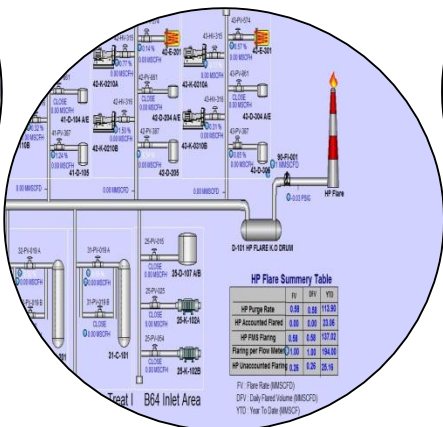




# Saudi Aramco Methane Reduction Efforts

## *Flaring Minimization Program*



**Adel S. Al-Ghamdi**  
Saudi Aramco, P&CSD

# Saudi Aramco Methane Reduction Efforts

## *Flaring Minimization Program*

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Master Gas  
System



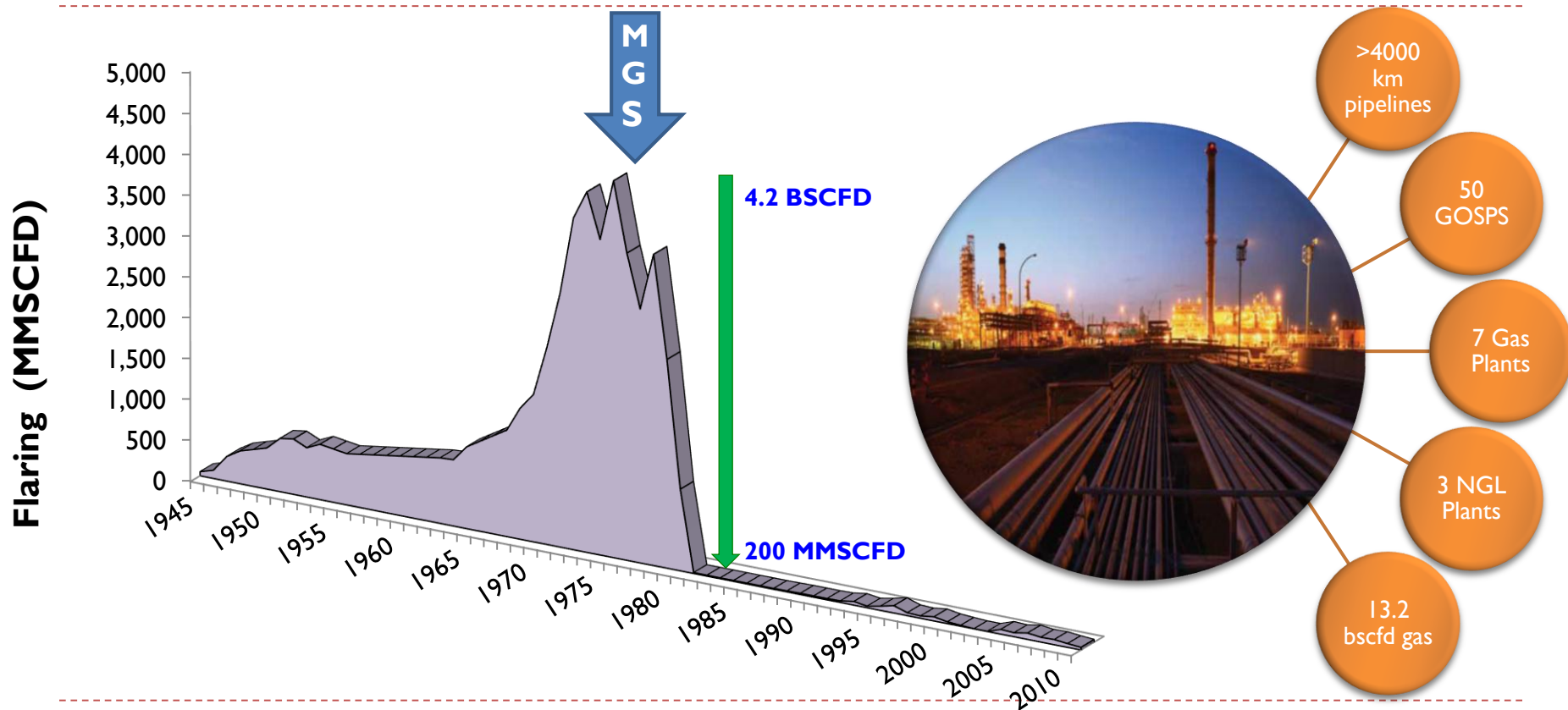
Corporate Flaring  
Roadmap



Near Zero  
Flaring



# Master Gas System *(95% Reduction)*



# Saudi Aramco Methane Reduction Efforts

## *Flaring Minimization Program*

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Master Gas  
System



4.0 BSCFD

Corporate Flaring  
Roadmap

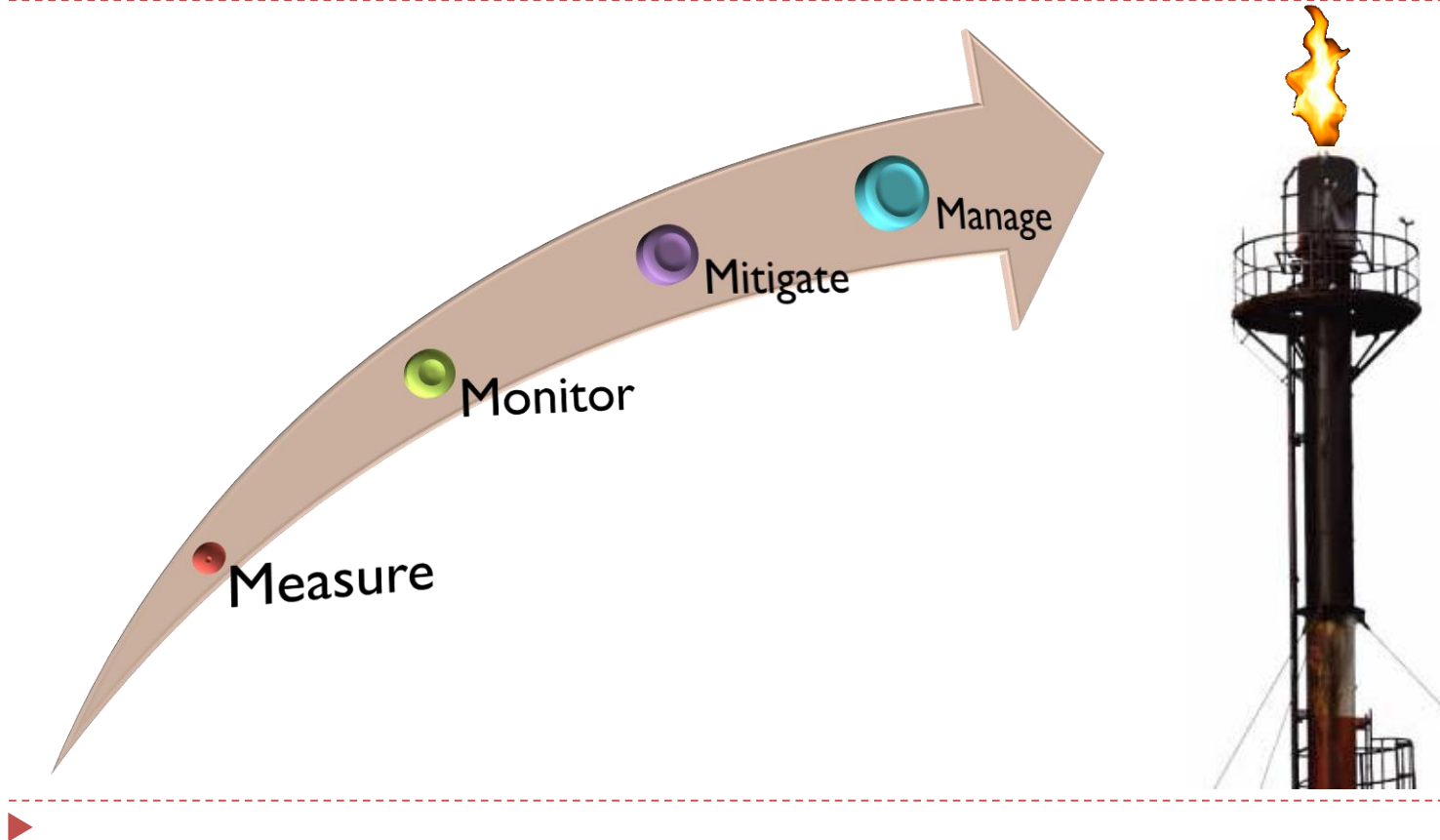


Near Zero  
Flaring

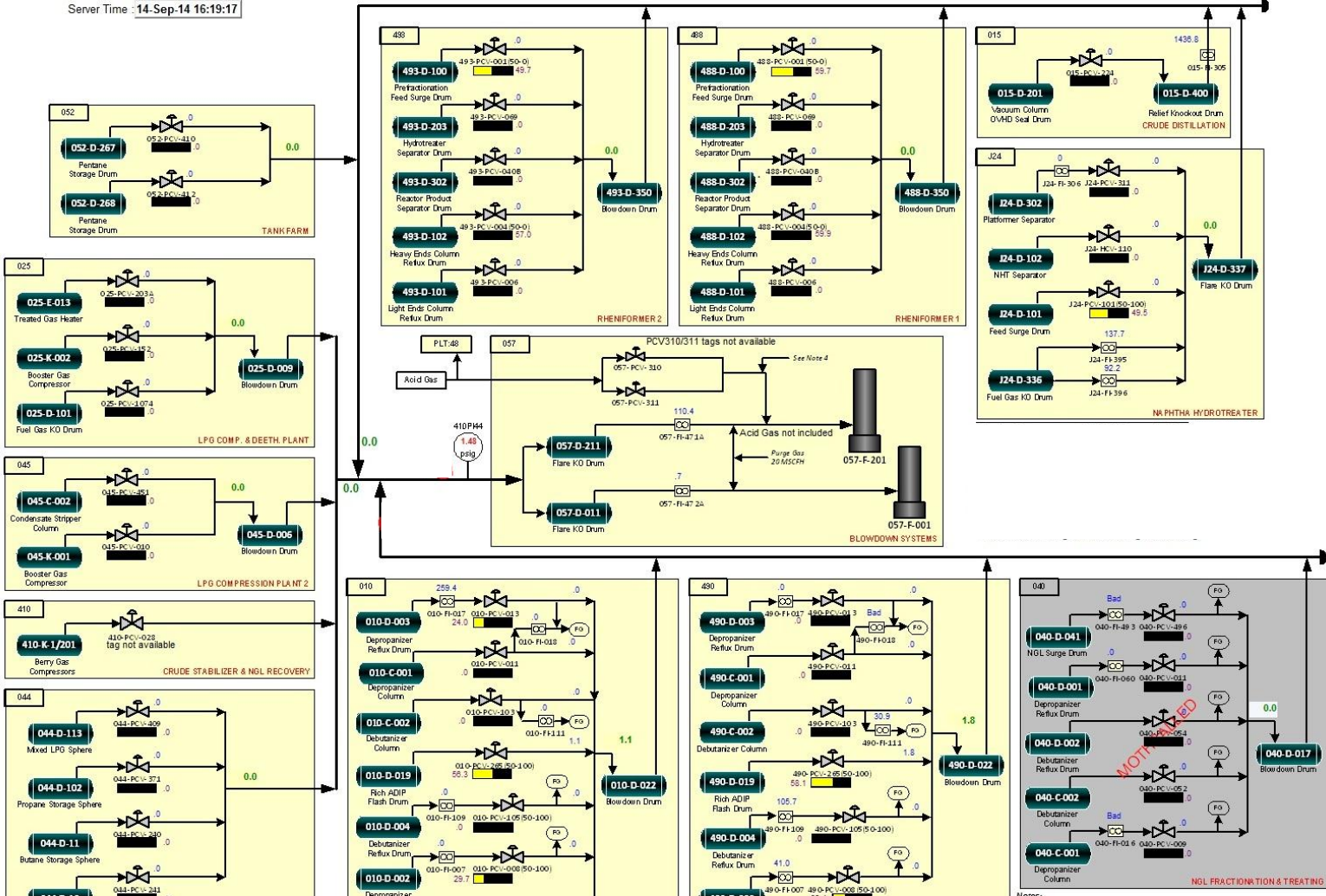


# Corporate Flaring Roadmap

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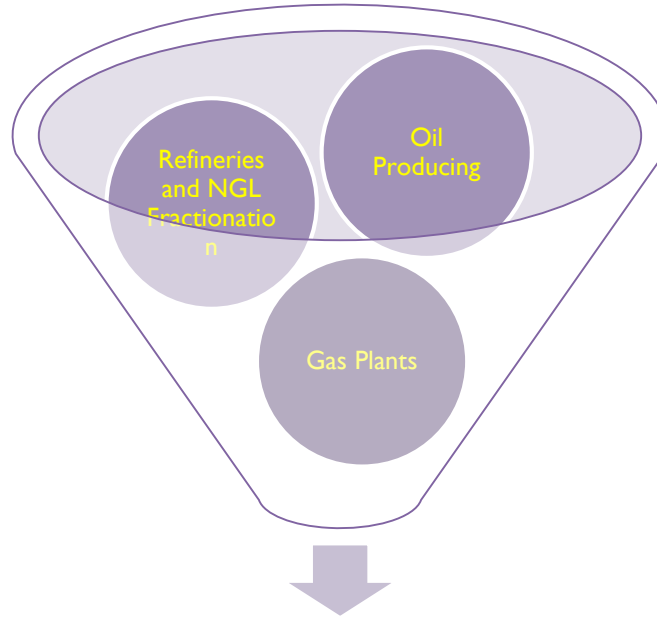




# Corporate Flaring Roadmap - Monitor

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PI flaring data



**Corporate Flaring Monitoring System (CFMS) Database**

# Corporate Flaring Roadmap - Mitigate

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- ▶ Site Specific annual Flaring Mitigation Plan
  - ▶ Detailed description of Flare System
  - ▶ Details of flaring amount and reasons
  - ▶ Long and short term mitigation measures
- ▶ Approved by facility manager (SAES-A-102, SAEP-400)

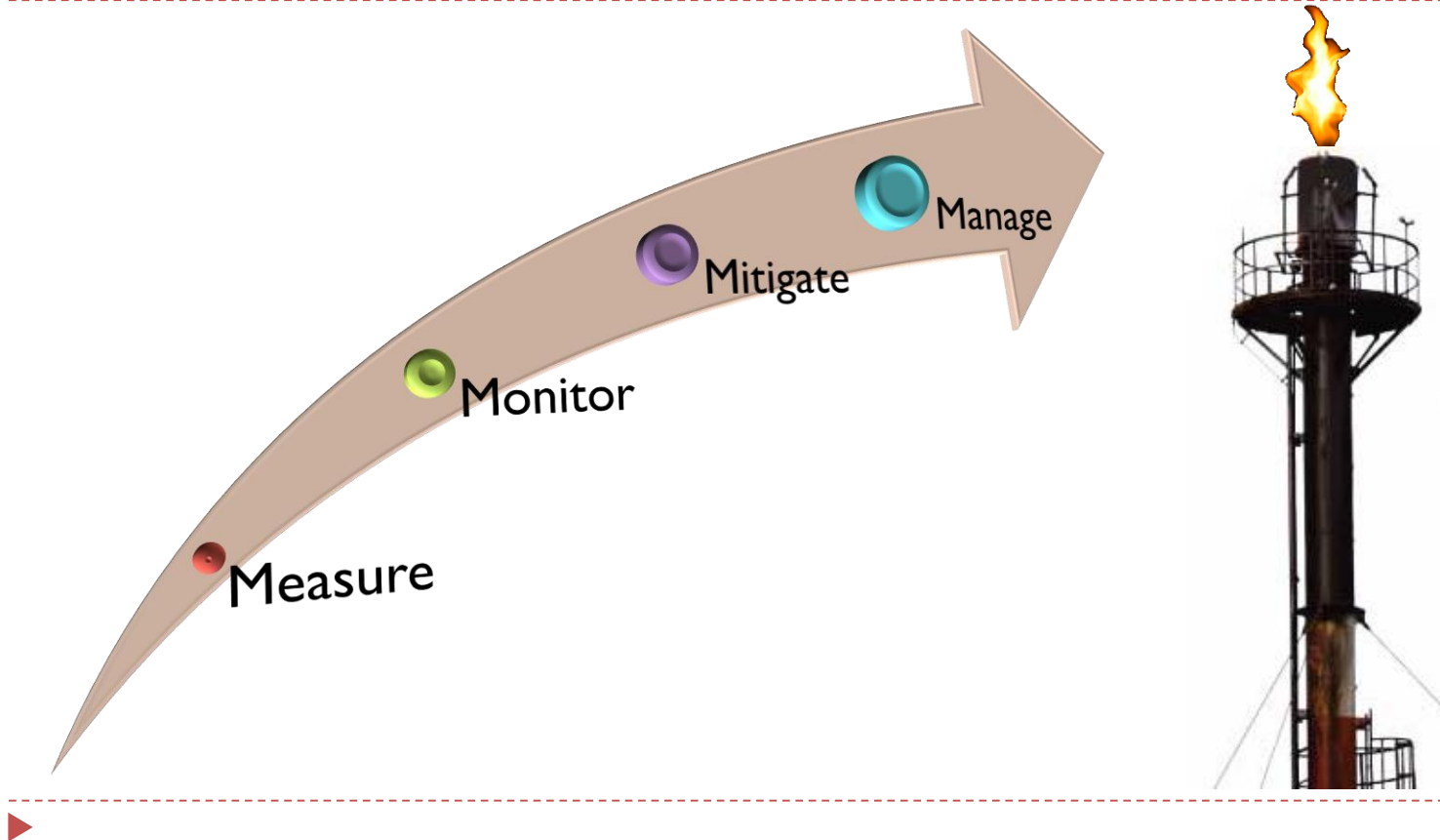


# Corporate Flaring Roadmap - Manage

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- ▶ For accountability, consistency and continues improvement, the **Flaring Minimization Program** is governed by procedures and standards:
  - ▶ SAEP-400: Guidelines for Facility Flaring Minimization Plan
  - ▶ SAEP-400A: Guidelines for Real-Time Flare Monitoring System Development
  - ▶ SAES-A-102: Ambient Air Quality and Source Emissions Standards
- ▶ KPI Established to Manage Flaring Loss

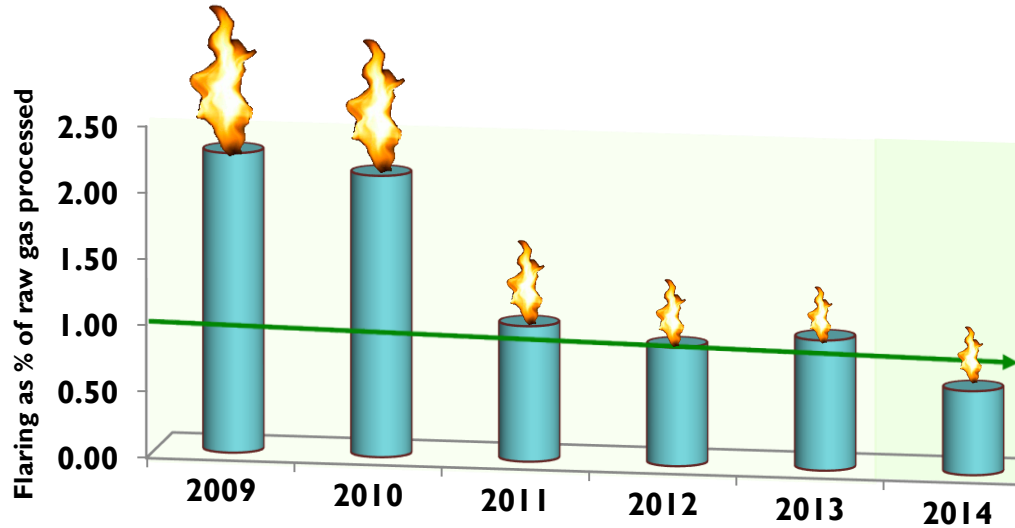
# Corporate Flaring Roadmap



# Corporate Flaring Roadmap

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- 50% Flaring Reduction (2012)
- 200 MMSCFD to 100 MMSCFD



# Flaring Minimization Program

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Master Gas  
System



4.0  
BSCFD

Corporate Flaring  
Roadmap



100  
MMSCFD

Near Zero  
Flaring



# >\$400 MM Towards Near Zero Flaring

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## Upstream

**ZDT  
Onshore**



**ZDT  
Offshore**



## Downstream

**HIPPS**

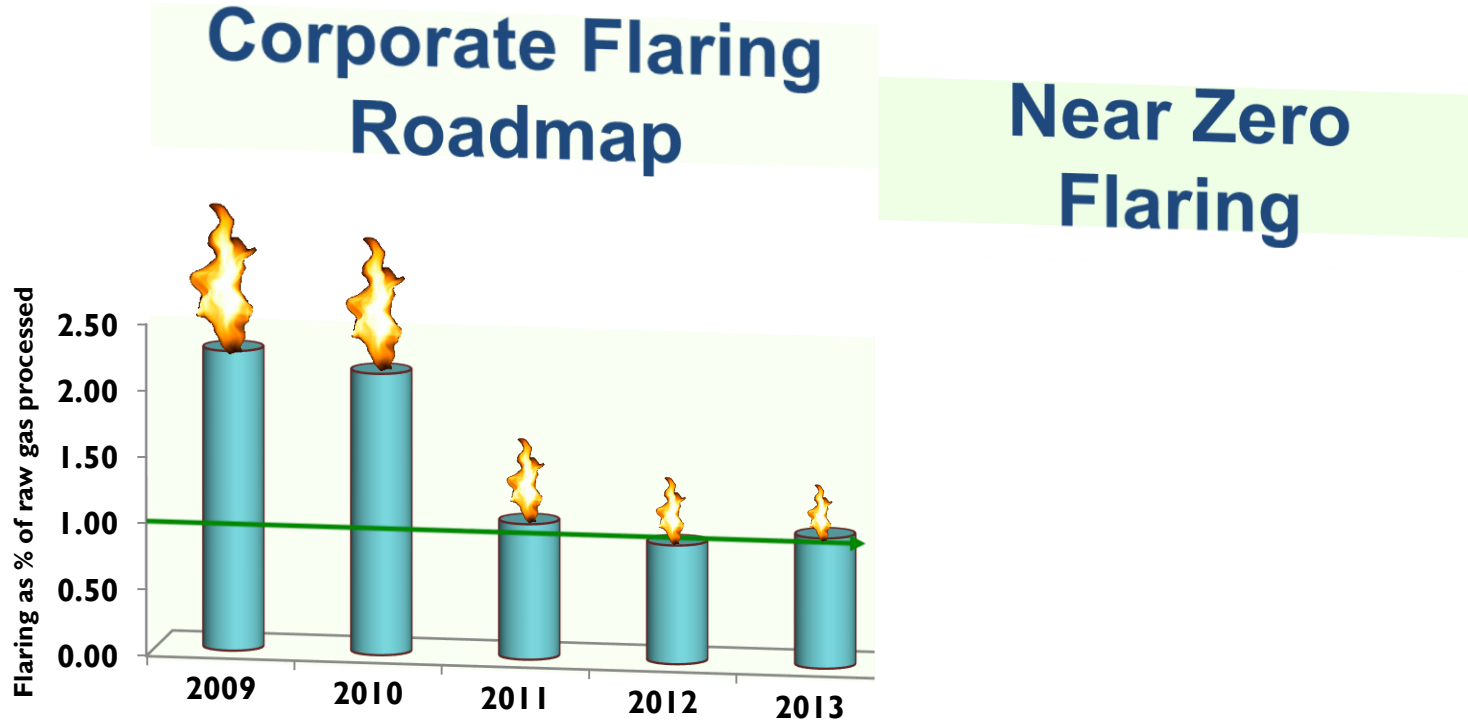


**FGRS**



# Near Zero Flaring

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# Flaring Minimization Program

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Master Gas  
System

Corporate Flaring  
Roadmap

Near Zero  
Flaring



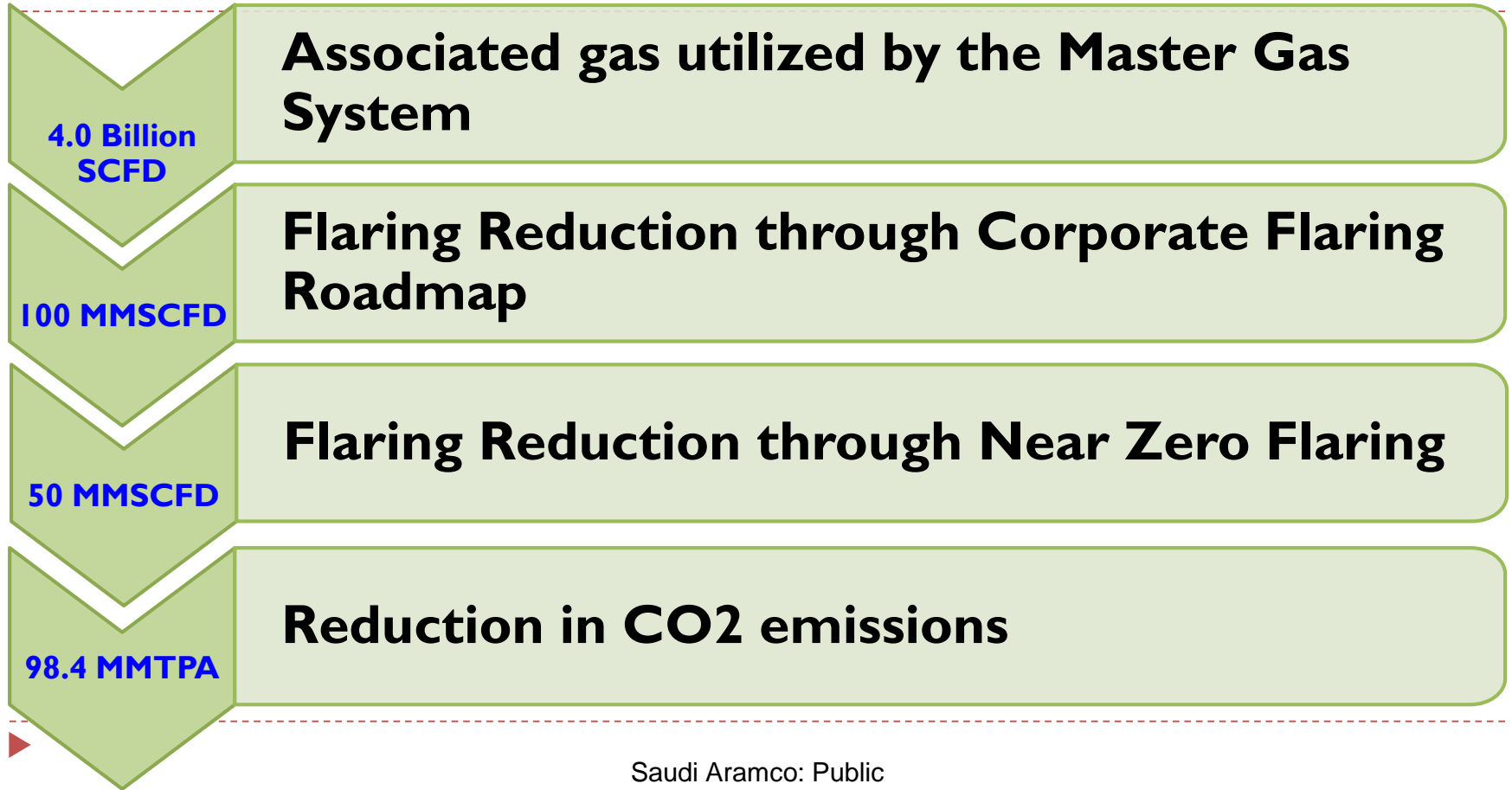
4.0  
BSCFD

100  
MMSCFD

50  
MMSCFD



# Achievements



# Global Recognition



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THANK YOU

The text "THANK YOU" is rendered in a bold, 3D green font. Each letter has a slight bevel and a glossy finish. Directly beneath the text is a soft, semi-transparent reflection of the letters, creating a sense of depth. The entire graphic is centered on a plain white background.

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