



Trade Commissioner Service

District Heating Systems Central and Eastern Europe (CEE)

*Markets Overview:
Hungary (Budapest)*

March 23, 2021



Hungary, Budapest: Market Overview

City information: Population, growth trends

- Total population (Hungary, 2020): 9.77 million (decreasing)
- GDP growth – **one of the fastest growing economies in the region (4,9% in 2019)**
- **Open economy:** international trade had 3,7% to the GDP
- **Positive trade balance (EUR 4,9 billion in 2019)**
- **Imports grew by 57,7%, export by 56,7% from 2010.**
- **Population (Budapest, 2020): 1.75 million**
- Growth trend: the population of the city has been stable for the past 5 years.
- Budapest: transportation hub, financial and commercial center of Hungary, target of major FDIs.
- Budapest is the home town of key industry associations and business groups working towards to a net-zero economy

Construction sector trends: a boosting industry

- 22-29% annual growth between 2015-2020
- The output of the industry reached CAD 19,4 billion in 2020
- **The non-residential sector: 9% decrease in 2020.**
- **Residential sector: grew by 34% and reached an 11 year peak in 2020.** (28,208 new dwellings in 2020)
- Budapest: grew at a slower pace: 6,341 homes were built in Budapest, 8.6% more than in 2019.
- **Largest CO2 emitters:** buildings and transportation (Budapest).
- **Significant Canadian FDI in the sector: Bank Centre, WestEnd shopping mall, Eiffel Square, Budapest Airport.**



Hungary, Budapest: Market Overview

The national energy landscape

- **Electricity:** growing domestic production (**34,15 TWh**): nuclear (49%), natural gas (24%), coal (13%), renewables (13%).
- **Heat production (48,453 TJ in 2020):** 67% natural gas, 8% coal, 7% biomass, 6% geothermal, 1% communal waste
- Well-connected to natural gas and EU electricity grids, still high dependency on Russian gas supply (80%).
- Utility services (natural gas, power and water) are provided mostly by state owned companies (MVM)
- State controlled utility rates for **electricity (0,1031 EUR/kWh)** and **natural gas (0,0334 EUR/kWh)**
- **2nd lowest utility rates for households in the EU.**

District heating network characteristics:

- **680 000 connected customers, 101 DH suppliers** in 95 settlements (2019)
- **14,9% share** in Hungary's heating system.
- Network length: 1961 km
- Heat production totalled in **37 000 000 GJ** in 2019.
- DH production is based on **75% natural gas, 20% biomass, 7% communal waste, 6.8% geothermal.**
- DH suppliers generated CAD 473 million sales in 2019.
- Network losses remained stable at 12%.
- **Ambitious development plan: 60% renewables by 2030. (geothermal, biomass, communal waste)**



Hungary, Budapest: Market Overview

Budapest city energy landscape:

- Budapest **growing energy consumption**: totaled in **30,085,000 MWh**, accounting to **6,110,000 t CO2** emission in 2018.
- Households in Budapest are almost 100% connected to electricity and heating networks.
- The capital's energy consumption is 83% based on fossil energy resources.
- 238 000 households are connected to the district heating network.
- Budapest's DH consumption (households): 7 619 985 GJ in 2019.
- No heavy industry, transportation and the buildings are the largest emitters.

Budapest based utility companies:

- MVM Hungarian Electricity Works: state owned utility company (electricity, gas – growing presence in CEE markets)
- Főtvíz district heating company. (City of Budapest)
- Budapest Waterworks (City of Budapest – International EPC contractor)
- Budapest Sewage Works (Veolia and City of Budapest)



Hungary, Budapest: Market Overview

Budapest City – A new climate strategy on the way.

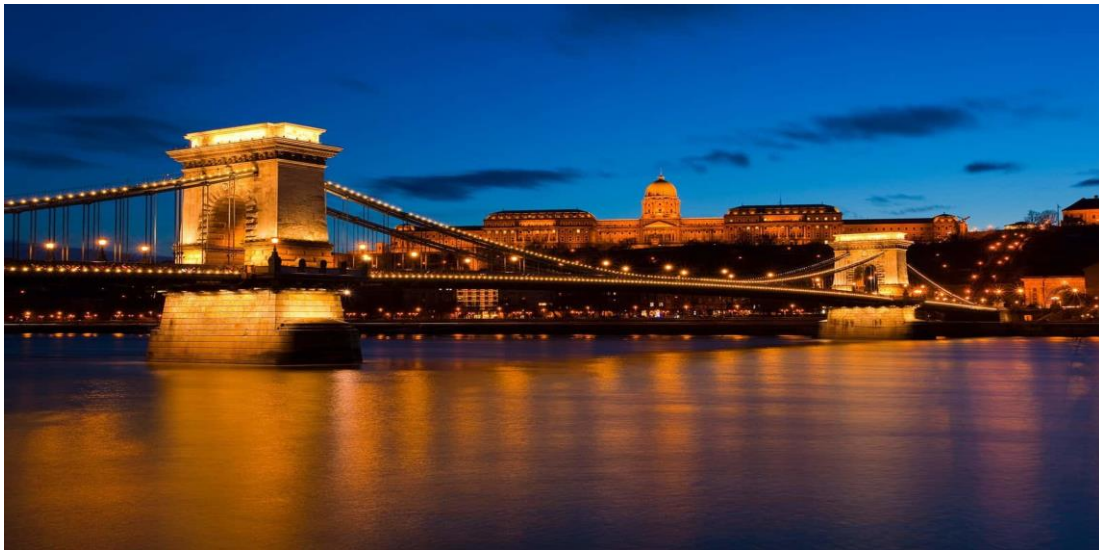
- In 2020, Hungary adopted a new climate action plan, setting the goals of **phasing out coal by 2025** and reaching a **90% carbon neutral electricity production by 2030**.
- The City of Budapest is currently working on the renewal of its 2018 Climate Strategy (**Budapest 2030**).
- **40% decrease in CO2 emission** (6,11 m tons in 2015) by 2030 - Covenant of Mayors commitment.
- **80% decrease of CO2 emission (base year 1990) by 2050** - Under2 Coalition climate goals.
- **Increase of installed solar capacities to 1500 MW**
- **Increase the share of renewable resources in DH production to 50% or above**
- **Improve the energy efficiency of 1/3 of the existing housing stock** (911 000 homes - 2015)
- Recommendations for **11 projects, targeting emission reduction**, with an estimated project value of **CAD 11,85 billion**, and **19 climate change adaptation projects** in 2021-2030.
- A draft version of the strategy had been published for public consultation in January 2021
- Visible NGOs and environmental organization have been consulted.
- Climate related project will be financed from a mixed pool of budget (EU funds, government and city budget)



Hungary, Budapest: Market Overview

Summary – opportunities for Canadian businesses:

- 1, Technologies for the adaptation of renewable energy resources in DH networks (biomass, Geothermal, communal waste – **CAD 133 million SME support for renewable energy production**)
- 2, Real-time monitoring, smart metering, control and data processing technologies in existing district heating networks (**smart meters in 25% of homes by 2030**)
- 3, Renewable energy integration, energy storage technologies (**6000 MW new solar capacities**)
- 4, Green transportation technologies: EV and hydrogen (**Green Bus program CAD 150 million**)



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