

June 8, 2016

VIA ELECTRONIC FILING

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Office of the Secretary
888 First Street, N.E.
Washington, D.C. 20426

**RE: Implementation Issues Under the Public Utility Regulatory Policies Act
of 1978
Docket No. AD16-16-000**

Dear Ms. Bose:

Enclosed please find for filing revised Panelist Comments on behalf of the American Forest & Paper Association (“AF&PA”) correcting a pagination error. We respectfully request pursuant to 18 C.F.R. §385.212 that this be accepted out of time, as this is only one day out of time and will not adversely affect other parties in this proceeding.

Thank you for your attention to this matter.

Regards,



Donald J. Sipe
Counsel to American Forest & Paper Association

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

**Implementation Issues Under the Public Utility
Regulatory Policies Act of 1978**

Docket AD16-16-000

**COMMENTS OF
AMERICAN FOREST & PAPER ASSOCIATION**

On May 9, 2016, the Federal Energy Regulatory Commission (“FERC” or “Commission”) issued a Supplemental Notice of Technical Conference¹ (“Notice”) in the above captioned docket. The Technical Conference is set for June 29, 2016, and the Commission requested comments from the individual panel members. American Forest & Paper Association² (“AF&PA”) hereby files their comments below.

AF&PA serves to advance a sustainable U.S. pulp, paper, packaging, and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry’s sustainability initiative - *Better Practices, Better Planet 2020*. The forest products industry accounts for approximately 4 percent of the total U.S. manufacturing GDP, manufactures approximately \$210 billion in products annually, and employs nearly 900,000 men and women. The industry meets a payroll of approximately \$50 billion annually and is among the top 10 manufacturing sector employers in 47 states.

The industry is a leader in the use of Combined Heat and Power (“CHP”) technology, which is extremely efficient because it uses the same fuel to produce both thermal energy used in the manufacturing process and electricity. In 2012, pulp, paper, packaging, and wood products mills produced 30 percent of the CHP electricity generated by manufacturing facilities. In fact, over 96 percent of electricity produced by our members’ pulp and paper mills was CHP-generated.

The use of CHP provides energy efficiencies in the range of 50 to 80 percent at forest products mills, far beyond non-CHP electrical stations, which are only about 33 percent energy efficient. Unlike the CHP commonly used by utilities and other manufacturers, most of the CHP processes used in the pulp and paper and wood products industry are highly integrated into the manufacturing process. The biomass residuals from the manufacturing process – *e.g.*, bark, spent pulping liquor, sawdust, shavings, and paper residuals that cannot be used for products – are used as the primary fuel to power the mills and to provide electricity for the grid.

Our commitments to renewable biomass energy and energy efficiency, including our extensive use of CHP, have led to a dramatic decrease in the sector’s use of fossil fuel and GHG emissions. Energy purchased by member pulp and paper mills -- most of which is fossil fuel-

¹ 81 FR 30299 (5/16/2016).

² AF&PA is on *Panel 2: Avoided Cost Calculations*.

based -- has decreased 25.4 percent since 1990, 14.6 percent since 2000, and almost 9 percent since 2005 (making significant progress toward achieving AF&PA's *Better Practices, Better Planet 2020* goal of at least a 10 percent reduction in purchased energy). This has helped reduce GHG emissions intensity by over 23 percent since 2000. Beyond what the industry has already achieved, we have committed to reducing GHG emissions by at least 15 percent by 2020, from a 2005 baseline. Since 2005, AF&PA members' GHG emissions have been reduced by 14.5 percent — nearly reaching their 2020 goal of 15 percent five years early.

In general, AF&PA focuses its comments on matters specific to CHP, its benefits, characteristics and the continuing challenges still faced by industrial consumers in the regulated and organized markets. Industrial Qualified Facilities (“QFs”) continue to represent a hugely valuable, economically efficient and environmentally helpful source of power, the majority of which is represented by CHP. CHP and related technologies will become increasingly important to offset potential costs of compliance under future environmental or climate regulations as well as remaining a mainstay of many job creating industrial enterprises. Utility hostility to PURPA³ and CHP has not diminished and we are concerned that proposed reforms may be directed at implicit repeal through regulatory dismantling of necessary protections. Interconnection study requirements and other practices continue to discriminate against CHP and customer owned generation in many utility footprints and the protections provided by the obligation to purchase and provide non-discriminatory standby and back-up power remain essential to the viability of these installations. CHP installations remain the most efficient overall source of thermal and electric energy needed for many industrial processes that are central to the economic health of the nation. Even at its most efficient, stand-alone utility or merchant power production does not approach the efficiency of CHP.

As recently as December, 2012, Congress recognized in Section 7 of the American Energy Manufacturing Technical Corrections Act (Public Law 112-210), which is entitled, “Reducing Barriers to the Deployment of Industrial Energy Efficiency” that there were numerous barriers to increased deployment of CHP. The statute enumerated several of those barriers, including interconnection study requirements, and standby, back-up, and maintenance fees, both of which are discussed throughout these comments. As required by Section 7, last June the Department of Energy (“DOE”) provided a report to Congress called “[Barriers to Industrial Energy Efficiency](#)” (“DOE Report”). AF&PA participated in the stakeholder group that advised DOE on the development of the report. While we did not necessarily support the entirety of the report and its recommendations, we did concur with many of the “Regulatory Barriers” cited in Chapter V of the report on “Barriers to Industrial Combined Heat and Power.” Among the barriers cited were the “Utility business model”, “Inconsistent interconnection requirements,” “Standby rates,” and “Capacity and ancillary services markets.” In short, the barriers cited in the DOE Report issued just one year ago, as well as the experience of AF&PA members, make it clear that the need for the protections provided by PURPA is as great today as it was when the law was enacted.

PURPA QFs include not only CHP, but also certain renewable energy generation facilities. As discussed below, many of the concerns that appear to have prompted this Technical Conference, as evidenced by Congressional correspondence with the Commission and certain of the questions for the panels, are not applicable to industrial CHP, although they are applicable to other QFs that are stand-alone merchant facilities. Industrial CHP facilities face very different

³ The Public Utility Regulatory Policies Act of 1978 (16 U.S.C. § 824a-3 (2012)).

economic and operational realities than do stand-alone merchant QFs because of the integration of thermal and power production into the industrial process. Economic and environmental efficiencies beyond those associated with power production can be jeopardized and, in extreme cases, destroyed altogether by dispatch or other regimes focused solely on short-term fluctuations in the market price of electricity. Gains in the efficiency of the manufacturing process, optimizing the joint production of heat, power and product, conserve resources and reduce environmental impact to an extent that goes beyond temporary savings that may be captured in short term electricity price fluctuations. AF&PA urges that any proposed reforms recognize these distinctions and the unique contributions of industrial CHP to achieving the goals of PURPA.

COMMENTS

- **Application of the “one-mile rule,” including implications of the “one-mile rule” on current electricity markets and its implications for utilities’ long-range resource planning efforts.**

AF&PA does not have comments on the application of the one-mile rule. It does not generally apply to or impact industrial CHP applications. We believe, however, that this issue highlights the fact that industrial CHP has distinct operational and interconnection characteristics that distinguish it from stand-alone merchant QF facilities and that rules and regulations need to be tailored in a fashion that recognizes these differences.

- **The rebuttable presumption that the Commission has adopted in the context of PURPA section 210(m) that Qualifying Facilities (QF’s) 20 megawatts and below do not have nondiscriminatory access to competitive organized wholesale markets and the barriers to access encountered by these facilities.**

AF&PA supports continuation of the rebuttable presumption that QFs of 20MW or less do not have non-discriminatory access to competitive markets. Particularly in the ISO/RTO footprints, the viability of small resources can often be damaged by requirements that they obtain market participant status in the absence of third party off takers for what is often intermittent, as available power. The logical off taker for such power is the utility whose larger resource portfolio can manage small fluctuations in a collection of resources, taking advantage of natural diversity in timing of production and load. Transaction costs for marketing such small quantities of power can often be prohibitive under the application of administrative market rules and requirements such as the posting of financial security, registration fees, dispatch requirements and volatile settlement obligations that often cannot be hedged economically at small scales. AF&PA members find that the imposition of market participant duties and obligations for the sale of as available power, renders such sales administratively or economically burdensome even for larger units if those units must market themselves on a stand-alone basis. Conversely, utility administrative infrastructure creates economies of scale for these functions, and permits diversity between resources to minimize overall volatility.

These concerns are in addition to those commonly listed for small facilities that often lack access to competitive markets because of insufficient liquidity, high volatility that cannot be adequately hedged on a small scale, or transmission and other constraints that restrict the available market. Such conditions are prevalent enough that a rebuttable presumption is

warranted. It remains Congress' intent to encourage development of such resources and the presumption remains a reasonable and necessary policy choice given that intent and the market realities facing most small resources.

- **When a QF can be curtailed.**

Industrial CHP has been recognized as a highly efficient form of generation because it maximizes thermal and electrical efficiency, using the thermal potential of combustion as well as condensation for electrical output. To maintain these efficiencies, however, power production must be tightly integrated into a manufacturing process that optimizes production of both heat and electricity to do useful work. While the overall optimization process is controllable at a large scale, the balance of the individual out-puts is inevitably subject to fluctuation as the demand for heat and/or power follows the swings in the production process. The ability to export as available power in order to balance thermal and electrical needs, permits the maximization of this efficiency to extract the highest amount of useful work from a given amount of fuel. In these processes, thermal needs dominate the optimization and electricity is produced or consumed as a by-product of an overall process geared to maintain thermal balance. For this reason, external independent dispatch of electrical output in either direction, without regard to the thermal needs of the production process, disrupts that efficiency, and in the extreme, can make production itself untenable or dangerous to life and property.

Curtailement and dispatch of QF power provided by industrial CHP has to be carefully coordinated with the production process of the industrial host. This limitation is not always negative. Although as available power from industrial CHP is variable, there is often flexibility within the production process to control output in ways that are advantageous to the grid as long as dispatch and curtailment requirements are designed to take advantage of, rather than with indifference to, the flexibility of industrial processes. Within broad limits, production schedules can often be moved or adjusted, for instance, to maximize output or minimize imports from the grid during times of high cost. Industrial CHP is often a valuable component of utility demand response programs and can often be relied upon to help balance natural variability in wind and solar out-put. This flexibility of industrial CHP cannot be called on continually without disrupting efficiency (a business that interrupts continuously is no longer a business), but within broad parameters the flexibility of industrial CHP can serve effectively as a limited energy generation source similar to storage. Conversely, rules requiring frequent dispatch up and down on short notice without regard to manufacturing schedules or the ability to efficiently allocate thermal use may cause industrial CHP to withdraw from such programs altogether.

Except in emergency situations, requirements for industrial CHP to curtail exports in response to low prices are generally counterproductive. Access to real time pricing under hourly Locational Marginal Prices ("LMPs") or time of use rates can often encourage industrial CHP to schedule production in a way that maximizes electrical output at times of high cost to the grid when the utility and other ratepayers can benefit most, and conversely, to draw from the grid when prices are lower. To the extent these incentives are insufficient to induce curtailment when internal production costs exceed market prices, mandatory curtailment of QF exports in low cost hours, without regard to process needs, is counter-productive because it disrupts the efficient use of resources. Industrial CHP exporting in low cost hours is responding to internal production efficiencies, and if those efficiencies are lost in that hour, costs are likely to be created in other

hours (*e.g.* for instance, in high cost hours when production needs to be made up, and the grid might benefit from more flexibility from the unit). If a QF continues to export in low cost hours, there are typically environmental or economic efficiencies internal to the production process that are motivating the behavior and these are perceived to outweigh the lost opportunity cost of adjusting production to respond to hourly electricity prices. Such internal efficiencies are precisely those that industrial CHP is designed to capture and they provide overall societal benefits, even if in some particular hour the cost of a single input (electricity) is not individually optimized. The overall efficiency of an industrial process in extracting maximum useful work from limited resource inputs, is often optimized over a longer timeframe. Those efficiencies may be jeopardized by chasing hourly fluctuations in single production inputs. Again, these internal production efficiencies distinguish industrial CHP from stand-alone merchant generation and it is reasonable to accommodate these differences in dispatch and curtailment protocols.

AF&PA is aware of extreme cases where system operators in non-emergency situations have sought to require industrial CHP facilities to dispatch down to levels below grid neutrality, in essence attempting to force industrial hosts to purchase less economic or less efficiently produced power from the grid. Such practices not only destroy any efficiencies Congress sought to encourage and because they are based on ignorance of or indifference to integrated production processes, they are often operationally futile. Because thermal and electrical output is linked to gain efficiency, when electrical output is suppressed, thermal output itself must often be interrupted. Without needed thermal support the entire manufacturing process can be disrupted, removing yet more load from the system. Such actions, therefore, often threaten both the viability of the manufacturing process and the system operator's attempt to balance the grid. To the extent curtailment of as available power is permitted, it should be limited to dispatch down to a net "0" output at the meter.

- **The impact of utility contracting practices on QF transactions.**

AF&PA has no comments specific to this topic.

- **The impact of utility interconnection practices on QF transactions.**

As noted in the DOE report, "[m]ost CHP systems rely on the utility grid for supplemental, standby, and back-up power services, and in some cases for selling excess power. Being able to safely, reliably, and economically interconnect with the existing utility grid is a key requirement for the success of a CHP project."⁴ For industrial CHP in particular, interconnection policies tailored to merchant generation occasionally fail to reflect the unique operational and other characteristics of CHP employed in the context of an integrated production process. Study and other protocols should be designed to recognize the net, rather than gross, output of units based on electrical effects at and beyond the meter. AF&PA takes no position on whether reforms are needed in the interconnection and study process in order to accommodate the integration of increasing volumes of intermittent merchant generation. To the extent unique operational or study challenges arise due to increasing penetration of such resources, solutions should be narrowly tailored to address particular challenges that may be presented. Industrial CHP, however, has a long history of well understood operational interaction with utility systems

⁴ DOE Report, page 106.

and a track record of reliable interconnection and integration under current interconnection and study protocols. Any reforms that may be necessary to address new challenges presented by merchant generation facilities should recognize the distinction between industrial CHP and its long history of successful integration and should limit reforms accordingly.

- **The obligation to purchase “as available” power.**

AF&PA believes that the obligation to purchase as available power remains a necessary requirement to fully exploit societal efficiencies of industrial CHP. We have discussed above the administrative burdens that are often attendant on market participation in organized markets. As noted, these challenges and expenses are not peculiar to small QFs. By its nature, as available power is variable and can be difficult to schedule with the same precision as merchant generation. Further, as explained above, dispatch and/or curtailment of industrial CHP electricity exports, based purely on the economics of electrical output, can jeopardize the economic and environmental efficiencies of an integrated CHP production process. As part of a utility portfolio, however, as available power can be managed as part of the natural diversity among loads and resources and administrative burdens can be minimized. Diversity between loads and resources across a broader portfolio can minimize operational volatility. Market administration is provided more efficiently, due to economies of scale, within the utility administrative infrastructure which already has operational, communication and settlement interfaces with the balancing or market authority. To the extent that there is operational flexibility within the production process to allocate the export of as available power to periods when it would be most valuable to the utility and other ratepayers, direct coordination with or through the utility is often the most efficient way to maximize these flexibility benefits. This is because exploiting this flexibility depends upon targeted use of those capabilities in the context of operational and/or cost parameters that may not be transparent to individual industrial CHP operators.

- **The obligation to sell supplemental, standby, backup and maintenance power to a QF.**

As stated above, the DOE Report noted the importance of supplemental, standby, back-up and maintenance power for industrial CHP. Further, “utility rates and fees can have an impact on CHP economics. Most industrial customers are motivated to install CHP systems to meet electricity and thermal energy needs at a lower cost. Standby rates, or partial requirements tariffs, are a potential impediment to CHP if the rates are not properly designed.”⁵

Reliable and reasonably priced standby, back-up and maintenance power is essential to the viability of industrial CHP. The environmental and economic efficiencies of CHP are only available because of the optimization of thermal and electrical output in an integrated production process. The industrial host, in turn, has health, safety and operational needs for electrical support that far exceed merchant generation demands for station service in the event of an outage or maintenance shut down. Without reliable and reasonably priced standby and back-up services, outages of generation at industrial sites (unlike a trip or outage of a merchant generator) can endanger lives through sudden disruption of industrial process, and result in long term damage and destruction of physical property if systems overheat, shut down unexpectedly or malfunction. This level of need creates a huge imbalance in bargaining power between the

⁵ DOE Report, page 108 (citations omitted). For AF&PA members, CHP systems are designed to meet thermal energy needs.

Industrial CHP host and potential suppliers in the absence of extremely robust competition. Further, on a stand-alone basis, the potential volatility of demand for such service can make it difficult to hedge risk. The integration of industrial CHP demand for standby, back-up and maintenance services into a large utility or other portfolio allows risk to be minimized through diversity. As the Commission's regulations have recognized, industrial CHP, as a class, is unlikely to all be out at the same time and even less likely to be so simultaneously on peak.⁶ Absent an extremely robust market of many large potential suppliers, there is unlikely to be enough suppliers with sufficient diversity of load to efficiently hedge risk to achieve reasonable prices. Often the utility is the only realistic supplier with sufficient diversity in loads to hedge this risk effectively.

AF&PA members continue to face situations in many jurisdictions where retail market designs for standby and back-up services impose demand ratchets and other design elements that effectively assume all industrial generation will suffer a simultaneous outage on system peak. Such designs are common even in regions with ISO/RTO organized markets which, even in restructured jurisdictions, often do not permit direct customer access to coincident peak pricing for transmission under the OATT, but allocate transmission costs to classes and/or customers on a non-coincident basis. Even in regions where industrial customers are permitted to access OATT pricing, gross (as opposed to "net") load transmission cost allocation regimes, simply recreate the same simultaneous on peak outage assumption by another means. These challenges remain even where utilities retain the obligation to provide such services. This discrimination would undoubtedly increase if they had the added leverage of being permitted to decline to offer such service altogether.

AF&PA believes standby, back-up and maintenance service for QFs should be designed based on coincident peak pricing on a net load basis for both capacity and transmission. At the integrated transmission system level⁷ there is more than sufficient diversity across all loads to make non-coincident or gross load cost allocation methods unduly discriminatory. Rates based on the actual, or reasonably projected, individual or class net load imposed on the system coincident with system peak periods should be used for allocation of capacity and transmission charges in the design of standby, back-up and maintenance rates.

Utilities retain their traditional hostility to industrial CHP because it bypasses full requirements service. It is such "by-pass," however, which alone makes possible the benefits, both economic and environmental, that the optimization of thermal and electrical demand in an integrated production process allows. External stand-alone utility systems simply cannot provide

⁶ The rate for sales of back-up power or maintenance power:

"Shall not be based upon an assumption (unless supported by factual data) that forced outages or other reductions in electric output by all qualifying facilities on an electric utility's system will occur simultaneously, or during the system peak..."

18 C.F.R. §292.305(c)(1)

⁷ AF&PA acknowledges that, to the extent a QF is connected at the distribution level, the smaller size of the circuits and the lower diversity of loads on such smaller circuits may make non-coincident peak pricing appropriate for the *distribution component* of rates. Utility attempts to extend such logic to the integrated FERC jurisdictional transmission level are not based on any realistic cost or operational premise.

or capture these benefits. The continual attempt to claw back allegedly lost revenues through discriminatory standby, back-up and maintenance charges or to discourage and harm CHP by limiting availability or access to such service, is an on-going concern that persists even in regions with organized markets. AF&PA urges the Commission to take no step to further weaken existing protections that assure QF access to such services at reasonable cost.

- **The obligation to purchase pursuant to legally enforceable obligations, particularly as these issues arise in new and emerging markets.**

AF&PA has no comments specific to this issue.

- **The impact the emerging energy imbalance market in the West may have on the mandatory purchase obligation.**

Some parties have suggested access to a “balancing market” should qualify as access to “comparable markets” under 210(m)(1)(c). Balancing markets are of extremely variable quality and liquidity. There are often very few players in them and the terms for imbalance penalties can be arbitrary and capricious in some jurisdictions. Illiquid balancing markets between only a few major utilities and traders do not provide stable long term pricing or even pricing that is necessarily reflective of any competitive supply and demand dynamic. Further, such markets may require a level of dispatchability inconsistent with efficient CHP operations. Such efficiency was one of the main economic/environmental benefits sought to be encouraged by PURPA.

- **Assumptions and analyses that are used to develop avoided costs.**

AF&PA believes that most existing methods for establishing avoided costs have the potential to be applied in a reasonable manner but that each, also, has a potential for abuse. For example, a common method is to compute avoided costs based upon a proxy resource that the utility might otherwise construct. Clearly the choice of proxy can be manipulated to establish an unreasonably high capacity (avoided nuclear unit) or energy (oil) estimate or, conversely, unreasonably low estimates by choosing differing and sometime even incompatible energy or capacity technologies. The best way to avoid unreasonable application of any methodology is to assure transparency in the methods and assumptions used and to permit effective public review and challenge by non-utility parties in proceedings with adequate due process protections such as reasonable discovery and the ability to offer alternative analysis. Ratepayers can be harmed by unrealistic assumptions at either end of the spectrum and the intent of Congress for a proper balance between encouragement of these resources and protection of ratepayers can be nullified, for all intents and purposes, by biased application of any of the common methodologies.

Some parties contend that the Differential Revenue Requirement Method has the theoretical potential to offer the most accurate projections of utility costs. AF&PA does not affirm or dispute this claim, but notes that the complex nature of such analysis, and the multiple modeling assumptions necessary to its application, make the requirement for public transparency more difficult. This must be balanced against legitimate concerns that the simplifications involved in the proxy or other less complex methodologies may trade off accuracy for transparency. But whatever method is chosen or permitted, the setting of avoided cost continues to be an economically crucial support to the Congressional policy under PURPA to both encourage the development of QFs and to protect the long term interest of ratepayers. To the extent possible, these determinations should not be made in a “black box”, but rather, as part of an open and transparent method and process.

- **Whether and how various pricing methodologies are consistent with PURPA.**

As noted above, AF&PA believes that any of the commonly used methods for calculating avoided cost can be applied in a manner that is consistent with Congressional intent under PURPA and that similarly, such methods can be applied in a biased manner that would violate the intent to encourage the development of QF and simultaneously protect ratepayers from unreasonable rates. We reiterate our belief that transparency and effective public in-put is the best defense against biased application that might violate either prong of the Congressional mandate. For example, it is likely legitimate to set avoided capacity costs at “0” in a situation where there is no need for additional capacity (either overall or of the specific type offered). But that calculation is dependent upon the ability to ascertain the accuracy of the assertion that no new capacity is needed. This requires transparency in the planning and load projection process used by the utility to establish need.

The estimation of future costs will never be an exact science and the fact that future anticipated costs do not materialize cannot reasonably discredit a methodology after the fact. This is because the future against which current expectations are measured is always a counter-factual as soon as actions are taken to address it. If future costs are based on oil, for example, but then actions based on those projections reduce reliance on oil, is it surprising the cost of oil in the future is different from your projections of a world in which the demand for oil was higher? These historical realities impact all forms of economic forecasting, not just avoided cost calculations. And yet, utility systems must be planned and the Congressional determination that QFs should be encouraged and ratepayers protected must be implemented on a prospective basis rather than through hindsight.

- **The strengths and weaknesses of different avoided cost pricing methodologies.**

We have noted above the trade-offs between transparency and simplicity inherent in some avoided cost methodologies. On a less global scale, certain methodologies may be inappropriate or less effective in fulfilling the Congressional intent of PURPA depending upon the class of resources to which it is applied. In this respect AF&PA believes that use of RFP methodologies are an inappropriate method to apply to as available power produced by industrial CHP. By their very nature, the attributes which permit the capture of optimization benefits from combined thermal and electrical production integrated in an industrial process, do not lend themselves to any traditional RFP format. Yet, at the same time, merchant generation that can more readily fulfill the normal RFP requirements of stated delivery obligations and capacity commitments, simply cannot achieve, by any means, the environmental and economic efficiencies of industrial CHP. In this instance, the application of the RFP method, while perhaps perfectly appropriate when applied to merchant generation, excludes participation, almost by definition, of a highly beneficial class of resources Congress clearly meant to encourage. Again, this is not a criticism of the RFP method as applied to resources that may be situated differently and offer different forms of societal, environmental or economic benefits than industrial CHP. Nevertheless AF&PA believes it is always a legitimate question to ask whether the methodology chosen, given the multitude of workable methods for calculating avoided costs, works as an intended or unintended discriminatory barrier to any class of resources Congress clearly intended to encourage the development of.

- **Potential improvements to current pricing methodologies.**

Consistent with the above, AF&PA believes that all methods will be improved by affording greater transparency and public in-put.

- **Whether an avoided cost methodology may reflect the locational and/or time value of QF output.**

AF&PA believes that a variable costing methodology can appropriately implement Congressional intent under the correct market and resource specific conditions. AF&PA maintains that the best way to discern whether this method may work as an intentional or unintentional discrimination against any class of resources is by robust and transparent public scrutiny (reviewed by this Commission if necessary) of the particular market conditions, time of use design or other relevant aspects specific to 1) the market or rate design proposed; and 2) the financial, operational and other characteristics of the class of resources to which it may be applied. AF&PA does not believe there is necessarily (or even ideally) a “one size fits all” answer to such questions.

- **The role of wholesale market revenues in developing avoided cost calculations.**

See above with respect to time of use and other approaches.

- **Methodologies for the determination of avoided costs for capacity and for long and short-term arrangements.**

AF&PA believes its comments above cover its general concerns regarding the various methodologies.

Dated at Augusta, Maine this 8th day of June, 2016.

/s/ Donald J. Sipe
Donald J. Sipe, Esq.
Counsel to American Forest & Paper
Association
Preti Flaherty Beliveau & Pachios
P.O. Box 1058
45 Memorial Circle
Augusta, ME 04332-1058
Telephone: 207-623-5300
Fax: 207-623-2914
Email: dsipe@preti.com