

# Kinder Morgan

Joined Natural Gas STAR in 1993

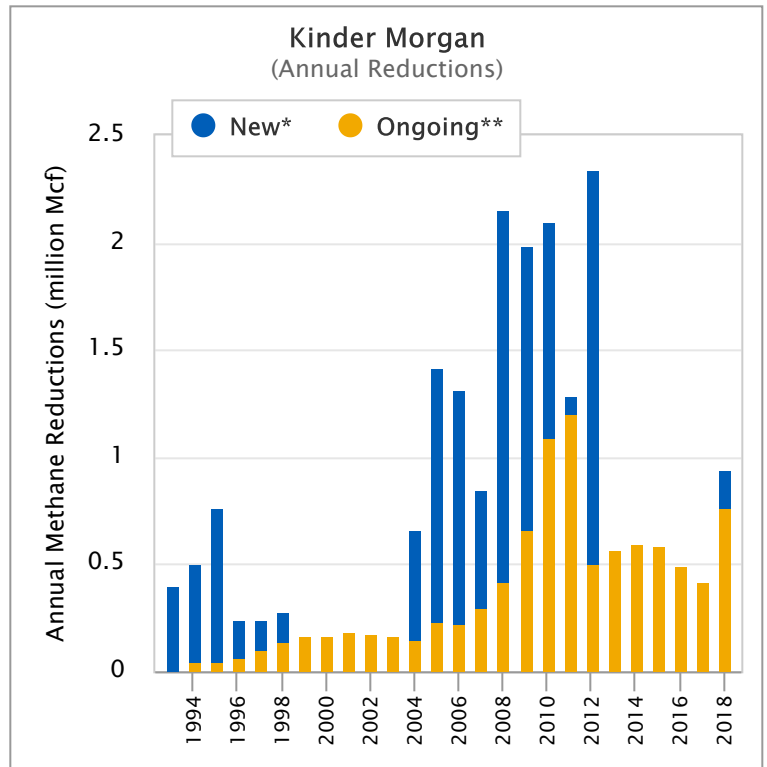
## 2018 Natural Gas STAR Summary Report

Segment: Transmission

Since the inception of the program in 1993, domestic Natural Gas STAR partners have eliminated more than 1,634,171,832 thousand cubic feet (Mcf) of methane emissions.

359,571,981 Mcf of methane emissions have been reduced in the Transmission Segment.

This report summarizes the voluntary methane emissions reductions achieved by Kinder Morgan in the Transmission Segment under the EPA Natural Gas STAR Program.







### Reductions for Kinder Morgan

2018	Cumulative
<b>942,915 Mcf</b>	<b>21,032,760 Mcf</b>
New: 176,113 Mcf	
Ongoing: 766,802 Mcf	

### Methane Emission Reduction Equivalencies

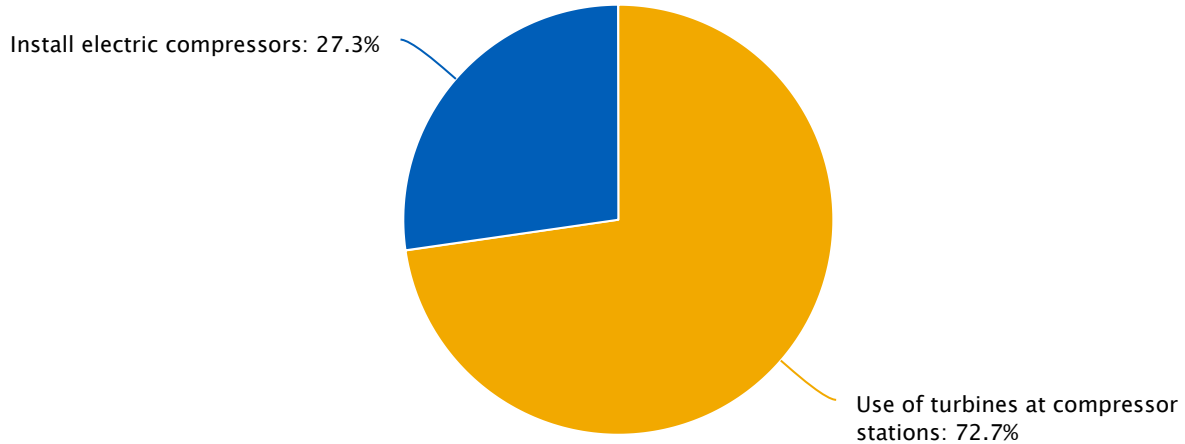
See [EPA's Greenhouse Gas Equivalencies Calculator](#) for additional equivalencies and details about the [conversion units](#).

	2018 (942,915 Mcf)	Cumulative (21,032,760 Mcf)
 Metric tons (MT) CO <sub>2</sub> equivalent	452,597 MTCO <sub>2</sub> e	10,095,684 MTCO <sub>2</sub> e
 CO <sub>2</sub> emissions from the energy used by this many homes in one year	54,203 homes	1,209,064 homes
 Carbon sequestered from this many acres of U.S. forests in one year	532,467 acres	11,877,276 acres
 Value of methane saved (at \$3 per Mcf)	\$2,828,745	\$63,098,281

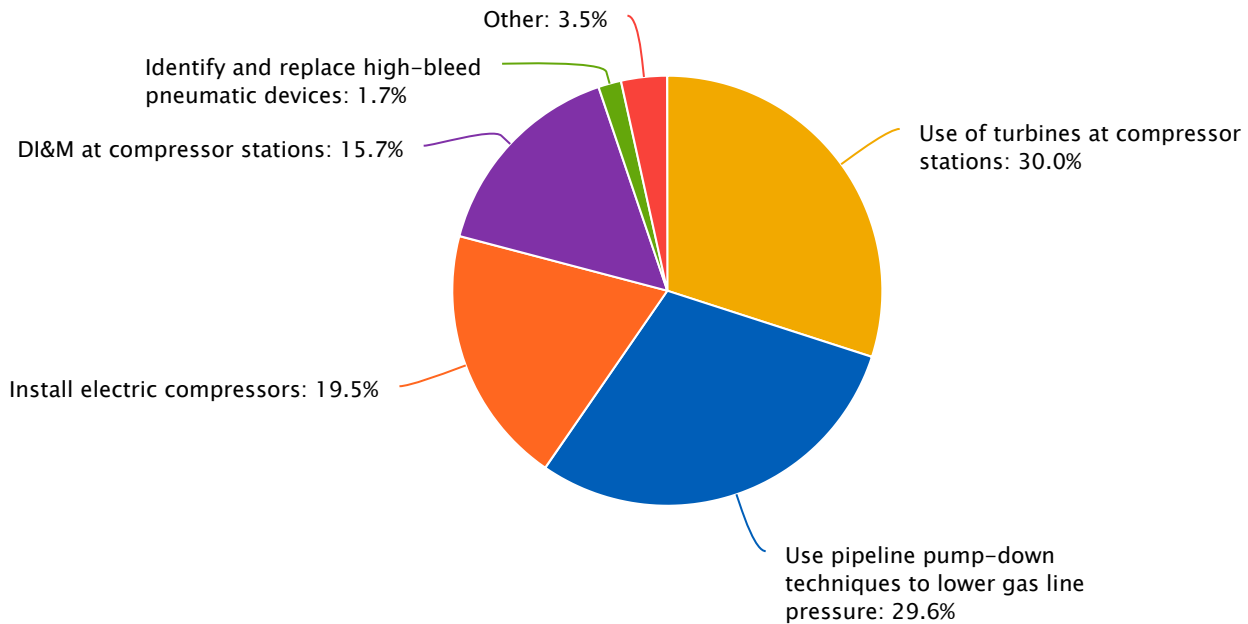
\* "New" reductions refer to reductions realized the first year an activity is implemented.

\*\* "Ongoing" reductions come from activities that are eligible to accrue methane reductions after the first year the activity is implemented. The length of time these activities can continue to accrue reductions or "[sunset date](#)" is specified for each activity.

**2018 Reductions in the Transmission Segment for Kinder Morgan:  
942,915 Mcf**



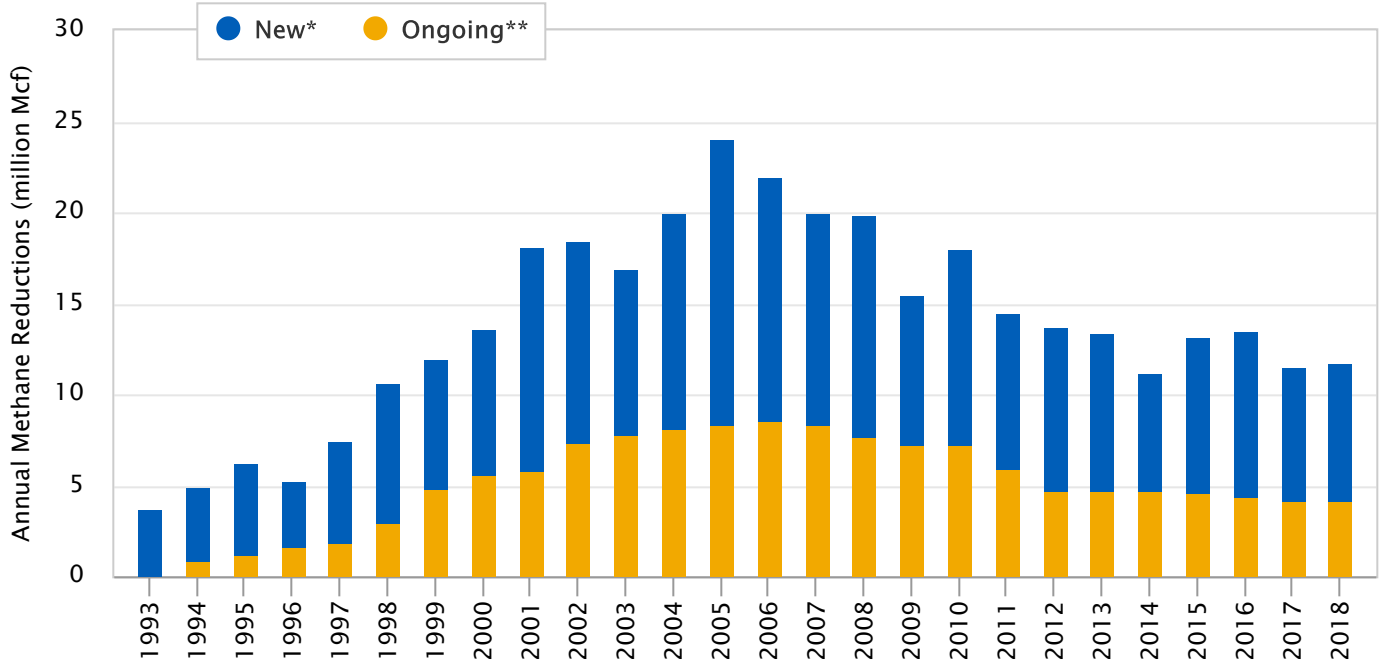
**Cumulative Reductions in the Transmission Segment for Kinder Morgan:  
21,032,760 Mcf**



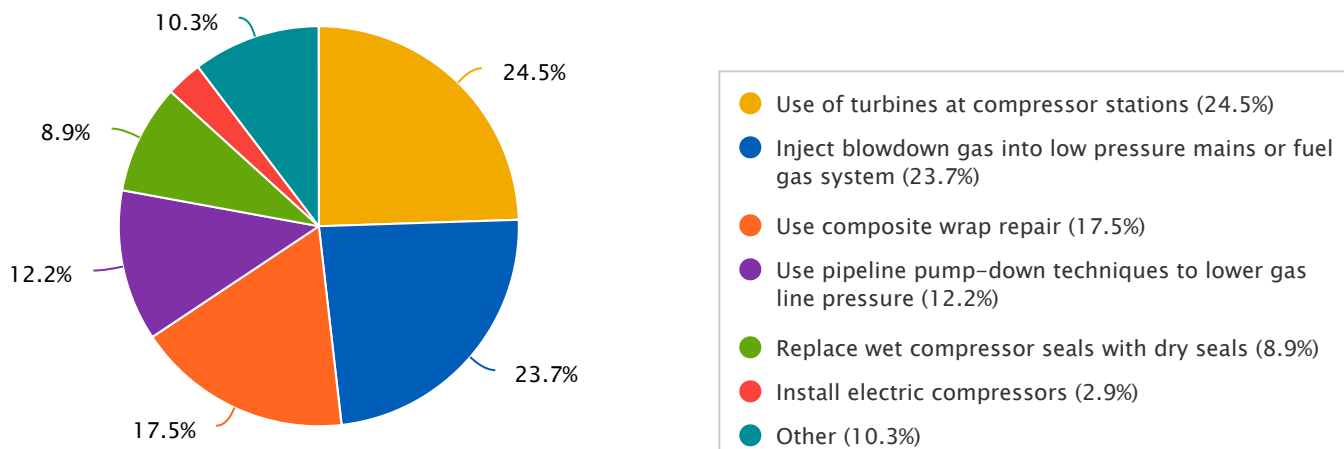
"Cumulative reductions" are all reductions achieved by Kinder Morgan in the Transmission Segment since joining the program.

## Summary of Technologies and Practices for the Transmission Segment

Transmission Segment: Annual Reductions  
(Cumulative Reductions: 359,571,981 Mcf)



Total Annual Reductions in 2018 for the Transmission Segment  
(11,713,619 Mcf)



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## Top Technologies and Practices for the Transmission Segment

### Top 10 Technologies and Practices in the Transmission Segment Reported by Partners in the Last 5 Years (2014 to 2018)

Rank	Technology/Practice	Reductions (Mcf)
1	Use of turbines at compressor stations	14,533,973
2	Use pipeline pump-down techniques to lower gas line pressure	13,232,584
3	Use composite wrap repair	11,834,680
4	Inject blowdown gas into low pressure mains or fuel gas system	7,559,078
5	Replace wet compressor seals with dry seals	5,201,682
6	Install electric compressors	2,208,676
7	Use hot taps for in-service pipeline connections	1,316,474
8	DI&M at compressor stations	979,859
9	Use of YALE closures for ESD testing	702,895
10	Pipeline replacement and repair	665,886

#### Notes:

"Top technologies" are those that led to the greatest cumulative, partner-reported, methane reductions over the specified time period.

Visit the Natural Gas STAR's [Recommended Technologies](#) for more information.