EIA-914 Estimates Compared with Other sources

The following seven graphs were prepared to give a sense of the variation and confidence level of the EIA-914 estimates. Each graph shows the reported sample production (the starting point for making an estimate), the EIA-914 estimates, State reported data, HPDI reported data, and Lippman Consulting data for comparison. State data are obtained directly from the States usually via a State agency web site as a monthly total. HPDI is a commercial data vender. They acquire data from all the States and provide it to EIA in a single format and query system at the well or lease level. EIA then sums this data to the operator level and State level. HPDI data typically lag the State data by 1 or 2 months. Both the State and HPDI data are incomplete in the recent months. Lippman Consulting estimates State or State subdivision production based on pipeline flow data and provides this data to EIA via a subscription service. Excel workbook containing the data shown in these graphs.

In Texas, the EIA-914 survey sample provides roughly 84 percent of the total production. Both the HPDI data and the State data are incomplete in recent months. The graph indicates that the State data may be 3 to 4 Bcf/d low in the latest month reported and may take 2 years to become complete. The HPDI data may be less than a Bcf/d low in the latest month reported and may be complete in 6 to 9 months. HPDI receives a "pending" file from the State that the State does not publish. The pending file contains operator reports for leases that did not pass the automated edits. These reports require further handling before being accepted by the State and included in their normal database. Data reports in the pending file may have been rejected due to a mistyped id or misspelled company name, or reasons other than a suspect production volume. Totals published by the State do not include the pending file. The EIA-914 estimates show a growing difference with the HPDI data in 2008, which raised concerns about the estimating methodology.



Texas Reported and Estimated Natural Gas Production, 2005 - 2009

In the Federal Gulf of Mexico, the EIA-914 survey covers about 95 percent of the total production. The higher the survey coverage, the less likely it is for there to be a large error in the estimates. Major storms are responsible for the large drops in production in the fall of 2005 and 2008. After a major storm, both the operators and the Federal and State agencies they report to can be in disarray. It can be several months after a particularly devastating storm before reliable reporting is established. Under normal circumstances, it appears to take about 9 to 12 months for both the Minerals Management Service (MMS) data and HPDI data to become complete.



In Wyoming, the EIA-914 sample covers about 97 percent of the total production. The State data and the HPDI data are essentially complete in 3 or 4 months. These two facts mean that gas production estimates for Wyoming should be very good.



In Oklahoma, the EIA-914 sample covers roughly 81% of the total gas production. The cutoff sample used in the EIA-914 of 20 MMcf/d for the lower-48 States is modified for Oklahoma. A special production cutoff rate of 10 MMcf/d in Oklahoma is used for Oklahoma to increase sample coverage. Even with this modified sample, Oklahoma still has the lowest coverage rate of the EIA-914 sample States. Oklahoma has many small operators and few large operators. The State reported data comes from the Oklahoma Tax Commission (OTC). HPDI uses a combination of the OTC data and the Oklahoma Corporation Commission (OCC) data for its Oklahoma reported production. The graph below shows that in recent years the two data sources are different. OTC reported production may take 2 or 3 years to become complete. Revisions and updates to the State reported data can be somewhat random and sporadic. As a result, accurate current gas production estimates are difficult to produce from State data.



In Louisiana, the EIA-914 sample coverage is about 84 percent. State reported data and HPDI data are essentially complete in roughly 6 months. For the last 2 years the estimates have generally been low. This has raised concerns about the estimating and sampling processes, and indicates that the actual sampled production may be less than expected. The Lippman Consulting data appears to be consistently slightly higher than the State data.



In New Mexico, the EIA-914 sample coverage is about 90 percent. Both the State and HPDI data are essentially complete in roughly 6 months. Gas production estimates should be reasonably good. The Lippman Consulting data appears to be slightly low to the State data.



In the Other States excluding Alaska, the sample coverage is about 83 percent. Estimates are calculated by a process that's different from the rest of the areas. A ratio of annual volumes for the EIA-895A survey over the EIA-914 survey is used. The annual volume ratio for 2007 is used to make the 2009 monthly estimates. Both Lippman Consulting data and HPDI data appear to be low or incomplete for the group of Other States excluding Alaska.



Sources: EIA-914 Survey, EIA-895A Survey, Lippman Consulting

