The Need to Rethink the Ottawa Climate Plan

#### The Thesis of This Presentation

- The costs of the Ottawa Climate Master Plan are unconscionably high
- The benefits, in terms of changes in global emissions, temperatures and weather, are too small to measure
- ▶ The entire plan needs to be rethought.

### Main Elements of Ottawa Climate Plan

- Phase out of all uses of oil and natural gas
- Radical changes in urban design and density
- Shift buildings from natural gas heating to heat pumps
- Electrify all surface transportation modes; make people walk and cycle
- Convert Ottawa Hydro to all-wind and solar electricity generation
- Increase municipal expenditures by \$57 billion to 2050
- Fund this through federal and provincial grants plus a wide range of new fees and taxes

## Urban Design



- Convert many streets to "car-free"
- Prohibit parking in downtown core and Byward Market
- Eliminate requirements that developers provide parking spaces
- Minimum density of 89 residences per acre
- Prioritize walking, cycling and transit

# Buildings



- Impose new energy retrofit standards that would apply to all new or renovated buildings
- Fund vast expansion of heat pump use in residential and commercial buildings
- Endorse ending of all natural gas use in furnaces and appliances
- Result would be even higher house prices

#### Transportation



Electric cars are a dangerous choice for Canadian winter driving

- Duplicate and accelerate federal government restrictions on purchases of internal combustion vehicles
- Convert entire bus fleet to electric (almost \$1 billion by 2027)
- Require 40% of commercial vehicles (trucks, taxis, etc.) to be electric by 2030
- Require 50% of commuters to travel by public transit, walk or cycle by 2030

### Electricity

- Enough renewable electricity (primarily wind and solar) generation and electricity storage will be constructed to end hydrocarbons use
  - Solar photovoltaic (PV) reaches 1,060 MW by 2050 (approximately 36 square km of solar PV mostly on rooftops)
  - Wind generation reaches 3,218 MW by 2050 (approximately 710 large scale turbines, each taller than the Peace Tower)
  - 310 MW of local energy storage by 2030 and 612 MW by 2050 (122 large shipping containers of lithium batteries)

#### Effects on Electric Power System

- Wind and solar energy are intermittent sources of power generation, meaning that they supply when the wind blows or the sun shines, not when people need the service
- They are not feasible without either backup (i.e. duplicate) generation sources or storage
- Battery storage as proposed in the Ottawa plan is extraordinarily expensive. A California system that provided 1.7 minutes of blackout prevention for the state cost just under US \$2 billion
- Ottawa would take over role of provincial suppliers- why?

### Financial Costs of Ottawa Climate Plan

- \$57 billion over 28 years, crowding out funding of other needs
- Revenues to come from higher taxes and fees on residents plus hoped-for aid from federal and provincial governments
- Community-wide expenditures of \$1.6 billion per year over 2020-2030 decade
- Primary revenue sources property taxes, road tolls, congestion charges, road user fees, parking charges, land transfer taxes and increases in electricity rates

## Global Context

- Decarbonization is a global issue, not a uniquely Canadian one.
- Eighty-four per cent of the world's primary energy needs are now met by hydrocarbons.
- Only five per cent by renewables, including wind, solar and biomass.

BP Statistical Review of World Energy June 2020 https://www.bp.com/en/global/corporate/energy-economics/statisticalreview-of-world-energy.html Primary energy 2019 - world consumption (exajoules)



#### Canada's emissions 1.6% of global total.

- Canada's emissions, at 1.6% of the global total, are too small to make a difference to global trends in either emissions or climate.
- Ottawa's emissions are less than 1% of Canada's emissions
- Over the last decade (2011 to 2021) emissions in the non-OECD countries have risen by almost 20% and now constitute 65% of the global total



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11

### All pain. No gain.

 Decarbonization, or "net zero", is almost all pain for no gain. It is a political objective driven by environmental and central planning ideology, not sound public policy or respect for democracy. The only question is when, not whether, the adverse effects of such ideology become so evident and intolerable that the majority of Canadians will resist it and the politicians that embrace it.



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