Ivey Business School
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Energy Policy and Management Centre

Tomorrow's Fuel

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Bill could finally say he had driven an automobile. He had spent the last couple of days taking eastbound trains to get him to the Ontario border. There, John, one of the lead engineers of the Kakabeka hydro plant had picked him up in a Ford Model T. John was letting Bill drive all the way back to Fort William, where he would live while working on the project. He would be developing a better distribution network to maximize the hydroelectric plant's reach. He and John would be working closely, and road tripping had proven to be a good way for them to get acquainted.

"It's really a wonderful sight. Our latest turbine has increased our output to nearly 25 megawatts. Soon, we'll be powering 14,000 homes in the area."

John had been boasting about the plant most of that day. Bill, a natural skeptic, was waiting to see the operation before fully buying in. He recognized John's exuberant enthusiasm and pride in the project—it reminded him of his days in Turner Valley. He was employed at the oil plant there before it had struck oil. He recalled workers speculating about how much oil the well could draw and how much money was to be made. The numbers thrown out were always bigger than the last; nobody dared suggest that their colleagues had been overly optimistic about their future riches. Bill found it amusing, but always reminded them: "Don't count your chicks before they hatch."

"What drew you to us anyway, Bill? It's not every day that folks pack up their lives to move to Fort William."

"The challenge, I guess. It's odd but I liked working at Turner Valley better before we reached oil. That's where the real fun was—it kept you on your toes. Once we hit oil, a lot of the engineering challenges weren't as interesting to me. Plus, I'd heard lots about hydro plants operating in Quebec. Someone was telling me they were able to power all the streetlights in Montreal with hydro. Figured I may as well come out and learn a thing or two."

"D'you have kids back there?" As the well of small-talk topics dried up, John's questions started digging a little deeper. Bill noticed, but figured they may as well get to know each other.

"Two daughters. Six and four."

The conversation stalled for a second, until Bill remembered his manners.

"You?"

"None yet. Maybe soon though, just got married last month."

The two engineers talked about their lives for about an hour, until John suggested they fuel up.

A blue sign by the side of the street read "OIL DISTRIBUTION TERMINAL 1 KM." It looked new, the sheet metal barely weathered by the elements. The rise of the popular automobile, the Ford Model T, had led to a desperate need for fuelling stations. In the distance, Bill could see the large tanks full of fuel just off the side of the road. He chuckled to himself, seeing half a dozen employees running around like ants. These were busy times for an oil terminal.

Bill slowed right down as they pulled off the road into the terminal. The smell of gasoline reached his nose. He'd been around it before, but still wasn't quite used to its overpowering aroma. A young boy, who couldn't have been older than 14 or 15, asked Bill to cut the engine. As John took care of payment, Bill watched as an employee filled a small can from a large bulk tank and shuffled over to another patron's automobile. The employee set the can on the ground and ran to a stack of plastic funnels. He pulled one off of the pile, went back to the automobile, and proceeded to perform a balancing act of holding the funnel in one hand while pouring fuel from the can which was evidently too heavy for his thin frame. Once finished, that same boy fuelled up Bill's vehicle.

"How old are you, son?" Bill asked out the window.

"Fifteen, sir." Bill didn't press on, letting the poor lad concentrate on fuelling up the Ford.

John sauntered back to the vehicle wearing a wide smile, clutching a piece of paper.

"Here," he said, handing a postcard to Bill. "They've got postcards with our plant on it! You can send it to your wife."

Bill appreciated the gesture. He scratched a message on the postcard while John took the driver's seat and drove away. Bill chose to omit that he'd driven an automobile. He'd rather surprise his wife by buying one someday.

The first service station in Canada

(Photograph) 1907. Smythe Street, Vancouver, BC. Courtesy Imperial Oil Limited. https://thecanadianencyclopedia.ca/en/article/gasoline-stations

The vibration from my cell phone woke me up. JUSTINE PROULX. Honestly impressed that she still had my number, I picked up.

"Hello?"

"Hi! Mark?"

"Yep, it's me. Justine, it's been years, how are you?" Our friendship was timeless, years would go by and we would pick up right where we had left off. We caught up for a minute or two until Justine explained the motivation behind her call.

"Listen Mark, I've got something big to ask from you. The company where I work is looking to do an unveiling, sort of a demo, to potential investors. We've developed fuel that's carbon neutral. The company's called FutureEnergy, I'll send you more info. Anyway, for the demo, we want to fire up an Oldsmobile with our fuel. We want to show that our product is just as good, if not better, than conventional gasoline and that it works in existing combustion engines, no re-figuration needed." I could hear excitement crackling through her voice.

"Woah, sounds awesome! Where is this?" I asked, wondering if she had left British Columbia.

"We're just up in Squamish. It is pretty neat stuff. Anyway, I was wondering if your dad still had that Model T from your great-great-grandpa. Does he still bring it to car shows?"

"Oh yeah, it's his pride and joy."

"Well, I was wondering if he'd be willing to bring it up to Squamish for the demo. I know it's a big thing to ask, but the company would accommodate the two of you and you could see the demo! And don't worry, the fuel works—actually, it's even cleaner than fuel from the pump."

I had to think about it. My dad had spent countless hours restoring that car, it was the oldest Model T in good condition in the country. Hesitantly, I told her I'd ask him.

"Okay, thank you so much, talk soon?"

"Sounds good." Click.

My dad was shockingly open to the idea. We got the details worked out with Justine and two months later, we were at FutureEnergy's production plant.

It was incredible. They gave my dad and I a tour of the plant, dumbing down the science of it for us to understand. They were capturing CO_2

from the atmosphere and transforming it into ready-to-use fuel, while using renewable energy to power their plant. The chemistry and science went over our heads, but its application was clear. This could offset the carbon footprint of transportation without requiring a system overhaul. Fuel pumps didn't need to be replaced by charging stations. Vehicle's current engines could accept the fuel. It was a perfect substitute.

We knew the demo would work. They had fired up the Model T with their fuel a few days ago, to prepare for today's high stakes. They had our car up on a riser with a banner flapping in the wind right above it. The banner read "Yesterday's Car Powered by Tomorrow's Fuel" in big bold font.

I took a picture of it to send to my mother. With it I wrote: "They're making fuel that cleans up the air, yet everyone's talking about going electric. Funny how people work, eh?"

FutureEnergy's methods offer a simple and viable alternative to our current dependence on fossil fuels for transportation. I did more research after the demo, and they've been able to make the stuff for a dollar a litre!

It really seems like they've found the perfect solution to the environmental implications of transportation.

Yet, companies are flocking to make electric cars. Piles of money are being invested in charging stations to sustain these electric vehicles. The combustion engine has effectively been demonized.

Our societal attitude towards the environmental crisis is the root of the issue. Our eagerness to board the next train that may deliver us ecological salvation blinds us. It was easy to blame the combustion engine for our environmental pillaging, and the electric car is seen as our lifeline. The consumerist necessity for shiny new things is largely what has landed us in this environmental crisis, yet people rely on this same mentality to pull us out of it. FutureEnergy's advancements go largely unnoticed among the people because the product isn't sexy. It isn't a new thing. It's a cleaner old thing. People only want new things, and that's what needs to change.