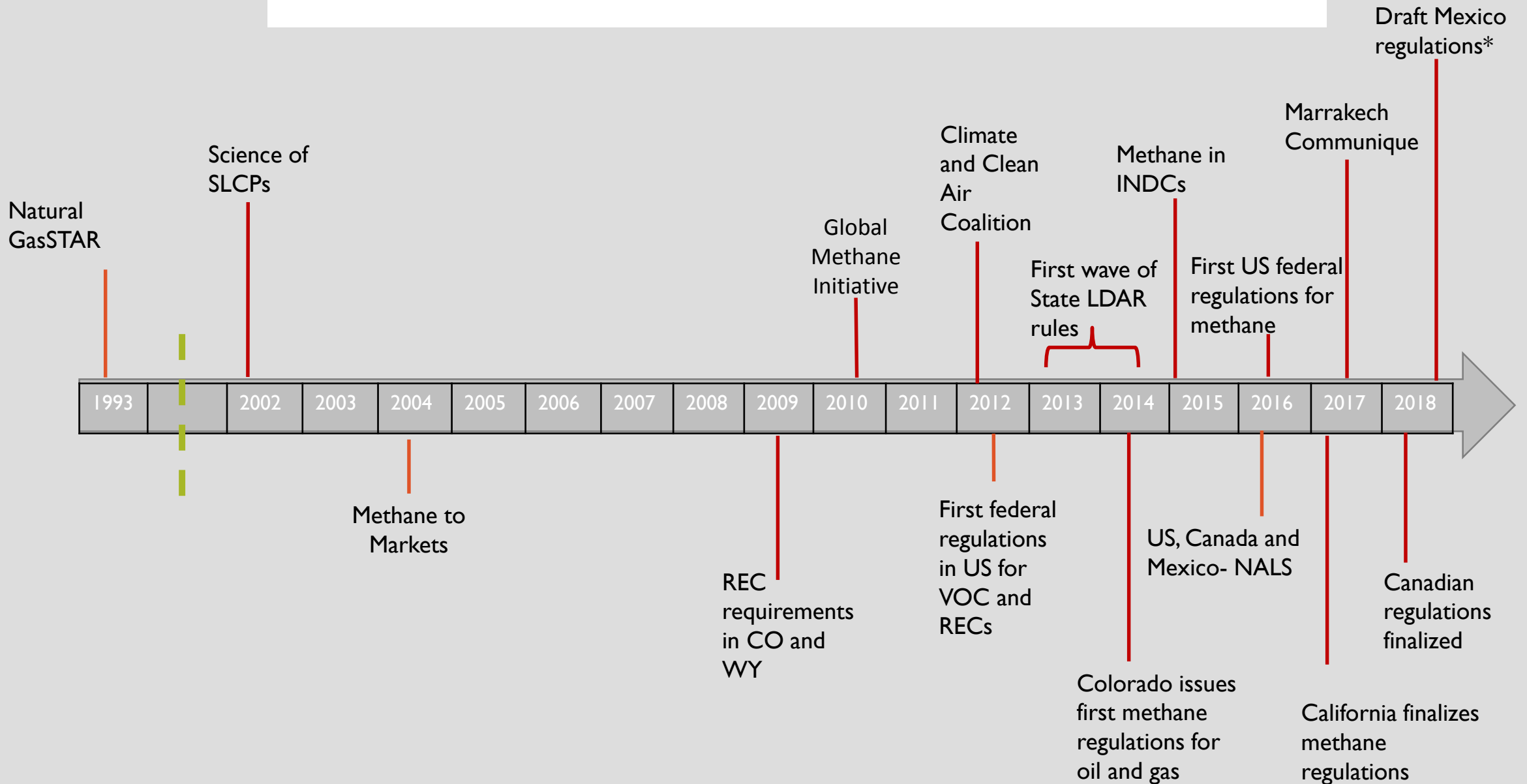


# NATIONAL AND SUB-NATIONAL POLICIES TO REDUCE WASTED GAS



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# A VERY BRIEF AND INCOMPLETE HISTORY OF OIL AND GAS METHANE MITIGATION



COUNTRIES AND SUB-NATIONAL GOVERNMENTS ARE INCREASINGLY FOCUSING ON REDUCING WASTED GAS



## FOUR KEY ELEMENTS OF GOOD REGULATORY POLICIES FOR OIL AND GAS METHANE

- Leak Detection and Repair
- Eliminate or minimize venting
- Gas capture and use; Minimize flaring
- Monitor, measure, report, and verify

## FREQUENT LDAR

All of these jurisdictions have some form of quarterly LDAR:

- California, Wyoming- wells and compressor stations
- EPA - new or modified compressor stations
- Colorado - larger wells and compressor stations
- Pennsylvania, Ohio, Utah - new compressor stations

Canada three times a year

# FLARE MINIMIZATION AND GAS CAPTURE

## BLM

- Gas Capture Targets: 98% by 2026

## North Dakota

- Gas Capture targets: 91% by 2020

## Norway

- Routine flaring not permitted
- Emission limits are set case-by-case basis

## California

- Tanks, pneumatics and compressors must use vapor collection systems

## ELIMINATE OR MINIMIZE VENTING

- Well completion after Hydraulic Fracturing
- Tanks
- Pneumatic controllers and Pumps
  - California, Ohio, and Colorado require frequent inspections of pneumatic controllers
  - California requires vented gas to be utilized or re-injected, rather than incinerated.
- Unloading water from gas wells
- Compressors

# MONITOR, MEASURE, REPORT, VERIFY

## Certification of Design and Operation

- EPA
- Colorado
- BLM
- California

## Reporting

- EPA
- Colorado
- California
- BLM

## Monitoring

- Colorado
- California
- Canada



# THANK YOU

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Founded in 1996, the Clean Air Task Force is a nonprofit organization working to safeguard against the worst impacts of climate change by catalyzing the rapid global development and deployment of low carbon energy and other climate-protecting technologies through research and analysis, public advocacy leadership, and partnership with the private sector.