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FEATURE  
**Policy Shift**  
BY CANADIAN FUELS STAFF

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Cal Fichter

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# A PRINCIPLED APPROACH TO POLICY DEVELOPMENT

BY PETER BOAG

**IT IS CLEAR THAT 2019 IS SHAPING UP TO BE A PIVOTAL YEAR FOR CLIMATE-CHANGE POLICY IN CANADA.** What was, with some exceptions, a national consensus between the federal and provincial governments on carbon pricing as a preferred policy mechanism for GHG emission reduction has been unravelling in recent months. The ongoing political debate comes with plenty of rhetoric and too often, precious few facts.



**Peter Boag** is President and CEO of the Canadian Fuels Association.







Whichever policy emerges, its success will depend on adherence to some fundamental principles, including clarity, predictability and transparency. Clarity to ensure the meaning and outcome implications of the approach are fully understood by Canadians. Predictability to enable businesses and consumers to see the road ahead and plan for change. Transparency, most important of all, to ensure Canadians appreciate the true costs associated with the policy, and can make informed decisions.

If for no other advantage, placing a price on carbon at least provides some transparency; however, opponents of carbon pricing often favour some form of regulated approach. Consider renewable fuels mandates, low-carbon fuel standards, and forced electrification of the vehicle fleet—as in Quebec, which is setting mandatory sales targets for zero-emission vehicles. Experience has shown that policy approaches imposing technology through regulation or subsidization come with their own costs—if inherently opaque. Data buried in a regulatory impact analysis or an obscure web page hardly pass the transparency test. Research shows that the costs associated with these policies can reach hundreds or thousands of dollars per tonne of avoided GHG emissions compared to \$30 to \$50 per tonne—or less—with a carbon price. The Montreal Economic Institute, for example, found that the cost of avoiding the production of one tonne of GHGs in Quebec was \$1,560 by subsidizing the purchase of electric cars versus \$11.39 by purchasing emission quotas on the carbon market.<sup>1</sup>

“ Whichever policy emerges, its success will depend on adherence to some fundamental principles, including clarity, predictability and transparency.

The C.D. Howe Institute analyzed the federal government’s proposed Clean Fuel Standard (CFS) and determined that its economic cost would be high. In the interest of transparency, the Institute has encouraged Ottawa to “undertake a comprehensive cost/benefit analysis and feasible compliance modelling for a CFS, along with an economic costing of the plan in addition to a carbon price, both for businesses and for households, relative to a simple price on emissions.”<sup>2</sup>

Canadians want to make a difference regarding climate change. But there is a limit to how much sacrifice they are willing to make. They are not well served by regulations that take a command-and-control approach to direct what consumers and businesses must do, with hidden costs. Instead, clear, predictable and transparent policies will help Canadians make informed decisions about how they can best contribute to addressing the challenge of climate change. A policy that takes a non-prescriptive approach and fully informs businesses and individuals also propels them toward the lowest cost opportunity for compliance—and a greater likelihood of success in reducing emissions.

The role of the consumer in the climate policy debate—and the power of consumer choice—are a key focus of this issue of *Perspectives*. In “Policy Shift” we examine the challenges of getting people to change their behaviours and preferences. “Survive and Thrive”, by respected auto-industry analyst Dennis DesRosiers, explores the impact of vehicle quality improvements on how long consumers keep their vehicles, and the implications for emissions reduction. Stewart Muir offers his observations about the efficacy of carbon taxes in influencing both human behaviour and emissions reductions in “The Carbon Price Debate: A Distraction From Solutions.” We consider the vital economic importance of Ontario’s petroleum refining sector in “Irrefutable Impact.” “Real World” showcases how driving behaviour can have a real impact on emissions. As always, our “Petro Profiles” introduce you to the caring and committed professionals who define Canada’s petroleum refining industry. And our three Canadian Fuels vice-presidents weigh in with further thoughts on carbon pricing, and valuable insights on the federal clean fuel standard and price volatility at the fuel pump.

With a federal election just months away, and writs scheduled to drop in at least three Canadian provinces this year, *Perspectives* again strives to ensure that debate about transportation energy is balanced and based on sound evidence. This is part of the petroleum refining industry’s own effort to uphold the principles of clarity, predictability and transparency. ➔

<sup>1</sup> Chassin, Y and Tremblay, G. *Do We Need to Subsidize the Purchase of Electric Cars?* Montreal Economic Institute, November 2014.

<sup>2</sup> Dachis, B. *Speed Bump Ahead: Should Ottawa Drive Slowly on Clean Fuel Standards?* C.D. Howe Institute, July 2018.

# Policy SHIFT

CONSUMERS IN FOCUS







**AS GOVERNMENTS PONDER NEW  
WAYS TO LIMIT TRANSPORTATION-  
RELATED GHG EMISSIONS, IT'S  
TIME TO CONSIDER THE ROLE OF  
THE CONSUMER TODAY AND IN  
THE FUTURE.**

BY CANADIAN FUELS STAFF

**W**hen consumer advocate Ralph Nader published *Unsafe at Any Speed* in 1965, its impact was immediate and far-reaching. The best-selling book drew back the curtain on an automotive industry that had failed to prioritize vehicle safety. The book prompted U.S. senate hearings that led to a range of safety regulations targeting vehicle manufacturers. Seat belts became mandatory. Then headrests, collapsible steering columns and eventually airbags. Today, automotive safety is at its peak.

Governments regulated the auto industry again beginning in the 1970s, when the goal was to reduce air pollution. This time, regulations targeted vehicle criteria air contaminant (CAC) emissions, including nitrogen oxides and volatile organic compounds. Today's new cars emit virtually no CACs.

"The auto industry is accustomed to being the regulatory target as governments enact social policy," says analyst **Dennis DesRosiers**, President of DesRosiers Automotive Consultants. "Given those achievements in safety and CAC reduction, governments have come to see the regulation of vehicle manufacturers as a powerful tool."

Most recently, government has again turned to regulation to address another social policy issue—the reduction of greenhouse gas (GHG) emissions. And again, the primary focus of these regulations is the vehicle manufacturers.

“The assumption is that fuel efficiency and GHGs are correlated,” says DesRosiers. “To tackle GHG emissions, you have to improve fuel efficiency and reduce the amount of petroleum fuel that vehicles use.”

## UNINTENDED CONSEQUENCES

Once again, regulations have had impact—if not entirely the one that was intended. “I’ve been supplying the government with vehicle fuel-efficiency ratings for two decades,” says DesRosiers. “Over the past decade, every class of vehicle in this country has improved about two percent per year. So virtually every vehicle in the fleet is 20 percent more fuel efficient today than 10 years ago. The average is actually closer to 26 percent.”

One would expect those improvements to have led to remarkable reductions in GHG emissions in Canada. They haven’t.

“What I hear in focus groups is that every consumer wants a better life,” says DesRosiers. “And when you translate that into their choice of vehicle, it means ‘I want a car with more get up and go.’ They want bigger and more powerful.”

They got it. As internal-combustion engine (ICE) technology improved, the power of these engines increased. According to DesRosiers, the average vehicle today has about 100 more horsepower than 20 years ago. “Every time a vehicle company introduces fuel efficiency advances, consumers tend to move to larger or more powerful vehicles, which offsets the net improvement of fuel efficiency in the overall fleet.”

And then there are the sales figures.

“Consumers are embracing vehicle ownership at a record pace,” DesRosiers goes on. Between 2000 and 2017, the number of vehicles on the road in Canada increased by 9.2 million units. Projecting current sales, DesRosiers estimates there will be another eight to 10 million cars on the road by 2030. What’s more, all the recent sales growth has been in light trucks, which tend to be less fuel efficient. Sales of passenger cars have dropped.



“What I hear in focus groups is that every consumer wants a better life,” says **DesRosiers**. “And when you translate that into their choice of vehicle, it means ‘I want a car with more get up and go.’ They want bigger and more powerful.”

**Dennis DesRosiers**  
President of DesRosiers  
Automotive Consultants



## HAVE FUEL-EFFICIENCY REGULATIONS BACKFIRED?

Safety and CAC-emission regulations demanded action by auto manufacturers. The same is true with fuel-efficiency regulations, but as DesRosiers points out, fuel efficiency works only if consumers choose it. "If the consumer wants to buy the least fuel-efficient vehicle, there's nothing the dealer or the manufacturer can do to prevent it," he explains. Turning the table and restricting consumers' choices through regulation is an unpalatable political choice. As DesRosiers points out, "Consumers vote. Manufacturers don't."



## A GAP BETWEEN GOVERNMENT POLICY AND CONSUMER GOALS

Emissions reductions appear to be at odds with consumer preference. This was part of the findings in a recent consumer behaviour study by the Conference Board of Canada's (CBoC) Centre on the Low-carbon Growth Economy, which uses research and dialogue to inform an effective and efficient transition to a low-carbon future and sustainable economic growth in Canada.

"One of the profound insights from our study is that most Canadian consumers would support a transition to a low-emissions economy," says **Dr. Ovo Adagha**, a CBoC Senior Research Associate. More than 80 percent of study respondents felt it was every citizen's responsibility to change their habits and reduce their carbon footprint. "Yet a third of the respondents are not willing to let go of their cars for the sake of reducing that footprint," adds **Roger Francis**, CBoC's Director of Energy, Environment and Transportation Policy. "That's a pretty good indication of how transportation policy has yet to affect consumer behaviour."

Francis thinks his study makes a case for more consumer-focused policy. "Many current policy practices seem disconnected from actual consumer goals," he says. "I think there's an opportunity to make the consumer a key part of the policy equation. And policies that develop a deep knowledge of consumer behaviour could potentially accelerate the transition to a low-emissions economy."



"Consumers generally consider environmentally friendly branding on products to be important," says **Adagha**. "But we find that the majority will not be influenced by such labels when making a purchase, more so if they must choose between other products that offer better value, pricing and quality."

**Dr. Ovo Adagha**  
CBoC Senior  
Research Associate



"We are better off showing people three or four different versions and asking, 'Which policy are you most likely to act on?'" **Soman** says. "That is more consistent with the way humans express preferences."

**Dr. Dilip Soman**

Canada Research Chair in Behavioural Science and Economics and a professor at the University of Toronto's Rotman School of Management

## A NEW APPROACH TO ECONOMICS

**Dr. Dilip Soman** knows something about human behaviour. He's the Canada Research Chair in Behavioural Science and Economics and a professor at the University of Toronto's Rotman School of Management, as well as the director of the Behavioural Economics in Action at Rotman (BEAR) research centre.

"We're looking at the field of economic decision-making through a human lens," says Soman. "Economics traditionally presented consumers as rational, unemotional, forward-looking and able to consume any information that's thrown at them. Behavioural economics acknowledges that people are forgetful, emotional, impulsive, confused by too much choice and are loathe to consume too much information."

Soman believes we need to relax some of the assumptions we make about consumer motivations and behaviours, and begin engaging citizens in the policy development process. "We are better off showing people three or four different versions and asking, 'Which policy are you most likely to act on?'" he says. "That is more consistent with the way humans express preferences."

Soman points to the recent success of Ontario's organ donor program. "Many people in Ontario have expressed a preference to be organ donors, but when it actually comes time to act, the ten minutes of bureaucracy gets in the way. We said, suppose we prompt people to commit when they're involved in another task—renewing their driver's license. Something they have to do anyway. Prompt them with a specific question: Would you like to donate your organs? Make it easy for them to say yes. Allow them to act on their preferences."

The nudge worked. In tests, the intervention increased organ donor registration rates by 143 percent. Once implemented province-wide, a simplified application form significantly increased the likelihood that people's preferences were converted to action.



## APPLIED BEHAVIOURAL ECONOMICS

Soman and his team recently applied behavioural insights in studying electric vehicles (EVs). "We were interested to learn why people who care about the environment don't adopt EVs," says Soman. "There is some behavioural friction, and this has to do with habit. We're used to finding a gas station easily whenever we need fuel. With EVs, that habit has to change. People worry they'll end up in a place where there is no opportunity to recharge."

The team came up with a series of interventions that clarified the economic benefit of EVs and, to reduce range anxiety, made it easier for consumers to find charging stations. At the time of this writing, Soman and his team were in the process of testing their interventions.





## CONSUMER-FOCUSED POLICY AND REGULATION

Some auto industry experts may be skeptical that these interventions would, in wider application, have much impact on EV sales. The industry tracks 33 factors that influence consumers' decisions to buy cars. Value for money is number one. Fuel economy has fallen from third to fifth since 2010. The environmental friendliness of a vehicle ranks thirtieth. That ranking is consistent with CBoC's consumer study findings.

"Consumers generally consider environmentally friendly branding on products to be important," says Adagha. "But we find that the majority will not be influenced by such labels when making a purchase, more so if they must choose between other products that offer better value, pricing and quality."

Soman's advice to climate-change policy makers is not to over-emphasize the benefits of reduced emissions. "People understand that," he says. "The key is to focus on those who are psychologically committed to making environmentally friendly decisions and to use behavioural insights to essentially tip them over the edge and help them accomplish their goal."

Dennis DesRosiers explains what such consumer-focused policy could look like. "The key word in the auto sector in the last ten years has been quality," he says. "As a result, vehicle survival rates have essentially doubled between 2000 and 2017."

DesRosiers estimates that 90 percent of older vehicles won't be scrapped for 20 to 25 years—and the least fuel-efficient among them will remain on the road the longest.

"Keep in mind the 20 percent fleet fuel efficiency gains that have been achieved in ICE vehicles in just the last 10 years," he says. "If the goal truly is to reduce GHG emissions in Canada, then the quickest route is to encourage people to get rid of their old cars and buy new ones."

Embedding behavioural insights in public relations campaigns could inform consumers of the savings offered by new vehicles. Reduced federal and provincial taxes on new vehicles could be offset by tax increases on used vehicle purchases. Compensation could also flow to consumers forced to take old vehicles off the roads.

The time may be right for such a regulatory package. The Conference Board of Canada study suggests that there is room to improve consumer trust in governments in the planning and pace of climate-change mitigation. Clearly, Canadians are looking for leadership. The question is, does the political will exist to respond? ➔

"Many current policy practices seem disconnected from actual consumer goals," **Francis** says. "I think there's an opportunity to make the consumer a key part of the policy equation. And policies that develop a deep knowledge of consumer behaviour could potentially accelerate the transition to a low-emissions economy."

**Roger Francis**

Director of Energy, Environment and Transportation Policy, CBoC





## VP OPINION CAROL MONTREUIL

Carol Montreuil is the Canadian Fuels Association's Vice-President, Eastern Canada.

### COULD PUMP PRICE VOLATILITY BE CONSUMERS' BEST FRIEND?

Given the importance of transportation fuels in our everyday lives, and their impact on our family budgets, it is understandable that Canadians remain concerned about retail gasoline prices and their volatility. We believe that more information can help clarify that consumers do benefit from retail price movements in a free market.

Making peace with the volatility issue requires that we acknowledge three factors.

#### 1. Crude oil prices and taxes

These are two variable and significant price components over which retailers have no control. Crude prices are driven primarily by international geopolitical and global economic activity; taxes are determined by federal, provincial, and in some instances, municipal governments. Together, these two components account for more than 80 percent of the pump price.

#### 2. Price comparisons with other jurisdictions

Given how taxes vary by jurisdiction, price comparisons need to be made with tax portions excluded. Independent analyses have repeatedly shown that when tax-excluded pump prices are compared to neighbouring U.S. jurisdictions—and other developed economies—Canadian prices are among the lowest in the world.

#### 3. The alternative to a volatile yet free retail market

The alternative is one in which governments intervene to regulate prices on a weekly or monthly basis. Such models exist in the Atlantic provinces, for example, and elsewhere around the world. These models have been studied independently and at great length. While reducing the frustrations of price volatility, these price-control models consistently drive up pump prices for consumers. In effect, price regulation or “price insurance” is a trade-off: less volatility at the expense of higher average gasoline prices.

Between crude oil costs and taxes, jurisdictional inconsistencies, regulated or unregulated market structures, it's easy to see why the daily interaction of these three factors makes for confusing price differences. Yet when these factors are understood, retail gasoline price volatility can be viewed through a consumer-friendly lens that shows a free market producing competitive prices for Canadians.

# PETRO PROFILES

BY CANADIAN FUELS STAFF

Canadian Fuels Association members produce, distribute and sell the transportation fuels that support the mobility of all Canadians. At all stages in the process that brings fuels to the point of sale, our members are achieving impressive goals for community involvement, innovation and environmental performance. In this issue of *Perspectives*, we talk to three individuals who make a difference.



#### Jennifer Stiglitz

Senior Manager, Planning and Optimization,  
Husky Energy, Lloydminster, Saskatchewan  
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#### Peter Zebedee

General Manager, Shell Scotford,  
Shell Canada, Scotford, Alberta  
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#### Gord Pinard

Vice-President of Production,  
Petro-Canada Lubricants Inc., Mississauga, Ontario  
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"My plan is to learn as much in the next 15 years as I have in the past 15."

## PETRO PROFILE

### ENGINEERING SUCCESS

**Jennifer Stiglitz's career is fuelled by a love of learning.**

**Jennifer Stiglitz** first dabbled in engineering as a summer student researching pipeline fluid flow. But it was a third-year university internship that locked her interest on a process-engineering career in the oil industry.

"I got that opportunity here at the Husky Upgrader in Lloydminster, Saskatchewan," says Jennifer. "Fifteen years later, I'm back at the upgrader after taking on various engineering roles with the company." Now Senior Manager, Planning and Optimization, she leads the evaluation, planning and development of opportunities that maximize profitability of the upgrader, which converts heavy oil into more valuable products such as ultra-low sulphur diesel fuel and synthetic crude that's further processed in downstream refineries.

"I'd characterize my career so far as a well-rounded learning experience," says Jennifer. She spent ten years building solid technical knowledge and experience. More recently, she has focused on sharpening her business and leadership skills.

"I found the technical aspects of heavy-oil upgrading very interesting and fulfilling. But I always had an interest in understanding the business and taking on leadership roles. Husky has been very supportive, giving me the chance to learn new skills and advance my career."

Jennifer sees change in a field traditionally dominated by men. "This sector offers excellent opportunities for women. There's now a greater focus on things like diversity and inclusion, and employee resource groups supporting female leaders."

Jennifer plays a key role in one such group. She sits on the steering committee of the Lloydminster chapter of Husky's Women's Leadership Network. "I'm proud of the engagement we've seen with this initiative," says Jennifer. "It's bringing employees together from various Lloydminster business units to support and advance the roles of women within Husky Energy."

Her advice to young women considering careers in the oil sector: "Be your own leader. Trust your abilities and intelligence. Take responsibility for your career. Seek allies and mentors to guide and coach you. Chances are they've overcome similar hurdles to the ones you may face."

What's next in Jennifer's career? "More learning opportunities," she says. "My plan is to learn as much in the next 15 years as I have in the past 15." ➔

*Since speaking with Jennifer in 2018, she has continued her learning journey into fuel ethanol production and is currently the Plant Manager at the Husky Minnedosa Ethanol Plant.*





THE STORY BEHIND THE STORY  
OF PUMP PRICE COMMENTARY

# WHY “NO COMMENT”

BY CANADIAN FUELS STAFF

On any given day, somewhere in Canada the price of gasoline is making headlines. From Victoria to Saint John's, Canadian consumers see or hear media coverage about pump prices and their gyrations, and explanations and related commentary. They want answers and journalists do their best to write informative material.

Here at the Canadian Fuels Association we are often called upon by the media to explain what's behind pump prices, whether it's sustained record high prices in Vancouver, a 7 cent per litre price increase at the station around the corner, or why prices are consistently different in Sudbury and North Bay.

More often than not, callers are disappointed, even frustrated by our inability to give detailed responses, and by our recommendations that they contact independent market analysts for more details. The result is that sometimes, readers encounter statements in the media such as "the Canadian Fuels Association refused to comment" or "when contacted, we were passed-off to an analyst". The story behind these statements can vary. It's true that we might not provide comment or we might refer journalists to other resources, but when asked about pump prices in particular, the reason why we do this isn't often passed-along to readers.

There's one good reason why our responses are confined to general statements about how competitive fuel markets work and the factors that influence prices and price movements. It's against the law for us to do otherwise!

As an association of competitors, we take our responsibilities under Canada's *Competition Act* very seriously.

The *Competition Act* makes it a criminal offence for competitors to fix prices, allocate markets, or restrict output. We take extraordinary measures to ensure that nothing we do at the Association could be remotely construed as anticompetitive behaviour under the *Competition Act*. We don't talk about competitive factors such as price components, production levels and inventories, market or customer allocations. And we don't discuss what members might or might not do in response to proposed government policy or decisions; in particular, the effect such policies or decisions could have on prices.

We do know that market dynamics are just that, they're dynamic and driven by the fundamental economic concepts of supply and demand. Gasoline is a commodity that trades freely on North American commodity markets—it's an integrated North American market for refined products. Four components make up the price consumers pay at the pump—crude cost, refining margin, retail mark up and taxes. Within this basic framework, and at any given time, a host of factors are at work influencing pump prices. These factors can be global, national, regional, even local. They range from geopolitical instability in a far corner of the world, to seasonal changes in gasoline demand, to an unplanned refinery outage, to a local retailer changing her price in an effort to grow market share.

Whatever the combination of factors, the variability in gasoline prices is actually a testament to the dynamic nature of fuel as a globally traded commodity, and confirms a competitive free-market at work.

**“AS AN ASSOCIATION OF COMPETITORS, WE TAKE OUR RESPONSIBILITIES UNDER CANADA'S COMPETITION ACT VERY SERIOUSLY.”**

We get that an explanation of factors that influence fuel commodities in a global context is not exactly what people want to know when they ask why the price of gasoline increased 5 cents. However, it's confirmation that we are mindful of our obligations under the *Competition Act* and are doing our part to ensure consumers benefit from a competitive market.

So the next time you read "no comment" about a gasoline price story in the media, or if a reporter was provided coordinates to speak to an independent analyst—it's for good reason. ➡

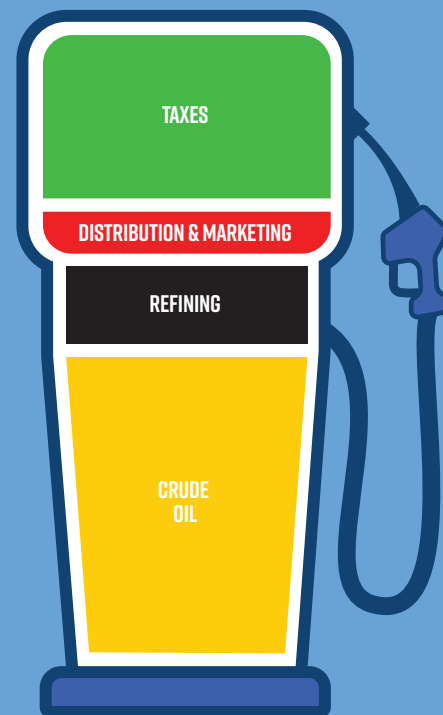
## - THE COMPETITION ACT -



"The purpose of the *Act* is to maintain and encourage competition in Canada in order to promote the efficiency and adaptability of the Canadian economy, in order to expand opportunities for Canadian participation in world markets while at the same time recognizing the role of foreign competition in Canada, in order to ensure that small and medium-sized enterprises have an equitable opportunity to participate in the Canadian economy and in order to provide consumers with competitive prices and product."

The *Competition Act*, section 1.1:  
The Purpose of the Act. R.S.C., 1985, c. C-34

## - PUMP PRICE COMPONENTS -







# IRREFUTABLE IMPACT

The strategic economic importance of refining in Ontario



**Stewart Dudley** is a freelance writer and regular contributor to Canadian Fuels Association publications.

Ask Canadians to rank Ontario as a petroleum refining province and they're likely to identify it as more of an energy consumer than a producer. It's true: Ontario is the largest market in Canada for refined petroleum products (RPPs). But the province also accounts for more than 20 percent of total national refinery capacity. Four refineries are key: three in Sarnia (Imperial, Shell and Suncor) and one at Nanticoke (Imperial). In fact, Canadian oil refining began in Ontario. The country's first refineries opened in Petrolia, near Sarnia, in the 1860s.

Spend a bit of time in the Sarnia area today and you'll quickly learn how connected its citizens are to the refining sector. Sarnia-Lambton is a small, close-knit community of just over 71,000. Yet more than 3,600 people work in or with the refining sector.

But what about the petroleum refining industry's contribution to Ontario as a whole? What is the true economic impact of this industry? In 2018, the Canadian Fuels Association commissioned Aviseo Consulting to find out. Aviseo's report provides a portrait of the refining industry in Ontario, describes the many benefits of refineries for the province's economy, and examines the role of refineries in the petrochemical industry in Sarnia.<sup>1</sup>

## A MAJOR INVESTOR IN THE PROVINCE

The petroleum refining sector generates \$4.8 billion in added value each year and accounts for 0.6% of the entire Ontario economy. The

industry's capital expenditures are substantial. Over the last 10 years, Ontario refiners have invested close to \$2 billion in machinery and equipment, construction and engineering, environmental and facility services capital expenditures—a figure that is expected to jump to \$2.4 billion between 2018 and 2027.

The sector's operational expenditures (OPEX) topped \$1.5 billion in 2017, not counting crude oil purchases that constitute more than 80 percent of refinery expenses. More than 20 percent of OPEX goes to human resources and training. That's roughly \$320 million spent on wages, salaries and training for Ontario workers.

## AN IMPORTANT SOURCE OF JOBS

Province-wide, the sector accounts for more than 12,000 direct, indirect and induced jobs.<sup>2</sup> Nearly 5,000 of those direct and indirect jobs are in the regions where the plants are located. Yet the benefits of employment are felt far beyond, as more than 6,000 indirect jobs are located elsewhere in Ontario.

This underscores the impact of the sector on service jobs, contractors and trades. Indeed, Ontario's refiners count on an integrated supply system that includes nearly 1,600 firms—almost 1,000 of which are based in Ontario.




<sup>1</sup> *Economic Impact Study of Southwestern Ontario Refineries*. Aviseo Consulting. Montreal, 2019.

<sup>2</sup> "Induced jobs" are created by the expenditures in the community by workers directly or indirectly employed by the petroleum refining sector.



## Summary of the economic impacts and fiscal revenues of the Southwest Ontario refining industry

Ontario, 2017; in number of full time equivalent jobs

	Direct	Indirect	Induced	TOTAL
 <b>ADDED-VALUE</b>	\$3,658.6 M	\$1,059.1 M	\$87.6 M	<b>\$4,805.3 M</b>
 <b>EMPLOYMENT</b>	1,401	9,832	773	<b>12,006</b>
 <b>DIRECT FISCAL REVENUES<sup>3</sup></b>	\$211.7 M	\$93.3 M	\$22.4 M	<b>\$327.4 M</b>

### KEEPING TAX REVENUES FLOWING

Governments also reap considerable benefits from the refining industry. Just over \$144 million in taxes flowed from the sector into Ontario's coffers in 2017. The federal government's take amounted to \$156.4 million. Including induced tax revenues, governments collect nearly \$330 million from the refining industry each year.

Municipalities in Sarnia and Nanticoke raise \$4.2 million in property taxes from the industry each year. In Sarnia, this revenue represents six percent of the total property tax take and 83.5 percent of all industry taxes collected.

### STRENGTHENING THE VALUE CHAIN

Ontario's refiners supply downstream industries with \$550 million worth of petrochemical feedstocks. Canada's petrochemical companies are highly concentrated in Ontario, and rank among the province's largest manufacturers. Chemical, plastic and rubber product manufacturers represent 3,800 Ontario businesses, employ nearly 80,000 people and account for more than \$10 billion of Ontario's GDP.

### SUPPORTING COMMUNITIES

Ontario's petroleum refining industry delivers more than economic impact. Refiners make important social contributions in their roles as members of the communities in which they operate and employ Ontarians. This community link includes close ties to academia, supporting vital research and the development of tomorrow's industry professionals. For example, the sector partners with Lambton College to support the institution's Chemical Production and Power Engineering Co-op program.

Suncor, Imperial and Shell also fund numerous charities. In 2017, these companies invested \$1.3 million to support various community activities, including sporting and cultural events, and health, educational and environmental projects.

How vital is the petroleum refining industry to Ontario? Let's not forget that this industry is the energy source Ontario counts on to fuel air travel, personal transportation and the movement of goods and services we count on. It is no exaggeration to say that Ontario's petroleum refiners fuel the economy, delivering profound impact with ongoing contributions that sustain and enrich communities throughout the province. ➡

### Hypothetical closure

Aviseo's study includes a scenario in which all four refineries are shuttered. The resulting impacts to Ontario would be profound: a permanent loss of more than 2,000 jobs, \$4 billion in GDP and \$800 million in government tax revenues. In addition, the loss of this critical energy infrastructure would have implications for the security of Ontario's transportation energy supply and the closely linked petrochemical industry.

<sup>3</sup> Fiscal revenues include revenues for the government of Ontario, the federal government and municipalities. References: CFA, Aviseo Consulting.



## VP OPINION BRIAN AHEARN

Brian Ahearn is the Canadian Fuels Association's Vice-President, Western Canada.

# THE CLEAN FUEL STANDARD: SUPPLYING FUELS TO CANADIAN CONSUMERS WILL COST MORE

The Clean Fuel Standard (CFS) is a proposed new federal policy that will require fuel suppliers to reduce the carbon intensity of their products—in other words, lower the amount of greenhouse gases (GHG) released for every unit of fuel consumed. The aim is to reduce GHGs by increasing the use of lower emitting fuels, energy sources and technologies. The goal is noble, but the policy will come with compliance costs for fuel suppliers across the fuel spectrum of the fuel market—transportation, buildings and industry.

### Challenges and opportunities

Canadian refiners will seize the opportunity CFS provides to make further investments in improving their manufacturing processes and lower production emissions that will in turn reduce the life cycle carbon intensity of the fuels they produce.

But the CFS will also flip the switch to fuels that produce fewer GHGs. Canadian refiners will need to find ways to blend ever increasing amounts of lower carbon renewable fuels. This will drive up the cost to produce and distribute gasoline, diesel and jet fuel. New, expensive infrastructure will be required throughout the manufacturing and distribution supply chain. In fact, all energy producers and suppliers in the transport, industrial and residential sectors will be impacted. You may see more natural gas coming from renewable sources; however, this too will require new expensive infrastructure to capture these fuels.

CFS designers also assume that consumers will make the move to alternative-fuel passenger vehicles that Canadians have shown little interest in to date. Sales of these vehicles have remained a tiny fraction of the sales totals for years. What's more, supplying their fuel—particularly electricity—will require a new, expanded and costly charging infrastructure.

### Align policy with Canadians' goals

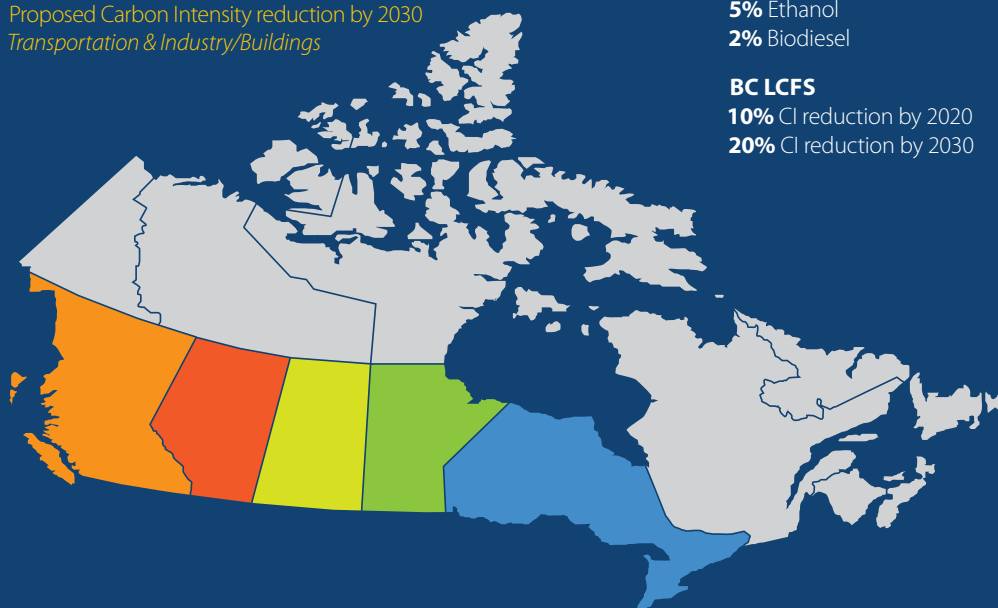
We believe that Canadians expect and deserve reliable, affordable energy to fuel their personal mobility and their quality of life. Businesses expect the same to remain competitive, provide jobs and contribute to Canada's success on the world stage.

We believe that emission reduction instruments like the CFS must be designed to achieve GHG reductions at the lowest possible cost. Canadians support action to address climate change, but expect cost-effective policies that deliver material results. A flexible CFS design that spurs innovation and drives investments in the alternative fuel sector and in cleaner Canadian produced petroleum fuels, while at the same time strives to keep compliance costs as low as possible, aligns well with the goals of Canadians. Cost-effective outcomes are essential to CFS success.

## RFS & LCFS REGULATIONS IN CANADA

### Federal Clean Fuel Standard CFS

Proposed Carbon Intensity reduction by 2030  
Transportation & Industry/Buildings



### FEDERAL RFS

5% Ethanol  
2% Biodiesel

### BC LCFS

10% CI reduction by 2020  
20% CI reduction by 2030

### BRITISH COLUMBIA

Renewable fuel in gasoline: 5%  
Renewable fuel in diesel: 4%

### ALBERTA

Renewable fuel in gasoline: 5%  
Renewable fuel in diesel: 2%

### SASKATCHEWAN

Ethanol: 7.5%  
Renewable fuel in diesel: 2%

### MANITOBA

Ethanol: 8.5%  
Renewable fuel in diesel: 2%

### ONTARIO

Ethanol: 5%  
Renewable fuel in diesel: 2-4%  
In 2020: Ethanol 10% (of RUL)





"Quest proves that carbon capture and storage is indeed possible and viable."

## PETRO PROFILE

### MANAGING EXCELLENCE

**Peter Zebedee leads Shell Scotford to higher environmental performance.**

In 2016, **Peter Zebedee** was General Manager at Shell Albian Sands in Fort McMurray when devastating wildfires swept through the region. "I was responsible for several thousand people at the worksite with only one road in and out," says Peter. He was quickly engaged in the response, evacuation efforts, and the eventual restart of the facility.

"We managed to get through by keeping the focus on three things: our people—doing the right thing for our folks no matter what; our community—opening our gates to provide a safe place for local families; and our assets—caring for the facility we'd put so much work into over the years," says Peter. "It was one of those defining moments in life and one of the most harrowing experiences I've ever had."

Today, Peter remains focused on safe, reliable and profitable operations as General Manager at Shell Scotford near Edmonton. A geological engineer with a love for the outdoors, Peter oversees the upgrading and refining of bitumen, as well as the on-site chemicals plant.

"It takes about 1,400 Shell people and about 500 contractors on a daily basis to keep things running smoothly," says Peter, who continues to prioritize support for his community. "We have the absolute obligation at Scotford to make sure there are net benefits returned to the community we live and work in, and I think that's probably what I'm most proud of."

Peter's responsibilities also include the Quest carbon capture and storage (CCS) facility at Scotford. CCS is recognized internationally as one of the most effective GHG-reduction technologies, although only a handful of these large-scale installations have been built worldwide. Launched in 2015 as a partnership with the federal and Alberta governments, Quest captures carbon dioxide from Scotford's operations and transports it by pipeline to secure underground storage.

"Quest proves that CCS is indeed possible and viable," says Peter. "It's operating more efficiently and at a lower cost point than we anticipated. More importantly, it's captured more than a million tons of carbon dioxide per year since it opened—and that's a clear demonstration of Shell's commitment to the environment." →





# BEYOND THE BARREL

P A S T   T H E   P U M P



## AGRICULTURE AND FOOD



## AUTOMOTIVE



## BEAUTY

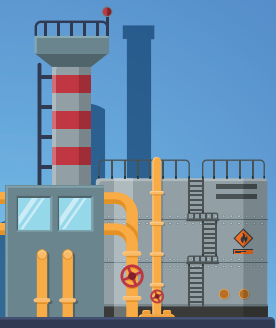


## BUILDING AND HOME



## CLOTHING AND TEXTILES





# The surprising by-products of the petroleum refining process

BY CANADIAN FUELS STAFF

The petroleum refining process creates much more than the fuels people rely on to get to work, to take flight, or to get goods shipped from around the world. **Have a look at just a sampling of products that rely on refining.**



**SPORTS, GAMES  
AND HOBBIES**

**OFFICE**

**KITCHEN AND  
HOUSEHOLD**

**HEALTH AND MEDICAL**



# *Survive and thrive*



For more than 30 years, the three most important words in the automotive sector have been *quality, quality and quality*. It means that consumers held onto their vehicles longer, and fuel efficiency continued to improve.



.....  
**Dennis DesRosiers** is an analyst  
and is President of DesRosiers  
Automotive Consultants  
.....



The Japanese sold their first vehicles in Canada in 1965 and began to secure a major market share during the 1970s and 1980s. While superior fuel economy in a time of higher fuel prices no doubt contributed to the popularity of these vehicles, numerous studies identified overall product quality as the key to Japanese manufacturers' success.

With the loss of market share, other manufacturers were determined to improve the quality of their vehicles. Billions of dollars were invested in this effort. And when the power of the automotive sector is focused on a specific goal, the industry succeeds. Every metric available indicates that vehicles are much better built today than a decade ago, let alone two and three decades ago.

### Higher quality vehicles last longer

The related metric I like to follow is vehicle survival rates. We measure these rates with a great deal of precision. We know the exact number of every make and model sold in Canada each year going back more than 30 years. We also have the exact number of vehicles by make and model that are still on the road in Canada as of July 2017. Divide those two metrics and you get survival rates.

Table 1 shows the massive improvement since the turn of the century. The survival rate of every brand has increased over virtually every time period examined. The 15 year-old vehicles tell the story particularly well. In the year 2000, 26.8 percent of Detroit branded vehicles survived 15 years of ownership compared to 21.7 percent of Japanese brands,

41.7 percent of European brands and only 4.0 percent of Korean brands. Skip forward to the year 2017 and you see substantial increases across all manufacturers: survival rates for Detroit brands increased to 46.0 percent, Japanese brands to 62.5 percent, European brands to 73.9 percent and Korean brands to 21.9 percent.

### What do survival rates have to do with fuel demand?





First, while these older vehicles were generally well engineered, their average fuel efficiency was poor compared to current models; the more of these vehicles that remain on the road today, the higher the demand for fuel. Second, a vehicle's fuel efficiency deteriorates from its original rating over time. It is hard to say how much but 15 percent is a reasonable assumption after about a decade of use. This decreasing fuel efficiency has likely further increased fuel demand. Third, higher survival rates mean that the availability of older, lower-priced vehicles on the market increased dramatically between 2000 and 2017. This buyers' market for affordable used vehicles is viewed as the primary reason vehicle ownership among the driving age population increased from less than 70 percent in the year 2000 to more than 85 percent in the year 2017. As a result, there are more than nine million more vehicles on the road in Canada today compared to 2000.

While it may seem counterintuitive to penalize overall vehicle quality by removing older vehicles from the road, promoting the choice of new and highly fuel efficient vehicles may be the best way to reduce fuel demand, as well as related emissions. ➔





Table 1: Survival rates by major brand groupings as of 2000 versus as of 2017

VEHICLE AGE IN YEARS	 DETROIT BRANDS AS OF		 JAPANESE BRANDS AS OF		 EUROPEAN BRANDS AS OF		 KOREAN BRANDS AS OF	
	2000	2017	2000	2017	2000	2017	2000	2017
<b>5</b>	<b>95.9%</b>	<b>95.3%</b>	<b>95.7%</b>	<b>98.6%</b>	<b>94.6%</b>	<b>98.6%</b>	<b>93.1%</b>	<b>97.7%</b>
<b>10</b>	<b>77.0%</b>	<b>87.4%</b>	<b>79.6%</b>	<b>93.7%</b>	<b>82.5%</b>	<b>93.5%</b>	<b>44.2%</b>	<b>82.1%</b>
11	66.6%	82.9%	68.9%	91.0%	70.3%	93.2%	29.1%	72.2%
12	53.2%	75.5%	60.1%	85.1%	67.2%	91.4%	20.1%	61.0%
13	43.4%	68.5%	47.5%	78.3%	61.0%	83.5%	11.1%	49.2%
14	35.1%	55.0%	33.8%	68.8%	50.6%	80.4%	7.6%	33.5%
<b>15</b>	<b>26.8%</b>	<b>46.0%</b>	<b>21.7%</b>	<b>62.5%</b>	<b>41.7%</b>	<b>73.9%</b>	<b>4.0%</b>	<b>21.9%</b>
16	21.9%	34.1%	14.3%	54.5%	35.6%	64.0%	2.5%	13.9%
17	18.7%	28.6%	11.3%	49.0%	31.3%	51.5%	–	8.4%
18	18.7%	23.2%	8.2%	39.7%	28.2%	42.4%	–	5.1%
19	12.1%	21.0%	11.1%	33.9%	25.4%	33.4%	–	4.0%
<b>20</b>	<b>8.6%</b>	<b>16.9%</b>	<b>9.9%</b>	<b>26.9%</b>	<b>20.1%</b>	<b>25.7%</b>	–	<b>2.7%</b>

*Every metric available*

indicates that vehicles are much better built today than a decade ago, let alone two and three decades ago.





## VP OPINION LISA STILBORN

Lisa Stilborn is the Canadian Fuels Association's Vice-President, Ontario.

# MAKING SENSE OF CARBON PRICING

Consumers are understandably confused about how carbon pricing works and how it can impact the cost of transportation and household goods—especially in light of the range of policy approaches across Canada. British Columbia imposed a carbon tax. Alberta chose a carbon levy. Quebec and, until recently, Ontario implemented cap and trade programs. In addition, the federal government began imposing a carbon price of \$10/tonne in 2018 in provinces and territories that do not have a carbon pricing system in place (the federal carbon pricing backstop). That price will continue to increase by \$10/tonne per year until 2022.

Governments appear reluctant to tell consumers what carbon policies could do to household expenses, including fuel costs. This communication shortfall has perpetuated the idea that climate change is industry's problem. The elephant in the room is transportation, including personal transportation. Across Canada, transportation-related greenhouse gas emissions continue to go up while industrial emissions decline.

Designing policies and communicating their impacts is a delicate balancing act. The rationale for carbon pricing is to send a price signal in the marketplace, thereby driving behavioural change throughout society and among consumers. Yet if consumers do not modify their behaviour, policies may just look like taxes.

Consider Ontario. The former Liberal government opted for cap and trade—a flexible carbon pricing option, but one that may appear less transparent to consumers. Indeed, public opinion research says that cap and trade is wrongly perceived as a cost to business rather than a society-wide cost on carbon. Ontario Premier Doug Ford quickly cancelled this program, calling it a tax grab that yielded no climate change benefits.

British Columbia was an early adopter of carbon pricing. The province's policy makers get high marks for transparency. The government shared with citizens that the tax would increase household expenses and introduced personal tax relief to recognize that costs like personal transportation are a necessity.

Alberta took a similar approach with its carbon levy, building a rebate program for families below the provincial income threshold.

We don't know how the federal government will manage carbon price impacts on consumers, but it can draw on these provincial experiences. Policy makers are also well advised to heed public opinion research that indicates the majority of Canadians may have accepted the personal sacrifices associated with climate change, but expect to see real environmental progress in return.

## CANADA'S CARBON PRICING LANDSCAPE

(As on February 2019)





A full-page photograph of Gord Pinard, a man with a grey beard and glasses, wearing a white hard hat and a blue jumpsuit with reflective yellow-green stripes. He is standing in front of an industrial facility with large pipes and structures. A name tag on his chest reads "G. Pinard".

## PETRO PROFILE

### BEING A GOOD NEIGHBOUR

**Gord Pinard helps Petro-Canada Lubricants remain a valued community member.**

With nearly 30 years of experience in the oil sector, **Gord Pinard** has witnessed his share of change. "The biggest development I've seen is the increased public interest in industry operations," says Gord. "Our industry is now held to a higher standard, and we have responded responsibly. We've improved environmental performance, increased transparency and undertaken more stakeholder consultation."

Gord has held a variety of industry roles over the years. "I am a technical guy at heart, but my experience with the community has broadened my business knowledge and my understanding of stakeholders' perspectives, and made me a better engineer," he says.

Currently, Gord is Vice President of Production at Petro-Canada Lubricants Inc.'s (PCLI) Mississauga facility. Located on Lake Ontario, the plant has an annual capacity of more than a billion litres of base oil. Gord oversees production of these oils, which are used to make more than 350 advanced lubricants, including motor oils, specialty fluids and greases.

The plant originally sat largely alone in its rural lakeshore setting. Toronto-area growth eventually surrounded it with residential neighbourhoods, underscoring the need for better communication with local citizens—particularly when PCLI launched a project to double the size of the plant in the mid-1990s.

"Before that, there was very little community interaction," says Gord. "People had no idea what we did, and they had questions about our operation." Nearly 25 years later, Gord is responsible for one of PCLI's community-relations initiatives, which ensures the business is recognized as a valued member of the local community. A Public Liaison Committee (PLC) formed in 1996 has been key to success, bringing together local residents, industry regulators and representatives of various levels of government.

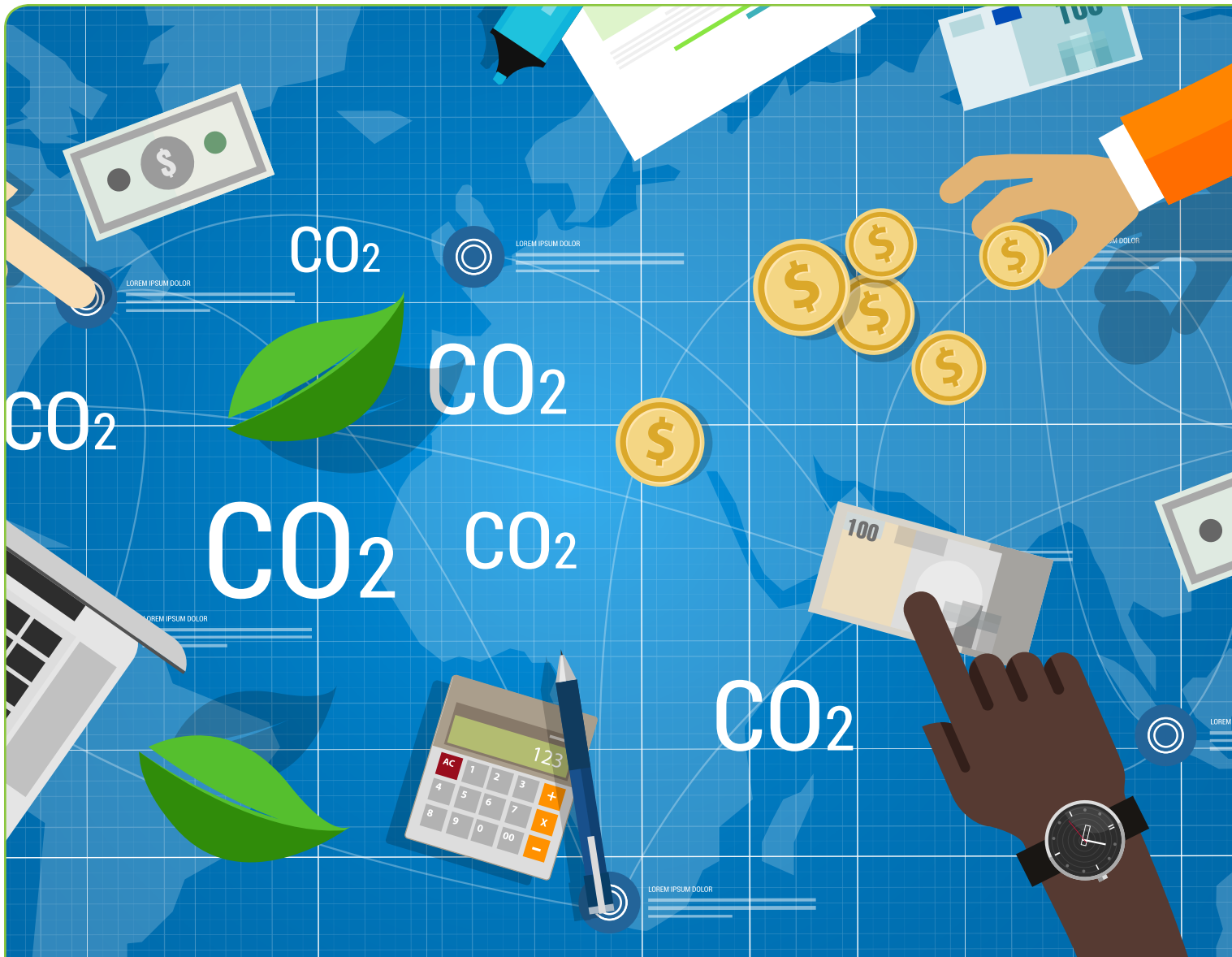
"We meet five times a year to discuss topics of community interest, including our operations, environmental performance and emissions results," says Gord. "As a company, we also actively invest in the community, supporting local charities and volunteering."

Over time, an adversarial relationship has shifted to one of trust. "We know how important it is to listen, understand and participate. I am most proud that community members are now some of our strongest advocates," says Gord. "At a recent open house, the PLC co-chair spoke about our positive relationship and the value of transparent communications and open dialogue to local residents."

That's a high reward for Gord and his ongoing effort to make a real difference in the community. ➡

"Community members are now some of our strongest advocates."





# HOW THE **CARBON TAX MESS** IS DISTRACTING US FROM **REALISTIC** **CLIMATE SOLUTIONS**



Stewart Muir is the founder and Executive Director of the Resource Works Society based in Vancouver.

**CARBON TAXES ARE SHAPING UP TO BECOME A BALLOT-BOX QUESTION IN CANADA'S 2019 FEDERAL ELECTION. SUPPORT IS BROADLY SPLIT ON PARTISAN LINES.**

It's easy to see why advocates of carbon pricing are feeling frustrated right now. Carbon taxes take a lot of work to propose, but are easy to oppose. How often do people ever vote themselves a new tax? In Washington State, the architects of a carbon tax on the ballot in November 2018 learned from previous disappointment that partisan polarization would crater an initiative. So they went to painstaking lengths to accomplish what they thought was a depoliticized approach. No matter: voters weren't interested and once again gave the carbon tax a wide berth.

It would be simple to point to ideological polarization as the root of the problem, breaking it down into those easy stereotypes of the climate zealots versus the deniers. Yet, on closer examination, the reality is very different. Understanding this, is the key to constructing a successful path forward that will rescue climate policy for Canada.

## ***"THE IDEA OF CARBON PRICING IS PINCHED FROM THE SIN TAX MODEL, AND THEREIN LIES THE PROBLEM."***

The idea of carbon pricing is pinched from the sin tax model, and therein lies the problem. Look at tobacco. Between 1982 and 1992, the Canadian government increased tobacco taxes by 500 percent, resulting in a 40 percent decline in per capita consumption of cigarettes. Great outcome. The idea here is if you want consumers to behave in a certain way, tax the undesired behaviour and reward the desired behaviour. The problem with penalizing carbon use, however, is that while carbon is a substance with obvious negatives, it also happens to be a byproduct of the most positive and transformative substance in the history of human civilization: the hydrocarbon. Tobacco did not create the conditions for disease eradication, the near elimination of hunger and child mortality, or cheap solar panels. Hydrocarbons did. Kicking the habit solves the tax problem for a smoker, but particularly for suburban and rural residents who have to rely on reliable and affordable internal-combustion vehicles, carbon pricing is just another unavoidable burden to carry.

Despite making this observation, I'm not a carbon tax hater. A dozen years ago, I had a front row seat when British Columbia developed its innovative carbon tax. At the time, it seemed like the right way to go. The policy works found a clever way, in the form of revenue neutrality, to assure that the negatives of a sin tax would be mitigated. In those innocent days before we all disappeared down the tax-recycling and rebate rabbit hole, it seemed cut and dried.

The B.C. approach won a lot of accolades in its early days. Over the longer term, however, I'm having trouble seeing any benefits from the Province's approach that wouldn't have happened anyways. Innovation in the automobile business has accounted for big gains in fuel efficiency, 20 percent or more in most cases, resulting in less pollution from vehicles. Yet, in 10 years, per capita gasoline and diesel consumption in B.C. has increased, not fallen. In 2007, before the tax came in, equal numbers of sedan/hatchbacks versus light trucks/SUVs were sold. By the summer of 2018, new car buyers in B.C. bought 2.7 pickups/SUVs for every car. At the end of the day, it was a wash. Consumers exploited the technology and fuel efficiency improvements to buy the larger and more powerful vehicles they preferred.

As the modelling experts continue to tinker with their equations and insist they know best, my inclination is to learn from experience by attacking the climate change problem from a more practical direction than carbon pricing. I'm not saying we should necessarily give up on carbon taxes. What we need to do is achieve a better understanding of what technology can accomplish, while getting over some cultural taboos about energy.

It's time to get past the hydrocarbon hectoring. Search the *Paris Climate Agreement* text for the terms fossil fuel, petroleum, oil, or hydrocarbons. They aren't mentioned at all. The agreement shows that the future of energy occupies a vast landscape, and is not a narrow set of specifications to be laid down by various think tanks trying to take ownership of the climate mandate. A realistic call to action for the 21st century requires that we start with four basic principles.

First, we need to start thinking globally, not locally. China's emissions affect all of us, yet so far countries like Canada have refused to adjust their approach to recognize this. Second, it's time to scrap deterministic approaches to knowledge and innovation that are holding us back and degrading the quality of discussion. When the most strident voices calling for specific energy solutions everyone

should adopt also happen to be the sales reps for those solutions, respectful skepticism is required. But right now that's missing in action. Third, as B.C. taught us, it's necessary to see things the way they are seen by the shoppers/voters/moms who in the pursuit of the best outcome for themselves, will do what they do. And finally, let's never give up on educating and informing, because that is the ultimate key to progress.

These four principles are both local and universal.

To operationalize them, I've proposed a dozen concrete actions that will be much more effective than the carbon tax fandango. These include getting as much natural gas to China as we can, as quickly as possible, in the form of LNG. Doing so will reduce emissions in China while ensuring that the most innovative part of the Canadian economy, the oil and gas sector, continues to achieve breakthroughs in recovering hydrocarbons with the fewest unwanted side effects. The expertise being accumulated at the cutting edge of drilling and extraction also holds the key to future success in energy solutions like geothermal and hydrogen. One can be smitten by solar panels while simultaneously pursuing the goal of a zero-carbon barrel of oil, a real objective being pursued now in our energy sector. Funding a federal innovation super-cluster dedicated to that goal is one concrete step.

Building on Canada's long history of atomic energy innovation, linked to our abundant uranium deposits, provides another realistic pathway to decarbonization that politicians must find a way to embrace.

On the knowledge front, energy information isn't disseminated very effectively today, and not only because most people are afraid of math. The culture war on university campuses isn't just about pronouns and Palestine: it is also degrading our energy discourse. Investing in programs and thought leadership in the cultural pathways of energy evolution should be recognized as a priority alongside engineering and geophysics. ➡



Mazda CX-3  
at Snider  
Mountain,  
N.B.



# REAL WORLD

fuel efficiency at **EcoRun**



Christopher Lacroix is a Communications specialist at the Canadian Fuels Association.



# FREELANCE AUTOMOTIVE JOURNALIST **WADE OZEROFF** PARKS A LIPSTICK RED MAZDA CX-3 OUTSIDE A CHICKEN COOP ON SNIDER MOUNTAIN IN NEW BRUNSWICK...

It's a pit stop, of sorts. He's competing in the annual EcoRun, an event organized by the Automotive Journalists Association of Canada (AJAC). It's a two-day driving competition in which automotive journalists drive to test the real-world efficiency of gasoline, diesel, hybrid, electric and fuel-cell powered vehicles.

The driver with the best efficiency score across all tested vehicles is declared the winner, taking home the 'The Green Jersey', sponsored by the Canadian Fuels Association. Last year, Ozeroff earned the honours and set out for a hopeful repeat performance.

The objective of EcoRun is to best Natural Resources Canada's official fuel consumption figures by the widest margin. During the event, competitors drove through cities, on highways, dirt roads and routes of all kinds, rotating vehicles. This year, the route was Moncton to Saint John to Fredericton. Gasoline, diesel, hybrid-electric, fully electric, and fuel-cell cars were all part of the event.

That array of technologies featured at EcoRun is not proportional to the actual fleet on Canadian streets. In fact, 98 percent of drivers still choose gas vehicles. They're affordable, convenient and reliable. "Honda believes the consumer should be picking the technology he feels is the best," Salil Kapoor, Lead for Alternative Fuel Maintenance at Honda Canada tells the Canadian Fuels Association. "That is why right now we offer one of the best gasoline engines in the world."

At the checkered flag, stringer **Jim Kerr** is the winner, besting the listed mileage by leaps and bounds—and the car with the greatest improvement, Mazda 6, beats the official listing by 2.7L/100km at 5.3L/100km, with its internal-combustion engine.

Let's face it, everyone wants to save fuel, save money and lower emissions. The EcoRun challenge showcases this, and the existing and new technologies that move us now and in the years to come. ➡

### Vehicle performance at EcoRun

Vehicle	L/100km		
	EcoRun	NRCan	Difference
Mazda 6	5.3	8	<b>2.7</b>
Ford EcoSport	6	8.4	<b>2.4</b>
Volkswagen Jetta	5.3	7	<b>1.7</b>
Chevy Equinox Diesel	5.8	7.4	<b>1.6</b>
Lexus LS 500h	8	9.1	<b>1.1</b>
Mazda CX-3	7.2	8.2	<b>1</b>
Honda Clarity Plug-In	2.5	3.12	<b>0.62</b>
Mitsubishi Outlander PHEV	5.6	6.2	<b>0.6</b>
Hyundai Ioniq Plug-In	3	3.35	<b>0.35</b>
Mercedes-Benz GLC 350e	7	7.35	<b>0.35</b>
Nissan Leaf	1.8	2.1	<b>0.3</b>
Toyota Camry Hybrid	4.8	5.1	<b>0.3</b>
Chevy Bolt	1.8	2	<b>0.2</b>
Kia Optima Plug-In	4.1	4.24	<b>0.14</b>
Ford Fusion Energi	4.2	4.26	<b>0.06</b>
Toyota Prius Prime	2.9	2.78	<b>-0.12</b>
Chrysler Pacifica Hybrid	6.4	5.5	<b>-0.9</b>
Nissan Kicks	8.9	7.2	<b>-1.7</b>



From left, **Bill Simpkins**, Director Stakeholder Relations, Canadian Fuels Association; **Jim Kerr**, Automotive Writer; **David Miller**, Co-Chair, AJAC EcoRun



**Cathy Rogers**, New Brunswick Finance Minister, waves the green flag, marking the beginning of AJAC EcoRun 2018



**Mercedes-Benz GLC 350e** at Pocologan, N.B.

# THE POWER OF COMMUNITY



BY CAL FICHTER

**Cal Fichter** is Vice-President Energy at Federated Co-operatives Limited, and Chair of the Canadian Fuels Association.

I was pleased to learn that Canadian consumers figure prominently in this issue of *Perspectives*, which explores their awareness, behaviour and options in relation to transportation fuels, and energy and climate policies.

Without question, the automotive and petroleum refining industries have a role to play in responding to climate change. Given the scale of our operations and the central importance of our products in the daily life of Canadians, we understand our responsibility. We have demonstrated a readiness to be part of the global dialogue on the environment. We have responded with genuine and tangible efforts to reduce the emissions related to our products and meet the expectations of regulators and Canadians.

“The role of consumers in the transition to a lower-emissions economy is pivotal, and the impact of their choices will be immense.”

But what of consumers? They exercise the power of choice when it comes to mode of transport, transportation fuel, automobile type and driving behaviour. The role of consumers in the transition to a lower-emissions economy is pivotal, and the impact of their choices will be immense.

As Vice-President Energy at Federated Co-operatives Limited, I believe the co-op model offers valuable insight into the consumer opportunity where petroleum transportation fuels are concerned. In our business model, consumers are more than customers; they're owners, with shared values and goals. The family filling its van at the pumps, the farmer fuelling her machinery—they all own a membership share in local co-ops that are part of the fabric of their communities. As our co-op model has grown and flourished over nearly a century, we have come to understand the power of community to meet the needs of people across Western Canada.

Currently there's a new worldwide need to be met—reduced transportation-related emissions. As Canadians, we are at our best when we respond together. Now nearly 37 million strong, we can pack a punch when it comes to achieving this goal.

It's time to harness our collective potential. To choose vehicles that truly meet our needs. To leave those vehicles at home if the bus or a bicycle makes more sense. To drive smarter and take better care of our vehicles.

As we consider what a lower-emissions economy will look like in Canada, there is a great deal of room for more progress in vehicle efficiency and fuel performance. I think there's even more room for us to show our potential as Canadians—individually and collectively.

In this community we call Canada, let's all do our part. ➔