

## Transition-opportunity sector profiles

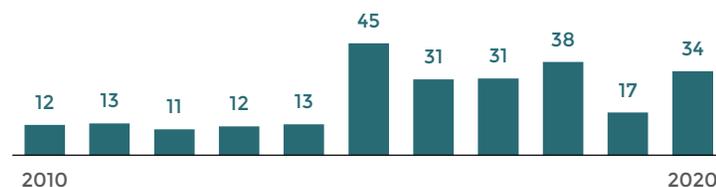
### LOW-CARBON ELECTRICITY

Low-carbon electricity includes power generated from wind, solar, geothermal, tidal, and nuclear sources as well as associated distribution, technology, or software, such as smart grid technologies.<sup>1</sup>

#### Global market (3,544 companies)

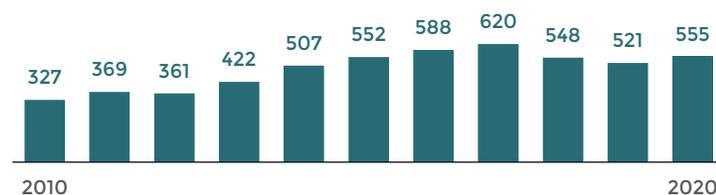
##### Capital invested (\$B)\*

Total: \$257 billion



##### Deal count\*

Steady increase from 327 in 2010 to 620 in 2017



##### Global low-carbon scenarios and trends

- Overall global electricity capacity is expected to grow from around 6,700 GW in 2020 to around 45,000 GW in 2050 (6-7 times larger).<sup>2</sup>
- Annual low-carbon electricity investment is expected to grow from around \$1 trillion in 2020 to between \$3 and \$4 trillion in 2050.<sup>3,4</sup>

##### Global market dynamics

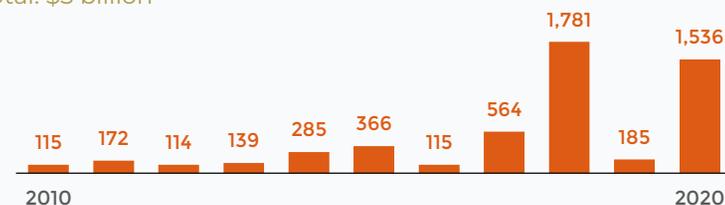
- U.S. demand for low-carbon electricity is expected to rise rapidly as state and federal policy aims to reduce emissions.
- Global demand for low-carbon electricity technology and equipment is accelerating, expanding opportunities for innovative companies.<sup>7</sup>
- Market competition is growing quickly, with thousands of companies across North America, Europe, and Asia operating in the space.
- Major players such as Engie (France) and General Electric (U.S.) are active in the sector.

\*Source: PitchBook Data, Inc. (2021). Data is drawn from a custom search that has not been reviewed by PitchBook Analysts.

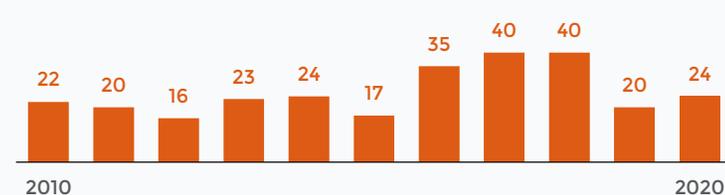
#### Canadian market (155 companies)

##### (\$M)

Total: \$5 billion



Peaked in 2018, falling in 2019 and 2020



##### Canadian net-zero scenarios and trends

- In net zero scenarios, electricity production would be at least 1.5 to 2 times larger by 2050 (relative to 2020).<sup>5</sup>
- Across net zero scenarios, investment in non-emitting electricity and distribution grows from \$16 billion per year in 2020 to between \$24 and \$55 billion per year by 2050.<sup>6</sup>

##### Canadian competitiveness

Significant potential across generation, distribution, technology, and services.

###### + Advantages

- Well positioned to expand power exports to U.S., services and technology globally.<sup>8</sup>

###### × Disadvantages

- Competitive and rapidly evolving space combined with challenges in implementing new large-scale generation and transmission.<sup>9</sup>

###### NOTABLE COMPANIES

Innergex Renewable Energy: secured \$1.3 billion in funding from Hydro-Québec in 2020.

Eavor: Technology to overcome issues with geothermal power generation. Raised \$51 million in venture capital in 2021.

## Disclaimer

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The information and data contained in this analysis has been obtained or prepared from publicly available documents and other sources prepared by third parties, some of which may be proprietary and used under license. In particular, the global and domestic investment trends included in the two figures are obtained from PitchBook Data, Inc., drawn from customized searches that have not been reviewed by PitchBook analysts. These data and trends also underestimate total market activity. The PitchBook database contains information on over 3 million companies globally but is not exhaustive. Within this database, not all deals are included and not all deals have a disclosed value. The sector also only includes companies whose primary line of business aligns with the sector description (e.g., it excludes large multinationals with multiple lines of goods/services and those with only indirect linkages to the sector). Total investment includes company-level data through December 31, 2020.

All dollar values included in this document are expressed in USD.

## Endnotes

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- 1 Batteries and energy storage technology companies are included in the Batteries and Storage sector.
- 2 Network of Central Banks for Greening the Financial System. 2020. "NGFS Scenario Explorer (REMIND-Magpie Immediate 1.5 with CDR and Delayed 2 with limited CDR)." <https://data.ene.iiasa.ac.at/ngfs/>
- 3 Ibid.
- 4 This includes hydro, nuclear, solar, wind, and transmission and distribution.
- 5 Navius Research. 2021. Achieving Net Zero Emissions by 2050 in Canada. Analysis commissioned by the Canadian Institute for Climate Choices. <https://climatechoices.ca/wp-content/uploads/2021/02/Deep-Decarbonization-Report-2021-01-21-FINAL.pdf>
- 6 Ibid.
- 7 Statista. 2021. "Market value of smart grids worldwide from 2017 to 2023, by region." <https://www.statista.com/statistics/246154/global-smart-grid-market-size-by-region/>
- 8 Canada Energy Regulator. 2017. "Market Snapshot: Canadian electricity exports to the U.S. focused on renewable power exports to specific markets." Government of Canada. <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/market-snapshots/2017/market-snapshot-canadian-electricity-exports-u-s-focused-renewable-power-exports-specific-markets.html>
- 9 Don Carrigan. 2021. "Petitions filled with 100,000 signatures to block CMP transmission line." News Center Maine. January 21. <https://www.newscentermaine.com/article/life/petitions-field-with-100000-signatures-to-block-cmp-transmission-line/97-52c43dca-be6c-4d51-bc25-ffa560357c5e>