

**UNITED STATES OF AMERICA
BEFORE THE
ENVIRONMENTAL PROTECTION AGENCY**

Federal Plan Requirements for Greenhouse	}	
Gas Emissions From Electric Utility	}	
Generating Units Constructed on or Before	}	Docket No. EPA-HQ-OAR-2015-0199
January 8, 2014; Model Trading Rules;	}	
Amendments to Framework Regulations	}	

JOINT COMMENTS OF CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION, MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC., PJM INTERCONNECTION, L.L.C., AND SOUTHWEST POWER POOL, INC.

I. Introduction

California Independent System Operator Corporation (CAISO), Midcontinent Independent System Operator, Inc. (MISO), PJM Interconnection, L.L.C. (PJM) and Southwest Power Pool, Inc. (SPP)(collectively, the Joint Commenters) submit these comments on the United States Environmental Protection Agency’s (EPA) proposed Federal Plan (FP),¹ issued in the context of the Clean Power Plan (CPP).² EPA will apply a FP to states that do not have approved State Plans (SP).

As the grid planners and operators for regions covering a significant portion of the continental United States that serve approximately two-thirds of demand in the country, the Joint Commenters will be impacted by the CPP. Accordingly, the Joint Commenters support the establishment of SPs and FPs that achieve the applicable carbon reduction goals in a manner that

¹ ENVIRONMENTAL PROTECTION AGENCY 40 CFR Parts 60, 62 & 78 [EPA-HQ-OAR-2015-0199; FRL 9930-67- OAR] RIN 2060-AS47 Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations <https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22848.pdf>

² ENVIRONMENTAL PROTECTION AGENCY 40 CFR Part 60 [EPA-HQ-OAR-2013-0602; FRL-9930-65- OAR] RIN 2060-AR33 Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units <https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf>

mitigates the impact to grid reliability. The Joint Commenters have reviewed the proposed FP with these goals in mind.

Grid reliability issues can arise under any CPP compliance plan approach. Accordingly, the Joint Commenters propose a series of additions to the proposed rule to ensure that appropriate reliability reviews are part of the development of the FP on the front end and that a targeted “Reliability Safety Valve” is available during the Plan’s implementation to address unforeseen reliability issues that cannot be addressed through normal operation under the FP.³

Consistent with the foregoing discussion, the Joint Commenters offer the following recommendations to improve the FP in terms of its consistency with electric system reliability:

- Requiring reliability reviews during the development of a FP;
- Coordinating the timing and scope of FP reliability reviews with reliability reviews of other relevant SPs and/or FPs as practical;
- Including an appropriately structured reliability safety valve (RSV) mechanism to address unanticipated immediate reliability impacts;

These processes will mitigate the potential risk to the electric grid that could occur from the implementation of a FP.

II. Comments

A. FP Reliability Assessments and Coordinated Review with other SPs and/or FPs

i. FP Reliability Assessments⁴

³ For example, if a sustained loss of a vital transmission line creates a local reliability issue, and the only solution is to run a unit within the constrained area and the unit cannot, either physically or economically obtain the necessary allowances/credits in the relevant markets, then the FP should have a RSV mechanism to allow that unit to operate at the system operators’ direction to address the reliability issue in a manner that is consistent with CPP compliance obligations.

⁴ The primary concern for the Joint Commenters is electric system reliability. However, changes in capacity portfolios will necessarily impact the economics of grid dispatch, because it will change the bid stacks that drive the market outcomes for the products that support electric grid operations in regions administered by Joint Commenters (although bilateral regions do not utilize markets, changes in their portfolios will also have economic impacts because it impacts the cost of service). Reviews of state SPs and/or FPs can also be used to assess the economic

Most states are part of regional electric grids.⁵ This is true in several organized market regions (SPP, PJM and MISO) and also applies to vertically-integrated bilateral systems that operate pursuant to a centralized multi-state dispatch. Regional electric grids utilize all available resources to serve demand which include dispatch of generation resources and utilization of demand response and energy efficiency resources, whether as supply side resources or reductions to the peak day requirements. The dispatch of resources by multi-state regional transmission organizations is driven by transmission system topology, reliability constraints and the marginal cost of individual units, all of which factor into the dispatch order of resources.

Within regional grids, state borders do not limit the dispatch if efficiencies can be achieved and reliability maintained through the dispatch of a unit in a neighboring state. As such, the impact of CPP compliance for one state is not necessarily isolated within the borders of the state. Rather, the change in the resource mix within a state has the potential to impact all states that are part of the region, because the change impacts the regional dispatch that serves customers in all states.

To mitigate the impact on regional grid management, EPA should revise the FP to require a reliability review. The review should occur during the development phase of the FP. This will enable EPA to understand the actual or potential impacts of a plan on electric system reliability, and, accordingly, will facilitate the ability to revise the plan to mitigate any such impacts. EPA requires states to consider grid reliability during the development of SPs, and states must demonstrate that a reliability review was performed when submitting their plans to EPA. The

impacts of different compliance approaches, and, therefore, could be used to modify plans on an independent basis, or, ideally, on a coordinated basis, to mitigate the economic impact of the CPP on regional grid administration.

⁵ A regional electric grid encompasses multiple states, and the planning and operation of the electric system for the relevant states is done on a regional basis in consideration of the facilities (transmission, generation, demand response, etc.) in all the states in the relevant region.

Joint Commenters believe the principles that justified requiring a reliability review for draft SPs apply equally to draft FPs.

Given the dynamic nature of the grid, reviewing a FP for reliability issues may facilitate the identification and mitigation of reliability issues. This is especially true for a FP applied to a state in a regional grid where compliance plans may reflect a patchwork of designs. Accordingly, the Joint Commenters believe it is advisable to perform an upfront reliability review of a FP during the development phase and prior to implementation.

ii. Coordination of FP Reliability Assessments with other SPs and/or FPs

EPA should revise the draft FP to include the performance of a reliability assessment during the development phase. Because a compliance plan (SP or FP) for a state that is part of a regional electric grid can impact electric reliability in the region, to maximize the effectiveness of such reliability reviews, , the Joint Commenters recommend, to the extent practical, that FP reliability reviews occur on a coordinated basis with other relevant CPP compliance plans. Coordinated review will maximize the opportunity to identify reliability risks and mitigation resulting from disconnects between relevant SPs and FPs. The Joint Commenters recognize that it may not be possible to conduct coordinated reviews given the timing associated with the development of SPs and FPs, but EPA should seek to coordinate reviews where practical.

In addition to the reliability benefits afforded by an upfront reliability review, such reviews can provide other benefits. For example, EPA should consider plans from other states in the region before determining whether a mass-based or rate-based approach is appropriate for a given state that is subject to the FP. EPA has the opportunity to facilitate efficient compliance approaches by requiring a FP reliability review, which should also enable EPA to assess whether

a mass based or rate based approach is appropriate for a FP by looking at what other states in the region are doing and aligning the plan with the predominant approach.⁶

Individual state compliance with the CPP, whether via a FP or SP, without consideration of the collective impact of all relevant state compliance plans, will potentially create greater challenges for system operations and risks to electric system reliability. Conversely, concurrent review of compliance plans will facilitate CPP compliance in a manner that effectively mitigates the impact to electric system reliability. The recommended FP reliability reviews and coordination with other compliance plans in a relevant region will support efficient compliance with the CPP. Collectively, these benefits will support implementation of the CPP in a manner that mitigates impacts to electric system reliability.⁷

iii. System Operators and Planners Should Perform FP Reliability Reviews

With respect to the performance of FP reliability reviews, the regional system operators should perform these analyses. Identifying and mitigating reliability issues are the responsibility of system operators and planners. As such, they are in the best position to understand the impacts on grid planning and operations. Accordingly, EPA should coordinate with those entities to develop FPs that mitigate impacts to electric system reliability. In organized market

⁶ Consistent with the goal of coordinating FPs with other CPP compliance plans in a region, EPA should not establish a blanket rule based on a mass or rate approach. Rather it should establish a rule that is flexible to accommodate either so it can coordinate the development of the FP with other compliance plans in the region.

⁷ The Joint Commenters note that SP reliability reviews and approval take into account reliability impacts not just in the particular state but in the relevant region as well. A SP should be remanded and required by EPA to be revised to address these interstate impacts. The development of a FP should be based on the same principle to achieve similar reliability benefits.

regions these entities are the ISOs/RTOs. In bilateral wholesale market regions, the entities responsible for planning and dispatching the relevant system would perform these analyses.⁸

iv. Need to Provide Clarity in the Final FP Rule re: Up-Front Reliability Reviews

As the FP, by definition, is a plan imposed by EPA on generating units in states that have chosen not to implement a SP, it is critical that the Final Rule set forth the above recommended procedures for reliability reviews and coordination with the system operators in the formation of the FP. While the details of such reviews and the coordination of same was less specified in the SP, the FP, where the role of EPA is active in establishing a draft plan, should provide the specificity that was omitted from SPs in the final CPP rule. This clarity as to EPA's intended approach and its intention to work with system operators/planners prior to the final rule will facilitate a FP that will be effective in identifying and resolving reliability issues, as much as possible, through up-front coordination and consultation with system operators.

B. FP Reliability Safety Valve

i. Justification

The FP should include a reliability safety valve (RSV) to address unanticipated reliability issues that arise during the compliance periods of a FP. There are reliability conditions that could arise that warrant the need for a resource to operate to remedy the reliability issues without a reasonable ability to meet its CPP compliance obligations.

Even under the most flexible, coordinated regional compliance plans, unforeseen situations can arise where units are needed for grid reliability and the flexibility under the plan is not adequate to allow a unit to operate without resulting in a violation of CPP compliance. This

⁸ In situations where the functional entity owns the impacted generation (or otherwise has a potential interest in the outcome of reliability analyses, FERC approved regional reliability entities (*e.g.* SERC, FRCC, WECC etc.) could review the functional analyses to verify the determinations.

is because the grid is extremely complex and sensitive to the particularities of grid topology in each respective region. For example, an extended loss of a line(s) or generator(s) may result in the system operator directing the operation of one or more generators to address a reliability issue created by the loss of the relevant facility. In such unanticipated situations, particularly if they occur close to the end of a compliance period when allowances could be physically or economically unavailable an appropriate RSV would facilitate the ability to address the reliability issue in compliance with the CPP in a manner which is least disruptive to reliability and the predictability and certainty that is central to a well-functioning market for allowances/ERCs to assure implementation of the Plan. The CPP included a SP RSV that applies under specific, limited conditions that justify the use of the mechanism. In essence, to use the SP RSV as envisioned in the final CPP rule, reliability conditions must exist that cannot be remedied but for the use of a resource that is restricted from operating due to unit specific CPP compliance/restrictions. The reliability conditions must be unanticipated and must be validated by appropriate entities – i.e. system planners/operators.⁹ . The reliability concerns and principles that justify the SP RSV apply equally to the FP, because although the FP affords compliance flexibility that is expected to facilitate the ability to manage reliability issues while maintaining CPP compliance, it is still advisable to include an RSV to mitigate unanticipated reliability risk.

Absent an RSV in the FP, as proposed, it is not truly “equivalent” to the SP that includes an RSV. The SP in the final CPP rule provides a number of mechanisms the state can use as alternatives to simply forcing a generating unit to run for reliability purposes for an extended

⁹ In organized market regions these entities are the ISOs/RTOs. In bilateral regions, these analyses would be performed by the appropriate system planners/operators that are responsible for planning and operating the relevant system. The processes used to validate the reliability conditions are established in the CPP – *See*, 80 F.R. 64,661 at p. 64,877.

period of time. A state can shift the compliance burden to other entities by revising its plan or else ramp up programs such as demand response and energy efficiency that allow the unit owner to continue to run its unit while the state seeks other means for compliance. Those mechanisms simply don't exist in the FP as the entire responsibility (and cost) of compliance rests solely with the unit owner(s) that would be needed for reliability. The sole mechanism in the proposed FP is the purchase of allowances or ERCs (without borrowing) no matter what the cost or availability. As a result, the Joint Commenters propose an RSV that provides the flexibility that otherwise exists within the SP in the final CPP rule, while still maintaining the central focus of the FP on the use of markets for allowances or ERCs as the primary means to achieve compliance. The FP RSV proposal described below achieves compliance equivalence with the SP RSV.

ii. Structure

a. Differences between the SP and FP that Warrant Different RSV Approaches

There are differences between the SPs in the final rule and the draft FP that warrant different approaches to the respective RSV mechanisms. In the context of SPs, the CPP requires states to conduct a reliability impact assessment during the development of the plan and must demonstrate how the plan is consistent with electric system reliability when it is submitted to EPA for approval. States may also seek to revise a SP during implementation to address a reliability issue that it identifies during the effective period of the SP. Finally, states can rely on the RSV mechanism set forth in the CPP for more immediate reliability needs that arise unexpectedly during implementation of a SP - for these situations the SP RSV allows for a 90 day compliance exemption with no requirements to submit allowances or ERCs or achieve unit specific targets for the relevant unit(s) depending on the form of the SP. The CPP requires a

state to submit a new, updated SP to ensure compliance, whether is the holding of allowances, ERCs or meeting units specific targets for exceedances beyond the 90 day exemption period.¹⁰

Under a FP, EPA is assuming that resources may purchase the necessary allowances or ERCs required to operate for reliability issues that arise and, at the same time, maintain CPP compliance obligations. However, there may be circumstances where a unit is needed for reliability and cannot obtain the necessary allowances in the market, either because market anomalies occur where allowances or ERCs are not available, or because they are available, but only at prices that would require the units to operate at prices/costs above the FERC-approved energy market offer caps which effectively make these resources unavailable. In such cases, RTOs may not have the tariff-defined ability to pay these resources for costs above the FERC-approved offer cap. And since neither FERC, nor the ISO/RTO, can compel resources to operate, the unit effectively becomes unavailable.

Such situations could arise with a “perfect storm” of events such as loss of one or more gas pipelines to force higher emitting units to run to maintain operations reliability over time, the loss of large zero emitting generators due to long-term outages forcing higher emitting resources to operate, and overall higher demand growth than has been anticipated that coincides with specific reliability needs that were unforeseen.

An RSV should be available to manage reliability in those discrete and limited instances if they should arise. Furthermore, while the SPs allow for adjustments to the plan during implementation to address identified reliability issues, the FP does not appear to provide that option.

¹⁰ For prospective reliability issues identified during SP implementation, SPs can be revised to address those issues if there is adequate time. For more immediate reliability concerns the SP RSV is used to manage the issue until a reliability solution is put in place.

Given that the need for an RSV under the FP would arise due to the physical or economic inability of the resource to obtain emissions allowances/credits in the market, the RSV for the FP should be focused on remedying these unexpected circumstances via the provision of incremental compliance allowances/credits until the reliability issue is resolved, or until allowance/credits become available in the market.¹¹ To accomplish this, the RSV should establish a mechanism to allocate reliability allowances/credits that are incremental to the market compliance allowances. The resource would utilize these allowances to maintain compliance while operating above its CPP obligations to meet the reliability need identified by the RSV process.

The reliability allowances/credits should be incremental to the allowances allocated or ERCs anticipated to be available for compliance, as opposed to a set aside from the existing allowance pool or anticipated supply of ERCs. For example, a set aside from the existing allowance pool would unnecessarily restrict the market for allowances allocated for compliance, which could have economic and operational impacts if it impacted the resources/MWs available to system operators in the performance of their operational and reliability functions. Furthermore, to continue the example, because the need for reliability allowances is expected to be infrequent but could be extended in length, it does not make sense to establish a set aside from the compliance market allowance pool and risk the potential market and operational impacts described above. Rather, as described, it is more effective and efficient to create a mechanism to allocate incremental reliability allowances if reliability issues arise that cannot be addressed via access to market allowances. Because the need for the incremental allowances is expected to be

¹¹ The proposed FP rule raises the issue of the use of an allowance reserve. *See*, 80 F.R. 64,966 at p. 64,982. The Joint Commenters believe the RSV proposal contained herein is an effective and efficient means of implementing such a mechanism in a manner that mitigates the potential impact on the compliance allowance market, while also maintaining compliance with the overall CPP reduction goals.

limited, and given EPA's interest in "equivalency" between the SPs in the final CPP rule and the FP, the proposal offered here requires one-for-one offsetting allowances for all allowances used from the pool that exceed relevant compliance obligations to be made up through borrowing from the next compliance period.

b. FP RSV Eligibility Conditions

Access to the incremental reliability allowances would be subject to the following conditions:

1) Scope

The proposal would limit the use of the RSV to operational situations related to actual or impending reserve shortage conditions and transmission security issues identified in the operational planning horizon.¹² Additionally, the RSV would only apply to longer term issues caused by a change to the system topology (e.g., loss of transmission lines or generating units), where the remedy requires some infrastructure reactivation or addition to the grid, usually in the form of generation being replaced or returned to service or a new transmission line. Perhaps some of the most glaring examples of the type of situations where insufficient transmission infrastructure, market conditions and reliability requirements resulted in the need for the operation of unit otherwise constrained by environmental limits was related to operation of the Potomac River Generating Station in Alexandria, Virginia for an extended period of time until transmission enhancements could be put in place to alleviate the reliability need for the plant to operate. The RSV would apply under these conditions (assuming the following conditions are also met) if a resource is required to operate beyond its CPP limits to resolve the persistent transmission security violation until the relevant transmission line or generator comes back on

¹² The proposal would not apply to long-term planning reserve margin issues, because those are longer term in terms of identification and resolution, and the application of the RSV to those situations would not align with its purpose.

line, or until a new transmission line or generator is placed in service, to resolve the reliability issue on a permanent basis.

2) *Demonstration of the Reliability Need*

The Joint Commenters understand that there may be concern that FP RSV could be misused. Accordingly, similar to the relevant reliability procedures implemented for SPs, the FP RSV should include appropriate checks and balances that ensure they are only used to address legitimate reliability issues. Similar to the SP RSV, the qualifying reliability event would have to be substantiated and validated by an independent third party such as the RTO/ISO in their regions or the NERC Regional Entity in non-RTO/ISO regions. The Joint Commenters believe the corresponding process for the SP RSV should be incorporated into the FP to perform this function.¹³ The SP process already exists, and it is adequate in the FP context to ensure the RSV is only used for legitimate reliability issues. In addition, use of that creates parity with respect to the reliability justification for using the RSV in both scenarios (*i.e.* either a SP or FP).

3) *Unavailability of Compliance Allowances/Credits in the Market*

The final condition that must exist for the proposed FP RSV to apply is that compliance allowances must be unavailable in the relevant allowance or ERC market. The proposal contemplates that this could happen under two scenarios – 1) market allowances are simply not available for purchase; and 2) market allowances are available, but only at excessive prices that make them economically unavailable.

With respect to demonstrating that allowances are unavailable, if there are no market allowances, that is a relatively simple determination that can be supported by documentation as

¹³ *See*, 80 F.R. 64,662 at p. 64,948 Use of the relevant SP procedures will facilitate consistent application with respect to establishing the conditions that justify the use of the respective RSV mechanisms. Accordingly, the procedures for establishing the existence of RSV reliability eligibility criteria (*i.e.* the existence of a reliability issue that justifies the use of the RSV) should be the same.

to the unit owner's efforts to obtain allowances on the market. With respect to the second unavailability condition – market allowances are available, but at excessive prices - this requires the assignment of a price threshold that is deemed to be excessive/unreasonable, and, therefore, makes the allowance(s) “economically” unavailable. EPA could develop a threshold for this determination that it can reassess over time or defer to other indicators of what has been deemed unreasonable market prices such as the FERC offer caps.¹⁴ If market allowances reached that threshold (i.e. when CPP market allowance prices exceed these levels), and all other RSV conditions were in place, the relevant resource(s) needed to address the reliability issue would be allowed to access the incremental reliability allowances. Access to the incremental reliability allowances would cease when the eligibility criteria no longer exist.¹⁵

c. Establishment of Incremental Reliability Allowances

With respect to the establishment of incremental reliability allowances, the number should align with the reliability need. Accordingly, it should be based on the analysis identifying the reliability issue.¹⁶ However, the rule should be flexible to allow for adjustments to the number of incremental reliability allowances based on changing reliability needs – *e.g.* the

¹⁴ The signatories to this document recognize there are a variety of means for determining this “circuit breaker” determinant as to when accessing the reliability allowance pool is reasonable under a regime where the purchase of allowances are the principle means of meeting a reliability obligation. The signatories stand ready to work with EPA as it considers some of these alternative methodologies.

¹⁵ With respect to the unavailability of allowances, if all other RSV eligibility conditions exist, access to the incremental reliability allowances would cease if market allowances became available either in fact, or because the market price dropped below the unavailability price threshold. This could occur several times during the period the reliability need exists. In other words, initial RSV eligibility would not guarantee access to the incremental reliability allowances over the entire course of the period the reliability need exists. Continuous access during that period would require that market allowances continue to be unavailable. However, similarly, if a resource qualified for access, and then market allowances became available and the resource no longer qualified, if market prices again rose above the unavailability price threshold and all other eligibility conditions still existed, the resource could once again access the incremental reliability allowances. In essence, as long as the reliability eligibility conditions are met, access depends on the allowance unavailability condition.

¹⁶ The analysis should be performed by the applicable system operator/planner.

frequency with which reserve shortage conditions occur or the transmission security issue is not resolved in the expected timeframe and the unit is needed for longer than expected.

d. Future Offsetting Allowances for Use of Incremental Reliability Allowances

Because of the EPA's concerns with equivalency between the FP and the SPs, the proposal includes offsetting allowances for any allowances awarded to unit owners pursuant to the above conditions. However, because the reliability need may arise close to the end of the compliance period, unit owners should have the option to borrow against the immediately following compliance period when accounting for allowances it has otherwise used due to the RSV. The offsetting allowance provision detailed here would ensure equivalence of emission outcomes over time and compliance between the FP and SP.

e. Availability of the RSV

With respect to the number of times the FP RSV can be used, it should be available anytime the eligibility conditions are met. It should not be limited by arbitrary standards (*e.g.* whether it was used previously). The underlying policy of an RSV is the preservation of electric system reliability, and that should determine when it is applied.

III. Conclusion

The Joint Commenters appreciate the opportunity to comment on the draft FP. The proposals described in these comments will enhance the FP's consistency with electric system reliability by including reliability mechanisms external to the structure of the FP compliance platform that give the rule the ability to effectively mitigate unanticipated residual reliability risks that may arise due to the application of a FP. The RSV approach described above is a reasonable approach to incorporating this type reliability mechanism in the FP. The Joint

Commenters look forward to working with EPA to ensure an appropriate RSV is included in the FP.

Respectfully submitted,

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