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Decision 88-11-034 November 9, 1988

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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| Order Instituting Investigation into procurement and system reliability issues deferred from D.86-12-010. | I.87-03-036 (Filed March 25, 1987) |
| Order Instituting Rulemaking into natural gas procurement and system reliability issues. | R.88-08-018 (Filed August 10, 1988) |

(See Appendix A for appearances.)

INTERIM OPINION AUTHORIZING GAS STORAGE BANKING SERVICE

# I N D E X

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## I. Introduction

In today's decision, we create a blueprint for Pacific Gas and Electric Company (PG&E) and Southern California Gas Company (SoCal) to provide gas storage banking service, based on the integrated use of their pipelines and the cycling capability of their underground storage fields. The service should help these utilities' noncore customers to benefit from seasonal fluctuations in the price of gas consumed in California, while ensuring that the utilities' own storage operations on behalf of core customers continue unimpeded.

Ultimately, the service will approach a full unbundling of underground storage. Such unbundling should optimize the use of PG&E's and SoCal's facilities, which will benefit both the core and noncore customers of these utilities. However, fully unbundled storage banking service requires resolution of several gas transportation and procurement issues now pending at the Commission. Thus, we adopt a modest storage banking service for use in the 1989-90 injection/withdrawal cycle. This pilot program is described in Section VII of today's decision. We plan to implement the unbundled storage services (regular and as-available) to supplant the pilot program, staring with the 1990-91 injection/withdrawal cycle.

The regular storage banking service, which we approve today and expect to begin in April 1990, will generally work as follows. In early February of each year the gas utility will announce an initial storage target for the upcoming annual storage cycle. This target will reflect the volume of gas which the utility believes that it needs to store, first, to meet the needs of the core market--including the core-elect--over the winter season (this is the reliability function of storage) and, second, to obtain the price advantages of steady, high-load-factor

banking service. Injection costs included in the volumetric charge will be based on average projected gas consumption to fill storage after the initial storage target is met. Banking customers will of course pay for transportation of their gas over the utility's system: half of the transport charge will be payable at the time of "deposit," half at the time of "withdrawal."

Wholesale customers may be able to use a parallel methodology to determine the amount of storage which the primary utility must provide for wholesale core loads. Wholesale customers must participate in the bid process if they desire additional storage capacity. Brokers and suppliers may participate in the banking program as agents for specific end users, and may aggregate supplies for deposit into (but not withdrawal from) the "bank." Core-elect customers will not participate in the banking auction; however, they will be required to pay the reservation fee, subject to a cap of 125% of the prior year's fee. This provision balances two concerns: first, the fact that, as participants in the core portfolio, core-elect customers receive the price and reliability benefits of storage banking, and second, the concern that there should be some predictability to the costs of core-elect service.

Revenues from banking service will be used to offset, on a forecast basis, the fixed costs of storage allocated to noncore (including core-elect) customers. Treating these revenues on a forecast basis will provide the utility with a strong incentive to maximize the use of the service.

## II. The Gas Storage Function

Gas prices tend to fluctuate seasonally. Demand, and thus price, is usually highest during the winter, when residential heating augments commercial and industrial loads that (generally speaking) have a higher load factor year-round. PG&E and SoCal use their underground storage, in part, to buy relatively cheap gas

# CORRECTION

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purchases for the core portfolio (the price function of storage). The remainder of the utility's system capacity to provide banking service will then be made available to noncore customers, in order to allow these customers also to benefit from the price and reliability functions of storage. The banking capability made available to the noncore may be greater than simply the difference between the cycling capacity of the utility's storage fields and its initial storage target, as we are adopting the concept of a banking service which involves the integrated use of the utility's full system, not just of its storage fields.

Noncore customers will submit bids to reserve banking service, with each customer bidding a variety of prices to cover whatever range of banking capacity that user is willing to accept. Based upon the bids, the utility will set a banking reservation fee at whatever level maximizes the reservation of available banking capability. At this stage the utility also will have the discretion to revise its storage target, in order to ensure that it is able to operate its system in an optimal manner, including (1) maintaining adequate storage field pressure to meet abnormal peak day requirements and (2) increasing noncore customers' access to flowing supplies during the peak winter months (these are the system integration functions of storage). The utility may also choose to leave space for an "as-available" banking service. The utility's choices for both the initial and final storage targets will be subject to reasonableness review. The single banking reservation price established by the bidding will not exceed the price which each banking customer has indicated that it is willing to pay for the capacity which it is awarded.

The banking reservation fee will be collected as a fixed charge, in equal monthly installments. This recognizes that the banking service is a reservation of system capacity, not a rental of storage space. Banking customers will also pay a volumetric charge designed to recover the variable costs of providing the

banking service. Injection costs included in the volumetric charge will be based on average projected gas consumption to fill storage after the initial storage target is met. Banking customers will of course pay for transportation of their gas over the utility's system: half of the transport charge will be payable at the time of "deposit," half at the time of "withdrawal."

Wholesale customers may be able to use a parallel methodology to determine the amount of storage which the primary utility must provide for wholesale core loads. Wholesale customers must participate in the bid process if they desire additional storage capacity. Brokers and suppliers may participate in the banking program as agents for specific end users, and may aggregate supplies for deposit into (but not withdrawal from) the "bank." Core-elect customers will not participate in the banking auction; however, they will be required to pay the reservation fee, subject to a cap of 125% of the prior year's fee. This provision balances two concerns: first, the fact that, as participants in the core portfolio, core-elect customers receive the price and reliability benefits of storage banking, and second, the concern that there should be some predictability to the costs of core-elect service.

Revenues from banking service will be used to offset, on a forecast basis, the fixed costs of storage allocated to noncore (including core-elect) customers. Treating these revenues on a forecast basis will provide the utility with a strong incentive to maximize the use of the service.

## II. The Gas Storage Function

Gas prices tend to fluctuate seasonally. Demand, and thus price, is usually highest during the winter, when residential heating augments commercial and industrial loads that (generally speaking) have a higher load factor year-round. PG&E and SoCal use their underground storage, in part, to buy relatively cheap gas

during the summer. This use of storage, which we shall refer to as the price function, also enables the local distribution company (LDC), or any other gas purchaser with storage capability, to take gas at a relatively high level year-round; this is attractive to pipelines, producers, and other sellers, and so improves the purchaser's bargaining position. (In today's decision, we use LDC to refer to either or both PG&E and SoCal.)

Other uses of storage are peculiar to the LDC, because they relate to the LDC's obligation to serve. To simplify a complex subject, the LDC, as a public utility, must provide reliable service to those customers (the core) who lack practical short-range alternatives to gas consumption. The LDC must therefore have (1) access to a volume of gas adequate to the needs of core customers over the entire peak season, and (2) ability to deliver gas needed by core customers on peak days during the peak season. (Deliverability standards are set on the basis of abnormal peak day (APD) conditions on the LDC's system. "Deliverability" for these purposes is a function, in large part, of the pressure existing in the LDC's various storage facilities.) Without stored gas, the LDC would have to satisfy its peak season and APD requirements entirely through flowing gas, and thus would have to maintain a large amount of pipeline capacity for which the LDC had little or no use for much of the year. We shall refer to these uses of storage as the reliability function.

Finally, as suggested above, the LDC's pipelines and storage facilities have complementary roles that enable the LDC to optimize the use of both. We refer to this complementary relationship as the system integration function.

The unbundling of gas transportation and commodity services to noncore customers has prompted investigation of other potential uses of the LDC's facilities by such customers. The crux of the hearings on gas storage is that many of PG&E's and SoCal's noncore customers--many of whom now get only gas transportation

service from the LDC--would like the opportunity to benefit from the price function of storage by "banking" (on the LDC's system) gas that they have procured for themselves. Both PG&E and SoCal feel that they have sufficient system flexibility to offer such banking service, provided that it does not interfere with the reliability function or otherwise increase the cost of serving their core customers. The debate on banking is essentially over the kind and extent of safeguards that are adequate to prevent such adverse impacts but not so restrictive as to render the service unmarketable to potential banking customers.

## III. Positions of the Parties

The gas storage hearings produced a voluminous record. Nineteen witnesses sponsored over 60 exhibits. Nineteen parties participated actively in some aspect of the hearings.[1] The transcript record runs over 2,000 pages, and the parties filed opening and reply briefs.

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1 PG&E, SoCal, and San Diego Gas & Electric Company (SDG&E) are respondents in this investigation. Others participating through briefs, testimony, or cross-examination include: the Division of Ratepayer Advocates (DRA); the Cities of Long Beach and Palo Alto; the California Department of General Services (DGS); Mock Resources, Inc. (Mock); Southern California Edison Company (Edison); Southern California Utility Power Pool (SCUPP, consisting of the Cities of Pasadena, Glendale, and Burbank, and the Los Angeles Department of Water and Power); the Imperial Irrigation District (IID, participating jointly with SCUPP); Shell Canada Limited and Salmon Resources Ltd. (Shell/Salmon, participating jointly, and joined by Mock on brief); Toward Utility Rate Normalization (TURN); Poco Petroleums Ltd. (Poco) and California Industrial Group (CIG), which sponsored joint testimony and briefed separately; and Hadson Gas Systems. Shell Western E & P, Inc., and Texaco Producing Inc. jointly submitted a "Statement of Counsel" commenting on the PG&E and SoCal storage service proposals.

The record issues are not clear-cut. Storage banking of customer-owned (or brokered) gas is a new service in California. Time pressure and the complexity of devising a new service resulted in much hearing time devoted to what would normally be pre-hearing discovery on such matters as how PG&E and SoCal operate their underground storage facilities. Much of the record is confused because certain terms were not understood or were used to mean different things by different parties. PG&E and SoCal produced exemplary tariffs that helped illuminate their proposals but that unfortunately were not available until the latter part of the hearings. The exemplary tariffs also raised new issues of their own. The unsettled situation regarding transportation priority, and how priority for withdrawal from/injection into storage should relate to transportation priority, led to convoluted discourses on whether storage is a supply function or a transport function.

The result is that a concise summary of each party's position would be difficult and probably misleading. In lieu of such a summary, we provide an issues matrix (Appendix B). The matrix, prepared at the request of the assigned ALJ, is a joint effort of the principal participants.[2] We will also take note of some of the leading schools of thought as we resolve issues in the following discussion.

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2 PG&E's counsel performed the complex and sometimes irritating task of coordinating preparation of the matrix. Lest the task also be thankless, we take this opportunity to express our appreciation.

## IV. Principles Governing Gas Storage Banking Service

### A. Availability of Gas Storage Banking

#### 1. Banking Should Be Consistent With the Price and Reliability Functions of Storage and Should Promote Optimal Use of the LDC's Total System

We intend that core customers continue to receive reliable and reasonably priced service from the LDC. Service to the core includes (on a bundled basis) gas storage. Thus, we calculate the availability of storage banking on the LDC's system only after ensuring that the system can meet core peak season demand.[3]

In addition to the price and reliability functions, the LDC's traditional storage activities helped to ensure that the LDC could combine its facilities (such as its pipelines and underground storage fields) in a fully integrated and efficient operation. Thus, the LDC could use its pipelines to fill storage during periods of low demand, when the pipelines would otherwise stand empty; and during periods of high demand, the availability of stored gas would minimize the risk of curtailment and free up space in the pipelines for flowing gas to lower priority customers. Fully used facilities spread fixed costs over maximum volumes, thus reducing the LDC's risks and the customer's rates.

We include optimal system use among the goals of the new gas storage banking service. We recognize that the sum total of individual noncore customers' storage decisions, taken together with storage to meet core peak season demand, may or may not equal the optimum level of storage. Also, transportation problems (e.g., nonperformance by producers or interstate pipelines) may mean that some gas designated for storage by end-users or brokers fails to

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3 See Section IV.A.3 below regarding the determination of storage targets for the core.

arrive. Therefore, we must devise a mechanism that will (1) allow noncore customers to store gas, and (2) give LDCs flexibility to ensure that an appropriate volume of gas is stored.

**2. The LDC Should Prepare an Initial Storage Target, and a Revised Target That Takes Into Consideration Requests for Banking Service**

We begin with the premise, not disputed by anyone, that the LDC should plan to store gas to supply core peak season needs. This projection provides the LDC's initial storage target. The initial target includes volumes for retail noncore customers that elect to buy gas from the core portfolio. (See Section IV.C.3 below.) The initial target does not include the additional volume that may be necessary to ensure field pressure adequate to meet the APD deliverability standard. We recognize the importance of this standard; however, the additional volume can just as easily be provided through banked gas as through LDC-owned gas.[4]

With the initial storage target, the LDC will also announce the volume available for gas banking on its system. A storage-rich LDC, such as SoCal seems to be, might compute this volume simply by subtracting its initial target (plus the small amount of underground storage used for short-term load-balancing) from its total storage field capacity. A transmission-rich LDC, such as PG&E seems to be, might actually be able to "bank" somewhat more gas than the above formula would suggest. This is because the

4 We stress that, as a consequence, withdrawal of banked gas is subject to curtailment where necessary to ensure APD deliverability. Potential customers for the LDC's service would probably want to know about the likely incidence of an APD event on that LDC's system. This information might affect both how much they might choose to store and how high a banking reservation fee to bid. Accordingly, the LDC will publish, along with the initial storage target, the APD schedule from which the LDC would determine that gas could or could not be withdrawn from storage without jeopardy to APD requirements.

banking service is essentially an accounting mechanism by which the LDC obligates itself (for a fee) to deliver gas to the banking customer (or to an end-user designated by the banking customer); the service does not trace individual gas molecules.[5]

The LDC will publish its initial target, banking volume availability, and solicitation for banking service bids in early February. Potential customers will have 20 days to submit bids. The LDC will announce winners 10 days after receiving the bids. The LDC may announce a revised storage target at this point, and will certainly announce a revised target in the unlikely event that bid volumes are inadequate to ensure that APD requirements are satisfied. Our intent with this tentative schedule is to give adequate time (1) to potential customers to make plans and prepare reasonable bids, and (2) to the LDCs to think and rethink their storage strategy and schedule, all well before the beginning of the injection season on about April 1 each year.

The LDC will have considerable discretion on the use of remaining storage capacity (if any) after determination of the initial storage target, the bid winners, and additional amount for APD requirements. At this point, the system integration function

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5 Thus, gas delivered to the LDC at the banking customer's behest may or may not be injected, and gas delivered by the LDC to the banking customer (or its designee) may or may not be withdrawn from storage. As PG&E explains, "[S]ervice to all customers would be enhanced by allowing the utility to more optimally use its integrated system in offering a banking service which redelivers banked volumes without explicitly tying each customer's banked volumes to a physical quantity of space underground." (Concurrent opening brief, p. 12.) We agree with this explanation. However, PG&E did not offer an alternative method to SoCal's arithmetic for determining how much banking volume PG&E could provide. We are requiring a report from PG&E during the pilot program on its methodology for determining banking capability on its system. In any event, we expect that PG&E would provide at least as much banking as would be suggested by the subtraction formula in the text accompanying this note.

comes prominently into play. The LDC's obligation is to operate its system in an optimal manner, and it is free to determine what is optimal, subject to our reasonableness review of its costs and operations. It may choose to continue to fill its storage facilities, beyond the volumes already mentioned, according to its traditional planning criteria. It may provide an as-available banking service: customers for such service would be interruptible (e.g., to meet APD requirements) before other banking customers and might otherwise be subject to greater restrictions.[6] Or it may choose a combination of as-available banking and additional storage on its own behalf. The point is, there is both room and necessity for the exercise of skilled management by the LDC, even though its choice of initial storage target is constrained by today's decision.

3. Quantifying the Initial Storage Target

All parties agree that the LDC must store gas to meet the needs of the core market during the peak (cold) season. But how cold is cold, and how much (if any) storage of its own gas should the LDC perform for noncore (other than core-elect) customers? PG&E and SoCal want to continue to set their respective storage targets based on requirements of core and certain noncore customer classes. Under SoCal's formulation, the target volume for gas in storage is based on the demand of either customer class priorities ("P") 1 to 4 in an extreme cold year (defined as 2.46 standard deviations from the norm) or P1-P5 demand in an average year, whichever volume is greater.[7] P1-P2A define the core class, so

6 The LDCs should propose terms for as-available banking in their implementation plans. (See Sections IV.D and IX below.)

7 SoCal's testimony refers to P1-P7 demand in an average year. However, the P6 and P7 classifications have been eliminated, so the text refers here and elsewhere to P1-P5 whenever all priority classifications are included.

SoCal's traditional storage target includes a large volume of gas attributable to needs of noncore customer classes--classes for which SoCal no longer has an obligation to provide commodity service.

SoCal's proposal to continue its traditional storage planning, including a gas-in-storage component for the noncore, is inappropriate under our new regulatory framework. The LDC's initial storage target should be based on core (P1-P2A) peak season needs.

SoCal's "cold year" criterion likewise represents business-as-usual, rather than a response to this Commission's decisions. In Decision (D.) 87-12-039, we used a "cold year" criterion of 2.0 standard deviations from the norm, for purposes of certain cost allocations. We also stated "our intention that the definition...used for cost allocation purposes be close to the definition that the utilities use for system planning purposes." (Id., p. 52, emphasis added.) Two standard deviations is not "close" to SoCal's 2.46 (the difference works out to the coldest year in 35 years versus the coldest year in 100, which SoCal prefers).

SoCal argues that DRA, which supports the 1-in-35 criterion, should have analyzed the prudence of using the less extreme cold year as the storage target. However, SoCal itself provided no analysis to support the 1-in-100 criterion. SoCal should have performed and offered into evidence various analyses of different storage levels, and their impacts on the cost and reliability of service, if it felt that the directive in D.87-12-039 should not apply to its storage target.

SoCal argues on brief that if the Commission adopts a less extreme cold year storage target, "resulting core curtailment in a very cold winter will be the Commission's responsibility." (Initial brief, p. 24.) We share SoCal's concern that core curtailment be avoided, but the process in today's decision for

setting storage targets will result in reliable service. Moreover, the insinuations of SoCal's argument are wrong. LDC-owned gas in storage is an important protection, but it is certainly not the only source of gas for the core market at any time of the year, nor does cold year service reliability to the core depend entirely on the amplitude of the LDC's storage target.[8] SoCal's premise--that there could be problems if actual weather conditions are more severe than the worst-case planning criterion--is a truism and thus gives no help in establishing a reasonable level for that criterion.[9]

PG&E and SoCal apparently took the emphasis in the above discussion on cold year peak season planning to indicate that only the reliability function is considered in the initial storage target.[10] This is not the case.

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8 The experience of this past winter contradicts SoCal's argument. The winter was unusually severe, SoCal had fallen far short of its storage target, but core service was not endangered.

9 In other words, SoCal has not provided any meaningful way to determine how safe is safe enough. SoCal's logic could justify planning for a Los Angeles winter based on Minneapolis weather--or the top of Mount Everest. Prudent reliability planning requires quantification of different levels of risk, the costs associated with each level, the alternatives for mitigating risk, and the costs associated with each alternative.

10 For example, PG&E comments that the proposed decision would not permit LDCs to reserve storage to lower the cost of serving core customers. SoCal comments that the LDC could not store any gas at all, based on SoCal's understanding of the initial storage target (i.e., that it would allow storage for core customers only to the extent that flowing supplies were not expected to be adequate to meet core demand over the winter season taken as a whole). SoCal reasons that core cold year demand on its system does not exceed its capacity to deliver flowing supplies, so the initial storage requires it to give noncore customers first claim on all of its storage capacity.

(Footnote continues on next page)

Storing gas to supply core peak season needs involves both price and reliability considerations. Storing gas in the off-peak season helps to ensure that the gas is available when it is most needed, and also that it is cheaper than if the LDC were to balance gas receipts and send-outs on, say, a monthly rather than a seasonal basis. The initial storage target must be set with both considerations in mind.

We deduce from SoCal's comments on the proposed decision that SoCal does not perceive any basis on which to factor the price consideration into the initial storage target. However, an appropriate basis is obvious from SoCal's comments. PG&E and SoCal follow a procurement strategy to take advantage of seasonal gas price fluctuations for the benefit of the core. How much storage space does SoCal need in order to effect a reasonable core procurement strategy? LDC procurement strategies are the subject of Order Instituting Rulemaking 88-08-018, but we could probably calculate a proxy based on the amount that SoCal has withdrawn from storage for core service during recent winters.

According to SoCal's comments, SoCal's recent practice has been to withdraw from storage over the winter on average about 60 billion cubic feet (bcf) of its own gas. That would be a rather liberal target, since historical practice largely reflects SoCal practice when its service obligation to noncore customers dramatically differed from its obligation under our new regulatory framework. However, even an initial storage target of 60 bcf would

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(Footnote continued from previous page)

Our problem with PG&E's and SoCal's logic is that it addresses only the reliability function of storage while ignoring the price and system integration functions emphasized throughout the proposed decision.

make available about three times more storage banking than SoCal had proposed in the hearings.[11]

B. Fees for Gas Storage Banking

1. Value-based Component: The Banking Reservation Fee

We adopt bidding, with no set minimum or maximum charge, to allocate banking volumes available on the LDC's system after calculation of the initial storage target. Such a value-based allocation method "reflects the competitive nature of the noncore fuels market." (PG&E concurrent opening brief, p. 83.)[12]

The PG&E auction proposal is well-suited to this purpose, and we adopt the following elements from that proposal. Banking capability will be reserved for a customer by the payment of an annual banking fixed charge in equal monthly installments. (We refer to this charge as the banking reservation fee.) The annual fee is appropriate because the regular banking service is for an annual term and is integrated with the LDC's storage planning, which uses an annual cycle of injection and withdrawal. Some parties propose a "rental" fee that varies according to the amount

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11 The target would also cover SoCal's APD requirement (50 bcf in January, according to SoCal witness Wilson).

Edison's reply comments propose a different proxy to respond to the price criterion. Under Edison's proposal, the LDC could choose an initial storage target based on the percentage of the LDC's fixed storage costs that retail core customers bear in rates (essentially, the same way we are allocating banking to wholesale customers). Edison's proposal may provide a useful default until we have a more functional basis through analysis of LDC procurement strategies. Interestingly, Edison's proposal and the winter withdrawal history reported by SoCal both support an initial storage target of about 60 bcf.

12 The revenues from this value-based component will be used to reduce the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage.

of gas booked to the banking customer's account in a given month. This is inappropriate because the adopted service is a banking mechanism, not a rental of storage space, and a reservation of capability on the LDC's system, whether or not the banking customer is able to make use of it.

We also approve PG&E's proposal to have the potential banking customer submit its bid (expressed in mills/therm/year) in the form of a list that would show a variety of price levels and the banking volume that the customer would request at each price level. The list should start at two mills and proceed upward in two-mill increments. After the close of bidding, the LDC would select the banking reservation fee that maximizes reservation of available banking capability. This bidding method does not maximize reservation fee revenue, but it results in a single reservation fee (for all regular banking customers) that will be no higher (and may be lower) than the price that the banking customer is willing to pay for the banking volume that the customer is awarded.[13]

The LDC will prepare bidding forms and instructions, and give them to potential banking customers on request. The instructions will include the LDC's initial storage target and banking capability. Bidders will submit their completed bid forms under seal. Where the LDC itself is a bidder (through its electric department), the LDC will submit its bid under seal to our Compliance and Advisory Division (CACD). The opening of the bids, and the designation of the reservation fee, winning bidders, and their volumes, should all be conducted with appropriate safeguards to ensure the integrity of the process. The LDCs will propose a detailed bidding protocol as part of their implementation of today's decision.

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13 For examples of how this auction would work, see Exhibit 38 (Additional Testimony of PG&E witness Schneider).

2. Variable Cost Component

The LDC should be able to recover the variable costs that it incurs in providing banking service. There are several categories of such costs.

The major cost is for energy used to inject gas into underground storage fields.[14] We approve SoCal's proposal to recover this cost through an in-kind charge against the banking customer's "deposits." However, SoCal should recompute this charge, using as the basis its average projected gas consumption to inject banking gas after meeting the initial storage target.

Unlike SoCal, PG&E uses electrically driven compressors, at least at its McDonald Island field. We don't believe that this factor would prevent PG&E from using an in-kind charge for injection costs, based on the quantity of gas needed to generate the electricity consumed in injection. However, we are willing to allow PG&E to choose between a monetary and in-kind charge; PG&E will indicate its choice in its implementation plan. In any case, PG&E will use as the basis for its injection energy costs its

14 Because these fields are under pressure, the LDC consumes little energy in withdrawing gas. For example, PG&E estimates withdrawal energy costs to be about 0.02 cents/therm, which works out to one-fortieth of the injection energy costs. The low level of withdrawal energy costs, and the fact that banking gas makes a positive contribution to meeting APD requirements, lead us to conclude that such costs should be disregarded for purposes of the cost-based component of banking charges. However, see Section VII below.

average projected electricity consumption to fill its fields after meeting the initial storage target.[15]

Both PG&E and SoCal calculate a charge for variable operation and maintenance (O&M) expenses, using the variable costs of the storage fields (excluding pumping energy) as a proxy for the variable O&M of the banking service. The proxy seems reasonable. However, as with injection costs, the LDCs' calculations for variable O&M assume the incremental service set forth in their proposals, not the level of banking capability contemplated here. The LDCs should reconsider their calculation method in light of today's decision and present in their implementation plans the revised calculations of variable O&M for purposes of the regular banking service.

Consistent with past Commission practice, a factor for uncollectibles should apply to the cost-based charges collected from all banking customers except for wholesale customers. The LDCs should use the factor approved respectively in their most recent general rate case decision.

PG&E (but not SoCal) proposes three other factors that would inflate the cost-based component of banking charges. Two of these factors (incremental losses from the storage fields and a judgment-based 5% adder) depend on PG&E's proposal for an incremental banking service and its argument that calculated average costs should be increased to reflect the incremental nature of storage banking. Our approach to banking service differs from

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15 For the modest banking volumes proposed in our hearings on this subject, both PG&E and SoCal indicated that any storage associated with banking service would occur at a single field (McDonald Island for PG&E, Aliso Canyon for SoCal). We are not certain whether that would continue to be the case using the initial storage targets. The LDCs' respective implementation plans should detail all assumptions made in recalculating their injection costs when regular banking service begins in April 1990.

PG&E's; its adder is arbitrary; and since PG&E itself says that its storage facilities are already fully used, the banking service would not result in additional losses. We reject both the adder and the adjustment for incremental losses.

The third factor that increases PG&E's proposed cost-based charges relative to SoCal's is that PG&E would include a factor to reflect the time lag between incurrence of shrinkage costs (compressor fuel use, unaccounted-for gas, line losses) and their recovery through transportation rates. The "lag" occurs under PG&E's proposal because PG&E would not apply a gas transportation charge until the customer nominates banked volumes for withdrawal from the system. SoCal, on the other hand, would apply the charge when banking volumes are "deposited." This eliminates the lag but might require an adjustment if the transportation rate in effect at the time of withdrawal has changed.

The ALJ preferred SoCal's proposal as the more practical in this regard. However, the 50-50 proposal developed by Poco in its comments on the ALJ's Proposed Decision seems superior to both the PG&E and SoCal approaches. (See Section VII below.) We adopt Poco's proposal for the pilot program and for the regular and as-available service as well if it proves satisfactory. A gas customer (or the broker/supplier acting as that customer's agent) would pay the transportation rate applicable under the customer's transportation schedule in effect when the charge is incurred. A broker/supplier banking on its own account (which would happen only through the as-available service, see Sections IV.C.2 and IV.D below) would pay the highest noncore transportation rate in effect when the broker/supplier "deposits" banking volumes; when these volumes are withdrawn, the broker/supplier would pay the rate applicable to the customer receiving the gas for consumption.

3. Banking Service and Cost Allocation

We do not intend today's decision to have any effect on the cost allocation factors previously adopted in decisions creating our new regulatory framework for natural gas. However, we think that the offering of banking service may have some impact on the level of costs so allocated. If the service proves popular, banking customers will pay a large part of the variable costs of the LDCs' storage operations. Moreover, under our adopted approach, banking customers will pay variable costs currently incurred in these operations, not just an incremental amount in excess of current costs. The calculations performed in the Annual Cost Allocation Proceedings ("ACAPs") should reflect this potential change in the level of costs after accounting for banking customers' payments. Failure to reflect the change would create a potential for double recovery of the LDCs' variable costs.

Ideally, we would be able to forecast the amount of variable costs that would be recovered from banking customers. Such a forecast would be speculative at this time, because we have no experience on which to base it. However, the pilot program (see Section VII below) will give us such experience.

C. Eligibility for Gas Storage Banking Service

Generally, all California noncore customers are eligible to bid for the banking service we have just described. There are a few classes of customers, as well as brokers/suppliers, to whom special conditions apply.

1. Wholesale Customers

While today's decision was pending, we adopted an interim approach for storage requests by the wholesale customers of PG&E (e.g., Palo Alto) and SoCal (e.g., Long Beach and SDG&E). We allowed these customers to load-balance, if they were on "default" rates and to the extent of their core loads, on a 12-month basis. Essentially, this allows for banking by these customers, since they can purchase independently and deliver to the serving LDC more than

current requirements in one season, then take the excess gas in another season, so long as the deliveries and takes balance at the end of the 12-month injection/withdrawal cycle. (See D.88-03-085, mimeo. pp. 19-20.)

Today's decision supersedes the interim approach.[16] Starting with the 1990 injection season, each wholesale customer will be entitled to banking service up to the extent of its core load. Its banking volume entitlement is calculated from the proportionate amount of LDC fixed costs of storage represented by the wholesale customer's core under our allocation factor (peak season cold year sales). If the wholesale customer desires additional storage service, it must bid in the same manner as other noncore customers.

2. Off-system Customers, Brokers/Suppliers

The key limitation on eligibility for the banking service is that banked gas must ultimately be consumed in California. This is necessary for consistency with the LDCs' Hinshaw exemptions.

An end-user within California but not in PG&E's gas service area can bid for and obtain banking service from either PG&E or SoCal or both, so long as the end-user certifies that the banked volumes will be consumed in California. The same is true for an end-user within California but not in SoCal's service area. This liberal access to banking service is consistent with our goal to achieve optimal usage of facilities within California, as also

16 This supersedure is contingent on our fully implementing the new gas banking service in time for the 1990 storage cycle. If for whatever reason such implementation is delayed, wholesale customers may still load-balance pursuant to D.88-03-085. Furthermore, we intend to consider wholesale customers' proposals for an alternative approach whereby such customers could set their core storage targets using a method similar to that authorized for the primary utilities. See Section VII below.

reflected in our orders dealing with intra- and interutility gas transportation.

The same reasoning dictates that an organization of end-users should be able to bid for and obtain banking service on behalf of its members, so long as that activity is consistent with its charter. This might apply, for example, to certain joint powers agencies.

The eligibility of brokers and suppliers of gas for banking service is more problematic. There are at least three schools of thought. SoCal is the most liberal; it would extend eligibility to brokers/suppliers, conditioned only on their certification of the site of consumption.[17] This approach would improve the ability of brokers/suppliers to compete for noncore sales in California and would likely increase revenues from banking reservation fees. Shell/Salmon and Mock support this approach; they argue that brokers/suppliers could also aggregate the deliveries and takes of their various California clients so as to mitigate the LDCs' recent load-balancing problems. SCUPP/IID, CIG, Poco, Edison, and Long Beach, among others, would give preference to noncore customers; brokers/suppliers would have access to any remaining volumes after these customers' demands for banking service were met. Finally, PG&E would deny eligibility to brokers/suppliers except where they act as agents for end-users identified to the utility.

We choose a relatively restrictive approach to broker/supplier access, at least for our first year of experience with the banking service. Brokers/suppliers may bid for and obtain

17 On brief, SoCal suggests that the Commission could limit such eligibility if experience shows that brokers/suppliers have somehow contrived to extract monopoly profits from their use of storage, as PG&E fears.

banking service as agents on behalf of specified California end-users to whom the broker/supplier provides gas. In their capacity as agents, the brokers or suppliers may nominate gas for injection in the aggregate; however, nominations for withdrawals must specify the end-user. Brokers/suppliers may also get as-available banking service on their own or their clients' account (should the LDC choose to offer such a service), subject to their certifying that the banked gas will be consumed in California.

The arguments for a more liberal approach are strong. However, we think it is more important for banking service to be available in large volumes to end-users than for every conceivable player in this market to have eligibility. If experience shows that the encouragement of gas-to-gas competition requires more liberal broker/supplier eligibility, we can then take that step confidently. It should also be easier to take that step after some of the outstanding issues on transportation priority and interstate pipeline capacity are resolved. In the meantime, we see some benefit to having end-users plan their own banking deliveries and withdrawals, especially where parties such as CIG seek to do just that. Some may find this easier than expected; others may experience balancing problems and incur additional costs as a result. The number and severity of such problems will help us judge the benefit to be derived from having brokers/suppliers perform as aggregators and not solely or primarily as banking agents for individual end-users.

3. Core-elect Customers

The parties differed sharply on the interrelationship of core election and gas storage. Much of the debate centered on the characterization of storage as supply or transmission. One school argues that (1) gas in storage is a source of supply, (2) core election is a choice to be served from the same portfolio as the core (for whom storage service is provided on a bundled basis), and therefore (3) the LDC should include core-elect customer

requirements (at no extra charge to such customers) in setting its storage target. The other school argues that (1) underground storage is as much a part of the LDC's transmission system as the pipes and valves, (2) the Commission has unbundled commodity and transportation service to noncore customers, and therefore (3) the core-elect customer should not get storage banking service except on the same basis as other noncore customers.

The debate over characterization is both unresolvable (storage fields are like supply in some respects, like transmission in other respects) and beside the point. Core-elect customers are noncore customers who, by virtue of their election, express a preference for price stability and supply security (in the form of a longer-term portfolio) as to at least part of their requirements. Core election does nothing except entitle such customers to a commodity price equal to the core WACOG.[18] A core-elect customer does not become entitled to a bundled service, nor does it become entitled to core priority (P1-P2A). The core-elect customer, like the rest of the noncore, must pay extra if it wishes to benefit directly from the price and reliability functions of storage. (Cf. our discussion of transportation priority and core election in Order Instituting Rulemaking 88-08-018, mimeo. pp. 44-45.)

When we establish full storage unbundling (after we gain experience through the pilot program described in Section VII below), we will institute the following procedure for core-elect customers. The LDCs' initial targets will include a banking volume intended for core-elect customers, based on LDC management appraisal of core-elect consumption, load shapes, and seasonal gas

18 The level of core election probably would affect both the LDC's procurement and the way it operates its integrated system, but in terms of making good on its price commitment, the LDC could offer to sell at core WACOG prices without having any storage on its system whatsoever.

price differentials. This specification of banking volume for core-elect customers will be subject to reasonableness review. Core-elect customers as a group will then be responsible for revenues equal to the announced core-elect banking volume multiplied by the price resulting from the auction of banking capability.

Core-elect customers will not participate in this auction for their core-elect volumes.[19] The auction price will simply be used to price core-elect banking service after-the-fact. Since core-elect customers, unlike the rest of the noncore participants in the banking program, will not have had the opportunity to bid a volume associated with the eventual banking price, we will cap the core-elect reservation fee at 125% of the previous year's fee.

Identifying storage-source volumes for core-elect customers is operationally infeasible (i.e., the molecules cannot be tagged "stored" or "non-stored"). Therefore, we will convert the revenues calculated from the target volume and banking price into a per-therm, average reservation fee for all core-elect volumes, to be collected in rates through a separately-stated volumetric charge.

D. As-available Banking Service

We indicate in Section IV.A.2 above that the LDCs may offer "as-available" banking service in addition to the regular (annual, allocated by bidding) service. By "as-available" we mean primarily an incremental service, curtailable ahead of the regular service, offered on a nondiscriminatory basis for varying terms (but always less than a year), and using any banking volumes that

19 Since a customer may go core-elect for only part of its needs, it could bid like other noncore customers as to the remainder.

might remain after provision for both the volumes allocated through the regular service and the LDC's revised storage target.

Fees for the as-available service, like the regular service, would have variable cost and value-based components. Costs should be computed on an updated basis to reflect actual conditions on the LDC's system.[20] Variable cost fees would be charged on a volumetric basis, and the same types of costs would be includable in both types of service. Value-based fees would be negotiable downwards from the monthly fee derived from the bidding for the regular service.[21]

The LDCs will need to address various aspects of as-available banking in their implementation plans, should they desire to offer this service. For example, the LDC should probably announce its offering of as-available volumes well in advance of commencement of gas deliveries on behalf of the customers that respond to that offering. The plans should indicate how far in advance, how frequently such offerings may or should be announced, and other details of how as-available banking would work.

The treatment of revenues from the value-based component of as-available banking fees will be the same as for regular banking, i.e., such revenues will be used to reduce the revenue requirement allocated to noncore customers.

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20 Thus, the LDC would compute its injection costs for the as-available banking service using the most current information on pressures within its underground storage fields.

21 The value of as-available banking logically should be lower than that of the regular service because the terms of the former are less favorable to the customer. Thus, the price for the regular service (prorated from an annual basis to however many months are requested for the as-available service) establishes an appropriate ceiling for the value-based component of the as-available banking service.

## B. Priority and Curtailment

In today's decision, we adopt an interim approach on priority among banking customers. We expect that developments regarding transportation priority charges and access to interstate pipeline capacity may cause us to rethink this approach.

As we have said several times before, banking service does not hinge on the LDC's being able to physically inject or withdraw banked volumes of gas; the service, in terms of real-time operation, is an accounting transaction, and the movement of banked gas involves all of the LDC's system (pipelines and storage). Since the whole system is involved, however, the LDC's injection/withdrawal capability could conceivably constrain banking service in certain situations. Injections into and withdrawals from storage on behalf of core portfolio loads (both the LDC's own core and that of its wholesale customers plus the LDC's core-elect customers) take priority over any storage operation to provide banking service.[22] As among banking customers, those with banked volumes under the regular service take priority over as-available banking customers.

For customers within a given category of banking service, we do not establish a new priority mechanism. Instead, if the LDC experiences a capacity constraint anywhere on its system (in the storage fields or on its pipelines) such that the LDC cannot move banked gas, then the LDC will curtail all regular banking customers

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22 PG&E says that its withdrawal capability may be constrained for two general reasons: (1) "if drawing down the reservoir would eliminate the pressure necessary to sustain withdrawals under APD conditions;" and (2) "if total withdrawal capability were needed by the core portfolio because insufficient supply were delivered by PG&E interstate pipeline supply sources, or PG&E-owned gas in storage were more economic than incremental sources of flowing supply." (Concurrent opening brief, p. 47 note 3.) We agree that any of these reasons would constitute a withdrawal constraint on banking service.

based on the existing noncore priorities (P2B-P5) of the respective customers, to the extent necessary after fully curtailing its as-available banking service. A curtailment affecting only as-available banking service would likewise be carried out on the basis of existing noncore priorities, except that brokers/suppliers would be curtailed first. These rules apply whether the constraint affects banking "deposits" or "withdrawals."

Banking services require implementation of a nomination procedure for "deposits" and "withdrawals." (See Section V below.) The LDC will use these nominations in planning how to move banked volumes and in effecting curtailments.

All banking services (other than those for wholesale core loads) are provided only through the "best efforts" of the respective LDCs. Accordingly, there will be no rebate of banking reservation fees in the event of a curtailment.[23] We expect that potential banking customers will consider this in deciding how high a banking reservation fee they are willing to pay.

F. Balancing Charges

Access to storage banking will enhance gas-to-gas competition in California but may also complicate the LDC's task of balancing its system. Proper system balancing is necessary for controlling costs and ensuring reliability. Thus, the parties who benefit from greater access to LDC facilities, including the LDC's pipelines and storage fields, must also bear (1) the responsibility of complying with reasonable conditions on their use of the

23 However, the variable cost component of banking fees is volumetric, so the banking customer would not incur variable cost fees to the extent that banking service to that customer were curtailed. Also, we will consider, based on results in the pilot program described in Section VII below, whether the LDC should retain any incentive from the reservation fee paid by a banking customer for any month in which banking service to that customer is curtailed.

facilities, and (2) any increased costs that result from failure to comply with those conditions. This principle is consistent with the procurement rules and policies set forth in Order Instituting Rulemaking 88-08-018.

The potential problems with banking service are essentially the same as with transportation. For any given banking or transportation customer, the LDC may find less gas showing up than it anticipated, either because of customer overnomination or nonperformance by the supplier or interstate pipeline. The LDC may also find more gas showing up than it anticipated, caused perhaps by customer undernominations or upstream errors.

We cannot categorically state that the LDC's operations will (or will not) suffer because of the receipt of more or less than the expected amount of gas for a given customer. No one buys particular molecules. The movement of gas between a large number of producers and a vast number of consumers is accomplished through aggregation of their individual production and needs by a relatively small number of interstate pipelines and LDCs. These companies formerly had little need to know, on a real-time basis, whose gas they were moving. Instead, these companies, in their role as aggregators, perform short-term balancing as an inherent part of transportation service. Such balancing is bundled in the transportation rates and provided routinely through "line pack" (increasing the pressure in the LDC's pipelines to hold more gas) and/or operation of some of the LDC's smaller storage fields.[24]

Thus, a certain amount of short-term balancing is embedded in the LDC's way of doing business. Also, proper system balancing does not require a perfect match, on a weekly, monthly, or even seasonal basis, between gas receipts and deliveries on the

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24 No party argues for the unbundling of short-term balancing, at least until changes in metering technology and practice provide better real-time information and control to the LDC.

LDC's system. For example, the LDC operates its major storage fields to create a planned imbalance that lasts for most of the annual injection/withdrawal cycle.

This does not mean that we can ignore imbalances or assume that, e.g., the over- and undernominations of a large pool of banking customers will cancel each other out. The customer that reserves banking volumes but does not use them is depriving other potential banking customers and defeating the goal of full system use. The customer that deposits more than its reserved volumes (beyond the tolerance for short-term imbalances) may be getting something for nothing. Most important, the storage cycle is a planned imbalance. If banking shortfalls or excess deliveries were to snowball, they could result in system underuse, increased costs, and complications in scheduling the LDC's own storage activities on behalf of the core portfolio. Therefore, rules are needed to govern balancing service to banking customers for more than short-term imbalances.

Where less gas shows up than the LDC has been led to expect, the LDC has some protection simply because the banking reservation fee is payable whether or not the full volume is used. Also, we allow the banking customer to release some or all of its unused reserved volume to the LDC, if the LDC consents. (See Section V below.) Finally, the LDC may take back unused reserved volume under a use-it-or-lose-it provision. This provision will require the LDC to give written notice of a deficit (measured over a one-month period) greater than 10% in the banking customer's "deposits" compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, then the LDC may either (1) take back unused volume exceeding the 10% margin (in which case the LDC must prospectively reduce the banking customer's reservation fee on a proportional basis for months following the take-back), or (2) fill the unused volume up to the 10% margin, billing the banking customer for the LDC's gas at the

rate for the proposed "standby service." (See Order Instituting Rulemaking 88-08-018, mimeo. pp. 12-15, and Appendix B of that order.)

When more gas shows up than the LDC has been led to expect, the LDC again has several options. The LDC may treat the excess gas (i.e., the amount by which the customer's "deposits" exceed its nominations by more than 10%, after notice and opportunity to correct, as described in the preceding paragraph) as "unscheduled" banking. The charges for unscheduled banking are essentially the same as those for the as-available service (see Section IV.D above), except that we agree with SoCal that an unscheduled banking customer should pay a higher reservation fee than a customer who contracts in advance with the LDC for banking service. Thus, we adopt, with modifications to reflect our bidding system, SoCal's proposal for an "imbalance" charge: the unscheduled banking customer will pay a monthly reservation fee that is 25% higher than the fee determined by bidding for the LDC's scheduled banking service.[25] Otherwise, the LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or (2) proportionally reduce the nominations during the month following the end of the notice period to bring the customer's balance within the 10% margin.

Finally, when the banking customer has gas in its account at the end of its contract term, the customer may be able to get a new contract (either by successfully bidding for the regular service or obtaining as-available service if offered). Otherwise,

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25 The customer will continue to incur charges for unscheduled banking until the customer's account is brought within the 10% tolerance.

the LDC buys the gas remaining in the account at the price of its lowest incremental source.

## V. Miscellaneous Provisions

We stress what we hope is already clear, that banking service (whether regular or as-available) is limited to the term of the contract between the banking customer and the LDC. A current banking customer is not guaranteed the same or any banking volume during a later term, nor does that customer obtain preferential access to banking capability at the end of its existing contract.

Banking service (whether regular or as-available) is not transferable, except that the customer may release some or all of its unused reserved volume back to the LDC with the LDC's consent. If the LDC agrees to the release, then the customer's obligation to pay banking reservation fees is cancelled or proportionally reduced for all months in the contract term following the month in which the release is accepted.

The LDCs' implementation plans (see Section IX below) should include a proposed nomination procedure for banking "deposits" and "withdrawals." The nomination procedure will apply to banking customers generally, except that wholesale customers will not be required to nominate core gas from storage. There will be no minimum or maximum nomination. We agree with CIG that withdrawal rate is adequately regulated by the LDC's operational constraints (i.e., the service is only "best efforts") and its obligation to meet core needs first. This result is consistent with D.85-12-102, mimeo. p. 16, where we rejected SoCal's proposal to impose an arbitrary limit on transportation gas nominations. We also agree with CIG that SoCal's proposed minimum banking quantity (500 million cubic feet over an injection season) is unreasonably high; we adopt instead CIG's proposed minimum, equivalent to about

one month's usage by a noncore customer consuming at the minimum rate to qualify for noncore status.

The service contemplates that the banking customer's "account" will be fully drawn down at the end of the contract term. Section IV.F above deals with the treatment of imbalances during or at the end of the contract term.

## VI. Treatment of Revenues from Banking Reservation Fees

Under the banking program, the LDCs will collect reservation fees as the value-based component of payments which customers will make in connection with banking services. We must decide how to treat these revenues for ratemaking purposes.

Commencing with the regular and (if offered) as-available banking services, the reservation fees should go to reducing the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage. LDC variable costs for the banking services are already provided for (see Section IV.B.2 above); the question then is whether some portion of the reservation fees should benefit core customers. We believe not; the situation is closely analogous to the transportation priority charge, and we have previously agreed in principle with the disposition to noncore customers of revenues from this charge. (D.87-12-039, mimeo. p. 42.) The noncore is already allocated its share of the LDCs' fixed storage costs. The return of banking reservation fees is necessary to ensure that the LDCs do not double recover these costs from noncore customers.

We agree with the parties, such as CIG, who would do a forecast of banking reservation fees, in order to reduce noncore customers' revenue requirements in the year when those fees are collected, rather than in the following year. Using a forecast basis is consistent with how we have treated the revenues from other new utility services, such as interutility transportation.

(See generally D.87-05-069 and D.87-12-039.) However, this requires experience with a banking service, or some other basis for projecting the revenues resulting from banking customers' bids. The pilot program (see Section VII below) should provide a reasonable basis for forecasting storage banking revenues when the full program commences in 1990.[26] Thus, using results from the pilot program bidding, we will project reservation fee revenues for SoCal in its ACAP to be filed in March 1989, and for PG&E in its ACAP to be filed in September 1989.

Another advantage of treating these revenues on a forecast basis is that the LDCs will have a strong incentive to make the banking service as attractive as possible, because utility shareholders will retain reservation fees which exceed the forecast.[27] Such an incentive is consistent with the incentive for the utility to maximize the throughput on its transmission system, which we have built into our transportation rate design. In addition, we believe that the LDC's shareholders should have the opportunity to benefit from an attractive, well-run banking program since, on the whole, the program makes more work for the LDC than it has now. Consequently the LDC's storage operations under a

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26 Reservation fees from the pilot program itself should be credited back to noncore customers in the first ACAP following the end of the pilot program, which should be the 1990 ACAPs for both SoCal and PG&E.

27 This seems preferable to giving the LDC a fixed percentage of all reservation fees collected, as in the ALJ's Proposed Decision. The latter approach could reward the LDC even when its banking program proved unattractive. However, because we do not treat reservation fee revenues on a forecast basis in the pilot program, we retain a version of the ALJ's proposal for the LDC incentive for purposes of that program. (See Section VII below.) For the pilot program, the LDCs should establish an account to accumulate all the reservation fees which they collect. As mentioned above, these pilot program revenues, minus the LDC incentive, will be used to offset noncore fixed costs of storage in the 1990 ACAPs.

banking regime present more potential for error and for greater-than-anticipated costs than these operations when conducted solely on the LDC's own behalf. An opportunity for gain should accompany this exposure to new and possibly increased risks.

There are two situations in which the LDC will have a conflict of interest if it can profit by increasing reservation fee revenues. The first involves the banking revenues collected from core-elect customers. The LDC serves core-elect customers out of the core gas portfolio, and thus the LDC itself will be storing core gas supplies on behalf of core-elect customers. The LDC could be tempted to store more gas than necessary for core-elect customers, in order to profit from the additional banking reservation fee revenues. A second potential conflict-of-interest involves bids submitted by the LDC's electric department. To avoid these conflicts, all banking reservation fee revenues collected from core-elect customers or from the electric departments of combined utilities should receive balancing account treatment. In other words, the forecasted reservation fees from these two classes of banking customers should be reconciled with the actual fees collected. The necessary reconciliation of these balancing accounts should be made in each ACAP. This procedure is similar to that adopted in D.87-05-069 for interutility revenues for the movement of gas from PG&E's Alberta & Southern affiliate through PG&E's system.

## VII. The Pilot Program for 1989-90

The unbundled storage service set forth in Sections IV to VI should be implemented beginning with the 1990 injection season. For the 1989-90 injection/withdrawal cycle, a less ambitious "pilot" program is appropriate. The pilot program is a "best efforts" storage service, is restricted to gas for consumption in California, and includes many other elements of unbundled service

but with more limited availability. This will allow us to observe storage banking in operation on a small scale and work out problems before having to deal with the larger banking volumes that the unbundled service is likely to involve. We also recognize that this is a transitional period, with continuing developments both in transportation service and our procurement rules. (See Order Instituting Rulemaking 88-08-018.) Further progress in these areas will enhance the attractiveness and ease the implementation of the unbundled service.

For the pilot program, SoCal will offer 16.7 bcf of banking. This is the amount that SoCal proposed to offer during the hearings.

PG&E did not specify how much banking it was prepared to offer, nor did it specify how it would calculate banking availability, given the comparatively small cycling capability of its storage facilities. We direct PG&E to offer five bcf for the pilot program. This results in both PG&E and SoCal making about 15% of their total cycling capability available for storage banking.[28]

Eligibility to bank gas during the pilot program is the same as for the regular banking service, except that core-elect customers (to the extent that their requirements are met from the core portfolio) will receive storage service on a bundled basis, as

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28 We stress that in designating these small amounts for the pilot program, we are not endorsing SoCal's method for determining storage targets. Also, the storage volume to be offered by PG&E for the pilot program is probably conservative, since PG&E itself indicates that its ability to provide banking is greater than the cycling capability of its storage facilities would suggest. However, the volumes we have approved should be adequate to the purposes of the pilot program, which serves primarily to develop and test the operating procedures and accounting mechanisms needed for the unbundled service.

do core customers,[29] and wholesale customers will still be permitted to load-balance on a 12-month basis pursuant to D.88-03-085.

Fees for the pilot program will consist of value-based and variable cost components. A reservation fee for the full 12 months of the pilot program will be determined by the same auction procedure that we have approved for the regular banking service. (See Section IV.B.1 above.)

The variable cost component will include injection energy, variable O&M, and a factor for uncollectibles. This again follows the approach for the regular banking service.[30] The variable cost component will be determined on a forecast basis, and using average costs. PG&E and SoCal should update the variable cost information from their testimony (but using average costs) in their implementation plans for the pilot program. The forecasts should assume that the pilot program for each utility is fully subscribed.

The pilot program will include an incentive payment to the LDC. We set this incentive at 5% of the banking reservation

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29 Consequently, no portion of the banking revenues collected as a result of the pilot program will be used to reduce the revenue requirement allocated to core-elect customers for the LDCs' fixed costs of storage.

30 See Section IV.C.2 above. PG&E's comments on the ALJ's Proposed Decision continue to urge that the variable cost component include a factor for withdrawal energy. We continue to be sceptical. If anything, the presence of banked gas would increase storage field pressure and thus lower the amount of energy consumed in cycling gas from the field on a per-unit basis. (We note that SoCal did not include withdrawal energy in its proposal for recovery of variable costs.) However, if PG&E wishes to pursue this issue, it may submit additional testimony in its current ACAP to explain the incurrence of withdrawal energy costs. In any event, the variable cost component will not include factors requested by PG&E based on its "incremental" theory of storage.

fee revenues (after certain exclusions) from the pilot program.[31] We exclude any revenues from bids submitted by the LDC's electric department. Also, for any month when the LDC curtails banking service to a banking customer, the LDC will not retain any incentive from the reservation fee paid by the curtailed customer. Instead, the whole reservation fee for that month will go to set off the LDC revenue requirement allocated to noncore customers (excluding core-elect customers). This should motivate LDCs to use their best efforts to fulfill banking obligations. The LDCs will set up an account to track reservation fee revenues. Depending on experience with the pilot program, we will decide whether part of the monthly reservation fee should be refunded to curtailed banking customers in the regular and as-available service.

The LDCs differed on when they would apply the transportation charge for banked gas. PG&E prefers to bill for transportation when the customer nominates volumes for withdrawal; SoCal would apply the charge when banking volumes are "deposited." We see problems with both of these approaches. For the pilot program, the LDCs should implement the 50-50 proposal in comments by Poco on the ALJ's Proposed Decision. Poco suggests that transportation charges for banking volumes match the incurrence of costs: thus, half of the applicable transmission rate should be collected when the gas is deposited and half when the gas is nominated for withdrawal and delivered to the banking customer. We agree with Poco that this arrangement will eliminate the disincentive to use storage banking service caused by charging all time-lag costs to customers, and will motivate the LDCs to deliver banked volumes as promptly as possible.

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31 This level of incentive is consistent with our treatment of incremental revenues from enhanced oil recovery contracts. (See D.87-05-046.)

Procedures governing priority and curtailment, nominations to and from storage, balancing charges, and accounting should generally follow the principles established for unbundled banking service.[32] See Sections IV.E, IV.F, V, and IX.B.

The LDCs will each file a plan for implementing the pilot program. Consideration of the plans will generally follow the workshop process that we describe in Section IX.A. Appendix C contains the schedule for implementation.

We want to learn as much as possible about storage banking from the pilot program. To that end, we require PG&E and SoCal to file and serve four reports on the program. The first report, due May 1, 1989, will summarize the results of bidding. The second report, due September 1, 1989, will summarize pilot program operations during the first four months of the injection season. The third report, due December 15, 1989, will summarize the balance of the injection season and the first two months of the withdrawal season. The final report, due May 1, 1990, will cover the balance of the withdrawal season and recap the results for the completed pilot program.

We invite comment from the wholesale customers on their experience in the pilot program and the 12-month balancing provided before and during the program. The wholesale customers' comments are due no later than December 15, 1989, and may propose alternatives whereby such customers could set their core storage targets using a similar approach to the one we have authorized for the primary utilities.

Palo Alto's comments on the ALJ's Proposed Decision note a problem with the timing of core-election. Specifically, many core-elect customers made their election in June, so that their

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32 One difference is that the pilot program will not include an as-available banking service.

12-month terms overlap two storage cycles. From the standpoint of LDCs' procurement and storage planning, customers ideally would make a binding decision in January of each year whether to elect into the core portfolio for the next 12-month injection/withdrawal cycle (April 1 to the following March 31). The LDCs thus would be able to confidently factor core election volumes into their initial storage targets. We have not had an opportunity to examine either the scope of this problem or potential solutions. Therefore, we direct PG&E and SoCal to address the problem in their first report and to suggest possible refinements to the process of core-election that could improve its integration into the storage program and LDC procurement efforts.

In general, each report should detail banking transactions during the covered period, describe problems encountered, and recommend changes to improve the service. To permit ready comparisons, the reports should follow a common outline and format (including level of detail) for presenting data. CACD, PG&E, and SoCal should confer on this. The reports should also respond to additional questions from CACD; such questions should be sent to the LDCs at least 15 working days before the due date for the next report.

PG&E has yet to commit itself to a methodology for computing banking capability on its system, although PG&E has stated that it has more capability than is suggested by a simple comparison of its and SoCal's relative ability to cycle gas in and out of their respective underground storage facilities. Such a methodology must be developed well before the determination of storage targets in preparation for unbundled storage banking service. We direct PG&E to present its proposed methodology in its first report (May 1, 1989) during the pilot program. The Assigned Commissioner or ALJ will schedule further action to review PG&E's proposed methodology.

## VIII. Dedication

During the storage hearings, PG&E reiterated that, although it was not actively pressing objections to Commission jurisdiction in regard to the various banking service proposals, it also was not waiving general objections that it had hinted at much earlier and that seem intended to put in dispute whether underground storage fields are "dedicated" facilities. Specifically, in a June 1, 1987 filing in this proceeding, PG&E said that it "does not concede that the Commission has the legal right to order utilities to 'unbundle' storage facilities" and that it "specifically reserves the right to raise any objection to the Commission's authority to regulate this activity."

Through counsel, PG&E offered the following clarification of its current position: "In...the June 1 filing, PG&E was stating its understanding of the law as it exists then and as it exists now. So, to the extent that the question is, does PG&E intend to continue to preserve and assert its legal rights, the answer is yes. On a more practical basis, the company's intention is to continue to participate in this proceeding, to evaluate the results of the Commission's orders and decisions regarding the gas storage unbundling proposals that the Commission eventually puts in place and then consider what options...to pursue that are consistent with the positions that it's taking during these proceedings." (Tr. 908 [March 3, 1988].)[33]

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33 When PG&E's counsel made this statement regarding PG&E's understanding of the law, PG&E had pending before the California Supreme Court a petition for writ of review of our orders requiring provision of interutility gas transportation on a tariffed basis. PG&E argued in its petition that it had not "held out its facilities by and on behalf of the public located outside its

(Footnote continues on next page)

This clarification elicited further questions which PG&E again answered through statements of counsel. Concerning the scope of the dedication (if any) of PG&E's storage facilities, PG&E responded: "The scope of dedication depends on the facilities involved and whether any particular public utility service is being provided. In general, the answer is 'yes' [i.e., the storage facilities are dedicated] but only with respect to PG&E's service to its core customers." (Tr. 1609.) Concerning whether this dedication would extend to the use of these facilities and storage fields in a program of unbundled storage regulated by the Commission, PG&E responded: "Assuming this question is intended to encompass the storage banking proposal PG&E is sponsoring in this proceeding for noncore customers, no. In general, regulation does not mean dedication. ... The Commission's jurisdiction attaches to the extent of the terms and conditions PG&E proposes for the time PG&E offers them. PG&E does not propose to 'dedicate' any portion of its system for all time for an unbundled storage banking service on any terms and conditions. The analysis of this question in any other context depends on the terms and conditions of the other service." (Tr. 1609-10.)

PG&E has not provided any legal analysis beyond these bare assertions. In particular, PG&E has not explained how Commission jurisdiction to regulate the use of PG&E's facilities arises apart from dedication of those facilities, or how PG&E's storage facilities (which, by PG&E's own testimony, are part of an integrated system that benefits and is paid for by all of PG&E's

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service area." Shortly afterwards, the California Supreme Court denied PG&E's petition. (Minute order, March 24, 1988, in S.F. No. S00 3829.)

customers) could be dedicated to only a portion of PG&E's customers. PG&E does not make specific its legal objections to any other party's storage proposals or explain why its own storage proposal is legal under its own theories. All we can tell from this record is that if we adopt PG&E's storage proposal exactly and in total, PG&E would agree that we have the authority to do so.

The storage hearings (and especially PG&E's own testimony) make clear that the LDCs' storage facilities are dedicated to public utility service. These facilities influence the LDCs' procurement strategies; they play a role in load-balancing; and they are an essential element in system reliability. They are as much involved as the intrastate pipelines in the movement of gas across the LDCs' systems to the end-user. As PG&E and SoCal have noted repeatedly, gas stored for the core increases the noncore's access to flowing supplies during peak seasons. Our new regulatory framework for gas has thrown all of these functions of storage into high relief, but the storage facilities have been performing these functions since long before the inception of gas transportation service and the categorization of customers into core and noncore.

Even were the dedication of storage facilities less clear than it is, PG&E's reservations would not cause much concern, again for reasons that PG&E's own testimony well explains. "Banking" is not a rental of underground storage space, and we are not obligating the LDCs to surrender control of their storage facilities.[34] They will continue to operate those facilities in concert with the rest of their systems to deliver expected

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34 In fact, the banking service will have little if any effect on the physical operation of storage. None of the parties seeks operational control of the LDCs' storage fields, and as we have previously noted, banking deliveries and withdrawals may take place independent of storage injection and withdrawal.

throughput prudently and efficiently. Banking service is simply the logical complement to the transportation program and the responsibility of noncore customers to provide for their own gas supplies. The only required storage under today's decision relates to core requirements, and no one disputes either the necessity of meeting those requirements or the dedication of the storage fields for that purpose.

## IX. Implementation of Today's Decision

### A. Workshops

The unbundled gas banking service is new, complex, and different from the proposal of any one party during the storage hearings. These factors prompt a different implementation process than the usual advice letter filings.

We direct PG&E and SoCal each to file and serve an implementation plan. The plan should include rules for both regular (annual, allocated by bidding) and as-available (negotiated) banking service, a bidding protocol together with bidding and bid solicitation forms, sample notices and forms related to the nomination and balancing provisions, explanation of all billing and accounting procedures (including procedures associated with the Banking Reservation Fee Account), and any other matters relevant to implementing this service.

Interested parties will then file written comments on the implementation plans, after which an implementation workshop will start. The purpose of the workshop is to permit the parties to discuss the plans in a non-adversarial setting, clarify ambiguities and uncertainties, catch inconsistencies and omissions, and generally to work out as many of the problems as possible. CACD should help by preparing and distributing on the first day of the workshop a summary of problems, based on the submitted plans and comments, and by acting as moderator at the workshop.

The workshop may continue from day-to-day as needed, or may break into working groups and reconvene; or may otherwise provide for its own agenda, schedule, and procedure. However, our goal is that the workshop end after not more than two weeks with a report of the conferees (1) listing the generally agreed-upon provisions in the implementation plans, and (2) specifying those issues (if any) that require resolution by the Commission. Conferees may also file and serve separate statements at that time. We intend to decide any remaining issues without further hearing.

This implementation process will require the good faith and hard work of all concerned, but we think the process will educate everybody, alert us to things we may have overlooked in today's decision, and result in banking service that will minimize unpleasant surprises and accommodate everyone's needs, so far as that is possible. The process will not work if parties try to use it to relitigate issues. We stress that any objections to today's decision must be raised through the appropriate pleading (an application for rehearing or petition for modification).

We also intend the new banking service to begin with the 1989 injection season. This requires strict adherence to the schedule set out in Appendix C.

B. Accounting and Accountability

The banking services approved in today's decision should not significantly complicate the physical operation of the LDCs' systems. The LDCs will retain physical control and will have essentially the same task that they have currently of optimizing system operation in light of anticipated throughput. What will change significantly is the bookkeeping associated with that throughput.

Current equipment on the systems of the LDCs and interstate pipelines provides little real-time detail on gas flows, and certainly not enough information for the LDC to know, on a real-time disaggregated basis, which transport or banking

customer's gas the LDC is receiving. Some of the parties (notably Mock) criticize PG&E's practices in accounting for deliveries of transport gas into the PG&E system. According to Mock, PG&E uses inappropriate rules to allocate deliveries to particular customer accounts and is inflexible (compared to SoCal) in allowing "true-ups" based on updates or corrections from the interstate pipeline.

Given the poor quality (at least for the foreseeable future) of information on deliveries of transport and banking volumes into the LDCs' systems, "true-ups" seem to be a commercial necessity. The LDCs should take a pragmatic approach, as SoCal seems to be doing. However, we will not adopt a set of accounting rules in today's decision. The subject is intricate, the record (at least in this regard) is rather general, and we frankly believe that the parties at the implementation workshops are better able than we are to work out what is commercially reasonable under the circumstances of the adopted banking services. The LDCs' implementation plans should include detailed accounting procedures for the new services. Shell/Salmon and other parties note that LDCs in other jurisdictions presently offer various forms of banking service, so we are launching into previously explored territory.

## X. Response to Comments on ALJ's Proposed Decision

Our Rules of Practice and Procedure allow comments on proposed decisions. Such comments "shall focus on factual, legal or technical errors in the proposed decision and in citing such errors shall make specific references to the record. Comments which merely reargue positions taken in briefs will be accorded no weight and are not to be filed." (California Code of Regulations, Title 20, Rule 77.3.) The parties' comments on the proposed

decision on gas storage banking generally conformed to this rule.[35]

We have substantially modified the proposed decision. Many commenters, including some supporters of unbundling storage, urged us to proceed cautiously at this time, citing current problems in transporting customer-owned gas and the sheer mass of recent changes affecting gas customers, suppliers, pipelines, and distributors. Thus, we authorize a pilot program for 1989-90. The program will give us experience with many aspects of storage banking, which should smooth the transition to unbundled banking service starting in 1990.

PG&E and SoCal felt that the initial storage target, as described in the proposed decision, did not adequately recognize the price function of storage. However, finding of fact 2 says that banking service "should not be permitted to...increase the cost of serving core customers." The LDCs apparently interpreted "core peak season needs" (see Section IV.A.2) to refer only to reliability. The correct view, expressed in Edison's reply comments, is that the initial storage target allows the LDC to store "enough core portfolio gas to provide core customers with the price function benefit as well as winter supply security." Section IV.A.2 is revised to clarify how price and reliability functions are considered in the initial storage target.

SoCal is concerned that our storage target process does not adequately insure peak day requirements. In particular, SoCal

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35 Our Docket Office correctly rejected the comments of two parties (DGS and Poco) that served their comments on time but failed to present a signed original, as required by Rule 77.2. We grant their respective motions for leave to file late comments. However, we are disturbed at the disregard of this clear requirement. For the future, we advise the parties and our ALJs that inadvertent error is not adequate to excuse compliance with Rule 77.2.

notes that customer-owned gas can be used to sustain APD pressures in the storage fields, but cannot be diverted to meet core needs absent a Commission-declared supply emergency. However, SoCal has not grasped the significance of the LDC's ability under our approach to adopt a revised storage target. Assume that there is no demand for storage banking whatsoever: the LDC would simply revise its initial target to fully encompass system integration and reliability functions, including both supply and deliverability under APD conditions. If there is some but (in the LDC's judgment) still inadequate demand for storage banking to ensure that all storage functions are provided for, then the LDC again would revise its initial target to supplement that gas and the customer-owned gas in storage. Even if the demand for storage banking is high, the LDC can still raise its initial target if it believes, consistent with the storage functions we have discussed, that such revision is prudent. The whole purpose of our two-step storage target process (and other safeguards in the banking program) is to ensure that the LDC always has the opportunity to optimize use of its storage facilities.[36]

We have determined that the LDC's management obligations regarding the core portfolio require the LDC to include core-elect customers' loads in calculating the initial storage target. However, core-elect customers (following implementation of regular banking service in April 1990) will have to pay a value-based reservation fee, like other noncore customers that bid for and obtain storage banking.

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36 In Section IV.A.3 above, we noted that a logical price criterion applicable to SoCal's initial storage target might justify setting that target as high as 60 bcf, an amount that exceeds SoCal's January APD requirement. An initial target at that level seems to moot SoCal's concerns, even without considering the LDC's ability to revise its initial target.

Some of the testimony, as well as the comments, reflect some confusion between the cycling capability of storage fields and total gas in the fields, which includes large quantities of gas that must remain in the fields at all times to ensure their operability and physical integrity. To clarify, when we refer to gas storage volumes in this decision, we mean gas that can be cycled in and out of the fields.

We agree with the comments that have urged us to have uniform balancing provisions for both transportation and banking services. We also see a need to establish an initial set of balancing provisions now, in order to implement the pilot program. Therefore, we may revise the balancing provisions described in Section IV.E in connection with our order adopting final rules governing gas procurement and related matters. (See Order Instituting Rulemaking 88-08-018.)

We continue to provide 12-month balancing for the core load of wholesale customers on the basis of the proportionate amount of the LDC's fixed costs of storage allocated to the wholesale customer's core class. However, we are willing to consider alternatives whereby wholesale customers could use an approach to setting core storage targets similar to what we have created for the primary utilities. The wholesale customers may present their proposals for such alternatives in the reports that we have requested from them on the pilot program.

Other notable changes to the ALJ's Proposed Decision include a new approach to the billing of transportation charges for banked gas, clarification of the treatment of wholesale customers, and revision of the LDC incentive. We have also added Appendix E to aid preparation and review of the LDCs' implementation plans.

## Findings of Fact

1. Gas storage by LDCs on behalf of core loads serves both a price function and a reliability function.

2. Gas storage banking service enables retail noncore customers and wholesale noncore loads to take advantage of the price function of storage. Gas banked for such noncore loads should not be permitted to interfere with service reliability for core loads or otherwise increase the cost of serving core portfolio customers.

3. Gas storage banking should promote optimal use of the LDC's total system.

4. The LDC's initial storage target is based on the peak season needs (considering both price and reliability) of core (P1-P2A) and core-elect customers in a 2.0 standard deviation cold year. The target does not include additional volume to meet APD field pressures.

5. Withdrawal of gas by banking customers is subject to curtailment where necessary to ensure APD deliverability.

6. The LDC should publish, along with the initial storage target and volumes available for banking, the APD schedule from which the LDC would determine that gas could or could not be withdrawn from storage without jeopardy to APD requirements. This information and the LDC's solicitation of banking service bids will normally be published in early February.

7. The bidding for regular banking service should allow enough time for potential banking customers to make plans and prepare bids, and for LDCs to think and rethink their storage strategy and schedule before the beginning of the annual injection season.

8. The LDC should have discretion in using any banking capability remaining after award of banking volumes through bidding. The LDC may continue to fill its storage facilities, and will certainly do so if its initial storage target and regular banking are inadequate to ensure APD deliverability. The LDC may also provide as-available banking, which would be interruptible before regular banking service.

9. SoCal has not demonstrated through economic or other relevant analysis any prudent basis for adhering to its one year-in-100 cold season planning criterion.

10. Fees for regular banking service should have a value-based component and a variable cost component. The value-based component ("banking reservation fee") allocates banking capacity and is set by bidding. The bidding results in an annual fixed charge in equal monthly installments.

11. The regular banking service should have a 12-month term, commencing on April 1 each year. This date corresponds to the beginning of the LDC's injection season.

12. The potential banking customer will submit its sealed bid (expressed in mills/therm/year) in the form of a list that would show a variety of price levels and the banking volume that the customer would request at each level. The list would start at two mills and proceed upward in two-mill increments. After the close of bidding, the LDC will select the banking reservation fee that maximizes reservation of banking capability.

13. Where the LDC itself is a bidder on behalf of its electric department, the LDC will submit its bid under seal to the CACD.

14. SoCal should be authorized to recover its variable injection costs through an in-kind charge, using as the basis its average projected gas consumption after meeting the initial storage target. PG&E may choose between a monetary or in-kind charge but should indicate its choice in its implementation plan. In either case, the basis for the charge is PG&E's average projected electricity consumption after meeting the initial storage target.

15. Variable costs should include a factor for uncollectibles and apply to the cost-based charges collected from all banking customers except wholesale customers.

16. The variable O&M costs of the underground storage fields (excluding pumping energy) are a reasonable proxy for the variable

O&M of the banking service. However, the LDCs should reconsider their calculation of variable O&M in light of the level of banking capability contemplated in today's decision.

17. The transportation charge for banking volumes should be billed to match the incurrence of costs, half when the gas is "deposited" and half when withdrawn and delivered, using the applicable rate at each time. A broker or supplier that banks on its own account (under the as-available banking service) would pay the highest noncore transportation rate in effect when it nominates volumes for "deposit"; when these volumes are withdrawn, the broker or supplier would pay the rate applicable to the customer receiving the gas for consumption.

18. Banking customers will potentially bear a significant part of the variable costs of the LDC's storage operations.

19. Generally, all California noncore customers are eligible for banking service. Wholesale customers are entitled to banking service based on the share of LDC fixed storage costs allocated to their respective core loads. They may get additional service (regular or as-available) on the same basis as other noncore customers.

20. The interim approach to storage by wholesale customers in D.88-03-085 is eventually to be superseded by today's decision. This supersedure is contingent on the full implementation of regular banking service in time for the injection/withdrawal cycle starting on April 1, 1990.

21. Gas storage banking is intended solely for gas to be consumed in California.

22. Brokers and suppliers are not eligible for the regular banking service but may act as agents for eligible customers. Brokers and suppliers may get as-available banking service (where offered by the LDC) on their own or their clients' account.

23. Core-elect customers are noncore customers who, by virtue of their election, express a preference for price stability and

supply security (in the form of a longer-term portfolio) as to at least part of their requirements. Core election does nothing except entitle such customers to a commodity price equal to the core WACOG. The core-elect customer, like the rest of the noncore, must pay extra if it wishes to benefit directly from storage banking capability.

24. Commencing with regular banking service, LDCs' initial targets will include a banking volume intended for core-elect customers, based on LDC management appraisal of core-elect consumption, load shapes, and seasonal gas price differentials. This specification of banking volume for core-elect customers will be subject to reasonableness review.

25. The auction price will be used to price core-elect banking service after-the-fact. Since core-elect customers, unlike the rest of the noncore participants in the banking program, will not have had the opportunity to bid a volume associated with the eventual banking price, the core-elect monthly reservation fee is capped at 125% of the previous year's fee. The revenues calculated from the target volume and banking price will be converted into a per-therm, average reservation fee for all core-elect volumes, to be collected in rates through a separately-stated volumetric charge.

26. Some customers choose core election for only part of their needs. Such customers may bid like other noncore customers as to the remaining part of their needs.

27. As-available banking is an incremental service, curtailable ahead of the regular service, offered on a nondiscriminatory basis for varying terms (but always less than a year), and using any banking volumes that might remain after provision for both the volumes allocated through the regular service and the LDC's revised storage target.

28. Fees for the as-available service, like the regular service, would have variable cost and value-based components.

Costs should be computed on an updated basis to reflect actual conditions on the LDC's system. Variable cost fees would be charged on a volumetric basis, and the same types of costs would be includable in both types of service. Value-based fees would be negotiable downwards from the monthly fee derived from the bidding for the regular service.

29. The treatment of revenues from the value-based component of as-available banking fees will be the same as for regular banking.

30. Injections into and withdrawals from storage on behalf of core loads (both the LDC's own core and that of its wholesale customers plus the LDC's core-elect customers) take priority over any storage operation to provide banking service. As among banking customers, those with banked volumes under the regular service take priority over as-available banking customers.

31. If the LDC experiences a capacity constraint anywhere on its system (in the storage fields or on its pipelines) such that the LDC cannot move banked gas, then the LDC will curtail all regular banking customers based on the existing noncore priorities (P2B-P5) of the respective customers, to the extent necessary after fully curtailing its as-available banking service. A curtailment affecting only as-available banking service would likewise be carried out on the basis of existing noncore priorities, except that brokers/suppliers would be curtailed first. These rules apply whether the constraint affects banking "deposits" or "withdrawals."

32. Banking withdrawal capacity may be constrained for two general reasons: (1) if drawing down the reservoir would eliminate the pressure necessary to sustain withdrawals under APD conditions; and (2) if total withdrawal capacity were needed for the core portfolio because insufficient supply were delivered by interstate pipeline supply sources, or LDC-owned gas in storage were more economic than incremental sources of flowing supply.

33. Banking services require implementation of a nomination procedure for "deposits" and "withdrawals." The LDC will use these nominations in planning how to move banked volumes and in effecting curtailments.

34. All banking services, other than for wholesale core loads, are provided only through the "best efforts" of the respective LDCs. Accordingly, there will be no rebate of banking reservation fees in the event of a curtailment.

35. Access to storage banking will enhance gas-to-gas competition in California, but it may also complicate the LDC's task of balancing its system. Proper system balancing is necessary for controlling costs and ensuring reliability. Thus, those who benefit from greater access to LDC facilities, including the LDC's pipelines and storage fields, must also bear (1) the responsibility of complying with reasonable conditions on their use of the facilities, and (2) any increased costs that result from failure to comply with those conditions.

36. Short-term load balancing is bundled in the transportation rates and provided routinely through "line pack" (increasing the pressure in the LDC's pipelines to hold more gas) and/or operation of some of the LDC's smaller storage fields. However, rules are needed to govern balancing service to banking customers for more than short-term imbalances.

37. Where less gas shows up than the LDC has been led to expect, the LDC has some protection because the banking reservation fee is payable whether or not the full volume is used. Also, the banking customer may release some or all of its unused reserved volume to the LDC, if the LDC consents. Finally, the LDC may take back unused reserved volume under a use-it-or-lose-it provision. This provision will require the LDC to give written notice of a deficit greater than 10% in the banking customer's "deposits" compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, then the LDC may

either (1) take back unused volume exceeding the 10% margin (in which case the LDC must prospectively reduce the banking customer's reservation fee on a proportional basis for months following the take-back), or (2) fill the unused volume up to the 10% margin, billing the banking customer for the LDC's gas at the rate for the proposed "standby service."

38. When more gas shows up than the LDC has been led to expect, this constitutes "unscheduled" banking. In this situation, the LDC may bill banking charges for the excess gas (i.e., the amount by which the customer's "deposits" exceed its nominations by more than 10%, after notice and opportunity to correct, as described in Finding 37), including the LDC's variable costs and 125% of the monthly reservation fee for "scheduled" banking. Otherwise, the LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or (2) proportionally reduce the nominations during the month following the end of the notice period to bring the customer's balance within the 10% margin.

39. When the banking customer has gas in its account at the end of its contract term, the customer may be able to get a new contract (either by successfully bidding for the regular service or obtaining as-available service if offered). Otherwise, the LDC will buy the gas remaining in the account at the price of its lowest incremental source.

40. Banking service (whether regular or as-available) is limited to the term of the contract between the banking customer and the LDC. A current banking customer is not guaranteed the same or any banking volume during a later term, nor does that customer obtain preferential access to banking capability at the end of its existing contract.

41. Banking service (whether regular or as-available) is not transferable, except that the customer may release some or all of its unused reserved volume back to the LDC with the LDC's consent.

If the LDC agrees to the release, then the customer's obligation to pay banking reservation fees is cancelled or proportionally reduced for all months in the contract term following the month in which the release is accepted.

42. The LDCs' implementation plans should include a proposed nomination procedure for banking "deposits" and "withdrawals." The nomination procedure will apply to banking customers generally, except that wholesale customers will not be required to nominate core gas from storage in winter. There will be no minimum or maximum nomination. SoCal's proposed minimum banking quantity is unreasonably high, considering that the banking service is essentially an accounting transaction. An appropriate minimum is two million cubic feet over an injection season, equivalent to about one month's consumption by a noncore customer consuming at the minimum rate to qualify for noncore status.

43. The LDCs will each book to an appropriate account the value-based component of fees collected in connection with banking services. The LDCs will keep a small portion of these fees, collected during the pilot program, as an incentive. Based on the same principle that we have previously applied to the disposition of transportation priority charge revenues, the remainder of these fees should go to reducing the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage.

44. Without experience or other basis for projection, the revenues resulting from banking customers' bids cannot practically be dealt with on a forecast basis. However, the pilot program will provide such a basis. Revenues from reservation fees should be forecast before commencement of regular banking service in April 1990. LDC shareholders should retain any such revenues in excess of the forecast.

45. The LDC will experience new and possibly increased risks in operating the banking service. This exposure to risk should be accompanied by opportunity for gain.

46. The LDC should not be placed in a conflict-of-interest, so any revenues from bids submitted by the LDC's electric department should be excluded in calculating the portion of banking reservation fees from the pilot program to be retained by shareholders. Revenues from wholesale customers to cover banking service for their core loads are also excluded. We will set the LDC incentive during the pilot program at 5% of the reservation fee revenues (minus the exclusions just mentioned).

47. The LDCs' storage facilities influence the LDCs' procurement strategies; they play a role in load-balancing; they are an essential element in the reliability equation and the system integration function. They are as much involved as the intrastate pipelines in the movement of gas across the LDCs' systems to the end-user. As PG&E and SoCal have noted repeatedly, gas stored for the core increases the noncore's access to flowing supplies during peak seasons. The storage facilities have been performing these functions since long before the inception of gas transportation service and the categorization of customers into core and noncore.

48. Given the current poor quality of information (in real-time, disaggregated terms) on deliveries of transport and banking volumes into the LDCs' systems, "true-ups" seem to be a commercial necessity. The LDCs' implementation plans should include detailed accounting procedures for the new services.

Conclusions of Law

1. Today's decision does not affect the cost allocation factors previously adopted for the new regulatory framework for natural gas.

2. The pilot storage program for 1989-90 is in addition to our interim approach (in D.88-03-085) to storage by wholesale customers. That approach continues in effect during the pilot storage program until superseded by full implementation of regular banking service in time for the injection/withdrawal cycle starting on April 1, 1990.

3. All gas banked under the pilot program or regular or as-available storage banking service must be consumed in California.

4. The LDCs' underground storage fields are facilities dedicated to public utility service.

5. This decision should be made effective immediately in order to complete implementation of the pilot program before the beginning of the 1989 injection season.

## INTERIM ORDER ON GAS STORAGE BANKING SERVICE

**IT IS ORDERED** that Pacific Gas and Electric Company and Southern California Gas Company shall file plans to implement the pilot program approved in this decision. The plans shall be consistent with the foregoing Findings of Fact and Conclusions of Law, and shall be filed, served, commented upon, and reviewed for final approval in conformity with the schedule in Appendix C.

**IT IS FURTHER ORDERED** that the interim approach to storage by wholesale customers, instituted in Decision 88-03-085, shall continue during the pilot program but shall be superseded upon full implementation of the regular banking service in time for the beginning of the 1990 injection season (approximately April 1, 1990).

This order is effective today.

Dated November 9, 1988, at San Francisco, California.

STANLEY W. HULETT
President
DONALD VIAL
FREDERICK R. DUDA
G. MITCHELL WILK
JOHN B. OHANIAN
Commissioners

I CERTIFY THAT THIS DECISION WAS APPROVED BY THE ABOVE COMMISSIONERS TODAY.

[illegible] Executive Director

**APPENDIX A**


List of Appearances

Respondents: Patrick G. Golden, Richard Meiss, and Judi K. Mosley, Attorneys at Law, for Pacific Gas and Electric Company; Luce, Forward, Hamilton & Scripps, by Steven S. Wall, Attorney at Law, for San Diego Gas & Electric Company; R. B. Keeler and G. J. Sullivan, Attorneys at Law, Roy M. Rawlings and Maureen Lennon, for Southern California Gas Company.

Interested Parties: C. Hayden Ames, Attorney at Law, for Chickering & Gregory; Armour, St. John, Wilcox, Goodin & Schlotz, by James D. Squeri, Attorney at Law, for Kelco Division of Merck & Company; Baker & Botts, by Steve Hunsicker, Attorney at Law, for Tenneco Oil Company and Conoco, Inc.; Brady & Berliner, by Roger A. Berliner and John W. Jimision, Attorneys at Law, for Amoco Canada and Amoco Energy Trading Corporation (jointly), Poco Petroleums, Ltd., Dome Petroleum Ltd., and Canadian Producer Group; Matthew V. Brady, for Department of General Services; Brobeck, Phleger & Harrison, by Gordon E. Davis, Attorney at Law, and Squire, Sanders & Dempsey, by Keith R. McCrea, Attorney at Law, for California Manufacturers Association and California Industrial Group; Thomas Carmel, Attorney at Law, for Conoco, Inc.; Deborah M. Chance, for Meridian Oil, Inc.; Charles E. Doering, for the City of Long Beach; Richard A. Drom, for Exxon Corporation; Martin E. Drumm, for City of Pasadena; Richard K. Durant, Frank J. Cooley, and Michael Gonzales, Attorneys at Law, for Southern California Edison Company; David Dyck, for AOGC; Karen Edson, for KKE & Associates; Eric Eisenman, Clark Smith, and Cheryl Foley, for Enron Corporation and Transwestern Pipeline Company; Michael D. Ferguson, Attorney at Law, and Gary D. Simon, for El Paso Natural Gas Company; Frederic C. Fletcher, for the City of Burbank; Michel Florio, Mark Barmore, Attorneys at Law, and Sylvia M. Siegal, for Toward Utility Rate Normalization; Graham & James, by Boris H. Lakusta, Martin A. Mattes, Michael P. Hurst, David J. Marchant, and Norman A. Pedersen, Attorneys at Law, for Kern River Gas Transmission Company, Amerada Hess Corporation, and Southern California Utility Power Pool and Imperial Irrigation District; Rand L. Havens, for Mission Resources; Fred Dorey, Attorney at Law, for Kern River Cogeneration Company; Thomas R. Hunt, II, for California Independent Producers Association; Lindsay, Hart, Neil & Weigler, by Michael Peter Alcantar, Attorney at Law, for Cogenerators of Southern California; Henry F. Lippitt, 2nd, Attorney at Law, for California Gas Producers Association; Jackson, Tufts, Cole & Black, by William H. Booth, for Mobil Oil

Corporation; Luce, Forward, Hamilton & Scripps, by John W. Leslie, Attorney at Law, for Shell Canada Limited, Salmon Resources Limited, and Mock Resources, Inc.; Marron, Reid & Sheehy, by Melanie S. Best; Patrick McDonnell, for Agland Energy Service, Inc.; Leamon V. Murphy, for Imperial Irrigiation District; Judy Obst, for San Diego Gas & Electric Company; Robert L. Pettinato, for Los Angeles Department of Water and Power; Patrick J. Power, Attorney at Law, for Hadson Gas Systems; Patrick J. Power, Attorney at Law, and Tony Bennetti, for City of Palo Alto; Patrick J. Power and Richard Alesso, Attorneys at Law, for City of Long Beach; Paul M. Premo, for Chevron; Phyllis Rainey, Attorney at Law, for Tenneco Oil Company; Norma J. Rosner, Attorney at Law, for Arco Oil and Gas Company; Lawrence W. Silva, for City of Glendale; Drazon Brubaker & Associates, by Donald W. Schoenbeck, for Watson Cogeneration Company; Skaff & Anderson, by Andrew J. Skaff and Kenneth Randolph, Attorneys at Law, for Mojave Pipeline Operating Company and Natural Gas Clearinghouse; Downey, Brand, Seymour & Rohwer, by Phillip Stohr, Debbie Tellier, and Christopher Ellison, Attorneys at Law, for Industrial Users Group; Brian Sway, for California Gas Cooperative and Capitol Oil Corporation; Robert R. Weisenmiller, for Morse, Richard, Weisenmiller & Associates; Harry K. Winters, for University of California; Morrison & Foerster, by Jerry R. Bloom, Attorney at Law, for California Cogeneration Council; Steven Cohn, Attorney at Law, for California Energy Commission; Robert K. Weatherwax, for Sierra Energy & Risk Assessment, Inc. (SERA); and Barkovich & Yap, by Barbara R. Barkovich; Dian M. Grueneich, Attorney at Law; and Elliot J. Roseman, for themselves.

Division of Ratepayer Advocates: Robert Cagen, Attorney at Law, Brian D. Schumacher, and Geoffrey W. Meloche.

(END OF APPENDIX A)

# THE NEXT 3 DOCUMENTS ARE POOR ORIGINALS

MICROFILMING SERVICES WILL NOT ASSUME RESPONSIBILITY FOR THE IMAGE QUALITY

# Positions on Gas Banking/Storage Issues (I.87-03-036)

note: NP = no position

| | PG&E | SoCal | TURN | DRA |
|---|---|---|---|---|
| 1. Nature of Bnkng/Stg Service | | | | |
| a. banking v. space rental | banking | space rental | NP | space rental |
| b. unbundle v. incremental | incremental | incremental | incremental | incremental |
| c. firm v. best-efforts | best-efforts | best-efforts | best-efforts | best-efforts |
| d. load-balancing<br>- separate chg?<br>- "free" period<br>- % "free" range | <br>yes<br>1 month<br>10% | <br>yes<br>2 months<br>10% | <br>NP<br>NP<br>NP | <br>yes<br>NP<br>NP |
| 2. Relationship between stg fixed cost alloc and access to banking/storage service | none | none | none | none |
| 3. Priority of access to banking/storage service during system constraints | use supply priority for sup constraint; use cap priority for cap constraint | i/s priority depends on level of banking rental charge | use cap priority when both withdrawals & interstate capacity are used to maximum | NP - CPUC should clarify |
| 4. Relationship between bnkng/storage services and core-elect procurement | gas from storage is part of core portfolio supply | no special operation of storage for core-elect | NP | NP - CPUC should clarify |
| 5. Factors affecting calc of banking/storage service availability | P1/P2A rqmts; core election; P1-P4 cold yr rqmts; P1-P5 avg yr rqmts; inj capability; flowing supply availability; gas prices | "Big 4" cap net of higher of P1-P4 cold yr or P1-P7 avg yr, and core RPO | total system demand | core rqmts; core election; ↓in oblig to serve; inj capability; flowing supply availability |
| 6. Banking/storage service availability for 1988-89 | undetermined (zero if calc'd by SoCal methodology) | 16.7 Bcf | NP | NP |
| 7. Eligibility for banking/storage services | noncore cust (sup/brokers only as agents) | only limitation is gas must be used in California | NP | NP |
| 8. Rate design | | | | |
| a. rate components<br>- rental chg (basis, how payable, max/min) | set by cust bid; fixed annual chg billed monthly | neg w/ceiling; $/th-in-stg/mo | NP | min to cover variable costs; |
| - vol chg (basis, how payable) | cost based; $/th/mo | cost based; $/th/mo + in-kind | NP | no maximum |
| b. term of service | 1 yr (negotiable) | 1-18 mo (neg) | NP | 1-12 mo (neg) |
| 9. Disposition of revenues | | | | |
| a. rental revenue | customer/utility share | all rev toward noncore margin; then rest to customers | customer/utility share | customer/utility share |
| b. volumetric revenue | utility keeps | utility keeps | utility keeps | utility keeps |
| c. cust v. shareholders | proportional to risk 50/50 is reasonable | | 5% to shareholders 95% to customers | at least 85% to cust 15% to shareholders |
| d. between cust classes | proportional to curtailment risk or/fixed cost alloc | 75% core - 25% noncore | proportional to fixed cost alloc | proportional to fixed cost alloc |
| 10. Operational Control | primary utility | primary utility | primary utility | primary utility |

# Positions on Gas Banking/Storage Issues (I.87-03-036)

note: NP = no position

| | SDG&E | Long Beach | SCE | SCUPP/IID |
|---|---|---|---|---|
| 1. Nature of Bnkng/Stg Service | | | | |
| a. banking v. space rental | banking | space rental | NP | PG&E: banking<br>SoCal: space rental |
| b. unbundle v. incremental | unbundled | unbundled | incremental for now unbundle later | incremental for now<br>*prefer unbundled |
| c. firm v. best-efforts | firm, w/in op limits | firm | best-eff for noncore | SoCal: interuptible |
| d. load-balancing | | | | |
| - separate chg? | yes | no | no, unless costs unbun | no |
| - "free" period | NP | NP | NP | 1 month |
| - % "free" range | NP | NP | NP | 10% |
| 2. Relationship between stg fixed cost alloc and access to banking/storage service | cost allocation basis for access | cost allocation basis for access | if unbundled: cost allocation basis for access | cost allocation basis for access |
| 3. Priority of access to banking/storage service during system constraints | always use capacity priority | always use capacity priority | i/u priority depends on level of banking rental charge | for SoCal - core then by priority charge<br>for PG&E - according to bid level |
| 4. Relationship between bnkng/storage services and core-elect procurement | NP | NP | core-elect gets stg benefits equal to noncore | core-elect gets stg benefits equal to noncore |
| 5. Factors affecting calc of banking/storage service availability | percentage of storage capacity equivalent to fixed cost allocation | core rqmts; balancing rqmts; +in oblig to serve | CPUC to set guidelines; independent of procurement election | core PPO and seasonal rqmts |
| 6. Banking/storage service availability for 1988-89 | 11.4% SoCal capacity (less short-term balancing vol) | 33.1 Bcf for SoCal | incr: SoCal - 16.7 Bcf unbundled: based on stg costs allocated to noncore | depends on factors in no.5 above |
| 7. Eligibility for banking/storage services | wholesale cust | noncore & whlsl cust; then sup/brokers; no primary utilities | noncore cust then sup/brokers | noncore cust (sup/brokers as agents) |
| 8. Rate design | | | | |
| a. rate components | | | | |
| - rental chg (basis, how payable, max/min) | rate based on embedded cost alloc | rate based on fixed cost alloc | determined by sealed bid; no minimum or maximum | SoCal - bid w/ceiling<br>PG&E - sealed-bid |
| - vol chg (basis, how payable) | | | cost-based cycle + fee | cost-based |
| b. term of service | NP | NP | annual stg plng cycle | 1 yr (negotiable) |
| 9. Disposition of revenues | | | | |
| a. rental revenue | NP | noncore customers to receive rev credit assoc'd w/ specific amount of banking; utility retains any excess | should be refunded if gas not delivered within 24 hours | SoCal: ret to noncore<br>PG&E: cust/utlty share |
| b. volumetric revenue | NP | | utility keeps | utility keeps |
| c. cust v. shareholders | NP | | based on risk and market incentive | SoCal: 100% to cust<br>PG&E: prop to risk |
| d. between cust classes | NP | | +in N/C share prop to stg cost alloc | SoCal: 100% to noncore<br>PG&E: NP |
| 10. Operational Control | primary utility | primary utility | primary utility | primary utility |

# Positions on Gas Banking/Storage Issues (I.87-03-036)

note: NP = no position

| | CIG/PGCO | Shell Canada/ Saleson/Mock | Palo Alto |
|---|---|---|---|
| 1. Nature of Bnkng/Stg Service | | | |
| a. banking v. space rental | space rental | banking and space rental | both - utilities offer 2 services |
| b. unbundle v. incremental | stated existing capacity unbundled; add'l capac. incrm'l | prefer unbundled | unbundle |
| c. firm v. best-efforts | virtually firm | virtually firm | firm |
| d. load-balancing<br>- separate chg?<br>- "free" period<br>- % "free" range | no<br>up to 3 mos.<br>10% cumulative / mo. | yes<br>90 days<br>10% | NP<br>NP<br>NP |
| 2. Relationship between stg fixed cost alloc and access to banking/storage service | cost alloc. justifies access, not basis for capacity share | cost allocation basis for access | firm access guaranteed due to fixed cost allocation |
| 3. Priority of access to banking/storage service during system constraints | always use capacity priority | use capacity priority for withdrawal; alloc ws space based on stg priority chg | NP |
| 4. Relationship between bnkng/ storage services and core-elect procurement | core-elect gets stg benefits equal to noncore | core-elect gets storage benefits equal to noncore | NP |
| 5. Factors affecting calc of banking/storage service availability | Affected seasonal requirements of core (excluding core-elect) | fixed cost allocation; core rents; load balancing | NP |
| 6. Banking/storage service availability for 1988-89 | 16.7 Bcf for SoCal<br>10 Bcf for PG&E | 20.9% SoCal capacity<br>46.4% PG&E capacity | NP |
| 7. Eligibility for banking/ storage services | core-elect and noncore customers (suppliers/brokers/ utilities only as agents for these) | core-elect must take and pay; other noncore must optional; then suppliers/brokers | core load eligible for firm service |
| 8. Rate design | | | |
| a. rate components<br>- rental chg (basis, how payable, max/min) | alloc. cost max rate w/ downward-only discounting | unbundled: based on alloc storage costs; incr: based on var costs only; incl stg priority chg | NP |
| - vol chg (basis, how payable) | ws based on injection costs | cost-based: inj fuel + variable O&M | NP |
| b. term of service | NP | 1 yr | NP |
| 9. Disposition of revenues | | | |
| a. rental revenue | rev. for stated capacity ret. to customers; util. keeps rev. from incrm'l capacity | unbundled: utility keeps all but priority charge incr: return to cust | NP |
| b. volumetric revenue | utility keeps | utility keeps | NP |
| c. cust v. shareholders | 100% to customers for stated cap.; 100% to utility for incr'l cap | unbundled: 100% to utility incr: 100% to cust | NP |
| d. between cust classes | 100% to noncore | 100% to noncore (months/th alloc) | NP |
| 10. Operational Control | primary utility | primary utility | primary utility |

## APPENDIX C

### Schedule for Implementation of Pilot Program

| | |
|---|---|
| December 2, 1988 | PG&E, SoCal file implementation plans |
| December 21, 1988 | Other parties file comments on the plans |
| January 11, 1989 | Workshops start |
| January 25, 1989 | Report to the Commission by workshop participants |
| February 15, 1989 | Commission decision resolving any issues remaining after workshops |
| March 1, 1989 | PG&E, SoCal publish initial storage targets, solicit bids |
| March 10, 1989 | Due date for bids |
| March 15, 1989 | Bid winners and volumes announced |

This schedule is tentative and may be revised by Ruling of the Assigned Commissioner or ALJ.

(END OF APPENDIX C)

## Table of Acronyms and Abbreviations

This table contains an expansion of each acronym and abbreviation used in today's decision. Following the expansion is a reference to the section in the body of the decision where the acronym or abbreviation first appears.

| | |
|---|---|
| ACAP | Annual Cost Allocation Proceeding (IV.B.3) |
| ALJ | Administrative Law Judge (III) |
| APD | Abnormal Peak Day (II) |
| BCF | Billion Cubic Feet (IV.A.3) |
| CACD | Commission Advisory and Compliance Division (IV.B.1) |
| CIG | California Industrial Group (III) |
| D. | Decision (IV.A.3) |
| DGS | California Department of General Services (III) |
| DRA | Division of Ratepayer Advocates (III) |
| Edison | Southern California Edison Company (III) |
| IID | Imperial Irrigation District (III) |
| LDC | Local Distribution Company (here designating PG&E or SoCal) (II) |
| Mock | Mock Resources, Inc. (III) |
| O&M | Operation and Maintenance (a category of LDC expense) (IV.B.2) |
| P | Priority (IV.A.3) |
| PG&E | Pacific Gas and Electric Company (I) |

## Table of Acronyms and Abbreviations
(continued)

| | |
|---|---|
| Poco | Poco Petroleums Ltd. (III) |
| SCUPP | Cities of Pasadena, Glendale, and Burbank, and the Los Angeles Department of Water and Power (III) |
| SDG&E | San Diego Gas & Electric Company (III) |
| Shell/Salmon | Shell Canada Limited and Salmon Resources, Ltd. (III) |
| SoCal | Southern California Gas Company (I) |
| Tr. | Reporter's Transcript (VIII) |
| TURN | Toward Utility Rate Normalization (III) |
| WACOG | Weighted Average Cost of Gas (IV.C.3) |

(END OF APPENDIX D)

# Elements of Gas Storage Banking

## Services Approved in Today's Decision

The PG&E and SoCal implementation plans must provide for the following elements, which are here abstracted from the body of the decision. This summary is for quick reference; please examine the relevant discussion in the decision itself to understand the rationale and interrelationship of the various elements. In condensing the language of the decision, a diligent effort has been made to represent the decision as accurately as possible; however, the language of the decision itself is controlling.

The list of elements covers regular and as-available banking service. Many of these elements also apply to the pilot program. An asterisk (*) appears before the number of each element applicable to the pilot program. Two of the main differences between the pilot program and unbundled storage banking services are that the Initial Storage Target will not be implemented in the pilot program, while the LDC Incentive is likely to be revised when we implement unbundled storage banking.

## Initial Storage Target

1. LDCs shall plan to store gas to supply cold year peak season needs of core portfolio customers (core and core-elect), considering both price and reliability.

2. LDCs shall announce the volume available for gas banking.

3. Withdrawal of banked gas is subject to curtailment where necessary to ensure APD deliverability.

4. LDCs shall publish, with the initial storage target, the APD schedule from which the LDC would determine that gas could or could not be withdrawn from storage without jeopardy to APD requirements.

5. The initial storage target does not include the additional volume necessary to ensure field pressure meeting the APD deliverability standard, although the LDC will revise its storage target whenever the level of storage service requested, together with the initial target, does not meet the APD standard.

6. The storage banking system is essentially an accounting mechanism whereby the LDC obligates itself, for a fee, to deliver gas to the banking customer or designated end-user.

7a. SoCal shall calculate the banking volume available by subtracting its initial target, plus the small amount of underground storage used for short-term load balancing, from its total storage field capacity. The initial target is the volume of gas storage necessary to supply core peak season needs.

*7b. PG&E will present its proposed methodology for calculating the banking volume available in its first report (May 1, 1989) during the pilot program.

8. In early February, LDCs shall publish the initial storage target, banking volume availability, and solicitation for banking service bids. If bid volumes are inadequate to ensure that APD requirements are satisfied, the LDC shall announce a revised storage target. Otherwise, it may announce a revised storage target.

9. The LDC's reliability criterion for the initial storage target shall be based on core (P1-P2A) and core-elect peak season needs in a 2.0 standard deviation cold year.

Fees for Gas Storage Banking

*10. Fees for gas storage banking consist of a value-based component and a variable cost component. The value-based component is the banking reservation fee. The variable cost component consists of the injection energy cost, the variable O&M cost, and a factor for uncollectibles.

*11. Banking volumes available on the LDC's system shall be allocated by bid with no set maximum charge.

*12. Banking capability shall be reserved for a customer by the payment of an annual banking fixed charge (banking reservation fee) in equal monthly installments.

13a. Regular banking service shall be for an annual term beginning on April 1 each year.

*13b. The pilot program shall be for a 12-month term beginning on April 1, 1989.

*14. The storage banking system is not a rental of storage space.

*15. The banking reservation fee buys a reservation of capability on the LDC's system whether or not the banking customer is able to make use of it.

*16. The banking reservation fee bidding system results in a single fee that will not be higher than the price the customer is willing to pay for the awarded banking volume.

*17. The potential banking customer shall submit its banking reservation fee bid (expressed in mills/therm/year) in the form of a list of price levels and the banking volume the customer would request at each level. The list shall start at two mills and move upward in two-mill increments.

*18a. After the close of bidding, the LDC shall select the single banking reservation fee that maximizes reservation of available banking capacity.

18b. Core-elect customers shall pay the reservation fee that results from the bidding, except that the fee shall not exceed 125% of the reservation fee determined from the preceding year's auction.

*19. LDCs shall prepare bidding forms and instructions and give them to potential banking customers upon request. The instructions shall include the LDC's APD schedule and banking capability.

*20. The opening of the bids, and the designation of the reservation fee, winning bidders, and their volumes, shall be conducted with appropriate safeguards to insure the integrity of the process.

*21. LDCs shall propose a detailed bidding protocol as part of their implementation filing.

*22. The cost of the energy used to inject gas into the underground storage fields shall be recovered by SoCal through an in-kind charge against each banking customer's "deposits."

*23. SoCal shall recompute the in-kind charge using its average projected gas consumption to inject banking gas after meeting core storage needs.

*24. PG&E may recover its injection energy costs either in-kind or through a monetary charge. It shall indicate its choice in its implementation plan. The basis for the injection energy costs shall be its average projected electricity consumption to inject banking gas after meeting core storage needs.

*25. LDCs shall calculate a charge for variable O&M expenses using the variable costs of the storage fields (excluding injection energy) as a proxy for the variable O&M of the banking service.

*26. The factor for uncollectibles shall apply to all banking customers, except wholesale customers. The LDC shall use the factor approved in its most recent general rate case decision.

*27a. The transportation rate applicable to banking volumes shall be that under the banking customer's transportation schedule. Half of the rate shall be collected when the gas is deposited and half when the gas is nominated for withdrawal and delivered to the banking customer.

27b. A broker or supplier that banks on its own account under the as-available banking service shall pay half the highest noncore transportation rate in effect when it "deposits" banking volumes; when these volumes are withdrawn, the transportation rate is half of that applicable to the customer receiving the gas for consumption.

Eligibility for Gas Storage Banking Service

*28. Calculations performed in the ACAPs shall reflect the portion of the variable costs of the LDC's storage operations that banking customers will bear.

*29. All California noncore customers are eligible to bid for banking service.

30. This decision supersedes the interim approach to load balancing by wholesale customers specified in D. 88-03-085 unless implementation of this decision is too late for the 1990 storage cycle.

31. Each wholesale customer is entitled to banking service to the extent of its core load. This entitlement is calculated from the proportionate amount of LDC fixed costs of storage represented by the wholesale customer's core load under our allocation factor (peak season cold year sales). If the wholesale customer desires additional storage service, it must bid in the same manner as other noncore customers.

*32. All banked gas shall be consumed in California.

*33. California end-users can bid for and obtain gas storage from both PG&E and SoCal whether or not they are in either company's service area as long as the end-user certifies that the banked volumes will be used in California.

*34. An organization of end-users may bid for and obtain banking service on behalf of its members as long as that activity is consistent with the organization's charter.

35. Brokers/suppliers are not eligible (except as agents for noncore customers) for the regular banking service but they could be eligible for as-available banking service if the LDC chooses to offer it.

*36. Brokers/suppliers may bid for and obtain banking service as agents on behalf of specified California end-users to whom the broker/supplier provides gas. The broker/supplier must certify that the banked volumes will be consumed in California.

37. The LDC initial storage target for its core-elect customers shall be based on general reliability and price considerations applicable to core portfolio procurement. The banking reservation fee for these customers shall be that derived from the current year's bidding, subject to a cap of 125% of the previous year's monthly reservation fee.

38. Any bid by the LDC's own utility electric generation department shall be by sealed bid submitted to CACD before the bidding deadline. No bids, by the LDC or others, shall be opened until after the bidding deadline.

39. Customers who go core-elect for only part of their needs may bid like other noncore customers for the rest of their needs.

<u>As-available Banking Service</u>

40. As-available banking service is an incremental service offered on a non-discriminatory basis for varying terms of less than a year. It uses banking volumes available after provision for both the LDC's revised storage target and regular banking service.

41. Fees for as-available service shall have variable cost and value-based components. The variable cost components shall be computed on an updated basis to reflect actual conditions on the LDC's system. Variable cost fees shall be charged on a volumetric basis, and the same types of costs would be includable in both regular and as-available banking service. Value-based fees shall be negotiable downwards from the monthly fee derived from bidding for the regular service.

42. LDCs shall propose terms for as-available banking in their implementation plans whether they expect to offer it or not.

## Priority and Curtailment

*43. Storage injection and withdrawal on behalf of core customers takes priority over banking service. Partial curtailment of banking service during the pilot program shall be based on existing noncore priorities.

44. Whenever banking service (deposits or withdrawals) is curtailed, as-available service shall be curtailed first. After all as-available service is curtailed, regular service shall be curtailed. Partial curtailment of regular service shall be based on existing noncore priorities. Partial curtailment of as-available service shall be based on existing noncore priorities except that brokers and suppliers shall be curtailed first.

*45. The LDC implementation plans shall include a nomination procedure for deposits and withdrawals by banking customers. There shall be no minimum or maximum nomination.

*46. The LDC's withdrawal capability for banking service may be constrained if (1) drawing down the reservoir compromises ADP deliverability, (2) withdrawal capability is needed by core portfolio customers because of insufficient deliveries by interstate pipelines, or (3) LDC-owned gas in storage is more economic for core portfolio customers than incremental sources of flowing supply.

## Gas Balancing

*47. All banking services are provided only through the best efforts of the LDCs. There shall be no rebates of banking reservation fees in the event of a curtailment of banking service. However, for the pilot program, the LDC shall not retain any incentive from a banking customer's reservation fee for any month in which banking service to that customer is curtailed.

*48. The banking reservation fee is payable whether or not the full volume is used.

*49. The banking customer may release some or all of its unused reserved volume to the LDC if the LDC consents.

*50. The LDC may take back unused reserved volume under a use-it-or-lose-it provision. The provision shall require the LDC to give the banking customer written notice of a deficit (measured over a one-month period) greater than 10% in the customer's deposits compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, the LDC may either (1) take back the unused volume in excess of the 10% margin, or (2) fill the unused volume up to the 10% margin, billing the customer for the LDC's gas at the proposed standby service rate. (See R.88-08-018, pp. 12-15, and Appendix B). If the LDC takes back the unused volume, it shall prospectively reduce the banking customer's reservation fee on a proportional basis for the months following the take-back.

*51a. When the banking customer's deposits exceed its nominations by more than 10%, after written notice and a 30-day grace period, the LDC may reduce the excess to no more than 10%. The LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or (2) proportionately reduce the nominations during the month following the end of the 30-day notice period to bring the customer's balance within 10%.

*51b. As an alternative to reducing a customer's excess deposits, the LDC may treat such deposits as unscheduled banking. The charges would be calculated in the same way as under as-available service, expect that the reservation fee would be 25% higher than that determined by bidding for the LDC's scheduled banking.

*52. When the banking customer has gas in its account at the end of the contract term, the LDC shall buy the remaining gas at the price of its lowest incremental source, unless the customer has a new contract due to a successful bid for regular banking service or obtaining as-available service, if offered.

Implementation Plan Filing Requirements

The following items, together with workpapers, assumptions, and supporting documentation, shall be filed as part of each LDC's plan for implementing the pilot program:

1. Bidding forms and instructions.
2. Detailed bidding protocol.
3. Injection charge calculation.
4. Choice between in-kind and monetary injection charge - PG&E only.
5. Variable O&M charge calculation.
6. Nomination procedure for deposits and withdrawals.
7. Banking contract forms.
8. Detailed accounting procedures for banking service.
9. Interutility coordination procedures, as needed, e.g., to implement banking by a customer in the other LDC's service area.
10. Proposed additions to or modifications of the preliminary statement, rules and tariffs.

(END OF APPENDIX E)

# CORRECTION

THIS DOCUMENT HAS

BEEN REPHOTOGRAPHED

TO ASSURE

LEGIBILITY

*48. The banking reservation fee is payable whether or not the full volume is used.

*49. The banking customer may release some or all of its unused reserved volume to the LDC if the LDC consents.

*50. The LDC may take back unused reserved volume under a use-it-or-lose-it provision. The provision shall require the LDC to give the banking customer written notice of a deficit (measured over a one-month period) greater than 10% in the customer's deposits compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, the LDC may either (1) take back the unused volume in excess of the 10% margin, or (2) fill the unused volume up to the 10% margin, billing the customer for the LDC's gas at the proposed standby service rate. (See R.88-08-018, pp. 12-15, and Appendix B). If the LDC takes back the unused volume, it shall prospectively reduce the banking customer's reservation fee on a proportional basis for the months following the take-back.

*51a. When the banking customer's deposits exceed its nominations by more than 10%, after written notice and a 30-day grace period, the LDC may reduce the excess to no more than 10%. The LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or (2) proportionately reduce the nominations during the month following the end of the 30-day notice period to bring the customer's balance within 10%.

*51b. As an alternative to reducing a customer's excess deposits, the LDC may treat such deposits as unscheduled banking. The charges would be calculated in the same way as under as-available service, expect that the reservation fee would be 25% higher than that determined by bidding for the LDC's scheduled banking.

*52. When the banking customer has gas in its account at the end of the contract term, the LDC shall buy the remaining gas at the price of its lowest incremental source, unless the customer has a new contract due to a successful bid for regular banking service or obtaining as-available service, if offered.

Banking Reservation Fees/LDC Incentive

*53. The LDCs shall track banking reservation fee revenues in an appropriate account.

*54. Banking reservation fee revenues shall be used to offset costs allocated to noncore customers. During the pilot program, this offset does not apply to core-elect customers. Therefore, the offset will include core-elect customers.

*55. LDCs shall report the reservation fee account balances in their respective ACAPs. Such balances from the pilot program shall be reduced by the amount of the LDC incentive.

*56. The LDC incentive during the pilot program shall be 5% of the banking reservation fee revenues, exclusive of revenues from bids submitted by the LDC's electric department and revenues from reservation fees paid by a curtailed customer for any month in which banking service to that customer is curtailed. Wholesale customers' share of the LDC's storage fixed cost is not considered "banking reservation fee revenue."

Miscellaneous

*57. Banking service shall be limited to the term of the contract between the LDC and the customer, when each banking customer's account shall be drawn down to zero or remaining gas disposed of per ¶ 53.

*58. Banking service is not transferable, except when released to the LDC with the LDC's consent.

*59. The minimum banking quantity shall be 2 million cubic feet over an injection season.

*60. The LDC's implementation plan shall include detailed accounting procedures for banking services.

Implementation Plan Filing Requirements

The following items, together with workpapers, assumptions, and supporting documentation, shall be filed as part of each LDC's plan for implementing the pilot program:

1. Bidding forms and instructions.
2. Detailed bidding protocol.
3. Injection charge calculation.
4. Choice between in-kind and monetary injection charge - PG&E only.
5. Variable O&M charge calculation.
6. Nomination procedure for deposits and withdrawals.
7. Banking contract forms.
8. Detailed accounting procedures for banking service.
9. Interutility coordination procedures, as needed, e.g., to implement banking by a customer in the other LDC's service area.
10. Proposed additions to or modifications of the preliminary statement, rules and tariffs.

(END OF APPENDIX E)

ALJ/SK/fs

Decision _____

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

| | | |
|---|---|---|
| Order Instituting Investigation into procurement and system reliability issues deferred from D.86-12-010. | ) | I.87-03-036 (Filed March 25, 1987) |

(See Appendix A for appearances.)

OPINION AUTHORIZING GAS STORAGE BANKING SERVICE

ALJ/SK/fs **

Decision 88 11 034 NOV 9 1988

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

| | |
|---|---|
| Order Instituting Investigation into procurement and system reliability issues deferred from D.86-12-010. | I.87-03-036 (Filed March 25, 1987) |
| Order Instituting Rulemaking into natural gas procurement and system reliability issues. | R.88-08-018 (Filed August 10, 1988) |

(See Appendix A for appearances.)

INTERIM OPINION AUTHORIZING GAS STORAGE BANKING SERVICE

# I N D E X

# I N D E X

# I N D E X

# I N D E X

# OPINION AUTHORIZING GAS STORAGE BANKING SERVICE

## I. Introduction

In today's decision, we direct Pacific Gas and Electric Company (PG&E) and Southern California Gas Company (SoCal) to provide gas storage banking service. The service should help these utilities' noncore customers to benefit from seasonal fluctuations in the price of gas consumed in California, while ensuring that the utilities' own storage operations on behalf of core customers continue unimpeded.

The new service approaches a full unbundling of underground storage, lacking only a separate priority charge for injections and withdrawals. Such unbundling should optimize the use of PG&E's and SoCal's facilities, which will benefit both the core and noncore customers of these utilities.

## II. The Gas Storage Function

Gas prices tend to fluctuate seasonally. Demand, and thus price, is usually highest during the winter, when residential heating augments commercial and industrial loads that (generally speaking) have a higher load factor year-round. PG&E and SoCal use their underground storage, in part, to buy relatively cheap gas during the summer. This use of storage, which we shall refer to as the price function, also enables the local distribution company (LDC), or any other gas purchaser with storage capability, to take gas at a relatively high level year-round; this is attractive to pipelines, producers, and other sellers, and so improves the purchaser's bargaining position. (In today's decision, we use LDC to refer to either or both PG&E and SoCal.)

# INTERIM OPINION AUTHORIZING GAS STORAGE BANKING SERVICE

## I. Introduction

In today's decision, we create a blueprint for Pacific Gas and Electric Company (PG&E) and Southern California Gas Company (SoCal) to provide gas storage banking service, based on the integrated use of their pipelines and the cycling capability of their underground storage fields. The service should help these utilities' noncore customers to benefit from seasonal fluctuations in the price of gas consumed in California, while ensuring that the utilities' own storage operations on behalf of core customers continue unimpeded.

Ultimately, the service will approach a full unbundling of underground storage. Such unbundling should optimize the use of PG&E's and SoCal's facilities, which will benefit both the core and noncore customers of these utilities. However, fully unbundled storage banking service requires resolution of several gas transportation and procurement issues now pending at the Commission. Thus, we adopt a modest storage banking service for use in the 1989-90 injection/withdrawal cycle. This pilot program is described in Section VII of today's decision. We plan to implement the unbundled storage services (regular and as-available) to supplant the pilot program, staring with the 1990-91 injection/withdrawal cycle.

## II. The Gas Storage Function

Gas prices tend to fluctuate seasonally. Demand, and thus price, is usually highest during the winter, when residential heating augments commercial and industrial loads that (generally speaking) have a higher load factor year-round. PG&E and SoCal use their underground storage, in part, to buy relatively cheap gas during the summer. This use of storage, which we shall refer to as

Other uses of storage are peculiar to the LDC, because they relate to the LDC's obligation to serve. To simplify a complex subject, the LDC, as a public utility, must provide reliable service to those customers (the core) who lack practical short-range alternatives to gas consumption. The LDC must therefore have (1) access to a volume of gas adequate to the needs of core customers over the entire peak season, and (2) ability to deliver gas needed by core customers on peak days during the peak season. (Deliverability standards are set on the basis of abnormal peak day (APD) conditions on the LDC's system. "Deliverability" for these purposes is a function, in large part, of the pressure existing in the LDC's various storage facilities.) Without stored gas, the LDC would have to satisfy its peak season and APD requirements entirely through flowing gas, and thus would have to maintain a large amount of pipeline capacity for which the LDC had little or no use for much of the year. We shall refer to these uses of storage as the reliability function.

Finally, as suggested above, the LDC's pipelines and storage facilities have complementary roles that enable the LDC to optimize the use of both. We refer to this complementary relationship as the system integration function.

The unbundling of gas transportation and commodity services to noncore customers has prompted investigation of other potential uses of the LDC's facilities by such customers. The crux of the hearings on gas storage is that many of PG&E's and SoCal's noncore customers--many of whom now get only gas transportation service from the LDC--would like the opportunity to benefit from the price function of storage by "banking" (on the LDC's system) gas that they have procured for themselves. Both PG&E and SoCal feel that they have sufficient system flexibility to offer such banking service, provided that it does not interfere with the reliability function or otherwise increase the cost of serving their core customers. The debate on banking is essentially over

the price function, also enables the local distribution company (LDC), or any other gas purchaser with storage capability, to take gas at a relatively high level year-round; this is attractive to pipelines, producers, and other sellers, and so improves the purchaser's bargaining position. (In today's decision, we use LDC to refer to either or both PG&E and SoCal.)

Other uses of storage are peculiar to the LDC because they relate to the LDC's obligation to serve. To simplify a complex subject, the LDC, as a public utility, must provide reliable service to those customers (the core) who lack practical short-range alternatives to gas consumption. The LDC must therefore have (1) access to a volume of gas adequate to the needs of core customers over the entire peak season, and (2) ability to deliver gas needed by core customers on peak days during the peak season. (Deliverability standards are set on the basis of abnormal peak day (APD) conditions on the LDC's system. "Deliverability" for these purposes is a function, in large part, of the pressure existing in the LDC's various storage facilities.) Without stored gas, the LDC would have to satisfy its peak season and APD requirements entirely through flowing gas, and thus would have to maintain a large amount of pipeline capacity for which the LDC had little or no use for much of the year. We shall refer to these uses of storage as the reliability function.

Finally, as suggested above, the LDC's pipelines and storage facilities have complementary roles that enable the LDC to optimize the use of both. We refer to this complementary relationship as the system integration function.

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the kind and extent of safeguards that are adequate to prevent such adverse impacts but not so restrictive as to render the service unmarketable to potential banking customers.

## III. Positions of the Parties

The gas storage hearings produced a voluminous record. Nineteen witnesses sponsored over 60 exhibits. Nineteen parties participated actively in some aspect of the hearings.[1] The transcript record runs over 2,000 pages, and the parties filed opening and reply briefs.

The record issues are not clear-cut. Storage banking of customer-owned (or brokered) gas is a new service in California. Time pressure and the complexity of devising a new service resulted in much hearing time devoted to what would normally be pre-hearing discovery on such matters as how PG&E and SoCal operate their underground storage facilities. Much of the record is confused because certain terms were not understood or were used to mean

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1 PG&E, SoCal, and San Diego Gas & Electric Company (SDG&E) are respondents in this investigation. Others participating through briefs, testimony, or cross-examination include: the Division of Ratepayer Advocates (DRA); the Cities of Long Beach and Palo Alto; the California Department of General Services (DGS); Mock Resources, Inc. (Mock); Southern California Edison Company (Edison); Southern California Utility Power Pool (SCUPP, consisting of the Cities of Pasadena, Glendale, and Burbank, and the Los Angeles Department of Water and Power); the Imperial Irrigation District (IID, participating jointly with SCUPP); Shell Canada Limited and Salmon Resources Ltd. (Shell/Salmon, participating jointly, and joined by Mock on brief); Toward Utility Rate Normalization (TURN); Poco Petroleums Ltd. (Poco) and California Industrial Group (CIG), which sponsored joint testimony and briefed separately; and Hadson Gas Systems. Shell Western E & P, Inc., and Texaco Producing Inc. jointly submitted a "Statement of Counsel" commenting on the PG&E and SoCal storage service proposals.

the price function of storage by "banking" (on the LDC's system) gas that they have procured for themselves. Both PG&E and SoCal feel that they have sufficient system flexibility to offer such banking service, provided that it does not interfere with the reliability function or otherwise increase the cost of serving their core customers. The debate on banking is essentially over the kind and extent of safeguards that are adequate to prevent such adverse impacts but not so restrictive as to render the service unmarketable to potential banking customers.

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different things by different parties. PG&E and SoCal produced exemplary tariffs that helped illuminate their proposals but that unfortunately were not available until the latter part of the hearings. The exemplary tariffs also raised new issues of their own. The unsettled situation regarding transportation priority, and how priority for withdrawal from/injection into storage should relate to transportation priority, led to convoluted discourses on whether storage is a supply function or a transport function.

The result is that a concise summary of each party's position would be difficult and probably misleading. In lieu of such a summary, we provide an issues matrix (Appendix B). The matrix, prepared at the request of the assigned ALJ, is a joint effort of the principal participants.[2] We will also take note of some of the leading schools of thought as we resolve issues in the following discussion.

## IV. Principles Governing Gas Storage Banking Service

### A. Availability of Gas Storage Banking

#### 1. Banking Should Be Consistent With the Price and Reliability Functions of Storage and Should Promote Optimal Use of the LDC's Total System

We intend that core customers continue to receive reliable service from the LDC. Service to the core includes (on a bundled basis) gas storage. Thus, we calculate the availability of

2 PG&E's counsel performed the complex and sometimes irritating task of coordinating preparation of the matrix. Lest the task also be thankless, we take this opportunity to express our appreciation.

The record issues are not clear-cut. Storage banking of customer-owned (or brokered) gas is a new service in California. Time pressure and the complexity of devising a new service resulted in much hearing time devoted to what would normally be pre-hearing discovery on such matters as how PG&E and SoCal operate their underground storage facilities. Much of the record is confused because certain terms were not understood or were used to mean different things by different parties. PG&E and SoCal produced exemplary tariffs that helped illuminate their proposals but that unfortunately were not available until the latter part of the hearings. The exemplary tariffs also raised new issues of their own. The unsettled situation regarding transportation priority, and how priority for withdrawal from/injection into storage should relate to transportation priority, led to convoluted discourses on whether storage is a supply function or a transport function.

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storage banking on the LDC's system only after ensuring that the system can meet core peak season demand.[3]

In addition to the price and reliability functions, the LDC's traditional storage activities helped to ensure that the LDC could combine its facilities (such as its pipelines and underground storage fields) in a fully integrated and efficient operation. Thus, the LDC could use its pipelines to fill storage during periods of low demand, when the pipelines would otherwise stand empty; and during periods of high demand, the availability of stored gas would minimize the risk of curtailment and free up space in the pipelines for flowing gas to lower priority customers. Fully used facilities spread fixed costs over maximum volumes, thus reducing the LDC's risks and the customer's rates.

We include optimal system use among the goals of the new gas storage banking service. We recognize that the sum total of individual noncore customers' storage decisions, taken together with storage to meet core peak season demand, may or may not equal the optimum level of storage. Also, transportation problems (e.g., nonperformance by producers or interstate pipelines) may mean that some gas designated for storage by end-users or brokers fails to arrive. Therefore, we must devise a mechanism that will (1) allow noncore customers to store gas, and (2) give LDCs flexibility to ensure that an appropriate volume of gas is stored.

### 2. The LDC Should Prepare an Initial Storage Target, and a Revised Target That Takes Into Consideration Requests for Banking Service

We begin with the premise, not disputed by anyone, that the LDC should plan to store gas to supply core peak season needs. This projection provides the LDC's initial storage target. The initial target does not include any volume for noncore customers

3 See Section IV.A.3 below regarding the determination of storage targets for the core.

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3 See Section IV.A.3 below regarding the determination of storage targets for the core.

that elect to buy gas from the core portfolio. The initial target also does not include the additional volume that may be necessary to ensure storage field pressure adequate to meet the APD deliverability standard. We recognize the importance of this standard; however, the additional volume can just as easily be provided through banked gas as through LDC-owned gas.[4]

With the initial storage target, the LDC will also announce the volume available for gas banking on its system. A storage-rich LDC, such as SoCal seems to be, might compute this volume simply by subtracting its initial target (plus the small amount of underground storage used for short-term load-balancing) from its total storage field capacity. A transmission-rich LDC, such as PG&E seems to be, might actually be able to "bank" somewhat more gas than the above formula would suggest. This is because the banking service is essentially an accounting mechanism by which the

4 We stress that, as a consequence, withdrawal of banked gas is subject to curtailment where necessary to ensure APD deliverability. Potential customers for the LDC's service would probably want to know about the likely incidence of an APD event on that LDC's system. This information might affect both how much they might choose to store and how high a banking reservation fee to bid. Accordingly, the LDC will publish, along with the initial storage target, the APD schedule from which the LDC would determine that gas could or could not be withdrawn from storage without jeopardy to APD requirements.

arrive. Therefore, we must devise a mechanism that will (1) allow noncore customers to store gas, and (2) give LDCs flexibility to ensure that an appropriate volume of gas is stored.

**2. The LDC Should Prepare an Initial Storage Target, and a Revised Target That Takes Into Consideration Requests for Banking Service**

We begin with the premise, not disputed by anyone, that the LDC should plan to store gas to supply core peak season needs. This projection provides the LDC's initial storage target. The initial target includes volumes for retail noncore customers that elect to buy gas from the core portfolio. (See Section IV.C.3 below.) The initial target does not include the additional volume that may be necessary to ensure field pressure adequate to meet the APD deliverability standard. We recognize the importance of this standard; however, the additional volume can just as easily be provided through banked gas as through LDC-owned gas.[4]

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banking service is essentially an accounting mechanism by which the LDC obligates itself (for a fee) to deliver gas to the banking customer (or to an end-user designated by the banking customer); the service does not trace individual gas molecules.[5]

The LDC will publish its initial target, banking volume availability, and solicitation for banking service bids in early February. Potential customers will have 20 days to submit bids. The LDC will announce winners 10 days after receiving the bids. The LDC may announce a revised storage target at this point, and will certainly announce a revised target in the unlikely event that bid volumes are inadequate to ensure that APD requirements are satisfied. Our intent with this tentative schedule is to give adequate time (1) to potential customers to make plans and prepare reasonable bids, and (2) to the LDCs to think and rethink their storage strategy and schedule, all well before the beginning of the injection season on about April 1 each year.

The LDC will have considerable discretion on the use of remaining storage capacity (if any) after determination of the initial storage target, the bid winners, and additional amount for APD requirements. At this point, the system integration function

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5 Thus, gas delivered to the LDC at the banking customer's behest may or may not be injected, and gas delivered by the LDC to the banking customer (or its designee) may or may not be withdrawn from storage. As PG&E explains, "[S]ervice to all customers would be enhanced by allowing the utility to more optimally use its integrated system in offering a banking service which redelivers banked volumes without explicitly tying each customer's banked volumes to a physical quantity of space underground." (Concurrent opening brief, p. 12.) We agree with this explanation. However, PG&E did not offer an alternative method to SoCal's arithmetic for determining how much banking volume PG&E could provide. We are requiring a report from PG&E during the pilot program on its methodology for determining banking capability on its system. In any event, we expect that PG&E would provide at least as much banking as would be suggested by the subtraction formula in the text accompanying this note.

LDC obligates itself (for a fee) to deliver gas to the banking customer (or to an end-user designated by the banking customer); the service does not trace individual gas molecules.[5]

The LDC will publish its initial target, banking volume availability, and solicitation for banking service bids in early January. Potential customers will have 30 days to submit bids. The LDC will announce winners two weeks after receiving the bids. The LDC may announce a revised storage target at this point, and will certainly announce a revised target in the unlikely event that bid volumes are inadequate to ensure that APD requirements are satisfied. Our intent with this tentative schedule is to give adequate time (1) to potential customers to make plans and prepare reasonable bids, and (2) to the LDCs to think and rethink their storage strategy and schedule, all well before the beginning of the injection season on about April 1 each year.

The LDC will have considerable discretion on the use of remaining storage capacity (if any) after determination of the initial storage target, the bid winners, and additional amount for APD requirements. The LDC's obligation is to operate its system in an optimal manner, and it is free to determine what is optimal, subject to our reasonableness review of its costs and operations.

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It may choose to continue to fill its storage facilities, beyond the volumes already mentioned, according to its traditional planning criteria. It may provide for an as-available banking service: customers for such service would be interruptible (e.g., to meet APD requirements) before other banking customers and might otherwise be subject to greater restrictions.[6] Or it may choose a combination of as-available banking and additional storage on its own behalf. The point is, there is both room and necessity for the exercise of skilled management by the LDC, even though its choice of initial storage target is constrained by today's decision.

3. Quantifying the Initial Storage Target

All parties agree that the LDC must store gas to meet the needs of the core market during the peak (cold) season. But how cold is cold, and how much (if any) storage of its own gas should the LDC perform for noncore customers? PG&E and SoCal want to continue to set their respective storage targets based on requirements of core and certain noncore customer classes. Under SoCal's formulation, the target volume for gas in storage is based on the demand of either customer class priorities ("P") 1 to 4 in an extreme cold year (defined as 2.46 standard deviations from the norm) or P1-P5 demand in an average year, whichever volume is greater.[7] P1-P2A define the core class, so SoCal's traditional storage target includes a large volume of gas attributable to needs of noncore customer classes--classes for which SoCal no longer has an obligation to provide commodity service.

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6 The LDCs should propose terms for as-available banking in their implementation plans. (See Sections IV.D and IX below.)

7 SoCal's testimony refers to P1-P7 demand in an average year. However, the P6 and P7 classifications have been eliminated, so the text refers here and elsewhere to P1-P5 whenever all priority classifications are included.

comes prominently into play. The LDC's obligation is to operate its system in an optimal manner, and it is free to determine what is optimal, subject to our reasonableness review of its costs and operations. It may choose to continue to fill its storage facilities, beyond the volumes already mentioned, according to its traditional planning criteria. It may provide an as-available banking service: customers for such service would be interruptible (e.g., to meet APD requirements) before other banking customers and might otherwise be subject to greater restrictions.[6] Or it may choose a combination of as-available banking and additional storage on its own behalf. The point is, there is both room and necessity for the exercise of skilled management by the LDC, even though its choice of initial storage target is constrained by today's decision.

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7 SoCal's testimony refers to P1-P7 demand in an average year. However, the P6 and P7 classifications have been eliminated, so the text refers here and elsewhere to P1-P5 whenever all priority classifications are included.

SoCal's proposal to continue its traditional storage planning, including a gas-in-storage component for the noncore, is inappropriate under our new regulatory framework. The LDC's initial storage target should be based on core (P1-P2A) peak season needs.

SoCal's "cold year" criterion likewise represents business-as-usual, rather than a response to this Commission's decisions. In Decision (D.) 87-12-039, we used a "cold year" criterion of 2.0 standard deviations from the norm, for purposes of certain cost allocations. We also stated "our intention that the definition...used for cost allocation purposes be close to the definition that the utilities use for system planning purposes." (Id., p. 52, emphasis added.) Two standard deviations is not "close" to SoCal's 2.46 (the difference works out to the coldest year in 35 years versus the coldest year in 100, which SoCal prefers).

SoCal argues that DRA, which supports the 1-in-35 criterion, should have analyzed the prudence of using the less extreme cold year as the storage target. However, SoCal itself provided no analysis to support the 1-in-100 criterion. SoCal should have performed and offered into evidence various analyses of different storage levels, and their impacts on the cost and reliability of service, if it felt that the directive in D.87-12-039 should not apply to its storage target.

SoCal argues on brief that if the Commission adopts a less extreme cold year storage target, "resulting core curtailment in a very cold winter will be the Commission's responsibility." (Initial brief, p. 24.) We share SoCal's concern that core curtailment be avoided, but the process in today's decision for setting storage targets will result in reliable service. Moreover, the insinuations of SoCal's argument are wrong. LDC-owned gas in storage is an important protection, but it is certainly not the only source of gas for the core market at any time of the year, nor

SoCal's traditional storage target includes a large volume of gas attributable to needs of noncore customer classes--classes for which SoCal no longer has an obligation to provide commodity service.

SoCal's proposal to continue its traditional storage planning, including a gas-in-storage component for the noncore, is inappropriate under our new regulatory framework. The LDC's initial storage target should be based on core (P1-P2A) peak season needs.

SoCal's "cold year" criterion likewise represents business-as-usual, rather than a response to this Commission's decisions. In Decision (D.) 87-12-039, we used a "cold year" criterion of 2.0 standard deviations from the norm, for purposes of certain cost allocations. We also stated "our intention that the definition...used for cost allocation purposes be close to the definition that the utilities use for system planning purposes." (Id., p. 52, emphasis added.) Two standard deviations is not "close" to SoCal's 2.46 (the difference works out to the coldest year in 35 years versus the coldest year in 100, which SoCal prefers).

SoCal argues that DRA, which supports the 1-in-35 criterion, should have analyzed the prudence of using the less extreme cold year as the storage target. However, SoCal itself provided no analysis to support the 1-in-100 criterion. SoCal should have performed and offered into evidence various analyses of different storage levels, and their impacts on the cost and reliability of service, if it felt that the directive in D.87-12-039 should not apply to its storage target.

SoCal argues on brief that if the Commission adopts a less extreme cold year storage target, "resulting core curtailment in a very cold winter will be the Commission's responsibility." (Initial brief, p. 24.) We share SoCal's concern that core curtailment be avoided, but the process in today's decision for

does cold year service reliability to the core depend entirely on the amplitude of the LDC's storage target.[8] SoCal's premise--that there could be problems if actual weather conditions are more severe than the worst-case planning criterion--is a truism and thus gives no help in establishing a reasonable level for that criterion.[9]

B. Fees for Gas Storage Banking

1. Value-based Component: The Banking Reservation Fee

We adopt bidding, with no set minimum or maximum charge, to allocate banking volumes available on the LDC's system after calculation of the initial storage target. Such a value-based allocation method "reflects the competitive nature of the noncore fuels market." (PG&E concurrent opening brief, p. 83.)[10]

The PG&E auction proposal is well-suited to this purpose, and we adopt the following elements from that proposal. Banking capability will be reserved for a customer by the payment of an annual banking fixed charge in equal monthly installments. (We refer to this charge as the banking reservation fee.) The annual fee is appropriate because the regular banking service is for an annual term and is integrated with the LDC's storage planning, which uses an annual cycle of injection and withdrawal. Some

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8 The experience of this past winter contradicts SoCal's argument. The winter was unusually severe, SoCal had fallen far short of its storage target, but core service was not endangered.

9 In other words, SoCal has not provided any meaningful way to determine how safe is safe enough. SoCal's logic could justify planning for a Los Angeles winter based on Minneapolis weather--or the top of Mount Everest. Prudent reliability planning requires quantification of different levels of risk, the costs associated with each level, the alternatives for mitigating risk, and the costs associated with each alternative.

10 The bulk of the revenues from this value-based component will be used to reduce the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage.

setting storage targets will result in reliable service. Moreover, the insinuations of SoCal's argument are wrong. LDC-owned gas in storage is an important protection, but it is certainly not the only source of gas for the core market at any time of the year, nor does cold year service reliability to the core depend entirely on the amplitude of the LDC's storage target.[8] SoCal's premise--that there could be problems if actual weather conditions are more severe than the worst-case planning criterion--is a truism and thus gives no help in establishing a reasonable level for that criterion.[9]

PG&E and SoCal apparently took the emphasis in the above discussion on cold year peak season planning to indicate that only the reliability function is considered in the initial storage target.[10] This is not the case.

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8 The experience of this past winter contradicts SoCal's argument. The winter was unusually severe, SoCal had fallen far short of its storage target, but core service was not endangered.

9 In other words, SoCal has not provided any meaningful way to determine how safe is safe enough. SoCal's logic could justify planning for a Los Angeles winter based on Minneapolis weather--or the top of Mount Everest. Prudent reliability planning requires quantification of different levels of risk, the costs associated with each level, the alternatives for mitigating risk, and the costs associated with each alternative.

10 For example, PG&E comments that the proposed decision would not permit LDCs to reserve storage to lower the cost of serving core customers. SoCal comments that the LDC could not store any gas at all, based on SoCal's understanding of the initial storage target (i.e., that it would allow storage for core customers only to the extent that flowing supplies were not expected to be adequate to meet core demand over the winter season taken as a whole). SoCal reasons that core cold year demand on its system does not exceed its capacity to deliver flowing supplies, so the initial storage requires it to give noncore customers first claim on all of its storage capacity.

(Footnote continues on next page)

parties propose a "rental" fee that varies according to the amount of gas booked to the banking customer's account in a given month. This is inappropriate because the adopted service is a banking mechanism, not a rental of storage space, and a reservation of capability on the LDC's system, whether or not the banking customer is able to make use of it.

We also approve PG&E's proposal to have the potential banking customer submit its bid (expressed in mills/therm/year) in the form of a list that would show a variety of price levels and the banking volume that the customer would request at each price level. The list should start at two mills and proceed upward in two-mill increments. After the close of bidding, the LDC would select the banking reservation fee that maximizes reservation of available banking capability. This bidding method does not maximize reservation fee revenue, but it results in a single reservation fee (for all regular banking customers) that will be no higher (and may be lower) than the price that the banking customer is willing to pay for the banking volume that the customer is awarded.[11]

The LDC will prepare bidding forms and instructions, and give them to potential banking customers on request. The instructions will include the LDC's initial storage target and banking capability. Bidders will submit their completed bid forms under seal. Where the LDC itself is a bidder (either through its electric department or on behalf of core-elect customers), the LDC will submit its bid under seal to our Compliance and Advisory Division. The opening of the bids, and the designation of the reservation fee, winning bidders, and their volumes, should all be conducted with appropriate safeguards to ensure the integrity of

11 For examples of how this auction would work, see Exhibit 38 (Additional Testimony of PG&E witness Schneider).

Storing gas to supply core peak season needs involves both price and reliability considerations. Storing gas in the off-peak season helps to ensure that the gas is available when it is most needed, and also that it is cheaper than if the LDC were to balance gas receipts and send-outs on, say, a monthly rather than a seasonal basis. The initial storage target must be set with both considerations in mind.

We deduce from SoCal's comments on the proposed decision that SoCal does not perceive any basis on which to factor the price consideration into the initial storage target. However, an appropriate basis is obvious from SoCal's comments. PG&E and SoCal follow a procurement strategy to take advantage of seasonal gas price fluctuations for the benefit of the core. How much storage space does SoCal need in order to effect a reasonable core procurement strategy? LDC procurement strategies are the subject of Order Instituting Rulemaking 88-08-018, but we could probably calculate a proxy based on the amount that SoCal has withdrawn from storage for core service during recent winters.

According to SoCal's comments, SoCal's recent practice has been to withdraw from storage over the winter on average about 60 billion cubic feet (bcf) of its own gas. That would be a rather liberal target, since historical practice largely reflects SoCal practice when its service obligation to noncore customers dramatically differed from its obligation under our new regulatory framework. However, even an initial storage target of 60 bcf would

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(Footnote continued from previous page)

Our problem with PG&E's and SoCal's logic is that it addresses only the reliability function of storage while ignoring the price and system integration functions emphasized throughout the proposed decision.

the process. The LDCs will propose a detailed bidding protocol as part of their implementation of today's decision.

2. Variable Cost Component

The LDC should be able to recover the variable costs that it incurs in providing banking service. There are several categories of such costs.

The major cost is for energy used to inject gas into underground storage fields.[12] We approve SoCal's proposal to recover this cost through an in-kind charge against the banking customer's "deposits." However, SoCal should recompute this charge, using as the basis its average projected gas consumption to fill its fields after meeting the initial storage target.

Unlike SoCal, PG&E uses electrically driven compressors, at least at its McDonald Island field. We don't believe that this factor would prevent PG&E from using an in-kind charge for injection costs, based on the quantity of gas needed to generate the electricity consumed in injection. However, we are willing to allow PG&E to choose between a monetary and in-kind charge; PG&E will indicate its choice in its implementation plan. In any case, PG&E will use as the basis for its injection energy costs its

12 Because these fields are under pressure, the LDC consumes little energy in withdrawing gas. For example, PG&E estimates withdrawal energy costs to be about 0.02 cents/therm, which works out to one-fortieth of the injection energy costs. The low level of withdrawal energy costs, and the fact that banking gas makes a positive contribution to meeting APD requirements, lead us to conclude that such costs should be disregarded for purposes of the cost-based component of banking charges.

make available about three times more storage banking than SoCal had proposed in the hearings.[11]

B. Fees for Gas Storage Banking

1. Value-based Component: The Banking Reservation Fee

We adopt bidding, with no set minimum or maximum charge, to allocate banking volumes available on the LDC's system after calculation of the initial storage target. Such a value-based allocation method "reflects the competitive nature of the noncore fuels market." (PG&E concurrent opening brief, p. 83.)[12]

The PG&E auction proposal is well-suited to this purpose, and we adopt the following elements from that proposal. Banking capability will be reserved for a customer by the payment of an annual banking fixed charge in equal monthly installments. (We refer to this charge as the banking reservation fee.) The annual fee is appropriate because the regular banking service is for an annual term and is integrated with the LDC's storage planning, which uses an annual cycle of injection and withdrawal. Some parties propose a "rental" fee that varies according to the amount

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11 The target would also cover SoCal's APD requirement (50 bcf in January, according to SoCal witness Wilson).

Edison's reply comments propose a different proxy to respond to the price criterion. Under Edison's proposal, the LDC could choose an initial storage target based on the percentage of the LDC's fixed storage costs that retail core customers bear in rates (essentially, the same way we are allocating banking to wholesale customers). Edison's proposal may provide a useful default until we have a more functional basis through analysis of LDC procurement strategies. Interestingly, Edison's proposal and the winter withdrawal history reported by SoCal both support an initial storage target of about 60 bcf.

12 The revenues from this value-based component will be used to reduce the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage.

average projected electricity consumption to fill its fields after meeting the initial storage target.[13]

Both PG&E and SoCal calculate a charge for variable operation and maintenance (O&M) expenses, using the variable costs of the storage fields (excluding pumping energy) as a proxy for the variable O&M of the banking service. The proxy seems reasonable. However, as with injection costs, the LDCs' calculations for variable O&M assume the incremental service set forth in their proposals, not the level of banking capability contemplated here. The LDCs should reconsider their calculation method in light of today's decision and present in their implementation plans the revised calculations of variable O&M.

Consistent with past Commission practice, a factor for uncollectibles should apply to the cost-based charges collected from all banking customers except for wholesale customers. The LDCs should use the factor approved respectively in their most recent general rate case decision.

PG&E (but not SoCal) proposes three other factors that would inflate the cost-based component of banking charges. Two of these factors (incremental losses from the storage fields and a judgment-based 5% adder) depend on PG&E's proposal for an incremental banking service and its argument that calculated average costs should be increased to reflect the incremental nature of storage banking. Our approach to banking service differs from PG&E's; its adder is arbitrary; and since PG&E itself says that its

13 For the modest banking volumes proposed in our hearings on this subject, both PG&E and SoCal indicated that any storage associated with banking service would occur at a single field (McDonald Island for PG&E, Aliso Canyon for SoCal). We are not certain whether that would continue to be the case using the initial storage targets. The LDCs' respective implementation plans should detail all assumptions made in recalculating their injection costs pursuant to today's decision.

of gas booked to the banking customer's account in a given month. This is inappropriate because the adopted service is a banking mechanism, not a rental of storage space, and a reservation of capability on the LDC's system, whether or not the banking customer is able to make use of it.

We also approve PG&E's proposal to have the potential banking customer submit its bid (expressed in mills/therm/year) in the form of a list that would show a variety of price levels and the banking volume that the customer would request at each price level. The list should start at two mills and proceed upward in two-mill increments. After the close of bidding, the LDC would select the banking reservation fee that maximizes reservation of available banking capability. This bidding method does not maximize reservation fee revenue, but it results in a single reservation fee (for all regular banking customers) that will be no higher (and may be lower) than the price that the banking customer is willing to pay for the banking volume that the customer is awarded.[13]

The LDC will prepare bidding forms and instructions, and give them to potential banking customers on request. The instructions will include the LDC's initial storage target and banking capability. Bidders will submit their completed bid forms under seal. Where the LDC itself is a bidder (through its electric department), the LDC will submit its bid under seal to our Compliance and Advisory Division (CACD). The opening of the bids, and the designation of the reservation fee, winning bidders, and their volumes, should all be conducted with appropriate safeguards to ensure the integrity of the process. The LDCs will propose a detailed bidding protocol as part of their implementation of today's decision.

13 For examples of how this auction would work, see Exhibit 38 (Additional Testimony of PG&E witness Schneider).

storage facilities are already fully used, the banking service would not result in additional losses. We reject both the adder and the adjustment for incremental losses.

The third factor that increases PG&E's proposed cost-based charges relative to SoCal's is that PG&E would include a factor to reflect the time lag between incurrence of shrinkage costs (compressor fuel use, unaccounted for gas, line losses) and their recovery through transportation rates. The "lag" occurs under PG&E's proposal because PG&E would not apply a gas transportation charge until the customer nominates banked volumes for withdrawal from the system. SoCal, on the other hand, would apply the charge when banking volumes are "deposited." This eliminates the lag but might require an adjustment if the transportation rate in effect at the time of withdrawal has changed.

We prefer SoCal's proposal as the more practical in this regard. Under SoCal's proposal, a gas customer would pay the transportation rate applicable under the customer's transportation schedule, while a broker/supplier would pay the highest noncore transportation rate in effect at the time that the broker/supplier "deposits" banking volumes. Brokers/suppliers are not eligible (except as agents for noncore customers) for the regular banking service, but they could be banking customers if the LDC chooses to offer as-available banking service. (See Sections IV.C.2 and IV.D below.)

3. Banking Service and Cost Allocation

We do not intend today's decision to have any effect on the cost allocation factors previously adopted in decisions creating our new regulatory framework for natural gas. However, we think that the offering of banking service may have some impact on the level of costs so allocated. If the service proves popular, banking customers will pay a large part of the variable costs of the LDCs' storage operations. Moreover, under our adopted

2. Variable Cost Component

The LDC should be able to recover the variable costs that it incurs in providing banking service. There are several categories of such costs.

The major cost is for energy used to inject gas into underground storage fields.[14] We approve SoCal's proposal to recover this cost through an in-kind charge against the banking customer's "deposits." However, SoCal should recompute this charge, using as the basis its average projected gas consumption to inject banking gas after meeting the initial storage target.

Unlike SoCal, PG&E uses electrically driven compressors, at least at its McDonald Island field. We don't believe that this factor would prevent PG&E from using an in-kind charge for injection costs, based on the quantity of gas needed to generate the electricity consumed in injection. However, we are willing to allow PG&E to choose between a monetary and in-kind charge; PG&E will indicate its choice in its implementation plan. In any case, PG&E will use as the basis for its injection energy costs its

14 Because these fields are under pressure, the LDC consumes little energy in withdrawing gas. For example, PG&E estimates withdrawal energy costs to be about 0.02 cents/therm, which works out to one-fortieth of the injection energy costs. The low level of withdrawal energy costs, and the fact that banking gas makes a positive contribution to meeting APD requirements, lead us to conclude that such costs should be disregarded for purposes of the cost-based component of banking charges. However, see Section VII below.

approach, banking customers will pay variable costs currently incurred in these operations, not just an incremental amount in excess of current costs. The calculations performed in the Annual Cost Allocation Proceedings ("ACAPs") should reflect this potential change in the level of the LDC revenue requirement. Failure to reflect the change would create a potential for double recovery of the LDCs' variable costs.

Ideally, we would be able to forecast the amount of variable costs that would be recovered from banking customers. Such a forecast would be very speculative at this time, because we have no experience on which to base it. The LDCs in their implementation plans should propose an approach to this "first year" problem.

C. Eligibility for Gas Storage Banking Service

Generally, all California noncore customers are eligible to bid for the banking service we have just described. There are a few classes of customers, as well as brokers/suppliers, to whom special conditions apply.

1. Wholesale Customers

While today's decision was pending, we adopted an interim approach for storage requests by the wholesale customers of PG&E (e.g., Palo Alto) and SoCal (e.g., Long Beach and SDG&E). We allowed these customers to load-balance, if they were on "default" rates and to the extent of their core loads, on a 12-month basis. Essentially, this allows for banking by these customers, since they can purchase independently and deliver to the serving LDC more than current requirements in one season, then take the excess gas in another season, so long as the deliveries and takes balance at the end of the 12-month injection/withdrawal cycle. (See D.88-03-085, mimeo. pp. 19-20.)

average projected electricity consumption to fill its fields after meeting the initial storage target.[15]

Both PG&E and SoCal calculate a charge for variable operation and maintenance (O&M) expenses, using the variable costs of the storage fields (excluding pumping energy) as a proxy for the variable O&M of the banking service. The proxy seems reasonable. However, as with injection costs, the LDCs' calculations for variable O&M assume the incremental service set forth in their proposals, not the level of banking capability contemplated here. The LDCs should reconsider their calculation method in light of today's decision and present in their implementation plans the revised calculations of variable O&M for purposes of the regular banking service.

Consistent with past Commission practice, a factor for uncollectibles should apply to the cost-based charges collected from all banking customers except for wholesale customers. The LDCs should use the factor approved respectively in their most recent general rate case decision.

PG&E (but not SoCal) proposes three other factors that would inflate the cost-based component of banking charges. Two of these factors (incremental losses from the storage fields and a judgment-based 5% adder) depend on PG&E's proposal for an incremental banking service and its argument that calculated average costs should be increased to reflect the incremental nature of storage banking. Our approach to banking service differs from

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15 For the modest banking volumes proposed in our hearings on this subject, both PG&E and SoCal indicated that any storage associated with banking service would occur at a single field (McDonald Island for PG&E, Aliso Canyon for SoCal). We are not certain whether that would continue to be the case using the initial storage targets. The LDCs' respective implementation plans should detail all assumptions made in recalculating their injection costs when regular banking service begins in April 1990.

Today's decision supersedes the interim approach.[14] Starting with the 1989 injection season, each wholesale customer will be entitled to banking service up to the extent of its core load. Its banking volume entitlement is calculated from the proportionate amount of LDC fixed costs of storage represented by the wholesale customer's core under our allocation factor (peak season cold year sales). If the wholesale customer desires additional storage service, it must bid in the same manner as other noncore customers.

2. Off-system Customers, Brokers/Suppliers

The key limitation on eligibility for the banking service is that banked gas must ultimately be consumed in California. This is necessary for consistency with the LDCs' Hinshaw exemptions.

An end-user within California but not in PG&E's gas service area can bid for and obtain banking service from either PG&E or SoCal or both, so long as the end-user certifies that the banked volumes will be consumed in California. The same is true for an end-user within California but not in SoCal's service area. This liberal access to banking service is consistent with our goal to achieve optimal usage of facilities within California, as also reflected in our orders dealing with intra- and interutility gas transportation.

The same reasoning dictates that an organization of end-users should be able to bid for and obtain banking service on behalf of its members, so long as that activity is consistent with its charter. This might apply, for example, to certain joint powers agencies.

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14 This supersedure is contingent on our fully implementing the new gas banking service in time for the 1989 storage cycle. If for whatever reason such implementation is delayed, wholesale customers may still load-balance pursuant to D.88-03-085.

PG&E's; its adder is arbitrary; and since PG&E itself says that its storage facilities are already fully used, the banking service would not result in additional losses. We reject both the adder and the adjustment for incremental losses.

The third factor that increases PG&E's proposed cost-based charges relative to SoCal's is that PG&E would include a factor to reflect the time lag between incurrence of shrinkage costs (compressor fuel use, unaccounted-for gas, line losses) and their recovery through transportation rates. The "lag" occurs under PG&E's proposal because PG&E would not apply a gas transportation charge until the customer nominates banked volumes for withdrawal from the system. SoCal, on the other hand, would apply the charge when banking volumes are "deposited." This eliminates the lag but might require an adjustment if the transportation rate in effect at the time of withdrawal has changed.

The ALJ preferred SoCal's proposal as the more practical in this regard. However, the 50-50 proposal developed by Poco in its comments on the ALJ's Proposed Decision seems superior to both the PG&E and SoCal approaches. (See Section VII below.) We adopt Poco's proposal for the pilot program and for the regular and as-available service as well if it proves satisfactory. A gas customer (or the broker/supplier acting as that customer's agent) would pay the transportation rate applicable under the customer's transportation schedule in effect when the charge is incurred. A broker/supplier banking on its own account (which would happen only through the as-available service, see Sections IV.C.2 and IV.D below) would pay the highest noncore transportation rate in effect when the broker/supplier "deposits" banking volumes; when these volumes are withdrawn, the broker/supplier would pay the rate applicable to the customer receiving the gas for consumption.

The eligibility of brokers and suppliers of gas for banking service is more problematic. There are at least three schools of thought. SoCal is the most liberal; it would extend eligibility to brokers/suppliers, conditioned only on their certification of the site of consumption.[15] This approach would improve the ability of brokers/suppliers to compete for noncore sales in California and would likely increase revenues from banking reservation fees. Shell/Salmon and Mock support this approach; they argue that brokers/suppliers could also aggregate the deliveries and takes of their various California clients so as to mitigate the LDCs' recent load-balancing problems. SCUPP/IID, CIG, Poco, Edison, and Long Beach, among others, would give preference to noncore customers; brokers/suppliers would have access to any remaining volumes after these customers' demands for banking service were met. Finally, PG&E would deny eligibility to brokers/suppliers except where they act as agents for end-users identified to the utility.

We choose a relatively restrictive approach to broker/supplier access, at least for our first year of experience with the banking service. Brokers/suppliers may bid for and obtain banking service as agents on behalf of specified California end-users to whom the broker/supplier provides gas. Brokers/suppliers may also get as-available banking service on their own or their clients' account (should the LDC choose to offer such a service), subject to their certifying that the banked gas will be consumed in California.

The arguments for a more liberal approach are strong. However, we think it is more important for banking service to be

15 On brief, SoCal suggests that the Commission could limit such eligibility if experience shows that brokers/suppliers have somehow contrived to extract monopoly profits from their use of storage, as PG&E fears.

3. Banking Service and Cost Allocation

We do not intend today's decision to have any effect on the cost allocation factors previously adopted in decisions creating our new regulatory framework for natural gas. However, we think that the offering of banking service may have some impact on the level of costs so allocated. If the service proves popular, banking customers will pay a large part of the variable costs of the LDCs' storage operations. Moreover, under our adopted approach, banking customers will pay variable costs currently incurred in these operations, not just an incremental amount in excess of current costs. The calculations performed in the Annual Cost Allocation Proceedings ("ACAPs") should reflect this potential change in the level of costs after accounting for banking customers' payments. Failure to reflect the change would create a potential for double recovery of the LDCs' variable costs.

Ideally, we would be able to forecast the amount of variable costs that would be recovered from banking customers. Such a forecast would be speculative at this time, because we have no experience on which to base it. However, the pilot program (see Section VII below) will give us such experience.

C. Eligibility for Gas Storage Banking Service

Generally, all California noncore customers are eligible to bid for the banking service we have just described. There are a few classes of customers, as well as brokers/suppliers, to whom special conditions apply.

1. Wholesale Customers

While today's decision was pending, we adopted an interim approach for storage requests by the wholesale customers of PG&E (e.g., Palo Alto) and SoCal (e.g., Long Beach and SDG&E). We allowed these customers to load-balance, if they were on "default" rates and to the extent of their core loads, on a 12-month basis. Essentially, this allows for banking by these customers, since they can purchase independently and deliver to the serving LDC more than

available in large volumes to end-users than for every conceivable player in this market to have eligibility. If experience shows that the encouragement of gas-to-gas competition requires more liberal broker/supplier eligibility, we can then take that step confidently. It should also be easier to take that step after some of the outstanding issues on transportation priority and interstate pipeline capacity are resolved. In the meantime, we see some benefit to having end-users plan their own banking deliveries and withdrawals, especially where parties such as CIG seek to do just that. Some may find this easier than expected; others may experience balancing problems and incur additional costs as a result. The number and severity of such problems will help us judge the benefit to be derived from having brokers/suppliers perform as aggregators and not solely or primarily as banking agents for individual end-users.

3. Core-elect Customers

The parties differed sharply on the interrelationship of core election and gas storage. Much of the debate centered on the characterization of storage as supply or transmission. One school argues that (1) gas in storage is a source of supply, (2) core election is a choice to be served from the same portfolio as the core (for whom storage service is provided on a bundled basis), and therefore (3) the LDC should include core-elect customer requirements (at no extra charge to such customers) in setting its storage target. The other school argues that (1) underground storage is as much a part of the LDC's transmission system as the pipes and valves, (2) the Commission has unbundled commodity and transportation service to noncore customers, and therefore (3) the core-elect customer should not get storage banking service except on the same basis as other noncore customers.

The debate over characterization is both unresolvable (storage fields are like supply in some respects, like transmission in other respects) and beside the point. Core-elect customers are

current requirements in one season, then take the excess gas in another season, so long as the deliveries and takes balance at the end of the 12-month injection/withdrawal cycle. (See D.88-03-085, mimeo. pp. 19-20.)

Today's decision supersedes the interim approach.[16] Starting with the 1990 injection season, each wholesale customer will be entitled to banking service up to the extent of its core load. Its banking volume entitlement is calculated from the proportionate amount of LDC fixed costs of storage represented by the wholesale customer's core under our allocation factor (peak season cold year sales). If the wholesale customer desires additional storage service, it must bid in the same manner as other noncore customers.

2. Off-system Customers, Brokers/Suppliers

The key limitation on eligibility for the banking service is that banked gas must ultimately be consumed in California. This is necessary for consistency with the LDCs' Hinshaw exemptions.

An end-user within California but not in PG&E's gas service area can bid for and obtain banking service from either PG&E or SoCal or both, so long as the end-user certifies that the banked volumes will be consumed in California. The same is true for an end-user within California but not in SoCal's service area. This liberal access to banking service is consistent with our goal to achieve optimal usage of facilities within California, as also reflected in our orders dealing with intra- and interutility gas transportation.

The same reasoning dictates that an organization of end-users should be able to bid for and obtain banking service on

16 This supersedure is contingent on our fully implementing the new gas banking service in time for the 1990 storage cycle. If for whatever reason such implementation is delayed, wholesale customers may still load-balance pursuant to D.88-03-085.

noncore customers who, by virtue of their election, express a preference for price stability and supply security (in the form of a longer-term portfolio) as to at least part of their requirements. Core election does nothing except entitle such customers to a commodity price equal to the core WACOG.[16] A core-elect customer does not become entitled to a bundled service, nor does it become entitled to core priority (P1-P2A). The core-elect customer, like the rest of the noncore, must pay extra if it wishes to benefit directly from the price and reliability functions of storage. (Cf. our discussion of transportation priority and core election in Order Instituting Rulemaking 88-08-018, mimeo. pp. 44-45.)

We will allow core-elect customers to choose whether or not to allow the LDC to bid for banking service on their behalf. The LDC would then submit a sealed bid based on the quantity of banking service that the LDC deems prudent for these customers.[17] The banking reservation fee and related charges would be billed to these customers in the same way as to other banking customers. Core-elect customers that do not allow the LDC to bid for them would be subject to supply curtailment in the same way as other noncore customers that choose not to take storage banking service.

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16 The level of core election probably would affect both the LDC's procurement and the way it operates its integrated system, but in terms of making good on its price commitment, the LDC could offer to sell at core WACOG prices without having any storage on its system whatsoever.

17 The banking reservation fees derived from LDC bids on behalf of core-elect customers would not be included in the total fees from which the incentive payment to the LDC would be computed. (To allow their inclusion would place the LDC in a conflict-of-interest.) Also, any bid by the LDC, whether on behalf of core-elect customers or by the LDC's own utility electric generation department, would be sealed and submitted to the Commission Advisory and Compliance Division (CACD) before the bidding deadline and the opening of submittals by others bidding for storage banking service.

behalf of its members, so long as that activity is consistent with its charter. This might apply, for example, to certain joint powers agencies.

The eligibility of brokers and suppliers of gas for banking service is more problematic. There are at least three schools of thought. SoCal is the most liberal; it would extend eligibility to brokers/suppliers, conditioned only on their certification of the site of consumption.[17] This approach would improve the ability of brokers/suppliers to compete for noncore sales in California and would likely increase revenues from banking reservation fees. Shell/Salmon and Mock support this approach; they argue that brokers/suppliers could also aggregate the deliveries and takes of their various California clients so as to mitigate the LDCs' recent load-balancing problems. SCUPP/IID, CIG, Poco, Edison, and Long Beach, among others, would give preference to noncore customers; brokers/suppliers would have access to any remaining volumes after these customers' demands for banking service were met. Finally, PG&E would deny eligibility to brokers/suppliers except where they act as agents for end-users identified to the utility.

We choose a relatively restrictive approach to broker/supplier access, at least for our first year of experience with the banking service. Brokers/suppliers may bid for and obtain banking service as agents on behalf of specified California end-users to whom the broker/supplier provides gas. In their capacity as agents, the brokers or suppliers may nominate gas for injection in the aggregate; however, nominations for withdrawals must specify the end-user. Brokers/suppliers may also get as-available banking

17 On brief, SoCal suggests that the Commission could limit such eligibility if experience shows that brokers/suppliers have somehow contrived to extract monopoly profits from their use of storage, as PG&E fears.

The balance in the Banking Reservation Fee Account would be used to offset storage fixed costs allocated to core-elect customers regardless of whether they choose to have the LDC bid for banking service on their behalf.

Some customers go core elect for only part of their needs. Such customers can bid like other noncore customers as to the remaining part of their needs.

D. As-available Banking Service

We indicate in Section IV.A.2 above that the LDCs may offer "as-available" banking service in addition to the regular (annual, allocated by bidding) service. By "as-available" we mean primarily an incremental service, curtailable ahead of the regular service, offered on a nondiscriminatory basis for varying terms (but always less than a year), and using any banking volumes that might remain after provision for both the volumes allocated through the regular service and the LDC's revised storage target.

Fees for the as-available service, like the regular service, would have variable cost and value-based components. Costs should be computed on an updated basis to reflect actual conditions on the LDC's system.[18] Variable cost fees would be charged on a volumetric basis, and the same types of costs would be includable in both types of service. Value-based fees would be negotiable downwards from the monthly fee derived from the bidding for the regular service.[19]

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18 Thus, the LDC would compute its injection costs for the as-available banking service using the most current information on pressures within its underground storage fields.

19 The value of as-available banking logically should be lower than that of the regular service because the terms of the former are less favorable to the customer. Thus, the price for the regular service (prorated from an annual basis to however many months are requested for the as-available service) establishes an appropriate ceiling for the value-based component of the as-available banking service.

service on their own or their clients' account (should the LDC choose to offer such a service), subject to their certifying that the banked gas will be consumed in California.

The arguments for a more liberal approach are strong. However, we think it is more important for banking service to be available in large volumes to end-users than for every conceivable player in this market to have eligibility. If experience shows that the encouragement of gas-to-gas competition requires more liberal broker/supplier eligibility, we can then take that step confidently. It should also be easier to take that step after some of the outstanding issues on transportation priority and interstate pipeline capacity are resolved. In the meantime, we see some benefit to having end-users plan their own banking deliveries and withdrawals, especially where parties such as CIG seek to do just that. Some may find this easier than expected; others may experience balancing problems and incur additional costs as a result. The number and severity of such problems will help us judge the benefit to be derived from having brokers/suppliers perform as aggregators and not solely or primarily as banking agents for individual end-users.

3. Core-elect Customers

The parties differed sharply on the interrelationship of core election and gas storage. Much of the debate centered on the characterization of storage as supply or transmission. One school argues that (1) gas in storage is a source of supply, (2) core election is a choice to be served from the same portfolio as the core (for whom storage service is provided on a bundled basis), and therefore (3) the LDC should include core-elect customer requirements (at no extra charge to such customers) in setting its storage target. The other school argues that (1) underground storage is as much a part of the LDC's transmission system as the pipes and valves, (2) the Commission has unbundled commodity and transportation service to noncore customers, and therefore (3) the

The LDCs will need to address various aspects of as-available banking in their implementation plans, should they desire to offer this service. For example, the LDC should probably announce its offering of as-available volumes well in advance of commencement of gas deliveries on behalf of the customers that respond to that offering. The plans should indicate how far in advance, how frequently such offerings may or should be announced, and other details of how as-available banking would work.

The treatment of revenues from the value-based component of as-available banking fees will be the same as for regular banking, i.e., a portion of such revenues may be retained by the LDC for the benefit of its shareholders (see Section VII below), while the balance will be flowed back to noncore customers.

E. Priority and Curtailment

In today's decision, we adopt an interim approach on priority among banking customers. We expect that developments regarding transportation priority charges and access to interstate pipeline capacity may cause us to rethink this approach.

As we have said several times before, banking service does not hinge on the LDC's being able to physically inject or withdraw banked volumes of gas; the service, in terms of real-time operation, is an accounting transaction, and the movement of banked gas involves all of the LDC's system (pipelines and storage). Since the whole system is involved, however, the LDC's injection/withdrawal capability could conceivably constrain banking service in certain situations. Injections into and withdrawals from storage on behalf of the core take priority over any storage

core-elect customer should not get storage banking service except on the same basis as other noncore customers.

The debate over characterization is both unresolvable (storage fields are like supply in some respects, like transmission in other respects) and beside the point. Core-elect customers are noncore customers who, by virtue of their election, express a preference for price stability and supply security (in the form of a longer-term portfolio) as to at least part of their requirements. Core election does nothing except entitle such customers to a commodity price equal to the core WACOG.[18] A core-elect customer does not become entitled to a bundled service, nor does it become entitled to core priority (P1-P2A). The core-elect customer, like the rest of the noncore, must pay extra if it wishes to benefit directly from the price and reliability functions of storage. (Cf. our discussion of transportation priority and core election in Order Instituting Rulemaking 88-08-018, mimeo. pp. 44-45.)

When we establish full storage unbundling (after we gain experience through the pilot program described in Section VII below), we will institute the following procedure for core-elect customers. The LDCs' initial targets will include a banking volume intended for core-elect customers, based on LDC management appraisal of core-elect consumption, load shapes, and seasonal gas price differentials. This specification of banking volume for core-elect customers will be subject to reasonableness review. Core-elect customers as a group will then be responsible for revenues equal to the announced core-elect banking volume

18 The level of core election probably would affect both the LDC's procurement and the way it operates its integrated system, but in terms of making good on its price commitment, the LDC could offer to sell at core WACOG prices without having any storage on its system whatsoever.

operation to provide banking service.[20] As among noncore, core-elect, and other banking customers, those with banked volumes under the regular service take priority over as-available banking customers.

As among customers within a given category of banking service, we do not establish a new priority mechanism. Instead, if the LDC experiences a capacity constraint anywhere on its system (in the storage fields or on its pipelines) such that the LDC cannot move banked gas, then the LDC will curtail all regular banking customers based on the existing noncore priorities (P2B-P5) of the respective customers, to the extent necessary after fully curtailing its as-available banking service. A curtailment affecting only as-available banking service would likewise be carried out on the basis of existing noncore priorities, except that brokers/suppliers would be curtailed first. These rules apply whether the constraint affects banking "deposits" or "withdrawals."

Banking services require implementation of a nomination procedure for "deposits" and "withdrawals." The LDC will use these

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20 PG&E says that its withdrawal capability may be constrained for two general reasons: (1) "if drawing down the reservoir would eliminate the pressure necessary to sustain withdrawals under APD conditions;" and (2) "if total withdrawal capability were needed by the core portfolio because insufficient supply were delivered by PG&E interstate pipeline supply sources, or PG&E-owned gas in storage were more economic than incremental sources of flowing supply." (Concurrent opening brief, p. 47 note 3.) We agree that any of these reasons would constitute a withdrawal constraint on banking service, with one crucial qualification: in (2), core "portfolio" should read core <u>customers</u>. Under those circumstances, the LDC <u>would not be able to serve core-elect customers with core portfolio gas but would instead provide "standby service" to such customers</u>. (See Order Instituting Rulemaking 88-08-018 for proposed rules to govern standby service.) This ensures that core customers continue to receive the full benefits of storage under constrained conditions, without inflation of the core WACOG to meet core-elect demand in those circumstances.

multiplied by the price resulting from the auction of banking capability.

Core-elect customers will not participate in this auction for their core-elect volumes.[19] The auction price will simply be used to price core-elect banking service after-the-fact. Since core-elect customers, unlike the rest of the noncore participants in the banking program, will not have had the opportunity to bid a volume associated with the eventual banking price, we will cap the core-elect reservation fee at 125% of the previous year's fee.

Identifying storage-source volumes for core-elect customers is operationally infeasible (i.e., the molecules cannot be tagged "stored" or "non-stored"). Therefore, we will convert the revenues calculated from the target volume and banking price into a per-therm, average reservation fee for all core-elect volumes, to be collected in rates through a separately-stated volumetric charge.

D. As-available Banking Service

We indicate in Section IV.A.2 above that the LDCs may offer "as-available" banking service in addition to the regular (annual, allocated by bidding) service. By "as-available" we mean primarily an incremental service, curtailable ahead of the regular service, offered on a nondiscriminatory basis for varying terms (but always less than a year), and using any banking volumes that might remain after provision for both the volumes allocated through the regular service and the LDC's revised storage target.

Fees for the as-available service, like the regular service, would have variable cost and value-based components. Costs should be computed on an updated basis to reflect actual

19 Since a customer may go core-elect for only part of its needs, it could bid like other noncore customers as to the remainder.

nominations in planning how to move banked volumes and in effecting curtailments.

All banking services are provided only through the "best efforts" of the respective LDCs. Accordingly, there will be no rebate of banking reservation fees in the event of a curtailment.[21] We expect that potential banking customers will consider this in deciding how high a banking reservation fee they are willing to pay.

F. Balancing Charges

Access to storage banking will enhance gas-to-gas competition in California, but it may also complicate the LDC's task of balancing its system. Proper system balancing is necessary for controlling costs and ensuring reliability. Thus, the parties who benefit from greater access to LDC facilities, including the LDC's pipelines and storage fields, must also bear (1) the responsibility of complying with reasonable conditions on their use of the facilities, and (2) any increased costs that result from failure to comply with those conditions. This principle is consistent with the procurement rules and policies set forth in Order Instituting Rulemaking 88-08-018.

The potential problems with banking service are essentially the same as with transportation. For any given banking or transportation customer, the LDC may find less gas showing up than it anticipated, either because of customer overnomination or nonperformance by the supplier or interstate pipeline. The LDC may also find more gas showing up than it anticipated, caused perhaps by customer undernominations or upstream errors.

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21 However, the variable cost component of banking fees is volumetric, so the banking customer would not incur variable cost fees to the extent that banking service to that customer were curtailed.

conditions on the LDC's system.[20] Variable cost fees would be charged on a volumetric basis, and the same types of costs would be includable in both types of service. Value-based fees would be negotiable downwards from the monthly fee derived from the bidding for the regular service.[21]

The LDCs will need to address various aspects of as-available banking in their implementation plans, should they desire to offer this service. For example, the LDC should probably announce its offering of as-available volumes well in advance of commencement of gas deliveries on behalf of the customers that respond to that offering. The plans should indicate how far in advance, how frequently such offerings may or should be announced, and other details of how as-available banking would work.

The treatment of revenues from the value-based component of as-available banking fees will be the same as for regular banking, i.e., such revenues will be used to reduce the revenue requirement allocated to noncore customers.

E. Priority and Curtailment

In today's decision, we adopt an interim approach on priority among banking customers. We expect that developments regarding transportation priority charges and access to interstate pipeline capacity may cause us to rethink this approach.

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20 Thus, the LDC would compute its injection costs for the as-available banking service using the most current information on pressures within its underground storage fields.

21 The value of as-available banking logically should be lower than that of the regular service because the terms of the former are less favorable to the customer. Thus, the price for the regular service (prorated from an annual basis to however many months are requested for the as-available service) establishes an appropriate ceiling for the value-based component of the as-available banking service.

We cannot categorically state that the LDC's operations will (or will not) suffer because of the receipt of more or less than the expected amount of gas for a given customer. No one buys particular molecules. The movement of gas between a large number of producers and a vast number of consumers is accomplished through aggregation of their individual production and needs by a relatively small number of interstate pipelines and LDCs. These companies formerly had little need to know, on a real-time basis, whose gas they were moving. Instead, these companies, in their role as aggregators, perform short-term balancing as an inherent part of transportation service. Such balancing is bundled in the transportation rates and provided routinely through "line pack" (increasing the pressure in the LDC's pipelines to hold more gas) and/or operation of some of the LDC's smaller storage fields.[22]

Thus, a certain amount of short-term balancing is embedded in the LDC's way of doing business. Also, proper system balancing does not require a perfect match, on a weekly, monthly, or even seasonal basis, between gas receipts and deliveries on the LDC's system. For example, the LDC operates its major storage fields to create a planned imbalance that lasts for most of the annual injection/withdrawal cycle.

This does not mean that we can ignore imbalances or assume that, e.g., the over- and undernominations of a large pool of banking customers will cancel each other out. The customer that reserves banking volumes but does not use them is depriving other potential banking customers and defeating the goal of full system utilization. The customer that deposits more than its reserved volumes (beyond the tolerance for short-term imbalances) may be getting something for nothing. Most important, the storage cycle

22 No party argues for the unbundling of short-term balancing, at least until changes in metering technology and practice provide better real-time information and control to the LDC.

withdraw banked volumes of gas; the service, in terms of real-time operation, is an accounting transaction, and the movement of banked gas involves all of the LDC's system (pipelines and storage). Since the whole system is involved, however, the LDC's injection/withdrawal capability could conceivably constrain banking service in certain situations. Injections into and withdrawals from storage on behalf of core portfolio loads (both the LDC's own core and that of its wholesale customers plus the LDC's core-elect customers) take priority over any storage operation to provide banking service.[22] As among banking customers, those with banked volumes under the regular service take priority over as-available banking customers.

For customers within a given category of banking service, we do not establish a new priority mechanism. Instead, if the LDC experiences a capacity constraint anywhere on its system (in the storage fields or on its pipelines) such that the LDC cannot move banked gas, then the LDC will curtail all regular banking customers based on the existing noncore priorities (P2B-P5) of the respective customers, to the extent necessary after fully curtailing its as-available banking service. A curtailment affecting only as-available banking service would likewise be carried out on the basis of existing noncore priorities, except that brokers/suppliers would be curtailed first. These rules apply whether the constraint affects banking "deposits" or "withdrawals."

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22 PG&E says that its withdrawal capability may be constrained for two general reasons: (1) "if drawing down the reservoir would eliminate the pressure necessary to sustain withdrawals under APD conditions;" and (2) "if total withdrawal capability were needed by the core portfolio because insufficient supply were delivered by PG&E interstate pipeline supply sources, or PG&E-owned gas in storage were more economic than incremental sources of flowing supply." (Concurrent opening brief, p. 47 note 3.) We agree that any of these reasons would constitute a withdrawal constraint on banking service.

is a planned imbalance. If banking shortfalls or excess deliveries were to snowball, they could result in system underuse, increased costs, and complications in scheduling the LDC's own storage activities on behalf of the core. Therefore, rules are needed to govern balancing service to banking customers for more than short-term imbalances.

Where less gas shows up than the LDC has been led to expect, the LDC has some protection simply because the banking reservation fee is payable whether or not the full volume is used. Also, we allow the banking customer to release some or all of its unused reserved volume to the LDC, if the LDC consents. (See Section V below.) Finally, the LDC may take back unused reserved volume under a use-it-or-lose-it provision. This provision will require the LDC to give written notice of a deficit greater than 10% in the banking customer's "deposits" compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, then the LDC may either (1) take back unused volume exceeding the 10% margin (in which case the LDC must prospectively reduce the banking customer's reservation fee on a proportional basis for months following the take-back), or (2) fill the unused volume up to the 10% margin, billing the banking customer for the LDC's gas at the rate for the proposed "standby service." (See Order Instituting Rulemaking 88-08-018, mimeo. pp. 12-15, and Appendix B of that order.)

When more gas shows up than the LDC has been led to expect, the LDC again has several options. If the LDC offers as-available banking, the customer and the LDC may agree to bill banking charges for the excess gas (i.e., the amount by which the customer's "deposits" exceed its nominations by more than 10%, after notice and opportunity to correct, as described in the preceding paragraph) under as-available service. Otherwise, the LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or

Banking services require implementation of a nomination procedure for "deposits" and "withdrawals." (See Section V below.) The LDC will use these nominations in planning how to move banked volumes and in effecting curtailments.

All banking services (other than those for wholesale core loads) are provided only through the "best efforts" of the respective LDCs. Accordingly, there will be no rebate of banking reservation fees in the event of a curtailment.[23] We expect that potential banking customers will consider this in deciding how high a banking reservation fee they are willing to pay.

F. Balancing Charges

Access to storage banking will enhance gas-to-gas competition in California but may also complicate the LDC's task of balancing its system. Proper system balancing is necessary for controlling costs and ensuring reliability. Thus, the parties who benefit from greater access to LDC facilities, including the LDC's pipelines and storage fields, must also bear (1) the responsibility of complying with reasonable conditions on their use of the facilities, and (2) any increased costs that result from failure to comply with those conditions. This principle is consistent with the procurement rules and policies set forth in Order Instituting Rulemaking 88-08-018.

The potential problems with banking service are essentially the same as with transportation. For any given banking or transportation customer, the LDC may find less gas showing up

23 However, the variable cost component of banking fees is volumetric, so the banking customer would not incur variable cost fees to the extent that banking service to that customer were curtailed. Also, we will consider, based on results in the pilot program described in Section VII below, whether the LDC should retain any incentive from the reservation fee paid by a banking customer for any month in which banking service to that customer is curtailed.

(2) proportionally reduce the nominations during the month following the end of the notice period to bring the customer's balance within the 10% margin.

Finally, when the banking customer has gas in its account at the end of its contract term, the customer may be able to get a new contract (either by successfully bidding for the regular service or obtaining as-available service if offered). Otherwise, the LDC buys the gas remaining in the account at the price of its lowest incremental source.

## V. Miscellaneous Provisions

We stress what we hope is already clear, that banking service (whether regular or as-available) is limited to the term of the contract between the banking customer and the LDC. A current banking customer is not guaranteed the same or any banking volume during a later term, nor does that customer obtain preferential access to banking capability at the end of its existing contract.

Banking service (whether regular or as-available) is not transferable, except that the customer may release some or all of its unused reserved volume back to the LDC with the LDC's consent. If the LDC agrees to the release, then the customer's obligation to pay banking reservation fees is cancelled or proportionally reduced for all months in the contract term following the month in which the release is accepted.

The LDCs' implementation plans (see Section IX below) should include a proposed nomination procedure (similar to that used currently to nominate storage gas) for banking "deposits" and "withdrawals." There will be no minimum or maximum nomination. We agree with CIG that withdrawal rate is adequately regulated by the LDC's operational constraints (i.e., the service is only "best efforts") and its obligation to meet core needs first. This result is consistent with D.85-12-102, mimeo. p. 16, where we rejected

than it anticipated, either because of customer overnomination or nonperformance by the supplier or interstate pipeline. The LDC may also find more gas showing up than it anticipated, caused perhaps by customer undernominations or upstream errors.

We cannot categorically state that the LDC's operations will (or will not) suffer because of the receipt of more or less than the expected amount of gas for a given customer. No one buys particular molecules. The movement of gas between a large number of producers and a vast number of consumers is accomplished through aggregation of their individual production and needs by a relatively small number of interstate pipelines and LDCs. These companies formerly had little need to know, on a real-time basis, whose gas they were moving. Instead, these companies, in their role as aggregators, perform short-term balancing as an inherent part of transportation service. Such balancing is bundled in the transportation rates and provided routinely through "line pack" (increasing the pressure in the LDC's pipelines to hold more gas) and/or operation of some of the LDC's smaller storage fields.[24]

Thus, a certain amount of short-term balancing is embedded in the LDC's way of doing business. Also, proper system balancing does not require a perfect match, on a weekly, monthly, or even seasonal basis, between gas receipts and deliveries on the LDC's system. For example, the LDC operates its major storage fields to create a planned imbalance that lasts for most of the annual injection/withdrawal cycle.

This does not mean that we can ignore imbalances or assume that, e.g., the over- and undernominations of a large pool of banking customers will cancel each other out. The customer that reserves banking volumes but does not use them is depriving other

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24 No party argues for the unbundling of short-term balancing, at least until changes in metering technology and practice provide better real-time information and control to the LDC.

SoCal's proposal to impose an arbitrary limit on transportation gas nominations. We also agree with CIG that SoCal's proposed minimum banking quantity (500 million cubic feet over an injection season) is unreasonably high; we adopt instead CIG's proposed minimum, equivalent to about one month's usage by a noncore customer consuming at the minimum rate to qualify for noncore status.

The service contemplates that the banking customer's "account" will be fully drawn down at the end of the contract term. Section IV.F above deals with the treatment of imbalances during or at the end of the contract term.

## VI. Revenues Booked to Banking Reservation Fee Account

The LDCs will each establish a Banking Reservation Fee Account. They will book to this account the value-based component of fees collected in connection with the regular and (if offered) as-available banking services. The LDCs will keep a small portion of these fees as an incentive. (See Section VII below.)

The entire remainder of these fees should go to reducing the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage. LDC costs for the banking services and a reasonable incentive are already provided for; the question then is whether some portion of the account balances should benefit core customers. We believe not; the situation is closely analogous to the transportation priority charge, and we have previously agreed in principle with the disposition to noncore customers of revenues from this charge. (D.87-12-039, mimeo. p. 42.) The noncore is already allocated its share of the LDCs' fixed storage costs. The return of banking reservation fees is necessary to ensure that the LDCs do not double recover these costs from these customers.

Some parties argue that these revenues should be dealt with on a forecast basis, so that noncore payments are reduced

potential banking customers and defeating the goal of full system use. The customer that deposits more than its reserved volumes (beyond the tolerance for short-term imbalances) may be getting something for nothing. Most important, the storage cycle is a planned imbalance. If banking shortfalls or excess deliveries were to snowball, they could result in system underuse, increased costs, and complications in scheduling the LDC's own storage activities on behalf of the core portfolio. Therefore, rules are needed to govern balancing service to banking customers for more than short-term imbalances.

Where less gas shows up than the LDC has been led to expect, the LDC has some protection simply because the banking reservation fee is payable whether or not the full volume is used. Also, we allow the banking customer to release some or all of its unused reserved volume to the LDC, if the LDC consents. (See Section V below.) Finally, the LDC may take back unused reserved volume under a use-it-or-lose-it provision. This provision will require the LDC to give written notice of a deficit (measured over a one-month period) greater than 10% in the banking customer's "deposits" compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, then the LDC may either (1) take back unused volume exceeding the 10% margin (in which case the LDC must prospectively reduce the banking customer's reservation fee on a proportional basis for months following the take-back), or (2) fill the unused volume up to the 10% margin, billing the banking customer for the LDC's gas at the rate for the proposed "standby service." (See Order Instituting Rulemaking 88-08-018, mimeo. pp. 12-15, and Appendix B of that order.)

When more gas shows up than the LDC has been led to expect, the LDC again has several options. The LDC may treat the excess gas (i.e., the amount by which the customer's "deposits" exceed its nominations by more than 10%, after notice and

immediately. This is not practicable, without experience or other basis for projecting the revenues resulting from banking customers' bids. Instead, LDCs will report the Banking Reservation Fee Account balances in their respective ACAP. These balances, after deduction of the LDC incentive, will set off the LDC revenue requirement for the next year, as we indicated above.

## VII. LDC Incentive

A portion of the revenues received as banking reservation fees should benefit the LDC's shareholders. The banking program has certain benefits for the LDC (e.g., the LDC may be able to rely on banking customer-owned gas to meet APD requirements), but on the whole, the program makes more work for the LDC than it has now. Consequently the LDC's storage operations under a banking regime present more potential for error and for greater-than-anticipated costs than these operations when conducted solely on the LDC's own behalf. An opportunity for gain should accompany this exposure to new and possibly increased risks.

The incentive should not be so high as to bias the LDC's storage decisions. PG&E's proposal, to split the banking reservation fees 50-50 between ratepayers and shareholders, seems excessive on its face and might motivate the LDC in ways inconsistent with least-cost reliable operation of the LDC's integrated system. The incentive is also not intended to mitigate risks that the LDC would face whether or not there were a storage banking service. Thus, we reject SoCal's proposal to return banking reservation fees to ratepayers only after offsetting any shortfall in SoCal's recovery of its noncore margin. Finally, the LDC should not be placed in a conflict-of-interest, so any revenues from bids submitted (1) by the LDC on behalf of its core-elect customers, or (2) by the LDC's electric department, should first be excluded in calculating the portion of banking reservation fees to

opportunity to correct, as described in the preceding paragraph) as "unscheduled" banking. The charges for unscheduled banking are essentially the same as those for the as-available service (see Section IV.D above), except that we agree with SoCal that an unscheduled banking customer should pay a higher reservation fee than a customer who contracts in advance with the LDC for banking service. Thus, we adopt, with modifications to reflect our bidding system, SoCal's proposal for an "imbalance" charge: the unscheduled banking customer will pay a monthly reservation fee that is 25% higher than the fee determined by bidding for the LDC's scheduled banking service.[25] Otherwise, the LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or (2) proportionally reduce the nominations during the month following the end of the notice period to bring the customer's balance within the 10% margin.

Finally, when the banking customer has gas in its account at the end of its contract term, the customer may be able to get a new contract (either by successfully bidding for the regular service or obtaining as-available service if offered). Otherwise, the LDC buys the gas remaining in the account at the price of its lowest incremental source.

## V. Miscellaneous Provisions

We stress what we hope is already clear, that banking service (whether regular or as-available) is limited to the term of the contract between the banking customer and the LDC. A current

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25 The customer will continue to incur charges for unscheduled banking until the customer's account is brought within the 10% tolerance.

be retained by shareholders. Revenues from wholesale customers to cover banking service for their core loads are also excluded.

We will set the LDC incentive initially at 10% of the banking reservation fee revenues (minus the exclusions just mentioned).[23] For this purpose, "banking reservation fees" will include revenues from the value-based component of fees collected for both regular and as-available banking service. We may adjust the 10% figure up or down, depending on our experience with the program and the level of such revenues.

## VIII. Dedication

During the storage hearings, PG&E reiterated that, although it was not actively pressing objections to Commission jurisdiction in regard to the various banking service proposals, it also was not waiving general objections that it had hinted at much earlier and that seem intended to put in dispute whether underground storage fields are "dedicated" facilities. Specifically, in a June 1, 1987 filing in this proceeding, PG&E said that it "does not concede that the Commission has the legal right to order utilities to 'unbundle' storage facilities" and that it "specifically reserves the right to raise any objection to the Commission's authority to regulate this activity."

Through counsel, PG&E offered the following clarification of its current position: "In...the June 1 filing, PG&E was stating its understanding of the law as it exists then and as it exists now. So, to the extent that the question is, does PG&E intend to continue to preserve and assert its legal rights, the answer is yes. On a more practical basis, the company's intention is to continue to participate in this proceeding, to evaluate the results

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23 To clarify, the formula is: 10% x (total fees - exclusions) = LDC incentive.

banking customer is not guaranteed the same or any banking volume during a later term, nor does that customer obtain preferential access to banking capability at the end of its existing contract.

Banking service (whether regular or as-available) is not transferable, except that the customer may release some or all of its unused reserved volume back to the LDC with the LDC's consent. If the LDC agrees to the release, then the customer's obligation to pay banking reservation fees is cancelled or proportionally reduced for all months in the contract term following the month in which the release is accepted.

The LDCs' implementation plans (see Section IX below) should include a proposed nomination procedure for banking "deposits" and "withdrawals." The nomination procedure will apply to banking customers generally, except that wholesale customers will not be required to nominate core gas from storage. There will be no minimum or maximum nomination. We agree with CIG that withdrawal rate is adequately regulated by the LDC's operational constraints (i.e., the service is only "best efforts") and its obligation to meet core needs first. This result is consistent with D.85-12-102, mimeo. p. 16, where we rejected SoCal's proposal to impose an arbitrary limit on transportation gas nominations. We also agree with CIG that SoCal's proposed minimum banking quantity (500 million cubic feet over an injection season) is unreasonably high; we adopt instead CIG's proposed minimum, equivalent to about one month's usage by a noncore customer consuming at the minimum rate to qualify for noncore status.

The service contemplates that the banking customer's "account" will be fully drawn down at the end of the contract term. Section IV.F above deals with the treatment of imbalances during or at the end of the contract term.

of the Commission's orders and decisions regarding the gas storage unbundling proposals that the Commission eventually puts in place and then consider what options...to pursue that are consistent with the positions that it's taking during these proceedings." (Tr. 908 [March 3, 1988].)[24]

This clarification elicited further questions which PG&E again answered through statements of counsel. Concerning the scope of the dedication (if any) of PG&E's storage facilities, PG&E responded: "The scope of dedication depends on the facilities involved and whether any particular public utility service is being provided. In general, the answer is 'yes' [i.e., the storage facilities are dedicated] but only with respect to PG&E's service to its core customers." (Tr. 1609.) Concerning whether this dedication would extend to the use of these facilities and storage fields in a program of unbundled storage regulated by the Commission, PG&E responded: "Assuming this question is intended to encompass the storage banking proposal PG&E is sponsoring in this proceeding for noncore customers, no. In general, regulation does not mean dedication. ... The Commission's jurisdiction attaches to the extent of the terms and conditions PG&E proposes for the time PG&E offers them. PG&E does not propose to 'dedicate' any portion of its system for all time for an unbundled storage banking service on any terms and conditions. The analysis of this question in any other context depends on the terms and conditions of the other service." (Tr. 1609-10.)

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24 When PG&E's counsel made this statement regarding PG&E's understanding of the law, PG&E had pending before the California Supreme Court a petition for writ of review of our orders requiring provision of interutility gas transportation on a tariffed basis. PG&E argued in its petition that it had not "held out its facilities by and on behalf of the public located outside its service area." Shortly afterwards, the California Supreme Court denied PG&E's petition. (Minute order, March 24, 1988, in S.F. No. S00 3829.)

## VI. Treatment of Revenues from Banking Reservation Fees

Under the banking program, the LDCs will collect reservation fees as the value-based component of payments which customers will make in connection with banking services. We must decide how to treat these revenues for ratemaking purposes.

Commencing with the regular and (if offered) as-available banking services, the reservation fees should go to reducing the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage. LDC variable costs for the banking services are already provided for (see Section IV.B.2 above); the question then is whether some portion of the reservation fees should benefit core customers. We believe not; the situation is closely analogous to the transportation priority charge, and we have previously agreed in principle with the disposition to noncore customers of revenues from this charge. (D.87-12-039, mimeo. p. 42.) The noncore is already allocated its share of the LDCs' fixed storage costs. The return of banking reservation fees is necessary to ensure that the LDCs do not double recover these costs from noncore customers.

We agree with the parties, such as CIG, who would do a forecast of banking reservation fees, in order to reduce noncore customers' revenue requirements in the year when those fees are collected, rather than in the following year. Using a forecast basis is consistent with how we have treated the revenues from other new utility services, such as interutility transportation. (See generally D.87-05-069 and D.87-12-039.) However, this requires experience with a banking service, or some other basis for projecting the revenues resulting from banking customers' bids. The pilot program (see Section VII below) should provide a reasonable basis for forecasting storage banking revenues when the

PG&E has not provided any legal analysis beyond these bare assertions. In particular, PG&E has not explained how Commission jurisdiction to regulate the use of PG&E's facilities arises apart from dedication of those facilities, or how PG&E's storage facilities (which, by PG&E's own testimony, are part of an integrated system that benefits and is paid for by all of PG&E's customers) could be dedicated to only a portion of PG&E's customers. PG&E does not make specific its legal objections to any other party's storage proposals or explain why its own storage proposal is legal under its own theories. All we can tell from this record is that if we adopt PG&E's storage proposal exactly and in total, PG&E would agree that we have the authority to do so.

The storage hearings (and especially PG&E's own testimony) make clear that the LDCs' storage facilities are dedicated to public utility service. These facilities influence the LDCs' procurement strategies; they play a role in load-balancing; and they are an essential element in system reliability. They are as much involved as the intrastate pipelines in the movement of gas across the LDCs' systems to the end-user. As PG&E and SoCal have noted repeatedly, gas stored for the core increases the noncore's access to flowing supplies during peak seasons. Our new regulatory framework for gas has thrown all of these functions of storage into high relief, but the storage facilities have been performing these functions since long before the inception of gas transportation service and the categorization of customers into core and noncore.

Even were the dedication of storage facilities less clear than it is, PG&E's reservations would not cause much concern, again for reasons that PG&E's own testimony well explains. "Banking" is not a rental of underground storage space, and we are not obligating the LDCs to surrender control of their storage

full program commences in 1990.[26] Thus, using results from the pilot program bidding, we will project reservation fee revenues for SoCal in its ACAP to be filed in March 1989, and for PG&E in its ACAP to be filed in September 1989.

Another advantage of treating these revenues on a forecast basis is that the LDCs will have a strong incentive to make the banking service as attractive as possible, because utility shareholders will retain reservation fees which exceed the forecast.[27] Such an incentive is consistent with the incentive for the utility to maximize the throughput on its transmission system, which we have built into our transportation rate design. In addition, we believe that the LDC's shareholders should have the opportunity to benefit from an attractive, well-run banking program since, on the whole, the program makes more work for the LDC than it has now. Consequently the LDC's storage operations under a banking regime present more potential for error and for greater-than-anticipated costs than these operations when conducted solely on the LDC's own behalf. An opportunity for gain should accompany this exposure to new and possibly increased risks.

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26 Reservation fees from the pilot program itself should be credited back to noncore customers in the first ACAP following the end of the pilot program, which should be the 1990 ACAPs for both SoCal and PG&E.

27 This seems preferable to giving the LDC a fixed percentage of all reservation fees collected, as in the ALJ's Proposed Decision. The latter approach could reward the LDC even when its banking program proved unattractive. However, because we do not treat reservation fee revenues on a forecast basis in the pilot program, we retain a version of the ALJ's proposal for the LDC incentive for purposes of that program. (See Section VII below.) For the pilot program, the LDCs should establish an account to accumulate all the reservation fees which they collect. As mentioned above, these pilot program revenues, minus the LDC incentive, will be used to offset noncore fixed costs of storage in the 1990 ACAPs.

facilities.[25] They will continue to operate those facilities in concert with the rest of their systems to deliver expected throughput prudently and efficiently. Banking service is simply the logical complement to the transportation program and the responsibility of noncore customers to provide for their own gas supplies. The only required storage under today's decision relates to core requirements, and no one disputes either the necessity of meeting those requirements or the dedication of the storage fields for that purpose.

## IX. Implementation of Today's Decision

### A. Workshops

The gas banking service is new, complex, and different from the proposal of any one party during the storage hearings. These factors prompt a different implementation process than the usual advice letter filings.

We direct PG&E and SoCal each to file and serve an implementation plan within 30 days of the effective date of today's decision. The plan should include rules for both regular (annual, allocated by bidding) and as-available (negotiated) banking service, a bidding protocol together with bidding and bid solicitation forms, sample notices and forms related to the nomination and balancing provisions, explanation of all billing and accounting procedures (including procedures associated with the Banking Reservation Fee Account), and any other matters relevant to implementing this service.

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25 In fact, the banking service will have little if any effect on the physical operation of storage. None of the parties seeks operational control of the LDCs' storage fields, and as we have previously noted, banking deliveries and withdrawals may take place independent of storage injection and withdrawal.

There are two situations in which the LDC will have a conflict of interest if it can profit by increasing reservation fee revenues. The first involves the banking revenues collected from core-elect customers. The LDC serves core-elect customers out of the core gas portfolio, and thus the LDC itself will be storing core gas supplies on behalf of core-elect customers. The LDC could be tempted to store more gas than necessary for core-elect customers, in order to profit from the additional banking reservation fee revenues. A second potential conflict-of-interest involves bids submitted by the LDC's electric department. To avoid these conflicts, all banking reservation fee revenues collected from core-elect customers or from the electric departments of combined utilities should receive balancing account treatment. In other words, the forecasted reservation fees from these two classes of banking customers should be reconciled with the actual fees collected. The necessary reconciliation of these balancing accounts should be made in each ACAP. This procedure is similar to that adopted in D.87-05-069 for interutility revenues for the movement of gas from PG&E's Alberta & Southern affiliate through PG&E's system.

## VII. The Pilot Program for 1989-90

The unbundled storage service set forth in Sections IV to VI should be implemented beginning with the 1990 injection season. For the 1989-90 injection/withdrawal cycle, a less ambitious "pilot" program is appropriate. The pilot program is a "best efforts" storage service, is restricted to gas for consumption in California, and includes many other elements of unbundled service but with more limited availability. This will allow us to observe storage banking in operation on a small scale and work out problems before having to deal with the larger banking volumes that the unbundled service is likely to involve. We also recognize that

Interested parties will have three weeks to review and file written comments on the implementation plans. One week later, an implementation workshop will start. The purpose of the workshop is to permit the parties to discuss the plans in a non-adversarial setting, clarify ambiguities and uncertainties, catch inconsistencies and omissions, and generally to work out as many of the problems as possible. CACD should help by preparing and distributing on the first day of the workshop a summary of problems, based on the submitted plans and comments, and by acting as moderator at the workshop.

The workshop may continue from day-to-day as needed, or may break into working groups and reconvene, or may otherwise provide for its own agenda, schedule, and procedure. However, our goal is that the workshop end after not more than two weeks with a report of the conferees (1) listing the generally agreed-upon provisions in the implementation plans, and (2) specifying those issues (if any) that require resolution by the Commission. Conferees may also file and serve separate statements at that time. We intend to decide any remaining issues without further hearing.

This implementation process will require the good faith and hard work of all concerned, but we think the process will educate everybody, alert us to things we may have overlooked in today's decision, and result in banking service that will minimize unpleasant surprises and accommodate everyone's needs, so far as that is possible. The process will not work if parties try to use it to relitigate issues. We stress that any objections to today's decision must be raised through the appropriate pleading (an application for rehearing or petition for modification).

We also intend the new banking service to begin with the 1989 injection season. This requires strict adherence to the schedule set out in Appendix C.

this is a transitional period, with continuing developments both in transportation service and our procurement rules. (See Order Instituting Rulemaking 88-08-018.) Further progress in these areas will enhance the attractiveness and ease the implementation of the unbundled service.

For the pilot program, SoCal will offer 16.7 bcf of banking. This is the amount that SoCal proposed to offer during the hearings.

PG&E did not specify how much banking it was prepared to offer, nor did it specify how it would calculate banking availability, given the comparatively small cycling capability of its storage facilities. We direct PG&E to offer five bcf for the pilot program. This results in both PG&E and SoCal making about 15% of their total cycling capability available for storage banking.[28]

Eligibility to bank gas during the pilot program is the same as for the regular banking service, except that core-elect customers (to the extent that their requirements are met from the core portfolio) will receive storage service on a bundled basis, as do core customers,[29] and wholesale customers will still be

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28 We stress that in designating these small amounts for the pilot program, we are not endorsing SoCal's method for determining storage targets. Also, the storage volume to be offered by PG&E for the pilot program is probably conservative, since PG&E itself indicates that its ability to provide banking is greater than the cycling capability of its storage facilities would suggest. However, the volumes we have approved should be adequate to the purposes of the pilot program, which serves primarily to develop and test the operating procedures and accounting mechanisms needed for the unbundled service.

29 Consequently, no portion of the banking revenues collected as a result of the pilot program will be used to reduce the revenue requirement allocated to core-elect customers for the LDCs' fixed costs of storage.

B. Accounting and Accountability

The banking services approved in today's decision should not significantly complicate the physical operation of the LDCs' systems. The LDCs will retain physical control and will have essentially the same task that they have currently of optimizing system operation in light of anticipated throughput. What will change significantly is the bookkeeping associated with that throughput.

Current equipment on the systems of the LDCs and interstate pipelines provides little real-time detail on gas flows, and certainly not enough information for the LDC to know, on a real-time disaggregated basis, which transport or banking customer's gas the LDC is receiving. Some of the parties (notably Mock) criticize PG&E's practices in accounting for deliveries of transport gas into the PG&E system. According to Mock, PG&E uses inappropriate rules to allocate deliveries to particular customer accounts and is inflexible (compared to SoCal) in allowing "true-ups" based on updates or corrections from the interstate pipeline.

Given the poor quality (at least for the foreseeable future) of information on deliveries of transport and banking volumes into the LDCs' systems, "true-ups" seem to be a commercial necessity. The LDCs should take a pragmatic approach, as SoCal seems to be doing. However, we will not adopt a set of accounting rules in today's decision. The subject is intricate, the record (at least in this regard) is rather general, and we frankly believe that the parties at the implementation workshops are better able than we are to work out what is commercially reasonable under the circumstances of the adopted banking services. The LDCs' implementation plans should include detailed accounting procedures for the new services. Shell/Salmon and other parties note that LDCs in other jurisdictions presently offer various forms of banking service, so we are launching into previously explored territory.

permitted to load-balance on a 12-month basis pursuant to D.88-03-085.

Fees for the pilot program will consist of value-based and variable cost components. A reservation fee for the full 12 months of the pilot program will be determined by the same auction procedure that we have approved for the regular banking service. (See Section IV.B.1 above.)

The variable cost component will include injection energy, variable O&M, and a factor for uncollectibles. This again follows the approach for the regular banking service.[30] The variable cost component will be determined on a forecast basis, and using average costs. PG&E and SoCal should update the variable cost information from their testimony (but using average costs) in their implementation plans for the pilot program. The forecasts should assume that the pilot program for each utility is fully subscribed.

The pilot program will include an incentive payment to the LDC. We set this incentive at 5% of the banking reservation fee revenues (after certain exclusions) from the pilot program.[31] We exclude any revenues from bids submitted by the LDC's electric

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30 See Section IV.C.2 above. PG&E's comments on the ALJ's Proposed Decision continue to urge that the variable cost component include a factor for withdrawal energy. We continue to be sceptical. If anything, the presence of banked gas would increase storage field pressure and thus lower the amount of energy consumed in cycling gas from the field on a per-unit basis. (We note that SoCal did not include withdrawal energy in its proposal for recovery of variable costs.) However, if PG&E wishes to pursue this issue, it may submit additional testimony in its current ACAP to explain the incurrence of withdrawal energy costs. In any event, the variable cost component will not include factors requested by PG&E based on its "incremental" theory of storage.

31 This level of incentive is consistent with our treatment of incremental revenues from enhanced oil recovery contracts. (See D.87-05-046.)

Findings of Fact and Conclusions of Law

1. Gas storage by LDCs on behalf of their core customers serves both a price function and a reliability function.

2. Gas storage banking service enables noncore customers in California to take advantage of the price function of storage. Gas banked by the noncore should not be permitted to interfere with the reliability function or otherwise increase the cost of serving core customers.

3. Gas storage banking should promote optimal use of the LDC's total system.

4. The LDC's initial storage target is based on the peak season needs of core (P1-P2A) customers in a 2.0 standard deviation cold year. The target does not include any volume for core-elect customers or additional volume to meet APD field pressures.

5. Withdrawal of gas by banking customers is subject to curtailment where necessary to ensure APD deliverability.

6. The LDC should publish, along with the initial storage target and volumes available for banking, the APD schedule from which the LDC would determine that gas could or could not be withdrawn from storage without jeopardy to APD requirements. This information and the LDC's solicitation of banking service bids will normally be published in early January.

7. The bidding for regular banking service should allow enough time for potential banking customers to make plans and prepare bids, and for LDCs to think and rethink their storage strategy and schedule before the beginning of the annual injection season.

8. The LDC should have discretion in using any banking capability remaining after award of banking volumes through bidding. The LDC may continue to fill its storage facilities, and will certainly do so if its initial storage target and regular banking are inadequate to ensure APD deliverability. The LDC may

department. Also, for any month when the LDC curtails banking service to a banking customer, the LDC will not retain any incentive from the reservation fee paid by the curtailed customer. Instead, the whole reservation fee for that month will go to set off the LDC revenue requirement allocated to noncore customers (excluding core-elect customers). This should motivate LDCs to use their best efforts to fulfill banking obligations. The LDCs will set up an account to track reservation fee revenues. Depending on experience with the pilot program, we will decide whether part of the monthly reservation fee should be refunded to curtailed banking customers in the regular and as-available service.

The LDCs differed on when they would apply the transportation charge for banked gas. PG&E prefers to bill for transportation when the customer nominates volumes for withdrawal; SoCal would apply the charge when banking volumes are "deposited." We see problems with both of these approaches. For the pilot program, the LDCs should implement the 50-50 proposal in comments by Poco on the ALJ's Proposed Decision. Poco suggests that transportation charges for banking volumes match the incurrence of costs: thus, half of the applicable transmission rate should be collected when the gas is deposited and half when the gas is nominated for withdrawal and delivered to the banking customer. We agree with Poco that this arrangement will eliminate the disincentive to use storage banking service caused by charging all time-lag costs to customers, and will motivate the LDCs to deliver banked volumes as promptly as possible.

Procedures governing priority and curtailment, nominations to and from storage, balancing charges, and accounting

also provide as-available banking, which would be interruptible before regular banking service.

9. SoCal has not demonstrated through economic or other relevant analysis any prudent basis for adhering to its one year-in-100 cold season planning criterion.

10. Fees for regular banking service should have a value-based component and a variable cost component. The value-based component ("banking reservation fee") allocates banking capacity and is set by bidding. The bidding results in an annual fixed charge in equal monthly installments.

11. The regular banking service should have a 12-month term, commencing on April 1 each year. This date corresponds to the beginning of the LDC's injection season.

12. The potential banking customer will submit its sealed bid (expressed in mills/therm/year) in the form of a list that would show a variety of price levels and the banking volume that the customer would request at each level. The list would start at two mills and proceed upward in two-mill increments. After the close of bidding, the LDC will select the banking reservation fee that maximizes reservation of banking capability.

13. Where the LDC itself is a bidder (either through its electric department or on behalf of core-elect customers), the LDC will submit its bid under seal to the CACD.

14. SoCal should be authorized to recover its variable injection costs through an in-kind charge, using as the basis its average projected gas consumption after meeting the initial storage target. PG&E may choose between a monetary or in-kind charge but should indicate its choice in its implementation plan. In either case, the basis for the charge is PG&E's average projected electricity consumption to fill its fields after meeting the initial storage target.

should generally follow the principles established for unbundled banking service.[32] See Sections IV.E, IV.F, V, and IX.B.

The LDCs will each file a plan for implementing the pilot program. Consideration of the plans will generally follow the workshop process that we describe in Section IX.A. Appendix C contains the schedule for implementation.

We want to learn as much as possible about storage banking from the pilot program. To that end, we require PG&E and SoCal to file and serve four reports on the program. The first report, due May 1, 1989, will summarize the results of bidding. The second report, due September 1, 1989, will summarize pilot program operations during the first four months of the injection season. The third report, due December 15, 1989, will summarize the balance of the injection season and the first two months of the withdrawal season. The final report, due May 1, 1990, will cover the balance of the withdrawal season and recap the results for the completed pilot program.

We invite comment from the wholesale customers on their experience in the pilot program and the 12-month balancing provided before and during the program. The wholesale customers' comments are due no later than December 15, 1989, and may propose alternatives whereby such customers could set their core storage targets using a similar approach to the one we have authorized for the primary utilities.

Palo Alto's comments on the ALJ's Proposed Decision note a problem with the timing of core-election. Specifically, many core-elect customers made their election in June, so that their 12-month terms overlap two storage cycles. From the standpoint of LDCs' procurement and storage planning, customers ideally would

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32 One difference is that the pilot program will not include an as-available banking service.

15. Variable costs should include a factor for uncollectibles and apply to the cost-based charges collected from all banking customers except wholesale customers.

16. The variable O&M costs of the underground storage fields (excluding pumping energy) are a reasonable proxy for the variable O&M of the banking service. However, the LDCs should reconsider their calculation of variable O&M in light of the level of banking capability contemplated in today's decision.

17. The transportation charge for banking volumes should apply when these volumes are nominated for "deposit." This requires the LDC to adjust the charge if the transportation rate applicable to the banking customer (under the customer's transportation schedule) has changed at the time of withdrawal. A broker or supplier that banks on its own account (under the as-available banking service) would pay the highest noncore transportation rate in effect at the time that it nominates volumes for "deposit."

18. Today's decision does not affect the cost allocation factors previously adopted for the new regulatory framework for natural gas. However, banking customers will potentially bear a significant part of the variable costs of the LDC's storage operations.

19. Generally, all California noncore customers are eligible for banking service. Wholesale customers are entitled to banking service to the extent of their respective core loads and may get additional service (regular or as-available) on the same basis as other noncore customers.

20. The interim approach to storage by wholesale customers in D.88-03-085 is superseded by today's decision. This supersedure is contingent on the full implementation of regular banking service in time for the injection/withdrawal cycle starting on April 1, 1989.

21. All gas banked under the new service must be consumed in California.

make a binding decision in January of each year whether to elect into the core portfolio for the next 12-month injection/withdrawal cycle (April 1 to the following March 31). The LDCs thus would be able to confidently factor core election volumes into their initial storage targets. We have not had an opportunity to examine either the scope of this problem or potential solutions. Therefore, we direct PG&E and SoCal to address the problem in their first report and to suggest possible refinements to the process of core-election that could improve its integration into the storage program and LDC procurement efforts.

In general, each report should detail banking transactions during the covered period, describe problems encountered, and recommend changes to improve the service. To permit ready comparisons, the reports should follow a common outline and format (including level of detail) for presenting data. CACD, PG&E, and SoCal should confer on this. The reports should also respond to additional questions from CACD; such questions should be sent to the LDCs at least 15 working days before the due date for the next report.

PG&E has yet to commit itself to a methodology for computing banking capability on its system, although PG&E has stated that it has more capability than is suggested by a simple comparison of its and SoCal's relative ability to cycle gas in and out of their respective underground storage facilities. Such a methodology must be developed well before the determination of storage targets in preparation for unbundled storage banking service. We direct PG&E to present its proposed methodology in its first report (May 1, 1989) during the pilot program. The Assigned Commissioner or ALJ will schedule further action to review PG&E's proposed methodology.

22. Brokers and suppliers are not eligible for the regular banking service but may act as agents for eligible customers. Brokers and suppliers may get as-available banking service (where offered by the LDC) on their own or their clients' account.

23. Core-elect customers are noncore customers who, by virtue of their election, express a preference for price stability and supply security (in the form of a longer-term portfolio) as to at least part of their requirements. Core election does nothing except entitle such customers to a commodity price equal to the core WACOG. The core-elect customer, like the rest of the noncore, must pay extra if it wishes to benefit directly from storage banking capability.

24. Core-elect customers should be required to choose whether or not to allow the LDC to bid for banking service on their behalf. The LDC would then submit (to the CACD) a sealed bid based on the price and volume of banking service that the LDC deems prudent for those customers on whose behalf the LDC is bidding. The banking reservation fee and other banking charges would be billed to those customers in the same way as to other banking customers.

25. Core-elect customers that do not allow the LDC to bid for them would be subject to supply curtailment in the same way as other noncore customers that do not take storage banking service. The balance in the Banking Reservation Fee Account would be used to offset storage fixed costs allocated to core-elect customers regardless of whether they choose to have the LDC bid for banking service on their behalf.

26. Some customers choose core election for only part of their needs. Such customers may bid like other noncore customers as to the remaining part of their needs.

27. As-available banking is an incremental service, curtailable ahead of the regular service, offered on a nondiscriminatory basis for varying terms (but always less than a year), and using any banking volumes that might remain after

## VIII. Dedication

During the storage hearings, PG&E reiterated that, although it was not actively pressing objections to Commission jurisdiction in regard to the various banking service proposals, it also was not waiving general objections that it had hinted at much earlier and that seem intended to put in dispute whether underground storage fields are "dedicated" facilities. Specifically, in a June 1, 1987 filing in this proceeding, PG&E said that it "does not concede that the Commission has the legal right to order utilities to 'unbundle' storage facilities" and that it "specifically reserves the right to raise any objection to the Commission's authority to regulate this activity."

Through counsel, PG&E offered the following clarification of its current position: "In...the June 1 filing, PG&E was stating its understanding of the law as it exists then and as it exists now. So, to the extent that the question is, does PG&E intend to continue to preserve and assert its legal rights, the answer is yes. On a more practical basis, the company's intention is to continue to participate in this proceeding, to evaluate the results of the Commission's orders and decisions regarding the gas storage unbundling proposals that the Commission eventually puts in place and then consider what options...to pursue that are consistent with the positions that it's taking during these proceedings." (Tr. 908 [March 3, 1988].)[33]

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33 When PG&E's counsel made this statement regarding PG&E's understanding of the law, PG&E had pending before the California Supreme Court a petition for writ of review of our orders requiring provision of interutility gas transportation on a tariffed basis. PG&E argued in its petition that it had not "held out its facilities by and on behalf of the public located outside its

(Footnote continues on next page)

provision for both the volumes allocated through the regular service and the LDC's revised storage target.

28. Fees for the as-available service, like the regular service, would have variable cost and value-based components. Costs should be computed on an updated basis to reflect actual conditions on the LDC's system. Variable cost fees would be charged on a volumetric basis, and the same types of costs would be includable in both types of service. Value-based fees would be negotiable downwards from the monthly fee derived from the bidding for the regular service.

29. The treatment of revenues from the value-based component of as-available banking fees will be the same as for regular banking.

30. Injections into and withdrawals from storage on behalf of the core take priority over any storage operation to provide banking service. As among noncore, core-elect, and other banking customers, those with banked volumes under the regular service take priority over as-available banking customers.

31. If the LDC experiences a capacity constraint anywhere on its system (in the storage fields or on its pipelines) such that the LDC cannot move banked gas, then the LDC will curtail all regular banking customers based on the existing noncore priorities (P2B-P5) of the respective customers, to the extent necessary after fully curtailing its as-available banking service. A curtailment affecting only as-available banking service would likewise be carried out on the basis of existing noncore priorities, except that brokers/suppliers would be curtailed first. These rules apply whether the constraint affects banking "deposits" or "withdrawals."

32. Banking withdrawal capacity may be constrained for two general reasons: (1) if drawing down the reservoir would eliminate the pressure necessary to sustain withdrawals under APD conditions; and (2) if total withdrawal capacity were needed by core customers because insufficient supply were delivered by interstate pipeline

This clarification elicited further questions which PG&E again answered through statements of counsel. Concerning the scope of the dedication (if any) of PG&E's storage facilities, PG&E responded: "The scope of dedication depends on the facilities involved and whether any particular public utility service is being provided. In general, the answer is 'yes' [i.e., the storage facilities are dedicated] but only with respect to PG&E's service to its core customers." (Tr. 1609.) Concerning whether this dedication would extend to the use of these facilities and storage fields in a program of unbundled storage regulated by the Commission, PG&E responded: "Assuming this question is intended to encompass the storage banking proposal PG&E is sponsoring in this proceeding for noncore customers, no. In general, regulation does not mean dedication. ... The Commission's jurisdiction attaches to the extent of the terms and conditions PG&E proposes for the time PG&E offers them. PG&E does not propose to 'dedicate' any portion of its system for all time for an unbundled storage banking service on any terms and conditions. The analysis of this question in any other context depends on the terms and conditions of the other service." (Tr. 1609-10.)

PG&E has not provided any legal analysis beyond these bare assertions. In particular, PG&E has not explained how Commission jurisdiction to regulate the use of PG&E's facilities arises apart from dedication of those facilities, or how PG&E's storage facilities (which, by PG&E's own testimony, are part of an integrated system that benefits and is paid for by all of PG&E's

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service area." Shortly afterwards, the California Supreme Court denied PG&E's petition. (Minute order, March 24, 1988, in S.F. No. S00 3829.)

supply sources, or LDC-owned gas in storage were more economic than incremental sources of flowing supply. Under (1) or (2), the LDC would not be able to serve core-elect customers with core portfolio gas but would instead provide "standby service" to such customers. This ensures that core customers continue to receive the full benefits of storage under constrained conditions, without inflation of the core WACOG to meet core-elect demand in those circumstances.

33. Banking services require implementation of a nomination procedure for "deposits" and "withdrawals." The LDC will use these nominations in planning how to move banked volumes and in effecting curtailments.

34. All banking services are provided only through the "best efforts" of the respective LDCs. Accordingly, there will be no rebate of banking reservation fees in the event of a curtailment.

35. Access to storage banking will enhance gas-to-gas competition in California, but it may also complicate the LDC's task of balancing its system. Proper system balancing is necessary for controlling costs and ensuring reliability. Thus, those who benefit from greater access to LDC facilities, including the LDC's pipelines and storage fields, must also bear (1) the responsibility of complying with reasonable conditions on their use of the facilities, and (2) any increased costs that result from failure to comply with those conditions.

36. Short-term load balancing is bundled in the transportation rates and provided routinely through "line pack" (increasing the pressure in the LDC's pipelines to hold more gas) and/or operation of some of the LDC's smaller storage fields. However, rules are needed to govern balancing service to banking customers for more than short-term imbalances.

37. Where less gas shows up than the LDC has been led to expect, the LDC has some protection because the banking reservation fee is payable whether or not the full volume is used. Also, the banking customer may release some or all of its unused reserved

customers) could be dedicated to only a portion of PG&E's customers. PG&E does not make specific its legal objections to any other party's storage proposals or explain why its own storage proposal is legal under its own theories. All we can tell from this record is that if we adopt PG&E's storage proposal exactly and in total, PG&E would agree that we have the authority to do so.

The storage hearings (and especially PG&E's own testimony) make clear that the LDCs' storage facilities are dedicated to public utility service. These facilities influence the LDCs' procurement strategies; they play a role in load-balancing; and they are an essential element in system reliability. They are as much involved as the intrastate pipelines in the movement of gas across the LDCs' systems to the end-user. As PG&E and SoCal have noted repeatedly, gas stored for the core increases the noncore's access to flowing supplies during peak seasons. Our new regulatory framework for gas has thrown all of these functions of storage into high relief, but the storage facilities have been performing these functions since long before the inception of gas transportation service and the categorization of customers into core and noncore.

Even were the dedication of storage facilities less clear than it is, PG&E's reservations would not cause much concern, again for reasons that PG&E's own testimony well explains. "Banking" is not a rental of underground storage space, and we are not obligating the LDCs to surrender control of their storage facilities.[34] They will continue to operate those facilities in concert with the rest of their systems to deliver expected

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34 In fact, the banking service will have little if any effect on the physical operation of storage. None of the parties seeks operational control of the LDCs' storage fields, and as we have previously noted, banking deliveries and withdrawals may take place independent of storage injection and withdrawal.

volume to the LDC, if the LDC consents. Finally, the LDC may take back unused reserved volume under a use-it-or-lose-it provision. This provision will require the LDC to give written notice of a deficit greater than 10% in the banking customer's "deposits" compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, then the LDC may either (1) take back unused volume exceeding the 10% margin (in which case the LDC must prospectively reduce the banking customer's reservation fee on a proportional basis for months following the take-back), or (2) fill the unused volume up to the 10% margin, billing the banking customer for the LDC's gas at the rate for the proposed "standby service."

38. When more gas shows up than the LDC has been led to expect, and the LDC offers as-available banking, the customer and the LDC may agree to bill banking charges for the excess gas (i.e., the amount by which the customer's "deposits" exceed its nominations by more than 10%, after notice and opportunity to correct, as described in Finding 37) under the as-available service. Otherwise, the LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or (2) proportionally reduce the nominations during the month following the end of the notice period to bring the customer's balance within the 10% margin.

39. When the banking customer has gas in its account at the end of its contract term, the customer may be able to get a new contract (either by successfully bidding for the regular service or obtaining as-available service if offered). Otherwise, the LDC will buy the gas remaining in the account at the price of its lowest incremental source.

40. Banking service (whether regular or as-available) is limited to the term of the contract between the banking customer and the LDC. A current banking customer is not guaranteed the same or any banking volume during a later term, nor does that customer

throughput prudently and efficiently. Banking service is simply the logical complement to the transportation program and the responsibility of noncore customers to provide for their own gas supplies. The only required storage under today's decision relates to core requirements, and no one disputes either the necessity of meeting those requirements or the dedication of the storage fields for that purpose.

## IX. Implementation of Today's Decision

### A. Workshops

The unbundled gas banking service is new, complex, and different from the proposal of any one party during the storage hearings. These factors prompt a different implementation process than the usual advice letter filings.

We direct PG&E and SoCal each to file and serve an implementation plan. The plan should include rules for both regular (annual, allocated by bidding) and as-available (negotiated) banking service, a bidding protocol together with bidding and bid solicitation forms, sample notices and forms related to the nomination and balancing provisions, explanation of all billing and accounting procedures (including procedures associated with the Banking Reservation Fee Account), and any other matters relevant to implementing this service.

Interested parties will then file written comments on the implementation plans, after which an implementation workshop will start. The purpose of the workshop is to permit the parties to discuss the plans in a non-adversarial setting, clarify ambiguities and uncertainties, catch inconsistencies and omissions, and generally to work out as many of the problems as possible. CACD should help by preparing and distributing on the first day of the workshop a summary of problems, based on the submitted plans and comments, and by acting as moderator at the workshop.

obtain preferential access to banking capability at the end of its existing contract.

41. Banking service (whether regular or as-available) is not transferable, except that the customer may release some or all of its unused reserved volume back to the LDC with the LDC's consent. If the LDC agrees to the release, then the customer's obligation to pay banking reservation fees is cancelled or proportionally reduced for all months in the contract term following the month in which the release is accepted.

42. The LDCs' implementation plans should include a proposed nomination procedure (similar to that used currently to nominate storage gas) for banking "deposits" and "withdrawals." There will be no minimum or maximum nomination. SoCal's proposed minimum banking quantity is unreasonably high, considering that the banking service is essentially an accounting transaction. An appropriate minimum is two million cubic feet over an injection season, equivalent to about one month's consumption by a noncore customer consuming at the minimum rate to qualify for noncore status.

43. The LDCs will each establish a Banking Reservation Fee Account. They will book to this account the value-based component of fees collected in connection with the regular and (if offered) as-available banking services. The LDCs will keep a small portion of these fees as an incentive. Based on the same principle that we have previously applied to the disposition of transportation priority charge revenues, the remainder of these fees should go to reducing the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage.

44. Without experience or other basis for projection, the revenues resulting from banking customers' bids cannot practically be dealt with on a forecast basis. Instead, LDCs should report the Banking Reservation Fee Account balances in their respective ACAPs. These balances, after deduction of the LDC incentive, will reduce the LDC revenue requirement for the next year.

The workshop may continue from day-to-day as needed, or may break into working groups and reconvene, or may otherwise provide for its own agenda, schedule, and procedure. However, our goal is that the workshop end after not more than two weeks with a report of the conferees (1) listing the generally agreed-upon provisions in the implementation plans, and (2) specifying those issues (if any) that require resolution by the Commission. Conferees may also file and serve separate statements at that time. We intend to decide any remaining issues without further hearing.

This implementation process will require the good faith and hard work of all concerned, but we think the process will educate everybody, alert us to things we may have overlooked in today's decision, and result in banking service that will minimize unpleasant surprises and accommodate everyone's needs, so far as that is possible. The process will not work if parties try to use it to relitigate issues. We stress that any objections to today's decision must be raised through the appropriate pleading (an application for rehearing or petition for modification).

We also intend the new banking service to begin with the 1989 injection season. This requires strict adherence to the schedule set out in Appendix C.

B. Accounting and Accountability

The banking services approved in today's decision should not significantly complicate the physical operation of the LDCs' systems. The LDCs will retain physical control and will have essentially the same task that they have currently of optimizing system operation in light of anticipated throughput. What will change significantly is the bookkeeping associated with that throughput.

Current equipment on the systems of the LDCs and interstate pipelines provides little real-time detail on gas flows, and certainly not enough information for the LDC to know, on a real-time disaggregated basis, which transport or banking

45. The LDC will experience new and possibly increased risks in operating the banking service. This exposure to risk should be accompanied by opportunity for gain.

46. The incentive should not be so high as to bias the LDC's storage decisions. The incentive is also not intended to mitigate risks that the LDC would face whether or not there were a storage banking service. Finally, the LDC should not be placed in a conflict-of-interest, so any revenues from bids submitted (1) by the LDC on behalf of its core-elect customers, or (2) by the LDC's electric department, should first be excluded in calculating the portion of banking reservation fees to be retained by shareholders. Revenues from wholesale customers to cover banking service for their core loads are also excluded. We will set the LDC incentive initially at 10% of the banking reservation fee revenues (minus the exclusions just mentioned). For this purpose, "banking reservation fees" will include revenues from the value-based component of fees collected for both regular and as-available banking service.

47. The LDCs' storage facilities are dedicated to public utility service. These facilities influence the LDCs' procurement strategies; they play a role in load-balancing; they are an essential element in the reliability equation and the system integration function. They are as much involved as the intrastate pipelines in the movement of gas across the LDCs' systems to the end-user. As PG&E and SoCal have noted repeatedly, gas stored for the core increases the noncore's access to flowing supplies during peak seasons. The storage facilities have been performing these functions since long before the inception of gas transportation service and the categorization of customers into core and noncore.

48. Given the current poor quality of information (in real-time, disaggregated terms) on deliveries of transport and banking volumes into the LDCs' systems, "true-ups" seem to be a commercial necessity. The LDCs' implementation plans should include detailed accounting procedures for the new services.

customer's gas the LDC is receiving. Some of the parties (notably Mock) criticize PG&E's practices in accounting for deliveries of transport gas into the PG&E system. According to Mock, PG&E uses inappropriate rules to allocate deliveries to particular customer accounts and is inflexible (compared to SoCal) in allowing "true-ups" based on updates or corrections from the interstate pipeline.

Given the poor quality (at least for the foreseeable future) of information on deliveries of transport and banking volumes into the LDCs' systems, "true-ups" seem to be a commercial necessity. The LDCs should take a pragmatic approach, as SoCal seems to be doing. However, we will not adopt a set of accounting rules in today's decision. The subject is intricate, the record (at least in this regard) is rather general, and we frankly believe that the parties at the implementation workshops are better able than we are to work out what is commercially reasonable under the circumstances of the adopted banking services. The LDCs' implementation plans should include detailed accounting procedures for the new services. Shell/Salmon and other parties note that LDCs in other jurisdictions presently offer various forms of banking service, so we are launching into previously explored territory.

## X. Response to Comments on ALJ's Proposed Decision

Our Rules of Practice and Procedure allow comments on proposed decisions. Such comments "shall focus on factual, legal or technical errors in the proposed decision and in citing such errors shall make specific references to the record. Comments which merely reargue positions taken in briefs will be accorded no weight and are not to be filed." (California Code of Regulations, Title 20, Rule 77.3.) With one exception, the parties' comments on

49. This decision should be made effective immediately in order to complete implementation before the beginning of the 1989 injection season.

## ORDER ON GAS STORAGE BANKING SERVICE

IT IS ORDERED that Pacific Gas and Electric Company (PG&E) and Southern California Gas Company (SoCal) shall file plans to implement the gas storage banking services approved in this decision. The plans shall provide for both regular and as-available banking, although PG&E and SoCal are required to offer only the regular service. The plans shall be consistent with the foregoing Findings of Fact and Conclusions of Law, and shall be filed, served, commented upon, and reviewed for final approval in conformity with the schedule in Appendix C.

the proposed decision on gas storage banking conformed to this rule.[35]

We have substantially modified the proposed decision. Many commenters, including some supporters of unbundling storage, urged us to proceed cautiously at this time, citing current problems in transporting customer-owned gas and the sheer mass of recent changes affecting gas customers, suppliers, pipelines, and distributors. Thus, we authorize a pilot program for 1989-90. The program will give us experience with many aspects of storage banking, which should smooth the transition to unbundled banking service starting in 1990.

PG&E and SoCal felt that the initial storage target, as described in the proposed decision, did not adequately recognize the price function of storage. However, finding of fact 2 says that banking service "should not be permitted to...increase the cost of serving core customers." The LDCs apparently interpreted "core peak season needs" (see Section IV.A.2) to refer only to reliability. The correct view, expressed in Edison's reply comments, is that the initial storage target allows the LDC to store "enough core portfolio gas to provide core customers with the price function benefit as well as winter supply security." Section

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35 The exception is TURN's comments, which are largely given over to characterizations of the proposed decision as "an invitation to disaster...absolute folly...schizophrenic." This is not an analysis of "factual, legal or technical errors" such as our rule calls for.

Our Docket Office correctly rejected the comments of two parties (DGS and Poco) that served their comments on time but failed to present a signed original, as required by Rule 77.2. We grant their respective motions for leave to file late comments. However, we are disturbed at the disregard of this clear requirement. For the future, we advise the parties and our ALJs that inadvertent error is not adequate to excuse compliance with Rule 77.2.

IT IS FURTHER ORDERED that the interim approach to storage by wholesale customers, instituted in Decision 88-03-085, is superseded by this decision. This supersedure is contingent on the full implementation of the regular banking service in time for the beginning of the 1989 injection season (approximately April 1, 1989).

This order is effective immediately.

Dated _____, at San Francisco, California.

IV.A.2 is revised to clarify how price and reliability functions are considered in the initial storage target.

SoCal is concerned that our storage target process does not adequately insure peak day requirements. In particular, SoCal notes that customer-owned gas can be used to sustain APD pressures in the storage fields, but cannot be diverted to meet core needs absent a Commission-declared supply emergency. However, SoCal has not grasped the significance of the LDC's ability under our approach to adopt a revised storage target. Assume that there is no demand for storage banking whatsoever: the LDC would simply revise its initial target to fully encompass system integration and reliability functions, including both supply and deliverability under APD conditions. If there is some but (in the LDC's judgment) still inadequate demand for storage banking to ensure that all storage functions are provided for, then the LDC again would revise its initial target to supplement that gas and the customer-owned gas in storage. Even if the demand for storage banking is high, the LDC can still raise its initial target if it believes, consistent with the storage functions we have discussed, that such revision is prudent. The whole purpose of our two-step storage target process (and other safeguards in the banking program) is to ensure that the LDC always has the opportunity to optimize use of its storage facilities.[36]

We have determined that the LDC's management obligations regarding the core portfolio require the LDC to include core-elect customers' loads in calculating the initial storage target.

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36 In Section IV.A.3 above, we noted that a logical price criterion applicable to SoCal's initial storage target might justify setting that target as high as 60 bcf, an amount that exceeds SoCal's January APD requirement. An initial target at that level seems to moot SoCal's concerns, even without considering the LDC's ability to revise its initial target.

However, core-elect customers (following implementation of regular banking service in April 1990) will have to pay a value-based reservation fee, like other noncore customers that bid for and obtain storage banking.

Some of the testimony, as well as the comments, reflect some confusion between the cycling capability of storage fields and total gas in the fields, which includes large quantities of gas that must remain in the fields at all times to ensure their operability and physical integrity. To clarify, when we refer to gas storage volumes in this decision, we mean gas that can be cycled in and out of the fields.

We agree with the comments that have urged us to have uniform balancing provisions for both transportation and banking services. We also see a need to establish an initial set of balancing provisions now, in order to implement the pilot program. Therefore, we may revise the balancing provisions described in Section IV.E in connection with our order adopting final rules governing gas procurement and related matters. (See Order Instituting Rulemaking 88-08-018.)

We continue to provide 12-month balancing for the core load of wholesale customers on the basis of the proportionate amount of the LDC's fixed costs of storage allocated to the wholesale customer's core class. However, we are willing to consider alternatives whereby wholesale customers could use an approach to setting core storage targets similar to what we have created for the primary utilities. The wholesale customers may present their proposals for such alternatives in the reports that we have requested from them on the pilot program.

Other notable changes to the ALJ's Proposed Decision include a new approach to the billing of transportation charges for banked gas, clarification of the treatment of wholesale customers, and revision of the LDC incentive. We have also added Appendix E to aid preparation and review of the LDCs' implementation plans.

Findings of Fact

1. Gas storage by LDCs on behalf of core loads serves both a price function and a reliability function.

2. Gas storage banking service enables retail noncore customers and wholesale noncore loads to take advantage of the price function of storage. Gas banked for such noncore loads should not be permitted to interfere with service reliability for core loads or otherwise increase the cost of serving core portfolio customers.

3. Gas storage banking should promote optimal use of the LDC's total system.

4. The LDC's initial storage target is based on the peak season needs (considering both price and reliability) of core (P1-P2A) and core-elect customers in a 2.0 standard deviation cold year. The target does not include additional volume to meet APD field pressures.

5. Withdrawal of gas by banking customers is subject to curtailment where necessary to ensure APD deliverability.

6. The LDC should publish, along with the initial storage target and volumes available for banking, the APD schedule from which the LDC would determine that gas could or could not be withdrawn from storage without jeopardy to APD requirements. This information and the LDC's solicitation of banking service bids will normally be published in early February.

7. The bidding for regular banking service should allow enough time for potential banking customers to make plans and prepare bids, and for LDCs to think and rethink their storage strategy and schedule before the beginning of the annual injection season.

8. The LDC should have discretion in using any banking capability remaining after award of banking volumes through bidding. The LDC may continue to fill its storage facilities, and will certainly do so if its initial storage target and regular

banking are inadequate to ensure APD deliverability. The LDC may also provide as-available banking, which would be interruptible before regular banking service.

9. SoCal has not demonstrated through economic or other relevant analysis any prudent basis for adhering to its one year-in-100 cold season planning criterion.

10. Fees for regular banking service should have a value-based component and a variable cost component. The value-based component ("banking reservation fee") allocates banking capacity and is set by bidding. The bidding results in an annual fixed charge in equal monthly installments.

11. The regular banking service should have a 12-month term, commencing on April 1 each year. This date corresponds to the beginning of the LDC's injection season.

12. The potential banking customer will submit its sealed bid (expressed in mills/therm/year) in the form of a list that would show a variety of price levels and the banking volume that the customer would request at each level. The list would start at two mills and proceed upward in two-mill increments. After the close of bidding, the LDC will select the banking reservation fee that maximizes reservation of banking capability.

13. Where the LDC itself is a bidder on behalf of its electric department, the LDC will submit its bid under seal to the CACD.

14. SoCal should be authorized to recover its variable injection costs through an in-kind charge, using as the basis its average projected gas consumption after meeting the initial storage target. PG&E may choose between a monetary or in-kind charge but should indicate its choice in its implementation plan. In either case, the basis for the charge is PG&E's average projected electricity consumption after meeting the initial storage target.

15. Variable costs should include a factor for uncollectibles and apply to the cost-based charges collected from all banking customers except wholesale customers.

16. The variable O&M costs of the underground storage fields (excluding pumping energy) are a reasonable proxy for the variable O&M of the banking service. However, the LDCs should reconsider their calculation of variable O&M in light of the level of banking capability contemplated in today's decision.

17. The transportation charge for banking volumes should be billed to match the incurrence of costs, half when the gas is "deposited" and half when withdrawn and delivered, using the applicable rate at each time. A broker or supplier that banks on its own account (under the as-available banking service) would pay the highest noncore transportation rate in effect when it nominates volumes for "deposit"; when these volumes are withdrawn, the broker or supplier would pay the rate applicable to the customer receiving the gas for consumption.

18. Banking customers will potentially bear a significant part of the variable costs of the LDC's storage operations.

19. Generally, all California noncore customers are eligible for banking service. Wholesale customers are entitled to banking service based on the share of LDC fixed storage costs allocated to their respective core loads. They may get additional service (regular or as-available) on the same basis as other noncore customers.

20. The interim approach to storage by wholesale customers in D.88-03-085 is eventually to be superseded by today's decision. This supersedure is contingent on the full implementation of regular banking service in time for the injection/withdrawal cycle starting on April 1, 1990.

21. Gas storage banking is intended solely for gas to be consumed in California.

22. Brokers and suppliers are not eligible for the regular banking service but may act as agents for eligible customers. Brokers and suppliers may get as-available banking service (where offered by the LDC) on their own or their clients' account.

23. Core-elect customers are noncore customers who, by virtue of their election, express a preference for price stability and supply security (in the form of a longer-term portfolio) as to at least part of their requirements. Core election does nothing except entitle such customers to a commodity price equal to the core WACOG. The core-elect customer, like the rest of the noncore, must pay extra if it wishes to benefit directly from storage banking capability.

24. Commencing with regular banking service, LDCs' initial targets will include a banking volume intended for core-elect customers, based on LDC management appraisal of core-elect consumption, load shapes, and seasonal gas price differentials. This specification of banking volume for core-elect customers will be subject to reasonableness review.

25. The auction price will be used to price core-elect banking service after-the-fact. Since core-elect customers, unlike the rest of the noncore participants in the banking program, will not have had the opportunity to bid a volume associated with the eventual banking price, the core-elect monthly reservation fee is capped at 125% of the previous year's fee. The revenues calculated from the target volume and banking price will be converted into a per-therm, average reservation fee for all core-elect volumes, to be collected in rates through a separately-stated volumetric charge.

26. Some customers choose core election for only part of their needs. Such customers may bid like other noncore customers as to the remaining part of their needs.

27. As-available banking is an incremental service, curtailable ahead of the regular service, offered on a

nondiscriminatory basis for varying terms (but always less than a year), and using any banking volumes that might remain after provision for both the volumes allocated through the regular service and the LDC's revised storage target.

28. Fees for the as-available service, like the regular service, would have variable cost and value-based components. Costs should be computed on an updated basis to reflect actual conditions on the LDC's system. Variable cost fees would be charged on a volumetric basis, and the same types of costs would be includable in both types of service. Value-based fees would be negotiable downwards from the monthly fee derived from the bidding for the regular service.

29. The treatment of revenues from the value-based component of as-available banking fees will be the same as for regular banking.

30. Injections into and withdrawals from storage on behalf of core loads (both the LDC's own core and that of its wholesale customers plus the LDC's core-elect customers) take priority over any storage operation to provide banking service. As among banking customers, those with banked volumes under the regular service take priority over as-available banking customers.

31. If the LDC experiences a capacity constraint anywhere on its system (in the storage fields or on its pipelines) such that the LDC cannot move banked gas, then the LDC will curtail all regular banking customers based on the existing noncore priorities (P2B-P5) of the respective customers, to the extent necessary after fully curtailing its as-available banking service. A curtailment affecting only as-available banking service would likewise be carried out on the basis of existing noncore priorities, except that brokers/suppliers would be curtailed first. These rules apply whether the constraint affects banking "deposits" or "withdrawals."

32. Banking withdrawal capacity may be constrained for two general reasons: (1) if drawing down the reservoir would eliminate

the pressure necessary to sustain withdrawals under APD conditions; and (2) if total withdrawal capacity were needed for the core portfolio because insufficient supply were delivered by interstate pipeline supply sources, or LDC-owned gas in storage were more economic than incremental sources of flowing supply.

33. Banking services require implementation of a nomination procedure for "deposits" and "withdrawals." The LDC will use these nominations in planning how to move banked volumes and in effecting curtailments.

34. All banking services, other than for wholesale core loads, are provided only through the "best efforts" of the respective LDCs. Accordingly, there will be no rebate of banking reservation fees in the event of a curtailment.

35. Access to storage banking will enhance gas-to-gas competition in California, but it may also complicate the LDC's task of balancing its system. Proper system balancing is necessary for controlling costs and ensuring reliability. Thus, those who benefit from greater access to LDC facilities, including the LDC's pipelines and storage fields, must also bear (1) the responsibility of complying with reasonable conditions on their use of the facilities, and (2) any increased costs that result from failure to comply with those conditions.

36. Short-term load balancing is bundled in the transportation rates and provided routinely through "line pack" (increasing the pressure in the LDC's pipelines to hold more gas) and/or operation of some of the LDC's smaller storage fields. However, rules are needed to govern balancing service to banking customers for more than short-term imbalances.

37. Where less gas shows up than the LDC has been led to expect, the LDC has some protection because the banking reservation fee is payable whether or not the full volume is used. Also, the banking customer may release some or all of its unused reserved volume to the LDC, if the LDC consents. Finally, the LDC may take

back unused reserved volume under a use-it-or-lose-it provision. This provision will require the LDC to give written notice of a deficit greater than 10% in the banking customer's "deposits" compared to its nominations. If the deficit is not reduced to 10% or less within 30 days of the written notice, then the LDC may either (1) take back unused volume exceeding the 10% margin (in which case the LDC must prospectively reduce the banking customer's reservation fee on a proportional basis for months following the take-back), or (2) fill the unused volume up to the 10% margin, billing the banking customer for the LDC's gas at the rate for the proposed "standby service."

38. When more gas shows up than the LDC has been led to expect, this constitutes "unscheduled" banking. In this situation, the LDC may bill banking charges for the excess gas (i.e., the amount by which the customer's "deposits" exceed its nominations by more than 10%, after notice and opportunity to correct, as described in Finding 37), including the LDC's variable costs and 125% of the monthly reservation fee for "scheduled" banking. Otherwise, the LDC may either (1) purchase the excess gas at the lower of the banking customer's cost or the LDC's lowest current cost of gas, or (2) proportionally reduce the nominations during the month following the end of the notice period to bring the customer's balance within the 10% margin.

39. When the banking customer has gas in its account at the end of its contract term, the customer may be able to get a new contract (either by successfully bidding for the regular service or obtaining as-available service if offered). Otherwise, the LDC will buy the gas remaining in the account at the price of its lowest incremental source.

40. Banking service (whether regular or as-available) is limited to the term of the contract between the banking customer and the LDC. A current banking customer is not guaranteed the same or any banking volume during a later term, nor does that customer

obtain preferential access to banking capability at the end of its existing contract.

41. Banking service (whether regular or as-available) is not transferable, except that the customer may release some or all of its unused reserved volume back to the LDC with the LDC's consent. If the LDC agrees to the release, then the customer's obligation to pay banking reservation fees is cancelled or proportionally reduced for all months in the contract term following the month in which the release is accepted.

42. The LDCs' implementation plans should include a proposed nomination procedure for banking "deposits" and "withdrawals." The nomination procedure will apply to banking customers generally, except that wholesale customers will not be required to nominate core gas from storage in winter. There will be no minimum or maximum nomination. SoCal's proposed minimum banking quantity is unreasonably high, considering that the banking service is essentially an accounting transaction. An appropriate minimum is two million cubic feet over an injection season, equivalent to about one month's consumption by a noncore customer consuming at the minimum rate to qualify for noncore status.

43. The LDCs will each book to an appropriate account the value-based component of fees collected in connection with banking services. The LDCs will keep a small portion of these fees, collected during the pilot program, as an incentive. Based on the same principle that we have previously applied to the disposition of transportation priority charge revenues, the remainder of these fees should go to reducing the revenue requirement allocated to noncore customers for the LDCs' fixed costs of storage.

44. Without experience or other basis for projection, the revenues resulting from banking customers' bids cannot practically be dealt with on a forecast basis. However, the pilot program will provide such a basis. Revenues from reservation fees should be forecast before commencement of regular banking service in April

1990. LDC shareholders should retain any such revenues in excess of the forecast.

45. The LDC will experience new and possibly increased risks in operating the banking service. This exposure to risk should be accompanied by opportunity for gain.

46. The LDC should not be placed in a conflict-of-interest, so any revenues from bids submitted by the LDC's electric department should be excluded in calculating the portion of banking reservation fees from the pilot program to be retained by shareholders. Revenues from wholesale customers to cover banking service for their core loads are also excluded. We will set the LDC incentive during the pilot program at 5% of the reservation fee revenues (minus the exclusions just mentioned).

47. The LDCs' storage facilities influence the LDCs' procurement strategies; they play a role in load-balancing; they are an essential element in the reliability equation and the system integration function. They are as much involved as the intrastate pipelines in the movement of gas across the LDCs' systems to the end-user. As PG&E and SoCal have noted repeatedly, gas stored for the core increases the noncore's access to flowing supplies during peak seasons. The storage facilities have been performing these functions since long before the inception of gas transportation service and the categorization of customers into core and noncore.

48. Given the current poor quality of information (in real-time, disaggregated terms) on deliveries of transport and banking volumes into the LDCs' systems, "true-ups" seem to be a commercial necessity. The LDCs' implementation plans should include detailed accounting procedures for the new services.

Conclusions of Law

1. Today's decision does not affect the cost allocation factors previously adopted for the new regulatory framework for natural gas.

2. The pilot storage program for 1989-90 is in addition to our interim approach (in D.88-03-085) to storage by wholesale customers. That approach continues in effect during the pilot storage program until superseded by full implementation of regular banking service in time for the injection/withdrawal cycle starting on April 1, 1990.

3. All gas banked under the pilot program or regular or as-available storage banking service must be consumed in California.

4. The LDCs' underground storage fields are facilities dedicated to public utility service.

5. This decision should be made effective immediately in order to complete implementation of the pilot program before the beginning of the 1989 injection season.

INTERIM ORDER ON GAS STORAGE BANKING SERVICE

IT IS ORDERED that Pacific Gas and Electric Company and Southern California Gas Company shall file plans to implement the pilot program approved in this decision. The plans shall be consistent with the foregoing Findings of Fact and Conclusions of Law, and shall be filed, served, commented upon, and reviewed for final approval in conformity with the schedule in Appendix C.

IT IS FURTHER ORDERED that the interim approach to storage by wholesale customers, instituted in Decision 88-03-085, shall continue during the pilot program but shall be superseded upon full implementation of the regular banking service in time for the beginning of the 1990 injection season (approximately April 1, 1990).

This order is effective today.

Dated NOV 9 1988, at San Francisco, California.

STANLEY W. HULETT
President
DONALD VIAL
FREDERICK R. DUDA
G. MITCHELL WILK
JOHN B. OHANIAN
Commissioners

**APPENDIX A**


List of Appearances

Respondents: Patrick G. Golden, Richard Meiss, and Judi K. Mosley, Attorneys at Law, for Pacific Gas and Electric Company; Luce, Forward, Hamilton & Scripps, by Steven S. Wall, Attorney at Law, for San Diego Gas & Electric Company; R. B. Keeler and G. J. Sullivan, Attorneys at Law, Roy M. Rawlings and Maureen Lennon, for Southern California Gas Company.

Interested Parties: C. Hayden Ames, Attorney at Law, for Chickering & Gregory; Armour, St. John, Wilcox, Goodin & Schlotz, by James D. Squeri, Attorney at Law, for Kelco Division of Merck & Company; Baker & Botts, by Steve Hunsicker, Attorney at Law, for Tenneco Oil Company and Conoco, Inc.; Brady & Berliner, by Roger A. Berliner and John W. Jimision, Attorneys at Law, for Amoco Canada and Amoco Energy Trading Corporation (jointly), Poco Petroleums, Ltd., Dome Petroleum Ltd., and Canadian Producer Group; Matthew V. Brady, for Department of General Services; Brobeck, Phleger & Harrison, by Gordon E. Davis, Attorney at Law, and Squire, Sanders & Dempsey, by Keith R. McCrea, Attorney at Law, for California Manufacturers Association and California Industrial Group; Thomas Carmel, Attorney at Law, for Conoco, Inc.; Deborah M. Chance, for Meridian Oil, Inc.; Charles E. Doering, for the City of Long Beach; Richard A. Drom, for Exxon Corporation; Martin E. Drumm, for City of Pasadena; Richard K. Durant, Frank J. Cooley, and Michael Gonzales, Attorneys at Law, for Southern California Edison Company; David Dyck, for AOGC; Karen Edson, for KKE & Associates; Eric Eisenman, Clark Smith, and Cheryl Foley, for Enron Corporation and Transwestern Pipeline Company; Michael D. Ferguson, Attorney at Law, and Gary D. Simon, for El Paso Natural Gas Company; Frederic C. Fletcher, for the City of Burbank; Michel Florio, Mark Barmore, Attorneys at Law, and Sylvia M. Siegal, for Toward Utility Rate Normalization; Graham & James, by Boris H. Lakusta, Martin A. Mattes, Michael P. Hurst, David J. Marchant, and Norman A. Pedersen, Attorneys at Law, for Kern River Gas Transmission Company, Amerada Hess Corporation, and Southern California Utility Power Pool and Imperial Irrigation District; Rand L. Havens, for Mission Resources; Fred Dorey, Attorney at Law, for Kern River Cogeneration Company; Thomas R. Hunt, II, for California Independent Producers Association; Lindsay, Hart, Neil & Weigler, by Michael Peter Alcantar, Attorney at Law, for Cogenerators of Southern California; Henry F. Lippitt, 2nd, Attorney at Law, for California Gas Producers Association; Jackson, Tufts, Cole & Black, by William H. Booth, for Mobil Oil

Corporation; Luce, Forward, Hamilton & Scripps, by John W. Leslie, Attorney at Law, for Shell Canada Limited, Salmon Resources Limited, and Mock Resources, Inc.; Marron, Reid & Sheehy, by Melanie S. Best; Patrick McDonnell, for Agland Energy Service, Inc.; Leamon V. Murphy, for Imperial Irrigiation District; Judy Obst, for San Diego Gas & Electric Company; Robert L. Pettinato, for Los Angeles Department of Water and Power; Patrick J. Power, Attorney at Law, for Hadson Gas Systems; Patrick J. Power, Attorney at Law, and Tony Bennetti, for City of Palo Alto; Patrick J. Power and Richard Alesso, Attorneys at Law, for City of Long Beach; Paul M. Premo, for Chevron; Phyllis Rainey, Attorney at Law, for Tenneco Oil Company; Norma J. Rosner, Attorney at Law, for Arco Oil and Gas Company; Lawrence W. Silva, for City of Glendale; Drazon Brubaker & Associates, by Donald W. Schoenbeck, for Watson Cogeneration Company; Skaff & Anderson, by Andrew J. Skaff and Kenneth Randolph, Attorneys at Law, for Mojave Pipeline Operating Company and Natural Gas Clearinghouse; Downey, Brand, Seymour & Rohwer, by Phillip Stohr, Debbie Tellier, and Christopher Ellison, Attorneys at Law, for Industrial Users Group; Brian Sway, for California Gas Cooperative and Capitol Oil Corporation; Robert R. Weisenmiller, for Morse, Richard, Weisenmiller & Associates; Harry K. Winters, for University of California; Morrison & Foerster, by Jerry R. Bloom, Attorney at Law, for California Cogeneration Council; Steven Cohn, Attorney at Law, for California Energy Commission; Robert K. Weatherwax, for Sierra Energy & Risk Assessment, Inc. (SERA); and Barkovich & Yap, by Barbara R. Barkovich; Dian M. Grueneich, Attorney at Law; and Elliot J. Roseman, for themselves.

Division of Ratepayer Advocates: Robert Cagen, Attorney at Law, Brian D. Schumacher, and Geoffrey W. Meloche.

(END OF APPENDIX A)