

# **California Energy Commission IEPR Workshop Transportation Electrification Update**

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July 31, 2013

# Monthly Motor Gasoline Retail Price v. Monthly Electricity Price in \$/gal Equivalent\*

Dollars per Gallon  
(equivalent)

4.50

4.00

3.50

3.00

2.50

2.00

1.50

1.00

0.50

0.00

Forecast

Iran-Iraq war  
starts

'81-'82 Recession starts

'80 Recession

Iranian Revolution, 1979  
Energy Crisis

Crude Oil  
Price Collapse

Iraq invades  
Kuwait, 1990  
Oil shock

Asian Financial  
Crisis

US Invades Iraq

Hurricane  
Katrina

Hurricane Rita

Hurricanes  
Ike &  
Gustav

Egyptian,  
Libyan Crises

'07-'09 Financial Crisis starts

'01 Recession

???

Jan 1976 Jan 1980 Jan 1984 Jan 1988 Jan 1992 Jan 1996 Jan 2000 Jan 2004 Jan 2008 Jan 2012

# PEV Deployment Scenarios

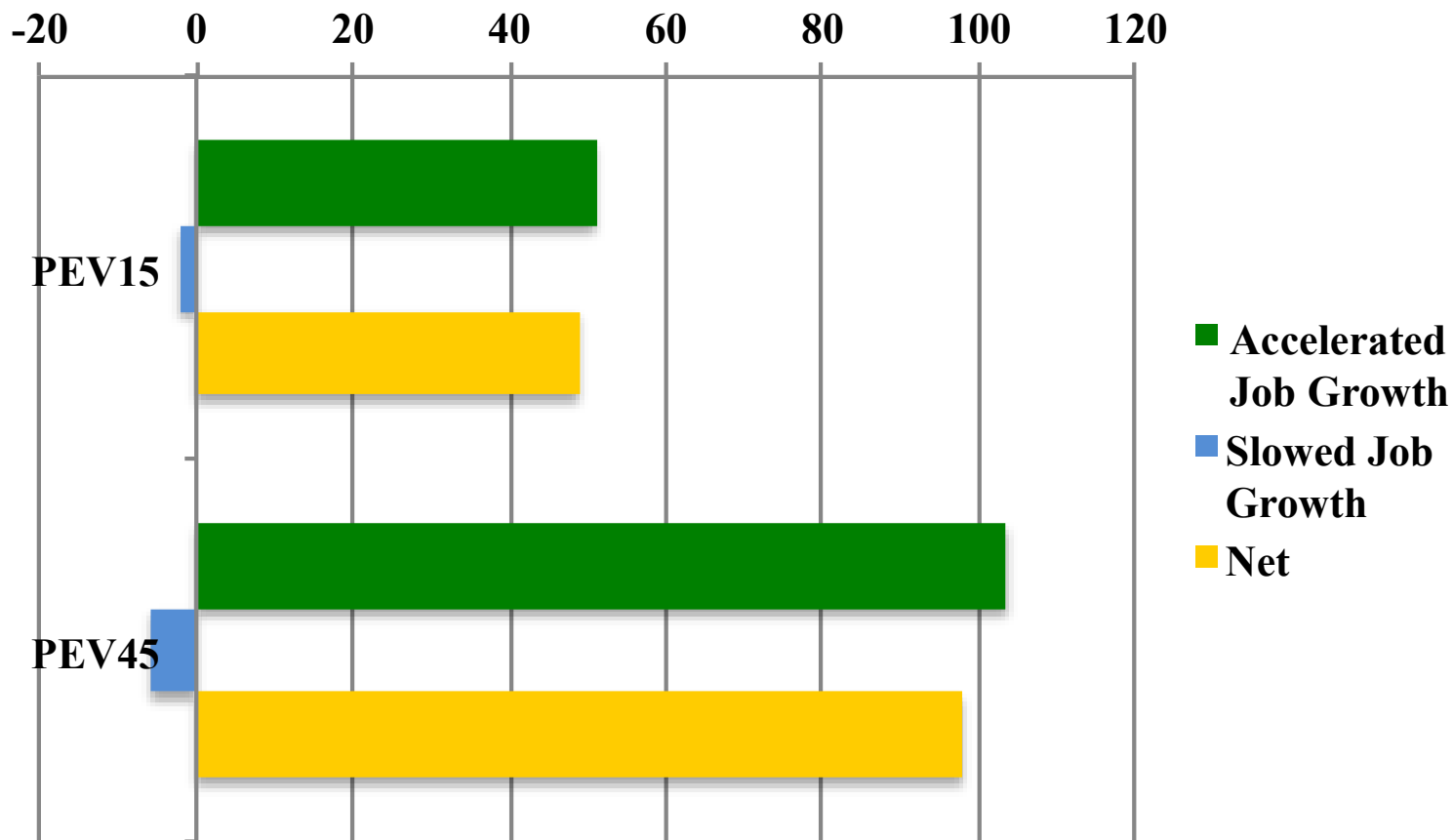
Scenario	Name	Description
1	Baseline	Assume California implements current commitments to state and post-1990 federal fuel economy standards, but continues growth at levels forecast by the Department of Finance. This is the baseline scenario.
2	PEV15	Including the Baseline scenarios, but assuming 15.4% PEV deployment in the new light-duty vehicle fleet by 2030, this would be consistent with the ZEV regulations being met by PEVs. Tax credits for PEV vehicles are phased out by 2020, and LCFS credits are awarded for pollution reduction (see section 3).
3	PEV45	Same as PEV15, except PEV deployment is accelerated to 45% of the new light-duty vehicle fleet by 2030.

## Macroeconomic Impacts

	PEV15	PEV45
Real GSP	4.954	8.177
Net Job Growth	48,816	97,761

Change from Baseline trend in 2030. Billions of 2012 dollars and FTE jobs.

## Employment Effects



Change from Baseline trend in 2030. FTE thousands.

# Carbon reduction opportunities for meeting the LCFS

Numerous studies conducted by clean fuel industries, business organizations, and environmental groups



**Studies include but are not limited to:**

[http://www.caletc.com/wp-content/uploads/2012/12/TIAX\\_CalETC-Final\\_Release.pdf](http://www.caletc.com/wp-content/uploads/2012/12/TIAX_CalETC-Final_Release.pdf)

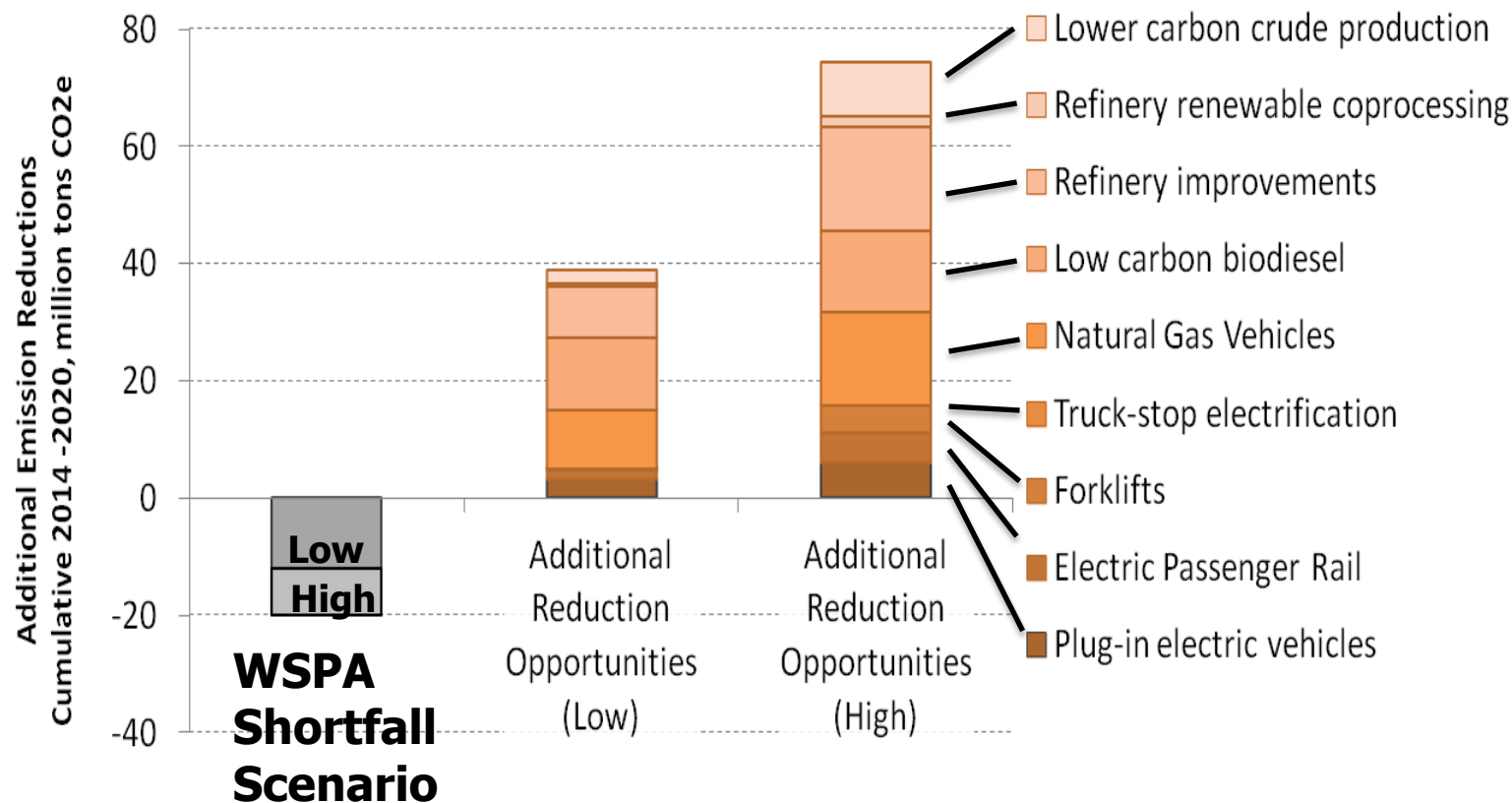
[http://www.californiabiodieselalliance.org/images/CA\\_Carbon\\_Reduction\\_B20.pdf](http://www.californiabiodieselalliance.org/images/CA_Carbon_Reduction_B20.pdf)

<http://www.tiaxllc.com/2012/05/first-reports-released-from-tiax-study-on-u-s-and-canadian-natural-gas-vehicle-industry/>;

<http://www.e2.org/ext/doc/E2AdvancedBiofuelMarketReport2012.pdf;jsessionid=D08A00F43500657B194DE463639DBD9B>

NRDC study on petroleum reduction opportunities (forthcoming).

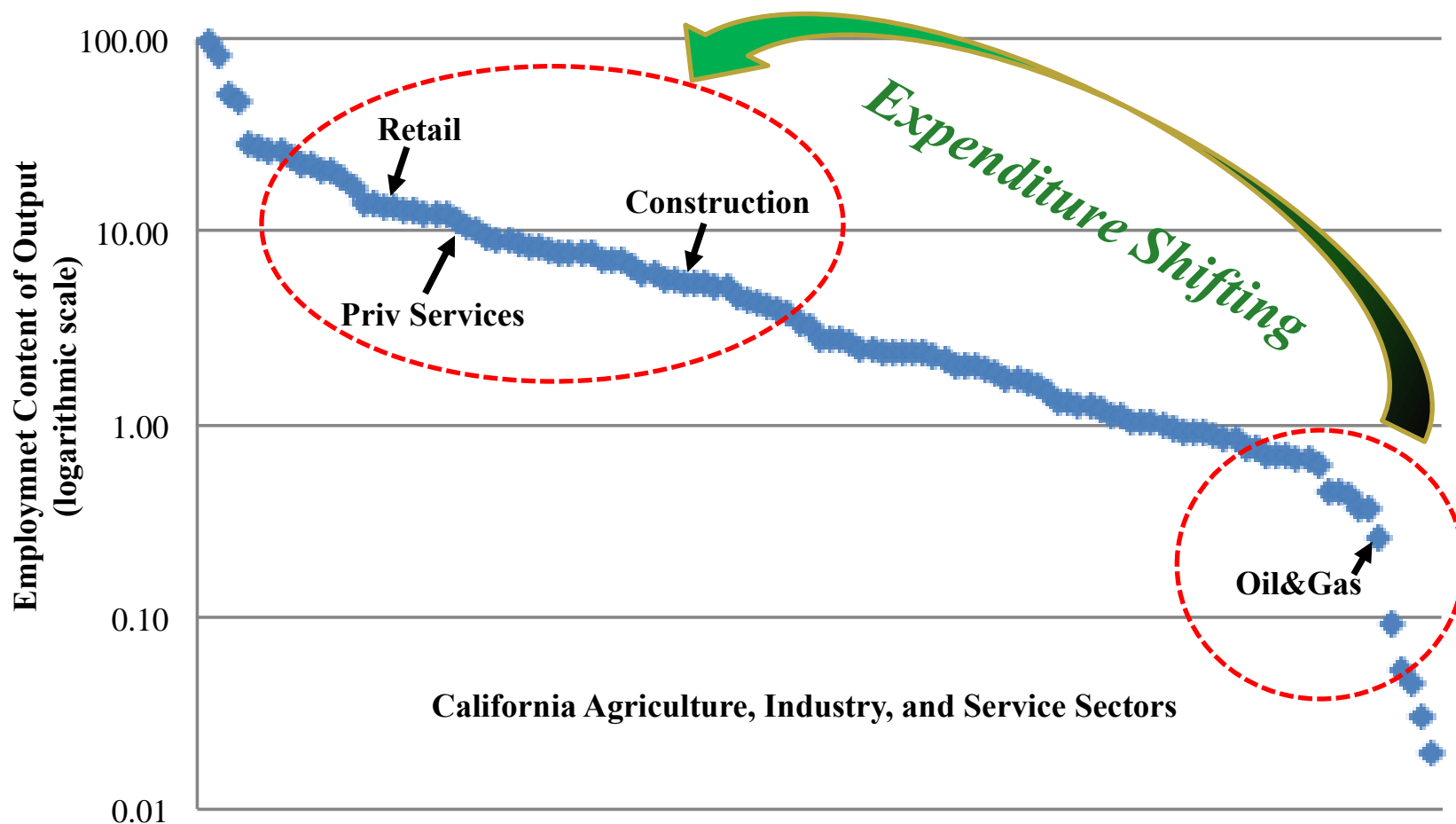
# Reduction Opportunities: How to overcome a shortfall scenario



WSPA's BCG study scenario assumes the oil industry will be short 15 to 20 million metric tons (cumulative) out of the 70 million tons of reductions required by 2020.

## Why it works

The carbon fuel supply chain is among the least job-intensive in the economy



Source: California Dept of Finance and Employment Development Office