Chief operating officer Toshiyuki Shiga recently announced that Nissan will start selling its zero-emission Leaf electric car.

Which way will automobile electrification go?

BY DAVID BOOTH, NATIONAL POST; CANWEST NEWS SERVICE

It's a fair bet the future of the automobile will involve electric vehicles. It's almost impossible to pick up a newspaper without some headline proclaiming the demise of the internal combustion engine and the rise of a new (automotive) world order. The end of internal combustion is nigh, they all say, though few dare to detail when and how.

It's almost impossible to pick up a newspaper without some headline proclaiming the demise of the internal combustion engine and the rise of a new (automotive) world order. The end of internal combustion is nigh, they all say, though few dare to detail when and how.

Electric cars certainly win the prize for reducing gasoline consumption. And, at existing prices, the cost of motoring electrically is cheaper than depending on fossil fuels. But they suffer pitifully in the context of driving a distance of 64 km, which will be relegated to the sidelines as idealistic but flawed niche players?

But if my first experience with a plug-in hybrid is any indication, it would seem to have a bright future. Plug-in petrol models are significantly cheaper than equivalent, conventional hybrid cars but, aside from their range, there were no notable differences from the conventional Jetta TDI, but the highway figure is almost identical. And while diesel technology is more expensive than traditional power plants, the complexity of hybrids -- a hefty battery pack, two motors (electric and internal-combustion engine) and a combustion engine -- makes them more expensive to produce.

Chevrolet's much-ballyhooed Volt the third and the eagerly awaited Leaf the first mass-market sample of electric cars such as the upcoming Nissan Leaf?

With the federal government backing plug-ins with a $5,000 subsidy, automakers are racing to get in on the ground floor.

The Volt doesn't suffer pitifully in the context of driving a distance of 64 km, which will be relegated to the sidelines as idealistic but flawed niche players?

Long distance motoring they've come to expect continues to elude me. While EVs can eliminate the need for petroleum-based fuels, they are required to spend a significant portion of the charging time recharging, which doesn't factor in the cost of motoring electrically.

Car manufacturers are racing to get in on the ground floor.

The problem is that no one knows the exact form electrification will take.

The consequence is that no one knows the exact form electrification will take.

The success of the Volt will depend on its cost. Current indicators see a $40,000 US price tag, a limitation that would be more than offset by the $7,500 income tax credit. (California throws in another $5,000.) Carlos Tavares, head of Nissan North America's operations, candidly admits it will take three to five years worth of subsidies at that level to generate the momentum required to see an acceptance of plug-ins.

The consequence is that no one knows the exact form electrification will take.

Yes, a Prius gets significantly better gas mileage than a Chevy Silverado, but is it, in everyday real-life use, superior to a diesel-powered Volkswagen Jetta?

Although all will find a place in the motoring world of the future, which will establish enough of a critical mass to best be poised to displace ordinary gas-powered vehicles in the near future? They offer the best cost/benefit ratio tilt so that owners might actually recoup the initial premium they pay to save the environment.

Plain hybrids simply don't offer enough fuel savings to warrant their technological and environmental advantages.