

Gasoline Dispensing Facility
Vapor Recovery System Rulemaking
Rulemaking Advisory Committee Meeting #2
DEQ Air Quality Planning

April 18, 2023
Remotely Held Meeting

Introductions

- Hello and welcome
- Introductions
 - DEQ Staff & Facilitator
 - Rulemaking Advisory Committee members
- Purpose of meeting

Rulemaking Resources

<https://www.oregon.gov/deq/rulemaking/Pages/GDF2022.aspx>

Primary Rulemaking Contact:

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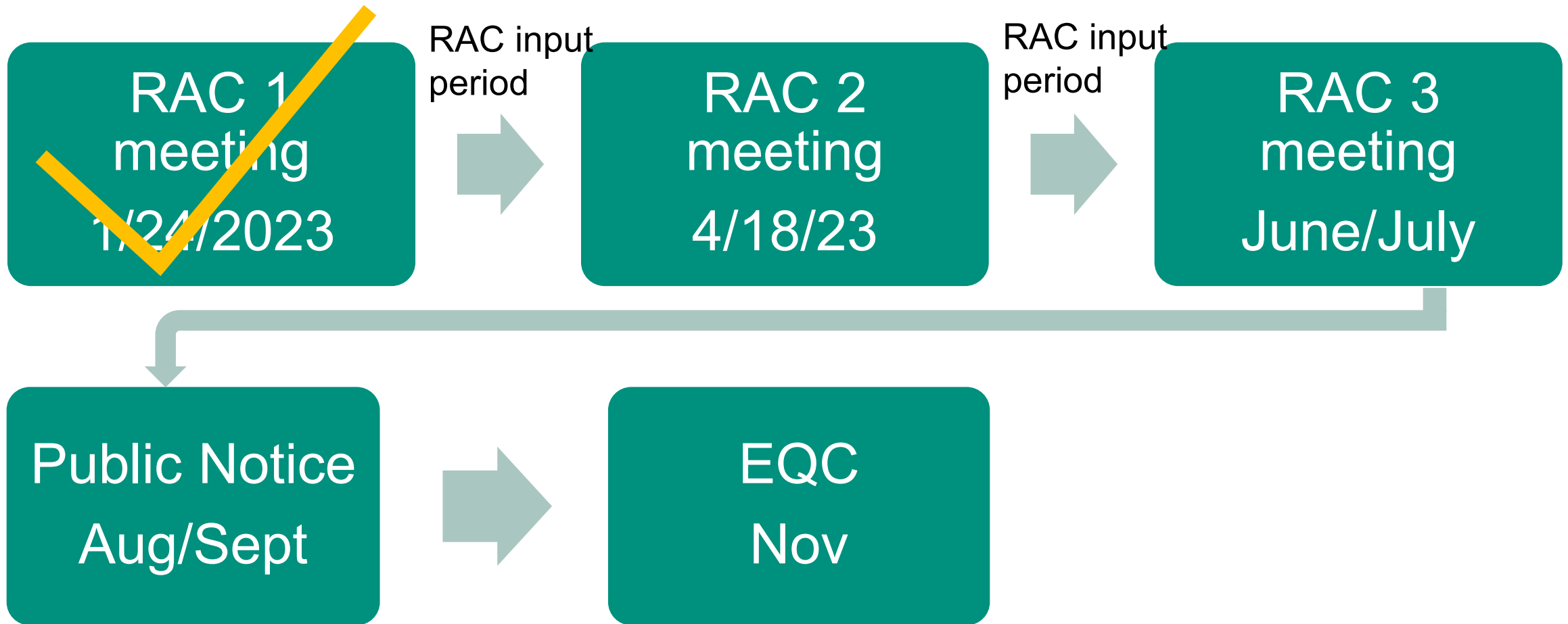
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Agenda

Time	Item
Noon	Introductions: Introductions and agenda review
12:05 p.m.	DEQ presentation: Meeting 1 review and response
12:20 p.m.	Discussion: Meeting 1 review and response
12:35 p.m.	DEQ presentation: Options Analysis
1:15 p.m.	Discussion: Options Analysis
1:30 p.m.	DEQ presentation: Additional Options
1:40 p.m.	Discussion: Additional Options, Public Input
1:50 p.m.	Discussion: Next steps
2 p.m.	Adjourn Meeting

Anticipated Timeline



Review of Meeting 1

Gas Station Controls requirements

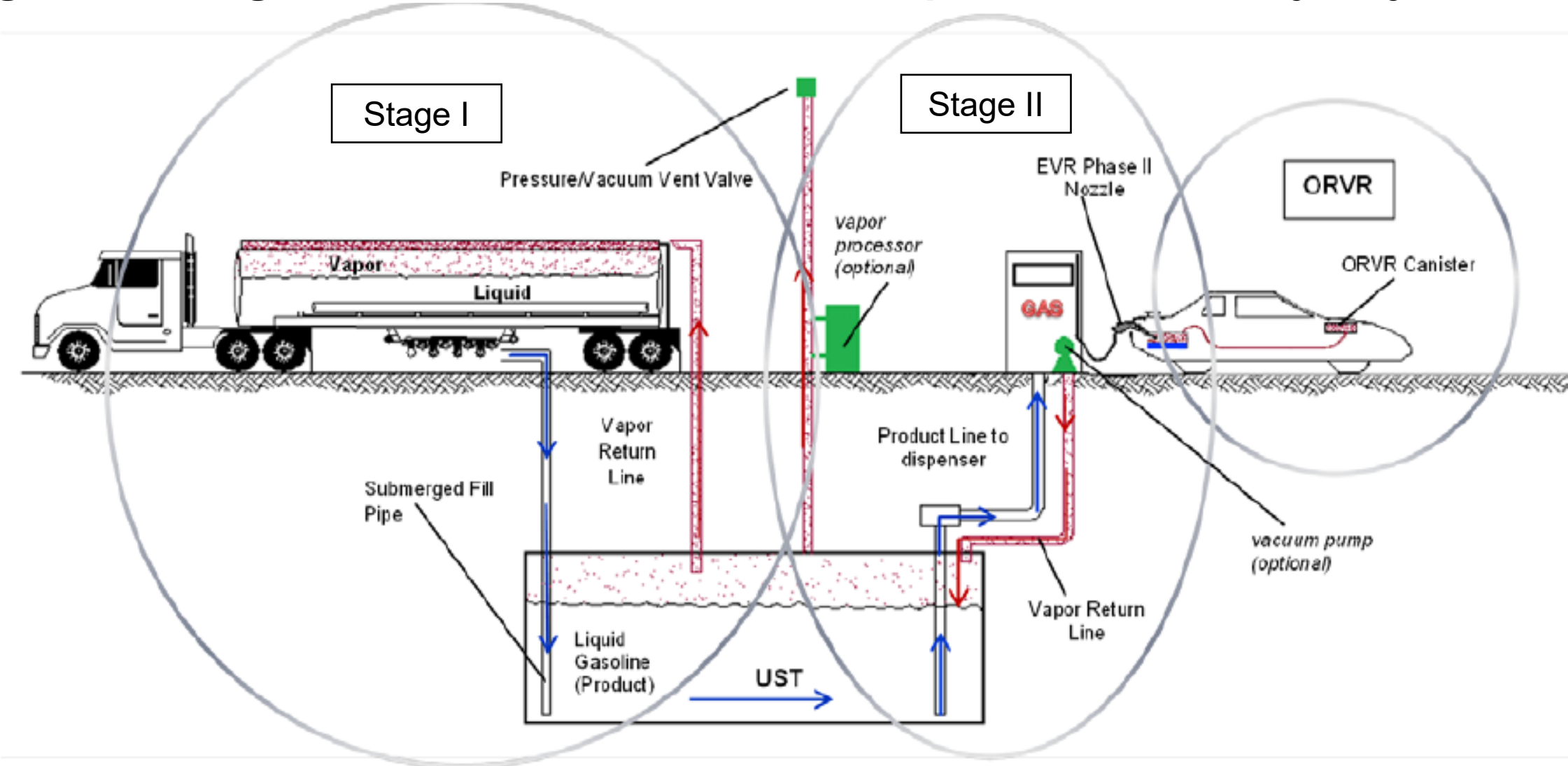
Is the juice worth the squeeze?

Stage II controls in operation

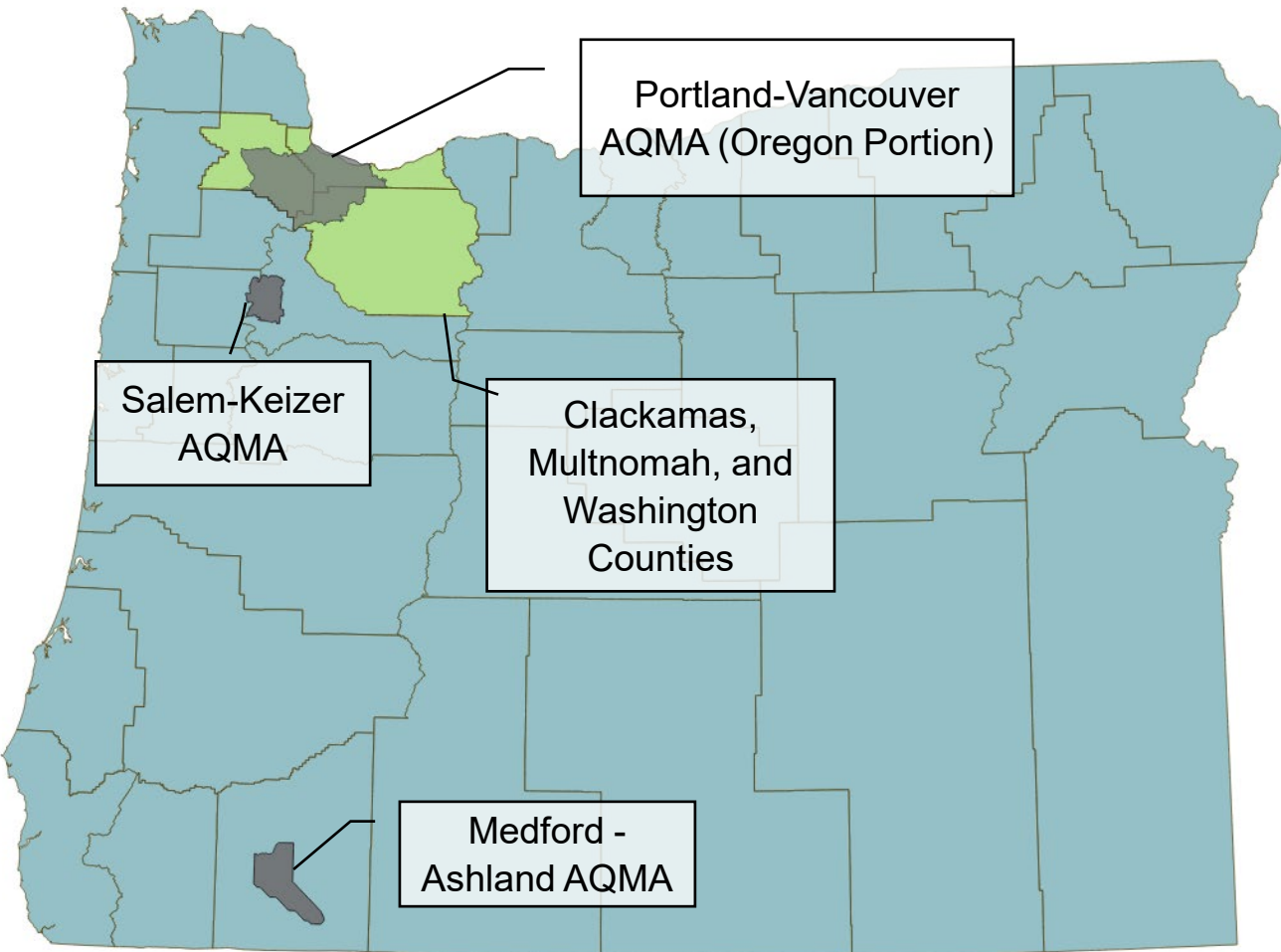
Leveling the playing field

Additional requirements for larger gas stations

Stage I, Stage II, and On Board Vapor Recovery Systems



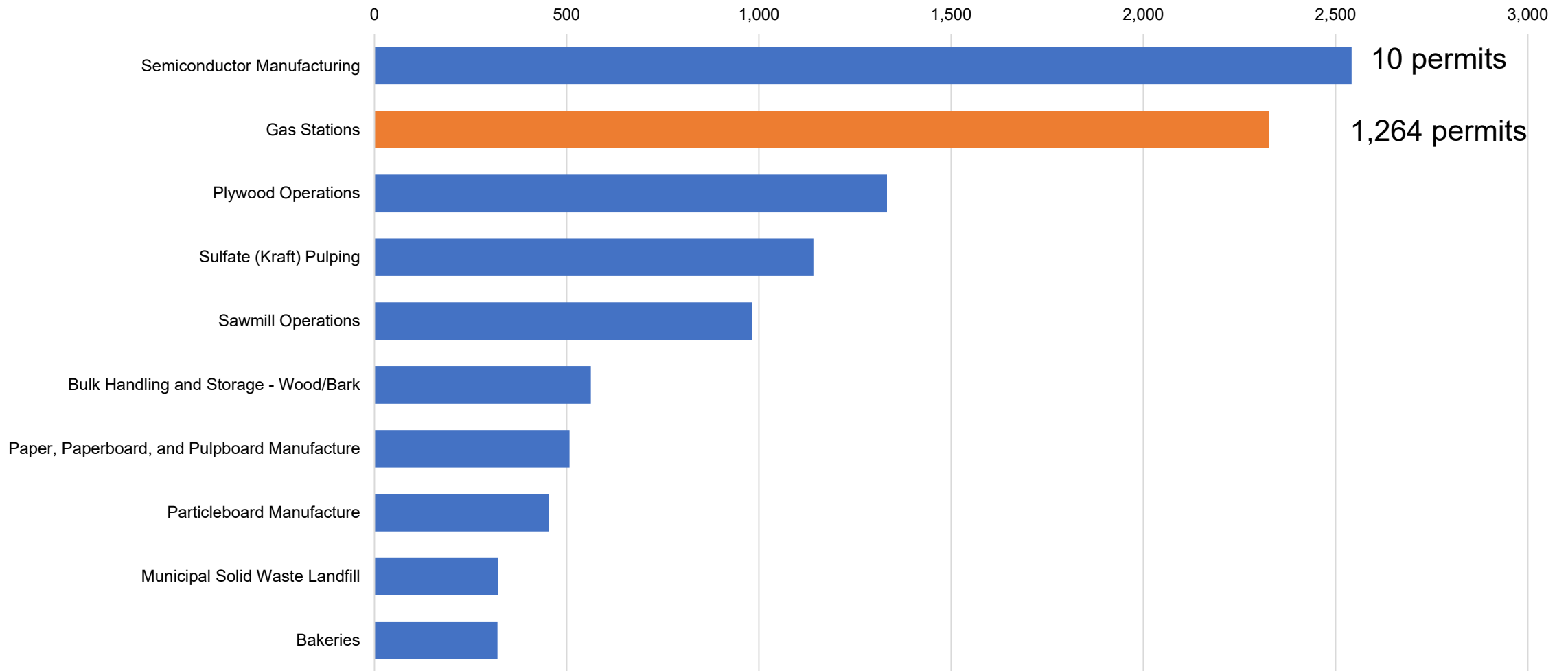
Source: California Air Resources Board (edited by DEQ)



Rule requirements

Area	Stage I	Stage II
State-wide	250 gallons (or larger) tanks with: <ul style="list-style-type: none"> • 480,000 gallons or more dispensed per year, or • 100,000 gallons or more dispensed per month 	NA
Clackamas, Multnomah, Washington Counties	120,000 gallons gasoline or more dispensed per year	600,000 gallons or more dispensed per year
Portland-Vancouver	1,500 gallons (or larger) tanks	NA
Salem-Keizer		
Medford-Ashland		

Top 10
Point Sources
VOC annual emissions by EPA sector (tons per year)



Stage II controls

Clackamas,
Multnomah,
Washington
Counties

Incompatible

- 154 Vacuum assist

Compatible

- 166 Balance
- 17 Stage II EVR

Stage I only

- 74 no Stage II

Small GDFs

Small GDFs

Between 120,000 and 480,000 gallons gasoline dispensed per year
• 247 of 1,264 GDFs

No Stage I

• 160 of 247 small GDFs have no Stage I
• 44 million gallons per year
• 56 tons per year excess VOCs

Small Business

• 84 of 160 small GDFs with no Stage I are small business
• 68 unknown, 95 not small business

Comparison

10 largest GDFs
• 11.4 million gallons per year average gasoline throughput



Options analysis – Minimum proposed changes in Stage II requirements

Applicability

GDFs with Stage II systems:

- 154 GDFs with incompatible systems
 - 183 GDFs with compatible systems
-

Requirements

- Incompatible systems – remove asap
 - Compatible systems – keep or remove
-

Emissions Reductions

Prevents future excess emissions



Options analysis –
Minimum proposed
changes in Stage I
requirements

Applicability


GDFs with 120,000 – 480,000 gallons per
year gasoline dispensed (small GDFs)

Requirements
Stage I

Emissions Reductions
56 tons VOCs

Pause for questions / comments

- Will the rules have a significant adverse impact on small businesses?
 - If so, how can that adverse impact be mitigated?
- Cost estimates for installing Stage I controls?



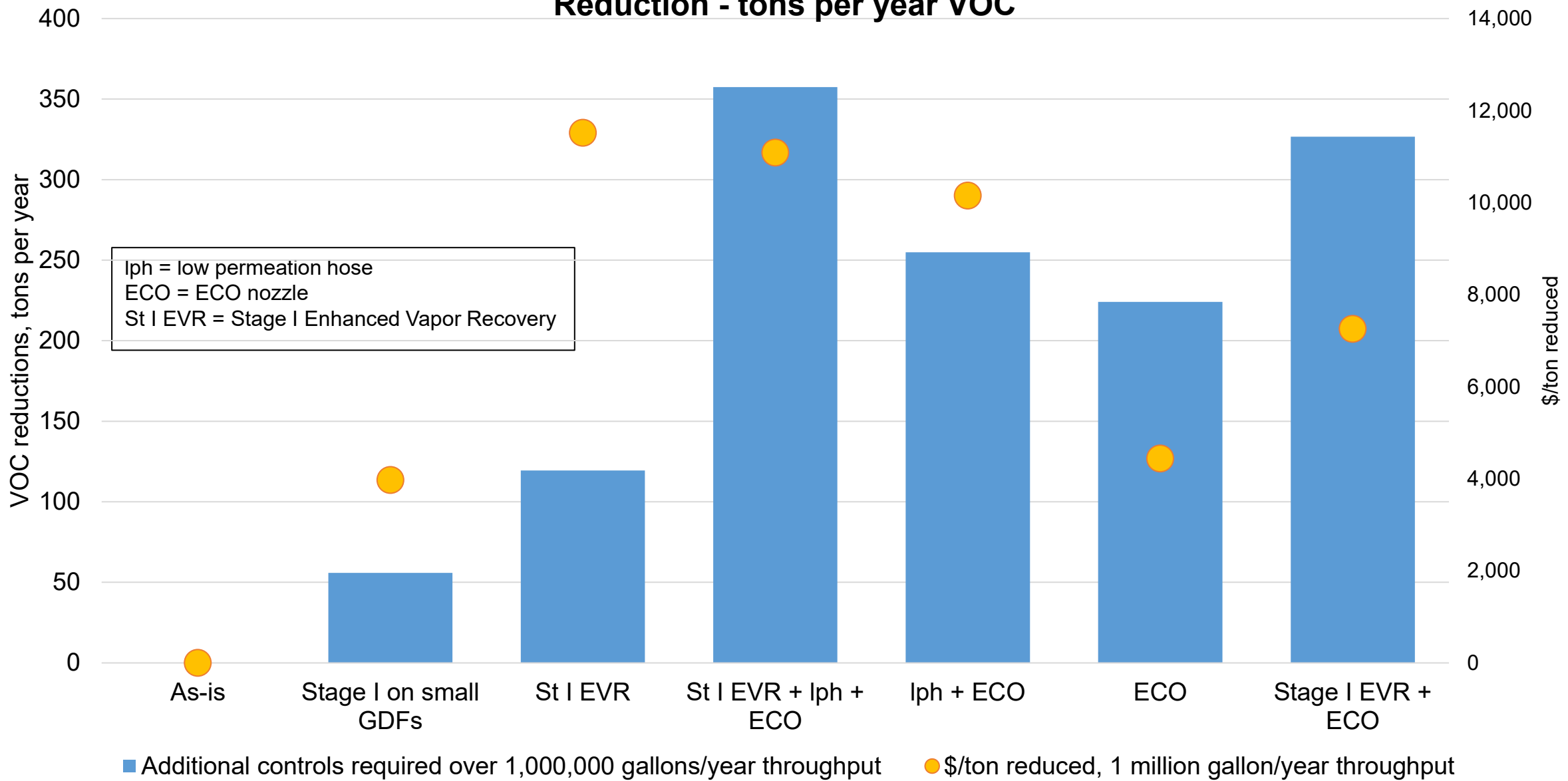
Options analysis
–
Potential tiered
requirements

Stage I EVR (or equivalent reductions)

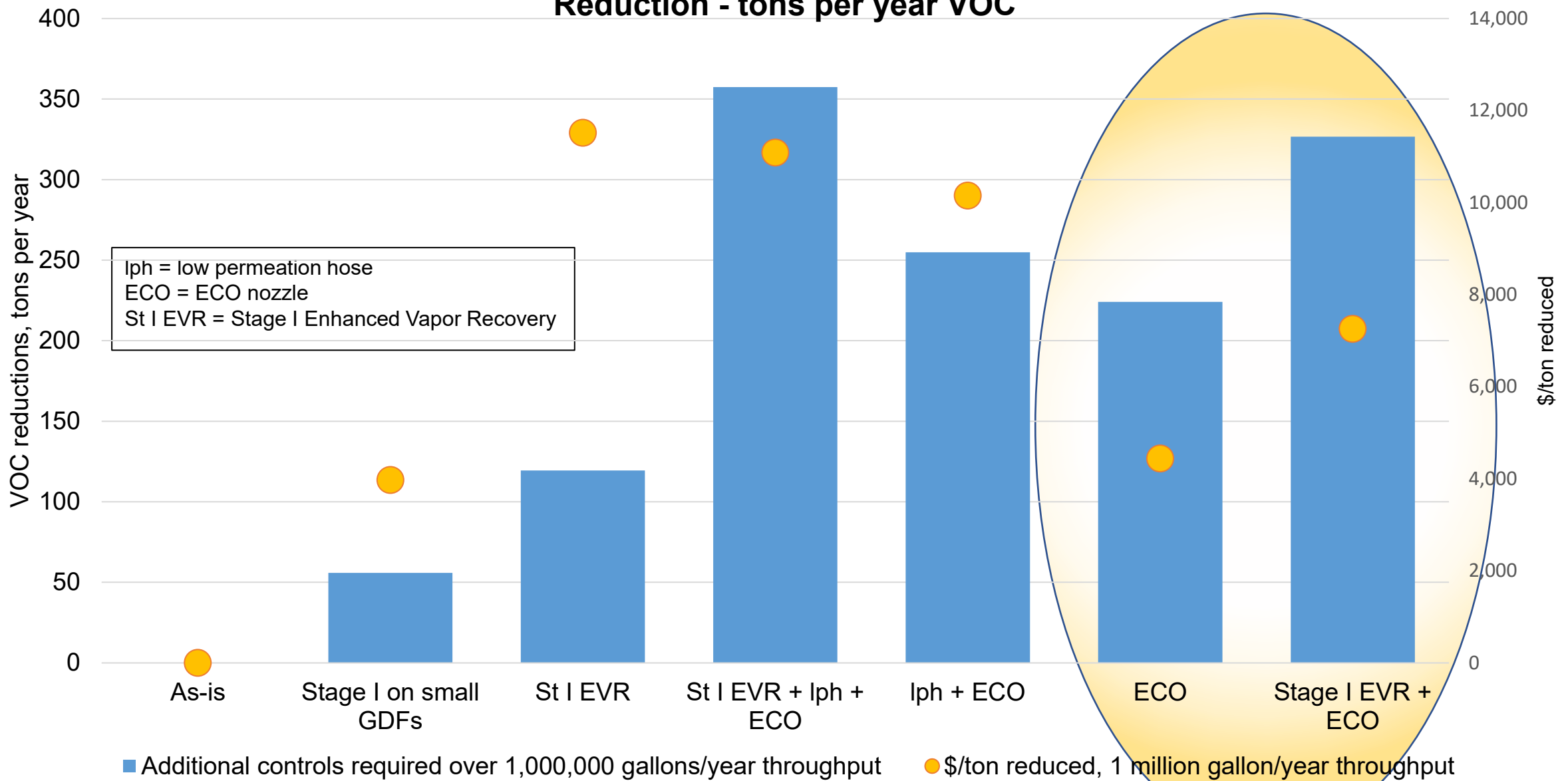
ECO nozzle

Low permeation hoses

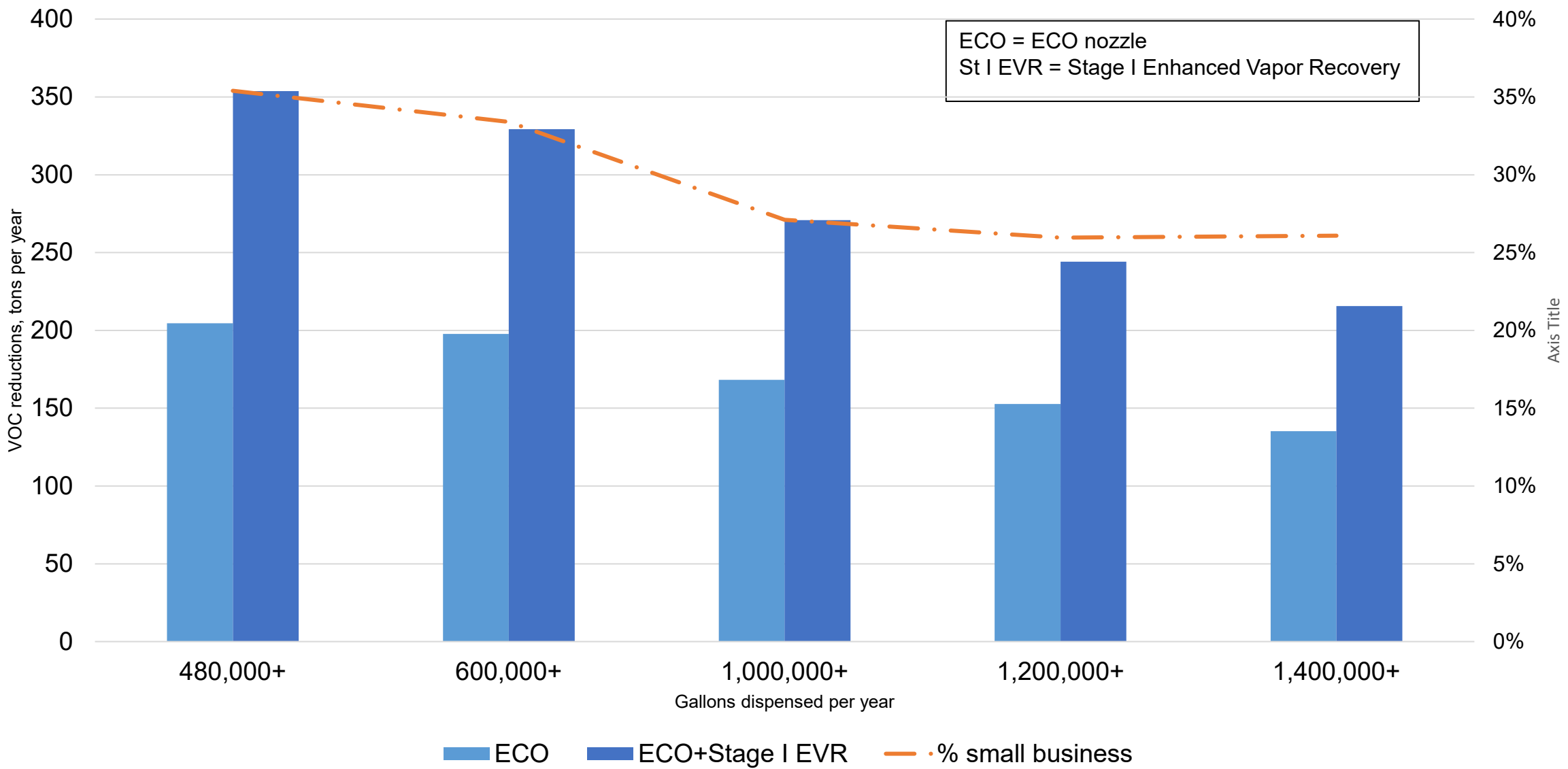
Reduction - tons per year VOC




Reduction - tons per year VOC



VOC reductions and % small business





Options analysis – Proposed tiered requirements

Applicability:

Existing GDFs with annual gasoline throughput 1,000,000 gallons or more and all new GDFs

Requirements:

- Stage I Enhanced Vapor Recovery
- ECO nozzles

Reductions:

Estimated VOC reductions of 271 tons per year

Pause for questions / comments

- Should DEQ add in low permeation hose requirements?
 - If yes, what throughput threshold?
- Questions about the analysis?
- Requirements for new GDFs



Options analysis – Proposed additional requirements

Timing:

- Stage II
- Stage I
- Stage I EVR + ECO Nozzles

Top off:

- Already not allowed
- Add training requirement

Alternative controls:

- Equivalent reduction

Reporting:

- What/when to report

Testing (next slides):

- Frequency
- Applicability

Stage I Testing


Item	Current Requirement
Tests	<ul style="list-style-type: none">▪ Pressure Vacuum Vent Valves▪ Vapor tightness
Applicability	<p>1.2 million gallons gasoline or more dispensed per year</p> <ul style="list-style-type: none">▪ Initial test▪ Retest every 3 years <ul style="list-style-type: none">▪ 434 of 1,264 GDFs▪ 1,436 tons VOC emissions per year
Applicability	<p>Less than 1.2 million gallons gasoline dispensed per year</p> <ul style="list-style-type: none">▪ Initial test▪ No additional testing <ul style="list-style-type: none">▪ 830 of 1,264 GDFs▪ 694 tons VOC emissions per year

Total Increased Emissions (tons VOC per year) by Throughput Threshold and Percent Stage I Equipment Malfunction

21-411 tons VOC per year

Potential excess emissions
(state-wide) due to failing
Stage I equipment

		Annual throughput > = 1,200,000 gallons/year			
		0%	25%	50%	75%
Annual throughput <1,200,000 gallons/year	% malfunction				
	0%	0	56	161	267
	25%	21	77	183	289
	50%	62	118	224	329
	75%	103	158	264	370
	100%	143	199	305	411



Options analysis – Proposed additional requirements

Timing:

- New equipment
 - Replacement equipment
 - Stage II removal – by Dec 31 2024
 - Stage I / Stage I EVR / ECO nozzle – by Dec 31, 2026
-

Top off:

- Add training requirement
-

Control Alternatives:

- Equivalent reduction
 - On the permittee to show how it is as protective
 - “mix and match” Stage I EVR
 - Vapor processor
 - Other controls
-

Reporting:

- Report all tests, including failed or aborted tests
-

Testing:

Frequency

- ✓ Annually, or
- ✓ Continuous pressure monitoring system

Applicability

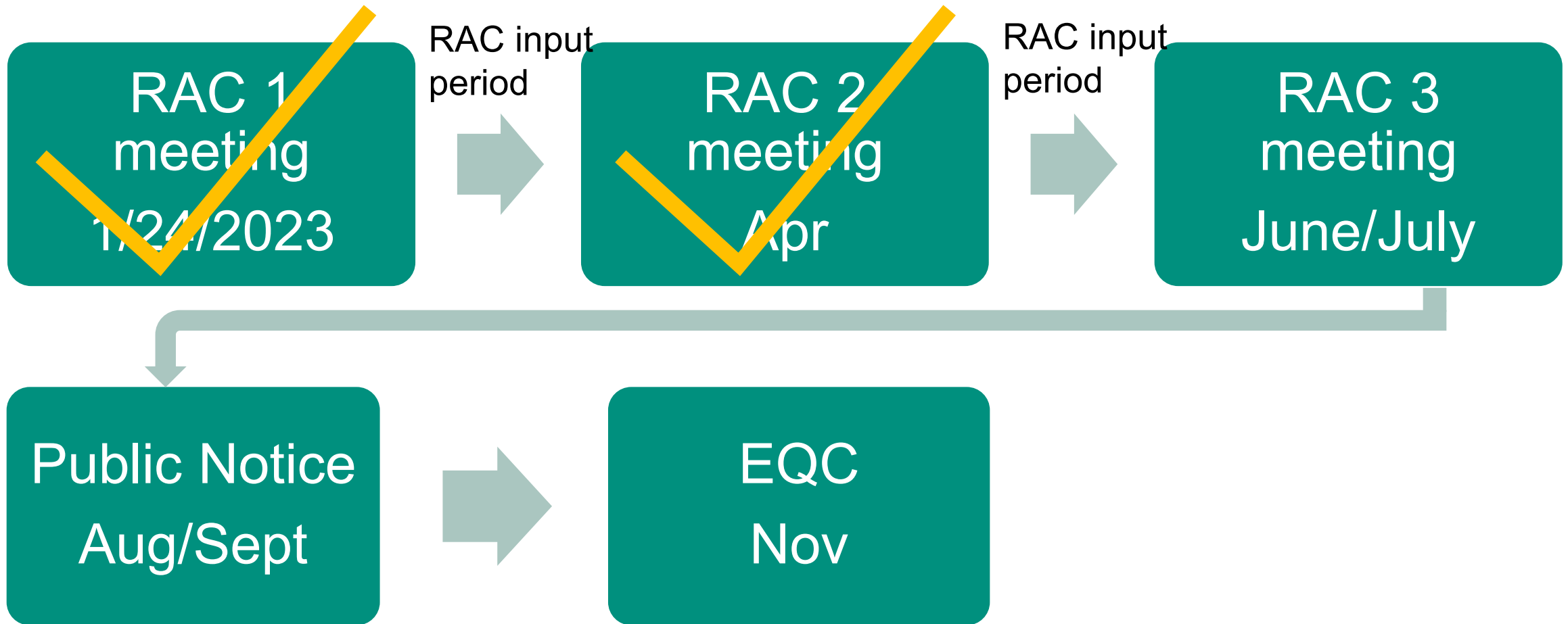
- ✓ All permitted GDFs

Pause for questions / comments

- Additional requirements?
- Do any of the proposed requirements seem infeasible or unnecessary?

Pause for Public Input

Anticipated Timeline



Thank you

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