



# CLEAN ENERGY

Investments with the power  
to lead the green revolution



Exchange Traded Funds

- **Why Clean Energy?**
- **Clean Energy vs. Traditional Energy**
  - what it is and what it is not
- **BMO's Clean Energy ETF**
  - Why BMO
  - Methodology
  - Performance
- **Portfolio Construction using thematic ETFs**

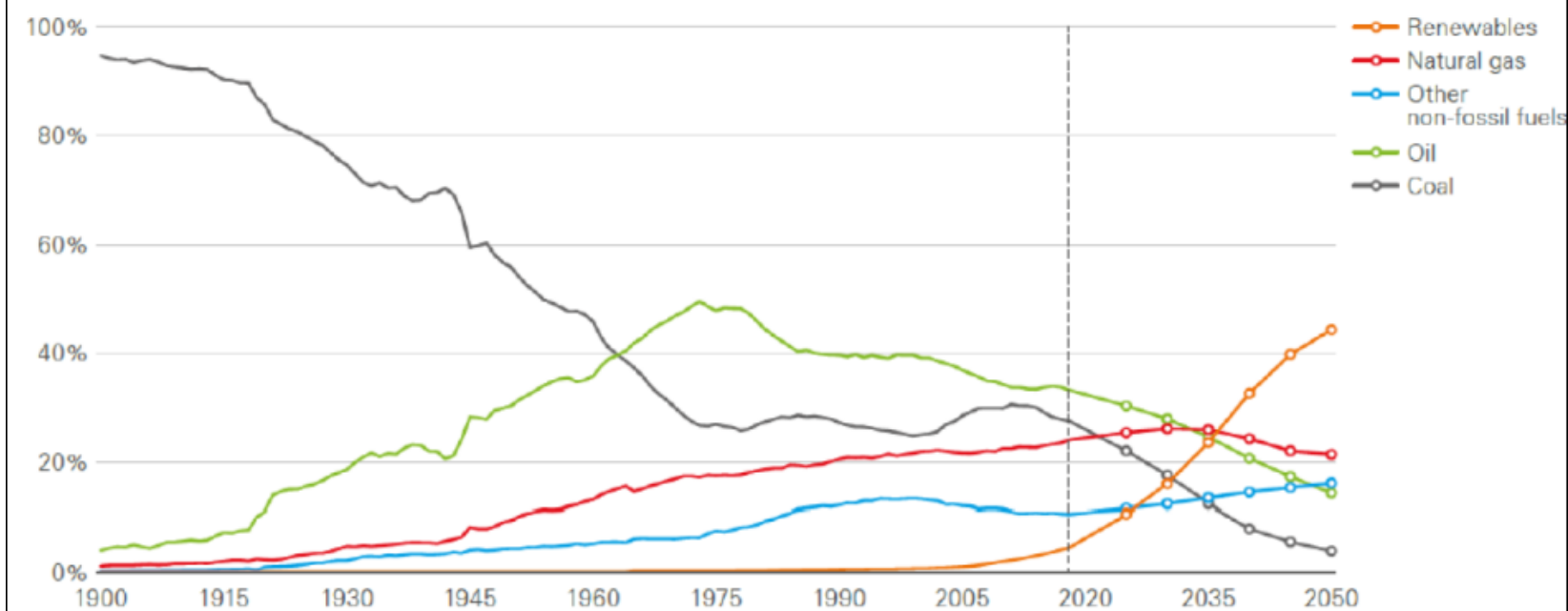
## THE PROBLEM

Resource Scarcity → High Costs → Huge Impact on Environment



# Why Now

**Chart 1: BP's Forecast for Shares of Primary Energy Sources in the Event of a Rapid Transition**



Source: BP Energy Outlook 2020



# Drivers: Global Net-Zero Emission Targets

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- Net-zero emission targets in key markets are expected to accelerate the deployment of renewables
- **China** - biggest offender – goal to be carbon neutral by 2060
- **US and Europe** – goal to be carbon neutral by 2050



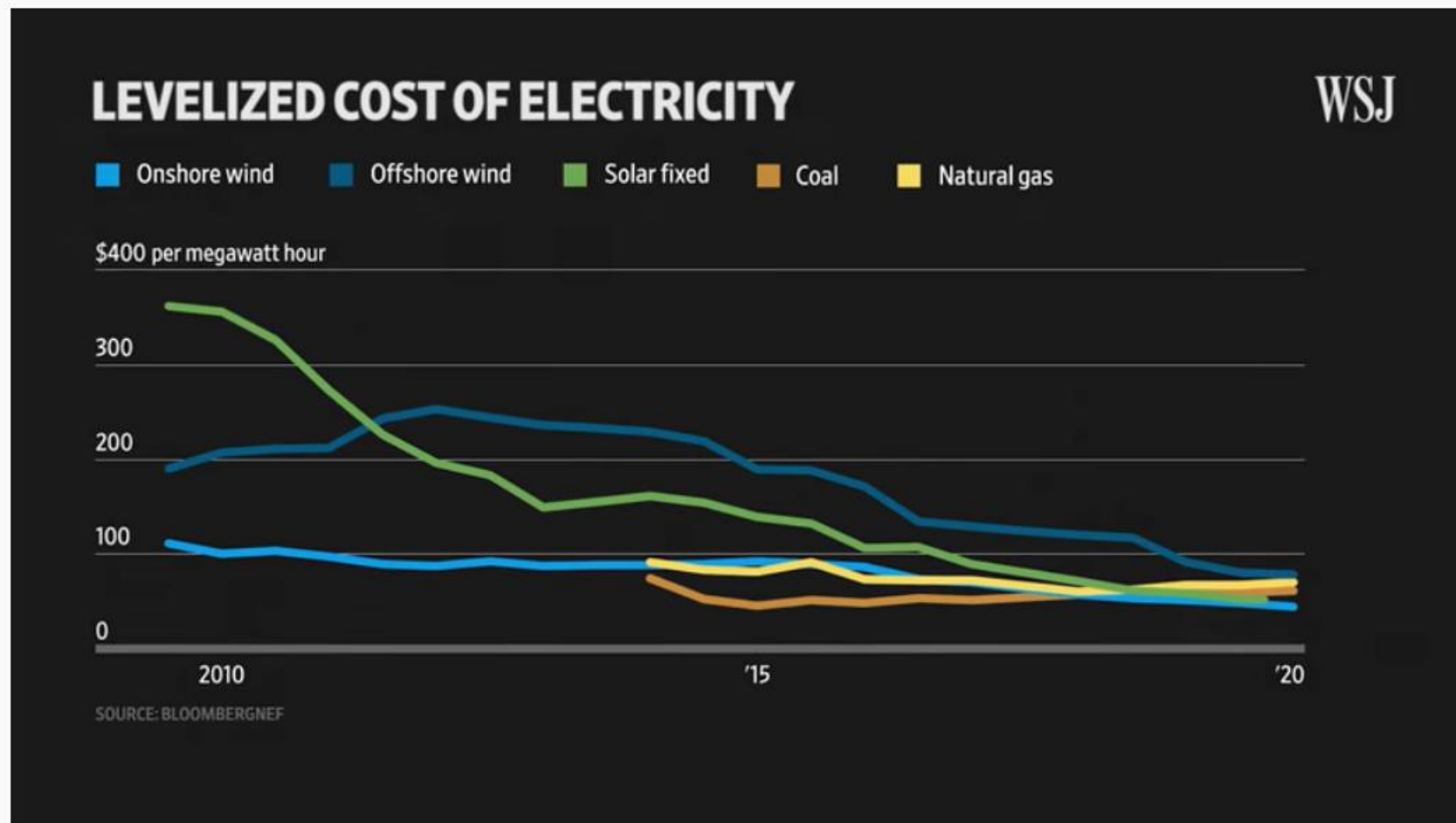
# Drivers: Biden Administration Will Push for a Greener Grid

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- \$2 Trillion proposed clean energy & infrastructure plan
- Rejoining of Paris Climate Agreement
- Goal to zero out U.S. electricity sector carbon emissions by 2035

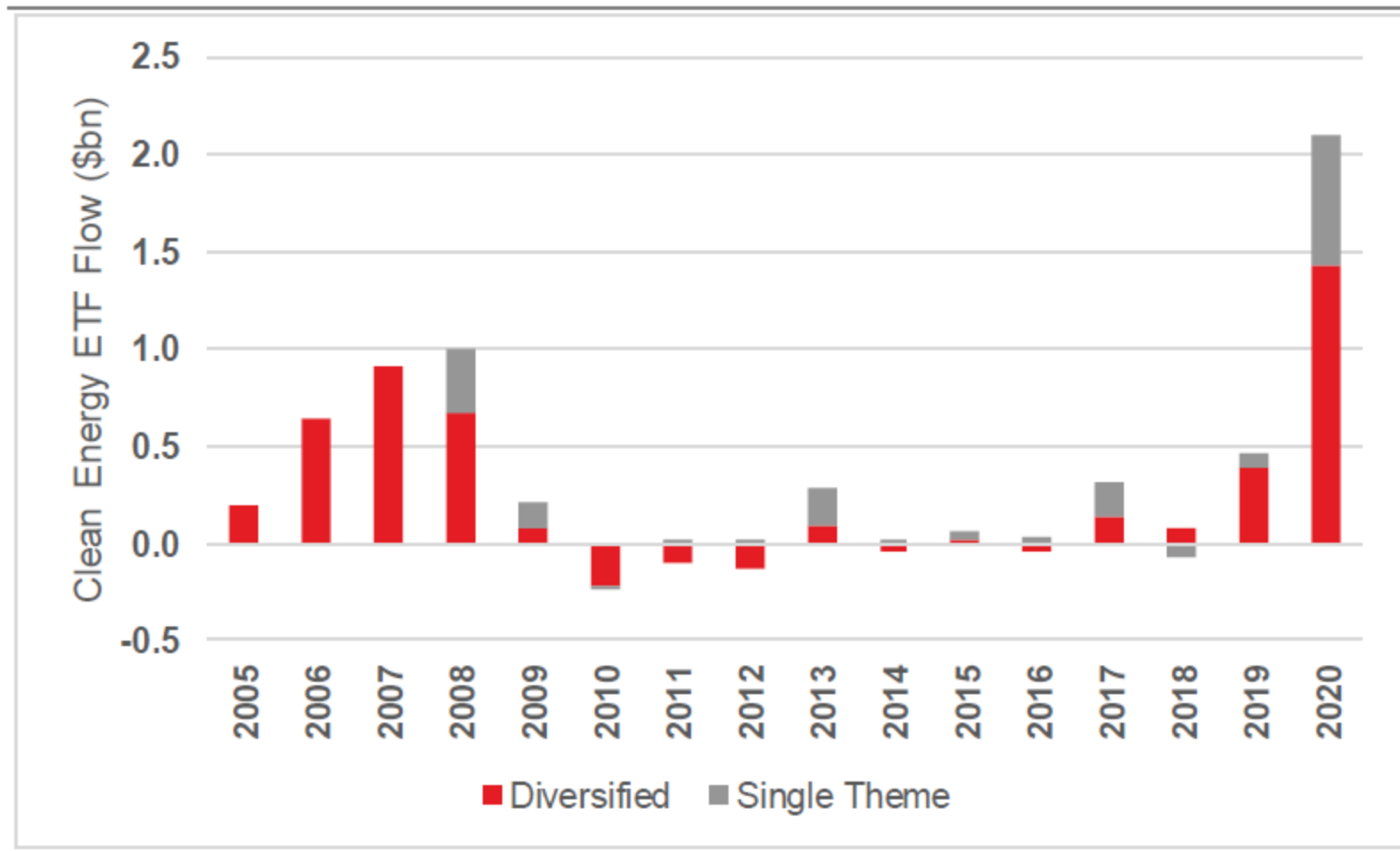


# Drivers: Cost efficiencies



Source: BloombergNEF

# Growth in Clean Energy ETFs (US)



Source: NBF ETF Research, Bloomberg. Data as of Sept 30, 2020



# BMO Exchange Traded Funds

#1

in Canadian net new assets 10 years in a row<sup>1</sup>

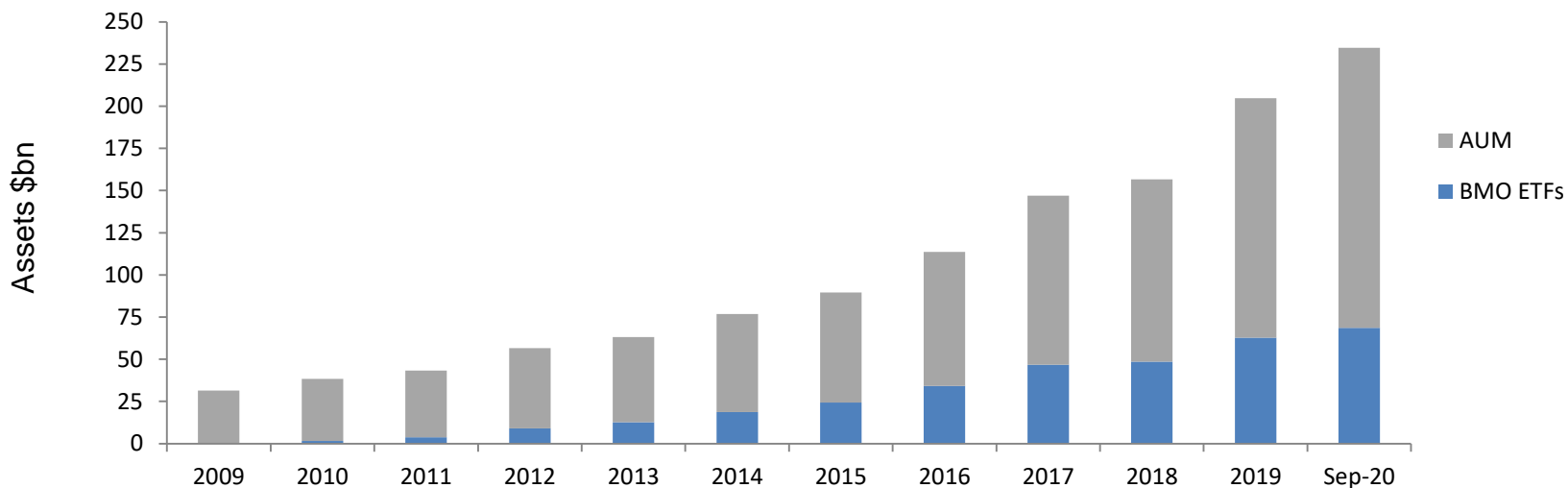
#1

fixed income ETF provider in Canada based on AUM<sup>1</sup>

#1

Canadian smart beta ETF provider based on AUM<sup>1</sup>

## Canadian ETF Market



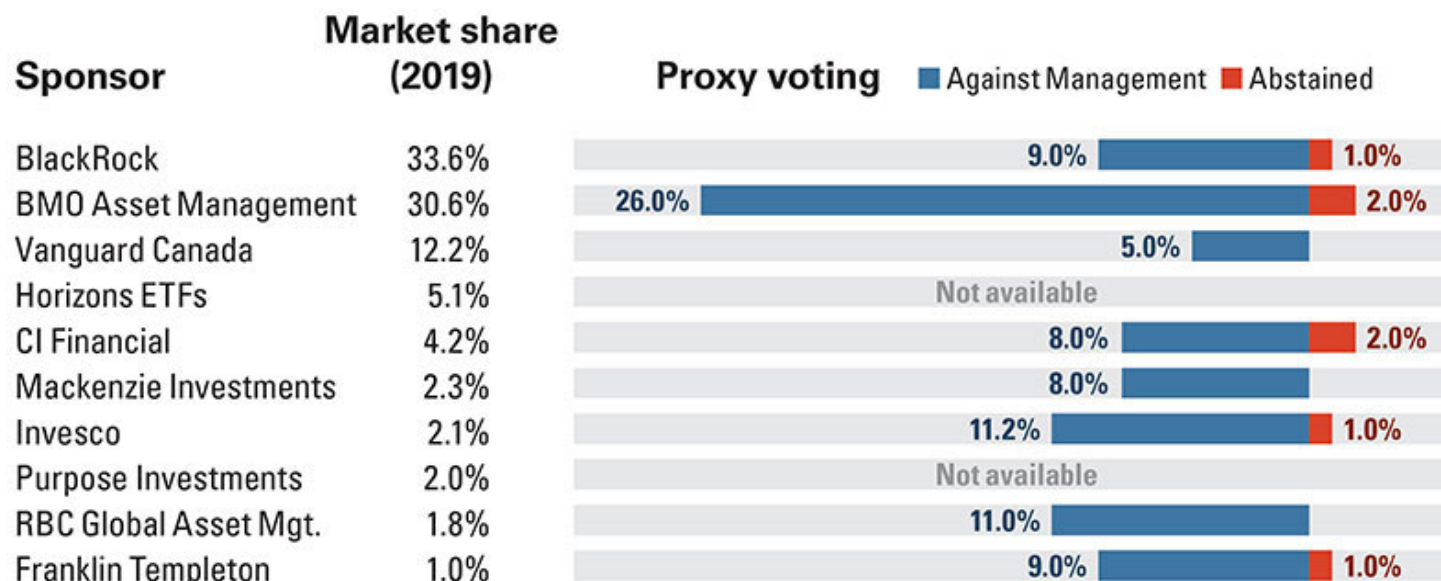
**Boldly  
Growing  
the Good**

BMO Global Asset Management has been a UN PRI signatory since 2006. PRI has rated BMO GAM an A+ on our active ownership for listed equity, as well as our strategy and governance.<sup>2</sup>

<sup>1</sup> Bloomberg December 2019. <sup>2</sup>PRI 2019 Assessment Report.

## WSJ Ranks BMO in the top 15 most sustainably managed companies in the world<sup>2</sup>

**Table 1: Canadian ETF sponsors — proxy voting**  
Self-reported votes against management and abstentions



Source: PRI Transparency Reports, 2019; PÜR Investing Inc. Horizons and Purpose are not PRI signatories.

# ZCLN – BMO Clean Energy Index ETF

- Tracks the **S&P Global Clean Energy Index** providing exposure to 30 companies from around the world that are involved in clean energy related businesses

**Mgmt  
Fee:  
0.35%**

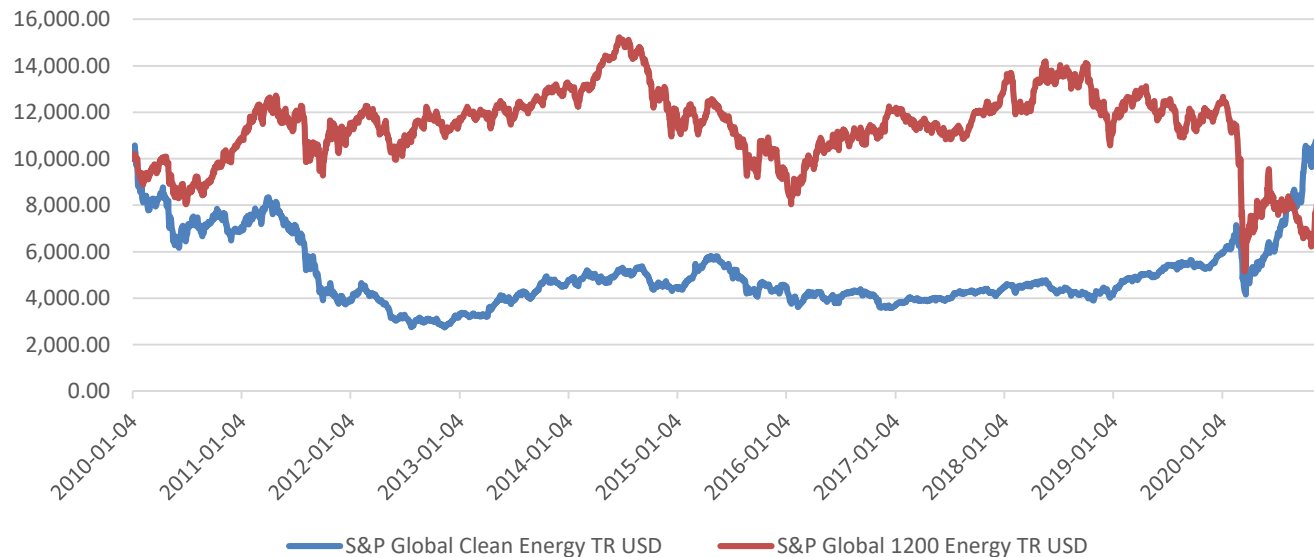
## Key Facts

Index Name	S&P Global Clean Energy
Number of Stocks	~30
Max weight	4.5% cap per stock
Total Market Capitalization	Greater than or equal to US\$ 300 million
Float Market Capitalization	Greater than or equal to US\$ 100 million
Liquidity Thresholds	3-month Average Daily Value Traded of US\$ 3 million (US\$ 2 million for current constituents)
Domicile/Trading Location	Stocks must be trading on a developed market exchange.
Rebalance	Semi-Annual (April and October)

# ZCLN – BMO Clean Energy Index ETF

As of Dec 31 2020	1 Year	3 Year	5 Year	10 Year
<b>S&amp;P Global 1200 Energy Index</b>	-34.09	-16.2	-5.66	-5.92
<b>S&amp;P Global Clean Energy Index</b>	142.07	47.62	26.43	8.05

**Global Clean Energy, vs Traditional Global Energy –  
Growth of 10,000 over 10 years**



# ZCLN – BMO Clean Energy Index ETF



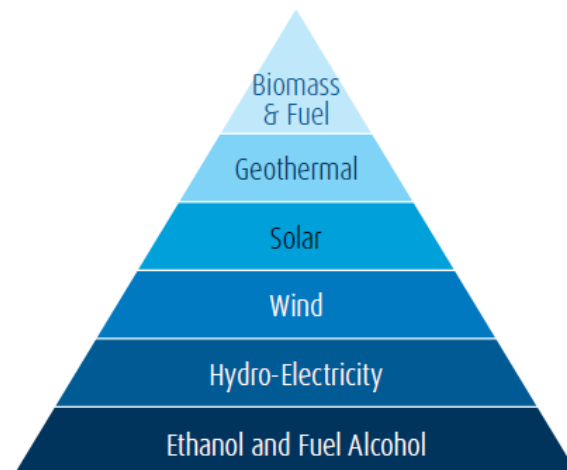
Utilities .....	53.9%
Information Technology ..	23.4%
Industrial .....	19.6%
Energy .....	3.2%

## Top 10 Holdings

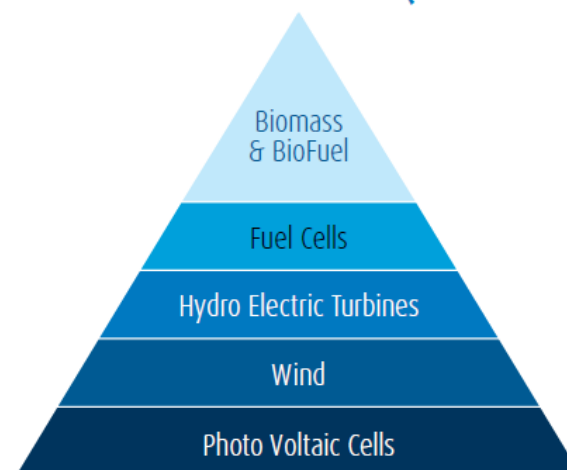
Name	Sector	Weight (%)
Plug Power Inc	Industrials	5.38
Meridian Energy Ltd	Utilities	5.27
Verbund Ag	Utilities	4.92
Enphase Energy Inc	Information Technology	4.85
Siemens Gamesa Renewable Energy Sa	Industrials	4.77
Orsted	Utilities	4.68
Contact Energy Ltd	Utilities	4.67
Vestas Wind Systems	Industrials	4.67
First Solar Inc	Information Technology	4.63
Xinyi Solar Holdings Ltd	Information Technology	4.31

Source: Bloomberg, as of Oct 31, 2020

## CLEAN ENERGY PRODUCERS



## CLEAN ENERGY TECH & EQUIPMENT





# Carbon Characteristics

**MSCI**  
ESG RATINGS



## ESG Carbon Characteristics (as of Nov 30 2020)

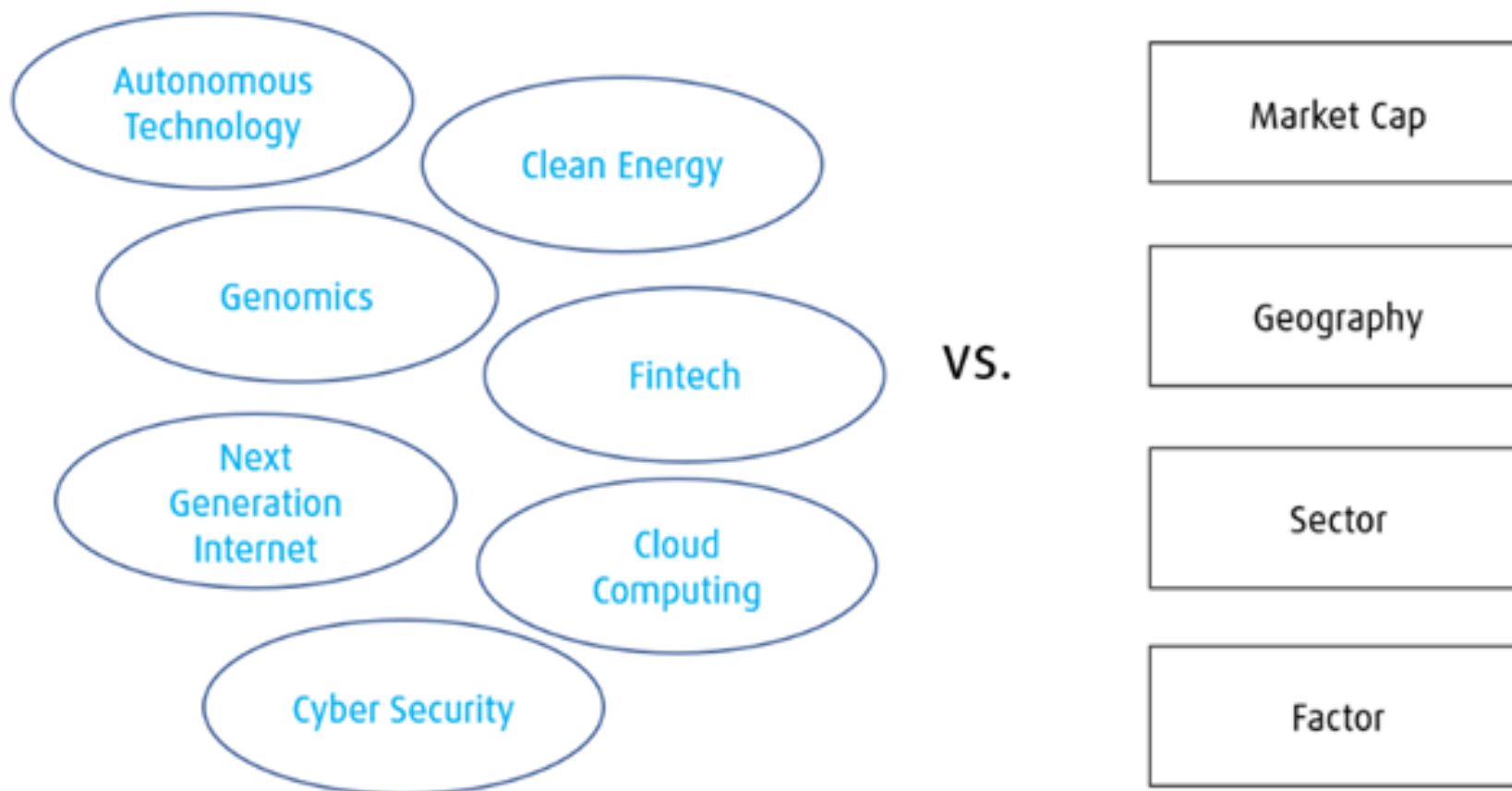
	S&P Global Clean Energy Index	S&P Global 1200 Energy Index
Carbon to value invested (metric tons CO2e/\$1M invested)*	72.31	583.31
Carbon to revenue (metric tons CO2e/\$1M revenues)*	282.61	556.72
Weighted average carbon intensity (metric tons CO2e/\$1M revenues)*	327.63	629.43
Fossil fuel reserve emissions (metric tons CO2/\$1M invested)	0	25,353.95

\*Operational and first-tier supply chain greenhouse gas emissions. For more information, please visit: [www.spdji.com/esg-carbon-metrics](http://www.spdji.com/esg-carbon-metrics)

Source: S&P Nov 30 2020

# Emerging Themes & Megatrends

## Emerging Themes & Mega Trends vs. Traditional Market Segments



# BMO's ESG ETFs

## Equity

### ESGA

BMO MSCI Canada ESG  
Leaders Index ETF

Mgmt Fee: 0.15%

### ESGY

BMO MSCI USA ESG  
Leaders Index ETF

Mgmt Fee: 0.20%

### ESGE

BMO MSCI EAFE ESG  
Leaders Index ETF

Mgmt Fee: 0.25%

### ESGG

BMO MSCI Global ESG  
Leaders Index ETF

Mgmt Fee: 0.25%

## Fixed Income

### ESGB

BMO ESG Corporate Bond  
Index ETF

Mgmt Fee: 0.15%

### ESGF

BMO ESG US Corporate  
Bond Index Hedged to CAD  
ETF

Mgmt Fee: 0.20%

## Specialty Solutions

### ZESG

BMO Balanced ESG ETF

Mgmt Fee: 0.18%

### ZWG

BMO Global High Dividend  
Covered Call ETF

Mgmt Fee: 0.65%



A full list of ESG products can be found using the RIA ESG Tool  
<https://www.riacanada.ca/ri-marketplace/investment-options/>

- \*ZWG is not index based but selects Sustainable Dividend Growers from a universe using ESG screening in the investment selection

# Disclaimer

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