



**Parkland**  
FUEL CORPORATION

# **Parkland Burnaby Refinery Five-Year Outlook**

**February 13, 2019**



# Parkland Fuel Corporation

- Parkland is Canada and the Caribbean's largest and one of North America's fastest growing independent suppliers and marketers of fuel and petroleum products and a leading convenience store operator
- We are a Canadian company celebrating our 50<sup>th</sup> anniversary in 2019
- The core of Parkland's strategy is our **people** and **values** of:
  - **Safety**
  - **Integrity**
  - **Respect**
  - **Community**



# Parkland's History

## 1960's



**1961** - Prairie Packers Limited formed

**1969** - Parkland Beef Industries goes public

## 1970's



**1975** - First Fas Gas opens on 59th Street in Red Deer, AB

## 1980's



**1981** - Bowden refinery purchased

## 1990's



**1990** - Bowden refinery upgrade complete

**Late 1990s** - Accelerated acquisition of gasoline stations

## 2000's



**2007** - Commercial business entry

## 2010's



**2013-2016** - Built national business and expanded into the US  
**2013** - Invest in Trading capability with Elbow River Marketing

## 2017



**2017** - Parkland acquires Ultramar and Chevron Canada's downstream fuel assets

## 2019

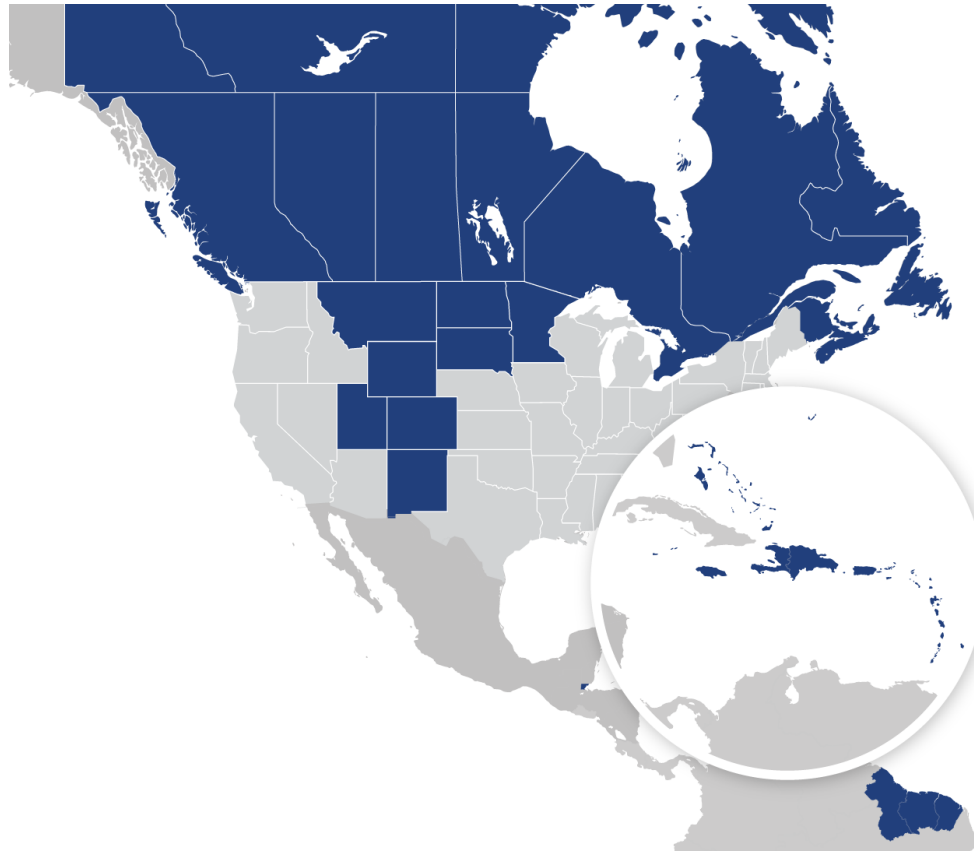


**2019** - Parkland acquires 75% of the Shares of Sol Investment Limited, the Largest Independent Fuel Marketer in the Caribbean



# Parkland Today

- We now operate in 25 countries through our Retail, Commercial and Supply, Trading and Refining (STaR) business segments





# Burnaby Refinery Acquisition

- Parkland's acquisition of Chevron Canada R & M ULC closed on October 1, 2017
- The Acquisition included:
  - 129 Chevron branded retail service stations principally located in the Greater Vancouver area
  - 37 commercial cardlock locations in BC and Alberta
  - Wholesale aviation business serving the Vancouver International Airport
  - Three terminals located in Burnaby, Hatch Point, and Port Hardy, BC
  - 55,000 bpd light / sweet crude refinery located in Burnaby, BC







# Refining Landscape & History

- BC is not self-sufficient in the supply and production of finished petroleum products
- 2/3rds of the finished petroleum products consumed in BC are imported from Alberta
- In the 1980's there were four operating petroleum refineries on Burrard Inlet. Three of those were decommissioned and are now terminals for Alberta-based production.
- Burnaby Refinery is the only remaining local refinery supplying the Lower Mainland and Vancouver Island
- Burnaby Refinery began operating in 1932 under Standard Oil





# Parkland Burnaby Refinery

- Produces 55,000 bpd
- Multiple regulators for refinery, pipeline and wharf
- Products for local consumption include gasoline, diesel and jet fuel:
  - **25% of transportation fuel in BC**
  - **25% of YVR jet**
  - **30% of the gasoline in the Greater Vancouver Area**
- Refining has three key processes:
  1. Distillation
  2. Conversion
  3. Treatment
- Once these processes are complete, products are blended to specific standards and distributed to customers



# Refinery Supply

- Our facility processes light sweet crude oil into useful products
  - Light = low density (API gravity ~ >30)
  - Sweet = low Sulphur (~<1% sulphur content)
- Our current feedstock comes from the existing Trans Mountain Pipeline
- We struggle to consistently secure line space; when this happens we need to supplement our crude intake via rail in order to meet our customer demands





# The Future of Fuels

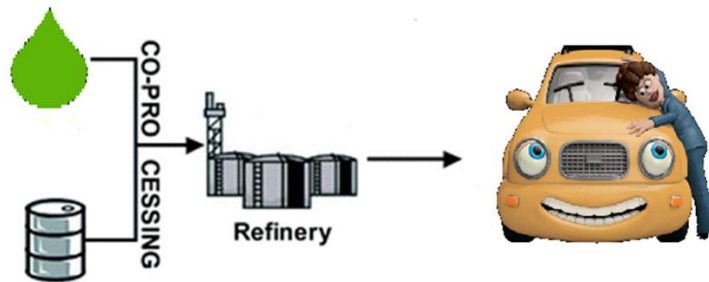
- Petroleum products will remain important for the foreseeable future, particularly in marine, aviation, rail and trucking sectors
- Provincial and Federal requirements exist to lower Carbon Intensity (CI) of fuels to lower greenhouse gases (GHG)
- CI is how much carbon is emitted relative to a given output of energy and is determined using Life Cycle Assessment (LCA) modeling

Emissions	GHGs
<ul style="list-style-type: none"><li>• Regulated by Metro Vancouver</li><li>• Key policies included in refinery's Air Permit and through Climate Action Committee</li></ul>	<ul style="list-style-type: none"><li>• Regulated at provincial and federal levels</li><li>• Key policies include CleanBC, Low Carbon Fuel Requirements, Clean Fuel Standard</li></ul>



## The Future of Fuels (con't)

- These low-carbon policies have led us to **co-processing biocrudes**
- Co-processing is when conventional crude oil feedstock is processed simultaneously with renewable feedstock
- This method of production will help us achieve our goal of becoming a **Green Refinery**





# Co-Processing

1 <sup>st</sup> Generation feedstocks	2 <sup>nd</sup> Generation feedstocks
<ul style="list-style-type: none"><li>• Lipids (tallow, canola)</li><li>• Produces renewable gasoline and diesel</li><li>• Feedstock currently available at-scale</li><li>• Burnaby Refinery completed commercial co-processing trials in May 2017 and November 2018</li><li>• Pre-commercialization co-processing trials in 2019</li></ul>	<ul style="list-style-type: none"><li>• Biomass (sewage sludge, solid waste, forest residuals)</li><li>• Will produce renewable gasoline, jet fuel and diesel</li><li>• Limited availability</li><li>• Parkland is working with third parties on helping bring these feedstocks to market</li></ul>



# Co-Processing Partners

## 4 key support areas:

1. UBC 'BC SMART' program
2. Provincial Government's CleanBC legislation
3. BCBC & Provincial Government's MOU
4. Canadian Fuels Association

## 4 key low-carbon feedstock partners:

1. Metro Vancouver
2. Carbon Engineering
3. Highbury Energy
4. West Coast Reduction

**Plus customer demand.**



*Note: Partnerships remain separate from regulatory functions*



# Facility Modernization

- Parkland is committed to investing in the Future of Fuels and the Burnaby Refinery
- Part of this investment will involve material changes at the refinery
- As our workforce grows to meet our Green Refinery goals, we have made the conscious decision to acquire offsite office space in Burnaby for ~300 refinery and Vancouver-based staff
- We are committed to maintaining and growing our presence in Burnaby







## How We Will Do It





# Engagement

## Regulators:

- We will work with our regulators as facility plans are developed; we will continue operating within regulated limits

## Community:

- Impacts on our local community remain at top-of-mind during regular operations **and** facility planning
- We are committed to engaging the community on our plans
- We will look to the CAP to help inform our engagement efforts

