Where does natural gas go when it isn't cold?

Once natural gas production wells are drilled and start flowing gas the objective is to keep that gas flowing from beneath the earth's surface. Making revenue is a big reason for that. A producer wants to pay the hard-working crews and for the very expensive equipment they have invested in but there are also technical reasons. Gas production wells are designed with a lot of science and geology but there are still some unknowns involved in the process like what happens if production is stopped and you want to restart it when pricing is better? There is always a chance the well might not come back the same due to geology and formation characteristics. So, if keeping production flowing is the goal, where does the gas go in the summer when it is not being used to heat our homes?

There certainly are other markets for natural gas that are steadier year-round but even power generation fluctuates between daytime and nighttime. Export of natural gas in the form of Liquified Natural Gas (LNG) is a very large balanced demand but currently represents a small portion of production (hopefully much more to be developed in Canada soon!) Storage is the answer. The midstream industry in Canada has developed almost 1 trillion cubic feet (TCF) of underground storage to hold natural gas during low demand or peak production. This storage helps keep the production wells flowing and balances the market demand.

The cost of building storage tanks for natural gas for other than operational purposes would be much too costly so once again, the earth provides us with the opportunity to solve this problem economically. Just as natural gas liquids such as propane are stored in underground salt formations, some natural gas is stored in these formations too, but much more common is storing the natural gas in a depleted gas reservoir. That is right, the gas is reinjected back into the earth for storage. These storage fields are in strategic locations along sales gas pipelines and in formations where the geology and performance is known. Large compressors push the gas back into the former production field, now repurposed as a storage reservoir. From there, it is released back onto the sales gas line when market demand warrants.

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