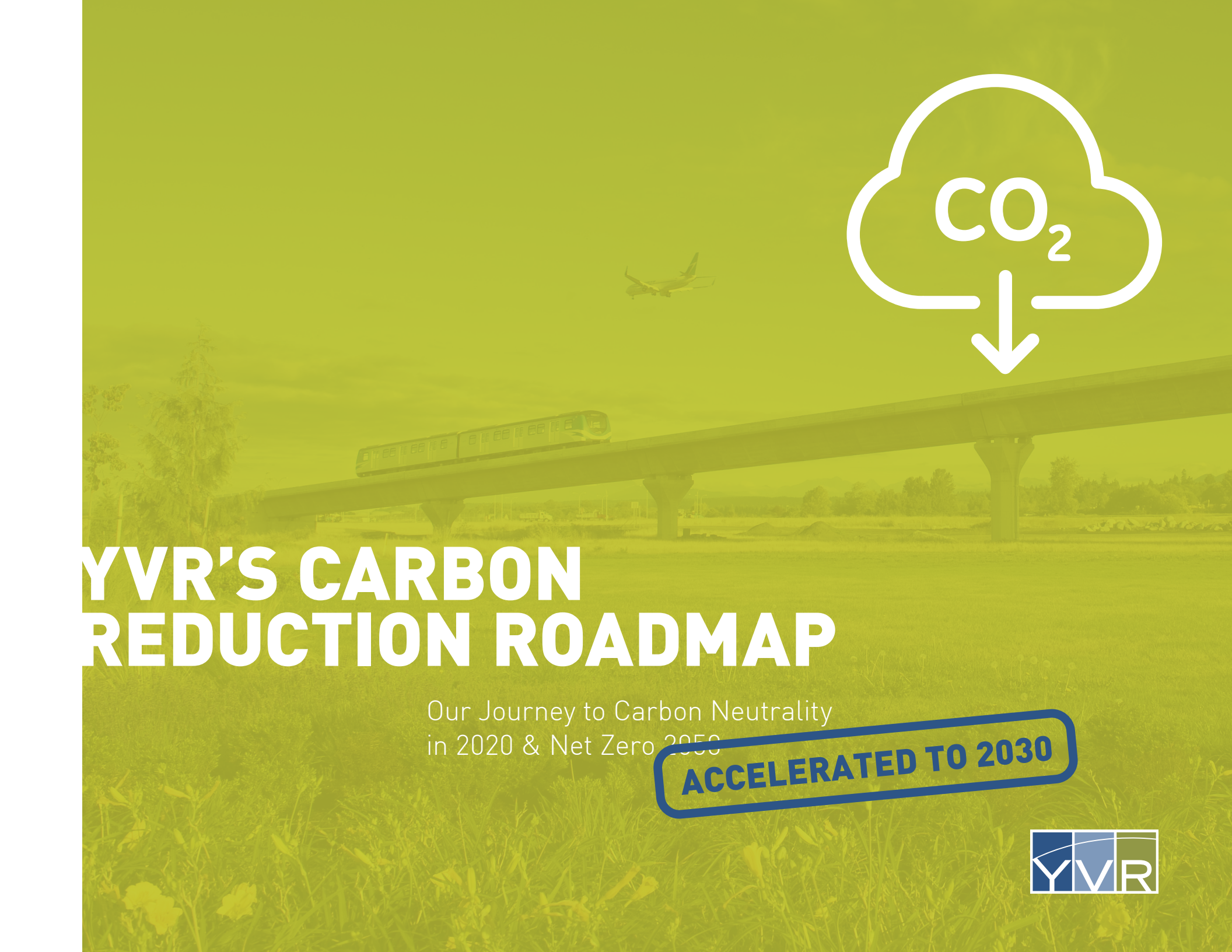


YVR'S CARBON REDUCTION ROADMAP

Our Journey to Carbon Neutrality
in 2020 & Net Zero 2050

ACCELERATED TO 2030

SPEAKING TO THE CHALLENGE

The International Panel on Climate Change (IPCC) warns us that ambitious actions to reduce greenhouse gas emissions are needed in order to limit global warming to 1.5°C while achieving sustainable development.

For many years, YVR has been taking action to reduce our emissions and we will continue to take responsibility for our emissions while supporting our partners in addressing climate change. Since 2007, YVR has successfully reduced our emissions by 23%. We aim to be Carbon Neutral in 2020 and to achieve Net Zero Emissions by 2050.

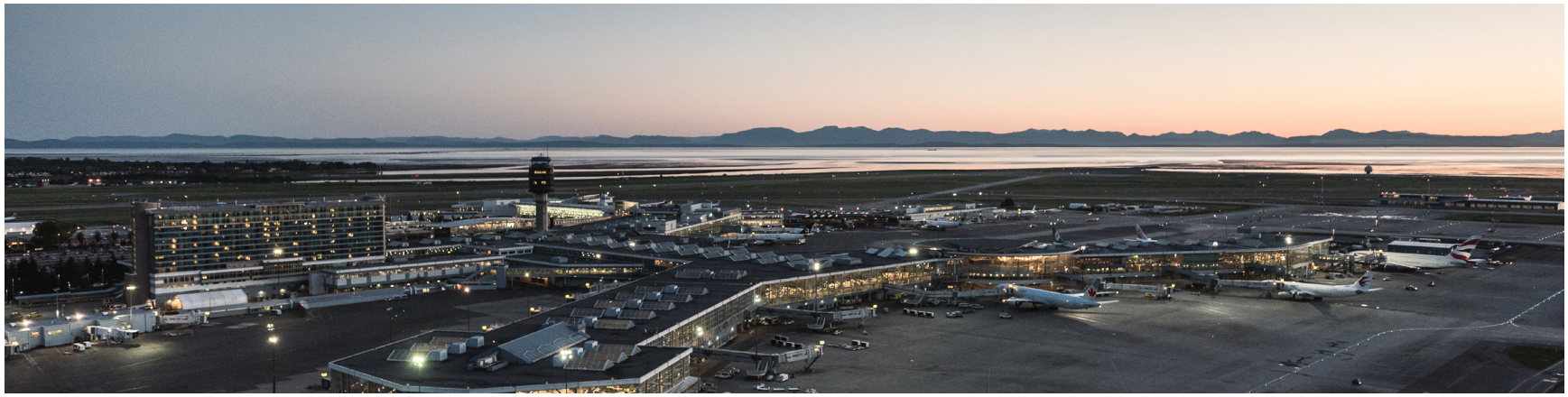
Besides paying careful attention to carbon emissions, we also commit to environmental excellence through our Environmental Management Plan, which includes targets to reduce waste, conserve potable water use, and improve ecosystem health.

This roadmap provides an overview of what we are doing ourselves and with our industry, business and airline partners.

We invite you to

JOIN US

on our journey



YVR: PAST + PRESENT

Our story begins with a single runway and a small, wood-frame administration building that welcomed 1,072 passengers in 1931. Today, YVR is Canada's second busiest airport, connecting over 26 million passengers to 125 non-stop destinations in 2019.

From its war-time expansion in the 1940s to the jet era of the 1960s, Expo '86 preparations in the 1980s and the millions of athletes, passengers and visitors of the 2010 Olympic Winter Games, YVR has become a gateway that connects British Columbia's history and its people. Now through its operations, tourism and cargo, YVR helps facilitate $20.2 billion in economic output, $10.4 billion in Gross Domestic Product and supports more than 26,500 jobs on Sea Island and over 126,000 jobs across the province.

In 2019, YVR was voted the top airport in North America in the Skytrax Awards, which are based on an independent survey of more than 13 million passengers from 108 countries. YVR is the only airport to have ever received this honour for ten consecutive years.

Our Executive Team and a team of over 500 employees ensures the airport runs efficiently and safely. This includes areas such as customer experience, maintenance, airport operations, information technology and sustainability.

VOTED BEST AIRPORT IN

NORTH AMERICA

Skytrax World Airport Awards

10 YEARS IN A ROW

CURRENT STATE

We measure, monitor and review greenhouse gas (GHG) emissions under several categories:

- Direct emissions from Vancouver Airport Authority-owned and controlled operations (Scope 1);
- Indirect emissions from the purchase of electricity for our operations (Scope 2); and
- Some activities we can only estimate and influence because they are generated by airport businesses and public sources (Scope 3).

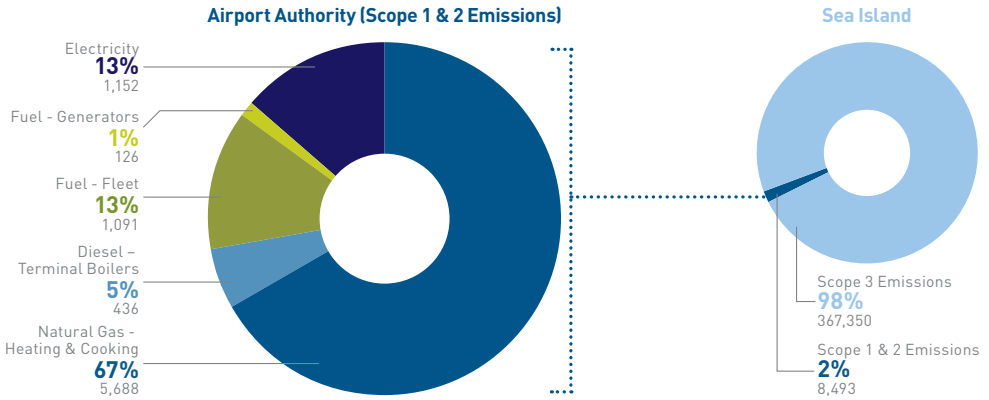
Airport Authority Scope 1 and 2 GHG Emissions

Scope 1 and 2 emissions reflect activities that we directly control such as vehicle use and heating, cooling and lighting the terminal.

Sea Island Scope 3 GHG Emissions

Scope 3 emissions are largely comprised of emissions from traffic on Sea Island, non-terminal buildings occupied by airport-affiliated businesses and partner airlines, ground support vehicles and equipment and aircraft landing, taxiing and take-offs. We have low to moderate control over these emissions, but are in a position to influence reductions in greenhouse gases from the public and our business partners.

2018 GHG Emissions by Source (in tonnes CO_2e)



AIRCRAFT EMISSIONS

The international aviation trade association, International Air Transport Association (IATA), adopted voluntary goals for international aviation emissions including:

- Improvements to aircraft fuel efficiency by an average of 2% per year from 2009 to 2020;
- Carbon-neutral growth in the international aviation industry from 2020;
- Reduction of net emissions from aviation by 50% by 2050 compared to 2005 levels.

In 2016, the International Civil Aviation Organization (ICAO) adopted the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) which addresses emissions that come from aircraft, aiming to stabilize net carbon emissions at 2020 levels.

This international agreement represents the cooperation of the aviation industry in addressing climate change and aims to tackle the emissions challenge on a global, inclusive scale.

Canada's Action Plan to Reduce Greenhouse Gas Emissions from Aviation was developed by government and industry setting ambitious goals to reduce emissions from both domestic and international operations through the following measures:

- Fleet renewal and upgrades
- More efficient air operations
- Improved capabilities in air traffic management

The international aviation industry has adopted goals to

REDUCE NET EMISSIONS

from aviation by

50% BY 2050

compared to 2005

REDUCTIONS SO FAR

Absolute GHG Emissions

We set an ambitious target to reduce Vancouver Airport Authority Scope 1 and Scope 2 GHG emissions to 33% below a 2012 baseline by 2020. We use 2012 as our baseline as it was the first year the Airport Authority undertook an inventory assessment with an external expert. We calculate annual emissions using a methodology consistent with the Government of British Columbia.

In 2018, our direct GHG emissions (Scope 1 and 2) were 8,493 tonnes CO2e which is a 12% reduction from our 2012 baseline year (9,613 tonnes).

Emissions per passenger improved 40% from 2012 (0.546 tonnes/thousand passengers) to 2018 (0.327 tonnes/thousand passengers).

We are building one of the largest geoexchange systems in Canada to significantly reduce emissions from the terminal. This geoexchange system will be operational in 2022.

EMISSIONS BY 2018:

12%

DECREASE FROM 2012 LEVELS

40%

IMPROVEMENT PER PASSENGER

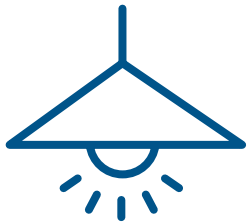
IMPROVEMENTS WE'VE MADE

WHAT IMPROVEMENTS HAVE WE MADE?

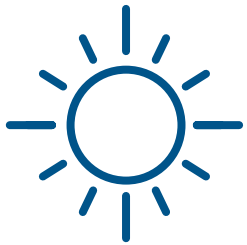
YVR's emissions reductions are due to investments in low carbon energy and operational efficiencies.

Airport Authority Sources (Scope 1 and 2)

LOW CARBON **fleet**



Building upgrades and SMART LIGHTING



RENEWABLE ENERGY **in buildings** **(e.g. GeoExchange)**

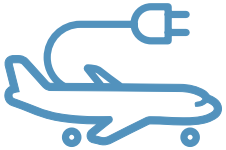
WHAT IMPROVEMENTS HAVE WE MADE?

YVR works with our employees, business partners and communities to encourage low carbon energy use and operational efficiencies.

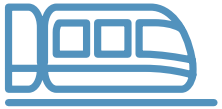
Sea Island Sources (Scope 3)

LOW CARBON **ground support equipment**

Tenant building RETRO-FITS



Installing GATE INFRASTRUCTURE to reduce aircraft emissions



Investing in RAPID TRANSIT + promoting active transportation for passengers + employees

TENANT EDUCATION **programs**

Supporting ELECTRIC VEHICLE **charging**

MEASURING PERFORMANCE

AIRPORT CARBON ACCREDITATION

The Airport Carbon Accreditation Program is the only institutionally endorsed, global carbon management certification program for airports.

In 2018, YVR achieved accreditation at **Level 3: Optimisation**. This means we measure our footprint, implement carbon reduction initiatives and widen the scope of our activities to include third party emissions.

airport carbon accredited
OPTIMISATION

MAPPING

Footprint measurement

- Determine emissions sources within the operational boundary of the airport company
- Calculate the annual carbon emissions
- Compile a carbon footprint report
- Engage in an independent third party to verify the report

REDUCTION

Carbon management towards a reduced carbon footprint

All previous items, plus:

- Provide evidence of effective carbon management procedures
- Show that reduction targets have been achieved

OPTIMISATION

Third party engagement in footprint reduction

All previous items, plus:

- Widen the scope of the carbon footprint to include third party emissions
- Engage third parties at and around the airport

NEUTRALITY

Carbon neutrality for direct emissions by offsetting

All previous items, plus:

- Offset remaining emissions to achieve carbon neutral operations for all emissions over which the airport has control

NEXT STEPS ON OUR JOURNEY

We will become
CARBON NEUTRAL
in 2020

We will become
NET ZERO CARBON
by 2050

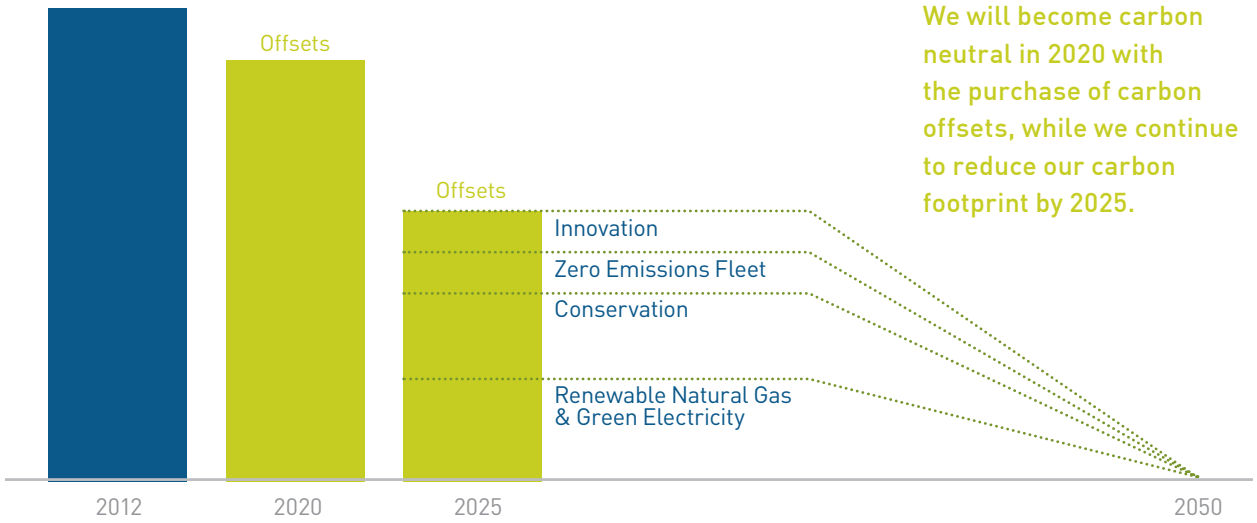
We will continue to
SUPPORT OUR BUSINESS PARTNERS
and work with airlines to:

ADVANCE EFFICIENCIES
in aircraft movement on the ground and in the air

Increase the availability and use of
SUSTAINABLE AVIATION FUEL
to reduce emissions and advance a green aviation future

THE PATH FORWARD

YVR's Carbon Reduction Roadmap to Zero Carbon by 2050



We will become carbon neutral in 2020 with the purchase of carbon offsets, while we continue to reduce our carbon footprint by 2025.

Carbon Neutral

YVR will reduce emissions from operations in our control then purchase carbon offsets to account for what remains.

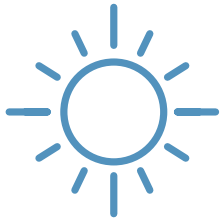
Net Zero Carbon

YVR will reduce emissions to the greatest extent possible then address remaining emissions through investments in carbon removal and storage.

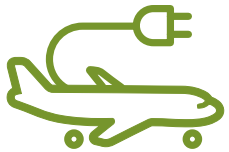
THE PATH FORWARD

Continue to invest in ELECTRIC BUSES **+ our fleet**

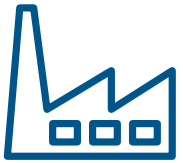
Improve the ENERGY EFFICIENCY **of our buildings**



Develop more RENEWABLE ENERGY **+ low carbon fuel sources**



Provide gates with pre-conditioned air units + GROUND POWER UNITS, **allowing planes to shut off their auxiliary power units**

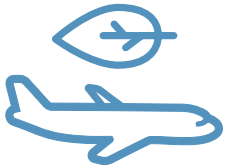


Complete Canada's largest GEOEXCHANGE ENERGY SYSTEM

Support LOW EMISSION **forms of transportation**

Support even higher TRANSIT USE **by public + employees**

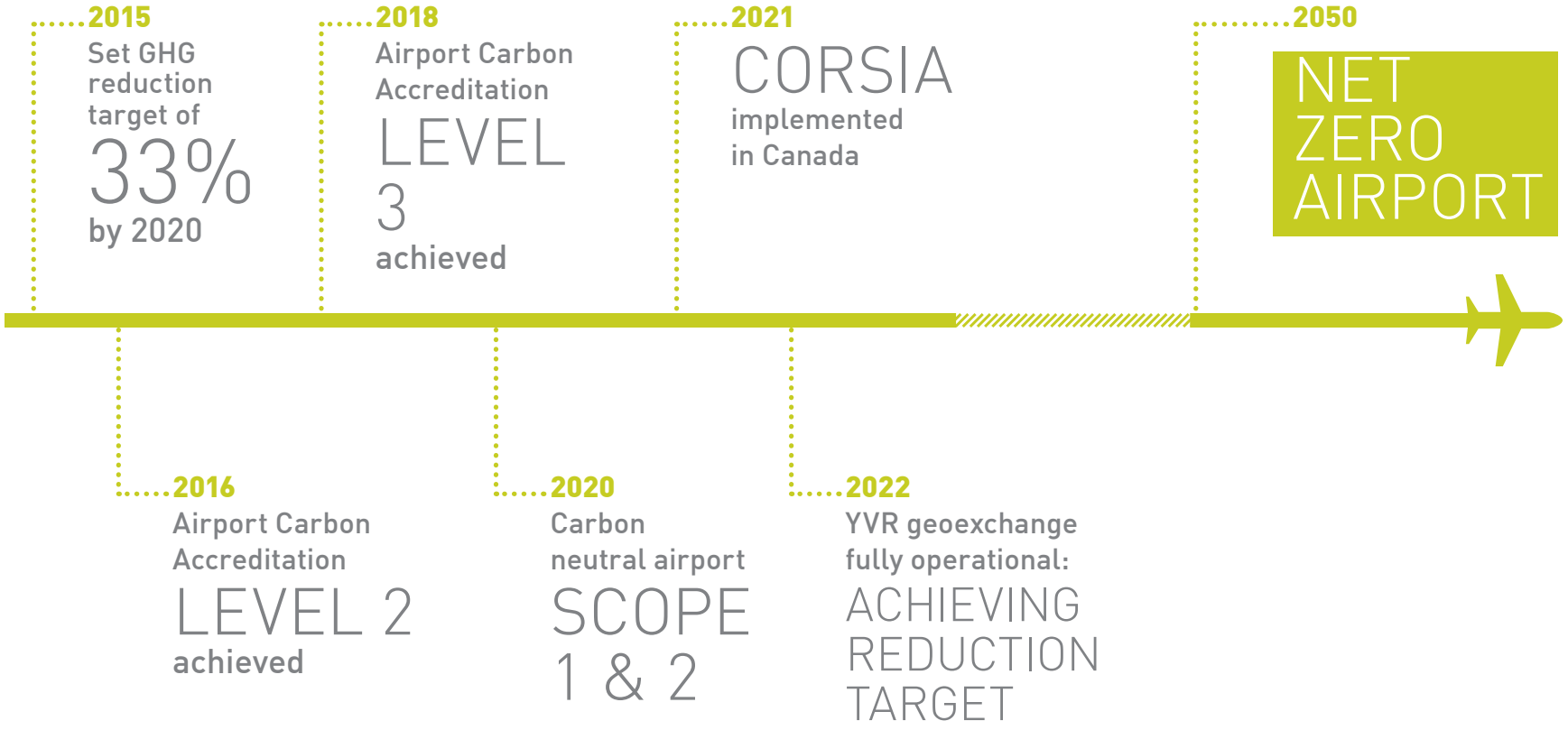
ELECTRIC VEHICLE CHARGING **for the public, our fleet, + ground service providers**

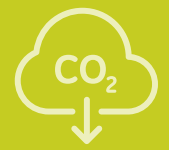


Assist in airspace + airfield efficiencies + support new ZERO EMISSION **aircraft technology**

Support SUSTAINABLE AVIATION FUEL **supply chains**

THE PATH FORWARD





To learn more about our environmental priorities, please visit:
YVR.ca/environment