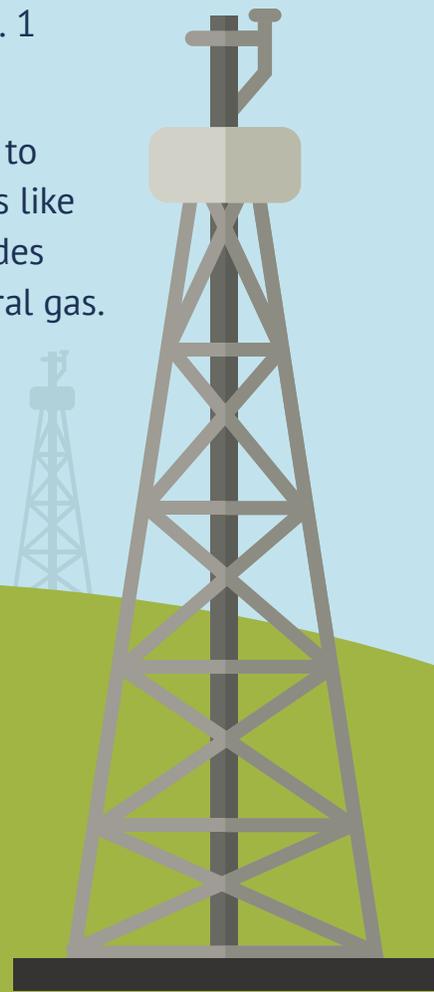


# ENERGY INFRASTRUCTURE 101

America's energy renaissance is underway. We're producing more oil and natural gas than we have ever before, and we're now the No. 1 natural gas producer in the world.

But have you ever wondered how our energy goes from the well to our gas pumps or to our homes? To get that energy to consumers like you and me, we need a complex energy infrastructure that includes pipelines, roads, rail, trucks and ships that carry our oil and natural gas.



# What is Energy Infrastructure?

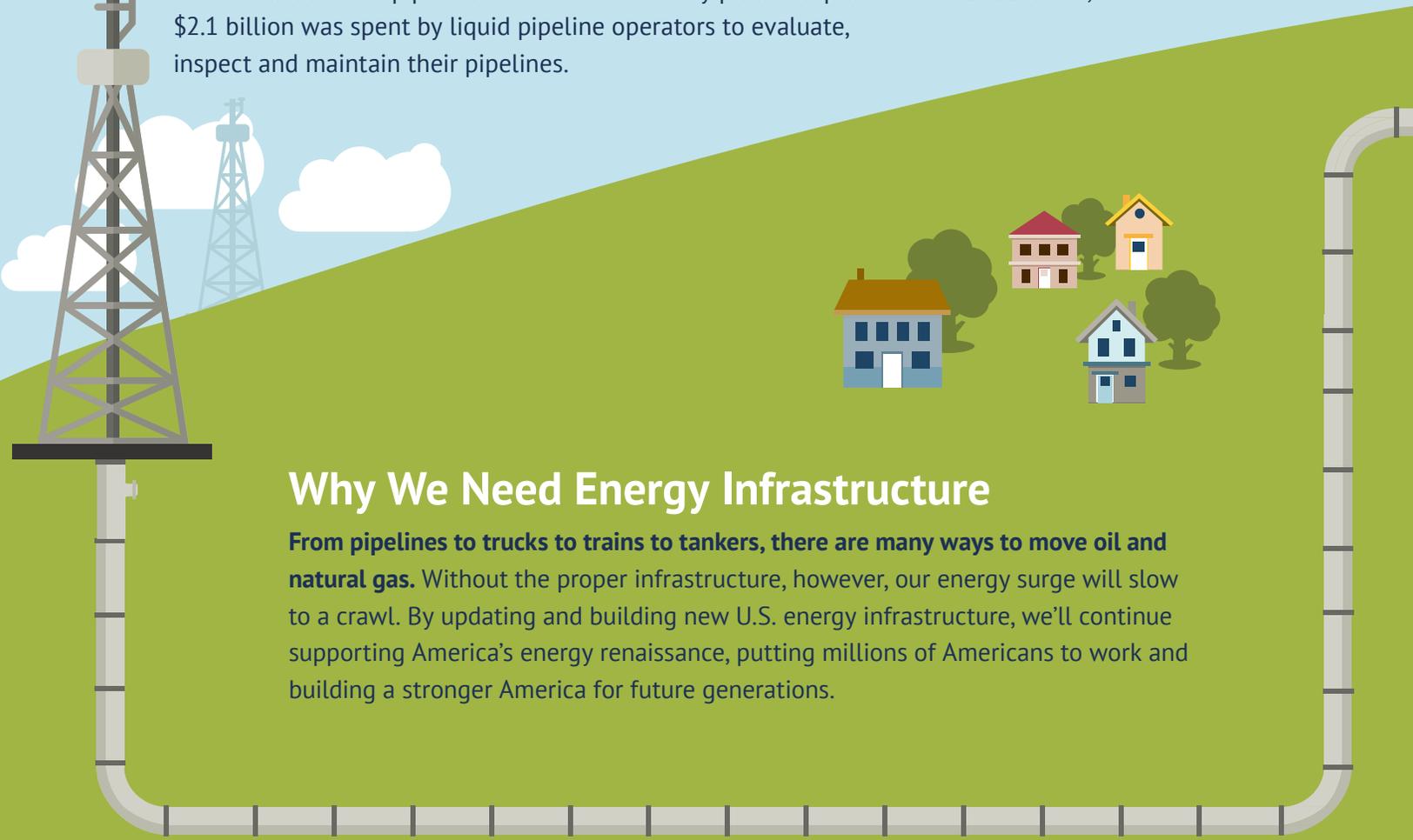
## Pipelines

The U.S. has more than 2.6 million miles of energy pipelines. If you use natural gas, then you benefit from the nation's pipeline infrastructure. Natural gas produced in the U.S. travels by pipeline, and so do more than 14 billion barrels of crude oil used to fuel your car and produce thousands of household items that you use throughout the day.



Pipelines are one of the safest methods of transportation, and technological advancements continue to make them safer every year.

- A barrel of crude oil or petroleum product shipped by pipeline safely reaches its destination more than 99.999% of the time.
- Pipeline companies work with local, state and federal governments to address community health, safety, security and environmental concerns throughout every phase of a pipeline's development and operation. Pipeline plans are approved before construction starts. Pipelines are inspected regularly during the building and throughout their operational lifetime.
- To prevent leaks, state-of-the-art technology similar to a doctor's ultrasound machine or MRI is used on the inside of the pipe to scan the walls for any potential problems. In 2012 alone, \$2.1 billion was spent by liquid pipeline operators to evaluate, inspect and maintain their pipelines.



## Why We Need Energy Infrastructure

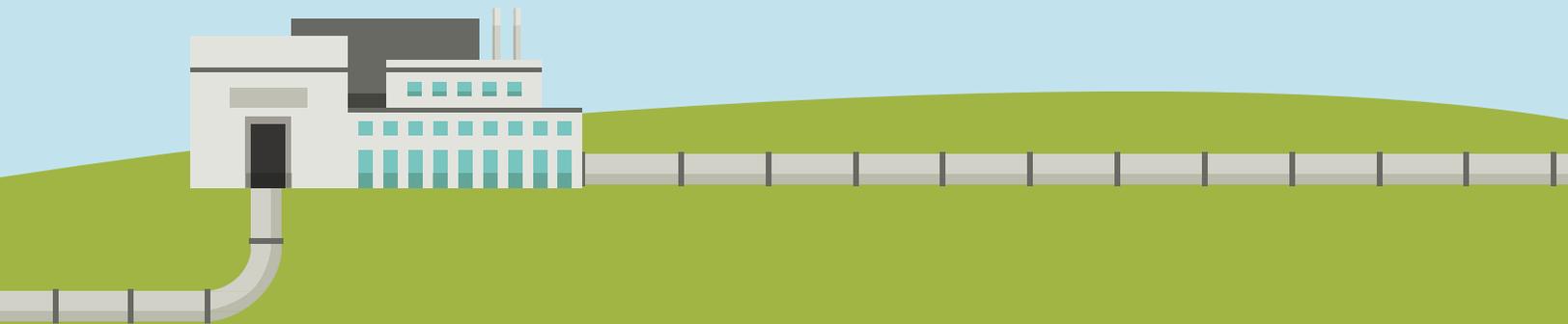
From pipelines to trucks to trains to tankers, there are many ways to move oil and natural gas. Without the proper infrastructure, however, our energy surge will slow to a crawl. By updating and building new U.S. energy infrastructure, we'll continue supporting America's energy renaissance, putting millions of Americans to work and building a stronger America for future generations.

## Compressor Stations

**Compressor stations are an important, though often overlooked, part of transporting natural gas around the nation.** As natural gas travels through pipelines, it encounters friction that slows it down. That means the gas must be constantly re-pressurized to continue on its path down the pipeline network. Compressor stations are key components of our natural gas infrastructure that enable natural gas to travel throughout the U.S.

These highly regulated stations have a strong record of safety.

- The Pipeline and Hazardous Materials Safety Administration (PHMSA) is responsible for inspecting these systems during and after their construction to ensure that all applicable rules and regulations are met.
- The American Petroleum Institute also sets industry standards, working with regulators, to develop best practices for construction, operations and safety management that are often incorporated into federal and state laws.



## Rail

**Rail is a critical component to our energy infrastructure.** Complementing waterways, roadways and pipelines, rail allows easier access to remote areas where crude oil production often occurs. It can also quickly provide access to new areas, maximizing speed to market.

- Rail has an excellent safety record for transporting crude oil. In fact, the rail industry moves 99.99% of all hazardous materials to their destinations without incident.
- The oil and gas industry partners with regulators, the railroads and other stakeholders to evaluate and improve the safety of rail transportation of crude oil.
- The industry is committed to using the best science, research and real-world data to make measurable improvements to safety.

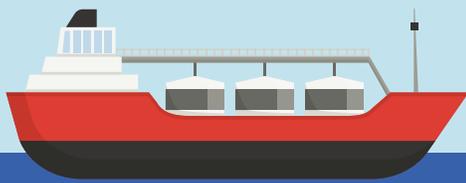


## Ships

**State-of-the-art tankers are another way that oil is transported around the nation and across our oceans.** Today's tankers are stronger, more durable and more maneuverable than ever before.

Over the last decade, more than 99% of oil delivered to the U.S. by ocean tankers reached its destination without incident. Here's how the industry is working to make the tankers of today as safe as possible:

- **Pilot Training:** Seven maritime academies exist throughout the country and more throughout the world specifically designed to educate and give high school graduates the skills they need to safely pilot a tanker. A captain of a tanker has more than 15 years of training and education.
- **Double Hulls:** This hull-within-a-hull concept provides an extra measure of security to keep the cargo secure and prevent oil from entering the marine environment.
- **Redundant Systems:** Today, tankers are built with duplicate engine rooms, radars and other systems. If the original system is compromised, a second, fully functional system is on hand as a backup.
- **Single Operator Capability:** Modern tankers allow a single deck officer to make all appropriate adjustments to the ship's speed and course from a central command station. This allows for faster response in critical situations.



## Get the Facts

Over the next 12 years, the potential investment in energy infrastructure could top \$890 billion. That is a windfall for America.



**\$120 billion every year**  
contributed to the economy



**1.15 million jobs**  
supported each year



**\$27 billion**  
in revenue to fund our  
schools and communities