

Load Management 30 minute notification time guidelines and information needed by PJM for CSP exception request

This form will be used to allow CSPs to request advance clarification (prior to registration process) on whether or not a specific customer situation will qualify for one of the four defined exceptions and therefore be permitted a notification time of 60 or 120 minutes, as necessary. Please email your specific request to dsr_ops@pjm.com and include the information outlined below. **This document will be updated over time based on outcome of exception requests from CSPs.**

Background:

Effective with the 2015/2016 Delivery Year, load management will be required to fully respond within 30 minutes of notification unless an exception request for 60 or 120 minute notification time is approved by PJM. If qualified for one of the following exceptions, the CSP shall elect either a 60 or 120 minute lead time based on the resources physical capability to provide the load reduction. The intent of these exemptions is to accommodate resources with legitimate, physical reasons as to why the load reduction cannot be achieved in 30 minute notification time period and require up to 120 minutes to fully provide the load reduction. Curtailment Service Providers and/or their underlying resources may need to change their existing processes (including training and deploying additional people but not hiring new people) to be able to respond in 30 minutes and therefore participate as a load management resource.

Exception Definition:

- 1) Damage (feedstock/equipment/product) - The manufacturing processes for the Demand Resource require gradual reduction to avoid damaging major industrial equipment used in the manufacturing process, or damage to the product generated or feedstock used in the manufacturing process.
 - a. This should represent unavoidable significant damage to feedstock, equipment or product used in manufacturing process.
- 2) Transfer of load to backup generator -Transfer of load to back-up generation requires time-intensive manual process taking more than 30 minutes.
- 3) Safety Issue - On-site safety concerns prevent location from implementing reduction plan in less than 30 minutes
 - a. This should be for expected safety violation such as OSHA standards/laws.
 - b. Must be "on-site" safety concern (for example a college campus but not an entire school district) which may include travel at the site.
- 4) Mass Market communication - The Demand Resource is comprised of mass market residential or Small Commercial customers which collectively cannot be notified of a Load Management event within a 30-minute timeframe **due to unavoidable communications latency**, in which case the requested notification time shall be no longer than 120 minutes.
 - a. Mass market represents pool of customers that are dispatched/notified (same offer price) and administered the same way throughout the process. "Small Commercial Customer, shall mean a commercial retail electric end-use customer of an electric distribution company that participates in a mass market demand response program under the jurisdiction of a RERRA and satisfies the definition of "small commercial customer" under the terms of the applicable RERRA's program, provided that the customer has an annual peak demand no greater than 100kW.

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FAQ

Exceptions

- 1)** Q: If I have contract or RERRA tariff that stipulates 1 hour lead time will that qualify for exception?
 - a. A: No, exceptions are based on 4 defined exceptions.

- 2)** Q: If persons that manually implements load reduction is not at plant during certain hours and it will take the person time to get to plant to reduce load in certain hours which require more than 30 minutes will that qualify for exception?
 - a. A: No, any delay in implementing load reduction because of staffing availability is not considered a physical limitation. Physical limitations are meant to represent physical limitation to the equipment that will be reduced.

- 3)** Q: If back-up generator is not staffed and it will take more than 30 minutes for person to get to facility to start generator will that qualify for exception?
 - a. A: Maybe, CSP should deploy additional people, as necessary, to have generator turned on and load transferred. This could mean that person that typically turn on generator goes to location during hot weather alerts instead of waiting until resource is actually dispatched. An existing process that takes longer than 30 minutes to deploy does not automatically mean the generator will qualify for an exception. If no additional people can be made available to get generator up and running and load transferred without hiring new people then resource may qualify for exception.

- 4)** Loss of product in professional settings: Participants are office settings where the curtailment is implemented simply by cutting power to plug loads. The participants don't think 30 minutes will be enough time to notify all staff with and have them to get back to their desks, save work and shut computers down. Does possible loss of work fall under the loss of product exception?
 - a. A: No, current exception is specific to manufacturing process and associated process. This is not meant to include any work being done on computer as office building.

- 5)** Travel time: Some participants have facilities spread over a large area—e.g., campuses and school districts. The people who implement the curtailment have to physically travel to each building, and there simply isn't time for them to do that within 30 minutes.
 - a. A: Maybe, for a school campus (one site) it depends on whether or not other personnel can be trained to implement the load reductions or change the process at the campus to initiate the load reductions in 30 minutes (must consider changing existing process to be able to do in 30 minutes). If the campus has indicated it is a safety issue for personal to get this done in 30 minutes (running around campus too quickly) and can't be done without hiring additional people then it will qualify. For school district this does not qualify because traveling from site to site is not an "on-site" safety concern.

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- 6)** If School requires 2 hours notification because this is more likely to not impact student comfort (if notified at noon then only do reduction from 2-3 when student are in school will lead to minimal impact to students while they are in school)
- a. A: No, physical capability is there to respond on shorter notice and therefore should be implemented. This gets into question of whether or not schools can actually reduce load in early afternoon when students are in school.

PJM administrative process

- 1)** Q: If CSP receives exception to use 1 hour notification time in 15/16 DY, does the CSP need to requalify for exception for 16/17 DY?
- a. A: CSP should not simply copy the registration over and assume the customer still requires 30 minute exception. The CSP will be responsible to know if customer situation remains the same and therefore not have the physical capability to respond in 30 minutes and need the notification time exception for new DY.
- 2)** Q: Can CSP simply use FAQ and industry specific exceptions in table below to self-certify that customer should receive exception?
- a. A: Yes, CSP may use these guidelines to determine who may be eligible to receive an exception. It is important that the CSP has necessary location specific documentation prior to registration so that it can be provided to PJM upon request.

Industry Specific 30 minute exception that have been approved by PJM

Industry	Exception	Description
Metals/Arc Furnance	Damage/Safety	Damage to bricks in furnace & potential for spill of molten metal (>\$50K)
Plastics	Damage	Must be able to clear molds and clean before it sets. internal pressure in polymer extrusion equipment needs to be shut down slowly to decrease pressure (die and screen damage >\$50K)
Food production	Damage	Failure to reach a safe shutdown condition prior to the site switches to back-up generator power would cause damage (i.e. loss) to the feedstock (raw potatoes in the line), and the refrigerated finished product that requires continuous temperature control. Estimated cost to loss of product is \$40,000 based on quantity of potatoes & prevailing prices
Gases	Damage/Safety	Must take down facility in 90 to 110 minutes or have safety concern with amonia and HF in pipes (safely consume/convert to other gas). Need to implement manual process to emergency scrubber.
Hospital	Generation transfer	Manual transfer of load to generation takes time (very sensitive equipment done 1 at a time) plus issues with Xray equipment
General Manufacturing	Damage	Parts in mold, take 45 minutes for parts to properly cure. Parts will be damaged if power is turned off before cured (temper, etc.) Need to properly clean equipment or will be damaged, require extensive cleaning later

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Beverage & bottling	Damage/Safety	Loss of product/beverage without adequate refrigeration. Proper cleaning, sanitization of equipment for FDA – Good Manufacturing Practices. Quicker purification of equipment would lead to need to triple purification capacity which would cost \$150K.
Waste water treatment/Water	Damage/safety Generation transfer	Manual transfer of load to power, no remote start capability. Pressure fluctuations causes damage to water system. Safety issue with raw sewage leak.
Mining	Safety	MSHA requires certain equipment to moved (away from pit edge) prior to shutting down operation which takes locomotion system longer than 30 minutes to accomplish
Printing	Damage generation transfer	Electronic drives must be powered off in sequential order to prevent damage & loss of production information. Must shutdown VFD prior to generation transfer. Proper cleaning of rollers/equipment to avoid damage

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CSP information required for PJM to evaluate – please provide the following minimum information which depends on which exception you request. The more information you can provide on the specific situation the quicker it will be to evaluate whether or not it qualifies for the 30 minute exception.

- 1) Damage (feedstock/equipment/product)
 - a. What does location do (at this specific address)?
 - b. What will be damaged (feedstock/equipment/product) and how will it be damaged?
 - i. Is it possible to change process so that a 30 minute response would not cause damage? What is expected cost to implement the change?
 - c. How do you know feedstock/equipment/product will be damaged? Is this based on estimate, past experience, engineering/specifications?
 - d. What is expected cost/level of effort to fix damaged item or replace feedstock?
- 2) Transfer of load to backup generator
 - a. Provide generator specifics (vintage, type of unit and process to transfer load to generator) and exactly why load cannot be transferred to generator in 30 minutes
 - b. What is expected cost/level of effort to be able to respond in 30 minutes (\$)
- 3) Safety Issue
 - b. Identify the specific safety issue
 - c. Are there any other ways to mitigate safety risk and what is expected cost/level of effort?
- 4) Mass Market communication
 - a. Identify type of customers and confirm all commercial customer will have peak demand value less than 100kw. Provide breakdown of expect number of customers that are residential vs commercial.
 - b. Provide description of customer program and whether this is part of RERRA program/tariff
 - c. Detailed description of communication method and evidence that CSP cannot notify customers in 30 min. How was the communication method determined (is it a contractual requirement, utility commission mandate, etc.)?
 - d. Provide estimated cost/level of effort on what it would take to be able to notify all customers in 30 minutes