

# Impact Assessment of Clean Fuel Standard on the Canadian Economy

## EXECUTIVE SUMMARY

### BIOFUELS AND THE CLEAN FUEL STANDARD

The Government of Canada is in the process of designing a Clean Fuel Standard (CFS) with the goal of reducing greenhouse gas emissions by 30 Mt by 2030 over a range of fuels in transportation, industry and buildings.

The transportation sector is currently responsible for around a quarter of Canada's total emissions and despite continual improvements in vehicle fuel efficiency, the sector's emissions continues to grow. Therefore addressing transportation emission will be a critical component of the CFS and biofuels are an effective means to immediately reduce emissions while stimulating the economy, supporting Canadian farmers and creating jobs. From 1990 to 2015, transportation sector emissions increased by 42%, or 51 Mt per year. (Environment and Climate Change Canada, 2017).

Emissions from the transportation sector grew by **42%** between 1990 and 2015.



**A new study by Doyletech Corporation assesses the potential impact of the Clean Fuel Standard (CFS) on the Canadian economy, under two scenarios: a near-term increase of the mandated biofuel volumes as a part of the implementation of the CFS, and further biofuel expansion when the CFS is in full force (by 2030).**

### BUILDING ON SUCCESS

Since 2010, Canada's biofuels industry has removed the CO<sub>2</sub> equivalent of 1 million cars from our roads each year. Combatting harmful emissions with biofuels generates \$3.5 billion worth of annual economic activity, and has created over 14,000 jobs (Doyletech 2013).

In their latest study, Doyletech concluded that if CFS utilized biofuels to their potential, it could result in an ongoing **economic impact of up to \$21.3 billion per year, while creating over 12,600 jobs from the biofuels sector alone. Governments would stand to benefit by an additional \$3.25 billion per year in returns.** The economic impact would likely be higher, as this value does not include the build-out period for new biofuel production capacity.

## SCENARIO I

### Near-term Increase in Biofuel Mandates:

An enhanced Renewable Fuels Standard (RFS) across Canada, involving an increase to required volumes from 5% to 10% ethanol in gasoline, and from 2% to 5% biomass based diesel.

### Key findings:

An increase in required volumes of biofuels to 10% ethanol and 5% biomass based diesel.

### Construction phase:

A one-time impact of \$3.19 billion and 15,698 job-years during the build period.

Increased government returns:

**\$124 million**  
for municipal governments

**\$532 million**  
for provincial governments

**\$1.02 billion**  
for federal governments

## SCENARIO II

### Full Implementation of the CFS in 2030:

CFS implementation, assuming that biofuels would deliver 21.3 megatonnes (Mt) of the 30 Mt target (71%). To achieve the 21.3 Mt of reductions, this scenario assumes blend levels of 20.3% ethanol and 14.1% biomass based diesel in 2030.

### Key findings:

CFS implementation, assuming that biofuels would deliver 21.3 megatonnes (Mt) reduction.

### Construction phase :

A one-time impact of up to \$9.6 billion and 47,100 job-years during the build period.

Increased government returns:

**\$327 million**  
for municipal governments

**\$1.6 billion**  
for provincial governments

**\$3.06 billion**  
for federal governments

## SCENARIO I

### Ongoing impact:

Increase in economic impact of \$6.91 billion and the creation of almost 4,000 jobs.

Increased government returns:

**\$34 million**

for municipal governments

**\$462 million**

for provincial governments

**\$527 million**

for federal governments

## SCENARIO II

### Ongoing impact:

Increase in economic impact of \$21.3 billion and the creation of almost 12,614 jobs.

Increased government returns:

**\$107 million**

for municipal governments

**\$1.47 billion**

for provincial governments

**\$1.69 billion**

for federal governments

## CONSIDERATIONS

The report did not assess near to mid-term opportunities for production of other biofuels. The study's results for ethanol and biomass based diesel can be illustrative of the impact potential from other feedstock streams and technology platforms. Pathway-specific modelling would be required to assess their impacts.

**This scenario illustrates that biofuels are the most ubiquitous solution to transportation sector GHG emissions, and can be a significant contributor to realizing Canada's Paris Accord commitments.**

## CONCLUSION

**The report shows that enabling the increase of domestic biofuels production through the CFS can generate billions of dollars in economic activity and create thousands of jobs, while significantly reducing GHG emissions for the transportation sector.**

