CLIMATE POSITIVE CAMPUS

ST. GEORGE CAMPUS
CARBON AND ENERGY
MASTER PLAN

UNIVERSITY OF TORONTO


THE UNIVERSITY OF TORONTO ST GEORGE CAMPUS
WILL BECOME CLIMATE POSITIVE BY 2050.
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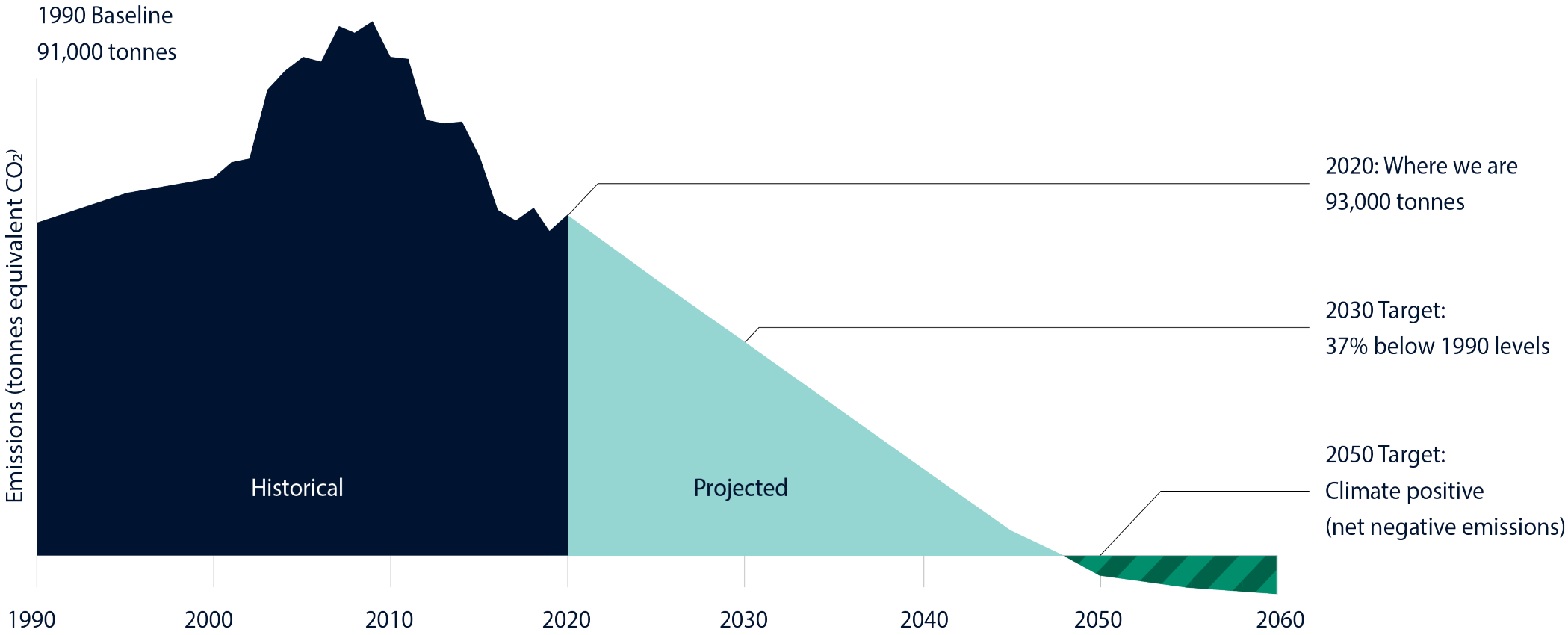
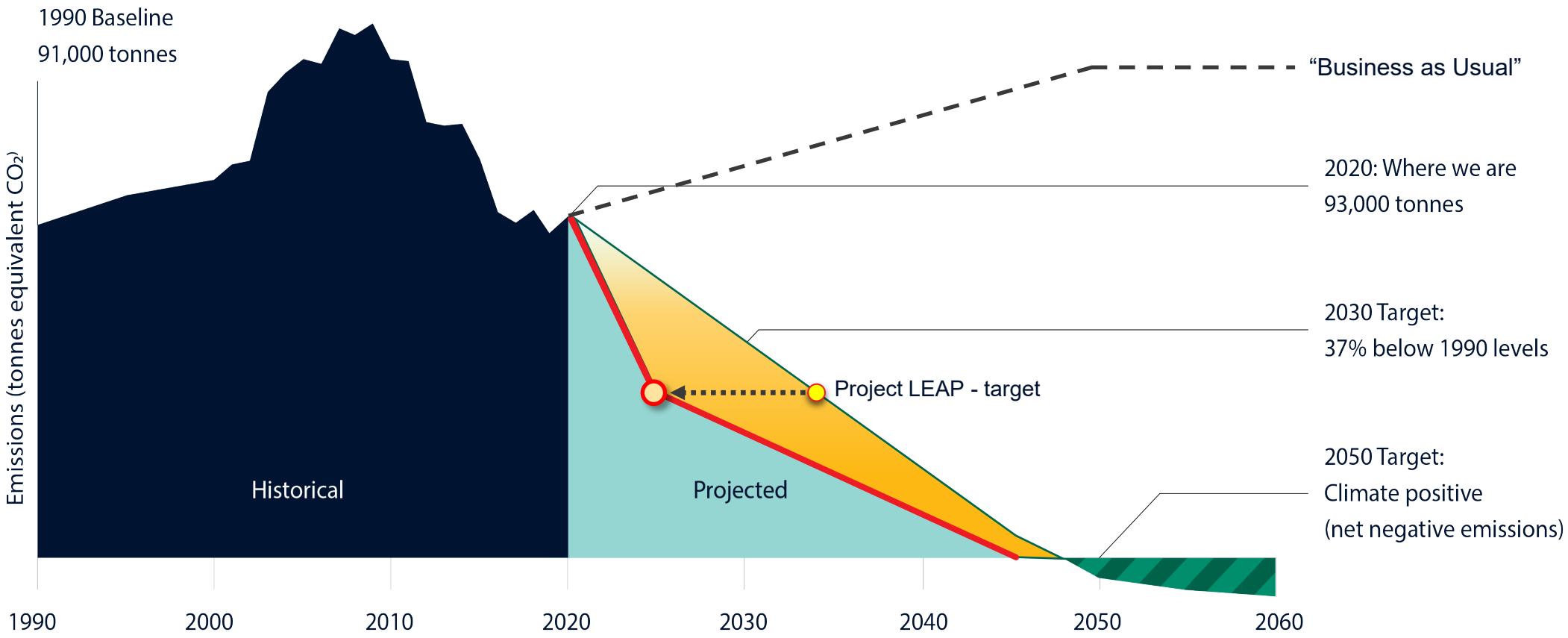
2050 CLIMATE POSITIVE TARGET
ST. GEORGE CAMPUS



PROJECT LEAP

THE FIRST BIG STEP IN OUR CLIMATE POSITIVE PLAN

PROJECT LEAP



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PROJECT LEAP

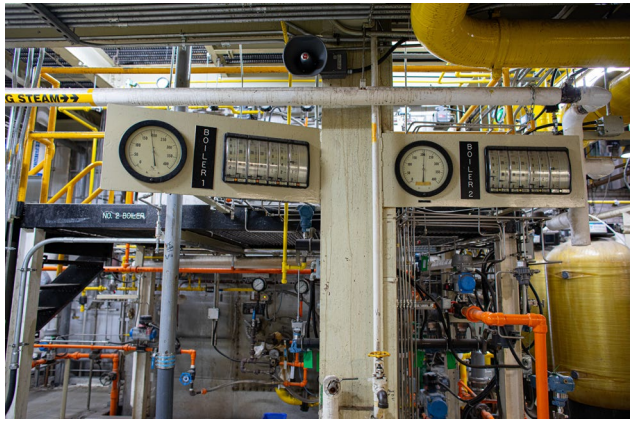
ONE PROJECT THAT ADDRESSES 55% OF OUR ANNUAL EMISSIONS

Highlights

- Reduces emissions by over 55%, or 48,300 metric tonnes in relation to 2021 levels
- Introduces electric boilers and high temperature heat pumps to accelerate transition away from fossil fuels
- Completion of Landmark geo-exchange mechanical, electrical fit-out and piping distribution
- Annual recurring savings from avoided carbon taxes to reach $9.3M by the year 2030
- Mitigates $30M in deferred maintenance liability

Note: Carbon tax avoidance calculated at $170/tonne

SUMMARY



District energy modernization

- Offset natural gas heating with electric boilers & industrial heat pumps
- Central Steam Plant renewal and efficiency
- Demand management and resiliency assets
- Tie to geo-exchange / Energy storage

✓ Central Heating Plant
✓ District Energy Network

Building retrofits

- Building energy optimization
- Active heat recovery
- Tie to geo-exchange / Energy storage

✓ Terrence Donnelly Centre for Cellular & Biomolecular Research
✓ Leslie L. Dan Pharmacy Building

Landmark Geo-Exchange Integration

- Full fit mechanical fit out of heat pumps
- Enables active heat recovery in lab exhaust

✓ MBS Chilled water plant connection
✓ CCBR, Fitzgerald, Leslie L. Dan Pharmacy
✓ Central heating plant & high temp heating

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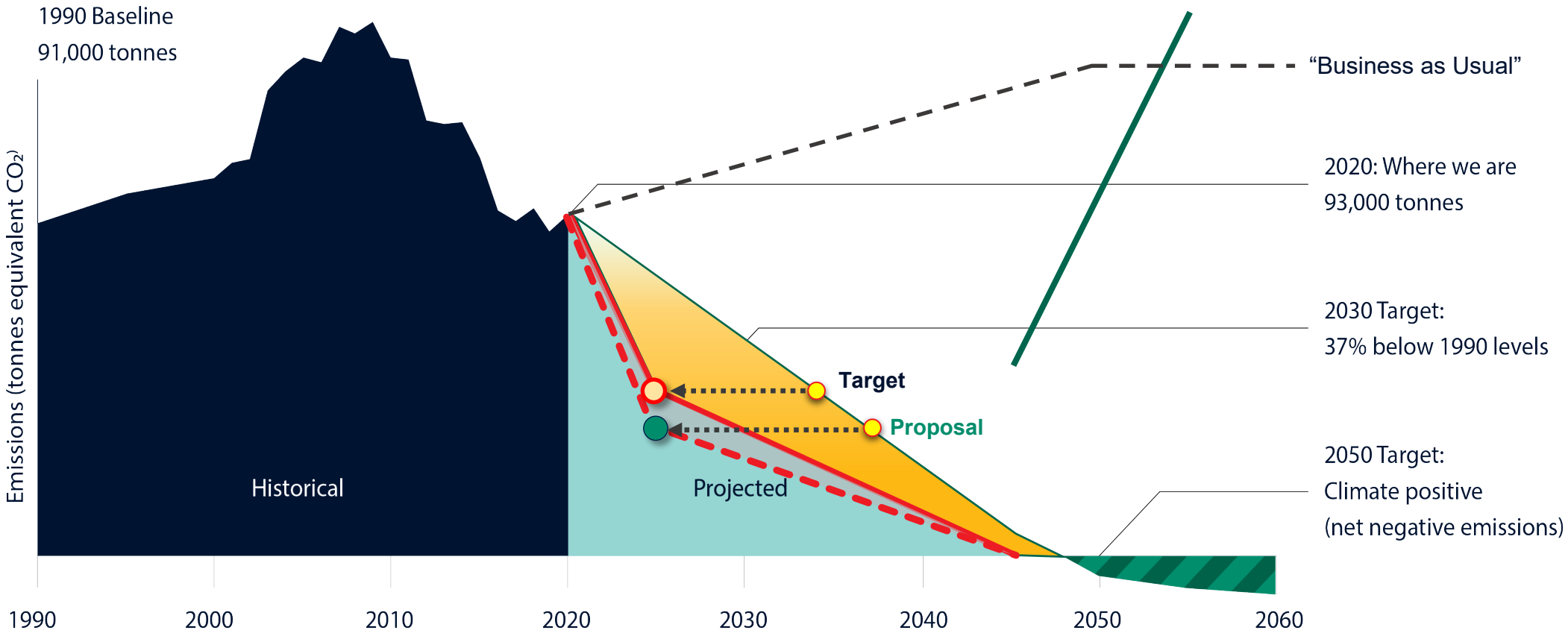
PROJECT LEAP

Performance-based procurement: Impact

- ✓ Proposed solution advances climate positive strategy by 10 years
- ✓ Reduces an incremental 436,000 tons of carbon



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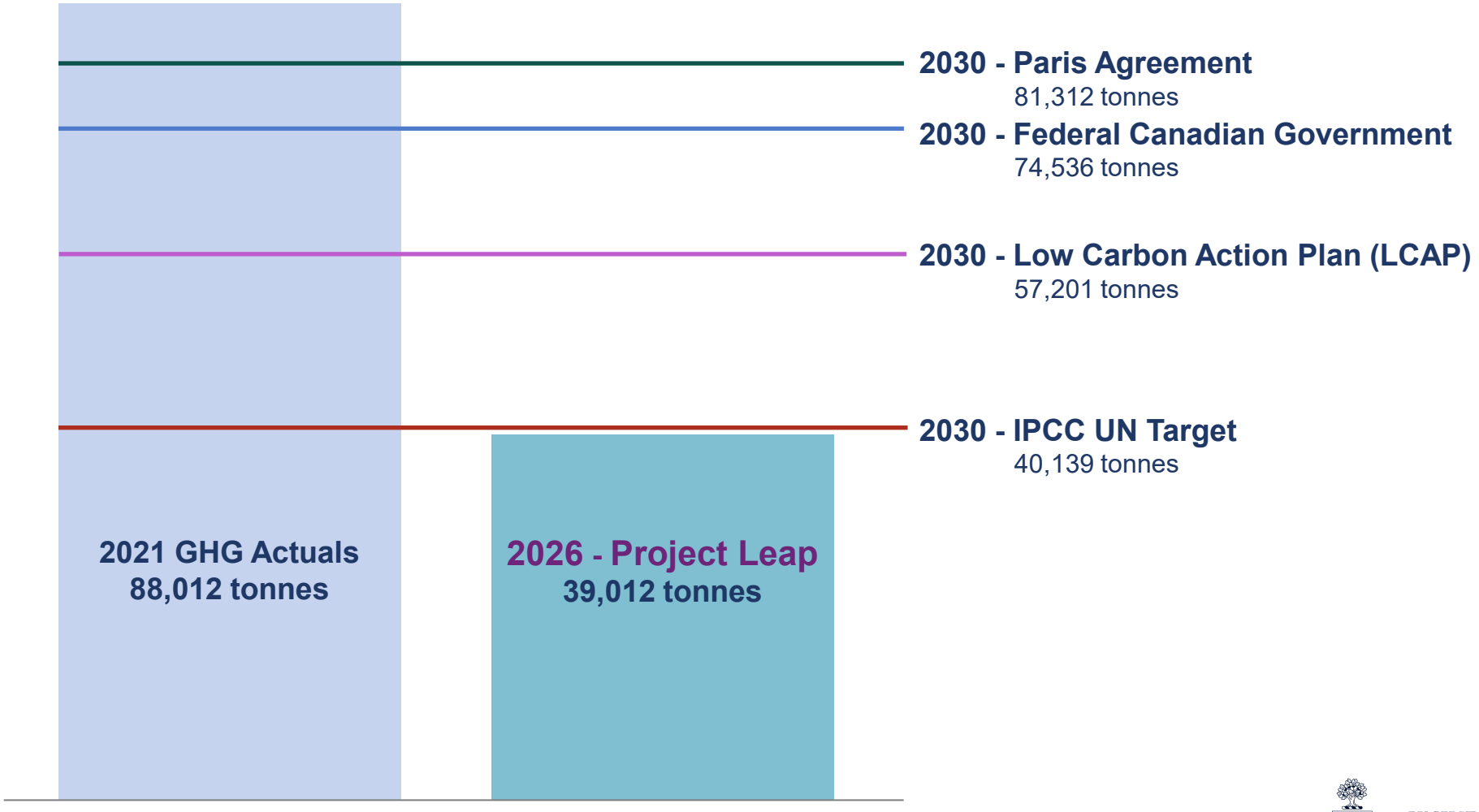
ONE PROJECT THAT ADDRESSES 50% OF OUR EMISSIONS

PROJECT LEAP - TARGET COMPARISON



St. George Campus –Scope 1 + 2 GHG Emissions

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THANK YOU
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