IN THE UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Duke Energy Moss Landing LLC	**)**	**Docket No. ER98-2668-000**
Duke Energy Oakland LLC	**)**	**Docket No. ER98-2669-000**

Affidavit of Kellan Fluckiger

My name is Kellan Fluckiger and I am the Director of Operations and Engineering for the California Independent System Operator Corporation (ISO). My business address is 151 Blue Ravine Road, Folsom, CA 95360. As the Director of Operations and Engineering, I am responsible for all aspects of ISO operations, such as dispatching, scheduling, operations engineering and outage coordination.

The purpose of this affidavit is to discuss the elements of the RMR rate schedules filed by Duke Energy Moss Landing LLC and Duke Energy Oakland LLC (collectively referred to as Duke) and how those elements pose a threat to system reliability.

The following elements of Duke's must-run contract pose a threat to system reliability:

"Reasonable Efforts" standards for performance offered in place of "Best Efforts" standards. Duke has offered an inferior standard—"reasonable efforts," as opposed to "best efforts" - in regards both to furnishing service above a schedule's stated maximums and in mitigating the impacts of a Force Majeure event. The ISO believes that with merely a "reasonable efforts" standard, Duke could refuse to furnish service or mitigate the effects of a Force Majeure if they felt the cost was too high. In the ISO's view, the right of Duke – or any other owner – to refuse to provide service from

reliability must-run units simply because the owner unilaterally believed the cost to be too high, jeopardizes the reliability of the system. A best efforts standard is both reasonable and necessary. In fact, under the RMR agreement, the ISO is held to a best efforts obligation not to call upon service upon certain service limits. While the ISO hopes that it never has to hold an Owner to the "best efforts" standard, the practical realities of operating an expansive, complex, market-driven electrical transmission system almost guarantee that the ISO will, sooner or later, have to call upon service in a "best efforts" situation. If, in that situation, the reliability service hinges on the Owner's unilateral economic determination as to whether to furnish the service, the ISO may be left without one of its critical reliability tools and the system will be at risk.

Suspending service for ISO's failure to maintain a letter of credit to backstop RMR payments. Although other RMR agreements contain provisions to terminate the contract in the event the ISO defaults on making RMR payments, Duke's filing is the only agreement which not only requires the ISO to establish a letter of credit to backstop the RMR payments, but also threatens suspension of the service not just for default but also if the ISO fails to establish or maintain this letter of credit. Suspending service for any reason would leave the ISO without the resources it requires to fulfill its statutory requirement to ensure system reliability. The threat of suspending service for the ISO's failure to procure a letter of credit that is not required in any other filing, that the ISO believes is inappropriate and unnecessary and, as a not-for-profit corporation, that the ISO currently has no ability to furnish, places system reliability at risk.

Any substantive differences in the contracts open the door for other filings with different terms and conditions. The complexity this creates could impair

reliability. Duke's new, different contract, plus its termination provision which does not require a new Owner to file even a "substantially similar" contract, creates the potential for the filing of many different RMR agreements. Trying to administer a plethora of non-standard RMR agreements creates an administrative and operational burden for the ISO that could impact system reliability.

While it is true that traditionally utilities administered many different contracts without any discernable impact on reliability, under the restructured electric system now in place in California, the ISO is charged with responsibilities that go beyond those faced by the three investor owned utilities. These responsibilities include overseeing non-discriminatory access to the ISO Controlled Grid, which is made up of the combined transmission systems of the three largest private utilities in the state. The ISO is also charged with operating the largest control area in the Western Systems Coordinating Council. Furthermore, the ISO must fulfill its control area responsibilities with resources that respond primarily to price signals rather than to the old command and control system. As overseer of the energy and Ancillary Services markets, gateway to the transmission system and ultimate guarantor of reliability, it is well within reason for the ISO to require a significant degree of uniformity in the agreements it must use to carry out its functions. Uniformity promotes equity, efficiency and reliability.

Consider the process the ISO undertakes each day to dispatch RMR units. Per FERC's October 30, 1997 directive, the Day-Ahead market is first allowed an opportunity to furnish the reliability services needed by the ISO. Once the Day-Ahead market has closed, and Initial Preferred schedules are available, the ISO compares the preferred schedules with its projected reliability requirements to determine what

reliability services the market has not furnished. The ISO must then dispatch RMR units to make up the reliability shortfalls both in the energy market (where energy at specific locations is required to keep equipment below ratings) and in the Ancillary Services market (where those services are needed to meet the control area obligations as defined in the WSCC's Minimum Operating Reliability Criteria).

The ISO must dispatch these services within four considerable constraints. The first constraint is the commitment to use the reliability services the market provides before turning to any RMR units. The second constraint is the unit performance limits contained in the RMR contracts, including such limits as ramp rates and start-up lead times. The third constraint is the energy, service hour and start-up limits specified in the RMR contracts. The fourth constraint is the cost of dispatching the units, also defined in the RMR contracts. The ISO is obligated to ensure reliability at the lowest possible cost. None of these constraints are trivial. The first three constraints protect the RMR unit owners, and the fourth protects the ultimate consumers of the reliability service—the ratepayers of California. Some parties have argued that the ISO characterizes as reliability concerns what are really economic concerns. (The parties presenting this argument, not surprisingly, are parties who are selling reliability service rather than, like the ISO, the Transmission Owners, and ultimately the ratepayers, the parties who have to buy the reliability service.) Within the ISO's stated mission, cost and reliability are essentially inseparable concerns. While reliability *is* the ISO's chief concern, it is highly unlikely the citizens of the State of California, or the California state legislature, would accept a "reliability at any cost" paradigm.

At present, the ISO dispatches RMR units using computer applications that assist the system operator in dispatching RMR units but by themselves do not actually specify the dispatch. This computer-assisted manual process of evaluating the market and dispatching RMR units typically takes between three and four hours each day. The ISO is currently administering a relatively few (three) separate forms of RMR contract—Southern California Edison's 10/31/97 agreement, PG&E's 1/29/98 agreement, and SDG&E's 3/4/98 agreement. These agreements—especially PG&E's and SDG&E's - are largely similar but do differ slightly, both with respect to operational issues (for example, when the ISO is required to issue Dispatch Notices) and with respect to payment calculations (for example, Schedule E, which specifies the Ancillary Services payments).

The ISO is greatly concerned that the cumulative effects of slightly different contracts, spread across and multiplied by an ever-growing number of actual and potential RMR Unit owners, will greatly complicate the framework of constraints within which the ISO is obligated to operate. As a result, the amount of time required to properly dispatch the RMR units will increase. As these units are bought and sold, what are initially relatively small differences can grow to very significant differences as new agreements are subsequently filed. For example, consider the mathematical implications that arise from allowing new contracts to only be 90% similar to the contract before. Ninety percent similarity could reasonably be considered by some parties to be "substantially similar," but after three generations of changes under this standard, the fourth generation contract would only be 65% similar to the original contract.

The ISO's concerns about nonstandard RMR contracts are not mere hand wringing. What if new contracts gave the Owner the right to withhold service if the ISO did not notify the Owner according to the Owner's time schedule, and the PX market failed to close on time, for no fault of the ISO? What if the Owner specified an arcane fuel index for calculation of their variable cost, leaving the ISO without a way to accurately estimate the dispatch costs of that unit? While these scenarios are hypothetical, they illustrate the operational and administrative nightmare that might result if RMR owners were allowed to dictate the terms and conditions of providing a service that the ISO cannot obtain elsewhere and absolutely requires to fulfill its responsibilities.

In addition, the more complex the contractual constraints, the longer it will take the ISO to produce an economically optimum and reliable RMR dispatch pattern. Increasing the time it takes to evaluate and dispatch RMR units could impact reliability, since the ISO will not know what units to call for the next day until late in the day, and may not be able to start those units soon enough to meet reliability needs due to contractually-specified start-up lead times. RMR Owners also do not benefit from an overly complicated RMR dispatch process, since it means they will not receive their Day-Ahead RMR instructions until late in the day, perhaps too late to pursue other more profitable market opportunities which might be available.

The ISO is currently developing a computer application to automate, to the extent possible, the process of dispatching RMR units from the Day-Ahead schedules. Automating the process will help, but is by no means a panacea. The more the RMR contracts differ, the more difficult it will be to automate a solution. The current version of the RMR software under development uses more than one hundred separate pieces of

information from **each** of the 117 RMR units to evaluate their dispatch. Maintaining this vast amount of data from a set of uniform contracts is challenging enough. If the RMR contracts are allowed to vary, however, the application will become more complex and will require the ISO to maintain even more data to account for the differences between agreements. The more complex the application, the more opportunity there is for information to be omitted or instructions incorrectly implemented.

Eventually, if the automation is successful, it may be possible for the ISO to permit some diversity in the RMR agreements. In fact, the ISO believes that there is sufficient flexibility in the RMR schedules right now. However, given the current and considerable challenge faced by the ISO in administering the relatively narrow portfolio of RMR agreements, and with the ISO staring the peak summer period in the face, the ISO is adamantly opposed to allowing the additional contract diversity proposed in the Duke agreement—diversity which the ISO firmly believes, based on its experience, creates a complexity which will adversely impact ISO operations and system reliability.