WIEB – CEC Workshop

LNG Overview

Presented by
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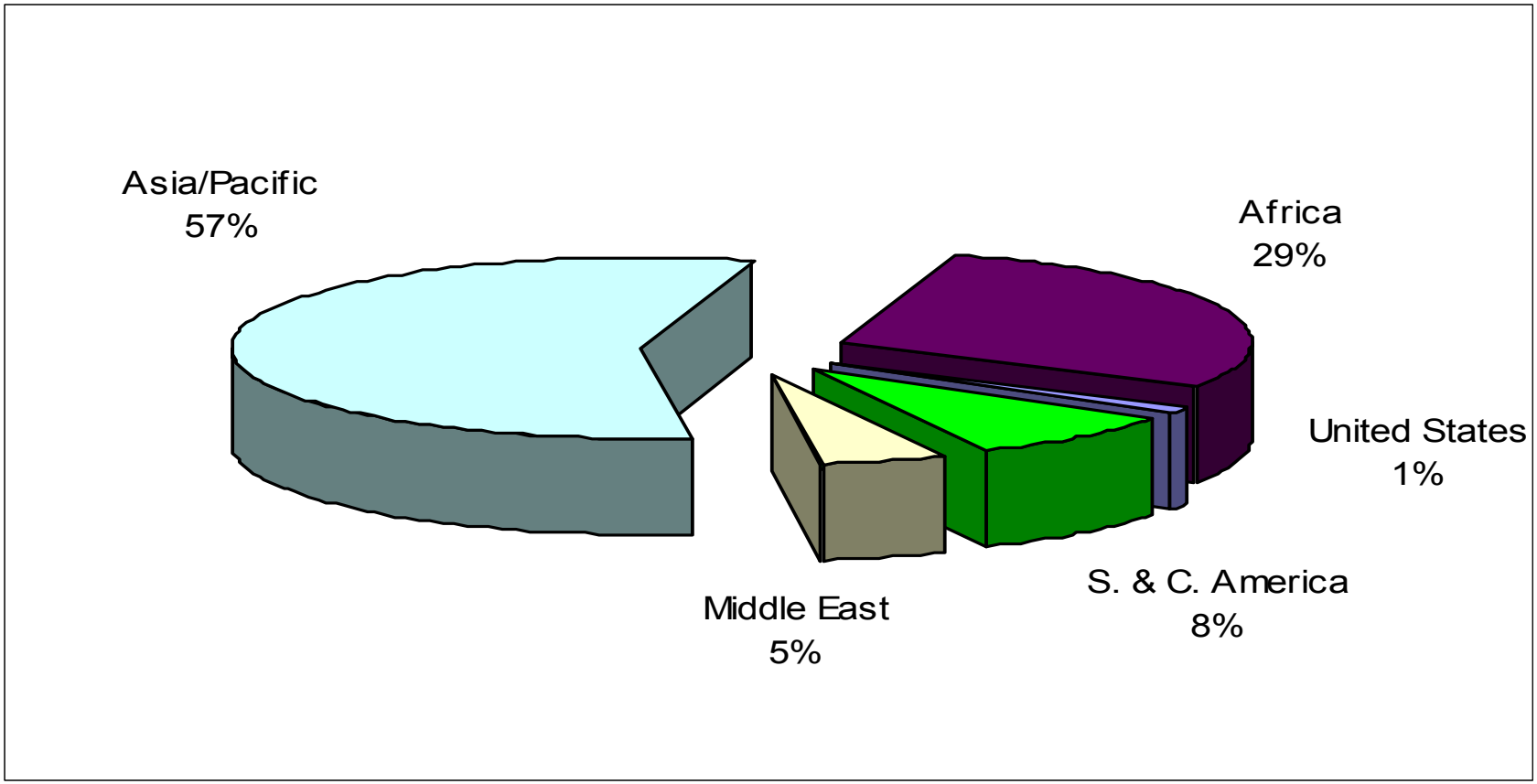
California Energy Commission
June 29, 2004

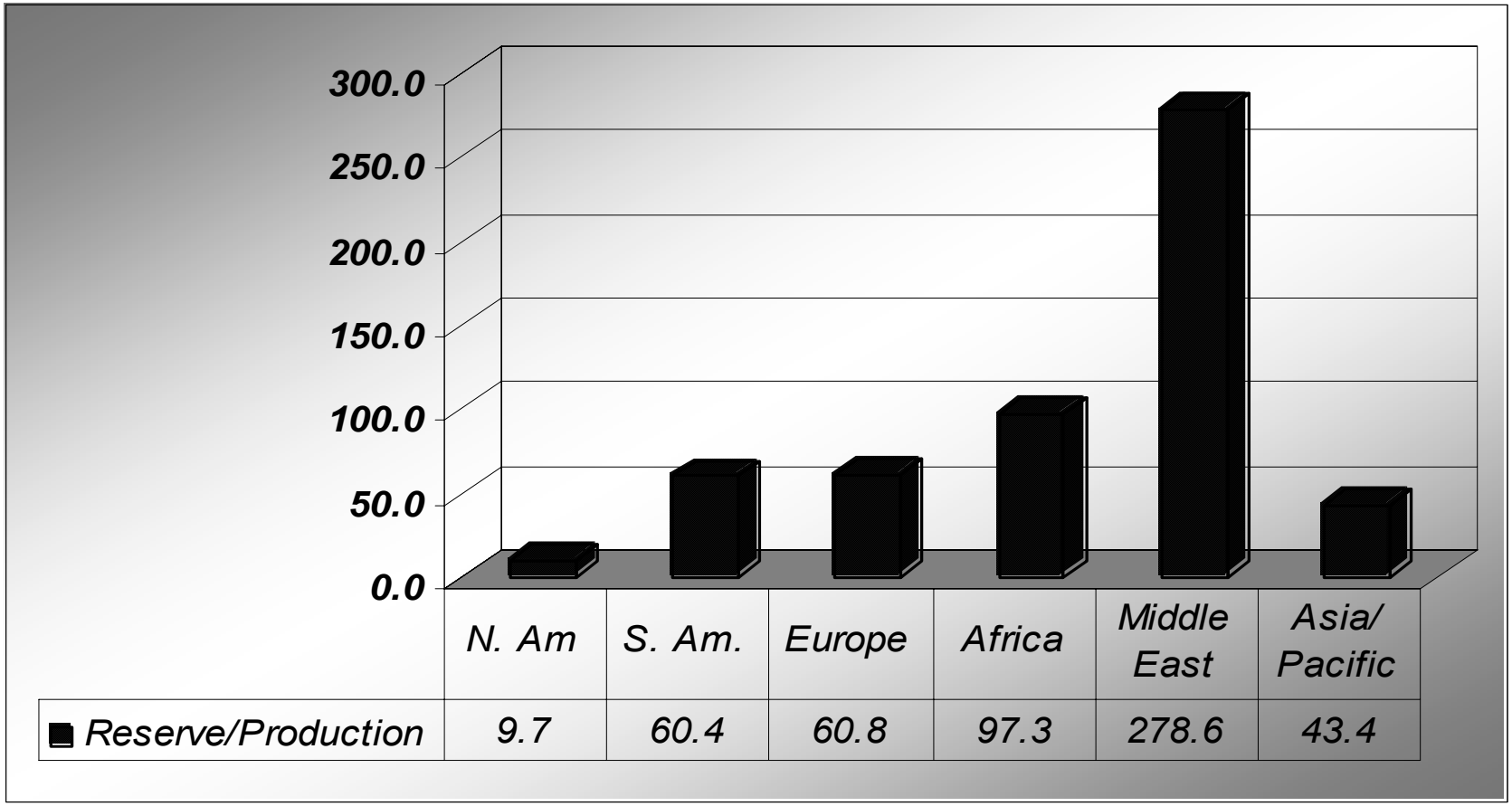
LNG Evaluation

- Current LNG Markets
- Natural Gas Availability
- Liquefaction
- Transportation
- Regasification

LNG Regional Exporter - 2003

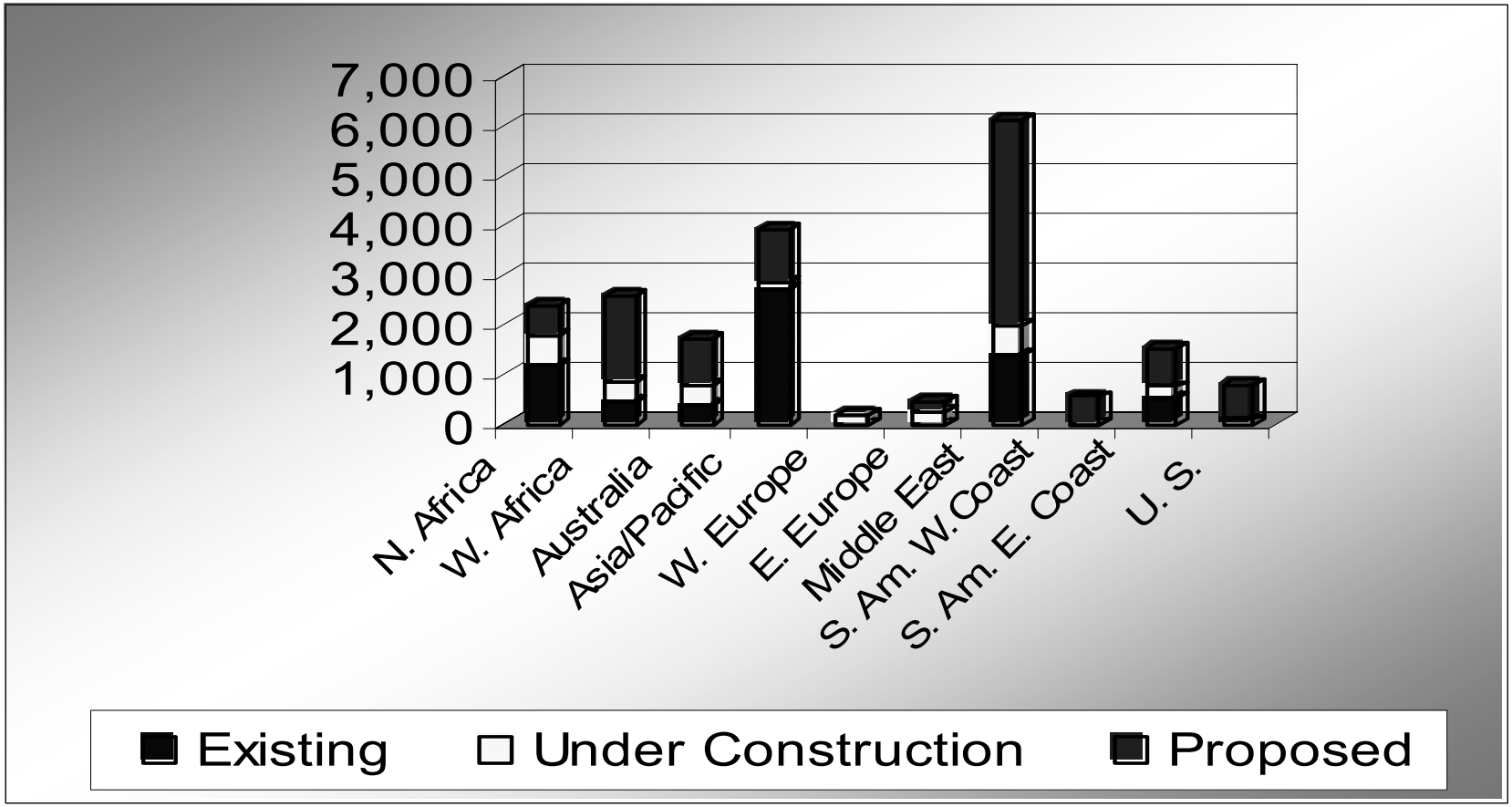


Natural Gas Reserve to Production Ratio

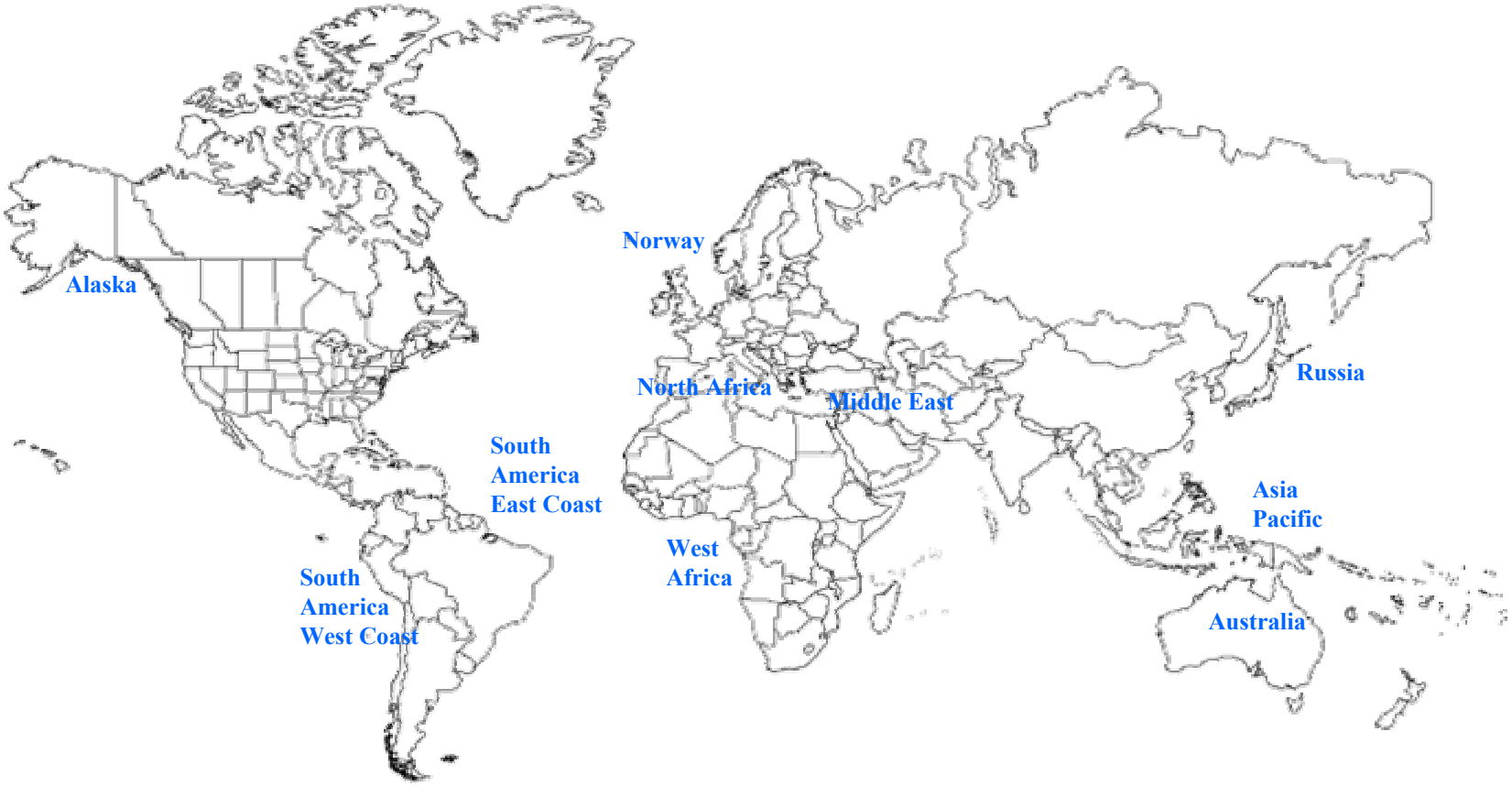


	N. Am	S. Am.	Europe	Africa	Middle East	Asia/ Pacific
Reserve/Production	9.7	60.4	60.8	97.3	278.6	43.4

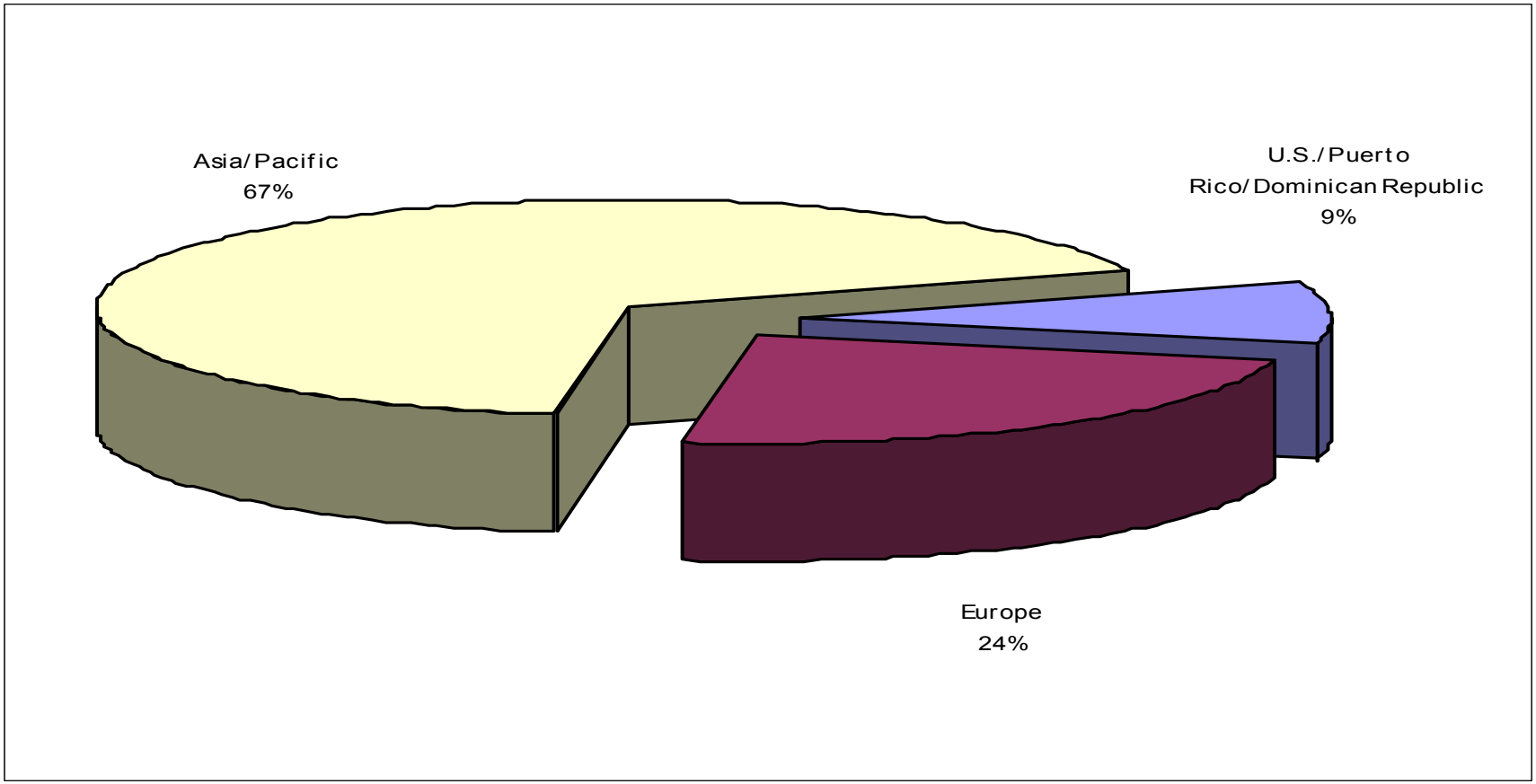
LNG Liquefaction Capacity – Bcf/Year



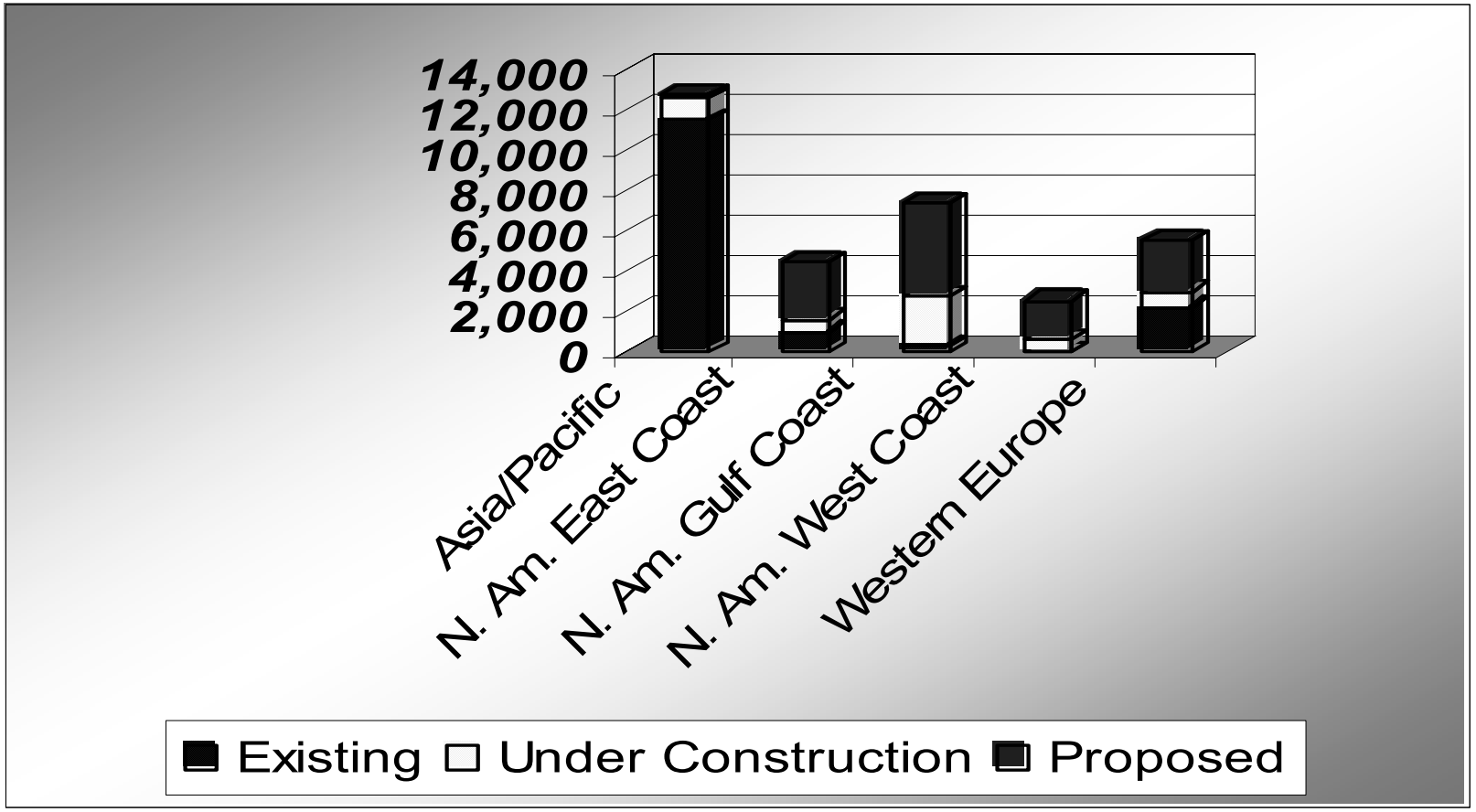
LNG Liquefaction Regions



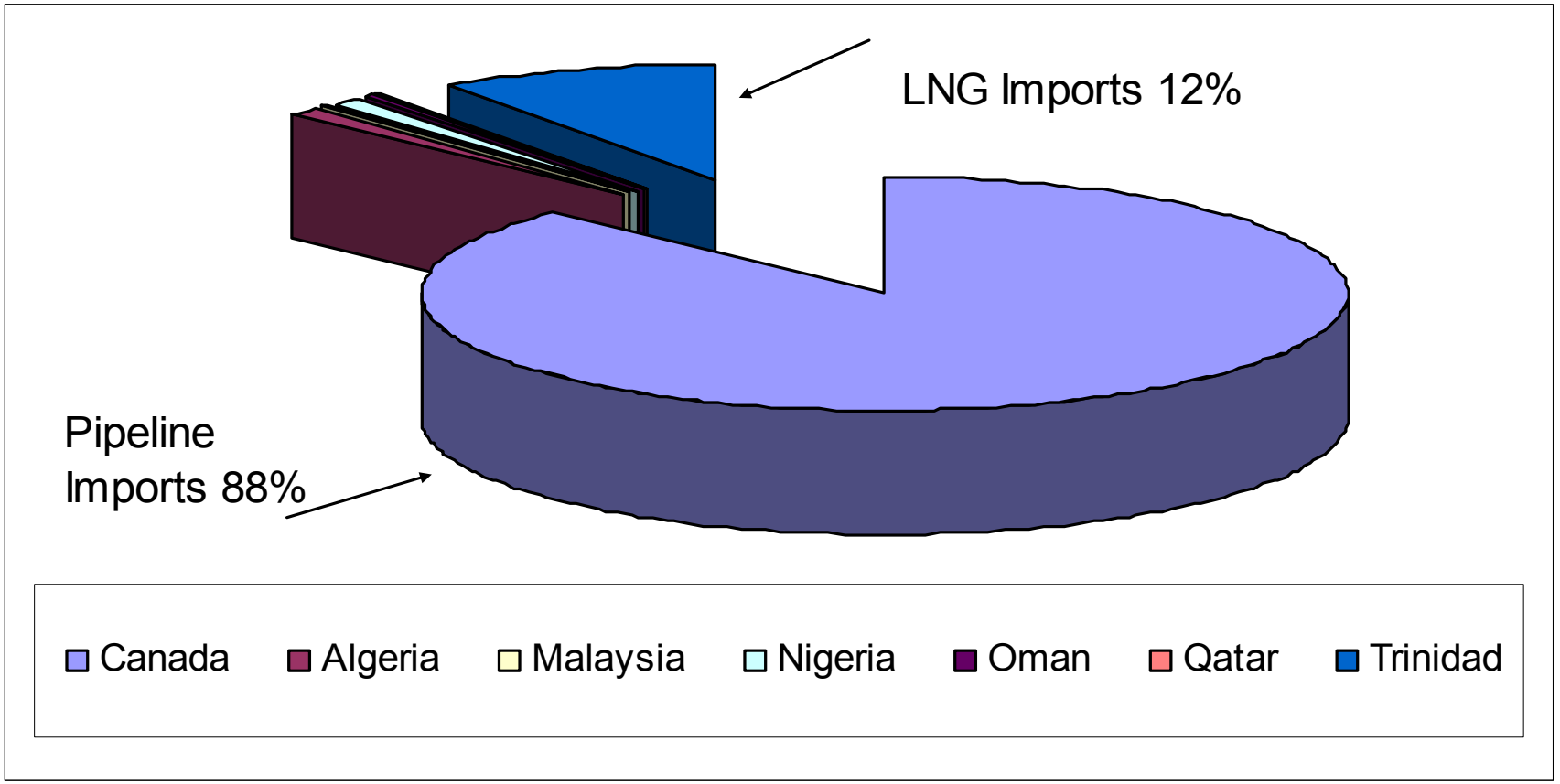
LNG Importers By Regions - 2003



LNG Regasification Facilities



United States Natural Gas Imports - 2003



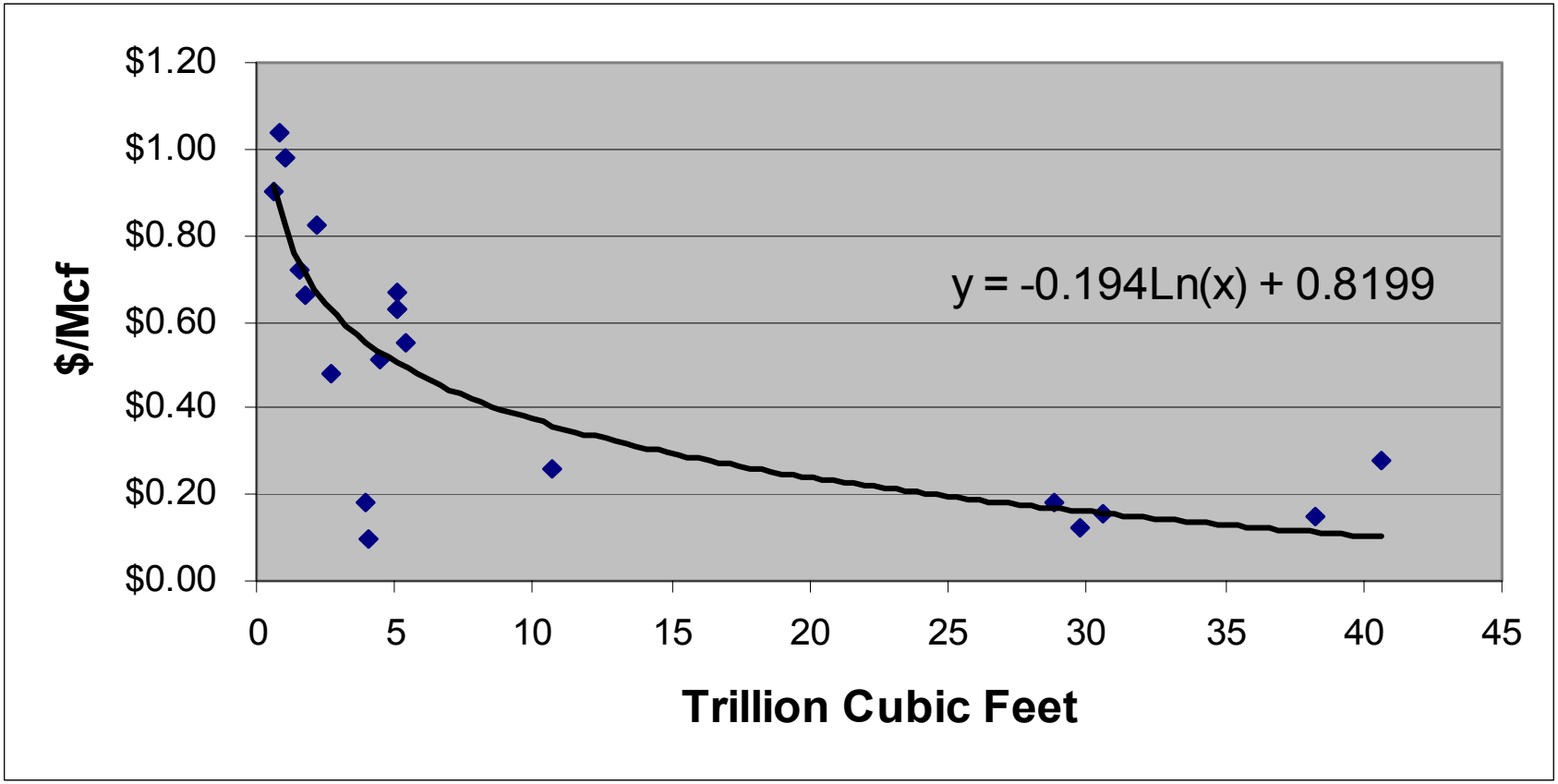
LNG Regasification Terminals - North America

U. S. LNG Supply Evaluation

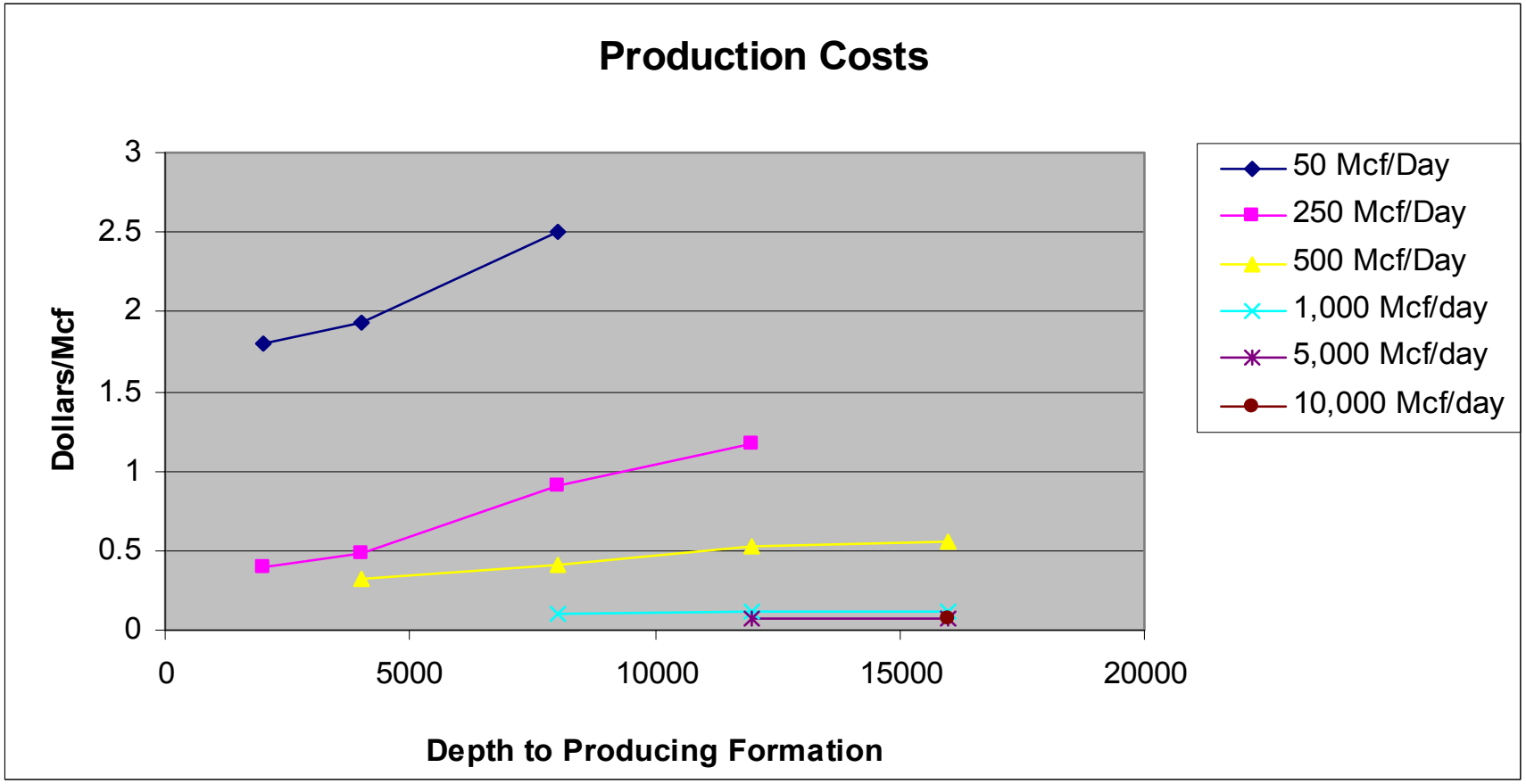
LNG Evaluation - Natural Gas Cost

- Assume a Natural Gas Cost of $0.50/Mcf to $1.00/Mcf
- Estimate the Cost Associated with Natural Gas Field Development and Production

Natural Gas Well Field Development Cost



Production Cost – Based on Volume and Producing Formation Depth



LNG Evaluation – Liquefaction Facilities

- Capacity Based on Operating 340 Days/Year
- Processing Loss at 9%
- Grassroots $280MM/Ton
- Expansion $160MM/Ton
- Replacement Capital at 12% of Original Capital
- Operating Cost 5% of Original Capital
- Credit for Natural Gas Liquids

LNG Evaluation - Tanker Transportation

- Tanker Capacity 135,000 Cubic Meters
- Day Rate of $75,000 / Day
- Travel Speed 20 Knots
- Days in Service 330 Days/Year
- Port Time per Trip 2 Days
- Boil Off 0.2 Percent per Day of Travel

LNG Evaluation - Regasification Terminals

- Capacity Based on Operating 340 Days/Year
- Processing Loss at 2.5%
- Grassroots $75MM/Ton
- Expansion $45MM/Ton
- Replacement Capital at 12% of Original Capital
- Operating Cost 4% of Original Capital

Comments