

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Demand Response compensation in
Organized in Wholesale Energy Markets

Docket No. RM10-17-000

**STATEMENT
OF
JAMES BREW**

On behalf of

**THE
STEEL MANUFACTURERS ASSOCIATION**

September 13, 2010

The Steel Manufacturers Association appreciates the chance to speak at today's forum. SMA is the trade group that represents North American steel-makers that primarily use electric arc furnaces to melt and recast recycled scrap steel.

SMA's 34 member companies operate 125 steel recycling plants in North America. These facilities are not confined to the Rust Belt, but operate in 37 states from California to Iowa and New York. Today, EAF-based steel-makers account for nearly two-thirds of the 120 million tons of steel produced in the U.S.

We operate in globally competitive steel commodity markets. Energy amounts to a large portion of a steel mill's total operating costs, so the cost and availability of electric power is critical to our ability to remain competitive. For this reason, although steel-making has always been about efficiently producing tons of steel products, many

electric arc furnace facilities receive electric service under some form of interruptible service arrangement. Also, where permitted by state regulators and RTO rules, many participate in organized wholesale market demand response programs. They are often very important participants in those programs for reasons I would like to briefly describe.

An electric arc furnace operation is a large electric load, typically ranging from 50 to 200 MWs, that very often is the largest single load on a utility system. Nation-wide this amounts to several thousand megawatts of load. These facilities operate a batch process in which it generally takes about an hour from the time recycled steel scrap is dropped into a furnace until molten steel is tapped from the furnace and the process is repeated. The great majority of this electric load relates to the steel melting process. With the proper equipment, an EAF can shed all or most of its load by opening a single switch, and often on very short notice. This is the equivalent of curtailing service to a small city in minutes. It provides a comparable electric system benefit to synchronizing a peaking generator, only without fuel and emissions costs or increased congestion on the grid. This performance is easily verified by system operators. For all of these reasons, participating electric arc furnace operations represent Exhibit A of the types of loads that the Commission hopes would participate in the demand response programs administered in organized wholesale markets.

If you have ever visited a steel mill, you can easily see the costs, lost production and efficiency penalties associated with an unplanned disruption of the choreography of the steel making process. That is why adequate compensation for DR performance and stability in the compensation and related rules are so important.

Also, an important consideration for today's discussion is that SMA's members

operate quite a number of manufacturing facilities in areas covered by the organized markets. This includes states that have attempted retail restructuring and those that have organized markets layered over traditional cost of service based retail regulation. They also operate steel mills in states that are not in the organized markets where utilities, municipals and cooperatives have retained much of their integrated utility character but purchase and sell energy under market based wholesale contracts.

What this means is that some steel mills in fully regulated markets take electric service based on average cost rates while others receive service based on hourly energy prices. Similarly, steel mills operating in “retail choice” states may nominally be subject to wholesale hourly energy prices, but how they are actually billed for power usually is not public knowledge. A mill could hedge some or all of its load around the clock or at peaks times. It may hedge more of its load in certain months or at certain times, and a facility’s hedging decisions may have more to do with steel market conditions than anything else. All of these possible permutations in retail pricing are of absolutely no consequence to the value that a steel load provides to an electric network by committing 50-100 MWs of verifiable demand response in response to a request from an electric system operator by opening a single connection to the grid.

1. Wholesale Markets Require More Demand Response

SMA has been encouraging the Commission to assert more leadership on demand response policies since 2005. The Commission at this point has a sufficient body of evidence on the importance of demand response to the proper functioning of wholesale power markets, the general absence of meaningful demand response in the organized

energy markets, and the assortment of market distortions and perverse incentives that persist as a result.

The NOPR correctly recognizes that the lack of efficient price signals at the retail level is not within the Commission's purview and really not the point of this rule-making. This fact of life, as well as the absence of meaningful electric storage today, underscores the need for demand response compensation programs to address the insufficient level of demand response in organized wholesale markets. The NOPR properly aims to alleviate some of the institutional barriers to greater demand response participation that have been established at the regional level.

Finally, the NOPR began with the unremarkable but nonetheless controversial finding that in organized energy markets that are founded on locational marginal pricing, comparable treatment of verifiable demand response and generation supply requires compensation of both resources at market-clearing prices (the "LMP"). SMA has advocated that the Commission adopt this policy for some time. Paying demand response the LMP in all hours lowers the rents that generators were extracting from those markets only because the markets operated poorly (i.e., there is little effective interaction between supply and demand based on price). The penalty for this inefficiency has been elevated energy prices and congestion costs, unwarranted strain on the grid, and higher emissions.

2. Cost Allocation of Demand Response

Having conquered the theoretical reasons for promoting greater demand response in organized energy markets, and hopefully moving past the unfortunate detour of whether load participation in DR programs should be limited by the structure of their

retail electric rates, the Commission asked this panel to address the allocation of demand response costs.

At first blush, this seems a straight-forward enough issue. Decide what costs we are talking about, get out the NARUC cost allocation manual and follow the basic ratemaking principle of aligning cost recovery to benefit recipients and cost causation. DR payments are linked to dispatch in the energy markets, so DR costs are part of that market and should be allocated among those purchasing energy in those markets. This typically suggests a broad allocation of those costs across the RTO energy market participants. At a minimum, those costs should be assigned zonally since DR participation directly affects market clearing prices across a zone. Rolling the costs of DR compensation programs into day ahead pricing seems the most appropriate way to do that.

The Commission also has asked whether the Commission should prescribe uniform cost allocation rules. To get to this, please consider a preliminary matter for a moment.

Before a steel-maker can even begin to assess whether, how often, and at what level of LMPs it might be willing to disrupt its steel melting, casting and rolling operations, the Commission, all of the relevant RTO committees, state regulators and the local utility or load serving entity have to be on board. History has shown that this is quite a gauntlet. Add in the prospect of constant pressure to modify the rules that are in place, especially if DR becomes effective enough to actually affect the organized energy markets, and the transaction costs associated with DR programs absent strong leadership from the Commission will be excessive.

As for the basic cost allocation question, SMA strongly urges the Commission to establish uniform cost allocation rules or principles for DR compensation, just as it does for any other cost of service item (*e.g.*, generator step-up transformers). As long as the costs in questions are well defined, there should be a direct, established and uniform method of cost allocation. That treatment should not vary from market to market, or require loads to have to thrash out cost allocation from committee to committee. Reducing institutional barriers in the form of excessive and redundant transaction costs should be a prime objective of the final rule.

Next, there may be some questions that relate to defining the costs at issue, such as “missing money” ascribed to the effect of DR participation on sales volumes. This is cost identification rather than cost allocation, but needs to be addressed. Again, do not over-complicate the process. Our suggestion is that all DR-related costs should be allocated and assigned through the day ahead market settlements process.

Thank you again for inviting SMA to appear on this panel.

I look forward to any questions you may have. Thank you.