Memorandum

To: ISO Board of Governors

From: Kellan Fluckiger, Chief Operations Officer
Stephen Greenleaf, Director of Regulatory Affairs
Brian Theaker, Manager of Reliability Contracts

Cc: ISO Officers

Date: **July 25, 2000**

Re: ***Recommendation on Competitive Solicitation for SDG&E's Valley-Rainbow 500 kV Transmission Project***

Board action is required on this item.

EXECUTIVE SUMMARY

At the May 25 ISO Governing Board meeting the Board approved San Diego Gas & Electric Company's (SDG&E's) proposed Valley-Rainbow 500 kV transmission project (Valley-Rainbow Project) as "the preferred near-term transmission alternative to address the identified reliability concerns on the San Diego & southern Orange County portion of the ISO grid beginning in 2004" and directed SDG&E to proceed with the development of the project. [1] In addition, the Board approved, "application of a competitive solicitation process to allow non-wires alternatives to compete with the Valley-Rainbow 500 kV Project to mitigate the identified reliability problems. " The Board directed Management to define the "parameters and the process of the solicitation" and to make a recommendation on these matters at the Board's next meeting.

In order for the ISO to proceed with a competitive solicitation for the Valley-Rainbow Project, the issues outlined below must be resolved by the Board. We believe that in order to conduct a fair, open and proper competitive solicitation the Board must first provide Management with guidance on these issues. Interested parties have stated that absent clear definition of the process and evaluation criteria they are unlikely to participate in the competitive solicitation.

We recommend that, if the Board decides to proceed with the solicitation, the Board direct Management to proceed with the competitive solicitation for the Valley-Rainbow project as outlined below. Management believes that the proposed process for, and parameters of, the solicitation will result in a timely and effective solution to the reliability needs in the area. Therefore, Management proposes the following motion:

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[1] The ISO Governing Board did not address the issue as to what the appropriate route is for the project, as that is a matter appropriately addressed at the California Public Utilities Commission. In addition, because of the transitional nature for the Project, the Board stated that the ISO will support SDG&E's recovery of all prudently incurred project development costs.

Moved, that the Board:

- ***Direct Management to proceed with a competitive solicitation, the process and parameters of which are outlined in the memorandum dated July 25, 2000, to determine if there are any cost-effective non-wires alternatives to SDG&E's Valley-Rainbow 500 kV Transmission Project that satisfy the ISO's Grid Planning Criteria;***

- ***Direct Management to file tariff language at FERC substantially in the form provided to the Board in Attachment A to the memorandum dated July 25, 2000;***

- ***Advice SDG&E to proceed with the development of the Valley-Rainbow until such time as the ISO is assured that the project or a comparable alternative will be in place by 2004 to satisfy the reliability requirements in the area; and***

- ***State that the ISO will support, before FERC, SDG&E's full recovery of all prudently incurred project development costs.***

Other Important Considerations

While we fully understand the Board's desire to proceed with and refine our approach to this type of solicitation, we caution the Board that proceeding with the solicitation at this point in time may be inconsistent with our direction on other matters. We outline below certain issues that warrant consideration in the Board's deliberation on this matter:

Facilitating a Competitive Market – At a time when the existence, let alone the competitiveness, of the California market is being challenged, we question whether it is reasonable to proceed down a path where we pit generation *against* transmission. It is clear from the events of the past few weeks that California suffers from a lack of investment in both generation and transmission. Regional transmission projects, such as Valley-Rainbow, are critical infrastructure to ensuring a competitive regional market. The Valley-Rainbow project is but the first link in a regional expansion plan designed not only to ensure reliability but also to facilitate interregional transfers of Energy and access to regional and sub-regional markets. While there certainly may be a place for "competition" between generation and transmission projects at a local level (See the opinion of DMA), any tangible short-term benefit resulting from a generation project deferring or displacing a larger regional transmission project is likely to be outweighed by the less tangible costs of reduced access and therefore less competition. Moreover, reliance on "market" generation to displace the need for critical regional transmission facilities will inevitably give rise to market power problems and the need to "negotiate" a deal with such generation on a long-term basis.

Net Benefits – Although a non-wires project could potentially defer or displace the Valley-Rainbow project and result in a lower annual costs to consumers, the total net benefits are unclear. One of the potential bidders in this solicitation is a proposed large generation project. While the generation project could possibly displace the Valley-Rainbow project, the project, as currently proposed, would not increase supply in the San Diego area. That is, as proposed, the project may not only displace the Valley-Rainbow project but would also displace imports in the area. Specifically, the ISO has concerns that the addition of the generating project does not increase load serving capability by the amount of installed capacity. Moreover, even with the addition of the plant and its related transmission upgrades, a significant amount of energy dispatch is required from both the South Bay and Encina power plants to eliminate reliability criteria violations and support full output from the proposed plant. In conclusion, while this project could potentially displace the Valley-Rainbow project, that's all it will do – it will not add to the load serving capability in the area.

BACKGROUND

The SDG&E 1999 Annual Assessment indicated that multiple violations to the ISO Grid Planning Criteria ("Criteria") would begin to occur in 2004 as a result of serving the increasing demand in San Diego County and southern Orange County. To mitigate these criteria violations, SDG&E undertook a major study to identify the preferred transmission project that would be necessary to serve the demand in the area and satisfy the Criteria beginning in 2004. The study ultimately assessed four 500 kV transmission alternatives based on technical performance, cost and lead-time requirements. The SDG&E study identified a transmission line between Edison's existing Valley substation and a new SDG&E substation at either the Rainbow or Pala site in northern San Diego County as the "preferred" 500 kV transmission project. As proposed, the Valley-Rainbow Project would eliminate Criteria violations from 2004 through 2008. However, additional 500 kV transmission reinforcements would be required to mitigate Criteria violations beyond 2008. The Valley-Rainbow Project includes 230 kV transmission reinforcements, power control equipment, and voltage support facilities needed to deliver power from Rainbow (or Pala) 500 kV Substation into the SDG&E grid.

THE PROCESS

Proposed Timeline

Management proposes that the Valley-Rainbow Project competitive solicitation be conducted according to the following timetable:

August 11	ISO issues a Request For Proposal (RFP) for non-wires alternatives to the Valley-Rainbow Project pursuant to the parameters approved by the Board at its August 1 meeting;
September 1	Due date for letters of intent to respond to the RFP;
November 10	Due date for responses to the Valley-Rainbow RFP;
November-January	ISO Management evaluates the responses. Such evaluation includes an assessment of the proposed project's impact on reliability and a determination as to what facilities and/or transmission system upgrades are necessary in order to connect the proposed non-wires project to the grid. The ISO, in coordination with SDG&E, will determine the connection requirements of proposed projects. (Management will not disclose the name of the respondent or the price bid of the project). Management may also meet with individual respondents to gain a complete understanding of their proposal;
February 2001	ISO Governing Board determines whether to proceed with the development of the Valley-Rainbow Project or to select a non-wires alternative.

We believe the proposed timeline provides potential respondents ample time to submit a response to the RFP, provides ISO Management the essential time it needs to properly evaluate any non-wires project proposals received, and ensures that SDG&E will be able to keep to the Valley-Rainbow Project's critical-path schedule. We believe that a ninety-day response time is sufficient in light of the fact that discussions regarding the Valley-Rainbow Project have occurred over the past several months and that issuance of the RFP has been long anticipated. Management cautions that any extension of the time period to respond to the RFP must be accompanied by an extension of time for Management to review the project. In addition, further extending the timeline may jeopardize SDG&E's ability to proceed with the Valley-Rainbow Project. SDG&E states that delaying or postponing Board action beyond February 2001 could delay the in-service date of the project and therefore lead to severe reliability problems in the San Diego Basin during the Summer of 2004.

THE PARAMETERS

Policy Issues

In order for Management to proceed with a competitive solicitation on the Valley-Rainbow Project, we believe the Board must address the issues outlined below. Management has identified various options for resolving these issues and has identified its preferred alternative.

Policy Issue No. 1: Is the ISO's conceptual approach of paying non-wires alternatives a "locational incentive" to locate in an area that supports the grid applicable to the Valley-Rainbow Project?

During the development of its long-term grid planning process in 1999, the ISO stated its willingness to compensate generation owners for the legitimate and verifiable costs they would incur from siting their project in the area of need, as opposed to their "preferred" site. Such costs may include the increased cost of securing land, land rights, fuel, air permits, and other costs that may increase as a result of locating in a developed area as opposed to a preferred site, such as in the desert, where interconnection, fuel and land costs are lower. The premise of the ISO's approach was that generation should come into the market based on an expectation of market revenues (not payments from the ISO), but that that ISO could furnish an incentive for generation to locate in areas that would support the grid.

In its competitive solicitation regarding Pacific Gas and Electric's Southern Tri-Valley transmission project ("Tri-Valley RFP") the ISO learned that by identifying a developed/developing area as the preferred site, the ISO implicitly changed the type of generating facility that a respondent could and would use to satisfy the need. Had the preferred site been in the desert, a respondent/developer could have used a larger, more efficient generating facility such as a gas-fired combined-cycle facility. However, by requiring that the project be located in the Tri-Valley area, the ISO was effectively requiring a developer to utilize a potentially smaller, less efficient, generator that would not have as great an impact on the local community (visibility, noise, etc.) and resources (air, water, etc.). By "requiring" the use of such less efficient generation, the ISO was necessarily limiting the opportunities for such a resource to participate in the market. Whereas an efficient gas-fired combined-cycle unit, by virtue of its low heat rate, is competitive and will therefore run more often in the market, a gas turbine unit is likely to run only during the peak periods and therefore would have to recover all of its costs (e.g., return on and of investment capital and operating expenses) during a limited number of hours. The bids the ISO received in response to the Tri-Valley RFP from generation developers reflected this fact.

Based on these considerations, Management believes that the Board should consider the following options:

Option 1: Apply the "locational incentive" conceptual approach to Valley-Rainbow and explicitly state that the ISO is willing to compensate non-wires projects for the legitimate and verifiable costs of locating their project in a manner and in an area that will satisfy the reliability requirements proposed to be addressed by the Valley-Rainbow Project.

Pros: This approach is consistent with the conceptual approach of only paying non-wires projects for locational cost differences and does not place the ISO in a position of having to underwrite or subsidize a non-wires project's market activities.

Cons: The ISO cannot be guaranteed that the Rainbow or Pala areas are areas where a non-wires project can otherwise locate a competitive resource (i.e., where there is easy access to fuel, water and other supplies and where a resource can obtain the necessary air, land and other necessary permits).

Option 2: Do not specify any parameters for payment and let the individual respondents develop bids structured around their requirements for cost recovery and in a manner that will satisfy the reliability requirements proposed to be addressed by the Valley-Rainbow Project

Pros: Provides for a flexible approach to paying non-wires projects whereby each respondent can reflect in its bid what they believe to be necessary and appropriate cost recovery.

Cons: Places the ISO in the difficult position of potentially underwriting a non-wires project's market activity and thereby susceptible to allegations that it is "re-bundling" products (transmission and generation/load) that were previously unbundled in the restructured market.

Recommendation:

Management recommends Option 2. We believe that the "locational incentive" approach may not be applicable in this instance. While we believe that the ISO should not underwrite market capital, we believe that generation and other non-wires projects can compete, on a limited basis, to supply the identified and necessary reliability services. To the extent that non-wires alternatives can supply such services at a cost lower than the cost of building transmission, the ISO should consider such projects as long as rejection of the transmission project does not impair the ISO's ability to coordinate and complete future expansion of the regional transmission system. Lastly, as explained below, we are recommending in this case that the costs of any non-wires project selected be passed on to the applicable PTO, SDG&E in this instance, but not necessarily included in that PTOs transmission rates. Therefore, we believe that the "rebundling" concerns should be addressed.

Policy Issue No.2: Should the ISO pre-specify the period of time it is willing to contract with a non-wires project? (i.e., Can a non-wires project effectively "displace" the Valley-Rainbow Project or will a non-wires project merely "defer" the Project?)

In the Tri-Valley RFP, the ISO stated that it would contract for non-wires alternatives for a five-year period (2001-2006). The five-year period was based on a presumption that load growth in the area was such that the transmission project would have to be built in five years anyway, regardless of whether non-wires projects are selected initially (i.e., a deferral period). As noted above, the ISO's conceptual approach for compensating non-wires alternatives, combined with the five-year term, resulted in making the generation-based non-wires alternatives uneconomic. We have identified a number of options for evaluating non-wires alternatives:

A significant and related issue is the issue of what capability should the ISO attribute to the transmission project. In the Tri-Valley case, the ISO used, but did not expressly state up-front, 615 MW as the transfer capability of the proposed transmission project. While the ISO did not include an expressed reference to the 615 MW capability of the transmission project in the Tri-Valley RFP, the ISO understood that such information is readily ascertainable when reviewing the details of the proposed project (if you recall, the ISO did not expressly provide the dollar amount or other details of PG&E's proposed project, to avoid respondents from specifically using those numbers as benchmarks for their bid). At the April Board meeting, Board members and others raised concerns that it was inappropriate or unfair, when developing per unit costs for comparison purposes, to use the 615 MW number for the transmission project and only the 175 MW (requested in the Tri-Valley RFP) number for the non-wires projects. Parties stated that use of different numbers for each proposal was inappropriate and would lead to an "apples-to-oranges" comparison.

As a way to avoid such "apples-to-oranges" comparison, parties asserted that: 1) the ISO must make clear the magnitude of the reliability benefit provided by the proposed transmission project (SDG&E claims that the benefit of the Valley-Rainbow project is 800MW, the total effective load serving capability of the project); 2) it was essential that all proposals be evaluated over the same time period and 3) the time period should have some relationship to the value of the projects to the ISO. For example, parties argued that in the case of Tri-Valley the ISO should have evaluated the cost of all proposals over the twenty-year life of the transmission project (when the "full" 615 MW capability of the project would be utilized). Absent such a comparison, certain parties believe that it would be inappropriate to attribute the full (but not utilized) capability of a transmission project when determining such project's unit cost.

***Option 1 – Deferral*:** This option effectively limits potential non-wires contracts to the period of deferral. Under this option, the ISO would compare the cost of a non-wires project against the cost or value of "deferring" the proposed transmission project for a certain number of years. The fundamental premise of this approach is that any such non-wires

alternatives will only defer construction of a proposed transmission project. Therefore, based on that premise, the value of a non-wires project could be determined by calculating the present value of the savings realized by delaying the construction of the proposed transmission project some number of years. Such savings can be estimated by calculating the net present value of the cost stream of the transmission project by first estimating the annual cash flow by applying a reasonable carrying charge to the total cost of the transmission project. A carrying charge is the amount of money needed to cover a reasonable return on the investment (debt and equity), taxes, operation and maintenance, etc. A typical carrying charge on such transmission investments is around 15%.; a very conservative carrying charge is 20%. It should be noted that factors such as escalating real-estate costs may create additional costs, not savings, by deferring a transmission project. Moreover, continued development in the area may prevent location of the project in the presently preferred locations, also increasing project development costs.

***Pros*:** The deferral method necessarily recognizes the benefits of transmission expansion (e.g., greater access to regional markets, increased operating flexibility) and therefore results in more transmission being built. This benefit is particularly clear in this instance. ISO Management believes that the Valley-Rainbow Project is a necessary first step in upgrading the regional transmission system. Moreover, with respect to the San Diego basin, both transmission and generation/load management are needed.

***Cons*:** Generation projects are less likely to compete with transmission projects on a deferral basis.

***Option 2 - Displacement* :** The displacement option effectively means that the transmission project will never be built and therefore does not limit the period of a non-wires contract. Under this method, the ISO would compare the cost of a non-wires project against the cost or value of "displacing" the transmission project. Under this approach a non-wires project would be compared to the total cost incurred from building the transmission project. The value of displacing the transmission project would then be determined by calculating the present value of the stream of payments for the transmission project over the life of the facility. The end result would be a strict "$/MW-yr" comparison of alternatives.

***Pros*:** Assuming that they are complete substitutes, the displacement method will enable generation and load-based projects to compete more effectively with transmission. This approach also results in a more "apples-to-apples" comparison of transmission and non-wires projects, thereby reducing the probability of assertions that the ISO's methodology was unfair or inappropriate.

***Cons*:** The displacement method does not recognize the other benefits of transmission expansion, such as increased operating flexibility, staging transmission requirements and increased access to the market. Furthermore, the "displacement" method requires continued reliance on the non-wires project and therefore raises concerns both with respect to maintaining "reliability through contracts" (potentially long-term contracts) and market power issues (e.g., the non-wires project may be the only "solution" that exists in a given area on a going forward basis).

***Option 3 – Deferral With 50%Benefit Cap*:** SDG&E proposes that the maximum capital benefit of deferring the Valley-Rainbow Project should not exceed 50% of the annual deferral value in order to provide savings to San Diego area customers.

***Pros*:** Places an appropriate emphasis on the benefit to end-use customers.

***Cons*:** Places non-wires projects at a significant disadvantage with respect to their ability to compete against transmission projects.

***Option 4 – Do Not Specifiy Either Deferral or Displacement*:** Do not specify that the ISO will apply either the deferral or displacement methodology and let the ISO make that determination on a case-by-case basis. Under this approach the ISO would permit respondents to individually structure their bids so as to defer **or** displace the Valley-

Rainbow project, based on the identified reliability requirements. Under certain circumstances, a non-wires project sponsor could, potentially, *displace* the need for the Valley-Rainbow project. Alternatively, a non-wires project sponsor could submit a proposal that would merely *defer* the need for the project.[2]

***Pros*:** Provides the ISO flexibility in evaluating proposals. Enable non-wires project sponsors to structure their bids according to their needs and based on explicit requirements.

***Cons*:** Does not necessarily provide respondents with certainty as to how the ISO will view their proposal (although respondents will be able to structure their bids to *displace* or *defer* the project).

Recommendation:

Management recommends Option 4. Application of both the deferral and displacement methodologies can satisfy the reliability requirements. The recommended approach will enable respondents to structure their bids against explicit requirements. Moreover, the approach is flexible in that it does not prescribe that a respondent can only bid to *defer* or *displace* the project.

However, when applying this approach, it is essential that the ISO perform both a qualitative as well as quantitative analysis. For example, the "displacement" method presumes that a transmission project can be permanently displaced. However, in instances where a project is the first leg of a multi-part expansion plan, that assumption may not be accurate or misleading. There may be a significant risk in not pursuing expansion if further development in an area may preclude future upgrades or expansion (e.g., fleeting opportunity to obtain the necessary environmental and right-of-way acquisitions, etc.). Similarly, the deferral method presumes that the project can still be built at a later time. Unfortunately, this may not be the case if the PTOs window of opportunity to secure the necessary land rights or rights-of-way goes away. Therefore, when evaluating proposals, the ISO must also assess the risks posed by not pursuing the transmission project.

Finally, to the extent the Board decides to pursue application of the displacement method, the Board must decide whether, from a policy perspective, it is comfortable entering into long-term contracts with non-wires projects. Consideration of the displacement method, even on a case-by-case basis, will enable non-wires projects to bid long-term arrangements to supply the minimum reliability requirements. Moreover, initial selection of a non-wires project may entail continued reliance on that project to provide necessary reliability services in the future – raising market power concerns. In addition, the Board may want to consider whether it is prudent to enter into long-term non-wires contracts in light of the direction of Congestion Management reform.

Policy Issue No.3: What cost recovery method is appropriate and how and when should the ISO secure approval of the preferred cost recovery mechanism?

In Tri-Valley the ISO proposed to recover the costs of any non-wires projects selected in the process by passing those costs on to PG&E and requiring that PG&E recover such costs through its transmission rates. While the conceptual approach was not necessarily opposed by PG&E or the respondents to the Tri-Valley RFP, certain parties did state that they are opposed to recovering such costs through transmission rates.

Option 1: Recover the costs of non-wires projects through transmission rates.

[2] For example, if the identified requirement (load growth) was 100MW for each of four successive years, a respondent could bid to supply 400MW and potentially displace the need for a transmission project. Alternatively, a respondent could submit a bid to supply 100MW, thereby only deferring the need for the transmission project one year, all other things being equal. However, under either scenario, the ISO would have to consider the impact of deferring or displacing the project on other planned upgrades or the possibility of developing the project at a later date.

Pros: Recovery of non-wires costs through transmission rates is consistent with the concept that such costs are incurred "in lieu of" transmission investment. Moreover, recovering such costs through transmission rates will provide the necessary price signal to the applicable transmission owner to upgrade its transmission system.

Cons: In the case of Valley-Rainbow, SDG&E and others are opposed to recovering the cost of any non-wires project(s) through transmission rates. Based on the likely opposition of SDG&E (the host utility), it is unlikely that the ISO will be able to secure the necessary tariff authority at FERC. Moreover, based on informal discussions with FERC staff, they are unlikely to approve recovery of such costs for two reasons: 1) it "rebundles" transmission and generation costs - contrary to the purpose and intent of Order No. 888; 2) such "incentive" payments to non-wires projects would be unnecessary if the ISO establishes appropriate locational price signals to such resources (through its congestion management process). In addition, FERC staff indicated that transmission rate recovery of such costs may be more acceptable if the ISO brought the issue before the Commission as a policy issue that was common to all the ISOs in the country (I.e., filed a joint Petition for Declaratory Order with the other ISOs). While Management is not opposed to such an approach, we believe the timing of the Valley-Rainbow project is such that we may not receive guidance from FERC in the necessary timeframe (i.e., within the year).

Option 2: Recover non-wires project costs through specific ISO Tariff provisions that asses the costs to SDG&E (applicable Participating Transmission Owner) but do not prescribe that SDG&E must include such costs in its transmission rates.

Pros: May satisfy FERC's concerns and improve the likelihood of FERC approval.

Cons: May mute what we believe are appropriate price signals to the applicable PTO (SDG&E in this instance) regarding the need to upgrade or expand their transmission system. In addition, recovery of these costs through "RMR-type" cost recovery mechanisms may blur the difference between these services and RMR and thereby raise most-favored nations (MFN) issues with existing RMR contract holders.

Option 3: Recover non-wires project costs through specific ISO Tariff provisions that asses the costs to all SCs based on load, similar to what is proposed for grid upgrades under the ISO's TAC proposal.

Pros: SDG&E supports this approach and it is consistent with the approach applied in the ISO's TAC filing.

Cons: May mute what we believe are appropriate price signals to the applicable PTO (SDG&E in this instance) regarding the need to upgrade or expand their transmission system.

Recommendation:

Management recommends Option 2. We believe that it is necessary and appropriate for the applicable PTO to be assessed these costs. Allocation of the costs directly to the applicable PTO will ensure that the PTO receives the right incentives/price signals for grid expansion.

Management has included in **Attachment A** draft tariff language which it believes accomplishes the above stated objectives. We recommend that the Board direct Management to file at FERC tariff language substantially in the form proposed in order to secure proper cost recovery of any costs incurred as a result of selecting a non-wire project.

DETAILS OF THE PROPOSAL

Based on the recommended resolution of the above issues, our experience in the Tri-Valley case, and feedback from Market Participants, we recommend that the Valley-Rainbow RFP specify and include the following details:

The RFP will specify:

- A reference to sites on the ISO Home page that provide detail on the proposed Valley-Rainbow transmission project;
- The reliability need (MW) in the area during the applicable planning period;

In addition, the RFP will specify that each proposed non-wires project must demonstrate that:

- The alternative can meet the reliability needs of the San Diego service territory (reliability needs include meeting the ISO's reliability criteria (G-1/N-1), providing voltage stability and reactive power support.
- The alternative offers reduced capital cost and operating cost benefits to San Diego area customers, including reducing RMR contract requirements and offering assurances and quantifying such benefits to the same extent possible as the Valley-Rainbow Project.
- The project can meet an in-service date of 2004 (each respondent must include a Project Development Schedule, the details of must include target dates for significant project milestones, and a plan and schedule for obtaining, as applicable to the project being proposed, all required land rights, all applicable permits, fuel and water arrangements, interconnection, metering and telemetry arrangements and any necessary contractual commitments with third parties.

In addition, the RFP will specify that respondents provide the following information, if applicable:

- Alternative generation proposals must include potential impacts on generation market power and LARS requirements in the San Diego area.
- Alternative load reducing proposals shall include an evaluation of their ability to verifiably sustain the stated load reduction over time

Reliability Assessment

As part of the ISO's evaluation process the ISO will determine whether a proposed project satisfies the reliability requirements of the ISO by:

- Determining the net load serving capability of each alternative, including whether a project could reduce the ISO's import capability due to the project's location and placement within the transmission system;
- Determining the percentage availability of the supply component at coincident system peak demand in terms of Loss of Load Exposure (LOLE), Loss of Load Probability (LOLP), etc.;
- Determining the expected number of years the project will satisfy the reliability requirements; and
- Evaluating whether the proposed Project Development Schedule is viable.

Cost Assessment

The next step in the ISO's evaluation process will be a determination of each project's costs/benefits and shall include the following:

- A determination of the net present value of the cost of each project over the period it satisfies the stated reliability requirements;
- A qualitative assessment of the project's impact on the Ancillary Services markets, LARS/RMR services and market power, congestion, and other effects on market competition;
- A determination of the cost of additional transmission upgrades/projects, if any, necessary as a result of selecting the project; and

- A qualitative assessment of risks including the limited window of opportunity to build the Valley-Rainbow project (If the project is deferred, even for a short period of time, the routing and necessary land and right of way acquisition could be affected and lead to increased route length and higher project cost - a portion of the transmission line passes through a "high growth area," and there is a risk that project deferral may eliminate feasible routes as the area continues to develop).

POSITIONS OF THE PARTIES

On July 12 the ISO solicited the views of Market Participants on Management's preliminary thoughts and recommendations on the parameters and process for conducting the Valley-Rainbow competitive solicitation (See **Attachment B**). Management requested that market Participants provide feedback no later than July 21. On July 21 the ISO received responses from certain parties. **Attachment C** contains the responses received by the ISO.

In general, as stated in **Attachment C**, Southern California Edison Company (Edison) and SDG&E support application of the *deferral* approach. As detailed in their responses, each advocates a slightly different approach to applying the deferral methodology. However, in principle, both advocate an approach that recognizes that non-wires projects will only defer transmission construction and, therefore, the most the ISO should be willing to pay to such projects is the cost of deferring construction.

In addition, SDG&E requests that the Board and ISO Management address the implications arising from the Valley-Rainbow project serving as a "backstop" in the event the critical non-wires project(s) is not available for any reason by the summer of 2004. Specifically, regardless of the outcome of the Competitive Solicitation, SDG&E states that it anticipates continuing with licensing and right-of-way procurement activities as though the project is to be placed in service during the summer of 2004. Moreover, SDG&E states that, "it will pursue these critical project activities even if the Competitive Solicitation defers the Valley-Rainbow project from one to three years." SDG&E contends that, "only by continuing with these activities can the Valley-Rainbow project continue to provide as a backstop the reliability assurances we firmly believe are necessary to maintain in order to avoid potentially serious problems in the San Diego area during 2004." Finally, SDG&E requests that the ISO, "continue to assist SDG&E by providing licensing support before the CPUC and involved communities during 2001 regardless of the Competitive Solicitation's outcome."

Otay Mesa Generating Company LLC (Otay Mesa) submitted comments advocating the *displacement* methodology, stating that the ISO should entertain proposals with the objective of satisfying the reliability requirements at the lowest cost to consumers. Otay Mesa states that non-wires projects should have the opportunity to bid contracts for the life of the competing project, that non-wires bidders should not have to justify the locational incentive proposed in their bids, and that all options should be judged on a comparable basis. Otay Mesa states that the selection process should be transparent, but that other less-tangible attributes of projects and policy considerations may be considered in the ISO's evaluation.

DEPARTMENT OF MARKET ANALYSIS OPINION

DMA is reviewing long-term grid planning issues to better understand whether sufficient market incentives exist (e.g., congestion revenues, wheeling charges, FTR auction revenues, locational price differentials) to induce potential transmission investors to undertake grid expansion that has system-wide benefits. DMA's preliminary opinion is that sufficient market incentives do not exist for market participants to sponsor the transmission expansion needed to ensure a reliable delivery system that is adequate for the competitive generation market. The problem is not a weakness of the California market structure. It is rather a classic economic "public good" problem; that is, the market as a whole receives the benefits of the upgrade, but the investor must bear the entire cost. In such situations, the provider of the monopoly infrastructure (i.e., the ISO) must take a proactive role in ensuring that the system is adequate to support the success of the competitive energy market.

Lumpiness of transmission investment is another reason why it is difficult for a private investor to capture adequate returns to a transmission investment. Even if a given investment appears profitable ex ante based on historical usage charge revenues, the lumpiness factor will often result in a capacity increase that substantially reduces the flow of usage charges. Alternatively, if the investor attempts to build a small upgrade so as to ensure an adequate stream of congestion revenues, such an investment may not be cost-effective. In other words, lumpiness prevents the investor from implementing the exact amount of capacity increase that would optimize the return to investment. In summary, because of the public good and lumpiness aspects of transmission upgrades to the backbone grid, the market cannot reasonably be expected to provide the right incentives for the proper level of investment, and we do not believe these incentive problems can be solved by the reform of congestion management or any other change in the ISO's market rules.

The Valley-Rainbow project is a good example of a project that enhances the backbone grid and will provide system-wide benefits. This project immediately increases access to the San Diego area markets, provides a first step to an integrated approach in upgrading the Southern California 500 kV backbone system, and may reduce reliance on San Diego area RMR units (and thus promote competition by reducing the market power of generators needed to ensure system reliability).

A related issue is the problem of evaluating transmission, generation, and demand projects on an equal basis. DMA believes that it is important to differentiate between transmission projects that provide system-wide benefits to the entire market by enhancing the grid backbone infrastructure, versus projects that only support local area requirements. DMA supports the approach of soliciting competitive proposals from non-wires alternatives in the latter case. In the case of projects with system-wide benefits, however, such as Valley-Rainbow, DMA believes that a non-wires alternative would only defer the implementation of the transmission project without eliminating the eventual need for it, and would likely substantially raise the cost of undertaking the project at a later date.

Therefore DMA would recommend, as a general policy, that once the ISO determines that the benefits of a given transmission project outweigh its costs and that the proposed project is the most cost-effective way to meet the identified need, the ISO should limit the solicitation of non-wires alternatives to transmission projects that are not part of the backbone transmission system. In the case of Valley-Rainbow, DMA recommends that the ISO proceed without a solicitation of non-wires alternatives, to help ensure that the grid infrastructure is expanded in a timely, efficient manner.

MANAGEMENT RECOMMENDATION

While we request that the Board reconsider its previous directive to proceed with the Valley-Rainbow RFP, we believe that the proposal outlined above satisfies the concerns raised by the Board and Market Participants with respect to the ISO's previous solicitations. Moreover, we believe the proposed timetable and process for conducting the Valley-Rainbow RFP is fair and reasonable. Therefore, we recommend that, if the Board decides to proceed with the solicitation, the Board direct Management to proceed pursuant to the timetable and parameters specified above.

We do not agree with SDG&E and Edison that the ISO should specify that non-wires alternatives to the Valley-Rainbow project can only *defer* the transmission project. Under certain circumstances, a non-wires project (or portfolio of projects) of significant magnitude and capability could *displace* the Valley-Rainbow project. We believe that it is appropriate to take a flexible approach on this matter and to evaluate each proposal based on its individual merits. However, we agree with SDG&E and Otay Mesa that a qualitative, as well as a s quantitative, assessment of all bids is necessary in order to properly consider such factors as risk, market impact and policy considerations.

SDG&E requests that the ISO continue to assist SDG&E by providing licensing support before the CPUC and involved communities during 2001 regardless of the Competitive Solicitation's outcome. Management believes it is appropriate for SDG&E to continue with development of the Valley-Rainbow project until such time as the ISO is assured

that the project or a comparable substitute will be in place by 2004. Moreover, we believe it is appropriate for SDG&E, as supported by the ISO, to recover all prudently incurred development costs related to the Valley-Rainbow project.

Management recommends that the Board approve the proposed motion.