

## DOCKETED

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# Petroleum Market Advisory Committee Meeting

California Energy Commission  
August 16, 2016



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# KEY BACKGROUND

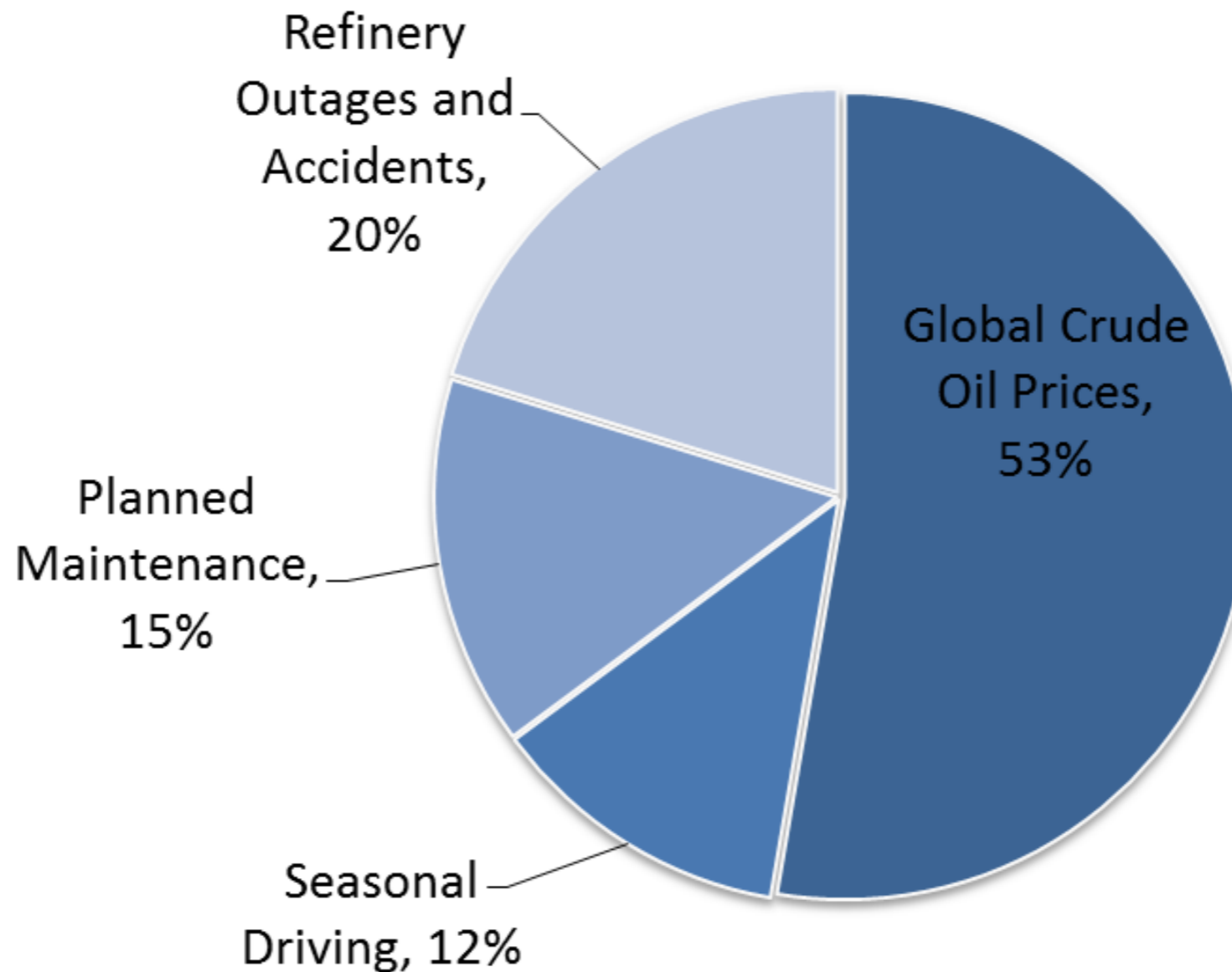


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## Nearly 40 gasoline price jumps in ten years in California

### What were the reasons?

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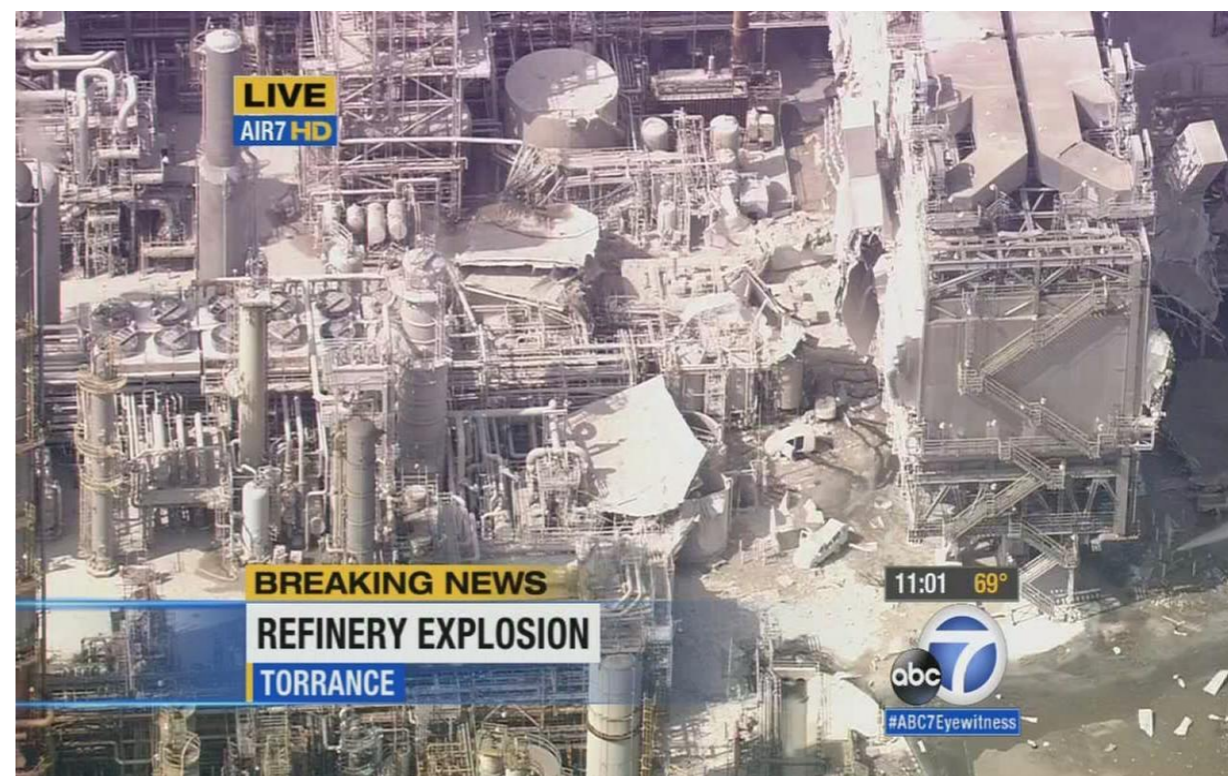
*Sources: EIA data from 2005 to early 2015, gas/oil price service reports, media reports, and AAA*

# Significant impacts from refinery accidents and outages

## Chevron Richmond 2012



## ExxonMobil Torrance 2015



	Chevron Richmond 2012	ExxonMobil Torrance 2015
Public Health & Safety	More than 15,000 went to hospitals seeking treatment	Local residents told to take shelter in place
Refinery Worker Health & Safety	19 workers narrowly escaped serious injury and death	Four workers injured and others escaped more-serious injury and death
Consumer Costs	\$0.45 Billion in windfall profits due to higher prices	\$2.4 Billion in windfall profits and \$6.9 billion to economy (first 4.5 months) \$6.2 Billion over entire 16 month incident**

Source: RAND (2016), <http://www.rand.org/t/RR1421>; \*\* NRDC estimate using same RAND methodology

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# CONCEPTS BEING PROPOSED

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# Proposed concepts to mitigate fuel price volatility

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1. Permanent waiver to import non-compliant fuel into state with surcharge fee paid
2. Require sellers to hold minimum fuel reserve/inventory as backup
3. State forward purchasing

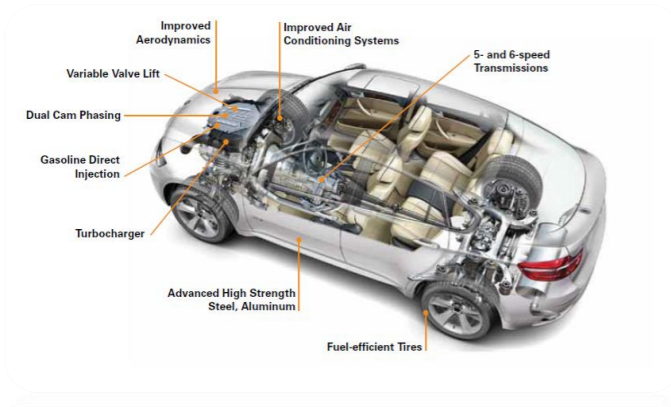
## Observations:

- Concepts mainly aimed at mitigation after an incident
- Concepts should also focus on prevention of major refinery incidents, through improved process safety management and industrial safety ordinances
- Concepts should also focus on reducing market power through additional information disclosure and transparency (e.g. should planned refinery shutdowns be allowed during unplanned refinery incidences?)

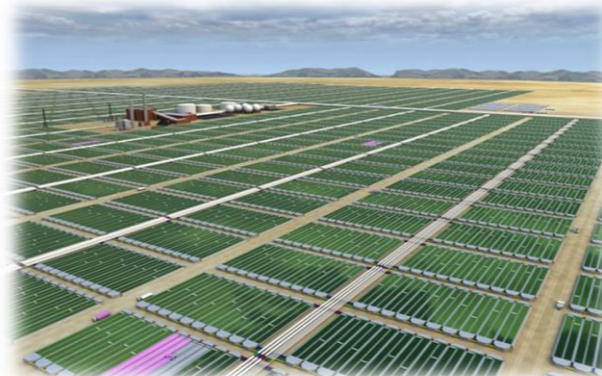
# Demand-side policies just as important:

Reducing the need for petroleum, increasing alternative fuel supplies may help mitigate impacts from gasoline price volatility

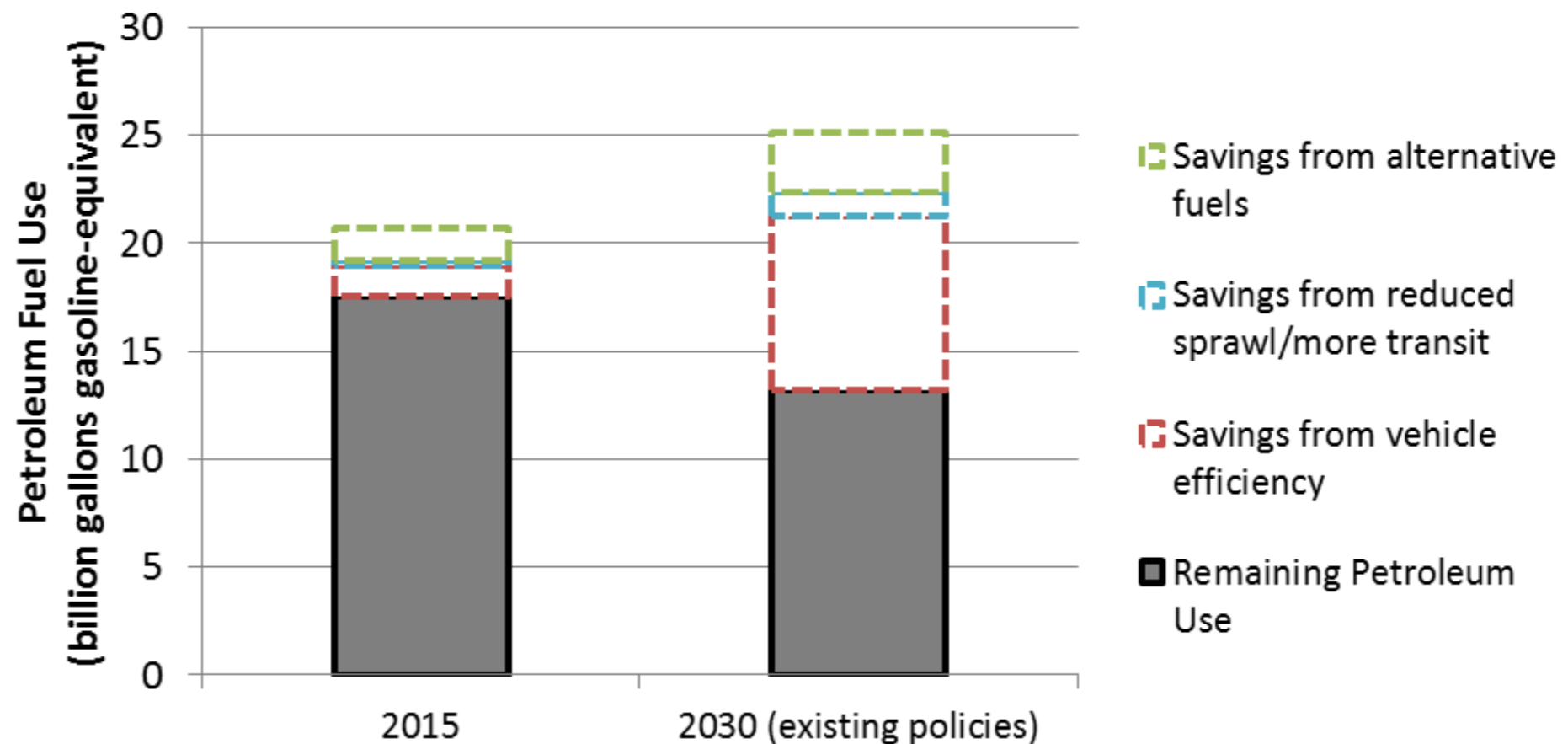
## Vehicles: Clean Car Standards



## Fuels: Low Carbon Fuel Standard



## Vehicle miles: Sustainable Communities Strategy







# KEY CONSIDERATIONS



# Key Evaluation Principles:

## Concepts to Reduce Fuel Price Volatility

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- Effectiveness: Will solution actually have measureable effect on reducing frequency, duration, or size of impact?
- Trade-offs: Does solution trade-off or reinforce environmental, public health, or worker safety
- Fairness: Does the cost burden fall primarily on the public or the party/parties that may be responsible?
- Legal: Is the solution within current agency authority?

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# Permanent waiver for importing non-compliant fuel into state?

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## Effectiveness?

- Solution would effectively be a permanent waiver/variance to import non-compliant fuel into California, so long as a surcharge fee is paid
- Assumes arbitrage window may not be long enough or valuable enough to import CA-RFG fuel...

## BUT

- Time/distance? Jones Act may still be limiting factor for shipments from Gulf to California?\*
- Existing variance process is already available
- Suppliers of non-compliant fuel still faces large uncertainty in arbitrage (i.e. will they still be able to sell fuel at a profit by the time it gets to California minus surcharge fee?)

\*<http://www.bloomberg.com/news/articles/2014-01-28/texas-vies-with-saudi-arabian-oil-in-california-supply-freight>

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# Permanent waiver for importing non-compliant fuel into state?

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## Trade-offs?

- Increase in air pollution impacts from bringing in non-compliant fuel
- Could further harm communities/air districts already most impacted from air pollution

## Fairness?

- Bad precedence: Allow permanent waiver from environmental requirement to occur so long as there is a mitigation fund
- Signal/Lack of Nexus: Public has to choose between higher prices or more pollution. Refinery that may have had major incidence not held responsible.

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# Permanent waiver for importing non-compliant fuel into state?

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## Legal?

- State Implementation Plan to meet national ambient air quality standards rely on CA-RFG fuel. Loss of any benefits may open State to potential lawsuits
- Oil companies, through their associations, currently involved in claiming use of proceeds from allowances sold under AB32 cap & trade is a tax

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# Require sellers to hold a minimum fuel reserve?

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## Effectiveness:

- Logistics: Reserve would need to be large enough to offset loss at a refinery for some time period. Tankage siting and additional infrastructure non-trivial
- Rules would need to be established to release reserve, define which party controls reserve
- Could provide buffer during an unplanned refinery outage

## Trade-offs:

- No major environmental, public health, or worker safety trade-offs (?)

## Fairness:

- Requirement would be on sellers (or refineries?) to hold reserve, so onus would be on industry

## Legal:

- Additional statutory authority?

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# State forward purchasing?

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## Effectiveness:

- Would measures to make the futures market more liquid and transparent, coupled with more industry disclosure regarding outage durations and volumes, result in more robust forward purchases?
- Initial start-up funds required for forward purchasing could be large
- Potentially just focus on providing suppliers with price-certainty during refinery incidences

## Trade-offs:

- No major environmental, public health, or worker safety trade-offs (?)

## Fairness:

- Funding would largely be from public coffers

## Legal:

- Additional statutory authority?

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Thank You!

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