Memorandum

To: ISO Board of Governors and Western Energy Imbalance Market Governing Body

From: Anna McKenna, Vice President of Market Policy & Performance

Date: July 13, 2022

Re: **Decision on flexible ramping product refinements initiative**

This memorandum requires ISO Board of Governors and WEIM Governing Body action.

EXECUTIVE SUMMARY

Management proposes a change to the approach developed in the *Flexible Ramping Product Refinements* initiative that the ISO Board of Governors (Board) approved in October 2020 with advisory input from the Western Energy Imbalance Market (WEIM) Governing Body. The ISO has not yet filed the tariff changes to implement the flexible ramping product refinements, but plans to do so in time to implement them in fall of 2022.

The flexible ramping product reserves resource capacity in the real-time market so sufficient ramping capability is available and appropriately compensated to address uncertainty in the load forecast. The most significant enhancement from the *Flexible Ramping Product Refinements* initiative was the real-time market's ability to model the flexible ramping product by node location in the ISO market's network model. Procuring flexible ramping product at the nodal level will help ensure that flexible ramping product awards are feasible to deliver and appropriately priced.

In preparing to implement the October 2020 ISO Board-approved *Flexible Ramping Product Refinements* policy, the ISO identified an aspect of the proposal that conflicts with more recent consensus among stakeholders, the ISO Board, and the WEIM Governing Body to leverage the WEIM to increase reliability and not limit transfers – to the extent possible – during stressed system conditions. Specifically, a technical implementation element of the refinements approved in October 2020 would have limited WEIM transfers to zero as a consequence of failing the resource sufficiency evaluation (RSE). At the time of approval, the proposal to limit transfers to zero was a change from the status quo of holding transfers constant at the level prior to the hour in which an entity fails the RSE. Significant additional

stakeholder dialogue in recent months has concluded that limiting WEIM transfers to zero in the event of an RSE failure would exacerbate reliability issues during stressed system conditions. As a result, Management is proposing a modification to this element of the original *Flexible Ramping Product Refinements* proposal, effectively proposing to retain the existing consequences for failing the RSE while we work to establish a framework of financial consequences for RSE failure. This modification will allow the ISO to implement the *Flexible Ramping Product Refinements* policy on schedule during the fall of 2022, without causing any adverse reliability impacts.

Moved, that the ISO Board of Governors and WEIM Governing Body approve the change to the flexible ramping product refinements proposal as described in the memorandum dated July 13, 2022; and

Moved, that the ISO Board of Governors and the WEIM Governing Body authorize Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the change proposed in this memorandum, including any filings that implement the overarching initiative policy but contain discrete revisions to incorporate Commission guidance in any initial ruling on the proposed tariff amendment.

DISCUSSION AND ANALYSIS

The ISO originally implemented the flexible ramping product in the fall of 2016 to improve the real-time market's management and pricing of resource ramping capability. The ISO initiated the *Flexible Ramping Product Refinements* initiative, which developed the changes the Board ultimately approved in October 2020, after analyses showed that energy from a large portion of scheduled flexible ramping product capacity is actually not deliverable because of congested transmission. In addition to reducing the flexible ramping product's effectiveness in addressing load uncertainty, this situation tends to make flexible ramping prices artificially low and not reflective of the value of capacity that can provide flexible ramping capability.

The *Flexible Ramping Product Refinements* initiative developed changes to address these issues, the most important of which was to model the flexible ramping product by location of the nodes that are in the ISO market's network model. The real-time market currently does not consider transmission constraints within balancing authority areas when scheduling the flexible ramping product. This locational modeling consists of the real-time market considering transmission constraints and the energy flows that would occur when the real-time market dispatches energy from capacity scheduled to provide flexible ramping product. This ensures energy from the capacity scheduled to provide flexible ramping product can be delivered.

The technical specifications of the approach developed in the *Flexible Ramping Product Refinements* initiative also included provisions that the real-time market will isolate a

balancing authority area in a market interval in which it fails the WEIM resource sufficiency evaluation. This was proposed so that in such a case, the real-time market will only procure the balancing authority area's required amount of flexible ramping product from the balancing authority area's own resources. This would result in not allowing a balancing authority area to have economic WEIM energy transfers in a market interval in which it fails the resource sufficiency evaluation.

Since these provisions were developed, the ISO has had extensive discussion with stakeholders regarding the consequences of failing the resource sufficiency evaluation. The current resource sufficiency evaluation rules do not completely eliminate economic WEIM energy transfers when a balancing authority area fails the resource sufficiency evaluation. Rather, the resource sufficiency evaluation rules limit transfers to the amount scheduled in the market interval preceding the failure. Since the Board approved the *Flexible Ramping Product Refinements* proposal in 2020, there has been increasing consensus that completely limiting energy transfers when a balancing authority area fails the resource sufficiency evaluation would create unacceptable risks to reliability. In addition, the Board and WEIM Governing Body at their February 2022 joint meeting encouraged Management to develop a resource sufficiency evaluation approach that avoided limiting transfers.

POSITIONS OF THE PARTIES

ISO Proposal

Rather than disallowing economic WEIM transfers when a balancing authority area fails the resource sufficiency evaluation, Management proposes to maintain the current resource sufficiency evaluation rules that limit WEIM energy transfers, when a balancing authority area fails the resource sufficiency evaluation, to the amount scheduled in the market interval preceding the failure. This is appropriate because reducing transfers completely to zero in such a case could pose unacceptable reliability risks. For example, a balancing authority area may not have sufficient energy ramping capability to replace the energy it is receiving as transfers in only one interval.

However, even though a balancing authority area may still receive energy transfers when it fails the resource sufficiency evaluation, Management proposes to maintain the approach developed in the *Flexible Ramping Product Refinements* initiative, in which the real-time market will only procure flexible ramping product from a failing balancing authority area's own resources. The procurement target will be the amount calculated to meet the balancing authority area's individual uncertainty and forecasted ramping needs, and would be feasible to deliver. The target would not, however, include the benefit of pooling the uncertainty of all the balancing authority areas across the WEIM footprint. This is appropriate to prevent a balancing authority area with insufficient resources to meet its flexible ramping product needs from leaning on the capacity of other balancing authority areas.

Stakeholder Positions

Stakeholders generally support Management's proposal to maintain the existing consequences for failing the WEIM resource sufficiency evaluation that limit WEIM energy transfers to the amount scheduled in the market interval immediately preceding the failure, rather than zeroing them out completely. They support maintaining the existing consequences until a new methodology can be developed and implemented as a result of the ongoing resource sufficiency evaluation initiative. Stakeholders are in near unanimous agreement that this approach is appropriate and that doing otherwise would unduly threaten reliability in a failing balancing authority area.

One stakeholder raised the concern that allowing a balancing authority area that fails the resource sufficiency evaluation to still receive energy transfers could unload capacity in the balancing authority area and create flexible ramping product capacity through leaning. This stakeholder urges the ISO to not implement the flexible ramping product refinements until the ISO implements an approach to allow a balancing authority area that fails the resource sufficiency evaluation to receive WEIM transfers at a penalty price. Management does not agree that the flexible ramping product refinements should be delayed. Management notes this same situation where energy transfers can unload resources and create flexible ramping product capacity exists today, so that should not be a reason to delay the flexible ramping product refinements.

Stakeholders also pointed out that the ISO should have better communicated the ramifications of the approach developed in the *Flexible Ramping Product Refinements* initiative on the resource sufficiency evaluation consequences. They are also concerned about the rapid timeline for developing the change proposed in this memorandum. However, they also recognize that the flexible ramping product refinements are important changes and do not want to further delay implementing them past fall 2022.

CONCLUSION

Management requests the ISO Board of Governors and the WEIM Governing Body approve Management's change to the approach developed in the *Flexible Ramping Product Refinements* initiative described in this memorandum. This change is important to preserve the current functioning of the WEIM resource sufficiency evaluation while still allowing the ISO to implement the important refinements to the flexible ramping product in fall 2022.