September 16, 2011

David A. Stawick, Secretary
Commodity Futures Trading Commission   **VIA ELECTRONIC SUBMISSION**
Three Lafayette Center
1155 21st Street, NW
Washington, DC 20581

Re: *A VaR-Based Approach to Market Risk Capital Requirements*

Dear Secretary Stawick:

On behalf of the Working Group of Commercial Energy Firms (the "Working Group"), Hunton & Williams LLP submits this letter as a general concern and in supplementation to its comments on the Commodity Futures Trading Commission's (the "CFTC" or the "Commission") Proposed Rules on "Capital Requirements of Swap Dealers and Major Swap Participants."[1] Specifically, the comments set forth below address the use of value-at-risk methodology ("VaR") to determine regulatory capital requirements associated with the market risk component[2] of a swap dealer or major swap participant's (each a "Covered Swap Entity") swap portfolio in accordance with Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Act").[3]

The Working Group is a diverse group of commercial firms in the energy industry whose primary business activity is the physical delivery of one or more energy commodities to customers, including industrial, commercial and residential consumers. Members of the

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[1]   Notice of Proposed Rulemaking on "Capital Requirements of Swap Dealers and Major Swap Participants" 76 Fed. Reg. 27802 (May 12, 2011) (the "Proposed Capital Rules").

[2]   This letter only addresses the market risk portion of the Commission's Proposed Rules. The Working Group believes that the Commission's approach taken to address the credit risk associated with a Covered Swap Entity's swap portfolio, while in need of improvement, is generally workable. It is also largely consistent with the proposed definitional tests for "major swap participant." For further discussion of the credit risk requirement please see the comments of the Working Group to the Proposed Capital Rules, filed with the Commission on July 11, 2011 (the "Working Group's Initial Comments").

Available at: http://comments.cftc.gov/PublicComments/ViewComment.aspx?id=47796&SearchText=

[3]   Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, 124 Stat. 1376 (2010).

Working Group are energy producers, marketers and utilities. As such, the Working Group submits these comments to highlight certain issues being considered by the Commission that could have a direct and substantial impact on not only commercial firms in energy markets, but the swap markets as a whole.

I.   USE OF VaR-BASED MODELS UNDER THE COMMISSION'S PROPOSED CAPITAL RULES.

A.   NON-FINANCIAL ENTITIES CANNOT USE MODELS UNDER PROPOSED CAPITAL RULES.

Under the Proposed Capital Rules, Covered Swap Entities that are non-financial entities and not futures commission merchants ("FCMs")[4] must comply with the higher of the capital requirement determined under the Commission's Proposed Capital Rules or the capital requirements imposed by the registered futures association of which it is a member, which in all likelihood will be the National Futures Association (the "NFA").[5] The NFA has yet to propose its capital requirements.

The Proposed Capital Rules provide for two methods to calculate capital requirements associated with market risk: a model-based approach and a non-model based approach derived from the Basel capital requirements.[6] Non-financial Covered Swap Entities currently are permitted to use only the non-model based approach as the Commission does not feel it has the resources necessary to approve capital models for Covered Swap Entities.[7] However, as discussed in Section II, the non-model approach does not properly account for market risk.

B.   USE OF RECOMMENDED VaR-BASED APPROACH WILL NOT BURDEN THE COMMISSION.

The Working Group's proposed VaR-based approach to the market risk portion of the Commission's capital requirements (the "Working Group's VaR Approach") would not impose a significant resource burden on the Commission. *First*, the Working Group's VaR Approach likely would apply only to a limited universe of Covered Swap Entities that are subject to capital regulation by the Commission and elect not to clear swaps on behalf of their customers. Clearing swaps on behalf of customers will result in Covered Swap Entities being FCMs and subject to the FCM capital rules.[8] If the scope of the Commission's definitions of "swap dealer"

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[4]   For the purposes of this letter, we will refer to entities that would be subject to the Commission's non-model based approach to market risk capital requirements as "Non-Financial Covered Swap Entities."

[5]   Proposed CFTC Rule 23.101(a)(1) and (b)(1).

[6]   Proposed Capital Rules at 27,809.

[7]   Proposed Capital Rules at 27,808.

[8]   The definition of "futures commission merchant" includes a person who "accepts money, securities, or property…to margin, guarantee or secure" any swaps. CEA Section 1 at (28).

and "major swap participant" is set properly, then only a small number of participants in markets for swaps based on physical commodities would be covered by the Working Group's VaR Approach.

Second, the Working Group's VaR Approach is based on widely accepted and well understood risk-management practices,[9] making the models constructed under such approach relatively easy to review and evaluate. In addition, given the well understood statistical basis for the models constructed under the Working Group's VaR Approach, it would be relatively simple for both regulators and Covered Swap Entities to evaluate on an ongoing basis whether such models were functioning properly.

Third, if the Commission feels it does not have the resources necessary to approve and oversee the Working Group's VaR Approach, then the Commission should task the NFA with doing so. As the NFA will develop its approach to capital regulation based on the Proposed Capital Rules and the Commission's guidance, the Commission could provide instructions to the NFA as to the acceptable parameters and requirements for capital models, including VaR-based models, and request that the NFA fashion its capital rules on such instructions. Such instruction might also include a delegation of authority to the NFA for the on-going monitoring of capital models by registered Covered Swap Entities.

II. NOT ALLOWING A VAR-BASED APPROACH COULD IMPOSE A SUBSTANTIAL BURDEN ON COVERED SWAP ENTITIES.

If the Commission permits Non-Financial Covered Swap Entities to use only its proposed non-model based approach to market risk capital requirements ("Proposed Non-Model Approach"), then it forces such companies to use a paradigm that (i) could be unworkable, (ii) does not accurately reflect the market risk inherent in their portfolio of swaps, (iii) will not integrate well with current risk management practices, and (iv) will place them at a severe competitive disadvantage when compared to other Covered Swap Entities that are allowed to use models to determine regulatory capital requirements.

First, as discussed further in the Working Group's initial comments to the Proposed Capital Rules,[10] certain provisions of such proposed rules may not be workable for Non-Financial Covered Swap Entities. For example, the Proposed Non-Model Approach would require Covered Swap Entities to convert their commodities-based positions into notional dollar amounts using spot prices. Regardless of the fact that spot prices do not accurately portray the market risk of a forward portfolio, for many commodities, the use of the spot price could result

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[9] Bank of International Settlements, "Basel Committee on Banking Supervision, Revisions to the Basel II Market Risk Framework", July 2009 at 2. See also: Committee of Chief Risk Officers, "Valuation and Risk Metrics," November 2002. Available at: www.ccro.org/whitepapers.

[10] *See* the Working Group's Initial Comments.

in unworkable market risk capital requirements.[11] In addition, for certain types of swaps, such as basis swaps, it is unclear how it is possible to convert to a notional dollar amount.[12] Given these inherent difficulties in applying the Proposed Non-Model Approach, it is likely that Non-Financial Covered Swap Entities will either have to expend significant resources to make the approach function in practice or will have to make assumptions, which may not reflect actual market experience or observations, in order to make the approach workable.

Second, the Proposed Non-Model Approach is static and does not reflect the actual market risk posed by a Non-Financial Covered Swap Entity's swap portfolio. The Proposed Non-Model Approach does not differentiate between positions in different types of commodities or different durations. Said another way, the Proposed Non-Model Approach would blindly apply a 15% market risk capital charge to both a six-month swap on the price of natural gas and a three-year basis swap between WTI and Brent crude oil. These instruments and their respective markets are inherently different and, to properly reflect the capital required to address the market risk in a Non-Financial Covered Swap Entity's portfolio of swaps, should be treated as such. Furthermore, requiring the holding of additional capital in the amount of 3% of gross notional in each commodity in addition to capital in the amount of 15% of net open positions is even less sensitive to the actual risks in a Non-Financial Covered Swap Entity's swap positions.

Third, the Proposed Non-Model Approach will likely not integrate well with many Non-Financial Covered Swap Entities' existing VaR-based risk management practices. As discussed further below, Non-Financial Covered Swap Entities typically view their market risk on a portfolio basis. Accordingly, these entities' existing VaR-based models encompass not only their financial derivatives entered into by the entity, but also their positions in physical commodities. The Proposed Non-Model Approach would not be applied on a portfolio basis. If Non-Financial Covered Swap Entities regulated by the Commission are not permitted to use a VaR-based model to satisfy the Commission's capital requirements for Covered Swap Entities, then they will have to operate two models simultaneously: a VaR-based model to properly account for the market risk posed by their entire portfolio and the Proposed Non-Model Approach to comply with the Commission's rules. Requiring a company to maintain a second

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[11]   For various reasons, spot prices in organized wholesale electricity markets can sometimes be negative. For example, it may be economically rational for the owner of a generating unit to accept negative prices during times of reduced electricity demand in order to avoid incurring costs associated with shutting down and subsequently re-starting when demand increases. Also, owners of renewable generation resources may be willing to accept negative prices and sustain production to avoid losing certain tax credits or other economic incentives. Finally, unexpected local area transmission constraints can arise with little notice and result in negative prices in markets that operate in five-minute increments, but operational characteristics of certain generation facilities prevent an immediate change in output to respond to these negative prices. Negative spot prices would be unworkable when it comes to the Proposed Non-Model Approach.

[12]   Basis swaps have two different price references. Thus, under the Commission's approach of multiplying the number of units by the spot price, one method to determine the notional amount would be to multiply the number of units by the difference of the reference prices or, alternatively, multiply the number of units by each reference price and sum.

model that is largely redundant and less sensitive to market risk than its current risk model reflects the imposition of costs for, at best, uncertain benefits.

Fourth, not allowing Non-Financial Covered Swap Entities to utilize VaR-based market risk models for the purposes of the Proposed Capital Rules would place Non-Financial Covered Swap Entities at a competitive disadvantage. Not only would they be required to determine regulatory capital requirements for market risk based on a method that does not accurately reflect market risk for commodities, but they would also likely have to implement this capital method in addition to any portfolio-level VaR model.[13] This insensitivity to market risk and the use of a redundant and ineffective capital method affords a competitive advantage to Covered Swap Entities that can use integrated models for determining capital as such models are both more efficient operationally and render more risk sensitive capital determinations. If Non-Financial Covered Swap Entities have the capability to use models for determining capital, the Working Group sees no legitimate policy goal being served by the Commission's regulations handing a competitive advantage to one category of market participants over another.

III.   THE WORKING GROUP'S VAR APPROACH.

The Working Group recommends that the Commission allow all firms to use models to determine their capital requirements so long as those models generate capital levels that come within parameters established by common and well understood VaR principles. It is important to note that we are not advocating the Commission set requirements about how such models are constructed. While we believe Covered Swap Entities should be transparent with regulators about the inner workings of their models, the Working Group does not believe the calculations behind such models should be the subject of regulation. Nor should such calculations be a barrier to prudent and fair regulation. The Working Group's recommended VaR approach sets out simple criteria that the Commission or the NFA can easily administer without expending significant resources.

A.   MODEL PARAMETERS.

The Working Group believes that a regulatory capital requirement should be risk sensitive, rather than a misleading and imprecise percentage of the open and gross positions. One simple way to accomplish this goal would be to calculate a VaR on a Non-Financial Covered Swap Entity's portfolio and require such Covered Swap Entities to hold capital against this measure. The VaR metric should allow for any form of VaR model (*e.g.,* Monte Carlo simulation, historical simulation, or parametric). The proposed VaR metric would replace the non-risk sensitive Non-Model Approach with an easily determined and validated, risk-sensitive metric.

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[13]   Having to use a non-risk sensitive capital method or having to use such a method in addition to a risk sensitive method, will likely increase costs for Non-Financial Covered Swap Entities. This cost increase could result in less participation in swap markets by such entities, resulting in an adverse impact on liquidity in physical commodity-based swap markets.

The proposed VaR measure would be an estimate of the first percentile of the change in mark-to-market value of a Non-Financial Covered Swap Entity's trading portfolio over a ten-day holding period. Said differently, a Non-Financial Covered Swap Entity would determine the expected mark-to-market gains or losses of a portfolio of assets over a ten-day period. Then, as the model is a first percentile VaR measure, the company would estimate a potential loss that would only be exceeded in 1% of potential outcomes. This first percentile VaR measure would then be multiplied by 3 to account for the potential for market movements that are more extreme than predicted by standard statistical models. In short, the proposed VaR measure would require a Non-Financial Covered Swap entity to hold regulatory capital in an amount equal to three times the amount of loss expected to occur 1% of the time. Entities would be allowed to use existing internal VaR models subject to back testing requirements as described below.

Certain Non-Financial Covered Swap Entities may need to make minor adjustments to their current VaR models in order to adopt the proposed VaR measure. For internal models that estimate the fifth percentile rather than the first percentile, which is common practice in energy markets, the required estimate of the first percentile shall be obtained by multiplying the fifth-percentile estimate by 1.4. For internal models that estimate VaR over a holding period other than ten days, results could be translated into a ten-day holding period by multiplying the VaR estimated for the other holding period by the square root of the quotient of 10 divided by the model holding period[14] (measured in days).

> *For example*, if a one-day, fifth-percentile VaR model estimates VaR of $10 million, this estimate would be (a) multiplied by 1.4 to convert to an estimate of the first percentile, and (b) multiplied by 3.16[15] to convert from a one-day holding period to a ten-day holding period, yielding an estimated first percentile 10-day VaR of approximately $44.3 million. This would then be multiplied by 3, yielding a required capital increment for market risk of $132.8 million.

The suggested VaR metric is consistent with the current Basel approach to VaR-based models, which also requires a first-percentile VaR over a 10-day holding period and an adjustment of the result by multiplying by three.[16] Basel also allows the use of multiple forms of VaR-based models.[17] The Working Group notes these similarities to Basel in order to highlight that the Working Group's VaR Approach is consistent with the risk management requirements of other regulators.

The Basel approach, however, was constructed to be applied to banks and should not be applied whole cloth to Non-Financial Covered Swap Entities as certain provisions are not

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[14]   Expressed another way, the square root of (10/(model holding period)).

[15]   The square root of 10 divided by the holding period of 1 day is equal to 3.16.

[16]   Bank of International Settlements at 2 and 15.

[17]   *Id.* at 14.

applicable. For example, Basel's stress-VaR requirement is not necessary for Non-Financial Covered Swap Entities.[18]

Also, the Basel standard appears to require that the volatility estimates in VaR models be based on a sample period of at least one year. For commodities, this approach will likely result in understating VaR (and thus capital requirements) because volatility for commodities tends to increase the closer a contract gets to delivery, and the volatility one year prior to delivery tends to be substantially lower than volatility for nearer term delivery months. The Working Group recommends that the Commission impose no necessary condition on the data used in the model, but instead require each entity to select models and data processes appropriate for its business, subject to the requirement that the resulting VaR measures satisfy the back test requirements. Furthermore the models and data processes must be made transparent to the Commission (or the NFA) and consistently applied.

B.   MODEL EVALUATION AND VALIDATION.

Models using the Working Group's VaR Approach could be easily validated through back testing upon registration of a Non-Financial Covered Swap Entity and on an ongoing basis, with little drain on the Commission or NFA's resources. In essence, back testing helps establish that a particular model's outputs conform to reality. Under the Commission's proposed internal business conduct standards,[19] a Covered Swap Entity could be required to conduct quarterly back tests of its market risk VaR model over the preceding 12 months to confirm that the model is adequately measuring the market risk borne by the Covered Swap Entity. The results of such back tests and the associated records could be required to be submitted to the Commission on a confidential basis.

Under standard back test methodologies, the VaR measured by the model is compared with the actual mark-to-market profit or loss observed for the portfolio for which VaR was calculated over the relevant holding period.[20] These tests typically look at results over rolling 12-month periods.[21]

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[18]   The swap transactions in the portfolios of Non-Financial Covered Swap Entities are likely to be sufficiently liquid that they can be unwound or offset within the 10-day holding period (which may not be true for the financial entities that are the primary focus of the Basel approach), and the additional multiplier of 3 is sufficient to address concerns that the distribution of returns may not be normal.

[19]   *See* "Regulations Establishing and Governing the Duties of Swap Dealers and Major Swap Participants" 75 Fed. Reg. 71,397 (Nov. 23, 2010) .

[20]   The Working Group would note that this mark-to-market determination is generally independent of any accounting paradigms. However, the overall capital rules adopted by the Commission should be compatible with both U.S. GAAP and IFRS.

[21]   The period tested may be longer if the entity thinks it is appropriate for its business.

If a VaR model works well, the actual profit or loss is **<u>expected</u>** to be worse than projected by the VaR model (a "downside excursion") a certain percentage of the time: 1%, in the case of a first-percentile VaR, 5% in the case of a fifth-percentile VaR.[22] The **<u>actual</u>** number of downside excursions should fall within a specified confidence interval (*i.e.*, a range of outcomes around the VaR estimate).[23] A 95% confidence interval is typical.[24]

A VaR model is rejected by a back test if the actual number of downside excursions is either below the minimum value of the confidence interval or above the maximum value.[25] If there are too few excursions[26] this would indicate that the VaR model is overstating risk, thus resulting in a regulatory capital requirement that is overly conservative. This normally should not be a concern to the regulator, except to the extent a market participant is reducing liquidity that it provides to the market in order to keep higher capital requirements. However, if there are too many downside excursions,[27] the VaR model is understating risk, resulting in a regulatory capital requirement that is too low. Under this circumstance, the VaR model should be considered to have "failed" the back test.

If a model fails a back test, then the Non-Financial Covered Swap Entity might be required to increase its multiplier of 3 by 1.5 until future back tests demonstrate that the model is compliant. In other words, the first time a model failed a quarterly back test, the multiplier would be set at 4.5; if the model also failed the next quarterly back test, the multiplier would be increased again (to 6). This would continue until the model passed a back test. The Covered Swap Entity should be required to use that increased multiplier until back tests are passed for two

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[22] For example, if the VaR of a 5th percentile VaR model is $1.5 million, then there is a 5% chance losses will exceed $1.5 million over the designated holding period. If the VaR of a 1st percentile VaR model is $1.5 million, then there is a 1% chance losses will exceed $1.5 million over the given holding period. In these examples, a downside excursion can be thought of as a loss in excess of the VaR of $1.5 million.

[23] As it is statistically unlikely that your actual profit or loss will actually equal your expected VaR, a confidence level represents the range of actual outcomes in which you are comfortable that your model, and therefore your estimate of VaR, is accurate.

[24] A 95% confidence level is the range of the possible number of downside excursions within which you are comfortable that your VaR model is working correctly. If the number of downside excursions falls outside that range, then there is only a 5% chance your model is functioning correctly.

[25] For example, over a 260 day period, an accurate 5th percentile VaR should produce 13 downside excursions. If you elected to use a 95% confidence level, then if the actual number of downside excursions falls within a range of 7-18 downside excursions a Covered Swap Entity would be comfortable that its model is working correctly. If the actual number of downside excursions is less than 7 or higher than 18, then the model's results would fall outside the 95% confidence level. However, a model should only "fail" a back test if there are too many downside excursions, which would indicate the regulatory capital requirements were being set too low.

[26] Using the example in footnote 24, this would mean the actual number of downside excursions is less than 7.

[27] Using the example in footnote 24, this would mean the actual number of downside excursions is greater than 13.

successive quarters; from that point, the multiplier would be reduced by 1.5 after each successful quarterly back test, to a minimum of 3.

The Non-Financial Covered Swap Entity must assure that the risk factors contained in its VaR measurement are sufficient to capture the risks inherent in its portfolio of trading positions. Although entities must be provided discretion in specifying the risk factors for their internal models, they should be required to include factors that are deemed relevant for pricing as risk factors.[28]

This recommended approach is both conservative and non-resource intensive for the Commission and NFA. It is based on commonly used and understood risk management best practices and properly assesses the viability of VaR-based market risk models.

IV. SCOPE OF POSITIONS COVERED BY THE RECOMMENDED MODEL.

The Proposed Capital Rules appear to apply only to a swap dealer's swaps in which it is acting as a swap dealer and any positions, whether physical or financial, that hedge such swaps.[29] The Working Group believes that this is not the appropriate scope of the market risk provisions of the Proposed Capital Rules with regards to non-financial swap dealers. As noted above and in the Working Group's comment letter on portfolio hedging,[30] non-financial entities consider their swap positions in conjunction with their physical positions and do so on a portfolio basis. As such, it is generally not possible to link a particular swap with a corresponding physical position.

Current risk management best practice is to evaluate the market risk posed by an entity's entire commercial portfolio, physical and financial. This comprehensive evaluation is what a non-financial entity's existing VaR models do. Divorcing swaps from corresponding physical positions would result in a distorted representation of exposure to price movements in markets for swaps on physical commodities. As such, the Working Group believes that the appropriate

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[28]   For commodities trading, the omission from the VaR measurement of any material risk factor would likely result in the failure of back tests. This may be less likely to be true in other markets, where valuation estimates may depend critically on the assumed value of parameters that cannot easily be observed in a market and that may not be updated during the period covered by the back test. For example, the valuation of mortgage-backed securities depends on the assumed default rate. The actual default rate is not readily observable, and the assumed default rate may not be updated frequently in the profit or loss measures that go into the back test. Holders of such instruments therefore bear the risk of changes in the default rate, and that risk could be measured poorly in both profit and loss models and market risk models. In that case, the weakness of the VaR model might not be apparent from the back test results. Entities that hold material positions in such instruments should be required to demonstrate that their internal measures of market risk adequately reflect this risk. Entities whose portfolios do not have this characteristic, however, should not be subjected to unnecessary costs to measure risks that they do not bear.

[29]   Proposed Capital Rules at 27,806 and footnote 23 of the Proposed Capital Rules.

[30]   Comments of the Working Group and the Commodities Markets Council on portfolio hedging. Filed with the Commission on July 19, 2011.

scope of the Proposed Capital Rules' market risk requirement is a Non-Financial Covered Swap Entity's swap portfolio and the portfolio of physical assets or contracts such swaps are meant to hedge, if any. That portfolio should include:

(i) all of a Non-Financial Swap Entity's uncleared swaps;

(ii) all of a Non-Financial Covered Swap Entity's cleared swaps;[31]

(iii) all of a Non-Financial Covered Swap Entity's purchase and sale contracts for physical commodities, including options; and

(iv) all other physical assets and contracts on physical assets, to the extent they are intended to be hedged by swaps.[32]

The resulting capital requirement may be less than or greater than the capital requirement under the Proposed Non-Model Approach, depending on the circumstances, but such a portfolio would capture the true extent of a Non-Financial Covered Swap Entity's exposure to market risk associated with its swaps and swaps-related activity. An additional advantage is that relying on methods that companies already use for monitoring their exposures will avoid the costs associated with making the daily calculations of gross and net positions as required by the Proposed Capital Rules.

However, including some or all of a Non-Financial Covered Swap Entity's physical and financial portfolio in the regulatory capital requirement determination should not be seen as granting the Commission jurisdiction over a Non-Financial Covered Swap Entity's non-swap activities. That outcome is consistent with Congressional intent as new Section 4(s)(e)(2)(C) states, "the Commission shall take into account the risks associated with…other activities conducted by that person that are not otherwise subject to regulation applicable to that person by virtue of the status of the person as a swap dealer or a major swap participant."

V.   CONCLUSION.

The Working Group supports tailored regulation that brings transparency and stability to the energy swap markets in the United States. The Working Group appreciates this opportunity to comment and respectfully requests that the Commission consider the comments set forth herein prior to the adoption of any final rule implementing Title VII of the Act.

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[31]   The Working Group requests that amounts of initial margin held or delivered with regards to cleared swaps should be incorporated into the determination of any market risk capital requirement. This avoids addressing adverse market changes twice: once in the delivery of initial margin and again in the capital determination.

[32]   For example, if a commercial energy firm has hedged the next three years of oil production, then the commercial energy firm should include those three years of expected production in VaR determination. A commercial energy firm should be required to include this class of physical assets and contracts on physical assets in the VaR determination in a consistent manner over time.

Given the technical nature of model-based capital determinations, members of the Working Group would welcome the opportunity to meet with Commissioners and staff to further discuss the concepts set forth herein.

If you have any questions, please contact the undersigned.

Respectfully submitted,

/s/ Alexander S. Holtan

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