


*Sound Energy Solutions
Liquefied Natural Gas Terminal in
Long Beach*



Economic Impact Analysis

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“North America’s limited capacity to import liquefied natural gas (LNG) has effectively restricted our access to the world’s abundant supplies of gas.” Alan Greenspan



- **Macro Economic Impacts**
- **Micro Economic Impacts**

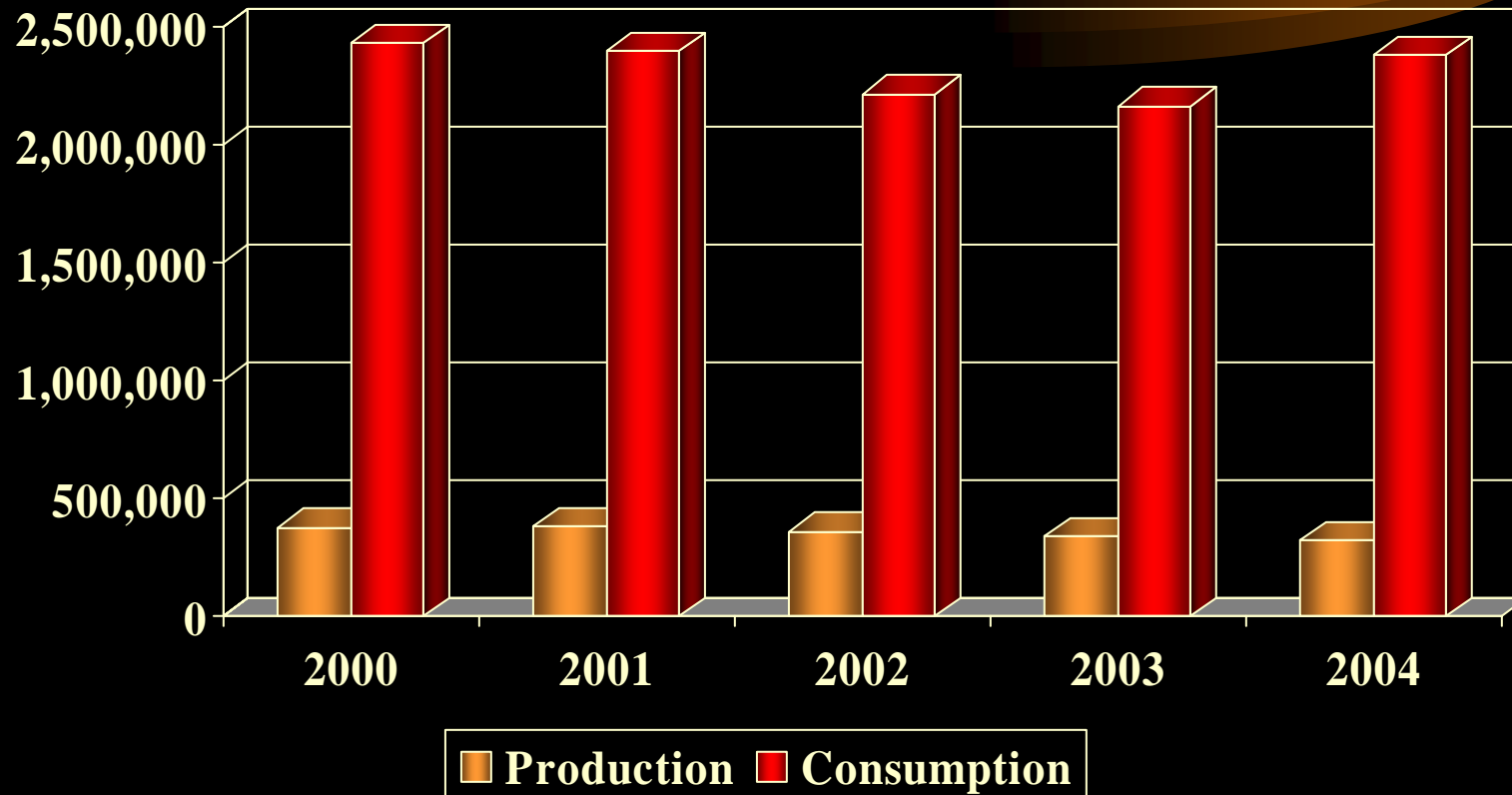
Macro Economic Impacts



- *State of California*
- *The National Economy*

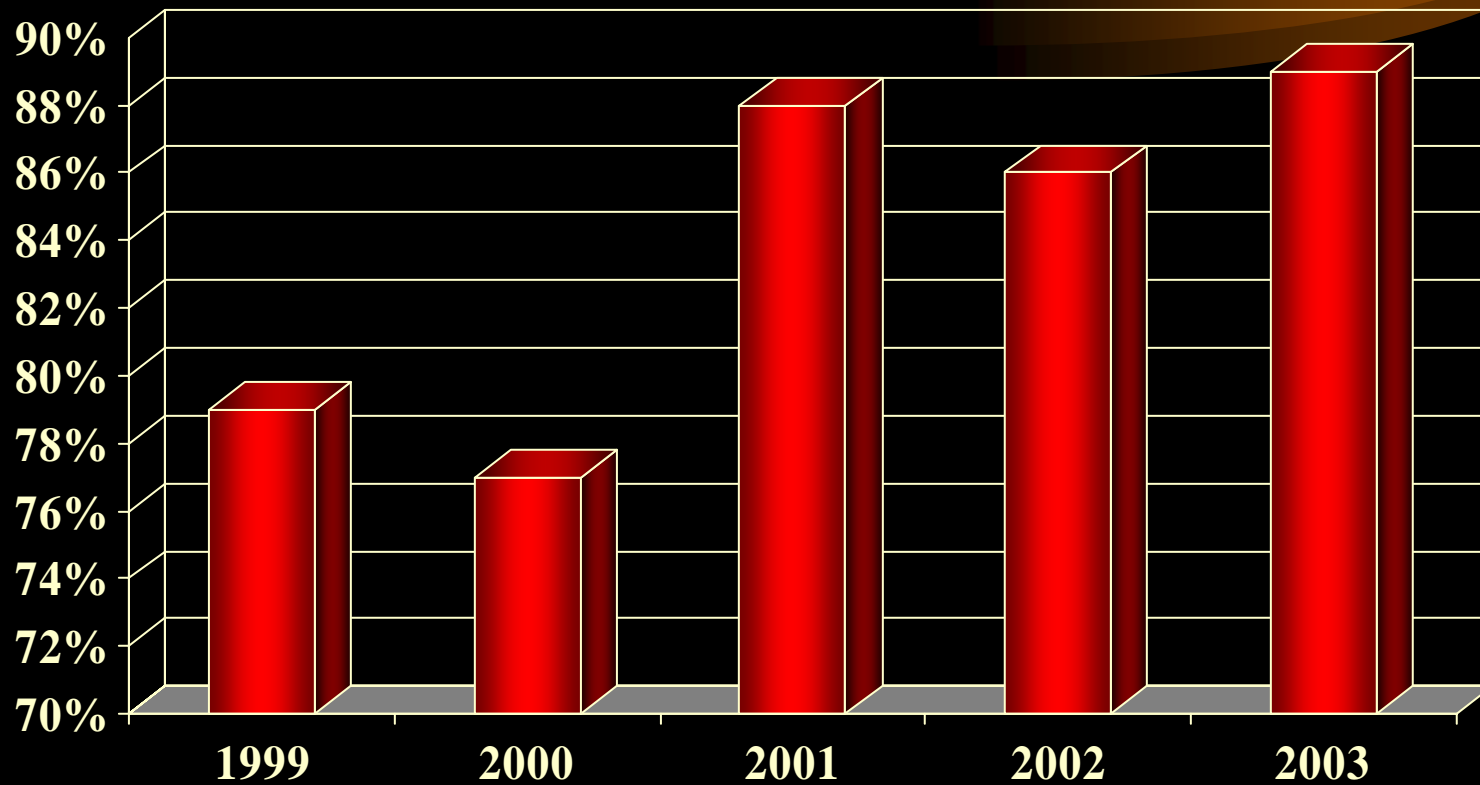
California is a Net Importer of Natural Gas

million cubic feet



California's Dependence Increasing

percent imports



What Does the Terminal Offer?

An Increased Supply

- **SES estimates *one billion* cubic feet of natural gas to be supplied daily**
 - **15 percent of 2004 California consumption**
 - **1.6 percent of national consumption**
 - **10.6 percent of West/Southwest region consumption (California, Arizona, Nevada, Idaho, Oregon & Washington)**

How much will price decline?

- **Increase in supply (one billion cubic feet per day)**
- **Impacts Affect Price and Output**
 - **Bottom-up approach: estimating elasticity of demand**
 - **Top-down approach: estimating elasticity of GDP with respect to energy prices**

Bottom-Up Approach

- *Our estimate implies that a 10.6 percent increase in the supply of natural gas would lead to a 7.4 percent reduction in the price of natural gas.*

Top-Down Approach

- *Our results imply that if natural gas prices decreased 10 percent, real GDP would increase .23 percent.*

“...we can say with some assurance that developments in energy markets will remain central in determining the longer-run health of our nation’s economy.”

Alan Greenspan

Economic Impact to California

<i>Category</i>	<i>Bottom Up</i>	<i>Top Down</i>
Change in State Product	\$1.6 Billion	\$2.6 Billion
Reduction in Gas Price	-7.4%	-7.4%
Change in State Product	0.103%	0.167%
Change in State Jobs	11,200	18,300
Average State Tax Rate	6%	6%
State Revenue Change	\$96 million	\$156 million

Impacts to the City and Regional Economy



- Direct Impacts
- Indirect Impacts
- Induced Impacts
- Fiscal Impacts

Direct Impacts

<i>Activity</i>	<i>Jobs</i>	<i>Payroll</i>	<i>Purchases</i>	<i>Total</i>
Construction	400	\$100 mn	\$160 mn	\$260 mn
Terminal Op	60	\$5.1 mn	\$11.2 mn	\$16.3 mn
Other	21	\$.95 mn	\$0.2 mn	\$1.2 mn
Total	481	\$106.1 mn	\$171.4 mn	\$277.5mn

Total Impact: Economic Output

[in millions]

<i>Activity</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Construction	\$260	\$73.2	\$77	\$410.2
Terminal Op	\$16.3	\$3.3	\$3.9	\$23.5
Other	\$1.1	\$0.2	\$0.2	\$1.5
Total	\$277.4	\$76.7	\$81.1	\$435.2
Total less Construction	\$17.4	\$3.5	\$4.1	\$25.0

Total Impact: Jobs

<i>Activity</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Construction	400	1,543	682	2,625
Terminal Op	60	83	35	178
Other	21	13	11	45
Total	481	1,639	728	2,848
Total less Construction	81	96	46	223

Total Impact: Payroll

[in millions]

<i>Activity</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Construction	\$100	\$84.7	\$23.3	\$208
Terminal Op	\$5.1	\$3.4	\$1.2	\$9.7
Other	\$0.95	\$0.24	\$0.07	\$1.3
Total	\$106	\$88.3	\$24.6	\$219
Total less Construction	\$6.1	\$3.6	\$1.3	\$11.0

Fiscal Impacts

<i>Revenue Category</i>	<i>Annual Revenues</i>
Property Taxes	\$ 5 million
Utility User Fees	\$.28 million
Wharfage Tariff	\$ 5 million
State Income Tax	\$ 7.9 million
Total	\$ 18.8 million

Summary: State Level

- *The Long Beach Liquefied Natural Gas Terminal increases the supply of natural gas by 10.6% resulting in a price decrease of 7.4% to Californians further stimulating economic activity within the state and nation.*
- *Gross State Product would increase by \$1.6-\$2.6 billion generating 11,200 – 18,300 new jobs.*
- *Added activity generates \$96-\$156 million in annual state tax revenues.*

Summary: Construction

- *Construction of the terminal involves a capital budget of over \$700 million, generating 400 annual jobs and \$100 million payroll.*
- *The direct impacts of construction are \$260 million*
- *Total economic impact of the construction activities generate \$410 million of value and over 2,600 new jobs within the region.*

Summary: Terminal Operations

- *The SES state-of-the-art terminal generates 81 new high wage jobs in Long Beach.*
- *These Long Beach jobs will in turn generate an additional 142 jobs bringing the region a total of 223 new jobs.*

Summary: Fiscal Impacts

- *The SES Terminal will generate \$10.3 million in annual tax revenues to city-level entities.*
- *SES also generates \$7.9 million in annual state income taxes.*