A recently implemented US natural gas pipelines safety regulation would create conflicts with storage injections and gas delivery, according to Scott Glaeser, project manager for consulting firm Burns & McDonnell.

A gas transmission rule enacted by the US Pipeline and Hazardous Materials Safety Administration in July requires pipelines built before 1970 to reconfirm their maximum allowable operating pressure. The measure is intended to reduce the risk of explosions and encourages pipeline operators to understand safety threats. Operators have until July 2028 to confirm that status on 50pc of applicable pipelines and July 2035 for the rest.

But the work needed to perform these pressure tests or replace old lines would require scheduled and unscheduled maintenance, Glaeser said today at the Mid-Continent LDC forum in Chicago, Illinois. Such work could lead to extended outages during the summer, which could curb gas storage injections and supplies to the power sector.

The accelerated closure of coal plants will also likely place more reliance on gas-fired generation, and the increasing expansion of renewable energy will create more demand for dispatchable gas-fired power use, he said.

An overlap of scheduling conflicts between storage injections and scheduled pipeline maintenance would likely be unavoidable.

"All these conflicts will be happening on future summers going forward" Glaeser said. "The industry is still figuring out how this will work on the operations side."

One example cited as a potential solution to these conflicts was a virtual pipeline system, which essentially connects gas suppliers with consumers by transporting natural gas through truck transportation.

The US has over 300,000 miles of gas transmission lines, with about 56pc of the lines having been built before 1971, Glaeser said. Newly constructed lines can cost anywhere between $2mn-5mn for every mile depending on diameter, population density and terrain.