

Decarbonizing the Trucking Sector

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Messages

1. It is not just about the technology.
2. Time is not on our side.
3. We need to stop getting in our own way.

It is not just about the technology

- The adoption of new technologies is a very social process.
- The relative advantage of the technology is only one of five critical aspects with respect to the adoption of new technologies.
- The others are
 - Compatibility
 - Complexity
 - Trialability
 - Observability
- In addition to the actual innovation, the other critical aspects are communications, time, and the social system that you are working in.

Observations from introducing new fuels

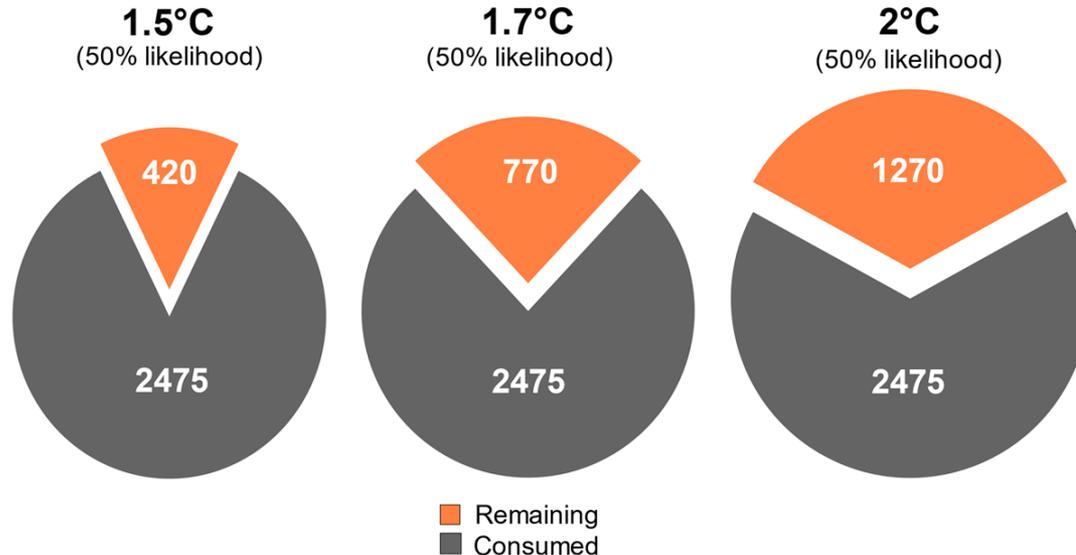
- It always takes longer than you think it should to achieve market penetration.
- Liquid fuels generate more consumer excitement than gaseous fuels.
- If you have to change the fuel and the vehicle multiply the time required by an integer greater than 2.

Time is not on our side

- We need to stop focussing on the annual emissions and look at the cumulative emissions.
- It is not the shape of the emission trajectory that is important it is the area under the curve (the total emissions) that is critical.
- The CO₂ that we are emitting today will stay in the atmosphere, impacting the climate for more than 100 years.
- Emission reduction technologies that we implement today will reduce emissions next year, and the years after that.
- We should not be waiting for the perfect solution.

Carbon Budget

The remaining carbon budget to limit global warming to 1.5°C, 1.7°C and 2°C is 420 GtCO₂, 770 GtCO₂, and 1270 GtCO₂ respectively, equivalent to 11, 20 and 32 years from 2022. 2475 GtCO₂ have been emitted since 1750.

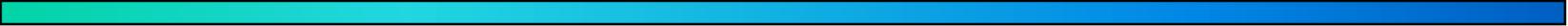


We need to stop getting in our own way

- BC was the first Jurisdiction in North America to introduce a Carbon Tax.
 - It is often held up as an example for other jurisdictions.
- It is **not** a carbon tax, it is a tax on energy.
 - The rate on gasoline assumes that the fuel contains 5% ethanol, even though we are above that. E85 is taxed as gasoline as there is no mention of ethanol in the entire act.
 - The rate on diesel assumes that the fuel contains 4% biodiesel or renewable diesel, even though we are above that.
 - If the fuel is 100% renewable diesel it is taxed as if it was diesel fuel.

Fix the Carbon Tax Act

- The only renewable fuel that can get some relief is biomethane.
 - It is taxed at the NG rate but “a retail dealer of natural gas, on behalf of the government, must provide a credit to a purchaser at the prescribed time and in an amount determined in the prescribed manner.”
 - the director, subject to the regulations, must pay from the consolidated revenue fund to the retail dealer a refund of a portion of the tax remitted by the retail dealer in respect of the sale in an amount determined in the prescribed manner.
- Low carbon fuels cost more than petroleum fuels.
 - We should be using the Carbon Tax, the way it was intended, to encourage the use of low carbon fuels.



Questions?

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