

## Access to domestic energy resources - technology reduces footprint, improves safety

**Minerals Management Service  
Pacific OCS Region**

**Message from the Regional Director**

Energy security is on the minds of many Americans. Lately, it seems not a day goes by that we aren't reminded of the far-reaching impact energy has in our daily lives and on our economy. Through close consultation and coordination with West Coast States, other government agencies, and key stakeholders, the MMS Pacific OCS Region is working to seek possible solutions to our Nation's complex energy situation.

To date, the MMS Pacific OCS Region continues to diligently pursue its mission of effectively and responsibly managing America's offshore energy resources on the Pacific OCS. Led by a vision based on collaboration, the Pacific OCS Region carries out its day-to-day operations through a diverse and well-trained staff dedicated to working closely with State and local governments, ocean-users and other key stakeholders. Through these working relationships, the Pacific OCS Region obtains a greater appreciation of regional and local issues; this, in turn, provides the agency with insight to better understand and respond to issues of concern while pursuing the Region's core principles of **safety, science and sustainability**.

**Safety**  
The Region is committed to ensuring clean and safe energy and mineral operations on the OCS, and protecting coastal and marine environments potentially affected by the activities we regulate. This commitment is demonstrated by our impressive spill record. Since 1970, a total of only 850 barrels of oil have been lost into the marine environment from Pacific OCS operations. This is less than the amount of oil seeping naturally into the ocean from cracks in the seafloor during any given week offshore California.

Our inspectors are offshore 365 days a year, inspecting the 23 OCS platforms for compliance with MMS regulations and various other conditions of operation. Additionally, the Region's inspection protocol includes engineers and environmental scientists, many of whom participate in systemic reviews of the facilities as well as in ongoing and regular inspections. The Region continues to improve its regulations and enforcement procedures to further ensure clean and safe management of OCS resources.

**Science**  
Scientific research and advancement are essential to the success of the Region. From an operational perspective, technological improvements within the energy industry have the potential to increase access to resources while reducing associated adverse environmental impacts. Moreover, since 1973, the MMS **Regional Environmental Studies Program** has cumulatively funded 189 studies addressing Pacific OCS issues at a value of almost \$124 million. In many cases, these studies represent pioneering research for the entire California coastline. The scientific information obtained from these studies assists the Region in assessing the impacts of OCS operations on the marine and coastal ecology along California. Information from existing and future studies will become invaluable in understanding the effects of alternative energy development on the OCS.

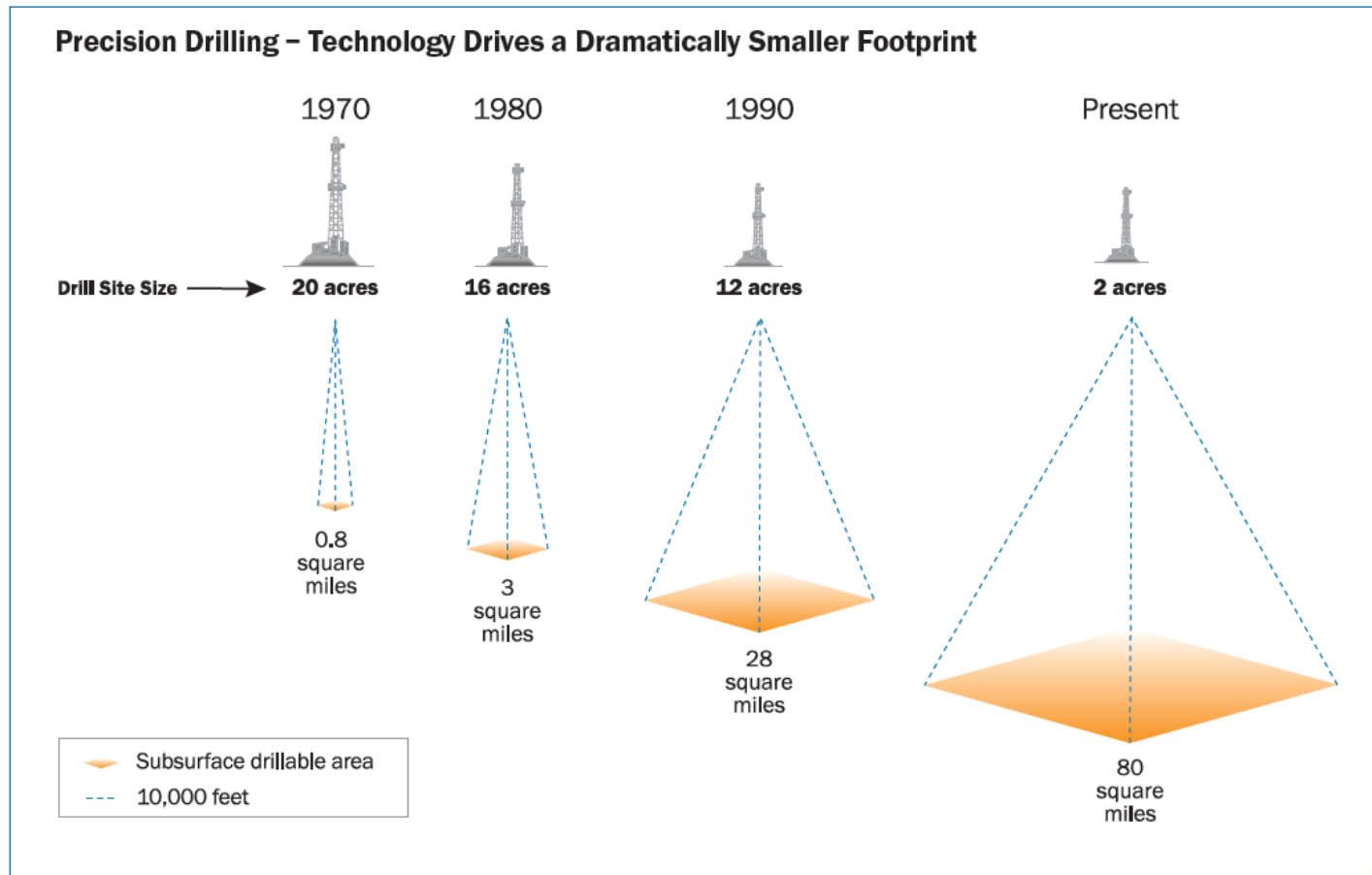
“Since 1970, a total of only 850 barrels of oil have been lost into the marine environment from Pacific OCS operations. This is less than the amount of oil seeping naturally into the ocean from cracks in the seafloor during any given week offshore California.”

## Technology reduces footprint, improves safety

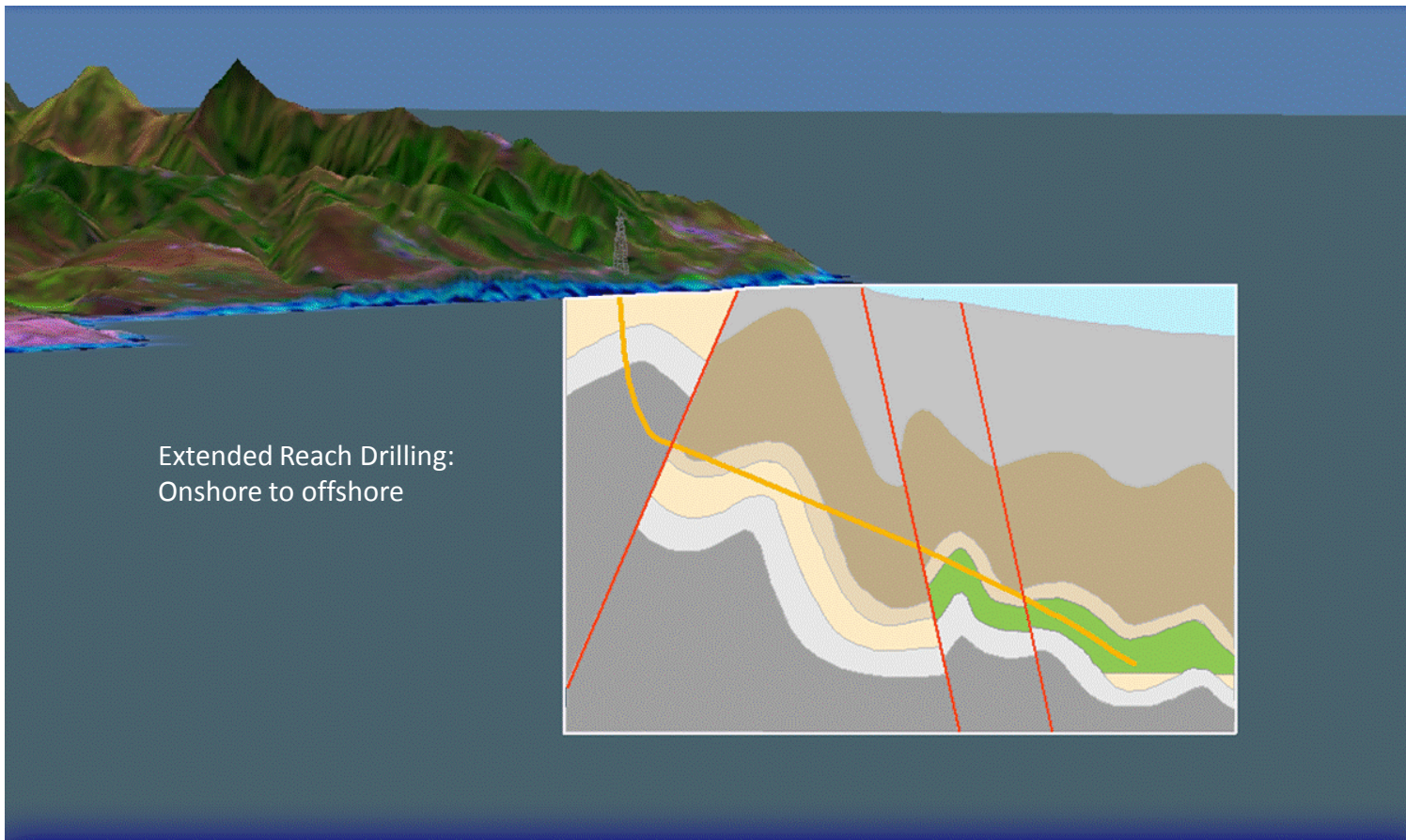
- Since 1970, over 1 billion barrels of oil have been produced off California, according to the U.S. Minerals Management Service.
- During that time, only 850 barrels of oil have been accidentally released into the marine environment.
- About 55,000 barrels of crude oil are introduced from natural seeps each year into the ocean off Santa Barbara.



## Technology reduces footprint, improves safety

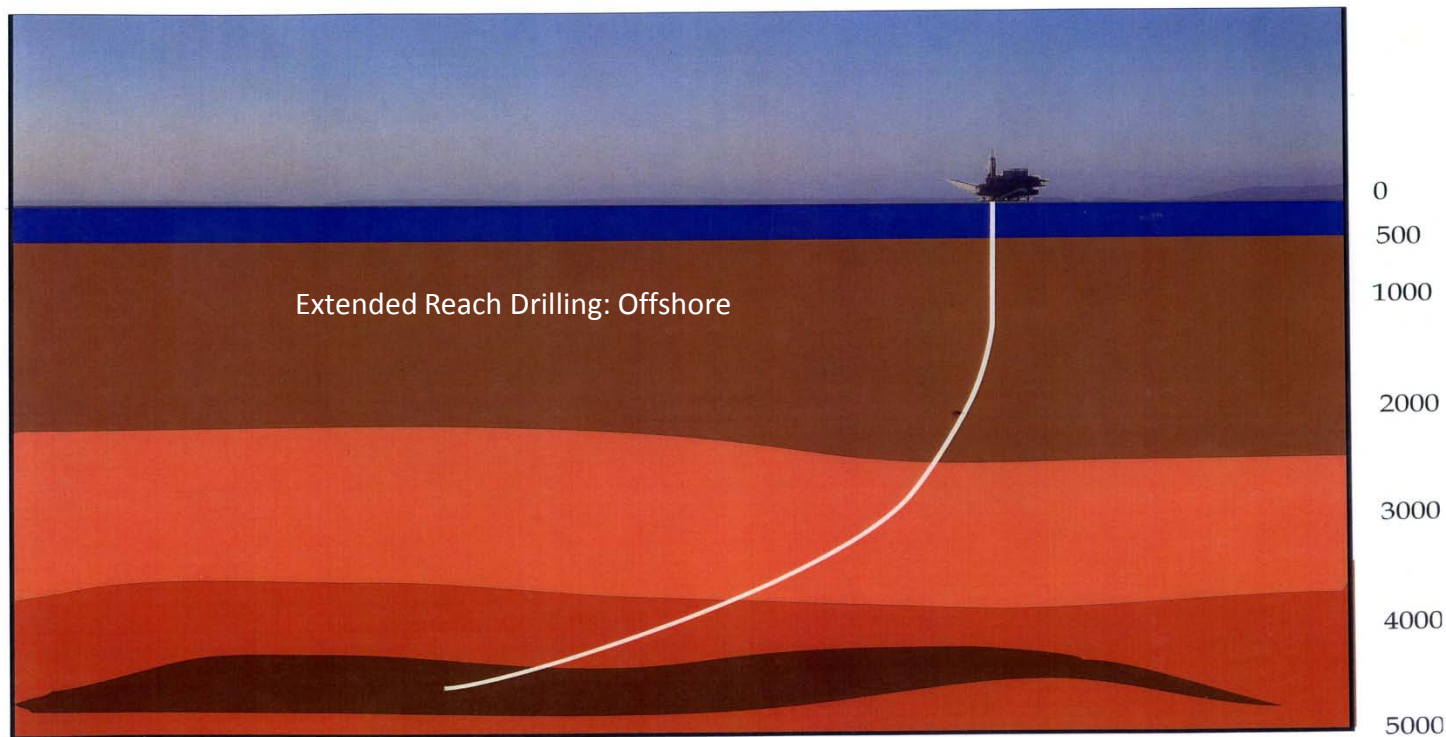


## Technology reduces footprint, improves safety





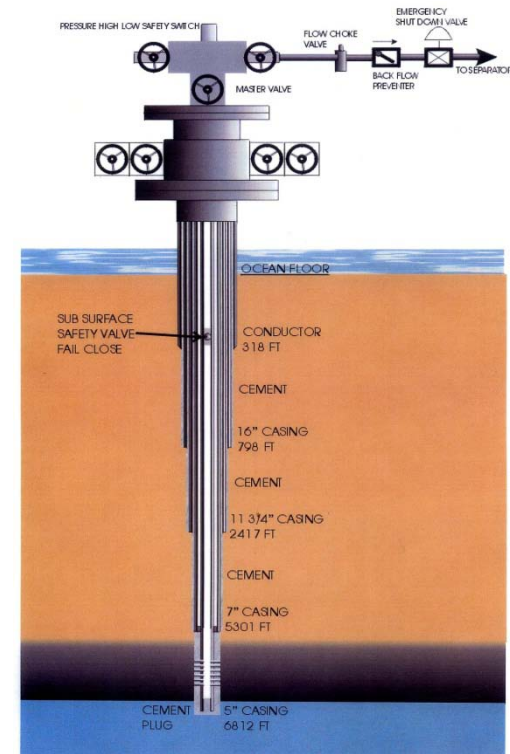
## Technology reduces footprint, improves safety



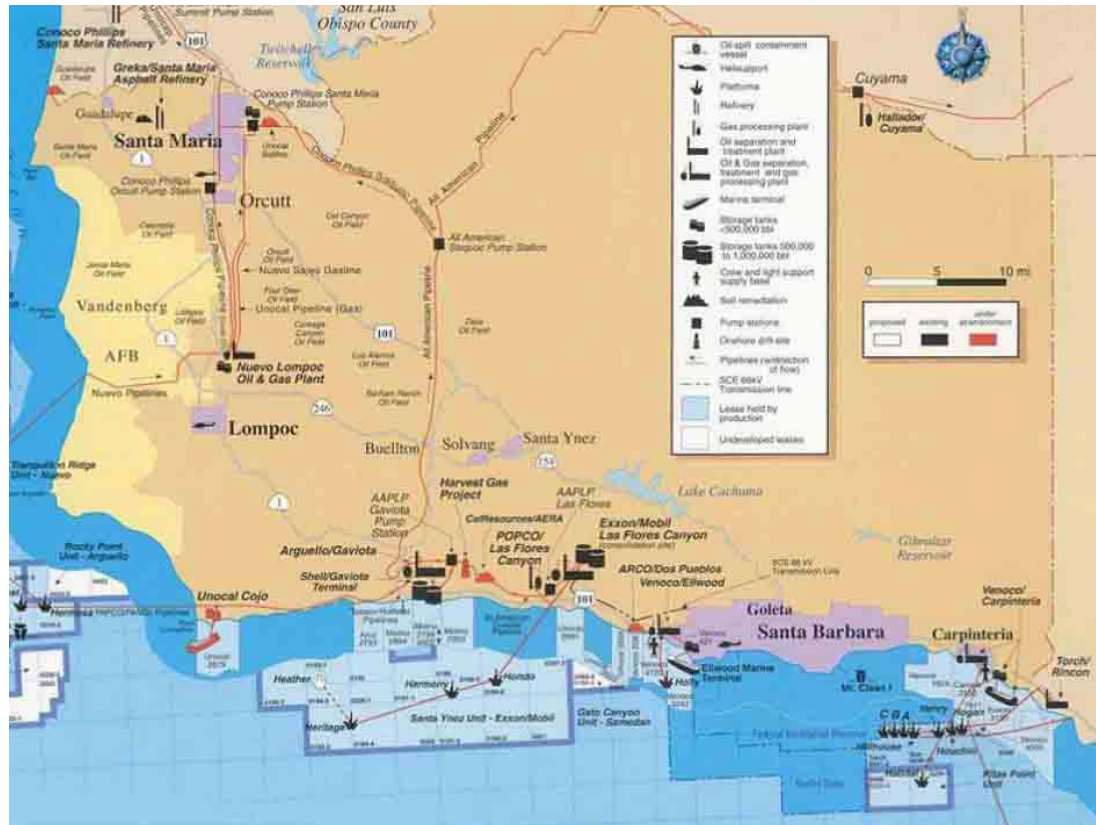
## Technology reduces footprint, improves safety

Oil industry is constantly developing sophisticated safety processes and equipment, such as:

- Measurement-while-drilling technology
- Global positioning systems
- High resolution inspection and monitoring devices
- Remotely-operated underwater vehicles
- 3-D and 4-D Seismic Technology

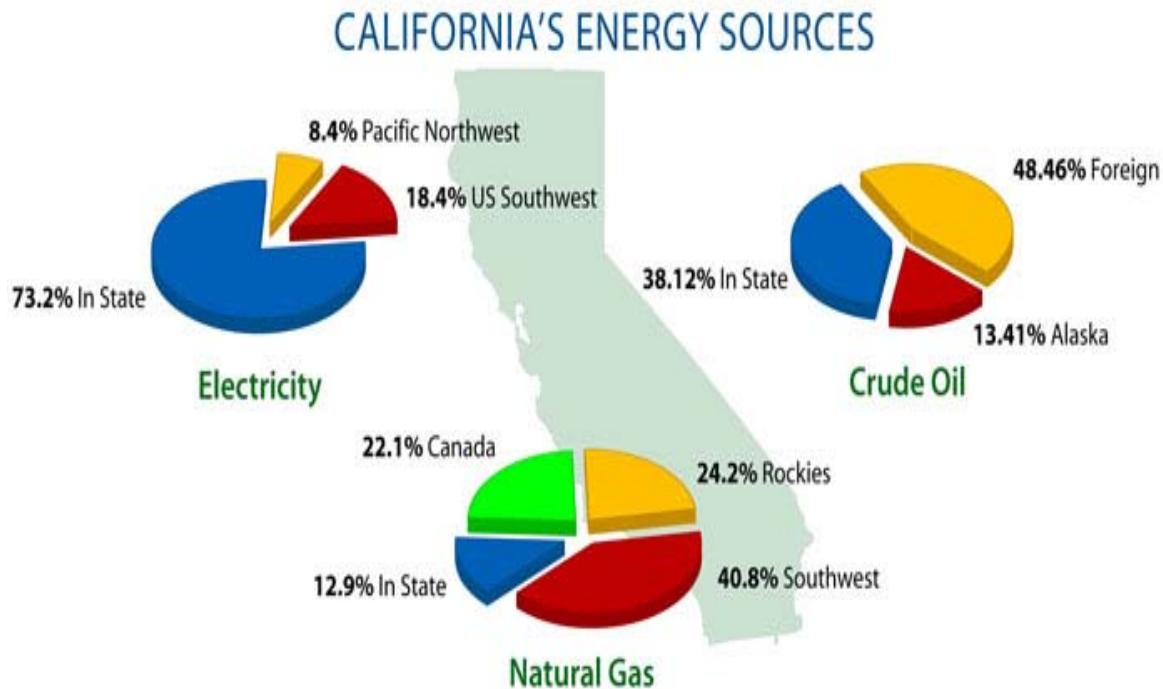


## Infrastructure in place to support offshore resources



Santa Barbara County oil and gas facilities

## California Energy Sources



### Crude Oil (2008)

- In-State 38.1%
- Alaska 13.41%
- Foreign 48.5%

### Electricity (2008)

- In-State 73.2%
- Natural Gas 46.5%
- Nuclear 14.9%
- Large Hydro 9.6%
- Coal\* 15.5%
- Renewable 13.5%
- Imports 26.8%
- PNW 8.4%
- USSW 18.4%

### Natural Gas (2007)

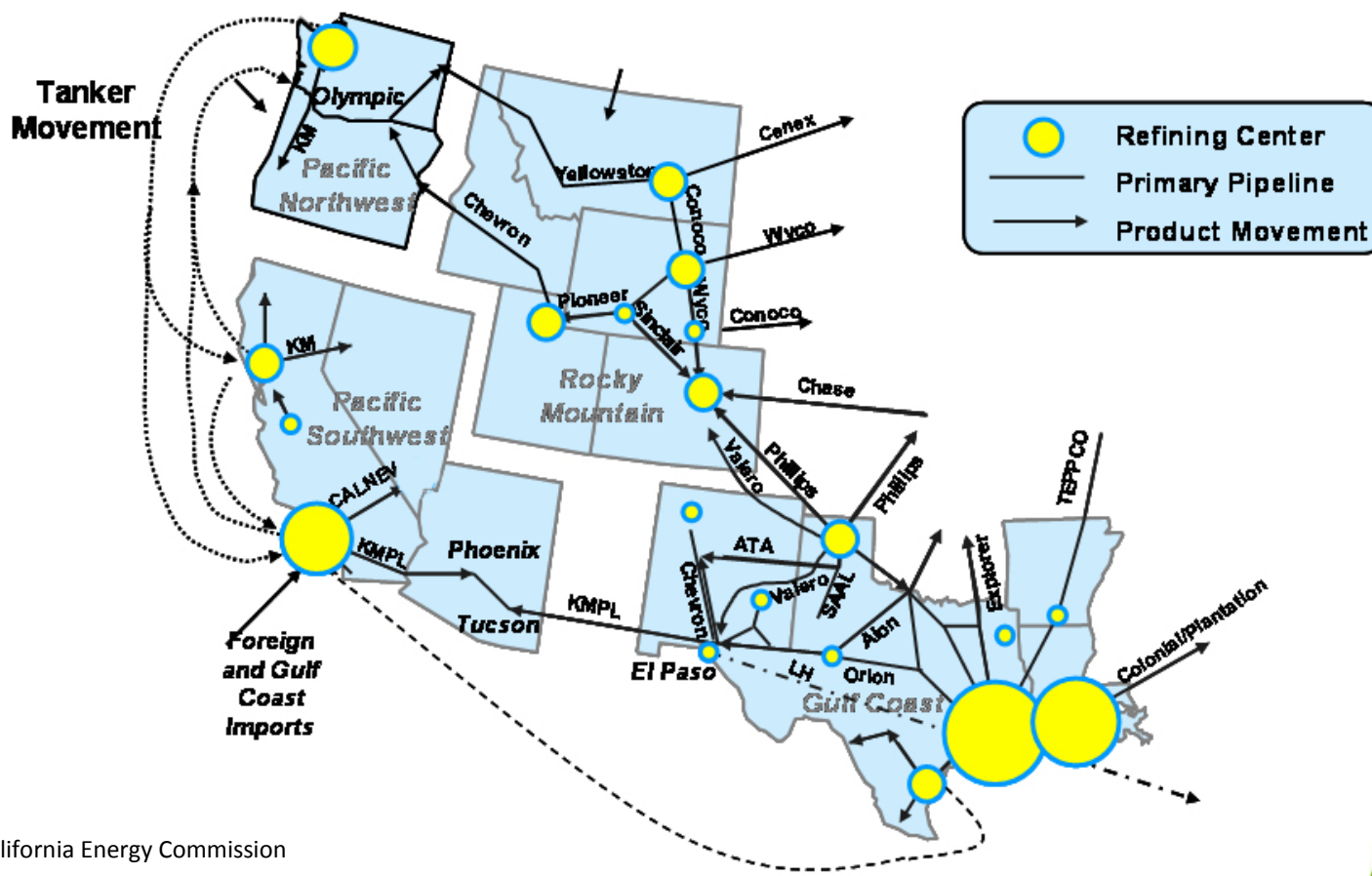
- In-State 12.9%
- Canada 22.1%
- Rockies 24.2%
- Southwest 40.8%

\* Intermountain and other California utility-owned coal plants, though outside California, are considered "in-state," since they are in California utilities' control areas.



# Western States Petroleum Association

## California is an energy island



Source: California Energy Commission