In 2014, Alberta’s remaining established reserves of natural gas stood at 32.4 trillion cubic feet (Tcf). When you look at how this stacks up with natural gas reserves in other countries around the world, Alberta ranks 25th. (This comparison treats gas reserves in the “rest of Canada” as a separate entity, which collectively rank higher than Alberta.)

However, this ranking doesn’t tell the whole story about where Alberta’s gas resources sit relative to the global energy landscape.

First, just because a jurisdiction has a lot of natural gas doesn’t mean it’s a more attractive place to develop those reserves.

To see this, we can look at a list of top 10 natural gas producers in the world, in the graphic below. Consider how that list compares with the list of jurisdictions having the 10 largest “proved” natural gas reserves.

While Alberta ranks 25th in proved reserves, our province is the eighth largest natural gas producer in the world. In 2014, Alberta produced an average of 9.9 billion cubic feet per day (Bcf/d) — ahead of Algeria and Indonesia, even though those two jurisdictions officially have significantly more “proved” reserves than Alberta.

The United States has the 5th largest natural gas reserves on earth, but it is actually the top producer. In 2014, the United States produced 70.5 Bcf/d of natural gas. Similarly, China ranks 13th in terms of proven gas reserves; however, it ranks higher on the list of global producers.

On the other hand, while Iran has the largest proven reserves in the world, in 2014, it was ranked 4th in terms of global gas production. At 16.7 Bcf/d, its production was significantly behind the top-ranked U.S.
Second, when it comes to natural gas reserves, it’s important to remember that where a jurisdiction ranks depends on what it counts and reports.

For example, the Alberta Energy Regulator uses a specific definition to determine the size of Alberta’s “remaining established reserves”, which are used in the chart of proved reserves. Essentially, it’s limited to the volume that can be recovered under current technology, and present and anticipated economic conditions.

It’s important to note that in addition to the 32.4 Tcf currently counted and reported as reserves, Alberta has significant resource volumes of natural gas.

Most notably, Alberta has an estimated total of 3,424 Tcf of shale and siltstone-hosted resources in six key formations.

While the Alberta Energy Regulator has identified these resources, it is unclear when and to what extent it would be economically and technologically feasible to develop them. As a result, they are not treated as proven reserves at this time, and so they are excluded from official global comparisons. However, it’s clear these resources are significant.

As with oil development, companies consider the size of a jurisdiction’s natural gas resource opportunity. However, they consider lots of other factors as well, including how open the jurisdiction is to investment, the risks posed in the jurisdiction, what it will cost to produce natural gas in the jurisdiction, and the royalty framework used by the jurisdiction.

Sources: Alberta Energy Regulator; National Energy Board; BP Statistical Review.