



Firm LD Contracts as Designated Network Resources

FERC Technical Conference

July 30, 2007

This material has been prepared for information purposes to support the promotion or marketing of the transaction or matters addressed herein. It is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument or to participate in any trading strategy. This is not a research report and was not prepared by the Morgan Stanley research department. It was prepared by Morgan Stanley sales, trading, banking or other non-research personnel. This material was not intended or written to be used, and it cannot be used by any taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer under U.S. federal tax laws. Each taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor. Past performance is not necessarily a guide to future performance. Please see additional important information and qualifications at the end of this material.

Morgan Stanley's Position

Morgan Stanley Strongly Supports FERC's Decision to Allow Off-system Firm Liquidated Damages (FLD) Contracts to be approved as Designated Network Resources (DNRs)

- More choices, greater flexibility for market participants
- Improved reliability for individual transactions and system-wide
- More efficient resource utilization
- Lower cost to customers

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material.

Morgan Stanley's Position

- However, revision to two of the provisions for approval of off-system FLD Contracts as DNRs would greatly enhance the benefits derived from this decision in advancing competitive markets
- Absent these revisions, the benefits of this decision are substantially diminished

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Morgan Stanley's Position

- Currently Order 890 requires that a Firm LD contract to be approved as a DNR must specify, among other things, 1) the origin of the supply resource or control area, and 2) a single transmission path on “Firm Transmission”
- Greater flexibility in these two criteria would greatly enhance the effectiveness of FLD contracts in competitive markets, without compromising system planning needs or reliability
- Furthermore, these changes will improve reliability of delivery, enhance resource utilization, increase market efficiency and reduce costs to customers

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Supporting Arguments

- Competitive markets are better served by offering more choices and flexibility that enable participants to continually adjust behavior based on conditions at a point in time, not by replacing choices and flexibility with rigid provisions that lock participants into a single outcome over time
- Knowledgeable schedulers operating in competitive markets, responding to price signals to make informed decisions among a variety of resources and transmission paths, will produce the most reliable and cost-effective outcome
- Broader supply source and transmission path choices provide
 - options for seeking out the most reliable and cost-effective path
 - contingencies for mitigation of TLRs or other problems
- Flexibility and supply choices enable the harnessing of competitive market forces, leading to more efficient outcomes and lower costs

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Supporting Arguments

- Relaxing the requirement to designate supply sources for LD contracts and specific transmission paths creates flexibility of scheduling and power flow, improving reliability and reducing cost, an outcome not achievable under the rigidity imposed by fixed source designation
- In practice, the loss of flexibility to manage flows hour to hour to mitigate problems such as loop flows, etc. impedes the functioning of the market, increases chances of non-delivery, decreases reliability, and raises cost to customers
- Flexibility and choice to respond to current operating conditions, rather than tying delivery obligations to a single unit, control area or transmission path, produces the most reliable and lowest cost outcome

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Supporting Arguments

Actual Transmission Usage Examples

The following actual usage data demonstrate the fallacy of the assertion that a single, locked in “Firm” path is more reliable than a choice of multiple paths, both Firm and Non-firm

In the West:

- Palo Verde 500 to Westwing 500 path for June flowed an average of 600 MW each weekday on non-firm transmission without curtailment
- For July 1 – 23, this path flowed an average of 1500 MW each weekday on non-firm transmission, without issue
- However, flows on the Nevada – Oregon Border (NOB) on long term firm transmission gets cut several times a month

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Supporting Arguments

Actual Transmission Usage Examples

In the Southeast:

- SOCO to DUK path from June 1 – July 23 flowed a daily average of 110 MW on non-firm transmission and experienced one cut of 2 MW
- PJM to DUK path for the same time period flowed a daily average of about 55 MW on non-firm transmission, with no cuts
- For that same period we were cut 16 MW on firm transmission SOCO to DUK (atypical) and 83 MW PJM to DUK (commonplace, due to ramp issues)

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Supporting Arguments

Actual Transmission Usage Examples

- Conclusion: our actual experience in the market has shown that so-called “Firm” transmission often may be no more firm than “Non-Firm” transmission, and, depending on circumstances, is often less firm
- The most “Firm”, IE, reliable outcome results from having the flexibility to choose among a variety of paths to mitigate problems, not from being locked into a single contractual path, regardless of whether that path is labeled “Firm” or “Non Firm”

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Supporting Arguments

Actual Transmission Usage Examples – In Summary

- Individuals closest to the situation, with experience and knowledge of the various sources and paths throughout a particular area, are best able to judge the most reliable and cost effective source and path to flow power at any point in time
- A single, arbitrary locked-in source and path, whether firm or non-firm, is a poor substitute for the real-time judgment of those actually scheduling the power, with FLD obligations to deliver
- Locking market participants into contractual provisions short-circuits competitive market forces and inevitably leads to an outcome that is both less reliable and more costly to customers

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Issue of Transmission Planning, including Loop Flows

- Contractual locking-in of a supply source and a single “Firm” transmission path is supposedly needed to facilitate transmission planning to model expected power flows, including loop flows
- However, physical power flows
 - Are not determined by contractually designated power sources or transmission paths
 - Are determined by loads and resources dispatched by every Balancing Authority area in the region
- Expected physical power flow can be accurately derived using economic dispatch models that simulate actual dispatch, given load level and resource costs

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Issue of Transmission Planning, including Loop Flows

- Use of such economic dispatch models for system planning is consistent with utility procedures within control areas and is the best predictor of actual and expected flow of power throughout the transmission grid
- Power flows, including loop flows, are best predicted, and planning is most effectively accomplished by assuming economic dispatch of units, consistent with congestion analysis
- Not through the assumption of arbitrary contractual supply sources and transmission paths that may or may not be economic at any given time

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

Issue of Transmission Planning, including Loop Flows

- Customers, buyers and sellers of power, and competitive markets are best served through policies that encourage efficient transmission planning and operation that
 1. Utilize an economic dispatch model based on marginal costs of resources, consistent with congestion cost analysis, to forecast actual and expected power flows for transmission system operation and planning purposes
 2. Reduce loop flow issues across the system over time, and
 3. Accommodate the choices and flexibility essential to competitive markets

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

In Conclusion

Greater flexibility in requirements of off-system FLD as DNR in the areas of origin of supply and transmission path designation would

- Greatly enhance the effectiveness of FLD contracts as DNRs in competitive markets
- Not Compromise system planning needs or reliability
- Improve reliability of delivery, enhance resource utilization, increase market efficiency and reduce costs to customers

This material is not a solicitation of any offer to buy or sell any security, commodity or other financial instrument (or related derivative) or to participate in any trading strategy. This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material

This material was prepared by sales, trading, banking or other non-research personnel of one of the following: Morgan Stanley & Co. Incorporated, Morgan Stanley & Co. International PLC, Morgan Stanley Japan Limited, Morgan Stanley Capital Group Inc. and/or Morgan Stanley Dean Witter Asia Limited (together with their affiliates, hereinafter "Morgan Stanley"). Unless otherwise indicated, these views (if any) are the author's and may differ from those of the Morgan Stanley fixed income or equity research department or others in the firm.

This material has been prepared for information purposes only and is not a solicitation of any offer to buy or sell any security, commodity or instrument or related derivative (hereinafter "instrument") or to participate in any trading strategy. Any such offer would be made only after a prospective participant had completed its own independent investigation of the instrument or trading strategy and received all information it required to make its own investment decision, including, where applicable, a review of any prospectus, prospectus supplement, offering circular or memorandum describing such instrument or trading strategy. That information would supersede this material and contain information not contained herein and to which prospective participants are referred. If this material is being distributed in connection with or in advance of the issuance of asset backed securities, information herein regarding any assets backing any such securities supersedes all prior information regarding such assets. We have no obligation to tell you when information herein is stale or may change. We make no representation or warranty with respect to the accuracy or completeness of this material, nor are we obligated to provide updated information on the instruments mentioned herein.

This material may have been prepared by or in conjunction with Morgan Stanley trading desks that may deal as principal in or own or act as market maker or liquidity provider for the instruments mentioned herein. Where you provide us with information relating to your order or proposed transaction ("Information"), we may use that Information to facilitate the execution of your orders or transactions, in managing our market making, other counterparty facilitation activities or otherwise in carrying out our legitimate business (which may include, but is not limited to, hedging a risk or otherwise limiting the risks to which we are exposed). Counterparty facilitation activities may include, without limitation, us taking a principal position in relation to providing counterparties with quotes or as part of the ongoing management of inventories used to facilitate counterparties. Trading desk materials are not independent of the proprietary interests of Morgan Stanley, which may conflict with your interests. Morgan Stanley may also perform or seek to perform investment banking services for the issuers of instruments mentioned herein.

Any securities referred to in this material may not have been registered under the U.S. Securities Act of 1933, as amended, and, if not, may not be offered or sold absent an exemption therefrom. In relation to any member state of the European Economic Area, a prospectus may not have been published pursuant to measures implementing the Prospectus Directive (2003/71/EC) and any securities referred to herein may not be offered in circumstances that would require such publication. Recipients are required to comply with any legal or contractual restrictions on their purchase, holding, sale, exercise of rights or performance of obligations under any instrument or otherwise applicable to any transaction.

The securities, commodities or other instruments (or related derivatives) discussed in this material may not be suitable for all investors. This material has been prepared and issued by Morgan Stanley for distribution to market professionals and institutional investor clients only. Other recipients should seek independent investment advice prior to making any investment decision based on this material. This material does not provide individually tailored investment advice or offer tax, regulatory, accounting or legal advice. Prior to entering into any proposed transaction, recipients should determine, in consultation with their own investment, legal, tax, regulatory and

accounting advisors, the economic risks and merits, as well as the legal, tax, regulatory and accounting characteristics and consequences, of the transaction. You should consider this material as only a single factor in making an investment decision.

Options are not for everyone. Before purchasing or writing options, investors should understand the nature and extent of their rights and obligations and be aware of the risks involved, including the risks pertaining to the business and financial condition of the issuer and the underlying instrument. A secondary market may not exist for certain of these instruments. For Morgan Stanley customers who are purchasing or writing exchange-traded options, please review the publication 'Characteristics and Risks of Standardized Options,' which is available from your account representative.

The value of and income from investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities, prices of instruments, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in instruments (or related derivatives) transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. Actual events may differ from those assumed and changes to any assumptions may have a material impact on any projections or estimates. Other events not taken into account may occur and may significantly affect the projections or estimates. Certain assumptions may have been made for modeling purposes only to simplify the presentation and/or calculation of any projections or estimates, and Morgan Stanley does not represent that any such assumptions will reflect actual future events. Accordingly, there can be no assurance that estimated returns or projections will be realized or that actual returns or performance results will not materially differ from those estimated herein. Some of the information contained in this document may be aggregated data of transactions executed by Morgan Stanley that has been compiled so as not to identify the underlying transactions of any particular customer.

Notwithstanding anything herein to the contrary, Morgan Stanley and each recipient hereof agree that they (and their employees, representatives, and other agents) may disclose to any and all persons, without limitation of any kind from the commencement of discussions, the U.S. federal and state income tax treatment and tax structure of the transaction and all materials of any kind (including opinions or other tax analyses) that are provided to it relating to the tax treatment and tax structure. For this purpose, "tax structure" is limited to facts relevant to the U.S. federal and state income tax treatment of the transaction and does not include information relating to the identity of the parties, their affiliates, agents or advisors

In the UK, this communication is directed in the UK to those persons who are market counterparties or intermediate customers (as defined in the UK Financial Services Authority's rules). In Japan, this communication is directed to the Qualified Institutional Investors as defined under the Securities Exchange Law of Japan and its ordinances thereunder. For additional information, research reports and important disclosures see <https://secure.ms.com/servlet/cls>. The trademarks and service marks contained herein are the property of their respective owners. Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data. This material may not be sold or redistributed without the prior written consent of Morgan Stanley.