

Decision No. 87306

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the application of  
PACIFIC GAS AND ELECTRIC COMPANY for  
a certificate of public convenience  
and necessity authorizing it to  
construct, operate, maintain, and use  
an underground natural gas storage  
project in the Los Medanos Gas Field,  
together with related facilities in  
Contra Costa County, California.

Application No. 55992  
(Filed October 7, 1975)

(Gas)

Kathy Graham, Attorney at Law, for Pacific  
Gas and Electric Company, applicant.  
William N. Schlax, for himself; and  
James Geoffrey Durham, for California  
Farm Bureau Federation; interested  
parties.  
James T. Quinn, Attorney at Law, and  
John L. Dutcher, for the Commission staff.

O P I N I O N

Applicant's Request

In this proceeding Pacific Gas and Electric Company (PG&E) seeks an order of the Commission issuing a certificate under Section 1001 of the Public Utilities Code of the State of California declaring that the safety, health, comfort, and convenience of the public and the present and future public convenience and necessity require or will require the construction, installation, operation, and maintenance of the Los Medanos Gas Storage Field, together with related facilities.

Hearings were held in Concord before Examiner Coffey on November 7, 1976. The Final Environmental Impact Report was issued on December 28, 1976. An exception to the report was filed on January 20, 1977, by the Public Utilities Commission staff attorney. Thereon, the matter was submitted for decision.

PG&E's Proposal

In this proceeding PG&E seeks a certificate to convert the Los Medanos Gas Field to a gas storage field. The gas field is located in the Los Medanos Hills of Contra Costa County and is crossed by an existing gas pipeline, Standard Pacific Gas Line Company's STANPAC 3, leading to major demand areas in the northern part of the East Bay. The field has an estimated storage capacity of 17.6 billion standard cubic feet (scf) of gas. The gas-bearing sands which will be used for storage are approximately 150 feet thick and lie 4,000 feet below the surface. A caprock of impermeable shale lies directly above this gas-bearing sand; salt water is generally found in the pores below the gas.

In order to develop the field for gas storage PG&E intends to construct a compressor station and eighteen injection and withdrawal wells. The wells, which will be located in five different sites, will be connected by piping to the compressor station.

PG&E intends to fill the gas storage field during the summer with gas made available by excess primary supply or by curtailing low priority uses. The gas in the field will then be available to serve its high priority customers on an abnormal peak day during the winter or during an emergency at any time when normal supplies of gas are inadequate. It will also be an available gas source for use in meeting high priority customer annual cycle volume requirements.

The need for the facility proposed by PG&E is demonstrated by the report "Ten Year Forecast of Gas Utilities' Requirements and Supplies 1976-1985", prepared by the Commission staff. It appears that existing supplies are not going to be able to meet the high priority peak demand for gas in the upcoming years. The report states "In the absence of deliveries from supplemental sources, it would appear that curtailment of high priority service would begin in the early eighties." In view of this supply and demand outlook, the Commission staff concluded that this project is very necessary.

PG&E desires to proceed with the installation of Los Medanos Gas Storage Field to provide an additional source of gas for its high priority gas customers to meet their peak demands.

The financial ability of PG&E to construct and operate the proposed unit is shown in PG&E's annual report to the Commission for the year ended December 31, 1976, filed with the Commission and incorporated herein by reference. PG&E proposes to finance the construction of this project by using, to the extent available, its working capital, monies in reserve, funds not required for immediate use, and the proceeds of the issue and sale of such stocks, bonds, notes, or other evidences of indebtedness as the Commission shall hereafter, by proper application, authorize for that purpose.

Rates to be charged for service to be rendered by means of the construction proposed herein are the PG&E system gas rates now in effect or as may be authorized by the Commission in the future.

#### Governmental Agencies

The governmental agencies from which approvals are required for construction of the gas storage project, or portions thereof, other than this Commission, are the Contra Costa County Planning Commission, the Central Valley Regional Water Quality Control Board, and the California State Division of Oil and Gas.

Environmental Matters

A comprehensive record on environmental matters was developed in this proceeding through public hearings, preparation of a Draft EIR by our staff, and consultation with public agencies, all of which are elements in the EIR process culminating in the issuance of the Final EIR.

This decision includes, pursuant to Rule 17.1 of our Rules of Practice and Procedure, a series of findings based on the Final EIR's coverage of (a) the environmental impact of the proposed action; (b) any adverse environmental effects which cannot be avoided if the proposal is implemented; (c) mitigation measures proposed to minimize the impact; (d) alternatives to the proposed action; (e) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; (f) any irreversible environmental changes which would be involved in the proposed action should be implemented; and (g) growth-inducing impact of the action.

Findings of Fact

1. Undisputed evidence demonstrates the need for the gas storage to be provided by the Los Medanos Gas Storage Field.

2. PG&E is a publicly regulated utility engaged in the transmission and distribution of natural gas in northern and central California.

3. Development of this gas field as a gas storage field is in the best interests of the state.

4. Storage of natural gas in the Los Medanos natural gas field has some advantages over other forms of storage:

- a. Its use will produce a minimal adverse effect on the environment, as present land use is compatible with the proposed project and there will be little visual impact associated with the new construction at the field.

- b. The Los Medanos gas field is crossed by an existing gas transmission line which makes it very well suited for PG&E's use.
5. The Los Medanos Underground Gas Storage Project has some disadvantages in comparison with other forms of storage:
  - a. The requirement to withdraw gas early in the winter to satisfy annual storage cycle requirements limits the usefulness of the field for abnormal peak day requirements.
  - b. Construction will be difficult because of the hilly terrain, requiring more complicated drilling procedures and making disposal of wastes more difficult.
  - c. Over five billion cubic feet of natural gas must be dedicated as cushion gas for the life of the field; alternate fuels cannot be used for this purpose.
6. Even though gas supplies are received on a nearly uniform basis year-round, the use by high priority customers is markedly peaked during the winter season.
7. Available gas supplies have declined as the result of normal deliverability reductions of producing gas fields combined with jurisdictional reallocation of expected supply by governmental agencies. New discoveries have not been sufficient to offset this decline.
8. Underground storage facilities present the most timely, viable means of equating the annual gas supply-demand balance under conditions of continuing decline of sources of flowing gas supply, together with continuing growth of high priority customer demand.
9. Applicant requires this gas storage facility to insure that it will be able to supply its high priority customers during an abnormal peak day during the winter and to meet high priority customer annual cycle volume requirements.
10. Applicant has purchased or will purchase all necessary land and mineral rights in order to construct, operate, and maintain this gas storage facility.

11. Applicant is taking adequate precautions to insure the safety of the general public. All construction will be in conformance with General Order No. 112-C. Potential hazards have been identified and adequate preventive measures will be taken to avoid or minimize hazards.

12. Evidence indicates that the Los Medanos Eocene Domengine structure and its contained gas are capable of withstanding substantial and severe seismic shocks.

13. Considering the evidence introduced by all parties to the proceedings, it is clear that adaption of the Los Medanos Gas Field to a gas storage facility is consistent with the public convenience and necessity.

#### Environmental Considerations

The Commission has carefully considered the evidence on environmental matters contained in the Final EIR and makes the following findings pursuant to Rule 17.1(j)(3) of its Rules of Practice and Procedure.

#### Environmental Impact of the Proposed Action

14. Applicant discussed the environmental impact of this proposed project in its Environmental Data Statement which was incorporated into the staff's Draft Environmental Impact Report. PG&E claims that the construction of the project will have little impact on the environment. Although the construction of the gas storage facilities will result in the emission of certain quantities of air pollutants, the emissions will not be in excess of air quality standards. Existing land uses will be relatively undisturbed, although there will be new construction in the area which will add a new man-made dimension to the environment. A compressor station will be built and new wells will be drilled.

Applicant states that its project will have little impact on the water supply in the area. However, the San Francisco Bay Regional Water Quality Control Board, in a letter dated September 20, 1976, to the staff, states that the disposal of drilling fluids at an authorized site has not been adequately dealt with and the Board suggests that the Final EIR should deal with what measures the applicant is taking to insure that fresh water is protected from these sump fluids. As pointed out by staff witness Dutcher, applicant has agreed to insure that no discharge from well-drilling sumps will occur. A minimum free-board will provide excess storage capacity in each sump equivalent to the rainfall from a hundred-year storm. Steps will also be taken to insure that fresh water run-off will not be allowed to enter the sumps and thereby cause sump discharge. Following well completion, all sump fluids will be taken to an authorized disposal site along with any contaminated soils. Plastic sumpliners will be used to protect the soil from contamination and thus eliminate or reduce the need for contaminated soil removal and disposal.

The noise from construction and operation of the underground storage facility will not significantly affect the environment.

We have reviewed the record, the Final EIR, the exception filed and find that granting the application will have no significant impact on land use, water, air, or noise quality.

Any Adverse Environmental Effects Which Cannot Be Avoided if the Proposal is Implemented

15. If the construction is done, as proposed, there will be certain alterations in the topography.

Mitigation Measures Proposed to Minimize the Impact

16. It is applicant's position that the project is being designed in such a manner as to insure that the required facilities will either be hidden from the public view or will blend in with the existing environment and thus be compatible with it.

Special care will be taken in design and selection of access road routes and pipeline locations in order to either preserve existing drainage or accommodate drainage alterations. Post construction mitigation measures will insure soil stabilization, erosion control, and revegetation. ✓

PG&E intends to take adequate care to insure that the topography of the area is protected.

#### ALTERNATIVES TO THE PROPOSED ACTION

##### Alternative Types of Storage

17. In the event that PG&E did not install this gas storage facility, it would require some other gas storage facility in order to meet the firm customer peak demand during the winter of 1979-1980. A liquefied natural gas plant is a more economic alternative for abnormal peak day demand use only; it is not an economic alternative for use in meeting high priority customer annual cycle volume requirements. Above ground storage in steel tanks is another alternative, but to create an equivalent storage capacity to the Los Medanos Gas Storage Field 2,933 tanks with a capacity of six million cubic feet would be needed which would cover an area of 6.5 square miles.

##### Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

18. There are no irreversible and long-term impacts of the Los Medanos Gas Storage Facility. Short-term impacts would be air, water, and noise quality and the temporary effects resulting from plant construction. Balanced against these environmental effects are PG&E's obligations to provide needed natural gas in its service territory and the adverse impacts, both social and environmental of any failure to do so.



Irreversible Environmental Changes Which Would be Involved if the Proposed Action Should be Implemented

19. There are no irreversible environmental effects of the proposed construction and operation of the Los Medanos Gas Storage Project, except for the utilization of natural resources and labor associated with construction and operation of the project.

Growth Inducing Impact of the Proposed Action

20. Construction and operation of the Los Medanos Gas Storage Project will have some minimal growth inducing impact resulting from the addition of construction employees during construction of the unit. In addition, there will be some secondary effects resulting from the impact of the additional property taxes for the local taxing jurisdiction.

21. The Los Medanos Project will facilitate expected growth in the area.

- a. The need to build the project in order to provide reliable gas service is a response to anticipated need in PG&E's territory.
- b. Without this gas storage facility, reliable gas service during winter peak periods to PG&E's firm customers could not be maintained even for present customers. If this facility were not constructed, PG&E would not meet one of its fundamental public utility obligations.

Environmental Assessment in the Aggregate

22. The project should not, on balance, have a significant detrimental effect on the environment.

23. The public safety, health, comfort, convenience, and necessity require the installation, maintenance, operation, and use of Los Medanos Gas Storage Field, together with related facilities.

24. The proposed new project does not compete with any person, firm, or public or private corporation in the public utilities business for furnishing or supplying gas service to the public in or adjacent to the territory in which the Los Medanos Gas Storage Project shall be located.

25. The construction of the proposed facility will not produce an unreasonable burden on natural resources, aesthetics of the area in which the proposed facilities are to be located, public health and safety, air and water quality in the vicinity, or parks, recreational and scenic areas, or historic sites and buildings, or archaeological sites.

The action taken herein is not to be considered as indicative of amounts to be included in future proceedings for the purpose of determining just and reasonable rates.

The Notice of Determination for the project is attached as Appendix A to this decision and the Commission certifies that the Final EIR has been completed in compliance with CEQA and the Guidelines and that it has reviewed and considered the information contained in the EIR.

Based on the foregoing findings, the Commission concludes that the Los Medanos Gas Storage Project should be authorized in the manner and to the extent set forth in the following order.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity be granted to Pacific Gas and Electric Company (PG&E) to construct and operate Los Medanos Gas Storage Project, together with related facilities as finally proposed by PG&E in this proceeding and as conditioned by the following:
  - a. The facility be constructed as described in PG&E's final testimony, except where changes are required by competent authority; and
  - b. PG&E construct the facility in a manner which will protect the environment as provided in the Commission's Draft and Final Environmental Impact Reports.

2. PG&E shall monitor exhaust emissions from the compressor engines following completion and commencement of operation of the gas storage facility.

3. PG&E shall file with this Commission a detailed statement of the capital cost of the Los Medanos Gas Storage Facility, together with related facilities, within one year following the date it is placed in commercial operation.

The Executive Director of the Commission is directed to file a Notice of Determination for the project, with contents as set forth in Appendix A to this decision, with the Secretary for Resources.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 10<sup>th</sup> day of MAY, 1977.

Robert Batimmed  
President  
William Lyons, Jr.  
Thomas L. Strington  
Richard D. Howell

Commissioners

APPENDIX A

NOTICE OF DETERMINATION

TO:  Secretary for Resources  
1416 Ninth Street, Room 1311  
Sacramento, CA 95814

FROM: (Lead Agency)  
California Public Utilities  
Commission  
350 McAllister Street  
San Francisco, CA 94102

County Clerk  
County of \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code

Project Title	
Underground natural gas storage project in the Los Medanos Gas Field	
State Clearinghouse Number (If submitted to State Clearinghouse)	
76090642 (CPUC Application No. 55992)	
Contact Person	Telephone Number (415) 557-1487
Phillip E. Blecher, Executive Director	
Project Location	
Contra Costa County	
Project Description Application of Pacific Gas and Electric Company for a certificate of public convenience and necessity authorizing it to construct, operate, maintain, and use an underground natural gas storage project in the Los Medanos Gas Field in Contra Costa County, California.	

This is to advise that the California Public Utilities Commission  
(Lead Agency)  
has made the following determinations regarding the above-described project:

- The project has been  approved by the Lead Agency.  
 disapproved
- The project  will have a significant effect on the environment.  
 will not
- An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
 A Negative Declaration was prepared for this project pursuant to the provisions of CEQA. A copy of the Negative Declaration is attached.

Date Received for Filing

Signature Phillip E. Blecher  
Executive Director  
Title \_\_\_\_\_  
Date \_\_\_\_\_