

PJM Survey Results

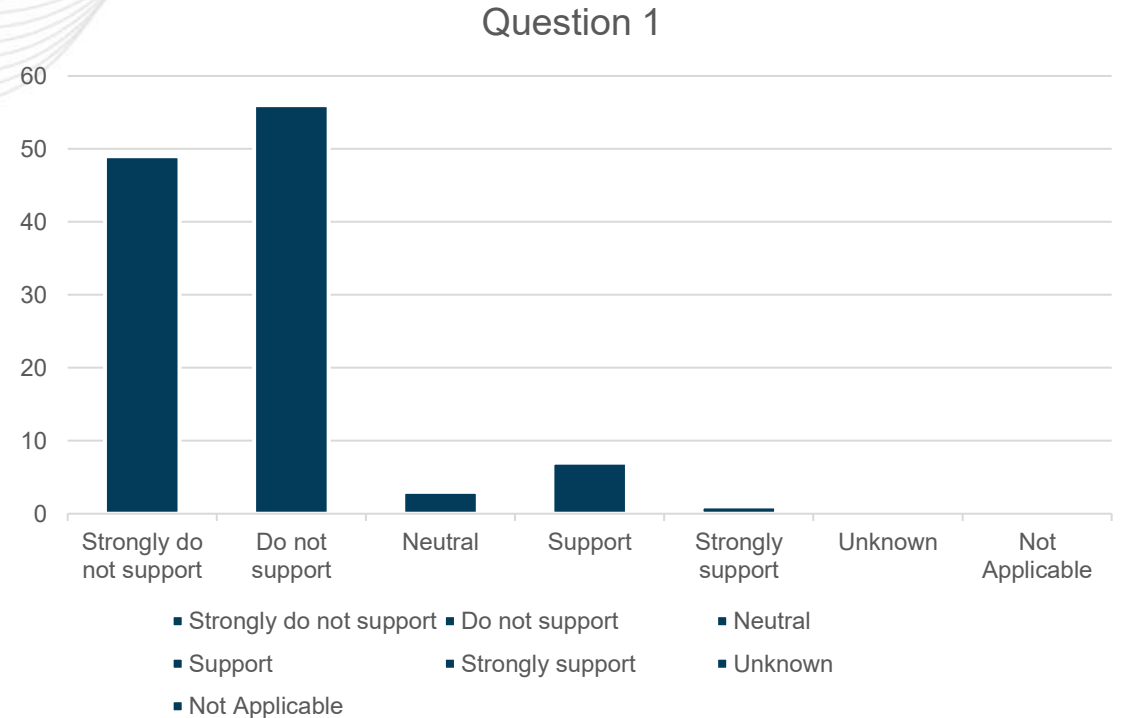
Day Ahead Market Timing

Disclaimer: While materials are current at the time of publishing, applicable requirements may change. PJM Governing Documents control.

- Purpose of Poll
 - Gauge stakeholder interest in moving the timing of the Day Ahead market earlier in the day and assess potential benefits and risks associated with such a change.

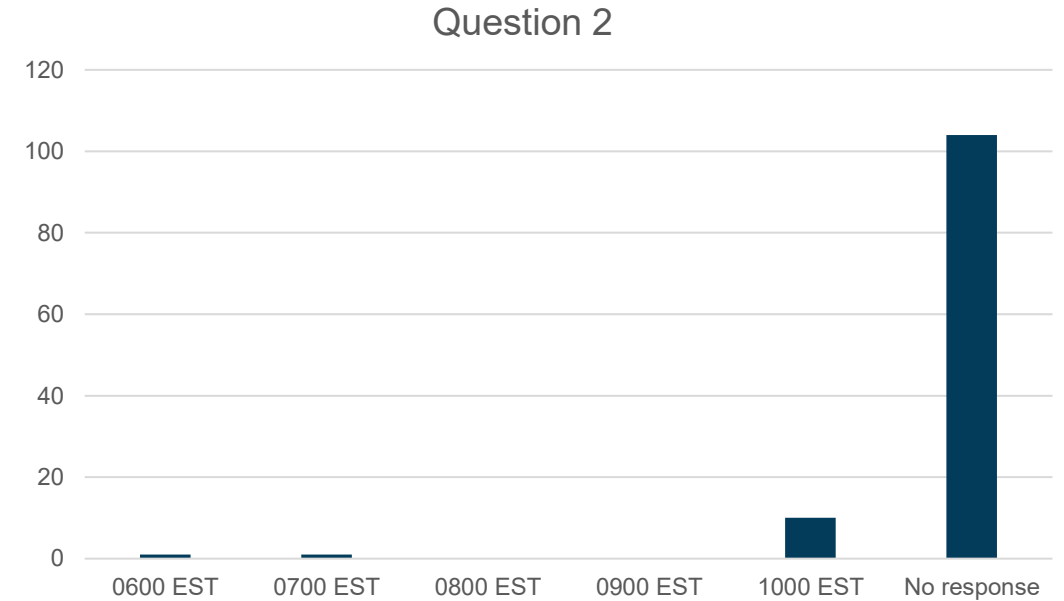
Do you support moving the current 1100 EST bid/offer submission deadline and the current 1330 EST Day-Ahead award to earlier than the current 1100 EST time?

Strongly do not support	49
Do not support	56
Neutral	3
Support	7
Strongly support	1
Unknown	0
Not Applicable	0
Grand Total	116



If you answered in support of Question 1, what is the earliest feasible bid/offer submission deadline your organization can reliably meet?

0600 EST	1
0700 EST	1
0800 EST	0
0900 EST	0
1000 EST	10
No response	104
Grand Total	116



Poll Question 3 Results

Question 3

Based on your response to Question 1, if you are NOT in support of moving the current timing of the Day-Ahead market, please provide your concern(s) if a change was made.

Concern with receiving accurate gas quotes in time to submit accurate generation offers earlier than the current 11:00 deadline.

We are not in support of moving the timing of the current DAM. If a change were made, we believe that it would result in several issues.

First, offers will be required to be submitted with less certainty on several fronts, including gas prices, plant parameters, and renewable forecasts. The result would be less economically efficient offers.

Second, suppliers will have less time to ascertain operational availability issues generation units can have and resolve such issues before the deadline. This could yield a potential mismatch in offers and units' availability between the Day Ahead and Real Time Markets.

Third, moving the timing of the current DAM adds risk to technical issues, including mechanical issues on the PJM side with Markets Gateway or the member side with automated software and tools. The earlier the deadline, the less time there is to identify and address such IT issues.

Fourth, an earlier deadline would put an asymmetrical burden on non-east cost companies.

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Gas/electric coordination is unobtainable. We would just be making people get up earlier and have less other info (ex. a worse load forecast) when bids are due.

An earlier offer would result in a lack of gas price discovery prior to offer submittal resulting in higher risk and uncertainty that settlements would cover actual costs. Further, earlier clears provide neither significant improvement in gas procurement over current procurement in the Evening gas cycle nor improvement in the current required scheduling of gas over two gas days. Morning peaks in the winter create a significant disconnect when pipelines require ratable takes due to needing to schedule 48 hours' worth of fuel for a run that covers hours in both gas days.

- We don't procure natural gas fuel based on DA market clearings, today, and don't expect to in the future (may change if we build a particular type of generation in PJM).*
- Secondly, moving the decision earlier gives us less time to trade and coordinate with bilateral markets and call on other portfolio resources.*
- Finally, the next day gas market trading window referenced (i.e. 0900 – 1200) often is not as active during the beginning of that window. Trading for next day natural gas and the associated price quotes often come in close the current generation submission deadline (we have to submit our cost for the unit) and continue to trade after our unit costs are submitted. Moving the deadline earlier would cause more uncertainty around fuel pricing and would likely lead to cost exposure and incorrect fuel estimates.*

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Disruption in the gas market, particularly the electricity market demand driven gas price increases and potential collapse of the intraday market.

it wouldn't give companies enough time to properly vet the market and make bids for the following day. 11am is already a tight window, all this will do is cause chaos and create issues that pjw does not want to see. I think moving earlier is an absolutely horrible idea.

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Long and short of it -

2 choices

*1.) DA market submission deadline before next day gas (timely) trades/needs to be scheduled- *see NYISO DA submission timeline (bids in by 0500 prior to operating day - results typically posted between 0930-1000 (officially 1100)
trade off - volume of DA gas needed is known however less price certainty.*

2.) DA market submission after-ish timely gas trades - at 1100 current PJM deadline - less to no (not sure if will be picked in DA market) volume certainty but more price certainty.

So, end of day it's a tradeoff - do PJM market participants want more price certainty or more volume certainty?

Chatting with folks that bid gens in both markets - preferred method seems to be the nyiso model...HOWEVER, the current FCP standards would have to be totally revamped if this direction is taken to comport more with how the nysio mmu handles...

Additionally, and very relevant:

Timely gas must be scheduled by 1400 eastern time - PJM posts results 1330 or later...makes it near impossible to schedule DA power scheduled gas needs prior to deadline - however nyiso posts between 0930-1000 (officially 1100) so gives the power and gas market much more time to get timely gas quantities scheduled.

Also, more discussion needed around conservative op dispatches prior to DA market submission deadline I'm still in camp of don't change any current deadlines just require gens to indicate to PJM if they have not procured timely gas by the 1100 deadline...let PJM analyze the results and if based on history not enough gas has been procured then dispatch gens to run prior to the DA posting but hopefully well before the 1400 timely gas scheduling deadline

Look forward to further discussions.

Note: my indications to the first 2 questions could change depending on fall out of points made above in this discussion...

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Initially, we believe PJM should prioritize resolving the performance and timing issues associated with the Day-Ahead market clearing process before pursuing additional structural changes. During stressed grid conditions, Day-Ahead awards have at times been published several hours later than expected. If Day-Ahead results continue to be delayed by 3–6 hours during critical operating periods, moving the market timeline earlier may provide limited additional benefit for natural gas procurement.

Second, shifting the Day-Ahead market timeline appears to primarily benefit operations during stressed grid conditions, particularly extreme cold-weather events, which occur relatively infrequently throughout the year. Under normal operating conditions, our company conducts several coordination calls and at least one company-wide operational meeting each morning to review generator maintenance, testing, operational issues, and unit availability. These discussions are critical to ensuring our generation portfolio is offered into the market as accurately and efficiently as possible. We believe an earlier Day-Ahead timeline could reduce the effectiveness of this coordination process and potentially diminish the quality and transparency of generator information available to PJM and market participants during the majority of the year.

Lastly, PJM may want to consider whether a more comprehensive alignment between the electric and natural gas markets would provide a longer-term solution. For example, aligning the electric operating day with the natural gas operating day (e.g., 09:00 to 09:00) could better synchronize market operations and fuel procurement practices. Given the longstanding structure of the natural gas market, it may be more practical to evaluate broader electric market alignment rather than expecting the natural gas industry to transition to an electric operating day framework (00:00–24:00).

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As the owner of multiple CT resources, having an accurate gas price estimate is very important. Moving up the timing of the DA market would make it so the deadline occurs before liquid trading starts for both Same Day and Next Day.

The gas market is already slow to develop robust pricing in the morning. Moving the deadline earlier will require generators to use indicative pricing during the gas trading period with fewer trades driving the prices at that time. At times, the ultimate index can change due to late trades that are just prior to or even after the 1100 et deadline. If ICE rolls off the Next Day product off the screen earlier than 1330 et, this may encourage more gas trading activity earlier in the morning and more robust price formation for DA offers into PJM with the current 1100 et deadline.

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Natural Gas Price Discovery and Offer Calculations: Moving the offer deadline earlier will not allow for the calculation of our cost and price-based fuel offers to reflect the natural gas market. The natural gas market starts trading after 09:00 EPT for the index points to populate or to get quotes to trigger our ability to generate next day cost-based pricing. On extreme days, everyone is looking around to see who will make the first move to get the market started. This leave very little time to make and check updates with the current deadline. If the offer deadline were earlier and you need to create pricing prior to any market information, the cart is now in front of the horse. The only options would be to use stale prior day index values, which is a risk to Market Participants (MP) or eliminate the cost-based offer and allow MPs to enter non-validated natural gas prices. Option 1 would not be supported by the Market Participants and Option 2 would not be supported by PJM & IMM.

Greater Risk During Longer Time Period: The longer time period from the offer deadline to the RT calendar day does add additional risk for the MP due to units having equipment issues. In addition, the PJM Balancing Authority has the additional longer time period, meaning that the Day-Ahead Market information becomes less valuable to PJM, increases costs, and could negatively impact reliability.

Late DA Award Posting Times: On the extreme days, PJM posted the market results much later than the usual 13:30 posting. This was a significant issue in trying to purchase natural gas later in the day during the last cold spell.

Wind and Solar Generation Impacts: The Wind and Solar forecasts (and load) are going to be more important over time. The further the lead time from forecast to actual output, the more inaccurate the forecasts will be, resulting in poorer alignment of the DA and RT markets. This would require more response from other units. In a high DER world, we really want to shorten the time frame from offer to actual output.

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The possible benefits of moving the Day-Ahead timing earlier do not outweigh the market inefficiencies that may result from PJM clearing the market with offers based on less accurate data than offers that can be developed by the current offer deadline of 1100 EST.

Our main concerns and possible causes of less accurate offers:

- 1) Moving PJM's Day-Ahead award timing to an earlier hour will advance generator's morning (day-ahead) generation cost offers. While PJM's current cost offer deadline allows for some "next" gas day natural gas trades to transpire, moving that deadline earlier may cause generators to base more natural gas generation cost offers on stale natural gas fuel prices. Namely, generators would be more likely to submit next day generation PJM cost offers using a natural gas fuel market largely absent fixed price trades and/or predominantly GDA-priced without a clear GDA price indication. Moving PJM's Day-Ahead timing earlier will not be enough to cause additional/sufficient fixed price natural gas trades earlier in the natural gas market trading time horizon. Furthermore, earlier PJM offer deadlines may cause a wider natural gas price/cost differential between the morning estimate and afternoon price validation, when Platts natural gas prices are published for the next gas day. Additionally, changing the timing would not improve gas purchase volume risk, as we find an appreciable portion of this risk involves Real Time dispatch variations rather than Day-Ahead market commitments.*
- 2) An earlier Day-Ahead offer deadline will not only impact gas resources but will also negatively impact resources with offer parameters that are dependent on weather forecasts—mainly, intermittent resources—because the further ahead of the operating day a forecast is developed, the greater the chance for inaccuracies is.*
- 3) With an earlier Day-Ahead market close, older data will inherently be used because GOs will need to start developing offers earlier in the day, and perhaps even on the day before the Day-Ahead market close, to ensure they can submit offers on time; earlier offer development may be especially prevalent on peak days.*
- 4) Clearing the Day-Ahead market using less accurate offers could potentially lead to PJM having to dispatch resources in Real-Time that are not committed in the Day-Ahead market and, therefore, may be less prepared to respond.*

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If PJM aims to align with the 0900-1200 EST gas procurement window, doing so would require moving the Bid/Offer deadline much earlier (around 0330–0730 EST). This shift would create significant operational and commercial challenges. Later deadlines allow generators to incorporate more accurate information (such as unit availability, fuel supply, weather, and system conditions) into their offers. Moving the deadline earlier would increase uncertainty, leading to higher risk premiums, less accurate offers, and reduced market efficiency.

There are numerous reasons we do not support changing the timing suggested in this poll. Accelerating the bid/offer submission timeline will create additional problems to next-day natural gas price certainty. The next-day gas bid/offer spread is not mature enough with these early timelines to get a good estimate of what pricing will be for the next day. Spreads can often times be wide even at the 1000 timeline when current gas prices need to be entered. The earlier timeline would make this dynamic worse. Additionally, accelerating the timeline will likely not result in additional supply liquidity.

Despite knowing how much gas would be needed with earlier award timing, gas price formation for the following day would be more uncertain, resulting in increased risk and more conservative offers. An earlier market clearing could also create a greater divergence between DA and RT markets, resulting in increased uplift and out of market payments.

We do not support moving the DA bid/offer window earlier than 11 AM, unless market clearing times would improve. Moving the bid window up would significantly reduce visibility into next-day gas prices and undermine accurate cost-based offer development. An earlier timeline—particularly a NYISO-style construct—is incompatible with PJM's fuel cost policies and would introduce material bidding uncertainty. Any potential electric–gas coordination benefits are limited without sufficient gas price transparency and alignment with the ICE trading window. We would be supportive of improving market clearing timelines while maintaining the current 11 AM bid deadline. However, there are concerns about PJM's ability to consistently deliver earlier results, particularly during periods of high volatility.

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We do not wish for PJM to close the day ahead market any earlier than the current 11AM deadline. Gas liquidity, especially during the December - March timeframe, often does not frame up and trade until 10AM-11AM eastern. If PJM were to close the DA market prior to the existing deadline, gas fired generators would be forced to guess what their actual generation cost would be when submitting day ahead offers to PJM. Uncertain fuel costs create uncertainty in day ahead volume procurement needs, which will also create reliability concerns for PJM. These uncertainties will also force participants to include risk premiums in their day ahead offers, which will ultimately be passed on to the consumer.

Improved coordination between gas and power markets is a worthwhile objective, however, advancing the DA award timeline is unlikely to materially improve outcomes and may introduce new operational burdens.

Advancing DA awards does not resolve the underlying issue of fuel availability; it simply shifts the timing of when participants confront that constraint. The current gas trading window is not fixed but has evolved in response to existing electricity market timelines, particularly DA bidding practices. Moving DA awards earlier would likely cause gas market activity to shift accordingly, eroding any perceived advantage. As a result, the proposed change may not improve fuel procurement outcomes in practice.

Fundamentally, the issue PJM is seeking to address stems from structural misalignment between the gas and power markets—including differing timelines for market clearing, nominations, and operating periods. Adjusting DA timing alone does not resolve these discrepancies and risks being an incremental change with limited impact. Additionally, accelerating the DA timeline would reduce the window available for market participants to finalize bids and resolve operational or system issues, particularly for larger portfolios. It also risks adding further complexity to existing processes, such as Fuel Cost Policies, which already struggle to fully reflect real-world conditions.

While earlier DA awards could marginally increase the time available to seek spot gas supply, this benefit is limited and does not change the amount of gas available—particularly during high-demand events when supply is most constrained. It would be more beneficial if PJM gave us actual schedules for units when they call them on outside of the DA market.

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We do not support moving the Day-Ahead bid/offer submission deadline and award timing earlier, primarily due to misalignment with the natural gas market and the potential for reduced price certainty in offer formation.

Natural gas price discovery and liquidity are still developing in the early morning hours, with more robust trading activity and clearer price signals emerging later in the morning. Moving the bid submission deadline earlier would require generators to formulate offers without fully formed gas price inputs, increasing the risk of inefficient or inaccurate bidding.

In practice, many generators rely on observable market pricing or index-based signals to anchor their Day-Ahead offers. If bids must be submitted prior to sufficient price formation, participants would need to rely more heavily on estimates or incorporate risk premiums, which could degrade market efficiency.

While earlier Day-Ahead awards could provide some benefit in limited circumstances, such as extreme events, these benefits are likely narrow. Under typical conditions, much of gas procurement is arranged in advance, limiting the incremental value of earlier award timing.

If the objective is to address reliability risks during extreme weather events, earlier Day-Ahead timing does not directly resolve key structural issues, such as weekend gas procurement practices, where gas is often traded for multiple days at a time. A more targeted improvement, such as reducing the time between bid submission and the posting of Day-Ahead results, may provide more tangible benefits without increasing uncertainty in offer formation.

While we are technically capable of supporting a move of the deadline up to 10 a.m., we have observed that, realistically, the bulk of gas volumes are placed by ~10:30 a.m. Given the three-hour delay between the bid-submission deadline and publication of the auction results -- which are critical for generators to pursue gas purchases -- it's unclear how any deadline after 7:30 a.m. would improve the ability for generators to purchase gas. PJM needs to clarify what the benefit would be.