

- 1. IMPACT ON ELECTRIC HEAT CUSTOMERS.
- 2. IMPACT ON CONSUMERS BUDGETS, INFLATION AND THE PROVINCIAL ECONOMY.
- 3. IMPACT ON HYDRO'S ADVANTAGES AND OPPORTUNITIES.
- 4. HYDRO'S CASH FLOW, CAPITAL PROBLEM! A SOLUTION?



#### **CREDENTIALS**

- BSF (Forestry) UBC; MSC. (Econ) BUS. ADMIN., LSE; MA (Econ), PHD U. OF MICHIGAN
- 25+ YEARS UNIVERSITY OF MANITOBA ECONOMICS, PUBLIC FINANCE, NATURAL RESOURCE ECONOMICS.
- CONSULTANCY PROVINCIAL GOVERNMENTS, INTERNATIONAL (UN–FAO, WORLD BANK, ETC. – IN PUBLIC FINANCE, NATURAL RESOURCE ECONOMICS AND FORESTRY.

## 1. DISPROPORTIONATE IMPACT ON ELECTRIC HEATING CUSTOMERS.

- APOLOGY: I CAN REPRESENT ONLY MYSELF.
- ELECTRIC HEAT CUSTOMERS: REASONS RURAL NO NATURAL GAS OPTION, ENVIRONMENTAL, LOCAL, RENEWABLE RESOURCE, CONFIDENCE IN HYDRO. ETC.
- DISPROPORTIONATE IMPACT HEAVY ELECTRICITY USER. INEQUITIES.
- HYDRO'S SUGGESTED?, PROPOSED? ELECTRIC HEATING RATE STRUCTURE -- TOKEN!

### 2. IMPACT ON CONSUMERS BUDGETS, INFLATION AND THE PROVINCIAL ECONOMY.

- THE PROPOSED 7.9% PER YEAR INCREASE -- A 50% INCREASE OVER THE 5 YEARS WILL HAVE A SIGNIFICANT IMPACT ON MANITOBAN'S BUDGET.
- RECESSIONARY -- MANITOBAN'S PERSONAL BUDGETS ALREADY
  STRETCHED MORTGAGES, CREDIT CARD AND OTHER DEBT, ETC. -
- YET INFLATIONARY CPP INCREASED ELECTRICITY UTILITIES COSTS.



- IMPACT ON HYDRO'S ADVANTAGES:
- 1. THE PROPOSED PRICE INCREASES SHORT TERM LITTLE OPPORTUNITY TO REDUCE CONSUMPTION.
- 2. BUT OVER TIME REDUCED CONSUMPTION COST OF AND GROWTH OF RENEWABLES. (The Economist, Feb. 25, 2017 "The World Turned Upside Down")
- 3. LOSS OF HYDRO'S ADVANTAGE AS A LOW COST PROVINCE.

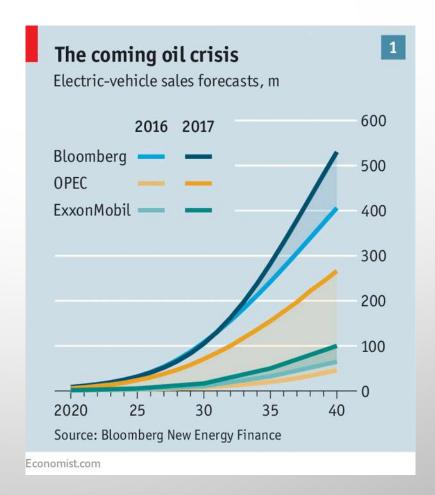
### 3. MPACT ON HYDRO'S ADVANTAGES AND OPPORTUNITIES.

- HYDRO'S OPPORTUNITIES:
- 1. IMPROVED ELECTRIC MOTORS (The Economist Sept. 16, 2017 "As Electric Motors Improve, More Things Are Being Electrified").
- 2. ELECTRIC CARS MANITOBA'S ADVANTAGE OF LOW COST HYDRO ELECTRICITY HAS HUGE POTENTIAL ADVANTAGES.
- CHARGING: CHARGING STATIONS AND INDUCTION CHARGING. (The Economist Oct. 28, 2017, "It Is Now Practical to Refuel Electric Cars Through Thin Air"; Sept. 7, 2017 "An Infrastructure for Charging Electric Vehicles Takes Shape")



Economist Aug. 12, 2017 "After Electric Cars, What More will it Take for Batteries to Change the Face of Energy?"

"no need for subsidies. higher volumes and better chemistry are causing costs to plummet "electrifying everything"



# 4. HYDRO'S CASH FLOW, CAPITAL PROBLEM! – A SOLUTION?

- WHAT DO LARGE PRIVATE SECTOR CORPORATIONS DO FACED WITH CASH FLOW PROBLEMS?
- FOCUS ON CORE ASSETS. DIVEST OF NON-CORE ASSETS.