

NATIONAL PETROLEUM COUNCIL
REPORT OF THE COMMITTEE ON
AVAILABILITY OF LIQUEFIED PETROLEUM GAS

CHAIRMAN OF THE COMMITTEE: W. K. WARREN

OCTOBER 3, 1957

NATIONAL PETROLEUM COUNCIL

OFFICERS

Walter S. Hallanan, Chairman R. G. Follis, Vice-Chairman
James V. Brown, Secretary-Treasurer

HEADQUARTERS OFFICE

601 Commonwealth Building
1625 K Street, N. W.
Washington 6, D. C.

Telephone:

EXecutive 3-5167

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF OIL AND GAS
Washington 25, D. C.

C
O
P
Y

March 1, 1957

Mr. Walter S. Hallanan
Chairman, National Petroleum Council
1625 K Street, N. W.
Washington, D. C.

Dear Mr. Hallanan:

There have been significant changes in the productive capacity for liquefied petroleum gases and transportation facilities for the movement thereof since the National Petroleum Council completed its report in October 1951.

It is requested that the National Petroleum Council make a study of the probable availability by principal producing areas of liquefied petroleum gases by principal products, such as propane, butane, and isobutane, and submit a report thereon with such recommendations as may be appropriate.

A study of transportation facilities for liquefied petroleum gases is not included herein because another request is being made to the National Petroleum Council for an overall transportation study.

Sincerely yours,

/S/ H.A. Stewart
Director

COMMITTEE ON AVAILABILITY OF LIQUEFIED PETROLEUM GAS

CHAIRMAN: W. K. Warren
Warren Petroleum Corporation

SECRETARY: Allen S. James
Warren Petroleum Corporation

Earl Baldrige
Champlin Oil & Refining Company

S. B. Mosher
Signal Oil and Gas Company

Max M. Fisher
Aurora Gasoline Company

John F. O'Shaughnessy
The Globe Oil and Refining Company

D. A. Hulcy
Lone Star Gas Company

Sid Richardson
Sid Richardson, Incorporated

W. W. Keeler
Military Petroleum Advisory Board

Augustus C. Long
The Texas Company

W. G. Skelly (deceased)
Skelly Oil Company

George T. Tennison
Natural Gasoline Association of
America

TECHNICAL AND STATISTICAL SUB-COMMITTEE

CHAIRMAN: W. R. Lund
Warren Petroleum Corporation

J. Howard Johnson
The Texas Company

J. B. Taylor
Signal Oil & Gas Company

Robert N. Sears
Phillips Petroleum Company

Charles B. Johnson, Jr.
Champlin Oil & Refining Company

W. P. Vogelgesang
Skelly Oil Company

REPORT OF NATIONAL PETROLEUM COUNCIL'S
COMMITTEE ON AVAILABILITY OF LIQUEFIED PETROLEUM GAS

This report has been prepared pursuant to action of the National Petroleum Council at its meeting on March 7, 1957 in approving recommendations of its Agenda Committee with reference to requests contained in a letter dated March 1, 1957 from Mr. H. A. Stewart, Director, Office of Oil and Gas, United States Department of the Interior, to Mr. Walter S. Hallanan, Chairman.

Preparatory to obtaining the data necessary for completion of this Committee's report, the Chairman requested each Committee member to suggest an individual in his own company - or in another company if he so desired - for appointment to a Technical and Statistical Sub-committee.

Following replies to this request, the Chairman appointed the six suggested individuals to that Sub-committee.

A questionnaire was designed to determine expected changes in liquefied petroleum gases availability for the year 1957, and to determine the quantity of liquefied petroleum gases that could be made available under two assumed conditions in the event of a national emergency, that would necessitate the lifting of proration of crude oil and natural gas production. Those two assumed conditions were:

1. Maximum availability through present facilities.
2. Maximum availability through facilities which would be expanded to recover as much as possible from the available gas supply.

The widespread mailing of this questionnaire form was greatly facilitated through co-operation of the Bureau of Mines, which supplied its mailing list used in connection with its statistical data gathering.

Industry response to the survey was excellent. The information requested was received from companies operating almost 100 per cent of total industry capacity as of the end of 1956.

The data was assembled into three tables showing, by districts, by products, and by type of plant, the actual 1956 production as reported by the Bureau of Mines, anticipated changes in liquefied petroleum gases productive capacity in 1957, and the probable availability under the above two conditions in the event of a national emergency.

The more interesting indications of the survey findings are:

- (1) Capacity availability of liquefied petroleum gas and the principle liquefied petroleum gas products could increase during 1957 by the gallonages shown below. This is a measure of the increased capacity to produce liquefied petroleum gas at new and at present plants and is not a dependable indicator of the actual increase which might be expected in liquefied petroleum gas production in 1957.

Anticipated U.S. Increase
In LP-Gas Productive
Capacity in 1957

(000's of Gallons)

Total All LP-Gas	816,619
Propane	517,954
Butanes	234,642
Iso Butane	40,001

- (2) Maximum availability through present plant facilities under emergency conditions as shown below could be substantially greater than present production and with expanded plant facilities the reports indicate that liquefied petroleum gas availability could be increased by more than 81 per cent.

	<u>Emergency LP-Gas Availability</u>	
	(1)	(2)
	<u>Present Plant</u>	<u>Expanded Plant</u>
	(000's of Gallons)	
Total All LP-Gas	12,189,542	15,383,003
Propane	6,053,409	7,861,547
Butanes	3,036,404	3,992,842
Iso Butane	582,682	866,597

- (3) Liquefied petroleum gas availability in 1957 will increase in all but one of the thirteen refining districts, but the amount of increase will vary from less than 5 per cent of 1956 production in four of the districts to more than 20 per cent of 1956 production in another four of the districts.
- (4) Under emergency conditions the greatest potential increase in availability over present actual production would be in the Texas Inland, Texas Gulf Coast and Oklahoma-Kansas-Missouri refining districts.
- (5) Under both normal and emergency conditions availability of all individual liquefied petroleum gas products would increase, with the exception of Butane-Propane Mixtures.

- (6) Under normal conditions the larger increase in liquefied petroleum gas availability would be at refineries, but under emergency conditions the larger increase would be at natural gas liquids plants.

The Committee wishes to include in this report an expression of its sincere thanks to the industry for its splendid cooperation, and to the Technical and Statistical Sub-committee for its excellent handling of this difficult assignment.

I move the adoption of this report.

W. K. Warren, Chairman

NATIONAL PETROLEUM COUNCIL SURVEY - 1957

PROBABLE AVAILABILITY OF LP-GAS
IN 1957 AND UNDER EMERGENCY CONDITIONS
(000's of Gallons)

	Actual 1956 Production Bureau of Mines	Anticipated Plant Capacity Increase-1957	Emergency LP-Gas Availability	
			(1) Present Plant	(2) Expanded Plant

Table 1
By District

East Coast	218,694	76,535	428,266	471,704
Appalachian #1	172,192	-4,241	325,848	336,618
Appalachian #2	18,469	3,079	35,445	35,951
Ind., Ill., Ky.	696,292	20,472	965,600	1,172,608
Minn., Wis., N & S. Dak.	46,312	15,279	90,158	90,158
Okla., Kans. Mo.	869,253	113,031	1,363,233	1,769,738
Ark., La. Inland	244,747	1,129	310,888	335,339
La. Gulf Coast	629,410	94,703	967,822	1,054,270
Texas Gulf Coast	1,352,915	280,638	1,998,524	2,214,517
Texas Inland	3,081,336	86,854	3,912,467	5,657,653
New Mexico	308,720	55,773	578,488	922,172
Rocky Mountain	143,351	28,821	279,902	367,660
West Coast	700,368	44,546	932,901	954,615
Total U. S.	8,482,059	816,619	12,189,542	15,383,003

Table 2
By Products

Propane	4,096,372	517,954	6,053,409	7,861,547
Butane	2,043,675	234,642	3,036,404	3,992,842
Iso Butane	410,821	40,001	582,682	866,597
B-P Mix	847,148	-76,839	636,004	633,955
Other Mix	1,084,043	100,861	1,881,043	2,028,062
Total U. S.	8,482,059	816,619	12,189,542	15,383,003

Table 3
By Type of Plant

Natural Gas Liquids Plant	6,299,655	321,085	8,444,546	11,180,779
Refinery	2,182,404	495,534	3,744,996	4,202,224
Total U. S.	8,482,059	816,619	12,189,542	15,383,003

