Comments of Rock Island Clean Line LLC on Critical Mass Approach

April 17, 2012

I. Purpose of Comments

The following preliminary comments by Rock Island Clean Line LLC ("Rock Island") are based on the proposals put forth over the last year, and should not be understood as support or opposition to the Critical Mass Approach (CMA) at this time, but rather as attempt to illuminate the impacts of the CMA.

The current business model of Rock Island is as a merchant project dependent on participant funding via capacity contracts. Accordingly Rock Island will not recover any costs through PJM's cost allocation mechanisms. If the CMA is adopted and RTEP transmission projects are developed with some costs assigned to generators and other costs assigned to load, CMA could raise competitive issues for merchant transmission developers. If RTEP projects can assign to load a portion of costs commensurate with non-generator benefits, but merchant projects cannot, merchant projects will find it difficult to compete.

Rock Island also wishes to comment on how PJM measures benefits for transmission projects. When measuring the cost reduction and public policy benefits of a proposed transmission line, it is important to consider the capacity factor and cost of any associated renewable energy resources. Another benefit of transmission buildout is enabling a geographical diverse portfolio of renewable energy projects, which results in a more stable, less variable energy profile and better utilization of existing transmission.

II. Competitive Issues with Critical Mass Approach

The Critical Mass Approach as discussed over the last year is characterized by the planning and cost allocation of new transmission projects based on the whole or partial segregation of reliability, economic, state policy, and generator access benefits of any new project. CMA also includes the potential for some of the costs to be temporarily assigned to load.

As described in one example during RPPTF meetings last fall, a new 345 kV line that could be justified solely on the basis of reliability criteria might be resized as a 765 kV project under the CMA, with the higher costs of the 765 kV project segregated among economic, state policy, and generator access benefits. Specific dollar amounts for allocation to load would be developed for the reliability, economic, and potential state policy benefits, which would then be combined with payments from generators willing to pay for to connect to the new line. In the event that the total funds identified did not reach 100% of the revenue requirement of the upgrade, but did achieve some "critical mass" of the revenue requirement, then PJM might nonetheless proceed with the improvement by temporarily allocating the unassigned costs to load until such time as other generators agree to pay those additional costs.

Under the current CMA framework, merchant transmission projects could potentially be harmed if not able to avail themselves of similar cost-allocation benefits. Projects in the PJM merchant transmission interconnection queue currently must assign all costs to capacity customers. If projects studied under the RTEP have the ability to assign some portion of their revenue requirements to generators and other costs to load, while projects in the merchant queue can only assign costs to capacity customers (who may include generators), then the projects within the RTEP would have sizable cost advantages over merchant queue projects when seeking generator customers. Furthermore, the ability of CMA RTEP projects to temporarily assign some costs to load would represent another advantage over traditional merchant projects, unless merchant projects are afforded similar opportunities. Without temporary cost allocation to load, merchant transmission lines typically cannot proceed with construction until all or substantially all of their capacity is sold to customers.

Based on recent experience, the RTEP planning process may move more rapidly than the merchant transmission queue, where projects currently in the queue may be waiting years for a first-stage feasibility study. Because of the time lag between the study processes of the merchant queue and the RTEP, projects in the RTEP have the potential to leapfrog projects in the merchant queue and capture benefits targeted by merchant queue customers without regard to any queue priority of those customers. This ability by RTEP projects to leapfrog merchant queue projects, together with the ability of RTEP project to cost allocate segregated benefits, could render the merchant queue purposeless.

These issues not only impair the competitive opportunities for success for merchant transmission developers but have the clear potential to result in higher costs for end users. PJM and all of the electric end-user customers in the region benefit from a robust consideration of ideas, projects, and business models in several ways. A vibrant merchant transmission sector is likely to lead to a consideration of a broader set of project ideas, leading to a greater likelihood that optimized transmission solutions will ultimately be constructed.

Merchant developers are often more likely to invest in engineering, siting, regulatory approvals, and land acquisition prior to consideration in regional plans. Consequently, merchant project cost proposals will be based in greater part on actual contracts and project-specific experience rather than high-level estimations. Merchant transmission developers also are more likely to bear the financial risk of cost overruns. The improved cost certainty of merchant projects can help avoid the problem of unwanted surprises, such as those experienced recently by SPP and ERCOT. In both regions, project approvals based on cost-benefit analysis were revisited and questioned post-approval as a result of rising costs.

In implementing CMA, PJM should consider the competitive effects on merchant transmission. By affording merchant projects the same opportunity, PJM can ensure a level playing field. Failing to do so would deprive PJM of the potential benefits of merchant transmission.

How can PJM create such a level playing field? With respect to temporarily assigning costs to load, a uniform percentage for all projects would be appropriate. If any CMA project in the RTEP can temporarily assign up to a certain percentage of its costs to load, then merchant transmission developers should be able to temporarily assign that same percentage.

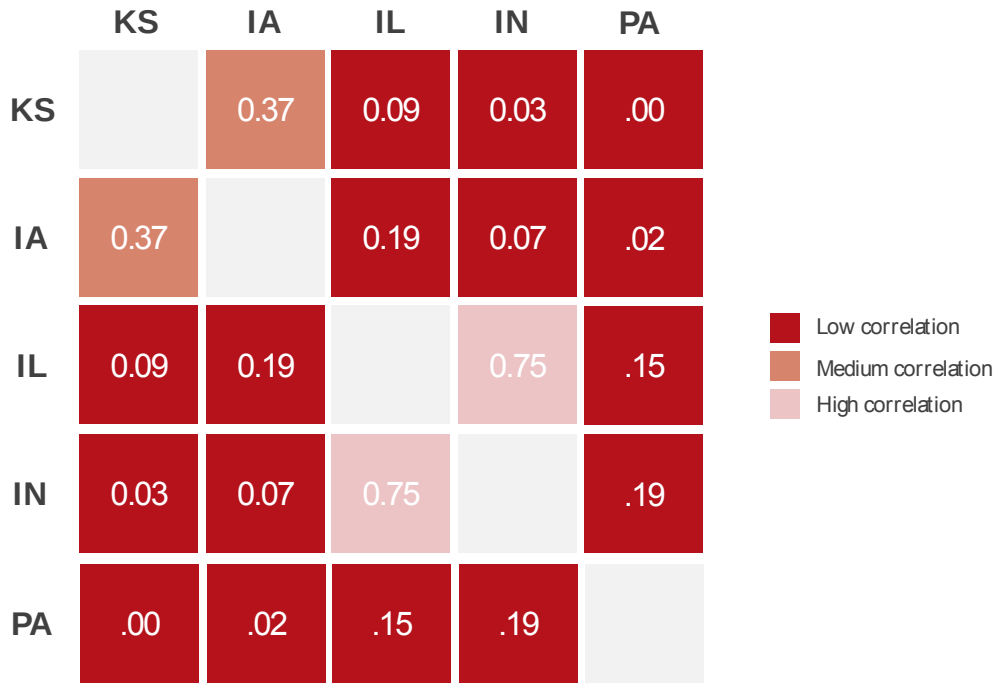
Furthermore, so that merchant transmission projects are able to estimate their total revenue requirements in a reliable fashion, any system upgrade costs identified in the Interconnection Service Agreement (or at whatever stage in the study process the project may be if no ISA is yet executed) must not be subject to special restudy as a result of submission of the project for consideration in the RTEP.

III. Measuring and Allocating Benefits

PJM's prior White Paper indicates that public policy benefits will only be allocated when states individually and voluntarily agree to pay for such costs. If individual states pursue only their own interests, regional benefits are likely to be neglected. For example, REC prices throughout the PJM region tend to move in unison. Accessing the lowest cost resources, that is, those with the highest capacity factors, will help keep REC prices—and RPS compliance costs—low throughout PJM.

PJM will also benefit from a geographically diverse group of wind resources. Meeting state RPS targets likely implies a wind penetration level above ten percent. To manage the variability of this wind buildout, geographic diversity is an important goal. The table below illustrates the low correlation between different wind resources that PJM transmission projects might connect.

Figure 2: Wind Correlation of Best Capacity Factor Sites in 5 States per EWITS Data



1. "Low correlation": between 0.0 and 0.2; "Medium correlation": between 0.2 and 0.5; "High correlation": between 0.5 and 1.0
Source: EWITS; Clean Line analysis

Low correlation values imply that the wind resources do not tend to produce most of their power at the same time. As the table illustrates, the correlation between distant wind resources—for example in Kansas and Pennsylvania—is almost zero. It will be easier to integrate a wind portfolio with lower "peaks and valleys" of production. Moreover, the existing PJM transmission system can more effectively move wind power to load when wind production is less coincident between projects. Too much production in too small a geographic area can lead to congestion and curtailment—in turn driving the need for further upgrades.

Measuring the Benefits of Individual Projects

One complexity in implementing CMA is how to value the economic benefits of **individual** projects. The total value of a group of projects studied together often does not equal the sum of the individual project benefits. If, for example, project X (studied alone) has benefits of $200M, and project Y (studied alone) has benefits of $200M, the combined benefits of the two projects when studied together are unlikely to equal $400M. Furthermore, if the combined benefits of X and Y are $350M, how would that $350M be divided between the two projects?

Resolving this conundrum requires a marginal benefit approach. For a merchant project to allocate some portion of its costs to load based on economic criteria, the project would need to meet or exceed the 1:1.25 cost to benefit ratio. The measured benefit would be the difference between the value of the entire group of upgrades in the RTEP and the value of the entire group of upgrades in the RTEP minus the merchant project, and the cost is any portion of the revenue requirement of the merchant project that the merchant developer wishes to submit for consideration in the economic category based on PJM's analysis of the benefit.

APPENDIX: OVERVIEW AND NEED FOR THE ROCK ISLAND CLEAN LINE PROJECT

Following is a brief description of the Rock Island Clean Line project, and a brief explanation of its need, for those stakeholders who may not be familiar with the company and the project.

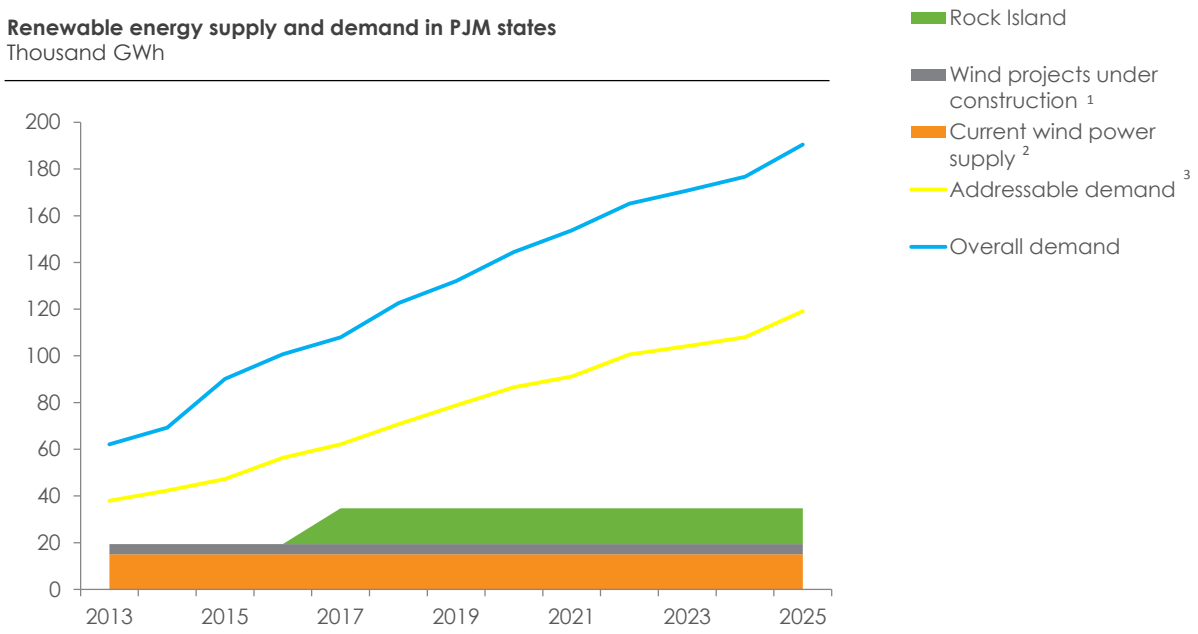
The Rock Island Clean Line is an approximately 500-mile, overhead High Voltage Direct Current ("HVDC") transmission line that will connect the renewable resources in northwest Iowa and the surrounding region with communities in Illinois and in other states to the east. The project will make possible approximately 4,200 megawatts ("MW") of new nameplate wind energy capacity that could not otherwise be built due to the limitations of the existing electric transmission grid.

The Rock Island project will consist of one (bi-pole) ±600 kV HVDC transmission line capable of delivering up to 3,500 MW of power to PJM in Illinois[1] and will make possible approximately $7 billion in renewable projects at the western end of the line—creating thousands of jobs. The project will deliver

[1] The line will be capable of delivering 3500 MW into PJM but anticipates that approximately 4200 MW of new nameplate wind at the western converter station location will optimize that 3500 MW injection after accounting for line losses, converter losses, and wind variability.

enough clean energy to power around 1.4 million homes, reduce power prices for consumers, contribute to energy security, increase state and local tax revenues, and reduce both pollution and water consumption. For transferring large amounts of power over long distances, DC transmission allows for a more efficient transfer of energy, a smaller right–of-way footprint, and improved controllability of power flows. Each of these benefits of DC projects helps reduce final costs to consumers and make DC projects highly complementary to the existing AC system.

The Rock Island Clean Line will deliver energy into the PJM grid at the 765 kV Collins substation in Grundy County, Illinois. The project serves a need for renewable energy resources in the PJM footprint, whose renewable demand, as shown in Figure 1 below, far outstrips its current supply in the near future.



1. Wind projects currently under construction within the PJM states
2. Energy from existing wind projects within the PJM states
3. Demand for renewable energy credits within PJM for which Rock Island Clean Line wind would be eligible

Source: EIA; DSIRE; AWEA

Figure 1: Renewable Energy Supply and Demand in PJM States

Demand for renewable energy in states partially or wholly within PJM ramps up significantly by 2016 and continues to climb through 2025. For these PJM states to reach their renewable energy procurement goals and mandates at lowest cost, they will need dramatically increased access to cost-effective renewable energy resources. Rock Island will help meet state policy requirements and goals by delivering over 15,000 gigawatt-hours ("GWh") of wind energy to PJM states each year, with an anticipated placed-in-service date in 2016 or 2017.

The project is currently in the PJM merchant transmission queue. Clean Line furthermore began discussions with MISO in February of 2010 regarding necessary studies associated with any potential impacts to the MISO system, and Clean Line expects that the Rock Island Clean Line will be studied in MTEP 2012 under a “no harm study.”