



Market Research Summary

Renewable Energy in Canada, October 2018

Ventusolar Global Capital GmbH put together some current information regarding the Canadian Renewable Energy Market, general macro economical data and the main hot topics/ financial facts on Global markets:

1. Renewable Energy Canada:

- Renewable energy sources currently provide 17.5% of Canada's total primarily energy supply.
- Canada on International Renewable ranking: Nr 7. (3%)
- Wind and solar are the fastest growing sources of electricity in Canada
- Main Renewable sources in Canada:
 - Hydro (67%):
 - 2nd Largest Hydro producer of the World (After China)
 - Total production: 81GW
 - Biomass (22%)
 - Wood waste, firewood, liquid wood wastes, wood pellets (grains, oilseeds, municipal wastes etc.)
 - Canada is a main producer of Ethanol (31Mb/d-1.8Million L) and Biodiesel (8.6 Mb/d-500Million L)
 - But Canada's demand on Ethanol reaching 52 Mb/d-3 Million L >>SO NEEDS to import an additional 21 Mb/d -1.2 Million L
 - Canada is a NET Exporter of Biodiesel (= Less domestic demand than supply)
 - Wind (5.5%)
 - Fastest growing source of energy not just in the world, but Canada as well
 - World capacity of wind power (with 2% > Nr7 on world ranking vs China 1st, US 2nd and Germany 3d)
 - Total estimated production: 13GW
 - In 2004 Canada had 500 MWs of total installed of wind capacity vs 2017 reaching almost 13GWs
 - Highest Wind capacity/Province is Ontario (5Gws), followed by Quebec (3.5-4Gws) & Alberta (1.5GWs)
 - Some of the Largest Wind Farms in Canada: Lac Alfred, Black spring Ridge, South Kent Wind Farm
 - Solar (1%)
 - Most of the solar capacity in Canada is located in Ontario

- World ranking Nr 9 with 1% of Total Solar Capacity (1st China, 2nd US, 3d Japan, 4th Germany)
 - Total Capacity of Solar in Canada: 3GWs
 - Some of the largest Solar PV Farms in Canada: Sol-Luce Kingston, Grand Renewable Energy Park
- Canada's Main Import/Export commodities:
 - Export : Crude Petroleum (39Mio Barrels), Gold, Wheat, Aluminium
 - Import: Refined Petroleum (11Mo Barrels), coffee, silver
- As Canada plays a very important role in the world economy, being a major import/export commodity counterpart, overtaking a growing position in the energy sector, so will its GDP growth, currency policy strongly be affected by what is happening in the Global Markets: Trade war, Interstate cuts, regulations, police changes, recessions etc.

2. Carbon Emission (CO2) :

- Global Markets this year turned their main focus on the Paris Agreement Renewable Energy 2030 target: due to this, the EU carbon market has been the hottest commodity market in the world over the last 16 months, with the price of European carbon allowances (EUAs) up 350% since May 2017
- Forecast from Co2 and commodity experts: "EU carbon prices could double by 2021 and quadruple by 2030 !"
- Source: <https://www.carbontracker.org/eu-carbon-prices-could-double-by-2021-and-quadruple-by-2030/>

3. "Trade War" between US & Canada:

- Trade war between US and the "World" having a strong future impact on the sentiment and commitment for institutional investors how and where to invest. Uncertainty on the markets have a strong impact on economics in general: GDP growth, import-exports, currencies etc.
- The United States insists on increasing tariffs, bringing new uncertainties to bilateral trade negotiations. China hopes the US would recognize the negative consequences of its actions and take convincing steps to correct its behavior in a timely manner.
- Earlier this year, the United States slapped tariffs on steel and aluminum imports from many countries around the world. Canada end of May, the U.S. decided to hit Canadian steel and aluminum with those tariffs. Now there is a 25% tariff on steel and a 10% on aluminum that enters the U.S. from Canadian producers.
- Much like the rest of America's trading partners, Canada wasn't too happy about this. Prime Minister Justin Trudeau called the situation a "turning point in the Canada-U.S. relationship." He announced Canada's intention of respond with tariffs of its own — not only on U.S. steel and aluminum, but other household products as well.
- In this case, Washington wants to make steel and aluminium from other countries more expensive than steel and aluminium made in the U.S.
- The idea is that the American steel and aluminium industries will be protected from foreign competitors.
- Main impacts of Trade war between US & Canada:
 - Higher electricity bills
 - A spike in the price of food
 - Major job losses
 - Recession

5. Future Market Outlook, focus on Canada:

- Looking forward the main focus on global markets are: the equity market performance, political developments, and economic data.
- There are a couple of other developments in Canada to note. Later this month, Canada will impose tariffs on **aluminium** to deter product that from being deflected by the US tariffs. Canada's heavy crude that is rich in bitumen is selling for nearly \$50 a barrel less than WTI and is reportedly attracting Chinese interest.
- With the U.S economy continuing to post strong numbers, the Federal Reserve is on track to raise rates in December. This would be the fourth rate hike in 2018, and the markets are expecting three more hikes in 2019.
- This has put pressure on the Bank of Canada to raise rates as well. The Canadian economy is in good shape, but not nearly as strong as US.
- The Bank of Canada holds its next policy meeting on October 24, and the strength of key Canadian releases will be a major factor as to whether policymakers raise rates.

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