Tunney's Pasture Energy Centre Backgrounder

Leading by example in the fight against climate change, the Government of Canada is fundamentally changing how it heats and cools federal buildings in the National Capital Region (NCR). As part of this bold climate action, Public Services and Procurement Canada (PSPC), in partnership with Innovate Energy, is building the Tunney's Pasture Energy Centre, one of the most modern public energy centres in North America.

Rendering of Tunney's Pasture Energy Centre's sloping roof

An initiative that's part of the Energy Services Acquisition Program (ESAP), the Tunney's Pasture Energy Centre is one of four energy centres that are being built or retrofitted to provide clean heating and cooling services through the federal government's National Capital Region District Energy System (NCR DES). Work is also underway to expand the system's underground network of pipes to connect the Tunney's Pasture Energy Centre to the new energy centres being built near the Supreme Court of Canada (Cliff) and in Gatineau, Québec.

From Grey to Green – A New Urban Park Replaces a Former Parking Lot

In 2014, the National Capital Commission (NCC) approved a master plan to guide the redevelopment of Tunney's Pasture. To support these efforts, the Tunney's Pasture Energy Centre will be built in the northwest corner of the Tunney's Pasture campus, replacing an existing parking lot. The energy centre has been designed to add to the community's use and enjoyment of Tunney's Pasture and to meaningfully contribute to the campus' transformation from a single-use employment centre into a vibrant transit-oriented and sustainable mixed-use community. By creating a new publicly accessible realm in a space that was originally reserved for cars, the Tunney's Pasture Energy Centre becomes one of the new faces of clean energy in Canada.

Rendering of the Tunney's Pasture Energy Centre

Using the same architectural approach as the other ESAP facilities, the Tunney's Pasture Energy Centre will be partially built underground, allowing the public realm to take priority over the building design. The majority of the roof will be preserved as a wildflower meadow, with a wide range of native and wild plants and grasses to increase biodiversity. The building's modern exterior will include a sloping roof garden, a new park, footpaths through the site, and elevated views of the Ottawa River, transforming this former parking lot into a new, green urban destination point for residents and visitors alike.

Designed to be universally accessible and welcoming, everyone will be able to access and experience every feature of the public urban park. As well, the park will connect Tunney's Pasture to the Ottawa River pathways, providing easier access to the riverfront.

The energy centre will provide opportunities for education about Canada's leading role in clean energy. With its sloped glass walls, visitors will have a clear view of the energy centre's inner workings from the outside.

Rendering of the Tunney's Pasture Rooftop Plaza

Bold Climate Action

ESAP represents one of the Government of Canada's most impactful initiatives to reduce greenhouse gas (GHG) emissions from its operations. As one North America's first conversion of a large public district energy network from steam to a low-temperature hot water system for heating and electric chillers for cooling, ESAP is fundamentally redefining how heating and cooling is delivered in large-scale networks.

The new Tunney's Pasture Energy Centre is an example of how the Government of Canada and PSPC are investing in more efficient technology to help lower GHG emissions. This move toward a carbon-neutral future is an opportunity for Canada to protect the environment and act on climate change.

Once the new energy centres are in operation in 2026, the modernized NCR DES will see a 92 per cent reduction in GHG emissions compared to the 2005 baseline operations. Plans are underway to position the entire DES to be carbon-neutral by 2030. This significantly advances the Government of Canada's efforts to meet its greening targets for 2030 and 2050.

History

Before its development, the land in the Tunney's Pasture campus was owned by the Ottawa Lumber Merchants' Association. They hired an Irish farmer, Anthony Tunney, to watch over the empty land and agreed to let him pasture his cows at the same time.

Existing Tunney's Pasture Heating and Cooling Plant, 2023

Sold to the Government of Canada in 1950, the land became part of an urban development plan for the Federal District Commission of Ottawa. Known as the Gréber Plan, it envisioned Tunney's Pasture as a collection of office and research buildings within a park-like setting.

The original Tunney's Pasture heating and cooling plant was constructed in 1953 (with major additions in 1961 and 1996), to provide heating and cooling to the other facilities on the campus. Today, the plant serves 13 buildings and is at the end of its lifecycle. The facility will be decommissioned and repurposed for other uses.

Indigenous Commemorative Installations

Similar to the outdoor spaces at the other energy centres, there may be an opportunity to work with Indigenous communities and groups to feature artwork and cultural installations to honour their history, heritage, and culture at the Tunney's Pasture Energy Centre.

Current Status and Next Steps

The Tunney's Pasture Energy Centre will be substantially completed by 2026. Construction kicked off in 2021 and the installation of the piping has already begun to connect the facility to other buildings in the Tunney's campus, as well as to the main district energy distribution loop.

To learn more about ESAP and the NCR DES, visit https://nationalcapitaldistrictenergy.ca.

Tunney's Pasture Site Construction 2024