

RENAISSANCE

THE STUNNING ECONOMIC IMPACT OF LOUISIANA'S NEW INDUSTRIAL REVOLUTION



Fueling Our Economic Growth With Natural Gas



Nature's Gifts to Louisiana:



Dead Dinosaurs

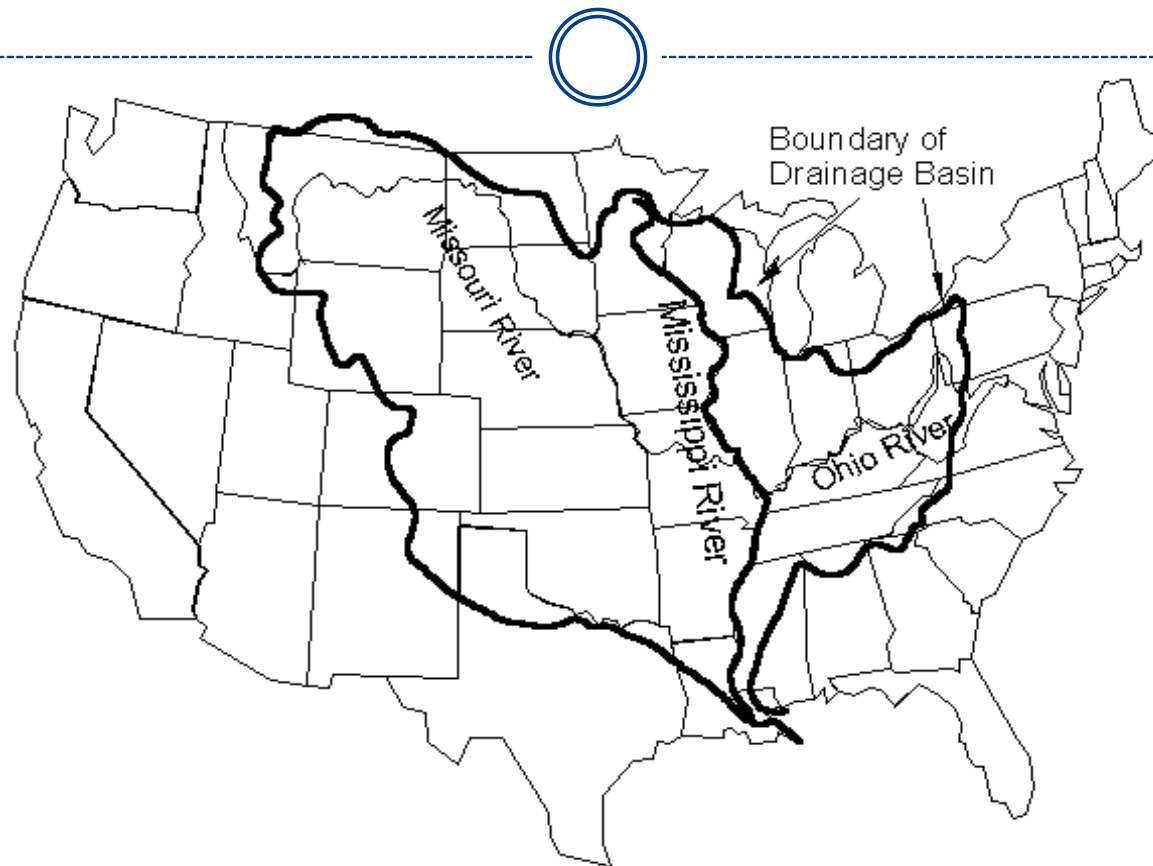
Land, plenty of land

People, hard-working people

Arteries of Commerce to the World



The Mississippi River Basin



Discovery of Oil – The Granddaddy of Them All

Salt Domes – Underground Treasure Troves

Sulfur/Sulfuric Acid – World Leader

Oil Refining in Baton Rouge – And So It Begins



Infrastructure Development – Synergism

Putting the Lead In: Tetraethyl Lead

High Octane Gasoline and the Battle of Britain

Synthetic Rubber – Fighting the War in LA



Lubricating Oils – Close to the Gulf but...

Chlorine – Battery Magic

Henry Kaiser: Find a Need and Fill It – Aluminum

Ethylene – Building Block of an Industry



Right to Profit State –McKeithen Trots the Globe

Downstream Opportunities – Beaucoup

Synthesis Gas – Ammonia, Methanol, Hydrogen

Fertilizers – To feed the World



Plastics. Plastics. Plastics!

The *Graduate* Was Right!

Pulp and Paper – Money Grows on Trees

Specialty Chemicals – Insecticides, Herbicides,
Refrigerants, More



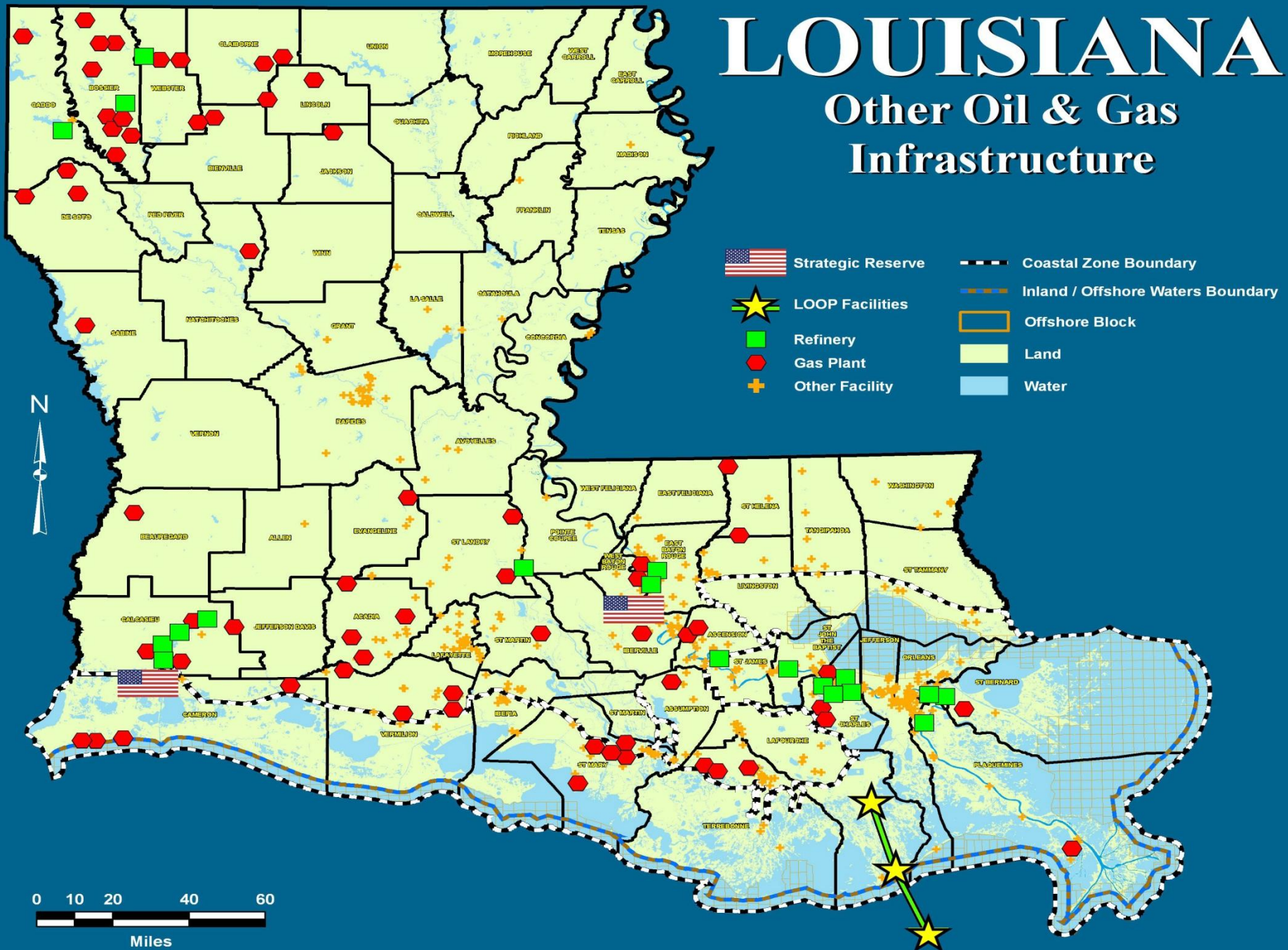
LOUISIANA


Pipelines & Platforms



LOUISIANA

Other Oil & Gas Infrastructure



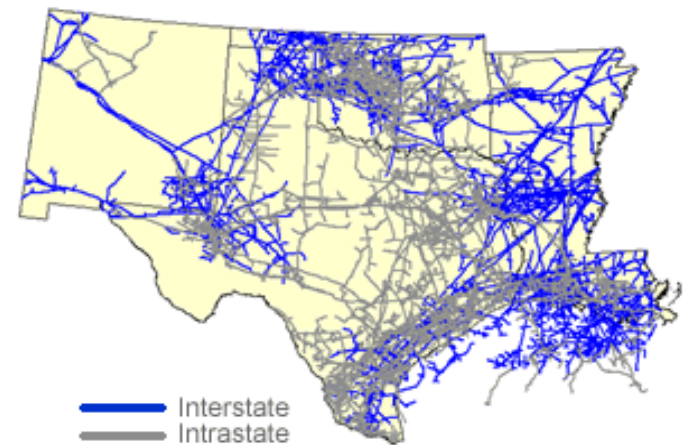
-  Strategic Reserve
-  LOOP Facilities
-  Refinery
-  Gas Plant
-  Other Facility
-  Coastal Zone Boundary
-  Inland / Offshore Waters Boundary
-  Offshore Block
-  Land
-  Water

0 10 20 40 60
Miles

Pipelines



- **87,764** miles of pipeline in onshore Louisiana
- **37,000** miles of active and proposed pipelines in offshore Louisiana
- **124,764** miles of pipeline--- enough to circle the Earth five times.



Maps & Directories
Homesite Company
P. O. Box 627 (225) 383-5369
Baton Rouge, LA 70821

Baton Rouge
Rhodia (Stauffer) - Acid
UOP (LaRoche)
Lion Copolymer (DSM)
Albemarle (Ethyl) - Labs
Formosa (Allied) - Cl, PVC

St Gabriel / Carville
**** Willow Glen
Taminco (Air Products) - Amines
BCP- Choline

Ag Products
syngenta (artis & Zeneca)
Olin (Pioneer, Stauffer) - Cl
Mexichem Fluor (ICI) -
Refrigerants
Total (Atofina) -
Styrene, PS
* Calpine

Geismar
Honeywell (Allied Signal)
Williams (Union Texas)
- Ethylene
PCS Nitrogen (Arcadian)
- Fertilizers
Innophos (Rhodia)
- Phos Acid

Geismar
Westlake (Geismar Vinyls, BCP)
Air Liquide
Lion Copolymer (Chemtura, Uniroyal) - EPDM
Huntsman (Rubicon) - MDI
Momentive (Hexion, Borden) - Formaldehyde
Praxair - Syn Gas
- EO, EG, Urethanes
Ethylene

Sunshine Bridge & Below
DuPont - Sulfuric Acid
Air Products
Motiva (Star/Texaco)
OxyChem (Convent) - EDC
Mosaic (IMC - Agrico, Uncle Sam) - Fertilizers



BASF em. Derivatives
Air Prod - Syn Gas
OxyChem (Vulcan) -
Cl Organics
Air Liquide - Cogen

Gramercy
LSR/ Imperial (Colonial) Sugar Packaging
Noranda/Gramercy Alumina (Kaiser) -
Alumina
Rain CII Carbon

Garville / LaPlace
Nalco - Water Treatment
Stockhausen
Marathon **Marathon Oil Company**
Pinnacle Poly
Air Products (Tomah)
DuPont - Elastomers & Specialties
ArcelorMittal, (Bayou Steel)
*** Little Gypsy



Norco
Motiva - Refinery
Shell Chemical, LP
- Olefins
Momentive (Hexion, RPR) - Epoxies
Enterprise Products - Gas Processing
Air Liquide
Valero (Orion, TransAm.) - Refinery
Rain CII Carbon
Dow (Union Carbide) - PP (Shuttered)

Shell Oil, Metairie

NO East
Air Products
Folgers
** Michoud

Below NO
Domino Sugar
Cii - Coke
Chalmette Refining
Air Products
Valero (Murphy)

Across River (from New Orleans)
MONSANTO
Cornerstone, (Cytac, Cyanamid)
** Nine Mile

Belle Chasse
Chevron Oronite - Lubes



Phillips 66 (Tosco, BP Amoco)
Alliance Refinery

Below Sunshine Bridge
Mosaic - Fertilizers
(IMC-Agrico)
Styrenes
(Chevron/Phillips) - Styrene
SLM - Methanol

Taft / Hahnville
*** Waterford
Mosaic (IMC-Agrico)

OxyChem
(Hooker) - Chlorine
Praxair
Air Liquide
Galata (Chemtura, Witco) - Additives
Arkema

(Union Carbide) -
Ethylene & Derivatives



ExxonMobil Chemical
- Refinery
* La Station
Honeywell (Allied Signal) -
Refrigerants

North of Baton Rouge
BASF (Novolyte, Grant)
BP - Gas Processing
U.S. Composite Pipe
ExxonMobil Polyolefins (Allied / Paxon)
ExxonMobil - Resin Finishing
ExxonMobil BR Plastics
Deltech (Foster Grant) - Styrene's
Oxbow (Great Lakes, Alcoa)
Clean Harbors (Safety-Kleen)

Port Allen
BASF (Discovery)
Criterion (Southern Ionics, Alcoa) - Catalysts
Placid Refining
ExxonMobil - Lubes
Enterprise Products - C3 Splitter

Addis / Plaquemine
Shintech (BCP)
Sid Richardson - Carbon Black
Shintech - PVC
Dow - Cl, Ethylene & Derivatives

Dow
Poly Olefins Compounds
Air Liquide
Air Products

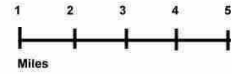
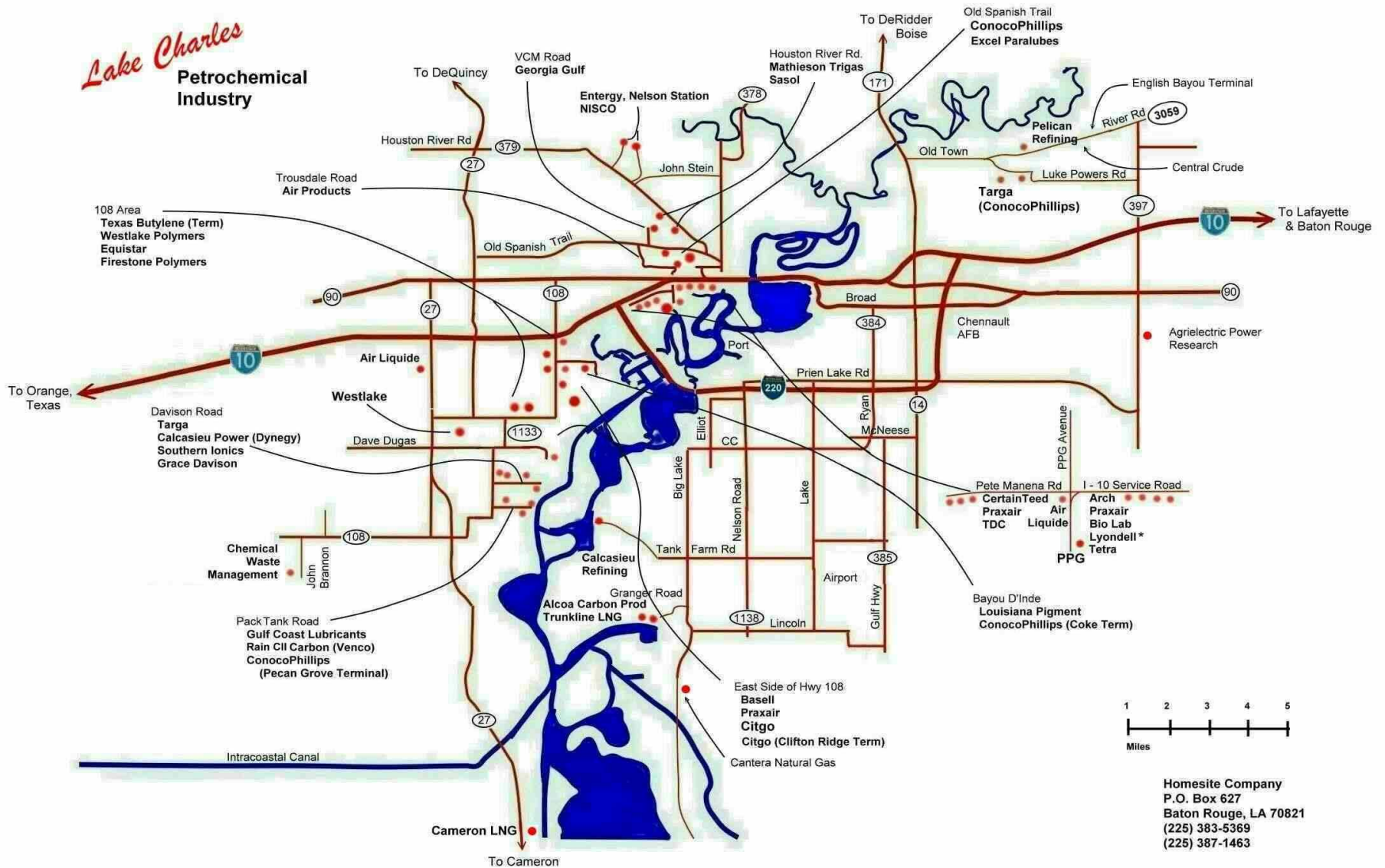
Plaquemine
Axiall (**Georgia Gulf**)
- Cl, PVC
Shintech - PVC
SE Tylose - HMC
Air Liquide
Praxair
SNF Flopanm

Donaldsonville
CF - Ammonia
CF (Terra, Triad) - Ammonia
Faustina Hydrogen, Proposed

*Petrochemical Plants Along
The lower Mississippi River Corridor*

* Power Plants, Entergy, Calpine
Plants shown in italics are closed

Lake Charles
Petrochemical Industry

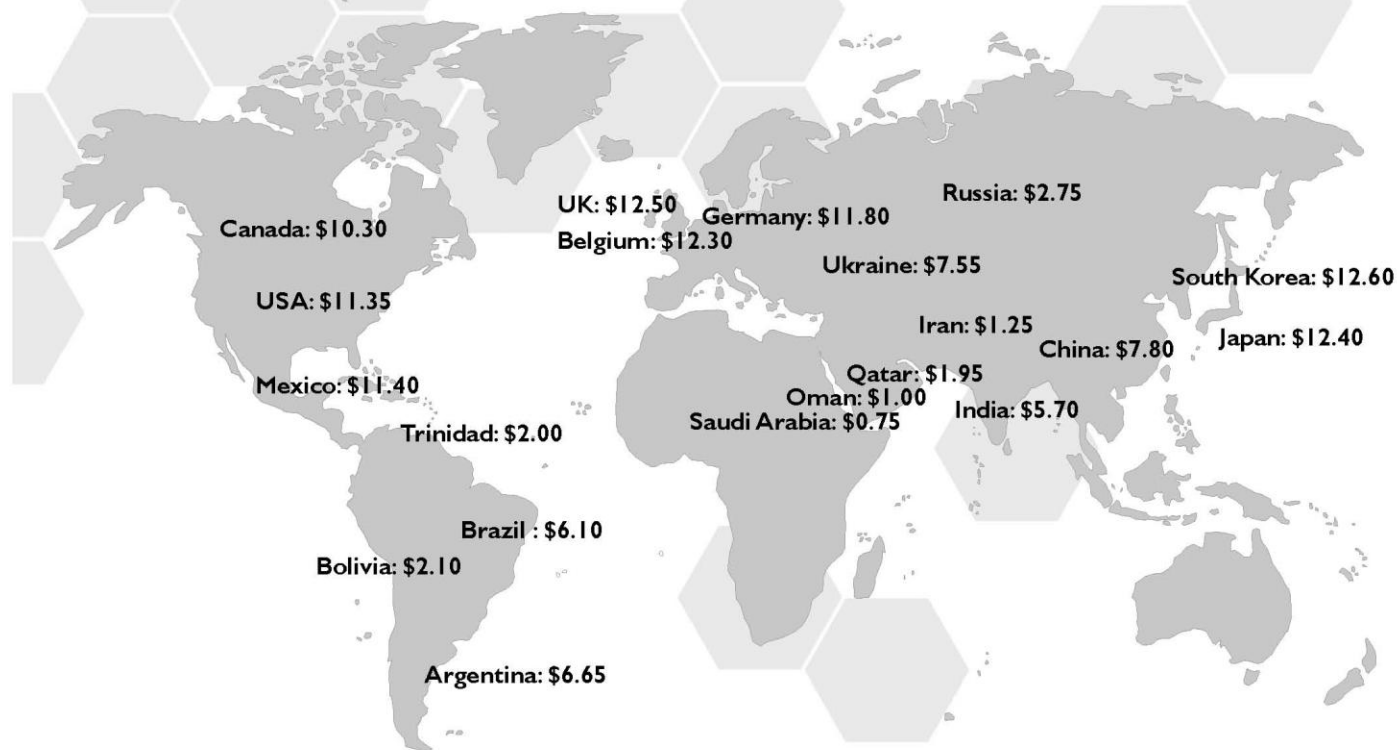


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(225) 387-1463

* Closed

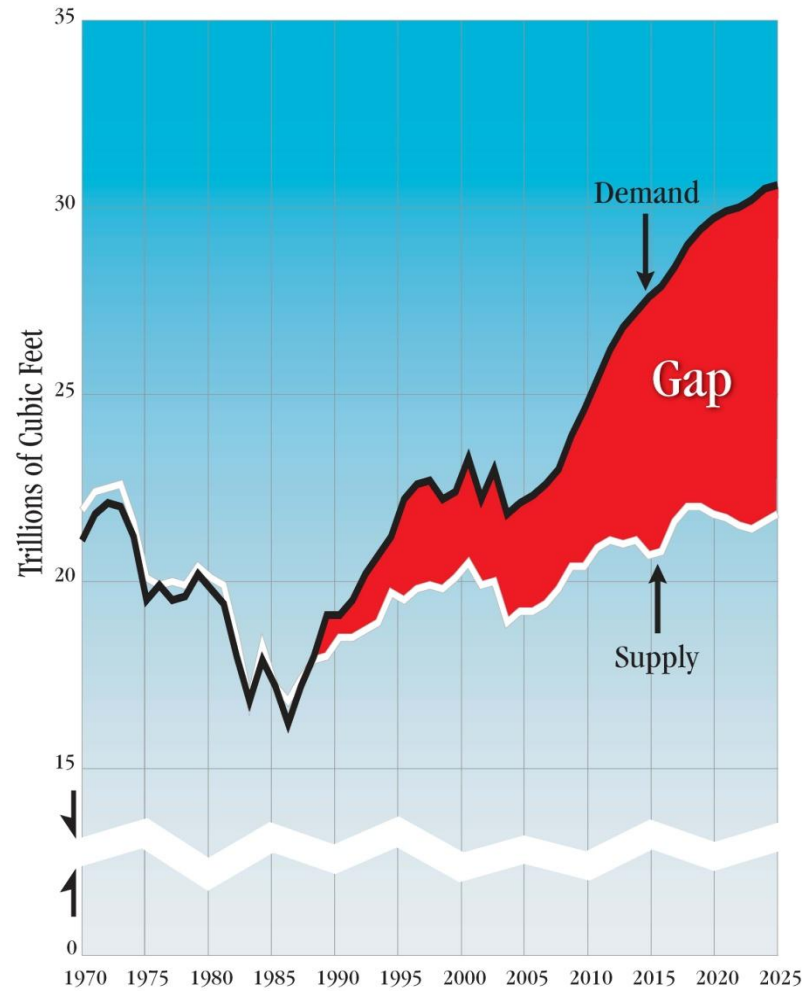
Global Natural Gas Costs – 2nd Quarter 2008

(\$US per million BTUs)



Note: Prices generally reflect domestic wellhead/hub prices or imported prices via pipeline. Some nations (e.g., Japan and Korea) import LNG. Thus, the higher prices. Other nations import LNG but these prices aren't generally reflected in the above.

WORSENING GAP BETWEEN DOMESTIC NATURAL GAS SUPPLY AND DEMAND



Data from Energy Information Administration



Center for Energy Studies

LNG Schematic Production to End-User



Exploration and Production

World natural gas reserves are abundant, estimated at a volume of the volume of the world's oil. Much of this gas is produced in the Middle East because it is abundant there and from coal.



Shipping: The typical LNG carrier can transport 125,000 to 138,000 cubic meters of LNG, which will provide about 2.6 to 2.8 bcf of natural gas. The typical carrier measures 900 feet in length, 140 feet in width and 36 feet in water draft, and costs about \$160 million.



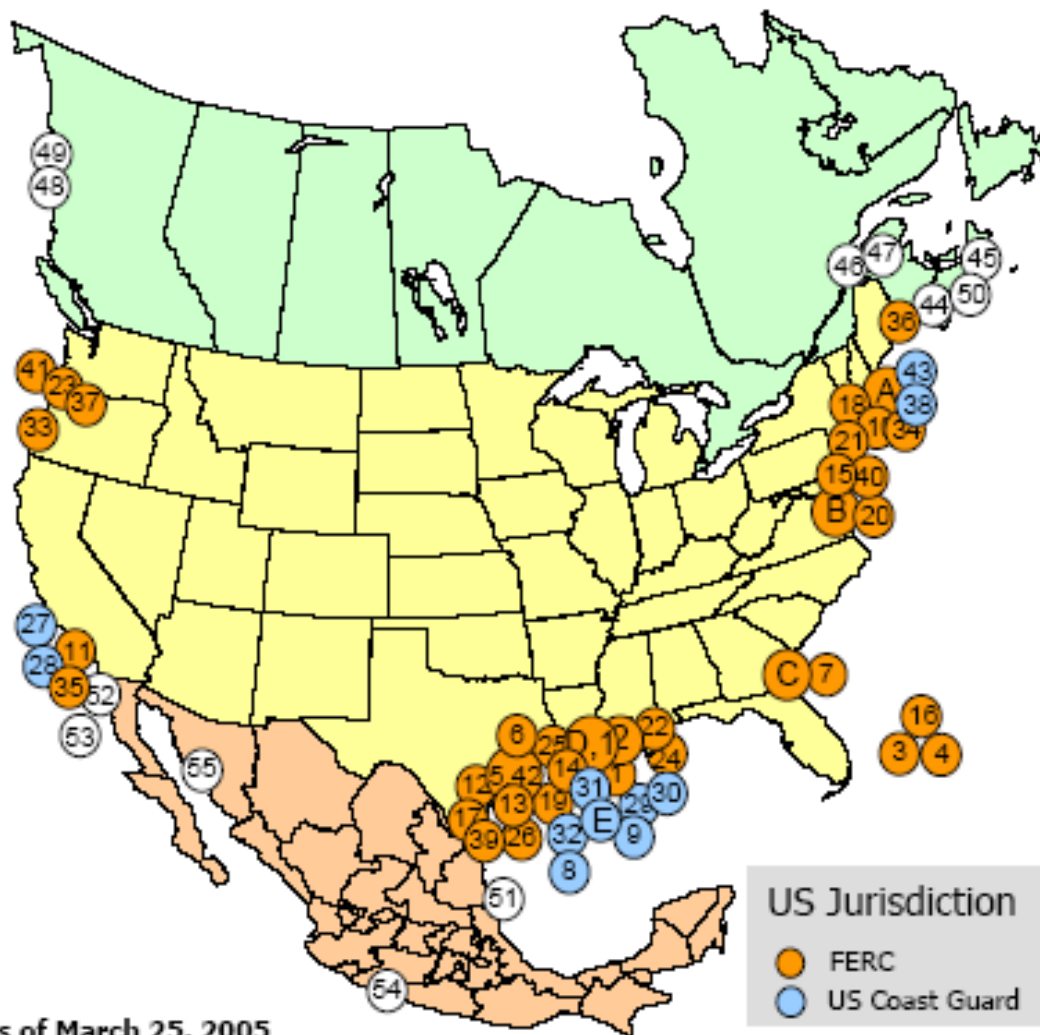
Liquefaction: Gas from the production field comes to the liquefaction plant. Contaminants are removed and the gas is cooled to a temperature of -256°F. By liquefying the gas, its volume is reduced by a factor of 600.



Storage: LNG is stored in double-walled, insulated tanks at atmospheric pressure. These tanks are designed to prevent any leaks. There is also a dike around the wall that is capable of containing the entire volume of the tank in the unlikely event of a spill.

Regasification and Delivery: LNG is pumped from the ship to insulated storage tanks at a specially designed terminal. It is then fed into a regasification plant to return the LNG to a gaseous state. The LNG is warmed by passing it through heated pipes and various terminal components. The vaporized gas is then regulated for pressure and enters the pipeline system to be transported to end users.

Existing and Proposed LNG Terminals



As of March 25, 2005

* US pipeline approved; LNG terminal pending in Bahamas
 ** These projects have been approved by the Mexican and Canadian authorities

CONSTRUCTED

- A. Everett, MA : 1.035 Bcfd (Tractebel - DOMAC)
- B. Cove Point, MD : 1.0 Bcfd (Dominion - Cove Point LNG)
- C. Elba Island, GA : 0.68 Bcfd (El Paso - Southern LNG)
- D. Lake Charles, LA : 1.0 Bcfd (Southern Union - Trunkline LNG)
- E. Gulf of Mexico: 0.5 Bcfd, (Gulf Gateway Energy Bridge - Excelerate Energy)

APPROVED BY FERC

- 1. Lake Charles, LA: 1.1 Bcfd (Southern Union - Trunkline LNG)
- 2. Hackberry, LA : 1.5 Bcfd, (Sempra Energy)
- 3. Bahamas : 0.84 Bcfd, (AES Ocean Express)*
- 4. Bahamas : 0.83 Bcfd, (Calypso Tractebel)*
- 5. Freeport, TX : 1.5 Bcfd, (Cheniere/Freeport LNG Dev.)
- 6. Sabine, LA : 2.6 Bcfd (Cheniere LNG)
- 7. Elba Island, GA: 0.54 Bcfd (El Paso - Southern LNG)

APPROVED BY MARAD/COAST GUARD

- 8. Port Pelican: 1.6 Bcfd, (Chevron Texaco)
- 9. Louisiana Offshore : 1.0 Bcfd (Gulf Landing - Shell)

PROPOSED TO FERC

- 10. Fall River, MA : 0.8 Bcfd, (Weaver's Cove Energy/Hess LNG)
- 11. Long Beach, CA : 0.7 Bcfd, (Mitsubishi/ConocoPhillips - Sound Energy Solutions)
- 12. Corpus Christi, TX : 2.6 Bcfd, (Cheniere LNG)
- 13. Corpus Christi, TX : 1.0 Bcfd (Vista Del Sol - ExxonMobil)
- 14. Sabine, TX : 1.0 Bcfd (Golden Pass - ExxonMobil)
- 15. Logan Township, ND : 1.2 Bcfd (Crown Landing LNG - BP)
- 16. Bahamas : 0.5 Bcfd, (Seafarer - El Paso/FPL)
- 17. Corpus Christi, TX: 1.0 Bcfd (Ingleside Energy - Occidental Energy Ventures)
- 18. Providence, RI : 0.5 Bcfd (Keyspan & BG LNG)
- 19. Port Arthur, TX: 1.5 Bcfd (Sempra)
- 20. Cove Point, MD : 0.8 Bcfd (Dominion)
- 21. LI Sound, NY: 1.0 Bcfd (Broadwater Energy - TransCanada/Shell)
- 22. Pascagoula, MS: 1.0 Bcfd (Gulf LNG Energy LLC)
- 23. Bradwood, OR: 1.0 Bcfd (Northern Star LNG - Northern Star Natural Gas LLC)
- 24. Pascagoula, MS: 1.3 Bcfd (Casotte Landing - ChevronTexaco)
- 25. Cameron, LA: 3.3 Bcfd (Creole Trail LNG - Cheniere LNG)
- 26. Port Lavaca, TX: 1.0 Bcfd (Calhoum LNG - Gulf Coast LNG Partners)

PROPOSED TO MARAD/COAST GUARD

- 27. California Offshore: 1.5 Bcfd (Cabrillo Port - BHP Billiton)
- 28. So. California Offshore : 0.5 Bcfd, (Crystal Energy)
- 29. Louisiana Offshore : 1.0 Bcfd (Main Pass McMoran Exp.)
- 30. Gulf of Mexico: 1.0 Bcfd (Compass Port - ConocoPhillips)
- 31. Gulf of Mexico: 2.8 Bcfd (Pearl Crossing - ExxonMobil)
- 32. Gulf of Mexico: 1.5 Bcfd (Beacon Port Clean Energy Terminal - ConocoPhillips)

POTENTIAL SITES IDENTIFIED BY PROJECT SPONSORS

- 33. Coos Bay, OR: 0.13 Bcfd, (Energy Projects Development)
- 34. Somerset, MA: 0.65 Bcfd (Somerset LNG)
- 35. California - Offshore: 0.75 Bcfd, (Chevron Texaco)
- 36. Pleasant Point, ME : 0.5 Bcfd/d (Quoddy Bay, LLC)
- 37. St. Helens, OR: 0.7 Bcfd (Port Westward LNG LLC)
- 38. Offshore Boston, MA: 0.8 Bcfd (Northeast Gateway - Excelerate Energy)
- 39. Galveston, TX: 1.2 Bcfd (Pelican Island - BP)
- 40. Philadelphia, PA: 0.6 Bcfd (Freedom Energy Center - PGW)
- 41. Astoria, OR: 1.0 Bcfd (Skipanon LNG - Calpine)
- 42. Freeport, TX: 1.5 Bcfd, (Cheniere/Freeport LNG Dev. - Expansion)
- 43. Offshore Boston, MA: 0.4 Bcfd (Neptune LNG - Tractebel)

CANADIAN APPROVED AND POTENTIAL TERMINALS

- 44. St. John, NB : 1.0 Bcfd, (Canaport - Irving Oil)
- 45. Point Tupper, NS 1.0 Bcfd/d (Bear Head LNG - Anadarko)
- 46. Quebec City, QC : 0.5 Bcfd (Project Rabaska - Enbridge/Gaz Met/Gaz de France)
- 47. Rivière-du- Loup, QC: 0.5 Bcfd (Cacoua Energy - TransCanada/PetroCanada)
- 48. Kitimat, BC: 0.61 Bcfd (Galveston LNG)
- 49. Prince Rupert, BC: 0.30 Bcfd (WestPac Terminals)
- 50. Goldboro, NS 1.0 Bcfd (Keltic Petrochemicals)

MEXICAN APPROVED AND POTENTIAL TERMINALS

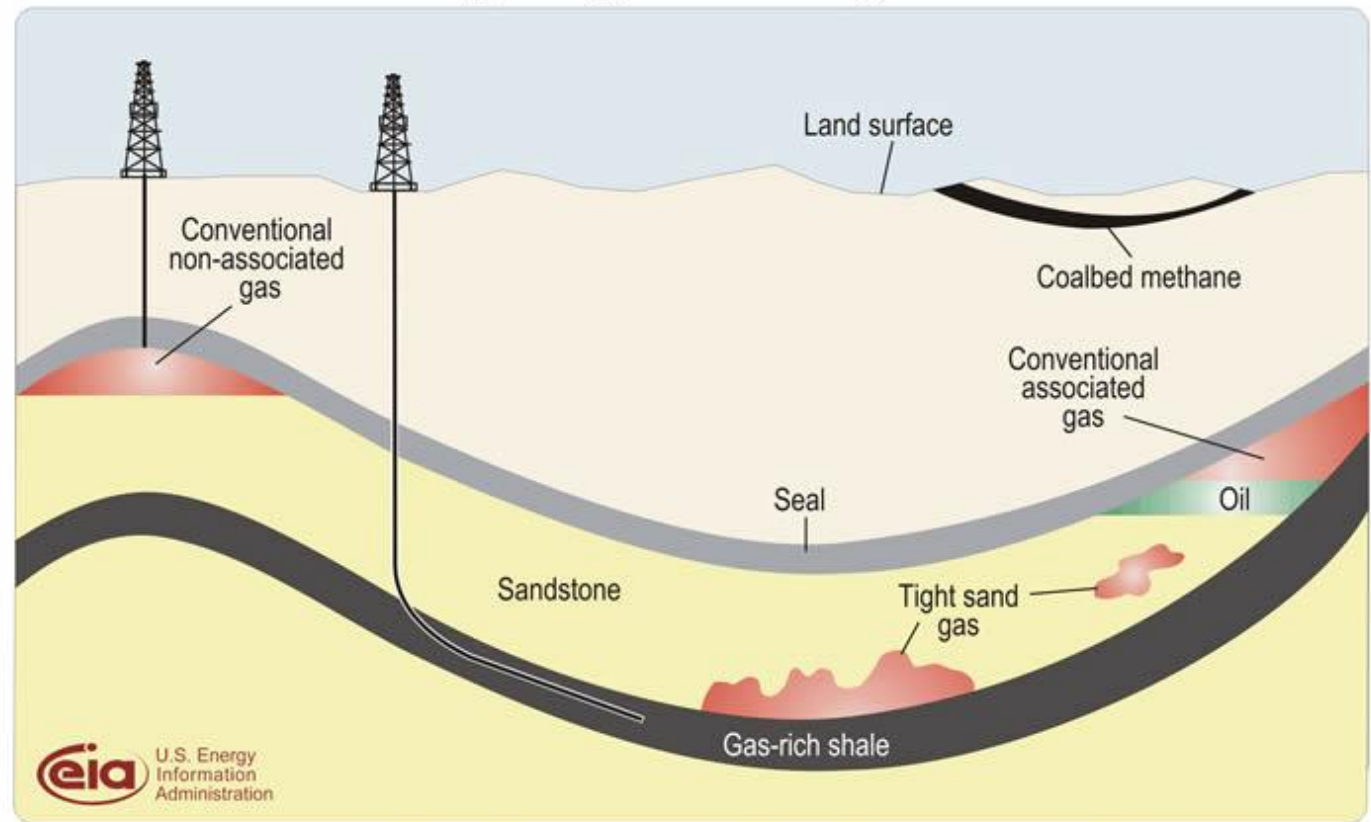
- 51. Altamira, Tamulipas : 0.7 Bcfd, (Shell/Total/Mitsui)**
- 52. Baja California, MX : 1.0 Bcfd, (Sempra & Shell)**
- 53. Baja California - Offshore : 1.4 Bcfd, (Chevron Texaco)
- 54. Lázaro Cárdenas, MX : 0.5 Bcfd (Tractebel/Repsol)
- 55. Puerto Libertad, MX: 1.3 Bcfd (Sonora Pacific LNG)

What are Unconventional Resources?

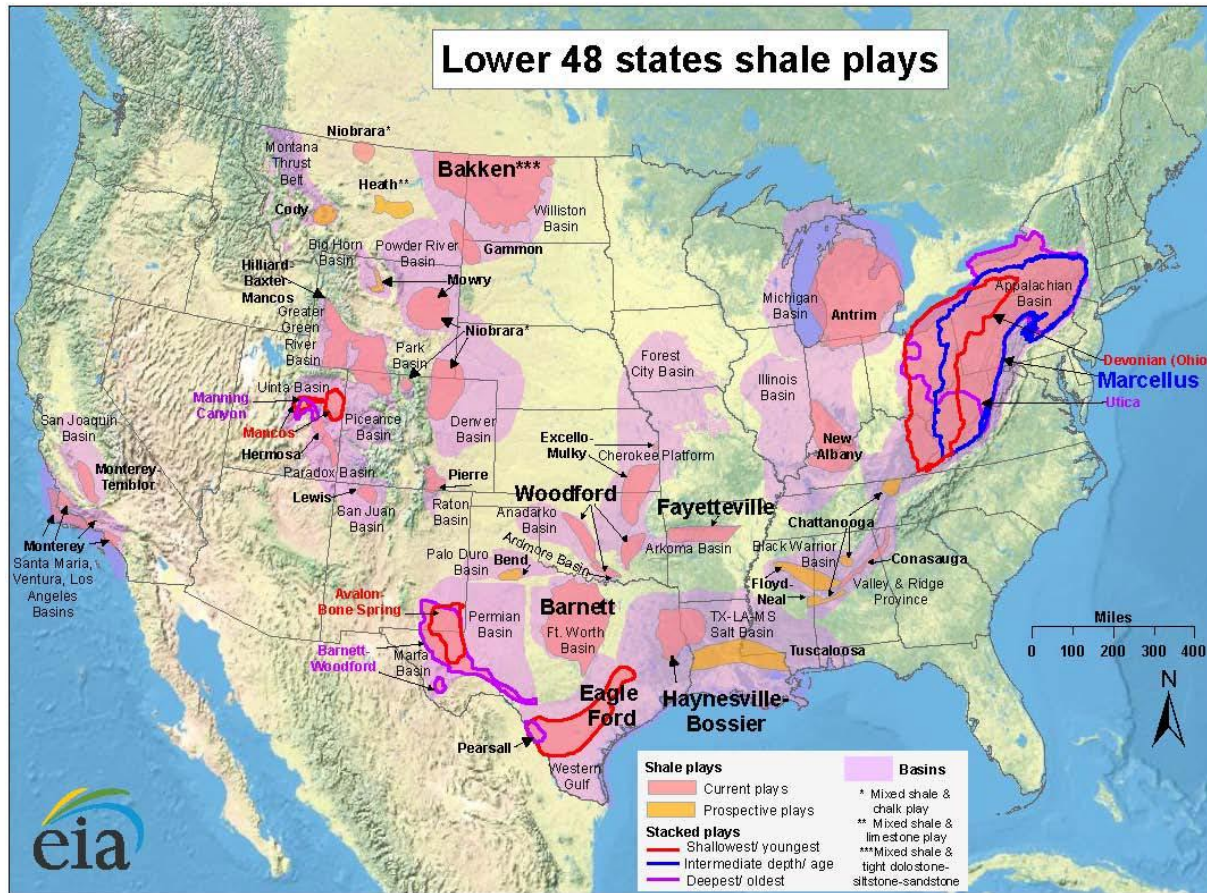
Unconventional natural gas resources are being developed primarily in resource-rich shales located throughout the U.S.

These wells are drilled differently (horizontally) and into a different type of resource (shale) than traditional vertical wells.

Schematic geology of natural gas resources



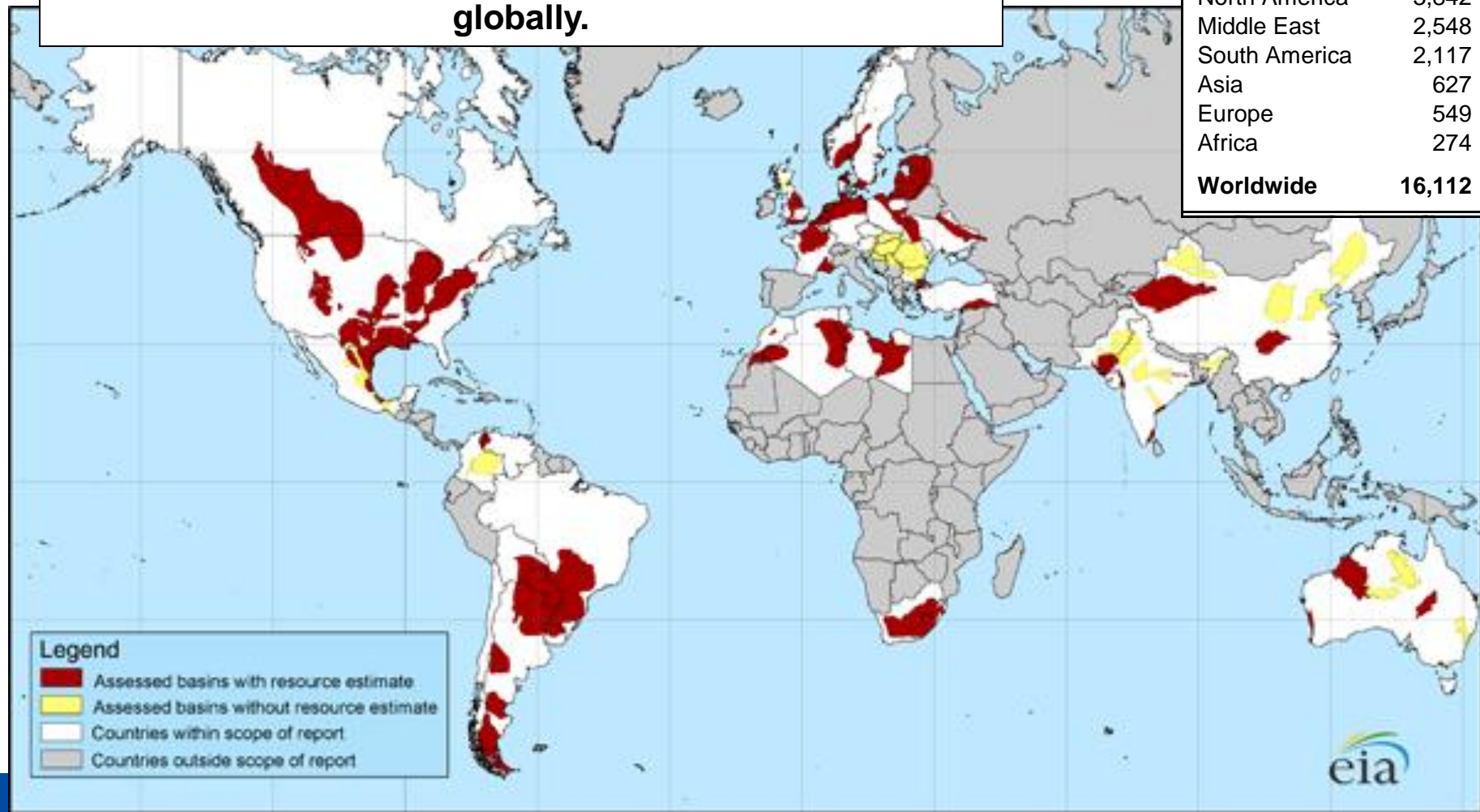
Lower 48 States Shale Plays



Basin Competition

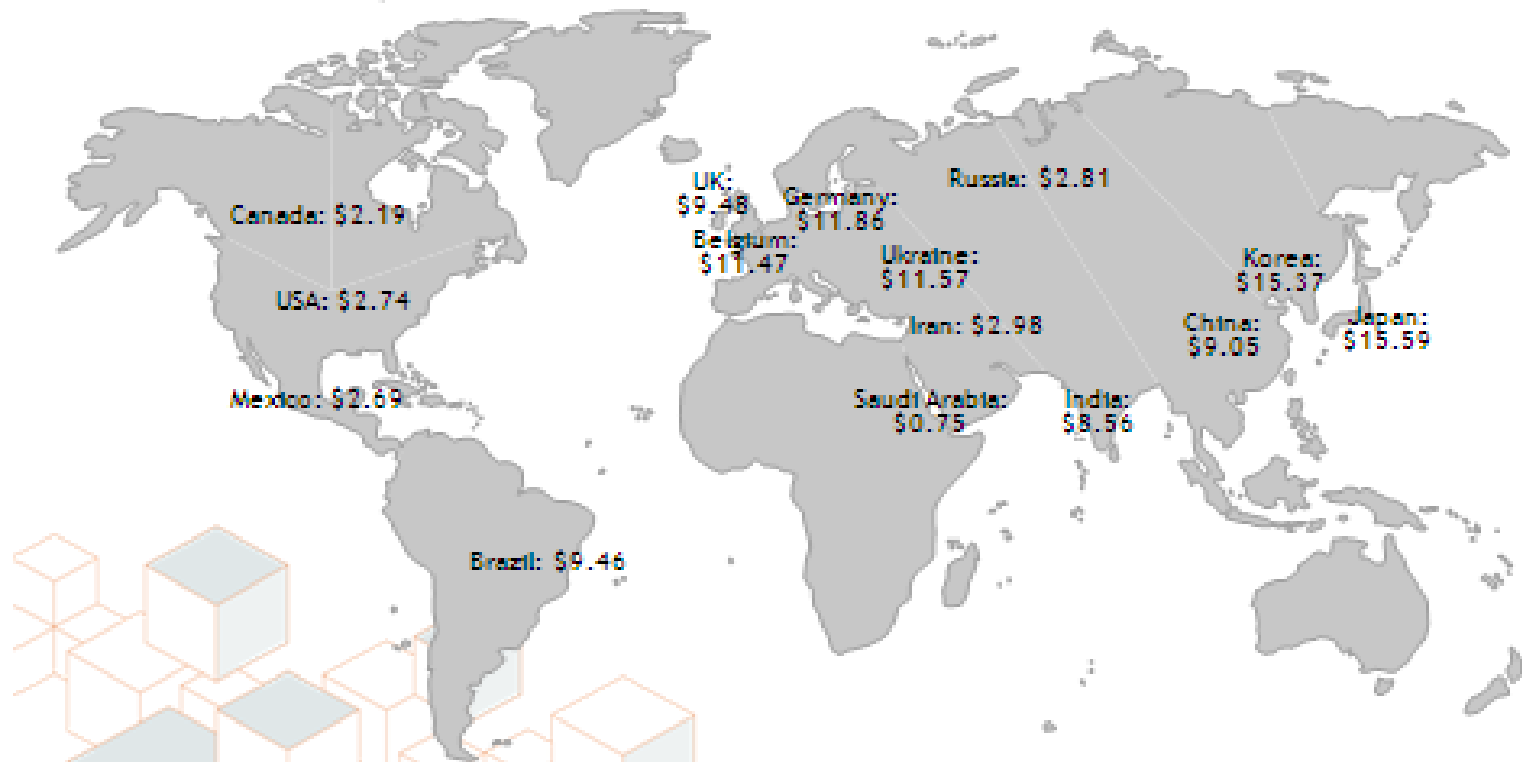
Basin competition from shale produced around the world will continue to put pressure on LNG deliveries globally.

	Shale Resources (Tcf)
Asia Pacific	6,155
North America	3,842
Middle East	2,548
South America	2,117
Asia	627
Europe	549
Africa	274
Worldwide	16,112



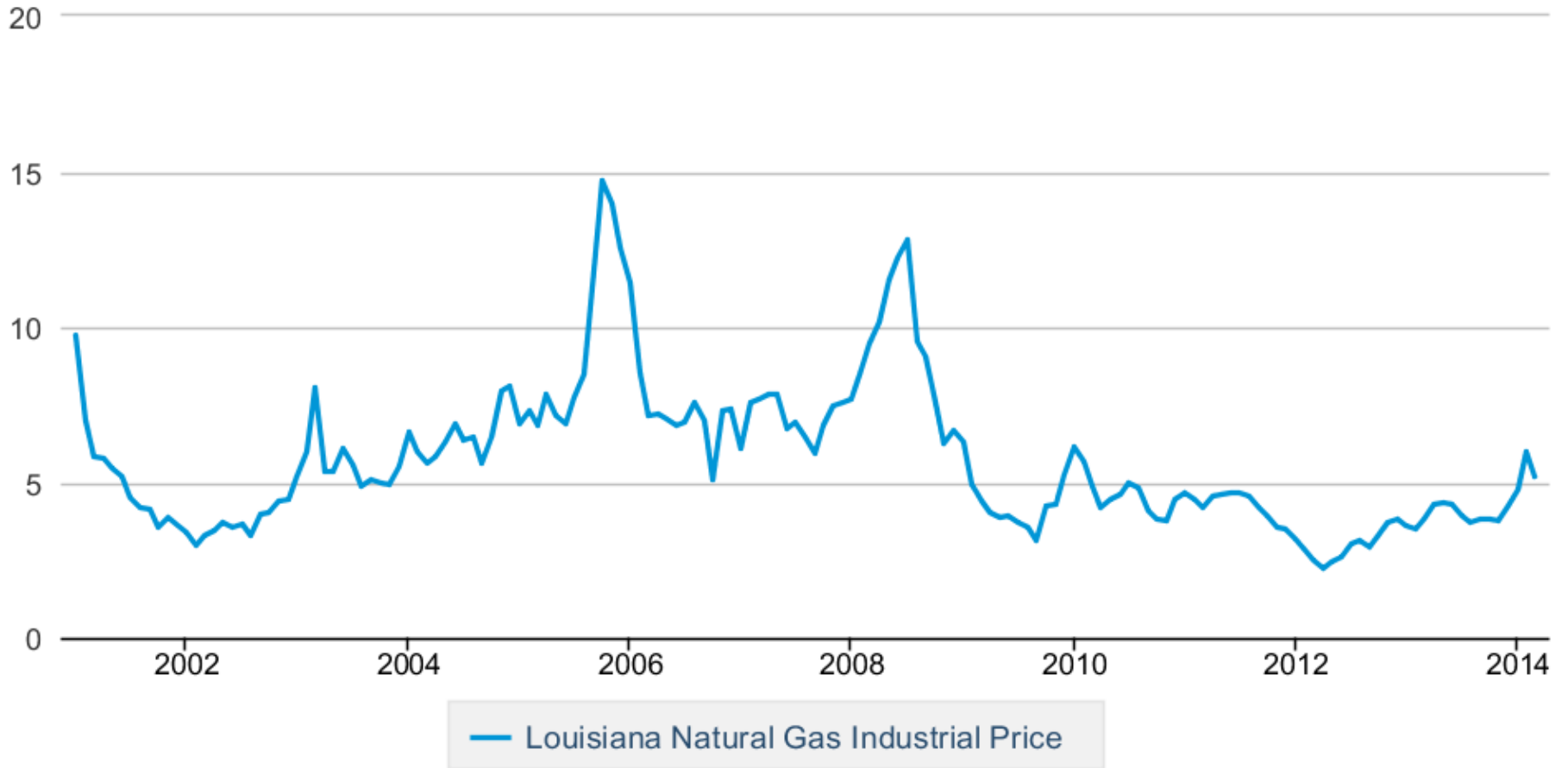
Global Natural Gas Costs: 2012

(\$US per million BTUs)

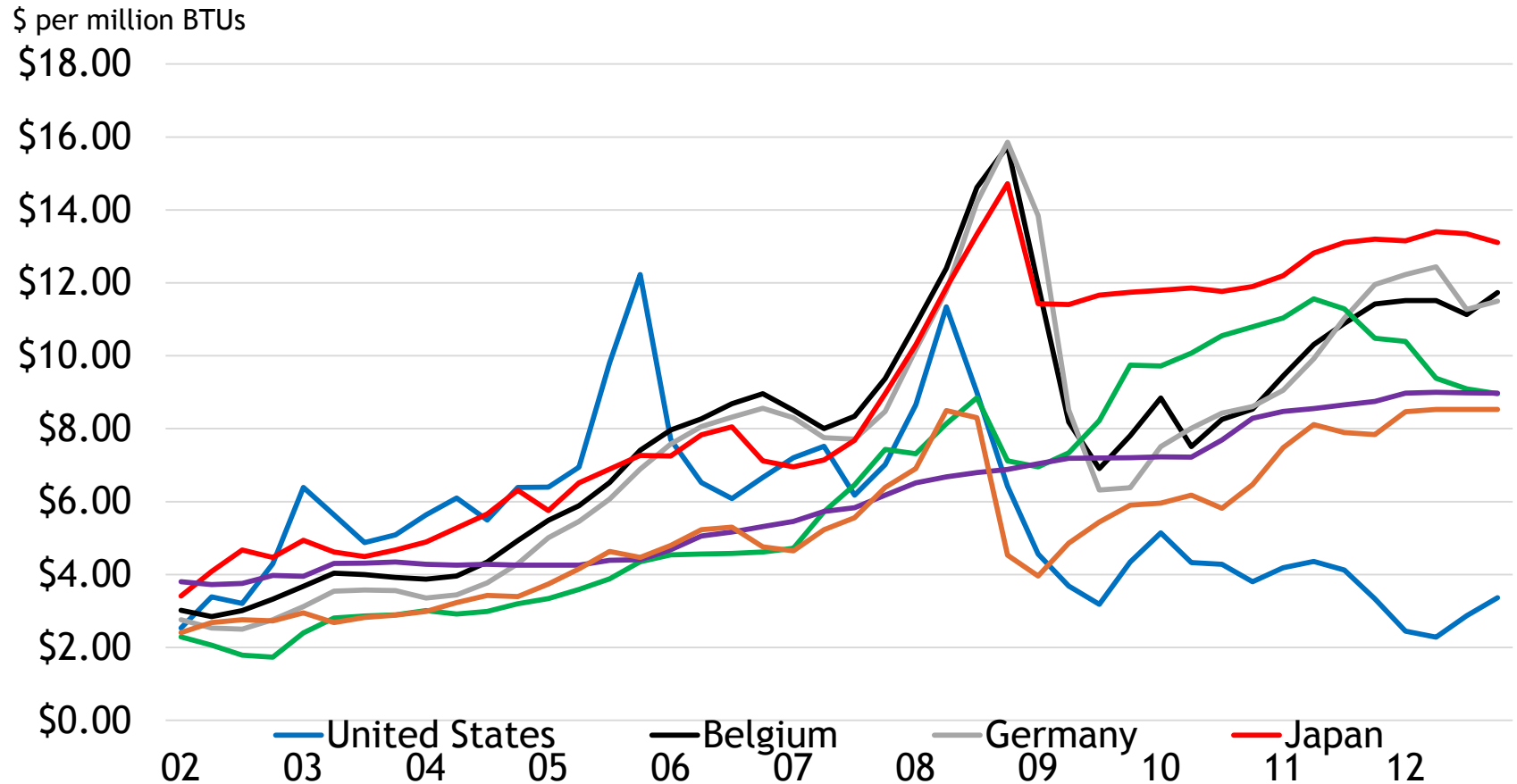


Note: Prices generally reflect domestic wellhead/pub price or imported price, as applicable. Some nations (e.g., Japan and Korea) import LNG. Thus, the higher prices. Other nations import LNG if it's a minor share of demand but these prices aren't generally reflected in the above.

Dollars per Thousand Cubic Feet



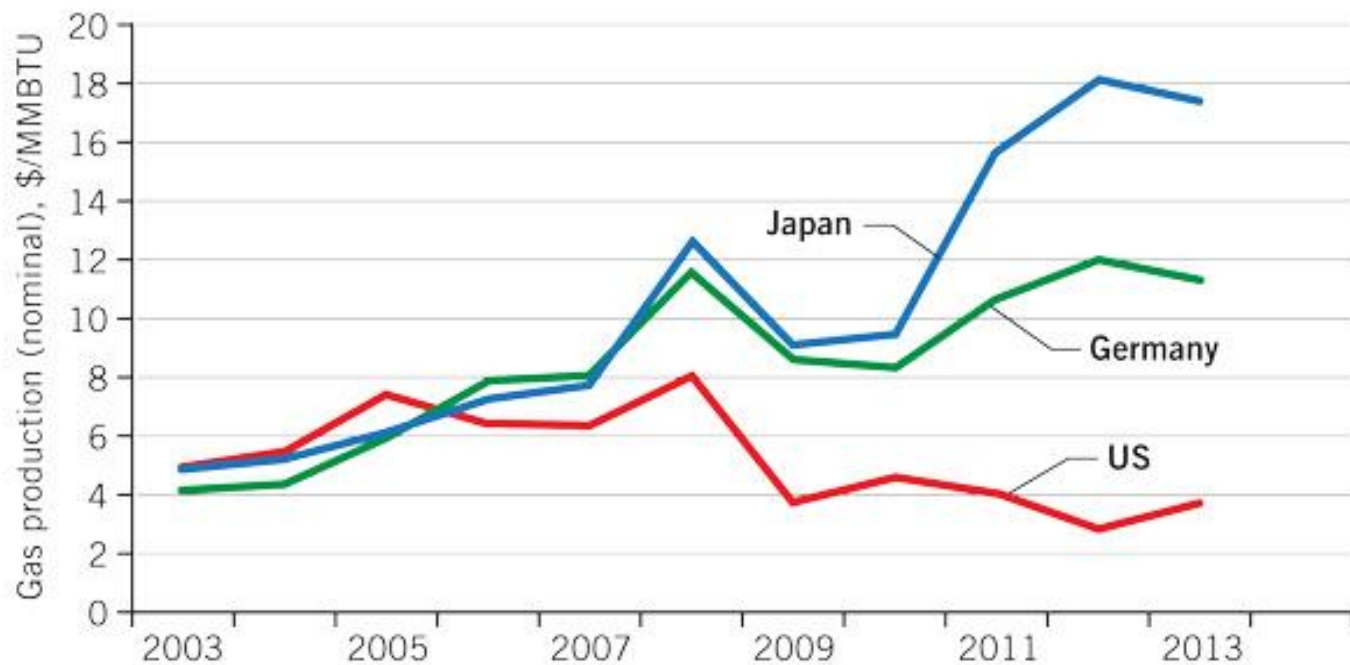
Global Natural Gas Price Trends



Source: EIA, Petrobras, IMF, World Bank, various national statistical agencies

WORLD NATURAL GAS PRICES COMPARED*

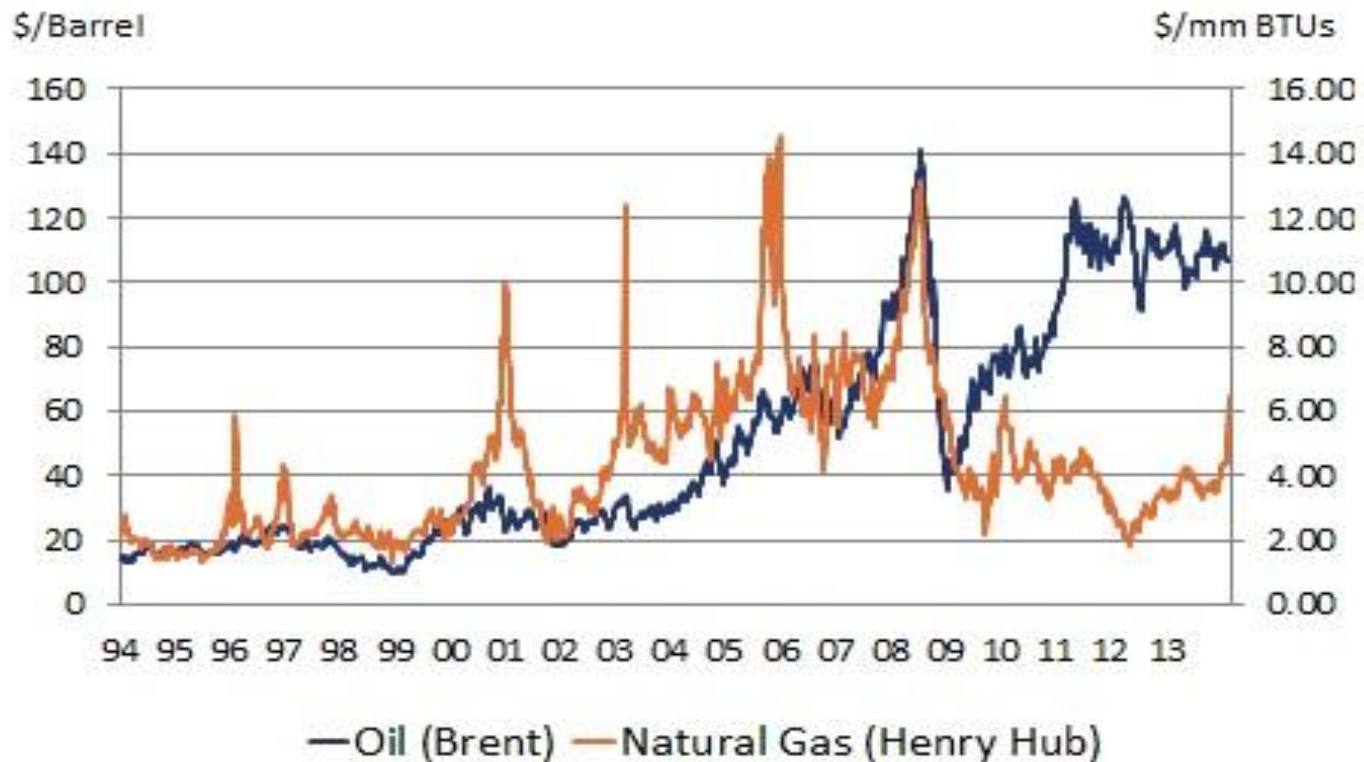
FIG. 2



*Japan, long-term LNG contract prices for imports from Indonesia; Germany, long-term contract prices for imports from Russia; US, average price at the wellhead. Values through September 2013 only.

Source: BP PLC, International Monetary Fund

Oil and Natural Gas Prices



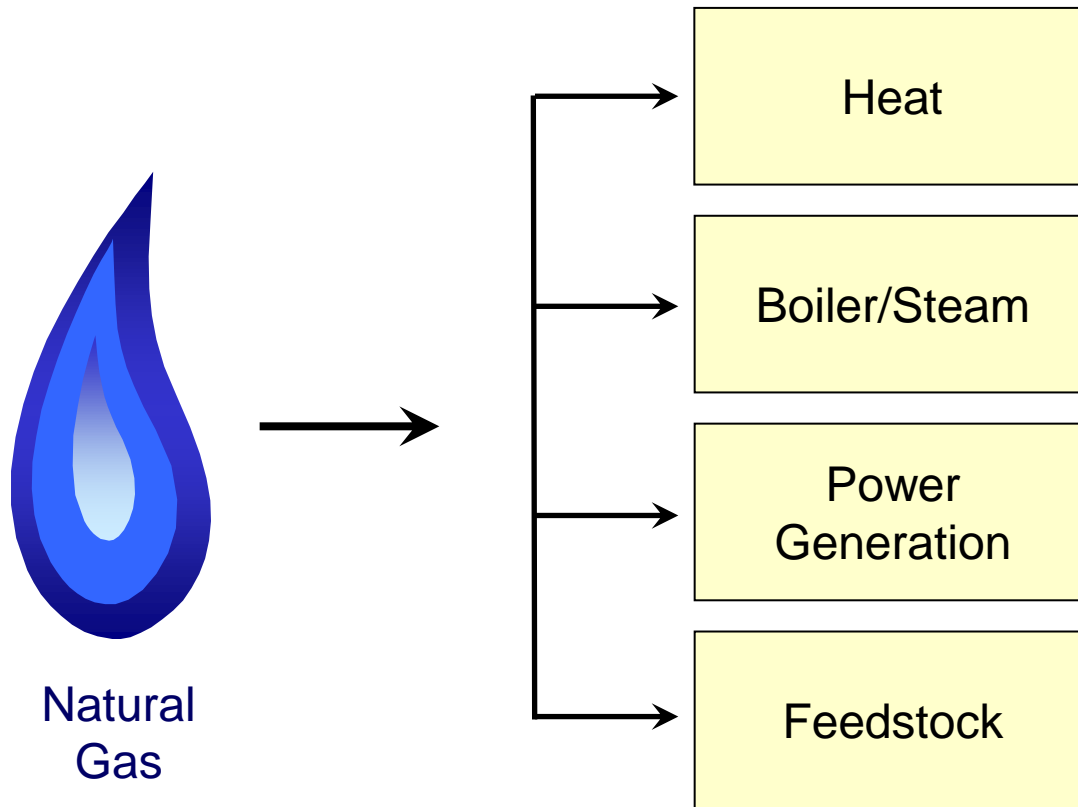
Source: Energy Information Administration

YEAR	LCIA Members Cos.	LCA Member Cos. Employment	Special notations
1991	481	32,474	1991 First Full Year of LCIA
1992	565	32,253	
1993	695	34,028	
1994	725	34,030	
1995	856	33,684	
1996	812	32,990	
1997	906	33,239	
1998	940	33,755	
1999	984	34,324	1999 LCIA Maximum Members/LCA Cos. Maximum Employees
2000	821	32,983	
2001	740	32,682	
2002	715	30,983	
2003	676	29,689	
2004	693	27,700	
2005	676	27,211	
2006	614	25,992	
2007	565	26,279	
2008	542	26,323	
2009	540	24,113	2009 LCIA Minimum Members/LCA Cos. Minimum Employees
2010	560	24,598	
2011	588	25,651	
2012	635	27,242	
2013	694	27,603	
2014		28,067	



Industrial Natural Gas Usage

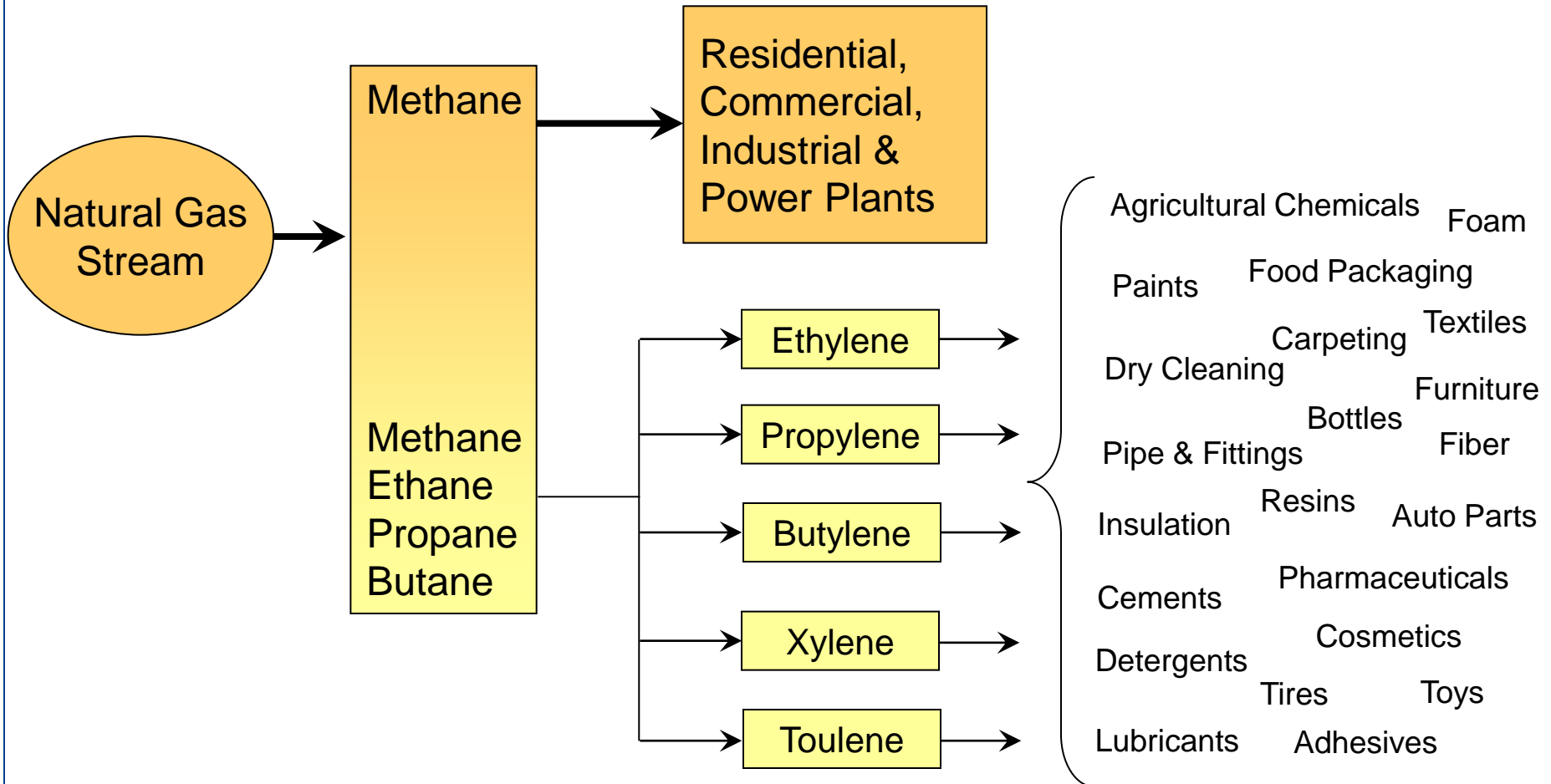
Louisiana's chemical industry, in particular, uses natural gas in a range of applications that include the generation of heat, steam, and power. Feedstock uses are equally important and are the building blocks of modern petrochemical manufacturing.



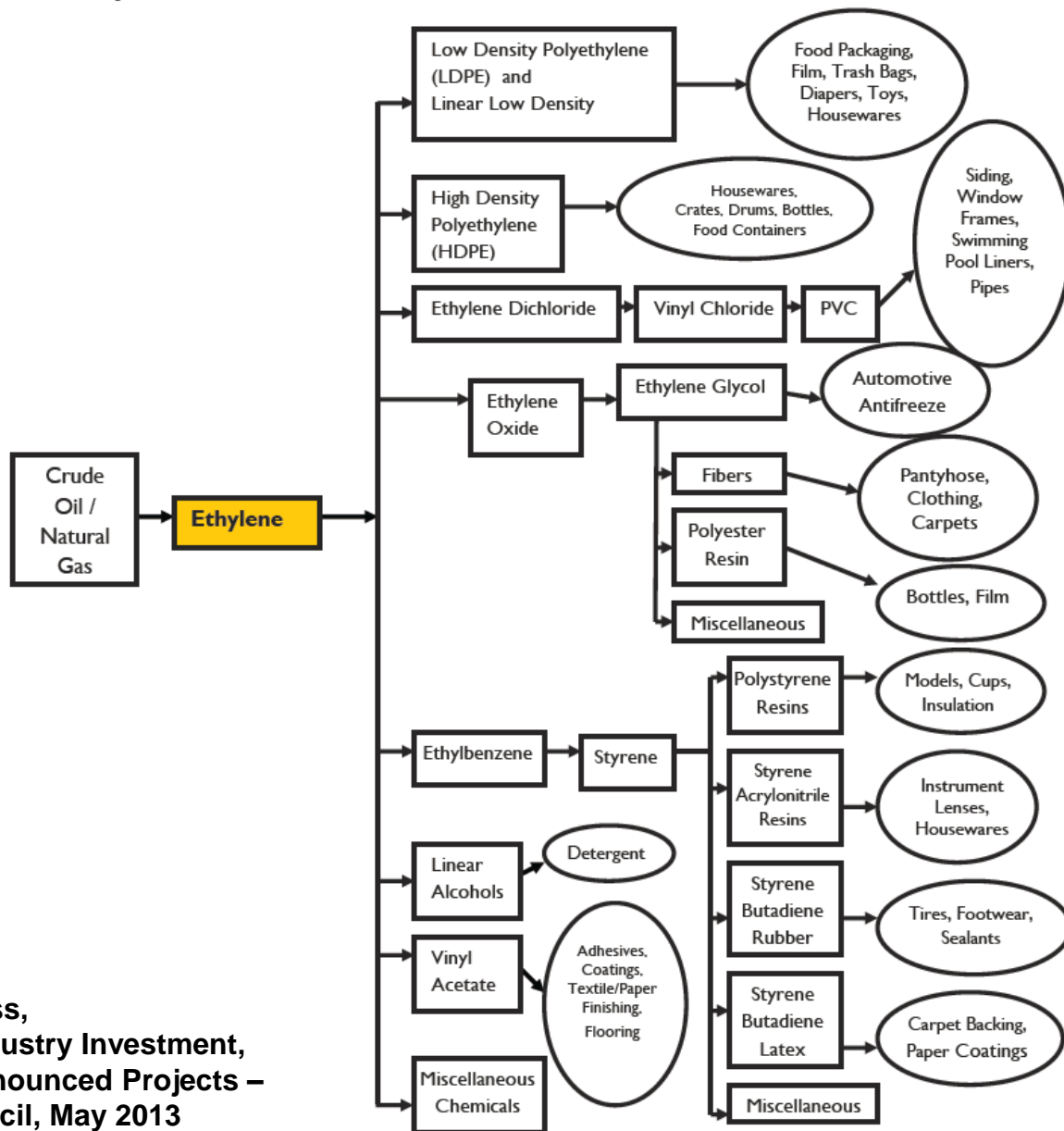


Components of Natural Gas

Natural gas and natural gas liquids, as chemical manufacturing feedstocks, are used to create a variety of products or inputs used to create a variety of products.

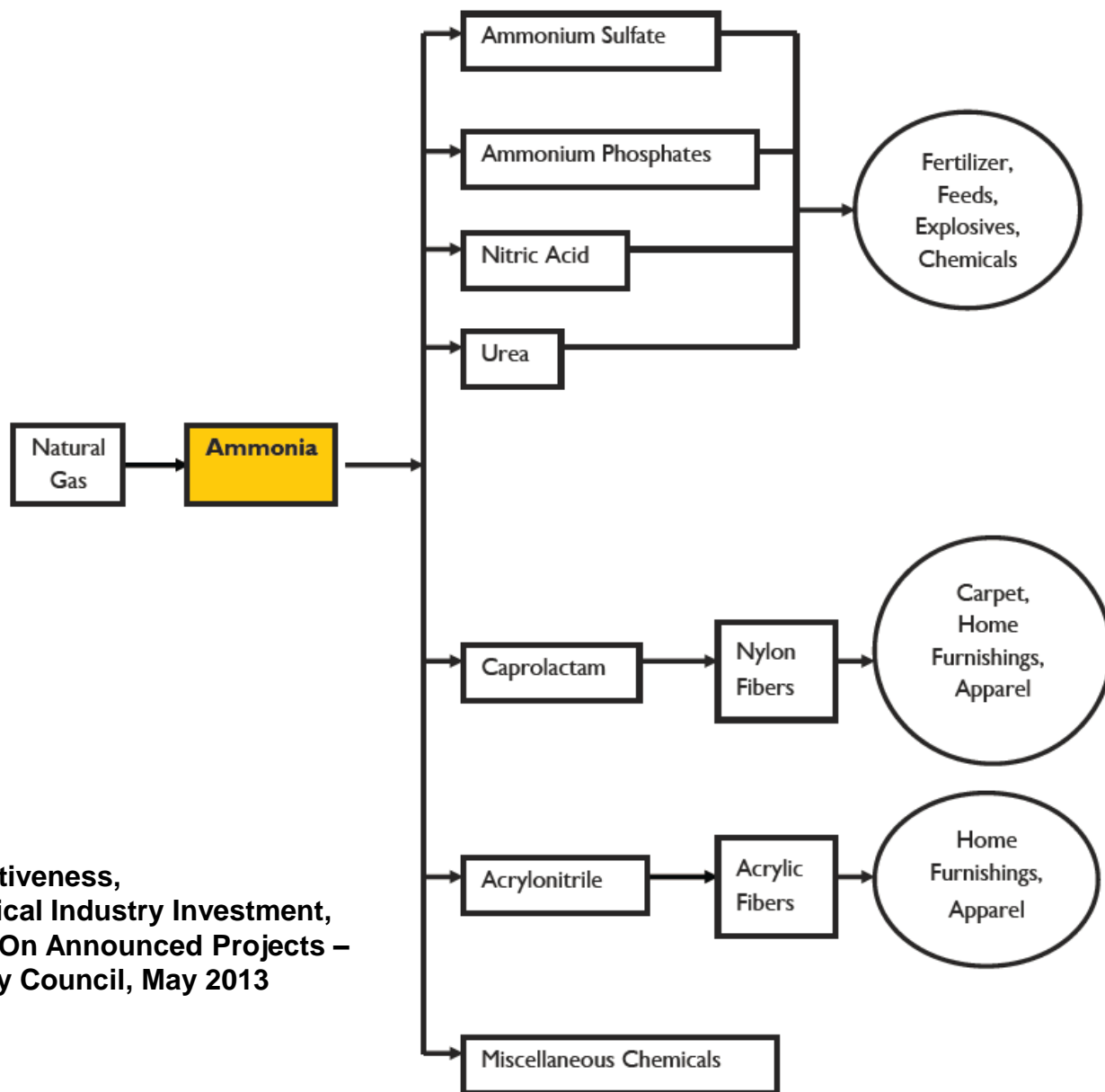


Ethylene



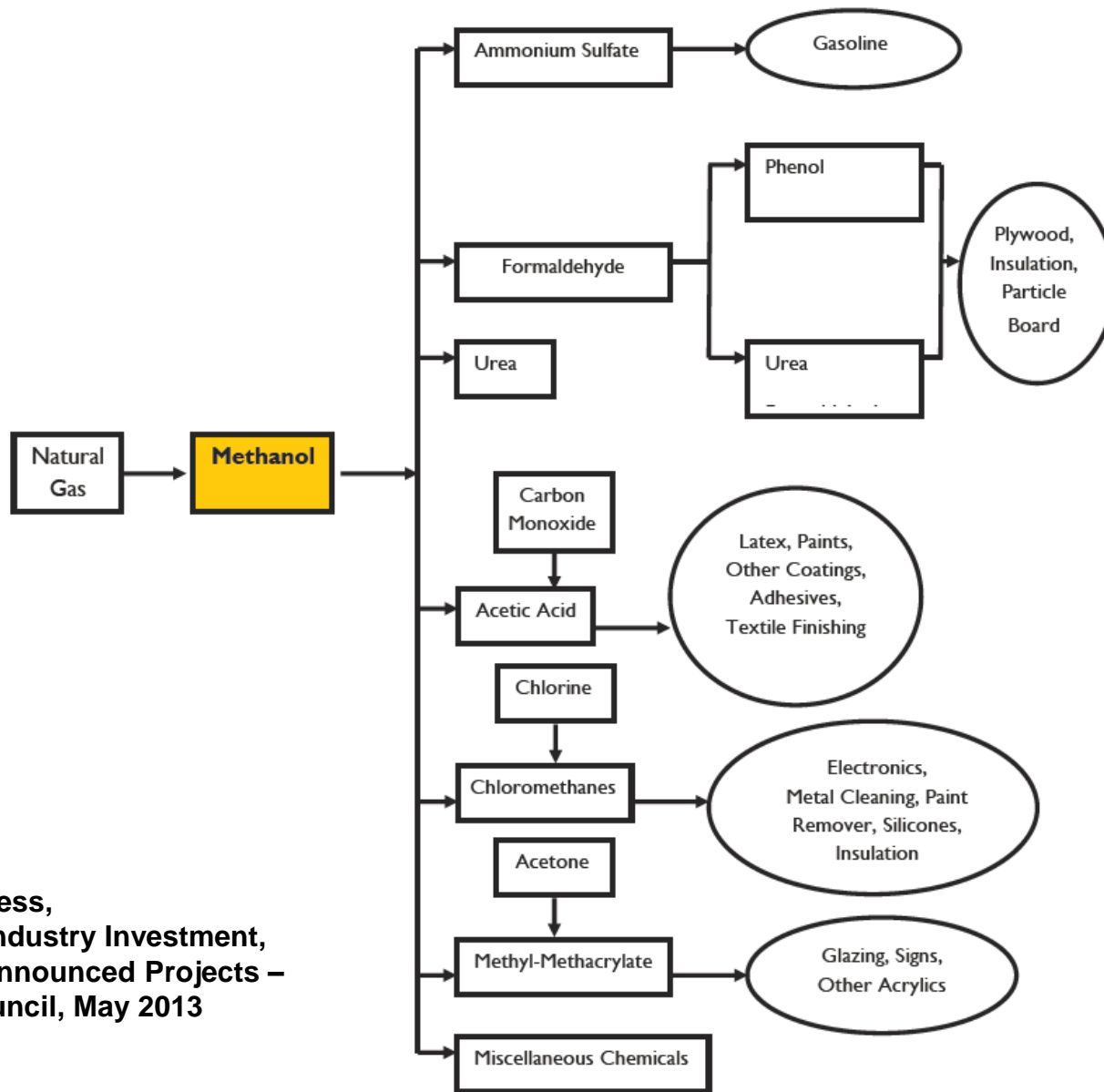
**Shale gas, Competitiveness,
and New US Chemical Industry Investment,
An Analysis Based On Announced Projects –
American Chemistry Council, May 2013**

Ammonia



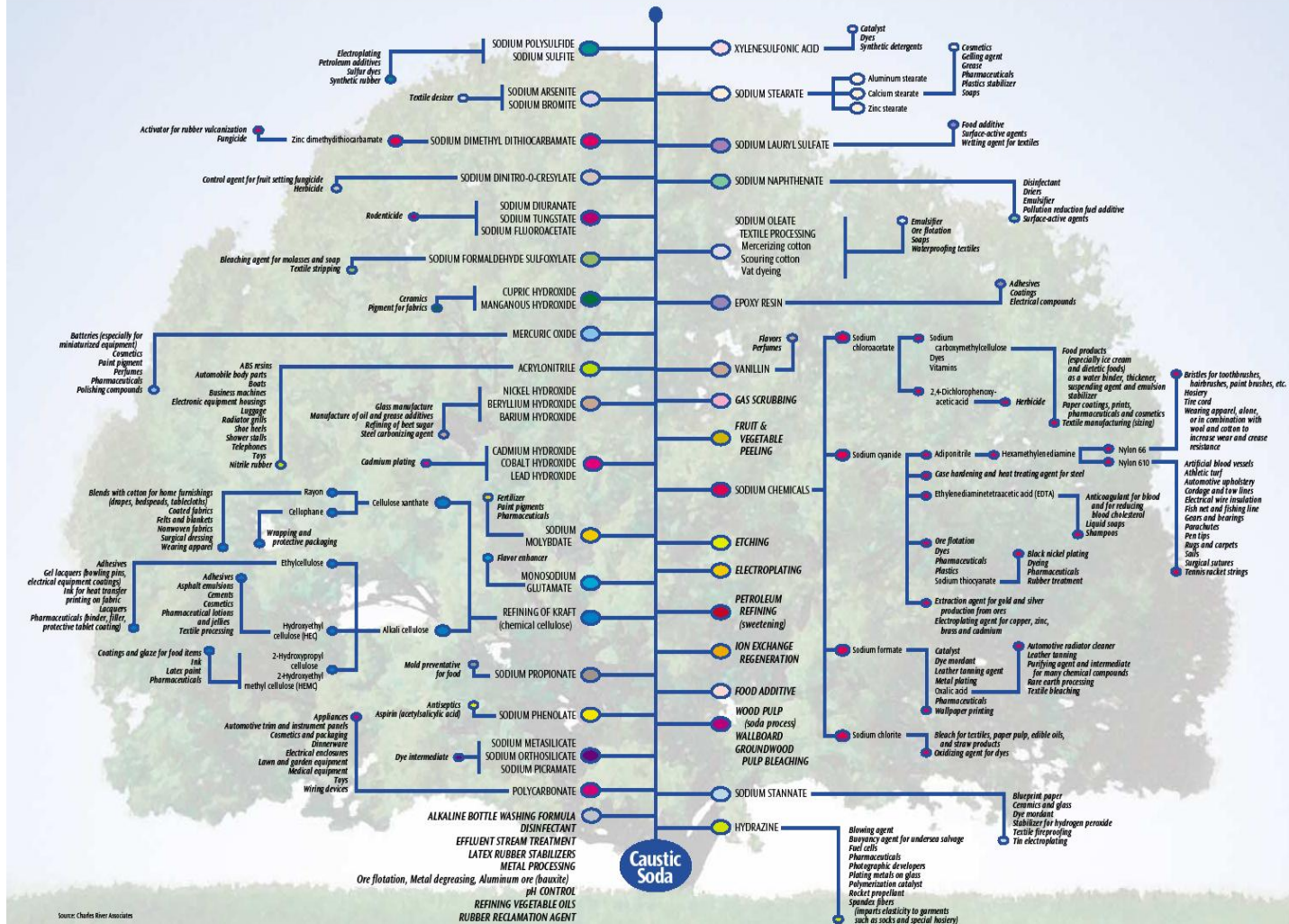
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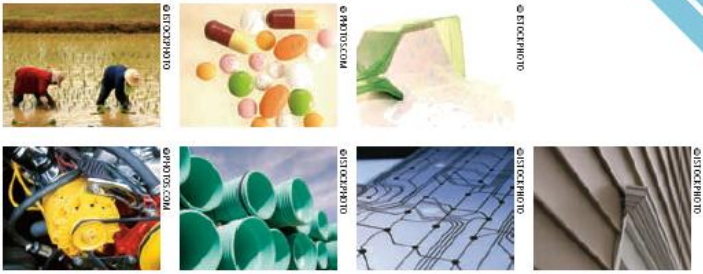
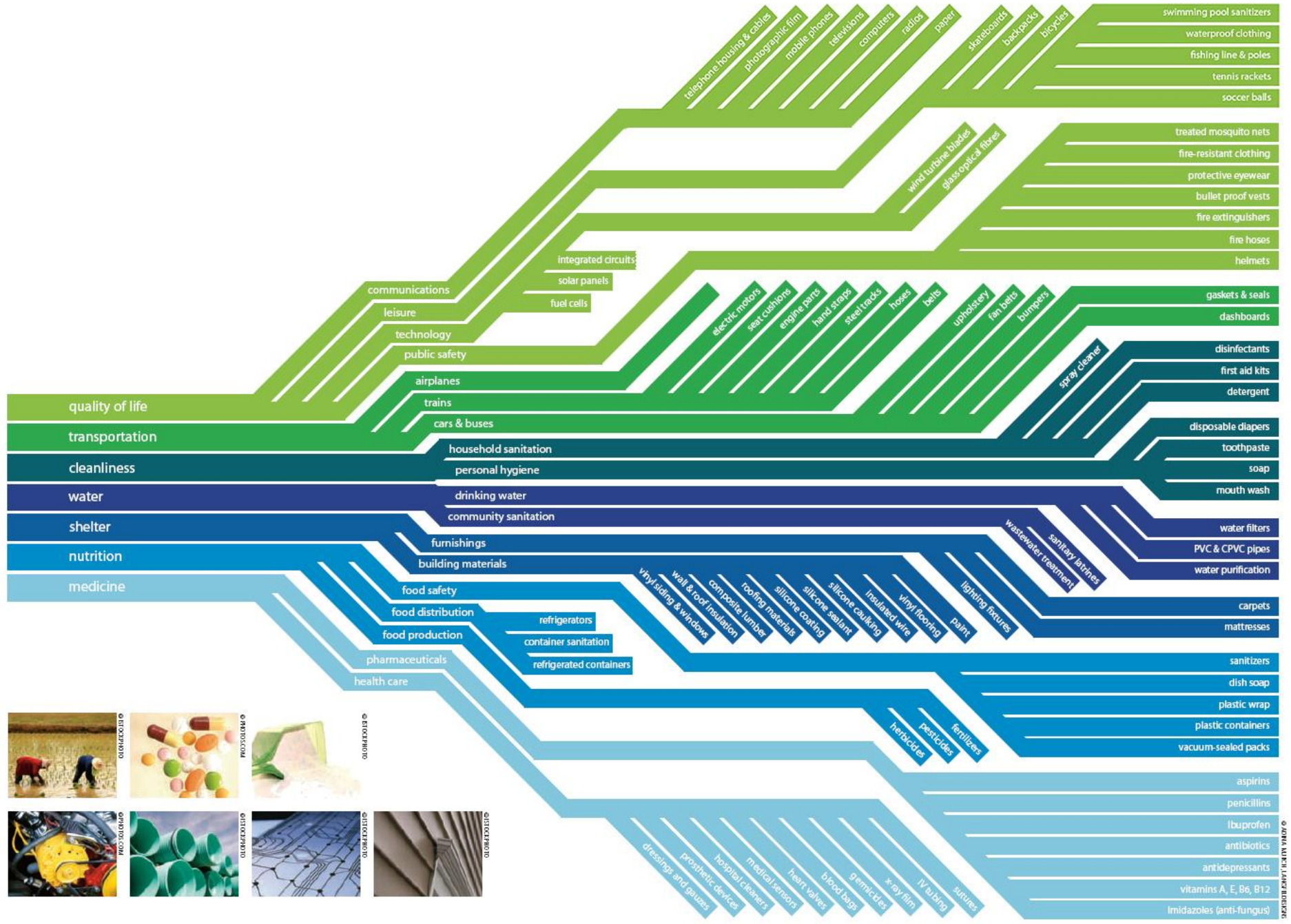
Methanol



**Shale gas, Competitiveness,
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American Chemistry Council, May 2013**

Caustic Soda Chemistry and End Product Uses





Maps & Directories
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Baton Rouge
Rhodia (Stauffer) - Acid
UOP (LaRoche)
Lion Copolymer (DSM)
Albemarle (Ethyl) - Labs
Formosa (Allied) - Cl, PVC

St Gabriel / Carville
**** Willow Glen
Taminco (Air Products) - Amines
BCP- Choline

Ag Products
syngenta (Monsanto & Zeneca)
Olin (Pioneer, Stauffer) - Cl
Mexichem Fluor (ICI) -
Refrigerants
Total (Atofina) -
Styrene, PS
* Calpine
Refrigerants

Geismar
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Williams (Union Texas)
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Sunshine Bridge & Below
DuPont - Sulfuric Acid
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Mosaic (IMC - Agrico, Uncle Sam) - Fertilizers



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Cl Organics
Air Liquide - Cogen

Gramercy
LSR/ Imperial (Colonial) Sugar Packaging
Noranda/Gramercy Alumina (Kaiser) -
Alumina
Rain CII Carbon

Garville / LaPlace
Nalco - Water Treatment
Stockhausen
Marathon **Marathon Oil Company**
Pinnacle Poly...
Air Products (Tomah)
DuPont - Elastomers & Specialties
ArcelorMittal, (Bayou Steel)
*** Little Gypsy



Norco
Motiva - Refinery
Shell Chemical, LP
- Olefins
Momentive (Hexion, RPR) - Epoxies
Enterprise Products - Gas Processing
Air Liquide
Valero (Orion, TransAm.) - Refinery
Rain CII Carbon
Dow (Union Carbide) - PP (Shuttered)

Shell Oil, Metairie

NO East
Air Products
Folgers
** Michoud

Below NO
Domino Sugar
Cii - Coke
Chalmette Refining
Air Products
Valero (Murphy)

Across River (from New Orleans)
MONSANTO
Cornerstone, (Cytac, Cyanamid)
** Nine Mile

Belle Chasse
Chevron Oronite - Lubes



Phillips 66 (Tosco, BP Amoco)
Alliance Refinery

2013

Homesite Company
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(225) 387-1463
(225) 383-5369

Saint Francisville
KPAQ (Renew Paper, Tembec)

ExxonMobil Chemical
- Refinery
* La Station
Honeywell (Allied Signal) -
Refrigerants

Port Hudson
Georgia-Pacific
Geneses Energy

North of Baton Rouge
BASF (Novolyte, Grant)
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U.S. Composite Pipe
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ExxonMobil - Resin Finishing
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Oxbow (Great Lakes, Alcoa)
Clean Harbors (Safety-Kleen)

Port Allen
BASF (Discovery)
Criterion (Southern Ionics, Alcoa) - Catalysts
Placid Refining
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Enterprise Products - C3 Splitter

Addis / Plaquemine
Shintech (BCP)
Sid Richardson - Carbon Black
Shintech - PVC
Dow - Cl, Ethylene & Derivatives

Plaquemine
Axiall (**Georgia Gulf**)
- Cl, PVC
Shintech - PVC
SE Tylose - HMC
Air Liquide
Praxair
SNF Flopanm

Dow
Poly Olefins Compounds
Air Liquide
Air Products

Donaldsonville
CF - Ammonia
CF (Terra, Triad) - Ammonia
Faustina Hydrogen, Proposed

Below Sunshine Bridge
Mosaic - Fertilizers
(IMC-Agrico)
...as Styrenics
(Chevron/Phillips) - Styrene
SLM - Methanol

Taft / Hahnville
*** Waterford
Mosaic (IMC-Agrico)

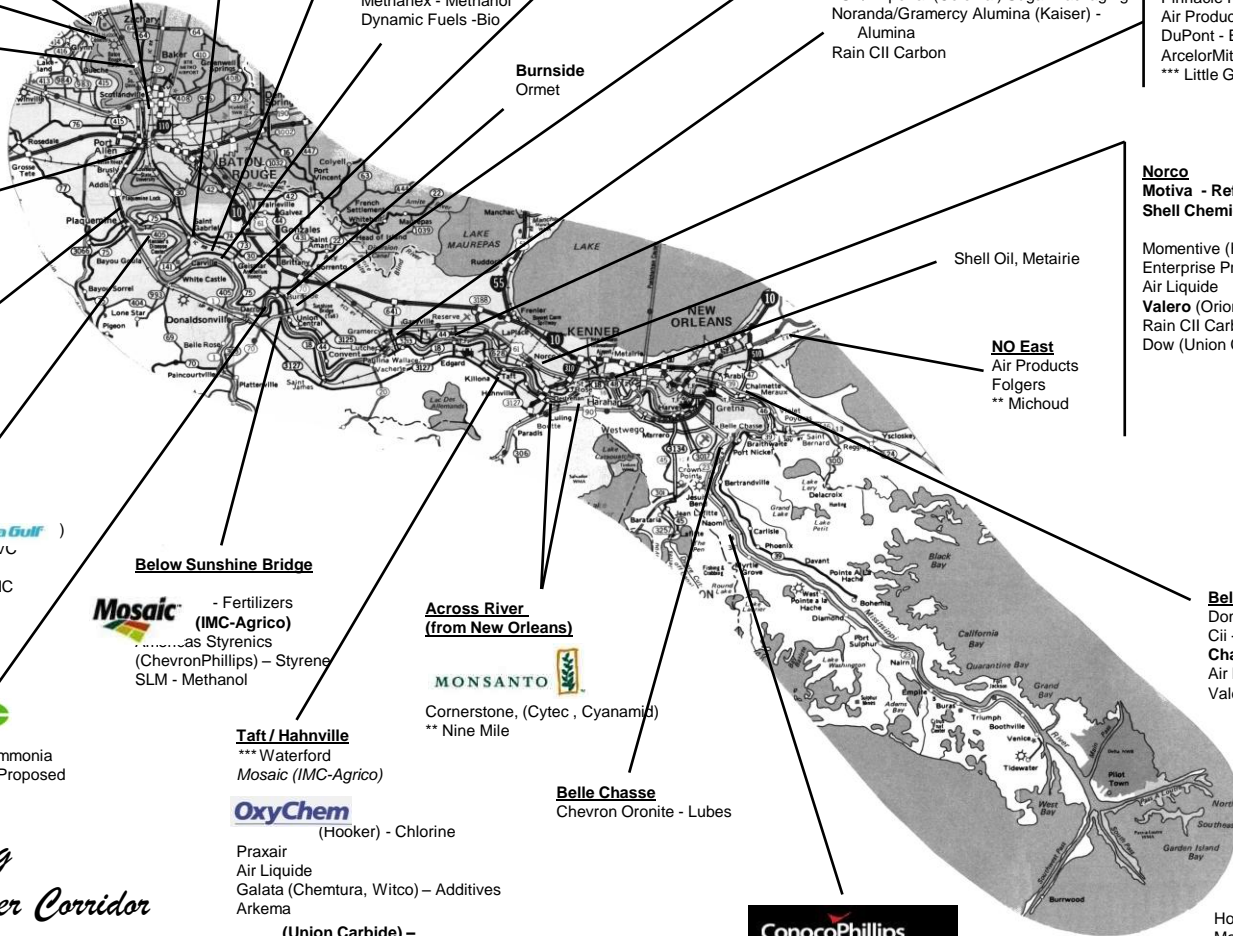
OxyChem
(Hooker) - Chlorine
Praxair
Air Liquide
Galata (Chemtura, Witco) - Additives
Arkema

(Union Carbide) -
Ethylene & Derivatives

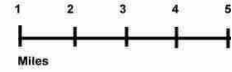
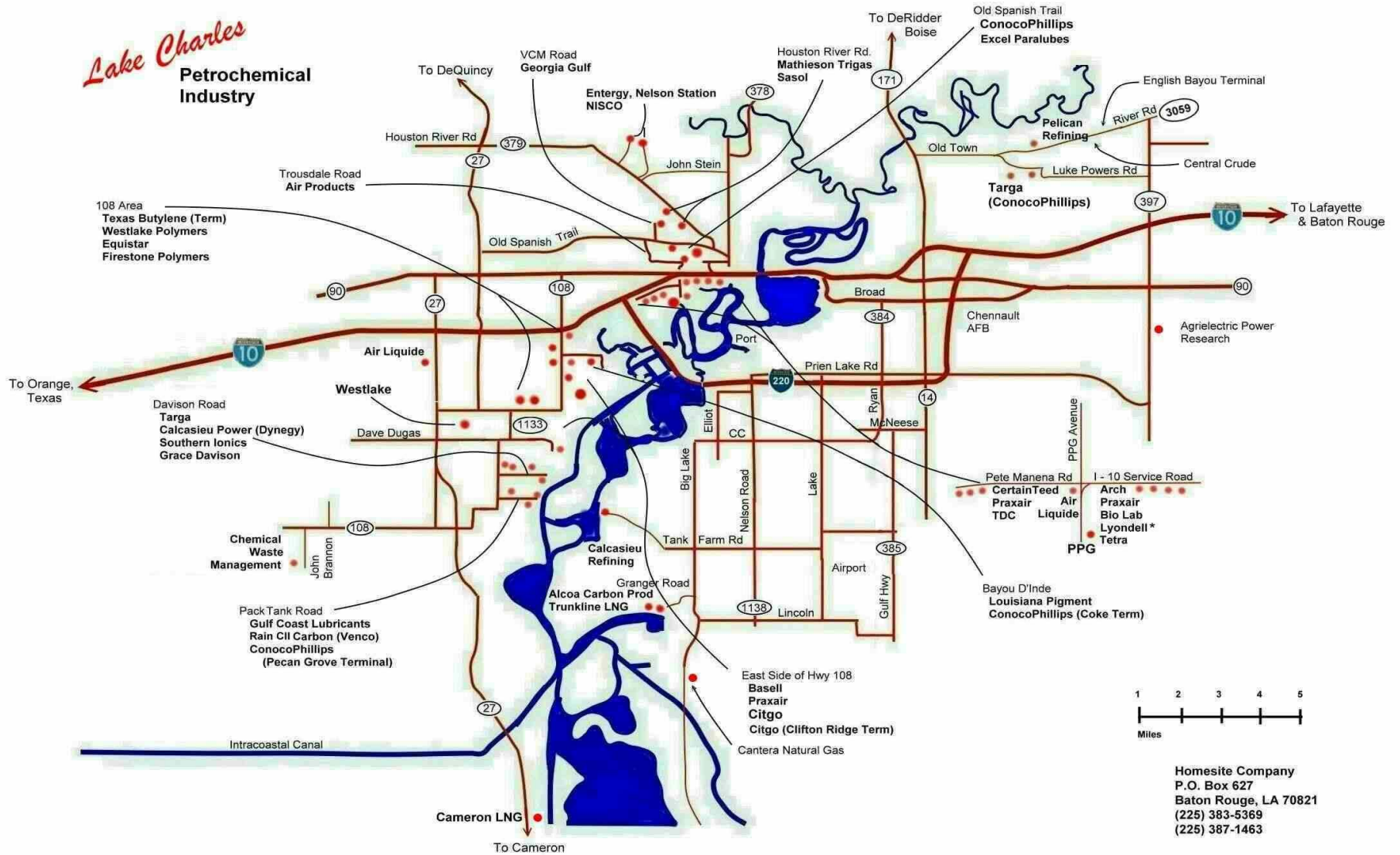


* Power Plants, Entergy, Calpine
Plants shown in italics are closed

*Petrochemical Plants Along
The lower Mississippi River Corridor*



Lake Charles Petrochemical Industry



Homesite Company
P.O. Box 627
Baton Rouge, LA 70821
(225) 383-5369
(225) 387-1463

* Closed

OCI, Nederland Restart

<http://www.ocibeamont.com>

Total, PA, Ethane Cr

<http://www.totalpetrochemicalusa.com>

Stabilis LNG for transport

<http://www.stabilisenergy.com>

BASF, Gulf Coast, Propylene

<http://www.basf.com>

Baytown, Mt B - Enterprise, Fr. <http://www.eppl.com>

ExxonMobil, E & PE <http://www.exxonmobilchemical.com>

Phillips 66, E & PE <http://www.phillips66.com>

Borusan Mannesmann <http://www.borusanmannesmann.com>

Lone Star (ETP) NG Fr <http://www.energytransfer.com>

HSC, Pasadena & Deer Park

Kinder Morgan Term

<http://www.kindermorgan.com>

Oxiteno, Bthoxylates <http://www.oxiteno.com.br>

Valero, "Topping" unit <http://www.valero.com>

TPC, "on purpose" BD <http://www.expetrochem.com>

Lubrizol, <http://www.lubrizol.com>

Kuraray, LaPorte, PVOH

<http://www.kuraray.us.com>

AkzoNobel TMAP

<http://www.akzonobel.com/us/>

LyondellBasell, Channelview

<http://www.lyondellbasell.com>

Celanese, Clear Lake

<http://www.celanese.com>

Tenaris, Bay City, Pipe

<http://tenaris.com/us/tenaris/baycity>

Freeport Area

BASF, Polymers <http://www.basf.com>

(May also locate JV with Yara Here)

Mitsubishi, Acrylic <http://www.mitsubishichemical.com>

Mitsui JV olefins <http://www.dow.com/txna/freeport/>

Dow Ethylene <http://www.dow.com>

Freeport LNG <http://www.freeportlng.com>

Phillips 66 LPG Ex <http://www.phillips66.com>

Enterprise Ethane Ex <http://www.eppl.com>

Eagle Ford

High Point

<http://www.americanmidstream.com>

M & G PET

<http://www.gruppomg.com>

Las Brisas <http://www.lasbrisasenergy.com>

TexStar Fr Units <http://www.texstars.com>

Voestalpine Iron <http://www.voestalpine.com>

Martin, Terminal <http://www.martinmidstream.com>

Westlake

Sasol, GTL \$ 1.6B & Ineos PE, JV

<http://www.sasollosalainprojects.com>

Westlake Chem, Ethylene <http://www.westlake.com>

Axiell, S LA location Ethylene & Der.

<http://www.axiell.com>

Embridge, Beckville, Tx

<http://www.embridge.com> \$140 M

Boise

<http://www.boiseinc.com>

Sundrop, GTL

<http://www.sundropfuels.com>

EmberClear, Natchez GTL

<http://www.emberclear.com>

ExxonMobil, Poet Allen

<http://www.exxonmobilfr.com>

Genesee \$125 M oil infrastructure

<http://www.geneseeenergy.com>

Katoen Natie \$150 M dist

<http://www.katoennatie.com>

NRG Energy

<http://www.nrgenergy.com>

Honeywell & UOP

\$ 208 M at four Locations

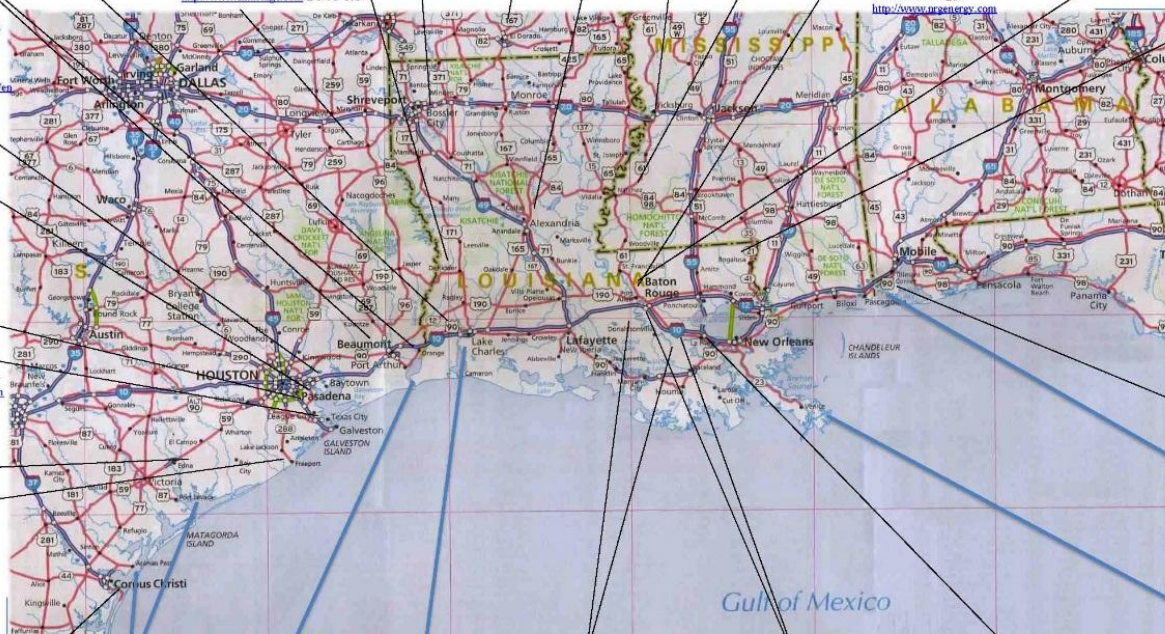
\$ 300 New ref at Geismar

<http://www.honeywell.com>

IP, Bogalusa \$44 M

Modernization

<http://www.ipager.com>



Phillips66,

Old Ocean PE

<http://www.phillips66.com>

C3, Alvin

<http://www.nscdmaterials.com>

Tenaris, Bay City, Pipe

<http://tenaris.com/us/tenaris/baycity>

Freeport Area

BASF, Polymers <http://www.basf.com>

(May also locate JV with Yara Here)

Mitsubishi, Acrylic <http://www.mitsubishichemical.com>

Mitsui JV olefins <http://www.dow.com/txna/freeport/>

Dow Ethylene <http://www.dow.com>

Freeport LNG <http://www.freeportlng.com>

Phillips 66 LPG Ex <http://www.phillips66.com>

Enterprise Ethane Ex <http://www.eppl.com>

Excelerate

<http://excelerateenergy.com>

Cheniere LNG

<http://www.cheniere.com>

Port of Brownsville

<http://www.portofbrownsville.com>

(several LNG projects)

Pangea LNG

<http://pangealng.nl>

Cheniere, LNG

<http://www.cheniere.com>

Golden Pass LNG

<http://www.goldenpassterminal.com>

Cameron (Sempra) LNG

<http://sempralng.com>

LC Exports (Trunkline) LNG

<http://lincmsensor.energytransfer.com/loest/TLNG>

Magnolia LNG

<http://www.lnglimited.com.au>

G2X, GTL \$1.2B

<http://www.G2XEnergy.com>

Dow, Plaquemine

Ethylene & PE work

<http://www.dow.com>

SE Tylose

<http://www.setylose.com>

CF, Donaldsonville

Will Suply Mosiac

<http://www.cfindustries.com>

S La Methanol (Zeep)

<http://www.zeep.com>

EuroChem, Ammonia

<http://www.eurochem.ru>

Avalon Rare Metals, Geismar

<http://www.avalonraremetals.com>

Methanex \$450 M Methanol

<http://www.methanex.com>

Shell (Upstream) \$ 12.5 B GTL

<http://www.shell.com> Project Cancelled

BASF, Formic Acid & Air Prod Syn Gas

<http://www.basf.com>

Huntsman, MDI \$78 M

<http://www.huntsman.com>

Nucor Steel \$3B

<http://www.nucor.com>

Marathon, Garyville \$2.5 B, Hydrocracker

<http://www.marshell.com>

DynoNobel \$800 Ammonia

<http://www.comerstonchemco.com>

NewStar Terminal

<http://www.newstarenergy.com>

Valero, Norco, Methanol

<http://www.valero.com>

Evonik, Theodore MMA Exp.

<http://corporate.evonik.us/>

Gulf LNG (Export), Pascagoula

<http://www.kindermorgan.com>

United LNG, Venice

<http://www.unitedlng.com>

LIGT LNG (offshore)

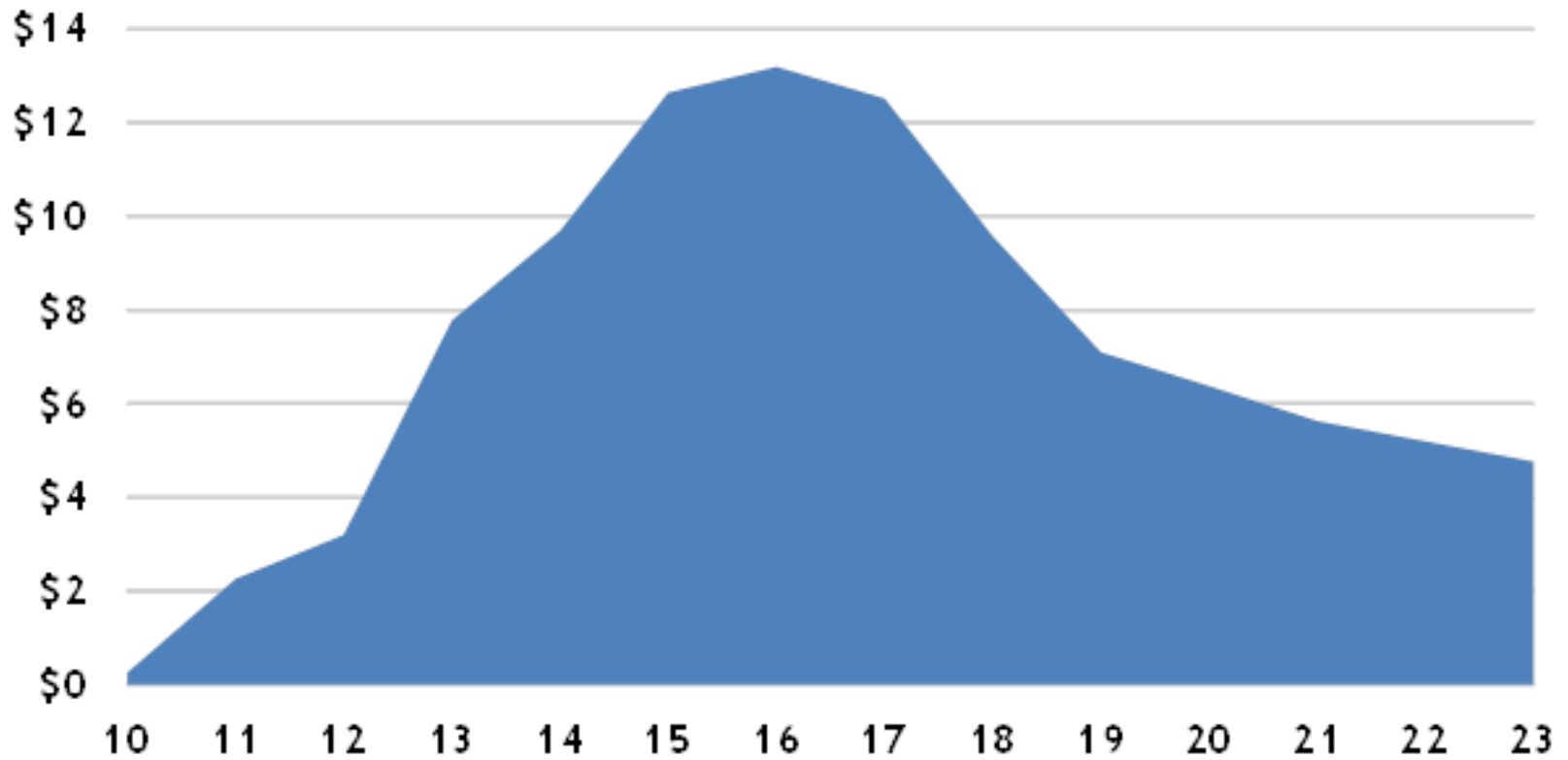
<http://www.bcdetel.com>

New Gulf Coast Petrochemical Projects Chemplants Interactive Map

Homesite Company (225) 383-5369
<http://www.chemplants.com> 12/24/2013



Billions of 2012 Dollars



Eastern Gulf Coast

(Pensacola, FL to the Louisiana State Line) Mobile,
AL Pascagoula, MS)

- **Ergon Refining** plans \$147 M expansion of Vicksburg Refinery by 2015 <http://www.ergon.com>
- **Air Bus, Mobile** (Assembly plant for Airplanes) gets order from Virgin American Airlines for 30 Planes <http://www.airbus.com>
- **Evonik**, Expanding MMA production in Alabama <http://corporate.evonik.us/>
- **Mississippi Gasification, Moss Point** (at former IP Mill) evaluating CokeTL or GTL project 8/1/2012 <http://www.leucadia.com>
- **ThyssenKrupp, Calvert, Alabama** facility for sale <http://www.thyssenkruppsteelusa.com>
- **Southcross Energy Partners** (AL,MS, & TX) plans IPO to expand Gas Plants <http://www.southcrossenergy.com>
- **EmberClear, Natchez** completed feasibility study on GTL project 2/21/2013 <http://www.emberclear.com/>
- **Gulf LNG, Pascagoula** applies for non FTA export proj (using 2 existing LNG tanks) 5/2013 <http://www.kindermorgan.com>

Lower Mississippi River -- St. Francisville to Mouth of the River

- **Avalon Rare Metals** plans \$300 M (now \$ 440 M) rare earths separation plant for Geismar 5/15/2013
<http://avalonraremetals.com>
- **Dyno Nobel** studying an \$ 800 M ammonia unit at Waggaman, LA 5/23/2012 & 4/17/2013
<http://www.cornerstonechemco.com/>
- **Shaw** completes sale of assets to Technip for \$290 Mil Closes on sale to CB& I 2/13/2013
<http://www.shawgrp.com>
- **SE Tylose** plans \$120 Mil plant for Hydroxyethyl Cellulose near Plaquemine 4/30/2012
<http://www.setylose.de/wEnglish/index.ph>
- **Ormet, Burnside** faces temporary shutdown. Cites power cost in reduction plant in Hannibal, Ohio.
<http://www.ormet.com>
- **Port of GBR** has 405 Ac tract on Gulf Intracoastal Waterway for Future Growth almost ready <http://www.portgbr.com>
- **Methanex** OK's moving a 2nd Methanol unit from Chile. 4/25/2013 \$500 M Kinder Morgan expands terminal, <http://www.methanex.com>
- **ExxonMobil, Port Allen & Baton Rouge Chemicals**, Planning \$215 M Synthetic Aviation Oil Project. <http://exxonmobilbr.com>
- **BASF** breaks ground on Formic Acid unit at Geismar 10/23/2012
<http://www.basf.com>
- **Nachurs Alpine Solutions** (at former Ciba-Geigy St. Gabriel site) Liquid Fertilizers plant. 11/6/2012
<http://www.nachurs-alpine.com>
- **Nucor** signs agreement with Encana to supply nat gas to its steel plant in St. James 11/6/2012
<http://www.nucor.com>
- **CF Industries, Donaldsonville** (& Iowa) plant \$3.8B Expansion. Engr. & Purch. By ThyssenKrupp Uhde.
<http://www.cfindustries.com>
- **Albemarle** completes ex. of Baton Rouge Process Development Lab – 4,500 Sq Ft
<http://www.albemarle.com>
- **Air Products, Geismar** expanding Syngas plant to supply CO to BASF's Formic Acid project. 11/15/2012
<http://www.airproducts.com>
- **Mosaic** announces \$700 Mil Ammonia project (with Technip) at it's St James Plant. 12/21/2012
<http://www.mosaic.com>
- **Geneses Energy, Port Hudson** plans \$125 M infrastructure project 20" PL for Crude to XOM 2/4/2013
<http://www.genesisenergy.com>
- **South La Methanol** (SLM), W side, below Sunshine Bridge, New JV \$1.3 B proj. 2/28/2013
<http://www.zeep.com>
- **Katoen Natie, Baton Rouge** plans \$ 150 Mil Plastics storage, Packaging & distribution facility 3/6/2013
<http://www.katoennatie.com>
- **Huntsman (Rubicon), Geismar**, announces \$ 78 Mil Expansion of MDI 50 KT/Yr 3/21/2013 <http://www.huntsman.com>
- **Crosstex Energy, Plaquemine** contracts with UOP for 100,000 B/D NGL fractionators 4/25/2013
<http://investor.crosstexenergy.com>
- **Wolverine Terminals, Paulina** \$ 30 Mil Crude Oil Terminal. Receive by rail, ship by barge 5/15/2013

Lake Charles Region

(LA Statewide-Excludes Lower Miss River-

Includes Bromine plants in Arkansas & Longview plants

- Project to relocate old **Gregg County Refinery**, Longview to New London in Rusk County (with development funds)
- **Linde** plans an Air Separation Unit for Southwest Arkansas <http://www.linde.com>
- **Shell, Louisiana** site very large GTL project <http://www.shell.us/>
- **El Dorado Chem, Arkansas** (LSB) \$120 Mil nitric acid unit & concentrator (by Weatherly) 12/4/2012 <http://www.weatherlyinc.com>
- **Cheniere Energy Cameron, LA** (Sabine Pass) LNG Export Project. Signs with Total. 12/17/2012 <http://www.cheniere.com>
- **Cameron LNG (Sempra) Hackberry LA** Working on Export Project 12/10/2012 Signs with 3 partners 5/17/2013 <http://sempralng.com>
- **Leucadia, Lake Charles**, Petroleum Coke Gas Plant. Methanol, Carbon Dioxide & Hydrogen <http://www.lakecharlescleanenergy.com>
- **Georgia Gulf** merger with PPG Commodities completed (GaGulf renamed Axiall) <http://www.axiall.com>
- **Sundrop Fuels, N of Alexandria**, plans construction on GTL plant. <http://www.sundropfuels.com>
- **Benteler Steel, At Port of Caddo-Bossier**, announces \$900 M Seamless Tube Mill 10/26/2012 <http://www.benteler.com>
- **Sasol, Westlake** go ahead with plans for GTL & ethylene proj \$ 16-21 B 12/3/2012 <http://www.sasollouisianaprojects.com>
- **Westlake Chemical** (previously announced) starting work on Ethylene expansion in Sulphur 1/10/2013 <http://www.westlake.com>
- **Drax Biomass** plans \$120 M Plant for Wood Pellets (Export to UK via Port GBR) 12/13/2012 <http://www.draxgroup.plc.uk/biomass>
- **G2X Energy** plans \$1.2 B GTL project at the Port of Lake Charles. 200 Acres 1/15/2013 <http://www.G2XEnergy.com>
- **Magnolia LNG** plans \$ 2.2 B export terminal at the Port of Lake Charles 1/18/2013 lease 3/6 <http://www.lnglimited.com.au>
- **BioNitrogen, Lettsworth, LA** Plans \$ 1.25 B Project to convert Ag waste to Fertilizers 3/1/2013 <http://www.bionitrogen.com>
- **NRG, New Roads** Reached agreement EPA & DOJ over emissions, natural Gas conversion. 3/6/2013 <http://www.nrgenergy.com>
- **Embridge, Beckville, TX**, plans \$ 140 Mil Gas Processing Plant 4/30/2013 <http://www.enbridge.com>
- **Boise Inc., Deridder, LA** \$111 Mil Paper Machinr Upgrade 5/2/2013 <http://www.boiseinc.com>
- **Port of W St Mary Parish**, Franklin working with Chinese on island Port. \$6 B Panama Canal. <http://www.portofwsm.com>

Golden Triangle Region

(Beaumont, Port Arthur, & Orange)

- **Motiva, Port Arthur**, experiencing startup problems with new expansion (now largest U.S.) <http://www.portarthurrefinery.com>
- **ExxonMobil** supports \$10 B Golden Pass LNG Export Terminal Sign Framework Agreement 5/10/2013 <http://www.gpterminal.com>
- **OCI, Nederland** restarts idled Eastman ammonia & methanol plants 7/20/2012 <http://www.ocibeauumont.com>
- **Total, Port Arthur**, Looking at a new ethane cracker (tied to existing JV with BASF) 5/23/2013 <http://www.totalpetrochemicalsusa.com>

Houston Ship Channel Region

- **Kuraray, LaPorte** expanding PVOH unit 6/2012. Completion by late 2014 35 up to 47,000 mt/Yr <http://www.kuraray.us.com>
- **Plains Exploration of Houston** buys \$5.5 B in Offshore Assets from BP <http://www.pxp.com>
- **Wood Group** to build NRG's generating unit at WA. Parish plant SW of Houston <http://www.nrgenergy.com>
- **AkzoNobel, LaPorte** expanding TMAL & new unit to make TMG for LED business <http://www.akzonobel.com/us/>
- **Lyondell Basell, Channelview**, Ethane - LaPorte, Ethylene by 2015 <http://www.lyondellbasell.com>
- **ExxonMobil, Baytown** - Ethylene & PE. \$ multi B Ethane steam Cracker 3 6 2013 update <http://www.exxonmobilchemical.com>
- **Phillips 66 (ChevronPhillips), Baytown** - Ethane Cracker by 2017 Also PE & Hexene units <http://www.phillips66.com>
- **Celanese, Clear Lake** - Methanol. \$ 800 Mil Jv with Mitsui 5/15/2013 will share output <http://www.celanese.com>
- **Lubrizol, Deer Park**, \$125 Mil CPVC expansion 10-4-2012 <http://www.lubrizol.com>
- **Rentech Nitrogen** completed acquisition of Agrifos, Pasadena, TX plant 11/2/2012 closing Colorado PDU. <http://www.rentechinc.com>
- **Targa** buys HSC property for \$ 25 Mil to expand exports of Propane & Butane 1/9/2013 <http://www.targaresources.com>
- **Kinder Morgan** \$ 170 Mil Expansion of terminal.1/15/2013, 5/13 2013 buys 20 Ac, plans \$ 106 Mil. <http://www.kindermorgan.com>
- **Valero Refinery, HSC** \$220-280 Mil "Topping" unit to remove light ends from Eagle Ford crude. 1/15/2013 <http://www.valero.com>
- **TPC, Houston**. Starting engr. on PIB expansion also "on purpose" BD 2/7 & 25/2013 <http://www.txpetrochem.com>
- **Airgas** building new Carbon Dioxide unit to replace Deer Park unit at Shell 2/13/2013 <http://www.airgas.com>
- **Oxiteno, Pasadena** (at Old World site) expanding ethoxylates production 2/2013 <http://www.oxiteno.com.br>
- **Oil Tanking** working on \$44 Mil expansion of export terminal (with Enterprise Products) 2/6/2013 <http://www.oiltankingpartners.com>
- **Enterprise Prod, Mt Belvieu** studying 270 mi ethane PL to supply Gulf Coast ethylene plants. 3/12/2013 <http://www.epplp.com>
- **Borusan Mannesmann, Baytown** building a \$ 148 Mil Steel Pipe Manufacturing Plant 4/2/2013 <http://www.borusanmannesmann.com>

Texas Gulf Coast Region

(Texas City along the Gulf Coast to just below Corpus Christi)

- **Las Brisas Energy** center project, Corpus Christi, gets TCEQ air permit 2011.
<http://www.lasbrisasenergy.com>
- **Cheniere LNG (export)**, N side of Corpus Christi Bay 2012 <http://www.cheniere.com>
- **M & G Group (Italy)** buys land at Corpus Christi Port to build PET, NRG looking at CoGen unit 3/28/2013. <http://www.gruppomg.com>
- **Fluor, Houston** got an EPC Management contract from Dow, Freeport for propylene unit.
<http://www.dow.com>
- **BP Texas City Refinery** sold to Marathon for \$2.5 B. Closed 2013.
<http://www.marathonpetroleum.com>
- **OxyChem Ingleside**, Looking at jv with Mexichem for PVC <http://www.oxychem.com>
- **Phillips66 (ChevronPhillips) Chem**, Old Ocean Fractionation Units
<http://www.phillips66.com>
- **Ineos Olefins**, Choc Bayou - Ethylene & Two PE Units <http://www.ineos-op.com>
- **Excelerate Energy** gets US approval to proceed with LNG Export Terminal 10/24/2012
<http://www.excelerateenergy.com>
- **BASF, Freeport** plans \$90 Million Emulsion Polymers Plant. 11/13/2012
<http://www.basf.com>
- **Pangea LNG** applies for Export License to Free Trade Nations from proposed Corpus Christi term. 11/29/2012 <http://pangealng.nl>
- **Mitsubishi** plans \$710 Mil Acrylics project at Freeport to use ethylene from Dow 12/22/2012
<http://www.mitsubishichemical.com>
- **Tenaris, Bay City** \$1.5 B Seamless Pipe Mill for Oil. 2/15/2013 Plus \$70mil for sucker rods
<http://tenaris.com/USA/TenarisBayCity>
- **C3 Petrochemicals** plans propane dehydrogenation unit at Ascend property, Alvin, TX 2/22/2013
<http://www.ascendmaterials.com>
- **TexStar Midstream Services** plans fractionation units at Equistar, Corpus Christi 4/11/2013 <http://www.texstarms.com>
- **Voestalpine** plans \$700 Mil plant in Corpus Christi to make Hot Briquetted Iron 4/11/2013
<http://www.voestalpine.com>
- **Mitsui & Idemitsu Kosan, Freeport** plan jv to make alpha olefins from Dow ethylene. 5/21/2013 <http://www.dow.com>

Major Projects

(Outside of the Gulf Coast, but involving Natural Gas)

- **CHS** looking at \$1.2B Ammonia Unit using Bakken Shale Gas. East of Jamestown, ND 9/2012 <http://chsinc.com>
- **Dominion Resources**, liquefaction Plant to export Marcellus LNG from Cove Point, MD \$3B 12/5/2012 <http://www.dom.com>
- **Ohio Valley Resources (OVR) Spencer County Indiana, New \$ 1 B Nitrogen Fertilizer Plant** 12/7/2012 <http://www.kbr.com>
- **M3Midstream, Kensington. Ohio.** \$ 1B jv nat gas plant with CHK & EV Energy. Complete 2013 <http://www.m3midstream.com>
- **Shell looking at Ethane Cracker to make Ethylene & derivatives in Beaver County, PA 12/26/2012**
<http://www.shellchemicals.com>
- **Bayer** looking into converting gas from Marcellus Shale at New Martinsville, PA into Benzene. 1/10/2013 <http://www.bayerus.com>
- **Spectra Energy (Houston)** contracts with Eastman to supply gas to Kingsport for two new projects 1/15/2013 <http://www.eastman.com>
- **Shell & Kinder Morgan** looking to convert Elba Island LNG terminal (near Savannah) to export. 1/29/2013 <http://www.shellus.com>
- **Williams & Boardwalk PL** forming a jv to bring NGL from Marcellus & Utica Shales to Gulf Coast 3/6/2013 <http://www.bwpmlp.com>
- **Shell & Williams jv Three Rivers Midstream** plans \$ 150 Mil Fractionator for Marcellus 4/11/2013 <http://www.williamslp.com>
- **Aither Chemicals, WV**, looking at steam cracker proj with Bayer 6/21/2012 <http://www.aitherchemicals.com>
- **Northern Plains Nitrogen, Grand Forks, ND** plans \$ 1.5 Billion Ammonia Plant 5/13/2013 <http://www.northernplainsnitrogen.com/>
- **Koch Nitrogen, Enid, OK** \$ 1 billion Ammonia & Urea expansion 5/20/2013 <http://www.kochfertilizer.com>

www.chemplants.com

Randy Peterson

hcosite@bellsouth.net

Homesite Company (225) 383-5369

Louisiana Chemical Industry Impact

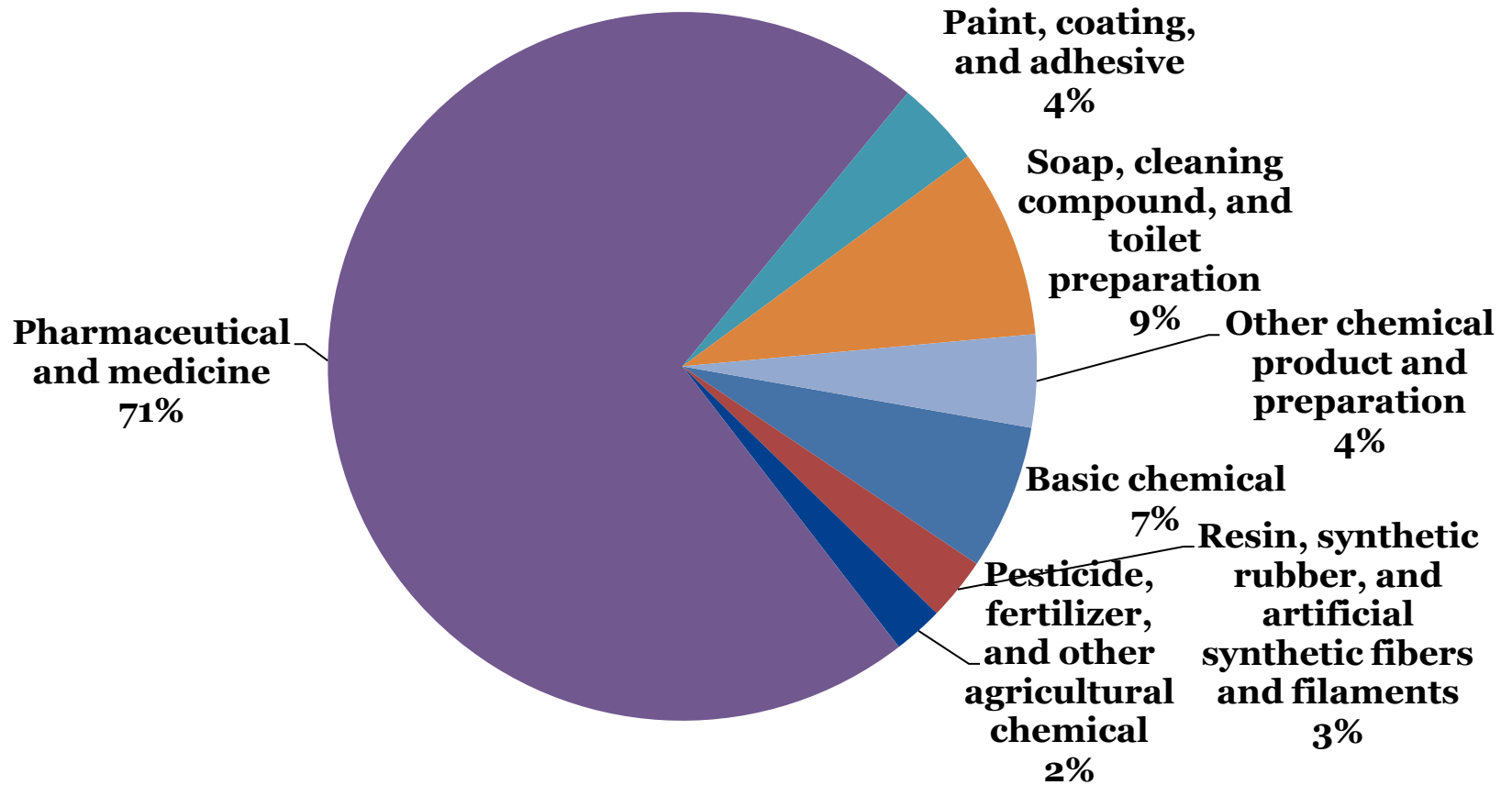


- In 2010, the total value of chemical shipments from Louisiana firms totaled \$58.2 billion, ranking it **#3 among the 50 states** (though it is virtually tied with #2 California). Texas is #1.

Rank In Country

Region	Value of Shipments*	% of U.S. Total
U.S.	\$889.8	100.0%
Texas	157.1	17.7
California	58.9	6.6
<i>Louisiana</i>	<i>58.2</i>	<i>6.5</i>
North Carolina	52.1	5.9
Illinois	48.7	5.5

California Chemical Industry Shipments



Source: Census Bureau

Louisiana Chemical Industry Impact



- Basic or "**bulk**" **chemicals**----those in the first stage of the production process---dominate the state's chemical production.

Makeup in Louisiana

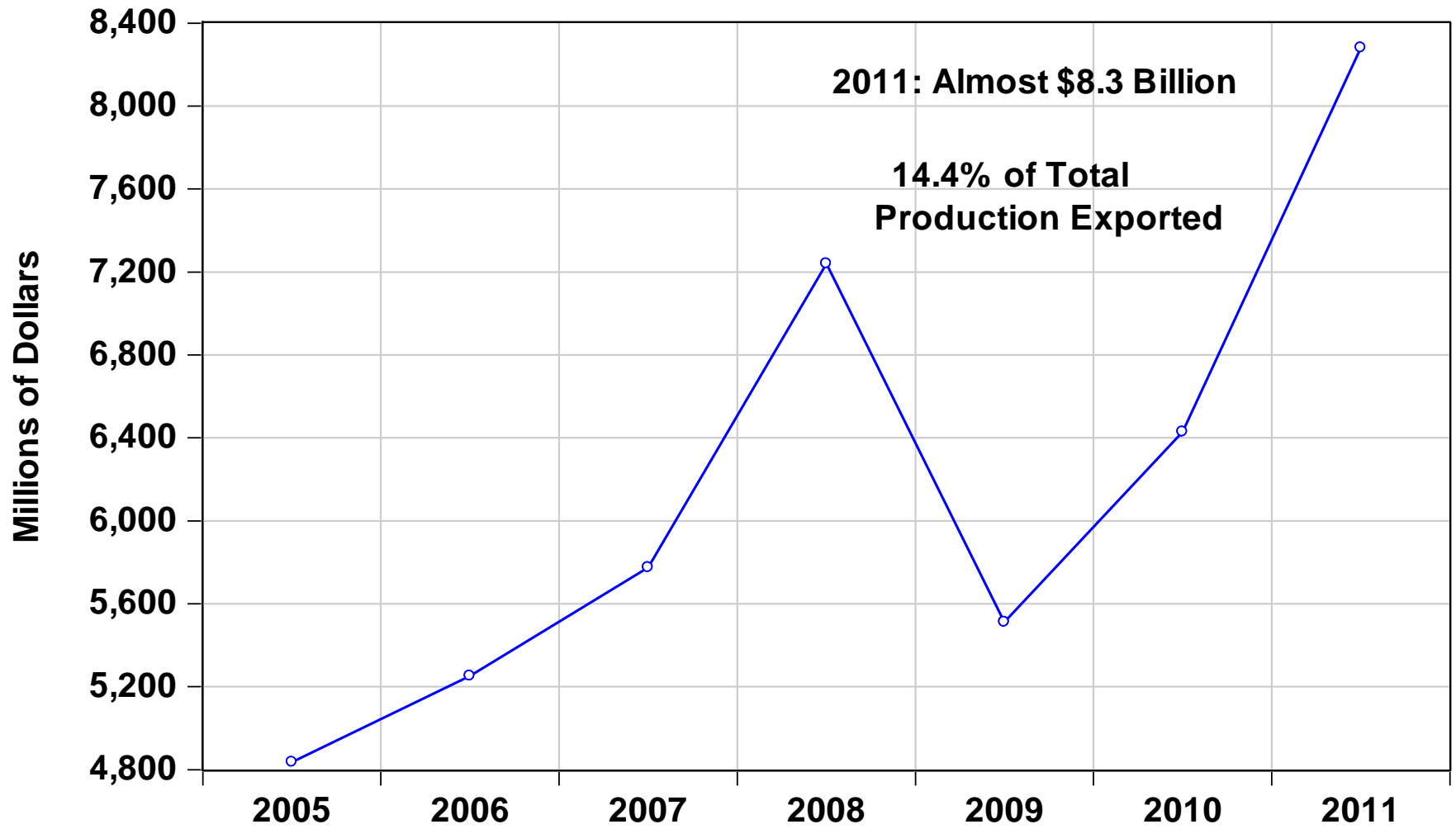
Sector	Value of Shipments*
Total	\$58.2 Billion
Basic chemicals	\$37.4 Billion
Resins, synthetic rubber, artificial synthetic fibers & filaments	\$7.4 Billion
Pesticides, fertilizers & other agricultural chemicals	\$4.6 Billion
Plastics products manufacturing	\$0.8 Billion
Rubber products manufacturing	\$0.3 Billion

Louisiana Chemical Industry Impact



- Chemicals are **Louisiana's third largest export** to the rest of the world, shipping \$8.3 billion (14.4% of total production in the state) in chemical products to other parts of the world in 2011.
- Petroleum and agricultural products are #1 and #2.

Fig. 1: Chemical Exports From Louisiana



Source: <http://tse.export.gov>

Louisiana Chemical Industry Impact



- Chemicals are the **#1 producer of direct jobs in Louisiana's manufacturing sector**, employing 26,944 people in 2011.

Louisiana Chemical Industry Impact



- The industry is fairly concentrated in Lake Charles and from Baton Rouge along the Mississippi River to New Orleans.
- However, **53 of the state's 64 parishes have at least some employment in the industry.**

2012 Distribution of Employment



- Six parishes with 1,500+

1. Calcasieu 3,962

2. Iberville 3,287

3. EBR 3,192

4. Ascension 3,061

5. St. Charles 2,236

6. Jefferson 1,809 (St. James 634 – 1,134)

- 53 of 64 parishes record at least some employment in the industry

Louisiana Chemical Industry Impact



- The chemical industry pays the **second highest weekly wage (\$1,761) in Louisiana's manufacturing sector**---only \$210 behind #1 petroleum refining.

Louisiana Chemical Industry Impact



- The weekly wage in chemicals is
 - 1) 47% higher than the average weekly wage in manufacturing,
 - 2) is only exceeded in only two other sectors in the entire economy (#1 oil and gas extraction and #2 securities, commodity contracts and investments), and
 - 3) is 116% higher than the average weekly wage of all workers in the state.

Average Weekly Wage in Manufacturing



- **Chemicals Manufacturing*** \$1,761
 - Petroleum Manufacturing \$1,971
 - Plastics/Rubber \$ 970
 - Average Manufacturing \$1,201
 - Average Louisiana \$ 816
-
- 47% higher than manufacturing average
 - 116% above average wage of ALL workers in Louisiana

Louisiana Chemical Industry Impact



- Total earnings in the industry---wages, rents, interest, and profits---as measured by **value added** were **\$22 billion in 2010**, which was
 - 1) over one-third of the value added in Louisiana's manufacturing sector and
 - 1) the **highest of any manufacturing sector in the state**. Petroleum and coal products manufacturing is #2 at \$18.9 billion.

Louisiana Chemical Industry Impact



- Using an input-output table we were able to estimate the total impact (including the multiplier effect) of this industry on the state in 2010. According to the I/O table the chemical industry in 2010 created:
- Almost **\$52.6 billion in sales** at firms located in the state.

This is a Chemical Plant



This is Everybody Else



Louisiana Chemical Industry Impact



- Over **\$8.9 billion in household earnings** for state citizens, which was approximately **7.3% of all earnings in the state** that year.

Distribution of Earnings: 2012



- Top 4
 - EBR - \$470.2 mm
 - Ascension - \$378.8 mm
 - Calcasieu - \$364.9 mm
 - Iberville - \$361.1 mm

- St. James- \$ 70.6 mm

Louisiana Chemical Industry Impact



- Supported **167,843 jobs** in Louisiana. The job multiplier for this industry is **6.2**, meaning for every job created in the chemical industry, 5.2 jobs are created elsewhere in the state.

Louisiana Chemical Industry Impact



- We estimate that in 2010 the presence of the chemical industry generated nearly **\$641.3 million in taxes and fees for the state treasury**,
 - an amount comparable to the \$612 million the state collects from all its gasoline taxes and special fuels taxes.

Louisiana Chemical Industry Impact



- We conservatively estimate that in 2010 the presence of the chemical industry generated at least **\$533.7 million---over one half billion dollars---in taxes and fees for local governments.**

Louisiana Chemical Industry Impact



- We found that of those eight parishes with the highest concentration of chemical earnings:

all ranked in the **top half of parishes in terms of property tax collections per capita**

Louisiana Chemical Industry Impact



- We found that of those eight parishes with the highest concentration of chemical earnings:

with the exception of one parish (East Baton Rouge with its diverse economy that has three major higher educational institutions and the state capital), all were parishes **where businesses paid over 80% of property taxes** in the parish, and

Do Dominant TYITE Parishes Suffer?



PARISH	VALUE OF EXEMPTIONS 2011 AMOUNT	RANK	PROPERTY TAXES PER PERSON AMOUNT	RANK	% PAID BY BUSINESS
Ascension	\$3,027,125,150	3rd	\$ 871	21st	80.8
Calcasieu	2,441,121,103	4th	874	20th	89.0
E. Baton Rouge	2,260,329,126	7th	848	23rd	56.0
Iberville	5,298,183,086	2nd	1,273	12th	92.6
Jefferson	255,301,403	12th	743	28th	87.9
St. Charles	1,916,133,824	8th	2,298	4th	88.5
St. James	2,298,473,375	6th	2,026	6th	80.7
St. John the Baptist	279,307,458	11th	948	17th	91.3

Louisiana Chemical Industry Impact



- We found that of those eight parishes with the highest concentration of chemical earnings:

with one exception (Calcasieu Parish) these parishes are in the **top 17 among the 64 parishes in teacher pay.**

Do Dominant TYITE Parishes Suffer?

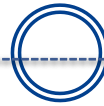


Parish	Average Teacher Salary*	Rank Among 64 Parishes
Ascension	\$50,617	15th
Calcasieu	45,920	40th
E. Baton Rouge	52,948	8th
Iberville	60,093	4th
Jefferson	51,187	12th
St. Charles	50,545	17th
St. James	52,446	9th
St. John the Baptist	51,324	11th
State Average	\$49,246	NA

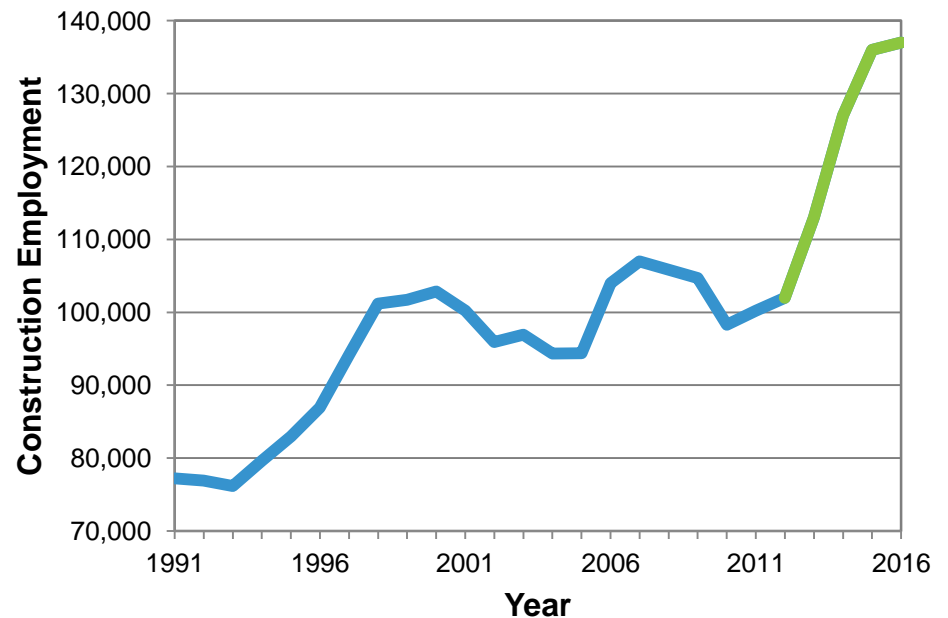
Growth = Challenges



Historic demand for industrial craft workers

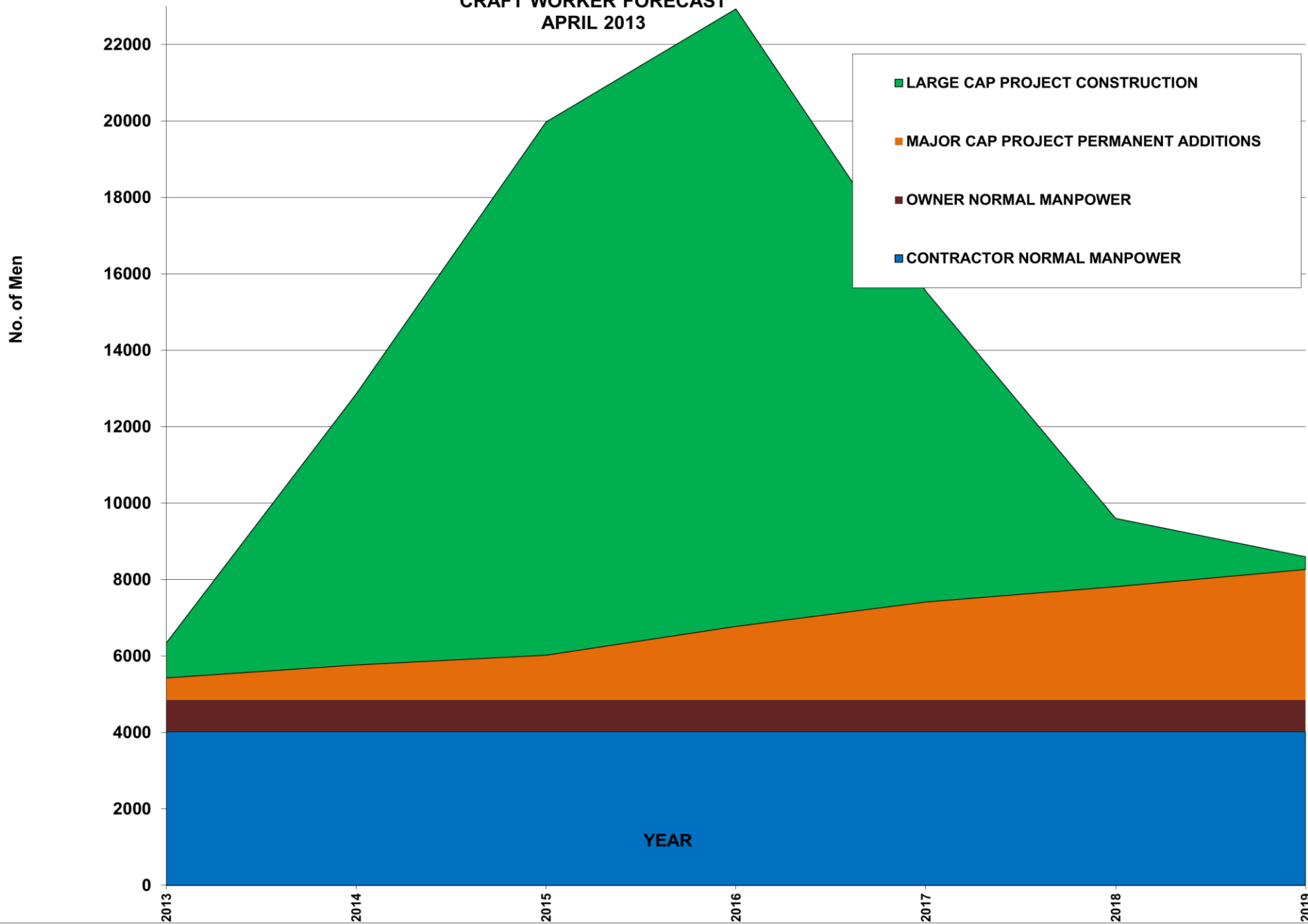


- **\$60 billion** of announced plant expansions and new plants
 - Driven by low price of natural gas and greatly improved business climate
- **86,300** new crafts workers needed through 2016
 - 35,000 new jobs
 - 51,300 jobs available because of attrition



Source: LSU Division of Economic Development, Louisiana Workforce Commission and Louisiana Economic Development

**SOUTHWEST LOUISIANA
MAJOR CAPITAL PROJECT
CRAFT WORKER FORECAST
APRIL 2013**



Like a Bowling Ball Moving Through a Python



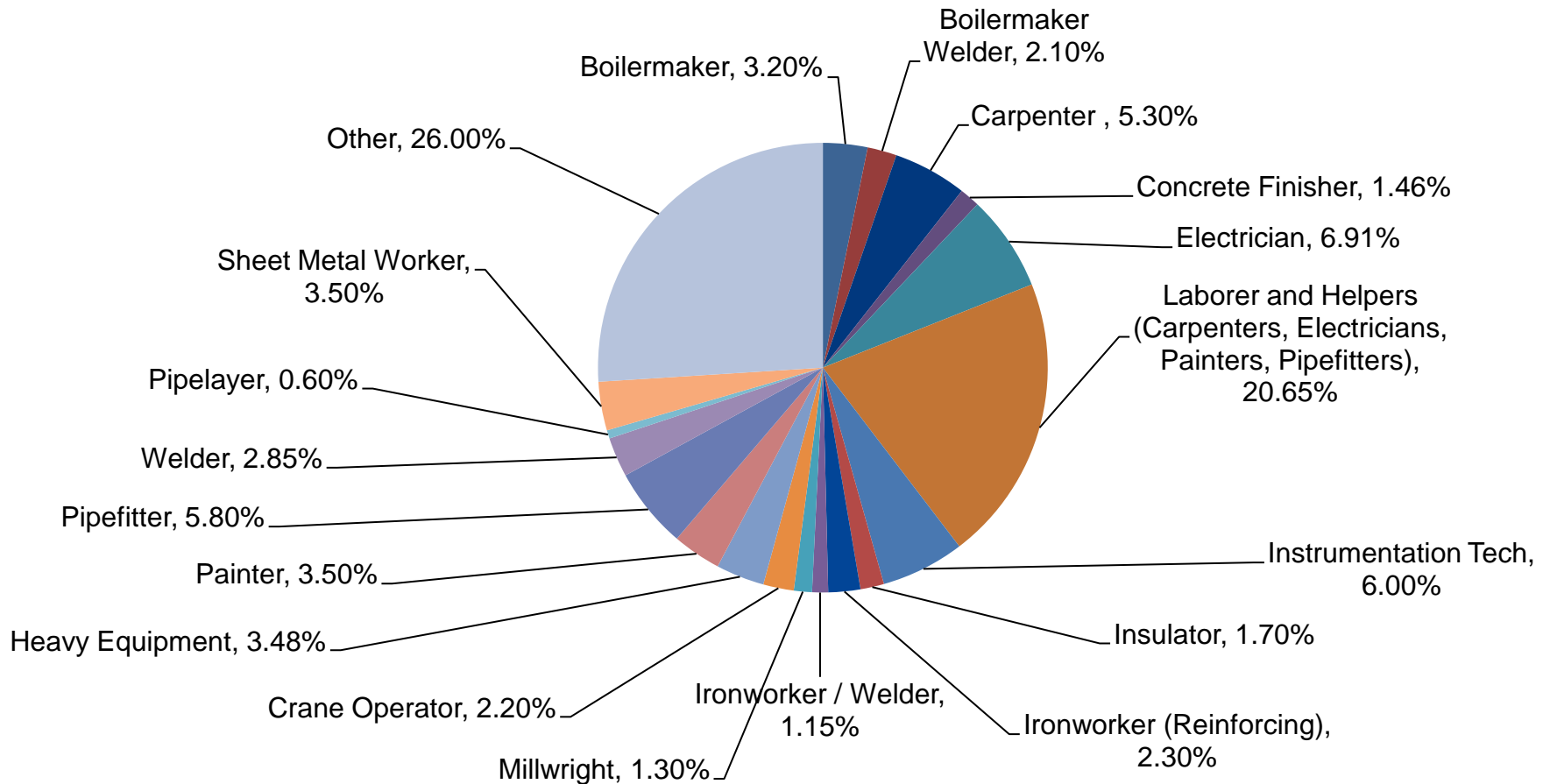
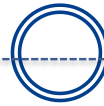
Top Crafts Needed Per Industry Surveys



- Process Technicians/Operators
- Pipefitters
- Welders
- Mechanics/ Millwrights
- Electrical Techs
- Instrument Techs
- Scaffold builders
- Laborers



ALL CRAFTS ARE IN DEMAND



Growth = Challenges



Bhopal on the Bayou?

Cancer Alley?

Health Effects: St. Gabriel Miscarriages?

TRI Emissions?

Environmental (In)Justice?

Rainbow Warrior?

Tulane Environmental Law Clinic?

LEAN, CLEAN and MEAN?

Louisiana Bucket Brigade?

Salt Dome Storage = The Sink Hole?

Attacks on Products?

Permit Challenges and Local Ordinances– Killed by friendly fire?

FIVE POINT PLAN



Advocacy and Communication

Energy

Government

Health, Safety, Security and Environment

Workforce Development

Questions and Contact Information



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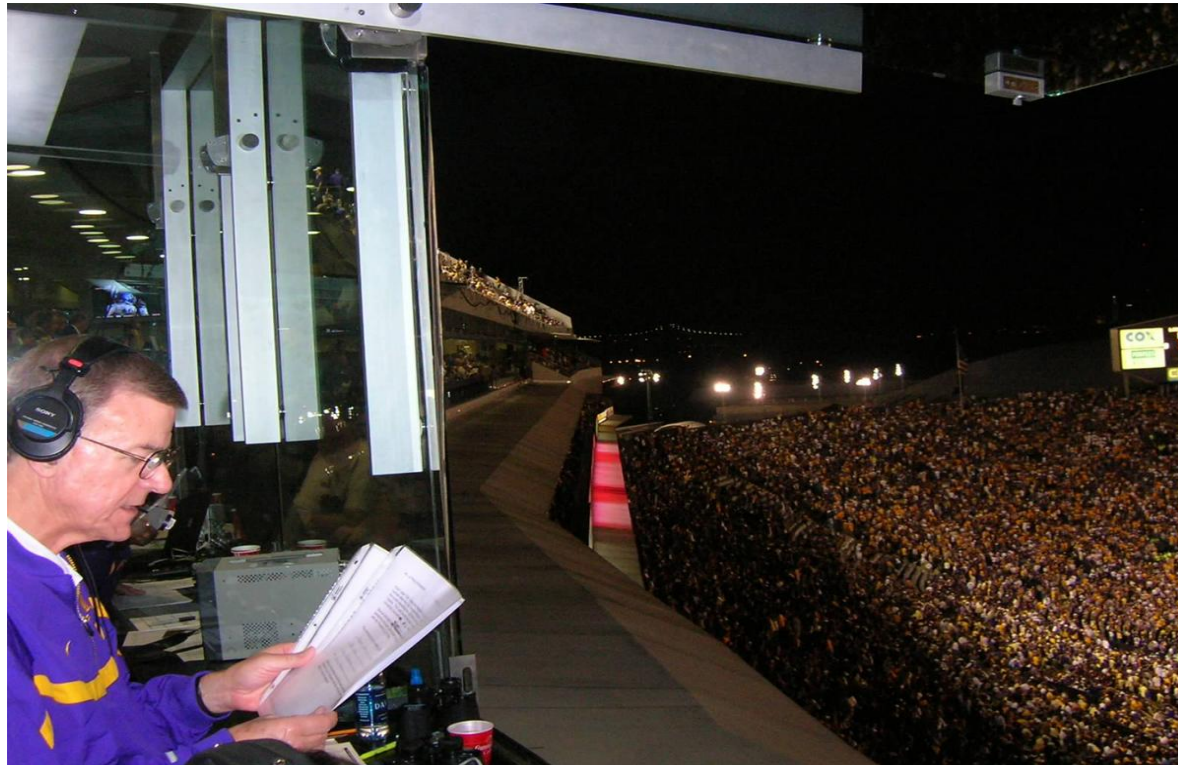
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Questions



THE POWER OF THE ASK



WHY WOMEN ARE BETTER SPOTTERS



THE POWER OF ONE



THE POWER OF KNOWING YOUR ROLE... AND PLAYING IT WELL



**THE POWER OF BEING ADAPTABLE TO CHANGE...
IN 2010 COLLEGE BASEBALL CHANGED ONE
THING**



**“THEY CHANGED THE BAT...
AND *THAT CHANGED THE GAME*”**



THE POWER OF PRAYER

RABBI BARRY WEINSTEIN

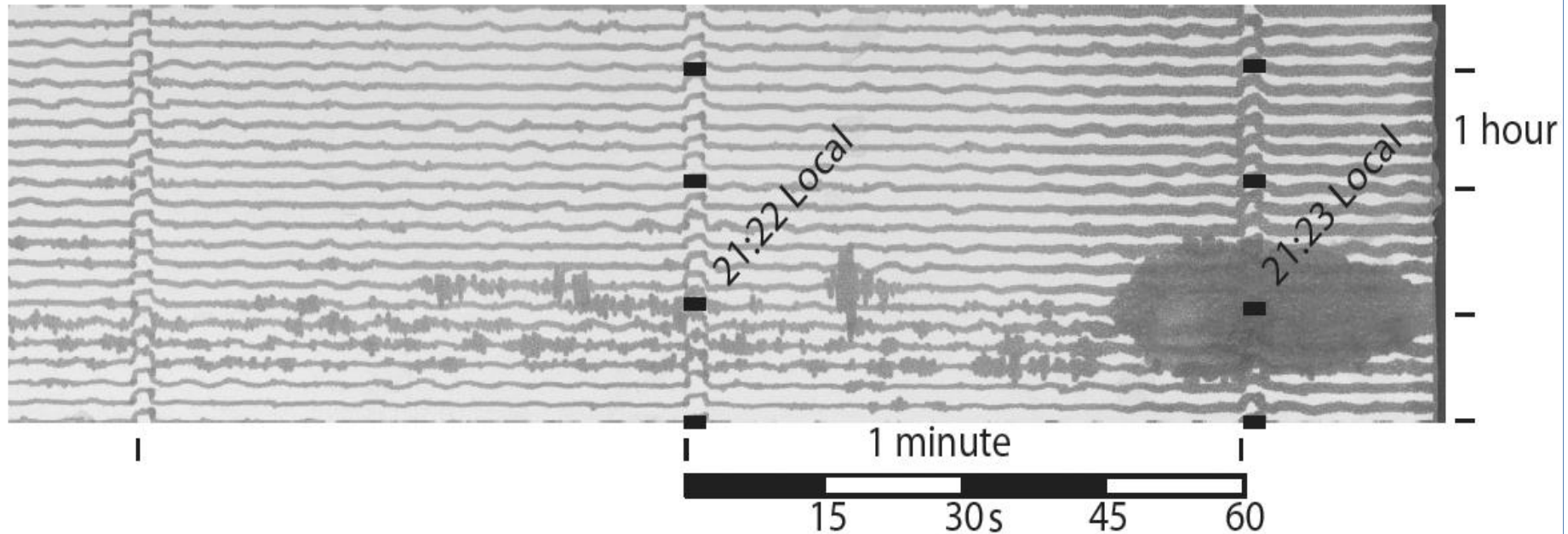


THE EARTHQUAKE GAME!



The Power of Prayer

Saturday, October 8, 1988 LSU-Auburn 'Earthquake Game' Seismogram



D-Day – June 6, 1944

