with the age of “The Electric City” and of the Industrialization of Hamilton,
 - q Industrial growth during Electricity City age
 - q Next to central transformer for Hamilton
 - q Original 1898 power line
 - q Major High Voltage towers along this roadway.
- q NTEC would pay for all sign changes

Proposed Nikola Tesla Expwy/Drive

3

- q QEW to East of Ottawa Street
- q Upper level only named
- q EMS support proposal

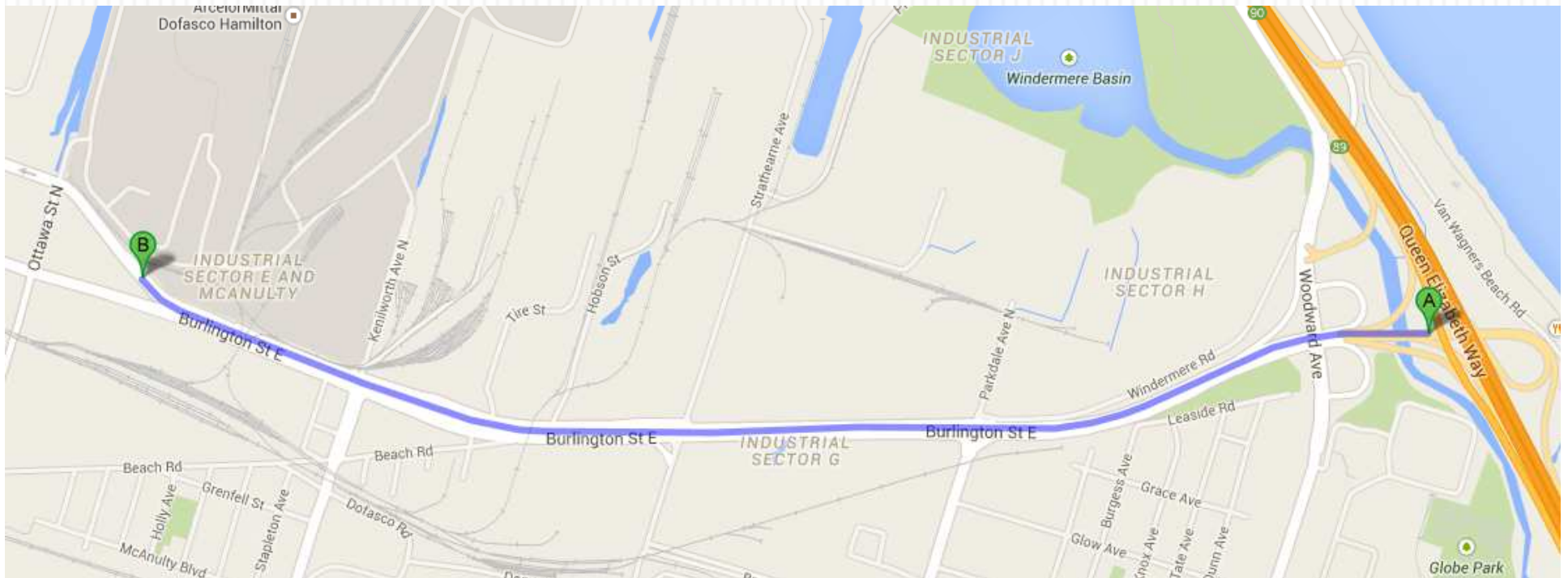


Image of Proposed Nikola Tesla

4



Benefit for Hamilton

5

- q The first industrial revolution, early 20th Century occurred with the aid of Tesla's early inventions that provided Hamilton with the "Cheapest Power in Canada"
- q We believe that the next industrial evolution will be driven by high technology with the aid of Tesla's latter inventions, ideas and visions.
- q The premise is that we would like to associate Hamilton with Tesla and his ideas, so that the City can benefit from being associated with the new technology, innovation and his vision for the future.

Benefit for Hamilton of Nikola Tesla Expwy/Drive

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- q The world will take notice
- q Our show of respect for a leading scientist and inventor, will gain us respect.
- q The sentiment towards Hamilton will change.
- q This action will strengthen our association with education, innovation, and technology.

Benefit for Hamilton of Nikola Tesla Drive

7

- q The World is already taking notice – Petition – less than 1 month ago
- q Exceeded 2,100 signatures
- q Most from Hamilton and vicinity as expected
- q Significant portion are Serbian, that is because they already know Tesla
- q Education Challenge for NTEC to educate the rest
- q People approached knew nothing of the History, when told, quickly accepted and supported the proposal

A brief review of Nikola Tesla

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- ❑ In 1884 he moved to USA almost penniless
- ❑ Inventor, electrical and mechanical engineer, physicist and futurist
- ❑ 1896 - Niagara Falls (USA) power plant
- ❑ 1898 - Electricity generated by Tesla's invention reached Hamilton
- ❑ Credited with 278 patents and 128 publications

Nikola Tesla's impact on the World

9

- ❑ Our everyday lives are dependent on his inventions
- ❑ His inventions are the root of many 20th & 21st century products
- ❑ The AC electrical distribution system has been replicated all over the world
- ❑ The electrical AC motor is a key element that powers all major industrial and residential applications

Nikola Tesla's impact on Hamilton

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- ❑ In 1888 - Tesla proposed the use of "polyphase currents" and the electrical distribution system
- ❑ In 1898 - DeCew Power Generating Station built by the "Five Johns" of Hamilton
- ❑ Hamilton was the **first major** city in Canada to have AC electricity
- ❑ In early 1900's Hamilton was known as the **"Electric City"**

The Hamilton Spectator

HAMILTON, CANADA, FRIDAY, AUGUST 26, 1898.

PRICE FIVE CENTS

11

POWER TURNED ON

Cataract Company's Powerful Machinery
Set in Motion at Decew's Falls
Yesterday Afternoon.

The Current Reaches Hamilton and
Makes Things Lively at the
Sub-Station.

Volts, Numbering 22,000, Are Converted
to 2,400 Volts—The Start Was
Most Successful.

Yesterday was an important day for the directors of the Cataract Power company. It marked the near completion of the company's plans for supplying city business men with power for their works and factories. Out at Decew's falls—23 miles away—were gathered representatives of the company and Manager Leyden, and the big machinery was set in motion without a hitch. The water from the Welland canal was turned into the penstock, and 200 feet below the big turbines revolved and set the generators in motion to turn out electrical power and send it along the wires to Hamilton.

At the city end—in the sub-station on Victoria avenue north—yesterday afternoon were waiting a small party of interested citizens, among them John Patterson, J. Moodie and J. Moodie, Jr. At 4 o'clock the power flowed into the two transformers and a 20 horse power motor, giving ample indication that the work so far was a success. From 4 to 10 o'clock the power continued, the visible evidence, besides the motor, being an immense star inside and a maple leaf outside the building, both in incandescent lamps, and an arc lamp.

The power being brought from the generating station is 22,000 volts, the highest potential known in Canada. By means of the two transformers this is reduced to 2,400 volts for city use. When all the connections are complete the power will be carried from the transformers along ducts in the floor of the station, through which air is blown by a fan. From there it will be carried to the wires, and into the premises of those who have purchased power. The company's biggest customer is the Hamilton Electric Light and Power company, and the Cataract managers will get their lines into the works as soon as possible. They hope to have everything in working order within a few weeks.

The power at the Victoria avenue station will be turned on again this afternoon.

It is intended to have a formal opening of the works as soon as things have been fixed up in ship-shape order.

Canadian Electrical News

and Steam Engineering Journal

12

December 1898

- q *“Saturday November 12th, will go down in the electrical annals of Canada , a red letter day, as it will chronical the formal opening of the electrical plant of the Cataract Power Company of Hamilton... DeCew Falls, to Hamilton, a distance of 35 miles, the completion and carrying out of which must always stand as a monument of business pluck and enterprise on the part of those interested in and forming the Cataract Power Company.”*
- q The 5 Johns overcame, at that time what was a seemingly insurmountable obstacle to transmit energy over such a distance.
- q At that time, the highest pressure previously was 10,000 volts
- q Cataract used 22,000 volts.

HAMILTON: THE ELECTRIC CITY



The new concept of alternating current allowed hydro-electricity to be transmitted to Hamilton in 1896. By 1900, a tower designed to thousands of light bulbs was constructed in Gore Park by the Canadian Club to display this new phenomenon.



From the beginning of the 19th century, settlers were attracted to this region by the power of water cascading over the Niagara Escarpment. But it was not until 1896 that five Hamilton businessmen known as "The Five Johns" (John Dickenson, John Gibson, John Moodie Sr., John Patterson and John Sutherland), had the foresight and courage to invest in the new concept of hydro-electric generation and transmission. Backed by the economic strength of the Bank of Hamilton and technical advice from the Royal Electric Company, they formed the Cataract Power Company. With water drawn from the Welland Canal, inexpensive hydro-electric power was generated at DeCew Falls and transmitted 27 miles (43 kilometres), an unheard of distance, to a power sub-station on Victoria Avenue. Thus, Hamilton became the foremost electrified city in Canada and achieved world leadership in electrical power development.



Hamilton Canada. By History Committee. Published: November, 1913. www.hamilton.org



The Cataract Power Company evolved into the Dominion Power and Transmission Company in 1907 with head offices at the Hamilton Terminal Building (seen at left), which became the hub of one of the country's most extensive interurban electric railway systems offering service to Brantford, Dundas, Oakville and Grimsby. The horse-drawn Hamilton Street Railway was one of the first to adopt electricity.

A port city like Hamilton with major railways, combined with abundant electrical power, attracted many new manufacturers such as Westinghouse, Otis Elevator and numerous cotton/clothing companies. Hamilton was dubbed the "Birmingham of Canada". True to the vision of its electrical entrepreneurs, the city's population and economy expanded dramatically. As a symbol of that growth and prestige, a 100 foot (30.4 metre) lighted tower was constructed in Gore Park (1900 - 1923), inspired by the Eiffel Tower of the 1889 Paris World Fair.

Postcard ca. 1907 showing artist's conception of proposed Hamilton Terminal Station. The glass-covered bus area to the left of the building was never built.
www.hamiltonpostcards.com



Hamilton Historical Board
City of Hamilton
2014



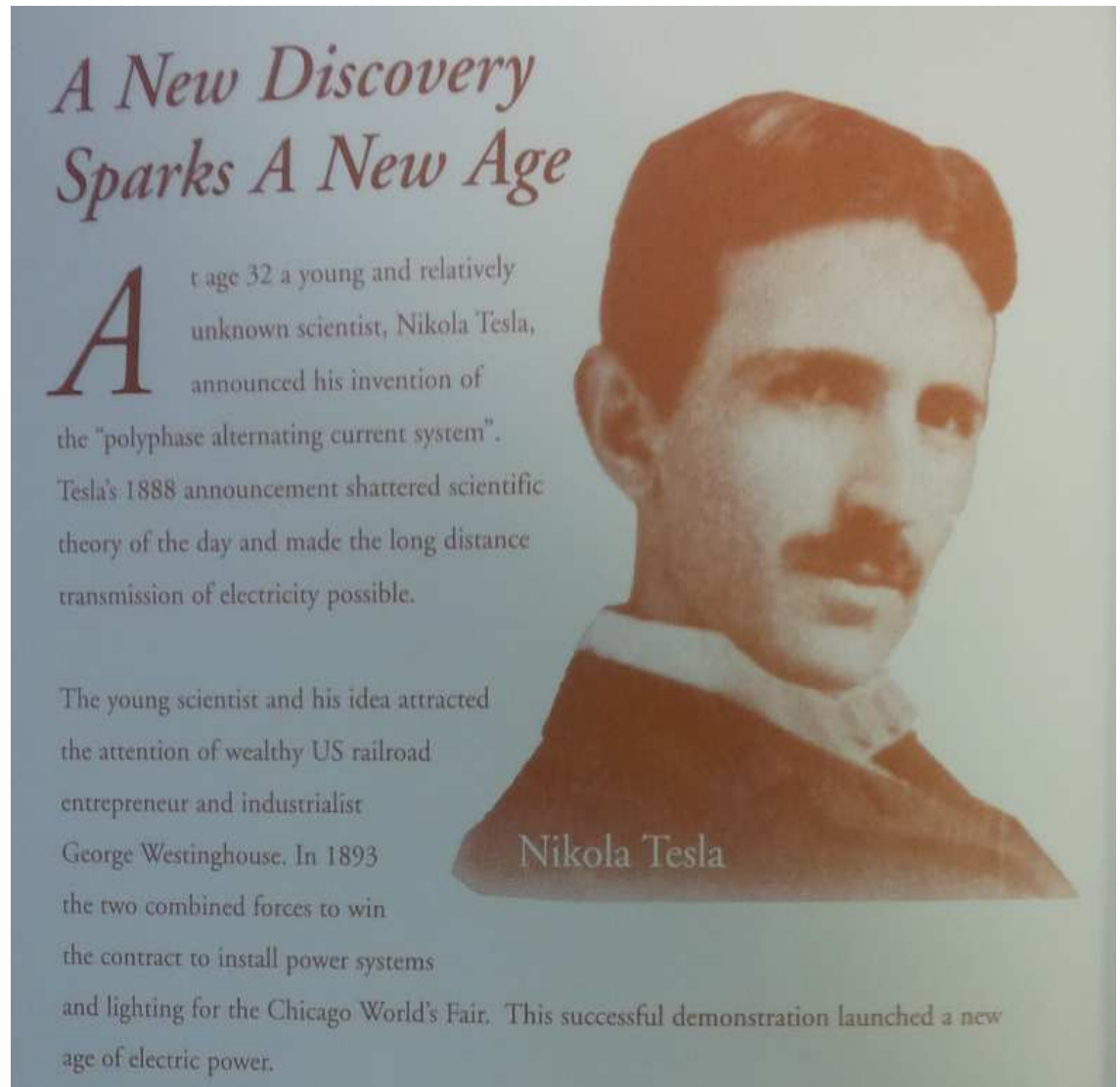
Hamilton

110th Anniversary of DeCew PG1 Ontario Power Generation

9

q DeCew
1898-2008

q OPG
acknowledged
that Tesla's
discovery was
the key to
development
of Electricity



Real Tesla Renaissance

15

- q Academics have recognized Tesla's work and are conducting research involving his body of knowledge in major universities around the world.
- q Tesla is being recognized as a true genius, visionary and futurist.
- q World's most advanced electric cars powered by Nikola Tesla's Induction Motor

Next Technology Wave

16

- q Modern world is going High Tech
- q New product that Tesla described continue to emerge and fulfill his predictions.
- q Futurist are already working on wireless energy transmission
- q Imagine some of the possibilities ...

This is an opportunity for Hamilton to play a new role, to be the leader in research and development

Other's are Honoring Tesla and Associating themselves to his legacy...

17

- q Kickstarter- crowd sourcing –a number of successful Tesla fundraising campaigns including the Silicon Valley Statue which raised over \$127,000 in 31 days.
- q Oatmeal – crowd sourcing raised \$1.37 Million & state of New York then kicked in \$850,000.
- q Elon Musk – of Tesla Motors – Donated One Million dollars to help build the museum at Wardenclyff
- q 3 movies in the last decade recognizing Tesla, including one with David Bowie portraying Tesla

NTEC developments since Sept 4

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- NTEC increasing membership & Charity Process
 - Started in Spring of 2014. Initial goal to raise awareness!
 - March 31, 2015, 1st Nikola Tesla Innovation award presented, BASEF, Michael Wolfe
 - April 17, 2015 NTEC granted Registered Charity Status
 - Close to 50% growth in memberships
 - Engaging with local educational establishment for purposes of increasing awareness and securing support for initiatives and priorities
- Give us the opportunity, and we will get this done!

Petition Comments

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- q I believe this is a good promotion for the redevelopment of Hamilton. *Jim Casey (BASEF co-chair)*
- q I am proud that other cities other than Toronto can step up and deliver a good thing. It's definitely good PR for the city and industries who have benefited or can. *Myra Rados*
- q Tesla was a genius of innovation and as Hamilton progresses, this is a very recognizable gesture to show its linked with an innovator. *Nick Tintor*

Petition Comments

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- q I remember being in Hamilton and experiencing the decline - re-branding is in my opinion, a great idea, and Tesla's name should ignite a instant global ability to relate to it and connect. *Richard Given*
- q By supporting to revive Tesla's legacy, we are joining a world-wide effort in re-educating, especially our youth, about the importance of Tesla's inventions and genius..
Bob Huybrechts, President of Inventors Circle.
- q This is an opportunity for Hamilton, Tesla already realized his. *Milos Posavljak*

The Power of Tesla

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Hamilton's willingness to consider the proposal has drawn attention to Hamilton. The petition has signatories from:

- 11 Counties on 5 continents
 - ▮ 27 *USA states*
 - ▮ 6 *Canadian Provinces*

Now:

- *Imagine the exposure your approval will provide*
- *Imagine the power of the exposure when the street signs are up on the QEW*

City of Hamilton will Benefit

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- ❑ NTEC's proposed plans are designed to create a WIN — WIN environment
- ❑ Youth of Hamilton — WIN — they are inspired to pursue higher education. They will be energized and encouraged to expand on Tesla's body of knowledge
- ❑ Hamilton — WIN —educated youth are more productive and innovative, which provides the potential for new products or industries = more jobs

All at **NO COST to City** — another WIN

City of Hamilton Benefits

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New Image of progression and Innovation

- q Innovative thinking will spawn both new research and research grants which will enhance the development of new products.
- q Highly educated workforce leads to new business being established in the community
- q Hamilton's transformation from an industrial centre will be diversified further and the City will become associated with new modern technology based economy.

Closing remarks

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- q NTEC commitment to Pay for the cost associated with this request.
- q City fixes issues for EMS at No Cost to City.
- q Support for this proposal = **\$0.00 cost to taxpayers.** NTEC will fund raise to cover 100%
- q City's vote of confidence to associate with Nikola Tesla will pay off over time as youth grow & develop into productive citizens with improved employment prospects in Hamilton.
- q **Hamilton open to INNOVATION.**

NTEC Contact

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