

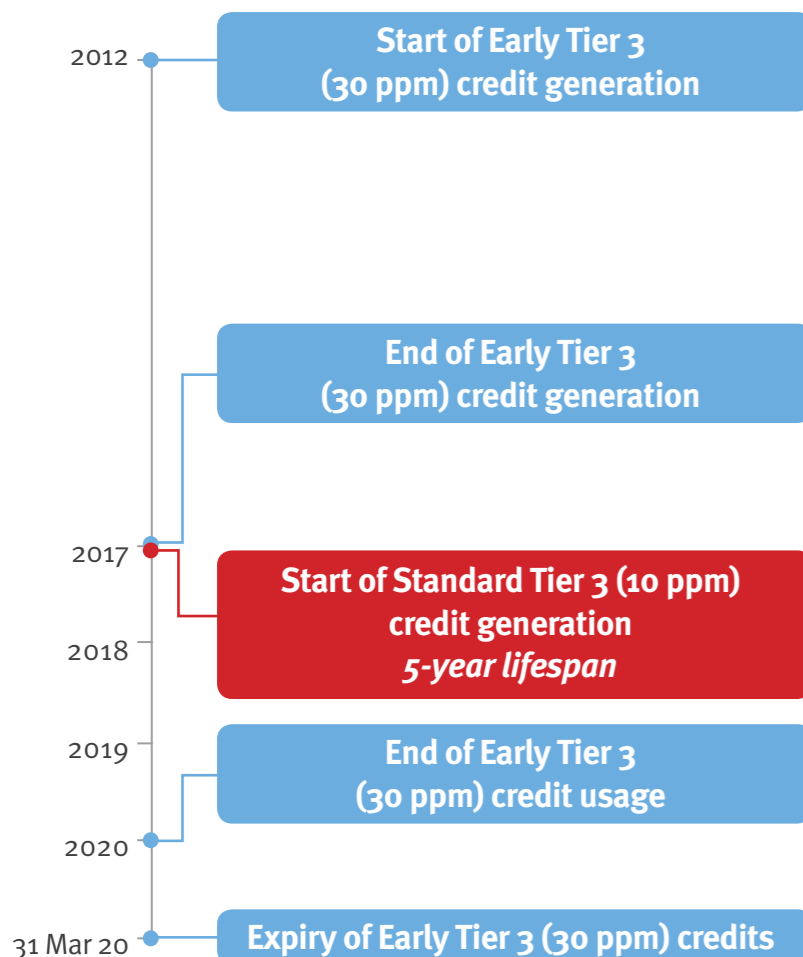
# Do you know the cost of Tier 3 sulphur credits?

A Tier 3 sulphur credit overview and what it means for you.

## What is the Tier 3 fuels standard?

The US Tier 3 fuels standard was enacted in 2014, going into effect for most refiners at the start of 2017. Intended to improve America's air quality, the standard includes tighter limits on the amount of sulphur and benzene allowable in gasoline.

## Timeline for Tier 3 gasoline sulphur credits

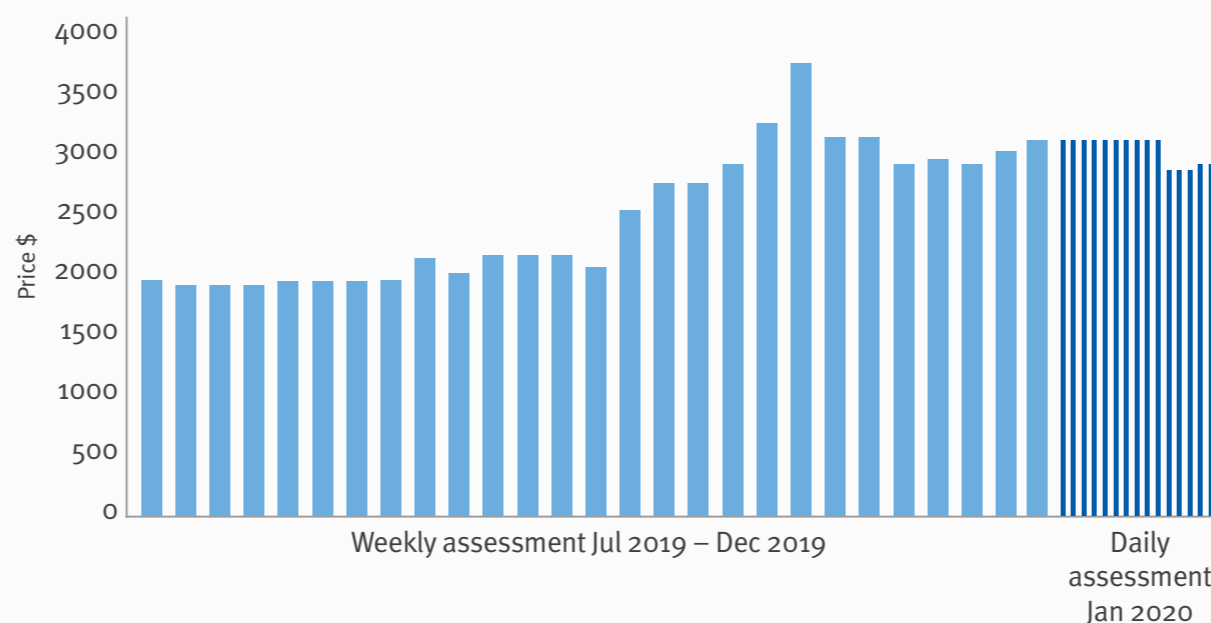


## How will trade flows be affected by Tier 3 sulphur credits?

■ Gasoline trade flows  
■ Naptha trade flows



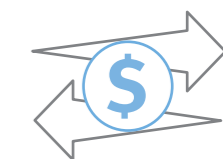
## As Tier 3 importance has increased, so has liquidity and volatility



Gasoline > 10 ppm sulphur debt



Gasoline < 10 ppm sulphur credit



Tier 3 credits expire after **5 years**

Once a Tier 3 credit is produced it can only be traded twice

## What is the sulphur credit program?

The US Environmental Protection Agency (EPA) created a sulphur credit program to help refiners, blenders and importers meet their Tier 3 obligations:

- Produce/import gasoline containing less than 10 ppm sulphur on an annualized basis and “earn” sulphur credits.
- Produce/import gasoline containing more than 10 ppm sulphur and incur a sulphur credit “debt,” payable to the EPA the following year.
- Hold earned credits for use in subsequent years, or sell them on the open market.
- Those with a debt must purchase credits from other program participants to remain in compliance.

If you produce at 20 ppm over the course of the year it will cost you 0.3¢/USG in credits, if credits are pricing at \$3,000 for every batch of 1mn gallon credits.