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Executive Registry
82-475814

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4 MAY 1982

DDLF
8 May 82

ER

MEMORANDUM FOR: Deputy Director of Central Intelligence

FROM : Robert M. Gates
Deputy Director for Intelligence

SUBJECT : Under Secretary of State Buckley's Request [redacted] 25X1

1. Action Requested. The attached package for your signature is in response to Under Secretary Buckley's request for additional analysis on European alternatives to Soviet gas. [redacted] 25X1

[redacted] 25X1

2. Background. A portion of the package has already been delivered to the Under Secretary's special assistant for use by an inter-agency working group. The group met on 26 April at Buckley's request to discuss a follow-up to the energy portion of [redacted] OGI has a representative on the working group. [redacted] 25X1 25X1

Robert M. Gates [redacted] 25X1

Attachment:
As stated

25X1

[redacted]

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SUBJECT: Under Secretary of State Buckley's Request

Distribution:

Orig - Addressee

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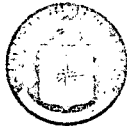
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DDI/OGI/ED/ (3 May 1982)

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Washington, D.C. 20505

Executive Registry
82-4758/A

5 MAY 1982

The Honorable James L. Buckley
Under Secretary for Security Assistance,
Science and Technology Affairs
Department of State
Washington, D.C. 20520

Dear Jim:

25X1

Thank you for your letter of April 26. I was pleased to hear that our people have been so helpful to you [redacted]

[redacted]

25X1

Enclosed is a complete package of materials we have put together on the potential sources of supply available to the Europeans [redacted]

25X1

[redacted] In addition to the graphics, we have provided some textual material to indicate the potential of each supplier as we now see it. The timing and size of new gas deliveries could be affected somewhat by the political climate in the supplier country. [redacted]

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A partial version of this package has already been provided to your special assistant, Michael Marks, and to Bill Martin for distribution to members of his working group. If we can be of further assistance, please contact me. [redacted]

25X1

25X1

Please accept my best wishes. [redacted]

25X1

Sincerely,

B. R. Inman

B. R. INMAN
Admiral, U.S. Navy
Acting Director of Central Intelligence

Enclosure

25X1

[redacted]

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Diversifying European Gas Supplies

Over the next two decades, West European gas consumption will probably rise both in absolute terms and as a proportion of total energy used. Moreover, existing gas contracts imply increasing dependence on non-European supplies. Some West European countries already have signed contracts that will make them dependent on the Soviet Union for more than one-third of their gas supplies in 1990. Although sizable new supplies of gas must be lined up to meet expected growth in demand, the next two to three years offer a window of opportunity during which projects could be launched that would obviate the need for additional European purchases of Soviet gas in the 1990s. These new supplies might account for 50-70 billion cubic meters (bcm) by the year 2000. [REDACTED]

25X1

Because of the highly capital intensive and dedicated nature of gas supply infrastructure, gas supplies cannot be efficiently redistributed by market mechanisms in the event of a sudden disruption of supplies. Consequently, some relatively expensive gas development projects might be undertaken in order to diversify supplies and minimize dependence on potentially unreliable producers. [REDACTED]

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Assessment of the relative costs of alternative gas supplies depends heavily on assumptions about the interest rates charged for project financing. For the Soviet pipeline project, reducing the effective interest rate by 3 percentage points from current market rates of 15 percent would cut 10 to 15 percent from the estimated cost of delivering gas to Europe. The Soviets may have received effective interest rate subsidies of this amount or more. The cost of future alternatives to Soviet gas will depend on the extent to which similar interest rate subsidies are offered for these projects. [REDACTED]

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The Netherlands, currently Europe's largest gas supplier, would be the most reliable and economical source of additional gas. The volume of Dutch gas available in the late 1990s, however, would probably be less than 10 bcm per year.

- o Gas deliveries under existing contracts--due to phase out in the early 1990s--can probably be stretched through the mid 1990s by deferring gas deliveries from earlier years when available supplies exceed demand.
- o Given the size of Dutch gas reserves and the budgetary pressures confronting the Hague, we believe new export contracts might be authorized. [REDACTED]

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Norwegian gas offers a secure, but costly alternative to Soviet gas. Norway could potentially supply an additional 40 to 50 bcm in the mid-1990s. [REDACTED]

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- o Norway has huge gas reserves--presently about 2.6 trillion cubic meters--and the government believes there is considerable potential to add to this total.
- o Norway's new conservative government has already taken steps to accelerate resource development; however, additional measures would be required to reach full export potential.
- o If a triangular gas deal can be arranged--using the UK as a conduit for delivering gas to the Continent--substantial savings of time and money could be realized in delivering 10-15 billion cubic feet of gas to Europe beginning in the early 1990s.
- o Given the high cost of developing Norway's gasfields and building major trunklines to the Continent, large additional supplies of Norwegian gas would probably cost 15-20 percent more than Soviet gas if no interest rate subsidies were offered for the Norwegian project.

25X1

Algerian gas can be produced and delivered to Europe at well below the cost of Norwegian gas. An additional 5-6 bcm could probably be delivered through existing Trans-Mediterranean pipelines and up to 15 bcm through a new pipeline to Spain.

- o Field development costs are relatively low and the feasibility of undersea pipeline connections to Western Europe has been proven.
- o On the other hand, Algeria's militant pricing policy and its unilateral suspension of gas deliveries to France and the United States in 1980 label it as a potentially unreliable supplier.

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All the liquefied natural gas (LNG) projects under consideration to supply Western Europe would probably be expensive because of high delivery costs. Some of the projects must overcome political uncertainties.

- o Canada could supply 5 bcm of gas to Europe beginning in 1990 if technologies for exporting LNG from arctic waters are proven.
- o Although the original proposal for Nigeria's Bonny LNG project has collapsed, a scaled down version of the project--to deliver 8 bcm--might be completed.
- o The Cameroon's Kribi LNG project could supply 7 bcm in the early 1990s if political and institutional problems can be overcome.

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- o Qatar has huge gas reserves in its North gasfield and might supply 8 bcm late in the 1990s. [REDACTED]

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Proposed gas pipelines from Africa or the Middle East to Western Europe are probably not politically or economically practical.

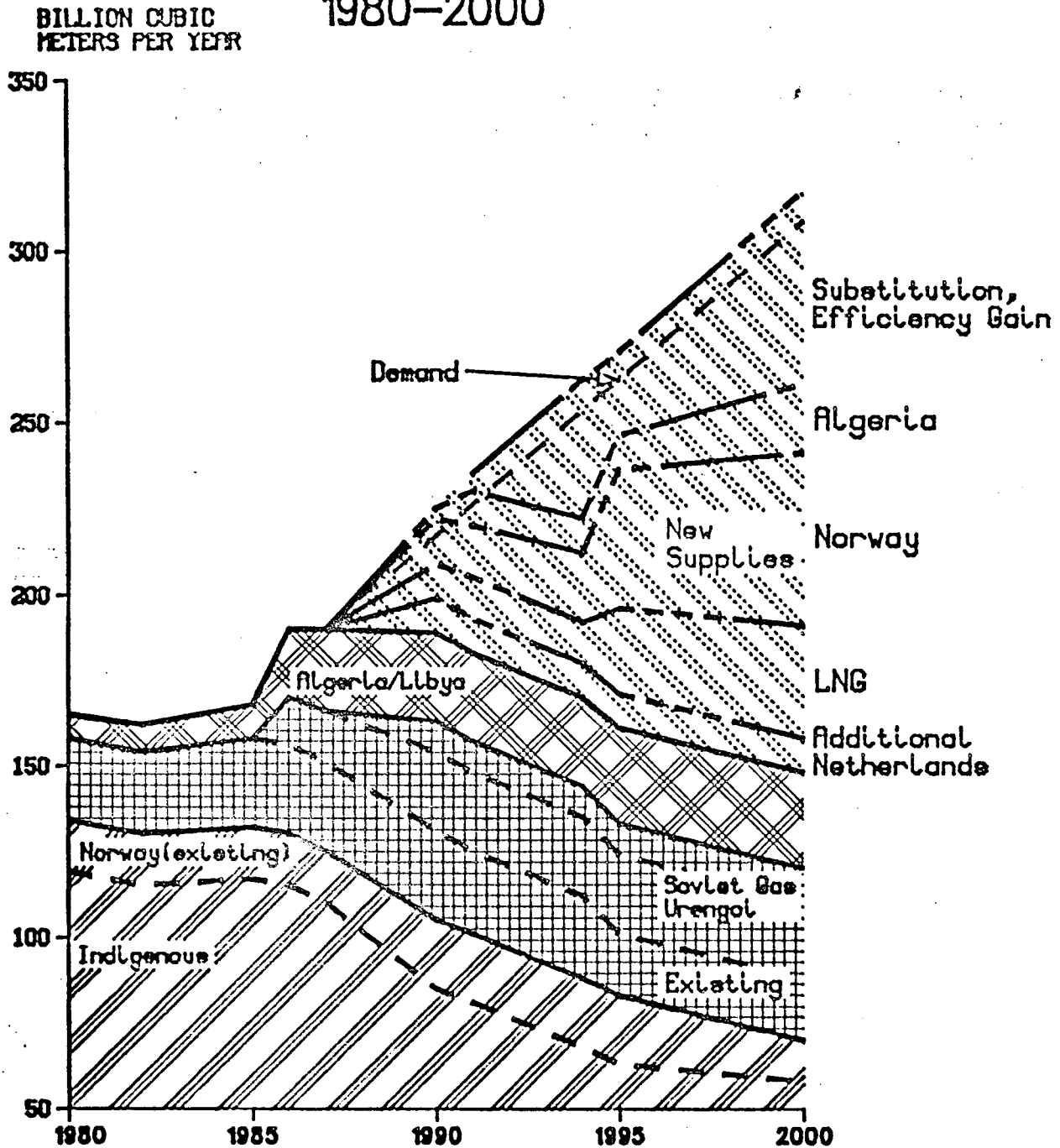
- o Any such pipeline would probably cross several unstable countries and could cost from \$30 to 60 billion.
- o Supplies from a Trans-African pipeline, carrying gas from Nigeria and Cameroon to Europe would be subject to disruption in any of the countries crossed and, in any event, would probably face high transit fees. [REDACTED]

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Continental Europe: Natural Gas Supply and Demand Forecast 1980-2000



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Additional Gas Supplies for Italy

- o Algeria. Although Italy originally planned to use the possibility for an additional 5-6 bcm/yr through the Trans-Mediterranean Pipeline to supply other European consumers, this prospect is less likely due to German/French agreement on Soviet deliveries. Thus, assuming a new contract is arranged with Algeria, the additional volumes would equate to about 70 percent of what Italy plans to receive from the Siberian Pipeline. However, pricing issues must be resolved on the 12 bcm under the present contract with Algeria before additional quantities are contemplated. [REDACTED] 25X1
- o Nigeria. Italy has an agreement to receive 1.4 of the 8 bcm/yr destined for Europe from the Nigerian LNG project. While this project as originally envisioned is now dead, the IEA Secretariat still believes that an 8 bcm/yr project is likely to go ahead. (The original Bonny project was foreseen to have a capacity of about 16 bcm.) This and other possible LNG projects (from Cameroon, Qatar, Egypt, or Northern Norway) would require additional receiving facilities--even if the La Spezia facilities are no longer used for Libyan exports. [REDACTED] 25X1
- o Qatar. A Qatar LNG facility, which would export 8-8.5 bcm/yr, could be completed as early as the late 1980s, although a mid-1990s date seems more likely. Development of this project has received more emphasis because of declines in revenue brought about by declining oil production and lower oil prices. [REDACTED] 25X1
- o Cameroon. Although sufficient reserves still need to be proved, industry sources are optimistic that a LNG project of 5 bcm/yr is possible. [REDACTED] 25X1
- o Norway. Within the OECD, Norway emerged as the largest potential exporter after 1990. Reserves are immense, but long lead times to develop fields and transportation systems are likely to prohibit significant additional Norwegian supplies to the Continent before the early 1990s. By the end of the century, the Norwegians could more than double their present exports and contribute at least as much as the proposed Siberian Pipeline. Lead times for some fields might be significantly reduced if the Norwegians could use the UK as a conduit for shipping supplies to the Continent. If Italy begins negotiations soon, it could conceivably contract for 5 to 10 bcm/yr of gas from Norway which could arrive as soon as the mid-1990s. [REDACTED] 25X1

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- o Egypt/Libya/Persian Gulf. Recent gas discoveries by ENI have provided optimism for Egypt. A senior vice-president of ENI has indicated that substantial new reserves are likely to be added in the 1980s, making Egypt a possible exporter of LNG in the 1990s. The Italian firm AGIP has already made a sizable discovery off the Libyan coast. Discussions of possible natural gas pipelines from the Persian Gulf are now at a very preliminary stage. Such a project would probably not be possible before the mid-1990s. Nonetheless, the sizable gas reserves of the area might warrant the construction of a pipeline if political and security concerns could be reduced. [REDACTED]

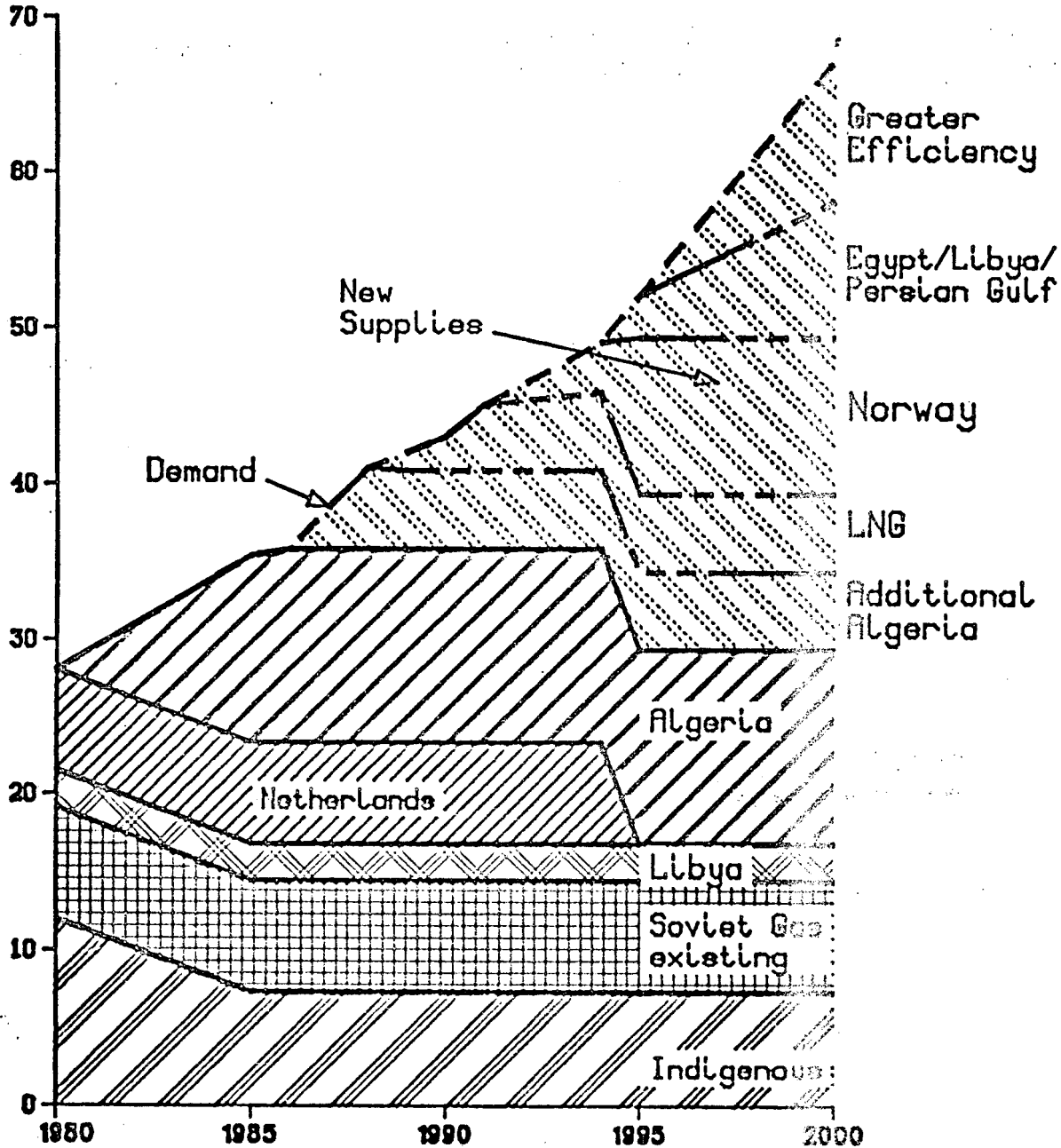
- o Greater Efficiency. Higher gas prices have already stimulated significant efficiency improvements in Italy. Further progress, particularly in the residential sector could be expected to trim gas consumption from projected levels. In addition, there remains significant scope for added coal burning by industry in Italy. Current plans for industrial use of coal foresee an increase from 4.7 MTOE in 1980 to 7.1 MTOE in 1985 and 7.4 MTOE in 1990. If Italy would push to continue the same level of penetration in the second half of the decade as in 1980-85 period, the equivalent of nearly 3 bcm/yr could be switched to coal instead of the current plan for 0.4 bcm. There might also be some small potential to switch coal for gas in the electrical sector after 1990. U.S. coal could meet this added demand in addition to existing commitments to supply coal to Italy. [REDACTED]

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Italy: Natural Gas Supply and Demand Forecast 1980-2000

BILLION CUBIC
METERS PER YEAR



25X1

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Italy (excluding additional Soviet Gas)

	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
Estimated Gas Demand	28	35.4	43	52	67
Indigenous Production	12	7.3	7.3	7.3	7.3
Contracted Supplies:					
Soviet Gas	7.1	7.1	7.1	7.1	7.1
Libya	2.4	2.4	2.4	2.4	2.4
Netherlands	6.5	6.5	6.5	0	0
Algeria	0	12.5	12.5	12.5	12.5
New Supplies:					
Additional Algeria	--	--	5	5	5
LNG	--	--	2.2	5	5
Norway	--	--	--	10	10
Egypt/Persian Gulf	--	--	--	2.7	8.7
Greater Efficiency	--	--	--	--	9

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Additional Gas Supplies for France

- o Netherlands. France should be able to extend deliveries under existing gas import contracts with the Netherlands for several years beyond 1994 by deferring gas deliveries from earlier years. Total gas available for import will probably exceed French needs through the 1980s. Based on gas demand estimates in the French national energy plan, the total surplus over the decade could exceed 15 bcm. If imports of Dutch gas were reduced accordingly in the 1980s, sizable deliveries of Dutch gas could be taken in the mid-1990s. [REDACTED]

25X1

Moreover, given the size of Dutch gas reserves and the budgetary pressures confronting the Hague, we believe it is likely that new contracts will be signed for Dutch gas exports. France could possibly purchase an additional 2-3 bcm per year through the 1990s from the Netherlands. [REDACTED]

25X1

- o Algeria. Additional supplies of Algerian gas-- available as LNG or via a pipeline link through Spain or Italy--could provide France 4-5 bcm of gas by the year 2000. The French, however, have been reluctant to increase purchases of Algerian gas because of price and reliability factors. [REDACTED]

25X1

- o LNG. Additional LNG supplies could be available by the early 1990s from Nigeria, Cameroon, or Qatar. Nigeria probably will go ahead with a scaled down version of the Bonny LNG project eventually from which France could be expected to import about 1 bcm per year. The Kribi LNG project in the Cameroon is a more likely source of gas for France, perhaps as much as 2 bcm per year in the 1990s. A Qatar LNG project would probably not be completed until the mid-1990s, but could supply additional gas to France late in the decade. [REDACTED]

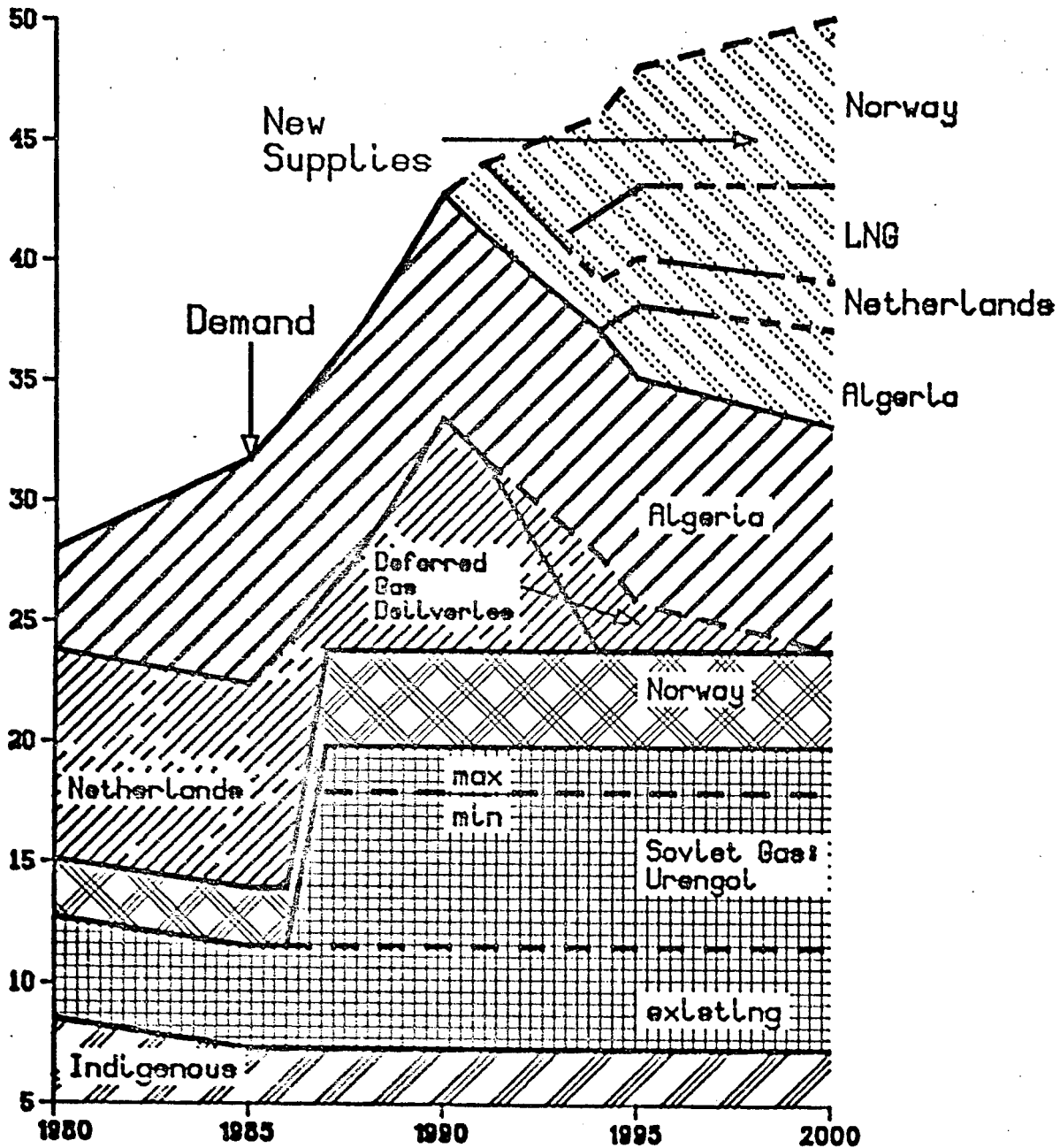
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- o Norway. France could probably purchase 5-10 bcm of gas from Norway in the late 1990s provided steps are taken to encourage Norwegian gas development. A pipeline link to the Continent from Norway's Troll field (Block 31/2) might alone supply 30-40 bcm to the European market. [REDACTED]

25X1

France: Natural Gas Supply and Demand Forecast 1980-2000

BILLION CUBIC
METERS PER YEAR



25X1

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France

	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
Estimated Gas Demand	28	31.7	42.7	48	50
Indigenous Production	8.5	7.3	7.3 ^f	7.3	7.3
Contracted Supplies:					
Soviet Gas					
Existing	4.2	4.2	4.2	4.2	4.2
Urengoi Min	--	6.4	6.4	6.4	6.4
Max	--	8.5	8.5	8.5	8.5
Norway	2.4	2.4	4.0	4.0	4.0
Algeria	4.2	9.3	9.3	9.3	9.3
New Supplies:					
Algeria	--	--	--	3	4
Netherlands	--	--	--	2	2
LNG	--	--	--	3	4
Norway	--	--	--	5	7

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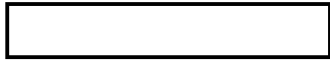
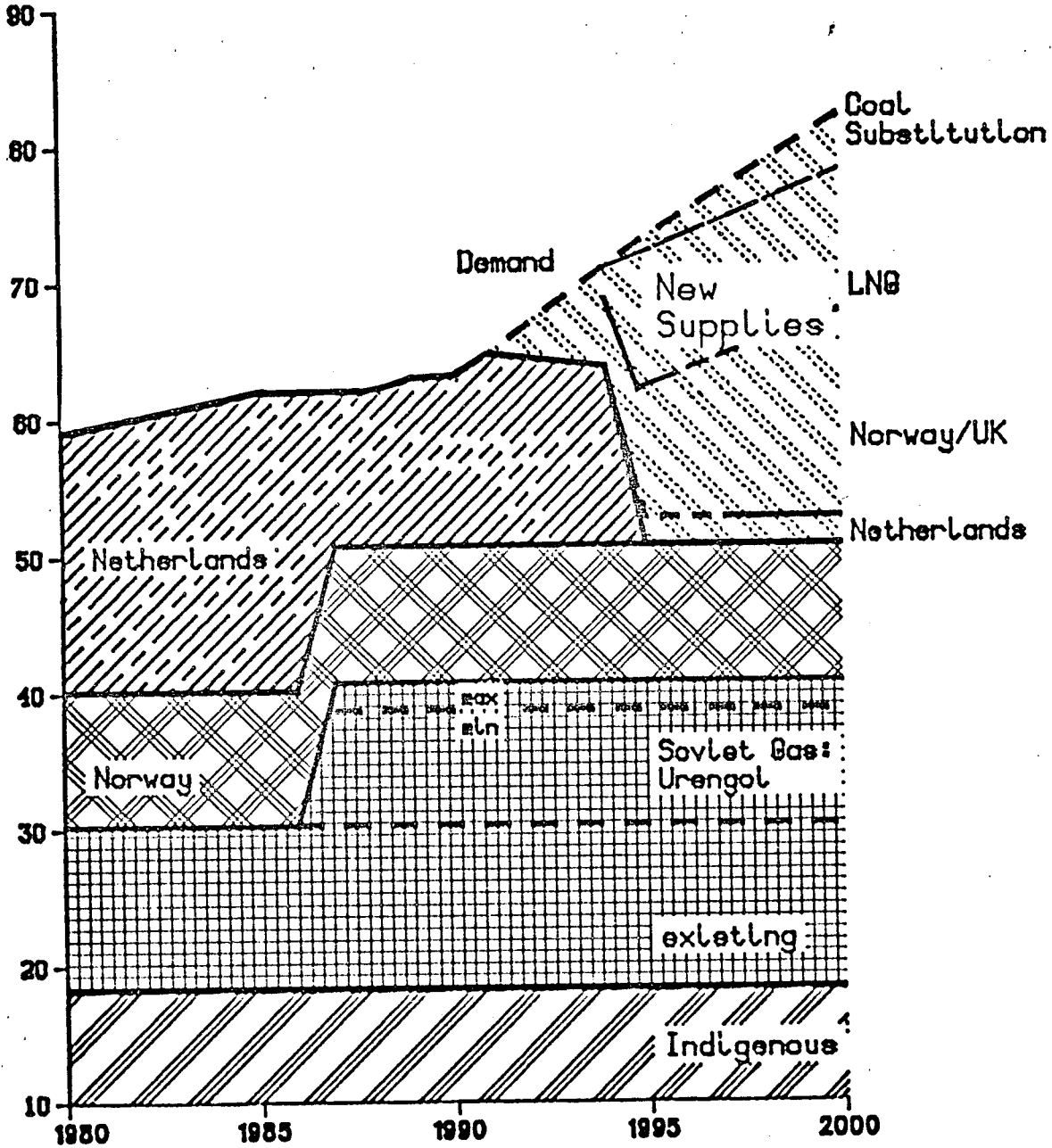
Additional Gas Supplies for West Germany

- o Netherlands. New contracts for gas imports from the Netherlands could probably supply West Germany an additional 2 bcm per year through the 1990s. In addition, deliveries of gas under existing Dutch contracts will probably be stretched beyond 1985 because of deferred deliveries from earlier years. [REDACTED] 25X1
- o Norway. Germany could probably purchase a large share of the 40 to 50 bcm per year available to Europe from Norway in the mid-to-late 1990s. If Norway's Sleipner field were linked to the United Kingdom in a triangular gas deal, some additional supplies of Norwegian gas would be available by 1990. [REDACTED] 25X1
- o LNG. LNG supplies from the Canadian arctic and from Qatar could provide additional supplies beginning in the 1990s. Preliminary agreements have already been reached with Canada to import 5 bcm per year of gas produced from the King Christian Island area of the Canadian arctic beginning as early as 1989. An LNG project to export gas from Qatar's huge North gasfield could support exports of more than 8 bcm per year but would probably not be on-line until the mid 1990s. [REDACTED] 25X1
- o Coal Substitution. Additional substitution of coal for gas in industrial uses could reduce gas usage in Germany 3 to 4 bcm per year by 2000. [REDACTED] 25X1

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West Germany: Natural Gas Supply and Demand Forecast 1980-2000

BILLION CUBIC
METERS PER YEAR



25X1

West Germany

	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
Estimated Gas Demand	59	62	63	73	82
Indigenous Production	18.3	18.3	18.3	18.3	18.3
Contracted Supplies:					
Soviet Gas					
Existing	11.9	11.9	11.9	11.9	11.9
Urengoi	8.4	8.4	8.4	8.4	8.4
Min					
Max	10.5	10.5	10.5	10.5	10.5
Norway	9.9	9.9	10.0	10.0	10.0
Netherlands	20.2	23.2	15	0	0
New Supplies					
Netherlands	--	--	--	2	2
Norway/UK	--	--	--	12	16
LNG	--	--	--	7.3	9.3
Coal Substitution	--	--	--	1	4

Office of the
DEPUTY DIRECTOR FOR INTELLIGENCE

April 28, 1982

NOTE FOR: EO/OGI

Buckley

Bob would like you to respond to the attached request from Buckley. Please have your response in to me by 1200 hours on 3 May. Your response should be in the form of a letter for the DDCI's signature (Inman will be acting on that date). Please provide a covering memo, for the DDI's signature, to the DDCI explaining what the request is all about. Also, coordinate your response, as appropriate, with EURA. Thanks.



DDI Action Officer

cc: D/EURA

L. J. CARRY

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Continental Europe: Natural Gas Supply and Demand Forecast 1980-2000

