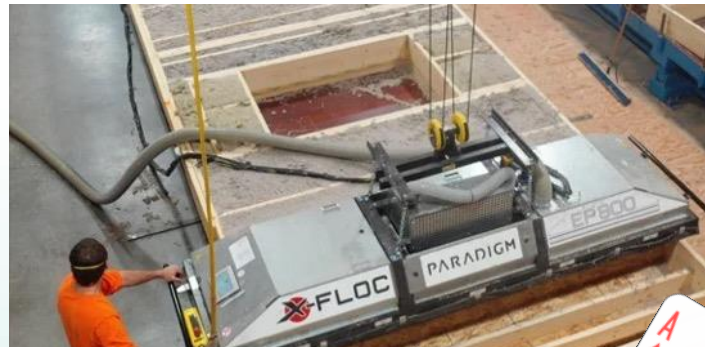


Offsite Wood Housing Construction

Local Government Driving Market Transformation

on Affordability, Climate & the Economy: an ACE Card



Paradigm Panels, Barrière



Van Coastal Health Authority, Bella Bella



My Lane Homes, Burnaby



BC Indigenous Housing Society, Vancouver

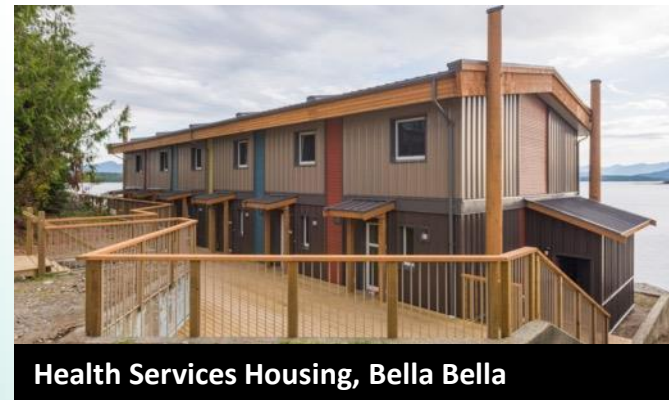


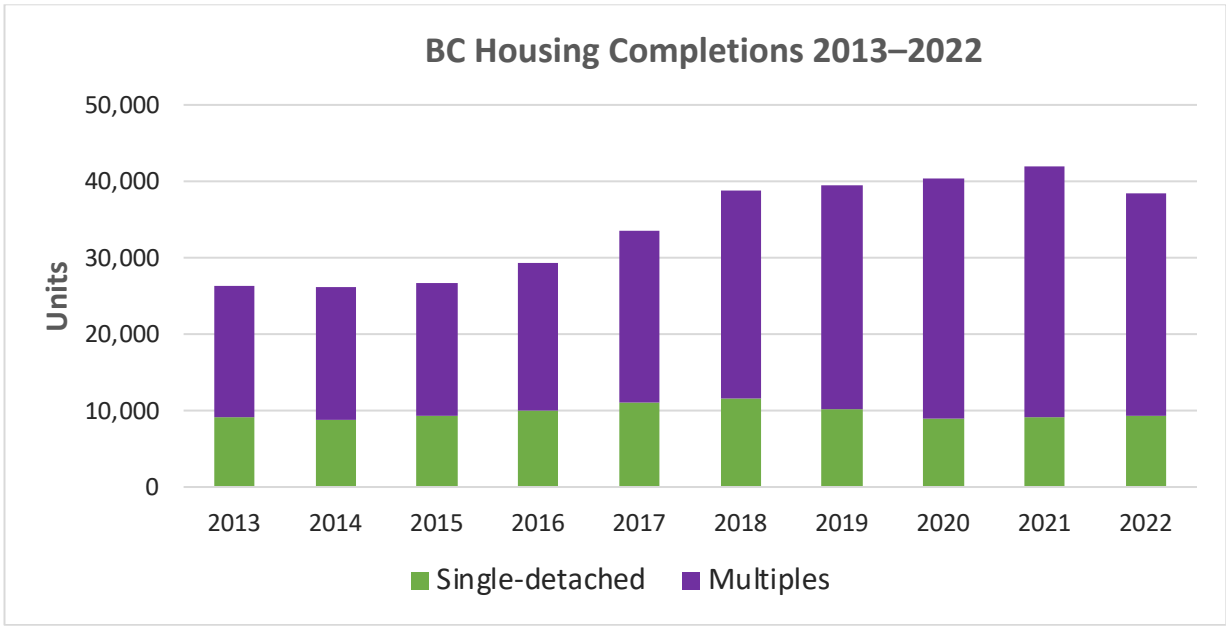
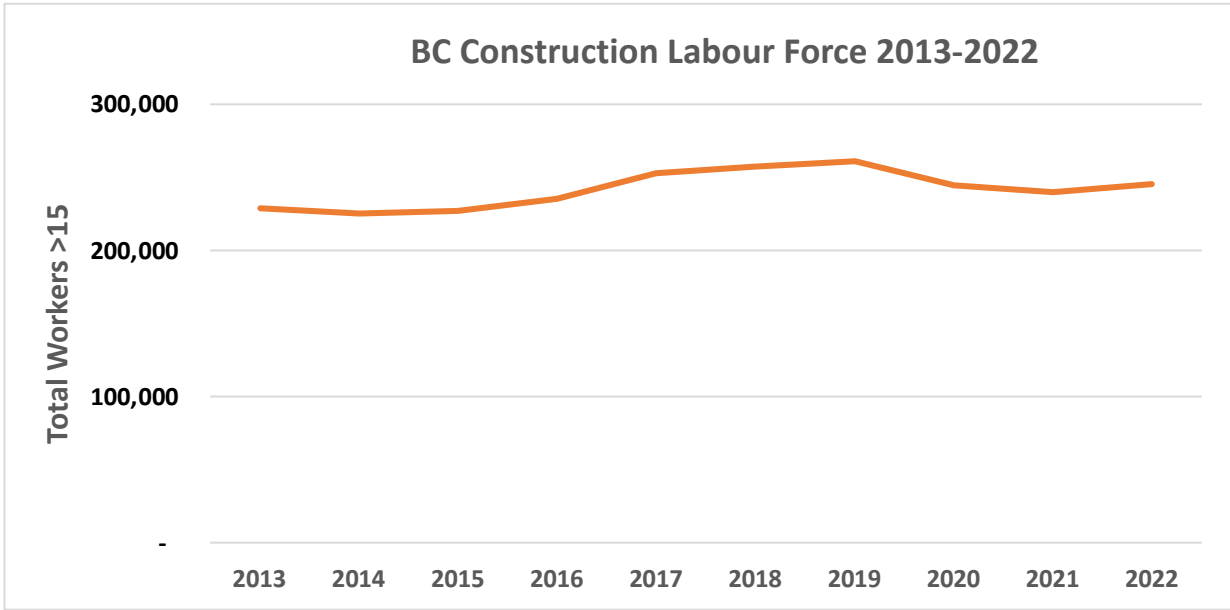
Prepared for City of Fort Saint John
Prepared by Alex Boston & Arjun Singh

Offsite Construction



Solution: Offsite Construction!





Alex Boston with CMHC & Statistics Canada, 2023

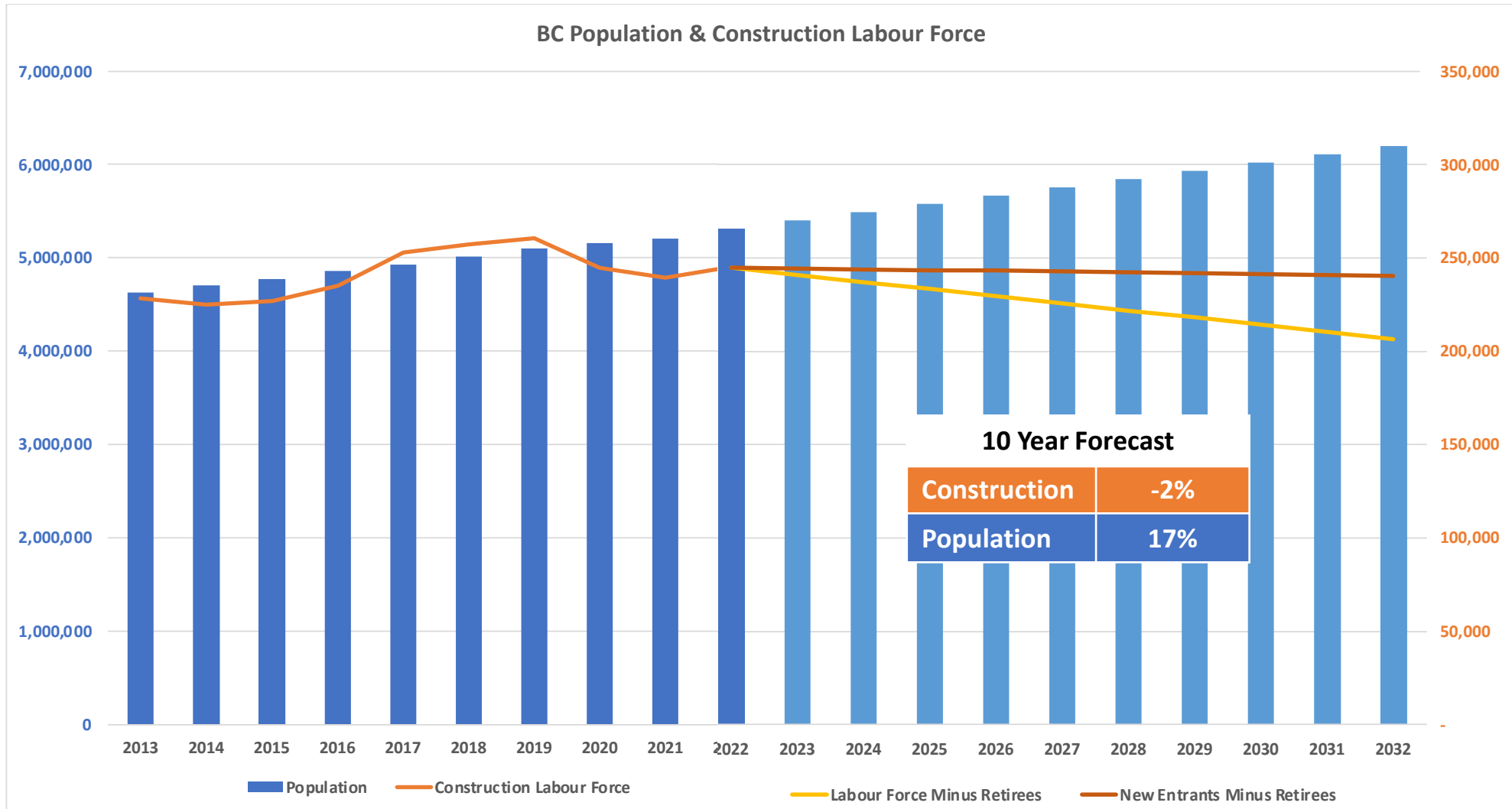
local government permitting reforms are important but not operative

local governments approve more projects than are ever started

housing completions reflect labour force size

#1 Housing Supply Constraint:
Construction Labour Force

Housing Crisis Projected to Go from Worse to Worse Labour Force Flattening While Population Growth Rising



accelerating solutions to BC's biggest problems

BC's Biggest Problems

- No policy addresses our **GREATEST** housing supply constraint and a growing cost driver: labour force.
- CleanBC new building priorities cannot be met with conventional construction:
- net zero ready
 - deep embodied carbon reductions
- No policy addresses our **GREATEST** economy-wide priority: productivity.
 - BC urgently requires a transition from high volume to high value add forestry.

Affordability
& supply

Climate
action

Economic
development

Offsite Wood & MT Construction Solutions

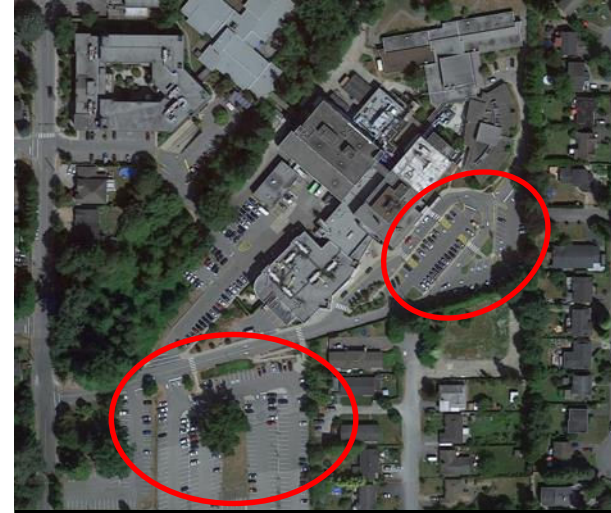
- Up to 50% less construction time
 - Up to 20% construction cost savings
-
- Critical approach to scale near zero new build
 - Mass timber is a corner post to low embodied carbon large buildings
-
- Up to 100% labour productivity increase in one of our largest sectors
 - Big value-added market opportunity
 - Secure jobs in small and big towns and Indigenous communities



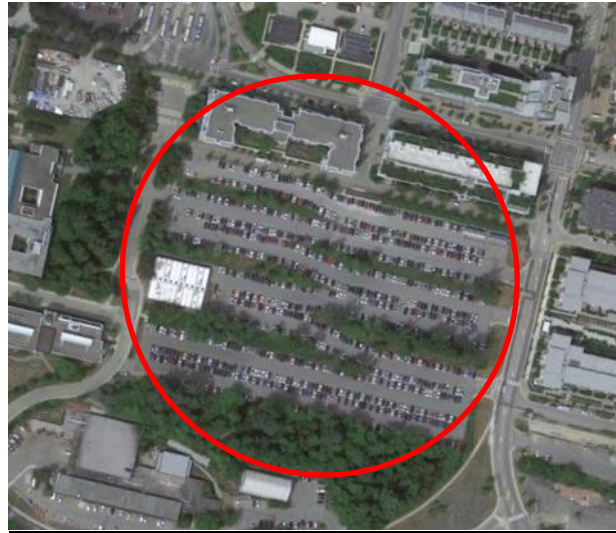
**Rapid Transit Stations
& Park & Rides**



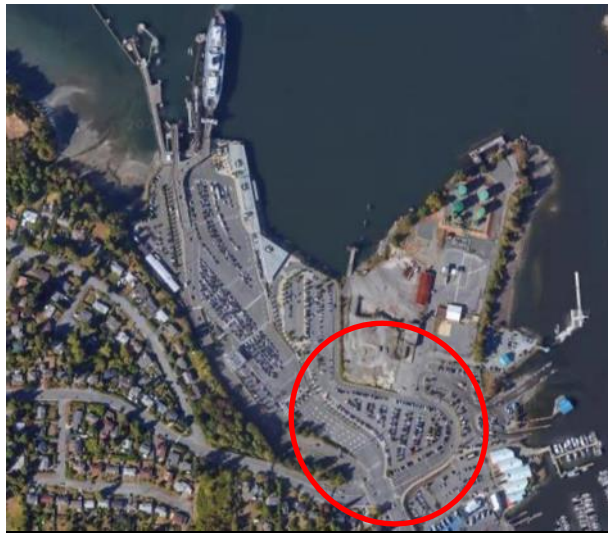
**Bus Exchanges, Commuter Rail
Stations & Bus Depots**



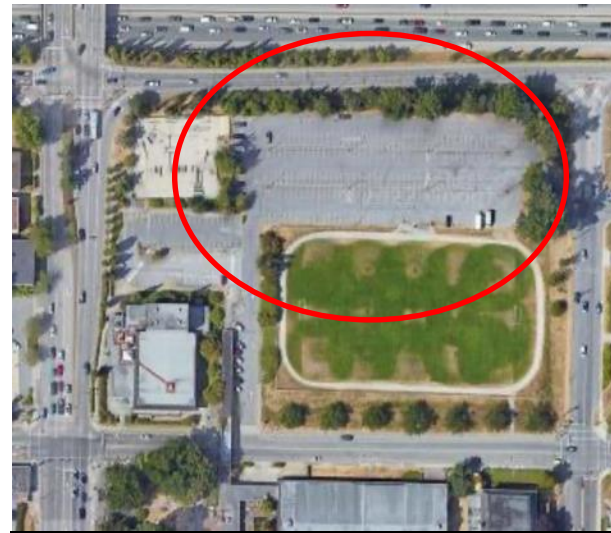
**Hospital
Parking Lots**



**Post Secondary & K-12
Parking Lots & Lands**



**Ferry Terminal
Visitor Parking Lots**



**Municipal Facilities
Rec Centres, Firehalls...**

**Capitalize On
Underutilized
Multi-Million
Dollar Assets**

Local Government Offsite Construction Early Adopter Program

zeic
ZERO EMISSIONS
INNOVATION CENTRE
MORE SOLUTIONS, LESS CARBON.

A voluntary program to accelerate problem solving on our biggest housing crisis problem: labour force constraints

BC cannot deliver on its housing supply, affordability, climate and economic priorities—provincially and locally—without a strategic transition to offsite wood and mass timber construction

This program will build capacity to solve the greatest barriers within the local government sphere of influence to help drive market transformation

- Rationalizing cost and engagement
- Supporting coordination, learning and implementation
- Enabling effective delivery on existing priorities: housing, affordability, climate, reconciliation, economic development

Partners

- Zero Emission Innovation Centre - lead partner, catalytic funder
- BC Indigenous Housing - delivery partner
- Real Estate Foundation of BC - catalytic funder
- Leading local governments!



Housing on Underutilized Public Land: Precedents

Transit Exchange & Residence



- Transit, LG, Housing NP
- Parking Lot Upgrade
- Small Bus Exchange
- 30 Affordable Housing Units
- Montpelier Pop: 8,000

School & Workforce Housing



- School District
- School Land Optimization
- Workforce Housing
- Ph 1: 40 units Ph 2: 30 units
- Santa Clara Workforce: 125,000

Fire Hall & Social Housing



- LG/Fire/Housing NP
- Fire Hall Retrofit
- 31 Affordable Housing Units
- 2 Floors Fire Department
- Vancouver Pop: 600,000

City TOD Non-Market



- LG, Housing NP
- Parking Lot Upgrade
- 100 Affordable Units
- Mid rise, slab on grade
- Toronto Pop: 2.8 M

Housing on Public Land: BC-Wide Coarse Opportunity Estimate

	~Number	Project Range	
		Med	Low
Bus Exchanges	60	20	10
Bus Depots	15	5	3
Rapid/Commuter Rail Stations: current	60	30	10
Rapid/Commuter Rail Stations: near future	20	10	5
Ferry Terminals	50	10	5
Public K-12	1500	225	100
Public Post Secondary Campuses	60	25	15
Misc: parking, rec centres, firehalls, hospitals, courts...	>2000	~300	~200
Total	>4000	~650	~350

Boston 2023, SFU Renewable Cities

Potential Housing Units		
	Med	Low
Total	50,000	25,000

Plus 1000s of square metres of employment, industrial, institutional space

Local Government Early Adopter Program Inspiration

The program builds on a 2023 UBCM resolution tabled by Courtenay, Quesnel & Vancouver for a *Provincial Offsite Wood Construction Industrial Policy Framework* including

- Pre-approved designs and strategic public land to build affordable housing & offsite demand
- A voluntary, early adopter program starting with local governments
- Cross sectoral collaboration on a province-wide plan

BC Ministry of Housing Response: Offsite Construction is “Necessary”

While the Province was unable to commit to a province-wide plan, it acknowledged:

- Offsite construction is *necessary* for driving housing supply
- MT, prefab and digital permitting are *critical* for cutting construction time and carbon
- BC is *exploring opportunities* to support offsite manufacturing growth

New Synergies

- BC Housing, Metro and Ministry of Housing have initiated work on pre-approved designs
- *BC Builds* was established to support housing financing on underutilized public land





Local Government Early Adopter Program Focus

Working with leadership local governments and key stakeholders to build capacity to advance strategic checklist items:

- A. Hurdling big local barriers that inadvertently increase cost, time and risk
- B. Growing non-market and affordable housing stock
- C. Growing demand for offsite wood and MT manufacturing

Local Government Early Adopter Working Checklist

- Pre-zoned, pre-approved, prefabricated design _____ ✓
- Harness strategic municipal land for housing & offsite _____ ✓
- Indigenous engagement guidance on municipal lands _____ ✓
- Offsite supportive procurement and design _____ ✓
- Offsite supportive design guideline variances _____ ✓
- Offsite supportive development and building permitting _____ ✓
- Manufacturer-lender financing draw down alignment _____ ✓



Fort Saint John Offsite Housing Construction Action Opportunities

1. Local Government Early Adopter Program Participation

Capacity building support to hurdle the biggest local barriers, rationalizing cost, time, effort

- a) Checklist development and implementation
- b) Modest City staff/elected time
- c) Modest City financial support

2. Provincial Call on Market Transformation Collaboration

Call for a 4-pillar Offsite Housing Construction Action Plan by the next government

1. Multi-sectoral collaboration
2. Early adopter program support
3. Demand generation framework
4. Policy alignment approach

Responding to BC Government's reply to a UBCM resolution acknowledging offsite wood construction is essential to deliver on housing, climate and economic priorities

Bringing Diverse Players to the Table: The Housing ACE Card Project

Engagement Activity: *Housing Central Conference, Quesnel Future of Forestry Think Tank, Columbia Institute Common Ground Conference, ZEIC UBCM-Side Event, ZEIC Early Adopters Online Dialogue*

Policy Analysis Activity: *UBCM Resolution-Cities of Courtenay, Quesnel & Vancouver; Metro Vancouver-Pre-Approved Low Rise Rental*



Thom Armstrong, **Coop Housing BC**, declares we are not playing with a full deck! | Grins and groans across a **UBCM Side Event Panel** hosted by **Zero Emission Innovation Centre**: Brenda Knights-**Indigenous Housing Society**, Ken Kalesnikoff-Kalesnikoff Lumber, Cllr **Dominato-Vancouver**, Rocky Sethi-**Stryke**, Alex Boston-**ACE Project**, Tiffany **Duzita-Community Land Trust**, Mayor Rathor-**Williams Lake**, Lisa Helps-**BC Premier's Office**

Give offsite construction a lift!



Local Government Early Adopter Program Participation
Provincial Call for Market Transformation Collaboration

Dealing an ACE card for BC
Affordability, Climate & Economy

