Making Carbon fee just steep enough to meet emission reduction targets

One of the ways that we could account for the unpredictability of the price elasticity of demand for carbon would be to provide a fail-safe mechanism to ensure that we definitely stay on the carbon reduction schedule. If we kept Energy Innovation Act (HR 763) essentially as it is and scale up the annual carbon fee increase by Number-of-Years-Behind-Schedule * 0.15.

Also we really cannot afford to have the HR 763 five year pause before the scale up takes effect. We must take the lead and be the shining example to the world. The more quickly we prove that this system works the more quickly other nations will adopt it.

To make sure that this system is not too harsh we put in a safeguard in the other direction. For any year that we are more than a year ahead of schedule the Carbon fee remains the same and it not incremented.

Examining Energy Innovation Act (HR 763) carbon pricing:

If we assume that:
(a) The long term price elasticity of demand (PEOD) for gasoline is 0.58
(b) The PEOD for gasoline is a reasonable proxy for the PEOD of carbon.
(c) A carbon fee of $10 per ton equates to a 10 cent per gallon increase of the price of gasoline.
Reducing carbon emissions to 90% of current levels by 2050 requires a carbon fee of $43 per ton.

Carbon Fee and Dividend Price Elasticity of Demand Analysis:
Long term price elasticity of demand for gasoline estimated at 0.58
https://www.thoughtco.com/price-elasticity-of-demand-for-gasoline-1147841

https://www.omnicalculator.com/finance/price-elasticity-demand
Initial Price: 2.66
Initial Quantity: 11 gallons per week (14,000 miles / 25 MPG)
Final quantity: 1.1 gallons per week
PEOD: -0.58 Final Price: $15.61

(15.61 – 2.66) / 30 = Gasoline price increment per year: $0.43 derives a $43 per ton Carbon fee.