

1a. Does the Capacity Interconnection Rights (CIR) uprate request need to have already been filed with PJM to request transitional resource status? What are the filing requirements to submit a CIR uprate request?

The CIR uprate request needs to be submitted to PJM prior to March 3, 2023 through Queue Point and assigned a queue position along with a completed transitional resource request form.

1a1. (New 2/15/2022) Who can I contact if I have questions about the submission of my CIR uprate request and/or about the interconnection process?

Please contact <u>PJM Member Relations</u> who will either be able to answer your questions directly or put you in contact with the appropriate PJM staff.

- 1b. If the answer to the above is no, how will that work with the changes to the interconnection queue? Is PJM currently accepting interconnection requests or will the system be made available for these requests? PJM is currently accepting interconnection requests into Cycle 1.
- 1c. Will they be able to request CIR uprates based on the rules being proposed in Package I, or would the uprate request still follow the current rules?

PJM is currently accepting CIR uprates based on the rules being proposed in Package I, contingent on the Commission accepting the rule changes.

1d. What is the cost for submitting a CIR uprate in the 30-day window?

<u>Standard deposits</u> apply for submission of a CIR uprate request. There is no additional cost associated with the transitional resource request and associated study process.

1e. Can you confirm this is a one-time open window, even for resources that are not able to participate in the 2025/2026 Base Residual Auction (BRA)? Why not allow additional submission windows for already queued resources that will not be operational in time to participate in that BRA?

Yes, this is a one-time window that will determine the pool of transitional resources to consider over the Package I transition period. Prior to each BRA during the transition period, PJM will review the transitional resource requests received prior to March 3, 2023, to determine which resources meet the Tariff requirements to be considered a transitional resource. This is the process that was approved by stakeholders.

1f. If a unit does not file for additional CIRs in the open period from Feb. 2, 2023, to March 2, 2023, will it be able to file in the future years for increased CIRS?

Yes; however, it will not be eligible for transitional system capability if the additional CIRs are not requested prior to March 3, 2023.

1g. What is the cutoff year for new transitional system capability awards?

Available transitional system capability will be allocated for each Delivery Year during the transition period as described in PJM Manual 14B, Attachment K.



1h. If a unit submits a new interconnection filing for 95% of nameplate (the maximum), does PJM have the amount of headroom currently available to allocate while the interconnection study is being undertaken?

While wind and solar resources can request CIRs up to the 95<sup>th</sup> percentile of their expected summer output (not 95% of nameplate) under the endorsed Package I, the transitional resource megawatt ceiling, described in <u>PJM Manual 14B</u>, <u>Attachment K</u>, provides an upper limit on the amount of transitional system capability that can be requested and allocated for a particular resource. The purpose of the transitional system capability study is to determine the amount of headroom that is available for the applicable Delivery Year while the interconnection CIR uprate request is being processed in the New Services Queue.

1i. (New 2/15/2022) Are you looking for both the new and the old queue numbers for the original and the uprate or just old one. I want to confirm because I don't have a new queue number just yet and it's the only thing that would hold me up from submitting this now.

PJM requires both the new and the old queue numbers for the original and the uprate. Once you have submitted the required deposit for the CIR uprate request, the signed Attachment N, and have entered the data in Queue Point you will usually get a gueue number within a day.

1j. (New 2/15/2022) If we are applying for an uprate equal to the summer regional output percentiles but lower than the 95% percentile calculation do we still need to provide any back up documentation to show why we are applying for that? If you apply for something higher than the summer regional output percentiles up to the 95% percentile what kind of documentation are you looking for to confirm?

PJM will not require any data to support the 95th percentile. However, PJM will review the requests we receive based on our estimate of the 95th percentile and will reduce any request over the 95th percentile to our estimate of the 95th percentile.

1k. (New 2/15/2022) Can PJM provide an estimate of what the 95th percentiles will be by region and resource type?

The table below shows the nameplate-weighted average of the region's individual resource p95 values by resource type. Note that this table is only for reference purposes and the values are not the estimated site-specific p95 values that PJM will use to review CIR requests.

Region	Onshore Wind	Solar Fixed	Solar Tracking	Offshore Wind
Dominion	63.6%	93.5%	96.8%	95.6%
Mid-Atlantic	54.6%	85.2%	96.4%	95.9%
PJM West	66.2%	92.0%	96.2%	NA



2a. For those eligible to get into the Package I transition, do they need to also get into the queue AG2 and beyond to keep their CIRs after the transition period, or do they maintain those transitional CIRs for the future?

In order to be eligible to be allocated transitional system capability, a resource must have a request for a CIR increase submitted into the New Services Queue and assigned a queue position and also provide PJM with a request to be a transitional resource prior to March 3, 2023. On February 2, 2023 PJM sent out an email notification with a form to request transitional resource status and also posted this form along with the MRC Jan. 25, 2023, meeting materials. The transitional system capability is calculated and allocated once each year during the transition period. The transitional system capability will not be allocated beyond the transition period. For more details, please refer to PJM Tariff, Part VII, Subpart J, Section 400 and Manual 14B, Attachment K posted along with the MRC Jan. 25, 2023 meeting materials.

2a1. (New 2/15/2022) Can my project in the AH2 and AI queues be transitional resources?

No because the last New Services Queue that is eligible for transitional resource consideration is the AH1 queue. See response to 2a for more detail.

- 2b. In terms of the level of megawatts to request, can you explain how a generator would determine what level to request? The language here is unclear if there are any downsides of just requesting the full Maximum Facility Output (MFO) and if so, how to determine the proper lower level on ones own (where are these "regional percentiles," for instance?)
  - Variable Resources can request up to the expected 95th percentile hourly summer net output of the resource between hours ending 11 a.m. and 10 p.m. (EPT) (inclusive), where summer = June/July/August inclusive. PJM has also posted <u>summer regional output percentiles</u> for wind and solar resources, which provide a floor value to achieve a similar level of UCAP that would be achieved by having CIRs equal to the resource's MFO.
- 2c. In the Winter CIR studies, priority order matters. In this case of transitional headroom, can you confirm that priority order does not exist and everything will be reviewed as of March 3? Will the projects that apply for additional transitional headroom in the Feb. 2 to March 3 window all be pooled together for the study, or will they be analyzed and allocated headroom on a "first-come, first-served" basis in the order that they submitted the form between Feb. 2 and March 3?
  - Eligible requests for transitional resource status received prior to March 3, 2023, will be examined, and any identified transmission headroom will be allocated using a cluster approach (pooled together).
- 2d. Just to confirm, it's our understanding that there won't be any associated upgrade costs with the additional transitional headroom, and that PJM will only be allocating what the system is already capable of handling. In other words, if a project requests 10 MW of additional transitional capacity, but after the study PJM finds that the system only has headroom for 8 MW, only 8 MW will be assigned as transitional and that this is not based on any fee to the interconnection customer. The cost to the IC would come when in Cycle 1 the CIR studies are performed. Is this understanding correct?

That's correct; however, standard deposits apply for submission of a CIR uprate request.



2e. My understanding now reviewing the materials further is that we would want to at least obtain CIRs equal Chart % MFO slide3 (<u>summer regional output percentiles</u>) minus existing CIR level for relevant asset by location.

Yes, the <u>summer regional output percentiles</u> for wind and solar resources provide a floor value to achieve a similar level of UCAP that would be achieved by having CIRs equal to the resource's Maximum Facility Output (MFO). For example, a 100 MW MFO wind unit in the Mid-Atlantic Region currently has 13 MW CIRs. If they obtain at least an additional 25 MW CIRs, for a total of at least 38 MW, then they should receive a similar level of accredited UCAP as if they had CIRs of 100 MW, i.e., the UCAP to CIR relationship saturates at a CIR level of 38% of MFO for this unit. However, this saturation point was calculated based on system conditions forecast today and may change in the future. So it may be prudent to request up to the maximum allowable CIRs under Package I, which is the p95% level.

2e1. This is needed to have an p% likelihood of maintaining the current annual capacity accreditation (p90=90% likelihood).

The p% level does not apply to the likelihood of receiving a particular accreditation megawatt, but rather it represents the percent of time the resources is outputting megawatts below a certain value in the summer period. For example, the 100 MW MFO wind unit in the example above outputs less than 38 MW 90% of the time in the summer, and so 38 MW is the p90% for the resource.

2e2. This will enable us to obtain the desired transitional capacity.

Requesting more CIRs will enable you to be eligible to obtain transitional system capability up to the transitional resource MW ceiling, but will not guarantee that any transitional system capability will be available for your particular unit until PJM performs the transitional system capability study and posts the associated allocations for each eligible resource prior to each BRA during the transition period.

2f. We may want to go up to 95% MFO to boost our likelihood above the p% likelihood. Either option could entail extra interconnection costs in the future in Cycle 1, and there's no way of knowing today what these would be.

This is correct. For example, while PJM demonstrated that the bare minimum p90% CIR today of 38 MW for the 100 MW wind resource example will result in a similar UCAP as 100 MW CIRs, this was based on forecast system conditions that are known today. It may be prudent to request CIRs a bit higher than the 38 MW level, i.e., up to the maximum allowable p95% output level, to hedge against future system conditions. However, as you noted, going from the p90% to the p95% may result in additional network upgrade requirements.

2g. If the associated CIR requests ultimately result in higher upgrade costs than we can tolerate (by then the benefit/cost calculation will be better known once we see how capacity prices evolve and CIR study outcomes), then we do have the option to drop/refine the CIR requests, though obviously that means we will no longer be eligible for capacity revenue for those resources once the transition has completed.

Correct. Just because a resource is shown to have transitional system capability during the transition period does not mean that the long-term planning models used to examine the CIR request will not result in significant network upgrade requirements. Award of transitional system capability does not commit a resource to pay for upgrades identified with its CIR uprate request. Moreover, Package I does not change the interconnection process rules with regard to how CIRs can be modified or withdrawn once an interconnection request is made.



2h. Does the March 3, 2023, deadline apply to any project that we would want to be considered as a transitional resource for BRAs 2025/2026 through 2029/2030?

Yes; however, the last BRA in the transition period is contingent on when the interconnection studies for the CIR uprate requests are processed and the RPM timeline.

2i. Can you explain the relationship between CIR increases and accreditation? Can we assume they have a linear relationship? My understanding is that they're linear up to the saturation point (Chart % MFO), but accreditation may be limited by results of the studies; but I may be wrong.

The CIR value will be directly correlated with the accredited UCAP, but further increases in CIRs above the saturation point will not result in significant additional UCAP.

2j. Site control-related questions: Do CIR uprates in Transition Cycles 1 & 2 and Cycle #1 incur site control requirements? If so, when is the date from which one year of site control must be valid? Is it possible that PJM could waive site control requirements for new CIR uprate requests as part of this transition process? Nothing is changing about the generator due to the CIR uprate request and CIR uprate could be tied to the original queue position(s).

Site control rules follow what is in place for the current Tariff (Parts IV & VI) for interconnection requests submitted prior to March 3, 2023.

3a. What happens if we clear the prior BRA but later withdraw from the Cycle #1?

Allocation of transitional system capability for a particular Delivery Year will not be adjusted once it has been awarded to transitional resources prior to the BRA if the CIR uprate request is withdrawn from the New Services Queue. However, if the original resource associated with the CIR uprate request is also withdrawn from the queue or not in-service for the Delivery Year, then there will be deficiency charges and/or replacement capacity required for the total amount that cleared. Note that after the CIR uprate request is withdrawn from the New Services Queue, the transitional resource status is canceled, and there will be no transitional system capability allocated to the resource for subsequent Delivery Years.

3b. If there is headroom in the system prior to the BRA, the full CIRs of a resource up to the transitional system level will be considered as an upper cap to the output of the ELCC resources in the ELCC model, correct?

Correct. Any allocated transitional system capability will be considered along with the resource's CIRs that are eligible for the Delivery Year as an upper cap to the output of the ELCC resource in the ELCC methodology and performance adjustment calculation.

3c. During Cycle #1, a CIR request is studied as a regular queue cycle, would we see potentially new upgrades for the CIR request because this CIR request will be studied with other regular queue projects in Cycle #1? In other words, our CIR uprate decision will be based on capacity revenue vs. network upgrades tradeoff.

Yes, CIR uprate requests in Cycle 1 will be studied together with all other queue requests in Cycle 1 and may require network upgrades to support the increased CIRs that would not occur by just studying the CIR uprate requests by itself.



3d. How can Interconnection Customers (ICs) analyze whether requesting new CIRs uprates are worth it given that Cycle #1 won't be studied before 2026, we don't have models that reflect the new Generator Deliverability changes, and there are a lot of unknowns around higher queued project decisions?

This is no different than the business decision that any Interconnection Customer will need to make when submitting an interconnection request into the New Services Queue.

3e. What power flow model assumptions will be used to perform the transitional system capability study?

The same summer power flow model that is used to determine interim summer CIRs will be used except that: i) New Service Requests that are not eligible to participate in the BRA for the Delivery Year under consideration will be removed from the model; and ii) the eligible requests for transitional system capability will be added to the model.

3f. Will the new generator deliverability procedure be used to perform the 2025/2026 transitional system capability study?

No, the old generator deliverability procedure will be used for the 2025/2026 transitional system capability study and will continue to be used until the interim deliverability studies performed for interim summer CIRs are transitioned to the new generator deliverability rules.

3g. If an "existing queue unit" requests a transitional system capability study for an uprate request, what are the implications of the interim deliverability study to the transitional system capability study?

Any "existing queue unit" that requests to come into service prior to a required system reinforcement (identified in a system impact study or interconnection service agreement) being completed must have a generator deliverability study performed as part of an interim deliverability study. Note that the Package I transition mechanism will not replace the interim deliverability study process for awarding interim CIRs and will not allocate transitional system capability to CIR uprate requests that are awarded interim CIRs. The purpose of the transitional system capability study is to identify what transmission headroom is available beyond CIRs and interim CIRs that are eligible to participate in the applicable BRA.

4a. We are looking to clarify what is required for a resource looking to submit a transitional CIR for ELCC request. For an existing resource or a resource currently in the queue, are they required to submit both the Transitional Resource Request Form prior to March 3 and complete CIR uprate in queue point prior to March 3? The language on the request form is a bit confusing because it states that a resource must have "submitted i) a CIR request into the New Services Queue that is deemed complete and has received a queue position in accordance with PJM Tariff Part VI". However, it doesn't specify if this is referring to the CIR uprate request for New Cycle 1.

The requirements for transitional resource status are defined in PJM Tariff, Part VII, Subpart J, Section 400. PJM has updated the request form to make it clear that this pertains to CIR "uprate" requests.

4b. If the uprate must have a queue position prior to March 3, can PJM confirm the timeline for deficiency review of these applications? For PJM to complete all the deficiency reviews and for resources to clear deficiencies, the actual deadline to submit the uprate would be rapidly approaching in the next week or so.

In terms of the queue position, the developer would need to supply all of the items required to make a completed application. The deficiency review does not need to be completed prior to receiving the queue position.



4c. For resources currently in the queue, is there any material that states how to determine what the max CIR request is? As in, what value are CIRs up to the expected 95th percentile hourly summer net output between the hours ending 11 a.m. and 10 p.m. (EPT) for a given MFO?

PJM will not be providing the 95th percentile hourly summer net output between the hours ending 11 a.m. and 10 p.m. (EPT) for a given MFO. PJM has posted <u>reference percentile hourly summer net outputs</u> for wind and solar resources for this time period as a percentage of MFO and will update these values annually and post along with the TEAC assumptions in the January time frame.

4d. Lastly, will the uprate requests be subject to same modification rules as all other queue positions? For example, what happens to a transitional resource request if the uprate request is later amended or withdrawn?

Yes, the CIR uprate request will be subject to the same modification rules as all other queue positions. Transitional resource status will be maintained as long the requirements defined in <a href="PJM Tariff">PJM Tariff</a>, <a href="Part VII">Part VII</a>, <a href="Subpart J. Section 400">Subpart J. Section 400</a> are maintained. Also see response to FAQ 3a above and 5 below.

5. I have a question on the implementation of transitional system capability studies. If a transitional resource received headroom for the 2025/2026 and 2026/2027 BRAs, but then withdraws their CIR uprate request at Decision Point 1 (DP1) of the New Cycle (expected Q3 2026), is the resource still obligated to pay in the form of deficiency charges and/or replacement capacity? The 2025/2026 Delivery Year will have concluded by then. Does the same apply for the other BRAs that may not have commenced by DP1?

Once transitional system capability has been allocated to a transitional resource and the transitional system capability clears in the BRA, there are no market-related deficiency charges and/or replacement capacity requirements if the CIR uprate associated with the allocated transitional system capability is subsequently withdrawn from the queue. However, if the original resource associated with the CIR uprate request is also withdrawn from the queue or not in-service for the Delivery Year, then there will be deficiency charges and/or replacement capacity required for the total amount that cleared.

6a. How will the transitional system capability study be different than the interim deliverability study?

Prior to each BRA during the transition period, a transitional system capability study will be performed. The transitional system capability study will start with the interim deliverability study summer power flow model and study files for the applicable Delivery Year. Queue projects that are not eligible for the Delivery Year under consideration will be removed from the model. Similar to the interim deliverability study, summer generator deliverability (single contingency and common mode outage) analysis will be performed. After this is complete, the results of the generator deliverability study will be used to determine how much transmission system capability is available for each generator using the steps outlined in Manual 14B, Attachment K.

6b. How does this request for transitional CIRs interact with the winter CIRs that some wind projects are pursuing? Will that process to request winter CIRs be replaced with this process?

The Package I transitional system capability study considers summer conditions only. This transitional request and study process will not replace the winter CIR request and study process.

7a. Has PJM already calculated updated performance assessments by unit under the new methodology laid out in the revised Manual 21A assuming no headroom allocation?

No; however, PJM performed an ELCC calculation for the 2023/2024 BRA to determine the <u>impact on wind and solar Class UCAPs</u> with and without capping wind and solar hourly outputs at the current CIR level.